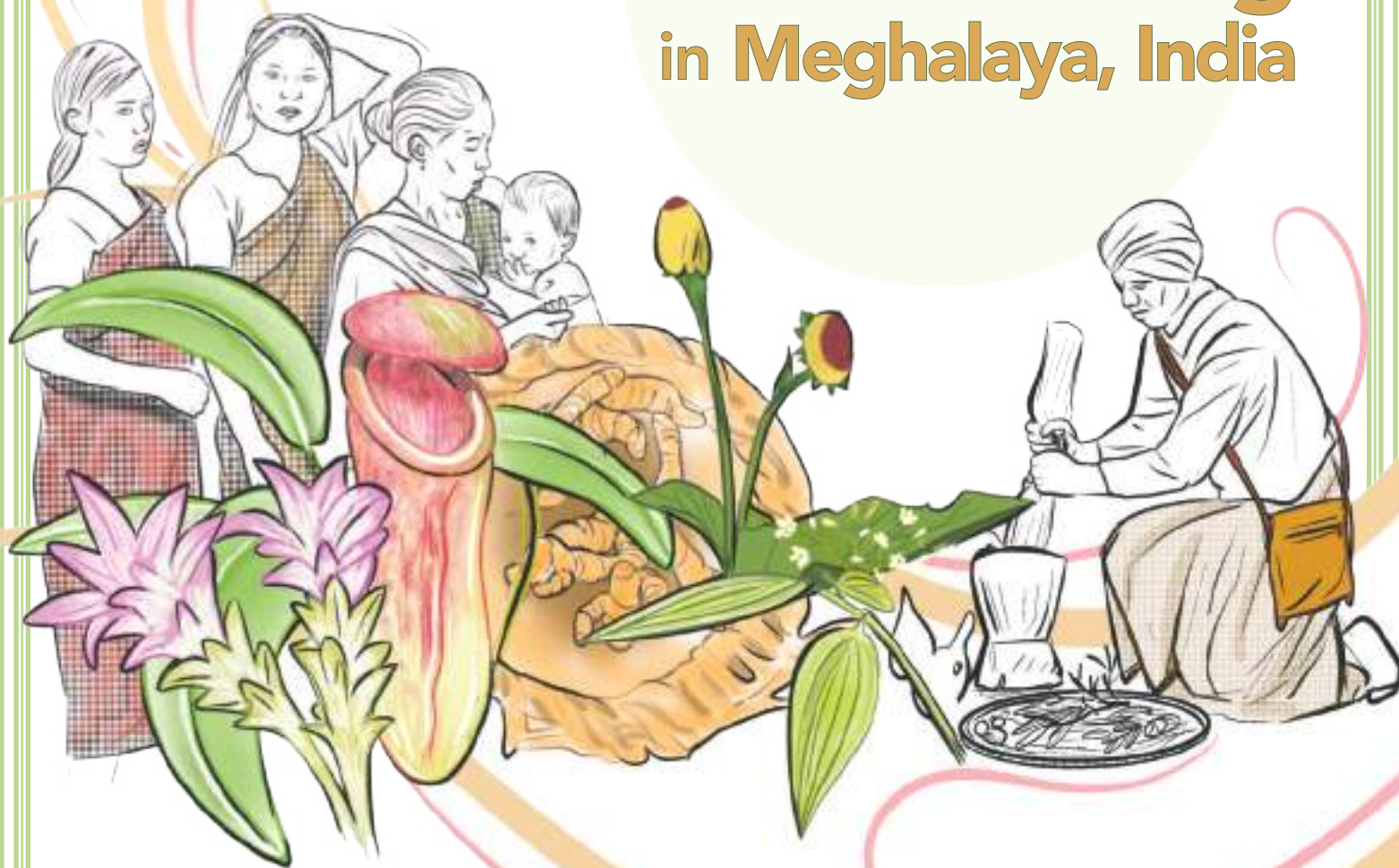




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Tribal Health and Wellbeing in Meghalaya, India



Contributors:

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Melissa Dora Kyndiah	Badalamshisha Dkhar	Merril N Sangma	Careen Joplin Langstieh
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About the cover artwork:

Ki jingthung baroh ki long dawai lut is a common refrain among the elders, which means that all plants from the soil are medicinal. The earth brings forth nature, which in turn supplies man not only with adequate nutrition but also extends its healing presence.

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Dedicated
To the Mothers and Children of Meghalaya

Ko khun baieid bathoiñ jongnga
Kynmaw kyndiang Kane mynta
Ba phin long briew haka pyrthei
Kynmaw wat jngai na la rympei

Oh, my Child, my dearest Child,
Keep these words close to your heart:
For you to grow and walk the earth,
Be not far from your own hearth.

- Hamarbabiang Myllemngap

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Foreword

This book with its extensive research and conversations spanning over a long period of time with traditional healers from Meghalaya (Khasi, Jaintia, and Garo) could not have come a day earlier. The process of bringing out this book is to be commended. For example, at one of the dissemination sessions, roots, leaves, barks, seeds, tubers, and fruits used in traditional medicine were displayed. The ingredients are used and the dehydration process, the boiling, and heating processes even while conserving the medicinal values of the ingredients were explained. While listening to some of the traditional healers at this event at Martin Luther Christian University (MLCU), I have learnt much by listening with respect to the traditional healers who were earlier dismissed by the western allopathic system as quackery.

I sensed also that the traditional healers were much more willing to share their received wisdom with the faculty, students, and attendants at the workshop. In the past there was a great deal of hesitation among traditional healers to share their knowledge, much of which is handed down to them by an elder from the family. This resistance comes from a desire to protect that wisdom and keep it within the family. Also, they felt that sharing indigenous knowledge is a sort of protection of their intellectual property. But they also feared that while communicating this ancient wisdom to another person it might result in misuse of that knowledge in an attempt to turn the whole healing system into a commercial enterprise without due diligence being applied in the preparation of the medicines/potions and lotions. Besides preparing the medicines in the way they know best and their capacity to identify the different medicinal plant species there is also a kind of faith that the healer has been gifted with the knowledge from a spiritual source and therefore that gift is not meant to be shared with another person who might not be privy to the same gift.

With time, the traditional healers have also learnt that there is need to document their wisdom handed down the ages so that it is not lost to posterity. It may be stated that the Khasi-Pnar, being an oral tradition people and having received their script only in 1841 from a Welsh Presbyterian missionary – Thomas Jones, have already lost much considering that our history dates back to pre-historic times while we only got into the business of writing and documenting our stories and histories as we knew it only by about 1910 AD when Hari Charan Roy Dkhar produced the first work on drama *Ka Savitiri* (1910), based on the Mahabharata. His brother Dino Nath Roy Dkhar brought out the second work on drama *Ka Srommotimai lane ka HOK* (1912) about the triumph of truth, followed by *U Tipsngi*, the first Khasi novel (lisindia.ciiil.org/Khasi/Khasi_lite.html) (Central Institute of Foreign Languages).

It is my considered view that the food habits of indigenous people in Meghalaya, who are the people I have observed from close quarters, in the past is no longer what it is today. Just the variety of leaves from any kitchen garden were enough to provide us the iron that especially women in the child-bearing years require. We have *ja-ut*, *ja-ngew*, *ja-tira*, *ja-lynshir*, *ja-lynar*, *ja-miaw* besides many other edible leaves that we would throw into a beef soup. We ate *shriew*, yam, regularly and derived calcium from it. We ate seasonal fruits like *sohphi*, *sohmanir sohshang*, and received our doses of Vitamin C.

We ate nuts like *soh-ot* and roots like *sohphlang* which now is established to be a natural deworming root. Besides all these we also had bananas, pineapples, oranges, lemons which were then affordable. Now

these four fruits have gone out of the reach of the ordinary Khasi-Pnar. They are far too expensive. Even the once humble papaya known for its Vitamin A and C content, apart from magnesium and calcium and being an antioxidant is outside the budget of the common person. Is it any wonder then, why indigenous people especially children are now malnourished and undernourished and why the last National Family Health Survey (NFHS -5) finds that 52% of women in Meghalaya are anaemic. An anaemic woman in the child bearing years would give birth to an under-nourished and unhealthy child and the cycle repeats itself.

All the above indigenous food categories need to be documented with their nutritional values given alongside after due evidence from indigenous health experts in collaboration with botanists so that the knowledge is not lost to posterity.

There are unrecognized birth attendants in Meghalaya and in other states of the Northeast. This is a sad commentary on the absence of recognition for indigenous wisdom when these have served society for millennia. These birth attendants reach the most distant rural villages where no state health care system exists. They have served often without being paid because the birth giver and her family are too poor to pay for such services. Of course, the birth attendants are paid by way of a goodwill barter. They might be given a chicken reared at home, some potatoes, pumpkins, or other vegetables grown in the jhum fields.

Coming to jhum cultivation or what is referred to as a "slash and burn" method of cultivation. There is much undue criticism of this method of cultivation but health experts have found that in the past people were not so malnourished because the jhum fields grew multiple crops/vegetables in one field and that supplied the nutrition. There would be protein dense sweet potatoes growing alongside millets, then beans alongside maize, then there would be turmeric, ginger, or yam. And these fields supplied enough for each family. With time and the growth of population the jhum fields have now turned into mono-cropping farms growing more rice with little space left for other vegetables. And even the vegetables such as cabbages, potatoes, tomatoes et al., are now grown for the markets with fertilisers and pesticides sprayed unreservedly thereby; turning our food into poison. How indigenous people are dealing with this slow poisoning of their bodies and their soil is something that has not been studied yet. But then, what are the alternatives?

There is as yet not much demand for organic vegetables and it takes more time and effort to grow organic crops but if farmers get good prices I am sure they will begin to understand the value of growing organically grown vegetables.

Meghalaya is now growing strawberries in different regions of the state. Recently some farmers who are growing their fruit organically sent them to be tested at the local food testing unit. But the state food testing institution does not have the wherewithal to test for the presence of all inorganic substances that could have been ingested by the plants from the soil. If the farmers want a proper organic certificate, they would have to send their products to Hyderabad which is difficult for strawberries with a short shelf life. These therefore, are the challenges faced by indigenous farmers in the modern world.

The book also delves into the health seeking behaviours of indigenous people especially the women and their resistance to the use of contraceptives. Martin Luther Christian University in collaboration with KIT Tropical Institute, Amsterdam, had carried out a family planning awareness program at a village – Jongksha in East Khasi Hills. The firsthand experience at the meeting of local women and men there has added to the understanding of why men and women resist the use of family planning methods, such as condom use. Of course, religion – mainly Christianity has a lot to do with the aversion for family planning as it is taught that "God gives children and sends enough food for each child," –a standard answer of refusal of couples. Since then MLCU has been able to adapt the awareness programs to the needs of the community and also made some progress in that direction.

What is of concern is the rapid deforestation for coal and limestone mining and for quarrying boulders and sand which are exported to Bangladesh by the hundreds of truckloads daily. This is possible because only 4% of forests in Meghalaya are reserved forests. The rest belong to communities and clans and are under the purview of the District Councils that are products of the Sixth Schedule of the Constitution. The Sixth Schedule was incorporated in the Constitution after much debate because it was felt that the tribals living alongside the non-tribal majority population needed special safeguards to protect their cultures,

practices, and rituals and their ownership over land and resources. Unfortunately, the tribal elite are themselves denuding the forests on the plea that land belongs to the people and that they have a right to exploit the mineral resources for their own use and for commercial purposes.

Today the danger is that the medicinal plants are no longer easily available unless one travels to the deepest parts of the forests. And we are unsure if some of the traditional herbs used by traditional healers are now extinct. Furthermore, we are unaware if there is bio-piracy from this state considering that there is no system to check on who enters a forest or takes away plants from there, unless it is a reserved forest. The few sacred groves that are left do not allow any plants to be taken out and herbal gardens are a rare sight. Even edible mushrooms which used to grow wild are now becoming rarer even as people have started cultivating exotic varieties.

These are the few challenges that require further research and this book is just the beginning of a more robust set of studies to enrich our own knowledge of the present status of our forests and availability of medicinal herbs and which among them have now become extinct due to over-extraction or deforestation. Such research is imperative if we are to conserve whatever nature has gifted to this region and for traditional healers to continue their practices unhindered.

Patricia Mukhim

Editor, The Shillong Times

Preface

This book is an outcome of the project entitled, "Creation of a Curriculum on the Health of Indigenous and Tribal Communities: Meghalaya" funded by Rosa Luxemburg Stiftung, Germany in 2023. Academicians from various health and related disciplines came together to collaborate on this project. The target group for this curriculum are students of social sciences, psychology, and counselling, health sciences, environment, and cultural studies. This curriculum will be useful for voluntary and government organizations working in indigenous and tribal communities as well.

The objectives of the project are to create a curriculum, provide regional, national, and international perspectives, and integrate a holistic, pluralistic, and multidisciplinary approach. After completion of this course the learners will:

- Have a basic knowledge of indigenous and tribal communities (ITCs) and their political, social, and economic situation
- Recognize the different health issues and their related factors of ITCs
- Have familiarity with traditional health practices
- Be equipped with strategies and tools to engage with the health situation of ITCs

We know that there is a paucity of data on tribal health. There is no formal data collection system for tribal illnesses, causative or associated factors, or related cultural issues. The scant data sets available have to be laboriously extracted from aggregated statistics. Policies on tribal health are based on inadequate data. These data are often homogenized across tribes, concealing the disparities that exist among different tribes. Tribals have not been given an adequate voice or role to participate in discourses about policies or schemes pertaining to their health. In this lack of agency, women are particularly underrepresented.

Most tribal groups are evolving societies. In anthropology, the term liminality literally means the ambiguity or disorientation that occurs in the middle stage of rituals. In a larger sense, it could indicate the transition stage of a tribe standing at the threshold between their previous way of structuring their identity, beliefs, and traditions, and the new way of thought, values, and behaviours.

There is a lack of consolidated material on tribal health, suitable for use in curricula and training programs. The ever-evolving social and developmental transitions of tribal communities will have profound implications for their health and these changes will need to be captured in any credible academic model.

There are 105 million tribals in India, forming a significant proportion of the country's population. They have the poorest health indices of all social groups. The high prevalence of physical, mental, and social disorders and dysfunctions are underpinned by multiple factors, of which cultural determinants are significant. Hence a focused engagement on tribal health is imperative.

One of the recommendations of the proposed Tribal Health Action Plan (Ministry of Tribal Affairs, 2019) is creating a pool of personnel in tribal health. These personnel would have to be trained in tribal health. Therefore, educational institutions will need to train professionals through a well-designed curriculum for work in tribal communities. Field organizations that are already working among these groups will need optimal knowledge, skills, and value systems. These could be provided in a curriculum that is not

merely didactic but provides field experiences and ready-to-use resource materials like toolkits. To our knowledge, such a curriculum is not available in India.

In this existential struggle for survival and self-sustenance, tribal identity, and culture provide rootedness and stability. In the preceding centuries of colonialism and then domination by majoritarian groups in independent nations, tribals have lost much of their agency. Even well-meaning governments and non-government organizations have engaged with tribal communities with a paternalistic mindset.

The first activity of the project was to communicate with grassroots leaders like village leaders, elders, practitioners and indigenous knowledge holders and obtain the views, attitudes and practices among the three main tribal communities in Meghalaya: Khasi, Pnar, and Garo. Twelve postgraduate students in pairs conducted the survey and focus group discussions in 12 villages in seven districts. The seven districts and 12 villages were:

East Jaintia Hills: Latyrke, Saipung Block

West Jaintia Hills: Wahiajer, Thadlaskein Block

Ri-Bhoi: Mawryngkang, Umling Block and Pahamsyiem, Umsning Block

East Khasi Hills: Mawphlang, Mawphlang Block and Thynroit, Mawkynrew Block

West Khasi Hills: Mawkyllung, Mawkyrwat Block and Mawthunkper, Nongstoin Block

West Garo Hills: Rongram, Rongram Block and Asanang, Rongram Block

East Garo Hills: Songsak, Songsak Block and Rongjeng, Dambo Rongjeng Block

The data from the field were analysed and subject chapters drafted. A one-day consultative workshop was organized in Shillong to present and discuss the draft curriculum. Participants of this workshop included traditional healers from the three tribal communities of the state (Khasi, Jaintia, and Garo), mental health professionals, NGOs, public health workers, and academicians. The deliberations held in this workshop were considered and further improvements were made to the chapters and content of the curriculum.

The second draft of the curriculum was then presented in an expert review meeting held in Bangalore. The experts for this meeting were health workers in tribals areas, NGOs working with tribals, and physicians working in tribal health institutions. They shared their views on the content of the curriculum.

The content was further updated after the expert review meeting and the finally a diffusion event was organised at MLCU, Shillong. The event showcased the content, pedagogy, toolkits, evaluation activities, experiential learning, and assessment of the subject. Members who participated in the event were representatives of local NGOs, government departments, academic institutions, traditional healers, and other stakeholders. Deliberations and insights on the different chapters put on display were discussed at length. Some of the important issues that came to light included the loss of medicinal herbs due to the loss of forest and biodiversity, faith, and use of traditional medicines by people in Meghalaya, urban and rural issues, cultural syndromes, the importance of traditional diet in combating micronutrient deficiency and malnutrition, and the fear of expression of sexual orientation and gender identity.

This carefully-curated curriculum can serve as a model to other communities who may want to adapt this curriculum for themselves. Martin Luther Christian University is a pioneer in this sense as we are introducing a unique course that will contribute to the better health of our own tribal communities in Meghalaya. Tribal communities possess distinctive cultural beliefs, customs, and health challenges. A tailored curriculum like this one can integrate traditional knowledge and practices, guaranteeing that healthcare interventions are culturally sensitive and relevant. A curriculum that provides education to tribal community members on their health rights, available resources, and services can empower them to advocate for their own health needs and proactively enhance their wellbeing. This supports the ideals of self-determination and the empowerment of the community. It can further raise awareness about barriers and advocate for policies and programs that promote healthcare access and equity for tribal communities.

The contributors to the main chapters are all tribals from Meghalaya. Almost all are women, a testament to the fact that women are the most important providers, caretakers and stakeholders in the health of a community.

Larilin Kharपुरi
Project Leader

About Rosa Luxemburg Stiftung



The Federal Ministry for Economic Cooperation and Development (BMZ) and Rosa Luxemburg Stiftung,
(RLS) South Asia

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The **Rosa Luxemburg Stiftung** (RLS) is a Germany-based foundation working in South Asia as in other parts of the world on the subjects of critical social analysis and civic education. It promotes a sovereign, socialist, secular and democratic social order, and aims to present alternative approaches to society and decision-makers. Research organisations, groups for self-emancipation, and social activists are supported in their initiatives to develop models that have the potential to deliver greater social and economic justice.

Team Positionality Statement

We are a team of driven researchers and educators. Each of us is a member of a tribal and indigenous community of Meghalaya, India. We represent the three main tribes of the state: the Khasi, Pnar, and Garo tribe. We are committed to serve the indigenous communities of Meghalaya.

Being tribals ourselves, we aim to use the knowledge, skills, and values that we have been bestowed with and also acquired, to constructively engage with our own indigenous communities, while at the same time, respecting the culture, traditions, and indigenous knowledge of our tribes. We especially honour our ancestors and elders, the knowledge holders, and the practitioners of ancient arts, crafts and skills, such as story-telling, music, traditional medicine, and many more. They have created, held on to, and transmitted the precious but fragile heritage which we hold today.

One of the collective objectives of this group is to create a curriculum for the indigenous communities of Meghalaya for their better health and wellbeing. However, it is also envisaged that the proposed curriculum would also serve indigenous communities in other parts of the country, and not being too ambitious, to at least serve as a model for indigenous communities around the world. Individuals of indigenous communities and of any other heritage are welcome to learn from the course and to contribute to its improvement.

For decades, even centuries now, we have seen myriad noble individuals, from outside our communities, among them many non-tribals, have worked to serve our indigenous communities, contributing their professional skills in many fields, but especially in education and health. It is a felt need that as a team of indigenous origins, that we ourselves now commit to serve our people, following the role models who have gone before us. Our belief is that we can serve our indigenous communities in a meaningful manner, as we are of indigenous tribal heritage ourselves.

Most of us are women. We acknowledge and articulate our positionality as tribal women within the context of our vibrant and diverse community. Our experiences, perspectives, and identities are deeply rooted in the rich tapestry of our tribal heritage, and we recognize the significance of sharing our voices within broader conversations about tribal issues, indigenous rights, and tribal health and wellbeing.

As tribal women, we have a unique perspective on the challenges and opportunities that our community faces. We recognize the importance of addressing the specific challenges that tribal women face, including issues related to gender-based violence, access to healthcare, and economic empowerment. We have experienced the profound connection we share with the land and its biodiversity, our sacred practices, and the importance of preserving our cultural heritage for future generations. As tribal women, we acknowledge being the harmonious link between nature, family, and the community.

We are proud members of a matrilineal tribal society, where the foundation of our culture, social structure, and identity is rooted in the maternal line. Our positionality is shaped by the unique experiences, perspectives, and values that have been passed down through generations in our matrilineal community. While we enjoy a degree of gender equality and empowerment that is often unparalleled in patriarchal societies, we are not immune to the broader issues of gender discrimination and inequality that persist in

the world. The balance we strive for between gender roles and responsibilities is an ongoing negotiation, and we work together to ensure that the matrilineal principles that define us are upheld while adapting to the changing times. We understand the impacts of colonisation, land dispossession, and systemic inequalities on our people. We believe that it is essential to engage in dialogue and activism to address these issues.

Our positionality, as multicultural professionals, has also shaped our understanding of modernisation and the intersectionality of indigenous identity. As much as we appreciate and embrace modernization, we are also proud of our roots, heritage, and identity. As individuals engaged in the field of education and research, we hold a firm conviction that tribal cultures possess valuable knowledge and insights that can greatly contribute to our understanding of sustainable living practices.

Through this project, we hope to contribute to a more inclusive and equitable world where the voices and perspectives of indigenous peoples are valued and respected. We are committed to fostering understanding, collaboration, and solidarity with other tribal communities and allies who share our vision for a brighter future.

Another important factor in our positionality is that the members of the team are of different ages ranging from the 30s to the 70s. It is expected that these age differences and levels of experience will have a positive impact of the project. As a team, we possess varied experiences and expertise and these include health, environment, psychology, education, social work, arts, and culture. We aim to use our diverse experiences for the benefit of this project.

In the approach and content of this project, we also aim to make use of the expertise and experiences of indigenous traditional healers, wise elders, health workers, and other stake holders, in the compilation and dissemination of the knowledge and skills contained in the content of this curriculum. We are thereby acting for the continued preservation and promotion of our traditional knowledge systems of health and its practices, so that these can be passed on to future generations.

We acknowledge that our heritage may also bring a certain bias to the project. However, we hope that this biasness may result in being true to the good that lies in our heritage, and not come in the way of confronting and changing that which is harmful in our indigenous cultures.

As we work on this self-assigned task, we are conscious that we are likely to be changed and transformed as individuals, professionals, and tribals. As we go through this journey, we will reflect on our experiences and learnings, and add new reflections to this statement that we have affixed our signatures on this date.

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Chapter 1

Introduction to Tribal Health and Wellbeing

Glenn C Kharkongor

Outline

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 - a. UN Working Group on Indigenous Populations
 - b. The World Bank
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 - d. UN Department of Economic and Social Affairs
 - e. Government of India
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5. Assigned and commonplace terms
6. Indigenous worldviews and social evolution
7. Tribal health and wellbeing
 - a. General definitions of health and wellbeing
 - b. Tribal definitions of health and wellbeing
 - c. The health of indigenous peoples
8. An existential issue
9. Tribal agency
10. Acknowledgement and appreciation

1. Definition of indigenous and tribal peoples

An agreed-upon definition of indigenous peoples has proved elusive. In the fifty-year history of indigenous issues at the United Nations (UN, n.d.), and the longer history in the International Labour Organisation (ILO, 1989), considerable debate has been devoted to the question of a definition of indigenous peoples, but no such definition has ever been adopted by any UN-system body. No single definition seems to capture the diversity of their cultures, histories, and current circumstances. However, all attempts to define the concept, do recognize the linkages between people, their land, and culture (Kharkongor and Albert, 2014).

a. UN Working Group on indigenous populations

A widely used working definition of indigenous peoples, proposed by the UN Working Group on Indigenous Populations, argues that indigenous populations are:

“...those which, having a historical continuity with pre-invasion and pre-colonial societies that developed on their territories, consider themselves distinct from other sectors of the societies now prevailing in those territories, or parts of them. They form at present, non-dominant

sectors of society and are determined to preserve, develop and transmit to future generations their ancestral territories, and their ethnic identity, as the basis of their continued existence as peoples, in accordance with their own cultural patterns, social institutions, and legal systems" (United Nations, 1986).

b. The World Bank

For the World Bank's policy mission on projects that affect indigenous peoples, the term:

'Indigenous Peoples' is used in a generic sense to refer to a distinct, vulnerable, social, and cultural group possessing the following characteristics in varying degrees: (a) self-identification as members of a distinct indigenous cultural group and recognition of this identity by others; (b) collective attachment to geographically distinct habitats or ancestral territories in the project area and to the natural resources in these habitats and territories; (c) customary cultural, economic, social, or political institutions that are separate from those of the dominant society and culture; and; (d) an indigenous language, often different from the official language of the country or region" (World Bank, 1991).

c. International Labour Organization

The International Labour Organization (ILO, 1989) has declared that its conventions on tribal peoples applies to:

- (a) tribal peoples in independent countries whose social, cultural, and economic conditions distinguish them from other sections of the national community, and whose status is regulated wholly or partially by their own customs, traditions, by special laws, or regulations;
- (b) peoples in independent countries who are regarded as indigenous on account of their descent from the populations which inhabited the country, or a geographical region to which the country belongs, at the time of conquest or colonisation or the establishment of present state boundaries and who, irrespective of their legal status, retain some or all of their own social, economic, cultural, and political institutions.

d. UN Department of Economic and Social Affairs

Most indigenous peoples have retained distinct characteristics which are clearly different from those of other segments of the national populations. The UN Department of Economic and Social Affairs (2004) has developed a general understanding of this term based on the following:

- Occupation of ancestral lands, or at least of part of them;
- Common ancestry with the original occupants of these lands;
- Culture in general, or in specific manifestations (such as religion, living under a tribal system, membership of an indigenous community, dress, means of livelihood, lifestyle, etc.);
- Language (whether used as the only language, as mother-tongue, as the habitual means of communication at home or in the family, or as the main, preferred, habitual, general, or normal language);
- Residence on certain parts of the country, or in certain regions of the world;
- Other relevant factors.
- "On an individual basis, an indigenous person is one who belongs to these indigenous populations through self-identification as indigenous (group consciousness) and is recognized and accepted by these populations as one of its members (acceptance by the group).

Though the term "indigenous peoples" has become widely used, other terms also continue to be used. In some regions, there is a preference to use tribes, first peoples/nations, aboriginals, or minority ethnic groups. Some of these terms have been defined in the official documents of countries to the exclusion of other terms. The variability is considerable. The Bangladesh Government has stated that there are "no Indigenous Peoples in Bangladesh" (Ahmed, 2011).

e. Government of India

The Government of India, on the other hand adopts the stand that all citizens of India are indigenous (ILO, n.d.). The Constitution of India uses the term "tribals" and the government has recognized tribals in the census as a separate demographic entity. As per Article 366 (25) of Constitution of India the Scheduled Tribes is defined as "Such tribes or tribal communities or part of or groups within such tribes or tribal communities as are deemed under Article 342 to the Scheduled Tribes for the purposes of this [Indian] Constitution." Scheduled Tribes (STs) are identified based on indications of primitive traits, distinctive culture, geographical isolation, shyness of contact with the larger community, and overall backwardness.

2. Overview of indigenous and tribal peoples

There are an estimated 476 million indigenous peoples worldwide. They make up 6% of the global population, they account for about 19% of the extreme poor. Their life expectancy is up to 20 years lower than the life expectancy of non-tribal. The historical legacy of inequality and exclusion has made indigenous peoples more vulnerable to the impacts of climate change and natural hazards, including to disease outbreaks such as COVID-19 (World Bank, 2023).

Indigenous and tribal peoples are the first inhabitants of an area and their descendants live in 72 countries all over the world. There are about five thousand indigenous communities and tribes. Most live in the geographical fringes of the planet, sparse communities inhabiting forests, hills and mountains, deserts, the circumpolar regions, and small islands. They reached their destinations through ancient migrations and over the course of history, yielded much of their spaces to more dominant societies. Isolation and strong self-identity enabled many of these communities to sustain their cultural uniqueness for many millennia, sometimes even in the absence of written forms of communication.

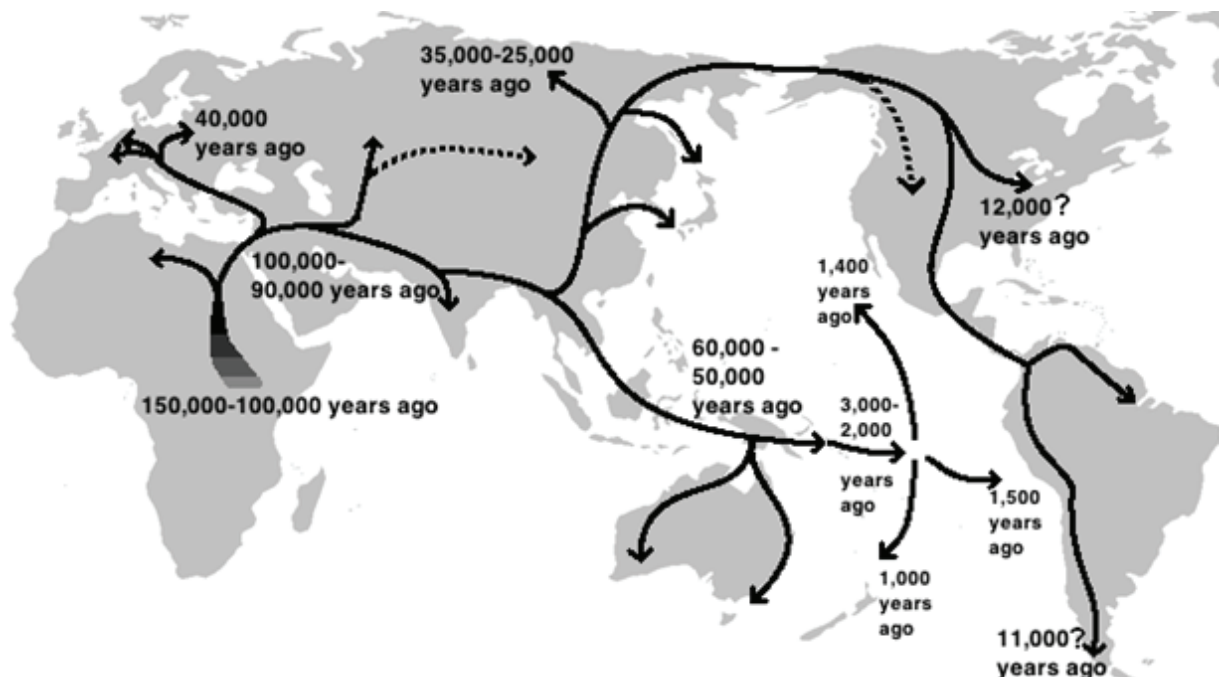


Fig 1: Human migration out of Africa (Wikimedia Commons)

From antiquity to contemporary times, indigenous peoples have suffered from invasions, wars, colonization and forced relocation, and resettlement. In many ways, the diminution of the culture of indigenous groups is ongoing, and includes permanent loss of language, loss of lands, encroachment of traditional territories, and disruption of traditional lifestyles. "They frequently have inadequate access to clean water and other resources and may be pushed into fragile or degraded ecosystems. Compared to the general population of their countries, they have higher rates of infant and maternal mortality, less access to education, and limited participation in the government and social systems that affect their lives" (United Nations Population Fund, n.d.). The rights and development of indigenous peoples have been taken up

by various United Nations bodies only in the last few decades and the United Nations Permanent Forum on Indigenous Issues was established in 2000.

3. Indigenous and Tribal People in India

Austro-Asiatic populations are considered to be the first to have arrived and settled in India. The ancestors of the Munda arrived 66,000 years ago, and the first genetic offshoot were the Khasi, about 57,000 thousand years ago, who then migrated to Northeast India. Khasi speakers probably went on to Southeast Asia via the Northeast Indian corridor about 40,000 years ago. So, the AA Khasi tribes represent a genetic continuity between the populations of South Asia and Southeast Asia. Khasis, the only AA speakers in the Northeast are surrounded by tribes of Sino-Tibetan-Burman origin, who came to the region 10-20,000 years ago.

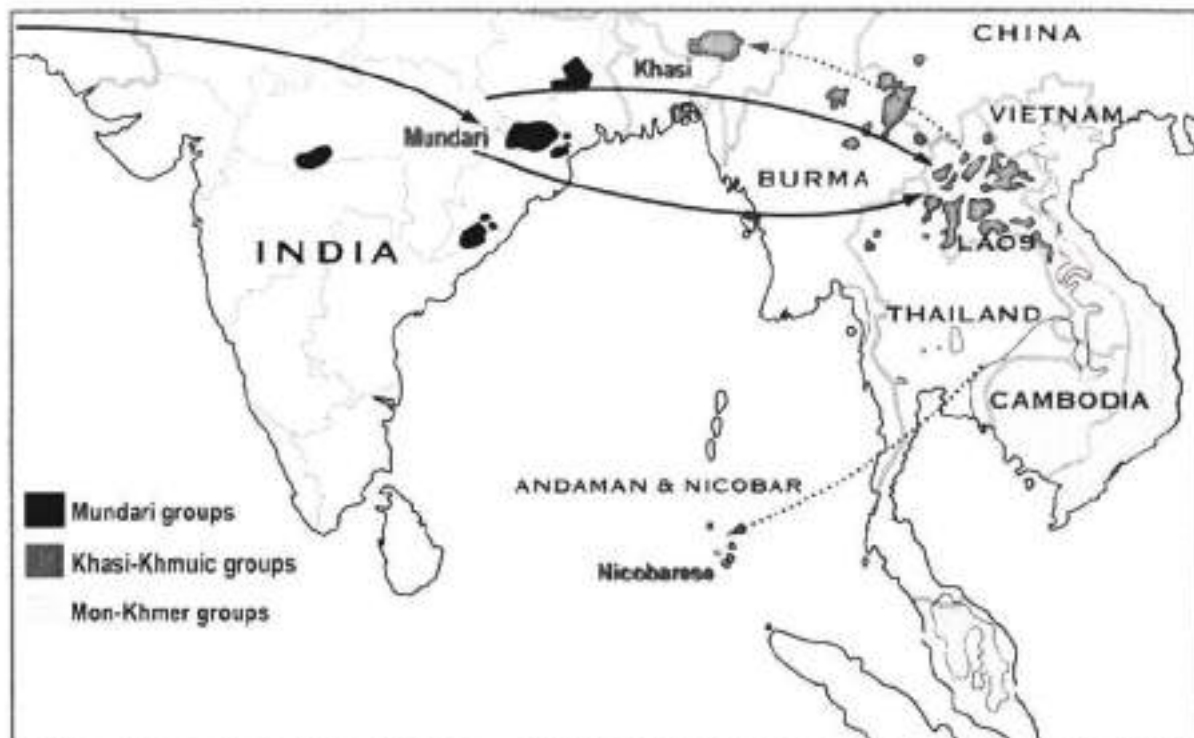


Fig 2: Map showing present-day distribution of Austro-Asiatic groups and the routes of migration of the different Austro-Asiatic linguistic subgroups of India (BMC EvolBiol)

India has a population of 1.21 billion, of which 8.14% are tribals (Registrar General and Census Commissioner, 2011). The estimated population of India in 2023 is estimated at 1.43 billion, of which an estimated 123 million are tribals. There are 744 tribes recognized (in a Schedule of the Constitution) by the government. The country has the largest indigenous and tribal population in Asia, more than one-fourth of the world total. Scheduled tribes are found across the country, but are mainly concentrated in the north-central and north-eastern parts of India (often referred to as the tribal belts). The government of India avoids the term 'indigenous' and uses the term 'tribals' to refer to these communities and they are popularly known as *adivasis*, meaning, original inhabitants.

a. Northeast India and Meghalaya

The northeast region of India consists of eight states with a population of 45.58 million (Registrar General and Census Commissioner, 2011). The region is largely inhabited by indigenous peoples, totaling about 220 tribes. These indigenous communities have lived continuously in this territory and have continuity with prehistoric societies. Each tribe has its own language, cultural traditions, social institutions, and legal system. Meghalaya, one of the states of northeast India, has a population of about three million, 86% of whom are tribals, mainly belonging to the Khasi and Garo tribes. Both the Khasi and Garo tribes are matrilineal and matrilocal.

Recognizing the need for the upliftment of the tribal people, on account of their deprivation and centuries of exclusion, they are accorded special status in the Indian Constitution. A legally recognized demographic group, they are referred to as Scheduled Tribes (STs). Scheduled Tribe status provides that seats are reserved for them in Parliament and state legislatures, jobs reserved in the civil services and government departments, and in admissions to government educational institutions. The Constitutional safeguards, policies and welfare schemes for Scheduled Tribes are administered by the Ministry of Tribal Affairs.

4. Criteria for the scheduling of tribes

These are based on indications of primitive traits, distinctive culture, geographical isolation, shyness of contact with the larger community, and overall backwardness, criteria that were set out by the Lokur Committee nearly 60 years ago. The Office of the Registrar-General of India's approval is mandatory for the inclusion of any community in ST lists, as per the procedure for scheduling tribes.

Lakshman (2023) stated that the Office of Registrar-General of India (RGI) follows "Obsolete, condescending, dogmatic and rigid" criteria for scheduling of tribes. Further excerpts of the article are reproduced below:

'A government task force on Scheduling of Tribes constituted under the leadership of then Tribal Affairs Secretary, Hrusikesh Panda in February 2014, had concluded that these criteria "may have become obsolete considering the process of transition and acculturation". Further, it noted that terms like "primitive and the requirement of primitivity to be a characteristic of Scheduled Tribe indicates a condescending attitude by outsiders', adding, 'What we consider primitive is not considered by the tribals themselves'...Much of the mess" created in the classification and identification of tribes is because of this classical orientation that followed a "rigid and dogmatic approach", the task force said. It also pointed out problems with the geographical isolation criterion, arguing that as infrastructure development continued across the country, "how can any community remain in isolation?'

"Accordingly, the Task Force had recommended changes to the criteria in May and based on this, the Tribal Affairs Ministry had in June 2014 prepared a draft Cabinet note to overhaul the criteria and procedure for scheduling of new communities as STs. This was done within a month of the first Cabinet led by Prime Minister Narendra Modi taking oath.

The new criteria under the government's consideration included:

- "Socio-economic, including educational, backwardness, vis-a-vis, the rest of the population of the State;
- Historical geographical isolation which may or may not exist today;
- Distinct language/dialect;
- Presence of a core culture relating to life-cycle, marriage, songs, dance, paintings, folklore;
- Endogamy, or in case of exogamy, marital relationship primarily with other STs (This criterion is for scheduling of a community as ST and not for determining ST status of an individual)."

The draft Cabinet note also proposed, "Communities which have adopted a 'Hindu' way of life will not be ineligible merely on this ground." It further recommended considering the population of the new community in relation to the existing ST population of the State, adding that all these criteria had to be looked at holistically and none should take precedence over another.

Now, with the Office of the RGI saying it continues to follow the criteria set out by the Lokur Committee in 1965, the fate of the proposal to change the criteria hangs in the balance. The Office of the RGI has said that it relies on census publications, which go back to 1891, along with materials provided by the nodal Union ministry and State governments, and then decides whether a community can be categorised as ST based on the Lokur Committee criteria.

The task force led by Mr Panda had said that in addition to the Office of RGI, not having adequate anthropologists and sociologists to take such decisions, it also lacked the data for it, noting that inconsistencies in census records dating that far back presented more problems for categorisation based on the Lokur Committee's criteria.

For instance, it noted that the 1891 census described tribes as people with a "tribal religion"; the 1901 and 1911 censuses described them as "tribal animists"; in 1921, they were called "hill and forest tribes"; in 1931, they were documented as "primitive tribes"; and were classified as "tribes" in 1941, before moving to the Constitutional term of "Scheduled Tribes" in 1951.

The same task force had also recommended changes to the "cumbersome" procedure for scheduling of tribes followed since 1999, which it said along with the "obsolete" criteria was hindering over 40 communities from being included in ST lists across States. The Hindu had reported in November last year that the Union government had put the proposal to change the procedure on hold and decided to continue with the existing one, which gives utmost primacy to the opinion of the Office of the RGI.

During the last winter session, when Parliament was discussing several Bills to include new communities in ST lists, Opposition MPs had raised issues with the current criteria. Congress MP Pramod Tiwari had referred to the geographical constraints and said, "Have you accepted that ST people will never progress enough to relocate to other districts and cities for business, jobs?"

Interestingly, during these discussions, Tribal Affairs Minister Arjun Munda had said, "Tribal societies live on the basis of their characteristic traits. These are not societies that change," stressing on the importance of sticking to the criteria as framed by the Lokur Committee.

5. Assigned and commonplace terms

An article in the PTI (2022) stated that, "NCST chairman Harsh Chouhan has said the Constitution refers to tribal people as Scheduled Tribes and any debate over using the words '*adivasi*' and '*vanvasi*' for the community is meaningless. Addressing a rally in Madhya Pradesh on Thursday, Congress leader Rahul Gandhi had said "*vanvasi*" (forest dweller) was a "derogatory" term to refer to *adivasis* and asked the Bharatiya Janata Party (BJP) to apologise to tribals for using the word to describe them."

This reported exchange between rival political parties highlights the terms in common parlance. Certain terms like *adivasi*, original inhabitants, and *vanvasi*, forest inhabitants are assigned labels, and are therefore unacceptable. Certain tribes are called "tea tribes", surely a derogatory term that conceals the historical fact these tribals were forced to work on tea plantations as indentured labour during the British Raj. Uprooted from their original habitats, many of their descendants continue to work in tea gardens, having no other economic recourse.

Among tribal communities, the term Scheduled Tribes is acceptable as is the general term "tribals".

Similar negatively loaded terms are used for other social groups such as "weaker sections", "depressed classes", and "other backward classes". In the Indian Constitution, OBCs are described as socially and educationally backward classes (SEBC). These terms are objectionable as well.

While some social schemes have been initiated by government and NGOs, these well-meaning efforts often use other prejudiced terms such as "welfare", "upliftment", "marginalized", and others. The use of these terms, highlight notions of deprivation, deficiency and neglect, bringing in a mindset of helplessness for the underdeveloped, downtrodden, and oppressed. While these notions are true to an extent, they tend to ignore tribal agency, autonomy, ability, and community resources, including traditional knowledge and belief systems.

6. Indigenous worldview

In a treatise on "cultural-preparedness", it is recommended that an evaluation be made of the belief system and attitudes of a particular culture to help determine the nature of interventions that will benefit them (Arulmani, 2011). So, we shall consider first, the concept of worldviews.

A worldview is considered to be the fundamental cognitive orientation of an individual or society encompassing the entirety of the individual or society's knowledge and point-of-view. The term is a calque of the German words *Welt*, world and *Anschaung*, outlook (Merriam-Webster's online dictionary, n.d.). Additionally, it refers to the framework of ideas and beliefs through which an individual, group or culture interprets the world and interacts with it. According to Lind (2011), a worldview is a more or less coherent understanding of the nature of reality, which permits its holders to interpret new information in the light of their preconceptions. He goes on to describe worldviews as operating at a community level.

In his treatise on indigenous worldviews Ahukaramu Royal et al. (2002), describes three worldview systems: Eastern, Western, and Indigenous. According to him, the indigenous worldview is explainable by reference to the natural phenomena of the world. Hence, indigenous worldviews give rise to a unique set of values and behaviors which seek to foster this sense of oneness and unity with the world. The predominant themes in indigenous worldviews arise from the people's close relationship with the environment, nature, and the community. Within indigenous cultures, most have a high valuation of relationships. Awareness of self means understanding one's relationship with the physical environment, the spiritual world, and other people. Self-esteem is derived from individual contributions one makes towards collective goals. Recognizing the continuing evolution of indigenous peoples, Peavy (1995), has categorized them into four groups. It is useful to keep this spectrum of indigenous individuals in mind, as career counsellors will deal with a diverse range of indigenous clients. Though Peavy refers to Native Americans, the following definitions have wide application:

- A "traditional" native supports and lives the traditional way of life through use of foods, medicines, social organization, ceremonies, and communication, and is happy with this way of life.
- An "assimilated" native supports and lives the modern, dominant society way of life through use of foods, social organization, and communication and is happy with this way of life.
- A "transitional" native identity fluctuates between traditional and dominant society, and often exhibits dysfunctional ways of living. The transitional individual is not committed to either culture and may be unhappy, uncertain, or unaware of his or her own lifestyle. He or she is often abusive, substance-addicted, and manifests low self-esteem and lack of personal stability.
- A "bi-cultural" native person lives and supports both traditional and dominant society ways of living. The bi-cultural person uses both traditional and dominant society foods, medicines, and social organization, and may engage in both clan and nuclear family patterns. In contrast to the other identities, the bi-cultural individual has reconciled cultural differences and is at peace with reconciliation.

7. Tribal Health and wellbeing

The World Health Organization definition of health is well known. The statement, "Health is a state of complete physical, mental, and social wellbeing and not merely the absence of disease or infirmity", was included in the WHO Constitution in 1946 (WHO, n.d.). Though the definition includes the word "wellbeing", it is only in recent years that that concepts of health have moved towards wellbeing as a qualitative enhancement of health.

The online Merriam-Webster Dictionary (n.d.), defines wellbeing as "the state of being happy, healthy, or prosperous". A psychological definition elaborates on these dimensions, especially on mental wellbeing, saying that, "Wellbeing is the experience of health, happiness, and prosperity. It includes having good mental health, high life satisfaction, a sense of meaning or purpose, and the ability to manage stress" (Davis, 2023).

The Centers for Disease Control and Prevention state that "Wellbeing is a positive outcome that is meaningful for people and for many sectors of society, because it tells us that people perceive that their lives are going well. Good living conditions (e.g., housing, employment) are fundamental to wellbeing. However, many indicators that measure living conditions fail to measure what people think and feel about their lives, such as the quality of their relationships, their positive emotions and resilience, the realization of their potential, or their overall satisfaction with life. Wellbeing generally includes global judgments of

life satisfaction and feelings ranging from depression to joy" (CDC, 2018). In this definition, CDC has also included social and a community component.

a. Definition of tribal health and wellbeing

Operational definitions, descriptions, and determinants of tribal health and wellbeing have not been well-articulated nor is there a generally accepted conceptual framework for these terms. These definitions are important, because they will set the direction for the design of training syllabi and delivery of community programs in tribal and indigenous societies.

It is only in the last decade that a search for such a definition was initiated. A study in Australia (Carey, 2013) looked at 136 articles that included the key words "indigenous" and "wellbeing", but could not find a good definition. In fact, some of the statements "could be seen to be more focused on gently steering indigenous Australians to adopt a Western style of living rather than providing opportunities for them to live lives of personal meaning and value", thus highlighting "the chasm between Western and indigenous concepts of wellbeing". Even so, the article itself did not suggest any definitions, but called for the inclusion of indigenous voices in the analysis of indigenous wellbeing.

b. Tribal definitions of health and wellbeing

In 2015 a group of eight tribal scholars was convened by the Native Nations Institute (NNI) in the USA to consider these issues. The group focused on an evaluation of WHO's framework, indigenous concepts and ways of knowing, but also utilized Western knowledge as needed. Each individual declared a positionality and assured validity and reliability through an iterative process using both Western qualitative research methods and indigenous methodologies (Carroll et al., 2022). Hundreds of tribes around the world face threats to their survival.

The NNI panel categorized determinants of health and wellbeing into three types: firstly, broad determinants of health that affect tribal and non-tribal communities; secondly, common determinants of health among different tribes; and thirdly, unique determinants of health particular to a tribe. This array of determinants would include social, cultural, emotional, and other aspects of health. Unique determinants for a particular tribe would include culture, use of natural resources for health and treatment, and traditional customs and ceremonies. All of these will result in locally-derived definitions of health and wellbeing.

One study (Hovey et al., 2014) found that the "interconnection between the social conditions of culture, language, and epistemologies and interpersonal interactions (how people relate to themselves, their families, and their community) influenced health and wellbeing. The quality of 'the-relational' gave rise to a mutual concern for feelings, fostering the development of trust, and understanding." Community health workers need to explore methods of supporting individual, family, and community relationships to improve holistic wellbeing.

c. The health of indigenous peoples

The World Health Organization (WHO, 2023) proposed a draft resolution that began with an affirmation that, "Indigenous individuals have an equal right to the enjoyment of the highest attainable standard of physical and mental health, as declared by the United Nations Declaration on the Rights of Indigenous Peoples adopted by the United Nations General Assembly". It also affirmed "that Indigenous Peoples have the right to their traditional medicines and to maintain their health practices, including the conservation of their vital medicinal plants, and also reaffirms that Indigenous individuals have the right to access, without any discrimination, to all social and health services".

The Resolution also noted that:

- life expectancy can be considerably lower for Indigenous Peoples, lack of access to medical services is higher among Indigenous Peoples, and Indigenous Peoples are disproportionately subject to poverty, poor housing, cultural barriers, violence, including gender based violence, racism, experiencing disability, pollution and lack of access to education, economic opportunities, social protection, water and sanitation, as well as appropriate resilience planning for climate change and natural and other emergencies;

- Indigenous women often experience disproportionately poorer maternal health outcomes and face considerable barriers to accessing primary health care and other essential health care services, with particular risks to young mothers;
- particular vulnerability of Indigenous youth, caused by the changing living environments, including social, cultural, economic, and environmental determinants;
- need to mainstream a gender perspective and support the full, equal and meaningful participation and leadership at all levels of Indigenous women and girls, and protect their human rights;
- Recognizing that Indigenous Peoples are likely to disproportionately experience disability as compared with the general population.

8. An existential issue

The importance of tribal health and wellbeing is existential. This is illustrated by the death of the last survivor of the Tanaru tribe in the Amazon Forest of Brazil. The solitary and mysterious man was known only as the “man of the hole”, because he spent much of his existence hiding or sheltering in pits he dug in the ground. His tribe had been decimated by deforestation from logging, gun-carrying poachers and tricked into consuming rat poison. He died in 2022 from unknown reasons (Guardian, 2022).

The Sentinelese are an isolated tribe living on North Sentinel Island, one of the Andaman Islands. They are genetically and linguistically related to the Khasi and other Austroasiatic tribes in India. Visits to the island or contact with the tribals are prohibited by the Indian government. With human contact they could be exposed and wiped out by diseases to which they have no immunity.

In 2018, John Allen Chau, an American man, intending to convert the tribals to Christianity, illegally entered the island, and was immediately killed. The tribe have made it clear that they do not want contact. It is a wise choice. Neighboring tribes were wiped out after the British colonized their islands, and they lack immunity to common diseases like flu or measles, which would decimate their population.

The Sentinelese seem to have good health, as observed from the air or from boats at a safe distance, and there are many children and pregnant women. The Sentinelese survived the 2004 tsunami which killed thousands in coastal south India.

The threats to indigenous and tribal communities were expressed in UN Secretary-General António Guterres’ message to the Permanent Forum on Indigenous Issues on April 19, 2021:

- Indigenous peoples represent 6.2 per cent of the world’s population. They represent the greater part of the world’s cultural diversity, and they speak the major share of the world’s languages.
- However, they are also three times more likely to live in extreme poverty, and their languages and cultures are under constant threat.
- Indigenous women and girls contend with higher rates of violence and experience disproportionately high levels of maternal and infant mortality. indigenous peoples have been particularly hard hit by the COVID-19 pandemic. An already vulnerable group risks being left even further behind.
- Indigenous peoples’ lands are among the world’s most biodiverse and resource rich. This has led to increased exploitation, conflicts over resources, and land misuse. Violence and attacks against indigenous leaders and women and men working to defend indigenous peoples’ rights to lands, territories and resources have grown dramatically.

9. Tribal agency

Tribals are hardly ever called upon to speak at public fora or in expert committees that deliberate on tribal matters. In fact, they are often brought in only as adornments to decorate such events, to beat a drum or sing in their colourful costumes. The *Adivasi Will Not Dance*, a popular book published in 2016, is a satirical riposte to the assigned place of tribals in Indian society. The book, nominated for The Hindu Literary Prize in 2016, has been translated into many Indian and European languages.

The expert committee report on Tribal Health in India, published in 2018, has many insightful observations. The report asks what it calls a glaring question: "Nearly seven decades after Independence, why do the tribal people still suffer from inequity in health and health care compared to others?" The report makes three admissions: Tribal health is abysmally poor, separate data sets are not collected, and tribal culture is not on the health radar.

That the lack of sufficient data on indigenous health has been a limitation to developing appropriate strategies and programs has been repeatedly noted. Other researchers have pointed out that national or state-wise data are not generally disaggregated for tribal populations and data from tribal majority states include non-tribals. In fact, the 90 tribal majority districts contain only 45% of India's tribal population.

Generally, any discussion on health begins with looking at data. If one is considering tribal or indigenous health, there is compiled data on the WHO website, or in special issues such as what Lancet brought out in 2009 and 2016. Then there is national data in the National Family Health Surveys, and the National Aggregated data of course serves its own function of informing national policy, special health schemes, and budgetary allocations. This is where the usefulness generally ends. Aggregated data is a big homogenizer. More than a hundred million tribals in India are very different in culture, social structure, and economic capacity. While it is sometimes considered that all tribals suffer from low health indices, this is not always true. For example, among the hill tribes of Northeast India, the Mizo tribe ranks near the top of the country, but our state languishes at the bottom. If we attempt to take aggregated data and apply it to a village, there may be a misfit.

The Tribal Health Report states, "A lack of understanding of tribal culture and an imposition of schemes and mechanisms that are culturally alien to the tribal people, have exacerbated the problem." However, under the ten challenges outlined in the report, cultural understanding is not mentioned.

For a researcher, counsellor or health worker, data on health challenges are best obtained by sitting around the fireplace, sharing a cup of tea, and for women researchers, talking about children. Health and wellbeing begin with cultural comfort. Data collection needs to go beyond the one-on-one interaction of a survey. We are a collective society.

Culture permeates mental health. *The Diagnostic and Statistical Manual DSM*, the bible of mental health included cultural distress only in its fifth edition (2013) and the *WHO International Classification of Diseases* listed cultural syndromes only in its 10th edition (2016). *The Tribal Health Report* calls mental health the third most important burden, but if we don't take cognizance of cultural factors, we will hardly make a dent in mental health.

A member at one of the consultations for this project asked the question of whether "The term 'security' in tribal health security would mean elements of force, as in being forced to test for Covid and get vaccinated, 'surveillance', as in being surveyed for malaria-blanket screening and TB-active case finding, and 'prescriptive practicing', as in being asked to follow remedies that are culturally acontextual or run counter to the *adivasi* way of life." He went on to say, "This in itself is at odds with the 'coverage' part of Universal Health Coverage which assumes that all *Adivasi* people would get insurance cards and then access treatment in (pre-prepared) packages." So, the question on the table is, "How can we build in elements of agency and autonomy so that tribal peoples can co-participate in discourses that pertain to their own situation, rather than being represented by the state establishment, its policy actors and knowledge generators."

At a webinar we were shown an inscription by Prof Amartya Sen, praising *The Tribal Health Report*. The remarks of the eminent and empathetic Nobel Prize winner, himself a champion of health equity, are much appreciated, but it might have been more meaningful to have obtained the imprimatur of the tribal community for a report on their own health. The 12-member expert committee contained only two tribals. Nehru's *Panch Sheel* for tribal development included the dictum that the "people should develop along the lines of their own genius and we should avoid imposing anything on them". Perhaps we don't need to be handheld, shepherded, or spoken for any more. Maybe we can write our own script. (Kharkongor, 2022).

10. Acknowledgement and appreciation

The tribal people of India owe an immeasurable debt to the many non-tribal individuals, institutions, and organizations, who have devoted their lives and efforts to noble work in tribal communities over the last century and to this day. These selfless labours have brought many benefits to our tribal peoples.

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Chapter 2

Context of Tribal Health and Wellbeing: A Tribal View

Glenn C Kharkongor

Outline

1. Domination by majority communities and colonization
2. A tribal worldview
3. Contemporary expressions about health by tribals in Meghalaya
 - a. Causes of illness
 - b. Common illnesses
 - c. Prominent health issues which need more awareness
 - d. Cultural distress
 - e. Alcohol and addiction
 - f. Maternal health
 - g. Child health
 - h. Health worker priorities
 - i. Traditional healers
 - j. Government schemes for health
4. Tasks for tribal change-makers

In this chapter, we review three aspects of the context of tribal health and wellbeing. The first is the historical domination of majority communities and colonization, which had damaged tribal societies in a comprehensive manner over the course of centuries. The second is an assertion of a tribal worldview as distinct, but not entirely compartmentalized from Western and Eastern worldviews. The third and the most important context, are the beliefs, views, attitudes, and behaviours of tribal communities in Meghalaya today. It is these contextual aspects that will inform and direct the strategies for tribal health and wellbeing in today's milieu.

1. Domination by majority communities and colonization

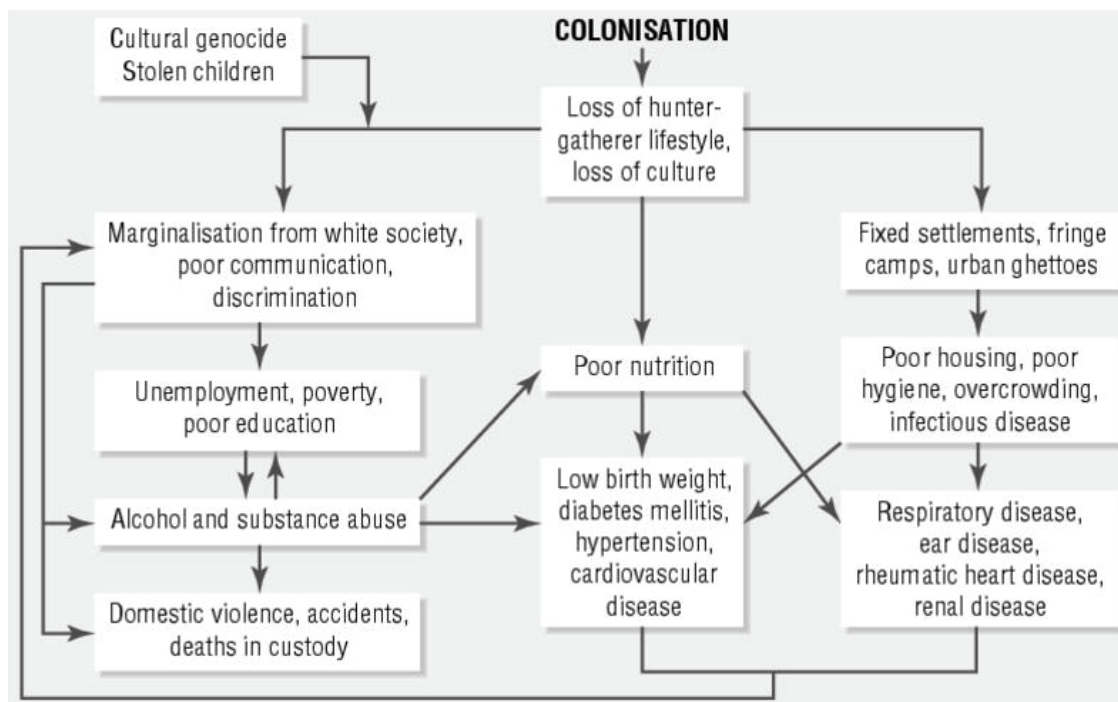
Much of the problems and challenges faced by tribals and indigenous communities may be considered by woke individuals, well-meaning NGOs, and international agencies as having been caused by dominant groups from outside or within their communities. According to the United Nations (UN), "they form a non-dominant sector of society. According to the UN, indigenous peoples face many challenges. These include:

- a denial of their right to control their own development based on their own values, needs, and priorities
- a lack of - or very poor - political representation
- a lack of access to social services
- exclusion from decision-making processes on matters that directly affect them, not consulted about projects affecting their lands or the adoption of administrative or legislative measures that

may affect them. Also, they are often displaced from their ancestral lands as a result of ventures such as the exploitation of natural resources.

In very recent times, narratives are being framed and articulated by tribal scholars, social workers, and health professionals. Some of them have shone a light on the attitudes, belief systems, and behaviours of their own communities, that impact on their health and wellbeing. A familiarity and grasp of tribal concepts of health and the cultural context from which they are derived, and in which they operate, is an essential preamble for any discussion on, or any intervention in, tribal communities.

The first step in such an exercise is the acknowledgement of the damage suffered by indigenous and tribal communities by colonial and other dominant cultures. This can be elaborated at length. Restricting the discussion to the effect on indigenous health, the following diagram is descriptive.



Impact of White Colonisation on Aboriginal health today (BMJ, 2003)

2. A tribal worldview

In comparing Western and Eastern worldviews Laungani (2005) described four pairs of continua rather than fixed binaries: individualistic-collectivist, emotional-cognitive, determinist-freewill, and spiritualistic-materialistic. "Our worldviews affect our belief systems, decision making, assumptions, and modes of problem solving...in any society there is a dominant worldview that is held by most members of that society...understanding worldviews of both the targeted community and ourselves is imperative if we are going to do more good than harm." (Hart, 2010).

Te Ahukaramu, a Maori scholar, was the first to describe an indigenous world view. It places special significance on the oneness of humans with the natural world. He contrasts three major world views—a Western (Judeo-Christian) view which sees God as external and in heaven "above"; an Eastern view, which focuses internally and concentrates on reaching within through meditation and other practices; and an indigenous view, which sees people as integral to the world, with humans having a seamless relationship with nature which includes seas, land, rivers, mountains, flora, and fauna (BMJ, 2003). Tribal wellbeing is inextricably linked with culture, nature, social groups, and land.

The Anthropocene Age brought in massive and rapid global ecological changes, caused by social, economic and technological driving forces, with major health implications. "At the heart of these driving forces lie a set of core values that are incompatible with planetary health...there is a need for a new set of values,

which heed and privilege the wisdom of Indigenous worldviews, as well as a renewed sense of spirituality that can re-establish a reverence for nature (Tu'itahi et al., 2021).

3. Contemporary expressions about health by tribals in Meghalaya

As a preliminary exercise for this project, it was decided to obtain the views, attitudes, and practices among the three main tribal communities in Meghalaya: Khasi, Pnar, and Garo.

Six two-member teams of postgraduate students in social work conducted the survey. Focus group discussions were also held. The participants were

- Village health workers: ASHAs an, Anganwadi workers, ICDS volunteers
- Members of village organizations: Village Council, Women's Wing, Youth Wing, Village Organisation, Village Employment Council
- School heads and teachers, church leaders, elders, farmers
- Traditional health practitioners, herbalists, various specialists in snakebite, traditional birth attendants

From the transcriptions, the following themes have emerged:

a. Causes of illness

Community members have indicated that germs and pollution can cause illness in an individual. They believe that their communities with extensive vegetation and forests have protected them from illnesses. Participants say that environmental changes may cause illnesses to community members. The use of fertilizers and pesticides have impacted the food and crops that is supplied to the community and the consumption of these food and crops have caused various illnesses. Pollution such as dust particles are causing illnesses in the community.

In the Garo areas, participants attributed most of the common illnesses to unhygienic conditions of living, improper garbage disposal, and drinking water that was not boiled. They also felt that there was not enough awareness in the communities regarding garbage disposal. The rampant cutting of trees also reduced clear air.

b. Common illnesses

Common illnesses include childhood illnesses of fever, cold, diarrhea, cough, jaundice, stomach ache, flu, and vomiting. Illnesses that mostly affect the adults and elderly include kidney stones, gall bladder stones, cancer, tooth problems, urinary problems, stroke, body aches, diabetes, high blood pressure, stomach disorders, and tuberculosis.

Common injuries are bone dislocation, burns, toothache, insect bites, and snake bites. There are traditional healers who provide treatment for such injuries.

The bone dislocation doctor is famous, there are many healers who treat bone dislocation, healers who blow burns are also there. We also have healers who treat muscle cramps, nerve issues. (Traditional birth attendant/54 years/female).

c. Prominent health issues which need more awareness

Women's and children's health are of high concern, and awareness programs on these topics have been helpful. However, there are other topics that are also important such as importance of education, teenage pregnancy, career guidance, waste management, and lifestyle related issues such as diabetes and high blood pressure.

d. Cultural distress

Participants shared a range of opinions about the existence of these cultural beliefs. The majority of the participants shared experiences with cultural bound syndromes. However, they remain unsure of their definite existence especially in their own communities as some opine that these are non-existent in their own villages apart from *ka sabuit*, which has been reported by many participants of

its existence. Participants mentioned feeling scared of these syndromes and that they need to take care of themselves. There are some who consider these syndromes as superstitious beliefs. Some Christians said they would pray when they are struck with these symptoms.

The cultural syndromes reported in the Khasi and Jaintia areas were *thlen*, *taro*, *sabuit*, *nongaiksuid*, *ka bih*, and *shwar*. In the Garo Hills *A'si rima* (*mite rima*), *monsa*, *matri* and *skal cha'a* were reported as being prevalent. Cultural illnesses were sometimes regarded as mental illness.

e. Alcohol and addiction

The main addiction issue is alcoholism, the patients may visit the traditional healers for medication. Betel nut and tobacco use are widely prevalent. However, there are cases where patients are unwilling to take medication and so family members would add the medication in the food of the patient without his or her knowledge. There are cases where patients prefer going to Shillong for addiction treatment.

f. Maternal health

1) Antenatal care

- i. Antenatal care for mothers is important for the health of mother and baby.
- ii. Traditional healers said there are mothers who seek health care from them, for example, for checking the position of baby in the womb or for other problems.
- iii. Mothers are aware and also willing to take tetanus immunisation. ASHAs, and Anganwadi workers always remind mothers and sometimes announce in the village.
- iv. The traditional healers encourage tetanus immunisation, and do not administer traditional medicines to avoid mixture of traditional treatment and allopathic treatment.

2) Delivery

- i. The majority of the respondents believe that most mothers prefer delivery at home, saying TBAs are available. They also say that in hospitals, they don't give enough time for labour and doctors tend to perform C-sections.
- ii. One reason to go to a hospital for delivery is to get sterilized at the same time.
- iii. In the Garo Hills, in Asanang, ASHA workers shared that most women preferred traditional birthing instead of going to the hospital for delivery because it was expensive and the road conditions are unfavourable. In other villages, the majority of the women preferred institutional birth due to the prevalence of anaemia, jaundice, etc. Traditional midwives also prepared traditional medicines for pain management during labour.

3) Traditional birth attendants (TBA)

- i. Traditional healers play a very important roles in providing health care to women in pregnancy till the time of delivery. They are not against hospitals, they encourage regular checkups in health facilities, they also counsel mothers for healthy diet.
- ii. They agreed that women should always go to the hospital for checkups even though there are certain things that they can perform better than other trained health professionals. For instance, a traditional birth attendant shared that he used to assist health workers in terms of the position of the baby. During labour they suggest the best position for delivery.
- iii. After delivery TBAs massage, clean, and teach the mother to breastfeed and bathe herself and the baby.
- iv. If complications occur, they refer to the nearby health facilities.
- v. Many TBAs are men

4) Maternal deaths

- i. Women are strong and healthy because they work in the field and forest. They can have up to 10 children and no mother has died.
- ii. If it is the will of God, they will die whether they deliver at home or in the hospital.

5) Maternal and child nutrition

- i. Nutrition is important for health
- ii. Cooked food and dry ration at Anganwadi centres benefit mothers and children
- iii. School is a place where children can get supplementary nutrition regularly
- iv. The Village Organisations (VOs) provide local fruits, vegetables, greens, pumpkin, wild edibles from the VO's garden especially for pregnant women to prevent anemia.

6) Contraception

In the Khasi and Jaintia areas, most of the women respondents were against contraceptives, even many village and church leaders and TBAs are against contraceptives, though the health workers reportedly urged them to use contraceptives (some ASHAs may share the community beliefs).

"...I'm very strict for my own daughter...if she is in a relationship, she should not use any methods...if she does then there is spiritual punishment..." (TBA/54/female)

"There are many awareness programs on using family planning, but I feel it's a sin" (Member Dorbar Shnong/42; TBA/Male/60; massage therapist/43/female, several others)

"No...it is a sin...should not harm/kill the fetus...it's the blessing from God" (Elderly/Female/70; snakebite specialist/47/female)

"...when both spouses know how to calculate the calendar of menstrual period...don't need to use contraceptives...I can help calculating for those who do not know..." (TBA/male/52years)

"...If the mother has health problems, then using family planning can be done but not to be permanently sterilized" (Traditional healer /male/29years; church leader/male/87year)

In the Garo Hills, on World Health Day every year, awareness programs are conducted for contraceptives and family planning. Many participants reported that contraceptives are used by married couples to avoid unwanted pregnancies but young people do not use contraceptives at all, resulting in teenage pregnancies.

g. **Child health**

In the Garo Hills, it was agreed by all the participants that most mothers, including new mothers, were aware of the importance of immunisation. Most mothers brought their infants for immunisation. The ASHA workers also mentioned that birth certificates were also not given without administering booster shots to ensure that no infants were left out.

Also, in the Garo Hills, education is given once a year in the schools about menstrual health, and so most girls are aware of the need for hygienic practices with regards to menstruation. Some ASHA workers also distributed sanitary pads to young girls from poorer backgrounds.

h. **Health worker priorities**

In the Garo Hills, ASHA and Anganwadi workers said that more was needed to be done about: government recognition of traditional medicines, awareness of family planning and contraceptive use among youth and better sanitation, for prevention of diseases like dysentery, malaria, etc.

i. **Traditional healers**

Traditional medicine is used by the vast majority of participants and their families. Traditional and allopathic medicines are often used together, with approval from the traditional healers. Traditional medicines and therapies are used for cultural ailments, and also prayers by church leaders. Traditional healers consider it important that there needed to be more awareness of traditional medicines and practices among the younger generation.

Challenges and needs:

- i. Depletion of medicinal plants and herbs even in the forest

- ii. Machines needed to produce medicinal oils
- iii. Need to dry the herbs/medicinal plant but due to the rain most of the herbs get spoiled, need proper storage and drying machines
- iv. Need financial assistance, not much support given to them by the government
- v. Weary of researchers who collect data from them about herbs and their uses. They are of the opinion that these researchers may be exploiting their knowledge
- vi. Felt need for recognition by the government as legitimate practitioners
- vii. Felt need to establish their own association. With this they may be able to reap the benefits of schemes and programs if available
- viii. Need for an educational institution that would provide a course on traditional practices of healing in Meghalaya so that the traditional practices of healing are not lost
- ix. Regular training and education to keep up with new knowledge
- x. Cultivation of herbs for large scale use; with support, the traditional healers would be able to grow their own herbs
- xi. Lack of coordination and collaboration with other health care providers who work in the local health centres and clinics
- xii. Need to identify the different types of traditional health practices such as birth attendants, bone setters, body massagers, general traditional practitioner, traditional counsellors, and blowers. It is mentioned that people should be aware of the different types of traditional healing available
- xiii. Conserve the belief that the ability to provide healing is a gift from God through parents and grandparents who also practiced as traditional healers
- xiv. Need for documentation of the traditional health knowledge
- xv. Need to document the of herbs available and used for specific diseases and for a training program to learn about the name of the plants and their uses: 5.4 Recognition and promotion of traditional medicine
- xvi. Need for recognition and the promotion of traditional medicine by the government

j. Government schemes for health

- a. Awareness of schemes: there is general awareness of government health schemes. Apart from the health schemes the participants mentioned the names of employment and education schemes which they are availing
- b. Usefulness of the schemes: the schemes have been useful; however, the participants feel that more supportive schemes are required as there are many poor people
- c. Accessibility of schemes: the schemes are accessible; however, the procedures take too long and people often lose benefits because of the cumbersome procedures
- d. Non-availability of health professionals: much of the time health professionals are not available and would give excuses as to why they cannot come to work. Because of this there is sometimes hesitation in health seeking
- e. Non-availability of health resources: there are some communities that do not have pharmacies and no easy accessibility to medicines when needed
- f. Attitudes and behaviours: there is a need for better cleanliness of individuals and villages. The use of plastic is till common

Here are some examples from Meghalaya that illustrate the need for attitudinal and behaviour change:

1. Low use of contraception and highest fertility rate in the country
2. Vaccine hesitancy, especially for COVID vaccination, which is the lowest in the country
3. Heavy use of *kwai*, pan, with strong lime and tobacco content: oral and esophageal cancer is very high, compared to other regions in the country

4. Tasks for tribal change-makers

Step 1: Unpack mindsets, attitudes and beliefs to unravel traditional ways of thinking from acquired and imposed influences.

Step 2: Ascertain the aspects and factors that impede paths to health and wellbeing.

Step 3: Attempt to demarcate beliefs from health behaviours.

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Chapter 3

Factors Influencing Health Seeking Behaviours

Nandaris Marwein

Outline

1. Factors influencing the health of tribal communities
 - a. Geographical
 - b. Environmental
 - c. Cultural and religious belief

Introduction

Many tribal groups still live in isolated habitats, secluded in forests, hills and mountains, islands, and deserts. Their culture and traditions broadly vary, which distinguishes them from mainland populations. For these and other factors, tribal communities have remained on the socio-economic margins with poor health (Murmu et al., 2023; Narain, 2019). According to the explanation by Babu (2013) the concept of "health and disease" in the tribal worldview is quite different from other social groups.

Historically, Scheduled Tribes (ST) have had lower health indices compared to other sections of the population, and this trend continues to persist ("Health Inequities and health of tribal communities in India" Research Team, 2018). Many tribals have moved from their rural habitats and traditional occupations and have moved to agricultural and construction in daily labour livelihoods, which keep them on the economic lower rungs. As a result, there is nutritional instability and other health risk factors, which contribute to their low health indices. The history of neglect and discrimination have adversely affected their economic and social status (Biswas, et al., 2022).

1. Factors influencing the health of tribal communities

Health seeking behaviours are influenced by multiple social, religious, economic, cultural, environment, geographic, political factors that are closely related to health and wellbeing (Caceres et al., 2023). Most tribal communities show hesitancy in availing of health care from modern medicine because they may consider their illness as not so serious and can be cured by a home remedy or by traditional therapy. Some still have a belief that illness is God's wish and nobody can do anything about it, or a disease is caused by hostile spirits, ghosts, breach of some taboos, and curse of gods. Therefore, they seek remedies through religious and magical practices to propitiate the supernatural powers. Cultural beliefs and practices, social norms, geographical isolation and forest dependency, lack of transport, low access to modern health care, shortfall of health professionals, and infrastructure push the tribal population to seek traditional methods. There is widespread inequality in terms of the accessibility, availability, and affordability of modern healthcare to most rural and tribal populations. These factors can influence health-seeking behaviours and treatment adherence. It is recommended that Information, Education, and Communication (IEC) and Behavioural Communication Change (BCC) should be culturally relevant and contextual (Islary, 2014; Kumar et al., 2020; Muralidharan, et al., 2023).

a. **Geographical**

Most of the tribes in India live in remote areas where health care facilities are not available or accessible, and it is difficult for health care personnel to reach there (Kumar, Pathak, Ruikar, 2020). Since health centres and hospitals may be far from tribal settlements, it is challenging to access timely and quality healthcare services, even in emergencies. Distance and terrain can discourage them from seeking medical attention, resulting in delayed diagnoses and treatments and adverse health outcomes. Geographically distant and scattered habitat with steep terrain often makes it very difficult to access and avail transport facilities for health centres (Muralidharan, et al., 2023). Among the seven thousand villages in Meghalaya, there are four hundred villages that are reachable only on foot, and 1200 that can be reached in good weather by four-wheel drive vehicles.

b. **Environment**

Tribals are close to nature. The knowledge of medicinal plants in their surroundings is transferred from one generation to other generation through an oral culture which is dying out. Tribal healers and even many in the general tribal population have a time-tested knowledge of herbs and shrubs, and the traditional healers diagnose and treat diseases. These tribal knowledge, beliefs, and practices are widely held even today. The unavailability of modern health care services makes the tribal communities to still depend on traditional treatment. Deforestation and other forms of environmental exploitation and damage are now endangering traditional medicine, because of the loss of medicinal plant diversity (Negi & Singh, 2019; Kumar et al., 2020; Muralidharan, et al., 2023).

Northeast tribal communities live in biodiversity-rich habitats. The high rainfall in Meghalaya bestows lush sub-tropical rain forests with varied flora and fauna. In Meghalaya, community forests and sacred groves are storehouses of a wide variety of plant genetic resources. Local wild foods are still foraged extensively, and contribute to dietary diversity and resilience. The knowledge of women on the importance of eating well during pregnancy and for child feeding and their capacity to implement their priorities in a matrilineal and matrilineal society should prevent poor growth of children caused by child undernutrition. However, this was not the case. Therefore, community-based strategies need to be developed to utilize the available wide food biodiversity to effectively improve the tribal people's food security, nutrition, and health (Chyne et al., 2017).

c. **Cultural and religious factors**

Despite the constitutional status and positive discriminatory measures, the lives of Schedule Tribes (STs) have remained miserable and often suffer from different forms of discrimination, poor educational, occupational, and health status. Regardless of the facts that tribal people have rich art, artifacts, and culture yet they often face atrocities and unequal opportunities to participate in the main stream as their culture and religious beliefs considered less important (Sarkar & Singha, 2019).

Some tribal communities believe that health is conditioned by natural balances of environmental and physiological factors such as wind, cold, and the secretion of bile. Some have faith in the principle of *Panchabhuta* (five elements) earth, water, fire, sky, and wind: that control the human body and mind. A person may fall sick because of evil eye, evil touch, and sorcery. Certain symptoms of illness can be caused by black magic or through contact with spirits. These diseases may be treated by the traditional physician through the performance of magico-religious acts and spells (Mukherjee, 2003).

Infact, in Meghalaya, the majority of people still hold on to their traditional faith in local medicines. It is believed that infections such as *niangsohpet* (*niang* means germs, *sohpet* means the navel) which is a form of abdominal colic, infant diarrhea with irregular bowels, and yellowness of the conjunctiva, and skin during infancy. Neonatal jaundice can be treated by a herbal medicine known as *ka dawai niangsohpet*, which kills the germs and eliminates from the body. This medicine prepared by the local traditional healer and administered to the child. It is also believed that feeding the baby with mashed banana soon after birth helps to eliminate the germs quickly. Sometimes the *niangsohpet* medicine is mixed with mashed banana and fed to the baby (Hynniewta, Kumar, 2010). During pregnancy, tribal women in Odisha used to seek herbal medicine from the local guru or traditional practitioner and they perform the *bejini puchuna*, a ceremony which involves sacrificing a hen or goat. Illness during pregnancy is considered a sign of revenge of the spirit

which is in mother's womb for the wrong done by the pregnant lady. There was also a belief that complications and death will always happen but if they are destined to occur, and nothing can really be done to stop the will of God. Such beliefs prevent people from seeking help from the so-called modern health facilities (Das & Dasgupta, 2015).

In Meghalaya, people are still hold on to their traditional faith in local medicines. It was believed that infection such as '*Niangsohpet*' (*Niang* means germs, *sohpet* means the navel) which is a form of infantile diarrhea or irregular bowels and yellowness of the conjunctiva and skin during infancy known as neonatal jaundice can be treated by herbal medicine known as '*ka dawai niangsohpet*', kills the germs and eliminates them out of the body. This medicine prepared by local traditional healer and sell to people.

"complications and death: It is the will of God but it should happen with near and dear ones"

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Chapter 4

Communicable and Non-communicable Diseases in Tribal Communities

Nandaris Marwein

Outline

1. Communicable diseases and Non-communicable diseases
 - a. Vaccination hesitancy
 - b. Substance use/addiction

1. Communicable diseases and non-communicable diseases

Communicable and non-communicable diseases are a heavy burden for most of the tribal communities globally and in India. A study done in 12 states in India (Meghalaya, Sikkim, Mizoram, Nagaland, Tripura, Assam, Manipur, Arunachal Pradesh, Odisha, Himachal Pradesh, Madhya Pradesh, and the Andaman & Nicobar Islands) found that hypertension (29%) was the leading pre-existing disease, followed by chronic respiratory disease/asthma (17%), stroke (12%), heart diseases (11%), cancer (10%), and diabetes (9%). Cancer was the second leading cause of death especially in the Northeast region. The high burden of cancer and other NCDs in tribal areas is possibly influenced by a high burden of risk factors such as malnutrition, mental health, tobacco, alcohol, and other substance use (Kaur et al., 2022).

The socio-economic status of tribal communities plays a crucial role in shaping their health outcomes. Poverty, limited access to education, and lack of employment opportunities result in poorer living conditions, and inadequate healthcare access. These factors can exacerbate the burden of NCDs among tribal populations (Muralidharan, et al., 2023). According to the reports of the National Cancer Registry Programme (NCRP), the incidence, mortality, and cumulative risk of developing cancer have been consistently high in the North-eastern Region (NER) of India. The region has a unique cancer profile compared to the other areas of the country. About two-thirds (66.9%) of cancers in males and 43.1% in females were tobacco-use related cancers (ICMR, 2022). This is because of lifestyle socio-cultural habits such as consuming tobacco with betel leaf, lime, and betel nut. Moreover, though the community is aware about the ill effects of tobacco, most of them are not aware about the laws regulating sale on tobacco products and consumption (Bhattacharyya et al., 2018).

Communicable diseases remain a major problem: tribes continue to have the highest TB prevalence in the country; Sexually transmitted diseases (STDs) and malaria are on the rise (Bhat et al., 2019). Many tribal communities, such as those in central India, do not complete the course of treatment. Health providers may express distrust and disapproval of traditional medicine in the light of advanced diagnostic tests and intervention for HIV, malaria, TB, cancer, and other NCDs. Some tribals prefer traditional health care as a means to avoid invasive diagnostic and therapeutic procedures (Mohammed, 2020; Sathiyarayanan, Muthunayanan & Devaparthasarathy, 2019; Sundararajan et al., 2020; Moshabela et al., 2017).

Health seeking behaviour levels are low among tribals for communicable or non-communicable diseases. Home is the most common place of death (70%). The places where treatment was sought are district hospital (25%), private hospital (20%), PHC/CHC/Rural hospital (19%) and medical college/cancer hospital (9%). Reorientation of the policies to address changing scenarios, investments and resources to reduce morbidity and mortality due to communicable and non-communicable diseases are needed in the tribal population (Kaur et al., 2022).

a. Vaccination hesitancy

In the pandemic of COVID-19 vaccination are ensured for all (Ministry of Tribal Affairs, 2023). However, COVID-19 vaccine hesitancy among tribal people of India is still a challenge. Rumours, religious beliefs, and false information about the development, efficacy, and reliability of COVID-19 vaccines made tribal people hesitant to take the vaccines. Some, believe that vaccines cause infertility and increase the susceptibility to become infected with COVID-19 (Mehmood et al., 2021).

The Tribal Health Collaborative, Piramal Swasthya of the Piramal Foundation described some of the instances of fears, myths and misconceptions regarding COVID vaccination among tribal communities. A group of tribal women in East Singhbhum District of Jharkhand feared that vaccination might result in death. They also heard that many were 'possessed' after vaccination. Among the Gond tribe, people were hesitant to take the vaccine after a village resident had died. Tribal communities settled along the Bhutan border were hesitant to take vaccine as they feared death caused by vaccination. The Piramal Foundation focused on community influencers to co-create relevant solutions to make the community aware of the benefits of vaccinations (Piramal Foundation, n.d.).

In the Northeastern states of India, except for Sikkim, the percentage of individuals who are fully vaccinated is well below the national average: 33% in Nagaland and 39% in Manipur; with Meghalaya (32%) reporting the lowest coverage rate in India. In the study done in Meghalaya by Sundaram, et al. (2023) it was reported that out of 238 participants, 113 (47.5%) participants were found to be hesitant to vaccination, among which 16.8% were initially hesitant, and 30.7% had vaccine refusal. In 2021, Meghalaya was one of the lowest-performing states in India with COVID-19 vaccine coverage ranking 26th out of the 28 states and nine union territories (Co-WIN dashboard, 2023).

Even before the COVID-19 pandemic, Meghalaya had low immunisation rates for routine childhood vaccines (India Ministry of Health and Family Welfare, 2021). In most tribal communities including Meghalaya, the common factors that of vaccine hesitancy stems from the fear of infertility and other side effects on pregnancy from vaccination. The lack of trust in COVID-19 vaccines is also the perception that is not useful to stop the disease, because one of the community members claimed that a "next-door neighbor died after taking the vaccine". They believe that God will protect them from harm, life and death will happen according to the will of God and they should not interfere in that; God protects over them and they don't really need anyone or anything else to protect them. Some expressed that "I believe in God. If God wants me to die, it's okay" (Nongrum & Marwein, 2022; Mehmood et al., 2021; Sundararajan et al., 2020; Vasudevan et al., 2021; Kim et al., 2024; Vitello, 2010). These factors are barriers to healthcare access and should inform targeted interventions to improve health outcomes.

Vaccine hesitancy reasons:

"...next-door neighbor died because of taking the vaccine"

"...life and death will happen according to will of God"

"...I believe in God, If God wants me to die, it's okay".

"...the Bible will protect, not facemask and vaccine"

"...infertility and other side effects"

b. Substance use/addiction

Alcohol and tobacco consumption and drug use are higher in tribal communities, and are associated with higher prevalence of HIV, TB, cancer, and other diseases. Alcohol is used as part of cultural ceremonies and rituals in some tribal communities. Apart from drug users, HIV is also seen in antenatal mothers and newborn babies. Substance addiction can result to psychological problems such as mood disorders, personality disorders, depression, and anxiety.

Since ancient times, the habitual consumption of tobacco was deeply rooted in the social beliefs and cultural practices among tribal communities which are difficult to change (Murmu et al., 2023). Among the Gond tribe in central India, the prevalence was 22% (Rao et al., 2017). In six tribal villages of Wardha district of Maharashtra state, smoking in tribal adolescents was 54.45%. Tobacco use and alcohol consumption has been prevailing in the tribal communities for so long that it is a regular practice in their culture. Oral hygiene is affected which in turn leads to oral cancer, cardiovascular problems, respiratory disease, and increased susceptibility to various infections (Zariruddin et al., 2011; WHO, 2009; Parashar et al., 2016; Deepa et al., 2013).

Tobacco use among the general population has been widely studied based on the Global Youth Tobacco Survey (GYTS) and Global Adult Tobacco Survey (GATS). According to the Global Adult Tobacco Survey (GATS -2), Tobacco use leads to nearly 7.2 million pre-mature deaths each year globally (Chellappa et al., 2021). However, reliable data is scarce for tribal populations.

Special attention is required for improving knowledge on tobacco control measures, capacity building of local NGOs, school intervention programs (screening), and inter-sectoral actions are necessary. Future studies should explore the behavioral and social linkages to tobacco use among tribals (Rao et al., 2017; Zariruddin et al., 2011; Chellappa et al., 2021; Noro et al., 2017). Involving of community person from their locality might help. Culturally appropriate and acceptable behavioural change communication (BCC), folk dances, puppet shows, and other such traditions can be employed for better acceptability and interest. Socio-cultural and religious events of particular tribal groups can be used to communicate anti-tobacco messages (Murmu et al., 2023; Gould et al., 2013; Chellappa et al., 2021).

In a tribal culture, family members may feel that it is their duty to protect the addict in order to preserve the dignity of family and prevent social stigma. This may lead to pampering or a willingness to pay off debts for the addict. More effective policies and schemes are needed to include health education, especially for youth about substance use and its adverse effects (Ray & Sharma, n.d.; Yadav et al., 2016).

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Chapter 5

The Tribal Way of Life and Wellbeing

Nadeen Pakyntein

Outline

1. Lifestyle: concepts and definitions
 - a. Global
 - b. Structural or National
 - c. Positional or sub-cultural
 - d. Individual
2. Wellbeing: concepts and types
3. The tribal way of life and their wellbeing

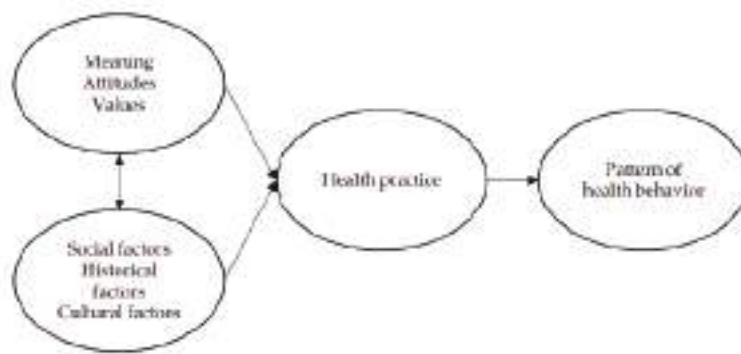
1. Lifestyle: Concepts and definitions

Lifestyle is defined by Cambridge Dictionary as "an individual's way of living." It also includes the habits that an individual or a group of people follow in their day to day lives (*Lifestyle*, 2023).

According to Jensen (2007), lifestyle may be defined at four levels: global, structural or national, positional and individual.

- **Global:** lifestyle is the regulation of the supply of goods and the consumption of those goods.
- **Structural or National:** lifestyle is the regulation, plan and influence that a government has over the citizens. Thereby, a national lifestyle is considered as the patterns of actions and expressions that would differ from one nation to another and connect individuals within a particular nation.
- **Positional or sub-cultural:** lifestyle is the regulation and influence of family (social class), friends (status, groups, gender, generation), and social movements and networks. Lifestyle at this level either differentiates or connects one subculture from another.
- **Individual:** lifestyle is the self-identity that is regulated or influenced primarily by self, friends and the media. It differentiates one person from another. In terms of consumption, lifestyle is the expression of self-identity and the consumption that is required to maintain this lifestyle. Again, at the individual level, lifestyle is also the repeated acts that are dynamic and involves the use of things. This lifestyle is grounded on the beliefs of the world and its consistent practice is guided by the intention to achieve a goal or set of goals. In other words, a lifestyle is understood as a set of habits that are directed to achieve certain personal goals (Jensen, 2007).

Brivio et al., (2023) proposed a definition of lifestyle that pertains to the health of an individual, "as a system of meanings, attitudes, and values within which the subject acts, which define individual and collective models of health practices within social, historical, and cultural contexts". In this definition, three dimensions of lifestyle are considered as fundamental, these are the internal dimension, the external dimension, and the temporal dimension.



Source: Brivio et al., (2023)

Did you know?

Lifestyle diseases are on the increase among tribal communities. These diseases include diabetes and hypertension (Sathiyarayanan et al., 2019).

What do you think can be the reason for this?

The prevalence of both diabetes and hypertension was linked to aging. It was also found that there is a link between gender, high BMI, and literacy status with hypertension. We may associate this with the unhealthy lifestyle that is common in tribal communities.

- Internal dimension places a focus on the individual and the internal process of the individual that guides their behaviour and action. It includes their personality style, the expression of cognitive styles or in other words their attitudes, interests, and values.
- External dimension places a focus on the expression of the individual's status, social position, and behavioural patterns within a given context.
- Temporal dimension is expressed within daily practices which is found across sociological and psychological perspectives.

Farhud (2015) wrote a compelling article on lifestyle and its impact on health. The author states that lifestyle is a way used by people, groups, and nations. It is formed in certain geographical areas, economic status, political, cultural, and religious text. Lifestyle is considered to be daily behaviours and functions of individuals at their jobs, the activities they are involved in, fun, and also their diet as well. People who follow unhealthy lifestyles would encounter illness such as metabolic diseases, joint and skeletal problems, cardio-vascular diseases, hypertension, overweight, violence, and so on which thereby causes them disability and even death in extreme cases. The relationship between lifestyle and health should be considered. Unhealthy lifestyles are associated with malnutrition, unhealthy diet, smoking, alcohol consuming, drug abuse, and stress. Technology such as the internet and virtual communications affect lifestyle and may be a threat to the physical and mental health of individuals.

Farhud (2015) laid out variables of lifestyle that would influence health either positively or negatively. These variables include the following:

1. Diet and Body Mass Index (BMI)
2. Exercise
3. Sleep
4. Sexual behavior
5. Substance abuse
6. Medication abuse
7. Application of modern technology
8. Recreation
9. Study



Fig. 1: Nine key factors that forming healthy life style

Source: Farhud D. D. (2015)

In another article by Zaman et al., (2019), it has been emphasized that lifestyle factors positively modify medical and psychiatric diseases, morbidity, and mortality. These lifestyle factors include eating healthy food, exercise, smoking, alcohol, and substance use. Additional lifestyle factors would include environment, sleep, de-stressing and enjoyable activities, social connections/support, and healthy mental activities. Some lifestyle diseases include Alzheimer's disease, atherosclerosis, asthma, cancer, liver diseases, type 2 diabetes, metabolic syndrome, renal diseases, osteoporosis, stroke, and depression.

2. Wellbeing: Concepts, definitions, and types

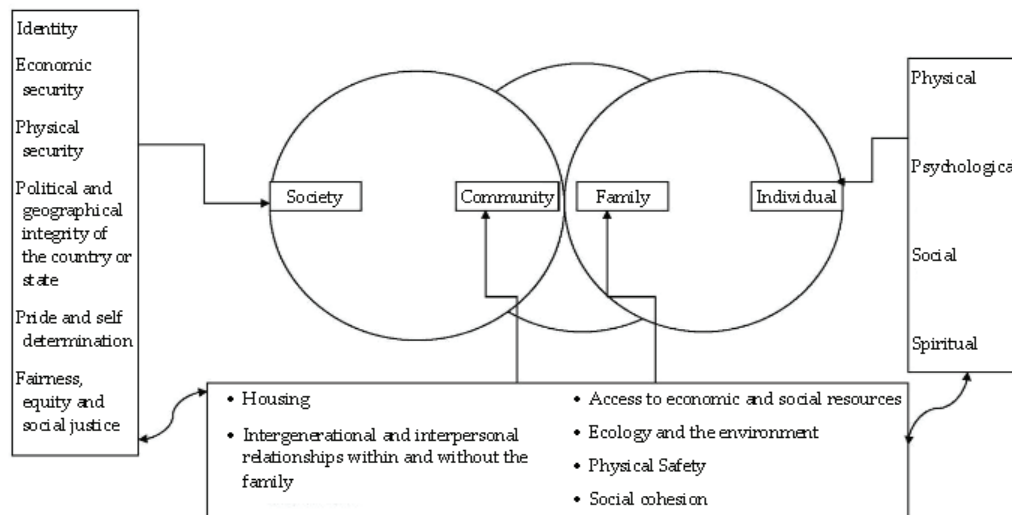
The WHO (2021) defines wellbeing as "a positive state experienced by individuals and societies. Similar to health, it is a resource for daily life and is determined by social, economic, and environmental conditions." It further explains that wellbeing is more than the quality of life and the ability of perceiving life with meaning and purpose by individuals and societies. Wellbeing also encompasses equitable distribution of resources, general growth, and sustenance. The wellbeing of a society is influenced by its ability to be resilient, whether it possesses the capacity to take actions, and the preparation to overcome difficulties.

Wellbeing is considered as a combination of positive feelings and also the ability to function well. Positive feelings would include happiness, contentment, and the ability to develop one's own potential, ability to control over one's life, feeling a sense of purpose in one's own life, and ability to experience positive relationships with people (Huppert, 2009 as cited in Ruggeri et al., 2020). Ruggeri et al., (2020) states that wellbeing is a positive mental health. An individual with good wellbeing is able to develop and prosper in life. Positive mental health is defined by the WHO (2001) as "a state of wellbeing in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community."

A definitional framework (McNaught, 2011 as cited in La Placa et al., 2013) depicts wellbeing in varied domains. These domains are affiliated to health and incorporate the family, the community, and society along with various aspects such as environmental, geographic, socio-economic, and political forces. There are four domains of wellbeing:

- Individual
- Family
- Community
- Societal

Figure 1. A structured framework for defining wellbeing



From: Knight, A. & McNaught, A. (Eds). (2011) Understanding wellbeing: An introduction for students and practitioners of health and social care. Banbury: Lantern Publishing (pp. 11). Reproduced with the kind permission of Lantern Publishing.

Source: La Placa et al., (2013, March)

The Centres for Disease Control and Prevention (*Wellbeing Concepts*, 2022) mention the following aspects of wellbeing:

- Physical
- Economic
- Social
- Developmental
- Emotional
- Psychological
- Life satisfaction
- Domain specific satisfaction
- Engaging and satisfying activities and work

a. Physical wellbeing

Physical wellbeing is considered to be the ability of an individual to perform activities and carry out their social roles without being troubled by physical limitations, body pain, and biological health indicators. This includes social functioning of the individual as well as their perception on their own physical health status (Capio et al., 2014). Research has shown that exercise and physical activities can impact physical wellbeing in a positive way (Penedo & Dahn, 2005 as cited in Capio et al., 2014).

Physical wellbeing is more than not actually being sick. It also reflects an individual's realization of their fullest wellness potential. Health is usually measured through the presence or absence of symptoms, illnesses and diseases, there are reports of physical health made as well. This can be vague at times; therefore, to determine objective wellness, assessments to determine status and current risks are formulated and used (Pressman et al., 2017).

b. Psychological wellbeing

Psychological wellbeing has been synonymous with the feeling of "happiness". However, a more contemporary definition of psychological wellbeing includes three important domains: the emotional experience, the cognitive evaluation of life satisfaction, and human flourishing (Diener et al., 2002; Keyes et al., 2002 as cited in Pressman et al., 2017).

c. Social wellbeing

Social wellbeing is defined as the ability to develop and maintain positive interactions between an individual with the people around them, this includes local and global communities. Individuals assess the quality of their interactions through subjective and individual measures in accordance to how they perceive these interactions (Cicognani et al., 2014 as cited in Duran, 2021). Having positive social relationships, good health, and wellbeing can benefit individuals. These benefits are seen in behavioral impact, psychosocial impact, and physiological impact (Umberson & Karas Montez, 2010 as cited in Duran, 2021). Social relationships may impact behaviour in terms of influence over our health habits and behavior. Having social support increases emotional and psychological wellbeing and influences the health behaviours and physical health of individuals. In terms of physiological impact, having supportive and positive relationships can increase cardiovascular, immune, and endocrine responses which improve longevity and health (Umberson & Karas Montez, 2010 as cited in Duran, 2021).

Keyes (1998) suggested that there are copious social challenges that an individual would experience in life. Wellbeing should include social dimensions of coherence, integration, actualization, contribution, and acceptance. Society itself is another source of variation in social wellness. Education, age, and socioeconomic status influence social wellbeing of an individual. Keyes further explains that the resources, the skills, and experiences that an individual can gain through education including the maturity that is gained through the aging process contributes to the ability of an individual to overcome the challenges of social life.

Did you Know?

A UN report says that the Khasi community of Nongtraw is been well-positioned to deal with food stress connected to climate change because of their longstanding tradition of respecting local agrobiodiversity by not upsetting the natural equilibrium.

They live in Meghalaya, India, one of the wettest places on earth. Honey as a valuable resource, obtained from the forests. When they arrive at a beehive, they greet the hive's inhabitants and "inform" them that they will only take what is necessary (Abulu, 2022).

Helliwell and Putnam (2004) mentioned social capital. Social capital is described as the relationships among family members, friends, neighbours, colleagues, relationships in church, in civic associations, and also virtual communities. There is a correlation between cohesive social relationships and social outcomes such as lower crime rates, improved child welfare, improved public health, effective government administration, reduced corruption, and improved market performance, and educational performance. The study by Helliwell and Putnam (2004), confirms that there is a strong association between family, friend, neighbours, and community involvement and physical health. This social capital is associated with subjective wellbeing through different forms such as marriage and family, ties to friends and neighbours, ties with colleagues, civic engagement, trustworthiness, and trust.

3. The tribal way of life and wellbeing

Tribal communities are groups of people living in natural surroundings. Tribal communities follow their own traditional values, customs, beliefs, and myths (Sathiyarayanan et al., 2019). Indigenous and tribal communities have unique cultures, languages, knowledge systems, and traditions. They maintain a unique and special relationship with the land and have a collective embeddedness as communities (Griffiths et al., 2021). Tribal people have long relied on cooperation to survive and in more traditional societies even now, cooperation is valued over competitiveness (Mankiller, 2021). These communities were affected unfavourably by the impacts of colonization and dispossession, racism, discrimination, poverty, inaccessible services especially to health, and education. These disparities have caused adverse outcomes for these communities (Griffiths et al., 2021).

Cull (2018) stated that among indigenous peoples, there are certain shared beliefs and lifestyles. According to indigenous worldviews, a person's entire being—physical, emotional, spiritual, and intellectual—is entwined with the earth and with other people (family, communities, and nations). The preservation of indigenous knowledge is necessary, not just for indigenous peoples but for the global community (Mankiller, 2021).

Globally, social, cultural, demographic, nutritional, and psycho-emotional changes are affecting indigenous communities in ways that have a significant influence on their health. Indigenous communities consistently have worse health indicators than non-indigenous populations, regardless of their location or sociopolitical status. Lower life expectancy, high rates of infectious diseases, high rates of maternal and newborn mortality, starvation, stunted growth, rising rates of chronic diseases including heart disease and others, substance addiction, and depression are among the issues faced by indigenous populations. The most prominent factors defining the low health status of indigenous people are the disastrous effects of colonization, the loss of ancestral territory, and linguistic and cultural impediments to health care access (Valeggia & Snodgrass, 2015).

a. Health of tribal communities in India

In other chapters, the low health indices of tribal communities have been described. Communicable diseases, non-communicable diseases, tobacco, alcohol, and substance addictions are higher in tribal communities.



Refer to this link for further reading of the status of the health of tribal people

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Chapter 6
Maternal and Child Health
Nandaris Marwein and Careen Joplin Langstieh

Outline

1. Health indices among tribal communities, especially in Northeast India
2. Family planning and contraceptive use
3. Traditional beliefs and practices pertaining to the health of tribal women and children
 - a. Taking care of the mother and a newborn baby following childbirth
 - b. Items needed for the baby's bath
 - c. Nutrition for the mother and infant
 - d. Items needed for the mother's bath

1. Health indices among tribal communities, especially in Northeast India

Tribal communities generally lag behind national health indicators, with women and children being the most vulnerable. The Total Fertility Rate (TFR) is 2.5% and only 15% complete have full antenatal care. The Maternal Mortality Rate (MMR) is high, children with full immunisation coverage is only 56%, the Infant Mortality Rate (IMR) is 44.4, and the Underfive Mortality Rate is 57.2 (Negi & Azeez, 2021; Kumar et al., 2020; Ministry of Tribal Affairs, 2017-18).

According to the latest National Family Health Survey-5 report (2019–21), 17.4% of tribal women are underweight compared to the national figure of 13%. Among pregnant tribal women, only 57.6% had four antenatal visits, and 82.3% had institutional deliveries. In some of the Northeast tribal states, coverage of vaccinations among children age 12-23 months old is very low: Nagaland (58%), Meghalaya (64%), and Arunachal Pradesh (65%).

Life expectancy is shorter by 5-7 years compared to the non-tribal population, child malnutrition is inordinately high with up to three-fourths of under-five children in some tribal areas suffering from severe or moderate malnutrition (Narain, 2022; Biswas et al., 2022). A child born to a Schedule Tribe family in India has 19% higher risk of dying in the neonatal period and 45 % greater risk of dying in the post-neonatal period compared with other social classes (NFHS-4, 2015-16; Anderson et al., 2016).

Traditional child-rearing practices are common in tribal communities. There is much faith in traditional healing. In Meghalaya, among the Khasi tribe, *niangsohpet*, a disease in infants and children is believed to cause germs and treated with *dawai niangsohpet*, herbal medicine (Hynniewta, Kumar, 2010; Lyngdoh, Syiem, Mao, 2014). The umbilical cord of a newborn baby is severed with a clean-edged sliver of bamboo. The baby is washed with warm water stored in a red earthenware pot. The placenta is carefully preserved in another earthenware vessel till after the name-giving ceremony. A ritual is performed with eggs dedicated to water deities, *ka blei sam-um* (Tribals of the Northeast, n.d.).

Traditional infant practices

- The umbilical cord of a newborn baby is severed with a clean-edged sliver of bamboo
- For the naming ceremony, a ritual is performed with eggs dedicated to water deities, *ka blei sam-um*

2. Family planning and contraceptive use

Despite knowledge of family planning among the tribal populations in Northeast India, the use of contraceptives is low compared with other social groups. According to the National Family Health Survey 2015-16, the use of any contraception methods is Arunachal Pradesh 73.5%, Manipur 75%, Meghalaya 67.2%, Nagaland-68.7%, Sikkim 63.2%, and Mizoram 61.5%) but with regards to unmet need for family planning is highest in Meghalaya (27%). The common reasons for not using contraception include: low number of living children, religious beliefs, low education level of women, low exposure to media, and low female autonomy. (Mog et al., 2020; Barman, 2013; Keeni, 2019; NFHS-5, 2019-2021).

In the matrilineal society of Meghalaya, preference for a female child who will continue and expand the family tree is deeply rooted in culture. However, this preference does not reflect bias to sons. Some tribal leaders express their pride in the high mean number of children (4.95) as children are considered gifts of God and people believe that as long as they are able to feed the children, the number is not a problem. The highest percentage of contraceptive use is among women who have two daughters and a son. When a family did not have a daughter, 83% wanted an additional child due to daughter preference. This indicates a very strong desire to have at least one daughter in the family. When both children were daughters, about 67% of the women wanted a boy. The gender preference is for lineage and inheritance of property. This reproductive decision on gender preference might act as a factor of fertility, large family, and hesitancy for contraceptives (Narzary & Sharma, 2013; Subba, 2008).

In order to promote institutional births, the Government of India launched a Conditional Cash Transfer (CCT) program in 2005 called Janani Suraksha Yojana (JSY), from which later schemes such as the Meghalaya Maternity Benefit Scheme (MMBS) were implemented. However, there are large numbers of deliveries still occurring at home among tribal communities which are attended by traditional birth attendants (TBAs), other traditional healers, or relatives. In Meghalaya institutional deliveries are 58.1%.

The most common reasons are expenditure on transport, distance and harsh terrain, long hours of waiting in the hospital for the doctors, and availability of TBAs in the village. Other reasons are, no health complication, lack of privacy in health institution, illiteracy, poor health facilities, and fear of caesarean delivery. The calculation of the expected date of delivery is quite confusing to some tribal women, because of the belief that prediction as to when the baby will be born is not possible, many tribals believe that the baby will be born when it is time. But in the health institution, health professionals will not wait for the natural timing of delivery and hence perform unnecessary caesareans.

Family planning

- Reproductive decision - Making decisions based on gender preference might act as a factor of fertility, large family and hesitancy for contraception.
- Having many children is considered a boon, and the children are considered gifts of God.

Tribal mothers have household work and so they cannot leave home. Household work during pregnancy is considered important in some tribal culture as it is believed that if a woman works then it makes the delivery easier. This is considered to be a major factor in choosing to deliver at home (Das, & Dasgupta, 2015; Singh, 2016; NFHS-5, 2019-21; Randive, Diwan and Costa, 2013; Ameade, Asibiti and Adikem, 2020; Meghalaya State Development Report, 2008-09).

Complications during delivery and deaths during delivery (Mawrie, 1981) may be ascribed to certain beliefs, such as infidelity of the husband or the wife. A woman in difficult labour and her husband may be asked to confess if either of them had any illicit sexual outside marriage. It is believed that if only both the parents confess the child will come into this world peacefully (Subba, 2008).

In the Khasi community, the *Dorbar Shnong*, village council is the main platform for addressing local issues. However, despite the Khasi being a matrilineal and matrilineal society, women are largely excluded from community administrative bodies, and do not have a platform to discuss reproductive health needs. Women who are outspoken are derided as 'a crowing hen'. The saying "*ynda kynih ka iar kynthei, la wai ka pyrthei*" means if a woman takes part in politics, the world is doomed (Oosterhoff et al., 2015; Roy, 2018; Planning department, 2008).

Traditional Beliefs and Customs

- complications in labour or childbirth is believed to be due to infidelity on the part of the husband or the wife. The woman in labour and her husband are asked to confess if either of them had been unfaithful. It is believed that if only the parents confess the child will come into this world peacefully
- Women who are outspoken are derided as 'a crowing hen'. The saying *ynda kynih ka iar kynthei, la wai ka pyrthei* means if a woman takes part in politics, the world is doomed

3. Traditional beliefs and practices pertaining to the health of tribal women and children

Careen Joplin Langstieh

Women play a distinctive role in Khasi communities before and after childbirth. Each childbirth gives you different experiences. Having given birth to three infants vaginally, it feels apt for me to write what I have experienced in this paper. Permit me to inform everyone that the experiences I went through were both healing and beneficial.

Apart from the mental and emotional stress, I realised that during the course of labour and childbirth, the muscles and other body parts go through much stress and tension. In the phases of pregnancy and childbirth, the body feels like a machine, over which you have no control. This is the reason why awareness about labour, delivery, and postpartum care is very important. Khasi women are very much aware of this and because of these women always come forth to help each other out during such times, for physical, emotional, and moral support.

a. Taking care of the mother and a newborn baby following childbirth

Many elderly women in Khasi societies both in the urban and rural settings are knowledgeable about pre-partum care of the mother and postpartum mother and child care. It is part of the traditional knowledge that has been and still is being passed down from one generation to another. Most of the practices I know were passed down to me by my grandmother and my mother.

In the days and weeks after childbirth, the elderly women care for the mother and newborn baby. They bathe the mother and infant regularly. They also help in household duties. Bathing, along with rest and a healthy diet, is an important part of caring for both the mother and the baby.

b. Items needed for the baby's bath

- *Ka trap*: a round flat mat which is woven specially for bathing a baby
- *Ka lyngknot*: a low stool
- *Ka Umphniang bam*: mustard oil which has been heated and cooled
- *U sying makhir*: *Zingiber rubens*, a potent ginger that is used to treat common cold and other health problems
- A delicate white muslin fabric
- Water that is boiled/warmed, and enough for a complete wash
- Baby soap
- Unwashed baby clothes which can be used for cushioning the baby
- Clean soft cotton fabric or a gentle baby towel
- Basin for dipping and rinsing
- Glycerine
- Fresh clean baby clothes

To make sure the infant receives enough sleep during the day, the bath is typically prepared in the morning.

The arrival of a new member in the family is an exciting event and the first bath is when everyone gets to see the baby fully. Everyone normally gathers around to watch. The mother and other members check whether everything is set out, which includes the baby's clothing, oil, water etc.

The baby's food is usually exclusively breast milk. Sometimes when the baby gets home from the hospital, light rice broth, or mashed bananas may be given when the baby is a few days old. These foods are sometimes introduced after a few weeks. These foods may be kept ready to feed the baby immediately after the bath.

Meieit, the grandmother, will customarily give the baby her/his first bath. However, most times, a grand aunt or an elderly female relative or an elderly female who specialises in bathing babies and mothers is also called.

The first step is cleaning the mouth. Using the middle and index fingers, wrapped with a white, clean muslin cloth around the fingers. Then a little glycerine is gently put inside the baby's mouth to rub and clean the baby's palate, tongue, and gums.

The baby's mother is then asked to squeeze out some breast milk into the baby's eyes. This ensures cleaning of the baby's eyes. Khasi tradition holds that breast milk helps treat meningitis and other eye infections.

The baby's dirty clothes or laundry is arranged on the *trap* surrounding the area where the *nongpynsum* or a person who bathes the baby will set the baby as she sits on a *lyngknot*, a low stool.

She then extends and stretches both of her legs forward and lays the baby on her legs. The infant is first placed face up, head closer to her ankles to anchor the baby.

After making a little lather with a soft cloth, warm water, and soap, the baby is gently scrubbed starting from the head, making sure the water stays out of the eyes and ears. Following a rinse of the head, the remainder of the body is washed.

To ensure that dead skin is shed gradually, areas like the groin and armpits are gently scrubbed.

Then the infant is laid face down, making sure the face is not covered and the back cleaned and rinsed.

The infant is finally placed in a basin of warm, clean water, with its head secured above the water, and given a few minutes to allow the baby to move the limbs in the water.

When the baby is still in the water the nipples are gently squeezed to exude fluid and pus. Babies usually enjoy being in the water and as they grow older, they will sometimes clench the sides of the basin and refuse to come out.

The baby is towel dried after being removed from the water and wrapped in a fresh towel and muslin cloth.

If the umbilical cord is still attached to the navel, it is left untouched. When it dries up, it will fall off by itself.

After applying some warm oil, the baby's limbs and body are massaged gently. Oiling the head is also necessary to ease the dry and dead skin to come off. The baby is then clothed, wrapped, and fed.

If it's a young new mother, she watches and looks on for the entire bathing process, so that she can follow when she is ready to bathe the baby by herself.



c. Nutrition for the mother and infant

Good nutrition is the first step in providing care for the mother, not only for her own health but also for the baby's health. The mother is given an adequate diet, lots of fluids, and eats less spicy food.

A mother typically experiences discomfort and sleep deprivation after giving birth, particularly when babies are cranky. Generally, the most restful time for the mother is when her baby is asleep, when she can also rest and be given a bath. Usually, an older female member of the family will give or help her with her bath.

I still recall asking my grandmother why I needed help getting clean and taking care of myself. The explanation is straightforward: following childbirth, a woman experiences various physical changes, including losing blood, exhaustion as a result of sleep deprivation, and weighing less and being weaker than before her pregnancy. So, someone else should help her in order to ensure she doesn't pass out or become fatigued while taking a bath.

d. Items needed for the mother's bath

- Warm water
- Soap
- Loofah; a scrubber from a dry fibrous gourd
- Towels
- *Ka Lyngknot*, or wooden stool
- Warm water for a sitz bath

The elderly woman will scrub using the loofah, applying a downward massage with warm water and soap to the back, stomach, calf muscles, arms, and head. To minimise swelling and to relax the muscles, lightly sponging the back, top of the head, stomach, and leg muscles with a small cloth or towel with hot water. In order to expedite the healing of perineal tears, sitz soaking is also advised. After the mother has dried off with a towel, oil is applied all over her body.

Depending on the person's health, the bath is typically taken daily in the first days or for a week. The bath may last up to an hour.

Notes

1. If the mother or baby has a cold and cough, the bath water is usually boiled with a few slices of *syng makhir* or *Zinziber rubens*, this ginger helps in warming the body
2. Cloves of garlic are also fried in the oil that is used for massaging the baby and the mother
3. *Dawai ñiangsohpet*, a concoction of herbs is given to the baby to get rid of colic and other diseases
4. A cultural belief of the Khasi is that the father should refrain from metal work, especially piercing surfaces with metal nails or tools, even if it is part of his occupation. He is also expected to avoid hunting and butchering wild animals. If he has to do so to provide food, he must murmur a few lines, as if he is talking to his unborn child to move away, so as to make sure no harm comes to the child.

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Chapter 7

Food, Nutrition, and Wellbeing of Tribal Communities

Melodynia Marpna

Outline

1. What is food and nutrition?
2. Nutritional status of tribal people
 - a. Cultural beliefs and Practices Within Tribal Communities
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4. Biodiversity: A treasure trove of diverse and nutritious food for tribal people in Northeast India.
5. Forgotten food (FF) and neglected under-utilized food (NUF) of tribal people in Northeast India.
6. The 10 food groups of the Food Agriculture Organisation (FAO)
 - a. The Ten Food Groups (FAO, 2021)

Introduction

Access to safe food and good nutrition is a basic human right, and it is closely associated with good health. A diverse range of food, when consumed in the right quantity, nourishes our bodies and prevents various disease conditions, promoting better overall health and longevity. Unfortunately, malnutrition is still prevalent among people and children, more so among tribal communities. Food systems have been transformed due to challenges like climate change, environmental sustainability, and rapid technological shifts.

Tribal people have traditional knowledge and practices that can address malnutrition and hidden hunger. They have accumulated this knowledge over generations through their interaction with nature. However, this knowledge is gradually being lost due to lack of use by the younger generation and the gradual loss of elderly people who are the custodians of this knowledge. Furthermore, tribal traditions are often misunderstood and they are targeted for misplaced schemes for health improvement and development. This has led to changes in their dietary habits, one of the factors leading to a continued high prevalence of malnutrition and chronic diseases.

1. What is food and nutrition?

Good and safe food is associated with good health and wellbeing and is a basic human right. It is well-known from ancient times that safe food prevents diseases and promotes good health. Many nutritionists and researchers still quote the Greek philosopher Hippocrates "Let food be thy medicine and medicine be thy food" meaning that food can prevent and cure diseases (Smith, 2004; Witkamp & Van Norren, 2018).

Food gets digested, assimilated, absorbed, and utilized by our body for growth and health maintenance. Diverse food when eaten in the right quantity nourishes our body and prevents and protects it from various disease conditions. Food contains the organic substances that maintain health and these are called “nutrients.” Nutrients are essential and these include carbohydrates, protein, fats, vitamins, minerals, and water. Nutrition is about eating a healthy and balanced food. Good nutrition is related to good health, better wellbeing, and longevity. Healthy people are productive and healthy children do well in school.

Good nutrition is the key to breaking the cycle of poverty and hunger and not getting the right nutrients in the right amounts leads to malnutrition. Malnutrition can either be undernutrition or overnutrition.

Undernutrition is when people are not getting enough food, leading to stunting, wasting in children, and micronutrient deficiency disease in people. Overnutrition is when people are getting so much food that it can lead to diet-related disease conditions like diabetes, hypertension, cardiovascular disease, and obesity. Some countries and communities face a double burden of malnutrition (World Health Organisation, 2019) caused by poverty, social factors, not having access to safe food, no food availability, and disease conditions. The double burden of malnutrition is defined as the co-existence of undernutrition and non-communicable diseases like cardiovascular diseases, diabetes, obesity, and hypertension (Global Alliance for the Future of Food, 2021)

There is also the transformation in the food system of people caused by emerging challenges, such as climate change, environmental sustainability, and rapid technological shifts. These emerging challenges have posed concerns about ways to ensure people get access to safe and nutritious food. In addition to these emerging challenges, social, and economic transformation has increased the prevalence of being overweight and obesity among people, while undernutrition and hidden hunger persists (Food Agriculture Organisation-FAO, National Family Health Services- NFHS -5).

Tribal people hold the key to overcoming the challenges caused by the transformation in the food system. Their traditional food has the potential to address malnutrition and hidden hunger (Ghosh-Jerath et al., 2016). They have accumulated knowledge and practices through their interaction with nature over generations. However, they are losing this knowledge due to lack of use by the younger generation and the gradual loss of elderly people who are the custodians of this knowledge. Moreover, tribal people are often misunderstood and targeted for health improvement and development. These developments have led to changes in dietary habits leading to an increased prevalence of malnutrition and chronic diseases.

2. Nutritional status of tribal people

Malnutrition affects 25.3% of tribal people in India. Almost one-fifth, 17.4% of tribal women in the reproductive age are underweight mostly belonging to families with five or more children. These large families have the highest prevalence of the issues of being underweight (21.56%). Inadequate intake of nutrients such as vegetables, and lack of proper eating habits, and knowledge can lead to increased iron and other deficiencies in women, adolescents, and children and can affect overall health. Even though tribal mothers in India received supplementary foods (77.2%) from an Anganwadi centre during pregnancy there is a need for the Central and State Governments to review the existing policies related to nutrition, such as ICDS and POSHAN Abhiyaan (Bharati, 2008; Biswas et al., 2022; NFHS-5, 2019-2021), because of persistent high prevalence of malnutrition.

Tribal communities often face challenges related to food security and nutrition. Millets, one of the traditional staples are being replaced by processed foods high in salt, sugar, and unhealthy fats, leading to an increase in diet-related diseases such as obesity, diabetes, and cardiovascular diseases. Among indigenous populations in Latin America, poverty, environmental degradation, and loss of access to the traditional ecosystems and lands has led to a decline in accessibility to traditional food sources (Stop TB Partnership, n.d.; United Nations, 2015). These changes have resulted in widespread malnutrition among indigenous peoples

a. Cultural beliefs and practices within tribal communities

Cultural beliefs and practices within tribal communities play a role in the consumption of food. These can be seen among tribal communities in Odisha where there are restrictions on food consumption especially for a lactating mother. She should eat plain rice only for the entire period as it is believed

that other food items can cause harm to the baby. This kind of diet is deprived of many essential nutrients and is likely to result in poor health outcomes for the new mother and the infant (Das, & Dasgupta, 2015; The health of Indigenous peoples, 2014).

Some cultural practices are seen among tribal people in Meghalaya where certain foods are taboo. However, not all cultural practices are bad, some have value.

- The Syiemlieh clan or *ka kur Syiemlieh* are forbidden to eat the *ka kha lani*. This is a type of fish that is considered good for health (Tribals of the Northeast, n.d).
- The Ryntathiang clan or *ka kur Ryntathiang* are forbidden to eat *Soh nairiang*. This is a variety of citrus fruit.
- When a Khasi woman is pregnant, she is supposed to eat for 'two bodies', and relatives, neighbours, and friends will give her favourite dishes so that the unborn baby inside her does not feel deprived by the craving for food by the mother. A drooling baby is believed to be a result of its mother's unfulfilled yearning for some food. Even spicy food, which is usually avoided during pregnancy and lactation is allowed to be consumed by the pregnant mother.

b. Case study

Cultural beliefs and food intake- a Khasi mother with a malnourished child

Kongthei (not her real name) is from Ri-Bhoi district, Meghalaya. She is 24 years old and has a daughter who is 1 year and 3 months old, the youngest of three children. Kongthei and her husband have had a lower primary education. Her husband makes the important decisions and she is a stay-at-home mother. The youngest daughter has moderate malnourishment with wasting. Wasting is defined as weight-for-height between -3 and -2 z-scores (standard deviations) of the international standard as measured by a mid-upper arm circumference (MUAC) between 11 cm and 12.5 cm for her age (WHO, 2006).

The twenty-four-hour dietary recall shows the child's dietary intake as deficient in all nutrients. She eats polished rice, lentils, powdered milk, potato, tomato, and sugar daily. Once or twice a week she has puffed rice, rice flakes, semolina, chicken, pork, carrot, and oil. Jane was still breastfed and Kongthei thinks that breastfeeding is important to children who are small or malnourished.

According to Kongthei, the consumption of foods such as bread, vegetables, and fruits makes a child healthy and should be given to children. The family cultivates vegetables like mustard leaves and cabbage but the majority of the foods eaten were purchased from the market. Easily accessible foods like potato chips are eaten daily by the children.

The family believes that eating sour fruits causes fever. They also believe in *ba ai ksuid*, evil spirit, and *wan kyrteng* and these affect the health of a child. *Wan kyrteng* is a belief that a dead family member or friend watches the child with a malevolent eye. If nothing is done, the child will get sick, lose appetite, and slowly die. The traditional healer performed rituals and advised that a white cloth be given to the affected child to cure *wankyrteng*. A birthmark is sometimes associated with *wan kyrteng*.

According to Kongthei, "A person gets sick like that ...they cannot eat, they are thin and they just want to sleep..... it is bad when someone who died visits when my child was born she had a mark ... till now the mark is there and it has not vanished".

Note: The case study was part of the PhD thesis titled *Dietary Patterns of Tribal Under-Five Year-old Children with Moderate Acute Malnutrition, and Associated Social Factors in Umling Block, Ri Bhoi District, Meghalaya* (2020) by Melodynia Marpna under the supervision of Glenn C Kharkongor, Martin Luther Christian University.

3. Traditional food and food systems of the tribal people in Northeast India

The traditional food system of tribal people is diverse and consists of nutrient-rich food that has always been sustainable. Traditional foods as defined by Kuhnlein et al., (2006) as “All food from a particular culture available from local resources and culturally accepted. It includes sociocultural meanings, acquisition/processing techniques, use, composition, and nutritional consequences for people using the food.”

The traditional diets of tribal people are considered highly nutritious. Foods are obtained from local agrobiodiversity, forests, and water bodies such as ponds and rivers. They collect wild fruits, edible mushrooms, insects, vegetables, roots and tubers, indigenous fishes, prawns, crabs, and snails. A study conducted by NESFAS in Nongtraw village in Meghalaya showed that 45% of the food source in the diet was from livestock and cultivation, another 45 % from the market, and about 10% from wild food either by gathering, hunting, and fishing (FAO, Alliance of Biodiversity International and CIAT, 2021). Traditional diets are the solution to tribal people’s malnutrition and hidden hunger.

The staple food of tribal people in Northeast India is rice and rice-based snacks such as *til pitha*, *pudoh*, *pusyep*, and beverages such as rice beer, and *apong*. Tribal people also eat a variety of millets. These foods provide them with dietary energy, proteins, and micronutrients such as thiamine. The unique methods to prepare these food items are passed on from generation to generation (Deka & Sit., 2023). There is a decline in the consumption of millets among the tribal communities in Northeast India. The United Nations declaration of 2023 as the International Year of Millets has helped to revive the cultivation and consumption of millets by tribal people (FAO, 2023). Millets are a rich source of nutrients like essential fatty acids, dietary fibre, vitamin B, potassium, magnesium, manganese, iron, and calcium (Hassan et al., 2021)

Tribal people eat a large variety of wild edible plants and use traditional culinary skills to prepare these delicacies (Jain et al., 2011, Chakravorty et al., 2011). Tribals like green leafy vegetables that are rich sources of micronutrients such as calcium, iron, vitamin A, and folate, and these have the potential to solve malnutrition and hidden hunger (Ghosh-Jerath et al., 2016). Tribal women who eat diversified food have better intake of micronutrients (Ghosh-Jerath et al., 2022).

The high rainfall and other climatic conditions of Meghalaya has compelled the tribal people to ferment their food to prevent spoilage (Majumdar et al., 2016). The fermentation process not only helps preserve food but enhances the nutrient content. The most common fermented foods found in Meghalaya are *tungtap*; fermented fish, *tungrymbai*; fermented beans, and *lungsiej*; fermented bamboo shoots. These fermented foods are rich in macronutrients and micronutrients such as proteins, iron, fats, carotene, potassium, sodium, phosphorus, dietary fibre, and folic acid. The nutrient content of fermented food is better than the non-fermented counterparts (Agrahar-Murugkar & Subbulakshmi, 2006). Many of the foods found in Northeast India are fermented and studies showed that these contain beneficial bacteria. These bacteria promote health and improve intestinal function in people (Widyastuti et al., 2021).

Entomophagy, the consumption of edible insects, is common among tribal people of Northeast India. Edible insects are a source of protein but also have therapeutic uses for humans and domesticated animals. Notably, most of the edible insects are crop pests, and eating them is a sustainable way of pest control. Such sources of food are selected based on taste, traditional beliefs, availability, and species. Depending on the availability, these insects are eaten throughout the year or seasonally. The most common methods of preparation of edible insects are boiling, roasting, or frying (Chakravorty et al., 2011).

The diet of tribal people in the Northeast has changed over the years. Traditional foods are being replaced by modern crop varieties and commercial food products are relished by tribal people (Singh, Singh, and Sureja, 2007; Das et al., 2016; Nongrum and Dohtdong, 2018). The food habits of the Khasis are mostly white polished rice which is also their staple food. The large-scale consumption of white polished rice might contribute to anemia because iron content in polished rice is very low, as polished rice has less moisture, mineral, biotin, niacin, protein, and fatty content than brown or lightly milled rice (Nongrum & Dohtdong, 2017; Losso et al., 2017).

4. Biodiversity: A treasure trove of diverse and nutritious food for tribal people in Northeast India

Northeast India falls in the Indo-Burma region, a global biodiversity hotspot and one of the two biodiversity hotspots in India. The Indo-Burma global hotspot has been a treasure trove of fauna and flora, and tribal people are dependent on it for their food, medicine, and livelihoods. Tribal communities are knowledgeable of the uses and conservation of this biodiversity and they have harmoniously co-existed with these environmental resources (Dutta and Dutta., 2005, Jain et al., 2011, Chakravorty et al., 2011). Tribal people in the Northeast have a vast knowledge of the wild food found in the biodiversity. They can identify more than 200 wild species of edible plants, but people often neglect these (Chyne et al., 2017).

Biodiversity is the foundation of food security for tribal people (*Biodiversity Is Key to Food Security & Sustainability of Small Farms*, n.d.). The World Food Summit (1996) defined food security as, “when all people, at all times, have physical and economic access to sufficient safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life”. There are four dimensions to food security:

- food availability
- access to food
- utilization of foods
- stability of food sources.

Jhum cultivation or shifting cultivation is widely practiced in Northeast India, even though this practice is sometimes discouraged by officials. Studies have shown that this method of cultivation is sustainable and provides livelihood and food security to tribal people. It influences the food habits of the tribal people (Pandey et al., 2020). Tribal people grow multiple crops using this method of cultivation such as cereals, legumes, root crops, vegetables, fruit, and spices. Depending on the culture, economic status, and location, the types of food differ from one tribe to another, though there are some similarities.

Notable indigenous rice varieties are *Mirikrak*, *Chanmouri*, *Kbathugmaw*, *Batlong*, *Rvlllobed*, *Kbaswarit*, *Abor red*, *Khonorullu*, *Ngoba*, *Dullo*, *Thermeru red*, *Lyngsi*, *Kuki*, *Tongla*, *Nonglwai*, and *Maiku Tsuk*.

Soft varieties of indigenous rice are cultivated in Meghalaya and the most notable ones are *Mirikrak*, *Chanmouri*, *Kbathugmaw*, *Batlong*, *Rvlllobed*, *Kbaswarit*, *Abor red*, *Khonorullu*, *Ngoba*, *dullo*, *Thermeru red*, *Lyngsi*, *Kuki*, *Tongla*, *Nonglwai*, and *Maiku Tsuk*. The soft varieties are eaten as is or processed and eaten as rice flakes. (Cairns and Garrity 1999, as cited by Roy et al., 2015).

The Northeast is the natural home of citrus fruits and nine varieties are indigenous to Northeast India. Citrus fruits are known to be rich in nutrients, especially vitamin C. The citrus, locally called *Memang Narang* in the Garo language, *Soh Kumphlair* in the Khasi language, and *Soh Kymphrai* in the Jaiñtia language are well known locally to be rich in nutritional and medicinal properties and *Memang Narang* is believed to be the mother of all citrus fruits. Not all citrus fruits in Meghalaya are eaten as food. Some are used as a traditional medicine to treat skin diseases, cuts, fever, stomach disorders, common colds, body aches, and food poisoning. (Upadhaya et al., 2016; Roy et al., 2015, Chhetri et al., 2021).



Our biodiversity is protected and the Government of India enacted the Biological Diversity Act, 2002, and it is followed up with the Biological Diversity Rules 2004. You can learn more about the Biological Diversity Act by scanning the QR code (source: Meghalaya Biodiversity Board)

5. Forgotten Food (FF) and Neglected Under-utilized Food (NUF)

Forgotten food (FF) has been consumed for centuries and even millennia by tribal people but is neglected and undervalued by policymakers, researchers, and the market. These include cultivated, semi-domesticated, wild species, and traditional varieties and are used as food, fibre, oil, and medicine. They are key elements of multifunctional, diversified, and sustainable agri-food systems. They are a rich source of nutrients and contribute to food security, income generation, good health, and wellbeing. These are weather-resilient

and can yield even in low input conditions, thereby, a solution to climate change. In addition to providing nutrients, they contain genetic materials that can be used for crop improvement and crop breeding. They are also a source of livelihood and income generation for the tribal people (Global Manifesto of Forgotten Food, 2021). Many NUFs are found in areas inhabited by tribal people mostly in areas not exposed to agricultural practices.

6. The 10 food groups of The Food Agriculture Organisation (FAO)

The 10 food groups focus on micronutrient adequacy and a reflection of the diet quality. This food group summarized across 11 micronutrients such as vitamin A, thiamine, riboflavin, niacin, vitamin B6, folate, vitamin B12, vitamin C, calcium, iron, and zinc. The Minimum Dietary Diversity for women (WDD) is an indicator of whether women 15-49 years of age have eaten at least five out of ten defined food groups the previous day or night. Women in the community who have taken a minimum of five food groups out of ten is an indication of better micronutrient adequacy in a given population (Martin-Prével et al., 2015 as cited in FAO, 2021).

Tribal women especially pregnant women and lactating mothers are vulnerable to anaemia. Government data such as the National Health and Family Survey indicate that the prevalence of anaemia is high among women in Meghalaya (L Tantri et al., 2022) even though the state is situated in the biodiversity hotspot of India with a variety of green leafy vegetables and citrus fruits. Most women prepare food at home and they are responsible for food security and nutrition of the household. In most cases where food is scarce at home, they often give it to their children and other members of the family first and whatever is left, is eaten by them.

a. The ten food groups (FAO, 2021)

1. Grains, white roots and tubers, and plantain	2. Pulses (beans, peas and lentils)
3. Nuts and seeds	4. Milk and milk products
5. Meat, poultry, and fish	6. Eggs
7. Dark green leafy vegetables	8. Other vitamin A-rich fruits and vegetables
9. Other vegetables	10. Other fruits

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Chapter 8

Cultural syndromes and Traditional Healing

Nadeen Pakyntein

Outline

1. Cultural syndromes: concepts and definitions
 - a. Concept of Cultural syndrome
 - b. Cultural syndrome
2. Factors associated with cultural syndromes
3. Traditional healers and cultural syndromes
4. Some cultural syndromes in Meghalaya

1. Cultural syndromes: Concepts and definitions

Ventriglio et al., (2015) stated that till a few decades ago, cultural syndromes were considered as exotic, alien, indigenous conditions that were considered to be seen in less psychologically developed cultures. Many cultures have reported these syndromes using various names to describe them. Culture influences the experience of emotional distress, their expressions and on what terms, and where help/treatment is sought from. indigenous populations made use of social approach towards such illness rather than a biological approach.

The characteristics of many cultural syndromes may include somatic complaints such as light headedness, nausea, and headaches, mood disorders such anger, depression, and anxiety. There may be alterations in behaviour, including withdrawal, impulsivity, and violence. Perceptual anomalies, including dissociation, delusions, and hallucinations. Cognitive problems may include dizziness, confusion, and memory loss. These symptoms could be perceived and exhibited variously in different cultures, and in different contexts. Variables like age, gender, social standing, and cultural values could have an impact on a cultural syndrome. Therefore, while working with people from different cultural backgrounds, service providers need to be culturally competent and informed (Culture Bound Syndromes, n.d.).

The Diagnostic and Statistical Manual of Mental Disorders (DSM-IV, American Psychiatric Association, 2010) included the concept of "culture-bound syndrome" for the first time. The term culture-bound syndrome denotes recurrent, locality-specific patterns of aberrant behaviour, and troubling experience that may or may not be linked to a particular DSM-IV diagnostic category. Many of these patterns are indigenously considered to be "illnesses," or at least afflictions, and most have local names. Although presentations conforming to the major DSM-IV categories can be found throughout the world, the particular symptoms, course, and social response are very often influenced by local cultural factors. In contrast, culture-bound syndromes are generally limited to specific societies or culture areas and are localized, folk, diagnostic categories that frame coherent meanings for certain repetitive, patterned, and troubling sets of experiences and observations.

DSM-V (2013), modified the term to “culture-specific syndrome”, as a disease in a culture (i.e., not a voluntary behaviour or false claim); which has widespread familiarity in the culture; complete lack of familiarity or misunderstanding of the condition to people in other cultures; and with no objectively demonstrable biochemical or tissue abnormalities. The condition is usually recognized and treated by the folk medicine of the culture.

In a further update (DSM V-T-R, 2022), broadened this category further with a Cultural Context Section, which provides a comprehensive review of the cultural context of mental disorders and the cultural formulation interview (CFI) for clinical use.

It includes basic information on integrating culture and social context in clinical diagnoses, as well as cultural formulation, and cultural concepts of distress. This version has also included key terms that help to highlight the cultural context of illness experience. Understanding this context is essential for effective diagnostic assessment and clinical management. Definitions and clarifications were provided for terms such as culture, race, and ethnicity.

Examples of the cultural concepts of distress were revised to provide more clarifications and ensure that no stigmatizing or generalizing language was used. The cultural formulation section presents an outline for a systematic person-centered cultural assessment that is designed to be used by any clinician providing services to any individual in any care setting. This section also includes an interview protocol, the cultural formulation interview, that operationalizes these components. The cultural concepts of distress section describe the ways individuals express, report, and interpret experiences of illness and distress. Cultural concepts of distress include idioms, explanations or perceived causes, and syndromes.

The American Psychological Association (APA, n.d.) Dictionary of Psychology defines cultural bound syndrome as “a pattern of mental illness and abnormal behaviour that is unique to a specific ethnic or cultural population and does not conform to standard classifications of psychiatric disorders.”

The International Classification of Diseases (World Health Organization Ver10, 2019) includes a section on Culture-specific Syndromes. There is a list of these syndromes from countries in all continents.

a. **Concept of cultural syndrome**

Power point presentation/Discussion on the concept of cultural syndrome to be made by the teacher/facilitator/instructor.



Refer to this link for further reading on cultural syndrome in India

b. **Cultural syndrome**

The beliefs, symptoms, and treatments of cultural syndrome in Meghalaya.

Discussion on the beliefs, symptoms, and treatments of cultural syndrome to be made by the teacher/facilitator/instructor.

People’s stories about them have been passed down from generation to generation because they are deeply embedded in their psyche. In an attempt to keep young people at home, parents would tell them about the *menshohnoh*, a man with a fierce appearance who stalked the neighborhood with a gunny bag in order to catch children to feed to the demon in the form of a snake. People grew up believing stories about *u thlen* and *ki nong ri thlen*, keepers of the serpent, and other similar tales. Families that are suspected of participating in these paranormal activities frequently face exclusion from the community and have their houses vandalized. The villagers dread the *ai ksuid*, or terrible spells, they cast on their adversaries. Spells like *e kymbad* in Pnar and *ai bih* in Khasi can be cast on someone’s food to make them unwell.

2. Factors associated with cultural syndromes

Helman (2007, as cited in Huff, 2020) identified four main categories of sickness etiology within cultural groups: individual world, social world, the natural world, and the supernatural world. He points out that one or more of these levels, as well as combinations of these, may be considered as the source of illness causation.

- **Individual:** personal behaviours that an individual has some control over, such as food, exercise, tobacco usage, etc., are the focus of the individual level. In addition, personality, societal, and economic factors are included.
- **Social:** interpersonal conflicts seen in and resulting from disrupted friendships and relationships, domestic abuse, bullying, war, gang violence, and other such situations are all part of the dynamics of the social world. Sociologists may include concepts and terms such as voodoo, witchcraft, sorcery, evil eye, shamanism, and similar beliefs and practices in this category. Such descriptions may be biased and derogatory and based on colonial, religious and political presumptions. The term 'witchcraft' is gender insensitive as 'witches' have historically been mostly women.
- **Natural:** both living things and inanimate objects that might cause illness, disease, and death are present in the natural environment. This category covers mishaps, natural catastrophes, bacteria, wounds from animals and plants, poisons, weather, and other environmental conditions.
- **Supernatural:** a wide range of phenomena, such as vengeful gods, ancestor ghosts, soul loss, spirit possession, and other metaphysical causes of sickness and even death, are concerns in the supernatural world. Specialized healers may be required at each of the four stages of illness causation in order to assist in resolving the root cause of a health issue. A spirit medium, herbalist, acupuncturist, curandero, shaman, or priest are a few examples of these. A Western biomedical practitioner, chanting, prayer, sweat lodge rites, massage, or mixtures of these may also be used.

It was further explained by Huff (2020) that some traditional Southeast Asian cultures hold the views that physical, metaphysical, or spiritual factors might contribute to illness. An astrologer, acupuncturist, spirit guide, monk, herbalist, shaman, physician, or other professional may be needed for treatment of any of these health issues. Traditional Chinese medicine uses a variety of techniques to treat patients, including acupuncture, acupressure, herbs, cupping, moxibustion, meditation, and maybe the use of a shamanic practitioner.

One or more of the conventional methods mentioned above may be combined with the services of Western biomedical practitioners. The traditional beliefs of the Hmong, many of whom have recently made their home in the United States, continue to be animistic. that is, the conviction that spirits live in rocks, rivers, ponds, trees, etc., and that they have the power to inflict illness or even death when enraged. Part of their belief system is soul loss, the idea that the soul can depart from the body either naturally or by abduction by a malevolent spirit. If someone in the family gets sick, the family may bring in shamanic practitioners.

3. Traditional healers and cultural syndromes

Cultural syndromes are inherently associated with socio-cultural-environmental-ancestral factors in the community. These syndromes generally display a cluster of physical, mental, emotional and social signs, and symptoms. The vast majority of cultural syndromes are treated by traditional healers, who use a variety of diagnostic and therapeutic interventions including medicinal plants, rituals, and ceremonies, for the identification of causative factors and persons, and to arrive at the appropriate treatments.

Each of them employs unique methodologies, has specific medications, and treatments of its own. In northeast India, traditional healers are classified according to their specialization. Herbalists, diviners, and traditional birth attendants make up a portion of the majority. Charms and religious or traditional rituals carried out by the person or members of their family are examples of further techniques (Hassan & Alee, 2018 as cited in Yeptho & Harikrishnan, 2022).

Cultural syndromes and the local treatments are inevitably associated with mental health. They are wound up with poor knowledge and suspicion of modern science, resistance to outside influences, social stigma,

lack of accessibility, and availability to other forms of therapy. These factors are associated with mental health in tribal peoples (Yeptho & Harikrishnan, 2022).

Cavender (2003, as cited in Huff, 2020) stated that herbalists, blood stoppers, burn specialists, midwives, faith healers, prayer, and Bible reading as coping strategies for psychiatric issues, magic, and witchcraft were examples of traditional healers. Healers in this area used a wide pharmacopeia of medicinal plants, such as sage leaf for fever and nervousness, black snakeroot for coughs and colds, pine bark and sap for cuts, worms, and coughs, and apple cider vinegar for burns, colds, and cuts. Western biomedicine is replacing many of the traditional folk medical techniques in today's society.

Lyngdoh (2022) emphasised that since most traditional healers in Meghalaya lack formal education, it may be said that their methods are indigenous, pure, and uninfluenced by other medical systems. The traditional health system is important because it can be the only source of healthcare services available and is typically the first line of treatment in inner rural areas lacking formal healthcare delivery networks.

Hynniewta and Kumar (2008) conducted a study in East Khasi Hills, West Khasi Hills and Ri-Bhoi district of Meghalaya and Debnath et al., (2020) conducted a similar study among the Pnar and War community in Meghalaya's West Jaintia Hills district of Meghalaya. It was observed that traditional healers, who possess knowledge of herbal treatments for treating a variety of illnesses, are widely consulted. Illnesses based on social and supernatural premises are also treated by traditional healers. Their expertise is passed down orally from one generation to the next.

It is only in recent years, that the World Health Organization, the American Psychiatric Association, and the American Psychological Association have recognized and documented the universal prevalence of culturally related illnesses.

Recommended treatment plans may include cultural treatments, such as customary healing methods or rituals, to address cultural values and beliefs that support the syndrome. The treatment of cultural syndrome include treatment using medications, psychotherapy, cultural interventions, education, and advocacy.

4. Some cultural syndromes in Meghalaya

The examples below are an indicative list. Further examples and descriptions are provided in the activities section of the handbook.

U thlen

A common folktale among the Khasi and Jaintia Hills is about *u thlen*, a snake that is kept by some families. Families who are reported to harbour the thlen, are rewarded with prosperity. Everyone in the Khasi-Pnar tribe is aware of the legend of *u thlen* and how it came to coexist with humans. In order to satisfy the demands of the snake, these households employ henchmen called *nongshohnoh* or *menshohnoh* to catch human beings to feed it. They can either capture a human to feed the demon snake, or they can surreptitiously cut off bits of clothing or hair to give to the *thlen*. The individual from whom their clothing or hair was cut can thereafter be the target of a spell by the *thlen*. The *nongshohnoh* also uses magic spells to capture unidentified people; occasionally, they do this with rice known as *khaw*, *khoo thlen*, or *khoo tyndep*. The victim under the spell follows the *nongshohnoh* wherever he goes after the rice is thrown at them. This is thought to be one of the methods *nongshohnoh* use to capture his victims. There are reports of people seeing *u thlen*, and they say that it takes the form of a snake, or a red cat or owl. It is thought that the keeper makes the offer to the *thlen* at midnight, when everyone is asleep, and that the *thlen* is awakened from its slumber by chants and drum beats. Families that the village believes participate in these activities are frequently shunned, they may have their homes burnt, or even be lynched.

Ka taro

Ka taro, is prevalent among the Pnar tribe. This illness may be caused by a spell, cast by a holder with such powers. The victims are usually women, who may exhibit symptoms of weakness, loss of appetite, and delirium. The victim may take on the voice and personality of the Taro holder. The traditional healer is able to identify the person who cast the spell and uses his skills to cure the illness. The healer may sometimes negotiate peace between the person who cast the spell and the victim, and the spell will be withdrawn. *Shah bat taro*, or having a *taro* affect you, is still seen in the community. It may also adversely

affect social relations between families. To offset the spell that may have been cast after visiting a family with *taro*, one can throw some coins over the shoulder when leaving the gate.

Ka lai blai or ka hiar blai

Lai blai or hiar blai, literally means, when the gods come to visit. *Ka blai* is a person who is thought to have unique abilities that allow them to speak with the gods. Usually women, *ka blai*, are thought to have the ability to serve as a bridge between the world of spirits and the material world. When a woman has the ability to *hiar blai*, or be possessed by a spirit, she can help anyone who comes to her for assistance by passing from this realm to the spiritual one. If a person has an illness or a family problem, they will consult a woman with these powers. She would enter into a trance, converse with the spirits, and then diagnose the cause of the problem. She may recommend corrective actions of attitude, behaviour, and lifestyle to heal the illness.

Sabuit/ske

Sabuit, or *ka Ske* is a malevolent spell cast on victims in the Khasi and Pnar tribes, causing a sudden illness, usually an upset stomach. Sometimes it happens inadvertently. Spells are sometimes cast on cultivated plants, causing them to wither and die before they blossom or bear fruit. Farmers put up signs with the phrases *phuit ka sabuit* (Khasi) or *phui ske* (Pnar). These signs are intended to shield the plants from bad spells, not to frighten birds away from the fields or gardens. Those with the ability to cast these spells are called *chong ske*. Some people possess a milder, non-lethal power known as *ka ske-khmat*.

Aiksuid

The summoning of malicious spirits against an enemy is known as *ai ksui* or *lehe stad*. The spell may be strong, resulting in severe illness and even, death. The spell can be removed by a traditional healer.

Ka bih/ka kymbad

This is a spell that is cast over food, resulting in suffering and occasionally even death for those who eat the food. People avoid eating with those whom they believe possess the power of *kymbad*. A powerful form is known as *Kymbad Khangtlei*, which may cause cancer.

Ka bih

Casting spells on someone's food, such as *kymbad* in Pnar and *ai bih* in Khasi, might make the victim unwell. It is thought that a person who experiences unusual tooth loss is afflicted with the curse of *Kymbad/Bih*. It is said that *kymbad/kabih* causes neck ache and even throat cancer.

Khñiangsohpet

Khñiangsohpet is a syndrome that is common in society, and children in young families are usually given locally made medication called *dawai khniang sapet* or *sohpet*. Lyngdoh (2022) mentioned that the *Khñiangsohpet* are thought to be bacteria that lives on the surface of the stomach or possibly in the intestines of neonates and cause problems with digesting. *Khñiangsohpet* comes in various varieties, namely *khñiangsohpet iong* (black germs), *khñiangsohpet saw* (red germs), *khñiangsohpet stem* (yellow germs), and *khñiangsohpet tamar* (unspecified hue). These varieties are distinguished by the colors of the germs. If untreated, the youngster will grow up to be vulnerable to a variety of illnesses, particularly those affecting the digestive system. For this reason, traditional healers in both urban and rural regions are always contacted before giving a child a dose of *dawai khñiang sohpet*; a well-known herbal remedy that means "Medicine for the Navel."

Did You Know?

Knowledge of cultural syndromes and treatment are passed down through generations in the form of oral communication and folklores. One such example is the story of *U Thlen*.

Most of the knowledge of diseases and treatment in the Khasi, Garo, and Jaintia communities are passed down from one generation to the next without any written documentation. It is amazing that traditional healers learn by practice and become competent in their healing through daily practice as an apprentice to another traditional healer. Usually, healing knowledge is shared only with family members of the clan who has *ka sap* or the innate skill to perform treatment/rituals/chants/prayers.

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Chapter 9

Disasters, Conflicts, and Displacement in Tribal Communities

Larilin Kharpuri

Outline

1. Vulnerability of tribal population to disasters, conflicts, and displacement.
2. The UN Declaration on the rights of indigenous peoples.
3. Indigenous people and disaster:
 - a. Traditional knowledge and early warning systems
 - b. Why is traditional knowledge critical for Disaster Risk Reduction (DRR)?
 - c. Indigenous people and Disaster Risk Reduction
 - d. Indigenous healing and disaster recovery
 - e. Holistic indigenous approaches to healing and disaster recovery
 - f. Indigenous peoples and recovery capitals
4. Conflicts and indigenous people
 - a. Tribal conflicts in India
 - b. Three types of tribal conflicts in India
 - c. Tribal and non-tribal conflict
 - d. Conflicts in India's Northeast
 - e. Some of the ethnic conflicts that have occurred in the region
5. Indigenous people and climate change
 - a. Why do indigenous peoples face threats from climate change not experienced by other groups of society?
 - b. Indigenous peoples as agents of change?
 - c. Commonalities between Indigenous Knowledge and Public Health Approaches to Understand the health-disease process
6. Indigenous people and the COVID-19 pandemic
7. Displacements
 - a. Why are indigenous people at risk for internal displacement?
 - b. Impact of displacement on indigenous people
 - c. Impact of displacement on tribal children
 - d. How can traditional knowledge help in coping with trauma and displacement?
 - e. Health In the context of migration and forced displacement
8. How can traditional knowledge help in coping with trauma and displacement?
9. Health in the Context of Migration and Forced Displacement

Natural or man-made disasters (conflicts, climate change) and displacements can have a significant impact on the health and wellbeing of indigenous populations. Considering their social, economic, and cultural settings, indigenous populations frequently face particular difficulties. Various factors, including unsustainable development practises, environmental degradation, poverty, and climate unpredictability

and extremes, influence how various communities are affected by disasters. These elements have increased risk and adversely affects indigenous peoples' health (IASG, 2021).

Disasters are typically attributed to the convergence of three factors: exposure to a hazard, the presence of vulnerability, and a lack of capacity or means to mitigate or manage the possible negative repercussions. Disaster impacts encompass various detrimental consequences on human physical, mental, and social wellbeing, such as loss of life, injury, and disease. Additionally, they involve damage to property, destruction of assets, loss of services, disruption of social, and economic activities, and environmental degradation.

The United Nations defines disaster as "the occurrence of sudden or major misfortune which disrupts the basic fabric and normal functioning of the society or community". UNISDR defines a disaster as a sudden, calamitous event that seriously disrupts the functioning of a community or society and causes human, material, and economic or environmental losses that exceed the community's or society's ability to cope using its own resources. Though often caused by nature, disasters can have human origins.

Disaster risk is the potential disaster losses, in lives, health status, livelihoods, assets, and services, which could occur to a particular community or a society over some specified future period (UNISDR, 2009). The definition of disaster risk encompasses the idea that disasters arise from ongoing conditions of risk. Disaster risk encompasses various forms of possible losses that are frequently challenging to assess. However, by understanding the existing dangers and the trends in population and socio-economic growth, it is possible to evaluate and chart disaster risks, at least to some extent.

1. Vulnerability of tribal population to disasters, conflicts, and displacement

Tribal populations are among the most vulnerable communities globally, frequently living in isolated and ecologically sensitive areas. They face many challenges, including natural catastrophes, conflicts, and displacement. The attempt here is to offer a complete overview of the vulnerabilities that indigenous groups confront in these circumstances. This study investigates the elements that contribute to their vulnerability, as well as the measures and policies meant to reduce the negative consequences by evaluating relevant studies and research.

Indigenous peoples are particularly susceptible to the effects of climate change and natural disasters as a result of a long history of inequality and marginalisation. indigenous peoples are also in possession of many of the answers to lowering disaster risk and susceptibility. indigenous peoples are crucial custodians of the world's landscapes, protecting 80% of the remaining biodiversity and owning, occupying, or using a quarter of its surface area. They also possess important traditional knowledge and expertise on how to mitigate and reduce the risks associated with disasters and climate change. Effective policies must respect indigenous peoples' rights and ensure their meaningful involvement in decision-making on disaster risk reduction.

Indigenous people account for about 19% of the extremely poor and are often last to receive public investments in basic services and infrastructure and face multiple barriers to participating fully in the formal economy, enjoying access to justice, and participating in political processes and decision-making. Disasters exacerbate these inequalities and vulnerabilities, increasing the chance of disasters and associated losses beyond what humanity can bear (UNDRR, 2020).

Tribal populations are frequently trapped in the crossfire of armed conflicts, resulting in displacement, loss of means of livelihood, and destruction of cultural heritage. Their marginalised status and historical grievances may make them desirable recruits for armed groups.

The displacement of tribal populations, whether due to natural disasters or armed conflict, can have long-lasting negative effects. They frequently face difficulties securing land rights, gaining access to essential services, and preserving their cultural identity.

2. The UN declaration on the rights of indigenous peoples

The Declaration, adopted by the United Nations General Assembly in 2007, makes direct reference to indigenous peoples' rights to land and self-determination – the two issues at the heart of most

conflicts affecting indigenous peoples – besides other articles related to violence and conflict resolution:

- a. **Article 7** recognizes that indigenous peoples have the collective right to live in freedom, peace, and security as distinct peoples and shall not be subjected to any act of genocide or any other act of violence, including forcibly removing children of the group to another group. ·
- b. **Article 30** affirms that military activities shall not take place in the lands or territories of indigenous peoples,
- c. **Article 32** states that indigenous peoples have the right to determine and develop priorities and strategies for the development or use of their lands or territories and other resources.
- d. **Article 40** states that indigenous peoples have the right to access to and prompt decisions through just and fair procedures for the resolution of conflicts and disputes with States or other parties, as well as to effective remedies for all infringements of their individual and collective rights.

3. Indigenous people and disaster

The traditional ecological knowledge of the indigenous people is used for:

a. Traditional knowledge and early warning system

UNISDR (2009) defines early warning system as the set of capacities needed to generate and disseminate timely and meaningful warning information to enable individuals, communities, and organizations threatened by a hazard to prepare and to act appropriately and in sufficient time to reduce the possibility of harm or loss. This description contains all the essential aspects required to achieve efficient reactions to warnings. An effective early warning system that prioritises the needs of individuals includes four essential components: understanding the potential dangers, continuously monitoring and analysing the threats, effectively communicating alerts and warnings, and having the necessary local resources to respond to the received warnings. The term “end-to-end warning system” is employed to underscore the importance of warning systems that cover all stages, from detecting hazards to responding to them within the community.

The elderly in a community have extensive experience and information regarding disasters, including valuable insights on local warning indicators derived from birds, animals, and other natural phenomena. Oral literature, songs, poems, and lullabies containing accounts of historical natural disasters. Past knowledge has the potential to not only decrease the likelihood of disasters but also avert harm to human lives during such events. Nevertheless, indigenous knowledge is frequently dismissed as “unscientific.” Integrating local knowledge with the scientific early warning system can enhance catastrophe risk reduction and bolster the resilience of vulnerable communities (Haokip, 2023).

b. Why is traditional knowledge critical for DRR?

World International Property Organisation defines traditional knowledge (TK) as knowledge, know-how, skills, and practices that are developed, sustained and passed on from generation to generation within a community, often forming part of its cultural or spiritual identity. In this chapter, traditional knowledge and indigenous knowledge are the same.

Indigenous knowledge is the basis of community coping practices that have helped vibrant communities survive natural calamities over centuries (UNISDR, 2008). In the context of Disaster Risk Reduction (DRR), traditional knowledge refers to the accrued experience that comes with Indigenous communities’ close relationship to their environment, which has been developed through successive trials and errors over generations (UNDRR, n.d.).

Rai and Khawas (2019) stated that according to the modern scientific worldview, primordial stories, myths, and folklore cannot be rationally explained, as the scientific knowledge system does not accept subjective reality. In scientific knowledge, measurement, experimentation, and verification are among the most important stages. However, modern scientific society overlooks the fact that these ancient tales and folklore were shaped by centuries of interaction with the natural environment. In general, the modern world disregards the traditional knowledge of indigenous and local communities, regarding

it as mystical, and concentrates primarily on technocratic solutions, denying the historical and social dimensions of environmental hazards (Mercer, 2007). Further, indigenous and tribal communities worldwide have prepared, operated, acted, and responded to disasters using their indigenous methods and knowledge, and passed them down from generation to generation, long before the invention of high-tech early warning systems or standard operating procedures (UNISDR, 2008).

Due to centuries of experience and observation of the evolution of natural phenomena, traditional knowledge contains a vast quantity of information about the natural world. In the era of climate change and climatic unpredictability, therefore, traditional knowledge can complement modern practises (Rai & Khawas, 2019).

In challenging physical landscapes and multi-hazardous environments, as well as in diverse socioeconomic, political, and cultural contexts, traditional knowledge has enabled communities to thrive and develop capacity. Clearly, traditional knowledge is a crucial aspect of how communities around the world mitigate and manage disaster risk in their respective localities. However, there is a growing interest in applying the principles of this knowledge to disaster risk reduction policies and practises that extend beyond individual communities. (UNDRR, 2022).

- By living in hazard-prone areas and experiencing frequent natural hazards, local communities have developed a multi-layered knowledge of disasters in their localities.
- Crucial aspects which are less “visible” and “tangible”: include the role of local formal and informal governance structures, kinship and other social networks, and various cultural aspects.

c. Indigenous people and disaster risk reduction

Due to their close relationships with the environment and its resources, indigenous peoples are at the forefront of the fast-rising disaster risk, climate change, and environmental degradation.

The relationship between Indigenous knowledge and their disaster risk reduction efforts is based on their close contact with the environment. For example, traditional weather forecasting includes the observation of the moon, the sun, the stars, animals, and insects.

According to a report by the United Nations Permanent Forum on Indigenous Issues (UNPFII), the indigenous inhabitants of Simeulue Island, Indonesia managed to survive the catastrophic Indian Ocean tsunami in 2004 because of their time-tested knowledge “buffaloes run to the hills when a tsunami is coming.” People who live near the Damodar River in West Bengal, India used markers inscribed on trees and the observation of ants moving their eggs to higher ground as a warning sign of impending floods.

- IPs are in possession of many of the answers to lowering disaster risk and susceptibility.
- IPs are crucial custodians of the world’s landscapes, protecting 80% of the remaining biodiversity and owning, occupying, or using a quarter of its surface area.
- They also possess important traditional knowledge (TK) and expertise on how to mitigate and reduce the risks associated with disasters and climate change.

d. Indigenous healing and disaster recovery (Quinn et al., 2022)

Indigenous peoples have evolved complex, place-based, interconnected communities throughout the planet over millennia (Moreton-Robinson, 2015). However, despite their distinctions, indigenous peoples have cultural traits in common, such as a commitment to sustainability and a place-based and relational cohabitation ethos (Million, 2020). One such important yet unique practice among various Indigenous people was healing (Linklater, 2014; Struthers & Eschiti, 2004; Williamson, 2020; Yeh, 2004). indigenous peoples throughout the world had many and varied traditions of healing. These healing practices often respond to natural environments and landscape elements, such as mountains, waterholes, rivers, and ecosystems, among others, by providing resources and renewal (Linklater, 2014; Struthers & Eschiti, 2004; Robbins & Dewar, 2011). The knowledge of healing practices and methods was revered and preserved through knowledge repositories (Moreton-Robinson, 2015 Robbins & Dewar, 2011). These knowledge holders were often referred to as medicine men/women,

witch doctors, intelligent men/women, tohunga, shamans, native doctors, traditional healers, and others. These people often had a knowledge of environments, plants, and animals that had healing properties that they might use to aid in the healing of a person or persons.

Indigenous knowledge, particularly traditional ecological knowledge, are increasingly valued for its significance in disaster resilience. However, the wide-ranging and comprehensive worldviews of Indigenous peoples offer a broader range of insights and knowledge, such as the field of indigenous healing, that are extremely pertinent to the systemic challenges of disaster resilience and recovery.

- The arrival of Europeans throughout various parts of the 'new world', constituted the most significant change to Indigenous peoples' ways of life.
- Cultural practices such as ceremonies were outlawed, people were not allowed to eat traditional foods and children were not permitted to speak their traditional languages.
- The outlawing of traditional healing was also a hallmark of this cultural suppression.
- The introduction of foreign diseases such as smallpox, the contamination of water, and food sources and violent frontier conflict destroyed Indigenous populations.

e. Holistic indigenous approaches to healing and disaster recovery

Emphasise the interconnectedness between the mental, physical, emotional, social, and spiritual aspects of a person's life, as well as their relationships with family, community, and the land. Key elements of Indigenous healing that are shared between indigenous people throughout the world include:

- Holistic approaches to wellbeing
- Social rather than solo processes
- Identifying and treating the roots of trauma
- Strengths-based and community-led processes
- The need for socially and culturally safe spaces
- Indigenous notions of responsibility, justice, and forgiveness

f. Indigenous peoples and recovery capitals (Quinn et al., 2021)

When disasters damage a country, the harm felt by Indigenous peoples can be particularly profound due to the deep connections between land, culture, history, colonisation, and identity. Trauma can also arise from needing to relocate, and losing or being separated from loved ones and community. This trauma can be worsened by disaster response and recovery services, including through racist encounters and culturally unsafe processes. Mainstream services and grants often fail to account for the particular experiences of Indigenous peoples. These systemic issues produce vulnerability, and it is the systems that must be fixed. Instead of describing Indigenous people as 'vulnerable' in disasters, we need to focus on these systemic problems and the strengths that indigenous peoples possess despite them.

g. Focusing on strength

The resilience and resistance of indigenous peoples in the face of colonisation and ongoing marginalisation clearly demonstrates the many strengths within Indigenous communities. These strengths are powerful resources that can enable recovery from disasters. For example, the strong social bonds and existing organisations within indigenous communities can be drawn upon to support recovery. Some of these strengths are highlighted over the page. Community strengths after disasters can be understood as 'recovery capitals' – cultural, built, natural, social, human, political, and financial. These are all deeply interconnected.

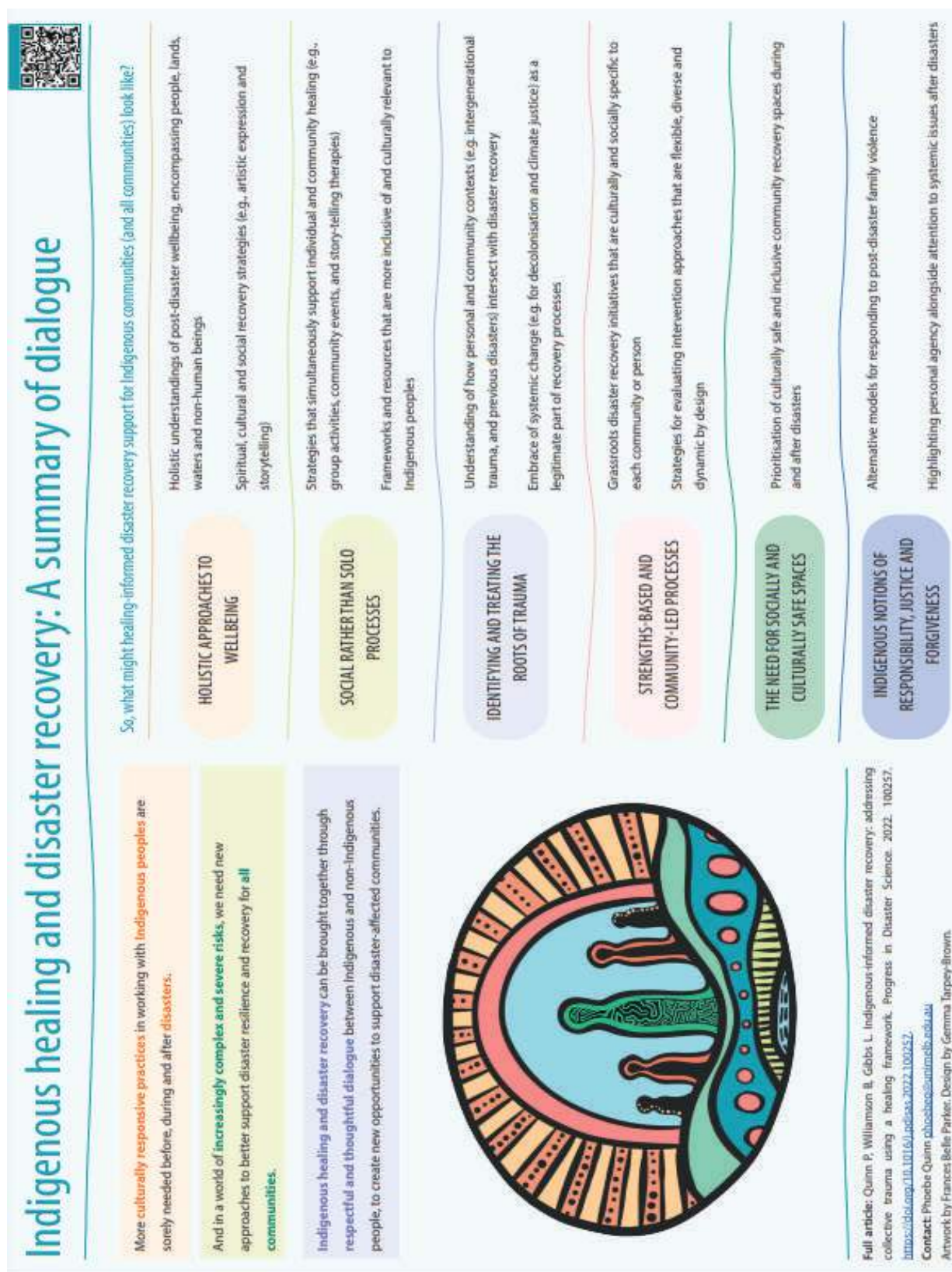


Fig: indigenous-informed disaster recovery

4. Conflicts and indigenous people

As per the United Nations Permanent Forum on Indigenous Issues (UNPFII, 2016):

- Indigenous peoples often find themselves involved in situations of conflict, mostly relating to their lands, territories and resources, or their civil, political, cultural, social, and economic rights.
- During violent conflict, indigenous peoples are often among the most vulnerable due to the situations of poverty, political marginalization, and systemic discrimination that many still face today.
- In nearly every region of the world, indigenous peoples are being displaced and severely impacted by violence on their lands and territories. In some countries, indigenous peoples are victims of massacres carried out by the army or paramilitary groups during conflicts. In many cases, indigenous women have been used as “spoils of war” and subjected to sexual violence and rape. Indigenous children are sometimes forcibly recruited to participate in armed conflicts, leaving behind their homes, and their childhood.
- Activities of extractive industries, including mining, oil palm plantations, and the construction of dams, often take place without the free, prior, and informed consent of indigenous peoples. Indigenous women and children often suffer the greatest challenges related to the negative environmental and health impacts from contaminated soil, air, and water, and heightened levels of violence in the areas surrounding extractive activities.
- Most indigenous peoples are geographically and politically isolated, and in many countries still lack adequate recourse to meaningful judicial or other mechanisms for peaceful conflict resolution.
- Indigenous peoples, including indigenous women and youth, have much to contribute and should participate in all stages of peacebuilding and transitional justice processes to ensure sustainable peace.

It can be summarised that the causes of conflicts affecting indigenous people are as follows:

1. Land rights
 2. Exploitation of natural resources (minerals and metals, oil, gas and coal, timber, and water)
 3. Armed groups claiming ideological grounds
 4. The often-scarce presence of state institutions and services in indigenous territories
- a. **Tribal conflicts in India (Mrinali et al., 2022)**
 - Of India’s 703 ongoing conflicts, 25% (182) are in tribal areas (Fifth Schedule districts) of which 60% are mining conflicts
 - In India, on average, at least 10,600 people are impacted by each ongoing land conflict. The number crosses 21,300 in the land conflicts involving mining projects
 - Conservation and forestry-related activities such as compensatory afforestation plantations and wildlife conservation schemes account for 15% of the conflicts
 - b. **Three types of tribal conflicts in India:**
 - Tribal conflicts with other tribes;
 - Tribal conflicts with non-tribes; and
 - Tribal conflicts with state agencies such as the police and military.
 - c. **Tribal and non-tribal conflict**
 1. Land concerns
 2. Outsiders’ settlement on tribal land
 3. Tribal peoples forced to migrate for work
 4. Special economic zones and development projects
 5. Reorganization of states and federalism in India
 6. Inefficient and insensitive administrative arrangements
 7. Lack of economic growth

8. Militant group plurality
9. Forest and tribal rights
10. Covert support from government and external agencies
11. The role of the government parties at the centre and at the national level
12. Irrational policies and decisions
13. The so-called mainstream cultural hegemony
14. Conversion and tribal religion
15. Secessionist and separatist movements

d. **Conflicts in the northeast**

1. Colonial influence and post-colonial struggles:
 - 'Excluded' or 'partially-excluded'
 - Failure to recognize indigenous traditions and systems of self-governance.
2. Land rights and migration
3. Loss of their land and cultural autonomy

e. **Some of the ethnic conflicts that have occurred in the northeast:**

1. Assam's Bodo-non-Bodo conflict
2. Anti-foreigner sentiment in most North-Eastern states, particularly in Meghalaya and Assam; Naga-Kuki clashes; Kuki-Paite clashes;
3. Tripura-Bengali clashes
4. Non-Bodo Clashes
5. Assamese Bengali Clashes and E Tripura Bengali Clashes
6. Meitei and Kukis.



Fig: indigenous people's recovery capital (Source: Quinn et al., 2021)

Like other tribal communities, the Khasi, Jaintia and Garo tribes of Meghalaya have traditional ecological knowledge used for weather forecasts, early warning systems and healing.

As per a study conducted by MLCU (Blah et al., 2018), it was found that the Khasi community in Tangmang village observed change in climate since 1976. Sacred groves and community forests managed by community governance institutions were created by the community to offer a solution to the global problem.

5. Indigenous people and climate change (UNDESAIP, n.d.)

The Inter-governmental Panel on Climate Change (IPCC) defines climate change as: “a change in the state of the climate that can be identified (e.g., by using statistical tests) by changes in the mean and/or the variability of its properties, and that persists for an extended period, typically decades or longer. Climate change may be due to natural internal processes or external forcings, or to persistent anthropogenic changes in the composition of the atmosphere or land use”.

Indigenous people are among the first to face the direct consequences of climate change, due to their dependence upon, and close relationship, with the environment and its resources. Climate change poses threats and dangers to the survival of indigenous communities worldwide, even though indigenous peoples contribute the least to greenhouse emissions. Examples include:

- In the high-altitude regions of the Himalayas, glacial melts affecting hundreds of millions of rural dwellers who depend on the seasonal flow of water is resulting in more water in the short term, but less in the long run as glaciers and snow cover shrink.
- In the Amazon, the effects of climate change include deforestation and forest fragmentation and consequently, more carbon is released into the atmosphere exacerbating and creating further changes. Droughts in 2005 resulted in fires in the western Amazon region and this is likely to occur again as rainforest is replaced by savannas, and thus, having a huge effect on the livelihoods of the indigenous peoples in the region.

In fact, indigenous peoples are vital to and active in, the many ecosystems that inhabit their lands and territories and may therefore help enhance the resilience of these ecosystems. In addition, indigenous peoples interpret and react to the impacts of climate change in creative ways, drawing on traditional knowledge and other technologies to find solutions that may help society at large to cope with impending changes. One of the examples is from the Khasi tribes of Meghalaya, in Tangmang village where the tribal community have been experiencing a change in climate since 1976 and one of the actions taken by them to combat the issue was creating a sacred grove. The village members came together and demarcated a piece of land in the village and declared it as *Law Adong* sacred forest (Blah et al., 2018).

a. **Why do indigenous peoples face threats from climate change not experienced by other groups of society? (ILO, 2017)**

The World Bank has highlighted that climate change shares a relationship with the “key social dimensions of vulnerability, social justice, and equity. It acts as a multiplier of existing vulnerabilities and exacerbates development challenges. The poor in developing countries bear the brunt of its consequences, even though they have contributed little to its causes. indigenous peoples, most of whom are in developing countries, are overrepresented among the poor and, furthermore, whose rights, livelihoods, cultures, identities, and ways of life are already threatened by a range of social, economic, and environmental issues, face an additional layer of threat from climate change.

It is important to highlight that the risks that climate change poses for indigenous peoples differ from the risks that it poses for other groups in society, including the poor (in their entirety). This is because indigenous peoples share six characteristics that, in combination, are not present in any other group. These six characteristics are:

- I. **Poverty and inequality:** First, indigenous peoples are among the poorest of the poor, the stratum most vulnerable to climate change

- II. **Erosion of natural resource-based livelihoods:** Second, they depend on renewable natural resources most at risk of climate variability and extremes for their economic activities and livelihoods
- III. **Residence in geographical areas exposed to climate change:** Third, they live in geographical regions and ecosystems that are most exposed to the impacts of climate change, while also sharing a complex cultural relationship with such ecosystems
- IV. **Migration and forced displacement:** Fourth, high levels of exposure and vulnerability to climate change force indigenous peoples to migrate, which in most cases is not a solution and can instead exacerbate social and economic vulnerabilities
- V. **Gender inequality:** Fifth, gender inequality, a key factor in the deprivation suffered by indigenous women, is magnified by climate change
- VI. **Lack of recognition, rights, institutional support, and inclusion in public policies:** Lastly, many indigenous communities continue to face exclusion from decision-making processes, often lacking recognition and institutional support. This limits their access to remedies, increases their vulnerability to climate change, undermines their ability to mitigate and adapt to climate change, and consequently poses a threat to the advances made in securing their rights

b. What makes indigenous people agents of change? (ILO, 2017)

Indigenous peoples are not just “victims” or “subjects of development”; they are fundamental partners and crucial agents of change for achieving effective climate action, sustainable development, and green growth.

- i. Economy based on the principles of sustainability
- ii. Unique knowledge and skills – Traditional ecological knowledge.

c. Commonalities between indigenous knowledge and public health approaches to understand the health–disease process

	Indigenous knowledge	Public health approaches	Commonalities
Epidemiological triangle	When diseases, environmental crises, or disasters happen, many Indigenous peoples understand the worst as being a consequence of an imbalance in the relationship between humans, mother nature, and spiritual influences ¹	This concept is closely related to the epidemiological triangle to understand causes of infectious diseases ² : host (eg, humans), agent (eg, other species in nature), and environment in which the disease is transmitted (eg, local and weather conditions)	There are relationships in the socioecological dimensions that need to be balanced to prevent diseases; for example, changes in the global disease system might affect human behaviours and other species' behaviours, implying that humans and non-humans are part of the same collective (eg, the concept of mother nature taking care of everything and everyone)
One Health	Indigenous knowledge has a strong health–nature nexus, similar to the One Health framework	In the One Health framework, when a virus jumps the species barrier is when imbalance among species is present and there is a risk of a new disease emerging ³	Indigenous knowledge about imbalances among species causing disease in the past aligns with the fact that health systems have faced multiple pandemics; previous learning processes enable Indigenous communities to produce responses informed by empiricism, communicated in Indigenous languages (an example of community resilience)
Planetary health	In the Indigenous worldview, imbalance has repercussions on human health and reflects the Indigenous concept of holistic linkages between humans, other species, and the land where Indigenous peoples live	From a planetary health perspective, the long-term, unwise behaviour of human populations are changing our planetary system and are creating unprecedented challenges to sustain healthy life on Earth ⁴	The notion of a planet is closely related to the land, community, or space where Indigenous peoples and families live: even when we do not see the whole Earth, the reality of a space that needs to be healthy to produce a healthy life implies that we are part of a unique whole system, and all people must respect it

Table: Commonalities between Indigenous knowledge and public health approaches to understand the health–disease process

Fig; indigenous peoples' holistic vision and responses to the pandemic and climate stressors (Zavaleta-Cortijo et al., 2023)

There are commonalities between indigenous worldviews and public health approaches around the health–disease process and how communities respond to health emergencies. Both acknowledge the interconnected relationship between humans and the socio-ecological system and the need for balance in this relationship.

These commonalities indicate synergies that could be used to strengthen health system responses to current and future health risks. The knowledge of indigenous peoples is central to community resilience, and their holistic vision of population health aligns with public health approaches.

6. Indigenous people and COVID-19 pandemic (Zavaleta-Cortijo et al., 2023)

The COVID-19 pandemic and the climate change emergency are among the greatest socio-environmental crises of our time. These crises have exacerbated health. indigenous peoples globally face some of the greatest risks associated with pandemics and global environmental changes.

- a. Indigenous peoples' holistic vision and responses to the pandemic and climate stressors (Zavaleta-Cortijo et al., 2023)
- b. Some of the strategies used by Indigenous peoples are based on lived experiences of previous pandemics and the use of ancestral knowledge about food generation and health protection.
- c. Use of natural resources (e.g. from forests), family farms, identifying medicinal plants, implementing collective efforts to protect their food security, and use of their communication systems in Indigenous languages to translate and transmit knowledge about food security and the COVID-19 vaccination within their communities
- d. In the Peruvian Amazon, the elders from the Shawi and Ashaninka peoples have shared how measles killed many of them, and to protect themselves, they would temporarily live in the forest. During the first 4 months of the COVID-19 pandemic, the Shawi people closed their borders, and some families went to live in the forest, built new houses and relied on forest food, while others who had access to fish farms, home-grown foods, and food from small farms stayed in their communities.
- e. Similarly, during the first wave of COVID-19, indigenous communities in the Nilgiris district in Tamil Nadu, India, moved far into the forest. In India, Peru, and Sri Lanka, communities revived traditional agricultural practices and reflected on the importance of their territory and food sovereignty in responding to global emergencies and climate change.
- f. For the Irula and Kurumba communities in Tamil Nadu, the revival of millet, a weather-adaptable crop, allowed Indigenous farmers to become self-sufficient during the pandemic when food chains were disrupted and prices increased.

7. Displacement

Indigenous people's way of life and sense of self are intricately tied to their land. The land has profound emotional, cultural, social, intellectual, and religious significance for them. Conflicts, construction projects, urbanisation, infringements on land rights, catastrophes, and climate change, might compel communities to leave their usual habitations (Minority Rights Group International, 2021). indigenous peoples all over the world share an intimate and essential connectedness with their respective lands, territories, and natural resources (IWGIA, 2019). Disasters caused by storms, wildfires, floods, earthquakes, and other natural hazards triggered 24.9 million new displacements across 140 countries and territories around the world in 2019.

Disaster displacement occurs in every country, and it can affect anyone: rich and poor, those living in urban centres, as well as rural villages. Populations with underlying vulnerabilities, however, suffer the most. indigenous communities are among the groups most at risk of disaster displacement.

a. Why are indigenous people at risk for internal displacement? (IDMC, 2021)

- I. **Poverty:** Despite only up to 6.2% of the global population, indigenous peoples are responsible for 15% of the world's poorest citizens and roughly 19% of the extremely poor (ILO, 2019). Economic or political mechanisms that frequently marginalise and discriminate against them make their poverty worse. They are more in danger of being displaced as a result of conflict and violence, natural catastrophes, climate change, and development initiatives because of these circumstances.
- II. **Resource-rich area:** indigenous people are found to live in important areas with rich resources and biodiversity which can lead to armed conflict and violence triggering displacement (IDMC, 2021). Armed forces' influence and priorities being extended to civilian life, particularly to indigenous peoples, can also cause displacement. In recent years, there have been more assaults on indigenous peoples' human rights advocates (UNHR, 2018).

- III. **Conflicts:** Increased danger of displacement can result from conflicts between indigenous peoples and outside parties for land, territory, and resources (IWGIA, 2019).
- IV. **Tourism:** Despite the fact that tourism has grown to be a substantial and profitable industry, as seen by the formation of national parks, conservation areas, and hunting grounds, the growth of these places frequently entails significant land grabs that evict indigenous peoples (IWGIA, 2019). Wildlife protection and the creation of national parks and conservation areas can also displace indigenous peoples (IWGIA, 2008).
- V. **Framed as anti-development:** The need to explore, exploit, and develop new places, particularly in terms of access to land and natural resources, appears to be insatiable as global consumption rises. indigenous peoples are left unprotected, defending their territories on the front lines. indigenous peoples are frequently accused of being anti-developed or anti-modern when they defend and claim their rights, simply because they have a fundamentally different approach to development, in which land, water, and forests are not commodities for sale (IWGIA, 2019).
- VI. **Indigenous peoples' way of life:** It is environmentally sound and climate-conscious, as various studies have demonstrated. More successfully than outside groups, indigenous peoples have maintained the lands and territories they call home in trust for future generations. These studies have demonstrated, for instance, that indigenous peoples' woods have been kept more successfully than protected forests.
- VII. **Development projects:** Economic practises that disregard the land rights of indigenous peoples can also result in displacement (IDMC, 2021). Energy projects, large-scale agricultural export operations, fracking, and the extraction of minerals, gases, oil, or water are examples of this type of activity (UNHR, 2018). indigenous people make up a sizable share of those who are displaced by development projects (IWGIA, 2019). Displacement and forcible evictions of indigenous people have occurred over dam construction projects in Brazil, Peru, Cambodia, Laos, Malaysia, Uganda, India, Vietnam, the Philippines, and China, among others (IWGIA, 1994).
 - It is a common misconception that eradicating all human activity is the only way to preserve forests. indigenous peoples have demonstrated their ability to sustainably manage forests (IWGIA, 2011). The possibility of displacement for the indigenous populations living there has escalated as a result of deforestation and the Amazon's ongoing degradation (Chemnick, 2020).

b. **Impact of displacement on indigenous people (IDMC, 2021)**

Many indigenous peoples live in sensitive ecosystems and are heavily reliant on natural resources for their livelihoods and wellbeing.

- I. **Disruption of life and social order:** When they are displaced to areas with different environmental conditions, the loss of access to water, food, and land can severely disrupt their lives and social order. Their displacement can also have negative consequences on the lands they have managed as protectors of biological diversity and traditional forms of work and affect their individual and collective rights.
- II. **Loss of TK, spiritual connection, and health issues:** Uprooted indigenous peoples may lose traditional knowledge, and the spiritual connection they have with the land and with their languages and cultures. Moving away, temporarily or permanently, means sacrificing a part of their identity. It can result in depression, anxiety, and suicide, as well as other impacts on their physical and psychological health.
- III. **Challenges in a new setup:** The change in environment is often significant, particularly when indigenous communities leave rural homes for the cities. indigenous peoples displaced in urban settings face various challenges, including the non-recognition of their cultural identity, exclusion, and marginalisation. This has been particularly documented in Asia.

- Under certain circumstances, urban displacement can represent an opportunity, for instance by allowing indigenous women greater personal autonomy. Women in cities can earn their own money and move beyond the social stratifications of their community of origin. In two villages of West Garo Hills district of Meghalaya (India), where indigenous men have been displaced from traditional areas; indigenous women are managing the community economy.

c. **Impact of displacement on tribal children (Sahoo, 2014)**

Displacement has left a deep scar on the lost ones; the major victims are the children. The children are forced out of schools, lose access to healthcare, and other basic services and are forced to live in alien places. Most often, there is little or no rehabilitation effort made by the government. This has a long-term impact on the displaced tribal children, who still face enormous challenges in terms of access to food, education, and healthcare. Displacement by mining projects increases their vulnerabilities further and renders their survival and development even more precarious. Displacement also has a serious psychological impact on children, who need a degree of security and stability in their upbringing (Dharitri Resource Center for Women and Children – Samata, 2010). The impacts of displacement on children are more atrocious which leads to poor health, poverty, child labour, trafficking, and child abuse. In Odisha districts like Keonjhar, Koraput, Rayagada, and Sunadargarh where displacement due to mining is rampant has affected the children, studies revealed that a total of 13,171 child labour cases has been reported in Keonjhar, 23,903 cases in Koraput, 16,893 cases in Rayagada and 19,537 cases in Sundargarh have been reported (Dharitri Resource Center for Women and Children – Samata, 2010).

- Impact of displacement on children:** Displacement causes a significant disruption to displaced children's lifestyle particularly in post-displacement situations. According to the Ministry for Human Resources Development, 9.54% of Schedule Tribe children remain out of school.

Continued exclusion and discrimination within the education system have resulted in dropout rates remaining the highest amongst Scheduled Tribe children as compared to all other social groups. Serious long-term impacts on a large population of children, especially Scheduled Caste and Scheduled Tribe children, who live in the coal mining region of the central Indian belt, which consists of some of the most backward states like Chhattisgarh, Madhya Pradesh, Bihar, Jharkhand, West Bengal, Odisha, and Andhra Pradesh and parts of the northeast like Meghalaya. The magnitude of impacts of displacement on children is categorized in detail as in what follows:

- **Poor health condition:** The majority of health indicators show far poorer results for children from Scheduled Tribe populations as compared to the national average. The National Family Health Survey published in 2007 reveals that infant and child mortality rates remain very high among tribals. The established coal mines are expected to have serious long-term impacts on a large population of children, who live in the coal mining region of the central Indian belt like Chhattisgarh, Madhya Pradesh, Bihar, Jharkhand, West Bengal, Odisha, and Andhra Pradesh and parts of the northeast like Meghalaya. The study carried out by HAQ and Dharitri Resource Centre for children and women in the villages of Maharashtra, Odisha, and Andhra Pradesh states that displacement has caused a severe impact on the nutrition status of children. They reported an increase in levels of child malnutrition in their village. There is the highest number of malnourished children because of the lower intake of vegetables and other essential nutritional food groups from their daily diets, which is extremely worrying. Other child health problems in the village include skin diseases, malaria, and TB, but there is no medical facility in the villages or in resettlement camps.
- **School dropout:** Many displaced children rarely have the opportunity to return to school after relocations. Because their parents lose their livelihoods and end up as migrant daily wage labour, children of displaced families are often forced to work in order to contribute financially to their family's survival. According to the study conducted by the HAQ, many of the villages in Koraput and Rayagada districts in Odisha, where a large number of families have been displaced by mining projects, had no schools, not even at the primary level.

- Poverty:** The displaced tribal families who ended up as mineworkers spend heavily on basic food supplies and their consumption is usually far below the basic daily intake required. The diet of mineworkers' children consists of barely two meals of rotis (bread), chillies, and rarely any vegetables or dal (lentils). Hence, most of the children are malnourished and anaemic (Dharitri Resource Center for Women and Children – Samata, 2010). The situation further pushed displaced children to child labour, which perpetuates the cycle of poverty within families. Forcing children to work below a subsistence wage, in the unsustainable work that small-scale mining and quarrying provides, greatly reduces the chance that these children will ever be able to pull themselves out of the poverty into which they were born. The risks are even greater for girls, as these sub-standard wages often force young girls into much more severe forms of exploitation, such as trafficking.
- Child labour:** Children below 5 years of age are working, in horrendous conditions, in mines and quarries across the world. Child labour in the mining sector is prevalent in many parts of Africa, South America, and Asia. The study carried out by different NGOs in India claims that 15% of Odisha's child population within the age group of 5–14 works as child labourers including those who work on their family's farm. A study by the Department of Applied Economics, Utkal University in 1997 found that nearly 90% of girl children started work before they completed 12 years of age. More than 75% belong to the age group of 12–14 years. In addition, a study carried out by Campaign Against Child Labour (CACL) in 2001 on child domestic workers of Odisha, reveals that lack of regular income by the head of the family those who mostly belong to daily-wage earners or small cultivators' categories and got addicted to liquors was a major reason for the incidence of child domestic labour (Mishra, 2012). However, child labour cases have been reported in Odisha districts like Keonjhar, Koraput, Rayagada, and Sunadargarh (Dharitri Resource Centre for Women and Children – Samata, 2010). There is a high incidence of child labour around the NALCO area Koraput, although there is no child labour within the company premises. The study carried out by HAQ and Dharitri resource centre for women and children in four districts of Odisha, in seven villages with families who have been displaced by mining, revealed a large number of children are working in *dhabas*, tea stalls, *paan* stalls, and as domestic labourers.

The cases reported that displacement had led many children to drop out school; the children had left schools to earn money for the family's survival. According to the Displaced Peoples' Union, between 100 and 200 children in the displaced peoples' camps of Amalabadi and Champapadar are working as casual labourers in mining and associated activities, hotels, restaurants, *paan* stalls, and other small shops and it can be estimated that in total, around 500 to 1000 children of the project-affected areas are working as labourers in the local area. Many adolescents are also reported to have migrated to the cities of Chennai, Mumbai, Hyderabad, and other cities for livelihood.

- Abuses, and child trafficking:** Numerous reports across the world have documented how mining activity is often accompanied by the widespread availability and consumption of alcohol, an increase in gambling and prostitution, domestic violence, and alcohol-induced abuses which are certainly not healthy for children (Dharitri resource centre for women and children– Samata, 2010). The major causes for the growing violence are the difficult working and living conditions, and the uncertainties of life. These can encourage excessive alcohol consumption habits among quarry workers. Alcoholism is prevalent, particularly among male mineworkers, and in some cases leads to domestic violence and ill-treatment of children (Lahiri-Dutt, 2008). The case reported from Sundergarh and Keonjhar districts in Odisha has a serious problem in terms of the trafficking of young girls. It was estimated by a survey conducted by the Rourkela Social Service Society that every day there is trafficking of at least 20 girls to cities such as Delhi and Mumbai on a daily basis. At least 7000 girls were trafficked every year from the Sundargarh district. The main reasons for this high incidence of trafficking are stark poverty, indebtedness due to the displacement of mining and other industries, and the non-implementation of developmental schemes in the areas after displacement. It was estimated that large-scale industrialization and mining in scheduled areas drove many

Adivasis to migration and trafficking. The district also has an alarming rate of unwed mothers and prostitution.

8. How can traditional knowledge help in coping with trauma and displacement? (UNDRR, 2022)

- In disasters, indigenous peoples and local communities often experience trauma. Trauma during a disaster is made more overwhelming by the fact that basic information from multiple sources - covering perhaps safety, health and sanitation, or even relocation – is often in a format or language that is hard to access.
- Unfamiliar processes and technologies are used. It might draw on diverse processes or technologies that may be unfamiliar. Individuals and groups are frequently asked to adjust to the majority non-indigenous culture.
- TK allows for more meaningful dialogue and includes reciprocity or interdependence as a value.
- It encourages the acknowledgement of the IPs as host. It also allows the recognition of networks and frameworks of responsibility that go beyond individual nation state boundaries (McNevin and Missbach 2018).
- Furthermore, IP themselves can and do host displaced people. There are also cases where displaced indigenous and local people host others who are displaced.
- TK can also help to deal with the trauma of displacement and to cope with conditions that are protracted and without a political resolution in sight. It helps to preserve both the body's physical needs and the human within. It builds lives beyond victimhood, but does not negate the victimisation.
- Health pluralism (Tribe 2007) and 'complementary therapies', which may include the use of herbal medicines and massage, for example, are often part of wider programmes to support refugees and others who have experienced torture or other traumatic events.
- Displaced people bring their own coping strategies for trauma, but also draw on TK systems for organising their everyday lives and relationships.
- The ability to survive a protracted displacement and to maintain a sense of community can sometimes depend precisely on such 'informal' forms of governance.

9. Health in the context of migration and forced displacement (WHO, 2016)

The links between human mobility, health, and migration management are unequivocally important when considering universal health coverage (UHC), global health security, public health, human rights, gender, equity, and human and sustainable development. Unprecedented migration flows and globalization have brought new challenges to addressing the health needs of migrants and refugees, particularly when part of large population movements, which require innovative solutions and new partnerships. Key challenges include access to healthcare, legal status, vulnerability, service delivery, healthcare financing, employment, and xenophobic attitudes.

Conclusion

As we build health emergency preparedness, support climate adaptation, and promote sustainable development, it is imperative that indigenous knowledge, practices, and worldviews underpin policy development and decision-making processes.

There is, therefore, a daunting need to create effective processes at all levels, founded on indigenous values, in order to safeguard positive peace for indigenous people. Relations between states and indigenous people must always be remembered if some of the world's longest-running conflicts are to be solved.

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Chapter 10
Traditional Health Practices
Badalamshisha Dkhar and Larilin Kharpuri

Outline

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1. Traditional medicine

The oldest system of health care that dates back to ancient times is traditional medicine (TM). Native healing, ethnomedicine, folk medicine, tribal medicine, or complementary and alternative medicine (CAM) are some frequent names for it. Different societies and cultures have traditionally used numerous effective healing techniques to combat various illnesses and life-threatening conditions. Traditional medicine is therefore extremely vast and diverse. As a result, various communities have developed unique indigenous therapeutic techniques that fall under the general definition of traditional medicine, such as Chinese, Indian, and African traditional medicines (Abdullahi, 2011).

World Health Organisation defines traditional medicine (TM) as the sum total of the knowledge, skill, and practices based on the theories, beliefs, and experiences indigenous to different cultures, whether explicable or not, used in the maintenance of health as well as in the prevention, diagnosis, improvement or traditional medicine of physical and mental illness.

a. WHO definition

Traditional, indigenous, and ancestral knowledge has been a vital source of health in families and communities for many years, and it still makes up a sizeable portion of healthcare in many areas (WHO). The demand for traditional medicine is increasing as patients look for more compassion and individualized care as well as greater agency and ownership over their health and wellbeing today. Traditional medicine has become a global phenomenon. It remains the top option for health and wellbeing for millions of people, especially those who live in remote and rural areas, by providing Traditional medicine that is socially and culturally acceptable, accessible, and inexpensive.

The 2018 Declaration of Astana on primary health care acknowledges the need to include traditional medicine knowledge and technologies in the delivery of primary health care – a cornerstone of health systems – in pursuit of health for all.

b. Operational Definitions

• Traditional medicine

Traditional medicine in this study is the non-codified system or the Local Health Traditions (LHT) which includes practices, beliefs and customs related to health, specific to each locality and passed on from generation to generation by word of mouth.

• Traditional healer

A traditional healer in this study is the one who provides medical care in the community that he/she lives, using herbs, minerals, animal parts, incantations, and other methods, based on the cultures and beliefs of his/her people. They provide health care services based on culture, religious background, knowledge, attitudes, and beliefs that are prevalent in their community.

• Traditional birth attendant

A TBA is a person who assists the mother throughout the stages of pregnancy and facilitates the childbirth processes.

2. Use of traditional medicine all over the world

The use of Traditional Medicine has grown in popularity and scope during the past few decades. It is still utilized for providing basic healthcare to the underprivileged in developing nations, as well as in nations where conventional medicine dominates the government healthcare system (Murthy SMS, 2014). According to the WHO's estimates, the majority of people in developing nations like India (65–70%), Rwanda (75%), Tanzania (50–60%), Uganda (55–60%), Benin (80%), and Ethiopia (90%) frequently use traditional and alternative medicines for medical care.

According to data from the WHO (2001), between 40% and 60% of people in the Western Pacific Region utilise traditional medicine to treat a range of illnesses. Approximately 60% of Hong Kong's population has at some point sought the advice of traditional healers. According to WHO, 2002; Amzat and Abdullahi (2008), there are signs that CAM is becoming more widely accepted in Australia, France, and Canada, where 46%, 49%, and 70% of the public, respectively, use it. Nearly 40% of doctors in the United Kingdom (UK)

refer patients in alternative ways (WHO, 2002). According to research conducted in the West, more than 40% of Americans and between 20 and 60 per cent of Europeans use CAM (Adhikari and Paul SB, 2018). Additionally, according to the report from the WHO's regional office for the Americas (AMRO/PAHO), 71% and 40% of the populations in Chile and Colombia, respectively, had used traditional medicine (Amzat and Abdullahi, 2008).

Traditional healers have an important role in the delivery of healthcare overall, particularly in developing nations, according to WHO (WHO, 2001; 2002). The World Health Organization claims that local healers have aided in the prevention, management, and traditional medicine of non-communicable diseases as well as mental and geriatric health issues, covering a wide range of healthcare needs (WHO, 2001). In the USA, medical schools actually include teaching traditional medicine in their curricula (Wetzel et al., 1998).

In many nations, traditional healers and midwives provide care for 80% or more of the population who live in rural areas, according to the WHO (Bodekar, 2004). In Western countries, about 40% of people utilize herbal medication to cure various ailments. Due to the increased side effects, adverse drug reactions, and cost of modern medicines, as well as the increased attention given to it by governmental organizations and various non-governmental organizations (NGOs) made up of the general public and researchers, traditional medicines are gaining popularity quickly (Ballabh & Chaurasia, 2007).

Nearly 70% of the people in Ghana rely solely on traditional medicine (Roberts, 2001). In both urban and rural Tanzania, people of all ages use Traditional Medicine to treat both acute and chronic illnesses. 80% of Ethiopians rely on Traditional Medicine, which has been practised there since the beginning of time (Birhan et al., 2011).

3. Traditional medicine in India

Basically, there are two basic options for the traditional medicine of any diseases in India; Western biomedicine and indigenous traditional medicine. Yet again, this Indigenous traditional medicine has been divided into two separate streams:

- a. Codified traditional medicine (Classical codified system) and
- b. Non-codified or uncoded traditional health practices (Oral Folk System)

The government has recognized the codified ancient medicinal techniques under the umbrella of AYUSH, which includes Ayurveda, Yoga, Unani, Siddha, Homeopathy, and Naturopathy. Codified systems are well-documented and systematic codified bodies of knowledge, whereas non-codified are orally passed down from one generation to another and lack documentation.

Indian societies have long recognized the AYUSH systems (Indian systems of medicine), and in most areas, they serve as the first line of defence for treating common illnesses. The national healthcare system now includes the medicinal systems of Ayurveda, Yoga, Unani, Siddha, and Homoeopathy (AYUSH). Modern codified, textual health knowledge systems can be replaced with AYUSH (Bhore Committee Report, 1946). In addition to these, there exist customary practices that lack government oversight and are referred to as "Local health traditions" (LHTs).

- c. Local health traditions (LHT)

These LHTs typically lack formal codification, have a clear theoretical foundation, and are categorized as *materia medica* in addition to clinical traditions that employ a variety of preventive and therapeutic methods. (Singh and Madhavan, 2015).

While the AYUSH systems are professionalized, codified representations of medical systems, there is also a vast, largely uncoded, and diverse tradition of folk systems, which are referred to as Local Health Traditions (LHT) in Indian policy documents. The National Policy on Indian Systems of Medicine and Homoeopathy, in its Clause 9, states that "indigenous traditional medical knowledge accessible with people, communities, and tribals has not been properly tapped, documented, and validated." According to Albert and Porter (2015), this statement alludes to India's non-codified systems and emphasizes the importance of supporting both them and the codified systems covered under AYUSH.

Local health traditions (LHT) are the customs and skills of common people and folk healers who acquire and transmit their knowledge verbally. Following its independence, India started to plan the expansion of its public healthcare system, largely on the most recent medical research (Bhore Committee Report, 1946).

LHT is a broad term that also refers to folk medicine, home remedies, and the medical systems of various tribal (indigenous) ethnic groups (Albert and Porter, 2015).

The World Health Organization estimates that over 65% of Indians rely on traditional medicine for their dietary needs and medical care. In their natural forest habitats, medicinal plants can be found in abundance. In a similar vein, Timmermans noted in 2003 that more than 60% of Indians relied on conventional medical practices.

Many people who are from rural, indigenous, or ethnic populations rely on non-codified traditional medicine for illness prevention and traditional medicine. Traditional medical practices, beliefs, and customs are practices, beliefs, and customs relating to health that are unique to each region and are not well documented. They are passed down orally from ancestors by word of mouth (Sen and Chakraborty, 2017; Nath, 2011). Folk traditions also reflect a significant amount of geo-cultural variation because they are eco- and community-specific. Grandmother's cures, household knowledge of basic healthcare, various healthy food recipes, seasonal health regimens, health practices, rituals, and other things are also included in this medicine (Rath, 2007).

Herbalists who practice folk medicine can be found all over the Himalayan region. Healthcare practices were rigorously tested in order to improve them, and information was passed down from one generation to the next. Their level of expertise in the field was assessed based on the number of years they have worked with it. The wisdom of traditional healers had a deeper purpose than a purely religious one. Proverbs, folktales, tales, rituals, and myths that have persisted in oral tradition were noted by people from the Himalayan culture in order to learn this information (Gupta et al., 2014).

In order to preserve and promote the vast heritage of traditional folk healing practices, remedies, and therapies in the North Eastern region, the North Eastern Institute of Folk Medicine (NEIFM), an autonomous institute under the Ministry of AYUSH, Government of India, has been established at Pasighat in Arunachal Pradesh. In the Indian North Eastern region, traditional healers don't always carry out the same tasks or fit into the same category. The level of skill and the methods used vary greatly. Each healer uses his or her unique diagnostic and therapeutic techniques. Herbalists, diviners, traditional birth attendants, bone setters, etc. are among the main types (Ramashankar, 2015).

4. Traditional medicine among the tribals of India

Tribal medical practices from tribes that have relied on their forest settings for healing since time immemorial have also made enormous contributions to traditional medicine in India (Ravishankar & Shukla, 2007). The tribal populations not only in India but also in other developing countries use traditional medicine to treat a variety of illnesses. Even though their medical knowledge and experience have not been documented scientifically, their methods have been passed down from one generation to the next only by oral tradition. They are skilled in treating a wide range of illnesses, including TB, epilepsy, jaundice, mental illnesses, skin conditions, etc. They are reluctant to share their practices and information because they believe that doing so will render them ineffectual. As a result, traditional wisdom has been passed down orally for many years. The healer attempts to learn from animals like dogs, cats, reptiles, and wild creatures as well as from his ancestors. These animals eat particular grasses, roots, and other plant parts to relieve pain, supplement diet, and aid in the traditional medicine of ailments. In light of this, the traditional knowledge system generally still has a genetic component (Nayak, 2013).

The traditional medical system still plays a significant role in the majority of native societies. Traditional medicine has continued to be the most economical and easily available form of therapy because of their dispersed and remote settlements, and challenges with transportation, and communication (Yinegar and Yewhalaw, 2007).

The Gujjars and Bakarwals of Jammu and Kashmir, as well as the tribal people of Odisha, still rely on common traditional ethnomedicine for their main medical care despite the development of rural healthcare services (Abduallah and Andrabi, 2021).

In the Kolha tribes of Orissa's Mayurbanj region, a higher percentage of the population relies on Traditional medicine for a variety of diseases. This is due to the region's dearth of modern medical facilities and the prohibitively expensive Medicare system, which these tribal people cannot pay. These tribes still heavily rely on their knowledge of and use of herbal medicine to cure a wide range of illnesses. They use a wide variety of plants as traditional medicines, including ferns, fruit plants, vegetables, spices, weeds, and forest plants (Rath, 2007).

Numerous tribes of various ethnicities live in the northeastern region of India, which includes Assam, Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, and Tripura. These tribes include the Abor, Garo, Dafla, Khasi, Kuki, Mishi, Rabha, Naga, and Apatani. These ethnic communities possess a wealth of traditional knowledge and have long engaged in the practice of traditional healing (Biswas & Chopra, 1982). According to a botanical survey in India, the tribal populations of northeast India employ plant medicines to treat diabetes, high blood pressure, liver and spleen ulcers, bronchitis, blood and skin illnesses, eye infections, fevers, and other ailments. In order to prepare a paste and apply it to their muscles, residents of the Arunachal Pradesh districts of Kameng and Lohit crush the bulbs of *Fritillaria cirrhosa* (Burger, 1990).

5. Traditional medicine in Meghalaya

The state of Meghalaya, is inhabited by three ethnic tribes viz. Khasis, Jaintias, and Garos, like any other tribal states, have a tradition of practising indigenous medicine systems. The traditional use of medicinal plants for curing and preventing illnesses, including promoting both physical and spiritual wellbeing among human beings particularly people of Meghalaya has become paramount in almost every household. The traditional use of medicinal plants in addressing certain health problems of every community in Meghalaya has been handed down from generation to generation. Of the total 3,331 plants species found in the state (Khan et al., 1997), 834 number of plants, which constituted 31.3 percent, are estimated to be employed in healthcare (Lakadong and Barik, 2006).

In Meghalaya, traditional medicine is widely practised and utilized by the three major tribes, Khasi, Jaintia, and Garo.

a. The Khasi traditional medicine

The Khasis and Jaintias have extensive local medical traditions, and traditional healers have been using these practices for many centuries. Among the indigenous traditional medicines of the country and the North Eastern states, the Khasi traditional medicine is distinctive and well-known. *Nongaidawai* is the term used to describe a practitioner of herbal traditional medicine among the Khasis, and *dawai khasi* is the name given to the drugs and medicinal plants that these practitioners employ (Lyngdoh et al., 2014). According to Lakadong and Barik (2006), 834 plants, or 31.3 percent of the 3,331 plants species found in the state, are utilised in the medical field.

The continued use of traditional medicine practices in Meghalaya is attributed to issues such as inadequate transportation and medical facilities. Despite a shifting trend in their choices, the locals' opinions about traditional medicine strongly suggest that they still have faith in this kind of traditional medicine. As a result, they contribute significantly to improving the state's general health situation (Lyngdoh et al., 2014).

Moreover, Meghalaya has long practised its traditional healthcare system. This ethnic community system is conservation-focused and has a lot of promise. In rural areas with hills, 90% of the population relies on the old-fashioned medical system. Traditions are passed down from one generation to the next. Few people who live in and around forests are privy to this secret. This system requires further research, documentation, and application (Laloo RC et al., 2006).

Tynsong et al (2006) mentioned in their studies that medicinal plants play an important role in the livelihood of the people of rural Meghalaya as they provide a source of cash and income. Collection, processing, and marketing of medicinal plants form a major economic activity for tribal communities living in the vicinity of the forests and create opportunities for setting up small-scale industries at the local and regional levels.

b. **The Garo traditional medicine**

The Garos are of the Bodo family of Tibeto-Burman stock residing in the Garo Hills. Tura is the Headquarter of Garo Hills district with its picturesque environs and equable climate. Nokrek Peak (1412m) is the highest peak in the Garo Hills. Its forested slopes are home to numerous species of flora. Its pristine environs and discovery of the mother germplasm of *Citrus indica* led to the establishment of the National Citrus Gene Sanctuary–cum–Biosphere reserve at 16 Nokrek over an area of 50 odd sq. km. The medicinal plants in this region are found naturally in the dense forests, and they are also domesticated by the users, growers, practitioners, and marketers as well.

By nature, the Garos have a deeply rooted socio-religious beliefs, as old as their traditional practice of jhumming. They practice “Samachik” a system of usage of herbal medicines in treating their ailments. The tribals inhabiting the Garo Hills regions have, by trial and error, developed their own way of treating and diagnosing diseases. As a result of long experience, the practice of using indigenous plants as medicines has become effective and there is a rich accumulation of knowledge of medicinal plants among them. People who live in remote areas depend considerably on medicinal plants for their primary traditional medicine and due to this factor, medicinal plant usage in such communities is far richer than the urban population.

The exploration of the therapeutic activity of medicinal plants rendered by them has a long history of use that has been passed on from generation to generation. In most of the villages, there are one or two traditional healers known as ‘*ojhas*’ as they are called locally. ‘*Ojhas*’ practice at home or has a separate place in the weekly markets where people come to consult him. According to traditional healers, the local people are reliant on wild plants for primary healthcare due to the widespread belief in its effectiveness over modern healthcare.

As per the documentation available, the Garos till the 1950s believed the primary causes of ailments were supernatural. The perception of disease shapes the perception and practice of 17 medicines in vogue in a community. Based on the available records, the Garo medicine of the past consisted of two parts viz. magical part and the material part. Studies have revealed that the perceptions of the common Garo people are still largely traditional. That is why despite the introduction of modern medicine and the establishment of hospitals, the way of life of the Garos has not changed much from economic pursuits to dress, from education to house patterns, from transport communications to amusements, etc. The Garo medicine, despite the borrowing and inventive use of non-indigenous ingredients by some of the healers, has remained largely traditional. This is indicated by the large prevalence of the indigenous ingredients— from plants to animals to other substances and also by its method of preparation— grinding of the ingredients except in a few cases which are used raw or decoction (Mondal and Samanta, 2014).

6. **How does one become a traditional healer in Meghalaya?**

As per Albert et al. (2016), the following are the factors that help one to become a healer:

- a. **Ancestry:** transference of knowledge and skills by ancestors.
- b. **Sap** or loosely translated as talent, gift, or skill: an explanation for the knowledge and skills that they had acquired, which they found difficult to explain.
- c. **Acknowledgement and support:** the healer’s success is experienced and witnessed by the patient and the community.

- d. **Knowledge in the community:** closely observing the plants that more experienced healers picked from the forests, imbibing information through assisting, and later using this information to tentatively help people in the community were common first steps.
- e. **Experimenting, empiricism, and experience:** healers in rural areas, especially those engaged in agrarian occupations, reported learning from their observation of animal behaviour.

7. Diversity of medicinal and aromatic plants in Meghalaya

Meghalaya shares boundaries with Assam and Bangladesh and is naturally blessed with an abundance of flora. Meghalaya has two National parks harbouring world's endangered plant species and is home to one of the wettest places on earth. Amongst its rare species are the insect-eating Pitcher plants (*Nepenthes khasiana*), wild citrus (*Citrus indica*), and pygmy lily (*Nymphaea tetragona*). The Garo Hills being one of the Districts in the state of Meghalaya is richly blessed with many medicinal plant species.

Meghalaya provides habitats for a relatively high number of medicinal plants due to its diverse range of altitudes, forest types, and resulting agroclimatic conditions. The people's traditional knowledge of them is another factor contributing to its richness. Even though the flora is well recognized and there have been numerous publications on ethnobotany, a comprehensive list of the variety of therapeutic plants is still missing. This is even more important when one considers that different tribes with different traditional practices live in various areas. There are currently 834 documented species of medicinal plants. The most numerous families of medicinal plants in Meghalaya are the Rubiaceae (Meghalaya State Medicinal Plants Board, n.d.).

Numerous medicinal plants exist in the state, and depending on their distribution pattern and population size, they have been categorized as endemic and/or threatened. Eight medicinal plant species are said to be native to Meghalaya alone, including *Camellia caduca* Cl ex Brandis, *Citrus latipes* Tanaka, *Nepenthes khasiana* Hk. f, and *Osbeckia capitata* Benth. Thirty-seven medicinal plants, like *Schima khasiana* Dyer, *Boehmeria macrophylla* D.Don, *Citrus medica* L, *Ilex khasiana* Purk, *Piper griffithii* C.DC, *Acanthus leucostachys* Roxb. etc. which has been classified as endemic to Eastern Himalayas, Western Ghats, Indo-Burma region, and Peninsular India, are also found in Meghalaya. Seventeen medicinal plant species found in Meghalaya have been classified under the threatened category some of these are *Taxus wallichiana* var. *baccata*, *Dendrobium nobile*, *Panax pseudo-ginseng*, *Nepenthes khasiana*, etc.

8. Profile and specialisation of practitioners

The Bio-resources Development Centre in Meghalaya in 2017 compiled a profile of 585 traditional healers in the state, including their years of training and areas of expertise. They also identified the producers and growers of medicinal plants. Also noted were the difficulties and limitations faced by traditional healers and cultivators (Bio Resources Development Centre (BRDC), Meghalaya, n.d.).

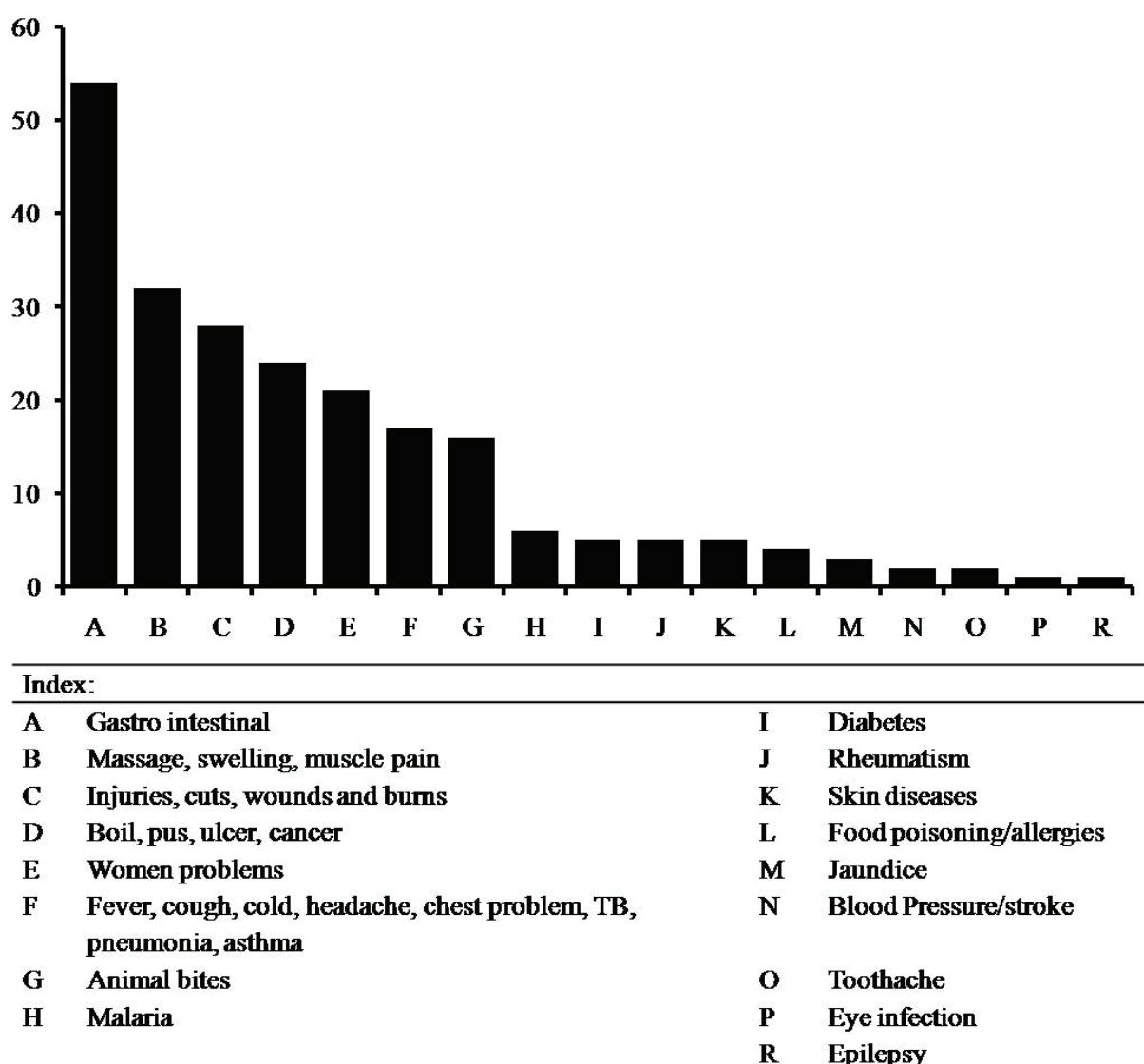


Figure 1: Specialisation of traditional healers in Meghalaya

As per data from a DBT-funded project of MLCU, 18 specialisations of the traditional healers were identified. Among these, specialists in gastrointestinal diseases top the list.

Additionally, the prioritisation of diseases by the locals had gastrointestinal diseases being the common ailments for which health care was sought from the traditional healers.

- Gastrointestinal
- Fever, cough, cold, headache, chest problem
- Diabetes
- Rheumatism
- Malaria
- Boil
- Jaundice
- Blood pressure, stroke
- Eye infection
- Skin disease
- Injuries
- Arthritis

9. Traditional birth attendants (TBAs)

The World Health Organization (WHO 1992) defines a traditional birth attendant (TBA) as a person who assists the mother during childbirth and who initially acquires skills by delivering babies herself or through an apprenticeship to other TBAs. These TBAs offered the majority of delivery care worldwide before the development of specialised nurses, midwives, and physicians, as well as organised medical care systems. TBAs are typically older women who are regarded by the community for their expertise and experience. They are frequently illiterate and have learned their talents from older, more experienced TBAs. They can work individually, with a specific practitioner or facility, or as part of a larger healthcare system. In addition to delivery attendance, their responsibilities may include washing and massage, household tasks, and care during the late postpartum or postnatal period. TBAs may take on additional responsibilities according to local customs, personal interests, and experience. TBAs attend anywhere from a few to 120 births per year. TBAs typically acquire clients based on their reputation and word of mouth. They usually earn some compensation for their services (Sibley et al., 2014).

According to Garces A et al. (2019), while the percentage of women delivering in the formal healthcare system has improved in recent years, an estimated 22% of pregnant women worldwide delivered with a TBA outside of the formal hospital system in 2016. In some areas, more than half of all women continue to receive prenatal care and deliver using TBAs.

a. TBAs worldwide

In Guatemala, where TBAs are known as “comadronas,” a woman becomes a TBA on the basis that her skills are a gift from God, revealed via a dream or vision that must be accepted.

As early as 1619, “Granny midwives” were key providers of care during childbirth in the rural south of the United States. They were an important aspect of health care for enslaved women living on Southern plantations and remained to service rural communities even after slavery was abolished, far into the twentieth century.

TBAs provided care at home for many black women in Alabama, USA, who were denied access to many hospitals until the 1970s. In India, work has been associated with being from the lowest castes, which can be subjected to the “polluting” process of birthing. (Garces et al., 2019).

b. TBAs and the health system

TBAs and the institutional healthcare system have had a long history of friction. Some countries have implemented strategies to phase out the work of TBAs and replace them with skilled birth attendants (SBAs). In India, a variety of strategies (including conditional financial transfers) have been successfully deployed to encourage skilled birth attendance. Following the *Alma Ata Declaration* of 1978, the World Health Organisation (WHO) and other international organisations strongly supported the training and “legalisation” of TBAs (Garces et al., 2019).

In Meghalaya, the government through the Depar Traditional Medicine of Health and Family Welfare introduced the Chief Minister’s Safe Motherhood Scheme (CM-SMS) to improve maternal healthcare services in the State and, hence, bring down the maternal mortality rate in 2022. Compensation for time spent by attendants and traditional birth attendants (TBA) was offered as follows:

- a. Basic livelihood compensation to be offered to attendants and TBAs for transporting high-risk pregnant women to transit houses.
- b. Attendants, who may be family members or traditional birth attendants accompanying or living with a pregnant woman, will get wage remuneration.
- c. All traditional birth attendants will be encouraged and compensated for referring high-risk pregnant women to health facilities.
- d. (GoM, Health and Family Welfare Department Traditional Medicine, 2022).

According to Sarkar. et al. (2018), only 51.4% of expecting mothers in Meghalaya choose institutional delivery, with a significant rural-urban disparity. The majority of the women in the study area chose home delivery by traditional birth attendants (TBAs), in whose abilities the community had great faith. Financial restrictions, fear of out-of-pocket expenses, ignorance of existing programmes, lack of mobility, terrible

roads, and distant hospitals were identified as significant causes of this decision. Home birth appeared to provide the mothers with privacy while also allowing them to attend to their domestic tasks and older children. Risk factors for home delivery included illiteracy, increasing age, and parity. The perceived requirement for institutional delivery was low. Staff attitudes and unwarranted referrals have an impact on the choice of delivery location.

10. Challenges faced by traditional healers

a. Challenges as per UNESCO/WIPO (1999)

According to United Nations Educational, Scientific and Cultural Organization/World Intellectual Property Organization (UNESCO/WIPO) (1999), WHO (2002), Burgland (2005), Shankar et al. (2007) and Wang and Chan (2010), countries face major challenges in the recognition, development, implementation, regulation of complementary and Traditional Medicines system and its integration into public health care sector. These challenges include major issues related to;

- i. Recognition by the government
- ii. Regulatory status on traditional medicine
- iii. Educational standards of the traditional healers
- iv. Assessment of safety and efficacy
- v. Sustainability and integration challenges
- vi. Quality control
- vii. Safety monitoring and lack of knowledge about Traditional Medicine within national drug regulatory authorities
- viii. Ecological obligation
- ix. Value addition of the products
- x. Inter-cultural approach

b. Following are problems faced by the traditional healers of Meghalaya as per the BRDC (n.d.) Report:

- i. Unavailability of equipment to prepare medicines and tools/machinery to grind raw materials such as bark, roots, etc.
- ii. Unavailability of herbal and medicinal plants and financial constraints on manpower to collect medicinal plants from forests
- iii. Short shelf-life period of herbal medicines
- iv. Space requirement for treating patients
- v. Lack of funds for the cultivation of medicinal plants including seeds and planting materials
- vi. Lack of drying, processing and storage units and packaging materials for herbal medicine production
- vii. Lack of awareness of local people on the conservation of medicinal plants and government initiatives on afforestation programmes
- viii. Unavailability of first aid kits during an emergency
- ix. Recognition from the Government for their practices
- x. A uniform fee structure and uniform pricing of herbal products
- xi. Lack of basic amenities such as sterile gloves, blades, aprons, etc for midwives
- xii. Some herbs are known to the traditional healers by sight but they do not have a name for them.
- xiii. Financial constraints for fencing of areas under cultivation which leads to destruction by cattle, etc.

11. Suggestions provided by the traditional healers

- a. Networking between the traditional healers with the medicinal cultivators for the supply of these medicinal herbs.
- b. Financial assistance for setting up of:
 - I. clinic or traditional medicine facility at Block Level,
 - II. polyhouses for nursery raising of medicinal plants and herbs and fencing of areas under cultivation

- c. Training on
 - I. Use of preservatives for increasing the shelf life of herbal medicines
 - II. Construction of storage units
 - III. Packaging methods and production of herbal products such as pills, capsules, of traditional medicine, etc.

12. Problems faced by medicinal herbs cultivators

- a. Financial constraint related to fencing of areas under medicinal plant cultivation which leads to the trespassing of domesticated animals and destroying of the herbs/medicinal plants.
- b. Unavailability of seeds and planting materials
- c. Lack of storage units for harvested medicinal plants and herbs
- d. Some medicinal plants and herbs cannot be domesticated and therefore require to be cultivated in situ.

13. Suggestions by cultivators

Training and capacity building on

- a. agro techniques for medicinal plants (ex-situ and in situ)
- b. nursery raising

Financial assistance for polyhouse and net houses to maintain the germplasm and to function as a seed bank for medicinal plants and herbs.

14. Recognition of traditional healers

In India, the non-codified systems of traditional medicine commonly known as the Local Health Traditions (LHT) first appeared in the policy literature in 2002, in the first-ever *National Policy on Indian Systems of Medicine and Homeopathy* (ISM/H) which expressly underlined the necessity for LHT revitalization within the greater framework of strengthening and integrating existing medical systems. T Hardiman and Mukharji (2010) summarise the consequences of such a hierarchy of legitimacy within the context of India's pluralism debate. They argue that much of India's policy response to various systems of medical and therapeutic knowledge follows a three-tiered schema, with biomedicine at the top, followed by professionalized/codified systems of medicine like AYUSH, and the "residual" category, which includes folk medicine/LHTs/indigenous healing that fall outside the purview of the state. Thus, non-institutionalised forms of medicine and traditional medicine that are mostly dependent on experience and knowledge passed down through apprentice methods of training fall outside of officially accepted medical systems. This residual group has been given several names, including folk medicine, indigenous healing, and LHT, and is "understood in terms of what they are not biomedicine" or other legally recognized medical systems (like AYUSH). Changing the language of officially recognized systems of medicine from ISM/H (in 1995) to the abbreviation AYUSH (in 2005) reflects this approach of setting clear boundaries between select systems of Traditional Medicine with state legitimacy and "others" that fall beyond this legitimacy frame (Hardiman and Mukharji, 2010).

However, these "others" have continued to exist, although on the outside of the state. Sociological and anthropological research has extensively documented these therapeutic practices, demonstrating how these folk practices/LHTs occupy an eclectic space in the pluralistic therapeutic landscape and continue to challenge linear distinctions between science and culture (religion), tradition and modernity, local and national/global (Lambert, 1992a, 1996b, 2012c; Trawick, 1987; Lohokare and Davar, 2010; Unnikrishnan et al., 2010; Chawla, 2013; Sujatha, 2002; Sax et al., 2014). Thus, the documentation of this knowledge is seen as an immediate priority, resulting in several national and international non-governmental organisations (NGOs), government bodies and academic institutions (pharmacy, botany) being involved in the documentation of LHTs.

LHTs have gained attention in the policy arena as a result of a developing herbal medicine industry and the requirement for sustainability. Nonetheless, increased visibility creates an even greater need to maintain governmental legitimacy. The potential of LHTs as herbal medicine originators, as well as the concern

of LHT loss, both argue for the documentation and confirmation of such knowledge. While a systematic analysis of different models of documentation of such knowledge is lacking, a few studies have found that documentation efforts tend to focus solely on the knowledge of medicinal plants (name, usage, and ailments) used by LHT practitioners, excluding other aspects of knowledge or the social context in which such knowledge is produced and practised (Unnikrishnan 2010; Lambert 2012). In India, these documentation efforts take the form of ethnobotanical surveys, which are then confirmed by AYUSH or, where possible, clinical trials.

The Indian government's attention to the mainstreaming of traditional systems of medicine and the revitalisation of community-based local health traditions needs to be viewed as a part of its overall mandate of strengthening traditional systems of medicine. An analysis of existing policy documents and reviews reveals that LHTs have an eclectic policy history in India, marked by several decades of neglect by the state, with sporadic attention to the LHT practitioners as community health workers, to an upsurge of seemingly explicit, and yet somehow obtuse interest in revitalisation. Tracing the evolution (and dissolution) of these trajectories chronologically reveals that there is ambiguity and inconsistency around the rationales for the revitalisation of LHTs, potentially leading to fragmented medical pluralism (Mishra et al., 2018).

15. Legislation

An examination of NRHM reveals that no Indian state has taken the initiative to revitalise these LHTs; most efforts to date have focused on mainstreaming the codified systems of medicine in different levels of the health system through co-location of AYUH practitioners (NHSRC, 2009; Nambiar et al 2014). Perhaps this reluctance stems from the fact that the implementation of policy on the revitalisation of LHTs generates important political issues that have yet to be addressed or resolved under the revitalisation agenda.

in Meghalaya, the Khasi Hills Autonomous District Council passed an Act for the protection and promotion of Khasi traditional medicine in 2011 (by focussing on the importance/revitalization of LHT). The Act has a provision for the registration and certification of traditional healers besides activities to promote and protect the Khasi traditional medicine system. It has provisions for the preservation of medicinal plant forests and for the protection of intellectual property rights.

The Khasi tradition medicine Institute is under construction. Similar efforts can be initiated among different tribal communities for recognition and protection of the traditional knowledge of Traditional Medicine.

16. Integration/Pluralism

The United Nations through WHO programmers sought to promote and develop traditional medicine in the health care systems to integrate traditional medicine and modern medicine and to promote manpower development and research in traditional medicine (Adachukwu and Yusuf, 2014).

Most traditional medicines have not been successfully integrated into their national healthcare systems. For example, in Africa and Latin America, Traditional medicines are completely separated from conventional medicine. There is no communication; no integration. However; worldwide, only China, the Democratic People's Republic of Korea, the Republic of Korea and Vietnam can be considered to have attained an integrative system. Especially in China, the integration of CAM and Western medicine has been explored for more than a century (Hao XU and Ke-ji C, 2011).

Traditional medicine officially co-exists with biomedicine in Bhutan and the two systems are fully integrated under the National Health Care System (Mckay A and Wangchuk D n.d.). Health care and practices among the tribal populations are in the stage to be imperilled especially the traditional health care system. The traditional and indigenous knowledge which tribes carry with them are also in a state of transition and touch and go. Therefore, to mainstream tribal health and medicine and practices, sincere efforts should be undertaken. Tribal communities at large are more of a state of shyness to the contact of the modern world. Therefore, vigorous steps should be taken to mainstream them with the modern ways of life. It should be the responsibility of all sectors of society and all stakeholders to promote the wellbeing and health of the human being. The national tribal health policy should be initiated and implemented along the lines of national health policy. It should trigger towards bringing change in human behaviour and

lifestyle. The following are the steps to be taken for the improvement of tribal health and also for the implementation of a comprehensive tribal health policy.

17. WHO traditional medicine Strategy: 2014–2023

The WHO Traditional Medicine Strategy 2014–2023 was developed and launched in response to the World Health Assembly resolution on traditional medicine. The strategy aims to support Member States in developing proactive policies and implementing action plans that will strengthen the role traditional medicine plays in keeping populations healthy.

Addressing the challenges, responding to the needs identified by Member States and building on the work done under the WHO Traditional Medicine Strategy: 2002–2005, the updated strategy for the period 2014–2023 devotes more attention than its predecessor to prioritizing health services and systems, including traditional and complementary medicine products, practices and practitioners.

The strategic objectives are:

Objective 1: To build the knowledge base for active management of traditional and complementary medicine through appropriate national policies.

- To understand and recognize the role and potential of traditional and complementary medicine.
- To strengthen the knowledge base, build evidence, and sustain resources.

Objective 2: To strengthen quality assurance, safety, proper use and effectiveness of traditional and complementary medicine by regulating traditional and complementary medicine products, practices and practitioners.

- To recognize the role and importance of product regulation
- To recognize and develop practice and practitioner regulations for education and training, skills development, services, and therapies in traditional and complementary medicine

Objective 3: To promote universal health coverage by integrating traditional and complementary medicine services into health care service delivery and self-health care.

- To capitalize on the potential contribution of traditional and complementary medicine to improve health services and health outcomes
- To ensure that consumers of traditional and complementary medicine can make informed choices about self-health care

Therefore, efforts are made by the WHO for the inclusion of traditional medicine through its strategy for 2014-23.

Conclusion

The significance of traditional healers to healthcare facilities in communities, particularly in rural communities, is obvious. The healers' challenge to gain recognition has been expressed at both the international (UNESCO-WIPO) and state (BRDC) levels. Other issues raised include efficacy, safety, and regulatory norms, but tribal communities do not believe these pose a threat. This is because, with medical pluralism, it was discovered that communities would seek healing from traditional healers for certain types of ailments while seeking health care from allopathy physicians for other types of disorders.

Traditional healers in Meghalaya have a longstanding practice of not charging cost for their services, as they believe that doing so would compromise their ability to heal, considering their gift as divinely granted. However, any monetary contribution provided by the patients is accepted.

Khasi traditional healers typically prefer to utilize their traditional tools, like the '*thlong*' or '*mawjingshoh*,' for grinding medicinal plants. They believe that the potency of medicinal plants or medicines is more effective when prepared through traditional grinding methods.

Traditional healers in Meghalaya, regard nature as sacred. When gathering medicinal plants from the forest, they offer prayers to express their belief that these plants are intended solely for healing purposes, emphasizing their commitment to preserving and utilizing natural resources responsibly.

Ex-situ cultivation is being practised by traditional healers as a component of their efforts towards the conservation of medicinal plants and the environment.

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Chapter 11

Medicinal Plants of West Garo Hills, Meghalaya

Merril N Sangma

Outline

1. Study Area
2. Materials and Methods
3. Result and Discussions
4. Conclusion

Introduction

The ethnic people throughout the world have their own well-developed practices which includes medicinal practices as well. The traditional use of medicinal plants for curing and preventing illnesses, including the promotion of both physical and spiritual wellbeing among human beings have assumed paramount importance in almost every house-hold and particularly in Meghalaya. The state of Meghalaya, inhabited by three ethnic tribes viz. Khasis, Jaintias, and Garos, like any other tribal states, have a tradition of practicing indigenous medicine system. The traditional use of medicinal plants in addressing certain health problems of every community in Meghalaya has been handed down from generation to generation. Of the total 3,331 plants species found in the state (Khan *et al.*, 1997), 834 number of plants, which constituted 31.3 percent, are estimated to be employed in healthcare (Lakadong and Barik, 2006).

Meghalaya has two National parks harbouring the world's endangered plant species and being home to one of the wettest places on earth. Amongst its rare species are the insect-eating Pitcher plants (*Nepenthes khasiana*), wild citrus (*Citrus indica*), and pygmy Lily (*Nymphaea tetragona*). The Garo Hills being one of the districts in the state of Meghalaya is also richly blessed with many medicinal plant species. Its forested slopes are home to numerous species of flora. Its pristine environs and discovery of the mother germplasm of *Citrus indica* led to the establishment of the National Citrus Gene Sanctuary –cum-Biosphere reserve at Nokrek over an area of 50 odd sq. km. The medicinal plants in this region are grown naturally in the dense forests, and they are grown domestically by the users, growers, practitioners, and marketers as well.

By nature, the Garos have a deeply rooted socio religious beliefs and as with the age-old traditional practice of jhumming, they have also followed a system of herbal medicines in treating their ailments. The tribals inhabiting the Garo Hills regions have, by trial and error, have developed their own way of treating and diagnosing diseases. The exploration of the therapeutic activity of medicinal plants rendered by them has a long history of use passed on from generation to generation. In most of the villages, there are one or two traditional healers known as '*ojhas*' as they are called locally. '*Ojhas*' practice at home or has a separate place in the weekly markets where people come to consult them.

The species diversity of medicinal plants and access to traditional herbal medicine has little been evaluated in Garo Hills and among the Garo people in particular. Medicinal plant species diversity and access to traditional herbal medicine among the Garo people, therefore; calls for serious investigation. Although

attempts have been made to enumerate and document the medicinal plants of the state over the last three decades, as evident from the available literature, the results are not specific to the area. There is still a paucity of systematic studies till date with regard to the status of medicinal plants from Garo Hills. At the backdrop of these facts, this present study has been undertaken to study the diversity of medicinal and aromatic plants used in three blocks of West Garo Hills, Meghalaya and concurrently make a concerted attempt to conserve them. The information will help bridge the gap between modern medicine and traditional medicine making it possible to compliment the modern medicine and/or compliment it.

1. Study Area

The present study is confined to the West Garo Hills district of Meghalaya. The district occupies the largest geographical area (3715 km²) and highest human population (642,923), highest population density (173/km²), lowest literacy rate (68.38%), and the most influential district as compared to the other districts of the Garo Hills. The district also has the highest number of traditional health practitioners. It comprises both the plain and hilly areas. The famous Nokrek Biosphere is located in the Rongram Block of the district. The district has certain important traditional institutions such as Local Medicinal Hospital (located at Rongbakgre, about 3 km from Tura), Sam-A'chik Association (an association of traditional practitioners), and it is the headquarters of traditional heads (*Nokmas*) of the Garos. For the purpose of the study, three blocks viz. Rongram, Gambegre and Dalu were selected and under each block, fifteen (15) villages were surveyed for the various types of medicinal plants and their usage. These Development Blocks cover both the urban as well as rural villages.

2. Materials and Methods

Methods employed in this study were designed with the purpose of providing baseline information on the knowledge, use, conservation, marketing of endangered medicinal plants in local system through surveys and field visits to various areas. Field survey was conducted by collecting information during structured and semi-structured interviews with local traditional healers, marketers and patients/users of the local medicinal plants. A separate questionnaire was prepared for local traditional healers, marketers, and patients/users. Basic information relating to knowledge, use, availability, cultivation of medicinal plants, target customers, marketing, and transport of medicinal plants, etc. was taken during the conversation with the respondents. Initial rapport-building visits included discussions with the village heads (*Nokmas*), traditional practitioners, extension workers, and other key informants. Community-wide meetings introducing the research activity and its purpose prompted selection of respondents from several villages. To obtain information from the community, different sections of the people were selected as mentioned below:

1. Fifty numbers of traditional healers
2. Twenty numbers of marketers
3. Ten numbers of Village Headmen
4. Thirty numbers of elderly people of the selected villages.

The plant specimens were collected and their scientific naming, taxonomical identifications, and classifications was made in consultations with the available literature such as Forest Flora of Meghalaya (Haridasan and Rao, 1985-1987), Flora of Assam (Kanjilal et al., 1934-1940) and others that are most widely used. Concurrently, the competent authority in the region such as *Botanical Survey of India*, Eastern Circle, Shillong, NEHU *herbaria* was referred to for final authentications of the plant species collected. Data were collected from both primary and secondary sources. Primary data were collected from sample respondents by using pre-tested and structured interview schedule, transect walk with the healers, focus group discussions, market visits, etc. Related documents, publications, research papers, reports, books, journals, internets were the major source for secondary data.

3. Result and discussions

A total of 198 medicinal plants were recorded in three different blocks which were used by the Garo tribes inhabiting in these blocks and have been presented in Table1. From the three blocks surveyed, Gambegre block recorded the highest number of medicinal plants figuring to 154 species. Dalu block holds a record of 142 species, while Rongram block recorded the lowest with 112 species. Certain herbs numbering to 76 were identified to be commonly used in all three blocks taken under study. Between Rongram and Dalu Block, 91 plant species were found to be common, 107 plant species between Dalu and Gambegre Block, while 93 plant species were found to be common between Rongram and Gambegre Block. There was some medicinal plant species which were also found to be uncommon amongst the three blocks studied. Gambegre block had the maximum number of uncommon plant species numbering to 77, while Dalu block had 65 plant species and Rongram block had recorded the least number of uncommon plant species numbering to 35 (Fig.1).

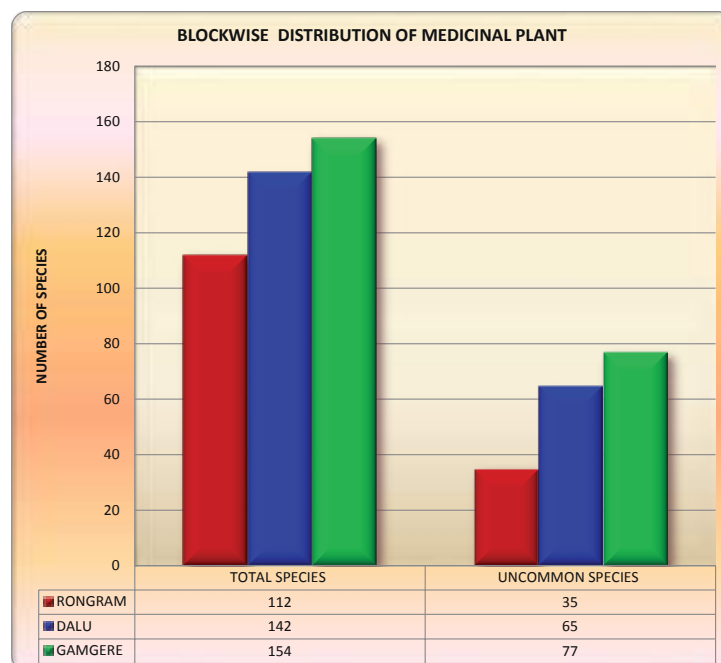


Figure 1: Details of number of species found in three blocks

There are ample of similar documentations which have been reported from Meghalaya (Mir et al., 2014; Sharma et al., 2014; Singh et al., 2014; Mandal, 2013; Tynsong et al., 2012; Laloo and Hemalatha, 2011; Hynniewta and Kumar, 2008; Barik et al., 2010). Similar findings were also reported by Sharma et al. 2014 where they conducted a study to highlight the indigenous uses of medicinal plants by Garo tribe in North Garo Hills, Meghalaya. Their studies revealed that a total of 66 medicinal plants belonging to 61 genera and 40 families were documented and used as medicines. Trees were the main sources of medicinal plants followed by shrubs, climbers and herbs. The recorded plant species were used for common ailments like headache, stomach problems, cold, cough and fever, jaundice, skin diseases, blood pressure, and epilepsy etc. In a study conducted by Sangma and Sahoo (2017) at three rural villages of Meghalaya in northeast India inhabited by Garo tribes in Balamagre village, Hajong tribe in Modupara and Koch tribe in Dumnigaon, a total of 38 medicinal plants belonging to 27 families and 36 genera were recorded and were found to cure 24 diseases. It was also reported that the tree species contributed maximally to the traditional uses of medicinal plants and the bark portion was mostly in the majority of cases for medicinal preparation. In the same year (2017), Roy et al. a total of 98 plant species belonging to 91 genera and 46 families have been used as medicine by the Garo tribe in South Garo Hills District of Meghalaya.

Table 1: Species diversity of medicinal and aromatic plants found in three blocks

Sl. No.	Medicinal plant	Block 1 (Rongram)	Block 2 (Dalu)	Block 3 (Gambegere)
1	<i>Abelmoscus esculentas</i>	+	+	+
2	<i>Acacia auriculiformis</i>	+	-	+
3	<i>Achyranthes aspera</i>	-	+	-
4	<i>Aegele marmelos</i>	+	-	+
5	<i>Aerides multiflorum</i>	-	-	+
6	<i>Alata deoscorean</i>	+	+	+
7	<i>Allium chinence</i>	-	+	+
8	<i>Allium sativum</i>	+	+	+
9	<i>Alocasia macrorrhiza</i>	+	+	+
10	<i>Aloe vera</i>	-	+	-
11	<i>Alstonia scholaris</i>	+	+	+
12	<i>Amaranthus gangetius</i>	-	-	+
13	<i>Amaranthus spinosus</i>	+	+	
14	<i>Amaranthus cruntus</i>	+	+	+
15	<i>Amorphophalli</i>		+	-
16	<i>Amorphophalli companulatusblume</i>	+	+	+
17	<i>Amorphophallus bulbifer</i>	-	+	+
18	<i>Anacardium occidentale</i>	-	+	+
19	<i>Ananas comosus</i>	-	+	+
20	<i>Andrographis paniculata</i>	+	+	+
21	<i>Anthocephalus</i>	-	-	-
22	<i>Aporusa dioca</i>	-	-	+
23	<i>Anthocephalus</i>	+	+	-
24	<i>Aquilqria agallocha</i>	+	-	+
25	<i>Areca catechu</i>	+	+	+
26	<i>Artemesia nilagirica</i>	+	+	+
27	<i>Artimisia annua</i>	+	-	-
28	<i>Artimisia indica</i>	+	+	+
29	<i>Artocarpus heterophyllus</i>	-	-	+
30	<i>Asparagus racemosus</i>	+	+	+
31	<i>Asplenium esculentum</i>	+	-	+
32	<i>Baccaurea ramiflora lour</i>	+	-	+
33	<i>Basella alba</i>	+	+	+
34	<i>Bauhinia purpurea</i>	-	+	
35	<i>Biophytum sensitivum</i>	-	+	+
36	<i>Bixa orellana</i>	-	-	+
37	<i>Boehmeria nivea</i>	-	+	+
38	<i>Boehmeria macrophylla</i>	-	+	-
39	<i>Bombax malabaricum</i>	+	+	+
40	<i>Brassica oleracea</i>	+	+	+
41	<i>Bryophyllum pinnaum</i>	+	+	+
42	<i>Cajanus cajan</i>	+	+	+
43	<i>Caladium bicolour</i>	+	+	+
44	<i>Calamus erectas</i>	+	+	-

Sl. No.	Medicinal plant	Block 1 (Rongram)	Block 2 (Dalu)	Block 3 (Gambegere)
45	<i>Calotropis gigantea</i>	-	+	+
46	<i>Cannabis sativa</i>	-	-	+
47	<i>Capsicum frutescens</i>	+	+	+
48	<i>Careya arborea</i>	+	+	+
49	<i>Carica papaya</i>	+	+	+
50	<i>Carthamus tinctorius</i>	-	+	-
51	<i>Carum caral</i>	-	+	-
52	<i>Cassia alata</i>	+	+	+
53	<i>Cassia fistula</i>	-	-	+
54	<i>Catharantus roses</i>	+	+	+
55	<i>Celosia argentea</i>	-	+	+
56	<i>Centilla asiatica</i>	+	+	+
57	<i>Chirayita</i>	-	-	+
58	<i>Cissus quadrangularis</i>	-	+	+
59	<i>Citrus lemon</i>	+	-	+
60	<i>Citrus maxima</i>	-	-	+
61	<i>Citrus medica</i>	+	-	+
62	<i>Citrus reticulata</i>	-	+	-
63	<i>Clerodendrum viscosum</i>	-	-	+
64	<i>Clerodendrum colebrookianum</i>	-	+	+
65	<i>Cocos nucifera</i>	+	+	+
66	<i>Coffea arabica</i>	+	+	+
67	<i>Colocasia esculenta</i>	+	+	-
68	<i>Corchorus capsularis</i>	+	+	+
69	<i>Corchorus olitorius</i>	-	-	+
70	<i>Costus speciosus</i>	-	+	+
71	<i>Crinum asiaticum</i>	+	-	-
72	<i>Croton tiglium</i>	+	+	+
73	<i>Cucumis sativa</i>	+	-	+
74	<i>Cucurbita maxima</i>	+	-	-
75	<i>Curculigo capitulate</i>	+	-	+
76	<i>Curcuma aromatic</i>	+	-	+
77	<i>Curcuma longa</i>	+	-	+
78	<i>Curcuma siccus</i>	+	+	+
79	<i>Cuscuta reflexa</i>	-	+	+
80	<i>Cynodon dactylon</i>	-	-	
81	<i>Cyperus involucreatus</i>	-	-	+
82	<i>Cyperus rotundus</i>	-	-	+
83	<i>Cucumis sativa</i>	-	+	-
84	<i>Curculigo capitulate</i>	-	+	-
85	<i>Cynodon dactylon</i>	-	+	-
86	<i>Curcuma aromatic</i>	-	+	-
87	<i>Curcuma caesia</i>	-	+	-
88	<i>Curcuma longa</i>	-	+	-
89	<i>Datura innoxia</i>	-	+	+

Sl. No.	Medicinal plant	Block 1 (Rongram)	Block 2 (Dalu)	Block 3 (Gambegere)
90	<i>Datura stramonium</i>	-	-	+
91	<i>Dellenia indica</i>	-	+	+
92	<i>Dicranopteris lineris</i>	-	+	+
93	<i>Dillenia pentagyna</i>	+	+	+
94	<i>Dioscorea bulbifera</i>	+	+	+
95	<i>Diplazium esculentum</i>	+	+	+
96	<i>Dolicos lablab</i>	+	+	+
97	<i>Elettaria cardamomum</i>	+	+	-
98	<i>Eleusine indica</i>	+	+	+
99	<i>Eleutherine palmifolia</i>	-	+	+
100	<i>Emblica officinalis</i>	+	+	
101	<i>Entada scandens</i>	+	+	+
102	<i>Eryngium foetidum</i>	-	-	+
103	<i>Erythrina stricta</i>	-	+	-
104	<i>Etlingera linguiformis</i>	-	+	-
105	<i>Eupatorium odoratum</i>	-	+	+
106	<i>Euphorbia antiquorum</i>	+	+	+
107	<i>Ficus bengalensis</i>	+	-	+
108	<i>Fragaria vesca</i>	-	+	-
109	<i>Gloriosa superba</i>	+	+	+
110	<i>Glycine max</i>	+	+	+
111	<i>Helianthus</i>	+	+	+
112	<i>Helminthostachys zeylanica</i>	+	+	+
113	<i>Hibiscus cannabinus</i>	-	-	+
114	<i>Hollarrena antidysenterica</i>	-	-	+
115	<i>Homalomena aromatic</i>	-	-	+
116	<i>Houttuynia cordata</i>	+	+	+
117	<i>Impatiens balsamina</i>	+	+	+
118	<i>Ipomoea batata</i>	+	+	+
119	<i>Jasminum sambac</i>	+	+	+
120	<i>Jathropa curcas</i>	+	+	+
121	<i>Jatropha gossypifolia</i>	+	+	+
122	<i>Justica gendarusa</i>	-	-	-
123	<i>Kaempferia galangal</i>	+	-	+
124	<i>Justica gendarusa</i>	-	+	-
125	<i>Kaempferia laotica</i>	+	+	-
126	<i>Kaempferia parviflora</i>	-	+	+
127	<i>Lantana camara</i>	+	+	+
128	<i>Letsia monopetala</i>	+	-	-
129	<i>Leucas aspera</i>	+	+	+
130	<i>Lycopersicum esculentum</i>	-	-	+
131	<i>Maehlenbeckia platyclados</i>	+	+	+
132	<i>Malastoma malabathricum</i>	+	+	-
133	<i>Manihot esculenta</i>	-	+	+
134	<i>Maranta arundenceae</i>	+	+	-

Sl. No.	Medicinal plant	Block 1 (Rongram)	Block 2 (Dalu)	Block 3 (Gambegere)
135	<i>Massaenda frondosa</i>	-	-	+
136	<i>Massaenda globrata</i>	-	-	+
137	<i>Mentha spicata</i>	-	-	+
138	<i>Mikania micrantha</i>	+	+	+
139	<i>Mimosa podica</i>	+	+	-
140	<i>Momordica charaetia</i>	-	+	+
141	<i>Momordica foetida</i>	+	+	+
142	<i>Monochoria hastata</i>	-	+	+
143	<i>Morinda angustipolia</i>	+	+	+
144	<i>Morinda citrifolia</i>	-	+	+
145	<i>Moringa olifera</i>	+	+	+
146	<i>Mucuna poggei</i>	+	+	+
147	<i>Mucuna pruriens</i>	+	+	+
148	<i>Murrya koenegii</i>	+	+	+
149	<i>Musa balbisiana</i>	+	+	-
150	<i>Nepenthes khasiana</i>	-	-	+
151	<i>Ocimum vasillcum</i>	-	+	-
152	<i>Oroxylon indicum</i>	-	+	-
153	<i>Paederia</i>	-	-	+
154	<i>Panax pseudo ginseng</i>	+	+	+
155	<i>Passiflora edullis</i>	+	+	+
156	<i>Phlogacanthus thyrsoformis</i>	-	-	+
157	<i>Phoenix daetylifera</i>	-	-	+
158	<i>Phyllanthus acidus</i>	+	+	+
159	<i>Physalis minima</i>	+	+	+
160	<i>Piper longum</i>	+	-	+
161	<i>Plumbago indica</i>	+	+	+
162	<i>Polygonum capitatum</i>	+	+	+
163	<i>Pongamia pinnata</i>	-	-	+
164	<i>Potulaca oleraceae</i>	+	+	-
165	<i>Raphanus sativas</i>	-	+	+
166	<i>Rauwolfia serpentina</i>	+	+	+
167	<i>Rex begonia</i>	+	+	+
168	<i>Rhus acuminata</i>	-	-	+
169	<i>Rhynchosyris retusa</i>	+	+	+
170	<i>Rosa species</i>	+	+	+
171	<i>Saccharum officinarum</i>	+	+	+
172	<i>Saraca indica</i>	+	-	+
173	<i>Schefflera arborescens</i>	-	-	+
174	<i>Schefflera venulosa</i>	+	+	+
175	<i>Seasamum indicum</i>	-	+	+
176	<i>Sechium edule</i>	-	+	-
177	<i>Sesuvium portulacastrum</i>	-	+	-
178	<i>Sida cordifolia</i>	-	+	+
179	<i>Solanum melongena</i>	-	-	+

Sl. No.	Medicinal plant	Block 1 (Rongram)	Block 2 (Dalu)	Block 3 (Gambegere)
180	<i>Solanum torvum</i>	-	+	-
181	<i>Solanum xanthocarpum</i>	-	+	+
182	<i>Spilanthes acmella</i>	+	+	+
183	<i>Spomoea batata</i>	-	+	+
184	<i>Stephania hemandifolia</i>	+	+	+
185	<i>Swertia chirayita</i>	+	+	-
186	<i>Terminalia chebula</i>	+	+	-
187	<i>Thysanolaena maxima</i>	-	-	+
188	<i>Tinospora cordifolia</i>	+	+	+
189	<i>Tinospora crispa</i>	+	+	+
190	<i>Tradescantia spathaceae</i>	-	-	+
191	<i>Typhonium trilobatum</i>	+	+	+
192	<i>Vitex nugundo</i>	+	-	+
193	<i>Vitex quinata</i>	-	+	+
194	<i>Xanthium strumarium</i>	+	+	+
195	<i>Zea mays</i>	+	+	+
196	<i>Zingiber officinale</i>	+	+	+
197	<i>Zingiber zerumbet</i>	+	-	+
198	<i>Zizuphus jejuaba</i>	+	+	+

+ = Species Present, - Species Absent

Plants have played a key role in the traditional healthcare system of human beings since the dawn of medicine. Over the past few decades, the traditional knowledge on the use of medicinal plants against various ailments has been widely acknowledged across the world. Nowadays, the assessment of ethnobotanical information has received special attention to gather knowledge of natural resources for their scientific and economic exploitation (Kumari et al., 2011). A number of active principles from of herbal origin have been isolated and introduced as potential drugs in modern system of healthcare with the advancement in the techniques of phytochemistry and pharmacology. Researchers conducting studies in different parts of the world indicate that knowledge of ethnobotanical plants increases in proportion to their proximity to human habitations (Frei et al., 2000; Finerman and Sackett, 2003). People usually know less about plants growing far from their homes and more about species that grow nearby. The same principle applies to use: people usually choose plants that grow in the immediate vicinity of their place of residence for ethnobotanical use (Agelet et al., 2000; Stepp and Moerman, 2001; Thomas et al., 2009).

4. Conclusion

The Garo community have empirical knowledge about the use of medicinal plants and their effectiveness in managing various ailments and diseases. This confirms the universal understanding that the traditional forms in health provision still dominates the lives of humans for survival all over the world, particularly in developing countries. There is, however; very scanty documentation of the medicinal flora of the area. There is an urgent need to document these plants and the indigenous knowledge for future references. The scientific validation of the plant species may help in discovering new drugs to tackle new, re-emerging and resistant pathogens. Not all the plants were covered in the study; more exhaustive documentation should be carried out to include them. It is also prudent that environmental education should be intensified for the harvesting techniques so that such plants whose roots are harvested for the purpose of drugs are not exterminated but propagated in designated areas. The study indicated a very positive step in order to understand the vegetational wealth of the area vis-a-vis man-plant relationship and to usher a new era in ever increasing pharmaceutical industry.

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Chapter 12

Tribal Health: Resilience and Wellness

Melissa D Kyndiah

Outline

1. Tribal health and wellness
2. Health education status of the tribal people of India
 - a. Attitudes of tribal people towards health
 - b. Ways of improving health education of tribal people
 - i. Cultural sensitivity and linguistic diversity
 - ii. Community participation and empowerment
 - iii. Customized health information
 - iv. Visual and interactive approaches
 - v. Preventive health practices
 - vi. Traditional knowledge integration
 - vii. Reproductive and maternal health
 - viii. Mental health awareness
 - ix. Sustainable living and environmental health
 - x. Ongoing support and follow-up
3. Tribal resilience and wellbeing:
 - a. Overview of tribal resilience
 - b. Tribal health and resilience
 - c. Tribal resilience and different population
4. Tribal resilience in promoting health

Introduction

Tribal communities around the world have long demonstrated a remarkable resilience while seeking to continue their deep connection to their cultural, environmental, and social heritage.

According to the American Psychological Association, “resilience” is the capacity to withstand and even thrive in the face of stress, change, and adversity, whereas “wellness” emphasizes proactive measures and lifestyle choices that promote good health and prevent illness. Thus, applying these concepts to tribal health, tribal resilience, and wellness encompasses the capacity of the indigenous groups to not only survive but to thrive in the face of historical injustices, ongoing challenges, and rapidly changing global dynamics. It reflects their ability to maintain their unique traditions, values, and ways of life while also adapting to the evolving world. Tribal resilience and wellness are central to understanding the holistic health and sustainability of these communities, encompassing physical, mental, emotional, and spiritual dimensions (Ciba Foundation Symposia, 1977).

In this context, this chapter will introduce the concepts of tribal resilience and wellness in relation to health of the tribal people of India with special focus on the tribals of Meghalaya. The chapter covers the tribal concept of health education, the people's attitude towards health, the tribal people's efforts towards behaviour modification and the various traditional health related skills used by them for treatment and wellness.

1. Tribal health and wellness

Tribal populations worldwide confront a complex burden of ailments, encompassing a higher incidence of communicable, non-communicable, genetic, and mental health conditions when contrasted with the general population. Moreover, they encounter serious issues related to alcoholism and substance abuse. These challenges are representative of the distinctive healthcare and wellbeing difficulties faced by tribal communities. They are often constrained by limited access to healthcare resources, socio-economic inequalities, and cultural factors that substantially impact health outcomes (Negi & Singh, 2019).

The 2013 Expert Committee on Tribal Health, commissioned by the Government of India, concludes that tribal populations have remained marginalized in geographical, socio-economic, and political dimensions. A 2018 Ministry of Health report highlights that healthcare in tribal areas remains an unresolved issue and urgently necessitates the initiation of Universal Health Coverage with a specific focus on tribal populations. The 2018 Report on Tribal Health in India, critically examines the health status and poses a pertinent question: "Nearly seven decades after Independence, why do tribal people still endure health and healthcare disparities compared to others?" The report acknowledges three key facets: the terrible state of tribal health, the absence of distinct data collection, and the oversight of tribal culture in the realm of healthcare (Marfatia, 2021).

Tribal health and wellness are important steps towards putting tribal health on the radar. Tribal health and wellness are deeply rooted in cultural traditions, environmental stewardship, and the quest for self-determination. It serves as vital indicators of indigenous resilience and continuity. The tribal way of life draw strength from their cultural heritage, close ties to ancestral lands, oneness with nature, and an unwavering commitment to preserving their unique ways of life, which plays an important role in enhancing their health and wellness. Upholding the health and wellbeing of tribal members is not only a matter of physical health but a testament to their cultural endurance, affirming their right to holistic wellness and the prosperity of these diverse and resilient cultures and practices which ultimately calls for collaborative efforts to look at health disparities from a holistic framework in order to work towards effective quality of life and ensure a brighter future for indigenous communities worldwide.

2. Health education status of the tribal people of India

According to an update in 2021, the health education status of tribal people in India varies significantly depending on factors such as region, community, and access to resources. Tribal communities in India often face unique challenges and disparities in terms of health education due to cultural, linguistic, and socio-economic factors. Tribal communities might have cultural norms that impact their health-seeking behaviours, which may not align with modern health recommendations. These beliefs systems have shaped the health attitudes and behaviours, and acceptability to treatment of many of the tribal people in the world including India (*Tribal Health Compendium*, n.d.).

Tribal communities often have higher rates of poverty, which can contribute to lower health literacy levels (Ministry of Tribal Affairs Government of India, 2023), which is a great contributor to lack of health education and this low literacy level is increased due to the language diversity that is present in many communities and tribal communities have their own languages and dialects, which can make it difficult to convey health information effectively, which can prove to be a significant challenge when it comes to delivering health education awareness (*Multilingualism in India - Association for Asian Studies*, n.d.).

Another important challenge when it comes to health education and health status of many tribal communities in remote and rural areas is the lack access to quality healthcare facilities and services. This lack of access can hinder the delivery of effective health education programs.

a. Attitudes of tribal people towards health

The attitudes of tribal people in India towards health are shaped by a combination of cultural, historical, and socio-economic factors, which can vary widely among different tribal communities due to their diverse cultural backgrounds and experiences. Many tribal communities hold a holistic view of health that encompasses physical, mental, emotional, and spiritual wellbeing, and is often seen as a balance between individuals, their communities, and their natural environment (*Concept of Health and Healing in Tribal Culture*, n.d.). The strong cultural beliefs and traditional practices like traditional healing, herbal remedies, and rituals practices has a great influence on the tribal people's attitudes towards health and healing especially in the rural areas, and are often valued as part of the healing process (*Concept of Health and Healing in Tribal Culture*, n.d.) and has a strong influence on the tribal people's attitude towards health, treatment and wellness.

b. Ways of improving health education of tribal people

Health education plays a crucial role in improving the wellbeing of tribal people in India. Given the unique cultural, linguistic, and social diversity of these communities, health education efforts must be tailored to their specific contexts (Andrade, et al., 2019), including:

- i. **Cultural sensitivity and linguistic diversity:** Health education materials and programs must be culturally sensitive and designed in languages that are understood by the tribal communities. Effective communication requires acknowledging and respecting their cultural practices, beliefs, and languages. Using storytelling, traditional art, and community leaders as educators can facilitate better understanding and engagement.
- ii. **Community participation and empowerment:** Involving tribal community members in the design and delivery of health education programs is essential. They understand the local dynamics, barriers, and preferences. Empowering community members to take ownership of health initiatives not only enhances program effectiveness but also fosters a sense of pride and responsibility for their own health.
- iii. **Customized health information:** Health education should address the specific health challenges faced by tribal communities. This might include information on nutrition, sanitation, maternal and child health, infectious diseases, and non-communicable diseases. Tailored information ensures relevance and captures the attention of community members.
- iv. **Visual and interactive approaches:** Due to varying literacy levels and language barriers, visual aids such as pictorial representations, videos, and interactive workshops can be more effective in conveying health information. Visual aids can transcend language barriers and resonate with diverse audiences.
- v. **Preventive health practices:** Health education should focus on preventive measures to reduce the incidence of diseases. Tribal communities can benefit from learning about vaccination, proper hygiene practices, clean water sources, and sanitation facilities. Understanding the benefits of preventive care can empower individuals to take proactive steps to maintain their health.
- vi. **Traditional knowledge integration:** Integrating tribal communities' traditional health knowledge into health education efforts can foster a sense of ownership and respect. Highlighting the compatibility of traditional practices with modern health practices can lead to more effective behaviour change.
- vii. **Reproductive and maternal health:** Addressing reproductive health issues is crucial. Ensuring that women have access to information about maternal care, family planning, safe deliveries, and postnatal care can significantly improve maternal and child health outcomes.
- viii. **Mental health awareness:** Health education should also cover mental health and wellbeing. Tribal communities often face unique stressors and challenges due to cultural displacement and socio-economic factors. Creating awareness about mental health and reducing stigma around seeking help is vital.

- ix. Sustainable living and environmental health: Connecting health education with environmental health can resonate with tribal communities deeply connected to their natural surroundings. Promoting sustainable practices, responsible resource management, and the links between ecosystem health and personal health can be impactful.
- x. Ongoing support and follow-up: Health education should be an ongoing process, not a one-time effort. Regular follow-up sessions, community meetings, and reinforcement of key health messages can help sustain positive behaviour change.

3. Tribal resilience and wellbeing

Tribal communities, both globally and in India, have a rich cultural heritage, closely connected to their natural environments. However, they also confront numerous challenges, such as land dispossession, social marginalization, and economic disparities, which can negatively impact their resilience and overall wellbeing. Resilience and wellbeing are interrelated concepts, often seen as key indicators of a community's ability to withstand adversity and to thrive (Aulandez, et al., 2021).

a. Overview of tribal resilience

Tribal resilience is looked at from three aspects, cultural resilience, environmental resilience, and social and economic resilience. Tribal communities worldwide demonstrate remarkable cultural resilience. Their deep connection to ancestral knowledge and traditions contributes to their ability to adapt to changing circumstances while preserving their cultural identity (Berkes, 2009). Tribal communities in India, such as the *Adivasis*, maintain their distinct languages, customs, and art forms despite significant pressures, and these practices are integral to their wellbeing (Sundar, 2009). Tribal communities live in ecologically diverse regions, often serving as stewards of these environments.

This close relationship between indigenous tribes and nature contributes to environmental resilience, as tribes are frequently the first to experience and address the impacts of climate change (Adger et al., 2018). Indian tribes have a deep connection to their natural surroundings. Many rely on traditional farming practices, which contribute to food security and environmental conservation (Sarin et al., 2011). However, they also face challenges from deforestation and resource extraction, thus it's important for environmental conservation as it is an integral part of healthy and holistic resilience. In relation to social and economic strengths, tribal communities thrive due to social interconnectedness, mutual support, and innovative economic practices (Folke, 2016), and in India as well, the tribes often emphasize community bonds, which strengthens their social resilience (Dwivedi et al., 2017).

Economic resilience on the other hand is supported by microfinance initiatives, self-help groups, and traditional knowledge-based livelihoods (Dwivedi et al., 2017), and all this serves as protective factors and enhance their social and economic resilience (Folke, 2016).

b. Tribal health and resilience

Health is a fundamental aspect of tribal resilience and wellbeing. indigenous tribal communities, globally and in India, face distinct health disparities influenced by a complex interplay of cultural practices, socioeconomic factors, and access to healthcare services. Similar to the general overview of tribal resilience, tribal health resilience is also look at from three factors, cultural determinants of health, socioeconomic, and healthcare access.

The cultural practices and traditional knowledge of indigenous tribes can both positively and negatively impact health. Practices related to diet, healing, and spiritual wellbeing can have a profound influence on health outcomes (King et al., 2009). In India, tribal communities often possess unique traditional healing practices, such as Ayurveda and traditional medicines, which are deeply rooted in their culture. Integrating these practices with modern healthcare can enhance the overall health of these communities (Chopra et al., 2018). There are various challenges that tribal society face such as, poverty, lack of education, limited access to clean water, sanitation, and inadequate infrastructure which often limit access to healthcare services among indigenous tribes worldwide (Bhutta et al., 2010), therefore tribal communities emphasize on community bonds and traditional knowledge-based livelihoods, which strengthens their social and economic resilience (Dwivedi et al., 2017).

c. Tribal resilience and different population

Tribal communities around the world exhibit remarkable resilience, maintaining their unique cultural identities in the face of historical and contemporary challenges. The differences in tribal resilience and wellbeing across age groups, specifically focusing on the experiences of more vulnerable groups within tribal communities is vital in order to be mindful when developing appropriate content for healthcare and education.

Children: Tribal children are exposed to unique challenges, including disparities in access to quality education, healthcare, and nutritious food. Yet, their upbringing within the community instills a strong sense of cultural identity and connection to the land or traditions, and these strong ties provides a sense of belonging and purpose for tribal children which serves as a protective factor against illness and stressors of life (Chandler & Lalonde, 1998). Resilience among tribal children often emerges from their close-knit families and communities, which offer strong support systems as they provide emotional and practical support, making children feel valued and secure (Kirmayer, et al., 2011). Tribal children's connection with nature is also a great resilience factor for children as it builds immunity and give a sense of relief from everyday life and physical exercise (Brussoni, et al., 2012).

Adolescents: Adolescents within tribal communities face the dual challenge of maintaining their cultural identity while navigating the complexities of a rapidly changing world. Their resilience often emerges from the intergenerational transmission of traditional knowledge, practises and values, as well as the development of strong leadership skills within the community, which provide a strong sense of belonging and resilience against adversity (Gone, 2009).

Adolescents maintain close relationships with family members, elders, and peers within their tribal community, offering support, mentorship, and cultural guidance. These relationships are pivotal in promoting resilience (Kirmayer, et al., 2011). Many communities now provide platform that provide educational programs and skill-building opportunities tailored to the unique cultural and societal needs of adolescents, empowering them to face future challenges (LaFromboise, 2006).

Adults: Adult tribal members are central to the preservation of culture and traditions. Their resilience is often rooted in their ability to adapt and balance modern life with traditional practices. The maintenance of traditional livelihoods, such as agriculture and handicrafts, contributes to their sense of wellbeing. Similarly to the children and adolescent resilient factors, tribal adults also hold strong identity with cultural heritage and identity, the close relationship with family and fellow community members and a deep understanding of the connection of traditional knowledge and wellbeing (Kirmayer, et al., 2011 & Walter, et al., 2002). Apart from all these, tribal adults exhibit economic resilience by relying on traditional subsistence practices and entrepreneurship, which helps them navigate financial stressors (LaFramboise & Lewis, 2008).

4. Significance of tribal resilience in promoting health

According to the American Psychological Association, resilience is the ability to bounce back, adapt, and recover from adversity, challenges, or difficult situations. It is the capacity to withstand and even thrive in the face of stress, change, and adversity. Resilience is not a fixed trait but rather a dynamic quality that can be developed and strengthened over time. While looking at resilience from the lens of a tribal world view the definition and the factors are also similar and the cultural and traditional aspects of tribals are given more importance too (*Resilience*, n.d.).

Tribal resilience is crucial for promoting health and mitigating the impact of illness and stressors. Resilient individuals from tribal backgrounds often exhibits, lower rates of mental health issues since many studies have proven that high level of resilience are associated with reduced rates of mental ill health. Tribal people also prove to have better coping strategies and reduced risky behaviours because of their innate ability to become nature sensitive, tribal people's collectivist nature and the tribal children's low engagement in risky behaviours.

Conclusion

The tribal people of India, comprise a diverse range of ethnic, cultural, and linguistic groups that have lived in India for centuries. The health status of the tribal people of India is still lacking. Overall, health education for tribal communities in India should be holistic, inclusive, and responsive to their unique needs. Collaborative efforts involving community members, healthcare professionals, cultural experts, and local leaders are essential for designing and implementing effective health education initiatives.

Changing attitudes and behaviours within tribal communities requires patience, cultural sensitivity, and a commitment to building trusting relationships. It's important to remember that the goal is not to impose external changes but to empower tribal individuals and communities to make informed choices that align with their cultural values while also improving their health outcomes. Tribal resilience and wellbeing, with a focus on health, differ across global and Indian contexts. While commonalities such as cultural practices and community support exist, unique challenges stem from cultural diversity, economic disparities, and the preservation of cultural identity. Recognizing these differences is vital for developing interventions and policies that promote tribal health and preserve their cultural heritage.

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Chapter 13

Community and Indigenous Knowledge and Intellectual Property Rights Position Statement and Policy

Glenn C Kharkongor

Outline

1. Introduction
2. Rights of Indigenous Peoples
3. International agencies and conventions
 - a. United Nations
 - b. World Intellectual Property Organization
 - c. United Nations Educational, Scientific and Cultural Organization
 - d. The World Bank
 - e. Convention on Biological Diversity
4. Limited utility of some forms of IPR
5. Some forms of IPR for tribal communities
 - a. Biocultural Protocols
 - b. Geographical Indications
 - c. Traditional Cultural Expressions and folklore
6. Role of academicians and cultural conservationists in the University
7. IPR Policy of the University
8. Annexures
 - a. Case study: The Khasi Hills Autonomous District Council (Protection and Promotion of Khasi Traditional Medicine) Act 2011
 - b. Some definitions

Introduction

In his recent book, *Horizons: A Global History of Science*, reviewed and praised by the journal *Nature*, James Poskett traces the history and origins of scientific knowledge. Poskett is a historian of science and technology. He holds a PhD from the University of Cambridge and is currently Associate Professor in the History of Science and Technology at the University of Warwick, UK.

We are told that modern science was invented in Europe, the product of great minds like Nicolaus Copernicus, Isaac Newton, Charles Darwin and Albert Einstein. But this is wrong. The history of science is not, and has never been, a uniquely European endeavour.

Copernicus relied on mathematical techniques borrowed from Arabic and Persian texts. When Newton set out the laws of motion, he relied on astronomical observations made in India and

Africa. When Darwin was writing *On the Origin of Species*, he consulted a sixteenth-century Chinese encyclopaedia. And when Einstein was studying quantum mechanics, he was inspired by the young Bengali physicist, Satyendra Nath Bose.

Horizons pushes the history of science beyond Europe, exploring the ways in which scientists from Africa, America, Asia, and the Pacific fit into this global story. Scientists today are quick to recognize the international nature of their work. In this ambitious and revisionist history, James Poskett reveals that this tradition goes back much further than we think, (and provides many examples).

One of these examples describes the knowledge of ocean navigation held by the tribal sailors of the Pacific islands. Using the positions of the celestial bodies by night and day, the nature of ocean swells, temperatures of the currents and a 'star' compass, they are able to navigate thousands of miles of ocean to travel between tiny islands. James Cook, who is credited with numerous discoveries in the Pacific Ocean would never have reached those shores without these local navigators. They drew diagrams in the sand for him, which he copied into charts, and accompanied him as guides. Neither him or his biographers ever acknowledged these sources.



Master navigator Mau Pailug teaches navigation to his son and grandson with the help of a star compass (The Smithsonian 2014). <https://www.smithsonianmag.com/smithsonian-institution/how-voyage-kon-tiki-misled-world-about-navigating-pacific-180952478/>

The appropriation of knowledge by colonial powers has been well-documented by respected historians and economists. These books are available in university libraries all over the world. The aftermath of such comprehensive appropriation has yielded capitalist IPR regimes such as copyrights and patents, and delivered into the academic lexicon concepts such as plagiarism. Even health and educational knowledge has been commercialized.

Intellectual property rights are prominent in protecting commercial rights, so serve a safeguard of capitalistic economies. Such protections afford little safety to subsistence or marginalised economies, such as indigenous or tribal peoples. These weaker economies also possess intellectual property but are

vulnerable to dominant market forces.

This paper will set out the recent efforts initiated by international agencies to protect the IPR of weaker communities. It will show the limitations of patent, copyright and trademark regimes and suggest alternative models. Higher education institutions have a role in this continuing challenge.

Rights of indigenous peoples

The rights of indigenous peoples, known as tribals in certain countries and scheduled tribes in India, were first taken up by the United Nations in 1982. However, it was only 25 years later, in 2007, that the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) was adopted by the General Assembly.

The Declaration is the most comprehensive international instrument on the rights of indigenous peoples. It establishes a universal framework of minimum standards for the survival, dignity and wellbeing of the indigenous peoples of the world and it elaborates on existing human rights standards and fundamental freedoms as they apply to indigenous peoples. The Declaration is particularly significant because indigenous peoples were involved in its drafting.

For the first time the issue of intellectual property rights of indigenous peoples was taken up, finding mention in UNDRIP. Apart from the initiatives of the United Nations, several other international agencies have taken up the issues of IPR among indigenous and tribal groups.

These efforts are noteworthy as without legal protections across the international community, protection of the knowledge of small indigenous and tribal communities would be subject to specific vulnerabilities. These dangers include cultural appropriation, biopiracy, loss of intellectual ownership and loss of commercial benefits. International cooperation is important because many specific ethnic communities may be found in more than one country.

International agencies and conventions

United Nations

The UNDRIP contains two provisions pertaining to protection of the cultural expressions and knowledge systems of indigenous peoples¹.

Article 31

1. indigenous peoples have the right to maintain, control, protect and develop their cultural heritage, traditional knowledge and traditional cultural expressions, as well as the manifestations of their sciences, technologies and cultures, including human and genetic resources, seeds, medicines, knowledge of the properties of fauna and flora, oral traditions, literatures, designs, sports and traditional games and visual and performing arts. They also have the right to maintain, control, protect and develop their intellectual property over such cultural heritage, traditional knowledge, and traditional cultural expressions.

2. In conjunction with indigenous peoples, States shall take effective measures to recognize and protect the exercise of these rights.

Article 24.

Indigenous peoples have the right to their traditional medicines and to maintain their health practices, including the conservation of their vital medicinal plants, animals and minerals. indigenous individuals also have the right to access, without any discrimination, to all social and health services.

World Intellectual Property Organization

The World Intellectual Property Organization is one of the 15 specialized agencies of the United Nations. WIPO was created to promote and protect intellectual property (IP) across the world by cooperating with countries as well as international organizations. WIPO's activities include hosting fora for international IP rules and policies, providing global services for IP in different countries, and serving as a resource centre and general reference database on IP matters.

With 193 member countries, WIPO, established in 1967, is the global forum for intellectual property services, policy, information and cooperation. Its mission is to lead the development of a balanced and effective international IP system that enables innovation and creativity for the benefit of all. In a publication on IPR², WIPO has described one of the new challenges: "How can the traditional cultural expressions of people in developing countries best be protected in a globalising economy?"

WIPO and UNESCO have an agreement to partner on IPR issues.

United Nations Educational, Scientific and Cultural Organization

UNESCO which is well-known for its conservation of cultural heritage developed a focus on "World Heritage and Indigenous Peoples: World Heritage and Indigeneity" in 2012, stating that "The rich cultures and traditional practices of indigenous peoples and the issues they face in today's world relate to many spheres, including economic development, the environment and human rights."³

The UNESCO Convention on the Protection and Promotion of the Diversity of Cultural Expressions⁴ is a binding international legal instrument adopted in 2005. The Convention outlines measures to protect and promote the diversity of cultural expressions, and impose obligations at both domestic and international levels.

Traditional Cultural Expressions (TCEs) is a concept articulated by UNESCO that recognizes that cultural entities have intrinsic value, including social, spiritual, economic, intellectual, scientific, ecological, technological, commercial, educational and cultural value.

According to Rama Rao⁵, traditional knowledge (TK) and traditional cultural expressions are, "on the one hand, valuable cultural assets of the communities who maintain, practice and develop them. On the other hand, they are also economic assets as they are creations and innovations that can, if so wished, be traded or licensed for income-generation and economic development. They may also serve as an inspiration to other creators and innovators who can adapt them to derive new creations and innovations.

He goes on to say that, it is, however, too often the case that TK and TCEs are vulnerable to acts of misappropriation and misuse. Such acts may include the use of traditional medicinal knowledge by scientists and multinational corporations for research, scientific or commercial purposes and the fusion of traditional sounds with modern music rhythms to create best-selling "world music" albums, with, in either case, no benefits accruing to the communities of origin. Legal forms of protection for TK and TCEs have therefore been identified by many as important to secure the protection of TK and TCEs against such forms of misuse."

The exploitation of traditional knowledge has been demonstrated through some well-known examples⁶. The patenting of ancient herbal remedies, e.g. the US Patent (No. 5401504) granted for the healing properties of turmeric, known for centuries to Indians; the US Plant Patent (No. 5751) on the 'ayahuasca' plant, considered sacred and used for medicinal purposes by Amazon's indigenous peoples; patenting of crop varieties that are similar to those grown for centuries in certain geographical areas, e.g. for varieties of Basmati rice by Rice-Tec Corporation in the US (Patent No. 5663484); Rice-Tec even uses the term "Basmati," long used to refer to aromatic rice grown in northern India and Pakistan, to describe its rice varieties.

The World Bank

The World Bank emphasizes the critical importance of documenting indigenous knowledge in writing, which can then be used to challenge a patent claim on knowledge that is already in the public domain. It also highlights the usefulness of other forms of intellectual property rights, other than patents, such as geographical indicators. These may be of more use to indigenous communities seeking to regulate access over their resources, as they can be applied to knowledge that evolves over time, and with the input of the local community at large. This leads to widening the Agreement on Trade-Related Intellectual Property Rights (TRIPS), to ensure that patents disclose the origin of genetic resources, and use of indigenous knowledge, and, consider sui generis forms of intellectual property, such as community-based rights, to secure equitable benefit sharing⁷.

Convention on Biological Diversity

The CBD has a focus on traditional knowledge⁸, stating that “Traditional knowledge is mainly of a practical nature, particularly in such fields as agriculture, fisheries, health, horticulture, forestry and environmental management in general.”

Perhaps the best definition of traditional knowledge is provided by the CBD which defines as “the knowledge, innovations and practices of indigenous and local communities around the world. Developed from experience gained over the centuries and adapted to the local culture and environment, traditional knowledge is transmitted orally from generation to generation. It tends to be collectively owned and takes the form of stories, songs, folklore, proverbs, cultural values, beliefs, rituals, community laws, local language, and agricultural practices, including the development of plant species and animal breeds. Sometimes it is referred to as an oral traditional for it is practiced, sung, danced, painted, carved, chanted and performed down through millennia.”

The introductory text on the CBD website goes on to say that,

“There is today a growing appreciation of the value of traditional knowledge. This knowledge is valuable not only to those who depend on it in their daily lives, but to modern industry and agriculture as well. Many widely used products, such as plant-based medicines, health products and cosmetics, are derived from traditional knowledge. Other valuable products based on traditional knowledge include agricultural and non-wood forest products as well as handicraft.

Traditional knowledge can make a significant contribution to sustainable development. Most indigenous and local communities are situated in areas where the vast majority of the world’s genetic resources are found. Many of them have cultivated and used biological diversity in a sustainable way for thousands of years. Some of their practices have been proven to enhance and promote biodiversity at the local level and aid in maintaining healthy ecosystems. However, the contribution of indigenous and local communities to the conservation and sustainable use of biological diversity goes far beyond their role as natural resource managers. Their skills and techniques provide valuable information to the global community and a useful model for biodiversity policies. Furthermore, as on-site communities with extensive knowledge of local environments, indigenous and local communities are most directly involved with conservation and sustainable use.

CBD <https://www.cbd.int/traditional/intro.shtml>

Limited utility of some forms of IPR

Intellectual property is usually divided into two categories:

1. Industrial property, which includes inventions (patents), trademarks, industrial designs, and geographic indications of source;
2. Copyright, which includes literary and artistic works such as novels, poems and plays, films, musical works, artistic works such as drawings, paintings, photographs and sculptures, and architectural designs.

Certain forms of intellectual property protection may have limited utility for tribal communities. For example, patents are generally granted for an invention, a product or a technical process. Many forms of traditional knowledge do not fall easily into these categories.

Copyright, which are the laws, which grant authors, artists and other creators protection for their literary and artistic creations, are easily applied to contemporary works. However, it is difficult for these laws to cover works from antiquity such as folk lore or traditional music.

So, these new forms of documentation and digitization can leave this cultural heritage vulnerable to unwanted exploitation beyond the traditional circle. There are certain inherent difficulties in applying the usual IPR laws in indigenous communities. Many tribal societies do not have, or have only recently acquired written forms of communication, so old written records or documentation are not available. In many tribal communities, there is the concept of collective ownership and community sharing so intellectual property may not be ascribable to individuals.

Biocultural Protocols

Biocultural community protocols (BCPs) are documentary statements that describe the biocultural heritage of ethnic communities⁹. They articulate community-determined values, procedures and priorities. They set out rights and responsibilities under customary, state and international law as the basis for engaging with governments, companies, academics and NGOs. They can be used as catalysts for constructive and proactive responses to threats and opportunities posed by land and resource development, conservation, research, and other legal and policy frameworks.

These especially aim to protect traditional knowledge and genetic resources by ensuring that access by researchers or commercial users observes customary values and laws. Access protocols let communities establish their own rules for access, equitable benefit-sharing and the 'free prior and informed consent' required for research. They ensure that traditional authorities make the decisions on access, not individuals, lessening the risks of unfair exploitation.

Communities can develop 'biocultural protocols' to set out their customary values, rights and rules about biocultural heritage. Doing this helps ensure their rights are recognized, even if those rights are not enforced by law, and strengthens negotiating capacity to promote more equitable agreements with third parties.

The Convention on Biodiversity's Nagoya Protocol, adopted in 2010, recognized the need to support the development of community protocols by indigenous and local communities to govern access and benefit-sharing for traditional knowledge associated with genetic resources. Biocultural protocols are also 'internal' governance tools to regulate equitable benefit-sharing amongst communities and reduce conflicts associated with ABS agreements.

These aim to ensure equitable distribution of the benefits derived from use of collectively held biocultural resources amongst communities, which is important to help avoid conflicts. They also establish rules to ensure benefits are used in accordance with customary laws, so that they strengthen the biocultural heritage from which they are derived¹⁰.

Geographical Indications

A geographical indication is a sign used on products that have a specific geographical origin and possess qualities or a reputation that are due to that origin¹¹.

Most commonly, a GI consists of the name of the place of origin of the good, such as "Darjeeling Tea" or Scotch Whisky". Moreover, in order to work as a GI, a sign must identify a product as originating in a given place. In addition, the qualities or reputation of the product should be essentially due to the place of origin. Since the qualities depend on the geographical place of production, there is a link between the product and its original place of production.

A majority of GIs throughout the world are applied to agricultural products, foodstuffs, wine and spirit drinks. However, the use of GIs is not limited to agricultural products. A GI may also highlight specific qualities of a product, as specific manufacturing skills and traditions. Handicrafts, which are generally handmade using local natural resources and usually embedded in the traditions of local communities may qualify such as Chulucanas pottery (from Peru) or Swiss watches.

Apart from helping to conserve and publicise cultural heritage, GIs may provide commercial benefits. Consumers sometimes pay attention to the geographical origin of products, and may be particular about quality and authenticity. Products from the place of origin may have a special appeal to customers, that guarantee quality and distinctiveness, and maybe even prestige, and they may be willing to pay more for such products.

GIs may lead to economic development of a community and may also increase cooperatives for standardization and scalability.

Traditional Cultural Expressions and folklore

According to WIPO¹², “traditional cultural expressions (TCEs), also called “expressions of folklore”, may include music, dance, art, designs, names, signs and symbols, performances, ceremonies, architectural forms, handicrafts and narratives, or many other artistic or cultural expressions.

Traditional cultural expressions may be considered as the forms in which traditional culture is expressed, form part of the identity and heritage of a traditional or indigenous community, and are passed down from generation to generation. TCEs are integral to the cultural and social identities of indigenous and local communities, they embody know-how and skills, and they transmit core values and beliefs. Their protection is related to the promotion of creativity, enhanced cultural diversity and the preservation of cultural heritage."

For many communities, TCEs, traditional knowledge and associated genetic resources form part of a single integrated heritage. Yet, because TCEs raise some particular legal and policy questions in IP, they receive a distinct focus in many national and regional IP laws and in WIPO's work.

TCEs can sometimes be protected by existing systems, such as copyright and related rights, geographical indications, appellations of origin and trademarks. For example, contemporary adaptations of folklore are copyrightable, while performances of traditional songs and music may come under the WIPO Performances and Phonograms Treaty and Beijing Treaty on Audiovisual Performances.

Trademarks can be used to identify authentic indigenous arts, as the Maori Arts Board in New Zealand, Te Waka Toi, has done. Some countries also have special legislation for the protection of folklore. WIPO's Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore is negotiating international legal protection of TCEs.

Folklore represents the major repository of the culture and traditional knowledge of an ethnic community. As such, it contains the potentially commercial value and benefit that rightfully belongs to that community. According to UNESCO-WIPO¹³, “Folklore constitutes manifestations of intellectual creativity and deserves to be protected in a manner inspired by the protection provided for intellectual productions."

The risk is that “dominant cultures” export more cultural expression to “threatened cultures” than vice versa. If remuneration must accompany the transfer of these cultural expressions, it may be argued that since they are exporting more than they are importing, the “balance of payments” favour the “dominant cultures” at the expense of the “threatened cultures”. This imbalance goes against the spirit and letter of the 1989 UNESCO Recommendation on the Safeguarding of Traditional Culture and Folklore, which is generally recognized as the highest profile declaration on the importance of intangible heritage.

It is sometimes argued that narratives in oral form diminish the value and claim of cultural ownership as opposed to written and other hard documentation. If so, the method of cultural expression would place some forms as privileged over others. In this manner indigenous oral narratives would be dominated by written narratives¹⁴.

Role of academicians and cultural conservationists

1. Research and documentation

Faculty members and departments should take up research and documentation projects on cultural tradition, practices and expressions in their immediate communities. Some of these could be student undergraduate, postgraduate or doctoral assignments or projects guided by faculty members.

These projects need not necessarily be theoretical, text-heavy documentation. They could include video recordings of dance, drama and festivals or sound recordings of folktale narrations or music performances, accompanied by short textual background descriptions.

2. Universities should honour and promote the use of Traditional Cultural Expressions as references and citations.

Use of TCEs as literature references/citations

As TCEs have eligibility for IPR protection, it is evident that they have been bestowed legal status. This recognition should be acknowledged by the academic world. In other words, TCEs should enjoy status as authentic forms of knowledge to be used as valuable and necessary literary references.

Purpose and characteristics of a reference/citation

- a. To inform the reader of a source of information
- b. To acknowledge and give credit to the author(s) of a referenced paper
- c. To enable the reader herself/himself to refer to the source and verify or read further from the referenced article or the references contained in the original article
- d. To uphold intellectual honesty

Format of a TCE reference/citation

- a. Name and other identifying information of the TCE source
- b. Address of the source so that another researcher may have access
- c. Authenticity verified by a third party, other than the concerned researcher, or by audio recording or photograph
- d. Date of the obtaining of the TCE

For PhD students

- a. The TCE sources should generally be used for the documentation of traditional knowledge where conventional references are not yet available
- b. Approval of the Supervisor for the use of such sources
- c. Approval of the Doctoral Committee of a policy for use of TCEs as references and for appropriate IPR protection

3. Tribal Repositories and Community Registers

Institutions could compile and archive cultural expressions and traditional knowledge from their own primary research or from secondary sources. These could be authenticated by tribal elders and copies shared with tribal organizations.

4. Work with government and community organizations

Institutions could work with state government departments and district councils, and community organizations such as craftsmen/artist groups, healer associations or author's societies.

IPR policy of the University

1. Community knowledge

All data, knowledge, artifacts, audio-visual forms, documentations, representations, traditions, practices, motifs and any entity that is considered as a TCE (traditional cultural expression) will be considered as belonging to the community. Any benefit that may accrue from such knowledge shall revert to the community in an exclusive or shared manner as appropriate.

In all engagements with the community for academic study and documentation, due diligence, discussion and traditional forms of consent shall be followed so as to obtain the rapport and participation of the community, especially with knowledge holders and wise elders.

2. University publications

All university publications including books, monographs, articles, documentaries, portfolios, toolkits, learning resource materials that incorporate community data shall be in the public domain, through Creative Commons or other formal and informal open source channels. The University publications division shall be a non-profit entity.

3. Copyright and Authorship

The copyright of all published material emanating from the University through its faculty, students and partners shall be shared by the author(s), editor(s) jointly with the University. All such published material that contains community data shall acknowledge the consent of the community.

4. Attribution and citation

In respect of sources of material due attribution and citation shall be provided as per academic conventions. TCEs may also be used and cited. The office of the Dean, Research shall have jurisdiction over matters pertaining to plagiarism.

5. Respect: apart from acknowledgement and attribution, data and cultural entities shall be accorded respect and dignity, in their collection, storage, analysis and dissemination. In particular, sacred objects and spaces, shall be treated with decorum and reverence, especially when documentation and scientific studies are being conducted. There are many such in our state, especially those sites connected with funerary practices and beliefs in the afterlife, sacred groves, ceremonial grounds, and even spiritual practices associated with sporting events such as archery. Those who are of newer spiritual persuasions must be particularly mindful of traditional religious practices and spaces.



Kur Kharkongor mawbah in Mawiong, Myllem (c 700 years old)

University Research Ethics Policy and Practice

IPR issues are must be linked to ethics policy and practice. According to an article in Nature, academia is “an institution that is a symbol of colonization shrouded by a history of extractive and harmful research on indigenous peoples”. This extraction includes socio-demographic data, indigenous knowledge, and cultural appropriation.

The concept of signed consent should be reviewed. If there is trust and rapport, a mere nod from an elder or headman may suffice. Requiring a signature may convey disrespect or mistrust. In tribal communities, the breaking of trust invites social stigma, a significant disincentive for tribal researchers to maintain integrity, even in the absence of a signed document. Legal formalities are a legacy of colonialism.

Does consent, signed or otherwise, merely cover permission to collect and analyse data or does it imply approval to publish, copyright and ownership by academicians from outside the community?

As more and more indigenous researchers enter academia and participate and lead in research projects in tribal communities, inclusion of and respect for indigenous approaches will be naturally be enhanced. The University Research Ethics Committee should review its policies from time to time in this regard.

Annexures

Case Study

The Khasi Hills Autonomous District (Protection and Promotion of Khasi Traditional Medicine) Act 2011

This Act was passed by the KHADC after initiation of discussions by Martin Luther Christian University (MLCU). MLCU had already undertaken considerable documentation of Khasi traditional medicine through research grants from the Ministry of Health Department of AYUSH, and Ministry of Science and Technology Department of Biotechnology. Other stakeholders also participated in the drafting of the Bill.

After the Act was assented to by the Governor, a Khasi Traditional Medicine Commission was constituted and various rules and regulations were drafted for registration of healers and other administrative procedures.

In the Act¹⁵, the following definitions are articulated:

1. "Khasi Traditional Medicine" means the comprehensive wisdom, knowledge, skills and practices relating to Khasi traditional medicine in the broad context of holistic wisdom including philosophy, theology, social customs and traditions, diets and foods, folklore and legend, sacred sites and space, traditional social lifestyles and community relationships, home remedies, spiritual and psychological healing, chants, prayers and invocations; that are practiced, performed and used by Khasi traditional healers, priests, elders, housewives and other practitioners throughout Khasi society.
2. "Khasi traditional medicine practitioner" means a person who is highly-learned in the knowledge, skill and practice of Khasi traditional medicine.
3. "Khasi Traditional Medicinal Knowledge Rights" means the legal basis by which Khasi society, Khasi traditional medicine practitioners, Khasi traditional medicine institutes, the Khasi traditional medicine commission and other Khasi traditional organizations exercise their rights to have access to, protect, control and own their traditional medicine, knowledge, skills, practices, medicinal plans and medicine formulations, and includes the right to receive payment, royalties and other compensation for purposes hereto as well as all the Intellectual Property Rights connected thereto.

In the Act Clause 6(A) reads as follows:

Khasi Traditional Medicinal Knowledge Rights:

(a) Khasi traditional medicine, all of its component knowledge and manifestations of its knowledge, skills and practice, and related branches of knowledge and all its derivations shall be considered the Khasi Traditional Medicinal Knowledge Rights of the Khasi tribe, especially the wise holders and practitioners of the knowledge.

(b) Khasi Traditional Medicinal Knowledge Rights protection shall be extended to medicinal plants, formulations, processed medicinal plants, treatments and remedies, manual and massage treatments, preventive, promotive and rehabilitative care, texts, legends, spiritual and psychological components, chants, prayers and incantations and all other entities related to Khasi traditional medicine.

(c) The Commission shall set up guidelines and procedures for the legal protection of Khasi traditional medicine, to utilize all available methods such as patents, geographic indications, bio cultural communications, biodiversity registers, community knowledge registers and other methods.

(d) Khasi Traditional Medicinal Knowledge Rights of Khasi traditional medicine shall collectively reside in the Khasi tribe, but rights to any component may be granted to an individual, a group of individuals, community or institution within Khasi society.

(e) The Commission shall maintain a database of Khasi traditional medicine and all Khasi Traditional Medicinal Knowledge Rights received, granted or in process of claim.

Some definitions

Copyright

"Copyright is the body of laws, which grants authors, artists and other creators protection for their literary and artistic creations. (World Intellectual Property Organization, n.d.)

Geographical Indication

"A sign used on goods that have a specific geographical origin and possess qualities, reputation or characteristics that are essentially attributable to that place of origin. Most commonly, a geographical indication includes the name of the place of origin of the goods." (*Geographical Indications*, n.d.).

Intellectual Property

"Intellectual property refers to creations of the mind: inventions, literary and artistic works, and symbols, names, images, confidential information and designs used in commerce.

Intellectual property is divided into two categories:

1. Industrial property, which includes inventions (patents), trademarks, industrial designs, and geographic indications of source;
2. Copyright, which includes literary and artistic works such as novels, poems and plays, films, musical works, artistic works such as drawings, paintings, photographs and sculptures, and architectural designs. Rights related to copyright include those of performing artists in their performances, producers of phonograms in their recordings, and those of broadcasters in their radio and television programs." (*What Is Intellectual Property (IP)?*, n.d.).

Patent

"An exclusive right granted for an invention, which is a product or a process that provides, in general, a new way of doing something, or offers a new technical solution to a problem. In order to be patentable, the invention must fulfill certain conditions." (*Patents*, n.d.).

Public domain

"The state of belonging or being available to the public as a whole...not subject to copyright." (McKean, 2005).

Trademark

"A sign capable of distinguishing the goods or services of one enterprise from those of other enterprises." (*Trademarks*, n.d.).

Traditional Cultural Expressions (TCE)

Article 1:

(a) "Traditional cultural expressions" or "expressions of folklore" are any forms, whether tangible and intangible, in which traditional culture and knowledge are expressed, appear or are manifested, and comprise the following forms of expressions or combinations thereof:

- (i) verbal expressions, such as: stories, epics, legends, poetry, riddles and other narratives; words, signs, names, and symbols;
- (ii) musical expressions, such as songs and instrumental music;
- (iii) expressions by action, such as dances, plays, ceremonies, rituals and other performances, whether or not reduced to a material form; and,
- (iv) tangible expressions, such as productions of art, in particular, drawings, designs, paintings (including body-painting), carvings, sculptures, pottery, terracotta, mosaic, woodwork, metalware, jewelry, baskets, needlework, textiles, glassware, carpets, costumes; handicrafts; musical instruments; and

architectural forms;

which are:

- (aa) the products of creative intellectual activity, including individual and communal creativity;
- (bb) characteristic of a community's cultural and social identity and cultural heritage; and
- (cc) maintained, used or developed by such community, or by individuals having the right or responsibility to do so in accordance with the customary law and practices of that community.

The specific choice of terms to denote the protected subject matter should be determined at the national and regional levels. (WIPO, 2007).

Traditional knowledge

Article 3:

"... the term "traditional knowledge" refers to the content or substance of knowledge resulting from intellectual activity in a traditional context, and includes the know-how, skills, innovations, practices and learning that form part of traditional knowledge systems, and knowledge embodying traditional lifestyles of indigenous and local communities, or contained in codified knowledge systems passed between generations. It is not limited to any specific technical field, and may include agricultural, environmental and medicinal knowledge, and knowledge associated with genetic resources." (WIPO, 2007).

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Chapter 14

Approaches to Research Among Tribal Communities

Glenn C Kharkongor

Outline

Introduction

- A. Indigenous people's health: lack of data and cultural grounding
- B. Strategies for research among tribal peoples
- C. Culturally appropriate approaches to health research
 - The indigenous worldview
 - Cultural and social norms
 - o Respect
 - o Consent
 - o Participation
 - o Intellectual property rights
 - Indigenous and non-indigenous researchers
 - Evaluation of participatory research
 - o Scientific and social validity
- D. Discussion
 - Reporting indigenous research
 - Ethics

Introduction

Appropriate research strategies for indigenous (synonymous with tribal) populations and methods have found acceptance and practice among many of the universities, governmental and NGO institutions in Canada, Australia and New Zealand and sporadically mentioned in other countries. In India such approaches hardly find mention, surely a deep neglect in a country whose population of tribals exceeds a hundred million. This population subgroup suffers from low social indices. The Constitution of India provides special provisions for designated indigenous groups called Scheduled Tribes.

We propose strategies for research among tribal communities, drawing from the experiences, policies and practices of other countries. While conventional methodologies are relied upon, they need to be complemented by cultural modifications. Some of these approaches are illustrated in a case study of a three-year ICMR funded project for tribal youth in Meghalaya.

A. Indigenous people's health: lack of data and cultural grounding

Indigenous peoples make up 5% of the global and 8.6% of the India's population. The health of indigenous peoples is an important priority as social and health indices in these populations are lower around the

world. Data from 28 indigenous populations in 23 countries provide evidence of poorer health and health outcomes in indices such as life expectancy at birth, infant mortality, maternal mortality, birthweight, child malnutrition, and adult obesity. They have lower educational attainment and lower economic status (Lancet, 2016).

According to the WHO (2007), "Indigenous peoples remain on the margins of society: they are poorer, less educated, die at a younger age, are much more likely to commit suicide, and are generally in worse health than the rest of the population." Of all the social and economic difficulties faced by indigenous peoples, poor health is possibly the most intractable problem of all. The lower health indices of indigenous populations compared to non-indigenous populations has been well-documented in both developed and developing countries.

Some Indigenous groups, as they move from traditional to transitional and modern lifestyles, are rapidly acquiring lifestyle diseases, such as obesity, cardiovascular disease, and type 2 diabetes, and physical, social, and mental disorders linked to misuse of alcohol and of other drugs. Correction of these inequities needs increased awareness, political commitment, and recognition rather than governmental denial and neglect of these serious and complex problems. Indigenous people should be encouraged, trained, and enabled to become increasingly involved in overcoming these challenges (Lancet 2016).

Indigenous groups in India have higher mortality, even when adjusted for economic level (Subramaniam et al., 2006). In India, educational, social and health indices among Scheduled Tribes remain lower than non-tribals even after 69 years of Independence in life expectancy, infant mortality rate, stunting in childhood, school education and BPL (Lancet).

Mental health and substance abuse among indigenous peoples

Substance use problems are one of the major social and health issues facing this particular population group (Lancet 2009) highlighted diseases and social problems associated with misuse of alcohol and other drugs and consequent emotional, mental, and psychiatric illnesses. The same study documented increasing use of harmful substances such as tobacco, alcohol, and other drugs among adolescents and youth leading to emotional and mental disorders.

Alcohol use among tribals in India

Several studies have shown the higher prevalence of alcohol use among tribals in India. In India, more tribal men use tobacco, 72%:56%, and consume alcohol, 50%:30% (Tribal Health in India, 2013, Subramaniam et al., 2006 PLOS). Within indigenous groups there are significant differences between quintiles of economic status and education levels, with higher prevalence of drinking alcohol in the lower quintiles (Subramaniam PLOS 2006). One study has reported increasing alcohol use among tribals (Mohindra, 2011). Alcohol use among youth in a state in Northeast India was reported to be 36% for home-made drinks and 12.3% for commercial drinks (Mahanta et al., 2016).

Lack of data

Statistical data on the health status of indigenous peoples is scarce. This is especially notable for indigenous peoples in Africa, Asia and Eastern Europe (WHO Factsheet, 2007).

The lack of sufficient data on indigenous health has been a limitation to developing appropriate strategies and programmes, assess effectiveness of those activities and modify them if necessary, and to compare health standards between different groups of Indigenous and non-Indigenous people (Gracey et al., 2009). National or state-wise data are not generally disaggregated for tribal populations and data from tribal majority states include non-tribals. Even among tribal groups, social and health indices vary (Kalyan B Saha, Uma C Saha, Ravendra K Sharma, Neeru Singh. Lancet, 2016).

A bibliometric analysis of public health papers published from India during a decade long span (Kalita, 2015) found great geographic and demographic disparity in public health research across the country, with gross underrepresentation of the poorest mainland states (as included in the Empowered Action Group by the Ministry of Health and Family Welfare in 2001 to facilitate area specific interventions for the eight most populous and poorest states) and the six states of the northeast. These 14 states contain 49.7% of

the national population but account for just 11.4% of research articles. The article did not mention, being outside the scope of its reference, that these states contain 51.1 % of the country's tribals.

A round table on mental health held in 2017 included representatives of the ICMR, NIMHANS, tribal research groups and the Indian Psychiatric Society. The report noted that the mental health of tribal populations has been neglected, but also stressed the lack of data on the mental health of tribal populations. More research on mental health morbidity, mental health needs of this population, strategies to approach these communities for service delivery, and monitoring or evaluations of programs (Mental Health of Scheduled Tribe Populations in India: Policy and Research Recommendations, 2018).

Neglect of culture in interventions and research

The importance of cultural inputs in health care has been emphasized by the WHO: "There are ethical, epistemological and economic imperatives for considering the cultural contexts of health and wellbeing" (WHO Policy Brief, 2017). Lancet, a leading medical journal that has led studies on the health of indigenous peoples has noted that "The systematic neglect of culture in health and health care is the single biggest barrier to the advancement of the highest standard of health worldwide" (Lancet Commission on Culture and Health, 2014). A comprehensive review of indigenous health has noted that "Agencies that have provided clinical and related health-care services for Indigenous people have often had little success because of an absence of awareness or acceptance of Indigenous cultural behaviours" (Lancet, 2009)

Health and illness are defined, labelled, evaluated and acted upon in the context of culture.

Experience shows that health programmes that fail to recognize and work with indigenous beliefs and practices fail to reach their goals. Similarly, research to plan and evaluate a health programme must take cultural beliefs and behaviours into account in order to understand why programmes are not working and what to do about it (WHO, 2006). An NIH Expert Panel concluded that culture is glaringly absent from health research, highlighting the primarily mono-cultural lens through which health behaviour is currently conceptualized (Singer, Dressler, George 2016).

Culturally integrative research: India

Traditional systems of medicine, notably Ayurveda, receives wide governmental and community support in India. The epistemic framework, principles, concepts and practice are markedly different from allopathic biomedicine. While there is merit in applying modern scientific methods to evaluate and standardize standards for traditional knowledge formulations and procedures, this should be conducted in consultation with traditional medicine practitioners to achieve an inter-cultural approach (Darshan, Unnikrishnan and Padma, 2007).

Western medicine is reductive while traditional medicine systems are generally holistic. It is stated in Caraka Samhita that by studying a part the whole cannot be understood (Payyappallimana, 2001).

Apart from conventional lab-based or randomized control trials, other research approaches such as black-box design or ethnographic studies that document the social and cultural context in which a

traditional practice emanates may be appropriate in situations where there is no available scientific literature or other documentation (WHO 2000).

While some attention has been given to cultural aspects in studying the efficacy of traditional medicine systems in India, we have been unable to find any study that calls for cultural approaches to health research conducted in tribal communities.

B. Strategies for research among tribal peoples

Metatheoretical locus

In its metatheoretical approach this paper will take a post-positivist view, albeit in a post-modern context. It will take a social stance that nuances the marginalization of colonialism, patriarchy and racism and privileges culture, especially Frerian empowering. It endorses the historical research of the French philosopher Michel Foucault, in the view that what counts as knowledge in a given era is always influenced, in complex and

subtle ways, by considerations of power (Duignan, n. d.)

Current research premises, norms and conventions are founded on the culture, history, and philosophy of Euro-Western thought. These embedded approaches largely exclude the knowledge systems of colonised societies, thereby marginalising their cultural traditions (Bagele, 2012). Given that portions of psychology theory are widely considered to hold a Western bias (Nicholson 2010, Young 2014, Yussen, 2016), the theories chosen for this framework have their bases in cultural theory. To provide a theoretical underpinning to the issue at hand, four conceptual schemes have been selected.

1. Critical Race Theory
2. Decolonisation
3. Freirean Argument
4. Cultural Preparedness

The positions of these four theories seem to be aligned with postmodern concepts. Having said that, it has been noted that knowledge in indigenous societies is constructed in different ways from Western science and to subsume indigenous knowledge in a theoretical framework may itself be antithetical (Mazzocchi, 2006). One of the defining ways in which tribal societies create learning is through inductive methods. Indeed, one study has shown that tribal children used more inductive strategies in problem solving (Resing, Touw, Veerbeek & Elliott 2017).

Critical Race Theory

Critical race theory originally stemmed from race relations in America and is described as “the view that race, instead of being biologically grounded and natural, is socially constructed and that race, as a socially constructed concept, functions as a means to maintain the interests of the white population that constructed it. According to CRT, racial inequality emerges from the social, economic, and legal differences that white people create between “races” to maintain elite white interest(s)” (Curry, n.d).

Critical race theory (CRT) provides a theoretical framework in social sciences research. It favours a race-conscious approach to transformation rather than liberalism’s embrace of colour blindness (Ladson-Billings and Tate 1995, Ladson-Billings 1998) extended CRT to education. According to them and others (Dixon & Rousseau 2005, Nakata 2007, Milner 2007) there are four standpoints from which CRT is asserted and may be engaged with.

Firstly, the ingrained nature of race and racism, which is so endemic and pervasive in society and its institutions, such as education, that it becomes normalised, especially within the curriculum. Secondly, the naming of one’s reality or voice. This researching the self, in relation to others, may be accomplished by a positionality statement. Thirdly, essential debates need to be held and tensions to be explored between Indigenous and non-Indigenous peoples within the cultural interface. Fourthly, researchers should be actively engaged, thoughtful, and forthright regarding tensions that can surface when conducting research where issues of race and culture are concerned. Moreover, it is important that researchers possess or are pursuing deeper racial and cultural knowledge about themselves and the community or people under study. “The findings should do more than merely support a research industrial complex, they should help unpack and undo the power differentials between professional researchers and the racialized health disparity populations we study. To the extent possible, research should benefit communities directly by, researchers sharing findings with them” (Milner, 2007, p.388).

Though the systematic nature of the scientific method enhances the reliability of empirical findings, this does not necessarily eliminate the influence of racial bias. The introduction of CRT in planning empirical research helps address these concerns directly. Its tools help researchers illuminate racial biases embedded in a field or in a study’s aims, methods, conclusions, etc., and develop strategies to address them. In applying CRT to public health, four areas of focus (Ford and Airhihenbuwa, 2018) have been recommended:

- a. Critical approaches – to challenge initial understandings, questioning the questioner and perform self-critiques
- b. Disciplinary self-critique - collective assessment by members of a discipline of unintended racial influence on assumptions, methods, etc.

- c. Intersectionality – oppressive social forces produce interlocking effects and social identities
- d. Voice – to privilege the perspectives of marginalized communities

Decolonisation

According to Mellow (2015), "Imperialism and colonialism have brought complete disorder to colonized peoples, disconnecting them from their histories, their landscapes, their social interactions, interactions and their own ways of thinking, feeling and interacting with the world. It was a process of systematic fragmentation which can still be seen in the disciplinary carve-up of the indigenous world: bones, mummies and skulls to the museums, art work to private collectors, languages to linguistics, 'customs' to anthropologists, beliefs and behaviours to psychologists...."

There is an extensive body of literature on decolonization of education in the former colonies in Asia, Africa and South America and even calls for decolonizing university education in Britain (The Guardian, 2019). There is an assertion of the view that "[t]he decolonization of Eurocentric science can only be achieved when all voices are allowed to emerge." (Mellow 2015).

Colonisation as a determinant of health has been studied less extensively, and in recent years has been noted as a factor in the health of indigenous peoples (Sherwood, 2006; Mundel and Chapman, 2010). While there is considerable coverage of social determinants of health, less attention has been given to historical determinants which continue to impact the health of indigenous peoples. According to Lancet (2009):

Common to many Indigenous groups are the powerful effects of colonisation on their people and their lands by outsiders who later dominated societies and alienated them from their own ways of life. This colonization adversely affected physical, social, emotional, and mental health and wellbeing in traditional societies.

The fabric of traditional societies was shredded by colonisation. Traditional life was suppressed by alien regulations imposed on people who had lived, sometimes for many thousands of years, with well-established traditional laws, languages, dress, religions, sacred ceremonies, rituals, healers, and remedies. This legalized disruption was worsened by socioeconomic and political marginalisation, and by racial prejudice which was often entrenched and institutionalised.

We need to understand how colonisation affected the lives of Indigenous peoples to understand their health today. These oppressive factors caused severe inequalities in Indigenous health status, unsatisfactory disease and vital statistics, impaired emotional and social wellbeing, and poor prospects for future generations. These issues should be taken seriously to redress socioeconomic and health inequities for Indigenous populations worldwide. indigenous people should be meaningfully engaged rather than prejudicially excluded from these endeavours.

An appreciation of the need to take a fresh approach to research among indigenous peoples has emerged only in the last couple of decades. Perhaps the leading impetus for a new orientation was Simth's ground breaking book *Decolonizing Methodologies* (1999). Herself a Maori professor of indigenous education, she critically examined the basis of Western research, and the positioning of the indigenous as 'other.' Other authors have pursued this theme (Thaman, 2003, Hart, 2010, Gonzalez 2006,). Mellow (2015) has extended it to the discipline of linguistics, citing first the background of ethnocentrism using Said's *Orientalism*. He criticizes universities for their privileging of Eurocentric frameworks, overemphasis on universals, the ensuing cognitive and cultural domination, advocating instead for indigenous worldviews and theoretical pluralism.

Researchers who wish to engage in research in allyship with Indigenous communities must understand the colonial history embedded in health research, commit to a process that honours meaningful relationships with community partners, and carefully consider the implications of their work (Jaworsky, 2019).

The Freirian Argument

Paulo Freire's ideas about pedagogy, learning and knowledge led to the establishment of the critical pedagogy movement. Freire compared mainstream approaches to education, with the metaphor of "banking" (Freire, 1972). He argued that mainstream education, as it is predominantly practiced, revolves around teachers'

attempts to deposit knowledge 'into' students, who are understood to be passive, empty "accounts".

As an alternative educational approach, Freire, an indigenous person, proposed that oppressed peoples needed to become critically conscious, which is the first step towards liberation and social change. This would lead to people dismantling their oppressive situation. Critical pedagogy is the mechanism through which self- and community-assertion would be accomplished (Diaz, n.d). In a commentary that has implications for research, Servaes says:

The Freirian argument works by a dual theoretical strategy. Freire insists that subjugated peoples must be treated as fully human subjects in any political process. This implies dialogical communication and action. Although inspired to some extent by Sartre's existentialism - a respect for the autonomous personhood of each human being, the more important source is a theology that demands respect for otherness - in this case that of another human being. The second strategy is a moment of Utopian hope derived from the early Marx that the human species have a destiny which is more than a fulfilment of material needs. Also from Marx is an insistence on collective solutions. Individual opportunity, Freire stresses, is no solution to general situations of poverty and cultural subjugation. Freire believes that individuals have the capacity for reflection, for conceptualising, for critical thinking, for making decisions, for planning and social change. It is not merely awareness, however, that is important, but its relationship to a project of social transformation, whereby consciousness and action on consciousness are dialectically linked. According to Freire, action and reflection are organically integrated. It is this dialectical and emancipatory process of action and reflection that constitutes the process of conscientization.

Cultural Preparedness

Drawing from various sources, Arulmani has contrived a theory of 'cultural preparedness' which has been applied to the field of career psychology to aid in the development of a model for career counselling (Arulmani. 2011). Given the broad background of his cultural preparedness theory, it seems to readily find application in other fields of social endeavour, such as in cross-cultural research.

One of his starting points is the ability for cultural learning which distinguishes humans from non-human primates. This enabled a human being to not only herself/himself to learn and invent symbolic representations but to preserve, accumulate and transmit these learnings for others to learn from. This capacity for imitative learning is enculturation, a process by which a person adapts to and assimilates the culture in which he or she lives. Arulmani explains this further as a process of socialization by which people learn the obligations of the culture that enfolds them, assimilate the values of that culture, and acquire the behaviors that are suitable and obligatory in that culture—for specific practices.

But among tribals, enculturation may be transmitted in utero. Carl Jung regarded such societies as having special abilities. He stated that "Tribal lore is always sacred and dangerous" and can apprehend the unseen happenings in the psyche (Jung, 1958). In this lesser known part of his work Carl Jung, the founder of analytical psychology, explored the primitive origins of consciousness by visiting with indigenous peoples in North America and Africa. In the motifs of tribal peoples such as in cave paintings or folklore, he identified archetypes or thought-forms. In his interpretation, a newborn baby is not a *tabula rasa*, but has an inherited ability to perceive cultural patterns (Butler-Bowden, 1968).

Acculturation describes how cultures are influenced when societies come into contact with each other, with subsequent changes in the original cultural patterns of either or both groups. Usually, acculturation occurs such that it is the minority/submissive group that is required to espouse the living patterns of the dominant group. But by definition it is possible that acculturation can be reciprocal, whereby the dominant group imbibes the behavior and values of the minority group.

There are however examples of acculturation by desire or need as opposed to acculturation by domination. Employees of an Indian call centre mimic the culture of the client country through accents, idiom and manner to favour the convenience of their clients. This is pretended but desired acculturation.

Acculturation has been described to be manifested as: integration (retaining heritage culture and identifying with the host culture), assimilation (orientation towards the host culture and away from the heritage culture), separation (orientation towards the heritage culture and away from the host culture), or marginalization (affiliating to neither culture) (Sam & Berry, 2010).

Acculturation is desirable for researchers who intend to collect data from another cultural community. For those coming from a Western worldview would need to grasp alternative cultural concepts such as the individualism-collectivism continuum., value attributions, role allocations and belief systems. This 'cultural preparedness' should be a part of the research protocol.

C. Culturally appropriate approaches to health research

Smith (1999) urges researching back and disrupting the rules of the research game toward practices that are more respectful, ethical, sympathetic and useful vs racist practices and attitudes, ethnocentric assumptions and exploitative research. She says that the problem to be reiterated is that it has been taken for granted that indigenous peoples are 'natural objects' of research.

Indigenous peoples have attempted, through the development of instruments such as treaties, charters and declarations, to send clear signals to the world's scientific and research communities that open-cast mining approaches to research (see, take and destroy) are absolutely unacceptable, and goes on to call for indigenous methodologies that use cultural protocols, values and behaviours as an integral part of methodology" (Smith, 2001)

A failure to admit differences in worldviews is also domination and moving beyond a single-paradigm Western approach to theoretical pluralism is imperative (Mellow, 2015).

The Indigenous Worldview

A worldview is considered to be the fundamental cognitive orientation of an individual or society encompassing the entirety of the individual or society's knowledge and point-of-view. The term is a calque of the German words *Welt*, world and *Anschauung*, outlook (Merriam-Webster's online dictionary, n.d.). Additionally, it refers to the framework of ideas and beliefs through which an individual, group or culture interprets the world and interacts with it. According to Lind (2011), a worldview is a more or less coherent understanding of the nature of reality, which permits its holders to interpret new information in the light of their preconceptions. He goes on to describe worldviews as operating at a community level.

Understanding the worldviews of both the community and ourselves is imperative (Hart, 2010). He defines worldviews as

...cognitive, perceptual and affective maps that people continuously use to make sense of the social landscape and to find their ways to whatever goals they seek. They are developed throughout a person's lifetime through socialization and social interaction. They are encompassing and pervasive in adherence and influence. Yet they are usually unconsciously and uncritically taken for granted as the way things are. While they rarely alter in any significant way, worldviews can change slowly over time.

Laungani (2005) described and compared Eastern and Western worldviews. Though indigenous peoples are the oldest communities in the world, it was not till a couple of decades ago that an indigenous worldview was considered. Ahukaramu (2002), a Maori scholar wrote the first treatise on the indigenous worldview. According to him, the indigenous worldview is explainable by reference to the natural phenomena of the world. Hence, indigenous worldviews give rise to a unique set of values and behaviors which seek to foster this sense of oneness and unity with the world. The predominant themes in indigenous worldviews arise from the people's close relationship with the environment, nature and the community. Within indigenous cultures, most have a high valuation of relationships. Awareness of self means understanding one's relationship with the physical environment, the spiritual world and other people.

There are many basic and common elements to indigenous worldviews across tribes. Inherent on these is a relational worldview, all beings, nature and the spiritual world are intertwined (Hart, 2010). The worldview of the Khasi tribe of Northeast India share these elements (Mawrie, 2001).

Most tribal societies live in a world of intangible entities such as folklore, beliefs in the past, codes of ethics and forms of etiquette (among the Khasis called *Ka Akor*). This liminality exerts a substantial influence on their way of thinking and their view of the outside world and is a source of societal strength (Syiem, 2011).

Liminality is a term from anthropology used to describe the psychological process of transitioning across boundaries and borders (Encyclopedia of Psychology and Religion. 2014). The 'liminal or threshold world is a space between the world of status that the person is leaving and the world of status into which the person is being inducted. It is an in-between space of cultural hybridity between fixed identifications (D'o, n. d.)

So the indigenous worldview is not a static entity. The boundaries of liminality are blurred and altered by their own evolution, and by interaction and mingling with non-indigenous communities (Deflem, 1991). Mellow (2015) quotes Battiste and Henderson (2000), as stating that "Indigenous languages and worldviews must be strengthened and developed within their own contexts...The failure to admit the differences in worldviews is also domination".

In anthropology, liminality (from the Latin word *limen*, meaning "a threshold") is the ambiguity or disorientation that occurs in the middle stage of rituals. In this stage, participants "stand at the threshold" between their previous way of structuring their identity, time, or community, and the new way. During liminal periods, social hierarchies may be reversed or temporarily dissolved, continuity of tradition may become uncertain, and future outcomes once taken for granted may be thrown into doubt. The dissolution of order creates a fluid, malleable situation that enables new institutions and customs to become established. The term has also passed into popular usage, such as in 'rites of passage' or in the antonym 'subliminal', where it is applied much more broadly, undermining its significance to some extent. Victor Turner was an anthropologist who studied rituals, especially those marking life passages. These periods of transition were filled with opportunity as well as danger; previously established roles and relationships were deconstructed and then reconstructed. Turner and his followers used the terms "liminal" and "anti-structural" to refer to these periods of time as well as to people who live their lives "on the limen" or "at the edge" (Deflem, 1991).

Inherent in the application of worldview is the need to take account of indigenous concepts and definitions and indigenous definitions of health in addition to those employed by the prevailing culture. indigenous Australians take a more holistic view of health, which includes not just the health and wellbeing of the individual, but also that of spirit, culture, land and community (Axelsson, Kukutai, Kippen 2016).

Cultural and social norms

Indigenous social structures are collective and cohesive, with a high degree of cooperation and mutual support because individuals rely on the people around them for their needs. Kinship was the glue that maintained the bonds between people and communities are held together through family, clan, village and tribal relationships. Self-esteem derives from individual contributions to collective goals (Ahukaramu 2002). A university in a tribal area of northeast India espouses the "Tribal values of harmony with one another and with nature, and a collective responsibility for the wellbeing of all" (MLCU 2017). indigenous communities have traditional codes of social behaviour. These need to be learned, accepted and followed for researchers to engage meaningfully with tribal groups.

"...academia (itself, is), an institution that is a symbol of colonization shrouded by a history of extractive and harmful research on Indigenous Peoples. When we (tribal researchers) enter the campus, we carry with us our communities and established relationships of kinship, friendship and service. Ethics boards do not seem aware of the harms they can inflict on these relationships by imposing requirements that alienate us from our own People..." Jennifer Grenz, a Native American scholar concludes that: requiring a signature from an elder may imply disrespect, an expression of distrust (Nature 616:221, 2023)

1. Respect

From indigenous perspectives ethical codes of conduct govern their relationships with each other and with the environment. The term 'respect' is consistently used by indigenous peoples to underscore the significance of relationships with humanity. Through respect the place of everyone and everything in the universe is kept in balance and harmony. Respect is a reciprocal, shared, constantly interchanging principle which is expressed through all aspects of social conduct. Haig-Brown and Archibald write that, 'to be in harmony with oneself, other members of the animal kingdom, and other elements of nature requires that First Nations people respect the gift of each entity and establish and maintain respectful, reciprocal relations with each' (Smith, p. 119-120).

Mellow advises the “adopt(ion) of research strategies that involve humble collaboration”. Some countries have drawn up protocols through which respect for indigenous culture is maintained (ANZSOG, nd, Antoine et al., British Columbia, Canada, nd). Rapport building cannot be hurried. This may take years (Smith, 1999). In our experience working with traditional indigenous healers in a documentation project in a rural area of our district, rapport was considered satisfactory after two years of frequent visits, community meetings, formal ceremonies and home visits.

2. Consent

Forms of consent for projects among indigenous peoples have received focused attention by UN agencies (FAO, 2016). Free, Prior and Informed Consent (FPIC) is a specific right that pertains to indigenous peoples and is recognized in the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP). It allows them to give or withhold consent to a project that may affect them or their territories. The United Nations Permanent Forum on Indigenous Issues (UNPFII) has defined the concept of Free Prior Informed Consent (FPIC) as the following:

Firstly ‘Free’ simply means that there is no manipulation or coercion of the Indigenous People and that the process is self-directed by those affected by the project. Secondly ‘Prior’ implies that consent is sought sufficiently in advance of any activities being either commenced or authorised, and time for the consultation process to occur must be guaranteed by the relevant agents. Thirdly ‘Informed’ suggests that the relevant Indigenous people receive satisfactory information on the key points of the project such as the nature, size, pace, reversibility, the scope of the project, the reason for it, and its duration. This is the more difficult term of the four, as different groups may find certain information more relevant. The Indigenous People should also have access to the primary reports on the economic, environmental cultural impact that the project will have. The language used must be able to be understood by the IPs. Finally ‘Consent’ means a process in which participation and consultation are the central pillars. Additionally UNPFII requires that Indigenous People should be consulted in a way which is appropriate for their customs.

The International Labour Organization requires that consultation takes place in a climate of mutual trust and circumstances are considered appropriate if they create favourable conditions for reaching agreement and consent (ILO 2016). In a pilot study (UN-REDD 2010) by the UN-Reducing Emissions from Deforestation and forest Degradation UN-REDD of FPIC application in Vietnam the following steps were required: (1) preparation, (2) consultation with local officials (3) recruitment of local facilitators (4) training of the local facilitators, (5) awareness raising (6) village meeting (7) recording the decision (8) reporting to UN-REDD Vietnam (9) verification and evaluation.

For adequate consent to be obtained, an effective communication system needs to be established. Talking to headmen alone may not be enough. Conversation with all villagers including women, elders and youth is important. These structures should be in place before the commencement of any activity (Artist, MJ, Madsian C, Watamaleo, G, 2010).

WHO recommends three levels of consent: individual, local community and umbrella organization that represents the wider regional indigenous community (WHO 2003).

3. Participation

The indigenous community must be fully participative in all steps of the project:

- i. Establishing the need for the project
- ii. Consent
- iii. Project design
- iv. Project implementation
- v. Feedback of the results to the community
- vi. Determination of value of the results to the community
- vii. Ownership of data and knowledge

The notion of Participatory Communication stresses the importance of cultural identity of local

communities, and of democratisation and participation at all levels - international, national, local and individual. It points to a strategy, not merely inclusive of, but largely emanating from, the traditional 'receivers'. Paulo Freire (Servaes, 1983) refers to this as the right of all people to individually and collectively speak their word: "This is not the privilege of some few men (and women), but the right of every (wo)man. Consequently, no one can say a true word alone - nor can he (or she) say it for another, in a prescriptive act which robs others of their words".

Listening to what the others say, respecting the counterpart's attitude, and having mutual trust are needed. Participation supporters do not underestimate the ability of the masses to develop themselves and their environment. "Development efforts should be anchored on faith in the people's capacity to discern what is best to be done as they seek their liberation, and how to participate actively in the task of transforming society. The people are intelligent and have centuries of experience. Draw out their strength. Listen to them." (Servaes, 1983).

Freire's theory of dialogic communication and action is based on group dialogue. Participation may be no more than representation and consultation of the public in decision-making. On the other hand, self-management is the most advanced form of participation. In this case, the public exercises the power of decision-making within communication enterprises and is also fully involved in the formulation of communication policies and plans.

Servaes quotes Robert White (1984) as saying that this is quite divergent from "the functionalist approach which starts with the scientist's own model of social and psychological behaviour and gathers data for the purpose of prediction and control of audience behaviour." It is an educational process in which the roles of the educator and the educated are constantly reversed and the common search unites all those engaged in the endeavour. It immerses the exogenous "researcher" in the setting on an equal basis. Considering the necessary trust and attitudes as well as cultural differences, the task is not easy, and makes unfamiliar demands on researchers/educators.

As one is dealing with people within changing social relations and cultural patterns, one cannot afford to be dogmatic about methods but should keep oneself open to people. This openness comes out of a trust in people and a realisation that the oppressed are capable of understanding their situation, searching for alternatives and taking their own decisions.

Servaes continues by delineating participatory research as an educational process involving three interrelated parts:

- (1) Collective definition and investigation of a problem by a group of people struggling to deal with it. This involves the social investigation which determines the concrete condition existing within the community under study, by those embedded in the social context;
- (2) Group analysis of the underlying causes of their problems, which is similar to the conscientization and pedagogical processes addressed above, and;
- (3) Group action to attempt to solve the problem. Therefore, the process of participatory research is cyclical, continuous, local, and accessible. Study-reflection-action is the integrating process in this type of research.

Kronenburg (1987), gives the following characteristics of participatory research:

[It] rests on the assumption that human beings have an innate ability to create knowledge. It rejects the notion that knowledge production is a monopoly of "professionals"; [It] is seen as an educational process for the participants ... as well as the researcher; It involves the identification of community needs, augmented awareness about obstacles to need fulfillment, an analysis of the causes of the problems and the formulation and implementation of relevant solutions; The researcher is consciously committed to the cause of the community involved in the research. This challenges the traditional principle of scientific neutrality and rejects the position of the scientist as a social engineer. Dialogue provides for a framework which guards against manipulative scientific interference and serves as a means of control by the community.

By its nature, this type of research does not incorporate the rigid controls of the physical scientist or the traditional models of social science researchers. According to Servaes, Chantana and Gaeo state: "There is no magic formula for the methodology of such PR (participatory research) projects. However, there are common features taking place in the process: (1) It consists of continuous dialogue and discussion among research participants in all stages; [and] (2) Knowledge must be derived from concrete situations of the people and through collaborative reflection ... return to the people, continuously and dialectically".

4. Intellectual Property Rights

All research is appropriation (Chilisa, 2012). Principles of good governance of Indigenous data have been defined by the emerging data sovereignty movement. As described by Snipp (2016) researchers must ensure: "(1) that Indigenous peoples have power to determine who should be counted among them; (2) that data must reflect the interests and priorities of Indigenous peoples; and that (3) tribal communities must not only dictate the content of data collected about them, but also have the power to determine who has access to these data."

These conditions map well to the principles of Ownership, Control, Access and Possession (OCAP) established by Canadian First Nations in 1998. All administrative health data are linked to the Indian Register for all First Nations individuals in the province of Ontario, Canada. These data are held at the Institute for Clinical Evaluative Sciences (ICES) in Toronto (Walker, Lovett, Kukutai, Jones, Henry, 2017).

ICES has the following Governance processes for use of routinely collected health data with Indigenous identifiers:

1. Access to and use of data with Indigenous identifiers are approved by data governance committees organised and populated by the relevant Indigenous organisations
2. Linked datasets with Indigenous identifiers are not routinely available to researchers and analysts, who must make specific application and seek approval from the relevant data governance committee before they can access them
3. Researchers are required to discuss their projects with Indigenous community representatives, who may collaborate in the planning conduct and reporting of the studies
4. Researchers and staff at ICES participate in ongoing initiatives to orient them to Indigenous worldviews, research principles, and historical and social contexts
5. Staff at ICES are working with representative organisations to build capacity among Indigenous organisations and communities to train Indigenous analysts and epidemiologists
6. Study results are co-interpreted with the communities and their representatives, who have a lead role in deciding how the results will be communicated more widely

The World Intellectual Property Organization (WIPO) has broadened the concept of cultural ownership by recognizing "Traditional cultural expressions (TCEs)". These include music, dance, art, designs, names, signs and symbols, performances, ceremonies, architectural forms, handicrafts and narratives, or many other artistic or cultural expressions (WIPO 2017). TCEs may be given status as citations for researchers as has been granted at our university (see box).

Notwithstanding the earlier paragraphs of this section, intellectual property is perhaps an alien concept to indigenous peoples. Mauss's celebrated work *The Gift* (1950) portrayed the system of exchange of gifts among the tribals of the Pacific islands. These exchanges often took place between communities, at special events but also between individuals. There was an unspoken reciprocity to these social interactions, that bound communities together. This gift 'economy' is in contrast to the capitalist commodity economy where inalienable ownership rights are transferred without social obligation. The exchange of gifts is an integral functional part of the social whole (Leacock, 1954).

The concept of proprietary ownership, be it land or movable assets is new to most indigenous societies and was introduced and become embedded by colonial policies and practices which introduced Eurocentric economic models. Collective and community ownership of land is still practiced, though diminishing among the Khasi tribe of Meghalaya. Traditional knowledge such as tribal medicine is legally owned by the tribe (KHADC Act, 2011).

Traditional Cultural Expressions as Literature References

Introduction

The World Intellectual Property Organisation (WIPO) recognizes "Traditional cultural expressions (TCEs)", also called "expressions of folklore". These include music, dance, art, designs, names, signs and symbols, performances, ceremonies, architectural forms, handicrafts and narratives, or many other artistic or cultural expressions. In the WIPO conceptualization, traditional cultural expressions:

- May be considered as the forms in which traditional culture is expressed;
- Form part of the identity and heritage of a traditional or indigenous community;
- Are passed down from generation to generation.
- Are integral to the cultural and social identities of indigenous and local communities,
- Embody know-how and skills, and they transmit core values and beliefs.
- And their protection is related to the promotion of creativity, enhanced cultural diversity and the preservation of cultural heritage.

TCEs can sometimes be protected by existing systems, such as copyright and related rights, geographical indications, appellations of origin and trademarks. For example, contemporary adaptations of folklore are copyrightable, while performances of traditional songs and music may come under the WIPO Performances and Phonograms Treaty and Beijing Treaty on Audiovisual Performances. Trademarks can be used to identify authentic indigenous arts, as the Maori Arts Board in New Zealand, Te Waka Toi, has done. Some countries also have special legislation for the protection of folklore. WIPO's Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore is negotiating international legal protection of TCEs¹.

"According to Article 1(a) of the Revised Draft Provisions for the Protection of Traditional Cultural Expressions/Expressions of Folklore being reviewed at WIPO ('WIPO Revised Provisions'), 'traditional cultural expressions' or 'expressions of folklore' are 'any forms, whether tangible and intangible, in which traditional culture and knowledge are expressed, appear or are manifested', and comprise the following forms of expressions (or combinations thereof):

- (i) verbal expressions, such as: stories, epics, legends, poetry, riddles and other narratives; words, signs, names, and symbols;
- (ii) musical expressions, such as songs and instrumental music;
- (iii) expressions by action, such as dances, plays, ceremonies, rituals and other performances, whether or not reduced to a material form; and
- (iv) tangible expressions, such as productions of art, in particular, drawings, designs, paintings (including body-painting), carvings, sculptures, pottery, terracotta, mosaic, woodwork, metalware, jewelry, baskets, needlework, textiles, glassware, carpets, costumes; handicrafts; musical instruments; and architectural forms...

Some interesting studies have been conducted, for example, in relation to traditional music being increasingly rebranded as 'world music', and the effects of globalization and this 'world music' market on local music scenes.

To be treated as subject matter for protection under the WIPO Revised Provisions, such forms of expression have to be 'characteristic of a community's cultural and social identity and cultural heritage' Article 1(a)). They also have to fulfill other conditions, such as being 'maintained, used or developed by

such community or by individuals having the right or responsibility to do so in accordance with the customary law and practices of that community' (Article 1(a)). The United Nations Educational, Scientific and Cultural Organization (UNESCO) has been involved in the protection of tangible and intangible cultural heritage for many decades. The phrase 'expressions of folklore' is used in the UNESCO - WIPO Model Provisions for National Laws on the Protection of Expressions of Folklore Against Illicit Exploitation and Other Prejudicial Actions 1982 ('UNESCO-WIPO Model Provisions').

Section 2 of the Model Provisions provides that 'expressions of folklore' are understood as 'productions consisting of characteristic elements of the traditional artistic heritage developed and maintained by a community' in the country or 'by individuals reflecting the traditional artistic expectations of such a community'. Only 'artistic heritage' is covered by the Model Provisions. While the term 'traditional cultural expressions' is used in this chapter instead of 'expressions of folklore', it is noted that WIPO uses these terms as 'interchangeable synonyms' (WIPO 2006, p.3). At the same time, the term 'folklore' has been critiqued by some as 'reflecting a western attitude of folklore as something dead to be collected and preserved, rather than part of an evolving living tradition' (Shinya, 2004)."

Traditional knowledge and traditional cultural expressions are not old, obsolete and maladaptive - they can be highly evolutionary, adaptive, creative, original and novel³.

What types of knowledge?

- Specialised knowledge may be held exclusively by males, females, certain lineage groups, or ritual or society specialists (such as shamans) to which they have rights of varying levels of exclusivity. This does not necessarily give that group the right to privatise what may be more widely considered to be the communal heritage.
- A body of knowledge built by a group of people through generations living in close contact with nature. It includes a system of classification, a set of empirical observations about the local environment, and a system of self-management that governs resource use⁴

Use of TCEs as literature references

As TCEs have eligibility for IPR protection, it is evident that they have been bestowed legal status. This recognition should be acknowledged by the academic world. In other words, TCEs should enjoy status as authentic forms of knowledge to be used as valuable and necessary literary references.

Purpose and characteristics of a reference

- To inform the reader of a source of information
- To acknowledge and give credit to the author(s) of a referenced paper
- To enable the reader herself/himself to refer to the source and verify or read further from the referenced article or the references contained in the original article

Format of a TCE reference

- Name and other identifying information of the TCE source
- Address of the source so that another researcher may have access
- Authenticity verified by a third party, other than the concerned researcher, or by audio recording or photograph
- Date of the obtaining of the TCE

For PhD students

- The TCE sources should generally be used for the documentation of traditional knowledge where conventional references are not yet available
- Approval of the Supervisor for the use of such sources
- Approval of the Doctoral Committee of a policy for use of TCEs as references and for appropriate IPR protection
-

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Indigenous and non-indigenous researchers

In its early forms, anthropological research was conducted by explorers, bureaucrats and other lay writers on the 'newly discovered' natives in the colonies. A few of the early visitors, described as having 'gone native' lived among the local tribes. In India, one such was Verrier Elwin, a British priest with a doctorate from Oxford University, who spent several decades of his adulthood living among tribes in central and northeast India. He married a tribal woman, gave up Christianity, and became an Indian citizen. He wrote a remarkable series of ethnographies on the tribes of his adopted habitats. Studies by anthropologists like Elwin in the late 19th and early 20th centuries, were given impetus by Malinowski (1922), considered the father of social anthropology and participant observation now so widely used in ethnographic research.

Tedlock (1991) questions the approach. She says, "The British and the American traditions emphasized individual research, using an experiential approach that was labelled with the oxymoron 'participant observation.' There is no doubt but that this peculiar methodological stance causes stress, for...(p)articipation implies emotional involvement; observation requires detachment. It is a strain to try to sympathize with others and at the same time strive for scientific objectivity. This simultaneously sympathetic, yet distancing, methodology, which is widely believed by ethnographers to produce data that somehow reflect the native's own point of view, in time became the principal mode of production for anthropological knowledge".

The suitability of non-indigenous researchers is a vexed issue that goes back to ethnography in the early colonial period. One author has flipped the coin and looked at 'observation of participation'. Part of this evolution stems from the changes in the profile of researchers. From the prototype white male explorer, present academicians in the field include more women, more from middle and lower-class backgrounds and more wider ethnicities, especially local scholars. This has "spurred a new critical awareness and a radical democratization of knowledge resulting in the suggestion that the class, race, culture, and gender beliefs and behaviors of the inquirer be placed within the same historical moment, or critical plane, as the subjects of inquiry" (Tedlock, 1991).

A superficial commitment to participatory research may leave a residual contradiction. Rocheleau (1994) argues that 'For some professional scientists, "participatory research" implies that "we" allow "them" (rural people) to participate in "our" research. For community organizers or rural communities, it may mean that "they" allow outsiders (us) to take part in local... experiments and their interpretation.' She proposes a collaborative research model that brings together knowledge generated by distinct communities, i.e. university researchers, NGOs, rural farmers, students, etc., in meeting local, national, and international needs. Within this model, "each institution could spin on its own internal axis, yet contribute to a broader, shared circulation of participatory research for sustainable development."

According to Servaes (1983), "Even the best-intentioned researcher/activist can inadvertently enhance dependency rather than empowerment. If she/he enters communities with ready-made tools for analyzing reality, and solving problems, the result will likely be that as far as those tools are successful, dependency will simply be moved from one tyrant to another. In other words, overzealous researchers can easily attempt to compensate for an initial apathy by assuming the role of an advocate rather than a facilitator. What looks like progress is all too often a return to the dependent client relationship. This approach is no better than more traditional researchers with hypotheses and constructs to validate, or the diffusionist

with an innovation for every ill.

This debate could be viewed through the lens of Postmodern Critical Theory Ethnography in which the focus of social research is centered on local manifestations, rather than on broad generalizations. The postmodern ethnographer privileges the voice of a marginalized population rather than the stance of the researcher. It denies the supposed omnipotence and objectivity of the researcher. Thus the goal of postmodern science may be more political than scientific. It emphasizes the involvement of the minority group at the outset of the project to allow understanding the culture from its own perspective and for its own political reasons rather than simply from the perspective and the political rationale of the majority. So the researcher might be complete observer, participant-observer, or complete participant, even interchanging these roles within the same project. What makes the postmodern (critical theory) perspective unique is its assumption that researchers are not the masters, but the tools of research and thus construct their findings, which, in turn, allows them to act in two different roles simultaneously (O'Byrne 2007).

Linda Smith avers that "When Indigenous peoples become the researchers and not merely the researched, the activity of research is transformed. Questions are framed differently, priorities are ranked differently, problems are defined differently, and people participate on different terms. (Smith, 1999, p. 193). Insider research has to be as ethical and respectful, as reflexive and critical, as outsider research. It also needs to be humble. It needs to be humble because the researcher belongs to the community as a member with a different set of roles and relationships, status and position (Smith 1999 P 139).

Indigenous research approaches problematise the insider-outside model in different ways because there are multiple ways of both being an insider and an outsider in indigenous contexts. The critical issue with outsider research is the constant need for reflexivity. At a general level, outsider researchers need to have ways of thinking critically about their processes, their relationships and the quality and richness of their data and analysis. So do insiders, but the major difference is that insiders have to live with the consequences of their processes on a day-to-day basis for ever, and so do their families and communities. For this reason, insider...researchers need to build articular sorts of research-based support systems and relationships with their communities (Smith 1999. P 137).

The insider researcher has an additional burden. He/she may be cast in the role of the ethical warrior/care-giver, which is inevitably more demanding than playing the stock character of the academic (Magnat 2014).

Apart from the approaches we propose in this section, it is also important is to enable, train, and encourage Indigenous people to take responsibility for programmes and services that affect their health and for them to work closely with existing health-care systems (Gracey, King 2009). In extension of this recommendation, it would seem ideal for research among indigenous communities for indigenous researchers to take the initiative.

But very few indigenous communities have evolved in their education levels to have produced academic researchers at the university level. indigenous scientists are beginning to be heard and read in higher education circles, though only in a sporadic manner. It is thus inevitable that much of research will be conducted by investigators from 'outside'.

Merely because the researchers are indigenous, does not ensure that cultural norms will be understood completely or that indigenous communities will accept them. Tribals themselves are not a homogeneous group: urbanization, Westernization and 'modern' education may make them partial outsiders. An assimilated or bicultural tribal may be different from a traditional or transitional tribal. (Peavy, 1995).

So, exclusivity for indigenous researchers is not a magical answer. It has its own challenges. Most indigenous researchers come from bicultural families (see footnote), who may be strongly culturally rooted but desire a Western education for their children (Smith 1999). These researchers may have become academically inclined to privilege conventional methods and approaches. Not only that, they may be seen by their own community as being different from traditional members of the tribe.

Recognizing the continuing evolution of indigenous peoples, Peavy (1995), has categorized them into four groups. It is useful to keep this spectrum of indigenous individuals in mind, as career counselors will deal with a diverse range of indigenous clients. Though Peavy refers to Native Americans, the following definitions have wide application.

1. A "traditional" Native supports and lives the traditional way of life through use of foods, medicines, social organization, ceremonies, and communication, and is happy with this way of life.
2. An "assimilated" Native supports and lives the modern, dominant society way of life through use of foods, social organization, and communication and is happy with this way of life.
3. A "transitional" Native identity fluctuates between traditional and dominant society, and often exhibits dysfunctional ways of living. The transitional individual is not committed to either culture and may be unhappy, uncertain, or unaware of his or her own lifestyle. He or she is often abusive, substance-addicted, and manifests low self-esteem and lack of personal stability.
4. A "bi-cultural" Native person lives and supports both traditional and dominant society ways of living. The bi-cultural person uses both traditional and dominant society foods, medicines, and social organization, and may engage in both clan and nuclear family patterns. In contrast to the other identities, the bi-cultural individual has reconciled cultural differences and is at peace with reconciliation.

So, indigenous research cannot be reserved only for indigenous scholars and peoples. Instead, Kwame propose a reflexive researching model as a research framework which should be incorporated into an indigenous research methodology from which both indigenous and allied non-indigenous researchers could draw upon (Kwame 2017).

In a lengthy position statement, a white Australian researcher describes how meaningful knowledge creation can be possible (Moffat 2016). Like Kwame, she considers the practice of reflexivity in an Indigenous context and discusses whether it enables the non-Indigenous researcher to contribute to the decolonising of research. Another Western researcher states that "reflexivity will only lead to reforming and decolonising research if it also addresses deeper issues such as interrogating the systems of the dominant White culture" (Russell-Mundine, 2012).

The implication is not that other methods or exogenous collaboration in evaluation are forbidden. Writing of research participants, D'Abreo (1981) states: "While they, as agents of their own programme, can understand it better and be more involved in it, the outside evaluator may bring greater objectivity and insights from other programmes that might be of great use to them. However, the main agents of evaluation, even when conducted with the help of an outside agency or individual, are they themselves".

One study has looked at the research team's disparate and collective reflection. The research team's self-reflections on identity and positionality are analyzed, privileging its combined racial, ethnic, and gendered life experiences, and integrating feminist and post-colonial theory into these reflections (Muhammad et al., 2016). The reflexivity of mixed teams, and a collaborative, adaptive approach to research processes also operates to ensure cultural and professional integrity are embedded into such research projects (Dew et al., 2019).. So non-tribals who are familiar with tribal culture through immersive projects over a period of time and have community trust, respect and rapport would be well-suited to conduct interventions in indigenous communities.

In Arulmani's thesis of Cultural Preparedness, a case is made for acculturation. It may be recommended that non-indigenous researchers become acculturated with the community with which they intend to conduct research. Most indigenous scholars have developed bicultural competencies, having received their education in the dominant educational system. Wilson, a Native American Opaskwayak Cree shares the cost of this challenge when he writes, "I guess that in switching back and forth between worlds (Indigenous and dominant) I sometimes forget where I am" (cited in Hollingsworth, 2011).

Evaluation of Participatory Research

Servaes (1983) commentary on the Freirian approach provides the introduction to this section:

Given a continuous cycle of study-reflection-action, participatory research inherently involves formative evaluation. Indeed, the terms participatory research and participatory evaluation are often used synonymously. Congruent with the objectives of participatory research, the purpose of evaluation is to benefit the participants themselves. It does not function to test the efficiency of an exogenous program, formulate diffusion tactics or marketing strategies for expansion to a broader level, gather hard data for publication, justify the implementing body, or collect dust on a ministry shelf. In brief, it is an ongoing process as opposed to an end product of a report for funding structures. Whether participatory research "succeeds" or "fails" is secondary to the interaction and communication processes of participating groups. The success of the research is seen no more in publications in 'reputed' journals but in what happens during the process of research.

Turning to the question of validity, Tandon (1981) suggests, on a methodological level, that "getting into a debate about reliability and validity of PR is irrelevant because it is quite the opposite shift in understanding what this research is." Its focus is on authenticity as opposed to validity. However, referring

to generalizeability and validity addressed in relation to qualitative research, it can be argued that validity in its less esoteric sense is participatory research's hallmark. "If ordinary people define the problem of research themselves, they will ensure its relevance".

Social and scientific validity

We will return to post-positivism in this section. The destabilising of validity in the positivist paradigm is well-acknowledged. In her article about openly ideological research, Lather (1986) suggests that although researchers should seek to give up claims to neutrality and objectivity, this does not necessarily mean that we should give up on the concept of validity in regards to our research. She reinterprets three standard criteria for validity: triangulation, construct validity, face validity, and then adds one non-standard criterion, catalytic validity.

According to Lather (1986), catalytic validity "refers to the degree to which the research process re-orient, focusses, and energizes participants in what Freirian conscientization, knowing reality in order to better transform it." The respondents should gain self-understanding and, ideally, self-determination through research participation. So then what is valid in research is that which resonates with peoples' lives and empowers them to make their desired change.

Some indigenous authors (Smith, Tuck, and Yang 2019) have called for a further broadening of the concepts of research validity. They highlight the concept of "relational validity" or "relational accountability", in other words, having a relation with the community and being accountable to them. Creating and maintaining respectful, trustworthy and mutually beneficial relationships between researchers and Indigenous communities, even when the researcher comes from the community, is of utmost importance, in part because Indigenous peoples have sometimes been mistreated and misled by academic researchers, both in the distant and recent past. This recalls the participatory validity of Freire.

A community intervention study on alcohol use in youth, funded by the ICMR was conducted in tribal communities in three states, including Meghalaya (War et al., 2020). The study had control and experimental groups, and the protocol was published prior to the intervention. Statistical analysis of the results of the intervention showed no difference between the two groups. However, the qualitative data showed a convincing social validity, because the community considered it a success.

D. Discussion

Cultural aspects are now being looked at in a much wider context across health disciplines and in different parts of the world.

In its fifth edition, DSM has for the first time included cultural psychopathology from across the globe (APA, 2013). In the DSM list of culture-bound syndromes, only one from India was included. Such syndromes are anecdotally known in tribal societies in India, though only one study was found in the literature. Praising this addition to the DSM, a call was made at the annual meeting of the Society for the Study of Psychiatry and Culture for further research to improve the cultural applicability of DSM (Cummings, 2013). However, there is yet to be a discussion on the particular approaches to this category of research.

In the list of culture bound syndromes from around the world (Paniagua 2018), there is only one from India and a list from an Indian journal (Chhabra et al., 2008), did not contain any tribal syndromes. Perhaps the only published description of tribal syndromes from a tribal community is from Meghalaya (Albert and Kharkongor, 2011).

Sporadic studies in other areas of health have been reported. One report looked at dietary intake based on Traditional Chinese Medicine principles of yin and yang, hot and cold, and acidic and alkaline forming food concepts in a case-control study of dietary factors and breast cancer (Lee and Shen 2008). Another study considered the appropriate research design for a culturally competent colorectal cancer prevention study Mandarin- or Cantonese-speaking participants. The authors described the lessons learned through the analysis process which used a qualitative approach to elicit information. These lessons include benefits and drawbacks of the use of coders from the studied culture group, challenges posed by using translated data for analysis, and suitable analytic approaches and research methods for cross-cultural, cross-language

qualitative research. The authors also discuss the implications of these lessons for the development of culturally competent health knowledge (Tsai, Choe, Lim, Acorda, Chan, Taylor and Tu 2004).

The evaluation of traditional indigenous knowledge presents particular challenges. One author avers that “such knowledge cannot be verified by scientific criteria nor can science be adequately assessed according to the tenets of indigenous knowledge. Each is built on distinctive philosophies, methodologies, and criteria. While there is considerable debate around their relative merits, contests about the validities of the two systems tend to serve as distractions from explorations of the interface, and the subsequent opportunities for creating new knowledge that reflects the dual persuasions” (Durie 2004).

Reporting indigenous research

Initially the end-users of indigenous studies were primarily Western, this then shifted to the wider academic community. Perhaps most such studies now intend to benefit the researched community but rarely are the reports passed on to the indigenous community in a manner that is understandable and usable, remaining mostly in dissertation or scientific form.

Those that conduct and report cross-cultural qualitative data should focus on understanding at least five major ideas: working with bilingual data, considering non-Western cultural traditions, multiple perspectives, multi-vocal and multi-lingual texts, and technical issues to insure accessibility (Gonzalez, Elsa & Lincoln 2006). One researcher has turned his doctoral dissertation into a children’s book and performance art piece using storytelling, dance, poetry and visual art (Wilson-Hokowhitu 2018).

At our university, all PhD theses must be presented to the community from where the data was drawn and the community feedback reported at the public defence. PhD dissertations may be submitted in a non-text form. The first such PhD awarded (Lyngdoh, 2017) described the music of a traditional stringed instrument, demonstrating the chords, rhythms and tunes in a audio-video CD. Such presentations are immediately usable for community dissemination. Elders and key informants may have their contributions acknowledged in the references as ‘traditional cultural expressions’

A self-introduction of the author seems to have become a part of indigenous writings. This is generally not a positionality statement, though it may contain some common elements. In the book *Indigenous and Decolonizing Studies in Education* (Smith, Tuck and Yang, eds. 2019), each author has his or her tribe name in parentheses after their name. Every chapter contains an author biosketch, sometimes extending to a page and half. In two chapters the co-authors introduce and converse about each other. Other introductions use poetry and stories for illustration. This self-disclosure and self-affirmation mirrors the interactions of indigenous peoples when they greet each other and engage in getting acquainted. It’s a locational meeting point that sets the stage for short-term and long-term interaction. It’s more personal than a bland recital of author’s academic affiliations and is couched in ethical principles as outlined in the next section.

The printed names of indigenous keynote speakers at the 8th Biennial International Indigenous Research Conference 2018 in Auckland, New Zealand, included the name of the speaker’s tribe.

NZ Indigenous Conference

Speaking as a disabled person and addressing research in this group and also using the example of the LGBTIA community, Sheldon (2017) says that such self disclosure “is an essential aspect of formal validity of the research.” He addresses these comments also towards those who sponsor, fund, and utilize research. He enlarges Lather’s theories on validity, especially noting the importance she gives to catalytic validity, but says that there is one important component missing: how the researcher is herself/himself transformed by the process of research—an autocatalytic validity, to coin a new term. Autocatalytic validity works hand in hand with catalytic validity; as researchers seek to transform the community, they are themselves transformed.

Ethics

We conclude by summarizing the ethical imperatives that must be regarded as integral in the milieu of research among indigenous peoples. The first issue is of social justice which must be “a fundamental criterion for evaluating alternative research approaches” (Mellow 2015). “Justice may be compromised when a serious imbalance of power prevails between the researcher and participants...abuses stemming from research have included: misappropriation of sacred songs, stories and artefacts: devaluing of Aboriginal peoples’ knowledge as primitive or superstitious;...failure to share data and resulting benefits; and dissemination of information that has misrepresented or stigmatized entire communities” (*The Ethics of Research Involving Indigenous Peoples*, 2004).

Tuck (2013) in her commentary on the evolution of indigenous research over the previous 15 years recapitulates portions of Linda Smith’s milestone book *Decolonising Methodologies*. She begins by reclaiming, in a spirit of reconciliation, the “indigenous agenda of self-determination, indigenous rights and sovereignty, on the one hand, and, on the other, a complementary indigenous research agenda that was about building capacity and working towards healing, reconciliation, and development”. She decries the existing order of research that “disrupts relationships between researchers (mostly non- indigenous) and researched (indigenous), between a colonizing institution of knowledge and colonized peoples whose own knowledge was subjugated, between academic theories and academic values, between institutions and communities, and between and within indigenous communities themselves” and goes on with a plea to “ensure the actual benefits of research accrue to the community; the mutuality of research practices; respect for short- term and long- range tribal concerns; tribal ownership of data; and respectful practice.” She goes on to say that “academic freedom must be accompanied by social and ethical responsibility”.

These broad aspects are echoed by Mellow’s (2015) composite of thoughts from several authors that “ethical and valid progress will be made when research is humble, sympathetic, compassionate, respectful, inclusive, inter-disciplinary and open to possibilities”.

The second issue pertains to the political and local contexts of ethics in tribal areas. In drawing a clear contextual picture of ethical issues of research in indigenous communities, the WHO (2003) has noted that:

1. Mechanisms for ethical review may be weak or non-existent in some developing countries. In addition, indigenous Peoples and other marginalized populations in such countries are not likely to be familiar with research management procedures or the ethical requirements of the research process. The research institutions and national authorities have a particular responsibility to adhere strictly to high ethical standards, and to take special measures to inform their prospective indigenous partners about the provisions of national or international guidelines.
2. Indigenous Peoples and other marginalized populations in developing countries frequently lack independent resources, infrastructure, and political representation. Many live in remote areas in conditions of poverty. They are unlikely to be in a position to contribute financially to a collaborative research process, as do some IP in industrialized countries. This should in no way affect their status as full collaborative partners.
3. Every effort should be made to obtain information from the Indigenous Peoples or marginalized populations themselves on their health problems and priorities; only if direct access is problematic should third parties be approached in this respect.
4. As noted by the WHO Advisory Committee on Health Research (ACHR) (WHO, 2002), there is a substantial international consensus that research should be done in developing countries only if it has potential benefits for the local population. Research in developing countries should be directed at health problems in those countries; the benefits of the research should be available to the research participants and to the broader community in which the research takes place. The means by which this will be ensured should be worked out between the investigators and representatives of the community prior to commencement of the research, and should be detailed in the initial informed consent process.
5. WHO recognizes that special attention needs to be given to the ethical aspects of research in

a developing country context and that ethical issues need to be addressed within the relevant national and social context. The context will differ between developed and developing countries, as well as among developing countries. The populations of very poor developing countries are especially vulnerable to economic exploitation by developed countries or outside organizations and corporations, whose primary mission is not related to the health of the people.

Health research involving indigenous peoples, whether initiated by the community itself or by a research institute, needs to be organized, designed and carried out in a manner that takes account of cultural differences, is based on mutual respect, and is beneficial and acceptable to both parties. The relationship should be one of collaboration (Minaya and Roque 2015).

Smith (1999) has suggested a number of ethical questions that need to be asked about research and its outcomes:

- Whose research is it?
- Who defined the research problem?
- Who owns it?
- Whose interests does it serve?
- Who will benefit from it?
- For whom is this study worthy and relevant? Who says so?
- What knowledge will the community gain from this study?
- What knowledge will the researcher gain from this study?
- What are some likely positive outcomes from this study?
- What are some possible negative outcomes?
- How can the negative outcomes be eliminated?
- To whom is the researcher accountable?

Several noteworthy efforts to compile meticulous guidelines and case studies need to be acknowledged such as the Guidelines for Ethical Research in Australian Indigenous Studies (2011), Ethics of Research Involving Indigenous Peoples and Vulnerable Populations (Global Case Studies 2008) and The Ethics of Research Involving Indigenous Peoples (Canada, 2004).

Principles of ethical research

Guidelines for Ethical Research in Australian Indigenous Studies (2011).

Australian Institute of Aboriginal and Torres Strait Islander Studies

<https://aiatsis.gov.au/research/ethical-research/guidelines-ethical-research-australian-indigenous-studies>

Principle 1: Recognition of the diversity and uniqueness of peoples, as well as of individuals, is essential

Principle 2: The rights of Indigenous peoples to self-determination must be recognized

Principle 3: The rights of Indigenous peoples to their intangible heritage must be recognized

Principle 4: Rights in the traditional knowledge and traditional cultural expressions of Indigenous peoples must be respected, protected and maintained

Principle 5: indigenous knowledge, practices and innovations must be respected, protected and maintained

Principle 6: Consultation, negotiation and free, prior and informed consent are the foundations for research with or about Indigenous peoples

Principle 7: Responsibility for consultation and negotiation is ongoing

Principle 8: Consultation and negotiation should achieve mutual understanding about the proposed research

Principle 9: Negotiation should result in a formal agreement for the conduct of a research project

Principle 10: indigenous people have the right to full participation appropriate to their skills and experiences in research projects and processes

Principle 11: indigenous people involved in research, or who may be affected by research, should benefit from, and not be disadvantaged by, the research project

Principle 12: Research outcomes should include specific results that respond to the needs and interests of Indigenous people

Principle 13: Plans should be agreed for managing use of, and access to, research results

Principle 14: Research projects should include appropriate mechanisms and procedures for reporting on ethical aspects of the research and complying with these guidelines

The Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (TCPS2), (Canada, 2018) has been critiqued by Whetung and Wakefield (2019). The TCPS2 is required reading for all Canadian researchers and its guidelines are followed by the research ethics boards of Canadian universities.

In their conversational tone, the authors describe the heavy bureaucratic hand of ethics policy implementation and plead for a more friendly process. In their own writing they have tried to steer away from the authoritative 'father tongue', which neglects the 'mother tongue' of dialogue, consensus and relation-building. Cumbersome research protocols still seem to differentiate between the threat of colonizing researcher and vulnerable community member when a researcher could perhaps embody both roles. According to them this problem can be overcome by simple exercises of self-focus and self-location as the basis for cultivating relationships. And at the end of the project, when the work is reported these exercises can be repeated and reported.

Research with indigenous communities must result in the hearing of their voices. "No one can say a true word alone – nor can he (or she) say it for another" (Freire 1983).

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Chapter 15

Pedagogy and Assessment

Jemimah Marak

Guiding Principles for Development of the Pedagogy

1. **Cultural Sensitivity and Respect**

Approaching the healers and elders of the community with a deep desire to learn while acknowledging their guardianship of traditional knowledge.

2. **Collaborative Curriculum Development**

Blending traditional knowledge with evidence-based health information to create a holistic curriculum with the help of the traditional healers, community elders etc.

3. **Community Participation**

Organizing community meetings, workshops, and discussions to share the curriculum and gather feedback.

4. **Storytelling and Oral Tradition**

Incorporating folklore and narratives that have been passed down through generations to convey health wisdom.

5. **Practical Demonstrations**

Organizing hands-on workshops and demonstrations where tribal healers and practitioners can showcase traditional healing methods, herbal remedies, and preventive practices.

6. **Interdisciplinary Learning**

Integrating tribal health practices into our own subjects at MLCU, including Allied Health Sciences, Social Work, Nutrition and Dietetics, and Traditional Ecosystems, etc.

7. **Cultural Exchange and Learning Circles**

Facilitate inter-tribal and intergenerational learning circles where different tribal groups share their health practices and learn from each other's experiences.

8. **Modern Science and Traditional Knowledge Integration**

Creating a balanced curriculum that showcases the complementary existence of both modern medicine and traditional health practices.

9. **Sustainability and Continuation**

Training local educators within the community to carry on the teaching of tribal health practices.

10. **Assessment and Evaluation**

Conducting intermittent assessment to ensure continuous development of process and product validity.

Philosophy of assessment methods

1. Ethical assessment practices

Ensure fairness, equity, and transparency in assessment procedures. Safeguard the privacy and dignity of individuals and other resources, and respecting cultural and ethical norms when designing and implementing assessments.

2. Purpose-centered assessment

Provide valuable feedback to the students, helping them understand their strengths and areas for improvement.

3. Diversity of abilities and talents

Assessments should be inclusive, accommodating, and adaptable to different learning styles, needs, and backgrounds, acknowledging that the students have unique strengths and challenges.

4. Authentic/Experiential learning Assessment

Challenging learners to apply their knowledge and skills in meaningful, relevant, and practical situations through assessments that align with real-world contexts and tasks.

5. Multidimensional Assessment

Assessment of all aspects of knowledge and development including cognitive abilities, social, emotional, and ethical dimensions.

6. Community and Collaborative Assessment

Peer assessment, group projects and community involvement to emphasize that collective intelligence and shared learning experiences can enhance the assessment and learning process.

7. Reflection and Self-Assessment

Empowering students to evaluate their own progress and set goals for improvement.

Types of Assessment:

- End chapter exercises
- Quizzes
- Written assignment
- Reflective paper
- MCQ's
- Graph depiction
- Circle time discussion
- Field observation and experiential learning
- Mini projects (Individual or group)
- Community feedback

Proposed Learning Activities:

Classroom sessions will include:

- lectures using PowerPoint presentations
- short videos
- case discussion
- group work
- storytelling through music, art and dance
- demonstrations by external resource persons
- Field visits will include:
 - observing tribal healers in their element
 - Identifying herbs, leaves, roots, etc.
 - storytelling sessions with community
 - interacting with patients of tribal medicines
 - assist traditional healers in basic documentation

Experiential Learnings (1 credit: 30 hours)

Sl. No.	Community/health facility	Hours	Assessments	Remarks
1	Traditional practitioners	10 hrs	Reflective essay & Presentation on learning outcome. (pictorial/Videos/Reflective diary)	Format will be provided.
2	ASHAs & AWWs, Mothers	2+3 (5hrs)		Teachers will assess based on student's creativity and innovative ideas
3	PHC/CHC; Wise elders	2+3 (5hrs)		
4	NGOs	5 hrs		
5	Farmers	5 hrs		

SECTION B State Policies

POLICY 1

MOTHER—Meghalaya’s State Health Policy (for Achieving **M**easurable **O**utcomes in **T**ransforming **H**ealth sector through a holistic approach with focus on women’s **E**mpowe**R**ment)

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Meghalaya State Government

POLICY 2

Meghalaya Mental Health and Social Care Policy 2022

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Meghalaya State Government

MOTHER – Meghalaya's State Health Policy

(For achieving Measurable Outcomes in Transforming Health sector through a holistic approach with focus on women's Empowerment)

1. Introduction

Meghalaya has drafted a State Health Policy which will align with the National Health Bill, 2009 and the National Public Health Act, 2018 (draft) but will also include provisions which have been tailored to the State's unique context.

The policy will set a broad framework for providing essential public health services and functions, including powers to respond to public health emergencies, principally through the State and local public health agencies at the village, Block and District level in collaboration with other public and private healthcare providers, including through the cooperation and formal collaborations between the Center and State.

The policy aims to ensure adequate investment in health and to increase health expenditure up to 2.5 percent of GDP. The policy will also address government and private areas investment.

Meghalaya has been successful in decreasing the number of malarial deaths significantly by capacitating grassroots frontline workers with a system of testing and treatment at a village level using ASHAs as barefoot doctors. Polio has also been completely eradicated from the State, however, the State fares poorly with regards to other health indicators in comparison to other developed states such as Kerala and the world in general.

The Infant Mortality Rate for Meghalaya is 30 deaths per 1000 live births compared to Kerala with 6 and the world with 29 (*source NHFS-4*); Maternal Mortality Rate is alarmingly high with Meghalaya registering 197 deaths per 1,00,000 deliveries, Kerala at 43. Mothers who availed antenatal care account for only 53.2 % in comparison to Kerala's 61.2 %. (*SRS 2016-18*). Institutional deliveries in the State are at a very low level of 51.4 % in comparison to Kerala with a record 99.8%. Only 61.4 % of children between the ages of 12 to 23 months have been immunized compared to 82.1 % in Kerala. (*NHFS-4*)

The average life expectancy rate of citizens in Meghalaya is abysmally low at 62.3 years in comparison to the world at 72.6 years, United States of America at 78.9 years (*UNDP, 2018 report*) and Kerala at 74.9 (*Human Development Index, 2011*)

The policy aims to address the key health indicators by bringing about a positive healthcare model that would touch upon socio-economic determinants of its residents.

The positive health model will benefit the State and empower communities with the knowledge of how to better take care of their physical, emotional and mental health. Positive health model will work towards producing longer, healthier and productive lives by lowering disease risk and healthcare costs in the long run.

1.1 Vision

The policy aims to provide affordable, patient centric universal healthcare to all the residents while also educating the population on their rights and the availability of various preventive health services such as vaccines. The idea is for the population to become informed residents with the Health Department talking a proactive role in dissemination of healthcare services in the State in collaboration with all the stakeholders including the Departments of Social Welfare (ICDS), Education and Rural and Urban Development

The policy will use techniques from the State Capability Enhancement Project (SCEP) which uses frameworks such as Problem Driven Iterative Adaptation (PDIA) approach, Adaptive Leadership Building and encouragement of Artificial Intelligence Enabled Decision Making.

PDIA has been successfully utilized in the State's efforts with raising the immunization rates. In 2018-19, Meghalaya ranked lowest in terms of immunization rates; by using the PDIA approach, the State has now achieved 90 % immunization (Immunization Dashboard, July, 2020) and ranks second highest in the country.

The policy will address the supply and demand side of healthcare with the supply side referring to healthcare providers and the demand side referring to the community where community mobilization will be put on the forefront. The policy will ensure that residents are seen and treated as producers of health and not just subjects of health.

The policy aims to foster an environment where decentralization takes centre stage. The policy will break hierarchical barriers in healthcare administration so as to bring about a platform for open communication to discuss, deliberate and implement ideas.

The current healthcare policy which the State is practicing focuses on curative care; the new health policy will ensure that this focus equally shifts to preventive care in order to bring about a healthy and productive population.

Although Meghalaya is a largely matrilineal society, persistent gender inequality and poverty are the root causes of many health concerns. The policy will aim to bring about the empowerment of women by ensuring health rights such as birth spacing and other reproductive rights. Creating awareness of women's rights is an important aspect to improving healthcare, and this along with empowering women by facilitating their economic independence will strengthen society as a whole. Women's health is not a standalone issue and needs to be dealt with in a holistic manner in order to remove societal gender barriers.

The health policy will follow a three dimensional model with equal focus on: Preventive Care which encompasses promotive care, Curative Care, and Enabling Dimension which encompasses palliative and rehabilitative care which will be discussed in the following chapters.

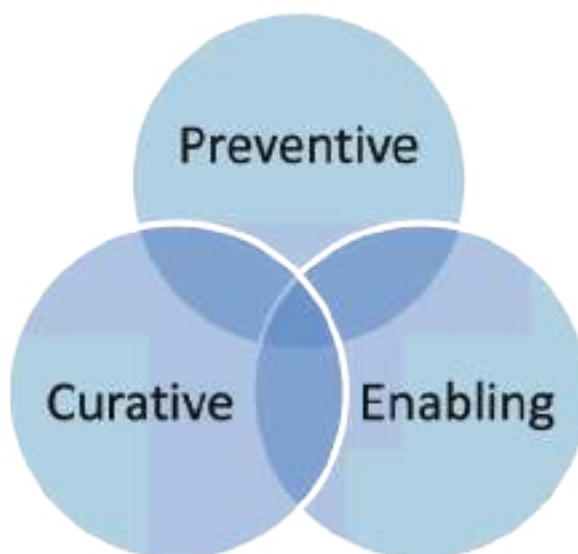


Fig.1 shows the three aspects of healthcare that will create a holistic policy with aspects interlinked with each other for overall wellbeing and creating agency among key stakeholders (Annexure 1)

2. Data and technology driven

The State Health policy will aim to build a robust data architecture that will support development and implementation of health reforms. An electronic Health Information System (HIS) or electronic medical records will be set up to digitalize health records. The policy will combine these health records with other health and socioeconomic data collected by the state to present a holistic picture of health outcomes and related factors. Through these records, the State will have a large pool of data available which can be used as an instrument of positive health indicators while also evaluating the data for identifying any areas of concern. This system will be used to analyze data and create future predictions. The HIS will support effective documentation to its process and contents. All information on health related laws, policies, plans of action and programmes will be made available to the public, which should support engagement of both citizens and civil society organizations.

The policy will work towards implementing the Government of India's National Digital Health Blueprint which aims to provide efficient and affordable health coverage through a wide range of data and infrastructure services by leveraging open digital systems that will ensure security and privacy of personal information.

With technology being an integral part of the present and future, the State's health policy will encourage use of Artificial Intelligence (AI) for problem solving and also predicting shortages and health needs of the population. Information Technology and data based decision making is already being used in the State as seen with the launch of the MOTHER App in 2019 which uses data of expecting mothers in the State and tracks the progress of the pregnancy while ensuring proper antenatal care and also encouraging institutional delivery. The app is also being used to alert high risk cases which can drastically reduce mortality rates. So far, grassroots functionaries such as ASHAs and Auxiliary Nurse Midwives (ANMs) have been trained to collect data and track said data.

To better implement the health policy, the State will focus on building a service delivery process which will enable the use of process maps for clear and precise implementation for better outcomes within a specific time period.

Healthcare will be made accessible to the remotest areas in the State with the propelling of services such as telemedicine, teleconsultation and the use of drones.

3. Focus On Rights Based Framework

The ***Rights-based framework*** is a monumental step that the State is taking as it can empower residents and make the State more accountable. This approach will ensure that discrimination on any basis (gender, ethnicity, age, etc.) is unacceptable. The approach can also increase the scope on participation and inclusion and will warrant a more purposive sharing of information in the State. The framework will be strengthened by the *Meghalaya Community Participation and Public Services Social Audit Act, 2017* which is discussed in Chapter 6.3. This will enable a systematic process to share information to the public by the government. The sharing of information would include yearly household visits to generate awareness on how to access various services provided by the State.

The policy will provide residents with the right to seek and receive appropriate healthcare, right to emergency treatment and care, right to reproductive and sexual health care, right to quality and rational healthcare, right to choice where every user has the right to choose and change his/her health care provider and health care establishment, right to be treated by a named health care provider, referral rights, right to information about health care facilities, goods, services, programmes, conditions and technologies, right to medical records and data, and right to autonomy/ self-determination and prior voluntary informed consent which includes the right to refuse or to halt a medical intervention.

The State will also ensure the right to birth spacing where birth spacing is defined as the time between two consecutive pregnancies which is not less than 1000 days from day of conception. This will be implemented through the Mother and Child Protection strategy which is part of the larger State health policy which is elaborated further in Chapter 6.1.

(WHO guidelines states that "After a live birth, the recommended interval before attempting the next pregnancy is at least 24 months in order to reduce the risk of adverse maternal, perinatal and infant outcomes.")

The approach will ensure that importance is placed not only in outcomes but there is a systematic approach in following all the due processes and implementation mechanism. It will put focus on capacity development of both the duty holders (village, Block, District, State level) and residents claiming the rights.

4. Preventive Care

4.1 Focus on Public Health

Public health will be the prime focus of this dimension in order to improve and protect community health and well-being. Public health policies such as vaccinations, family planning, water and sanitation can increase life expectancy. The current COVID-19 pandemic has proven that there needs to be special emphasis on public health as this can protect residents from health threats and prevent disease. Healthcare systems need to be strengthened by not only upgrading infrastructure but also ensuring qualified healthcare workers at every level and by building a public health cadre. Skill development programmes will also be conducted and a system will be put in place to ensure career progression of healthcare workers.

The policy will address the five pillars of public health namely *Epidemiology, Environmental Health, Health administration, Biostatistics and Health promotion and education*.

The policy will focus on human resource development, capacity building and ensure a proper regulatory mechanism for implementation of sanitary codes (water, food safety etc.) to bring about positive public health outcomes.

The State will proactively take measures to ensure the prevention of diseases and in cases where prevention is not an option, the State will facilitate care to manage illnesses and ensure that residents are equipped with measures and information to avail smooth palliative care.

4.2 Public Private Partnerships

The State will explore innovative models for preventive healthcare similar to the Megha

Health Insurance Scheme (MHIS) which covers curative care. Here, the State will encourage Public Private Partnerships (PPP) where there will be collaboration between public health institutions and private sector institutions to cover preventive care. The policy will allow for private insurance companies to enter the positive healthcare market on a trial basis.

Aspects such as immunization will be wholly covered by such partnerships and all players will be held accountable for achieving targets set by the State. The model will enable better population wide management and all aspects related to it.

The policy will lay down non-derogable principles to guide the public private partnerships with the objective to improve the quality of services delivered through public health systems. The State shall set conditions of service, monitoring, evaluation criteria, assessment and cancellation of PPP projects, which should be implemented by the State Public Health Authority.

The policy will also ensure that the State provides “**promotive care**” by addressing social and environmental issues and promoting health programmes and interventions that will benefit and protect individual people's health and quality of life by addressing and preventing the root causes of ill health and not just focusing on symptomatic treatment and cure.

4.3 Strengthening the role of communities

Initiative will be taken to strengthen the health cadres which will not only include healthcare workers but also grassroots mobilization of Self Help Groups (SHGs) which can have a vital role in strengthening healthcare in the State and will act as a last mile delivery institution for participation. SHGs can be trained to give awareness programmes and can serve as an important platform where community members participate in discussions on positive health practices and to improve health seeking behaviours for accessing the services provided by public health institutions. The policy will provide appropriate training for health personnel, including education and sensitization on health rights.

The policy will outline **Rights and Responsibilities** of the residents, which will encourage citizens to become active partners with the state rather than just beneficiaries of the system. The State aims to pioneer a bottom-up health system which is driven by the community and village organizations. Emphasis will be put on strengthening village health and sanitation bodies. Issues relating to gender inequality, gender violence and health will be taken up where various forums will be constituted at the village level and public health institution level.

There will be emphasis put on developing mechanisms for creating and empowering the decentralized monitoring committees at all levels, both rural and urban and seeking their feedback in a structured manner. The policy shall lay down rules for and establish community-based monitoring frameworks, to strengthen the direct accountability of the health system to the community and beneficiaries, through a number of methods that shall include, formation of social audit and community health monitoring committees, preparation of annual public reports on health at Village, Block, District and State level.

The policy will put emphasis on training on vital issues such as Early Child Development (ECD) and will give awareness and training to expecting and lactating mothers to ensure the overall development of the child. By emphasizing on ECD, the issue of stunting will also be addressed. Stunting is a major cause of concern for the world as more than 220 million children are stunted or living in extreme poverty. 40 % of children under 5 are stunted in India. According to *NHFS-4*, 43.8 % of children under 5 are stunted in Meghalaya. Factors that contribute to stunted growth and development include poor maternal health and nutrition, inadequate infant and young child feeding practices, and infection. Stunting has long-term effects on individuals and societies, including diminished cognitive and physical development, reduced productive capacity, poor health, and an increased risk of degenerative diseases. ECD training is a long-term measure and investment that can combat stunting and reduce the number of future healthcare problems in the population.

4.4 Inter-departmental convergence

Issues such as nutrition, water, sanitation, poverty and gender will also be taken up as these are directly linked to various health problems in the State. The policy aims to foster a spirit of cooperation and collaboration between departments. Currently departments work in silos; the policy will encourage inter-departmental convergence in order to holistically tackle health concerns in the State. Through this convergence, the policy will ensure the adequate supply of safe water; ensure sanitation through appropriate and effective sewerage and drainage systems, waste disposal and management systems, pollution control systems, control of ecological degradation, control of insects and rodents and other carriers of infections.

The policy will highlight the importance of efforts to reduce poverty and gender inequality for removing barriers of social determinants of healthcare.

4.5 Focus on nutrition

The population in Meghalaya relies on a carbohydrate rich diet of predominantly rice and potatoes, the State would proactively encourage the consumption of nutritious foods and indigenous greens which are widely available in the State (*Annexure 2*). Apart from encouragement of healthy eating, the policy aims to also include propagating healthy lifestyles with awareness on the dangers of alcohol abuse, smoking and tobacco and the benefits of exercise.

The policy will ensure equitable distribution of and access to essential health facilities, goods, drugs, services and conditions to all, and especially for vulnerable or marginalized groups. The policy will also ensure access to the minimum essential food which is nutritionally adequate and safe, to ensure freedom from hunger and malnutrition for everyone.

4.6 Focus on Physical Fitness

The policy will put importance on physical fitness and exercise such as yoga, walking, cycling etc. which can protect residents from heart disease, stroke, diabetes, obesity and high blood pressure. It can also aid in memory and brain function and improve mental health by reducing anxiety.

The policy will also address indoor and outdoor pollution and will take steps to reduce stress and improve safety in work spaces.

5. Curative Care

This is provided by strengthening and promoting public health institutions and all other healthcare institutions including the private sector. Efforts will be made to bring Indian Institute of Public Health standards to provide quality services in all 3 levels of healthcare namely primary, secondary and tertiary care.

The policy will ensure that CHCs are the First Referral Unit (FRU). Trauma centres will also be given special importance and will be made available.

Curative care is largely covered in spirit by MHIS which provides universal healthcare to all residents. MHIS utilizes the existing RSBY framework to provide health insurance to all persons that are residents of the State excluding state and central government employees. The Scheme provides insurance cover of up to Rs 5,00,000 per family on a floater basis meaning that the total amount can be used by one person or jointly with other members of the family.

Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (PMJAY) has had certain limitations in Meghalaya as its definition of "deprivation" covers only 3, 47, 000 residents of the population. Because of this reason, MHIS has converged with PMJAY to offer a wide range of health benefit packages that can be availed by the entire population.

MHIS offers 2,382 services to its users in comparison to PMJAY which offers 1,400 services. Both schemes use the same IT platform. An ambitious aim of the policy is to address the invisible costs which are borne by residents after the exhaustion of the MHIS cap.

The links to the services offered by MHIS are attached below: [..\Downloads\SCHEDULE3.8f6e503d.pdf](#) [..\Downloads\SCHEDULE4.e94c2ab6.pdf](#)

With the policy, the State will address the issue of health seeking behaviours of residents. Resident usually visit healthcare establishments only after their illnesses have significantly progressed, which makes cure difficult and adds significant burden on tertiary facilities; the policy will encourage residents to visit healthcare facilities more often and establish a relationship with local health service providers who can detect and address ailments early and effectively. The aim is to inculcate a culture of regular checkups. Milestones can be used for encouraging this behaviour; for eg. Women on reaching a certain age can be encouraged to get a yearly mammogram checkup. Men can also be encouraged to get a prostate exam on reaching a certain age.

A **lifecycle approach** will be adopted by the State whereby healthcare will be ensured for all residents from the time of conception and will be categorized into different categories such as neonatal, new born, toddler, pre- schooler, school age child, adolescent, adulthood. Various health parameters have been identified which will be used as indicators to measure positive health and cognitive skills (*Annexure 3*).

Training of doctors on public health and all critical specialties

The policy will aim to address the critical gap of lack of public health cadre in the State by setting up of a Public Health Academic and Research Institution in collaboration with the Public Health Foundation of India. The policy will encourage research and evaluation to form a continuous cycle of feedback and improvement. The State through the *Design and Adoption of Alternate models for Responding to Shortage of medical specialists (ADARSH)* project will facilitate the training of specialists in district hospitals which will act as training institutes for post graduate courses.

6. Enabling Dimension

6.1 Maternal and Child health Protection Policy

The policy will include a strategy to deal with the unacceptably high Maternal Mortality Rate (MMR) and Infant Mortality Rate (IMR); the policy will address all issues regarding pregnancy and delivery with special emphasis on clinical, public health and socio-economic solutions to help reduce the number of fatalities. The State has already developed the innovative MOTHER app which tracks the pregnancy of women in the State; through this app, expecting mothers are getting proper antenatal care which can then facilitate safe deliveries.

The three important dimensions for reducing the maternal and child deaths that will be addressed through the policy are:

Clinical Management: This implies availability of trained birth attendants and specialists to cater to pregnancies in remote areas. This also implies the availability of medicines and other clinical management tools and capabilities to prevent and reduce maternal and child deaths. The policy will ensure high quality antenatal care needs to be given to all the expecting mothers during all 3 trimesters and after the birth of the child. Data has shown that many deaths occur due to untimely intervention by healthcare professionals due to delayed visits to health institutions. Such evidence can be used to formulate and test interventions that can work in the local context. For instance, a simple instruction of requesting expecting mothers to visit the local PHC/CHC or any healthcare institutions on their expected date of delivery (EDD) irrespective of whether they are having labour pains can greatly reduce the risk to both mother and unborn child. The policy will also ensure timely availability of ambulances, improvement of referral system and training of available manpower.

Public Health Dimension: AAA convergence model of public health action will be strengthened; in addition to ANMs and ASHAs, Anganwadi workers are essential in tackling the problem of high maternal mortality rates. They currently provide supplementary nutrition to pregnant women but their role could be expanded to respond to local challenges. Trainings will be imparted to AAAs to expand their role where they are able to cater to various other needs of expecting mothers including counselling on family planning. This aspect will lay emphasis on improving the quality of ANCs to ensure reduction in MMR as well as IMR. Through this team of frontline workers, a number of local issues can be addressed such as correction of anaemia in pregnant women, compulsory registration of first pregnancies, regular VHNDs, and use of various forms of contraceptives to practice birth spacing.

Public health infrastructure will be revamped to ensure proper equipment, hygienic beds and labour rooms are available at all levels of healthcare services. Data has shown that the State has a high number of home births which is also a cause of concern and it is imperative that institutional deliveries be encouraged so that mother can receive proper care during and after childbirth. One of the avenues for encouraging institutional deliveries is to improve the quality of health institutions from sub-centre level.

Socio-Economic Dimension: This implies the need to make people aware of the prevailing situation while providing proper counselling services and initiating dialogue and conversation around two main issues- Teenage Pregnancy and

Multiple Gravida. Both types of pregnancies fall under the category of unintended pregnancies and are high risk. Around 40 percent of deliveries in the State fall under this category. The sensitization process should be driven by the concept that every child as well as mother requires at least 1000 days of undivided time and care. This will not only ensure a holistic development of the child's brain but also increase his/her chances of survival in future. In the meantime, the mother will also be able to regain her health before another pregnancy.

The modalities to implement the policy to save the lives of mothers and children are as under:

Need for maintaining a 1000 day window and significance of Birth Spacing measures to effect the same. Convergence between different grassroots healthcare workers including ASHAs and Anganwadis as well as various government departments.

Constitution of Health and Gender forums involving village level women SHG federations.

Constitution of PDIA committees in each District headed by the DCs, which would have participation of district level heads from all the concerned Departments and the NGOs/ Missionaries working for the health sector. The committee will be responsible to diagnose problems and implement ideas in an iterative manner. All the district committees will convene together quarterly to share experience and ideas and measure the objective and key results.

Setting up of Counselling Camps and necessary training to teachers and counsellors on how to sensitize masses about sex education and the right message to be spread.

Training grassroots healthcare workers as well as doctors so they are able to give out effective messages to people in terms of birth spacing, significance of 1000 day window as well as diet diversity.

The State Government's main objective with regards to this policy is to save the lives of mothers and infants with a larger objective of improving the life expectancy of people in the State while attempting to break the social stigma associated with use of birth control measures as well as the taboo surrounding discussion of teenage pregnancies.

6.2 Awareness and capability building

The enabling aspect will include counselling camps and centers will be set up which will educate the public on various issues such as teenage pregnancy, multigravida, right to birth spacing, child care, nutrition, immunity etc. A curriculum will be developed by relevant experts in consultation with Medical Experts. Sex Education will also be made mandatory and topics such as birth spacing will be discussed so that the public can be made aware of the dangers and consequences of consecutive births. Teenage pregnancy and Multiple Gravida has been identified as key factors for high maternal and infant mortality rates. As per the State data, teenage pregnancy accounts for 10% and Multiple Gravida accounts for 30 % of the total pregnancies in Meghalaya. It is important that during teenage years, high quality teaching and learning about a broad variety of topics related to sex, exploring values and beliefs about topics and gaining the skills that are needed to navigate relationships and manage one's own sexual health. This will enable the individual to understand the dangers of teenage pregnancy and gain knowledge on the physical, mental and emotional consequences of sex.

The policy will also enable counselling for sexually active couples by Medical Officers/public health nurses/ trained counsellors; this will ensure that residents are made aware of issues such as family planning, contraceptives, sexual health and consent. This will bring about better overall health and wellness and a more socially conscientious population.

Given the complex, multidimensional nature of the problem, it is imperative that the State mobilize several departments and stakeholders to make meaningful progress. The Education Department will have a proactive role in spreading awareness and ensure that the curriculum is taught in all schools across the State. Communities will also be sensitized along with grassroots organizations such as SHGs to ensure that the wider public is informed and educated on the abovementioned topics. In order to further spread awareness, youth camps will be held periodically by the Youth and Sports Department.

The policy will provide education and access to information concerning the main health issues in the communities, including methods of preventing and controlling them, and promoting healthy lifestyles, through sustained, and regularly updated national, State and local level IEC programmes

The policy will devise, adopt, implement, and periodically review, health policies, strategies and plans of action, on the basis of epidemiological, sociological and environmental and evolving scientific evidence, addressing the health concerns of the whole population.

The policy will address other public health measures towards ensuring health and wellbeing of all, including physical, emotional and mental health.

6.3 Meghalaya Community Participation and Public Services Social Audit Act, 2017

Under this Act, village and locality level Social Audit Committees (SAC) have been formed to bring about transparency and accountability in healthcare. The SAC will monitor and evaluate healthcare related programmes which can lead to better performance. The Social Audits shall be conducted at village and institutional levels including the PHCs/CHCs to improve the quality of services and to increase the awareness and uptake of services by the communities with special focus on helping the poor and marginalized in accessing their due health entitlements. This social audit mechanism would enable the general public and various groups and organizations to give free and independent feedback about health care services.

The Social Audit body would record the issues and where possible immediately recommend actions regarding cases of denial of health care or violation of rights enumerated herein or suggest follow-up actions by the parties; similarly it would recognize service providers acknowledged for providing exemplary good services.

The concept of Granular Performance Monitoring may be used to ensure accountability by clearly identifying roles, responsibilities and deliverables for every duty holder.

6.4 Early Childhood Development (ECD) Mission

ECD apart from being a preventive measure is also has an enabling dimension. It is important to note that the period of ECD (prenatal to age 8) determines physical, socio- emotional, motor and cognitive development in a child. It is imperative that the child be provided with proper nutrition and care; the environment of the child is also equally important where it should be taken into account the child's emotional needs. Toxic stress in children is an aspect which needs to be properly addressed as this can cause lifelong problems in learning, behaviour along with physical and mental health problems. It has been found that maltreatment of children in the early years precipitated physiological changes in the body that continues into adult life.

Sensitization and awareness programmes can be given on the importance of care during this crucial time at the grassroots level with focus on issues such as stunting, malnutrition, special needs and cognitive development.

Stunting can happen in the first 1000 days of life and is caused mainly by severe undermalnutrition which is most common in middle or low income countries and harm children's physical and cognitive development. Prenatal nutrition is of utmost importance along with proper nutrition for the mother. It can be noted that there should be due importance given on a mother's touch. The concept of kangaroo mother care which emphasizes on skin to skin care and touch is to be encouraged for the development of a child. Exclusive breast feeding in the first 6 months is also an important aspect of development as this leads to stronger immunity, lower diarrheal and other GI infections, greater growth in weight and height, a lower likelihood of transmission of HIV to the child; all these factors are in turn linked to higher cognitive skills.

With regards to motor skill development, there are two aspects: fine skills which involve small muscles which are linked to functions such as grasping and gross skills linked to functions such as crawling. The timing of when children reach these motor milestones measures their development which will be addressed by the ECD Mission.

6.5 Palliative and Rehabilitative care

The policy will ensure the provision of **palliative care** which is specialized care for patients that are terminally ill. It focuses on providing patients relief from pain and other symptoms of a serious illness.

The policy shall also address **rehabilitative care** by ensuring healthcare services that will enable patients to regain any physical, mental or cognitive abilities that have been lost. The purpose is to return a patient back to a normal, healthy condition, whether it is following an illness, injury, surgery or certain disorders. The policy will also cover drug rehabilitation and care for mental illness.

7. Implementation Strategy

7.1 Problem Driven Iterative Adaptation (PDIA) and Adaptive Leadership Building

The State will use an adaptive development approach inspired by frameworks such as PDIA and Adaptive Leadership Building. This approach aims to actively engage at a cutting edge level government functionaries including Medical Officers, frontline workers, civil society, grassroots organizations and CHCs & PHCs, and build their capability to collaborate with the State on all aspects of the decision-making process such as problem diagnosis, policy design, implementation and evaluation.

Both frameworks will work in tandem with one another and the focus will remain on identifying local problems which matter to residents and coming up with local solutions. The process allows for learning and adapting on a real-time basis. This approach will help build a healthcare system that is more accountable and responsive to the needs of the population.

7.2 Decentralized Catalytic Leadership approach

The policy will follow a Decentralized Catalytic Leadership (DCL) approach which will be implemented at the CHC and PHC level. Maternal and Child Mortality reduction plans will be developed at this level and there will be monthly reviews of objectives and key results.

The Block Development Officers (BDO) will act as enablers who will oversee matters related to poverty and gender inequality. The Medical Officers (MO) will provide the supply side interventions whereby the focus is on clinical management and public health action. The Child Development Project Officer (CDPO) will ensure that demand side interventions are fulfilled. The CDPO will focus on key issues such as nutrition, anaemia, immunization and ASHAs and Anganwadi workers will conduct joint visits to ensure proper antenatal and postnatal care.

The DCL approach will be anchored by women SHGs known as MOTHER community platforms. Women will take up leadership roles and demand for services will be created through Health and Gender forums which will be formed at every village. Through this approach, an auto catalytic leadership process will be facilitated within communities where health social capital will be built in a systematic manner over a period of time through the women SHGs which will promote positive health within their families and communities. This approach will promote massive community participation where women will drive the change in health seeking behaviours and assist in improving health indicators.

7.3 State Public Health Authority (SPHA)

In accordance with the National Health Bill, 2009 (draft), the State shall also set up a State Public Health Authority (SPHA) which shall lay down the rules for its own functioning and discharge of its responsibilities and shall carry out a wide number of functions as laid out in the Bill.

The State Government shall adopt appropriate measures to promote public health in the State; provide adequate budget at the State, District, Block and village level for purposes of implementation of the policy. The State shall evaluate effectiveness, accessibility and quality of personal and population based health services and programmes. In accordance with the National Public Health Act, 2018, the State Government may, on the recommendation of the SPHA, from time to time, define the powers to be exercised, and the duties to be performed, by any department of the State, the Director of Health

Services/Deputy Commissioners or any member of his staff or public health officers, for the purposes of implementation of the policy.

The policy will encourage maximum decentralization and localization of planning and implementation process. To facilitate this process, the State Authority along with the respective District Authority will organize consultations with the grassroots organizations with the objective to identify the local health needs through the platform of Village Health Sanitation and Nutrition Committee (VHSNC), which would assist in formulation of the Block, District and State Public Health plans.

7.4 Disability Adjusted Life Year

The policy will enable the use of Disability Adjusted Life Years (DALY) which is a metric that assesses the overall burden of disease and calculates years lost due to disability. The metric will be used to assess the gap between current health status of residents and the ideal/ optimal health status.

There will be focus on healthcare to see maximum impact where data and AI will be used to assess areas for prioritization. There will be prioritization of investments based on DALY and cost-effectiveness evaluation to promote healthy and productive lives for residents in the State.

8. Other Focal Points Of The Policy

8.1 Addressing Tuberculosis

Meghalaya has a number of endemic diseases that need immediate addressing. The policy will address issues such as tuberculosis which is a major concern in the State and come up with comprehensive solutions to bring the disease under control. Although the State follows the National TB elimination programme (NTEP), it has been noted that at a field level, the programme has raised certain concerns with treatment adherence among patients due to multiple reasons like inadequate monitoring, lack of community participation, myths, misconceptions and issues related to alcoholism. Death rate due to T.B. in the year 2019 and 2020 is 4% (245 deaths out of 5674 total notified T.B cases & 139 deaths out of total 3775 notified TB cases respectively (*source NIKSHAY*). The policy will enable better transmission of information from frontline workers to state leadership so that NTEP could be customized and adapted to the specific needs of the State to achieve the vision of Government of India on T.B. elimination by 2025.

8.2 Sensitization and awareness creation against stigmatization of HIV and Sexually Transmitted Infections

According to a report by NACO, Meghalaya has the third highest number of HIV cases in India with 0.76% of the population living with the disease. Stigmatization against HIV patients is still a great source of concern in Meghalaya. The policy will address the issue by taking measures to disseminate information and creating awareness. Sensitization of communities will also play a major factor in removing the fear of HIV; this will involve a greater involvement of grassroots organizations.

Meghalaya has one of the highest percentage of syphilis cases in the country and as per HIV Surveillance Sentinel, 2017, 1.03% of all pregnant women have tested positive for the infection; the policy will address the issue by creating awareness and sensitizing the public on the sexually transmitted infection.

8.3 Addressing Cancer in the State

According to the ***Cancer Statistics, 2020: Report from National Cancer Registry Programme, India***, it been shown that the East Khasi District in the State has the highest relative proportion of cancers associated with the use of tobacco (70.4 per cent for males and 46.5 per cent for females) in the country. The report also states that the sites of cancer in the North East region are nasopharynx, hyphopharynx, esophagus, stomach, liver, gall bladder, larynx, lung and cervix uteri. Because of the lack of infrastructure for specialized treatment of cancers in the region, patients prefer to travel outside the region. This is a great matter of concern for the State and the policy will aim to address this by strengthening the health infrastructure and propelling a mechanism for quality healthcare services for cancer patients.

As cancer is not a notifiable disease, there are many challenges that are faced during in data collection. The report suggests that data can be linked with Ayushman Bharat and the HIS can improve cancer registration, follow up and outcome.

The report also suggests that local cultural and lifestyle choices may have contributed to heterogeneity in cancer incidence patterns and differences in India (as seen with widespread tobacco use in Meghalaya). The policy would proactively give awareness and sensitization to the population and through various campaigns, make the residents aware of the dangers of certain dangerous habits that could lead to cancer.

8.4 Disaster Management and epidemics such as COVID-19

The entire world is witnessing the havoc wreaked by COVID-19 and this has shown that there is an immediate need to have a policy which addresses deadly outbreaks and diseases. The policy aims to take effective measures to prevent, treat and control epidemic and endemic diseases and will lay down specific standards and norms for safety and quality assurance of all aspects of healthcare. It will address issues such as disease outbreaks and public health emergencies and ensure that the State is prepared for any emergency care in a disaster situation.

With Meghalaya prone to natural disaster deaths such as lightning strikes, the policy will include provisions for treatment of persons that have been affected by various natural disasters (floods, earthquakes).

Issues such as snake and animal bites are largely common in the rural landscapes, the policy will address these issues by ensuring that medication and treatment is easily and readily available in CHCs and PHCs. The policy will also allow for training of the village communities on how to quickly respond to such threats so as to minimize any health risks.

ANNEXURE 1



Fig: The illustration above shows the holistic approach of the 3-dimensional positive healthcare model of Meghalaya

ANNEXURE 2

The table below indicates proposed diet plan for residents to ensure proper nutrition as recommended by World Health Organization

Category	Diet Plan	Additional remarks
For Babies And Young Children	BREAST FEEDING 1. From birth to 6 months babies, should be breastfed whenever the child is hungry 2. At 6 months, introduce a variety of safe and nutritious foods which should complement breastfeeding. 1. Breastfeeding should continue till 2 years of age. 3. Do not add salt or sugars to foods for 2. babies and young children	On its own, breast milk provides all the nutrients and fluids that babies need for their first 6 months of healthy growth and development. Exclusively breastfed babies have better resistance against common childhood illnesses such as diarrhea, respiratory infections and ear infections. In later life, those who were breastfed as infants are less likely to become overweight or obese, or to suffer from non-communicable diseases, such as diabetes, heart disease and stroke.
Children and Adults	STAPLE FOODS 1. Eat a combination of varied foods for a well-balanced diet, including staple foods (e.g. cereals such as wheat, barley, rye, maize or rice, or starchy tubers or roots such as potato, yam, taro or cassava), legumes (e.g. lentils, beans), vegetables, fruit and foods from animals sources (e.g. meat, fish, eggs and milk)	Eating a variety of whole (i.e. unprocessed) and fresh foods every day helps children and adults to obtain the right amounts of essential nutrients. It also helps them to avoid a diet that is high in sugars, fats and salt, which can lead to unhealthy weight gain (i.e. overweight and obesity) and no communicable diseases.
	FRUITS AND VEGETABLES 1. Eat a wide variety of fruits and vegetables 2. For snacks, choose raw vegetables and fresh fruit, rather than foods that are high in sugars, fats or salt (processed foods) 3. Avoid overcooking vegetables and fruit as this can lead to the loss of important vitamins 4. When using canned or dried vegetables and fruit, choose varieties without added salt and sugars	Fruits and vegetables are important sources of vitamins, minerals, dietary fibre, plant protein and antioxidants. People whose diets are rich in vegetables and fruit have a significantly lower risk of obesity, heart disease, stroke, diabetes and certain types of cancer.
	MODERATE AMOUNT OF FATS AND OILS 1. Use unsaturated vegetable oils (e.g. mustard oil) 2. Choose white meat (e.g. poultry) and fish, which are generally low in fats, in preference to red meat 3. Eat only limited amounts of processed meats because these are high in fat and salt 4. Where possible, opt for low-fat or reduced 'fat versions of milk and dairy products 5. Avoid processed foods that contain industrially produced trans-fat	Fats and oils are concentrated sources of energy, and eating too much fat, particularly the wrong kinds of fat, can be harmful to health.
	REDUCE SUGAR AND SALT INTAKE 1. When preparing food, limit the amount of salt and high-sodium condiments (e.g. soy sauce and fish sauce) 2. Limit intake of aerated drinks and drinks that are high in sugars 4. Choose fresh fruits instead of sweet snacks	People who have a higher sodium intake have a greater risk of high blood pressure, which can increase their risk of heart disease and stroke. Similarly, diets which are high in sugar have a greater risk of obesity and an increased risk of tooth decay. People with diets with low sugar and sodium intake reduce the risk of non-communicable diseases such as heart disease and stroke.

ANNEXURE 3

The table below shows the different stages of life along with a general summary of health parameters that should be followed by all residents

INDICATORS TO MEASURE POSITIVE HEALTH AND COGNITIVE SKILLS

Stages	Period	Description	Health parameters
Neonatal	0 to 4 weeks	The neonatal period is the first four weeks of the child's life. It is the time where changes are very rapid. Many critical events can occur in this period.	To ensure that every child thrives to reach their full potential, we must focus on improving care around the time of birth and the first week of life. 1. Skin to Skin Care or Kangaroo Mother Care of 6 to 8 hours for 28 days continuously should be encouraged. 2. Extensive Breast feeding 3. Immunization 3. *At Birth- BCG, OPV-0, Hepatitis B-0 4. Wash practices should be according to the advice of the health practitioners 5. Clean dry cord care is recommended for newborns born in health facilities and at home
Newborn	4 weeks to 1 year	During this development stage, babies' bodies and brain are learning to live in the outside world.	1. Breastfeeding 2. After 6 months the baby can be fed with (formula), should also include certain nutritionally dense semi-solids. At this stage, the baby's body is efficiently producing an apt amount of digestive enzymes to digest starch. After the completion of six months babies can be introduced to other soft food such as banana puree, mash potatoes, etc 3. Immunization *At 6 weeks- fIPV-1, OPV-1, Penta-1, Rotavirus-1, PCV-1. *At 10 weeks- OPV2, RVV-2, Penta2, *At 14 weeks- OPV3, RVV-3, Penta3, fIPV-2, PCV-2 *At 9 months- MMR-1, /MR/Measles, JE Vaccine-1, PCV-3, Vit. A-1
Toddler	12 months to 24 months	Children reach milestones in how they play, learn, speak, behave, and move (like crawling, walking, or jumping). During the second year, toddlers are moving around more, and are aware of themselves and their surroundings. Their desire to explore new objects and people also is increasing.	1. Investing in the first 1,000 days from conception to a child's second birthday shapes the future of the State. Ending stunting and other forms of malnutrition saves lives, improves health and prospects for children, and improves overall development progress. This makes the fight against malnutrition a national imperative. 2. Immunization *At 16 to 24 months- OPV Booster, DPT 1st Booster, Measles/ MR/ MMR-2, JE Vaccine-2

Pre-Schooler	2 to 5 years	The period of the most rapid development of motor behaviors is between the ages of 2 to 5 years	1. The ages between 2 and 5 are often called the preschool years. During these years, children change from clumsy toddlers into lively explorers of their world. A child develops physically, emotionally and socially. 2. Learning what is normal for children this age can help you spot problems early or feel better about how your child is doing. 3. Routine medical visit The best thing to do for the child is to show love and affection but there are many other ways to also help preschoolers grow and learn: • Offer your child healthy and nutritious foods. • Make time for your child to be active. • Read and talk to your child. • Help your child get enough rest. • Help your child play with other children. • Teach different skills • Set limits that help your child feel safe. 4. Immunization *At 5 to 6 years- DPT 2nd Booster
School age child	6 to 12 years	School-age children want to be independent, but family relationships are still the most important influence on development. At 6-12 years, expect sophisticated play, stronger friendships, tricky emotions, improved thinking and physical skills, and more.	1. Ages 6 to 12, is characterized by a slow, steady rate of physical growth. However, cognitive, emotional, and social development occurs at a tremendous rate. To achieve optimal growth and development, children need to eat a variety of healthy foods and participate in physical activity. 2. Physical activity can give children a feeling of accomplishment, reduce the risk of certain diseases (e.g., coronary heart disease, hypertension, colon cancer, diabetes mellitus), if children continue to be active during adulthood. • Promote mental health. As children grow and develop, their motor skills increase, giving them an opportunity to participate in a variety of physical activities. Children may try different physical activities and establish an interest that serves as the foundation for lifelong participation in physical activity 2. Immunization *At 10 years- Td-1

Adolescent	13 to 19 years	Adolescence—the transition period between childhood and adulthood—encompasses ages 13 to 19. It is a time of tremendous change and discovery. During these years, physical, emotional, and intellectual growth occurs at a dizzying speed, challenging the teenager to adjust to a new body, social identity, and expanding world view.	For adolescents' future lives – support for establishing healthy behaviours in adolescence (e.g. diet, physical activity and, if sexually active, use of contraceptives) and reduction of harmful exposures, conditions and behaviours (e.g. air pollution, obesity and alcohol and tobacco use) will help set a pattern of healthy living for adolescents. Immunization *At 16 years- Td-2 During the adolescent period it is also necessary to teach them life skills which include: •Critical thinking and creative thinking. •Decision making and problem solving. •Communication skills and interpersonal relations. •Coping with emotions and stress. •Self-awareness and empathy. Yearly health checkup is also important for adolescents.
20 to 60 years	Adulthood, the period in the human lifespan in which full physical and intellectual maturity have been attained. Adulthood is divided into three stages beginning at age 20 or 21 years. Middle age, commencing at about 40 years, followed by old age at about 60 years.	Adulthood	1. Screening test and immunization scheduled for men ages 50 and older • Yearly general exam • Thyroid TSH (Test) Every five years • Blood Pressure measurement at least every two years • Regularly check cholesterol level • Bone density Screening- to discuss with clinician if they are at increased risk because of previous bone fractures or other factors which are not necessary for other men • Diabetes screening- to discuss with clinician for type 2 of diabetes. If the blood pressure is higher than 140/80 or if they can use medication to control blood pressure • Digital rectal exam should be done once a year during • To discuss with the clinicians on other health related issues such as mental health screening, hearing test. • Routine dental exam and cleaning • At age 65 on time pneumonia vaccine • Yearly influenza vaccine • Get a Td booster every 10 years; one booster after age 50 should be with Tdap, and the rest with Td. • Herpes zoster vaccine for shingles-Once only at age 60 or later; discuss with clinician. • Mole exam- Have this done during your routine physical or separately by a dermatologist. • Sexually transmitted infection (STI) tests-Both partners should be tested for STIs and HIV before initiating intercourse. 2. Healthy eating habit 3. Physical exercise 4. Adequate Sleep

Screening tests and immunization schedule for WOMEN 1. TESTS/IMMUNIZATIONS for women ages 50- 64 •General exam: weight and height- to discuss with clinician •Thyroid (TSH) test- Every 5 years •HIV test- At least once to find out your HIV status; ask your clinician if repeat testing is necessary •Blood pressure measurement-At least every 2 years; at least yearly (or per your clinician's advice) if you have high blood pressure •Cholesterol test- Discuss with clinician; many groups recommend screening every 5 years •Bone density screen- Discuss with clinician and at age 65 years and older bone density screen should be done at least once and consult the clinician if repeated screening is required. •Blood glucose test- Every 3 years •Mammogram- Every 2 years; discuss with clinician •Clinical breast exam- Discuss with clinician •Pap smear-Every 5 years; if HPV screening is unavailable, undergo pap smear every 3 years and for ages 65 and older to discuss with clinician. •Pelvic exam- Every 1–3 years •Chlamydia test- Obtain if you have new or multiple partners •Sexually transmitted infection (STI) tests- Both partners should be tested for STIs and HIV before initiating intercourse •Mental health screening- Discuss with clinician •Colorectal health; use one of the following three methods: 1. Fecal occult blood test should be done on a yearly basis and for those 65 years and older to discuss with clinician 2. Flexible sigmoidoscopy to be done Every 5 years and for those 65 years and older to discuss with clinician 3. Colonoscopy should be done Every 10 years and for those 65 years and older to discuss with clinician •Complete eye exam- Every 2–4 years or as advised by clinician and for those 65 and older every 1–2 years •Hearing test - Every 3 years •Mole exam- Clinical exam or physical; self-exam monthly •Dental exam- Routinely; discuss with dentist •Influenza vaccine- Yearly •Pneumococcal vaccine- Not applicable and for those 65 years and above one time only •Tetanus-diphtheria (Td) or tetanus-diphtheriapertussis (Tdap) booster Every 10 years; one booster after age 50 should be with Tdap, and the rest with Td. •Herpes zoster vaccine for shingles •Once only at 60 or later; discuss with clinician 2. Healthy eating habit 3. Physical exercise 4. Adequate Sleep	

Pregnancy	From conception till birth (40 weeks)	• Patient should see a doctor at least four times during pregnancy; the first at around 12 weeks, second between 24 to 28 weeks, third visit at 32 weeks and the fourth visit at 36 weeks. • Patient should be given folic acid supplementation to prevent Neural Tube defects. • Patient should visit health facility on due date irrespective of labour pains Patient should undergo routine tests such as: • Haemoglobin estimation • Routine examination of urine • Serological test for syphilis, HIV and Hep-B • Monitoring of blood glucose levels • ABO and Rh grouping • Thyroid functioning test • Patient should undergo tetanus immunization (2 doses of Td during pregnancy)

Exercises

1. In regards to certain health indices in the state of Meghalaya, strong phrases are used. Which indices do the following phrases refer to? Answer the questions below:

a. "Alarmingly high" refers to _____

b. "Abysmally low" refers to _____

c. Which criteria are used to calculate the Human Development Index?

d. What is Meghalaya's rank in the HDI among the states and Union Territories in India?

2. Define the following health indicators

a. Maternal Mortality Rate (MMR) _____

b. Total Fertility Rate (TFR) _____

c. Infant Mortality Rate (IMR) _____

3. What are the five pillars of public health? Explain each briefly in one sentence.

a. _____

b. _____

c. _____

d. _____

e. _____

4. According to "An Impact Evaluation Study of Self-Help Groups in Meghalaya", households of SHG members spent 3.52% more on food expenditure and 1% more on health expenditure of their family budget than the non-SHG households.

In your opinion which is more useful for the health of the family – spending more on food or on health expenses? Give reasons for your opinion.

5. You have taken a course on Life Skills, Sexuality Education, and Reproductive Health in MLCU. The Meghalaya State Health Policy recommends the "Setting up of Counselling Camps and necessary training to teachers and counsellors on how to sensitize masses about sex education and the right message to be spread." You have been asked to be on the training team. State three messages that you feel are important.

- a.

- b.

- c.

Meghalaya Mental Health and Social Care Policy (2022)



1312^c

**GOVERNMENT OF MEGHALAYA
HEALTH & FAMILY WELFARE DEPARTMENT**

**ORDERS BY THE GOVERNOR
NOTIFICATION**

No. Health.180/2017/312

Dated Shillong, the 4th January, 2023.

The Governor of Meghalaya is pleased to notify The Meghalaya Mental Health and Social Care Policy- Promoting equitable mental health and social care through collaborative engagement with all concerning Departments/Agencies and communities. The Policy will come into effect from the date of publication and is hereby published for general information.

Sd/-

(Sampath Kumar, IAS.)

Principal Secretary to the Govt. of Meghalaya,
Health & Family Welfare Department

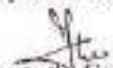
Memo.No.Health.180/2017/312-A

Dated Shillong, the 4th January, 2023.

Copy forwarded to:-

1. P.S. to Chief Minister for information of Chief Minister.
2. P.S. to Minister, i/c Health & Family Welfare Department for information of Minister.
3. P.S. to Minister, i/c Social Welfare Department for information of Minister.
4. P.S. to Chief Secretary to the Govt. of Meghalaya for kind information of the Chief Secretary.
5. P.S. to Principal Secretary, Health & Family Welfare/Social Welfare Department for information.
6. P.S. to Commissioner & Secretary, Sport & Youth Affairs/Education Department for information.
7. Secretary, Health & Family Welfare Department for information.
8. Mission Director, NHM, Meghalaya, Shillong for information.
9. Deputy Secretary, Law Department for information.
10. Director of Education Department for information.
11. Director, Social Welfare Department for information.
12. Director of Health Services(MI)/(MCH&FW)/(R), Meghalaya, Shillong for information.
13. The Director of Printing and Stationery, Meghalaya, Shillong for publication of the Meghalaya Mental Health and Social Care Policy in the official gazette and to provide 30(thirty) copies of the Gazette Notification to the Department.

By Orders etc.,


Deputy Secretary to the Govt. of Meghalaya,
Health & Family Welfare Department.

ml/-

o/c

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MESSAGE



Shri Conrad K Sangma
Hon'ble Chief Minister,
Govt of Meghalaya

I would like to congratulate the Health Department for envisioning and successfully executing the Meghalaya Mental Health and Social Care Policy, 2022, to address a vitally important subject in our State and our society today.

The COVID-19 pandemic has taken a heavy toll on the global psyche. Today, as the world hopefully moves toward the end of the pandemic, almost one billion people have illnesses and disorders related to mental-health as per the World Health Organisation. With increased stress levels and associated substance-use problems compounding the issue further, there is one critical challenge which needs to be addressed—the stigma attached with mental health, which is a widespread problem with serious implications.

Beyond the numbers and statistics, an important lesson that we have also been taught through the pandemic is that there is a human angle to health, which is not restricted to just infrastructural support. It is also about providing accessibility and affordability to all sections of the population when it comes to ensuring effective healthcare services. This was one of our fundamental goals when we launched MOTHER—Meghalaya's State Health Policy, and I strongly believe that the Meghalaya Mental Health and Social Care Policy, 2022, will take a step towards strengthening this direction.

As the policy comes into effect, Meghalaya will become the first State in the northeast and the third in India to have its own policy towards mental health and likewise, a guided approach on how we deal with improving the psychological and overall social well-being of our people.

As we continue on our mission to serve the people better, I would once again like to commend the Health Department and all other stakeholders involved for taking the lead in drafting this holistic policy.

MESSAGE



Shri James PK Sangma

Minister in charge Health & Family Welfare,
Govt of Meghalaya

In a culturally diverse State which faces nuanced complications, mental health issues are a critical challenge that has often not been addressed sufficiently. Mental health disorders result in heavy social and economic costs for people who experience them and yet there has not been adequate discussion about the importance of timely diagnosis or treatment due to a high amount of stigma around the subject.

For India, suicides have been a major problem, with the country accounting for more than a third of the female suicides globally and nearly a fourth of all male suicides as per The Lancet. Even amongst the youth, suicide deaths have become alarmingly high, along with the catalysing impact of substance-use. With the COVID-19 pandemic further exacerbating this situation, in turn highlighting the urgency for amelioration, it calls for the need to devise a robust institutional response.

Through the Meghalaya Mental Health and Social Care Policy, 2022, we look to carve an inclusive and capabilities-based direction for the State's approach to mental health. While the policy is a living document which will evolve with evidence-based research, the fundamental principle is to focus on recognition, rehabilitation and reformation.

As we aim to facilitate better lives, opportunities and care for people diagnosed with mental health disorders, the policy has been made in the belief that addressing this vital subject will improve health outcomes, reduce inequalities and facilitate overall well-being in communities.

Through this policy, we hope to promote behavioural-health literacy, create an inclusive culture, and make mental health a clear governance priority. By reducing stigma and increasing support, we can mitigate the human, citizenry, and economic costs of the pandemic-driven rise in mental illnesses and substance-use disorders. We further hope to serve the people adequately to ensure that in the coming days no one is deprived of their rights irrespective of any disability that they might have.

MESSAGE



Shri Donald Phillips Wahlang,
Chief Secretary to the
Govt. of Meghalaya

Mental health is an important issue that offers many critical challenges for our state. Through the Meghalaya Mental Health and Social Care Policy 2022, we are committed to building strong systems that provide access to mental health services and support for all members of our community.

As stipulated by the Hon'ble Chief Minister, mental health is a clear governance priority. We recognize that mental health is a critical component of overall health and wellbeing, and we are committed to ensuring that all residents have access to the support and services they need.

We also affirm the value of building upon our existing workforce of dedicated healthcare professionals. This also involves building the capacity of the current system to provide them with the support that they need to support the mental health needs of our community

While this policy offers us a blueprint, a multi-departmental coordinated approach is critical to help us address the challenges associated with mental health. We are prepared to work together with all human development departments such as education, health, social welfare, and with the community to provide comprehensive support for mental health. This synergized approach is crucial to developing a more cohesive and effective approach to addressing complex issues such as mental health.

We must leverage our culture and society that places a strong emphasis on the importance of family and community to offer care and support to those who need it. This will ensure the well-being of the individual and the community as a whole.

MESSAGE



Shri Sampath Kumar

Principal Secretary, Health & Family Welfare,
Govt of Meghalaya

It brings me great joy that the Meghalaya Mental Health and Social Care Policy has been implemented bringing much needed respite to many who continue to face silent battles. The COVID 19 pandemic shed light on the need for an inclusive, robust psychological and social support. The vision of the policy is therefore to promote overall mental health and well-being by facilitating appropriate access and care pathways. The policy is steered by two main pillars: inter departmental convergence and engagement with communities which are intrinsic to promoting equitable mental health and social care for all.

The Mental Health and Social Care Policy is part of a sensitive public health approach adopted by the State for providing mental, psychological and social care for the residents. The policy is intrinsically aligned with the Meghalaya State Health Policy 2021, which adopts a holistic lifecycle approach to encourage preventive and promotive healthcare. It is also guided by the principles of social welfare to ensure the protection of the most vulnerable sections of society and to extend to every citizen the right to live a life with dignity.

The Policy is a result of iterations with several stakeholders, which is an integral process of the State Capability Enhancement framework. This process involved a collaborative effort of all concerned departments and agencies towards problem identification and solving in the context of mental health.

Taking into consideration the social determinants of mental ill-health and cultural security, the policy will be facilitated through participatory action across departments, mental health service providers along with communities. We recognise the critical role of the latter in destigmatising conversations around mental health and facilitating care seeking behaviour. The involvement of traditional healers and faith organisations will also be crucial in improving the mental health and well-being of all.

MESSAGE



Shri. Vijay Kumar
Commissioner & Secretary,
Department of Sports and Youth Affairs,
Govt. of Meghalaya

I am thrilled that we are introducing the Meghalaya Mental Health and Social Care policy that is aligned with the Meghalaya Youth Policy 2020. The Youth are a major human resource for development that will become key agents for social change, economic development and technological innovation. However, in their transition to adulthood, they are faced with many aspects of vulnerability. Therefore, it is integral that we prioritise the mental well-being of young people in our state.

Through this policy, we hope to unleash their potential by providing access to mental health services, including counselling and therapy, to raise awareness and educate young people on how to take care of their mental health. Additionally, the policy aims to remove the stigma surrounding mental health and support young people who are struggling with mental health issues. By prioritizing mental health and removing the stigma surrounding it, we can create a brighter future for all young people in Meghalaya.

Given the range of issues that impact young people, it is important for there to be coordinated efforts in the planning, implementation, and evaluation of all policies that target the youth. By working together and using a synergized approach, we can ensure that young people have the support and resources they need to have a bright and fulfilling future.

Acknowledgement

We are grateful to all the members of the sub committee involving members from over 17 partner organizations who have contributed towards the materialization of the Meghalaya Mental Health and Social Care Policy. These include the National Institute of Mental Health and Neurosciences (NIMHANS), The Banyan and Banyan Academy of Leadership and Mental Health (BALM), Sitaram Bhartia Institute of Science & Research, Dr. Sandi Syiem and SAN-KER, Bethany Hospital, Nazareth Hospital, the Mind and Wellness Centre, North Eastern Indira Gandhi Regional Institute of Health and Medical Sciences (NEIGRIHMS), MIMHANS, SAMVAD, Civil Hospital Shillong, Athena Institute, Vrije Universiteit, Amsterdam, TSI Consulting LLP, the Listening Tree, our policy consultants, P.A. Sangma Fellowship for Legal and Policy Research, State Capability Enhancement Project, Lancet Psychiatry Commission on the Psychoses, Dr. Glen Kharkongor and Martin Luther Christian University (MLCU), Cornell University, Schizophrenia Awareness Association, Mind Plus, Ludhiana, International Society for the Study of Trauma & Dissociation (ISSTD), NYU Silver School of Social Work, School of Media and Cultural Studies, Tata Institute of Social Sciences, Mumbai, Warriors Connect, Madras School of Social Work, Dept. Psychiatric Social Work, LGB Regional Institute of Mental Health, Tezpur, Assam, MIT-World Peace University, Tata Institute of Social Sciences, Mumbai and all other stakeholders who have been involved. We would also like to thank the members of the public who shared their valuable feedback during the drafting process of the policy.

Executive Summary

Meghalaya is a state unique in its socio-cultural fabric, connection to nature, affiliation to collectivist practices, and the essential values of loyalty (to one's tribe and the state) and preservation of traditional, ancestral rituals. However, the state also has complex and deep-rooted development challenges that manifest in a high prevalence of substance use, high rates of noncommunicable diseases, and low health-seeking behaviours, all of which contribute to broader health concerns and reduce life expectancy. According to the Health of the Nation's States report, **depressive and anxiety disorders** feature in the top 15 causes of YLDs (years of healthy life lost due to disability) in Meghalaya. Meghalaya reported **226 deaths by suicide in 2021**, i.e. nearly six for every 10,000 people (National Crime Records Bureau, 2022). There has also been a significant rise in **substance use** in Meghalaya over the last decade, which has reached three times the national average due to the increased availability of substances. In light of this, the state has seen the need to develop a policy and strategy to improve mental health and well-being, as well as the social supports that enable full human flourishing.

The Meghalaya Mental Health and Social Care Policy aims to promote overall mental health and well-being and facilitate appropriate access and care pathways for every member of society. It aims to reduce the extent of disability, morbidity, mortality, and social suffering. It seeks to do this by addressing the social determinants of mental ill-health and ensuring cultural security and collaborative engagement with communities in promoting equitable mental health and social care for all. The policy has been steered by a certain set of **values** including, **equity, justice, fairness and respect, empathy, responsiveness, and respect for individual autonomy**.

Mental Health Policy Framework:

The vision and values highlighted call for a holistic and people-centred approach to mental health care. This requires a substantial reorientation of the system to better identify mental health issues and provide sensitive care.

<i>Mental Health Policy Framework</i> Dimensions	
1. Sensitive Public Health Care Approach	3. Care Pathways
2. Community Awareness & Engagement	4. Support for Vulnerable Groups

1. Sensitive Public Health Care Approach

There are numerous challenges associated with mental health including cultural alienation faced by individuals & communities along with the limited focus placed on well-being and management of stress. Several strategies are proposed to overcome these challenges,

Pursue a capabilities and person-centred approach geared to help those using mental health services to attain states of health and well-being, regardless of the extent of disability. The 'healthiest' communities

are those which have retained their language, culture, and rituals centred on their collective identity, as **culturally sensitive care** lead to lower rates of addiction and suicide (Linklater, 2014).

It is imperative to develop a new **collaborative approach** including training indigenous community health workers (CHWs) for cultural biomedical knowledge thereby enhancing well-being within cultural institutions and with traditional healers.

The community will be engaged to legitimise and develop positive and empathic attitudes that will cultivate enabling environments conducive to healing.

Establish pathways that **address social determinants of mental health, especially for vulnerable groups** through participatory and locally embedded community mobilisers.

2. Community Awareness & Engagement

Culturally-adapted IEC campaigns to destigmatize mental health: Integration of culturally-relevant IEC as part of basic mental health literacy campaigns to increase awareness of the impacts of mental health on well-being and physical health, and to destigmatize mental health.

Build capacity of subcenters and VHCs as platforms for information dissemination, sensitization and peer support systems: This involves linking communities to service points through the existing 460 Sub-centers and more than 6500 + Village Health Councils (VHCs). These platforms may be used to sensitise communities and play a key role in facilitating social entitlements to focus on community inclusion. These platforms can also serve as a means for leveraging community practices and local traditions to develop culturally congruent public mental health systems.

3. Care Pathways

Initiation of a Helpline, First Responders' Team, Crisis Teams and Psychological First Aid: A helpline and/or other tech-enabled interventions may help support distressed persons and care providers. By matching the need with the service at the first point of contact, first responders and crisis support teams may then respond depending on the kind of support needed.

Screening of all individuals by trained personnel: The presence of local trained personnel who are meticulous, empathic and thorough with assessment plans and identification pathways in primary settings is integral to effective public mental health. Not only will this reduce the burden of disease and disability, but it will also help address the strain on caregivers, reduce overall social suffering and improve well-being.

Triaging, referral systems, and contact with services: The links between community health workers, first responders, and clinicians will be strengthened, with an emphasis on early screening and detection.

Inpatient care - the importance of social architecture: To provide supportive inpatient care, the policy will strengthen provision of private or shared spaces based on patients' needs, the use of collaborative care planning, cultivating a climate of safety, restorative care and trust, and various therapeutic and counselling approaches (e.g., CBT, narrative therapy, compassion-focused therapy, Open Dialogue, etc.).

Post-discharge self-management using Assertive Community Care (ACT): Most people are likely to experience a recurrence of a psychotic episode or ill-health and options such as Assertive Community Care (ACT) or Meghalaya ACT (M-ACT), which combine aspects of ACT adapted to the needs of the relevant population, have been shown to reduce repeated hospitalisations, increase housing stability and improve participation in the labour force. Such measures will be expanded and strengthened.

Long-term inclusive care options: For persons with high support needs with moderate to severe psychosocial disability long-term care facilities in the community may be provided that are also sensitive to independence, choice and agency, such as half-way homes and supported housing options.

Disasters and exceptional circumstances: Training in psychological first aid will be used to strengthen the state's response in special circumstances involving public health implications and by extension, mental health consequences, including pandemics such as Covid-19.

4. Support for Vulnerable Groups

Focus on supporting and providing access to vulnerable groups, including women, youth, LGBTQIA+ community, elderly, persons with substance addiction, persons living below the poverty line, and caregivers working with persons with mental illness.

Women: The policy aims to **improve Maternal Mental Health** and treatment for postpartum depression by leveraging community health workers and women's collective to offer support and guidance. Expand **economic empowerment** by providing opportunities for women to boost women's self esteem for Mental Well-Being.

Political empowerment for action can enable women to draw attention and take action on mental health challenges faced by women. The reservation policy for women in village employment councils (VEC) needs to be complemented with initiatives to build agency and leadership among women.

Positive children, adolescent & youth development: An effective mental healthcare system needs a continuum of care that starts at early childhood and provides age-appropriate care and support through adolescence and youth.

Effective Early Childhood Care through the Integrated Child Development Scheme (ICDS), Anganwadis and the ECD Mission to ensure that young children have access to socio-emotional care, protection and opportunities for early learning.

CHC staff will be equipped to provide first-level **support for children** at schools & facilities.

Engage and **support adolescents & youth** on the central importance of life skills in intimate relationships, sexual decision-making, and substance use.

Professionals across all health care institutions will be trained in appropriate mental health care provision for **elderly care, support for persons with intellectual disabilities, support for LGBTQIA+ community, migrants, and support for persons with substance-use concerns.**

Implementation Strategy

To effectively execute the policy framework described above, there is need for a particular focus on implementation, and attention to potential barriers to achievement of the Mental Health Policy goals. This policy identifies five enabling dimensions that can help ensure successful implementation. As a first step, the state must work to strengthen **Human Resources**, both through building the capabilities of existing government officials, medical staff and community members, and through recruitment for new roles. Specifically, the policy envisions:

Building up human resources in 3 core professional arenas: psychiatry, nursing, social work and psychology;
Managing demand through better staff-client ratios;

Aligning service delivery standards and standard treatment guidelines;

Aligning the curriculum and professional training with the development of ecological perspectives and skills to engage in social understanding of mental distress and associated interventions to address structural barriers that affect mental health.

Beyond human resources, the implementation approach will also aim to strengthen the medical **Infrastructure** for addressing mental health needs through extending the provision of medication and equipment to more local areas, prioritising high-use PHCs/CHCs and Sub-Centres. In addition, the policy will address important access barriers through provision of **Financial Support**, by increasing take-up of MHIS and strengthening community support systems.

For all of the above measures to succeed, the state will focus on strengthening state capability to address the complex challenge of mental health. A key element of this will be ensuring **Inter Department Collaboration & Policy Convergence**. The state will address this by:

Aligning all departments through the Meghalaya Human Development Council

Integrating Public Mental Health (PMH) within the Comprehensive Primary Health Care (CPHC) approach of the state

Establishment of a *Policy Implementation Unit within the State Mental Health Authority*. In keeping with the mandate of the Mental Healthcare Act, 2017 (MHCA) and the NMHP mandating mental healthcare as a basic right, the State Mental Health Authority (SMHA), will ensure the integration of all mental healthcare services. A policy implementation unit can be created under the SMHA that will oversee and develop an implementation plan to ensure the advancement of the policy.

Establishment of District Convergence and Implementation Committee to implement mental health policy will be anchored by the DC along with Health (DMHP), Social

Welfare (ICPS, ICDS) and Education Dept Officials.

While the state aims to improve coordination and convergence across all relevant departments, attention will also be paid to mobilising and empowering **Community Institutions**. Community engagement is an integral part of Meghalaya's mental health policy and approach, as it is the bedrock for prevention, early detection & long term social support.

Village Health Councils will serve as the nodal community agency for disseminating information, reducing stigma and providing local social support to those with mental illness and their families.

Village Headmen are often the first point of contact for distressed families and will be proactively engaged in early identification, as well as in assisting families in addressing social and economic factors behind illness

Other *trusted community leaders*, such as *teachers, religious leaders & traditional healers*, will be engaged through community health workers & VHCs, to assist in reducing stigma, raising awareness of the importance of mental health, and early detection of mental health disorders and illness.

Key Outcomes

Through the Mental Health and Social Care Policy the state will bring focused energy to implementation of the following key inputs, to achieve the essential outcomes and impacts for transformational change of the mental health landscape.

Inputs	Outputs	Impact
» Increase in mental health human resources such as psychiatrists, psychologists and nurses » All medical officers and community health workers trained on assessing and addressing mental health issues » Streamlining of referral process » Coordination across departments & policies under Human Development Council » Expansion of mental health helpline » Creation of support groups under VHCs, guided by community health workers	» Monthly IEC campaigns in all communities on mental health issues » Annual school and community-based screening for mental health for every citizen » Faster & cheaper referral process, with reduced out of pocket expenditure Increased access of schemes & programs by the mentally ill » Increased number of initiatives targeted at preventive measures such as addressing stress among vulnerable groups » Community support groups meeting for regular discussion & activities	» Higher rates of identification of mental health disorders » Reduced wait times and costs for treatment » Lower percentage of suicidal thoughts reported by adolescents » High rates of care seeking among population » Lower prevalence of substance use » Lower rates of mental health disorders due to preventive programs » Reduced stigma and greater social integration for those suffering from mental illness

Abbreviations and Acronyms

ACT – Assertive Community Treatment	MHRB - Mental Health Review Board
ADHD – Attention-Deficit/Hyperactivity Disorder	MIMHANS – Meghalaya Institute of Mental Health and Neuroscience
ANM – Auxiliary Nurse Midwifery	MOTHER - Measurable Outcomes in Transforming Health sector through a holistic approach with focus on women’s Empowerment – Meghalaya State Health Policy
ASHA – Accredited Social Health Activist	NGO – Non-government organisation
AYUSH – Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homeopathy	NMHP – National Mental Health Policy
CBO – Community-Based Organisation	NMHS – National Mental Health Survey
CBR – Community-Based Rehabilitation	OPD – Outpatient Department
CBT – Cognitive Behaviour Therapy	PDS - Public Distribution System
CBT (P) – Cognitive Behaviour Therapy for Psychosis	PHC – Primary Health Centre
CHC - Community Health Centre	PND – Postnatal Depression
CMD – Common Mental Disorder	PPD - Postpartum Depression
CMNND – Communicable Malnutrition Maternal Newborn Disease	POCSO – Protection of Child from Sexual Offences
C-PTSD - Complex Post-Traumatic Stress Disorder	PTSD - Post-Traumatic Stress Disorder
CSA – Child Sexual Abuse	PWLE – Persons with Lived Experience
CSO - Civil Society Organisation	PwMI – Persons with Mental Illness
DALYs - Disability-Adjusted Life Years	RKSK – Rashtriya Kishor Swasthya Karyakram
DBT – Dialectical Behaviour Therapy	SAMVAD – Support, Advocacy & Mental health interventions for children in Vulnerable circumstances and Distress
DMHP – District Mental Health Programme	SDG – Sustainable Development Goal
GAD - Generalised Anxiety Disorder	SHG – Self Help Group
GBG - Good Behaviour Game	SMD – Severe Mental Disorder
GDP – Gross Domestic Product	SMHA - State Mental Health Authority
GP - General Practitioner	SUD - Substance Use Disorder
IPD – Inpatient Department	UNCRPD – United Nations Convention on the Rights of Persons with Disabilities
IPV – Intimate Partner Violence	UDHR – Universal Declaration of Human Rights
LGBTQIA+ - Lesbian, Gay, Bisexual, Transgender, Queer or Questioning, Intersex, Asexual	WHO – World Health Organization
LTC – Long-Term Care	YLDs – Years of healthy life lost due to disability
MDD -Major Depressive Disorder	
MHC -Mental Health Commission	

Section 1. Vision, Values, Statement of Intent & Compliance with Norms

1.1 Vision

The Meghalaya Mental Health Policy aims to promote overall mental health and well-being and facilitate appropriate access and care pathways for common and severe mental health concerns. It aims to reduce the extent of disability, morbidity, mortality, and social suffering. It seeks to do this by addressing the social determinants of mental ill-health and ensure cultural security and collaborative engagement with the communities it intends to serve in promoting equitable mental health and social care for all. Its values are those of social justice, life satisfaction, personal recovery and community inclusion and participation.

1.2 Values

1.2.1 Equity

Health equity works towards ensuring that all persons may achieve their fullest potential by adequately addressing the social and biological determinants that affect ill-health, regardless of class, marginality or status.

1.2.2 Justice

Frameworks of justice are designed to ensure that exclusion based on historical segregation or bias is addressed and that access to public goods and rights and a dignified life is denied to none, and enabled for all, irrespective of privilege or status. This addresses historical injustices, especially in the context of vulnerable communities, so that healing processes also address intergenerational trauma. Concepts of social justice in mental health also regard intersectionality framings as central to care and recovery.

1.2.3 Fairness and respect

As an extension of social justice frameworks and in line with the Universal Declaration of Human Rights (UDHR), equal standards of care should be made accessible to all. The UDHR has helped establish a moral grounding for improved standards of care based on our mutual responsibilities as equal members of 'humanity'.

1.2.4 Empathy

Cognitive empathy and radical empathy concern the ability to distinguish between one's own and others' feelings, emotions and perspectives, resulting in nurturing a greater sense of trust, compassion and interpersonal connectedness. Within health systems, the use of empathy as a value and framework leads to the service users' (or patients') greater engagement and the ability to cultivate an environment that stimulates pro-social behaviour. It is relatively easy to empathise with those who share our values, belief systems, and moral compass (Riess, 2017). When there is fundamental disagreement, or prolonged periods of caregiving, especially for people experiencing chronic conditions of ill-health, this may lead to compassion fatigue and apathy or indifference. Radical empathy and cognitive empathy (intellectually encouraging people to actively consider another person's point of view) can be fostered among health

providers to encourage safe conversations, support patients to remain engaged in care, use creative methods to address concerns collaboratively, while also ensuring their own emotional health. This is particularly useful in serving marginalised communities.

1.2.5 Responsiveness

WHO defines responsiveness as meeting people's non-medical expectations when they interact with a health system, including how and in what environment they are treated by health workers. Many governments recognise that appropriate health services depend on being able to respond to public expectations and sustain public confidence. Quality of care, appropriate provision, dignity, autonomy and confidentiality make for a responsive mental health system (Roberts et al., 2008).

1.2.5 Respect for individual autonomy

The rights of those who have recourse to mental health services are at the centre of their process of recovery. Loss of agency and self-determination may negatively influence the outcomes. Therefore, providing treatment without an adult patient's explicit consent (or that of parents or guardians in the case of minors) should occur only in exceptional circumstances to prevent irreversible harm, death, exacerbating ill-health and unbearable suffering, and help promote well-being in the longer term. For this reason, it is essential to provide calm environments and treatment, or healing centres that are unrestrictive and staffed by engaged and responsive care teams.

1.3 Statement of Intent

Well-being is a basic and essential right for all citizens and the state will therefore seek to promote a sense of life satisfaction and flourishing and encourage hope, all of which have a positive and mutually reinforcing impact on mental health.

1.3.1 Need for a Transdisciplinary Approach

Alongside biological factors, social determinants such as scarcity, poverty, intimate partner violence (IPV), domestic violence, adverse life events, malnutrition, childhood distress and disorders, limited or inadequate access to decent standards of living, trauma, unresolved conflict, grief, loneliness and social isolation, pressures of acculturation (in the tribal context) and unique cultural belief systems may influence mental health. We therefore adopt a transdisciplinary approach in drawing from the wisdom of multi-sectoral entities and actors to develop a comprehensive, dynamic and adaptive mental health system that attempts to address the many dimensions of well-being and ill health. The Government of Meghalaya aims to ensure that all sectors cooperate to alleviate distress, improve mental health and well-being and reduce disability arising from common and severe mental disorders across the lifespan of each person living in the state.

1.3.2 People-Centred Care

Cultural specificity, diversity and a wide range of needs have been taken into consideration in framing our guidance for action, validating people's subjective notions of well-being and their historical traditions and rituals and integrating these into healing systems. We need to facilitate early and appropriate access to locally based care and person-centred approaches that support those who need mental health services to pursue personal recovery goals and remain engaged with the service (Campion, 2018).

1.3.3 Acting Early

A related aim is to achieve information symmetry as part of health-promotion activities to foster better help-seeking behaviour. The emphasis on early access to mental health and social care in the case of common and severe mental disorders seeks to pre-empt any rise in their prevalence, a decline in the incidence of disability, and promote effective community inclusion.

1.3.4 Supporting Vulnerable Groups

An equally important consideration is the focus on responding to the particular needs of vulnerable groups such as women in distress, children with experiences of adverse life events, persons experiencing multidimensional poverty or homelessness or those exposed to oppressive practices and enduring stress that may exacerbate mental ill-health. The state's unique demographic, cultural, and geographical context

are situated at the heart of this guidance, which therefore combines a wide imagination and pragmatic approaches in a policy that is both aspirational and people centred.

1.3.5 Capabilities-based approach

Transformative changes in mental health may be attained if the ability to pursue freedoms that enhance ‘functionings and capabilities’, as defined by Martha Nussbaum, in a context that expands opportunities for all service users. This may be through appropriate social programmes and architecture in the design of mental health systems, alongside help with housing and livelihoods or expanding their support network, or other means to foster capabilities and nurture well-being.

1.3.6 Cultural and geographical specificity:

Tribal peoples constitute 86% of the population in Meghalaya, and have their own unique customs, rituals and practices (Chandramouli, C., & General, R., 2011). It is essential to adopt seamless approaches to care that integrate biomedical-codified structures with traditional practices. Cultural dissonance may result in deleterious effects; collaborative care planning is therefore essential at individual and community levels. At the same time, a high degree of participation and community engagement in promoting collective health may also affect perceptions, attitudes and help-seeking behaviour in a wider sense.

1.3.7 Participation and community inclusion

Linked to capabilities (principle 40) are the goals of participation and community inclusion that allow for valued social roles and identities to be pursued. Socio-cultural and political participation are associated with rights that persons living with mental illnesses (PLWMI) should be able to enjoy. Barriers – cultural, political or social – must be resolutely addressed to encourage social mixing, which may help reduce the social distance between communities and individuals.

1.3.8 Peer-led participatory movements and action

Restorative Justice, co-creation of knowledge and collective liberation: To foster change based on social justice, the development sector has begun to adopt the concept of proximal leadership. Simply put, this enables individuals and communities with first-hand experience of inequality and oppression to take the lead in guiding principles for change and participate in its implementation. Proximal leaders facilitate agency and autonomy, focus on individual strengths and assets in a non-judgemental manner, and create opportunities for sharing and access to support networks and safety nets. This function also includes grassroots organisations that have the data, knowledge and meaningful relationships with their community to develop measurable and sustainable programmes. A combination of the two, with grassroots organisations also acting as intermediaries as appropriate, can use a community’s strengths and assets to bring about change.

1.4 Alignment with National & Global Norms

The Policy complies with rights-based inclusive frameworks such as the **Convention on the Rights of Persons with Disabilities (UNCRPD)**, which highlights the fundamental human rights and freedoms to which persons with disabilities are entitled in areas such as health, education, access to justice and independent living (United Nations Department of Economic and Social Affairs, 2006). The Policy is also aware of the obligation to pursue the **Sustainable Development Goals (SDGs)** to ensure equitable standards of living for all, resulting in well-being for all. In alignment with the SDGs, this Policy makes its recommendations in the belief that every action to further health and well-being will result in a reduction of poverty, improvement in overall health indicators, greater gender parity, better linkages between physical and mental health, improvement in access to community living, and the reduction of inequalities, intergenerational distress, among others.

The **social justice framework** of mental health is a key motivator and reference point in the conceptualisation of the Policy. While it is essential to ensure early identification pathways and address morbidity, disability and mortality, it is equally important to address the structural and systemic barriers that exacerbate distress and permit negative life events and power relations that perpetuate personal suffering and prevent people from developing their own life, thus continuing insidious and historical forms of discrimination and a vicious cycle of hopelessness, intergenerational precarity, poor health and sub-optimal living standards

and therefore ontological insecurity. The Policy therefore views recovery not as a destination, but as a personal, social and political journey, dependent on many factors that frame perspectives and individual goals; this is the basis for developing care plans and addressing individual mental health concerns.

The Policy is aligned with approaches to **neurodiversity** that are based on differences rather than deficits. The proposed framework of personal recovery and capabilities acknowledges that ‘recovery’ is influenced by the ecosystem and therefore is a dynamic state of being and ‘becoming’ (Morrow & Weisser, 2012). Finally, effective health and social care systems are central to enabling states of well-being espoused in justice and value-based frameworks that promote integrated and person-centred care. In this respect, the Policy is guided by the **World Health Organization’s (WHO) Global Strategy** on integrated people-centred health services, which outlines the critical importance of intersectoral coordination, good governance and the role of the community in creating enabling environments (Service Organizations and Integration, n.d.; World Health Organization, 2021).

The Policy is also shaped by the **National Mental Health Policy (Ministry of Health and Family Welfare, 2014)**, which recommends the integration of care within public mental health and health systems, with a focus on community living, special attention to vulnerable groups, and coordination and convergence between health and social sectors to appropriately address the social determinants that affect mental ill-health; and adequate training of the necessary personnel to provide comprehensive care and build robust mental health and social care systems (Ministry of Health and Family Welfare, 2014). Access to mental health is a basic right as outlined in the NMHP and is therefore reflected in the Meghalaya State Mental Health Policy.

The World Mental Health Report: Transforming Mental Health for All (WHO, 2022) suggests three crucial paths to transformation – strengthen mental health care, reshape environments and deepen value and commitment. The recommendations outlined in this policy may be effectively understood through the lens of this approach, as categorised in the following table.

Strength Mental Healthcare	Reshape Environments	Deepen Value and Commitment
• Focus on flourishing and well-being • Promote sub-centres as nodal points of mental health promotion • Promote community • education to aid in early identification of stress, distress, address social determinants and identify CMDs and SMDs • Initiate a helpline and first responders team - to address distress and social crises • Use contextualised mental health triage approaches outlining roles from the sub-centre level to tertiary hospitals, integrated with village health councils • Strengthen therapeutic offerings at in-patient settings • Develop continuity of care protocols, promote self management post discharge, using Assertive Community Care (ACCT- an adaptation of ACT) and treatment options with accessible and integrated follow up options • Offer long-term inclusive care options, including – halfway homes, Home Again, Housing First etc • Build Human Potential, focus on task shifting - train non-specialists to offer promotion, prevention and rehabilitation-focused interventions • Build multidisciplinary teams including - psychiatrists, social workers, psychologists, nurse-practitioners, tribal leaders and social prescribers – in association with village councils, tribal leaders, ASHA workers and peer advocates; Upgrade service facilities such as MIMHANS and Tura Civil Hospital to teaching and research institutions in collaboration with local and global institutions of eminence	• Build accessible dissemination platforms for health information (through folklore, street theatre, role plays etc) • Work closely with village headmen and village councils, to use culturally resonant and enabling rituals to manage stress, prevent escalation to CMDs and SMDs, and spur hope and resilience • Promote peer-led knowledge-creation programmes • Promote self-help groups (SHGs), safe spaces, support groups and distress helplines • Use models such as Good Behaviour Game (GBG) for children, ExperienceCorps-based programmes for elderly • Facilitate employment, basic income-type interventions and other social security schemes through multi-sectoral convergence to address social determinants of mental health	• Commitment to values of social justice and capabilities-based approaches, recognition of public mental health as a basic right • Recognition that the onus of ‘recovery’ lies equally with the community, due to social precipitators and structures also being embedded in the community. • Commitment to the National Mental Health Policy (2014) and the Mental Healthcare Act (2017) including protocols on admissions to hospitals, and roles of the Mental Health Review Board • Adopt reflexive monitoring & evaluation, and transdisciplinary research frameworks - in view of the policy being a living document, build adaptive systems based on user feedback loops
		• Set up a local sub-group - a Mental Health Commission to build an implementation plan in line with recommendations of the policy, based on socio-cultural formulations of mental health and ill health, and contextualise programmes to the culture of different tribes • Ensure adequate budget allocations to achieve the outlined priorities

Table 1: Highlights of the strategic priorities detailed in the policy, categorised based on the ‘paths to transformation’ framework (WHO, 2022).

1.4.1 Compliance with the Mental Health Care Act (MHCA):

The MHCA recognises that the determination of mental illness and authorisation of admissions in mental health establishments is a clinical decision (The Mental Healthcare Act, 2017, n.d.). This means that a person may be admitted to a mental health facility only if this is authorised by the designated mental health professional (MHP) or the medical officer (MO), and that judicial magistrates no longer have any powers in respect of admissions and discharge.

There are two ways in which a person with mental illness may be admitted – independent admission and supported admission.

Independent admission is when a person voluntarily requests to be admitted to the mental health establishment for treatment. The MHP/MO reviews the request based on the legal criteria and decides whether admission is appropriate. In this kind of admission, the patient can ask to be discharged at any time and must be informed of this right at the time of their admission.

A supported admission is when the NR requests admission of the person with mental illness (the patient's consent is not required).

Supported admissions are authorised in exceptional circumstances when the individual lacks the capacity to make treatment decisions and/or requires very high support and any one of the following situations are met:

recently threatened/attempted or is threatening/attempting to commit self-harm

has behaved/is behaving in an aggressive manner towards another person or causing them to fear bodily harm.

they are at risk to their own well-being as they are unable to take care of themselves.

MHPs are required to independently examine the individual based on the criteria in the Act for supported admission and certify whether the person should be admitted. Supported admission is initially for up to 30 days, but can be extended to 90 days, 120 days and eventually 180 days by repeating the admission process at each stage. The patient's capacity has to be assessed frequently, at least on a weekly basis. On regaining capacity, the patient can seek to be discharged or continue admission as an independent patient. When the police bring a homeless person with mental illness to a mental health establishment, the same criteria for admission and assessment apply. Under the MHCA, the mental health establishments can refuse admission if the criteria are not met, although they are obliged to protect the rights of persons with mental illness and thus provide appropriate health care and treatment.

In keeping with these mandates of the MHCA and the NMHP mandating mental healthcare as a basic right, the State Mental Health Authority (SMHA) will ensure integration of community mental healthcare services (aimed at improving quality of life and community inclusion), and services delivered through multiple points, ranging from sub-centres and CHCs to tertiary hospitals (as elaborated in the section on health and social care systems), and ensure human resource availability with an informed and pragmatic approach.

All homeless and wandering persons with mental illness have the same rights as others mentioned in the MHCA, which include: (i) right to equality and non-discrimination; (ii) right to medical insurance; (iii) right to community living; (iv) right to protection from cruel, inhuman and degrading treatment; (v) right to information; (vi) right to confidentiality; (vii) right to access medical records; (viii) right to personal contacts and communication; (ix) right to legal aid; and (x) right to make complaints about deficiencies in services.

The State Mental Health Authority (SMHA) will also protect the rights of persons with mental illness and ensure proper implementation of the MHCA. If any person's rights have been violated or they wish to challenge any decision of the mental health establishment or law-enforcement official, a complaint can be submitted to the Mental Health Review Board (MHRB) for redressal of their grievances. The MHRB will conduct a review and after hearing both authorities will pass a binding order (Tamil Nadu Mental Health Care Policy & Implementation Framework, 2019). The MHRB is also authorised to register advance directives and appoint/revoke/modify a nominated representative.

Section 2. Mental Health Issues in Meghalaya

2.1 Meghalaya: A Socio-demographic Overview

Covering an area of 22,429 km² and divided into 12 districts, Meghalaya has a population of 29,66,889 (Chandramouli, C., & General, R., 2011), of whom 79.9% live in rural areas, and the remaining 20.1% constitute the urban population. In 2011, the adult literacy rate was 74.4%, with male and female rates of 76% and 73%, respectively. The state is predominantly mountainous, with plains and flood-prone areas in the foothills. It is bounded by the Brahmaputra valley of Assam in the north and northwest, the Cachar area of Assam in the east, and the Surma valley

(Bangladesh) in the south and partly in the southwest. Meghalaya shares a 443 km border with Bangladesh

The population is predominantly tribal, the main tribes being the Khasi, the Jaintia and the Garo, as well as the Koch, Rabha and Bodo. The Garo, Khasi and Jaintia have a matrilineal system, whereby property rights are passed on to the youngest daughter of the family. This also extends to a matrilocal system, wherein the youngest daughter's spouse, children and parents all reside at the home inherited by her. Each tribe has its own language, but many also speak English. According to the 2011 census, around 75% of the population is Christian, and Hindus are the largest minority. Meghalaya is mainly an agrarian economy with about 80% of the population depending entirely on agriculture (Meghalaya State Legal Services Authority, 2015). Meghalaya is also an important centre for trading with Bangladesh.

2.2 Situational Analysis: Methodology

A situational analysis was conducted as a background to developing this policy. This was based on key informant interviews and focus group discussions (FGDs) with key stakeholders including service users, caregivers and service providers across primary, secondary and tertiary facilities (CHCs, civil hospitals, psychiatric hospitals, DMHP teams and grassroot workers), village headmen, religious leaders, traditional healers, representatives of non-government organisations (NGOs), members of educational institutions, and various government departments, as well as consultations with members of different tribes, in combination with secondary data (reviews of academic literature and government reports).

2.3 Mental Health: National and Local Context

The National Mental Health Survey (Murthy, 2017) conducted by the National Institute of Mental Health and Neurosciences, India, indicates that around 150 million Indians require active mental health interventions. The overall prevalence of mental illness was estimated to be 10.6% among adults and 7.3% among adolescents. Common mental disorders (CMDs), including depression, anxiety disorders and substance-use disorders were found to affect nearly 10% of the population, and severe mental disorders (SMDs) around 0.8%. The survey indicated that the prevalence rates for most of the disorders peaked in the 40–49 age group, and evidence suggests that another peak may occur after the age of 60, particularly linked to depressive disorders. This may either be a recurrence of an earlier episode or a first episode (Lodha & De Sousa, 2018).

The survey also found that 83% of the population has no access to mental health services. Specifically, the treatment gap was found to be 85% for CMDs, 73.6% for SMDs, and nearly 90% for substance-use disorders. This was owing to range of factors, including a low perceived need to access services because of limited awareness of their existence; socio-cultural beliefs, values and stigma; insufficient, inequitably distributed, and inefficiently used resources; high out-of-pocket expenses; and the poor quality of care associated with mental health services. It was observed that many people with mental health concerns usually opt first for other sources of treatment such as faith healing before having recourse to hospital care.

For Meghalaya, Roy (2021) mapped the prevalence of each type of disability based on the 2011 Census. In general, the data across all districts indicated that some north-eastern states like Nagaland, Manipur and Meghalaya have the least prevalence, but specifically with regard to mental illness, the highest disability prevalence was recorded in the western parts of Gujarat and Kerala, followed by Meghalaya and Mizoram. The Global Burden of Disease Study 1990–2017 also offers some insight into the estimated prevalence of mental disorders in Meghalaya, from 1990 to 2017 (Sagar et al., 2020).

Disorders	Prevalence of mental disorders (per 100,000; 95% uncertainty interval)
Idiopathic developmental intellectual disability	4,755 (3,170–6,331)
Depressive disorders	3,340 (3,089–3,649)
Anxiety disorders	3,117 (2,846–3,439)
Conduct disorders	961 (754–1,202)
Bipolar disorders	527 (447–624)
Attention-deficit/hyperactivity disorders (ADHD)	441 (361–534)
Autism spectrum disorders	354 (315–396)
Schizophrenia	220 (191–254)
Eating disorders	171 (135–215)
Other mental disorders (personality disorders)	1,544 (1,316–1,760)

Table 2: Prevalence of mental disorders in the state of Meghalaya, estimated by the Global Burden of Disease Study 1990–2017

The highest prevalence in the country for the conduct disorder was observed in Jharkhand, Bihar, and Uttar Pradesh, and in the north-eastern states of Meghalaya, Nagaland, and Arunachal Pradesh. The highest prevalence of ADHD was in Maharashtra, Meghalaya, Arunachal Pradesh, and Bihar. As such, Meghalaya has been identified as one of the states with high prevalence of such disorders. According to the Health of the Nation's States report, depressive and anxiety disorders feature in the top 15 causes of YLDs (years of healthy life lost due to disability) in Meghalaya (in 6th and 9th positions respectively) (Hay et al., 2017). Meghalaya reported 226 deaths by suicide in 2021, i.e., nearly six for every 10,000 people (National Crime Records Bureau, 2022), of which 172 were male and 54 were female. The most common reasons for suicide were marriage-related issues, family problems and illness.

The literature also suggests a high prevalence of concerns related to substance use. The National Survey of Substance Use conducted in 2019 by the Ministry of Social Justice and Empowerment and the National Drug De Addiction Centre, AIIMS, Delhi reported that 6.34% of the population of Meghalaya uses opiates and that 2% needs urgent help about it (Ambekar et al., 2019). These numbers are three times the national average. Overall, the reviews of current statistics reveal that Meghalaya has a high prevalence of mental disorders and related issues such as substance abuse.

2.4 Findings from Field Reports

Frequently reported concerns at outpatient clinics (PHCs, CHCs and district hospitals) include major depressive disorders (MDD), generalised anxiety disorder (GAD), bipolar affective disorder, seizure disorder, schizophrenia and substance-use disorder. Most hospitalised patients are diagnosed with schizophrenia (and psychoses), bipolar affective disorder and substance-use disorder, often with comorbid conditions.

Among children, commonly reported concerns include intellectual disability, seizure disorder, ADHD, autism, conduct disorder and specific learning difficulties. Less commonly reported are tic disorders, selective mutism and, rarely, psychosis. Across age groups, a common observation is the prevalence of somatisation, meaning that mental distress is experienced and reported in terms of physical concerns.

Disorders	Number of reported cases (2021–2022)
Depression	1,684
Anxiety disorders (GAD, panic disorder, phobias etc)	1,315
Bipolar Affective Disorder	1,151
Schizophrenia	2,822
Psychosis – Others (delusional disorder, psychosis NOS etc)	1,769
Somatoform disorders	325
Epilepsy	1,510
<i>Substance-use disorder</i>	
Alcohol	1,919
Opioids	308
Cannabis	134
Tobacco	13
Multi-substance use	255
<i>Child-specific concerns</i>	
Intellectual disability	911
ADHD	43
Autism	31
Conduct disorder	2
Mood and anxiety disorders	1,315

Table 3: Prevalence of mental health concerns reported at DMHP clinics (2021–2022)

There are some differences between the literature and field reports in the observed prevalence of mental health concerns, particularly in the case of SMDs (higher in the DMHP data than in the GBD findings), and child-related concerns (ADHD and conduct disorder, found to be higher in the GBD findings). As DMHP operations began in 2019, it is possible that increased access has enabled greater identification and therefore higher prevalence rates of SMDs. In the case of ADHD and conduct disorders, field reports suggest that while children might be diagnosed with these conditions, they are seldom brought into clinics/hospitals unless the conditions are associated with academic concerns. Hence, there may be gaps in reported numbers.

In all settings, care teams perceive substance-use disorder to be the predominant and most challenging concern, particularly in relation to alcohol and heroin, along with cannabis, yaba tablets, ‘brown sugar’ and ‘white sugar’ (opiates). Consumption of areca/betel nut is also very common and linked to socio-cultural customs and practices in the state. According to Athukorala (2021), betel nut contains both addictive and carcinogenic properties. Overall, health professionals note a change in the substance-use patterns in Meghalaya over the last decade, mainly due to the increased availability of substances. This means that many start using substances from or even before the age 20. Care providers also note an associated increase in crime as substances can cost up to INR 2,000–3,000 a day. Moreover, interpersonal conflict (with family, friends, at the workplace), loss of employment, financial pressure, land disputes, peer pressure and exam-related stress are seen as important psychosocial stressors, triggering mental distress.

2.5 Mental Health, Health and Social Determinants

2.5.1 Physical Health and Mental Health: A Two-Way Relationship

Meghalaya Health Policy (2021) highlights the need for a holistic approach to health and well-being, which also entails understanding the deep links between physical and mental health. It is possible to make progress on health and well-being only if both physical and mental health initiatives are integrated.

For instance, Meghalaya has a large burden of non-communicable diseases (NCD). Ischaemic (coronary) heart disease, asthma and chronic obstructive pulmonary disease (COPD) account for 56.3% of all DALYs in the state. The 2020 Cancer Statistics Report from the National Cancer Registry Programme highlights that the East Khasi District has the country's highest proportion of cancers associated with the use of tobacco (70.4% for males and 46.5% for females) (Mathur et al., 2020). The number of new cancer cases per 1,00,000 population in Meghalaya was 227.9 among males and 118.6 among females (ICMR-NCDIR, 2021). And behavioural factors such as smoking and alcohol consumption are identified as major risk factors for NCDs. As such, the burden of NCDs cannot be addressed without simultaneously inducing behavioural change.

Mental and physical health are in a two-way relationship, as chronic mental stress and disorders can heighten vulnerability to a range of physical health concerns and lifestyle-related issues (such as hypertension, heart disease, obesity, type-2 diabetes, etc). A meta-analysis by Vancampfort et al. (2015) found that the prevalence of metabolic syndrome was 58% higher in psychiatric patients than in the general population. Those with mental health concerns are also less likely to receive proper care at an early stage, which in turn exacerbates their co-morbidities. Meghalaya also has 11,420 injectable substance users which is an extremely high proportion of the population and carries the risk of spreading HIV and Hepatitis C, imposing a significant extra burden on health care.

A meta-review by Chesney et al. (2014) suggested that the life expectancy of patients with major psychiatric disorders may be reduced by up to 24 years. Similarly, many persons with chronic or terminal physical health concerns may develop mental disorders (e.g., depression, anxiety, suicidal ideation). Hence, the integration of physical and mental health services in the state is essential to improving the quality of life.

2.5.2 Poverty & Other Social Determinants

Various forms of social disadvantage (including poverty, hierarchies among tribal communities, etc) often co-occur with mental ill-health and heighten the vulnerability of persons with mental health issues. Being already marginalised and experiencing mental ill-health hinders access to basic needs like clean water, sanitation, food, clothing, shelter, physical safety, education, employment, health care and social security. Deprivation of these needs further exacerbates mental health conditions, in a vicious cycle.

The Meghalaya State Legal Services Authority (2015) suggested that one-third of the state's population is living below the **poverty** line, and that rural poverty is almost twice as high as in urban areas. The report suggested that poverty has worsened in the interior due to stagnant agricultural production, soil erosion and a lack of new economic opportunities. According to NITI Aayog's Multidimensional Poverty Indicator (MPI) estimates (a metric that factors in nutrition and health, availability of clean drinking water, gas, electricity, education etc), 32.7% of the state's population lives in multidimensional poverty – among the top five multidimensionally poor states in India.

Communities across Meghalaya highlight the strengths of the **tribal cultures** and the state's unique socio-cultural fabric, including a strong connection to nature, affiliation to collectivist practices, and the essential values of loyalty (to one's tribe and the state) and preservation of traditional, ancestral rituals. Simultaneously, also linked to deep-rooted, intergenerational practices, there are complex challenges, such as the widespread use of substances, home births, fragmented medical help-seeking patterns, and low demand for the termination of pregnancies (linked to religious values), all of which contribute to the health concerns raised in this section (development concerns, poorer health outcomes for women, cancers and a generally lower life expectancy). Hence, harnessing cultural strengths, while also addressing the associated challenges collaboratively with the population, is critical to strengthening culturally grounded, acceptable and sustainable physical and mental health outcomes.

Section 3.

Situational Analysis of Mental Health Care System

3.1 Existing Infrastructure

Public mental health services tend to be provided at PHCs and CHCs (through the DMHP), at district hospitals (through outpatient and inpatient Psychiatry Departments) and at NIMHANS, a 150-bed state-run mental health hospital in Shillong (with outpatient and inpatient care). In addition, there are 10 psychiatric beds at the Tura Civil Hospital.

Facility	Number	Services
Sub-Centres	463	Sub-centres are the most peripheral contact point between the Primary Health Care System and the community. It is staffed by one auxiliary nurse midwifery (ANM) and a Chowkidar.
Primary Health Centres (PHCs)	110	A PHC is the first contact point between a village and the Medical Officer and has 10 beds for inpatients.
Community Health Centres (CHCs)	30	A CHC serves as a referral centre for four PHCs. It is ideally staffed by four specialists, i.e., surgeon, physician, gynaecologist and paediatrician as well as medical officers and a dental surgeon. It has 30 beds for inpatients, an operating theatre, X-ray, delivery room and laboratory facilities.
General Hospitals	10	100-bed facilities in most districts, and offering a range of services, including a psychiatry outpatient and inpatient department.
Specialty Hospitals	4	Include – • TB-focused –1 • Maternal and child health – 3
Mental Hospital	1	State-run mental hospital in Shillong with an outpatient clinic and a 150-bed inpatient facility.

Table 4: Public health services in Meghalaya. Source: Department of Health and Family Welfare, Government of Meghalaya

3.2 District Mental Health Programme (DMHP)

The District Mental Health Programme (DMHP) is operational in 11 districts of Meghalaya, with PHCs as the basic unit. Through a combination of word-of-mouth referrals and those identified by Accredited Social Health Activists (ASHAs), persons with mental health concerns can get identified and referred to the nearest health facility. Monthly DMHP outpatient clinics are run at these centres (though frequency varies across districts), MIMHANS and the Tura Civil Hospital.

Two of the 11 district teams have a psychiatrist, who treats common and severe mental disorders. In the other nine districts, medical officers are trained by psychiatrists to offer treatment, along with tele-consultations conducted by psychiatrists. In such cases, medical officers may treat issues that do not require a hospital admission. Patients who are referred to MIMHANS or Tura Civil Hospital for SMDs are

usually the ones who require more specialised treatment.

In addition to health services, there are also outreach activities, which are planned by the Clinical Psychologist, Psychiatric Social Worker, Psychiatric Nurse, and Monitoring and Evaluation Officer, with the approval of the District Nodal Officer. In 2021, four halfway homes were established in the state to move long-stay patients from MIMHANS and civil hospitals and offer long-term services focused on rehabilitation, long-term care and incorporation in the community.

It was found that medication was not always available, particularly at PHCs, meaning that patients may need to obtain medication from a CHC or tertiary hospital. Sometimes, staff availability permitting, patients may also be offered brief counselling sessions with a psychologist. ASHAs do not offer counselling as they are trained only to identify distress and facilitate referrals.

3.3 Role of AYUSH

AYUSH (Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homeopathy) aims to integrate 'traditional medicine' into the state's healthcare system. Albert et al. (2015) found that in Meghalaya there is little awareness of or recourse to AYUSH among rural communities. Almost all were aware of biomedicine, and 91% had at some point visited a public health facility for medication. Most respondents indicated biomedicine and tribal medicine as their top choices, while none cited any of the AYUSH streams as a preference for any particular ailment. Field observations are in line with these findings, as mental health professionals at CHCs and tertiary-level centres report unfamiliarity with AYUSH interventions, both among themselves and the communities with which they work. As such, resources dedicated towards AYUSH are likely underutilised for both physical and mental health needs.

3.4 Role of Non-State Actors

Following are some important non-state actors who are directly or indirectly involved in various mental health-related services and initiatives.

Traditional healers: People across the state go to traditional healers for a range of ailments, such as injuries, fractures, skin diseases, insect bites, high blood pressure and so on. In the case of mental health issues, many first go to traditional healers, sometimes for years before going to formal health institutions. Health professionals observe that in some cases, people also may ask to be discharged from hospital to seek help from a healer instead. In general, health professionals do not work with healers and are therefore unsure about how they might approach a mental health issue. Some healers make it clear that they do not treat mental health issues, and refer such clients to community health centres (Bio-Resources Development Centre, 2017)

Village headman: Headmen, part of the village governance system, play a crucial role in the community. SAMVAD (2022) highlights that in relation to child protection, they are a vital source of information regarding what is happening in the village. For instance, if the doctor at the CHC suspects that a child's injuries may be the result of abuse, they contact a headman to better understand the child's context and the background of the injuries. When a person experiences mental health issues, it is often the headmen who write a note to refer the person to a hospital such as MIMHANS. In some cases, persons with mental illness who are allowed to return home after treatment may also require the headman's approval. There have been challenges in such cases as community members may not be able to obtain timely care if the headman does not agree to refer them to a hospital. A headman may also need to give their approval to organise activities such as awareness camps, which could delay implementation.

Non-profit organisations: In many communities, non-profit organisations offer important physical and mental health related services. Various non-profit organisations also focus on specific issues, such as education, livelihoods and health, in which they offer programmes. Religious institutions (such as missionary organisations) also play a vital role in establishing and running services such as shelters for the elderly, persons homeless, de-addiction and rehabilitation centres.

Section 4.

Mental Health Policy Framework

The vision and values highlighted in Section 1 call for a holistic and people-centred approach to mental health care. This requires a substantial reorientation of the system to better identify mental health issues and provide sensitive care. Moreover, there are several efforts that are being made by multiple actors but there is a strong need to establish a common policy framework that can help guide these efforts and enable greater level of coordination. This mental health policy, thus, seeks to establish a coherent system that can provide end-to-end care for the people of Meghalaya. The Mental Health Policy has outlined a framework that has four dimensions. These dimensions represent key aspects of mental healthcare that the state needs to reimagine in order to achieve the vision outlined in the first section.

<i>Mental Health Policy Framework</i> Dimensions	
1. Sensitive Public Health Care Approach	3. Care Pathways
2. Community Awareness & Engagement	4. Support for Vulnerable Groups

Table 5: Dimensions of Mental Health Policy Framework

The following sections discuss each dimension of this framework by first presenting key challenges and then outlining some strategies to strengthen mental health care.

4.1 Sensitive Public Health Care Approach

Challenges

Cultural Alienation: Many studies have indicated higher rates of poverty and land alienation, as well as lower rates of access to health care, safe drinking water, and adequate nutrition among tribal communities (Guha, 2007; Kannan, 2018). Given the strong correlation between psycho-social precarity and higher rates of CMDs (Patel & Kleinman, 2003; Morgan, McKenzie & Fearon, 2008) it is important to consider the historical and persisting iniquities that have contributed to precarity among tribal communities in the state, which translate into psycho-social stress. These stressors are exacerbated by a widening gap opened by a decline in traditional cultural resources (Willford, 2022a; 2022b) coupled with inadequate biomedical systems. In addition, the latter are often alienating and dehumanising to indigenous peoples when they seek health care. Cultural stigmas and prejudices against tribal cultures have contributed to various forms of structural violence, particularly when health interventions have further pathologized them (categorising their behaviours as deviant, or as mental disorders). (King, Smith, & Gracey, 2009; Linklater, 2014).

Individuals & Communities: The current mental health care approaches in the state attempt to address challenges faced by individuals but are not able to sufficiently tackle issues that operate at a community level. This manifests as low involvement of community institutions and muted public dialogues on mental

health issues. Moreover, an individual-centric approach can make it harder to tackle stigma, which is more of a collective issue and requires changing social norms across a range of stakeholders. The failure to grapple with these factors is twofold: it has led to inward-looking and individualised blame and stigma within indigenous communities for historical iniquities and social transformations that were collective in nature; and it has made indigenous experiences of biomedical care systems, especially in relation to mental health, alienating, stigmatising, and pathologizing.

Limited focus on flourishing and well-being and on management of stress:

Well-being is often articulated as states of ‘feeling that their life is valued’, being free of ‘excessive worries and anxieties’, ‘feeling positive about oneself’, feeling a sense of being rid ‘of a depressed mood’, ‘being able to bounce back when things go wrong’, ‘being optimistic about the future’, feeling ‘calm and peaceful’, and ‘having a sense of accomplishment’. Life satisfaction (how people perceive their quality of life) is essential, as it shapes health outcomes, instils hope and influences a person’s relationship and connectedness with the larger community. The impact of loneliness and isolation on the development of cardiovascular diseases, poor quality of life and mortality is well documented. Social connections and feeling that ‘people care’ also contribute significantly to thriving, feeling hopeful and well (Burns et al., 2022; Snyder, 1994). However, cultivating an enabling environment for well-being has been often deprioritised in mental health care, which is very much limited to treatment for those suffering serious disorders. A simplistic understanding of good mental health as the absence of ill-health may impede health assistants and providers from identifying distress in its initial stages and address those at risk of developing more serious mental health or psycho-social issues in later life. The expansion from curative care to holistic well-being needs setting higher-order goals for the system.

Strategy

Pursue a capabilities and person-centred approach: Acknowledging that unequal power represented by the emphasis on a dominant and singular type of recovery associated with neurotypical persons and pursuits, and its impact on individual health and social perception, person-centred approaches are geared to helping those using mental health services to attain states of health and well-being, regardless of the extent of disability; and embrace ideas of neurodiversity that effectively support individuals and their participation both in the care process and in socio-cultural and political life. This calls for a paradigm shift in care approaches, vocabulary and ethics that enables personal recovery in congruence with the capabilities approach – where connectedness, hope, identity, empowerment and meaning in life (CHIME) ‘matter as much as remission of symptoms and functionality reduced impairment’ (Leamy et al., 2011).

Culturally Sensitive Care: Comparative studies of indigenous peoples suggest that the ‘healthiest’ communities are those which have retained their language, culture, and rituals centred on their collective identity, leading to lower rates of addiction and suicide (Linklater, 2014). A resilient identity is critical to a sense of well-being, especially for indigenous cultures, where community and identity are more critically intertwined, and where beliefs and the rituals maintain a sense of wholeness through relationships both with the living and with ancestors, local landscapes and the natural world (Bird-David, 2017). Care providers need sensitization on working effectively with communities to be able to provide care and support that accounts for cultural and social norms. This can help build trust between the citizens and state systems. The focus is more on preventive and promotive healthcare.

Need for Collective Approach: It is imperative to develop new intervention strategies of a more collaborative and participatory nature, including training indigenous community health workers (CHWs) not only to translate biomedical knowledge in ways that are culturally meaningful, and hence enhance well-being, but also to work within cultural institutions, beliefs, and partner with traditional healers to consolidate sources of resilience and generate hope. For example, rather than focusing care for individual substance abusers, or chronically depressed, which treats the individual and indigenous community as inherently problematic, more focus on collective restorative justice and group rituals would acknowledge shared painful experiences (Linklater, 2014). If historical traumas were collective, a sense of justice and healing may also mean less focus on individual health issues, and more on a sense of collective wholeness that is central to notions of relationality in indigenous worldviews (Bird-David, 2016; Linklater, 2014). Given the deep attachment to ancestral landscapes, sacred groves, and traditional foods that are linked cosmologically through rituals, their disruption by socioeconomic transformations, land seizures, and dietary changes

has contributed to feelings of cosmic and bodily disequilibrium, and to being vulnerable to illness, often framed in supernatural or culturally defined symptoms (Kakar, 1982; Demmer, 2016; Willford, 2022; 2023). In designing mental health interventions and policies tailored to the tribal communities in the state, it is important to be aware of indigenous worldviews that consider scale, and embodied notions of relationality, sometimes referred to as ‘substantialism’ in the South Asian context, in which food, bodies, and environments commingle with ancestors and environments (West & Zimmerman, 1987). This has two implications. First, collaboration and partnership with each tribal community is paramount to bridge the divides between biomedical and traditional forms of care to attain well-being in a holistic sense. Second, focusing on the collective, as opposed to the individual who is unwell (in a general sense, obviously not if there is an acute need for care), acknowledges the traumatic ruptures and forms of structural violence that have particularly affected indigenous communities, given their scale, precarity, and powerlessness, coupled with the emphasis on relationality in their worldviews.

Engage the community in the recovery process: It should be highlighted that in systems characterised by injustices, the onus of ‘recovery’ lies equally with the community. This is because social precipitators – such as identity, poor social capital, lost connections, poor interpersonal relationships and kinship ties, limited social networks, a history of trauma, isolation and grief, constant exposure to oppressive practices, hegemonic governance and social structures – are also embedded in the community. This approach will have to be integrated and reinforced in public awareness campaigns so that it is legitimised and used in training programmes for all service providers. Not only will these value-based strategies affect individual health outcomes, but they may also contribute to developing positive attitudes and behaviour that are non-stigmatising and empathic and therefore help cultivate enabling environments conducive to healing.

Address stress: As in the case of physical health, the state needs a stronger emphasis on preventive care. It is important to acknowledge the role of stress in influencing mental health. While certain levels of stress i.e., eustress can be beneficial and promote health and well-being, prolonged periods of psychosocial stress can impact pathology, adaptability, neuroplasticity and overall well-being. (Radley et al., 2011). Hence, it is critical to address stress through effective interventions, to promote life-satisfaction and prevent escalation to CMDs and SMDs. The mental healthcare system should support initiatives that proactively reach out to communities to discuss risk factors such as chronic stress, which can translate into severe mental health disorders.

Address social determinants of mental health, especially for vulnerable groups: It is imperative to establish pathways that identify and address the needs of those with experience of discrimination, segregation, disadvantage and oppression, keeping in mind the cultural factors that particularly affect the lives of women and children in Meghalaya. This may be achieved by using participatory methods involving diverse but locally embedded community mobilisers, teachers, auxiliary health staff such as ASHA workers, community-based rehabilitation workers and traditional healers, using techniques such as community mapping.

4.2 Community Awareness & Engagement

Challenges

Low awareness of connection between mental and physical health: Many people do not see this aspect of health as a significant priority, further exacerbating distress and perpetuating a cycle of poor social health. The association between physical and mental health are inadequately addressed, such as the linkages between substance-use disorders and cancers and/or other NCDs, or home births and a possibly higher prevalence of postnatal complications including the probability of death, seizures, postpartum depression, IPV and its impact on physical injuries and emotional ill-health etc.

Negative stigma: There is a need to address stigma and negative perceptions about mental illness, to improve help seeking behaviours. Shame often intimidates people from expressing feelings of distress that they may experience; the focus on collective healing and the responsibility of tackling shame as a deterrent to promoting health has to be reinforced among care teams and communities.

Knowledge asymmetry and mental health literacy: Adequate and culturally relevant forms of knowledge transfer and dissemination platforms that inform the population about the impacts of mental health on

well-being and physical health, and the bi-directional relationship between both are currently unavailable.

Accessible and comprehensive mental health services at primary, secondary and tertiary levels:

Mental health access and coverage in Meghalaya is currently somewhat uneven. Among other factors, low population density (132 persons per km²) makes it particularly difficult to provide services as part of comprehensive primary care, resulting in large gaps in health and social care and significant implementation challenges.

Strategy

Culturally-adapted IEC campaigns to destigmatize mental health: Awareness and knowledge-transfer initiatives and effective dissemination platforms are essential to promote better help-seeking behaviour, address asymmetric knowledge and improve population-level health outcomes. It is important to make use of local culture, folklore, street theatre, role plays, and local and powerful advocates such as representatives from women's groups, child and youth leaders, healers and tribal leaders, as well as teachers, auxiliary health staff, and mental health and social care teams as part of a concerted effort to encourage individuals and communities to focus on their mental health and identify early signs of distress. Rather than build false dichotomies by focusing exclusively either on contemporary or on traditional approaches to addressing mental health needs, awareness approaches by all groups should seek to integrate these for maximum gains. The use of newer approaches, particularly those that engage communities, such as theatre and community dialogue, may be relevant in this context, giving a space to community voices and lived experiences to help shape local narratives on mental health and healing. Edutainment - short for entertainment education - has also proven to be successful in addressing complex challenges, particularly those that have stigma associated with them. Community radio with relevant content and helpline services may also help promote messaging on social health and mental health in engaging ways that break down stigma. In the context of mental health and the critical importance of early, appropriate, barrier-free and non-stigmatising identification pathways, the benefits of timely access to care may need to be underlined by a range of influencers such as those suggested above, and also political and social leaders who have a positive public image.

Helpline: The state can leverage existing helplines such as 1098, Tele-MANAS and other initiatives to improve access to support through first-line responders. The helpline may be expanded to proactively reach out to citizens for mental health support.

Developing an application that disseminates information in indigenous and other languages on mental health literacy, mental health risks and mitigation, self-care, help-seeking strategies, referral resource directories, and interactive tools such as graphic grounding techniques, and Q&A portals can help engage younger people. Existing apps, such as the 'Manas App' created by NIMHANS, could be specifically tailored to the context of Meghalaya.

Build capacity of subcenters and VHCs as platforms for information dissemination, sensitization and peer support systems:

- **Linking community to service points:** This involves creating awareness through the existing 460 Sub-centers and more than 6500 + Village Health Councils (VHCs), with a focus on facilitating enabling environments to help identify persons at high risk or with experience of vulnerabilities or distress at the earliest and link them with a service point.
- **Community sensitization:** These platforms may be used to sensitise communities and play a key role in facilitating social entitlements to focus on community inclusion, eg. promoting access to job opportunities through social cooperatives and home-based entrepreneurial efforts, and stronger support structures through affinity groups or SHGs. Sub-centres can operate as information kiosks information on stress (linked to themes ranging from exams, peer pressure and bullying, to gender roles, poverty traps, natural calamities, unemployment, demographic shifts, violence, existential concerns etc), stress management measures (coping techniques, community engagement tools such as support groups and circles, and escalation pathways to counsellors), general well-being (e.g. nutrition and healthy eating, positive youth development and parenting, prenatal and postnatal care, mental health care, social health etc) and problem solving, acting as the nodal point for mental health promotion.

- **Community practices and local traditions to be leveraged** to develop culturally congruent public mental health systems, making the most of preexisting structures and customs to foster integrated approaches to enhance health and well-being gains that draw from the deep sense of community.
- **Community-level mobilisation and connectedness:** Healing could be viewed as both a personal and collective process in tribal and minoritized communities that are often affected by intergenerational trauma, in a way that is largely supportive of the individual in distress or emotional pain. In this context, it is important to support community ties and build social cohesion, where existing rituals help form bonds and connections and strengthen affiliations (Yu et al., 2020). Rituals, whether small or elaborate, have the potential to forge cooperation, help members of the group better deal with conflict and crises, stimulate generosity, increase trust and ‘think and act as groups’ (Watson-Jones & Legare, 2016). These protective functions of certain existing rituals may help challenge stigma and help individuals in distressing predicaments gain from collectivism and related practices, in addition to personal agency. It is recommended to encourage rituals with healing properties to build solidarity, group cohesion, reduce anxiety and ‘othering’ among the most vulnerable, especially for those living with mental health concerns. Singing and dancing, often accompanying or being the main component of traditional rituals, have other therapeutic gains in relation to mental health in stimulating movement, feelings of connectedness and hope, and encouraging engagement in social activities, and may be explored further.
- **Peer-support groups:** Work with community members, especially village health councils, to encourage the establishment of peer support groups, in which individuals suffering from mental illness and their families, can meet others who have been through similar struggles. Individuals with experience of mental, social, economic and psychological distress are often isolated due to stigma, limited access to effective and appropriate health care, support structures and social systems that are ill-equipped to respond to complex and diverse needs, especially exacerbated among vulnerable groups. In the process, the extent and range of personal goals diminish, limiting individuals’ ability to pursue capabilities that allow them to thrive or flourish, remain hopeful and participate in community and social life, especially against the backdrop of disempowering structural barriers. It is recommended that all individuals and groups – ranging from those who experience loneliness to those with experience of depression or psychoses – are served in a way that helps foster feelings of trust, safety and collaboration with primary care providers in the community. In the case of those living with serious mental health concerns, care plans have to address unique needs, adopt a holistic approach and therefore engage a range of health professionals, healers and other support networks from local communities, to offer services based on individual needs. Loss of control over treatment options and systems that place greater emphasis on medication and formal treatment rather than on models that integrate social justice and disability may discourage health-seeking behaviour.
- **Promote peer-led knowledge-creation programmes for healing:** The key aim is to create spaces of collective processing through group work, art and play, reclaiming indigenous identities through oral histories, documenting people’s own experiences and preparing toolkits in local languages. Testimonials of change, and of navigating personal and systemic challenges, have universally inspired greater participation in people’s recovery process and encouraged hope and energy, inspiring others to become community role models. These services would be most authentic as in-person sharing, but tech-assisted platforms may also be used to reach diverse populations in public health and education settings.
- **Facilitate grief circles:** Acknowledging that communities with generational and ongoing trauma experience multiple forms of cultural, personal, financial, structural, and environmental loss is central to establishing therapeutic alliances. Programmes aimed at creating spaces for individual and collective support through grief circles and responsive programmes to help people who are experiencing bereavement may resonate locally. Further, using rituals that are accepted and established in the Meghalaya context, and adapting them collaboratively in ways that are both therapeutic from an evidence-based practice perspective, and familiar and relatable from a cultural perspective, may effectively support the healing process.
- **Edutainment for Reducing Stigma:** short for entertainment-education, edutainment has proven to be successful in addressing complex challenges, particularly vulnerable groups that have stigma associated with them.

4.3 Care Pathways

Challenges

Delayed identification of mental health concerns: Limitations associated with access to every household, such as door-to-door screening and assessment mechanisms, identifying persons in distress in a timely manner, combined with overburdened personnel and poor alignment with culturally meaningful forms of care, frustrate the attainment of public mental health goals. Further, stigma and information asymmetry and/or poor mental health literacy inhibits people from self-reporting concerns, especially given the limited provision of locally accessible care.

Inadequate (local) access to emergency and acute care centres: Apart from effective identification of and referral pathways for all CMDs and SMDs, there is no access to acute and emergency care and teams that can ensure consistent and coordinated care in times of emergencies or mental health crises. The delays, in combination with poor continuity, pose significant barriers to treatment. MIMHANS and Tura hospitals have historically over-extended themselves owing to limited bed capacity. It is recommended to increase the number of beds in primary and secondary health centres across districts, leading to more local and better integrated care.

Helplines and Safe Spaces in Meghalaya: Currently, there are few helpline services or safe spaces available for citizens of Meghalaya. Helplines provide prudent and non-judgemental emotional support for persons in distress. In addition, safe spaces provide a non-judgemental location, and allow people to feel supported and respected. This is particularly beneficial for minoritized communities such as the socially disadvantaged or the LGBTQIA+ community (India CSR, 2021). Non-clinical suicide-prevention interventions in Australia indicate that peer-led safe spaces provide non-judgemental support to those in need. They can often be customised or modified to each cultural context. According to the WHO guidelines, distancing or prohibiting access to substances that could cause harm, such as pesticides, helps reduce the incidence of suicide. Support groups and access to individual coaching, building resilience supported by active listening, and Cognitive Therapy for Suicide Prevention (CTSP) have shown significant gains in terms of saving lives and sustaining good outcomes for a period of time (Slesnick et al., 2020).

Limited focus on care coordination and continuity of care: Protocols and tiers of care and treatment are not well defined, resulting in poor commitment to protocols that are unclear in terms of the nature of service, type of service provider, provision of training, and location of provision. This leads to poor coordination within and across departmental care teams, which affects the continuity and consistency of care and the outcomes of interventions that are intended to reduce disability and improve community inclusion. Referral pathways are discrete and unclear, with virtually no convergence with social care that provides social security to individuals who experience other hardships arising from systemic barriers. In addition, referral pathways often ignore issues such as out-of-pocket costs, requiring families to travel great distances repeatedly in order to access care.

Poor integration of care pathways: Limited integration of mental health care within the public health system, and between mental health and social care systems and culturally acceptable traditional approaches or AYUSH, results in a disjointed system with disparate pathways, largely focused on biomedical approaches.

Lack of exit pathways and other supportive institutions: Patients who are admitted to hospital often remain in the institution for longer than necessary owing to a lack of exit pathways (families/homes to which to return). A study by Hans Foundation in 2019 suggests that in MIMHANS, 50 out of the 116 patients who were in the inpatient ward (at the time of the study, in 2019) were long-stay patients (i.e., had remained in hospital for over a year) (Narasimhan et al., 2019). The study also indicated that only seven of these 50 patients had severe levels of disability, while the remainder had mild to moderate disability. This suggests that several of the long-stay patients could have adapted well to and benefited from being discharged, and from living in a community. Health professionals at NIMHANS estimate that as of August 2022, 50–60 patients were ready to be discharged but were unable to leave. Further, due to challenges in tracing families and facilitating reintegration, many patients in the halfway homes move from one institution to another but remain stuck without options for community-based living.

Strategy

Initiation of a Helpline, First Responders' Team, Crisis Teams and Psychological First Aid: A helpline and/or other tech-enabled interventions may help support distressed persons and care providers. By matching the need with the service at the first point of contact, first responders and crisis support teams may then respond depending on the kind of support needed. If the person is homeless, lives alone or has an elderly or child caregiver as their primary support and similar circumstances, in the event of extreme social distress intersecting with negligible support networks the first responders would be trained to refer them appropriately to a service that is best placed to respond to their needs. First responders would be drawn from existing mental health and social care support staff and associated professionals or community-based rehabilitation workers, peer advocates, community members and volunteers engaged in outreach work. The police may intervene in the case of extreme vulnerabilities or limited social capital to provide help, or where care is provided without explicit consent. First responders may access ambulatory care when needed, which the state will provide, since transport is expensive and impedes speedy access to care. Crisis and co-crisis teams (e.g., the police and the mental health team or peer advocate co-led team) are usually trained to make initial clinical and needs assessments, use reflective listening, reduce distress, prioritise needs and match care pathways, stabilise (if possible and required), and triage. These crisis teams are trained in de-escalation, community interface and verbal and non-verbal communication techniques that are supportive, culturally appropriate and embedded in a culture of empathy and responsiveness.

Screening of all individuals by trained personnel: The presence of local trained personnel who are meticulous, empathic and thorough with assessment plans and identification pathways in primary settings is integral to effective public mental health, a basic right for all. Not only will this reduce the burden of disease and disability, but it will also help address the strain on caregivers, reduce overall social suffering and improve well-being. Healthcare workers can be trained on early identification of mental health disorders, particularly among vulnerable populations. There can be annual screenings that have combined assessment of physical and mental health.

Pathways for early identification of diverse, intersecting vulnerabilities and provision of appropriate social care to alleviate distress: Various types of distress and vulnerabilities may be identified at school, in the family and by community mobilisers such as the ASHA workers, traditional healers and teachers, in order to prevent the experience of feeling blocked, and the loss of resilience among children, adolescents, young adults, single women, pregnant women, working men and women and the elderly (Nead, 2016). Early identification of social vulnerabilities has the potential to arrest the descent of these individuals into states of emptiness and alienation, and ultimately depression and self-harm. The state may leverage specialised early-intervention strategies that have been developed for a range of conditions including psychosis, bipolar disorder, major depression, trauma-related conditions and personality disorders.

Triaging, referral systems, and contact with services: A first responder would use contextualised and adapted mental health triage, the clinician would assess a referral based on the nature of the need and its severity or urgency. In the case of acute, emergency and urgent needs, the patient would be treated in a tertiary hospital, with specialist care focusing on stabilisation, assisting recovery and restitution of biological, psychological and social functioning. In general, inpatient care would range from one to eight weeks, and longer if necessary. Acute care could be provided across tertiary hospitals, MIMHANS and, with adequate training and personnel, also integrated into sub-centres, PHCs, upgraded PHCs, and block-level CHCs. Sub-centres will help in early identification of mental health concerns and facilitate referrals to PHCs, CHCs or tertiary hospitals based on the need. They will also house first responder units and offer crisis support and psychological first aid (explained above) when required. These units will also double up as a safe space in the context of intimate partner violence and/or other forms of distress in the context of children as well. This would establish many accessible units across the state, while ensuring that mental health teams may maintain contact with their patients over a period of time. Besides rapport, trust building and a focus on care throughout a person's life, this also achieves continuity in the therapeutic alliance and with the mental health and social care team. In addition, convergence will be promoted between the public mental health systems, private actors and activities of the village health councils.

More beds in primary care: It is recommended that every PHC or CHC assign 2/10 and 3/30 beds and that every tertiary care centre or District Hospital assign 15/100 beds for mental health care. Increasing the number of beds for emergencies or acute need would lead to more beds overall, which could also be used to provide respite care. Addressing suicidal ideation or attempted suicide and preventing suicide would also benefit from the greater number of beds offering specialised services, including a suicide watch protocol, to support a person through a period of crisis.

Inpatient care - the importance of social architecture: It is vitally important that inpatient care is supportive. In pursuit of this, the provision of private or shared spaces based on patients' needs, the use of collaborative care planning, cultivating a climate of safety, restorative care and trust, and various therapeutic and counselling approaches (e.g., CBT, CBT(P), DBT, narrative therapy, dance and movement therapy, mindfulness techniques, expressive arts-based therapies, psychodrama, compassion-focused therapy and Open Dialogue) may be introduced. Open Dialogue also involves support networks in a non-hierarchical patient–therapist interaction. Other approaches such as solution-focused therapy, motivational interviewing, behaviour activation etc. may also be helpful. Peer advocates involved in care inspire hope and offer expert advice based on their lived experience, nuancing care plans based on context, diagnosis, social stressors and the environment, and offer real-life inputs – although these by definition do not lend themselves to being standardised – underlining their essential role in supporting meaning-making exercises in a person's unique emotional landscape. It is also essential that social care specialists, social workers or social prescribers work alongside psychologists and other interdisciplinary mental health professionals to address social determinants of health pre and post discharge to prevent recurrence of distress, offer appropriate solutions that may help manage stress and distress, create healing environments in IP set ups, clarify concerns, provide consistent support and focus on building personal recovery plans that involves care coordination between departments so as to offer non clinical support such as housing, income security, spiritual support, access to activities that induce 'flow states' etc. Increase in the number of nurses, nurse-practitioners and psychiatrists is required (with mentorship chains for escalation support) for continued care.

Post-discharge self-management using Assertive Community Care (ACT): Following discharge, as far as possible it is recommended that patients periodically seek follow-up care with the same mental health team, although there should be mandatory access to medication in all PHCS (Johnson et al., 2018). Most people are likely to experience a recurrence of a psychotic episode or ill-health and options such as Assertive Community Care (ACT) or Meghalaya ACT (M-ACT), which combine aspects of ACT adapted to the needs of the relevant population. Overall, ACT has been shown to reduce repeated hospitalisations, increase housing stability and participation in the labour force. Similarly, peer-led after-care options also seem to have equal and additional benefits through periods of crisis (Johnson et al., 2018). Either or both options could be adopted to respond swiftly to prevent ill-health and often, as a result, exposure to scarcity in a context of disadvantage, and even homelessness. How long such support continues will be determined by the mental health and social care teams but could typically go on for up to three years. An integrated care plan such as this that reduces secondary deficits by early treatment of the onset and recurrence of illness and encourages engagement with care services for each person identified with a mental health concern. With a population of about 3 million, there are likely to be around 1,000 new cases of psychoses each year and planning responses for this 'high-risk and high-need' group could help define a range of services which would benefit from the spin-off expertise. From first symptoms to long-term care, digital technology could also enable virtual tours of 'wards' in the absence of nearby services and personnel. Every patient gets to 'consult and see' an assigned Mental Health and Social Care team.

Long-term inclusive care options: For persons with high support needs with moderate to severe psychosocial disability long-term care facilities in the community may be provided that are also sensitive to independence, choice and agency. Services in community settings, using local resources and making mental health care management cost effective, focus on the continuum of care. Provisions that may be made with community participation and ownership are:

- **Halfway homes** that provide safe shelters and serve as rehabilitation centres to prepare gradual readiness for people to re-adjust to their communities (Sahu, 2014).

- **Supported housing options** where accommodation alongside supervised support is offered to enable socially inclusive living. Housing First (Homeless Hub, 2012) is based on flexibility, person-centred support, and autonomy. Formal professional support offers continuity of care and referral services when required.
- **Home Again**, a flagship model of The Banyan, is recognised by WHO as a sustainable model of community living for persons with psychosocial disabilities with restricted exit pathways from institutional care (Padmakar et al., 2020). It aims to form family kinship, recovery at an individual pace, social mixing, livelihood choices and thus progress towards social inclusion and community membership and participation.
- **Respite bed programmes** are for persons moving out of acute care – an interim place to stay for a couple of weeks before moving into other living options. Respite care services offer occasional respite for caregivers, whether for an evening or weekend, usually called ‘breakaway or friendship schemes’ that provide a service geared to individual needs.
- **Independent Living options** encourage peoples’ choices to manage their disability, select forms of treatment, exercise work choices, and live independently in the community with very minimal organisational support, and using affordable service options, e.g., outpatient clinics, tele-psychiatry, counselling services. Interdependence among community members for mutual support is vital, enabling problem solving, addressing crises, alleviating distress and active help-seeking behaviour.
- **Hostels:** with board and lodging paid, subsidised and sometimes free, may be used by adults with mental health concerns in the absence of home-based care and similar safe alternatives. These seem economical as these are dormitory-like services with basic amenities, interim spaces that prevent them from living on the street and become vulnerable (Ramkumar G. S. & Sadath, 2022).

Disasters and exceptional circumstances: Special circumstances involving public health implications and by extension, mental health consequences, including pandemics such as Covid-19 also require intervention protocols. Broadly, training in psychological first aid must be offered to different cadres of the community, including - healthcare professionals and village health councils, police forces, teachers and academics engaging with students, and peer leaders. Mental health must be identified as a key priority during such situations, and therefore, continued access to care pathways must be ensured through appropriate context-specific forms (such as helplines, as mentioned above), and health communication strategies must include messaging around mental health, to reduce anxieties and promote confidence, a sense of control, and stronger responses to the situation.

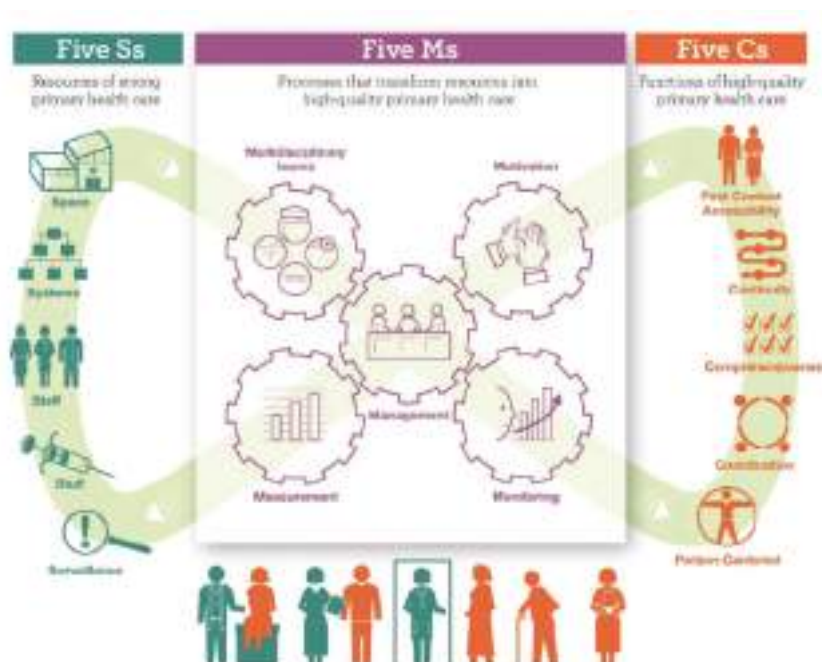


Figure 1: The 5S-5M-5C schematic - Key Components of Primary Care. (Bitton et al., 2018).

Grievance-redressal systems: Grievance-redressal units may be set up alongside well-being or mental health and social care kiosks located in wellbeing clinics to respond to urgent needs. The facilitation of swift and effective grievance redressal mechanisms in combination with other justice-oriented, responsive support systems and care pathways, such as safe spaces for women in distress, immediate galvanising of legal aid support in the case of inter-community conflict or other perceived vulnerability-based oppression, a distress helpline for children, women and older people in distress or for those seeking information about health and social care access etc. are critical to building trust, an essential step to espousing the values of community-level social cohesion.

Use of trauma-informed interventions: Trauma may arise from adverse childhood experiences, intergenerational distress and historical segregation, or socio-political contexts that discriminate against minoritized groups. Intergenerational collective trauma may also be transmitted over many years. Trauma-focused interventions understand the pervasive nature of trauma or negative life events and promote environments of healing and recovery, avoiding services that could potentially re-traumatise an individual. While trauma-focused mental health services include prolonged exposure therapy, eye movement desensitisation and reprocessing, trauma-focused CBT provided by trained professionals, incorporating a comprehensive trauma-informed approach, goes beyond mental health services. It involves bringing structural, organisational and clinical changes to facilitate the individual's recovery and empowerment, increase participation and enhance social inclusion. At a clinical level, using culturally and clinically appropriate trauma-screening tools will aid personalised treatment and decisions to improve health and social outcomes. It is crucial to understand the role of the community in not only contributing to trauma but also in the treatment process and facilitating recovery. Engaging with community-based and culturally sensitive organisations, early referrals and working with multiple stakeholders in the patient's environment can aid sustained recovery. At an organisational level, there will be a need for continuous efforts to sensitise clinical and non-clinical staff and senior management and to identify resources. Safe spaces that facilitate opportunities for traumatised individuals to occupy leadership positions and use their voice in decision-making processes should be provided to enable confidence and trust. In relation to prevention, gatekeepers and various stakeholders in a person's environment need to be trained to provide a safe and secure setting, build positive social relationships, identify signs of mental and physical distress caused by potentially traumatic experiences, and refer to resources without delay. Awareness and sensitisation programmes may help limit the occurrence of trauma or offer the opportunity for early redressal, preventing long-term impact.

4.4 Support for Vulnerable Groups

Challenges

Children and Adolescents: Children and adolescents are amongst the most vulnerable sections of the society as their experiences can have long-term impacts on their physical and mental development. Some of the most pressing issues experienced by young people in the state including the following:

Intellectual disabilities: Families of children with intellectual disabilities experience stigma and discrimination, particularly in rural areas. Further, there is a general lack of inclusive education frameworks.

Substance use: Owing to factors like stress, easy access to substances, and exposure to adults consuming substances, children and adolescents develop substance-use habits from a young age. By extension, delinquency and aggression are commonly observed among young people using substances.

Teenage pregnancies: Health professionals note that although Meghalaya is largely a matrilineal society, patriarchal beliefs regarding reproductive health and the women's roles contribute to the early marriage and motherhood for young girls. It is also culturally unacceptable to seek a medical termination, which particularly affects adolescents. As a result of early and frequent pregnancies, some women, particularly in rural areas, may have up to ten children by the age of 30.

Child sexual abuse: An issue reported across districts is the prevalence of child sexual abuse (CSA), usually perpetrated by an adult relative. Children by previous marriages have been identified as being at particular risk of being sexually abused by stepfathers when mothers remarry; POCSO cases have been on the rise, which are also linked to high rates of teenage pregnancy. While their families may accept underage

pregnancy, the mandatory reporting if the case reaches a hospital brings the adolescent father to the Juvenile Justice Board. Studies suggest a positive correlation between adverse life events in childhood, particularly child sexual abuse (CSA), and higher levels of psychopathology in later life (Mullen et al., 1993).

Child labour: Many rural children are sent to be domestic servants in urban households. These arrangements tend to be kept private as the employers are wary of these children being identified by the relevant authorities. Often, these children also attend school, which then brings them within the ambit of the legal exception to child labour, i.e., family-related vocations.

COVID-19 impact: School teachers in Meghalaya indicate that children showed signs of stress, anxiety and depression during COVID-19 lockdowns and found it hard to adjust when schools reopened (due to long school hours, and their attention span affected by online education).

Women: The situational analysis found that, the matrilineal structure notwithstanding, patriarchal structures have an overarching influence. Therefore, alongside the economic independence associated with property rights are women's gendered social responsibilities, such as providing most of the care for their immediate and extended family, which in combination with gender biases, and IPV or domestic abuse, disempower women. These patterns and events have a negative impact on physical and emotional health and often precipitate and perpetuate episodes of depression and anxiety and even suicidal ideation. For many women, these responsibilities result in high pressure and emotional distress. In addition, women face a number of other challenges and vulnerabilities:

Single Mothers: There are many single mother-headed households in the state, which means that many mothers end up shouldering the entire responsibility of raising their children and supporting the family. This can be a source of stress for many women.

Domestic violence: According to the National Family Health Survey-5 (2019–20) data for Meghalaya, 16% of ever-married women between the ages of 15 and 49 have reported spousal violence (23.2% of rural women and 14.2% of urban women). Intimate partner violence (IPV), which includes physical, psychological and sexual violence, contributes to women's poor general health, mental health conditions, and suicide (International Institute for Population Sciences & ICF, 2021). IPV and domestic abuse affect psychological health in various ways, including the propensity to develop anxiety, depression, post-traumatic stress disorder (PTSD) and complex post-traumatic stress disorder (CPTSD) and Substance Use Disorder (SUD). Health professionals also note that the problems experienced by mothers also affect their children. As a result of early exposure to domestic violence and substance use, or the lack of consistent parenting, children from these families may be more likely to use substances from an early age.

Childbirth practices: Home births, as opposed to institutional deliveries, could have an impact on maternal and infant mortality, and may also increase the greater likelihood of the child developing neurological challenges, in the context of high-risk pregnancies and unskilled care at birth.

Lack of Medically Terminated Pregnancies (MTPs): In the case of sexual abuse or the mother's lack of agency to make her own decisions, few women and girls exercise the right of access to abortion in Meghalaya, which has a negative impact both on health outcomes and the realisation of reproductive rights. The balance between respect for cultural and religious affiliation and the unmet need for a medical termination needs to be addressed in a collaborative spirit of working towards better health outcomes for all. If the principal criterion is a person's agency, based on the values that guide this policy, the choice should rest with those who need this service, which means giving priority to access. This would also be in accordance with the recent Supreme Court mandate that women, irrespective of their marital status, have the right to seek a medical termination of their pregnancy as an expression of autonomy and control over their own body.

Elderly Population: The elderly adults, in many households, often experience several mental health concerns, including loneliness, depression and anxiety. These can often go undetected and unaddressed. Moreover, elderly population may also have other health conditions such as hypertension, diabetes and dementia, which can exacerbate mental health challenges.

Persons Living in Poverty: Poverty, lack of basic amenities and a low standard of living may affect emotional and social health, and also expose individuals, communities and populations to structural violence and related trauma. People from poor households are at a heightened risk of experiencing chronic health-related physical and psychological, and social needs, which also places them in a fragmented social care structure. For example, a 2018 survey on urban homelessness in Meghalaya found that 37.5% of homeless individuals had general ailments, 31.25% were experiencing mental distress, two had been injured, and one was suffering from TB; 10.42% also had health issues (Completion report submission of systematic survey for identification of urban Homeless in 6 ULBs of Meghalaya). In addition, the intersection of poverty with high unemployment, mental ill health, and out-of-pocket expenditure, is linked to poor health access.

Migrants and Identity Crises: About one million people from the north-east migrate to other states in India, seeking employment and a better standard of living. There is anecdotal evidence that these migrants face racial microaggression in other parts of the country. In other marginalised communities across the world there are clear links between racism, microaggression and depressive illnesses. Embracing one's cultural identity and actively addressing problems in response to stigma and discrimination, rather than passively accepting them, tends to yield more long-term benefits because it gives a sense of control over the situation (Lloyd et al., 2022). Attention to issues of identity and cultural influences should therefore be prominent in mental health care.

Strategy

Strengthen Women's Support and Affinity groups: As detailed in MOTHER, a focus on women's rights and health is of utmost importance. The policy aims to build a deeper understanding of specific challenges faced by women and implement ways to mitigate these challenges.

Improving Maternal Mental Health: Given limited exposure and deficient post-natal care, postpartum depression can often go undiagnosed. Community health workers such as ASHAs and women's collective can offer support and guidance around nutrition, health, stress management, conflict resolution and negotiation, and screen for mental distress/PPD around health access points. The health system also needs to be sensitised to prevent obstetric violence at health facilities. This can also promote information symmetry around body/reproductive rights and basic rights as a health service user.

Economic Empowerment for Mental Well-Being: Economic empowerment can lead to higher levels of self-esteem and can translate into enhanced physical and mental well-being. Economic opportunities can foster social mobility, autonomy on expenditure, and increased social capital. As such, it is recommended that economic opportunities for women be continually expanded at all levels. At the household level, schemes such as Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) can provide paid employment. At the group level, self-help groups (SHGs) can function as peer-support groups that strengthen individual resilience and collective belonging among members (Alemu et al., 2013). SHGs both enable access to finance, and foster emotional connectedness, an opportunity to share feelings and to form affinity groups. Finally, there is a need for more investment in skilling and job creation for women to play a more active role in economic growth of the state.

Political Empowerment for Action: Another key dimension of action is political empowerment, which can enable women to draw attention to mental health challenges faced by women and take action to address these challenges. The state has already taken an important step in this direction by bringing a reservation policy for women in village employment councils (VEC). This needs to be complemented with initiatives to build agency and leadership among women.

Positive Children, Adolescent & Youth Development: An effective mental healthcare system needs a continuum of care that starts at early childhood and provides age-appropriate care and support through adolescence and youth. This is the period of greatest mental plasticity in that strong exposure to toxic stress can have lifelong effects. Following are some key strategies for putting children on a positive growth trajectory.

Effective Early Childhood Care: The state aims to use the Integrated Child Development Scheme (ICDS) and the Anganwadis to ensure that young children have access to socio-emotional care, protection and opportunities for early learning. The state has already launched the Early Childhood Development or

ECD Mission for this purpose. Under the mission, the state will provide training and sensitization on ECD practices such as positive parenting, joyful learning and healthy nutrition. These practices can significantly reduce exposure to stress and neglect that can cause mental health challenges. The frontline workers and community cadres will also be trained on standardised assessments, child interviewing and case-management skills and recognition of child-protection issues (such as violence, abuse and neglect) to better support parents and communities on effective childcare.

Support for Children at Schools & Facilities: The state will ensure that CHC staff are equipped to provide first-level support to vulnerable children via assessment and referral services. Care teams will be trained to carefully examine distress and behavioural concerns before offering diagnoses such as ADHD and conduct disorder, as these labels carry stigma and can lead to children feeling alienated and also cause them to disengage from services. As human resources are strengthened, counsellors will be made available at schools and colleges (through clustering methods, in the case of resource constraints), along with strong parent-teacher-counsellor coalitions.

Support for Adolescents & Youth: The state will seek to engage adolescents on the central importance of life skills in intimate relationships, sexual decision-making, and substance use. Investing in de-addiction services and resources for the rehabilitation of children and adolescents is an important secondary prevention measure, with training in harm reduction approaches for care teams. Keeping in mind the impact of substance-abuse issues, the state will identify and scale up interventions that are sensitive to childhood adversity and related vulnerabilities. Evidence-based techniques of meditative practice and anger management, tools of DBT and the use of storytelling, folklore and arts-based, movement-based therapeutic modalities through support circles (based on local cultural practices) are recommended to promote a stronger sense of affiliation to one's community and to build therapeutic gains. Promotion and dissemination campaigns will also include a focus on parenting skills in relation to children with behavioural concerns. Further, the use of the Good Behaviour Game initiated in accessible and child and youth-friendly ways, integrating cultural safety considering the mental health disparities in tribal populations may also support positive outcomes in the longer term (Kellam et al., 2011). Health messaging that supports healthy intellectual development and emotional health should be shared widely and in accessible and engaging ways.

Elderly Care & Support: Given the range of mental health concerns experienced by elderly adults (including loneliness, depression, and anxiety), it is recommended that professionals across primary, secondary, tertiary levels as well as shelter/ elderly homes should be trained in geriatric mental health care. Further, professional training in specific approaches such as Cognitive Stimulation Therapy (CST) is recommended. This is an evidence-based therapeutic model developed in the UK by Spector et al., currently being adapted to the Indian context by the Schizophrenia Research Foundation (SCARF). From a promotion and prevention perspective, community-based activities and engagement can be critical in improving the quality of life, instilling a sense of hope, and aiding meaning-making processes. The adoption of models such as 'Experience Corps' (developed by AARP Foundation) – a volunteer-tutoring programme that engages people from the age of 50 as tutors for struggling /students – may foster participation and intergenerational connectedness. Elderly adults may also be prone to suicidal ideation and depression. Group care, meeting circles and fellowship opportunities may be encouraged in formal and informal structures.

Persons with Substance-Use Concerns: Currently there are no public rehabilitation facilities although there are four Oral Substitution (OST) centres (Civil Hospital Shillong, Jowai, Tura and V.H.A.M centre, Nongmynsong) where counsellors are available. In addition, there are about ten private de-addiction centres in towns and cities. However, these are too few and far between for the size and terrain of the state because the drugs used for OST are restricted and issued for only two or three days or a week at a time, requiring very frequent visits to hospital outpatient clinics. The DMHP component of the NMHP has a presence in all 11 districts but is staffed by psychiatrists only in two. The state should aim to:

Establish awareness programmes at the community level to be run by schools, local governance bodies and local leaders.

Train medical officers at the district level to manage detox treatment for alcohol and opioids during admissions of a few days. Train professional counsellors and schoolteachers in both awareness and

intervention counselling.

Institute OST treatment for long-term maintenance at the sub-district level along with establishing a regulatory framework for dispensing these drugs.

Offer facilities for professional and lay counselling, and potential liaison with religious leaders in this effort.

Train psychologists, social workers and other professionals at primary, secondary and tertiary healthcare facilities in harm reduction approaches.

Upgrade the DMHP to include testing for HIV and Hepatitis-C and refer those testing positive to the nearest public medical college for treatment and advice on how to limit its spread.

Caregivers: Caregivers themselves often face mental health concerns and require additional support, particularly elderly, young and lone parents. Adverse social and mental health impacts have often been associated with child and young caregivers in adult life (Ballal et al., 2019). The provisions related to family caregivers in the National Mental Health Policy 2014 will be adopted and implemented. Similarly, the provisions in the Mental Healthcare Act 2017 which provide financial or non-financial relief to the family caregivers will also be swiftly implemented. The state will streamline these procedures to avoid undue delays in issuing disability certificates to the persons with benchmark mental illness. The state will also draw up a scheme to provide financial help to low-income families who are compelled to admit their family members with severe mental disorders in private mental health establishments. The state needs to make arrangements for public employees who are required to be caregivers of a family member, such as staggered working hours, time off in emergencies, compassionate leave, exceptional paid or unpaid leave, or relaxation in transfers. Newer and diverse approaches to care may help parents address the many insecurities and feelings of inadequacy and anxiety that they may face owing to their ill-health, while Open Dialogue Therapy may support strengthening ties and building stronger connectedness despite the strain associated with caregiving, enabling them to better cope with disruptions as the child grows up, corresponding to different states on the spectrum of health and well-being that the parent may experience.

Persons homeless with mental issues: According to the Law of Administration of Justice, Meghalaya, Sardars, Laskars, Nokmas can bring 'vagrants' or 'suspicious characters' to jurisdictional police stations for further investigation. As indicated in the section on first responders, the police need to be trained in identifying and referring persons homeless with mental health issues to the appropriate care services. There are no precise numbers of persons homeless, but once that data is consolidated, including police data on the number of referrals of mentally ill persons from this 'vagrant' population, the system can accurately determine the need for specialised services for persons homeless and mentally ill. In areas where such people are more concentrated, such as border districts, it is recommended that the state train and equip district hospitals for short-term emergency and acute care, and crisis support. This helps mainstream the distress of HPMI, and complies with the Mental Health Care Act, which stipulates that care has to be accessible to all. These facilities should also be made available for the larger non-clinical homeless population as well to access medical and psychological care as needed. Availability of care at the earliest in the case of homeless persons prevents abuse, development of comorbidities such as substance use, grave injuries, nutritional deficits; exacerbation of distress, separation from loved ones, ability to remain connected to one's place of origin and therefore access to continued mental health and social care locally. Additionally, a missing persons database may also be created to enable cross sectoral and cross regional coordination, particularly in the case of homeless persons who are young, elderly, living with mental health conditions, dementia, Alzheimer's disease or intellectual disability.

Persons with intellectual disabilities: As indicated by field reports, intellectual disability (ID) is a commonly reported concern in Meghalaya. While services for ID are offered by various institutions (including PHCs, district early-intervention centres, non-profit organisations etc), it is essential to further strengthen these services and address causal factors ranging from environmental toxins to maternal health and unsafe birthing practices.

For children and adolescents, this includes offering comprehensive training to identify ID, supporting families in caring for a member with ID, reviewing educational policies and school curriculums to integrate inclusive education, and developing specific care guidelines and protocols for childcare institutions (based on rights-based frameworks, including sexual and reproductive rights).

- **Older people** with ID are more prone to health-related conditions than others of a similar age, owing to a combination of genetic and lifestyle factors, which could accumulate over a person's lifetime and have a greater impact as they age (Bauer et al., 2019). Regular screening for health-related issues and monitoring of nutrition and diet are essential, particularly in institutional / shelter-based settings. Being involved in age-appropriate work (such as vocational training activities typically used for persons with ID) may offer a level of physical and mental stimulation.

LGBTQIA+ community: Members of the LGBTQIA+ community face several unique stressors arising from their identities (Ranade, K et al., 2022). They tend to face a range of challenges, including prejudice, discrimination and internalised homophobia (Meyer, 1995), and may experience low self-esteem, anxiety, self-doubt, and an inability to lead a meaningful, fulfilled life (Ranade, K et al., 2022). In line with the National Legal Services Authority (NALSA) judgement in 2014 (affirming the right to gender self-identification), the repeal of Section 377 (decriminalising homosexuality), and the Mental Health Care Act (2017), people who access mental health services should not face discrimination based on their gender and sexual identity. Mental health professionals will not recommend practices such as so-called 'conversion therapy', nor pathologize queer identities. Further, in line with the National Medical Commission (2022) directive to all State Medical Councils, inaccurate and outdated content on the LGBTQIA+ spectrum needs to be removed in all medical subjects including psychiatry and replaced with revised content. It is recommended that health professionals across primary, secondary and tertiary levels undergo training in – understanding concepts related to gender and sexual identities / orientations and heteronormativity, along with using queer-affirmative therapeutic practices as well as family systems approaches. Collaborations may be explored with NGOs and persons with lived experiences to strengthen peer-led movements and safe spaces for the community. Medical and surgical gender affirmation procedures must be made available. IEC materials (highlighting that LGBTQIA+ identities are not disorders) will be a key part of larger health promotion and dissemination campaigns, as elaborated under Section 1b (under Guidance for Action).

Migration and related distress: It is essential to extend health services and social welfare schemes to migrants coming to the state to seek work. Schemes such as the 'guest worker' approach (offering residential camps, medical services and counselling support) implemented by the state of Kerala may be considered. Migrants who are experiencing severe mental illnesses and homelessness are generally taken to MIMHANS by the police, in compliance with the MHCA. It is therefore important to develop strong training protocols for the police to ensure sensitive care from the first point of contact.

Section 5. Implementation Strategy

To effectively execute the policy framework described above, there is need for a particular focus on implementation, and attention to potential barriers to achievement of the Mental Health Policy goals. This policy identifies four enabling dimensions that can help ensure successful implementation.

1. Convergence Across Departments & Policies	2. Strengthening Human Resources
3. Community Institutions	4. Financial Support & Infrastructure

Table 6: Key Aspects of the Implementation Strategy

5.1 Convergence Across Departments & Policies

Challenges

Lack of comprehensive care approach: Comprehensive care calls for multi-stakeholder collaboration and the participation of health, social and education sectors. The mental health sector is rife with stories of individuals who have left the health system and reverted to ill-health and isolation in the absence of social and community networks that help sustain well-being by creating access to resources such as jobs, livelihood seed grants, social cooperatives, supported employment programmes, housing in thriving communities (or whatever the individual prefers), disability allowances, basic income, scholarships for children, support groups, religious and cultural activities, crisis prevention/intervention centres or programmes, civic and political participation, including being able to vote, or campaign for office. Each person's process of recovery is unique, and there may be several ups and downs. Stability through these networks also builds trust in the system, and one's place within it (Salzer, 2021).

Missed opportunities to ensure economic & social inclusion of those with mental illness: Wolfensberger et al. (1972) hypothesised that those who do not participate in valued social roles – such as work, school, religion, or family – were at risk of being diminished and devalued by society, leading to abuse, neglect, isolation (e.g., institutionalisation), and even premature death. He discussed the need for the 'creation, support, and defence of valued social roles for people at risk for devaluation'. The social model of disability places the onus not on the individual but on a society that fails to provide an environment in which all individuals, each with their own strengths and challenges, can participate and thrive. An inclusive society both allows for the integration of persons with disabilities in mainstream society and welcomes their participation and inputs, enabling them to choose how best to reach their own goals, without being forced into limited roles in the absence of rights-based systems, programmes and policies.

Mental illness not treated as a disability: The Rights of Persons with Disabilities Act, 2016 recognised Mental Illness as one of 21 disabilities. The Government of Meghalaya also developed a State Policy for the Empowerment of Persons with Disabilities in 2019 and The Meghalaya Rights of Persons with Disabilities Rules, 2017. These entail offering access to benefits in areas including education, livelihoods and independent living. In reality, however, persons with mental illness have not always been able to access

such benefits. The Ministry of Social Justice and Empowerment, Government of India (2022) reported that the Meghalaya State Government has issued 22,244 persons with disability certificates and 23,805 with e-UDID cards. According to the Social Welfare Department, Government of Meghalaya, 14,237 people with disabilities are accessing the Chief Minister's Social Assistance Scheme (offering Rs 500 per month). However, according to the department, these disability allowances are not currently being offered to persons with mental illness, indicating a gap in health and social care provisions. Recognition of mental illnesses as disabilities, not just by health professionals but also by the various government departments, is crucial to ensuring effective care and recovery pathways.

Strategy

Align all departments and agencies through the Meghalaya Human Development Council: The Human Development Council will spearhead the convergence between the mental health policy, targeted missions on substance abuse, MPOWER and other relevant initiatives. In addition to policy convergence, the Human Development Council will serve as the body through which departments can align implementation plans, review progress, and adapt policy as needed, given any new challenges or developments on the ground.

Integrate Public Mental Health (PMH) within the Comprehensive Primary Health Care (CPHC) approach of the state: Orient state's Comprehensive Primary Health Care approach away from any single or linear definition of "good mental health," but rather, towards the purpose of enabling all individuals to reach a state of well-being that supports their goals.

Establishment of a Policy Implementation Unit within the State Mental Health Authority and District Convergence and Implementation Committee. In keeping with the mandate of the Mental Healthcare Act, 2017 (MHCA) and the NMHP mandating mental healthcare as a basic right, the State Mental Health Authority (SMHA), will ensure the integration of all mental healthcare services. A policy implementation unit can be created under the SMHA that will oversee and develop an implementation plan to ensure the advancement of the policy. Similarly, the district committee will coordinate actions at the district level. The PIU and district committee will incorporate

representatives from the key stakeholder departments and agencies, eg. Social Welfare Department, Health & Family Welfare Department, and the State Health Resource Centre (SHRC), among others. Some activities that can be facilitated:

Defining the problem statement and the priority mental health issues that concern the state, especially issues that are persistent, complex, and affect a large number of people across demographics (Badgett, 2022).

Define metrics that will measure not just the impact of each stakeholder, but the impact of cross-sectoral collaborations, and which can inform implementation, eg. by tracking the most effective forms of outreach, screening, etc.

Identify teams that will come together periodically to review progress and implementation challenges, developing recommendations for improvements.

Connect mental health with socio-economic inclusion: Departments of social welfare and justice, disability, women, child and tribal welfare can facilitate employment, basic income-type interventions and other social security schemes to prevent individuals from descending into a state of poverty and destitution. To enable recovery and enhance care, and a supportive environment for persons with mental illness, their caregivers and family members, a priority system can be introduced in various schemes and services (e.g., health care, housing, education, livelihoods, allowance/pension, travel concessions, or legal aid). Village health councils can play a key role in facilitating social entitlements, with a focus on community inclusion, promoting access to job opportunities through social cooperatives and home-based entrepreneurial efforts; and stronger support structures through affinity groups or SHGs. This priority access system will be monitored annually by preparing statistical reports and being able to identify and address any bottlenecks for specific groups or regions.

Basic Income pilots: Benefits associated with social security, such as the introduction of basic income and access to finance, have been highlighted in the context of high-income countries (Albert et al., 2017). The main benefits include significant improvements in mental health, general health and well-being, as well as a marginal increase in participation in the labour force, indicating an association between stability, agency and constructive behaviours that affect the quality of life. Unequal or inequitable access to resources and health care can affect vulnerable populations in devastating ways. It is therefore recommended that those who are ultra-poor or acutely socially disadvantaged obtain access to cash transfers that are unconditional to gain a level of social capital that may not only enable them to overcome poverty but also have a ripple effect in other social spheres. Lone women-headed households, the elderly, vulnerable caregivers, pregnant women in distress and those living with disabilities (including psycho-social disabilities) may be prioritised.

5.2 Strengthening Human Resources

Challenges

Lack of trained personnel: The main difficulty in all settings is a lack of trained personnel. Mental health professionals take on a large workload because there are so few trained professionals in the state. As a result, care teams are often exhausted, particularly when facilities are working at full, or even exceed, bed capacity. The division of labour is also unclear, such as the specific roles of community mobilisers, traditional healers, peer advocates, local leaders and lay counsellors. This is also true of the DMHP. While the programme works across all districts, it is not uniformly staffed owing to budgetary and personnel constraints. This also increases patients' and families' out-of-pocket expenditure, as those experiencing SMDs have to travel to MIMHANS or Tura Civil Hospital.

Limited training opportunities focused on integrated care approaches: There is limited provision of training that would facilitate effective mental health and social care at various levels, ranging from early identification of distress to appropriate referral and continued or long-term care. Nor are there any integrated cross-sectoral and cross-cultural training structures. Further, there is negligible training in public mental health and domain-specific approaches (for instance, women-centred services, child and adolescent counselling, de-addiction services, the use of trauma-informed approaches etc) that may affect people over the course of their life. There are no options in psychiatry and related fields in medical training, and the role of psychiatric nurses is unclear.

Strategy

Expand Human Resources: The state will work towards expanding the number of human resources in at least three core professional arenas: psychiatry, nursing, social work and psychology. These human resources will provide specialised care, particularly for severe cases. Expansion of mental health care professionals should help alleviate the burden on other medical staff on mental care provision and would lead to better referral systems from community health workers to specialised staff.

Curriculum Development: The state will develop contextually-tailored curriculum for mental health care that takes into account the specific local drivers of mental health issues. The curriculum would have modules that are customised for different care providers such as community health workers, medical officers, mental health care professionals and even community leaders. The curriculum would also be developed for targeting mental health disorders for different age groups and vulnerable groups.

Training of Existing Staff & Community Health Workers: All medical officers, support staff and community workers such as ASHAs and AWWs will be trained on updated mental health curriculum. Moreover, all the care providers would undergo periodic refresher sessions. Community workers will be supported and supervised by medical officers who liaise with DMHP specialist mental health teams comprising social workers and psychologists, or MIMHANS, for expert guidance using tele-based psychiatric consultations and other technology-based methods.

Human resource development in the mental health and social sectors: There are very few mental health professionals (psychiatrists, nurses, social workers and psychologists) in the state and require urgent investment to boost the number of trained professionals. With the growing gap in human resources, there is an immediate need to also re-examine the different roles performed by the current personnel. The tasks related to mental well-being and the promotion of mental health care, preventive approaches

with at-risk populations and social/vocational rehabilitation measures will be moved to non-specialists who will undergo short-term training and offered in both institutional and community settings supervised by social care specialists and teams. Community members will also be trained to offer such services in collaboration with the DMHP, hospitals and MIMHANS. It is also essential that this workforce is incentivised accordingly, as their workload increases.

Standard Assessment & Treatment Guidelines: The state will develop standard guidelines for assessment/screening and treatment in line with the best practices. These will be incorporated as part of the shift towards comprehensive primary health care (CPHC). The guidelines will help ensure a basic standard of care is provided across the state. Moreover, the guidelines will be made available to care providers on a technology platform that makes it easy to search and access all the material.

5.3 Community Institutions

Challenges

Low involvement of communities: As discussed earlier, there is limited involvement of communities in addressing mental health care challenges. Without community involvement, the state can't make progress on reducing stigma on mental health challenges and increasing demand for health services.

Lack of coordination toward community involvement: Different state departments often hold parallel initiatives for community engagement but don't often coordinate activities. This also manifests as a high number of community committees that have overlapping mandates. As such, there is a strong need for a nodal community institution that can address all health, nutrition and mental well-being issues.

Strategy

- While the state aims to improve coordination and convergence across all relevant departments, attention will also be paid to mobilising and empowering **Community Institutions**. Community engagement is an integral part of Meghalaya's mental health policy and approach, as it is the bedrock for prevention, early detection & long term social support. While all members of society will be engaged through awareness-raising, outreach and other initiatives, the following institutions will be a primary focus of the policy:
 - **Village Health Councils** will serve as the nodal community agency for disseminating information, reducing stigma and providing local social support to those with mental illness and their families.
 - **Village Headmen** are often the first point of contact for distressed families and will be proactively engaged in early identification, as well as in assisting families in addressing social and economic factors behind illness
 - **Other trusted community leaders**, such as *teachers, religious leaders & traditional healers*, will be engaged through community health workers & VHCs, to assist in reducing stigma, raising awareness of the importance of mental health, and early detection of mental health disorders and illness.

5.4 Financial Support & Infrastructure

Challenges

Low overall funding for mental health: While the health budget is aimed to be 2.5% of the GDP (MOTHER, 2021) funds towards mental health have been insufficient, and as a result, public mental health, especially investment in personnel and capacity building, may be inadequate.

Access challenges: Poor referral systems often result in high out-of-pocket expenditure on travel and also loss of wages, which impede access to mental health care. Providing medication, social support and mental health services closer to home requires more attention.

Out-of-Pocket Expenses: In addition to exacerbating mental health conditions, poverty and social disadvantage also further heighten the treatment gap. Many patients and their families incur high out-of-pocket expenses (Murthy, 2017). On average, Rs 1,500 was spent on treatment and care of persons affected with alcohol-use disorder, and Rs 2,000 per month for bipolar affective disorder. For any category of mental disorder Rs 1,000

(median) and above had to be spent on care and treatment. In Meghalaya, while there is no available data on out-of-pocket expenditure specific to mental health treatment, the Health Dossier 2021 report estimated the overall expenditure incurred in accessing health services (Health Dossier 2021: Reflections on Key Health Indicators – Meghalaya, 2021) (see Table 7). High out-of-pocket expenditure (particularly the rural–public and urban–private expenditure, which is significantly higher than the national average) can dissuade people from accessing care services and consequently exacerbate their health conditions.

Out-of-pocket expenditure (OOP) (in INR)	Meghalaya		India	
	Rural	Urban	Rural	Urban
OPD – Per non-hospitalised patient in last 15 days – Public	1,073	0	472	486
OPD – Per non-hospitalised patient in last 15 days – Private	647	2,275	845	915
IPD – Per hospitalised case – Public	2,201	8,219	5,729	5,939
IPD – Per hospitalised case – Private	15,591	29,618	28,816	34,122
IPD – diagnostics as a percentage of inpatient medical expenditure – Public	10	11	18	17
IPD – drugs as a percentage of inpatient medical expenditure – Public	62	55	53	43

Out-of-pocket expenditure estimated by NHSRC using unit level data of NSSO 2017-18 (where OOP = [Total Medical Expenditure + Transport Cost] – Reimbursement). Source: Health Dossier 2021: Reflections on Key Health Indicators – Meghalaya.

Table 7: Out of Pocket Expenditures in Meghalaya

Strategy

Extend provision of medication and infrastructure to more local areas, prioritising high-use PHCs/CHCs and Sub-Centres: Essentials such as infrastructure and access to medication are already available in the state but need to be provided locally; Sub-centres could be deployed for this purpose. This will reduce expenditure, travel difficulties, and delays in seeking care.

Increasing take-up of MHIS: Megha Health Insurance Scheme (MHIS), a universal health insurance scheme (UHS) in the State of Meghalaya, provides health insurance to everyone living in the state, excluding state and central government employees. The scheme was launched to provide financial aid to all citizens at the point of hospitalisation and reduce out-of-pocket expenses. Megha Health Insurance Scheme – Phase IV works in convergence with Ayushman Bharat – Pradhan Mantri Jan Arogya Yojana. The state will work to increase take-up of MHIS to ensure that cost does not dissuade families from seeking treatment. Community institutions can help raise awareness on provisions available under MHIS. In addition to offering insurance for general health concerns, all public and private hospitals offering inpatient psychiatric services will be empanelled under the scheme, to extend financial aid to those with mental health concerns requiring inpatient care, thereby enabling universal access to care services.

Increasing the budget for mental health in the state: Of the direct budget allocated for mental health under the MoHFW, most of it, ₹557.44 crores (93%), is allocated toward two centrally funded mental health institutions with the remaining ₹40 crores (7%) allocated to the National Mental Health Programme (NMHP). The state will consider how best to supplement this budget, as well as how best to leverage existing resources. For example, a “collective pool” system of resources across relevant departments may be considered for convergence initiatives.

Section 6.

Quality Standards, Monitoring & Evaluation, and Key Outcomes

6.1 Ensuring Quality Standards

Quality standards in mental health seek to provide assurance of equitable, just and effective services and protection of human rights in institutional and outpatient settings, integrating health and social care. While seeking to build accountability in service delivery, they consider and seek to address the broader exclusionary environment facing people with psycho-social disabilities. Quality standards need to continually seek to incorporate best practices in the context to ensure that the highest possible form of care is available at the appropriate time, place and form. To build a dynamic quality of care framework, the state will:

Develop specific and measurable quality standards for services across the continuum of care to ensure the provision of high-quality services for those using or experiencing them, adherence to service-user safety and optimisation of clinical effectiveness.

Derive user-generated quality expectations and associated standards including but not limited to the following domains:

- Meet minimum staffing requirements, including adequate diverse representation, knowledge, perspectives and skills for service delivery.
- Meet minimum standards of infrastructure and access to food, clothing and other essentials in inpatient services.
- Timely, appropriate and comprehensive access to care that minimises fragmented services.
- Culturally sensitive assessment and admission.
- Information and access to personal records.
- Capacity and consent processes for evaluating care options, participatory care planning and opting in/out of services.
- Discharge options, including access to a range of self-directed community entry pathways.
- Oversight for human rights assurance and escalation for violations.
- Learning environment: changes in the mental health system aligned with user feedback and new contextual realities.
- Establish mechanisms for continually updating quality standards based on user feedback and emerging evidence in a given context.
- Align quality standards with the WHO Quality Assurance Toolkit and the major themes of the UNCRPD:
- Right to adequate standard of living and social protection
- Right to enjoyment of the highest attainable standard of physical and mental health

- Right to exercise legal capacity and the right to personal liberty and the security of person
- Freedom from torture or cruel, inhuman or degrading treatment or punishment and from exploitation, violence and abuse
- Right to live independently and be included in the community
- Establish dedicated assessment committees with service user–carer representation to continually monitor, assess and take the necessary action to adhere to quality standards in inpatient and outpatient settings.
- Conduct a comprehensive assessment of facilities and services against quality standards and follow up with commissioned plans and necessary financial resources to improve from the established baseline.
- Create a system for monitoring, reporting and addressing human rights violations in inpatient and outpatient settings.
- Align service monitoring and evaluation (M&E) indicators that assess clinical effectiveness, service-user outcomes encompassing quality of life and well-being measures, service-user experience and safety.
- Establish practices and processes, such as open days, a grievance cell, visitors' access, services such as a café allowing engagement with the wider world, to promote transparency and accountability across inpatient and outpatient services.
- Establish a mental health service accreditation body with processes and procedures for reviewing quality standards and associated licensing and rating mechanisms.
- Develop state rules and oversight processes to ensure compliance with the Mental Health care Act 2017, in particular procedures for admissions and discharge, setting up of Mental Health
- Review Boards (MHRBs) and use of advance directives. Access local Mental Health Review
- Boards to seek support to address violations, grievances and expressed needs.

6.2 Monitoring & Evaluation

The implementation of the Meghalaya State Mental Health Policy encompasses fundamental changes in thinking and acting at different levels, as well as in organisational networks and governance structures. This challenging task can be assisted by accompanying research and M&E efforts, provided these are closely aligned with the aim of the policy, involve relevant stakeholders – including (potential) clients/patients – and support mutual learning and reflection.

Reflexive monitoring and evaluation

Establish meaningful measurements: Given the high and far-reaching ambitions of the policy, progress and impact indicators will be manifold and varied. They may refer to outcomes in terms of prevalence of disorders (e.g., substance use, common mental disorders), but may also refer to governance innovations (e.g., convergence between health and social sectors, integration of cultural specificity in services), or to inputs (available resources, trained staff). Establishing a set of indicators related to the stated policy goals and objectives will be done with (potential) service users, providers and programme staff to ensure that the agreed measurements are meaningful from multiple perspectives (e.g., clients/patients, service providers, policymakers) at the same time. Meaningful measurements should encompass the strategic priorities and the quality standards (see previous section).

Periodic, collaborative audits: As per the **Meghalaya Community Participation and Public Services Social Audit Act (2017)**, audits of the stated policy goals and objectives (translated into meaningful measurements) will be conducted by an independent party in close collaboration with actors across the mental health/social care system, including (potential) clients/patients. Auditors will adopt a monitoring and evaluation methodology (e.g., Reflexive Monitoring in Action, Appreciative Inquiry) that allows for continuous reflection on (systemic) barriers and opportunities and at the same time builds and strengthens (existing) capacities to co-create more inclusive and integrated services, programmes and policies. It is preferable to adopt a mixed-methods approach

(quantitative, qualitative, transformative). The annual collaborative audits will allow for a periodic assessment of the stated policy goals and objectives, and facilitate any necessary adaptations and improvements. These periodic reviews will inform the policy updates in a changing context. The policy will undergo a

review initially two years after implementation and every four years thereafter.

Transdisciplinary research

While the continuous, reflexive M&E framework is particularly helpful in understanding and supporting efforts to address mental health challenges in Meghalaya, separate research is needed to deepen the understanding of patterns underlying the current situation and examine the long-term efficacy of the piloted approaches. Transdisciplinary research starts from real-life problems, is conducted alongside the relevant stakeholders, and aims to contribute to addressing problems as part of the research process. It takes the problems as people define and experience them (especially the most vulnerable) as a starting point. The research agenda should be co-created with relevant stakeholders and is expected to comprise research topics across all layers of the socio-ecological model, ranging from research on stressors and protective factors for well-being and people's mental health to research on integrated health and social care systems, while integrating research on social, cultural, and temporal patterns in relation to these. Because of its transdisciplinary character, the research agenda covers the current and planned situation as well as the transformative process set in motion through this policy. Research will aim to develop a science of mental health with knowledge co-produced with multiple stakeholders and disciplinary collaborations and convergences. Research initiatives will be linked to priority services such as screening, measures of the effectiveness of interventions, and health system functioning. Implementation and innovation will be thus informed by emerging evidence in context.

Research thematic priorities include:

- Clinical and social epidemiology of mental health conditions
- Ecosystems, contextual, socio-cultural formulations of mental health and ill-health (particularly of concerns such as ADHD and conduct disorder, and culture-bound syndromes)
- Causes, risks, and protective factors for mental health conditions
- Understand disparities and associated mental health inequities in the state
- Associations between socio-cultural factors and mental health epidemiology, health-seeking and access and recovery trajectories
- Evaluations of the effectiveness of established practice and new approaches (for instance, use of storytelling and folklore) to gauge how well these meet recovery priorities in the local context
- Understand social care applications and linkages to prevention, promotion and treatment of diverse mental health conditions
- Support promotion and preventive initiatives for people's well-being
- Access and choice to mental health among diverse communities and regions
- Implementation science with particular focus on how new approaches can be put into practice in the health system and scaled for impact

6.3 Key Outcomes

Through the Mental Health and Social Care Policy the state will bring focused energy to implementation of the following key inputs, to achieve the essential outcomes and impacts for transformational change of the mental health landscape.

Inputs	Outcomes	Impact
• Increase in mental health human resources such as psychiatrists, psychologists and nurses • All medical officers and community health workers trained on assessing and addressing mental health issues • Streamlining of referral process • Coordination across departments & policies under Human Development Council • Expansion of mental health helpline • Creation of support groups under VHCs, guided by community health workers	• Monthly IEC campaigns in all communities on mental health issues • Annual school and community-based screening for mental health for every citizen • Faster & cheaper referral process, with reduced out of pocket expenditure • Increased access of schemes & programs by the mentally ill • Increased number of initiatives targeted at preventive measures such as addressing stress among vulnerable groups • Community support groups meeting for regular discussion & activities	• Higher rates of identification of mental health disorders • Reduced wait times and costs for treatment • Lower percentage of suicidal thoughts reported by adolescents • High rates of care seeking among population • Lower prevalence of substance use • Lower rates of mental health disorders due to preventive programs • Reduced stigma and greater social integration for those suffering from mental illness

Table 8: Key Outcomes of the Mental Health Policy

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Annexure 1: Drafting Committee Notification Orders by the Governor, Meghalaya

Annexure:
Drafting Committee Notification Orders by the Governor, Meghalaya

**GOVERNMENT OF MEGHALAYA
HEALTH & FAMILY WELFARE DEPARTMENT**

**ORDERS BY THE GOVERNOR
NOTIFICATION**

Dated Shillong, the 7th March, 2022.

Drafting Committee for preparing the Mental Healthcare Policy for the State

No. Health.180/2017/145 :- The Governor of Meghalaya is pleased to notify the Drafting Committee for preparing the Mental Healthcare Policy for the State with the following members:-

MEMBERS:

1. Principal Secretary/Commissioner & Secretary, Health & Family Welfare Department.	-	Chairperson
2. Principal Secretary/Commissioner & Secretary, Sport & Youth Affairs	-	Co-Chairperson
3. Secretary, Health & Family Welfare Department.	-	Member Secretary
4. Mission Director, National Health Mission (NHM),	-	Member
5. Director of Health Services(MI)	-	Member
6. Director of Health Services(Research etc)	-	Member
7. Joint Secretary, Law Department.	-	Member
8. Director Social Welfare Department	-	Member
9. Director of Education	-	Member
10. Director Indian Institute of Public Health, Shillong	-	Member

Term of Reference :-

1. To prepare the draft policy for Mental Healthcare for the State.
2. To conduct consultative meeting with other related agencies pertaining to the Mental Healthcare issues.
3. Committee can co-opt expert members as deem fit for the purpose.
4. Any other matter relevant for the purpose.

(Sd/-M.N.Nampui, IAS.,)
Commissioner & Secretary to the Govt. of Meghalaya,
Health & Family Welfare Department

Memo.No.Health.180/2017/145-A
Copy forwarded to:-

Dated Shillong, the 7th March, 2022.

1. P.S. to Minister i/c Health & Family Welfare Department for kind information of Minister.
2. P.S. to Principal Secretary, Health & Family Welfare Department for information.
3. P.S. to Principal Secretary/Commissioner & Secretary, Sport & Youth Affairs Department for information.
4. Secretary, Health & Family Welfare Department for information.
5. Mission Director, National Health Mission (NHM), Meghalaya, Shillong for information.
6. Director of Health Services(MI/ (Research etc), Meghalaya, Shillong for information.
7. Joint Secretary, Law Department, Meghalaya, Shillong for information.
8. Director Social Welfare Department, Meghalaya, Shillong for information.
9. Director of Education, Meghalaya, Shillong for information.
10. Director Indian Institute of Public Health,Shillong, Meghalaya, Shillong for information.

By Orders etc.,

Under Secretary to the Govt. of Meghalaya,
Health & Family Welfare Department.

ml/-
o/c

**GOVERNMENT OF MEGHALAYA
HEALTH & FAMILY WELFARE DEPARTMENT**

**ORDERS BY THE GOVERNOR
NOTIFICATION**

Dated Shillong, the 26th September, 2022.

Sub-Committee to draft, research, organise and liaison with stakeholders for the “Meghalaya State Mental Health Policy 2022”

No.Health.180/2017/265:- In partial modification of this Department's Notification No.Health.180/2017/255, dated 11/8/2022, the Governor of Meghalaya is pleased co-opt more members to the Sub-Committee to draft, research, organise and liaison with stakeholders for the “Meghalaya State Mental Health Policy 2022”.

In this connection, the list of members of the Sub-Committee are as follows:

<u>Designation</u>	<u>Name</u>	<u>Contact details</u>
Chairperson	Dr. Vandana Gopikumar, Co-founder, The Banyan and Banyan Academy of Leadership in Mental Health (BALM)	+91-9840527893
Chairperson	Dr KV Kishore Kumar, Director, The Banyan and Banyan Academy of Leadership in Mental Health (BALM)	kishore@thebanyan.org
Chairperson	Dr Sanjeev Jain, Former Dean, Department of Psychiatry, National Institute of Mental Health and Neurosciences (NIMHANS)	docsanjeev.jain@gmail.com
Chairperson	Dr Alok Sarin, Consultant Psychiatrist, Sitaram Bhurda Institute of Science & Research	aloksarin@gmail.com
Member Secretary	Dr. S.S. Nongbri, DHS (Research)	+91-9402327030
Member	Dr.Pakha Tesia, MD Psychiatry, Senior Consultant Psychiatrist, Bethany Hospital, Shillong	+91-9436337949
Member	Dr. Sonali Shinde Tesia, MD Psychiatry, Mind and Wellness Clinic, Shillong	+91-9436337948
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Member	Dr. B. Mawlong, Additional Superintendent MIMHANS.	
Member	Dr. A. K. Roy, Sr. Psychiatrist Civil Hospital Shillong, cum Nodal Officer National Mental Health Programme (NMHP).	ashokroy1980@gmail.com
Member	Dr. Andrecia, Psychiatrist, MIMHNAS.	
Member	Deepika Easwaran, The Banyan and BALM	deepika@balm.in
Member	Dr Barbara Regeer, Associate Professor, Athena Institute, Vrije Universiteit, Amsterdam	b.j.regeer@vu.nl
Member	Dr Lakshmi Narasimhan , Principal Consultant, TSI Consulting LLP	lakshmi@tsiconsulting.in
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Terms of Reference:

1. To come up with a holistic draft of the Meghalaya State Mental Health Policy
2. To build upon the work done by SAMVAD(NIMHANS)Team by taking their assessments study/recommendations for child and adolescent mental Health.
3. To finalise and consult with relevant stakeholders.
4. To conduct fieldwork and research to assess and evaluate the state's current mental health scenario.

Sd/-

(Smti R.M. Kurbah, IAS.,)
Secretary to the Govt. of Meghalaya,
Health & Family Welfare Department

Memo No. Health, 180/2017/265-A**Dated Shillong, the 26th September, 2022.****Copy to:**

1. P.S. to Minister i/c Health & Family Welfare Department for kind information of Minister.
2. P.S. to Principal Secretary, Health & Family Welfare Department for information of the Principal Secretary
3. P.S. to Principal Secretary/ Commissioner & Secretary, Sports & Youth Affairs Department for information of the Principal Secretary/ Commissioner & Secretary.
4. Secretary, Health & Family Welfare Department for information.
5. The Mission Director, National Health Mission, Meghalaya, Shillong, for information.
6. The Director of Health Services (MI)/(Research), Meghalaya, Shillong.
7. Joint Secretary, Law Department, Meghalaya, Shillong for information.
8. Director Social Welfare Department, Meghalaya, Shillong for information.
9. Director of Education, Meghalaya, Shillong for information.
10. Director Indian Institute of Public Health, Shillong for information.
11. All Members of the sub-committee for information.

By order, etc.,


Under Secretary to the Government of Meghalaya,
Health & Family Welfare Department.

Exercises

1. According to the executive summary, "The policy has been steered by a certain set of values including equity, justice, fairness, respect, empathy, responsiveness, and individual autonomy. Explain each of these values in one sentence.

Equity _____

Fairness _____

Respect _____

Empathy _____

Responsiveness _____

Individual autonomy _____

2. The Policy mentions "low health-seeking behaviours, which contribute to broader health concerns and reduced life expectancy."

What do you think is meant by "low health-seeking behaviours"?

Give two examples

i. _____

ii _____

3. Patients with mental health disorders (reported cases 2021–2022)

Table 3: Prevalence of mental health concerns reported at DMHP clinics (2021–2022)

Disorder	Number
Depression	1,684
Anxiety disorders	1,315
Bipolar Affective Disorder	1,151
Schizophrenia	2,822
Psychoses	1,769
Somatoform disorders	325
Epilepsy	1,510
Substance-use disorder	
Alcohol	1,919
Opioids	308
Cannabis	134
Tobacco	13
Multi-substance use	255
Child-specific concerns	22
Intellectual disability	911
ADHD	43
Autism	31
Conduct disorder	2
Mood and anxiety disorders	1,315
	15,529

About 14% of Indians suffer from mental illness. As the population of Meghalaya is around 35 lakhs

A. What is the expected number of persons with mental illness in Meghalaya?

B. Why is the total number in the table above so much less than the expected number?

4. The 'healthiest' communities are those which have retained their language, culture, and rituals centred on their collective identity" (Linklater, 2014). Along with this citation the policy mentions that, "People go to traditional healers for a range of ailments, such as injuries, fractures, skin diseases, and high blood pressure. In the case of mental health issues, many first go to traditional healers, sometimes for years before going to formal health institutions."

Many tribal people in Meghalaya believe in illnesses from thlen or taro. These are called cultural syndromes.

- a. Are cultural syndromes real illnesses or are they imagined by the victims? Provide reasons for your answers.
 - b. Should traditional healers be recognized by the government to treat such illnesses? Provide reasons for your answer.
5. According to the data mentioned in the policy, "There are many single mother-headed households in the state, which means that many mothers end up shouldering the entire responsibility of raising their children and supporting the family. This can be a source of stress for many women."
- a. List five probable kinds of stress that single mothers experience
 - b. If the government of Meghalaya asked your advice about how to make a scheme to help single mothers, provide some points below in about 50 words
6. The Lancet, one of the most prestigious international health journals, published an article titled, "First North Eastern State's mental health policy from Meghalaya". The article highlighted the importance given on the policy to "peer-led programs".

Given that drug addiction is a major problem in the state, explain how youth can be involved in drug abuse prevention programs. (50 words)

SECTION C

IMMUNISATION AND VACCINATION

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Immunisation and Vaccination

Impact Evaluation of a Community Engagement Intervention in Improving Childhood Immunisation Coverage: A Cluster Randomized Controlled Trial in Assam, India

Santanu Pramanik, Arpita Ghosh, Rituu B. Nanda, Marlou de Rouw, Philip Forth, Sandra Albert

Background

Immunisation is a globally accepted public health intervention that helps avert vaccine-preventable diseases. Incomplete- and non-immunisation increases the risk of illness and death among children. The Global Vaccine Action Plan (GVAP 2011–2020) sets the goal of 90% coverage at the national level and 80% in every district or equivalent administrative unit with all vaccines in national programs by 2020 [1]. India is one of the 194 Member States of the World Health Assembly which endorsed the GVAP framework in 2012. Despite a long standing national program for immunisation in India since 1985, only 65.2% of 12–23 month old children are fully immunized (RSOC, 2013–14) [2]. Full immunisation is defined as children receiving one dose of Bacillus Calmette–Guérin (BCG) vaccine to prevent tuberculosis, three doses of oral polio vaccine (OPV3), three doses of diphtheria-pertussis-tetanus vaccine (DPT3) or the more recently introduced Pentavalent (DPT-Hepatitis B-Haemophilus Influenzae type B) vaccine, and one dose of measles vaccine. Completion of schedule of vaccines that require multiple doses (e.g., OPV and DPT or Pentavalent) remains a major challenge towards achieving higher full immunisation coverage (FIC). Both demand- and supply-side bottlenecks contribute to sub-optimal vaccination coverage rates in India [3,4,5,6,7,8].

In the context of universal immunisation program (UIP) in India, most of the existing interventions are geared towards addressing supply-side challenges such as ensuring better immunisation services and more focused implementation by deploying more health workers across health facilities, introducing alternate vaccine delivery system, including new vaccines in the immunisation schedule, organizing sessions in hard-to-reach areas, and initiating supplementary immunisation activities for children who are missed out in the routine immunisation program [5, 9, 10]. But there is a growing body of literature showing that demand-side interventions lead to significant improvement in childhood vaccination coverage in low- and middle-income countries [11, 12]. Community engagement approaches can address demand-side barriers while also mobilizing the community to advocate for better service delivery [13, 14]. With the growing realization that community-level factors influence vaccination uptake, more recent strategies to increase vaccination coverage have attempted to focus on community-based interventions [15,16,17,18].

Existing community engagement programs, however, mostly focus on communication activities that do not actively involve communities in the planning, monitoring and surveillance activities [15]. Participatory engagement of communities can help identify barriers to vaccination at the local level and thus might lead to sustainable solutions in a manner which a top-down approach cannot achieve. Our proposed intervention goes a step beyond merely engaging with communities and strives towards increasing a sense of community ‘ownership’.

In various steps of the proposed intervention, referred to by the acronym SALT (Stimulate, Appreciate, Learn, Transfer), the communities lead the way — they identify the challenges, they take actions based on where they are and what they want to achieve, learn from their actions and share their experience with other communities. Trained facilitators stimulate the communities to leverage their own strengths to address their concerns, and accompany them through a systematic process of learning from action.

This community-based approach has been shown to be effective in generating behaviour change in other contexts. The WHO-UNICEF evaluation of AIDS Competence Process (ACP) in Papua New Guinea (2009) concludes that ACP is an effective approach in combating HIV/AIDS through local empowerment [19]. Economic evaluation of ACP in Thailand (2011) shows that it is likely to be cost-effective when comparing incremental cost-effectiveness ratio of the ACP with other HIV prevention programs [20]. In the context of malaria, a retrospective study of SALT versus non-SALT districts in Togo shows significant increase in impregnated bed-net use and decrease in malaria prevalence among children under five [21]. A recent study (unpublished) in Democratic Republic of the Congo found that SALT intervention can reduce resistance to vaccination and increase vaccination rates for oral polio vaccine [22]. However, the evaluation design and method used in the study did not measure the attributable impact of SALT.

In the last 5–6 years, according to the different health and demographic surveys, there has been no significant improvement in the FIC in India [2, 4, 23]. It has been suggested that approaches in which communities play a prominent role may be effective for improving immunisation coverage [15]. We aim to assess the impact of this novel community engagement approach (SALT) in increasing immunisation coverage. The objective of this impact evaluation study is to generate high quality evidence that will allow us to causally attribute the changes in immunisation coverage, if any, to the SALT intervention.

Methods/Design

Study setting

The study site is in Assam, a north-eastern state of India. Historically, Assam is known to have poor public health indicators and weak health infrastructure [24]. Full immunisation coverage in Assam (55.3%) is lower than the national level (65.2%). Dropout rates for vaccines that require multiple doses are higher in Assam than the national figures [2]. According to the latest SRS bulletin (2015) [25], Assam has the second highest infant mortality rate in the country, 47 deaths in infants less than a year old per 1000 live births, which exceeds the national average of 37. We considered 3 districts from Assam- Bongaigaon, Kamrup rural, and Udalguri. Figure 1 shows the location of Assam on India map and the three selected districts on a map of Assam.

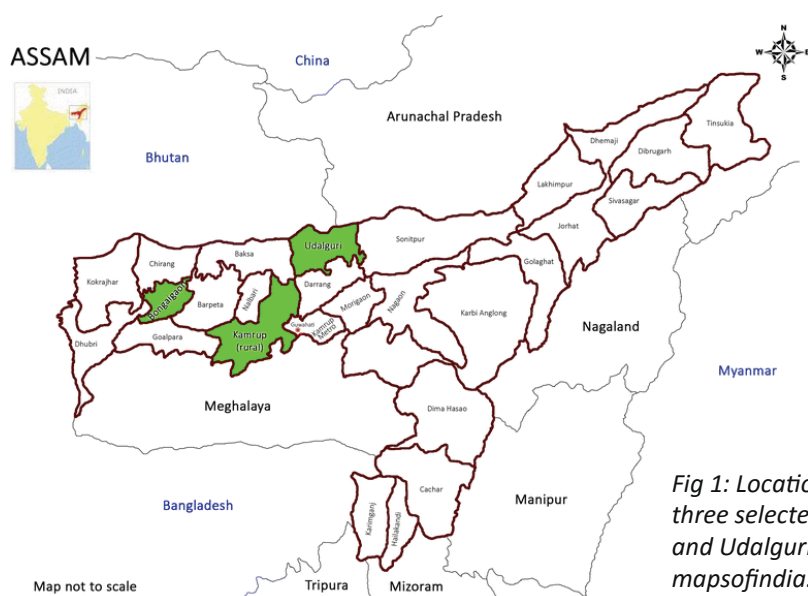


Fig 1: Location of Assam on India map (inset) and three selected districts- Bongaigaon, Kamrup (rural) and Udalguri- on Assam map. Source: <https://www.mapsofindia.com/maps/assam/>

Stratified purposeful sampling was used so that the selected districts represent varied socio-demographic characteristics of Assam. Table 1 illustrates the variation across the three districts in

terms of selected indicators. We considered only rural areas of selected districts for this impact evaluation study.

District	Population	Urban (%)	Tribal (%)	Female literacy rate	Muslim (%)	DPT3 coverage
Bongaigaon	7,38,804	14.9	2.5	64.4	50.2	56.2
Kamrup rural	15,17,542	9.4	12.0	69.5	39.7	67.2
Udalguri	8,31,668	4.5	32.1	58.0	12.7	62.0

Table 1: Socio-demographic characteristics (census 2011) of three selected districts of Assam along with DPT3 coverage rate (DLHS-3, 2007–08)

Study design

We adopted a cluster randomized controlled trial (cRCT) design with two groups to evaluate the intervention. The intervention group receives SALT intervention for about a year (March 2017–March 2018) along with the routine immunisation (RI) services. The control group received RI services alone. Cluster randomized design is appropriate here as opposed to individual or household level randomization as the intervention is intended for implementation at the community (village) level, the village being our unit of randomization.

The study uses a repeated cross-sectional design where we track the same sampled villages but draw independent random samples of households (HHs) at baseline and endline. Post intervention, for the endline survey we do not plan to follow up the same HHs unlike most other RCTs, as estimating immunisation coverage rates requires targeting a particular age-group of children. The children sampled at baseline would have mostly grown beyond the desirable age limit by the time the endline survey is due. The HHs in the baseline may no longer satisfy the eligibility criteria (having children in that particular age group) at the time of the endline survey – although there may be some overlap.

Sampling Strategy: Recruitment of Clusters and Participants

Within each district, we considered a two-stage cluster sampling design. In the *first stage*, we selected villages using a stratified sampling technique. We stratified villages, within a district into four strata and then randomly selected villages from each stratum. For the selection of villages, we used census 2011 village-level data as our sampling frame. The following villages were excluded from the census sampling frame: 1) villages having less than 50 HHs as getting enough number of eligible HHs—having children in the age group 6 to 23 months—would be a challenge and 2) villages having more than 500 HHs as there would be logistical challenges to get the community together for implementation within the timeframe and resources of the study. To stratify the villages, we used the following village-level indicators: population size, percentage of Scheduled Caste (SC), percentage of Scheduled Tribe (ST), and female literacy rate. SCs and STs are various officially designated groups, recognized in the constitution of India, of historically disadvantaged people [26]. Based on these indicators we developed a composite index that was then used to construct the four strata based on the quartiles of the index. Twenty villages were selected from each of the four strata using simple random sampling method. The choice of stratified sampling design ensures a representative sample of villages, having varied socio-demographic characteristics, within each district. The requirement of 20 villages per stratum stems from the sample size calculation, as discussed in the section on Sample Size. This led to 80 villages (20 × 4) in each district, resulting in total 240 villages across 3 districts of Assam for the baseline survey.

In the *second stage*, from all sampled villages, after houselisting a random sample of 15 eligible HHs was selected for the baseline survey. In a selected household, all mothers having children in the age group 6–23 months were eligible to participate in the survey. From mothers, we collected information pertaining to her youngest 6–23 months old child. The flowchart in Fig. 2 provides a visual display of the sampling strategy (in blue). In the endline survey, while the sampled villages will remain the same, a new random sample of 15 eligible HHs will be drawn from each village. The baseline survey was done during June–August, 2016 and the endline survey is planned to be conducted after the conclusion of the intervention, during June–August 2018.

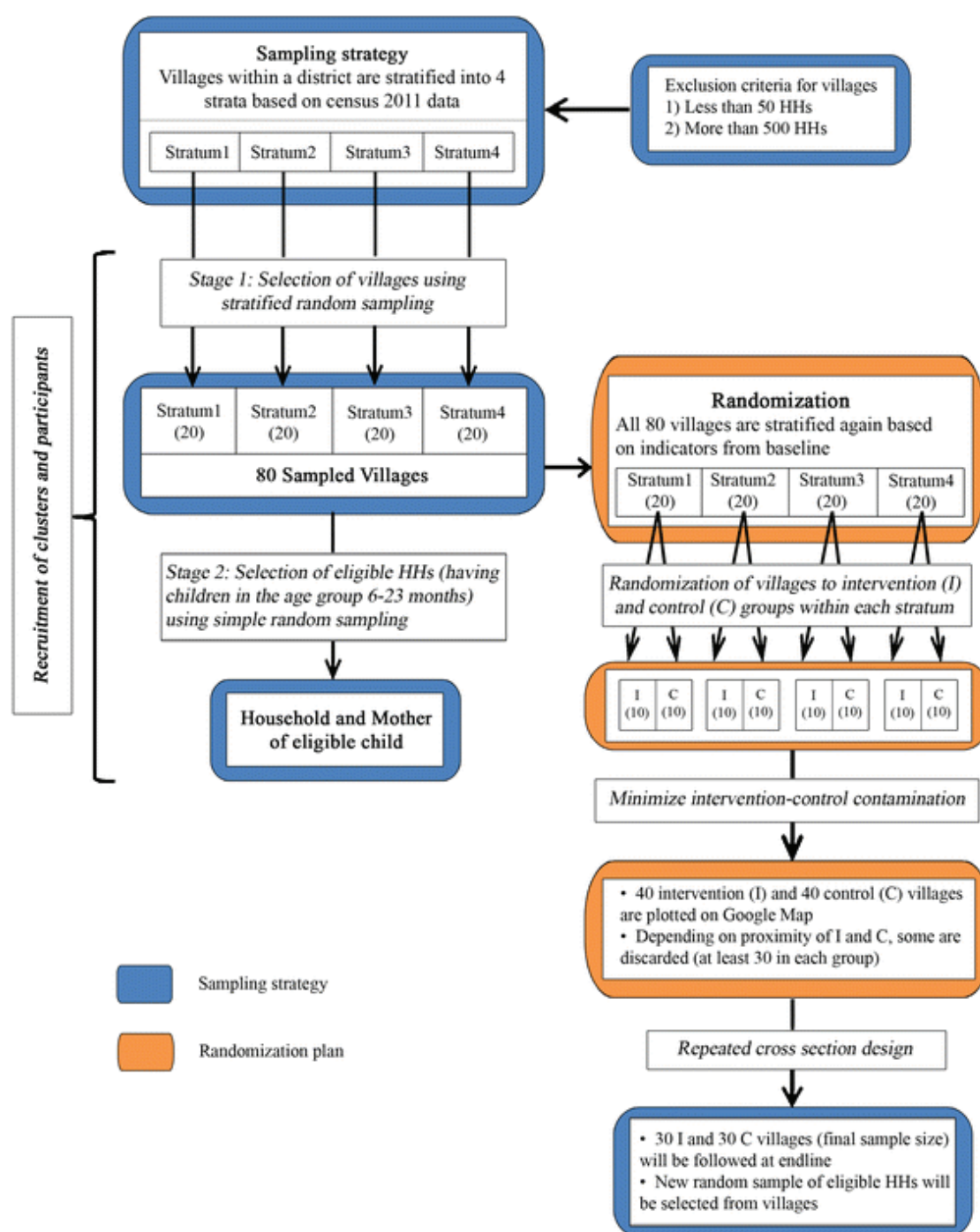


Fig 2: Flow chart describing sampling strategy and randomization plan for the cluster randomized controlled trial within a district: Exact same flow chart is applicable for all three districts.

The Intervention

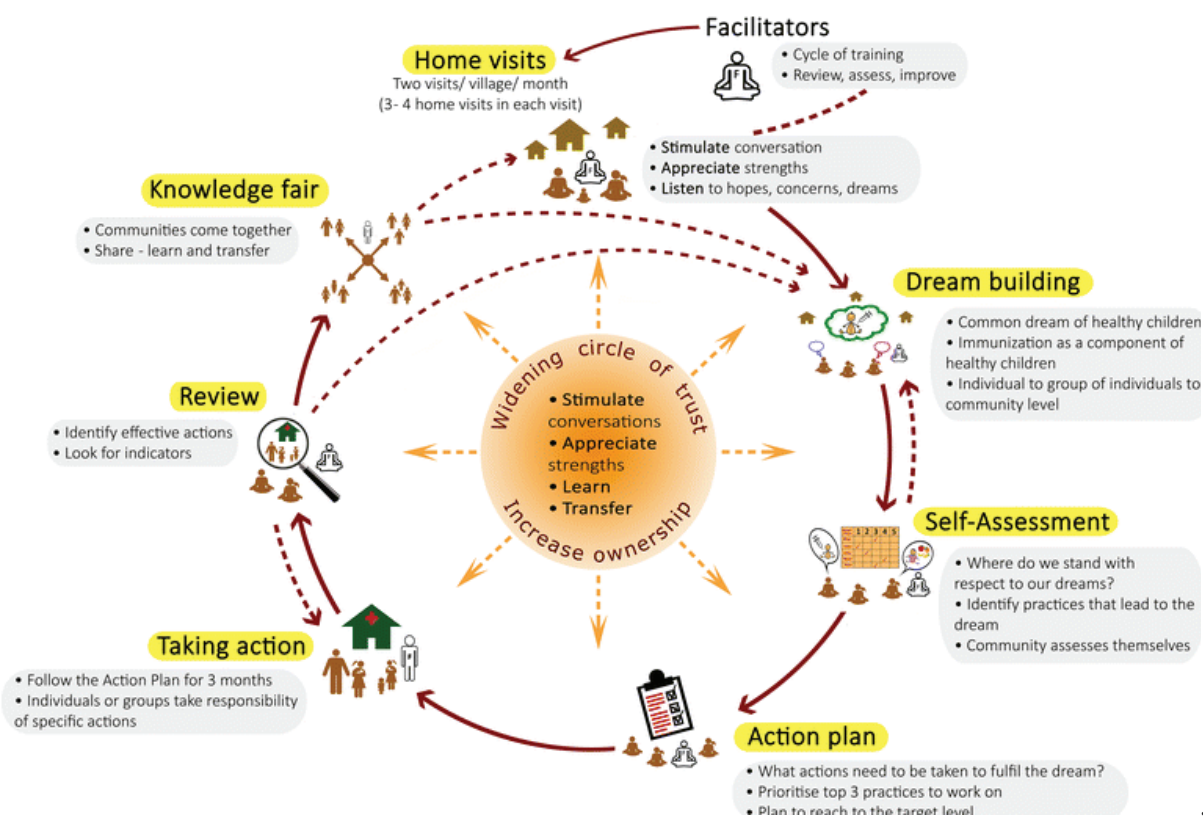
This community engagement intervention originated at the Constellation [27], a NGO registered in Belgium. We refer to the intervention by the acronym SALT: stimulate, appreciate, learn, and transfer. The intervention starts with home visits by trained facilitators to villages. Facilitators engage with people, listen to the hopes and concerns of people, appreciate their strengths, and eventually bring the community together to discuss the common values they share. SALT home visits are a crucial starting point as it helps to build trust between the facilitators and the community and to identify strengths available in the community. The next step is collective dream building which starts from individuals and small groups and then involves the wider community. In our context, this is the dream of healthy children in the community and immunisation is a component that can contribute to healthy children.

Once the community embraces its dream, a self-assessment exercise starts under the guidance of the facilitator, in order to understand where the community stands today with respect to practices linked to their shared dream. It is important to note that the practices must ideally come from the community. The facilitators stimulate the conversation so that immunisation related practices emerge during self-assessment. The self-assessment framework requires the community to assess itself on the set of practices defined by the community from level 1 to level 5 where level 1 indicates a low level of competence and level 5 indicates a high level of competence. The central idea behind the self-assessment exercise is that the community assesses themselves, rather than the facilitator assessing them. Thus, this is not about an 'expert' coming from outside to assess the community and advise it of its weaknesses and its strengths.

In the next phase, the community chooses three priority practices, relevant to their shared dream, where it feels that it can make progress within a stated timeframe (say, 2–3 months). The discussion evolves around what actions need to be taken in order to reach a next desired level from the current level agreed by the community during self-assessment. For each selected practice, the community itself comes up with certain number of actions, based on its strengths and resources, which would help them reach the target level within the specified period of time. Often specific individuals or groups are identified from the community who take responsibility for each of the actions. To measure the effectiveness of action-plan some indicators are defined by the community members.

This is followed by the action phase and the review process. The emphasis is that a plan is used to help take action, with actions taking precedence. Facilitators then bring communities together to share with and learn from each other in a 'knowledge fair' when transfer of knowledge and experience takes place between communities. Depending on the progress and timeline allotted for the intervention, the community might revisit the dream, and the various steps in the process. A pictorial illustration of SALT intervention and its processes are presented in Fig. 3.

Fig 3: Pictorial illustration of different steps of SALT intervention



Evaluation Outcomes

Our study will assess the intervention's impact on the following primary outcomes: FIC in children 12–23 months old and coverage rate of three doses of DPT/Pentavalent in 6–23 months old children. As secondary objectives we will study the impact of our intervention on dropout rates between different doses of DPT and OPV, timely immunisation, and inequities in immunisation coverage by gender, birth order, and various religious and caste groups. In addition, we will explore the intervention's effect on common childhood illnesses such as diarrhea and acute lower respiratory infection. We will also measure other outcomes which fall on the causal pathway including awareness of immunisation service provision in mothers, health service utilization (antenatal check-up and institutional delivery), perception of adherence and completion of immunisation schedule in protecting children from diseases, beliefs regarding community engagement, action and practices in the context of child health, and community involvement and ownership.

Sample size

To calculate the sample size, we considered the two primary outcomes: DPT3 coverage among 6–23 months old children and FIC among 12–23 months age group. Per our initial (pre-baseline) sample size calculation, we needed 120 villages per group, intervention and control, leading to a total of 240 villages, to detect a difference of at least 10 percentage points in coverage between the two groups, with 80% statistical power using a two-sided test at 5% level of significance, after accounting for the correlation in immunisation status among children from the same village. We considered an equal allocation of 240 villages across 3 districts, resulting in 40 intervention and 40 control villages in each of the selected districts. Estimates of the coverage rate for DPT3 and FIC in the control group were obtained from the most recent data available at the time (RSOC, 2013–14) [2]. In Assam, the estimates were 65.9% and 55.3% for DPT3 and FIC, respectively. If the coverage rates for DPT3 and FIC in the intervention group are at least 10 percentage points higher, i.e., 75.9% and 65.3%, respectively, our sample size would allow us to detect the difference in coverage rates between the two groups. To calculate the intracluster correlation (ICC) for these outcomes, we extracted DLHS-3 (2007–08) [28] unit level data for Assam and obtained the estimates as 0.21 and 0.25 for DPT3 and FIC, respectively. We further assumed that a village will have a minimum of 15 children 6–23 months old and 10 children 12–23 months old. If there were more than 15 eligible children in a village, we randomly selected 15 children. Baseline survey was conducted in all 240 villages, as per the requirement of pre-baseline sample size calculation.

Up-to-date ICC and re-estimation of sample size

Sample size is sensitive to the estimate of ICC used in the calculation. ICC, often interpreted as the degree of homogeneity of units within cluster with respect to the outcome variable, is defined as the ratio of between-cluster variability to total variability in the outcome. ICC estimates used in the pre-baseline sample size calculation were based on DLHS-3 (2007–08) data. We expected the recent ICC estimates for DPT3 and FIC to be different, most likely smaller in magnitude because of the improved reach of maternal and child health services, including immunisation, under the National Rural Health Mission (NRHM, 2005–2012) [29]. Immunisation service delivery, supply chain system, vaccine logistics and the process of linking health system and communities through ASHA- all these have been standardized to a large extent in all rural areas. Moreover, the recent estimates for coverage rate for DPT3 and FIC may have also changed. These changes would affect the sample size needed to detect a difference in coverage rates between the control and intervention groups.

On another note, our intervention is complex in nature, involves sustained interaction over several months with the community. Owing to this intense nature of our intervention, there were concerns that implementation of the intervention may not happen optimally within the timeframe and budget if the sample size was unnecessarily large. The international panel of reviewers of this study also recommended that the sample size and ICC be recalibrated based on new data that would become available to us from the baseline survey. These considerations led us to recalculate the sample size based on recent estimates derived from baseline data.

Table 2 presents the revised estimates based on data from baseline survey and the revised sample size. Note that the ICC estimates based on baseline data have decreased relative to earlier estimates from DLHS-

3, as anticipated. On the other hand, vaccination coverage rates have increased substantially relative to RSOC data (14–2013). This sudden increase in vaccination coverage can perhaps be attributed to Mission Indradhanush (MI), a flagship program of the Ministry of Health and Family Welfare (MoHFW) and was also observed in other historically poor-performing states such as Bihar, Rajasthan and Madhya Pradesh [30]. Two phases of MI happened before our baseline survey (phase 1: April–July 2015 and phase 2: Nov 2015–Feb 2016) and all three study districts (Bongaigaon, Kamrup rural, and Udalguri) received at least one round of MI intervention. However, it is possible that this high level of immunisation coverage will not be sustained in future after the supplementary immunisation activities under MI are discontinued. In view of these high coverage rates, we reduced the minimum detectable difference from 10 to 8 percentage points in the revised calculation of sample size.

Outcome of interest	Updated coverage rate (%)	Updated ICC	Updated sample size (number of villages in each of intervention and control group)
DPT3	84	0.17	57
FIC	79	0.18	90

Table 2: Revised sample size for two primary outcome variables based on SALT baseline survey (July–August 2016) data.

Per our revised sample size calculation, we needed 90 villages per group to detect a difference of at least 8 percentage points in coverage between the control and intervention groups with 80% statistical power based on a two-sided test having 5% level of significance, after accounting for the correlation in immunisation status among children from the same village. Total number of villages required for the study is 180 (90×2). We considered an equal allocation of 180 villages across the 3 districts, resulting in 30 intervention and 30 control villages in each of the three selected districts.

Qualitative component

To evaluate the impact of the intervention, our study includes a qualitative component to complement the quantitative surveys. As a part of qualitative data collection, focus group discussions (FGDs) and key informant interviews (KIIs) were conducted at baseline. The purpose of the FGDs and KIIs was to understand community perceptions regarding immunisation, perceptions on immunisation of different stakeholders and to gain an understanding of current community engagement if at all.

A more extensive qualitative data collection is planned for endline. FGDs and KIIs will be conducted in a sub-sample of villages in the intervention and control arms that will be representative of villages across the 4 strata identified in three districts. The goal is to examine if, how and why the community mobilized to take ownership of child health and immunisation related issues, the perceived benefits and challenges of SALT approach, the perceived improvements in child health with a focus on immunisation, and whether the community identifies SALT as a valuable, feasible and sustainable approaches to address community problems.

Randomization strategy

We adopted a restricted randomization strategy, specifically stratified randomization, to achieve better balance, leveraging information available to us prior to allocation. As opposed to a complete randomized allocation, stratification has the potential to provide explicit balancing of potentially important covariates known to be associated with coverage outcomes, as randomization happens within each stratum [31].

All 240 villages sampled in the baseline survey were randomized to the intervention and control groups. For our stratified randomization strategy, the key advantage of randomization post-baseline survey is that the stratification of villages, and subsequently randomization within stratum, can be based on up-to-date indicators obtained from the baseline data.

Sampled villages from baseline survey, within a district, were stratified into four strata based on a composite score constructed using the following village-level indicators: average number of under-5 children, percentage of HHs living for more than 50 years in the village, percentage of SC HHs, percentage of ST HHs, percentage of Muslim HHs, percentage of HHs belonging to the poorest wealth quintile, percentage of HHs

belonging to the richest wealth quintile, percentage of mothers having no formal schooling, percentage of mothers with educational qualification higher secondary or more, percentage of mothers receiving full antenatal care during pregnancy, village had flood last year or not. Full antenatal care is defined as consumption of IFA tablet/syrup for 100+ days, 3+ antenatal check-ups visits, and receipt of at least one TT injection. These indicators were derived based on data from baseline survey.

All indicators were not used for stratification within a district, the choice of variables depended on the district-specific context. For example, in Kamrup rural, all three socio-demographic indicators— percentage of SC HHs, percentage of ST HHs, and percentage of Muslim HHs, were considered whereas for Bongaigaon percentage of ST HHs was not relevant and for Udalguri only percentage of ST HHs was relevant.

To define economic indicators, wealth index was constructed for each household using baseline data. Wealth index is a widely accepted measure of household's long term economic status [32, 33]. To construct the wealth index, we considered variables related to housing characteristics, sanitation facility of the HH, and asset possession. Each variable is assigned a weight generated through principal component analysis (PCA) and the standardized variables are multiplied by the weights and summed to produce the wealth index. The first principal component, explaining 25% of the total variation in the data, was considered as the wealth index. Based on the wealth index the HHs were divided into quintiles: poorest, poorer, middle, richer, and richest.

Finally, within each stratum we randomized sampled villages to intervention and control groups. After stratification within a district, each stratum contained 20 villages as the baseline sample covered 80 villages in each district. We randomly selected 10 villages to receive the intervention and the remaining 10 villages will continue to receive immunisation services from the routine immunisation program in place (control group). The flowchart in Fig. 2 illustrates the randomization procedure (in orange). R statistical software was used to implement the randomization strategy through the use of random numbers [34].

Minimizing intervention-control contamination

In each district, we had randomized the 80 sampled villages to the intervention and control groups in equal proportion. However, according to our revised sample size calculation, we needed only 30 intervention and 30 control villages, that is, we had the liberty to exclude 10 villages from each of the two groups. We attempted to use this opportunity to minimize intervention-control contamination while excluding villages, as opposed to random exclusion.

Transfer of knowledge is a crucial component of SALT intervention. Particularly, during the knowledge fair, the community may have an opportunity to meet peers from the control community and share their knowledge and experience, in case intervention and control villages are located in close proximity. To mitigate potential contamination between intervention and control villages, we attempted to ensure that the intervention and control villages are sufficiently far apart from one another. For our community-based intervention, by separating the intervention and control villages geographically we seek to reduce the chances of interaction between community members belonging to the intervention and control groups. The following procedure was used to ensure geographical buffer between intervention and control villages.

After randomization, we plotted the intervention and control villages on Google Maps by uploading an excel file of villages having locations (defined by “village name, district name, state name”) as a column. Different-color place marks were used for intervention and control villages. Using features of Google Maps, we then calculated straight line distances between intervention and control villages when they visibly appeared to be close by. If the distance is less than 3 km (KM), we discarded one of the villages. While discarding villages, we were mindful about two things: 1) an equal number of intervention and control villages are being discarded and 2) distribution of intervention and control villages across strata does not change significantly as that might have an impact on balance between the two groups.

Figure 4 illustrates the procedure using two Google Maps screenshots. In Panel a, we plot all 80 villages from Udalguri district that were randomized to intervention (green) and control (red) groups and in Panel b we present the same plot after discarding villages in instances where intervention and control villages are within 3 KM distance. For example, in bottom left corner, two control villages appeared to be located

in close proximity to three intervention villages. Distance calculation confirmed that the straight-line distance is less than 3 KM and, hence, two control villages were discarded (circled in blue in Panel a and b). Using the same rationale, two intervention villages were also discarded as seen in the top left and top middle part of the plot (circled in blue in Panel a and b).

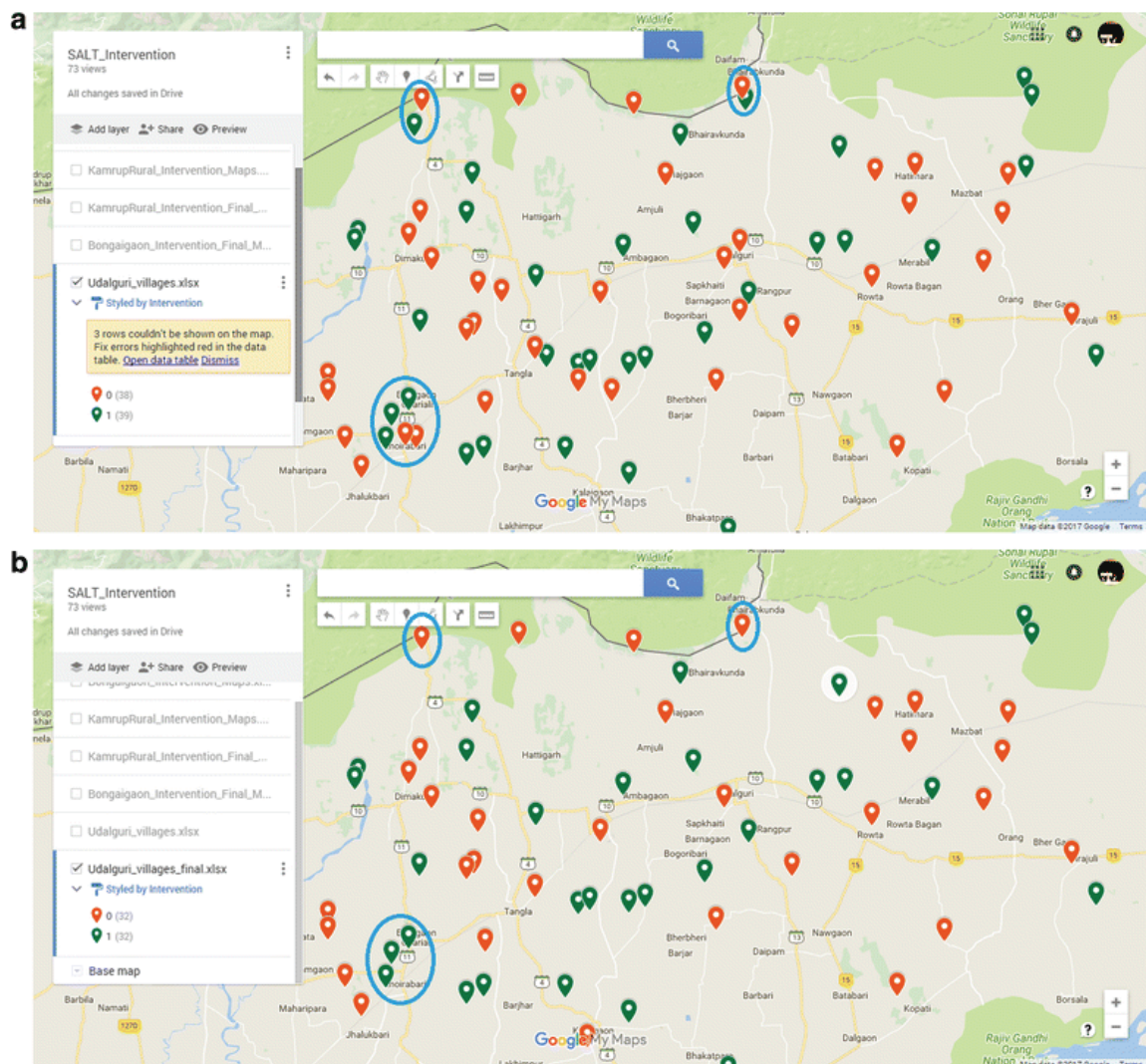


*Fig 4: Screenshot of intervention (green) and control (red) villages in Udalguri: Potential scenarios of intervention-control contamination and subsequent use of geographical buffer to minimize it. Source: Google Maps. Original randomization of baseline survey villages. **a** After discarding villages when intervention and control villages are within 3 KM distance.*

Balancing checks

Balance between intervention and control groups was examined with respect to potentially important covariates after randomization of the 240 villages using baseline data. Although randomization happened at the village level, the unit of analysis is the child. Hence, we performed balancing checks at the level of village, child, child's household and the mother. Balance was re-examined after excluding the villages discarded to minimize intervention-control contamination. Results in Table 3 suggest that reasonably good balance has been achieved across indicators for villages, children, their HHs, and mothers. This is expected as the randomization of villages to intervention and control groups happened within stratum, after stratifying the villages based on several of the indicators presented in Table 3. The two groups remain balanced after excluding intervention and control villages discarded to minimize intervention-control contamination.

Characteristics	After randomization of all 240 baseline survey villages			After discarding villages to minimize contamination (180 villages)		
	Control	Intervention	p-value*	Control	Intervention	p-value*
Village-level indicators						
Village has subcentre	40.5	39.2	0.8334	39.8	41.7	0.7926
Village has secondary school	31.0	25	0.3034	29.6	26	0.5833
Village experienced flood last year	30.2	37.5	0.2359	31.6	35.4	0.5787
% of HHs in village living more than 50 years in same village	75.9	76.5	0.6841	77.2	76.1	0.8800
% of tribal HHs in village	26.4	26.2	0.5359	25.6	27.3	0.6494
% of mothers in village with education HS ^a or more	12.3	13.1	0.6777	12.6	13.6	0.6390
% of mothers in village receiving full antenatal care	41.9	42.1	0.936	42.5	43	0.8386
Household-level indicators						
Average HH size	5.33	5.28	0.4336	5.34	5.3	0.4867
Household head is Muslim	27.9	32.3	0.4104	27.7	30.2	0.6453
Household has (pour) flush toilet	35.9	33.6	0.5033	35.3	35.1	0.9965
Household belongs to poorest wealth quintile	19.7	19.7	0.9838	20.4	17.3	0.2405
Average time (in minutes) from household to vaccination site	19.9	20.6	0.5764	19.9	19.9	0.6037
Mother- and child-level indicators						
Mothers received full ANC when pregnant with child	41.9	41.9	0.9612	42.4	42.9	0.8787
Child was born in health facility	85.9	86.5	0.7941	84.9	88.4	0.2184
Child has vaccination card	92.7	92.4	0.7852	92.1	92.1	0.9731
Child (12–23 months old) is fully immunized	78.5	77.6	0.8244	77.6	77.6	0.8479

*Wilcoxon Rank Sum Test with Null Hypothesis: location parameters of the distribution are the same in each group

^a HS higher secondary.

Table 3: Balancing checks based on selected village, household (HH), mother and child-level indicators: comparison between intervention and control groups.

To check balances between intervention and control groups based on selected household, mother and child level characteristics we have adjusted for clustering as responses from HHs (as well as mothers and children) within a village are correlated. However, for checking balance based on village level indicators this adjustment does not have any impact on standard errors and hypothesis testing. All analysis has been done using “survey” package [35] in R [36]. Wilcoxon rank sum test has been adjusted as per the survey design [37].

Discussion

Pre-specification of study protocol for ongoing studies which includes objectives, rationale and methodology of the study increases confidence in the validity of the conclusions and can reduce publication bias [38].

Our study aims to evaluate the impact of a novel community engagement intervention (SALT) in improving childhood immunisation uptake. Our community engagement approach is based on the premise that communities can think and act for themselves, and that communities have the capacity to change themselves. It employs facilitated conversations to elicit community strengths, increase self-awareness and stimulate self-confidence and action. Facilitators accompany the community on its path to ownership of the issue of immunisation and its solution.

To identify the impact of SALT in increasing immunisation coverage, we adopted an experimental design which is considered to be the gold standard for evaluation studies. Specifically, we used a cluster randomized controlled trial design. To recruit clusters and participants at baseline, we used a two-stage stratified random sampling method. Within a district, first we stratified clusters (villages) based on census data and randomly selected villages from each of the four stratum. At the second-stage, we selected random sub-sample of eligible HHs (having children in the age group of 6–23 months) from each selected village. The baseline survey happened during June–August 2016. Post baseline survey, using baseline data we stratified our sampled clusters again and, within each stratum, we randomly allocated them to the intervention and control groups. Randomization after baseline allowed us to use an extensive set of sociodemographic and economic characteristics for stratification at the village level, which were not available from census data. Moreover, it provided us with a more accurate estimate of ICC and coverage rates leading to re-estimation of appropriately justified sample size.

Note that the rationale to consider *stratification* for sampling design is different from the rationale to consider *stratification* for randomization. While the former ensures a representative sample of villages from Assam, having varied socio-demographic characteristics, the latter guarantees balance between intervention and control groups with respect to potentially important covariates at baseline. Since control group forms the basis for counterfactual theory of causation, it is important to ensure that intervention and control groups are similar and our methodology ensures it. A simple comparison of outcomes between sampled children in villages receiving the intervention and those in control villages would allow us to measure change in vaccination coverage outcomes attributable to SALT. The study uses a repeated cross-sectional design. Eligible HHs within a cluster were randomly sampled at baseline and HHs will be sampled again at endline following the same method. An appealing feature of repeated cross sectional surveys is that concerns regarding attrition can be avoided [31]. These features of our evaluation design justify the internal validity of our study.

Cluster randomized controlled trial, by design, minimizes the risk of intervention-control contamination as compared to individual-level randomization where sharing of information is more likely to happen if individuals living within the same cluster receive different interventions [39]. However, cluster randomization design does not guarantee that the threat of contamination will be entirely removed. Contamination of control participants may lead to an underestimation of the intervention effect in the context of improving immunisation coverage. This may result in rejection of an effective intervention as ineffective because the observed effect size may neither be statistically significant nor programmatically relevant. Our study attempts to minimize intervention-control contamination through introducing distance buffer between intervention and control villages.

Our community engagement intervention; the SALT approach is participatory, interactive, prolonged and involves multiple inter-related steps. RCTs of complex interventions like SALT are often criticised as being ‘black box’ as it can be difficult to know why and how the intervention worked (or not) [40]. At the end of the study, the absence of an impact could be simply because SALT was ineffective in this particular context or it could potentially be because of less than optimal implementation of the intervention. In order to be able to answer this, we will attempt to ‘unpack’ the ‘black box’ by examining underlying processes. To that end, we developed a process evaluation data collection plan for the entire duration of the intervention phase. Specifically, the aim is to answer the following questions: 1) whether the intervention is implemented as intended, 2) whether the intervention incorporates the primary objective of the study (i.e., increasing

immunisation coverage), 3) consistency of intervention delivery across communities in terms of the process of administering the intervention, 4) how the intervention was received by the HHs and communities across villages and districts, and 5) whether contextual factors influence the implementation of intervention.

As per our revised sample size (90 villages per group), our study is powered to identify a difference of at least eight percentage points in immunisation coverage between the intervention and control groups. Any effect size below that may not be detected and, hence, the intervention may be declared as ineffective. It is true that larger the sample size, higher is the chance of detecting a difference, even one that is smaller than the expected difference. We had to tally these methodological considerations against few practical considerations, which also could affect the quality of evidence.

In order to avoid intervention-control contamination, post randomization we discarded some villages from both groups in case intervention and control villages were located in close proximity. It can be argued that this violates the principle of randomization. However, the process of discarding the villages was done in a blinded manner, without considering the logistics of implementation. We assumed that geographical separation of at least 3 KM between intervention and control villages would reduce chances of interaction of community members between groups. Larger distance buffer would have further reduced the chances; however, enforcing a buffer more than 3KM was not feasible since within a district we could discard only 10 villages from each of the two groups.

Lastly, although stratified sampling was used to ensure that selected districts are representative in terms of socio-demographic diversity of Assam, the districts were purposefully selected so that they were not too far away from the central location Guwahati. We should therefore exercise caution while generalizing the study findings to other parts of the state and the country.

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Exercises

1. A child is considered to be fully immunized if the following immunizations have been taken. Tick all that are applicable.
 - a. 3 doses of oral polio vaccine (OPV3)
 - b. 3 doses of diphtheria-pertussis-tetanus vaccine (DPT3) or Pentavalent (DPT + Hepatitis B + Hemophilus influenzae type B to prevent pneumonia) vaccine
 - c. 1 dose of BCG vaccine to prevent tuberculosis
 - d. 3 doses of HPV for both boys and girls to prevent cervical cancer
 - e. 1 dose of measles vaccine

2. Only two-thirds of Indian children are fully immunized by the age of two years. In fact, in the last 5–6 years, there has been no significant improvement in the FIC (full immunization coverage) in India. What are the reasons for failure to reach FIC? Provide some reasons.
 - a. _____
 - b. _____
 - c. _____
 - d. _____
 - e. _____

3. Look at Table 1: Socio-demographic characteristics (census 2011) of three selected districts of Assam along with DPT3 coverage rate.

a. In which district is the DPT3 vaccine coverage the highest?

b. In which district is the female literacy rate the highest?

c. What is the reason for this correlation? _____

4. SALT refers to Stimulate, Appreciate, Learn, Transfer. Briefly explain each of these terms.

a. _____

b. _____

c. _____

d. _____

5. Assam has the second highest infant mortality rate (IMR) in the country, 47 deaths in infants less than a year old per 1000 live births, which exceeds the national average of 37. Define IMR.

6. This project used a community engagement approach which is based on the premises that

- communities can think and act for themselves
- communities have the capacity to change themselves.

This approach uses

- facilitated conversations to elicit community strengths
- increase self-awareness and stimulate self-confidence and action
- facilitators who accompany the community on its path to ownership of the issue.

a. Describe the role of the facilitator.

- b. What should be her/his qualifications and attributes? Which is more important: educational qualifications or personal attributes?

Immunisation and Vaccination

Reasons Behind Refusal of Vaccines in Meghalaya

Sandra Albert & Rajiv Sarkar, *The Shillong Times*, June 18, 2021

The World Health Organization has declared “vaccine hesitancy as one of the 10 threats to global health in 2019. On an individual level, studies have shown the following factors are causes of vaccine hesitancy: the perception that vaccines are not effective or useful; concerns about safety and side effects; distrust of the health system; a preference for “natural health;” fear of pain and needles; lack of awareness; and prior negative experiences with vaccines. On a community level, vaccine hesitancy is seen across educational and socioeconomic backgrounds. Misinformation about vaccines spread on social media also has been a driver of vaccine hesitancy in recent years, as has negative media coverage of vaccines, including coverage of celebrities who promote vaccine refusal.” (WHO)

Vaccines are effective and safe

A large body of emerging data from around the world now shows the efficacy and safety of COVID-19 vaccines. These are available in reputable medical journals and international health agency websites. We present some sets of data from India which pertain to the Covaxin and Covishield vaccines. The Covishield vaccine in particular has been subjected to extensive clinical trials in several countries and a recent study from the UK shows it offers protection against the newer delta variant of the virus as well.

Study of CMC Vellore Hospital Staff*

Group	Vaccinated	Unvaccinated	Benefit
Number	7080	1609	
Got infected	9.6%	27.2%	x3
Hospitalized	0.9%	4%	x4
Needed oxygen	0.7%	0.06%	x11
Needed ICU	0.5%	0.03%	x17
Deaths	1	0	

**Published Mayo Clinic Proceedings June 11, 2021*

Ministry of Health*data on side effects Jan16-Jun 7, 2021

From total of 23.5 crore doses given

Side Effect	Number	Percentage	Comment
All side effects	26,200	0.01%	
Minor	24,901	0.01%	Fever, pain and swelling at injection site, including pain and swelling, which spread beyond the nearest joint, and high-grade fever
Hospitalization	2,318	0.001%	blood in vomit, unconsciousness, chest pain, difficulty in breathing, thrombocytopenia (low blood platelet count)
Deaths	488	0.0002%	

**reported by CNN-News18*

Human Rights

Article 25 in The Constitution of India provides for “Freedom of conscience and free profession, practice and propagation of religion (but) subject to public order, morality and health. Article 19 on the right to freedom also carries a rider, that “nothing in this article shall prevent the State from making any law in the interests of the general public”.

The Epidemic Diseases Act, 1897 empowers the government to take special measures and prescribe regulations as to dangerous epidemic disease, when the ordinary provisions of the law being in force are insufficient for the purpose, so as to prevent the outbreak of such disease or the spread. Though legislated more than a hundred years ago these provisions are not outdated, since the world had experienced many pandemics over the previous centuries and while medical science has advanced, administrative measures also have an important role to play.

On June 13, 2021, a US court dismissed a lawsuit brought by 117 workers terminated by Houston Methodist Hospital because they refused to comply with a hospital order that they be vaccinated against COVID-19. The lead plaintiff, a nurse had argued that the vaccines are experimental and dangerous. The judge did not find merit in either argument. It was also noted that 24,947 other employees of the same hospital had taken the vaccine. The judgment noted that the hospital had made the correct choice to keep staff, patients and their families safer.

So far more than 400 US colleges and universities have announced mandatory vaccinations for faculty and students so as to keep campuses safe. These include Protestant, Catholic, and Jewish institutions and theological seminaries. An overwhelming majority of students of students, 96% have gotten the vaccine or have said they will get it.

Who are the vaccine refusers?

Survey data have shown that certain demographic sections of the public are more inclined to refuse the COVID-19 vaccine. An Indian study has showed that overall about 10% are vaccine hesitant. This rises to 24% in low-income groups, and 28% with low education and 24% among families who had refused other vaccines earlier. Hesitancy among scheduled caste and scheduled tribe persons were three times higher than the other sections. In the US, refusal or hesitancy (about 25%), is higher among women, minorities, lower education groups and conservative persons. In France, vaccine refusal and hesitancy (about 30%) was associated with female gender, lower educational level, and poor compliance with recommended vaccinations in the past.

There is considerable vaccine hesitancy in Meghalaya especially in the East Khasi Hills. A survey conducted by the Indian Institute of Public Health Shillong, of Health Care Workers (HCW) not vaccinated by April 15, 2021, over half reported fear of adverse effects and a third attributed to confusing messages over WhatsApp among other reasons. Vaccine hesitancy was least among doctors (14%) while it was several times higher among nurses, allied health personnel, non-medical support staff and non-medical frontline workers (41-50%). Higher vaccine hesitancy was seen among HCW in private hospitals compared to government hospitals.

Vaccine refusal endangers the public

One pertinent example can be cited. In the last couple of decades, the increasing refusal by parents to give their children vaccination has seen a resurgence of measles in the US and UK. Measles was eliminated from the US in 2000. Now hundreds of children each year suffer from this vaccine preventable disease.

Vaccine refusal has been an ongoing problem in Meghalaya, as shown by a study conducted in 2017 by the Indian Institute of Public Health Shillong in collaboration with the Directorate of Health Services (MCH & FW), Government of Meghalaya. Vaccine refusal will delay or prevent herd immunity. Dr Srinath Reddy, President of the Public Health Foundation of India has provided some data in a recent article in the Times of India. “A recent study from Serrana (in Brazil), revealed that deaths were reduced by 95% and infections by 86%, when 60% of the population was vaccinated. On June 1, 2021, Britain reported zero COVID-19 deaths, after 59% of the British adult population were vaccinated.” Such data indicates that achieving herd immunity is possible if a large proportion of the population is vaccinated. Studies from the US indicate that

herd immunity may be achieved only if 70-90% of the population is vaccinated. So not getting vaccinated puts others' lives at risk. It may prolong the pandemic, resulting in additional hospitalizations and deaths. According to the Shillong Times of June 2, 2021, already "vaccination hesitancy among the people here is proving to be immensely costly as a staggering 91.4% of those who lost their lives owing to COVID-19 infection were not vaccinated. ... Only 26 had taken the first dose while there were zero deaths among those who had both doses."

Getting vaccinated isn't just about you. Yes, you have the right to take risks with your own safety. One may demand individual, religious or moral rights. But when your rights endanger the wellbeing, safety and health of your fellow humans, especially voiceless children, it raises serious ethical issues, apart from public health considerations.

Exercises

1. The World Health Organization has declared "vaccine hesitancy as one of the 10 threats to global health in 2019. What are the other nine?
 - a. _____
 - b. _____
 - c. _____
 - d. _____
 - e. _____
 - f. _____
 - g. _____
 - h. _____
 - i. _____
2. Study the table below with Ministry of Health*data on side effects of Covaxin and Covishield vaccines given from Jan16-Jun 7, 2021. The data analyses a total of 23.5 crore doses given.

Side Effect	Number	Percentage	Comment
All side effects	26,200	0.01%	
Minor	24,901	0.01%	Fever, pain and swelling at injection site, including pain and swelling, which spread beyond the nearest joint, and high-grade fever
Hospitalization	2,318	0.001%	Blood in vomit, unconsciousness, chest pain, difficulty in breathing, thrombocytopenia (low blood platelet count)
Deaths	488	0.0002%	

- a. Only 0.01% of vaccinated persons had side effects. This means:
 - i. One person in a hundred
 - ii. One person in a thousand
 - iii. One person in ten thousand
 - iv. One person in one lakh
- b. Thrombocytopenia (low blood platelet count) impairs body function by

- i. lowering immunity to infection
 - ii. reducing blood clotting
 - iii. lowering absorption of vitamins
3. How does vaccine refusal endanger the public? Mark the correct answers.
- a. There can be a rebound increase in immunizable diseases, such as measles
 - b. Herd immunity may not take place
 - c. If a non-immunized person gets the disease, he/she may not die, but can pass on the disease to more vulnerable persons such as babies and elderly persons.
 - d. The cost of health goes up
4. A survey conducted by the Indian Institute of Public Health Shillong of Health Care Workers (HCW) showed that vaccine hesitancy was least among doctors (14%) while it was several times higher among nurses, allied health personnel, non-medical support staff and non-medical frontline workers (41-50%). Mark the correct answers.

This data indicates that the following steps among health workers should be undertaken:

- a. Additional training in awareness of the efficacy of and the low side effects of vaccines
- b. Scientific discussion of 'conspiracy theories'
- c. Warning and then termination from service
- d. Role plays to practice reassuring members of the public about the safety of vaccination

Exercises

1. High levels of awareness of COVID-19 symptoms, modes of transmission, and preventive measures among the general population were noted early on in the pandemic. Most persons practiced measures such as handwashing, distancing and mask wearing.

Do you think these precautions indicate a better awareness of disease prevention and spread even after the COVID-19 pandemic?

2. The pandemic resulted in delayed healthcare seeking for routine illnesses in approximately 8% of the respondents or their family members.

What were the reasons for the delay in seeking healthcare?

3. Nervousness and anxiety about COVID-19 were reported by almost half of the participants; fear of losing life from the virus was reported by one-fourth.

Fear of getting the disease sometimes resulted in stigma and discrimination against individuals who were infected. How would you address this problem?

4. A majority of the participants in the study were from the urban areas, which has a higher literacy rate than the rural areas (91% vs. 70%)

From a public health viewpoint, what strategies in pandemic control may vary from urban to rural areas?

Immunisation and Vaccination

Understanding COVID-19 Vaccine Hesitancy in Meghalaya, India: Multiple Correspondence and Agglomerative Hierarchical Cluster Analyses.

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Introduction

Since the World Health Organization (WHO) declared COVID-19 as a pandemic in March 2020, it has affected various aspects of people's lives across the globe [1]. In India, a country with significant within-country disparities in health and socioeconomic conditions, the impact of COVID-19 pandemic was the most pronounced during its second wave, which started around late March 2021. The introduction of the Delta variant marked the country as one of the global epicenters [2,3]. Just before this surge in cases, the national COVID-19 vaccination roll-out began in January 2021 with healthcare and frontline workers given priority. By April 1, 2021, the priority gradually expanded to include any residents of age 45 years and older, while others could still receive the vaccine with an out-of-pocket co-pay [4]. From May 1, 2021, eligibility was expanded to all adults aged 18 years and above [5]. The COVID-19 vaccination program in India has been decentralized, with each state government being responsible for vaccine distribution [6]. During this period, there were significant regional disparities in both COVID-19 infection and vaccination rates. In general, COVID-19 infections were highly clustered in more urbanized and prosperous states [7–9], and so was the distribution of COVID-19 vaccines [10]. These within-country disparities were due to a myriad of factors, including population density, healthcare infrastructure, socioeconomic status, mobility, and supply chain issues, all of which collectively shaped the differential impacts of the pandemic across different regions [7–10]. On the other hand, several studies highlighted the disparities in the quality of COVID-19 data reporting, which hindered an accurate estimation of the disease burden of COVID-19 and other associated issues, including an adequate understanding of the extent of vaccine hesitancy and refusal, in less prosperous states [11,12]. The national vaccination registration page, which was available only in English, and the COVID-19 vaccination co-pay at private health facilities, which could be up to \$20 per dose, also exacerbated the disparities across the country [13].

Meghalaya, a state in the northeastern region of India, has a population of around 3.44 million people and home to a large number of tribal communities, whose ethnicities are Khasi, Jaintia, and Garo tribes [14,15]. As of 2021, Meghalaya was the fifth poorest state in India with a predominantly agrarian economy [16]. Even before the COVID-19 pandemic, Meghalaya had low immunisation rates for routine childhood vaccines [17]. This had been identified as an issue by the state, and Meghalaya implemented a dedicated intervention based on the principles of a state capability approach in 2020 to mobilize all the stakeholders from the state's leadership to frontline healthcare workers to communities, which led to rapid improvements in vaccination coverage [18]. Nonetheless, in the beginning of the COVID-19 vaccine roll-out in 2021, Meghalaya was one of the lowest-performing states in India with its COVID-19 vaccine coverage ranking 26th out of the 28 states and nine union territories [10].

In early May 2021, at a COVID-19 expert committee meeting of the state government of Meghalaya, anecdotes of high vaccine hesitancy among workers at various tertiary care hospitals in the capital city of Shillong, Meghalaya, were brought up and discussed. The WHO Strategic Advisory Group of Experts on Immunisation (SAGE) Working Group defines vaccine hesitancy as “delay in acceptance or refusal of vaccination despite availability of vaccination services.” [19] At the time, several studies documented high rates of COVID-19 vaccine hesitancy among healthcare workers in different parts of the world [20–24] This was particularly concerning given the crucial role of healthcare workers in promoting vaccine acceptance among vaccine-hesitant communities [25]. The evidence on the nature and extent of COVID-19 vaccine hesitancy among healthcare workers in India is limited but has been growing [26]. However, no study has focused on north-east India, including Meghalaya state, where routine vaccination rates in the general population are markedly low. Furthermore, the characteristics of vaccine-hesitant groups in this particular setting have not been described, which are known to be vaccine- and context-specific and vary across populations and over time [19].

Against this background, our study aimed to identify the distinct subgroups of vaccine-hesitant populations in the healthcare and community settings in Meghalaya state during the early days of the COVID-19 vaccination program. The overall goal of this study was to contribute to the scant evidence that can guide public health authorities in developing appropriate interventions to address the issue of vaccine hesitancy in communities with low vaccination coverage. The issue of vaccine hesitancy has become more evident during a global pandemic and in the face of new and novel vaccines to address it. Existing studies have shown that vaccine hesitancy is associated with individuals’ socioeconomic status, which can be reflected in individuals’ health-related knowledge, attitudes, and beliefs in general [27,28]. Furthermore, individuals’ perceived barriers and negative attitudes toward vaccination may exert unique effects on their acceptance of vaccines [29]. Under this notion, we aimed to examine the factors that might have affected COVID-19 vaccine acceptance in a setting with low overall vaccination rates, with the primary aim of identifying the distinct clusters of individuals who can be potentially targeted with tailored communication strategies. Our findings also have implications for designing targeted strategies to improve vaccination compliance among healthcare workers.

Methods

Ethics statement

The protocol for this study was approved by the Indian Institute of Public Health Shillong Institutional Ethics Committee (IIPHS IEC) in April 2021 (Reference no: IIPHS-IEC/2021-22/01). Written consent was obtained from health workers who participated in face-to-face interviews, and verbal consent was sought from community members who were interviewed via phone due to the COVID-19 lockdown. Additional information regarding the ethical, cultural, and scientific considerations specific to inclusivity in global research was followed.

Study sample and data collection

This mixed-method study, comprising of a cross-sectional survey and qualitative key-informant interviews, was conducted in May 2021 to investigate the drivers of COVID-19 vaccine hesitancy among healthcare workers and members of the wider community in Shillong city, Meghalaya, India. The cross-sectional survey was conducted among people who were *a priori* identified as potentially ‘vaccine-hesitant’ [20,30,31]. Based on the WHO SAGE definition of vaccine hesitancy [19], for both groups, a vaccine-hesitant individual was defined as “an individual who did not receive COVID-19 vaccination by April 15, 2021 despite having had an opportunity to receive it free of charge.” By this date, COVID-19 vaccines were available to healthcare workers and other frontline workers, as well as to anyone aged 45 years and above at no cost, while the rest of the population had to co-pay to receive the vaccine. For this reason, we limited our community sample to those aged 45 years and above. The healthcare workers were recruited from four tertiary care hospitals, including the two largest state government-run hospitals and two private multispecialty hospitals in Shillong city. The second group included vaccine-hesitant members of the wider community, residing in hotspots with low COVID-19 vaccination coverage in East Kasi Hill district in Shillong city. A stratified random sampling was conducted among eligible healthcare workers using the occupation categories within the health sector (i.e., doctor, nurse, paramedical staff, frontline worker, and support staff). For community

members, a list of localities in Shillong agglomeration with their respective estimated population size and COVID-19 vaccine coverage rate was obtained from the local health authorities. Using this list, a total of 10 clusters with a reported vaccination coverage rate of less than 40% were selected using a probability-proportion-to-size (PPS) approach. We then recruited participants using a random sampling approach from the list of eligible individuals provided by the Accredited Social Health Activists (ASHAs) in each cluster. ASHAs are government-employed community based frontline health workers who form a key component of the National Health Mission (NHM) in India [32]. Informed consent was obtained from all participants prior to the survey administration and those who did not express their consent were excluded from the survey. Written consent was obtained from health workers who participated in face-to-face interviews, and verbal consent was sought from community members who were interviewed via phone due to the COVID-19 lockdown. The recruitment of participants took place between May 1st, 2021 and May 22th, 2021.

The questionnaire was administered to healthcare workers face-to-face in English by trained bilingual research staff. For community members, telephonic interviews were conducted due to travel restrictions imposed during the 'lockdown' related to the ongoing pandemic. The telephone numbers of all residents in the selected localities were obtained from the ASHAs. Potential eligible participants were randomly selected and contacted for the survey. After obtaining informed consent and ascertaining their vaccination status, interviews were conducted in the local Khasi language by trained volunteers. The questionnaire collected information on participants' sociodemographic characteristics, including age, gender, ethnicity, religion, occupation, educational attainment, and place of residence, and COVID-19 history, and presence of medical comorbidities. Participants were also asked to provide a dichotomous (yes or no) answer to a set of 19 questions (Table A in S1 Text), probing perceived barriers and negative attitudes toward COVID-19 vaccination which may influence COVID-19 vaccine acceptance among vaccine hesitant populations. Unstructured responses to describe their reasons for vaccine hesitancy were also recorded.

Statistical analysis

We first performed a descriptive analysis to characterize the participants' demographic and socioeconomic characteristics. Using a R package *word cloud* [33], we performed an exploratory textual analysis to investigate the stated reasons for vaccine hesitancy captured in the unstructured responses. We then performed a multiple correspondence analysis (MCA) followed by an agglomerative hierarchical cluster analysis (AHCA) to identify the unique clusters of vaccine-hesitant survey participants. We employed these explanatory analytical techniques because these techniques are well suited to analyze the pattern of relationships in a data set of multiple categorical variables. When combined, these methods can effectively capture the complex patterns in a dataset through dimensionality reduction and find clusters in a data set. Specifically, the MCA can be described as a type of principal component analysis (PCA) of categorical data [34]. In this analogy, a dataset of n observations and m variables is considered as a $n \times m$ matrix in a high-dimensional Euclidean space, and the MCA aims to reduce the dimensions of the space while capturing the most variance in the data [34]. To do so, the technique combines correlated categorical variables in the data set into continuous variables. To run the MCA, we first recoded the continuous age variable as a categorical age group variable using a 5-year step increment. In the MCA, we included participants' sociodemographic characteristics (i.e., age, gender, ethnicity, religion, occupation, and educational attainment), COVID-19 history, whether the participant had any medical comorbidity, whether the participant had any child, whether the participant's child received essential childhood immunisations and participants' responses to the 19 questions, probing their perceived barriers and negative attitudes for COVID-19 vaccination.

Subsequently, the continuous variables that resulted from the MCA were grouped using hierarchical clustering analysis, which employs a step-wise approach to classify individual observations into clusters based on the measure of similarity or distance [35,36]. There are two types of hierarchical clustering: agglomerative (bottom-up) clustering and divisive (top-down) clustering. Agglomerative clustering can be further divided into subtypes based on the clustering algorithm. In this analysis, we performed the clustering using five different clustering methods, namely arithmetic average-based agglomerative clustering, single linkage agglomerative clustering, complete linkage agglomerative clustering, Ward's agglomerative clustering, and divisive clustering. We then used the clustering coefficients from each clustering output as a criterion to determine the best clustering method to interpret the outputs. The clustering coefficient,

which ranges between 0–1, describes the strength of the generated clustering structure, and values closer to 1 indicate a stronger clustering structure. Lastly, we used the sum of within-cluster inertia, calculated as a clustering output, to determine the optimal number of clusters. Specifically, the partition was determined at the point with the highest relative loss of inertia [37]. All analyses were performed using R packages *FactoMineR*, *cluster*, and *factoextra* on R version 3.8 [4.2.2–40]. Study data is available as a supporting information (S1 Data) with PLOS Human Participants Research Checklist.

Results

Sample description

Table 1. Sociodemographic characteristics of the survey participants (N = 400).

	Community members (N = 200)	Healthcare workers (N = 200)	Total (N = 400)
Age			
Mean (SD)	36.3 (8.74)	34.3 (8.60)	45.3 (14.0)
Sex			
Male	79 (39.5%)	41 (20.5%)	120 (30.0%)
Female	121 (60.5%)	159 (79.5%)	280 (70.0%)
Ethnicity			
Jaintia	13 (6.5%)	16 (8.0%)	29 (7.3%)
Khasi	177 (88.5%)	179 (89.5%)	356 (89.0%)
Others	10 (5.0%)	5 (2.5%)	15 (3.8%)
Religion			
Christian	175 (87.5%)	187 (93.5%)	362 (90.5%)
Niam Khasi	15 (7.5%)	12 (6.0%)	27 (6.8%)
Others	10 (5.0%)	1 (0.5%)	11 (2.8%)
Occupation			
Farmer/ Agricultural worker	9 (4.5%)	0 (0%)	9 (2.3%)
Government Employee*	31 (15.5%)	0 (0%)	31 (7.8%)
Headman	14 (7.0%)	0 (0%)	14 (3.5%)
Homemaker	45 (22.5%)	0 (0%)	45 (11.3%)
Others	69 (34.5%)	0 (0%)	69 (17.3%)
Private Business	32 (16.0%)	0 (0%)	32 (8.0%)
Doctor	0 (0%)	9 (4.5%)	9 (2.3%)
Frontline health worker	0 (0%)	28 (14.0%)	28 (7.0%)
Nurse	0 (0%)	81 (40.5%)	81 (20.3%)
Paramedical Staff	0 (0%)	33 (16.5%)	33 (8.3%)
Support Staff	0 (0%)	49 (24.5%)	49 (12.3%)
Education			
0 to primary	47 (23.5%)	0 (0%)	47 (11.8%)
Up to class 7	26 (13.0%)	16 (8.0%)	44 (11.0%)
Up to class 10	41 (20.5%)	0 (0%)	41 (10.3%)
Up to class 12	32 (16.0%)	65 (32.5%)	97 (24.3%)
College degree/Diploma	53 (26.0%)	102 (51.0%)	154 (38.5%)
Postgraduate	0 (0%)	17 (8.5%)	17 (4.3%)
Received COVID-19 vaccine after April 15			
No	118 (59.0%)	0 (0%)	118 (29.5%)
Yes	68 (34.0%)	4 (2.0%)	72 (18.0%)
Response not provided	14 (7.0%)	196 (98.0%)	210 (52.5%)
Currently have children Aged 0–5 years			
No	88 (44.0%)	88 (44.0%)	176 (44.0%)
Yes	112 (56.0%)	112 (56.0%)	224 (56.0%)
Children received essential immunization			
No	50 (25.0%)	31 (15.5%)	81 (20.3%)
Yes	82 (41.0%)	81 (40.5%)	163 (40.8%)
Not applicable	68 (34.0%)	88 (44.0%)	156 (39.0%)
Block of residence			
Mawlat	83 (41.5%)	0 (0%)	83 (20.8%)
Mawpat	23 (11.5%)	0 (0%)	23 (5.8%)
Mawryngkneng	19 (9.5%)	0 (0%)	19 (4.8%)
Myllem	75 (37.5%)	0 (0%)	75 (18.8%)
Not asked*	0 (0%)	200 (100%)	200 (50.0%)

* This does not include healthcare workers (HCW) working in the Government sector. HCWs are classified based on their occupational category within the health sector.

Table 1 presents the sociodemographic characteristics of the survey participants. Of the 400 participants, 200 were healthcare workers, and 200 were community members. The survey participants were predominantly female; %70.0 of community members and %80.0 of healthcare workers. The majority of participants identified themselves as Khasi (89.0%) and Christians (90.5%). A little over half of healthcare workers (51.0%) had a college degree or higher, and 74.0% of community members had an educational attainment below college level, with more than one third (37.5%) having completed up to grade 7, which is equivalent to less than a high school diploma. The participants from the wider community were primarily concentrated in two blocks in East Khasi Hills district, with 41.5% residing in Mawlai block and 37.5% in Myllem block. Among healthcare workers, the majority identified themselves as nurses (40.5%), followed by frontline workers (14.0%), paramedic staff (16.5%), and support staff (24.5%).

Among healthcare workers, breastfeeding was the most common stated reason for COVID-19 vaccine hesitancy (Fig 1A). Other frequently reported reasons included fear of side effects, lack of confidence in the vaccine, a perceived lack of need for the vaccine, and a willingness to wait to be vaccinated. Among community members, the pattern of the most frequently stated keywords was less clear (Fig 1B). However, concerns about side effects and a lack of universal coverage for the vaccine were frequently mentioned by community members.

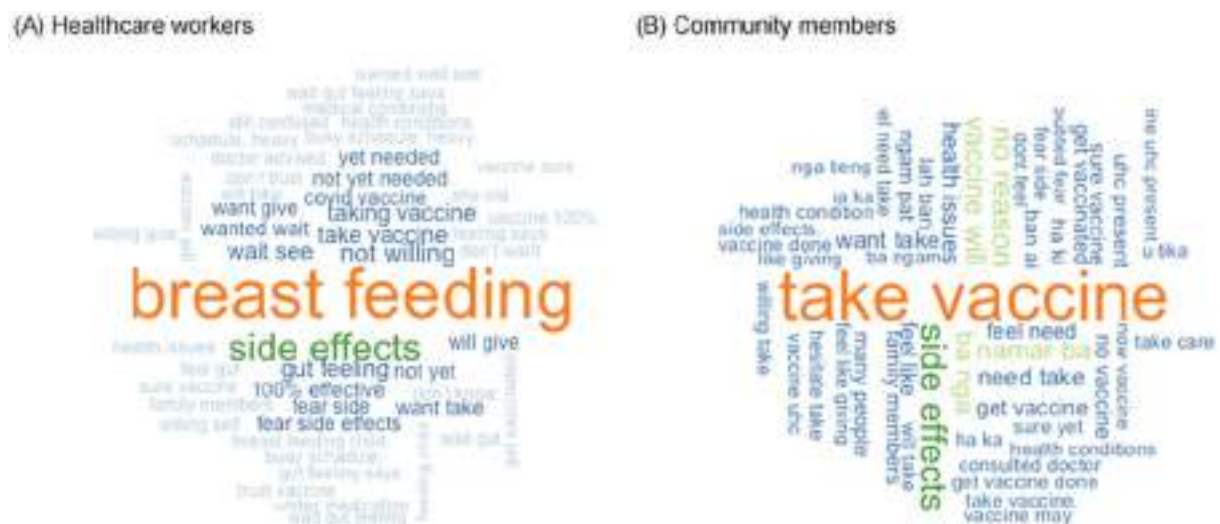


Fig 1. Word cloud summary of reasons for COVID-19 vaccine hesitancy.

Multiple correspondence analysis

In summary, a total of 105 variable-category combination was reduced to 73 dimensions, explaining 100% of the variance. The top 15 dimensions explained about 51% of the total variance, while the top 5 accounted for 27% of the total variance. The top 15 dimensions and their eigenvalues and the percentage and cumulative percentage of the variance explained were summarized in the supplementary material (Table B in S1 Text). Fig 2 illustrates the coordinate distribution of each variable-category combination on the first two dimensions of the MCA. Results using different dimensions were generated and presented in the supplementary material (Fig A~I in S1 Text).

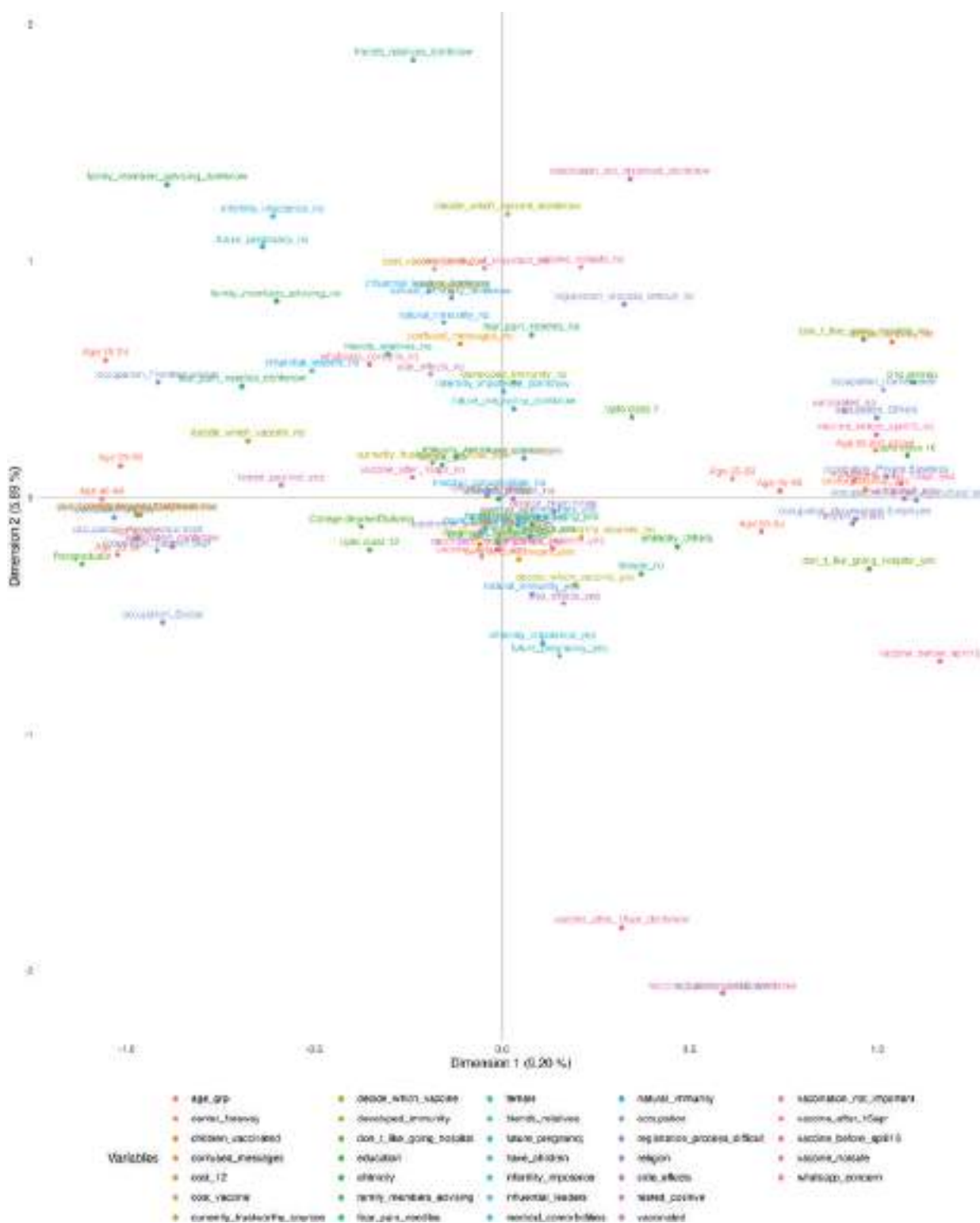


Fig 2. Coordinates of all the variables on the first two dimensions of multiple correspondence analysis (MCA).

Agglomerative hierarchical clustering

Based on the clustering coefficient and the inertia-based selection criterion, we chose the agglomerative hierarchical clustering algorithm based on Ward's method to generate 7 unique clusters of vaccine-hesitant participants (Fig 3).

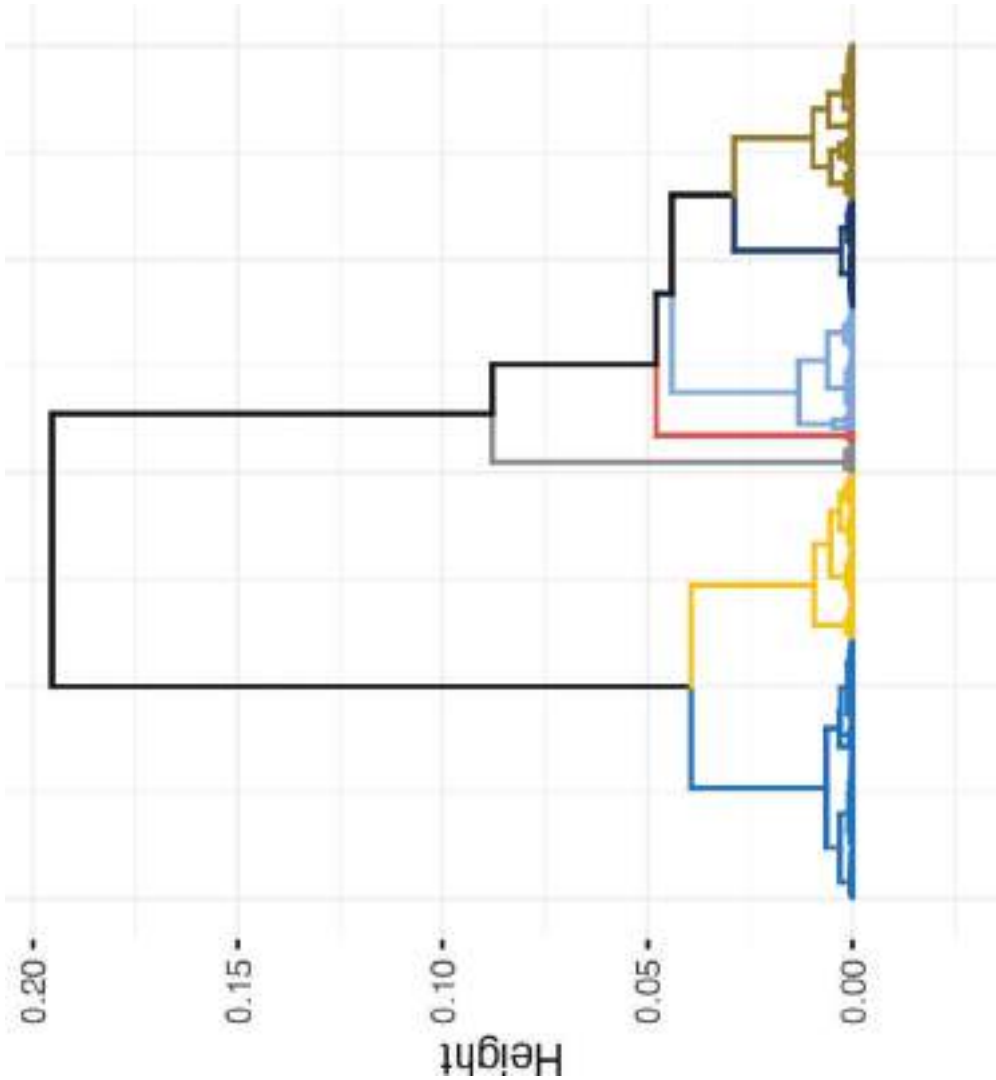


Fig 3. Cluster dendrogram from agglomerative hierarchical clustering analysis (AHCA).

Based on participants' sociodemographic characteristics (Table C in S1 Text) and reasons for vaccine hesitancy toward COVID-19 vaccines (Fig 4), each cluster was characterized as follows:

- Cluster 1 (n = 71): Indecisive healthcare workers
- Cluster 2 (n = 128): Healthcare workers who do not believe in COVID-19 and COVID-19 vaccine
- Cluster 3 (n = 14): Highly educated male tribal/clan head with concerns on infertility and/or adverse effect on future pregnancy
- Cluster 4 (n = 47): Adults with low educational attainment who were highly influenced by influential leaders and family members
- Cluster 5 (n = 76): Senior adults with worries about COVID-19 vaccine safety
- Cluster 6 (n = 56): Middle-aged adults with no children aged 0–5 years
- Cluster 7 (n = 8): Highly educated adults who identified themselves as ethnic and religious minorities with high level of misinformation.

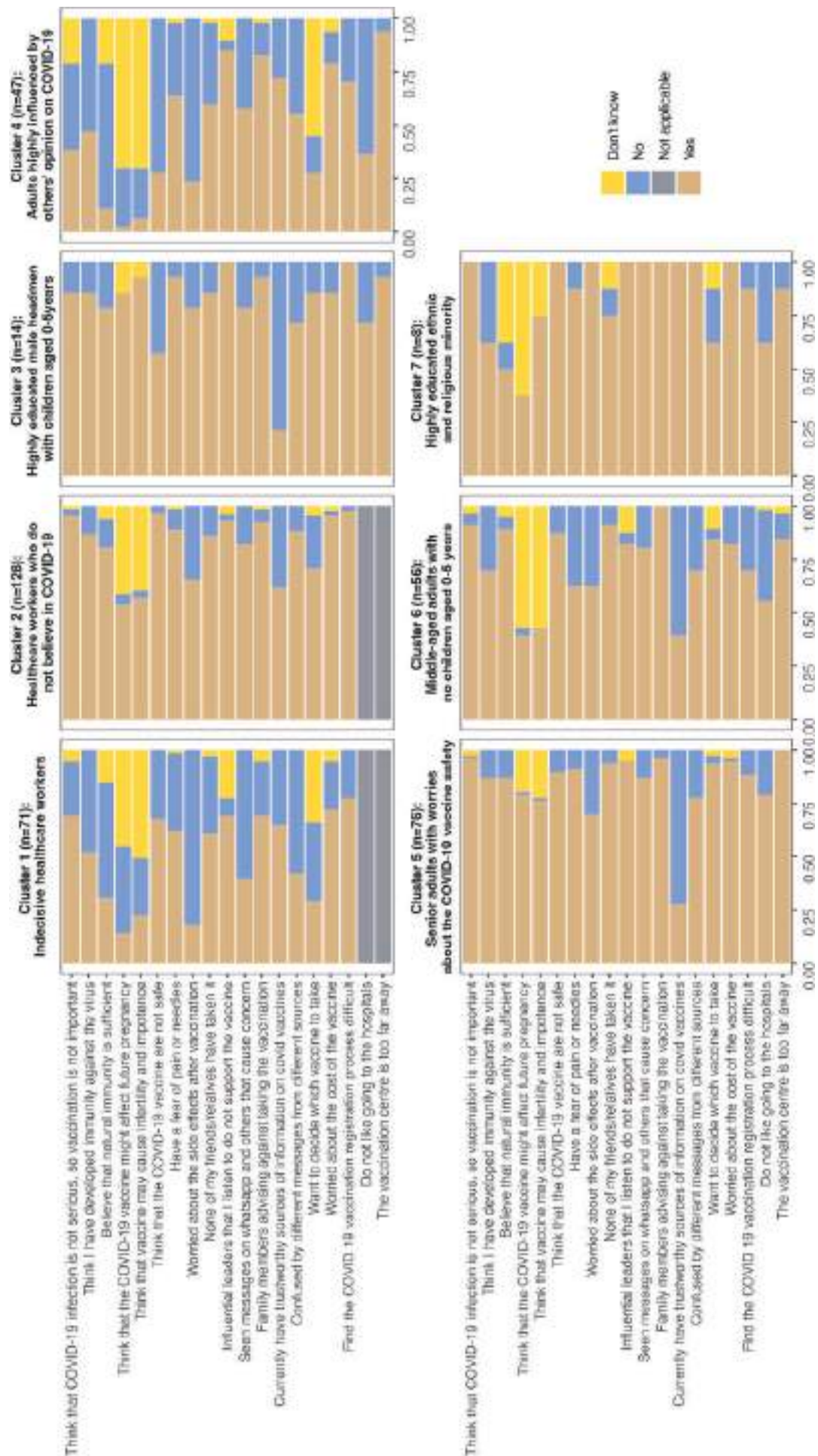


Fig 4. Prevalence of negative perceptions of COVID-19 and vaccines by hesitant clusters.

Concerns about the cost of the vaccine, despite the fact that vaccines were being provided at no cost to the eligible population, and the complicated online registration process were commonly mentioned barriers to vaccination across all seven clusters. Long distances to vaccination centers were identified as another major barrier to vaccination among community members (clusters 3–7). Healthcare workers were divided into two distinct clusters, and both clusters had a similar distribution of healthcare workers by occupation. The first cluster of healthcare workers had a relatively lower prevalence of COVID-19-related misinformation compared to the other cluster. Their hesitancy seemed to be mainly driven by the difficulties with registration process, combined with opposition from family, peers, and influential leaders, and the concerns about vaccine safety. The second cluster of healthcare workers had a high prevalence of belief that COVID-19 is not a serious illness and that they have developed natural immunity. They were also concerned about vaccine safety and faced logistical challenges in obtaining appointments. Compared to the first cluster of healthcare workers, the second cluster had a notably higher percentage of individuals (>50%) who expressed concern over potential infertility and future pregnancy complications from vaccination. This is consistent with the demographic profile of the healthcare workers in this cluster where the majority were female and of reproductive age. Headmen of tribes or clans had a high prevalence of disbelief in COVID-19 and the majority reported not having any trustworthy source of information for COVID-19 vaccines. They were also more concerned about potential fertility-related side effects of vaccines compared to the other clusters. The fourth cluster consisted of the general population with relatively low prevalence of negative perceptions towards COVID-19 or vaccines. However, similar to the first cluster of healthcare workers, the majority of participants in this group reported being advised against taking the vaccine by influential leaders and family members. The fifth cluster was composed of senior adults who were more concerned about vaccine safety than other groups. They also reported a high prevalence of all COVID-19-related negative perceptions, and reported a willingness to decide on their own which vaccine to take. The sixth cluster consisted of middle-aged adults without children aged 0–5 years, who lacked a trustworthy source for COVID-19-related information. They were advised by family members and influential leaders not to take the vaccine and reported a high willingness to decide on their own which vaccine to take. Over 95% of the individuals in this group, however, reported to have received the vaccine after April 15th, indicating low levels of hesitancy. The seventh and last cluster consisted of highly educated participants who identified themselves as ethnic and religious minorities. They reported being surrounded by high levels of misinformation from various sources, including influential leaders, *Whatsapp* messages, family members, and friends. This might have led them to believe that COVID-19 was not a serious illness, and COVID-19 vaccines were unsafe.

Discussion

In this study, we used the multiple correspondence analysis in combination with an agglomerative hierarchical clustering analysis to identify distinct groups of vaccine-hesitant individuals among healthcare workers and community members residing in Meghalaya state, India. Within our sample of 400 survey participants, we observed seven distinct clusters. Despite all participants being eligible to receive the COVID-19 vaccine free of charge, the perceived logistical challenges associated with receiving the vaccine were identified as a common barrier contributing to vaccine hesitancy across all seven clusters. These barriers included the long distances between vaccination centers and residences, the perceived cost burden of the vaccine, and the complicated registration process. Similarly, the influence of social networks, including family members, friends, and influential leaders, emerged as an important contributing factor to hesitancy across all the clusters. This is consistent with the findings from two previous studies conducted in Meghalaya, in which social and religious factors were identified as the main drivers of vaccine hesitancy [30,31]. Another study conducted in India also noted that individuals with populist attitudes towards vaccines tend to be more hesitant towards and resistant to vaccination [41].

Second, the prevalence of COVID-19-related misinformation was high in five of the seven clusters, namely clusters 2, 3, 5, 6, and 7. In these clusters, over 90% of participants believed that COVID-19 was not a serious illness and therefore vaccination was not important. This is particularly noteworthy given that the survey took place at the beginning of the Delta-variant outbreak in the country in May 2021. One possible explanation is that the survey participants were not well-informed about the COVID-19 situation. Concurrently, these same clusters also exhibited very high levels of concern over vaccine safety. The observed trend of heightened vaccine hesitancy could potentially be attributed to the overwhelming

prevalence of COVID-19-related misinformation in the country [41–43]. Additionally, the specific context in India before and during the survey might have exacerbated the safety concerns with COVID-19 vaccines, including the perceived lack of public transparency from regulatory bodies and the absence of phase 3 trial data of an indigenously-developed vaccine before its roll-out due to expedited approval processes [44,45].

Three clusters—namely, clusters 2, 3, and 5, stood out due to the individuals' concerns about potential adverse effects of vaccines on fertility and future pregnancy outcomes. Among them, cluster 2 had a high proportion of female healthcare workers of reproductive age, and cluster 3 was mainly characterized as a group of tribal headmen whose marital partners may be of reproductive age. This pattern is consistent with the established knowledge that fertility-related misinformation drives vaccine hesitancy among men and women of reproductive age [46]. Furthermore, female healthcare workers of childbearing age may find themselves at the intersection of heightened exposure to the adverse consequences of COVID-19 and personal concerns regarding vaccine safety and fertility, all of which compounded by societal norms and expectations regarding their professional duty to provide care and their roles within their families, creating a complex decision-making environment regarding vaccination [47,48]. Interestingly, cluster 5, which is comprised of primarily senior participants with more than half aged 60 years or older, also exhibited high levels of concern about vaccine safety and misinformation based on their responses to the 19 questions, potentially explaining the observed higher prevalence of misinformation on infertility and adverse pregnancy-related outcomes among this group. While more information is needed to understand this better, limited access to accurate information, lower educational attainment, generational differences in health beliefs, and potential cognitive factors associated with aging may be contributing factors to this age group's susceptibility to vaccine-related misinformation. Finally, cluster 7 consisted of a small group of individuals belonging to ethnic and religious minorities in Meghalaya state. Several studies conducted in the United States and the United Kingdom have indicated that ethnic and religious minority groups tend to report higher levels of vaccine hesitancy, often attributed to their lack of trust in local government authorities [49–51]. This is particularly important, as it highlights the need to consider such groups in local- and state-level policies and programs to achieve a more equitable distribution of COVID-19 vaccines and ensure that the health benefits of vaccines accrue to all segments of the society.

Our study findings provide valuable insights for local and state health authorities to effectively target distinct subgroups of vaccine-hesitant populations with tailored health messaging. However, it is important to note that our study has a number of limitations. First, we did not explore the prevalence of COVID-19 vaccine hesitancy in the study setting or across the identified clusters of vaccine-hesitant individuals. While the full potential of our study can be better realized if our findings are complemented by this additional information, the lack of data that is representative of the population in Meghalaya state and the scarcity of resources limited the scale of the survey. Second, the use of telephonic interviews, necessitated by pandemic-related restrictions, may have introduced limitations, such as sampling bias, response bias stemming from communication without visual context, and limited understanding of non-verbal cues. Nonetheless, we believe that these biases were minimized by the use of a structured questionnaire in our study. Lastly, our dichotomous survey format, comprising 19 questions probing participants' reasons for vaccine hesitancy, might have oversimplified the nuanced nature of vaccine hesitancy. The use of validated survey instruments with reliable scales designed to measure the multifaceted aspects of COVID-19 vaccine hesitancy could address this limitation and enhance the generalizability of our findings. Currently, there are validated scales that measure COVID-19 vaccine hesitancy [52,53], which would have allowed us to measure hesitancy in our target population and compare it with that of other studies. A qualitative analysis for an in-depth investigation of the emerging patterns in this study may significantly enrich our understanding of vaccine hesitancy in this population.

Prior to this study, only two other studies have examined the nature of COVID-19 vaccine hesitancy in Meghalaya state, both of which were limited in scope with a specific focus on tribal communities [30,31]. Being the first study to investigate COVID-19 vaccine hesitancy in healthcare and community settings, despite its limitations, this study represents a significant step toward understanding the reasons behind vaccine hesitancy among various subgroups in an area with low overall vaccination rates. Since our study was conducted in May 2021, it is worth noting that Meghalaya state continued to expand vaccine eligibility and coverage over the subsequent year, eventually providing at least one dose of the vaccine to all eligible populations. Nevertheless, achieving full vaccination with two doses for all remained a challenge, with

various contributing factors, including vaccine hesitancy, logistical challenges, and reduced communication on the risks of COVID-19.

In this context, our findings remain relevant for local health authorities and highlight both common and distinct factors that shape vaccine hesitancy across different subgroups, calling for a tailored approach to counter it. Potential measures include technology-based health literacy interventions and mass media engagement for social mobilization along with broader health policy measures such as monetary incentives to encourage vaccination that may effectively address the distinct drivers of vaccine hesitancy in various subgroups [54]. Furthermore, our approaches and findings may inform future responses to disease outbreaks that require timely mass population vaccination campaigns, underscoring the importance of targeted and evidence-based community engagement strategies that consider the multifaceted nature of vaccine hesitancy.

S1 Texts. Please scan for full data in MS Word



S1 Data. Please scan for full data in MS Excel



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Traditional Health Practices Is 'Mainstreaming AYUSH' the Right Policy for Meghalaya, Northeast India?

Sandra Albert and John Porter

Background

The health care system in India is pluralistic with the co-existence of multiple systems of traditional medicine along with biomedicine [1, 2]. The term medical pluralism was introduced in social science literature in the 1970s to describe the situation in the developing world, of people resorting to different medical systems other than biomedicine that was provided by governments [3]. Although traditional systems have had a subordinate place in the public health system following the introduction of biomedicine (also referred to as allopathic medicine), Indian systems of medicine have gained more attention in the past decade. In 2005, in its mission document the National Rural Health Mission (NRHM) initiated by the Government of India (GoI) declared the goal and strategy to 'Revitalize local health traditions and mainstream AYUSH'. [4]. The 'mainstreaming AYUSH' strategy recommends integrating Ayurveda, Yoga, Unani, Siddha and Homeopathy (AYUSH) into the public health-care system. In following the NRHM guidelines, many state governments have increased the establishment of AYUSH facilities in their public healthcare system by placing them on the same physical premises (co-located) as the biomedicine facilities [5].

National medical cultures are the product of a nation's dominant political philosophy and the ways in which people express and find solutions to their health needs [6]. Indian historian Panikkar ([7], p.174-75) notes that in post-colonial India "the quest to revitalize indigenous medicine reflected a multipronged struggle for cultural hegemony, not only between the colonizer and the colonized, but also between different classes within the colonized society". He observed that a large number of healers who were not literate and did not possess textual knowledge were marginalized in the process. Thus, a selective professionalization took place, possibly because the Ayurveda and Unani systems are codified systems and have written documents [8–11].

While the AYUSH systems represent professionalized and codified medical systems, there also exists a wide-spread, largely non-codified and diverse tradition of folk systems which, in Indian policy papers are increasingly referred to as Local Health Traditions (LHT) [4, 10]. Clause 9 of the National Policy on Indian Systems of Medicine & Homoeopathy states 'indigenous traditional medical knowledge available with the individuals, communities, tribals have not been fully tapped, documented and validated' [12]. This clause refers to the non-codified systems of India, and states the importance of supporting these systems as well as the codified systems included under AYUSH.

LHT is a broad term that refers to home remedies and folk healers and includes the medicine systems of different tribal (indigenous) ethnic groups [10]. In this paper the term indigenous/tribal traditional medicine (abbreviated as tribal medicine) is used to refer to the medicine practiced by

the traditional healers of the Khasi and Garo tribes of Meghalaya who use medicinal plants [13]. The northeast region of India has eight states that are ethnically and culturally different from the rest of India. They are largely populated by over 160 scheduled tribes or indigenous peoples ([14], p.4). The Indian government uses the term 'tribals' or the constitutionally recognized category of 'Scheduled Tribes' to refer to these communities [15].

Meghalaya state has a population of about 3 million, 86 % of whom are identified as Scheduled Tribes [16, 17]. It has a largely hilly terrain, is a biodiversity 'hotspot' and is home to matrilineal tribes: Khasi (and Jaintia sub-tribe) and Garo, with Khasis being the larger [18, 19]. Meghalaya has systems of tribal traditional medicine in an oral form that is largely un-documented. Most of the studies on tribal medicine conducted in the state are ethno-botanical in nature [20–23]. Despite the practice of indigenous traditional medicine being enshrined in article 24 of the United Nations declaration on the rights of indigenous peoples [24], and although informally widely acknowledged as relevant to healthcare, tribal medicine is largely ignored by the public health sector. Nevertheless, the tribal traditional healers (Khasi and Garo) are perhaps the largest group of healthcare providers in the informal sector in Meghalaya.

A health system grapples with the challenge of making services relevant to the diverse populace it serves, and medical pluralism is a policy to help address this issue. Research in health policy and health systems has evolved and become inter-disciplinary with the realisation that a linear, positivist focus on treatment and prevention of disease alone is inadequate to meet public health goals [25]. A health system is complex and needs to be adequately understood before applying measures to strengthen it. This paper presents the perceptions of tribal medicine and of AYUSH systems from various policy actors [26] in Meghalaya and locates the tribal medicine of the State within the policy of medical pluralism currently being implemented.

Methods

The NRHM mission documents, the health statistics handbook [27], and information from the websites of the health department were drawn upon for background information on the current policies on medical pluralism being implemented in the State. Official documents, with additional information from interviews were reviewed and collated to understand the implementation of the AYUSH policy in Meghalaya and to locate the role of tribal medicine within the health policy of the state.

A stakeholder mapping exercise was conducted to find an appropriate sample of policy actors [28]. The individuals and groups to be interviewed were mapped on a matrix by taking into consideration their perceived influence and power within the public health system and their interest or position on tribal medicine (Fig. 1). The development of the matrix involved subjective judgments, made in consultation with knowledgeable members of the community. The stakeholder mapping was conducted primarily as a tool to assist in sampling rather than for analysis.

Forty six in-depth interviews (Female 13, Male 33) were conducted with policy actors: bureaucrats; public servants trained in the central or state administrative services (4), technocrats; doctors with administrative duties in the Directorate of Health Services (12), policy makers of a traditional governance institution (3), biomedical doctors in the public sector (5), AYUSH doctors in the public sector (5), biomedical doctors in the non-governmental sector (4), representatives of non-governmental organizations/healer associations (3), academics (8) and elders of the community (3). Technocrats were largely allopathic doctors (9) and also AYUSH doctors (3). The labeling of roles/identities is simplified to indicate one key role of the individual. However, most individuals had more than one role and would fall into multiple categories, for instance some of the academics were also respected elders of the community. All but three of the respondents belonged to one of the ethnic tribes; Khasi or Garo.

A further 44 in-depth interviews were held with 24 Khasi and 20 Garo tribal traditional healers. Audio-recordings were made after obtaining informed consent from the participants. The qualitative data were collected between April and December 2012. Further questions and clarifications were posed to participants through email, phone and or follow-up meetings in 2013–14. Interview topic guides with relevant probing questions were piloted and developed iteratively in the field. Experiences, perceptions and attitudes to the indigenous tribal traditional system and with traditional medicines of the AYUSH systems were elicited.

The qualitative data collected were analyzed using a thematic content analysis approach that incorporated elements of grounded theory [29]. Transcripts were compared with each other, data coded, categorized and the common themes that emerged were identified. Following the grounded theory approach, line by line coding of the first set of transcripts was initiated during field work [30]. Initial analysis allowed new themes to be explored iteratively, for instance the rise in the number of AYUSH doctors in the system was not widely perceived but emerged during data analysis.

This study was approved by the institutional ethics committees of the Public Health Foundation of India and the London School of Hygiene & Tropical Medicine.

Results

The results are presented as themes that emerged from the analysis of the qualitative data.

The rise of AYUSH in the health system

Currently there are AYUSH facilities at the government referral hospital in the capital city, Shillong, and in public health care facilities in all the seven districts of the State. Doctors from the AYUSH systems, largely homeopathy, have been appointed to all three tiers of the health services provided by the public sector, especially Primary Health Centers (PHC). As per the government's health statistics handbook there are 73 AYUSH treatment centers across the state in the district hospitals, community health centers (CHC) and PHCs [27]. These figures have grown since, according to personnel in the department of health, and by 2013 there were 102 co-located facilities for AYUSH across the state, 87 funded through NRHM. Most of the AYUSH services offered are of homeopathy. None of the co-located ayurveda facilities in Meghalaya currently offer *panchakarma*, key treatments in ayurveda.

The department of health was unable to provide disaggregated figures for biomedical and AYUSH doctors at the district and lower levels during the period of this study. However, information from the facility listing of doctors in the health statistical handbook ([27], p.148- 165) at Primary Health Care (PHC) and Community Health Center (CHC) level indicated that there are a total of 366 doctors, including biomedical and AYUSH practitioners as well as dentists. The lack of disaggregated data for AYUSH and other doctors in the report hampered exact calculations. A more complete picture was obtained from conversations with officials in the health department. In 2012–13 there were 111 AYUSH doctors working in the public sector, of these five were based in the tertiary referral hospital in the capital. Exact figures for number of AYUSH doctors prior to the introduction of the NRHM policy were not available although there was agreement among the senior doctors interviewed that there were a few (between 10–20) homeopathic and ayurveda doctors in the state's public sector. Thus, the total number of AYUSH doctors has increased in recent years and now comprises over a quarter (29 %) of doctors in the rural doctor workforce at the CHCs and PHCs levels in the State.

Further, support for the promotion of AYUSH came from allocation of funds from the government. In 2010 the North Eastern Institute of Ayurveda & Homoeopathy (NEIAH) was established in Shillong the capital of Meghalaya by the Department of AYUSH, Ministry of Health and Family Welfare, Govt. Part of its stated goal is "To generate public awareness about the potential of ayurveda and homeopathy systems of medicine for enhancing health security of rural communities including disease prevention and health promotion. To propagate ayurveda and homeopathy towards improvement of health care and mainstreaming of AYUSH systems in the region" [31]. An initial allocation of 6.75 million Indian rupees was sanctioned towards the establishment of this institution.

Top-down approach to policy- central decisions and state level implementation

Accounts of technocrats and bureaucrats demonstrated that they were aware that the AYUSH systems were not popular in the state. The decisions to promote AYUSH in the state was based on the national policy and directives/guidelines of the Ministry of Health & Family Welfare, GoI.

Mainstreaming AYUSH [in Meghalaya] is Government of India's [Central Government] NRHM initiative

- Senior Bureaucrat, PG 028, M

To further understand how decisions that involved large financial commitments for infrastructure were made, senior technocrats who had played a role in the establishment of institutions such as the NEIAH were interviewed. Respondents agreed that they were following central directives and that states in the northeast rarely initiated these decisions. The state government depends on central funding for its health budget. The central government's funding is a major factor in decision making as is evident from this statement from a senior technocrat in the Directorate of Health Services, GoM. He was describing the plans for setting up an AYUSH hospital in a district.

I: Okay, so is this an implementation of a central scheme rather than something which the state thought that they needed?

R: It is a Central scheme [scheme of the Ministry of Health, GoI]

I: A central scheme, and you are implementing it? R: We are implementing it [nodding in agreement]

-Policy maker, biomedical doctor, PG 017, M

Most officials appeared to have an accepting attitude that was non-critical and unquestioning of the 'main-streaming AYUSH' policy in the state. When asked why systems that are not popular locally are being promoted in northeast India, a common refrain was that the systems would become more acceptable with time, through awareness building measures. The importance of the northeast for its biodiversity and rich resource of medicinal plants were mentioned as reasons for promoting ayurveda.

Government of India wants to establish AYUSH everywhere. They want [it] to spread. [...] Why Ayurveda is important here [in the northeast]? Because this is the hotspot of the biodiversity [...] These decisions have been made as per [pause] because our decision is from the government of India.

-Senior Technocrat, AYUSH, PG 042, M

The role of institutionalization and competencies

For policy makers and doctors in the public sector the acceptability of AYUSH was strongly influenced by the institutionalization of these systems of medicine and the recognition provided by the central government. Institutionalization was closely linked with notions of the "scientific" authenticity of the systems. Homeopathy, which has been criticized in the medical literature [32, 33] for its lack of a scientific evidence base, was accepted as scientific by policy makers in Meghalaya.

There was a discordance noted between the competencies expected of the AYUSH doctors and what they were trained or were able to do. For example, administrators were concerned by the reluctance of AYUSH practitioners to handle "emergency and serious" cases. One of the strategies advocated for utilising AYUSH practitioners as clinicians in the public sector is to train them in emergency/essential services. Following a central directive from the ministry an attempt to train AYUSH doctors as skilled birth attendants (SBA) was initiated in 2011 but was reportedly not done, partially due to a lack of acceptance of this new role among AYUSH doctors. To date no SBA training for AYUSH doctors has been conducted in Meghalaya State.

Is AYUSH a 'forced pluralism' for indigenous peoples? There was acknowledgement across all respondent groups that AYUSH systems were not well known or popular among the tribal population in the state. It was said that after biomedicine, the people preferred their own indigenous tribal traditional medicine.

There may be pockets of non-tribal populations which are familiar with ayurveda but the vast majority of the tribals are not familiar. So, if one brings in an alien system of medicine it is difficult to see how the people will accept it or have faith in it.

-Academic, Biomedical doctor, PG 007, M.

Policy makers of the traditional governance institution, Khasi Hills Autonomous District Council (KHADC), academics and elders of the community differed in their opinions from those in the health department. These groups were concerned at the lack of support of tribal medicine in contrast to the promotion of the AYUSH systems. The notion that the introduction of AYUSH into the present format was a 'forced pluralism' was also alluded to as in this quote:

Whatever is introduced by the formal [public] health system, people have to accept. When a doctor prescribes, they do not know whether this is ayurvedic or this is this, they will just believe and buy that medicine.

-Policy maker in KHADC, PG 004, M

AYUSH doctors shared their experiences about the lack of awareness of their systems in the community,

"When they see the medicines they get in their hands, they ask what type of medicine are these? Then after we explain that these are ayurvedic medicines, they will say: No, we don't want ayurvedic medicine, we want allopathic medicine" [PG 036, F].

'Identity' and 'alienation' were themes that emerged from the narratives of elders in the community, and from academics and members of the KHADC. Their expressed support for their own system came from efficacy beliefs but also from the identification with tribal medicine as part of their culture. It was a way of exploring their own indigenous identities:

oh yes, that is there, not only with me but with many-many people. Like I said it is there, there's a soft corner for, for medicinal plants and local healers. I think basically because we identify it with our own unique culture. okay, so it's something that we, we're proud of. - Academic, PG 008, M

It was also argued that if tribal medicine is dismissed without giving it a reasonable chance, potentially valuable indigenous knowledge would be lost. Inclusion and complementarity rather than exclusion of tribal medicine was the alternative suggested. They had no objections to the AYUSH streams being promoted if it was helpful to their people, but they insisted that it should not be at the cost of their own traditions of tribal medicine being neglected.

But at the same time when we have our own systems, we should see that this is not done away with, by replacing with an outside system. If it [tribal medicine] is as efficacious, it serves a certain purpose and it solves the problem of the people and in today's world that it gives livelihood to persons I think there is every reason why we should support it. At the same time, I am not saying don't support ayurveda, don't support homeopathy, let it be there if they serve the people, the more the merrier.

-Elder, PG 002, M

Appreciation, aversion and concerns about tribal medicine from healer and consumer accounts, it was evident that health seeking was largely divided between biomedicine and tribal medicine [13]. While many patients reportedly resorted to tribal medicine as a second option after trying biomedicine, for some illnesses it was the first option, especially in conditions that were 'culturally bound'; wherein there was a tacit cultural understanding of the disorder.

The presence of tribal traditional healers across the state, even in remote areas, was widely accepted by policy actors. But there were divergent views on the utility of their services, with officials in the health department tending to view them as a problem, while the policy makers of the traditional institutions and others outside the health department considered them as a

potential solution.

Policy actors conveyed a spectrum of opinions about tribal medicine ranging from appreciation to aversion. Those in the health department tended to refer to tribal healers as unskilled, unhygienic and unscientific. A bio-medical worldview and the official role of administrators in the health department influenced their positions. For instance, those responsible for implementing programmes to reach targets on maternal and child health attributed the poor health indices to healers. However, when it came to personal needs, some officials, even those who were critical of tribal medicine, reported seeking tribal healers for their own health needs:

So, since I envisaged that there was no side effect, there was no harmful effects, so why not try it. I tried and it was giving a good feeling. So why not, and it was very inexpensive at the same time

- Senior bureaucrat, PG028, M

Biomedical doctors in the public sector were often skeptical, with a few being highly critical. Criticism was based on complications seen in patients who had previously used tribal medicine. While there were concerns about hygiene, for which training was suggested, almost all (except for a few doctors in the public sector) acknowledged that tribal medicine was relevant and advocated support for documentation, research, validation and the creation and building of an evidence base. The view of some doctors that most tribal healers mixed allopathic drugs into their medicinal preparation was at best a hasty generalization. Healers themselves agreed that a few who they referred to as "not genuine healers" resorted to such practices and they, as a group, were concerned about such practitioners.

The positive views of tribal medicine from policy actors outside the health department were based on their belief in the efficacy of the system that had been formed primarily through personal experiences. Comparing and contrasting their experiences with biomedicine was a method used by respondents to illustrate the efficacy of tribal medicine. Areas of tribal medicine's expertise described as noteworthy by policy actors (which included some biomedical doctors) were treatments for burns, fractures and other musculoskeletal disorders.

Tribal medicine and the disconnect in policy implementation

Although 'revitalizing local health traditions' is listed as a strategy to achieve the NRHM goals [34], it was not perceived as part of the NRHM strategy by most officials in the health department.

R: LHT [local health traditions], NRHM is not exploring at all. NRHM is not exploring LHT at all, who said they are?

I: Well in that Mission it says that [interrupted]

R: Mission is there but here [northeast India] we are not implementing

- Senior technocrat, PG 042, M

Most officials in the government's health department were unaware of the Act that was passed by the KHADC to promote and protect Khasi Traditional Medicine [35] despite the Act being gazetted and covered in the print media by all major newspapers. The KHADC is subordinate to the state government, especially with regards to health policy. Meghalaya state has not allocated any of its health budget to revitalizing its local health traditions.

One argument was that there was a lack of vision in the state regarding tribal medicine. As one academic expressed: "In a sense one could say they [government] are not entirely to be blamed because when they would have a discussion about including some funding for traditional medications they're not sure exactly where to put it: give it to the healers, set up an institute, set up a hospital for traditional medicine, and there is a perception that there is lack of data and documentation on which certain specific allocations for programmes and schemes can be based. So, in that sense there are difficulties even for the government to take it up" [PG 007, M].

Thus, while on paper the stated goals of the national policy is 'to mainstream AYUSH and revitalize local health traditions', the latter aspect currently seems not to be a priority for the State.

Healers as a resource- referral, livelihoods, biodiversity and indigenous knowledge

There appeared to be little direct interaction between healers and doctors in the public sector. But healers do refer patients to biomedical doctors if they are unable to help the patient. Healers pointed out that doctors were unlikely to be aware of their 'referrals' as such 'referrals' were made orally and were not accompanied by any written notes:

Yes, I do send patients to doctors and even to Shillong [capital city]. But they [doctors] do not know that we sent them because we do not give them [the patients] a slip saying that this patient has been sent by me to you for treatment, or go for an X-ray and scanning in this hospital. Khasi Healer, KH016 M, West Khasi Hills.

Although doctors in the public sector failed to see reasons to engage with healers, those outside the public health sector highlighted the importance of engaging with healers for the early detection and reduction of complications. A respected psychiatrist who headed a tertiary referral institution for mental health (in the not-for-profit sector) highlighted the importance of their role. He said that his institution had as many referrals from traditional healers as they did from biomedical practitioners and explained how healers filled a gap in the existing services in mental health care using 'depression' as an example. He explained that healers try their own methods, often successfully, but if symptoms persisted beyond a week they usually referred their patients to allopathic doctors. A senior ophthalmologist provided accounts of early referrals from tribal healers in her institution after she conducted awareness building sessions with tribal healers. It was claimed that this helped avoid complications developing in patients with eye disorders.

Academics, elders and members of the KHADC discussed the wider benefits of tribal medicine. Healers with busy practices reported supporting the livelihoods of a network of helpers, plant collectors and suppliers. Healers were identified as stakeholders in the preservation of biodiversity and in turn their knowledge as a resource for bio-prospecting and drug development. Academics cited examples from their own research to 'vindicate' claims from traditional knowledge.

So, we're looking for blueprints in plants, you know, blueprints for drugs in plants. So, traditional practitioners have been there for hundreds of thousands of years, they know the trade, they know the, its empirical knowledge, it's through trial and error. But you see if I am to look for shortcuts, then that is where I should be looking for because that has been filtered information. I can't, I cannot screen all the thousands of species but filtered information is a starting part. So, from that perspective, I'll give you an example... Academic PG 008, M

Thus, several respondents' particularly academics, policy makers of the KHADC and a few bureaucrats and doctors expressed the need to respect different knowledge sources and emphasised that indigenous knowledge needs to be recognized as an important resource in the state.

Discussion

A key rationale underlying the 'mainstreaming AYUSH' strategy is the assumption that "The Indian systems of medicine have age old acceptance in the communities in India and in most places they form the first line of treatment in case of common ailments" [36, 37]. The degree to which different systems are supported differs from state to state within the country. State governments often preferentially promote the Indian System of Medicine that is locally popular, for example Ayurveda in Kerala and Siddha in Tamil Nadu. The states of Kerala and Tamil Nadu have some of the best health indices in the country, and they have been upheld as examples of providing 'good health at low cost' [38, 39]. This study suggests that the 'mainstreaming' approach being implemented in Meghalaya might have benefitted from prior health policy and systems research directed at understanding more about the use of tribal medicine in the State and the community's preferences for different health traditions before the roll out of the national AYUSH and LHT policy. For effective delivery, health services have to go beyond the supply of 'care' and have to also address the acceptance and

use of services [40–43].

These qualitative findings are further supported by a quantitative household survey that was conducted in all districts of Meghalaya in 2010 [13]. This study collected information on tribal medicine and AYUSH systems among rural households and demonstrated that tribal medicine was widely accepted (79.1 %) and believed to be effective (87.5 %). It was used in a wide variety of both minor and major diseases. In the 3 months prior to the survey, 46.2 reported using tribal medicine, of whom 57.9 reported cure and 33.1 % some improvement. For the AYUSH systems, a majority (68.7 %) had not heard of any of the AYUSH systems of medicine and only a minority (10.5 %) had ever used them.

Overlooking contextual factors and the top-down approach This implementation of central policy guidelines at the state level in Meghalaya, without enough evidence of local relevance could be seen as an example of a 'top down' approach to policy implementation ([44], p 128–47). Policy analysts have highlighted the importance of considering contextual factors in policy development [45]. Ideally policy ought to be tailored to the needs of the populace it seeks to serve [46, 47] if it is possible to do so. It is widely acknowledged in the policy literature that the way in which policy is implemented can differ considerably from the ideal that was intended, often referred to as the implementation gap [44]. There are numerous case studies demonstrating the poor implementation or undesirable outcomes of well-meaning policies that have been 'imposed' by international donors on developing countries [44]. Just as dependence on donor funding has undermined national health policy making in several developing countries [45], so within India's federal system a state's dependence on central funding also affects its choices. The phrase 'forced pluralism' had been used to describe the situation of patients with limited choices who are 'forced' to seek whatever is available [48, 49]. In Meghalaya it could be suggested that the state is inadvertently causing 'forced pluralism', albeit in a slightly different manner. But it could also be argued that providing co-located AYUSH services, even if people are not particularly interested in them, is only increasing choices for people as they are not obliged to use them if they do not wish to do so. But the question is, when people would rather have good quality biomedicine in the public sector, how relevant is this kind of pluralism? Ignoring context can contribute to feelings of marginalization of indigenous peoples as this quote from the recently published people's linguistic survey implies [50].

Indian intellectuals have contributed a word 'mainstreaming' to the English dictionary. Mainstreaming is excluding, marginalizing and demolishing smaller languages and cultures. It is another name for genocide. Tribals who are displaced from their habitats in the forests and mountains are wrenched from their languages and cultures and forced to adopt the dominant regional language as their mother tongue...

– Pattanayak, foreword in People's Linguistic Survey of India

This is particularly relevant when one considers the socio-political climate in the northeast region. Sociologists suggest that the region is poorly understood within India; according to Karlsson [51] both geographical distance and cultural differences contribute to the mis-understanding. Tribal societies in northeast India consider themselves distinct from the non-tribals and sometimes express a sense of alienation from 'mainland' India [52]. Thus people in northeast cultivate a notion of otherness in their reference to the " 'Indian mainland' – a place one is connected to but not really a part of " ([51], p.49). Distinct ethnicities and the history of relative independence have led to separatist and nationalist movements which have persisted to this day ([51], p.49-61).

LHT and AYUSH in health system strengthening Ignorance, unsanitary habits and quackery are common prejudices about traditional healers that anthropologists have documented for decades (Leslie, 1980). Such attitudes towards tribal traditional healers were perceived and documented in this study as well among individuals within all stakeholder groups.

Biomedical doctors' concerns about complications seen in patients who had previously used tribal medicine underline the need for systematic research, assessment and evaluation of safety and efficacy rather than hasty generalizations. The data from this study does not suggest that tribal medicine is preferable to other systems. Healers themselves acknowledged the limitations in the scope of tribal

medicine and potentially some of their practices are undesirable. However, more engagement with tribal healers could for instance, lead to improved referrals for timely interventions for illnesses in which Western biomedicine has better treatment.

The classical texts of ayurveda refer to a complementary relationship between the codified knowledge and non-codified local knowledge; the *Charaka Samhita* refers to the knowledge of forest dwellers about medicinal materials [10]. The boundaries between codified and non-codified practices were more fluid in earlier periods but they became more marked after the formalizing through institutionalization [10]. Lambert [8], in her study of bone doctors in Rajasthan, argues that treatment modalities in India that would be categorized under the new terminology of LHT, have become marginalized through exclusion by the state. She observed that in “the process of formalizing medical knowledge, ‘epistemic’ expertise that can be acquired from secondary sources and tested through written examination inevitably becomes valorized over ‘performative’ expertise that is acquired through experiential learning” from oral traditions. In India, and elsewhere in the world, it is acknowledged that indigenous and folk healers have kept alive and passed on indigenous knowledge for centuries through their oral traditions [53–57]. Clause 1.4 of the national policy states [12] “the positive features of the Indian Systems of Medicine, namely, their diversity and flexibility; accessibility; affordability; a broad acceptance by a section of the general public; comparatively low cost; a low level of technological input and growing economic value have great potentials to make them providers of health care that the larger sections of our people need”. If these systems are to become more relevant and attainable in Meghalaya state, then it is important that resources also be made available to tribal medicine. This is not to say that all their practices be accepted unquestioningly, rather that resources need to be allocated for documentation, research, engagement with healers and for appropriate assessment be performed so that the beneficial aspects of tribal medicine can be recognized. Engaging with oral traditions is hard and challenging but a start needs to be made. The Khasi Hills Autonomous District Council Act for the protection and promotion of Khasi traditional medicine [35] seems to provide an important focus to pave the way for initiating action. Further lessons can be drawn from the state of Kerala with its initiatives in the promotion of, and training in, tribal medicine [58, 59].

Trust building measures that promote dialogue with traditional healers will enable a better understanding of their role and potential contribution to the public health sector. The health department could help to create platforms to develop interactions between tribal healers and doctors in the public sector. Skill development and capacity building of Meghalaya’s vast network of tribal healers can strengthen the public health care system. They could be trained to deliver last mile services of the public health schemes and services for the government. The example of the neighbouring state of Nagaland may be useful for Meghalaya’s policy makers [60]. Nagaland has initiated training and involvement of bonesetters and traditional birth attendants into their health work-force through the NRHM.

AYUSH comprises diverse systems, each of which arises from a different epistemological and philosophical base. Gopichandran et al. [61] have highlighted some of the ethical implications in integrating these disparate systems into existing public health services. The science of ayurveda has holistic preventive and health promotive potential that moves away from an emphasis of drugs alone in treatments [62–64]. Ayurvedic treatments involve identifying disease-causing factors (*doshas*) and the restoration of the equilibrium of bodily functions and tissues using a variety of measures varying from special diets, activities, medicines and medical procedures such as *panchakarma* [62, 64–66]. For example, one aspect of prevention and treatment is the knowledge of *ritucarya* or seasonal regimens and adoption of appropriate dietary practices [66, 67]. In regions of India where ayurveda is part of the culture like Kerala, awareness of concepts such as *ritucarya* already exists within communities [67]. This potentially enables adoption of dietary regimes and nondrug-based therapeutics of ayurveda more amenable to the people. The absence of such cultural understanding of relevant concepts could make the practice of ayurveda sub-optimal in Meghalaya. Of note, currently none of the co-located ayurveda facilities in Meghalaya offer *panchakarma* procedures, the therapeutic interventions that are often considered as integral part of ayurveda therapy [68, 69]. Thus it could be argued that a limited type of ayurveda is being offered in the state.

Of the AYUSH systems, homeopathy is the most widely available in Meghalaya, as is the case in several of the other northeast states [5]. It has been suggested in some reports that the benefits of homeopathy may be compatible with the placebo hypothesis [33, 70], although admittedly the placebo effect has its benefits too and is not to be dismissed in primary health care [71, 72]. An important question that arises is what proportion of public healthcare should be provided through homeopathy.

In the report of the study conducted by the National Health Systems Resource Centre (NHSRC) to evaluate the 'status and role of AYUSH and LHT [5] the authors acknowledge that within the Ministry of Health, GoI, there is a lack of clarity and divergent views on the primary objectives of the mainstreaming AYUSH strategy. It is viewed either as a way of securing doctors for rural areas where biomedical (MBBS qualified) doctors are not available or unwilling to be posted, or as a way of increasing access to and strengthening the services of the AYUSH systems. The data from this study suggests that the former may be the case in Meghalaya. While attempting to integrate the different AYUSH systems for universal health coverage, Patwardhan [73] recommends clear role definition for each category of doctor at the different levels of health care where knowledge, expertise and skills determine the roles rather than academic degrees. Retraining and task shifting of AYUSH doctors for alleviating shortages in human resources [74], assumes that doctors are interested in these new roles. Our data suggests that many doctors in Meghalaya are not keen on performing certain roles such as attending births and emergency medicine. A recent study to evaluate the competence of different primary health care providers in rural settings in India found the relatively new cadre of rural medical practitioners, who have a shorter (3 year) training programme, to be more competent than the AYUSH doctors at the PHC level [75]. Although the clinical vignettes used to measure clinician knowledge in that study have been critiqued for their biomedical bias [76], the study is nevertheless relevant as increasingly AYUSH doctors are expected to perform public health roles that incorporate biomedical components [77]. The effectiveness of the cadre of rural medical practitioner in providing primary health services has been further corroborated by a study from the NHSRC, and recommendations for replication of this model have been made [78]. Our study indicates people's preference for biomedicine within the public health facilities in rural Meghalaya. The approach of the neighboring state of Assam, to train and engage a specific cadre of rural medical practitioners in a 3 year training programme [75], is perhaps an example that Meghalaya needs to explore to help it to address its shortages of human resources in the health system in rural areas [79].

In the NHSRC 18 state study, among the five north-eastern states in the study: Assam, Manipur, Tripura, Nagaland and Sikkim, disaggregated data on utilization of AYUSH and allopathy services was available only from Nagaland, where AYUSH formed 4 % of outpatient use (p. 84). The study recommends increasing AYUSH services in all the northeast states except Tripura and Manipur ([5], p.xxi). The 12th Five Year Plan recommends "in case a facility does not attract expected case-loads, the staff may be rationalised" ([74], p.35). Undoubtedly the sustained promotion of the AYUSH systems will improve utilization as is evident from the recent 7th Common Review Mission report from Meghalaya. Outpatient numbers demonstrate how the relative proportion of AYUSH utilization over the years has increased from 3.9 in 2009–10 to 4.3 in 2011–12, to 5.6 in 2012–13 and to 6.5 in 2012–13 [80].

Thus, there is a marginal increase by about a percentage point each year. However, it is uncertain whether this is the most effective or efficient means of providing good quality primary health care that is agreeable and resonant with local community preferences with different systems of medicine.

Paucity of health policy and health systems research at the sub-national level

There is a paucity of health systems research from Meghalaya and other parts of northeast India. The significance of the role of research and policy analysis in health systems strengthening has been well articulated [45, 47, 81, 82]. Health Policy and Systems Research has been described as a field that is driven by questions that arise from the ground [83]. If attention is paid to defining the problem and framing the right research question, more efficient health systems can emerge [84–86]. According to a WHO document on systems thinking, even simple interventions targeting

one area of a health system can have counter intuitive effects elsewhere in the system [87]. Many health systems in low and middle income countries lack the capacity to measure or understand their own weaknesses and constraints. Measuring the effectiveness of multi-faceted and complex interventions is difficult in these countries and approaches to evaluation are often weak or entirely absent [87]. Increased deployment of the AYUSH cadre of practitioner in Meghalaya has taken place alongside the introduction of other health system strengthening measures such as providing a network of emergency ambulance services for rural areas. These services are likely to have directly benefited the community. In the absence of research, improvements in health indices will be attributed to all the health systems strengthening measures that were employed. But to extend this conclusion to the mainstreaming AYUSH strategy without sufficient disaggregated evidence would be misleading. Likewise, research and documentation of the concepts and practices in tribal medicine, its efficacy, contribution to indigenous knowledge, biodiversity preservation and livelihoods also need to be considered urgently. This study contributes to the under-researched areas of context, and implementation of policies on medical pluralism. But it has several limitations for instance although efforts were made to include a broad group of stakeholders in order to capture diverse views, some groups have been left out, such as elected representatives to the state legislative assembly. This was a small sample that cannot claim to be representative of the entire state.

Conclusion

Promotion of AYUSH in the public sector has led to a significant increase in AYUSH, especially homeopathic, doctors in the public health system in rural Meghalaya. While this has improved the ratio of health care providers, the low awareness and understanding of the AYUSH systems raises questions on how these systems should be promoted in the tribal communities when the community's preference is for biomedicine and their own tribal medicine. There has been little support extended to tribal medicine in the state despite the widespread presence of healers and the extensive use of their services within the communities. The popularity of tribal medicine, along with the perceived benefits expressed by a large proportion of the stakeholders, plus the wider implications of livelihoods, biodiversity preservation, indigenous knowledge and bioprospecting, suggests that tribal medicine needs to be supported. By engaging with tribal healers, the public sector could promote learning, help to dissuade inappropriate practices, and enable documentation and improved referral, which in turn would contribute to the overall strengthening of the health system. This study highlights the importance of contextualizing the policy of medical pluralism in the culture of the State and the need to conduct health systems research at the local level to provide evidence to inform health policy formulation.

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Exercises

1. Define Local Health Traditions. Why are they not considered as a codified health system?

2. What does medical pluralism mean?

3. This study suggests that the 'mainstreaming' approach being implemented in Meghalaya might have benefitted from prior health policy and systems research directed at understanding more about the use of tribal medicine and the community's preferences for different health traditions before the roll out of the national AYUSH and LHT policy.

The following types of research studies may have been helpful before the Meghalaya government created a policy for implementation of AYUSH in the state. Suggest three questions that could be included in each survey below.

- a. Survey of the use of traditional health practices by the community

- b. Survey of the community preferences between local health traditions and AYUSH.

Traditional Health Practices

Medical Pluralism Among Indigenous Peoples in Northeast India - Implications for Health Policy.

Sandra Albert, Melari Nongrum, Emily L. Webb, John D.H. Porter and Glenn C Kharkongor

Introduction

The WHO's traditional medicine strategy recommends the integration of traditional and complementary medicine (T&CM) into national health systems [1, 2]. India's first national health policy in 1983 formally recognized that the Indian Systems of Medicine (ISM) could contribute to public health care and recommended efforts to integrate ISM into healthcare delivery systems [3, p. 601]. Although little was done over the next decade, in 1995 the Department of Indian Systems of Medicine and Homeopathy (ISM&H) was established [3]. In 2003, it was renamed the department of AYUSH [4, p. 22–32], an acronym representing Ayurveda, Yoga, Unani, Siddha and Homeopathy medical systems. The AYUSH systems are largely codified systems that have over time become selectively institutionalised and professionalised [4–6]. Numerous medical colleges in the country offer undergraduate and postgraduate training in the AYUSH systems [4, 6]. These institutionalised traditional systems can be considered as part of the 'professional sector' in India if one were to use Kleinman's classification [7, p. 53–59].

But, the professionalised forms of traditional medicine are not the only traditional systems that exist in the country [8–10]. The non-professionalised sector includes the non-codified systems referred to as the folk sector by Kleinman [7]. In India, these systems are increasingly being referred to as Local Health Traditions (LHT) in policy documents [11]. LHT is a broad appellation used to cover home remedies and folk healers including medicine systems of different tribal (indigenous) ethnic groups [10, 11]. Previously the distinction between folk healers and practitioners of the codified traditional systems was not so marked. This distinction became 'politically significant' after the introduction of institutionalisation and registration of practitioners of traditional medicine [10]. Last [12] suggests a close link between a nation's dominant political philosophy and the development of a 'national medical culture'. Indian historian Panikkar [13, p. 174–75] notes that the movement to revitalise traditional medicine in India represented both a struggle for cultural hegemony against the coloniser and struggles between different classes within the colonised society. Thus, unequal power relations exist between biomedicine and traditional systems and between the different traditional medicine systems in India [8, 14].

In this study, the term 'indigenous tribal traditional medicine' is used to refer to the medicine practiced by the traditional healers of Khasi and Garo tribes of Meghalaya who use medicinal plants. It has been abbreviated to 'tribal medicine' and used synonymously to distinguish it from other traditional medicines of the AYUSH systems.

A major impetus for the promotion of AYUSH systems in India was the launching of the National Rural Health Mission (NRHM) in 2005 'to carry out necessary architectural correction in the basic healthcare delivery system' [15]. Post-NRHM, most states have been facilitating increased pluralism in health system delivery by establishing AYUSH facilities (co-located facilities) alongside biomedicine in the same premises [16].

There are about 370 million indigenous people spread across the globe [17, 18]. From antiquity to contemporary times, they have suffered from invasions, colonisation, forced assimilation and destruction of their cultures [18–21]. And in many ways, their rights and cultures continue to be threatened [18, 22, 23]. Many indigenous peoples have ancient systems of traditional medicine which are well accepted in their communities [22]. This knowledge is part of their world view of physical, mental and social harmony and is embedded in the context of their natural environment [22, 24]. Indigenous peoples have been described as ‘the guardians of the natural world, protecting many of the plants that form the basis of our most important medicines’ [25]. In India too, different tribes have their own tribal medicine that is locally popular and their indigenous knowledge has been documented in several ethnobotanical and ethnopharmacological studies [26–32].

Although the term ‘indigenous peoples’ is widely used in the literature, other terms exist: tribes, first peoples/nations, aboriginals or minority ethnic groups. The Indian government recognizes ‘tribals’ as a separate demographic entity in the census and tribal ethnic groups are notified as scheduled tribes as per provisions contained in Clause 1 of Articles 342 of the Constitution of India [33]. ‘Tribal’ is a colonial designation that once had pejorative connotations of being uncivilised, but now the word is widely used and accepted. In India, the three-terms *adivasis*, ‘tribals’ and, more recently, ‘indigenous peoples’ are used at different historical points of time and for different reasons [34]. The oldest term, *adivasis*, is of Sanskrit derivation and means original inhabitants, but this term has limited acceptance in the northeast region of India where it is used only to refer to specific communities from central India. Those who claim indigenous status in the northeast prefer the term ‘tribal’ and or the more recent term ‘indigenous peoples’ [34].

Within India’s federal structure, the northeast region has eight states that are together bordered by Nepal, Bhutan, China, Myanmar and Bangladesh. The region is largely populated by indigenous peoples, with over 160 scheduled tribes and over 400 other tribal and sub-tribal communities and groups [35]. It is proposed to have been a corridor for ancient human migrations, to Southeast Asia [36]. While there are important similarities in their tribal social organisations, it has been argued that the common label of the northeast implies a mistaken homogeneity [37, p. 28].

The Indian state of Meghalaya has a population of 2.96 million, 86% of whom are identified as scheduled tribes [38]. Meghalaya’s main tribes are the Khasi–Jaintia and the Garo; all are matrilineal [39]. Although in recent decades a distinction has been made between Khasis and Jaintias, the latter may be considered as a subtribe of the former. Recent genetic evidence shows that the Khasis came from an ancient Austro-Asiatic migratory group and the time to the most recent common ancestor (TMRCA) for the Khasi is estimated to be approximately 57 000 years [36, 40]. Its indigenous traditional medicines are oral traditions that are largely un-documented [41]. The figures of 0.7% from the National Family Health Survey (NFHS) of households in the state seeking care from traditional healers is likely to be an underestimation [42]. Meghalaya was not a part of a national study commissioned by the Ministry of Health and Family Welfare on ‘Status and Role of AYUSH and Local Health Traditions under the National Rural Health Mission’ [16]. The report noted the poor quality of and lack of disaggregated data on utilisation of the AYUSH services in the northeast. Generally, AYUSH services were less frequently used than allopathic services for instance, in the northeastern state of Nagaland it was used only in 4% of instances. Since the launch of NRHM, the AYUSH systems of medicine have been increasingly promoted in Meghalaya’s public health system [43, 44].

The basis for adopting a pluralistic approach to health service delivery is the assumption of the acceptability of these services in the community. But there is little empirical evidence that demonstrates peoples’ preferences for different medical traditions, especially in northeast India. This study bridges this gap in evidence by estimating awareness and use of different medical systems in rural Meghalaya.

Methods

Setting

Meghalaya state is hilly (500–2089 m) with difficult and inaccessible terrain; it contains the wettest region in the world, the Cherrapunji–Mawsynram belt, with an average 7500 mm of rainfall per

year. Meghalaya is divided into seven administrative districts, which are further sub-divided into 39 blocks and 6839 villages [45]. The Khasis and Garos largely inhabit separate areas of rural Meghalaya referred to as the Khasi Hills region and the Garo Hills region. Four districts (22 blocks and 3262 villages) are in the Khasi Hills region and three (17 blocks and 3577 villages) in the Garo Hills region.

Study design

In April and May 2010, we conducted a cross-sectional survey of households from 24 villages in all seven districts of Meghalaya. There was no prior listing of villages, households or individuals in the study area for use as a sampling frame; therefore, households were selected using a multistage cluster sample design with three stages [46]. In the first stage, two blocks from each of the seven districts were selected at random. The two blocks with large urban areas, Myllem block in East Khasi Hills District, which contains the capital city Shillong, and the Rongram block in West Garo Hills District where Tura, the largest town in the Garo Hills, is located, were excluded from the sampling frame, as the aim of this study was to calculate estimates for rural Meghalaya. For two of the selected blocks, there were difficulties in recruiting suitably qualified field personnel within the timeframe of the study; thus, these two blocks were excluded leaving a total of eight blocks from the four districts in the Khasi Hills region and four blocks from the three Garo Hills districts for inclusion in the survey (Table 1). In the second stage, with the assistance of the Block Development Officers, the Primary Health Centres and Sub-Centres (SC) in the selected blocks were listed and one SC selected from each block at random. The SC location was used as a guide to further select two villages from each block, one relatively close to the SC (but not the village in which the SC was located) which was accessible and the other much further away and defined as 'remote' by the Block Development Officer and the head-men.

Table 1 Numbers sampled at each stage of sampling

Stage of sampling	Khasi–Jaintia Hills	Garo Hills	Total
Districts	4/4	3/3	7/7
Blocks	8/22	4/17	12/39
Villages	16/3262	8/3577	24/6839
Households (HH)	388/1861	200/504	588/2365

For districts, blocks and villages, denominators show the total number of units in the study area, for that stage of sampling.

For households, denominators show the total number of households in the selected villages.

Permission was obtained through the University's review process and from the relevant village headman and members of the local traditional administrative bodies. Using lists provided by the village headman or secretary as the sampling frame, approximately 25 households were randomly selected from each village. Where no lists of households existed, the selection was carried out with the assistance of the headman and his assistants using pathways and areas within the village as a guide.

Informed verbal consent of participants was obtained before the interview. Survey data were collected through structured interviews with closed and open-ended questions. Taking into consideration the matrilineal family structure in Meghalaya, the questionnaires were administered to a senior female family member, usually the mother, and in her absence another female elder. Interviews were conducted in the local language by indigenous research assistants who spoke the local language as well as English. Each interview was conducted by a pair of research assistants. The research team attended a training workshop which incorporated filling in sample questionnaires and role-play. Some of the questions on awareness and use of tribal medicine were informed by a pilot household health survey that was conducted in a village in Meghalaya in 2007 [47] with the addition of new exploratory open-ended questions on diseases for which tribal medicine was used.

Data were entered into Excel and then imported to Stata version 11 [48] for analysis. All analyses were

adjusted for the multistage sampling design using *svy* commands in Stata. To enable appropriate estimates of the use of traditional medicine in the whole of rural Meghalaya, the data were weighted to allow for the probability of selection at each stage of the sampling process as follows: the probability of selection of each block was calculated as the number of blocks selected divided by the total number of blocks; the probability of selection of each village within a selected block was calculated based on the total number of villages in that block; the probability of selection of each household within a selected village was calculated as the number of selected households divided by the number of households in the village. The probabilities from each stage were then multiplied together to arrive at a final sampling probability for each household being selected.

Estimates of preference for type or system of medicine such as biomedicine, tribal medicine, home remedies, pharmacy or others were calculated from responses to choice expressed for healthcare-seeking behaviour for minor or major ailments. The differentiation of minor and major was left to the interpretation of the respondent. Estimates of the prevalence of use of each system of medicine were calculated from responses to a four-point Likert scale [49] on frequency of use (with 'very often' and 'sometimes' being classified as using the system of medicine, and 'rarely' and 'never' being classified as not using the system of medicine). Distributions of reported effectiveness of tribal medicine, actual use in the previous 3 months, efficacy and cost were tabulated. The prevalence of awareness and use of AYUSH systems were also calculated. To evaluate differences in the use of tribal medicine between accessible and remote villages, proportions between these sets of villages were compared using design-based F-tests, an adaption of the standard Pearson's chi-square test for analysing associations between two categorical variables which allows for the survey design [50, 51].

Results

A total of 588 households were surveyed and the total number of persons resident in the households was 3633. Among the 588 respondents, 63% were from the Khasi tribe and 37% from the Garo tribe. 82% were Christian, and 18% followed indigenous tribal religions. The mean age of the respondents was 33.8 years (95% CI: 31.9–35.6) and all were female. The main source of income of the majority of households was farming. The demographic details of the sample are presented in Table 2.

The ethnicity of the population followed regional lines, that is all the people sampled from the Garo Hills belonged to the Garo tribe and all those from the Khasi Hills region belonged to the Khasi tribe, the only exception was one village that fell in a border area in West Khasi Hills which had a Garo population. Twenty-two of the 24 villages sampled had one or more tribal medicine healers.

The prevalence of reported preference and use of tribal medicine and biomedicine for major and minor ailments, and the prevalence of health-seeking behaviour and beliefs are summarised in Table 3. Disaggregated estimates by region, the number of individuals reporting each outcome and prevalence estimates before and after allowing for the survey design are also presented.

The estimated reported use of tribal medicine across rural households in Meghalaya was 79.1% (95% CI: 66.3–88.0), with 13.5% reporting frequent use and 65.6% reporting that they sometimes used it. Tribal medicine was believed to be efficacious by 87.5% (95% CI: 74.2–94.1); 30% said it was very effective and 57% believed it to be somewhat effective, while 7% did not believe in its efficacy and 6% were unsure. 46% (95% CI: 30.5–62.8) had used tribal medicine in the previous 3 months, and of these, 91% (95% CI: 68.5–97.9) reported it as beneficial, with 58% reporting cure and 33% some improvement.

Tribal medicine was reported to be used for both minor ailments and major diseases. The prevalence of reported preference for tribal medicine was higher for minor ailments (34%) than for major (23%) diseases (Table 3). In contrast, there was a high preference for biomedicine for major diseases (84%), while 52% said they would use it for minor ailments as well. It was apparent that most respondents would choose either biomedicine or tribal medicine as their first choice, and if unsatisfied with the response to therapy of their first choice, would try the other of these as their second. A majority had sought biomedicine from a public health-care facility, 91% (95% CI: 73.8–97.4) reported visiting either a subcentre (SC), primary health centre (PHC) or a community health centre (CHC). Of those who

had used tribal medicine in the previous 3 months, an average expenditure of Rs 189/- was reported to have been incurred (95% CI: 89.4–287.9). The reported average expenditure on biomedicine that included all or some of the doctor's fee, medicines, transportation and laboratory tests in the previous 3 months was Rs 1417 (95% CI: 1060–1773 Rs). Although there were some differences between the Garo and Khasi regions in reported preference for and usage of each system of medicine, these differences were not statistically significant (all $P > 0.05$).

Common ailments for which tribal medicine was reportedly used included diarrhoeal disorders, indigestion or gastrointestinal problems also referred to locally as *gastric*, a culturally understood childhood diarrhoeal disorder called ñiangsohpet [52], injuries, joint problems, jaundice and fractures. More than 40 disorders were reported by respondents for which tribal medicine was believed to be efficacious. Table 4 documents the most frequently mentioned conditions for which tribal medicine or biomedicine was reported to be the preferred treatment, and conditions for which tribal medicine was used in the previous 3 months.

Table 2 Characteristics of sample

Characteristic	Region		Full study area $n = 588$ (%)
	Khasi Hills $n = 388$ (%)	Garo Hills $n = 200$ (%)	
Tribe			
Khasi	363 (97.5)	0	363 (62.8)
Garo	25 (2.5)	200 (100)	225 (37.2)
Religion (2 mv)			
Christian	326 (72.0)	197 (99.5)	523 (81.8)
Indigenous	61 (28.0)	0	61 (18.0)
Other	0	2 (0.5)	2 (0.2)
Age in years, mean (4 mv)	33.6	34.0	33.8
Education (34 mv)			
Illiterate	144 (23.4)	43 (23.5)	187 (23.5)
<7 years	167 (48.6)	77 (43.0)	244 (46.8)
≥7 years	68 (28.0)	55 (33.5)	123 (29.8)
Occupation (35 mv)			
Farming	295 (66.0)	118 (72.0)	413 (67.9)
Other	87 (34.0)	53 (28.0)	140 (32.1)

mv, missing values.

Data in % are after allowing for survey design.

Table 3 Prevalence of use of tribal medicine and biomedicine/allopathy

Outcome	Disaggregated by tribal region		Full study area		
	Khasi Hills* %	Garo Hills* %	No. giving response/total no. responders	Prevalence without allowing for survey design %	Prevalence allowing for survey design* % (95% CI)
Use of tribal medicine					
Very often	16.6	7.9	62/585	10.6	13.5 (6.9–24.9)
Sometimes	61.1	73.8	368/585	62.9	65.6 (55.6–74.4)
Rarely/never	22.3	18.3	155/585	26.5	20.9 (12.0–33.7)
Belief in efficacy					
Very effective	30.0	30.2	140/525	26.7	30.0 (17.3–46.8)
Somewhat effective	52.2	68.6	296/525	56.4	57.4 (41.5–72.0)
Not effective/do not know	17.9	1.2	89/525	16.9	12.5 (5.9–24.8)
Used tribal medicine in previous 3 months	44.9	49.6	171/497	34.4	46.2 (30.5–62.8)
Outcome of tribal medicine therapy					
Cure	58.1	57.5	99/171	57.9	57.9 (48.3–67.0)
Some improvement	31.1	36.9	40/171	23.4	33.1 (22.4–46.0)
No improvement/do not know	10.7	5.6	32/171	18.7	9.0 (2.1–31.5)
Average cost of tribal medicine in Indian Rs	156.9	239.2	-	215.7	188.6 (89.4–287.9)
Tribal medicine preferred for minor ailments	28.5	42.4	173/572	30.2	33.7 (21.7–48.3)
Tribal medicine preferred for major ailments	12.0	39.5	116/560	20.7	23.0 (9.4–46.4)
Biomedicine preferred for minor ailments	62.6	35.3	354/572	61.9	52.4 (33.8–70.4)
Biomedicine preferred for major ailments	10.8	25.0	488/560	87.1	83.5 (64.3–93.5)
Visited SC/PHC/CHC	86.5	99.7	520/554	93.9	91.1 (73.8–97.4)

*Prevalence after allowing for the survey design.

Tribal medicine was reportedly used by 73% (95% CI: 59.5–82.7) in the accessible villages and by 84% (95% CI: 62.5–94.2) of respondents in the remote villages ($P = 0.29$). The use of tribal medicine in the previous 3 months was 34% (95% CI: 26.5–42.8) in the accessible villages and 54% (95% CI: 30.9–75.0) in the remote ones ($P = 0.15$); the difference was not statistically significant at the 5% level. Villages were initially defined as accessible or remote by the key informants; to validate this definition, the mean travel time reported to nearest subcentre was calculated. It was found to be 24 min (95% CI: 10.2–38.0) for accessible and 39 min (95% CI: 24.1–53.9) for remote villages. More distant households relied on motorised vehicles for transportation while others often walked.

A majority of the respondents (68.7%, 95% CI: 51.9– 81.7) had not heard of the AYUSH systems and reported no awareness of these systems of traditional medicine.

Only 28% had heard of Ayurveda, while 31% had heard of Homeopathy, 5% Yoga and even lower numbers for Unani and Siddha systems. Only 47 respondents (10.5%) reported having ever used one of the AYUSH systems.

These findings are summarised in Table 5.

Discussion

Table 4 Ranking of disorders for which tribal medicine and/or biomedicine used

Ranking	Disorder for which tribal medicine usually used	<i>n</i>	Disorder for which biomedicine usually used	<i>n</i>	Disorders for which tribal medicine used in previous 3 months	<i>n</i>
1	Diarrhoeal disorders	108	Fevers	185	njan-asohpet	40
2	Fevers	97	Malaria	145	Diarrhoeal disorders	29
3	njan-asohpet	83	Diarrhoeal disorders	137	Stomach problems, gastric	23
4	Stomach problems/gastric	69	Cough	91	Fevers	14
5	Malaria	47	Headache	66	Injuries	10
6	Headache	43	Stomach problems/gastric	32	Pneumonia	10
7	Cough	38	Jaundice	20	Jaundice	10
8	Jaundice	37	Vomiting	16	Headache	9
9	Pneumonia	25	Pregnancy, childbirth	13	Body pains/back pain	3
10	Injuries	19	Colds	10	Colds	2
11	Fractures	16	Joint problems	3	Skin diseases	2
12	Joint problems	13	Heart problem	3	Food poisoning	1

This study provides a comprehensive overview of the perception and use of tribal medicine in the state of Meghalaya. It is the first study that provides statewide empirical evidence on the comparative use of different systems of medicine in northeast India. Our findings demonstrate widespread awareness, high utilisation (79%) and belief in efficacy (87%)

Table 5 Awareness and use of AYUSH systems

	Disaggregated by tribal region		Full study area		
	Khasi Hills*	Garo Hills*	No. giving response/total no. responders	Prevalence without allowing for survey design %	Prevalence allowing for survey design* % (95% CI)
Heard of AYUSH	35.4	24.0	130/577	22.5	31.3 (18.3–48.1)
Awareness of: (<i>n</i> = 571)					
Ayurveda	27.7	16.0	79	13.8	23.5 (10.9–43.6)
Yoga	2.1	12.0	28	4.9	5.6 (2.6–11.8)
Unani	0.0	0.3	1	0.18	0.1 (0.0–1.0)
Siddha	0.0	0.8	2	0.35	0.3 (0.0–1.5)
Homeopathy	31.3	22.0	100	17.5	28.0 (15.1–46.0)
Ever used any AYUSH	13.3	5.2	47/572	8.2	10.5 (6.1–17.6)

*Values in % after allowing for the survey design.

%) of tribal medicine among rural indigenous households in Meghalaya. The utilisation of tribal medicine is comparable to the figure for the use of traditional medicine in developing countries in general [1]. As in the 18-state national study [16], our study also found the pluralistic use of health systems. But Meghalaya differs in a significant way; while AYUSH systems are popular is some of the

other states, in Meghalaya there is little awareness and use of AYUSH among the rural communities. Almost all were aware of biomedicine and a majority (91%) had visited a public healthcare facility for biomedicine at some point. The majority of respondents indicated biomedicine and tribal medicine as their top choices, while none of the AYUSH streams were named as a preference for any particular ailment. Only about one-third of households had heard of AYUSH and only 47 respondents (survey-adjusted prevalence estimate 10.5%) reported ever having used any of these systems of medicine.

A key assumption on which medical pluralism is promoted is the acceptance of the system by the community. The effective delivery of health care requires not just the supply of care but also trust, acceptance and use of services by patients [53–55]. This seemingly simple logic appears to be missed in Meghalaya. In the preamble to the report of the study on AYUSH, the authors Ritu Priya and Shweta [16] acknowledge that within the Ministry of Health, a lack of clarity and divergent views prevail on the purpose of the ‘mainstreaming AYUSH’ strategy. It is viewed either as a way of securing doctors for rural areas where biomedical/allopathic doctors are not available or as a way of increasing and strengthening the services of the AYUSH systems.

There were limitations to this study: the sampling was influenced by local factors (terrain, logistics, difficulties with personnel recruitment in two of the initially selected blocks) and was thus not ideal in that it was not self-weighting; as a fixed number of households in the study area was sampled rather than a proportionate number. Although the total number of households was reasonably high, these came from a relatively small number of villages for logistical reasons; thus, analyses involving village-level characteristics and characteristics that showed strong clustering at the village level were under-powered. For example, when comparing accessible and remote villages, some seemingly large differences in outcome prevalence of over 10% did not attain statistical significance at the 5% level. Sampling the same number of households but from a greater number of villages would have improved power to detect such differences. There was considerable variation in travel time for households even within villages due to the scattered and sparsely populated nature of the terrain, which could be factors in why the difference in outcome based on accessibility and remoteness as defined here was not statistically significant.

Our findings suggest certain recommendations. While tribal medicine in Meghalaya is culturally acceptable and widely used, it remains under the government radar. The practice of indigenous traditional medicine has been enshrined in article 24 of the United Nations declaration on the rights of indigenous peoples: ‘Indigenous peoples have the right to their traditional medicines and to maintain their health practices, including the conservation of their vital medicinal plants, animals and minerals’ [24]. WHO recommends ‘culturally appropriate health care’ for indigenous peoples [56]. Given the high prevalence of use of tribal medicine in Meghalaya, indigenous peoples of Meghalaya will benefit from continuing to use their system of medicine in addition to having access to modern biomedical healthcare services. To optimally realise the benefits of medical pluralism, the cultural milieu needs to be respected. So, Meghalaya’s tribal medicine needs to be recognized and engaged with by the public sector. It is essential that policymakers understand the value of contextualizing policy to these communities. A homogenous approach that involves imposing new systems that are relatively unknown and of questionable efficacy, for instance homeopathy [57], can prove harmful in the long run.

This study of Meghalaya potentially offers a microcosm of the current scenario of tribal medicine in north-east India. India has over 104 million tribal or indigenous peoples or 8.6% of its population [58]. But their systems of medicine have received little attention by policymakers. Perhaps the fact that tribal medicine is an oral tradition with the consequent lack of sufficient documentation has hindered its recognition in the public sector. The funding to medical systems like AYUSH in places that have limited acceptance among the populace is potentially a waste of resources that could be deployed more usefully and effectively elsewhere.

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Exercises

According to the article, in Meghalaya there is little awareness and use of AYUSH among the rural communities.

- Almost all were aware of biomedicine and a majority (91%) had visited a public healthcare facility
- The majority of respondents indicated biomedicine and tribal medicine as their top choices
 - o high utilisation (79%) and
 - o belief in efficacy (87%)
- None of the AYUSH streams were named as a preference for any particular ailment. Only about one-third of households had heard of AYUSH and only 10.5% reported ever having used any of these systems of medicine.

Given the above report and your own opinion and information, give the best answer for the questions below:

- a. Generally, tribal people in Meghalaya use traditional medicine because: Tick all that are applicable.
 - i. Traditional healers are available and accessible
 - ii. They are well known to the people of the village
 - iii. Their fees are very low
 - iv. Traditional medicine works well for certain diseases

- b. Only about 10% of tribal people in Meghalaya use AYUSH because: Tick all that are applicable.
- i. It is not easily available and accessible
 - ii. AYUSH treatments don't cure diseases
 - iii. AYUSH is not culturally familiar
 - iv. AYUSH treatments are expensive
1. In your opinion, should the government of Meghalaya give recognition to Khasi and Garo traditional medicine?
- a. Give reasons for your answer.

- b. What policies and measures would you advise the state government to take?

Traditional Health Practices

Sap and the Traditional Healer: A Tribal (Khasi) Understanding of the Human Potential

Sandra Albert, John Porter and Judith Green

Meghalaya state in the Northeastern region of India has a predominantly indigenous population with 86% identified as belonging to Scheduled Tribes (Ministry of Tribal Affairs, 2013). The main tribes are Khasi (including Jaintia) and Garo, with the former being the larger in numbers (Government of Meghalaya, 2009). In the Khasi hills of Meghalaya the herbal traditional medicine practitioner among the Khasis is referred to as *nongai dawai* and the medicines and medicinal plants that the healers use are referred to as *dawai khasi*. The *nongai dawai* often make a distinction between themselves and the ritualistic healers, the *nongkñia*. This paper outlines factors contributing to the “making of” a healer *nongai dawai* and the healers’ understanding of what is referred to as a key component of becoming a healer, *sap* (translated as talent or potential). This concept of *sap* is a generic local term, not restricted to the field of traditional healing, but we explore here its importance to Khasi understandings of the recruitment and recognition of those best suited to be healers.

Method

Data for this study were collected through in-depth interviews with healers, focus group discussions with healers, interviews with key informants (including policy makers and local elders), and nonparticipant observations. Observations such as of healer interactions with patients, medical plant suppliers and other healers, and of clinic facilities and herbal gardens helped to improve the understanding of the context. It also assisted in corroborating what was said in the interviews. For instance, observation of interactions of healers with patients and between healers and their peers further verified accounts provided during interviews. In-depth interviews were held with 24 healers (seven female, 17 male). They were selected following discussions with key informants, such as office bearers of grass roots organisation of healers and researchers who were familiar with indigenous healers, to develop criteria for inclusion and exclusion. Well-known healers, with at least five years of practice and who worked fairly full time were included. Healers with expertise in a single disorder and those who practised occasionally or infrequently were excluded as were those who specialised exclusively in mental health (*nongkñia*) or as traditional birth attendants. Healers were identified from different districts using the snowballing technique (Biernacki & Waldorf, 1981) based on information provided by key informants, peers, and the community. After the interviews, three focussed group discussions, two with six participants each and a third with 13 participants lasting between 1.5 to 2.5 hours, were conducted. In all, 25 healers participated in a focussed group discussion (FGD), of whom 13 were also interviewed before they participated in the FGD. This amounted to a total of 36 healers: only interviews 11, interview plus FGD 13, only FGD 12. While this paper draws predominantly on the interviews and focus group discussions with healers, it also references data from key informant interviews, which are described in more detail elsewhere (Albert & Porter, 2015).

Audio-recordings were made of all in-depth interviews and focus group discussions after obtaining informed consent of the participants. Data were collected between April and December 2012.

The challenges posed by language in cross-cultural research settings have been well documented (Green, Pereyaslov, & Balabonova, 2010; Larkin, de Casterlé, & Schotsmans, 2007; Pitchforth & van Teijlingen, 2005). In this study the involvement of bilingual, indigenous research assistants who conducted the interviews as well as translated them reduced the problem of translation to some extent. All interviews and focus group discussions were audio recorded. They were transcribed and translated into English by the interviewer. When words that were difficult to translate were used by participants they were retained as is and a possible meaning typed in parentheses. This was later rechecked and the translation arrived at after consultation with knowledgeable persons in the community. An additional step taken to reduce translation errors, was to get about half the Khasi transcripts as well as their English translation compared and checked by a bilingual elder. The qualitative data collected was analysed using a thematic content analysis that incorporated elements of the grounded theory approach (Green & Thorogood, 2009). The first set of codes informed further data collection as well as fine-tuning the topic guides. As analysis progressed, codes were modified, regrouped, and categorised. For example, references to *sap* (talent) were initially line coded as rationalising the practice of tribal medicine, but later, on observing that it was frequently used both within and between transcripts it became an in-vivo code and an analytical theme. In this paper, the codes following extracts from transcripts are presented as follows: Focus Group Discussion (FGD), Khasi Healer (KH) or key informant interview (KI), gender (F or M), and the transcript number (e.g., KH 001). Unless otherwise specified all quotes are from interviews.

Results

Both men and women practiced tribal medicine and were well known in the community as practitioners. Of the healers interviewed, six had no formal school or college education while 10 had seven or more years of formal education, including four who had a bachelors or diploma qualification. Many (16/24) of the healers interviewed had a clinic either adjacent to or away from their homes from which they practiced. Their experience ranged from seven to 25 years. Most healers obtained medicinal plants from nearby forests or sometimes from more distant forests in other districts. More than half of them (14/24) relied on a network of suppliers and or assistants who collected medicinal plants for them.

A majority of the tribal healers in this study were Christian (21/24) and they often were quick to distance and differentiate themselves from the ritualistic healers, who are usually associated with indigenous religions.

How Do They Become Healers?

Ancestry Ancestors were reported to have played a major role in transference of knowledge and skills by a majority of healers in this study. Most healers (15/24 interviews) reported having an older family member usually a parent, grandparent, or uncle who was a traditional healer. For these healers, introduction and exposure to tribal medicine began within the family and thereafter there was a gradual progression from assisting, to taking over, or continuing with the practices of the forebears. Thus, for some it was reportedly an obvious “career” option from an early age. But in some instances, despite having assisted parents or grandparents in the craft, a few reported that they had not considered traditional medicine as a career initially. Their training occurred inadvertently through helping and assisting the ancestor.

Even me, I did not dream that I would become a traditional healer [the healer had initially chosen a different career: running a beauty parlour. My grandmother and grandfather were both traditional healers. After my grandfather died, my grandmother took over. But as she grew older, she was not in good health for most of the time. Whenever people come to her for treatment, she would always ask me to go and prepare medicines for them. And as time passed, people started recognising me and they started looking for me whenever they came for treatment to our house. Eventually I thought this is what I wanted to do, and I told myself - when people are benefiting from what I did, why should I stop. I think that is how I became a traditional healer. FGD3, KH 019, F.

One healer claimed to have learnt and inherited her talents from an ancestor in the distant past who had not actually trained her in a tangible, practical sense. Claims to a link with a skilled ancestor were reported to provide this healer some confidence and perhaps credibility within society and among peers.

My talent/skills (*sap*) are a gift from God (*jingai U blei*). It is not that I had or went for any training... From my mother's clan but not actually my real mother. But I inherited my talent/skills from her. KH 018, F.

In these accounts, *sap* is typically referenced as tacitly understood concept that exists in the community. It was mentioned along with ancestry as a key component explaining how and why an individual became a healer.

Sap, Talent

The Khasi word *sap* was used by almost all healers in the interviews and in focus group discussions. *Sap* can be loosely translated as talent, gift, or skill. Healers used the concept of *sap* as an explanation for the knowledge and skills that they had acquired, which they found difficult to explain.

It is inherited, my talents (*sap*) are inherited (*hiar pateng*) or passed down through the generations and, but I can't explain it [laughs]. KH 004, M For me, it is passed down from my ancestors (*ai pateng*) for three generations and it is also the skills/talents (*ka sap ka phong*) that are gifted to me by God (*ai U blei*). FGD2, KH 028, M.

The term *sap* as used by the healers appeared to represent the abstract concept of an inherent or intrinsic ability. Talent has been defined as natural aptitude or skill in the Oxford English Dictionary (<http://oxforddictionaries.com>). The words and phrases used by healers were also discussed with bilingual experts. They translated *sap* as "an inborn potential", "a sort of instinct" and said that it could also mean skills. It was said that it could be translated as talent but possibly represented a lot more than just talent. There also seems to be an affective or motivational aspect to *sap*. References to *sap* were used to describe the motivation or vocation to practice tribal medicine.

The recognition of *sap* was especially important to those who did not have an ancestry of healing. Healers reported that their initial successes contributed to their being recognized and acknowledged within the community as having the required talent/skills. This, they recalled, had led to verbal encouragement from patients and elders in the community to take up the role of healer. The following is an excerpt from a healer who did not have healer ancestors:

But I did not focus on it much until I reached 18 years of age and that is when I started realising my capabilities/potential/talents (*jinglah ka sap*) for treating people. My friends used to tell me that I have the talent/potential (*ka sap*) but I never took it seriously then because I thought it was boring. But when I was 35 years of age I treated a man and cured him. He then kind of forced me to take up this practice as he brought patients to me regularly and also took me to several places to treat people. It is because of him that I am successful and I give him credit for making me realise my own potential (*ka jinglah*). KH 005, M.

On being asked if there was any means of knowing if a person had *sap* a few elder healers responded that it was possible. They claimed that they would be able to do so by observing a person in action:

Just by his touch I will be able to understand if he is capable for this profession. KH 005, M.

On further enquiring how one would determine if a person has *sap* or not, healers used examples and the steps they would take to decide as illustrated by the following set of quotes.

For example, let us take the case of a male child. A male child who loves carpentry, on seeing the tools of a carpenter, he would take those tools and do something with it. Likewise, we look at the person's interests and determine the potentials. KH 004, M.

A master can recognize whether a person has the potential needed. We can determine a healer by observing the way of treatment, asking questions. A teacher can recognize if his student has the potential or not. KH 010, M.

Sap could therefore be inferred from a person's interest and observable behaviours. Thus, *sap* or talent is somewhat intangible, something that an established healer will look for before deeming someone worthy of receiving his or her knowledge and teaching. Desirable behaviours described included attitudes like

concern and care for the sick. One cognitive skill attributed to *sap* appeared to be the ability to memorise and identify different medicinal plants and to recall their properties as needed.

He [father] once told me that if you feel/understand (sngew) that you are unable to remember all these herbs, then it is better that you do not become a traditional healer [.....] If God does not give us the skills and talents we will not be able to remember everything, because in our treatment there are hundreds of species of plants that we use. FDG2, KH 030, F.

It was also apparent that *sap* was not something that healers believed would be always inherited. A few healers, especially those who professed interest in starting training institutions, did say that they needed to observe their children and see who had interest and potential. It was said that they would be wasting their time in training someone if the person did not have *sap*. Thus, by *sap*, the traditional healer implies that a combination of interest, talent, aptitude, and potential for the job is required.

The Community and the Healer

Acknowledgement and support.

The healer's success is experienced and witnessed by the patient and the community. The resulting acknowledgement of the healer's skills raises the expectations of the community. Healers report that they are influenced by pressure from people who expect them to provide help to relieve suffering. As evident in an earlier quote these expectations came from the community even before the healer had considered the practice of tribal medicine as a career. On observing a young family member assisting her relative, members of the community also become convinced of the novice's healing abilities.

When discussing their beginnings, healers often recollect a successful first case or cases that tested their abilities. For those without ancestral claims the initial successes were recounted as factors that encouraged them to persist in the healing profession. Their reputation reportedly spreads by word of mouth and more people seek their help. Influential members in the community averred that a good reputation was crucial to a healer. Accessibility and the trust that develops within the community in the healer's ability were considered as contributory to the building of the reputation.

...this is their strength; people have faith in them [the traditional healers] because they are there and they [the people] feel that they are not there to exploit anyone. Secondly, the second thing is that eh... since they are a part of society and they move freely among these people and eh... their reputation is by word of mouth and . . . [citing an example of one healer] people go there and he is good and they get cured and that's again by word of mouth. KII, Elder.

Knowledge in the community.

Closely observing the plants that more experienced healers picked from the forests, imbibing information through assisting and later using this information to tentatively help people in the community were common first steps. For those without ancestors, acquiring knowledge without an apprenticeship is possible as there is considerable knowledge of medicinal plants existing within the community, especially in rural areas. The existence of this knowledge within the community was corroborated and inferred from our interactions with academics and policy makers. An example is illustrated below that implies certain geographically bound existence of knowledge within communities.

Yes, just anybody from this village [could treat]. When they migrate to Ri Bhoi or to West Khasi on account of marriage or anything, they will also carry that knowledge there. So, we'll always say that people from Thyroid can cure this. KII, Policy maker, Khasi Hills Autonomous District Council.

Healers also report collating information from others in the community. Many said they seek out medicinal plants that were outside their usual repertoire, they would look for medicinal plants in the forests that they had heard of, and also try out or experiment with new medicinal plants when they were faced with unusual ailments that did not respond to their usual therapies.

Experimenting, Empiricism, and Experience

Healers in rural areas, especially those engaged in agrarian occupations, reported learning from their observation of animal behaviour. They recalled situations where elders guided them in administering medicinal plants to sick animals. The observation of effectiveness of the medicinal plants on animals was said to prompt them to give it to humans as well. Healers also reported experimenting with medications on farm animals. Invariably this progresses to a trial on themselves and/or a family member to assess efficacy in human beings before progressing to prescribing to the larger community.

When the goats were bitten by snakes our grandfather instructed us to pluck a plant and feed it to the goats. So, when people were bitten by a snake we went to pluck the same kind of herb and gave it to them and they were cured. Right from childhood people came to seek our help and we started helping them. Now I am 68 or 70 years of age. When a goat or a cow had a fracture, I applied medicines on them and after that I try on humans as well. KH 012, M.

It was noteworthy that some healers were aware of both the usefulness and potential limitation of animal experiments. A healer with barely seven years of school education explained that animals also fall ill like humans, with similar disorders like fever. So, he would try his medication on the sick animals first and learn from the animal's response to the herbal remedies. He also acknowledged that what works in animals may not work in humans. He reasoned, therefore, that trials on animals must proceed to self-tests and trying out on a few humans before giving to the larger community.

In the absence of animal experiments, herbal remedies or a new use for a particular plant are reportedly also discovered after a trial on themselves and/or family members. This happens, for instance, when a particular medication fails to provide adequate relief and the healer tries out new medicinal plants for the condition.

Even for coughs, stomach aches I try different medicinal plants on my children because at night it is difficult to find doctors in our village. When there is improvement and they are cured I give it to other people with similar problems. Then my neighbours came to know about it and whenever they have some kind of problem they come and take my medicines. KH 012, M.

Thus, tribal medicine healers experiment in different settings. This may involve going into the forests looking for new or rare herbs and trying them out. Or it may involve trying out familiar herbs on new ailments and learning from the experience. It may involve conducting a loose cycle of uncontrolled experiments involving farm animals, pets, and humans.

Although watching, imbibing, and apprenticing skills from another healer is the usual mode of early learning, the actual practice of the craft by itself reportedly adds to their learning. When they start practicing on their own, they report becoming more aware of the nuances of healing and claim to "understand" better. It was stated that the art could not be learnt in one day: rather it took "years of training and experience". The following two quotes are from a healer who learnt from an ancestor and one who did not:

It is the same for me, like she [referring to another participant in the FGD] said. I learnt everything from my mother and when I started treating patients, I could learn and understand even better through my experiences. FGD2, KH 031, F.

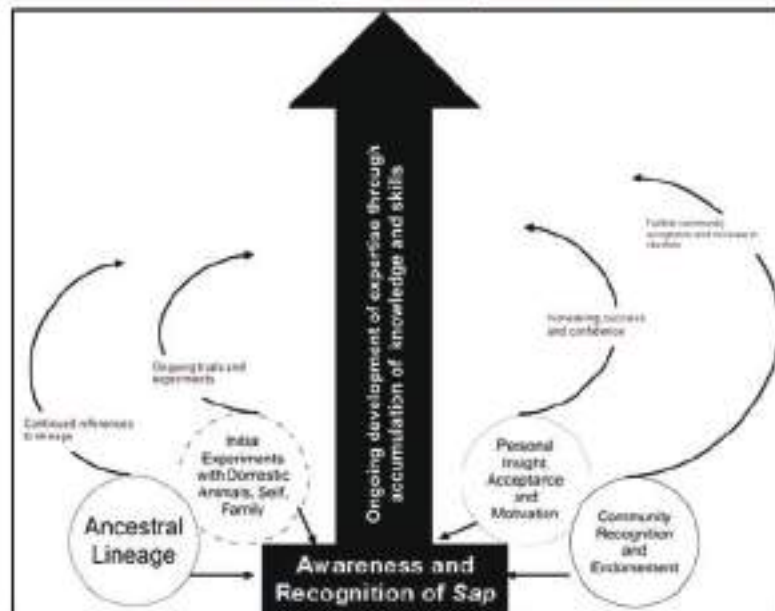
When I started I did not know much about what to do but as the years progressed, my work started to help me understand and helped me do the needful things accordingly. KH 018, F

Elements Contributing to the Making of a Healer

Becoming a well-known healer in the community thus results from a combination of factors working together: the person must be recognized as having *sap*, a kind of intrinsic talent, in addition to the requisite knowledge and skills obtained from ancestors or other elders. Although this knowledge builds on a certain stock of common folk knowledge of herbal remedies, the professional healer must be acknowledged by the community by their witnessing successful treatments of patients. Ancestry and/or the community recognition of his or her talent are accompanied by a growing self-realisation that encourages the healer to practice. These aspects have been summarised and the interconnections represented schematically in Figure 1.

The continuation of practice as a career occurs when there is acceptance and appreciation from the community as evidenced through an increasing demand for their services. For Khasi tribal healers it appears important that they detect both interest and aptitude in a person as a requisite for training a person. This is especially important when the recipient is not a family member.

Figure 1
Elements Contributing to the Making of a Tribal Healer



Discussion

This paper presents a descriptive analysis of an under researched group of indigenous traditional healers, the Khasi tribal healers of Meghalaya. We have described how healers account for their career choice and the factors that lead to the recognition of their role by the wider community.

Most healers said they acquired their knowledge and skills from ancestors but acquisition of knowledge from community members and peers also took place to a limited extent. Khasi tribal medicine is learnt from the elder healer through observation and didactics similar to folk healer traditions reported in other societies (Prince & Geissler, 2001; Rubel & Hass, 1996). Khasi healers without hereditary antecedents often embarked on a healing career by early practice on family and friends before expanding their practice to non-relatives, a transition process also reported in other ethnic groups (Rubel & Hass, 1996).

Regardless of whom knowledge and skills were acquired from, a more important concept among Khasi healers was the notion of *sap* or intrinsic talent. The concept has several facets like interests, aptitude, and potential. These concepts reported by tribal healers have resonance with those that are described in the domain of career psychology. The career psychology literature refers to interest and aptitude as key constructs that form the basis of career guidance interventions (Arulmani, 2009; Gottfredson, 2003).

More recently the notion of potential as a blend of interests and aptitudes has been proposed (Arulmani, 2014). Extending this concept to the above discussion, becoming an established healer is dependent on several interrelated elements coming together. These include acquiring knowledge and skills by learning from ancestors and others, and a concept of *sap* or inherent potential that is recognized by both healers and the community. In homes, learning seemingly occurred in an experiential setting, initially by observing and listening, which then progressed to imitation and doing as reported elsewhere in indigenous societies (Rubel & Hass, 1996). Tribal healers also provided accounts of learning while practicing through experience, empiricism, and experimentation. This resonated with elements of the learning cycle described in the influential experiential learning theory (Kolb, 1984; Kolb, Boyatzis, & Mainemelis, 2000). Kolb (1984, p.41) defines learning as “the process whereby knowledge is created through the transformation of experience”. Healers reported experimenting with medicinal plant preparations on farm animals, on family members,

and on themselves before administering to others. Thus, Khasi tribal medicine is not a static system restricted to what is learnt from ancestors, but a dynamic one where healers continually “experiment” with therapies. Such dynamism in practices although not widely recognized in the literature has also been documented among folk healers in other parts of India (Payyappallimana & Hariramamurthi, 2012).

In conclusion, this paper provides Khasi indigenous perspectives on their concept of *sap*. *Sap* represents a combination of the notion of “gift”, talent, aptitude, and potential. It indicates that including aptitude or potential in career guidance remains important. The study also highlights the role of the community in the manifestation of a person’s potential. Vocation was important, as were craft skills, but the recognition of the community also contributed to becoming a Khasi healer.

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Exercises

1. Provide five words that seem to define and describe sap.

- a. _____
- b. _____
- c. _____
- d. _____
- e. _____

2. How do traditional healers acquire knowledge of medicinal plants?

Traditional Health Practices Healing Practices of the Khasi and Jaintia People of Northeast India. Sandra Albert and Glenn C Kharkongor

Pittu Laungani (Laungani, 1996a; 2002a; 2002b; 2007) was one of the first to point out that the Euro-western model of counselling and psychotherapy was inapplicable to Indian society. To reach this conclusion, he examined several key issues - religion and spirituality, individual and community, personality, stress and mental illness, and, death and bereavement. He proposed a four-fold conceptual model to explain differences between western and eastern cultures: individual-collectivism, cognitivism-emotionalism, freewill-determinism, materialism-spiritualism, with each pair of factors representing a continuum. Within this canon of work, Laungani also wrote about the traditional, indigenous and cultural practices of India and its significance and implications for health and wellbeing.

In this chapter, we examine some of Laungani's premises in cross-cultural psychology, in particular the interplay between external influences and surviving indigenous beliefs and practicesⁱ. We explore the significance of these traditional healing practices and discuss their psychological, emotional and social significance in an Indian context with particular reference to the Khasi and Jaintia indigenous people of Meghalaya, in North East Indiaⁱⁱ. We begin by discussing the culture, social and religious practices of the Khasis and Jaintia people.

The Khasi and Jaintia people of Meghalaya

Each culture has something of value to offer to another culture and, equally importantly, something of value to learn and imbibe from another culture. A mixture of cultures is more likely to lead to an enrichment of one's intellectual, emotional, spiritual, humanitarian, and moral visions. Each culture is in some ways flawed because no culture has all the answers to the Socratic question of what constitutes the good life and how it should be lived (Laungani, 2007, p.47)

Meghalaya is one of the seven states of northeast India. It has a population of 2.3 million people; the majority belong to the Khasi, Jaintia and Garo groups. The Khasis and Jaintias are genetically, linguistically and culturally connected; differing from the Aryan- Dravidian groups of India, though the closest genetic relationship is with populations in East and Southeast Asia (Langstieh, et al., 2004). The two groups constitute 57% of the population in this region and are collectively known as Khasi (Statistical handbook Meghalaya, 2003)ⁱⁱⁱ

The Khasis are also known as the *Hynniew Trep* (seven clans). *Kha* means 'born of' and *Si* refers to an ancient mother; *Khasi* therefore means born of a mother (Bareh, 1997). The Khasis follow the matrilineal system, the children take the name of the mother's clan and identities are closely linked with that of the maternal clan.

Inheritance of ancestral property is through the female progeny with the youngest or *khadduh* getting the major share. With this comes responsibility; it is the *khadduh's* duty to look after her parents and

other members of the family who are in need. The *khadduh's* husband moves into the wife's home after marriage. The other siblings including the older sisters, move out of the ancestral home establishing neolocal residence, which is in contrast to the other Indian matrilineal society, the Nairs of Kerala, who practised a joint family system and the females of the family had joint property ownership (Aravamudan, 2007). It has been said that matriarchy is a non-violent social order when compared to the patriarchal societies; the matrilineal societies of Meghalaya have been non-violent as opposed to the other societies of the north east India which have engaged in inter and intra-tribal warfare (Mukhim, 2005).

Although the Khasis could be described as communal or collectivist in many areas of decision-making within the family, individual choice is given precedence when it comes to choice of spouse. Hence 'arranged marriages' which is the norm in mainland India is a rarity amongst Khasis. However, the family will intervene if a partner is chosen from a 'related' clan, a cultural practice that was perhaps set in place to prevent consanguinity. Each clan has a list of clans with whom inter-marriage is forbidden *shong sang*, even if the relationship is very distant and almost untraceable. Thus the Khasis practise a complex kinship system with prohibitions rather than prescriptive rules for marriage which is in contrast to the other indigenous matrilineal tribe of Meghalaya, the Garos (Chowdhury, 1996). The Khasis are an inclusive society, a non-Khasi woman marrying a Khasi man can choose to become a Khasi on performing the *tang jait* ceremony. She is then given a new clan name and her children are thereafter known by this name.

Khasi society is matrilineal but not matriarchal. There are no women in the traditional local governing bodies or *durbar shnongs*. In the modern political system a few women have won elected office. Traditionally women's opinions may be sought, but the final decisions are made by the males.

Religion, spirits and sacred traditions

In seeking plausible explanations, they attempted to exonerate themselves from the randomness with which illness can afflict humanity ...But one is preyed upon and even devoured by one's primeval fears. (Laungani, 2003, p.165, 172).

The Hindu way of life with its strong sense of religion and spirituality, dominance of the community over the individual, and a holistic yet fatalistic belief system still holds sway over the peoples of India, even in the urban areas of rapid techno-economic development (Laungani, 2007). While this holds true for the Aryan-Dravidian peoples of India, it is not completely applicable to the indigenous peoples of Northeast India. The Hindu pantheon of Gods and the caste system are unknown. Indeed, it is possible that certain Hindu rituals have borrowed from ceremonies of the indigenous peoples, such as cremation of the dead, mountain worship, and the use of betel leaves, turmeric, coconut in religious rites (Chowdhury, 1996).

The Khasis and Jaintia people worship a formless god, the religion is referred to as *niamtrai khasi* by the Khasis and *niamtre* by the Jaintias. The three basic principles of the religion are: *kamai ia ka hok*, earn by one's own effort and righteousness; *tip brieu*, *tip Blei*, know God by knowing your fellow men; and, *tip kur*, *tip kha*, know your paternal and maternal relatives. The last tenet implies that marriage within the clan is strictly forbidden (Singh, 1994).

The traditional religion is theistic with elements of animism. The theistic concept is of one divine power *U Blei*, God, sometimes referred to in the plural as *Ki Blei*, the plural form is used as a mark of respect or as a to refer the many roles of god (hence some have referred to the religion as polytheistic). There are no temples, idols, sacred places of worship or saints. Khasis do not worship their ancestors, but homage is paid to the ancestors especially to the ancient founder mothers of the clans. Khasis are remarkably free from fear of ghosts. (Chowdhury, 1996).

The rooster plays a significant role, the cock leads the way to God after death; '*iar khad lynti*'. God accepts the cock which is offered as a sacrifice. Symbolically the rooster's crowing brings forth the sun when the world is in darkness, and it intercedes for the people when they are overwhelmed in moral darkness.

Scattered through the hills of the state are numerous *law kyntang*, sacred groves or sacred forests. There are 79 documented groves in varying sizes - many are larger than a hundred hectares, but some are as small as an acre; with many more 'undiscovered' sacred forests. These sacred groves have been preserved from the time of the origins of the Khasi people, for religious custom forbids damage or

removal of anything – even a leaf or a stone - from a sacred grove. One may pick fruit to be eaten while in the forest but nothing can be carried out of the forest. Fallen trees are left untouched on the forest floor. The local folk healer is permitted to take medicinal herbs for his clients. The foliage is dense, the oaks, rhododendrons and other deciduous trees are laden with epiphytic growths of ferns and orchids cascading onto the forest floor. The sacred groves are protected repositories of biodiversity, especially pteridophytes, gymnosperms and angiosperms, including many rare and primitive species (Down to Earth, 2003; Chowdhury, 1996). Each region and sub-group has its own version of rituals, taboos and ceremonies that are built around the groves.

The Khasis believe in spirits, mostly benevolent. The good spirits are those with good intentions towards people, e.g., *U blei shillong*, spirit of the mountains, *Ka lukhimai*, *Ka lei khuri* spirits of the hearth, *U lei umtong* the spirit of the water, *U lei longspah*, spirit of wealth and *Blei iew*, market spirits. (Chowdhury, 1996; Bareh, 1997).

Beliefs associated with the *taro*, an evil spirit, is prevalent mainly among the Jaintias. How a *Taro* enters a person is unclear. It can take temporary residence in a person other than the patient and the spell may be cast from a distance. Sometimes the *taro* resides in certain families whose identity is known to the community. Khasis believe that one who have visited or been in contact with a family that possess *taro* can fall ill. Locals avoid being 'in debt' in any way to 'families with *taro*' for example, nothing is ever borrowed from them, all payments are made in full and immediately if anything is bought. Eating or drinking from these families is avoided, but, if politeness requires that one partakes of food or drink, a symbolic payment, throwing behind a coin as one comes out of the house is made. Those who fear or are mentally 'weak' are more susceptible to the spells of the *taro*.

To illustrate how *taro* is understood and integrated into the people's worldview we offer the following case vignette.

As narrated by her neighbour, an 18 year-old girl despite warnings from her family, continued her friendship with a young girl from a local family, whom locals regarded as a 'family with *taro*'. One day she had tea with the marked family, and on returning began acting 'strange', talking nonsense, not eating, talking in her sleep and became ill and weak. She was taken to a modern doctor, admitted to hospital where she had to be tethered down on her bed because of 'violent behaviour and fits'. She responded to medications only temporarily and symptoms returned on wearing off of the medication. On the advice of relatives the family sought voluntary discharge from hospital and she was taken to a traditional healer who prayed over the client. During this session the client spoke in a strange voice resembling the voice of the mother of her friend, saying words to the effect, "You had tea with us and did not give anything in return". The client's family then went to the 'family with *taro*' as instructed and requested the matriarch to call back the *taro*. She expressed distress that such a thing had happened, said the girl must have been 'weak', and was susceptible to the *taro*. She called back the *taro* saying "Come back, do not disturb her, she is a friend". Following this the client fully recovered.

Another evil spirit is *U thlen*, a serpent spirit kept by some families to make them wealthy.

The *thlen*, a monster serpent that lived in a cave, attacked and swallowed passers-by on market days. By a clever stratagem, the snake was induced to swallow a piece of red-hot iron, made to look like a piece of smoked pork. The *thlen* died and was cut into bits for the community to feast on. But a 'foolish' old woman failed to eat her piece and it came back to life. The woman was forced to care for it, feeding it with human blood from murdered victims. In return the *thlen* made her wealthy and prosperous. Subsequently *thlen* worship spread through marriage, kinship and trade. The families that 'keep the *thlen*' must feed them with human blood or failing that, appease it temporarily by plucking a hair or cutting a piece of clothing stealthily from an unsuspecting victim. The victim may become weak and sick and may even die, unless the spell is exorcised by the *syiem saad*, high priestess. Beliefs associated with the *thlen* amongst the Khasis are related to the desire for and seeking of wealth through unfair means. Fear of the *thlen* worshipper is quite prevalent among the Khasis^{iv}.

Healers and healing practices among the Khasis

The canvas of traditional medicine in India encompasses two broad categories:

The first category includes the codified or classical systems of medicine. These codified systems consist of medical knowledge with sophisticated theoretical foundations expressed in thousands of manuscripts, for example, Ayurveda, Siddha, Unani (Balasubramanian, 2003) and the Tibetan tradition. (Dummer, 1988).

The second category includes the age-old local folk healing systems which can be found throughout India in parallel to the codified or classical systems of medicine (Balasubramanian, 2003). In India they are known as local health traditions (LHT); these are practices, beliefs and customs related to health, specific to each locality and passed on from generation to generation by word of mouth. They make use of a surprisingly wide array of locally available flora and fauna. LHT is comprised mostly of the oral traditions practiced by the rural villages. The carriers of these traditions are millions of housewives, thousands of traditional birth attendants, bone setters, village practitioners skilled in acupressure, eye treatments, treatment of snake bites and the traditional physicians/herbal healers. This stream of inherited traditions represents an autonomous community-supported health system which efficiently and effectively manages the primary healthcare of the Indian rural masses.

Local health traditions in Meghalaya are widely practised and used. Each major tribe habits own system, though there is some overlap. Each family has its own set of 'home remedies', passed down by the older generation, for many common ailments. When these fail the help of the local health practitioner is sought.

The Indian client is likely to search for a therapist he/she can respect, look up to and defer to. The counsellor or therapist is seen as a special person, as the expert, a person who is imbued with special powers, even in some instances with psycho-magical powers, which can be used to alleviate the client's personal and familial problems (Laungani, 1997, p.348).

There are various types of healers in Khasi society, For example:

The *nongai dawai kynbat* is one who heals with herbs, usually for physical ailments. In conversations with several *nongai dawai kynbat*, most of them stated that enquiring about the emotional status and psychological wellbeing of their patients is important as physical ailments may be caused by emotional or psychological problems. Most of the practitioners' counsel and pray for their patients as part of the treatments. They also said that there are diseases in which only or mainly the mind is affected.

The *nongkñia* is one who performs rituals, and has the ability to 'heal' evil spirit-related problems. The *nongkñia* makes a "diagnosis" such as a problem with the 'spirit of the wind' or 'spirit of the water' is made. *Ksan rngiew* is a ritual performed by *nongkñia* to restore good fortune. *Lyngdohs* perform ceremonial rituals and sacrifices related to dance, and festivals (Bareh, 1997) and sometimes healing. The most common divination ritual involves the breaking of eggs^v. The diviner casts the egg onto a wooden board; the position of the broken egg shells indicates the cause of trouble or illness. Other methods are to examine the entrails of chickens or other domestic animals.

A riew don sap pyinkhiah, are those with *ka sap*, divine talent or gift of healing. They treat stomach aches, headaches, boils, toothaches and other minor ailments, mainly through prayers and may administer water, oil or limestone paste.

The most sought-after healer is the *syiem saad*, the high priestess of the kingdom of Khyrim, cultural and religious seat of the Khasis. The *syiem saad* presides over the annual religious ceremonies of the Nongkrem harvest dance. She specializes in *thlen*-related problems. Most come fearing that they have been marked by the followers of the *thlen*.

A cleanly-cut tear in their clothes may have been excised to appease the *thlen*. Marked victims may succumb to severe physical or mental illness and they seek preventive treatment to ward off the curse. *Narsaw*, the treatment, consists of prayer and touching the clothes or hair with the tips of two hot iron rods. The person need not come in person, an article of clothing or grains of rice from their home may be sent instead^{vi}.

The *syiem saad* who sees both Khasi and non-Khasi clients for counselling and healing had this to say: “I pray and say whatever words of reassurance that come into my head, trying to recall what my mother used to do and then use the *narsaw* treatment. I do not use chants or mantras, only prayers to *U Blei*, ‘help me to help my people, heal them’. During some sessions I say rather authoritatively to the client, ‘You are in the land of the living, do not be afraid’. The words of the one with faith are very powerful”.

There have been instances when the *syiem saad* or the “gifted person” prays over the client and declares that she/he cannot get the answer, there is no spirit involved, and advises that the client be taken to a doctor of modern medicine. Invariably an organic cause is detected and the patient is healed.

Christian influences on the Khasi culture

Colonization brought Christian missionaries in its wake and Christianity is now the predominant religion of Meghalaya. But many indigenous social, cultural and religious traditions have survived and remain embedded in the psyche and behaviour of the Khasis.

The westernising influence of Christianity, rapid urbanisation and uneven economic development has brought social upheavals and like indigenous peoples elsewhere, there is high unemployment, alcoholism, and poor health and education services, especially in the rural areas (NFHS 3, 2007; Statistical Handbook Meghalaya, 2003). There is considerable need for psychotherapy and counselling services in this region, and currently there are only a few modern practitioners available to support this need. However, there is still a strong support system of traditional and cultural practices of the Khasis and Jaintia that contribute substantially to the alleviation of physical and mental illness and the emotional wellbeing of these communities.

Christianity has made significant incursions into the cultural practices of the Khasis. The church has labelled many ceremonies, including dance festivals as ‘heathen’ and ‘evil’.

This has led to the loss of many cultural and traditional practices in music, dance, drama and ceremonies customarily observed at birth, death and other occasions (Bareh, 1997). Visiting the *nongkñia* for ritualistic healing is also discouraged. But many Christians still seek traditional healing, especially for emotional problems, as seen in the following case summary:

A 28 year-old female Khasi university lecturer with a postgraduate degree in social work, who is a practising Christian, lost her (Christian) father in 2006. A few days after the funeral, she became listless and weak with malaise, fainting spells and loss of appetite. She was taken to a modern hospital where she was treated with sedation and supportive care, with partial relief. Without recovering fully, she was discharged after three days of hospitalization. Her maternal grandmother, who still practices the traditional Khasi religion now took over and performed the customary ceremony of appeasement of the dead soul. She prayed over the traditional *shang kwai*, a bamboo basket containing betel leaves, lime paste and areca nut during the ceremony^{vii}. In her prayer the love of the departed father for his daughter was acknowledged (she was his favourite child) and she asked him to now leave his daughter in peace to get on with her life. She then turned to her granddaughter and said, “He has gone now and you’ll be well”. And so it was, from that moment her symptoms never returned and she is well to this day.

Your perceptions, your own understanding, your own attitudes, your own beliefs concerning your illness are unique. They are unlikely to be understood, appreciated, or shared by most doctors. But doctors in general, due largely to their insufficient training in psychology, tend to focus on the disease and ignore the subjective appraisals and reactions of patients to their illnesses. These beliefs are symptomatic of the manner in which medical science is construed, defined and practised in Western societies today. In fact, focussing on the body, namely, the disease and ignoring the mind of the patient, medical science has succeeded where the greatest philosophers from times ancient to modern, have failed in resolving the metaphysical dualistic mind-body problem. (Laungani, 2003, p.169, 170)

What appears to be lacking in cross-cultural research is a good and robust guiding theory- a unifying paradigm. Whether such a theory will emerge and how such a theory will be tested are questions to which no clear answers are available (Laungani, 2007, p.104).

Laungani's definition of culture and his description of its features find resonance in Khasiculture. Laungani makes the point that each culture has something of value to offer. What can the Khasis contribute? Perhaps the most significant is its gender equality. In a country where patriarchy is dominant, sons are valued while female feticide and girl-child neglect is rampant; the sex ratio of 933 females to 1000 males is noteworthy. Among the Khasis and Jaintias, the birth of a baby girl is a joyous event. In the Indian context, the important role of women is unique to Khasi society and has survived the onslaught of Christianization and its emphasis on patriarchy^{viii}. This is reinforced when one compares the Khasis to the Nairs, the other matrilineal society in India; the latter women lost their right to inherit property by an act of law passed in 1975.

In less than 30 years this has had repercussions, with profound negative implications on the women's position in the family and in the society. The Nair women have become devalued as women elsewhere (Aravamudan, 2007). However, the Khasis have to be watchful, lest they go the Nair way, for there are voices in their society who are calling for a change of the traditional ways.

In illness, whether physical, mental or emotional, Khasis seek out healers who will diagnose the cause of the illness, which may be located in the patient, the ancestors or in the community. Some of the illness will be declared to have a physical cause and the healer will use herbal treatments. The patient may even be referred to a modern doctor. But at times the cause of the illness is attributed to spells cast by evil spirits. This would call for "religious counselling or demonological therapies" as described by Laungani (2002a). Irrespective of the cause, or category of healer, the diagnosis and prescribed cure is obediently and unquestioningly accepted and followed. In this respect the Khasi client is much like his fellow citizens in the rest of India, regarding, as Laungani says, the therapist as an expert whose methods or cures are infallible (2007; 1997).

Once again, the inadequacy of modern doctors to consider the patient in the milieu of his belief systems, perceptions and belief systems has been demonstrated. Most Khasis, especially in the rural areas, will go to modern doctors only for obvious needs such as surgery or difficult labour and delivery. For most illnesses they seek out the local healer (Lyngdoh, et al., 2007). Laungani bemoans the tendency of doctors to focus on the disease, ignoring all else. This he ascribes to the lack of sufficient training in psychology.

An appropriate definition of stress should reflect to a large extent the social and philosophical pre-concerns of a given culture. The word stress itself is not easily understood in India. There is no equivalent word for stress in the languages of India; its meaning has to be gleaned from a variety of social, philosophical, psychophysiological, and somatic-symptomatic indices. (Laungani, 1996, p.31)

There are no equivalent words for 'stress' in the Khasi language as well, a discussion with a group of bilingual Khasis brought forth the following words as close equivalents; *jing sngewsih*, sadness, *jingthait jabeing*, tiredness of the brain, *jingswai*, feeling lost, *khuslai*, worry and *sngnew blaw*, feeling lonely. Most often a trained counsellor will counsel in the local language. The word 'stress' is indicative of the many words that counsellors will need to translate for use in their practice or research. Translation is fraught with difficulty, especially when applying practices from Western to another culture.

In a treatise on 'cultural-preparedness' for counselling (Arulmani, 2008), it is recommended that an evaluation be made of the belief system and attitudes of a particular culture to help determine the nature of psychotherapies that will benefit them. Methods of counselling that emerged in the West were created in response to needs expressed from within Western culture; where conditions could be created that were necessary and sufficient in that context for a particular approach to counselling. But the same conditions may be neither necessary nor sufficient for a people who have a different cultural heritage (Arulmani, 2008). To make counselling relevant it would be useful to ascertain the 'cultural preparedness' and to shift the approach from 'client-centred counselling with culture-centred counselling' as Laungani (1997) recommended. Laungani (2005) even suggests the building of bridges that would allow counsellors from different persuasions to function in tandem.

It is only in recent years that institutions have started offering courses in counselling and psychology in Meghalaya. The instruction and interventions continue to be based primarily on Western models. Laungani's writings prompt the inclusion of cross-cultural psychology in the syllabi, to sensitise the new generation of counsellors and psychologists to these issues.

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Notes

1. The UNESCO definition of indigenous peoples has been referred to (UNESCO and Indigenous Peoples, 2006). <http://portal.unesco.org/ci/en/ev.php>.
2. The northeast region of India was a corridor for early migrations between the Indian landmass and Southeast Asia, China and Australasia. It is a genetic melting pot of Mongoloid, Australoid and Caucasoid peoples and has been populated from the paleolithic era, perhaps for 70,000 years (Reddy, et al., 2007). The region is home to seven states, largely inhabited by indigenous peoples, numbering about 220 tribes, each with their own language. These indigenous communities have lived continuously in this territory and have a historical continuity with pre-invasion and pre-colonial societies. They are mostly of Mon-Khmer or Sino-Tibeto-Burman heritage with their own languages, cultural patterns, social institutions and legal systems.
3. The Khasi country was a confederation of several *syiemships* or kingdoms. The Khasis instituted the system of *syiemship*, by ordaining a royal clan, *Jait Syiem*, from whom the *syiem* (king) or ceremonial head of state was chosen. *Syiemships* had democratic foundations, and safeguards were put in place to prevent the *syiem* from being autocratic (Bareh, 1997). The *syiem* presides over a *durbar* or council of ministers which holds most of the political power. In the Khyrim *syiemship*, culturally and religiously the most important kingdom, the *syiem's* sister the *syiem saad* is the custodian of state rituals, her oldest son could become the next *syiem*, and her daughter the next *syiem saad*. To this day almost all the *syiemships* continue to exist and function, although their powers have been diluted through merger with the other *syiemships* under the KHADC (Khasi Hills Autonomous District Council) by a special provision of the Indian Constitution.
4. During my (Glenn C. Kharkongor) childhood in the Khasi hills, my grandmother would often warn us to stay away from strangers, especially those that tried to entice children with sweets. They might be followers of the *thlen*, seeking to ensnare easy victims.
5. Egg breaking rituals are prevalent among other cultures extending from South East Asia to the Polynesian Islands (Chowdhury, 1996).
6. The appointment was made on behalf of the first author by a member of the Syiem clan. Her family had converted to Christianity and had thereby given up any family claim to the *Syiemship*. The current *Syiem saad* is a former schoolteacher. Her brother, the reigning *Syiem*, is a doctor of modern medicine.
7. *Kwai*, a folded betel leaf with a streak of lime paste eaten with areca nut, is served in a traditional handwoven bamboo basket. It is an integral part of Khasi culture and is associated with interesting folklore about its origins and importance. It is offered to all visitors to a Khasi home. A meal would be considered incomplete without chewing *kwai*.
8. The Seng Khasi, literally Khasi Society was founded in 1899 (Singh, 1994) to protect Khasi culture, especially from Christianity. Members of the society are adherents of the traditional religion.

Exercises

1. Pittu Laungani (1936-2007), an Indian multicultural counsellor, was a research professor of psychology at Manchester University, UK. He was one of the first to point out that the Euro-Western model of counselling and psychotherapy was inapplicable to Indian society. To reach this conclusion, he examined several key issues - religion and spirituality, individual and community, personality, stress and mental illness, and, death and bereavement.

He proposed a four-fold conceptual model to explain differences between western and eastern cultures: individual-collectivism, cognitivism-emotionalism, freewill-determinism, materialism-spiritualism, with each pair of factors representing a continuum. This model explains the difference between Eastern and Western worldviews:

Discuss and explain the difference in these pairs of factors:

a. individual-collectivism

b. cognitivism-emotionalism

c. freewill-determinism

d. materialism-spiritualism

2. Scattered through the hills of the state are numerous *law kyntang*, sacred groves or sacred forests. Discuss the following:

a. The cultural role of sacred forests in tribal life.

b. The importance of sacred forests to the traditional healers

3. An appropriate definition of stress should reflect to a large extent the social concerns of a given culture. The word stress itself is not easily understood in India. There is no equivalent word for stress in the languages of India; its meaning has to be gleaned from a variety of social, philosophical, psychophysiological, and somatic-symptomatic indices. (Laungani, 1996, p.31)

What are the words for 'stress' in your language. Write some of them down with an explanation in English.

Traditional Health Practices
*Doktor Kot, Doktor Sla – Book Doctors, Plant Doctors and The
Segmentation of The Medical Market Place in Meghalaya, Northeast
India.*

Sandra Albert, John Porter and Judith Green

Introduction

In India, as in many low- and middle-income countries, a majority of health care, particularly for the poor, is typically provided by what are often termed ‘informal’ health care providers (Bloom 2011). In practice, this includes a rather ill-defined group of practitioners with variable training, who are typically not registered with a regulatory body, and largely provide fee-for-service care (Cross and MacGregor 2010; Sudhinaraset et al. 2013). What unites them is that they work on what Pinto (2004) calls the ‘margins of legitimacy’: a shifting boundary, as the formal sector incorporates, subjugates or excludes particular spheres of expertise and practices (Cross and MacGregor 2010). From a policy perspective, this sector is largely framed as a problem, in that it either demonstrates deficiencies in the provision of state-sanctioned services, or provides sub-standard care (Rao et al. 2011; Sudhinaraset et al. 2013; Bloom et al. 2011). However, as Cross and MacGregor (2010) argue, the practices of boundary making between different market sectors may be as much about shoring up the legitimacy of biomedicine as managing threats to health. This paper considers the boundary between one group of ‘informal’ providers, the traditional tribal healers of the Khasi hills, in Meghalaya, northeast India, and the biomedical sector, to shed light on how expertise niches are constructed within changing health markets and policy environments.

India has long been the paradigmatic example of a pluralistic health care market, with the co-existence of multiple systems of both codified and non-codified ‘traditional’ medicine along with both formally trained and informal allopathic, or biomedical, practitioners (Shankar 1992; Lambert 2012). How these diverse healing practices are best classified is highly contested (Lambert 2012; Attewell 2016; Attewell et al. 2012; Hardiman 2009). The specific mix and availability of practitioners varies considerably across the different regions of the country (Lambert 2012; Prasad 2007; Payyappallimana and Hariramamurthi 2012), and the relative legitimacy of different practices has varied historically in response to the professionalising strategies, shifting state support and alignments of particular political and medical projects (Broom, Doron, and Tovey 2009; Khan 2006; Hardiman 2009). Biomedical practices do not necessarily enjoy hegemonic dominance: Kudlu (2016), for instance, has recently documented the processes of commodification and ‘pharmaceuticalisation’ of Kerala Ayurveda as in part a crafting of legitimate alternatives to biomedicine. Indeed, the codified traditions outside the allopathic sector, now known as AYUSH (Ayurveda, Yoga, Unnani, Siddha and Homeopathy), are being increasingly mainstreamed through national health policy (Albert and Porter 2015). However, political processes of inclusion inevitably have their exclusions (Attewell 2016), and AYUSH practices neither represent all non-allopathic traditions in India, nor are common in all regions of the country (Albert et al. 2015; Prasad 2007). Other traditions, as yet without professional regulation or codified systems of knowledge, are now being referred to as Local Health Traditions (LHT) in Indian policy

documents (Gol 2002). They are significant providers of health care in many areas, providing a diverse range of therapeutic interventions, and with changing relationships with both biomedicine and the AYUSH sector (Lambert 2012; Attewell 2016). In Meghalaya state, in northeast India, the indigenous tribal traditional healers of the Khasi and Garo communities are perhaps the largest group of health care providers outside the public sector, particularly in rural areas. However, their practices are largely undocumented, apart from ethno-botanical studies of their medical plant therapies (Rao 1981; Tynsong and Tiwari 2010; Roy et al. 2010), and little is known about how they manage the border with biomedicine.

The Health Care Market in Meghalaya, Northeast India

Of India's population of 1.21 billion, 8.14% are classified as 'tribals' (Registrar General & Census Commissioner 2013). Indigenous ethnic groups are notified as Scheduled Tribes as per provisions contained in Clause 1 of Articles 342 of the Constitution of India (NCST 2005). Scheduled Tribes are found across the country, but are mainly concentrated in the north-central and north-eastern parts of the country (Ministry of Tribal Affairs 2013). In Meghalaya, a state in northeast India with a population of around 3 million, 86% of the population are classified as Scheduled Tribes, mainly belonging to the matrilineal Khasi-Jaintia and Garo tribes. The Khasi Hills Autonomous District Council (KHADC), a traditional governance body with constitutional powers to legislate on cultural matters, passed the 'Protection and Promotion of Khasi Traditional Medicine Act' in 2011 (KHADC 2011). The preamble to this Act states that Khasi Traditional Medicine is accessible, affordable and efficacious, that it provides opportunities for livelihoods and trade and helps in the conservation of biodiversity. The preamble also avers that Khasi traditional medicine is under threat from depletion of medicinal plants, inadequate documentation and transmission, and domination by other systems of health care.

In rural Meghalaya, the health market mainly comprises a state-funded public sector, providing allopathic medicine, which is free at the point of delivery, and a fee (or goods)- for-service sector of tribal indigenous traditional healers. The private biomedical sector that is increasingly playing a major role in health services elsewhere in the country is small, and relatively confined to the capital city of Shillong (GoM 2009). Prior to the National Rural Health Mission (NRHM) initiative of the government, the public health sector primarily focused on providing allopathic services; however, more recently, there has been a national-level policy of also promoting AYUSH in the region (Gol 2008). However, as yet, AYUSH services have little traction with either local policy-makers or the public in the region (Albert and Porter 2015). A survey of 588 households conducted in 2010 in rural Meghalaya (Albert et al. 2015) identified widespread awareness and use of public allopathic and tribal sectors, with the majority (85%) of households 'sometimes' or 'often' using tribal healers and 46% having done so in the last three months, and 91% having visited local biomedical services. Few, however, had used any AYUSH services, and most respondents were unaware of Ayurveda or other AYUSH traditions.

In the Khasi hills of Meghalaya, the indigenous tribal traditional medicine practiced is referred to as *nongai dawai* and the medicines and medicinal plants that the healers use are referred to as *dawai khasi*. Knowledge of these plants and other therapies is not codified, but instead draws on ancestral knowledge and inheritance, apprenticeship, a notion called *sap* (meaning potential or talent), and experiential learning (Albert, Porter, and Green 2015). The right of indigenous peoples to their traditional systems of medicine has been affirmed by the United Nations General Assembly, which adopted the United Nations Declaration on the Rights of Indigenous Peoples in September 2007 (United Nations 2008). Article 24 of this resolution states that *Indigenous peoples have the right to their traditional medicines and to maintain their health practices, including the conservation of their vital medicinal plants, animals and minerals*. Given the importance of tribal healing traditions in the health care markets of Meghalaya, and in the context of current policy initiatives to promote both allopathic and, more recently, AYUSH health care in the region, there is an urgent need to understand more about how health care is currently provided by existing healers. Focusing on Khasi healers, this study aimed to explore how traditional healers, practicing *nongai dawai*, carve a space for practice in relation to their border with the state-supported biomedical sector in the region.

Methods

This study drew on multiple sources of data, including in-depth interviews with Khasi traditional healers ($N = 24$) and policy stakeholders ($N = 46$) (local policy-makers, health administrators and biomedical practitioners); three focus group discussions with traditional healers (including a total of 25 practitioners, of whom 12 were also interviewed individually) and ethnographic observations of healers' practices, forest herb gardens and clinics. In-depth interviews with policy stakeholders were mostly conducted in English by the first author, and those with tribal healers were largely conducted in their own local language, by trained bilingual local research assistants. The majority of interviews with healers lasted over one hour, and covered career histories, experiences of treating patients, and relations with the wider health market. The interviewees were sampled purposively to include a range of experience and gender from four different districts. Recruitment was informed by extensive discussions before fieldwork with office bearers of grass roots organisation of healers, civil society activists, and local researchers to identify an initial sample of healers who had a substantial practice, and were not operating solely as traditional birth attendants or as occasional practitioners. Snowballing, by asking participants to suggest other healers, was used to identify further individuals.

All interviews and focus group discussions were audio-recorded, transcribed verbatim and then translated if necessary, into English by the interviewer. Words with no agreed English translation were retained in original Khasi, with explication in parentheses, and later rechecked in discussion with others in the community. Approximately, half the Khasi transcripts and translations were compared and checked by a bilingual elder to refine the translation. Analysis used a thematic content analysis approach, but with the incorporation of some elements of grounded theory, such as detailed open line by line coding of the first five transcripts, to ensure that the team had explored all potential avenues of analysis (Green and Thorogood 2009). The challenges of analysis using translated data are well documented (Pitchforth and van Teijlingen 2005, Larkin, de Casterl'e, and Schotsmans 2007). Here, the close involvement of bilingual indigenous research assistants in the team, together with detailed discussions of particular phrases and words within the focus groups, and with research assistants, elders and other members of the community, was essential for developing the analysis. We have retained Khasi words italicised in transcripts for terms where the English equivalents were most problematic. Transcripts are tagged with a note of the source: in-depth interview with Khasi healer (KH), interview with policy stakeholder (SH) or focus group (FG); gender of speaker (M or F) and participant's number.

Results

The healers interviewed included both men (17) and women (7), as both genders become healers, with little apparent gender division of health care work: men (for instance) can cater to pregnant women, and perform the duties of traditional birth attendants. Formal a diploma or bachelor's degree. Most worked from a dedicated clinic. Medicinal herbs were largely gathered from nearby forests, with some travelling further afield to gather herbs, and most (14) in addition sourcing plants from assistants or other suppliers. Their therapeutic practices included primarily plant-based remedies, utilising hundreds of largely locally sourced plants (which were called 'herbs'), manipulations such as massages with medicated oils or balms and application of herbal poultices. Less often mineral and or animal produce were also used in their preparations by some healers.

Tribal healers described themselves as *nongai dawai*, and distinguished their sphere of practice first from that of the local ritual healers, termed the *nongknia*. A majority of the tribal healers in this study identified their religion as Christian (21/24), an identification that was important in the distinction they made between themselves and the *nongknia*, who followed an indigenous religious faith:

A *nongai dawai* traditional healer can be from any religion. [...] He dispenses medicines to people who need it. He can be a priest or a pastor or an ordinary man it does not matter. But a *nongknia* does not give medicine but he performs prayers, rituals to find out the cause of the sickness and the cure to it. For example, if a patient comes to me and asked me to pray for him, I will pray, but I will not know how to perform rites and rituals. (KH035, M)

Doktor kot and doktor sla: practicing covertly on the margins of biomedicine

A second, and more pervasive, distinction drawn by Khasi healers was between them- selves and those who were known as *doktor kot* or ‘book doctors’: practitioners recognized as trained in bio- medical systems. In contrast to *doktor kot*, with formal medical education and credentials, healers described themselves as *doktor sla*, ‘plant doctors’ who rely on knowledge acquired from plants and the forests. Across the interviews, healers made references to the greater formal knowledge and prestige of those who worked in ‘proper settings’:

Biomedical doctors are *doktor kot* [book doctors] where they learn in a proper setting whereas we are *doktor sla* [leaves/plants doctor] whose knowledge has been passed down from one generation to the other. (FG2 KH028, M)

Yes, I have mentioned to you earlier that we consider them as *doktor kot* [book doctors] who knows a lot more than we do. (KH013, M)

A shared understanding that tribal traditions had lower status, and less legitimacy, was evident in the way in which traditional therapies were reported as often hidden from ‘book doctors’ when patients used biomedicine and tribal medicine consecutively or simultaneously. Healers’ narratives suggested a tacit understanding between them and their patients that the benefits of their therapies would not be recognized by the *doktor kot*. Thus, biomedical doctors tended to be kept in the dark on this multiple help-seeking:

The [biomedical] doctors do not know, when patients go to them and the patients say they are taking the herbal practitioners medicines they become furious. When these patients come back from the doctors, we have to massage them. (KH011, M)

The assumption that tribal medicine would be mistrusted by the formal sector meant that therapies were at times provided covertly. This could be particularly challenging for patients being treated as hospital in-patients:

I go to X hospital [large tertiary care referral centre in the capital city, Shillong] frequently to visit the patients with fractures, I apply my medicine on them pretending I am their relative because I am afraid and timid of the nurses and the doctors finding out I am a herbal [tribal medicine] practitioner. (KH018, F)

This hybridity suggests both porousness of the boundary between their practices and those of the allopathic sector, and the unequal flows across it. This was a border which healers and patients clearly manage to navigate, despite the threats of criticism from bio- medical practitioners. In interviews, healers were often careful to acknowledge their respect for the biomedical sector, suggesting cases that did not respond to their therapy were referred on to biomedicine, and reporting on occasion seeking biomedical interventions for themselves or their family. However, they also presented some conditions as ‘belonging’ more or less appropriately to their own or to allopathic spheres. Certain ill- nesses were discussed as ones for which tribal medicine is the only reasonable, or the preferred, option, and others as ones that were best seen by biomedical doctors. Healers reported undertaking an initial triage at consultations to ensure that patients are consulting appropriately:

It depends on what kind of a condition one is suffering from. Some conditions can be cured by using Khasi herbal medicine (*dawai khasi*) whereas some conditions are cured by using foreign/ biomedicine (*dawai phareng*). If I understand that I cannot treat them, I send them to others accordingly. (FG2, KH030, F)

Market segments and expertise niches

To understand these claims of appropriate allocation of conditions to different health providers, we mapped out the various contexts and situations in which healers reported either treating or referring patients, and the types of problems that they, and others, considered were within their expertise niches. In the context of a more legitimate biomedical sector, tribal healers first claimed to occupy a back-up ‘second stage’ of help-seeking, for problems that were either not solved by biomedicine, or for which a second opinion was

sought for confirmation. Second, healers (and others) reported that they were considered a first port of call for a number of conditions, including some for which their expertise was widely known to be superior, and others which were not treated by biomedicine, either because of its inherent exclusions, or because there were more pragmatic local constraints in access.

Khasi healers reported treating a wide variety of disorders. From lists elicited at interview and described in their narratives about patients, these disorders included stomach problems, diarrhoea, skin diseases, boils, abscesses, bites and stings, fevers including malaria, injuries, jaundice, cancers, childhood ailments (e.g. *ñiangsohpet*), pregnancy-related ailments, 'intestinal fevers', piles, intestinal prolapse, strokes, high blood pressure, kidney stones, urinary tract infections, infertility, fractures, slipped disc, and other musculo-skeletal problems. Healers also described and demonstrated a wide repertoire of treatments, and most operated as generalist practitioners. However, many were recognized (by patients and other healers) for being especially skilled in dealing with certain conditions such as burns, spinal problems or fractures. Even healers who consider themselves 'well known' (*tip bha*) as specialists in particular conditions would also treat other ailments, although many were careful to explain that an initial assessment of the patient (using observation, questioning and physical examinations) would be used to decide whether they should more appropriately be sent to the formal sector:

But one thing is that I don't lose hope because from the first visit just by feeling and within two minutes I can understand whether I can help that patient or not and I don't lose hope easily and I even tell my patients that they will be cured. But if I understand that I cannot help them, I send them to allopathic doctors. (KH005, M)

Problems for which traditional healers are the first port of call

Some conditions were prime candidates for *doktor sla* because they had no obvious equivalent in biomedicine. These conditions were commonly referred to by their indigenous terms. For example, *lait thied sohpet* was a term which healers expected the indigenous research assistants to be familiar with and understand. And they did – but they struggled to explain (to the lead researcher) what exactly it meant, stating that this was a condition well known in Khasi culture. Loosely, the term described a condition of the navel affecting the nerves, which occurs specifically when a person lifts something heavier than their own body weight. Other examples of conditions which were challenging to translate were *ka bih*, often referring to a poison or toxin, and *jingshit ha kasnier* which can be translated literally as 'fever of the intestines'. The diagnosis of *jingshit ha kasnier* could be made by exclusion, after patients consult biomedical practitioners with symptoms, but fail to recover. As this healer explains, the success of herbal treatment demonstrates the diagnosis:

jingshit ha ka snier [fever of the intestines], I send them to the [biomedical] doctors and the doctors try to figure out with their tools what a person is suffering from, but they cannot figure out. But for us traditional healers we have the talents and we try to figure out what the person is suffering from. If we suspect a person having *jingshit ha kasnier*, we treat the patient with the herbs for that particular disease. If there is any kind of relief and improvement in the patient, then that means the person had *jingshit ha kasnier* [...] Yes, in order to search for the truth we take the help of herbs. (KH004, M).

In a similar vein, a commonly cited condition for which traditional treatments were sought was *ñiangsohpet*, a problem of infancy or childhood, which was described as covering symptoms that might indicate conditions such as infantile colic, indigestion or diarrhoeal disease in early childhood. Again, this was considered curable only with traditional therapies:

Us rural people do not use foreign medicines [biomedicine] especially for *ñiangsohpet* we give our own herbal medicines. (KH011, M)

In the focus group discussions, healers' understandings of *ñiangsohpet* were explored in more detail. It emerged as multiple and complex, with difficulties in delineating agreement over symptoms, categories and precise treatment regimes. As the following extract shows, despite debate around the typologies, agreement centred on the appropriateness of traditional treatments, orientated towards the underlying cause, rather than biomedical therapies which might treat symptoms, but not the condition itself:

KH029 F: When a baby passes a stool, some of it is green in colour, in some it is watery in nature, in some blood is mixed along with it... If you go to [an allopathic] doctor, they will tell you that it is dysentery. If it is really dysentery, how can the baby survive? But if you go to a traditional healer, they will tell you that it is the *ñiangsohpet* and they have their own names, *ba saw* [red], *ba jyrngam* [green] and they also have different medicines for each of them.

KH028 F: *Niang saw* [red], *niang stem* [yellow], *niang iong* [black].

KH030 M: The *niang stem* [yellow] *ñiangsohpet* if it is not treated/cured properly, later on it can turn into *jingpang stem* [jaundice], and if the *niang saw* [red] *ñiangsohpet* if it is not cured properly, the person can have skin diseases later. ...

KH029 F: That is why it is important that parents should seek traditional help. If they seek help from [allopathic] doctors, babies will gain weight and look like they are healthy but it can affect them later on in their life. (FG2)

Another group of healers attempt to map the condition onto biomedical notions of aetiology, with the help of a trained birth attendant (TBA). Despite their attempts to explain with reference to (biomedical) doctors' practices and links to biomedical diagnoses such as TB, they reiterate that biomedical tests are unlikely to find the causative agents, and that biomedical doctors are likely therefore to treat it inappropriately:

Interviewer: Ok, let's talk about something else. What is *ñiangsohpet*?

KH016 M: According to my findings, it is the digestive system that is not functioning properly [...]

KH017 F: It is the *jakhlia* [unwanted/impure substance] that enters the baby's mouth during birth. There is something in the baby's mouth and it enters into his system while opening his mouth for the first time while crying. We do not have a name, therefore we called it *niang- sohpet*. But traditional birth attendants know about it very well.

KH019 F: I am a TBA and to explain it to you, especially in English, is very difficult. At the time of birth, when you look into the baby's mouth you will find something is there. Doctors advise us to take a clean muslin cloth and wipe it. If you apply any kind of medicine or if you do not know how to wipe it, then the baby will swallow it, which can later form other kinds of diseases like TB glands and many others if not treated properly.

Multiple respondents: Yes, yes. [...]

KH020 F: The main thing is from the liver that causes the stool of the baby to become green or yellow. I believe in the Khasis when they say *khniang* [insects/organism causing diseases] but if a [biomedical] test is done, they cannot find any *khniang*, and if they find anything wrong they start giving the baby antibiotics. Six months they have to take, how can a small baby take in so much of medicine? (FG3)

Clearly, *ñiangsohpet* was difficult to express in terms that would translate to biomedicine, and healers struggled in these attempts to link their explanatory frameworks with those they understood from encounters with the biomedical sector. In short, *ñiangsohpet* was one of a number of conditions considered unlikely to be adequately treated by allopathic practitioners simply because it did not fit it into biomedical nosology. For such conditions, healers could claim a near-monopoly of legitimate treatment regimes.

A second group of conditions for which traditional healers might be preferred was those for which they have a recognized superior expertise. The prime example here is the management of fractures and other musculoskeletal disorders. Fractures were diagnosed with massage techniques, then set using an emulsion of a teaspoonful of a powdered tree bark, gently applied to the patient's wrist. A roll of gauze binds the wrist as the emulsion is applied to each layer of the gauze (Figure 1). Eventually, on drying, the material hardens to something akin to a light plaster cast. It was not only the healers that made claims for their own expertise for musculoskeletal problems: interviews with policy stakeholders also cited the superior skills of Khasi healers, and indeed some reported seeking treatments themselves, either in childhood, or more recently, as this senior bureaucrat describes:

The advice I was getting was that, why don't you look at traditional healer, they said it would set it [damaged foot] straight, by using a sort of a massage therapy and putting some local ointments and all that. So since I envisaged that there was no side effect, there was no harmful effects, so why not try it ... so I used it and I felt good at the end of the day, at the end of the treatment, so I'm quite okay now. (SH028, M)

In interviews, both biomedical doctors and local health department policy-makers were at times dismissive of the efficacy of traditional medicines: as one doctor said, 'we have to go by documented proof (of efficacy). I have not, have not seen so far' (SH030, M).

However, when it came to fractures, many not only acknowledged patient preferences for tribal healers, but also their efficacy:



Figure 1. Healer tending to a fracture in an elderly woman.

They [traditional healers] will do their massage, align the bone or if it is dislocation put it back and then they'll give some, apply some medicine and it really heals very, very fast. (SH032, F)

Community preferences were also cited by healers, if not local policy-makers, for another category of conditions for which they might be a first port of call: those that potentially required surgery, which was widely reported as particularly feared locally. Healers acknowledged in interviews that surgical intervention might not be avoidable, but they also described a range of measures used to manage certain conditions without the necessity for biomedical surgical interventions. Abscesses, for instance, could be managed without incision by herbs:

Here in my village most of the people prefer traditional medicine especially for *thung* [kind of an abscess] or for *bampong* [cancer]. If there is an abscess and pus started forming around it, I treat by applying herbs and gave the patients some medicine to take it orally and all the pus will come out by itself and the patient gets cured. (KH036, F).

Filling in the gaps of biomedicine

If traditional healers had particular recognized niches of expertise, for conditions that were agreed as more appropriately or preferentially allocated to the traditional sector, they also treated a large number of ailments for which patients reportedly considered, or preferred, allopathic treatments if they were

available. For these, Khasi healers presented themselves as primarily filling 'gaps' in state-provided biomedical provisions. This included gaps that emerge from problems of access, where (in rural areas at least), bio- medical services might be unavailable, particularly in emergencies at night, or in remote areas:

But for us especially in the rural areas we are there just to aid them, so that they can reach the hospital and not die half way. (KH008, M)

Most of the people who think that the case is very serious they will take traditional medicine only for some relief or improvement until they reach the hospital. For example, if it was at night and somebody is sick, they will come to my house asking for medicine but early in the morning they will go to the hospital for treatment. (KH036, F)

One particularly complex case, where allopathic services would have been the first choice of the healer, was reported of a patient who needed expertise unavailable locally:

I examined the child and told the parents that I could not take any chances, because this was my first experience with such a case and if anything goes wrong the child might die...The child did not have skin over his abdomen and his entire intestines could be seen. [...] The mother took the child to Guwahati Medical College for treatment. (KH008, M)

The parents were then referred from the local clinic to a specialist tertiary care centre outside the state, but were unable to travel there, so the healer reported reluctantly taking the case on, with eventual success (as he demonstrated by showing photographs).

Other gaps in biomedicine related to what were presented as inherent failures of the system itself, rather than gaps in local health provision. In such cases, traditional healers described themselves as being the last resort for those who had failed to find cures or were 'fed up' with ineffective biomedical therapies. The most extreme gap that traditional healers dealt with were those patients who had reached the end of what biomedical services could provide, such as those requiring palliative and terminal care, or those still suffering for whom no allopathic diagnosis could be found. For those who have lost hope in biomedicine, or who have been told that nothing more could be done in biomedical settings, healers reported providing care to ease suffering. Thus, palliative care was also a provision not made (currently) by local public services:

Still there are people who don't come to us [initially]. They come when all doors have shut for them, then they come to us, so it is very late then. There are cases that are very, very late. (KH019, F)

Only few patients come to me directly with their problems without first seeking any other medical help. (KH004, M)

Given the marginality of their practice in relation to biomedicine, though, within such hybrid systems of help-seeking, healers were often careful to position their contribution as essentially complementary, in that it could be used to ameliorate the inevitable iatrogenic disorders of biomedicine. For chronic ailments and convalescence periods, for instance, herbal medicine and biomedicine were reportedly often used together, with herbal medicine used to help the patient recover, while biomedicine tackled the disease. One healer discussed this in the context of cure and recovery from tuberculosis (TB) and its treatment:

I told my patient to visit the CHC [community health centre] and have her sputum tested because it might be a symptom of TB. There are some patients who will not go and insist on me treating them. I tell them that it is better to go to the hospital for a thorough examination and if the reports are positive, then at least for six months you have to continue those medicines provided by the CHC because allopathic medicine are also important and they can cure certain diseases which herbal medicine would take a long time to cure. But there are also some patients who came back to me for treatment after taking allopathic treatment for six months because they say that the medicines prescribed to them are too strong and they feel very weak. (KH013, M)

Again, this account suggests working both against and within the greater legitimacy of biomedical services for conditions such as TB, where accepting a patient for treatment has to be justified (to the interviewer, at least) as resulting from the patient's 'insistence'. But the underlying rationale here, the healer suggests,

is that his therapies ameliorate the enervating effects of biomedical remedies. Beyond such claims for the complementarity of traditional healing were claims for its ‘thoroughness’, in eliminating diseases from their ‘roots’, so as to ensure no recurrence of symptoms. In contrast, biomedical practitioners might only achieve a partial cure, because the roots of the disease persisted, from poison or toxin (*ka bih*) remaining in the body, untouched by biomedical therapies:

KH020: One thing it is also that Khasi medicine can cure diseases right from its roots.

KH007: Yes, from its roots.

KH020: Most of the time doctors prescribed painkillers just to provide temporary relief, but Khasi medicine if you are regular in taking it, it can cure right from its roots.;

KH014: Yes, yes. (FG3)

Flows across the boundary: referrals and investigations

Overall, then, within a hybrid system of health care, some conditions were considered to be the primary province of either allopathic or traditional healers, but most could in practice be treated by combinations of therapies and healers in sequence or simultaneously. This raised challenges of dealing with potentially conflicting requirements of the different systems. Healers were aware of some of the formal protocols used in the allopathic sector, but claimed that some were not in line with community preferences. Home births, for instance, were preferred locally, although government protocols encourage hospital deliveries. Healers therefore had to manage patients in the knowledge that their own therapies are not simply held in low regard, but might also be actively discouraged:

But, Dr X [names gynaecologist from hospital in capital] told us that you should not massage a pregnant woman, but people in our place especially pregnant woman seek it and come for a massage. Other doctors, a paediatrician told us that if a child has diarrhoea/dysentery and vomiting, you should take the child immediately to the hospital, but we give the child herbal medicine and the child is cured. (KH036, F)

Indeed, the codified knowledge bases and practices of *doktor kot* loomed large in the accounts of healers. Known departures from these bodies of orthodoxy were variously defended on the grounds of greater efficacy (in the examples above of specific local conditions) or, as here, by reference to local tradition and community norms. But if *doktor kot* was a constant referent for the healers in accounts of their own practice, there appeared to be little direct interaction between healers and biomedical doctors, and few opportunities for formal referral between the sectors. One exception was of referrals made in cases of suspected TB, which were encouraged through government-sponsored awareness programmes conducted as part of the DOTS (Directly Observed Treatment, Short course for TB) initiative, as well as the work of the local university, which had recently organised training workshops as part of a pilot project to training healers to become DOTS providers in rural areas. Healers reported that they had been eager to learn from this opportunity, but a few narrated conflicts with biomedical doctors at such meetings, and experiences of disrespect stemming from biomedical disdain for their knowledge:

I told them “you come here to make us understand but when we are suggesting something, you throw away our suggestions.” ... I went there because I thought that it will be a kind of training for us to improve ourselves, but instead as they are more educated than us, they criticise and look down at us. (FG2 KH028, M)

However, apart from these limited, and perhaps less than effective, attempts at providing interchanges between traditional healers and the formal sector, many informal routes of exchange were reported. When tribal healers decide that a patient’s problem does not fall within their expertise, they recommend alternative sources of help by making an informal referral. Healers reported ‘sending’, or referring patients to other healers with specific specialisms, but also to biomedical doctors if the case is deemed appropriate, or if they could not effect a remedy over time:

I feel sad when I cannot treat a patient, but I tell them that if you feel that it is not helping you, come and inform me so that I can send (*phah*) you to another *doktor sla* or to a *doktor kot*. (FG2

KH030, F)

And if in a span of three days if the treatment does not help, we tell them to seek help [*pyr- shang*] from others and not to waste their time and money with us. If I understand that I can- not treat this particular condition I tell them to go and visit doctors who are specialized in that particular condition like those *doktor kot*. (KH013, M)

The use of tests and investigations was a second informal space of interchange across the boundary with biomedicine. Directly (verbally) referring patients for investigations, although not frequent, did occur under certain circumstances, but reports of investigation were referred to in many healers' narratives, with some keeping copies of test reports brought in by patients. Investigations that allow a healer to 'see' the pathology within, such as X-rays for fractures and scans for kidney stones, were especially appreciated, but healers pointed out such tests were sometimes requested to reassure patients, rather than to aid diagnosis:

Yes, there are lots of patients that I send for further testing in the hospitals because they do not believe me because I used only my hands and they are scared because they think that my diagnoses might be wrong especially for cyst, tumours and even stones. But if they bring me the report it is exactly what I told them. So first I tell them about what I found out just by touching and looking and if they do not believe me, then I tell them on the same day to have themselves tested in hospitals. (KH010, M)

Like referrals, these requests were informal, and healers felt that biomedical practitioners were unlikely to be aware that many patients were referred for treatment or tests by healers, as they were made orally, unaccompanied by any written notes.

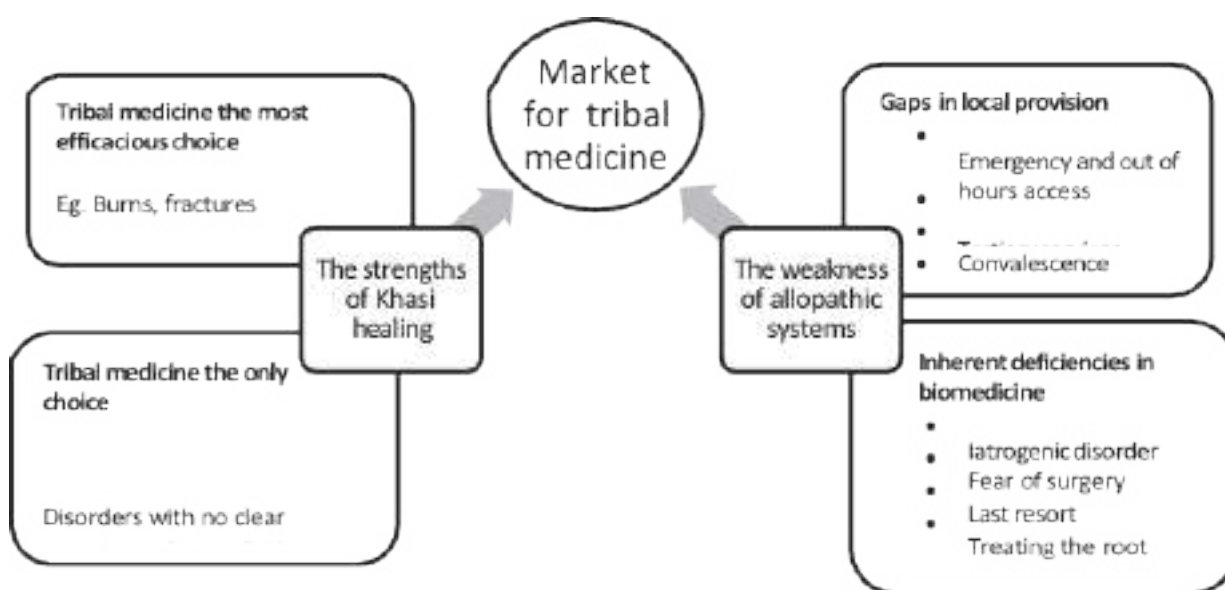


Figure 2. Creating a space for traditional healing on the margins of biomedicine.

Yes, I do send patients to doctors and even to Shillong [capital city]. But they [doctors] do not know that we sent them because we do not give them [the patients] a slip saying that this patient has been sent by me to you for treatment or go for an X-ray and scanning in this hospital. (KH016, M)

Thus, there were several routes of exchange with biomedical services, arising from both recognition of different niches of expertise and the tacit understanding that biomedical tests might confer legitimacy, but these were, in general, not formally recognized as such by the biomedical sector.

Discussion

Cross and MacGregor (2010) note that expertise in health, like any expertise, is located within a context of 'social institutions, moral universes and networks of power'. In Khasi society, this context is a pluralistic health sector in which tribal medicine has marked out a niche of distinct, but overlapping, services from

the publically funded and state-legitimated biomedical sector. Traditional providers frequently reference this sector in describing their own sphere of practice, interpolate their therapeutic regimes with the material goods of biomedicine (for instance, through using tests and making referrals) and they explicitly demarcate their role as providing for both gaps and deficiencies in biomedicine. However, they also make claims to provide for a series of conditions which lie outside the borders of biomedicine, including some ailments for which even the biomedical elite will seek ‘traditional’ care. Within this plural market of hybrid treatment regimes, the state- provided biomedical system has considerably more legitimacy and prestige. Healers in Meghalaya have to carve out their space for practice with reference to this system of *doktor kot* practitioners, and with a clear awareness of their own marginal position as *doktor sla*. As Hardiman and Mukharji (2012) describe, such ‘subaltern’ traditions stand in complex relationships to dominant traditions, with ‘a plethora of micropolitics that constantly evade the control of the molar (i.e. centralising power)’ (2012, 17). Unconstrained by the dogmas of codified traditions, healers manage the flows and boundaries between biomedicine in contingent and multiple ways: variously resisting, ameliorating, and co-opting. Like other subaltern healers, reported from India (Lambert 2012) and elsewhere (Hinojosa 2002), the relationships they negotiate both (at times) directly with *doktor kot*, but more typically on behalf of their clients, are framed within a fragile dialogue prone to disdain on the one hand, and subjugation on the other. This subaltern status was tied, though, to that of their clients: rural communities who suffered with ailments that were not only untreatable by biomedicine, but not even recognized by biomedicine, and whose access to biomedical services was at times constrained by their rural location.

In summary, Khasi healers carve out their sphere of practice by both delineating the particular strengths of Khasi herbal traditions, and by claiming to offset the weaknesses of local state-provided services in particular, and of allopathic practice in general (see Figure 2). They describe their expertise, and subsequent market niche, as formed and managed on the borders of biomedicine, as they triage appropriate conditions for treatment, and present themselves as ameliorating gaps in biomedical services, such emergency care, or palliative care. They make stronger, if less explicit, claims for treating a set of conditions which were well known locally, but which could not easily be translated into biomedical categories. Disorders such as *ñiangsohpet* and *lait thied sohpet* were illnesses that were broadly understood within the community, with no ready translations for the Khasi terms in English, nor any biomedical equivalent. Claims for managing the general and specific deficiencies of allopathic care resonate with the segmentation practices of Ayurvedic practitioners discussed by Nisula (2006), in Mysore, where Ayurvedic healers carved a space in managing the ‘failures’ of (an often first choice) biomedical system and wanted further integration to survive in a plural market. There are also resonances, at a smaller scale, of historically shifting Ayurvedic claims to antiquity, unique appropriateness for a (national) clientele and (later) globalisation, in the claims of providing a universalist alternative to biomedicine (Hardiman 2009). However, in contrast, the recent globalising claims of Ayurveda, Khasi traditions were self-consciously wrought as specifically ‘local’, with diagnoses and therapies presented as intrinsic to a locally resident clientele, not to any globalising or universalist nosology or market.

Thus, Khasi healers adapt to the (current) availability and legitimacy of biomedical services within the community, working at and across its margins, and filling in the gaps in services offered by the public sector. With and (as yet) un-codified system, they continue to provide a substantial proportion of rural health care. Thus far, this has been provided at the margins of the public health system and outside state recognition. The need to develop improved understanding of the informal sector and the medical market they serve has been highlighted in recent papers (Bloom, Standing, and Lloyd 2008; Bloom et al. 2011). This study has suggested, though, that expertise niches in plural markets like those of Meghalaya are likely to be in constant flux, as they are negotiated across shifting provisions of biomedical, and more recently AYUSH, therapeutic services. For healers such as those from the Khasi community, claims for legitimacy currently rest on specificity and localism, rather than any universalist claims. As the orthodoxies of more dominant sectors change in, for instance, recruiting healers within the DOTS programme, or advocating for AYUSH integration (Albert and Porter 2015), healers have to adapt their own positions. Thus, at times, they stressed their complementary role in health care, in mopping up demands which were not or could not be met; at times, they framed their practice as explicitly resistant, in providing a (locally) appropriate service for problems which were not, and could not be, recognized by *doktor kot*. Resistance was of necessity covert: treating hospital patients under the radar, or providing local remedies (such as massage for pregnant women) which were known to be counter to prevailing biomedical wisdom. Community

preferences were offered as rationale, with a claim for localness, and tradition, bolstering the attempt to carve legitimate areas of practice. Formalising traditional practice in Meghalaya might improve the status of local healers in relation to the public sector, and would recognize a sector with more resonance for local communities than AYUSH systems, which are little used in the region. However, any such formalisation is likely to be contingent and fragile, as what constitutes ‘traditional’ practice is clearly shaped by the deficiencies, margins and inherent weakness of the allopathic sector as much as the particular strengths of indigenous therapeutic traditions.

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Exercises

1. The article mentions the "deficiencies, margins and inherent weakness of the allopathic sector". Describe and discuss this topic:

2. The article uses the phrase, "particular strengths of indigenous therapeutic traditions." But indigenous health systems also have weaknesses. Discuss these two aspects below:

- a. Strengths

- b. Weaknesses

3. What are the government and community measures that could be taken to improve the traditional health system

Understanding Unmet Contraceptive Needs Among Rural Khasi Men and Women in Meghalaya.

Pauline Oosterhoff, Badalam Dkhar, and Sandra Albert

Introduction

Access to contraceptives for family planning is widely viewed as essential to a variety of development goals. These include improved child health, reduced poverty and hunger, universal education, environmental sustainability and reduced maternal mortality and morbidity (especially due to unsafe abortions). Governments, UN agencies and non-government organisations therefore emphasise the need to improve access to contraceptive technologies (Disease Control Priorities Project 2007; Lloyd and Mensch 2008; Smith et al. 2009; Cates 2010). In many countries, even those contraceptive technologies that are available remain inaccessible to certain categories of women, such as teenagers and widows, because the individuals concerned are not supposed to be sexually active. Meanwhile, for the world's poorest people, cost is a serious barrier to contraceptive access. The estimated 370 million Indigenous people in the world (United Nations Department of Economic and Social Affairs 2009) are 'behind everyone, everywhere' (Stephens et al. 2005, 10). Health systems all over the world are unable to respond effectively to the reproductive health needs - including contraceptive needs - of Indigenous and minority peoples (Rogow and Horowitz 1995; Oosterhoff, W Aggleton 2011; Oosterhoff, White, and Huong 2011; Both, Etsub, and Moyer 2013; Dijk van et al. 2013; Kwagala 2013). This study aims to contribute to an understanding of the persistent reproductive health gaps between one Indigenous people and the majority population in mainland India.

Contraceptive technologies are not the only means of family planning. Natural methods, such as withdrawal and rhythm methods, are practised by couples in various parts of the world (Okun 1997; Kulczycki 2004; Wiebe et al. 2004). While research is scant, some findings suggest that in certain contexts these methods when combined may only be slightly less effective than the proper and consistent use of male condoms (Rogow and Horowitz 1995; Miller 2003; Hatcher et al. 2007; Jones et al. 2009). Because such natural methods do not protect against STIs, including HIV, their promotion raises practical and ethical questions for reproductive health programmes in many countries. Reliance on withdrawal or rhythm methods is also risky for certain high-risk populations. Yet these methods could provide men and women with low-cost contraceptive options in areas with poor health facilities and weak distribution of contraceptive technologies. Conventional analyses of barriers to service utilisation often overlook the ways in which services fail to engage with local preferences and cultural differences (White, Oosterhoff, and Huong 2012; Dijk van et al. 2013; Kwagala 2013). Recent research in Asia, Africa and Latin America suggests that increasing married women's access to modern contraceptive methods alone will not satisfy their unmet need for contraception (Sedgh and Hussain 2014). Married women often want to plan pregnancies, but they may have concerns about health risks and side-effects that prevent them from using contraceptive technologies even when they are available. They may prefer to use traditional or natural contraceptive methods, such as withdrawal or rhythm methods. It is necessary to acknowledge married women's concerns, and to understand their preferred methods of birth control, in order to reduce their unmet need for contraception. Besides concerns over health risks, women from socially, politically or geographically

marginalised groups may decline to use state-provided contraceptives as part of a broader display of resistance to central power structures. Such opposition can reflect long colonial histories in which groups have escaped the colonial and post-colonial state. In South Asia, this sort of resistance to the state by marginalised groups, such as scheduled tribes and lower castes, has been richly documented in the work of the Subaltern Studies Collective. Similar resistance has been extensively described by James Scott (2009) across the upland communities of the region he terms 'Zomia', a mountainous area stretching from northeastern India through southern China and Southeast Asia. Scott argues that many of the stateless Indigenous and ethnic minority groups in this area have fled the central lowlands to escape state control. Indigenous women's refusal to embrace state-prescribed contraceptives may be analogous to practices such as shifting cultivation and the absence of a written script, which Scott (1990, 2009) views as strategies to avoid state control that resist government efforts at development. Critics of Scott's views, such as Abu-Lughod (1990, 41), warn against the 'romance of resistance': the tendency of academics to project their own privileging of subversion and opposition onto the poor. Other scholars (Michaud 2010) have argued that Scott's sweeping claims regarding Zomia are poorly grounded, given the region's extreme diversity and the paucity of historical and anthropological studies of its 120 million inhabitants. However, anthropologists and historians agree that scholarly overemphasis on the more powerful surrounding states of South and East Asia has resulted in what van Schendel (2002, 647) called a 'geography of ignorance' with regards to the upland societies. State formation in this part of the world has been problematic and contested for many centuries. Indigenous and minority people as diverse as the Tibetans, Hmong, Shan and Karen all struggle for recognition of their land rights, often at the same time as they face in-migration into their territory by majority populations (Fischer 2008; United Nations Department of Economic and Social Affairs 2009; Oosterhoff et al. 2012).

These histories of local contempt and distrust towards central states are part of the broader political context in which marginalised groups respond to family planning. There is a paucity of qualitative studies on contraceptive preferences or attitudes and experience with state reproductive health providers among the Khasi people. This qualitative study examines views on contraceptive technologies and family planning among Indigenous Khasi people in Meghalaya state in north-east India, which has the highest reported unmet contraceptive needs of any Indian state (Institute for Population Sciences (HPS) 2009).

Khasi people and the state

India is home to 98 million Indigenous people, who comprise 8% of the national population (Census of India 2001) and thus almost a quarter of the world's total Indigenous population. Indigenous people in India are often known as 'scheduled tribes' and are recognized in the national constitution as historically disadvantaged. Meghalaya state is part of the 'tribal belts' in the predominantly rural mountainous north-eastern part of India, with a predominantly Indigenous population (86%).

The Khasi people constitute 57% of its population of the state's total population of approximately three million. The Khasi people differ from many cultural groups in India in having a matrilineal and matrilineal family structure, in which the children take the name of the mother's clan and identities are closely linked with maternal lineage (Kyndiah 1990; Bareh 1997). Regarding decision making for the woman's own healthcare needs, 87.5 % of women in Meghalaya say they are empowered to do so, compared to the national average of 62.2%, and 69.8% of men in Meghalaya feel that women should have a say in family decision making compared to 49.7% of men nationwide (HPS 2007, 467). Traditionally the Khasi people have no dowry system. Couples marry by choice, and children born out of wedlock are generally accepted into society. While most Khasi today are practising Christians, co habitation without a formal ceremony or registration is still widely recognized. These significant cultural differences are not well understood in mainland India, where the media employ a variety of stereotypical misrepresentations of Indigenous women and men, including accusations that their women have loose sexual morals or oppress their men. Research in a university setting, however, shows that young adult Khasi students - like their counterparts in mainland India - practice a culture of silence and are ignorant about basic issues of sexual health, contraceptives and sexual rights. Sex education was appreciated by these students (War and Albert 2013). Although Khasi women do have customary land inheritance rights, these are limited to the private sphere. Traditionally, woman do not participate in the political decision-making process; public decisions - including the allocation of public land - are traditionally male domains, which affects

women's ability to advocate for their rights (Nongbri 2000; Subba 2008). The Khasi and other Indigenous groups hold key government positions in the state.

Because the Indian national government is not able or willing to impose taxes on 'tribal peoples', the Khasi - both rich and poor - do not pay income tax. At the same time, the central government imposes economic restrictions on local organisations, such as a ban on directly receiving international funds that limits commercial and social-service initiatives by local people and organisations outside the control of the state.

In recent years, both migration of non-Indigenous people from other states and rising land ownership for commercial purposes - including mining - by outsiders are perceived to be increasing. This has resulted in protests and demands to regulate the entry of outsiders into the state (Rining 2013). Although Meghalaya is one of the most stable states in the North East, there are some violent political conflicts, notably the demand of Indigenous Garo activists for an autonomous Garoland separate from Meghalaya. This demand reflects growing Garo discontent with Khasi political leadership and control over the distribution of state power and resources.

Family planning, contraceptive technologies and choices in Meghalaya

The central government of the federal union of India initiated the world's first government population stabilisation programmes in 1951. Since the 1970s, average fertility rates in India have fallen by half, and use of contraceptive technologies (sterilisation being the most important) has tripled. Family planning programmes in India gained notoriety as a result of a focus on targets in sterilisation programme for men in the early-1970s. According to official policy, men with two children or more had to undergo free vasectomies, but in practice many poor or uneducated men with fewer than two children were believed to have been sterilised in order to meet the targets, even if they were unmarried (Elder 1974). The national government vasectomy programme is blamed for creating a public aversion to family planning, with a particular reluctance to involve men and a focus on women as those responsible for determining family size (Basu 1985).

Today's national family-planning programme, led by the Ministry of Health and Family Welfare, focuses largely on promoting female sterilisation, condom use, intra uterine devices (IUDs) and the contraceptive pill. The concept of 'contraceptive needs' is thus equated by the state with improving access to modern contraceptive technologies.

The implementation of the policy in the 29 states is shared between the union and the states, but results vary widely between states. Meghalaya state receives central government technical and financial support for its reproductive health programmes. Policies are made and budgets are allocated in Delhi and have to be implemented by the state. According to the recent district-level family health survey (DLHS-4) conducted in 2012-2013 (Ministry of Health and Family Welfare 2014), the majority (55.5%) of women in Meghalaya have an unmet need for contraception. The total unmet need for family planning includes those with unmet need for limiting (39.7%) and spacing (15.8%) births. Unmet need for spacing includes fecund women who are not pregnant, not using any method of family planning and who say they want to wait two or more years for their next birth or are unsure whether they want another child or who want another child but are unsure when to have the birth. Unmet need for limiting family sizes includes fecund women who are not pregnant, not using any method of family planning and who want no more children (Ministry of Health and Family Welfare 2009, 2014). The total unmet need has thus increased from 39.7% in the DLHS-3 of 2007-2008.

According to the National Family Health Survey 2005-2006, the contraceptive prevalence rate among currently married women aged 15-49 years is the lowest of any state in India at 24% (HPS 2009, 8). Female sterilisation is the most popular contraceptive technology offered by the state and is used by 8.3% of currently married women (Ministry of Health and Family Welfare 2014, 3). According to the DLHS-4, most people rely on 'any method' (Ministry of Health and Family Welfare 2014, 3) rather than on modern contraceptive technologies. There is poor health awareness; only 26% of women knew that consistent condom use can reduce the chances of getting HIV, and the fertility rate of 3.8 is one of the highest in the country (national average: 2.7).

Contraceptive services are provided free of cost in public health clinics/service centres. They tend to be spread thin and understaffed due to a serious human resource shortage. According to a recent review in the Lancet on human resources for health in India, Meghalaya has just 2.5 health workers per 10,000 residents, the lowest rate of any Indian state (Rao et al. 2011). While the government has invested in the infrastructure of health facilities (in the form of buildings, equipment and beds), Meghalaya state has a serious shortage of trained health staff. All community health centres claim to be open 24 hours a day, but only 14.3% have an obstetrician or gynaecologist (Ministry of Health and Family Welfare 2014, 7). The vast majority of primary health centres (94%) have at least four beds and a residential quarter for medical officers, but most do not actually have a medical officer (HPS 2007; Ministry of Health and Family Welfare 2009). For rural citizens, important primary healthcare providers are the estimated 10,000 traditional healers in the informal sector. A health camp approach - with health staff providing services in mobile settings, such as tents in public spaces - is used to address these primary health-system shortages. To make good shortages in the health system, local accredited social health activists (ASHA) are employed as extension workers in villages and work within a broader Mother and Child Health Programme context.

The health data show that the state does not meet the reproductive and contraceptive needs of the Khasi people adequately. However, as qualitative research on contraceptive attitudes that helps to understand what the data mean is rare, it is not clear what central and state governments should do in addition to or in lieu of existing efforts. With this research, we hope to suggest culturally appropriate interventions that reduce the unmet contraceptive health needs among Khasi people living in rural areas.

Methods

This qualitative study uses the results of research conducted between early-2012 and July 2013 using multiple tools that allow for validation and triangulation. Secondary data were gathered through a literature review of published material using Scopus, PubMed and the Directory of open access journals using the keywords 'India' and 'Khasi' separately and combined together, and a search in the library of the Royal Tropical Institute using the same keywords. We also collected unpublished reports on demographic, health and Indigenous development issues produced by international agencies and published government data such as DLHS. We searched for additional academic articles using combinations of the keywords 'family planning', 'Indigenous people', 'male involvement', 'contraceptive technology' and 'traditional contraceptive methods', and collected additional references from the articles found.

Field studies were then conducted by an international research team, with six Indigenous Khasi social-science research assistants who conducted action research in three Khasi villages in *Pynursla* Block in the East Khasi Hills, all of which had high unmet contraceptive needs. The team conducted eight focus-group discussions in the Khasi language, using participatory techniques and tools and semi-structured question lists on ideal family size and composition, usage and preference for contraceptive methods, fertility decisions and male and female reproductive body functions. The team spoke with more than 75 men and women of reproductive age (>18 yrs old) and with < 10 older people, in three villages. Most families had 4-6 children, with a few outliers; the largest family had 13 children, two women had no children and some young women of < 20 had one or two children. Researchers interviewed health staff at *Pynursla* Community Health Centre (CHC) and informal health providers (ASHA workers). The research team was trained in interview techniques and facilitating focus-group discussions and on reproductive and sexual health. Training was hands-on and included buying contraceptives, talking about them in a group in English and Khasi and drawing pictures of male and female reproductive organs. All study tools were pre-tested and refined prior to fieldwork.

Given language barriers, Khasi research assistants interpreted for the lead researchers. All data were transcribed, translated into English and analysed for thematic areas. Emerging themes were checked by looking at the scripts during joint analysis. These findings were then used to guide a deeper analysis of the transcripts and data.

A preliminary analysis of the results was presented to policymakers at the state level, to obtain their feedback and to start a discussion of gaps between policy and practice.

We also used the results of a participatory rural appraisal (PRA) among 51 traditional healers conducted in Khasi, led and directly supervised by one of the authors. Two Khasi researchers conducted the PRA in 15 village clusters of the *Pynursla* block between 2008–2009, using transect walks, free listing of general health conditions, short listing of primary health conditions and listing criteria for prioritisation or ranking of health conditions. Five of these healers were interviewed with a Khasi translator during the field work in 2012.

Understanding of the issues was deepened during fieldwork practice on family planning, contraceptive use and preferred family sizes. This took place during a hands-on course on qualitative research methods for Indigenous Khasi Martin Luther Christian University (MLCU) university faculty and doctoral students in 2013, led by the lead authors.

Ethical approval of the research was obtained from the Ethical Review Board of MLCU, in conformance with universal ethical principles.

The study has several limitations. Studying Indigenous rural people in India can be difficult due to cultural and political sensitivities related to the marginalised position of Indigenous people. Research permission is required from Indigenous leaders in the villages themselves; permissions obtained at urban research institutes are not recognized in villages. The fieldwork team benefited from the long-term relationship between the local university and village leaders. However, using these leaders as gatekeepers may have created biases in how the researchers were perceived. Villages were on roads, or within a few kilometres walking distance from a road. The Khasi language has few words to describe reproductive organs and sexual acts, and people are not used to discussing sexuality with each other. Finally, this was a small sample that cannot claim to be representative of the entire Khasi community.

Findings

Lack of capacity in the formal health system

Intra-uterine devices, combined contraceptive pills and sterilisation are the main contraceptive methods that the state promotes, but it is difficult for rural Khasi women to find trained staff who can provide these safely. In Pynursla Block, residents can visit an upgraded community health centre for the insertion of an IUD or sterilisation. Respondents pointed out that without a car, motorbike or bicycle, it can take them up to eight hours' travel to get to town. Some respondents reported that women have gone to the hospital only to find it empty, and that they fear going to a hospital without somebody to fetch food and take care of them.

The state government is aware of this health service gap. One response has taken the form of health promotion campaigns ('health camps'), during which health staff provide primary healthcare services out of tents or stalls, including hormonal contraceptives, condoms, information and some essential medicines. Services are provided free of charge and offered during daytime in town. This means that it is difficult for people who work to attend:

It is far to go to town for people who have to farm. People mainly go there to get some medicines for fever and pain. Sick people can send another person to get pills for them. (Ibor, male, FGD, Nongmadan Mawpran)

During specialised family-planning services such as 'population stabilisation fortnights', health staff insert IUDs and sterilise women and men in a few weeks across the state.

Additional family-planning services within villages are provided by ASHA, women selected from the village itself. They are generally accountable to the village for promoting awareness of health and its social implications. After a two-week training course, ASHA workers seek out pregnant women and mothers of children under five. Men and young unmarried Khasi women are not targeted. Accredited social health activist workers inform mothers about vaccination, nutrition and other simple primary health issues. They have with them a kit with some drugs and basic health materials, such as paracetamol, iron and folic acid tablets. Oral Rehydration Salts, combined hormonal pills (Mala-D), Betadine and a thermometer. Accredited social health activist workers receive a financial incentive for their activities, which may include

promoting institutional delivery. They learn about contraceptives through a standardised curriculum, which focuses on the promotion of IUDs.

The ASHA workers we interviewed seemingly focused on promoting institutional deliveries and immunisation, while contraception services were less of a priority. Their knowledge of different contraceptive technologies was also variable (limited) and some of them were uncomfortable with discussing the topic. Surprisingly, natural or traditional contraceptive methods for family planning, such as the withdrawal or rhythm methods that most Khasi families use, are not part of the training curriculum. Accredited social health activists organise meetings for married pregnant women or mothers of children under five years old, and make house calls to women:

Mostly I give information to young mothers about how to keep their child healthy. I have contraceptive pills with me. When women want, I can tell them where to get an IUD. I do not give information to their husbands because they are not coming to the meetings. (ASHA worker, Siatbakon)

Given the lack of capacity or the formal health system, the long distances and rough terrain, it is not surprising that traditional healers play an important role in primary healthcare in villages in these rural areas. Many villagers must also travel to see a healer, as not all villages have one. Family planning is not a priority health service for healers. These men and women are a highly diverse group, each with specialised skills and approaches to specific diseases and illnesses. Some are specialised in bone setting, others in back and skeletal pain management using massage and/or herbal treatments.

Of the 51 healers involved in the PRA, only three mentioned reproductive health related topics. They had been visited by people for the treatment of continuous bleeding or infertility, and one performed midwifery. The most important diseases that people visited healers for were diarrhoea, cough, gastric problems and fever.

There are clearly many barriers hindering villagers from accessing the contraceptives that are supported by the state. But to decide whether there is in fact an unmet contraceptive need, one must also know whether women are fecund and sexually active, are not using any method of contraception and do not want more children at the moment.

Fertility decisions and the logistics of managing sexual activity

While the state promotes small nuclear families with two children each, Khasi respondents argue that the ideal family has between 4 and 6 children, including at least one girl. There were wide ranges in preferences, but only a handful of women would like a small nuclear family or a family with more than six children. Rather than fertility, infertility is a problem:

In a family without children there will be no one to preserve the genes and the clan. (Iba, female, 26, FGD, Siatbakon)

Infertility is not just a problem because of economic or lineage reasons such as preserving the clan land through inheritance. It is also - and perhaps even more - an emotional issue. Many respondents said they enjoy having large families, because they are more lively and warm and suggested small families are sad and lonely. Some respondents thought childless couples needed to seek medical treatment and, if that fails, accept childlessness. Others argued that adopting a girl can be a way to preserve the lineage and land inheritance:

If it is not possible to have children through treatment, a woman can adopt her sister's child, because they are blood relatives. (Aihun, female, 25, FGD, Siatbakon)

When we discussed the different notion of ideal size family between the state and the Khasi community, urban policymakers and health staff all indicated that religion is very important for the fertility decisions of Khasi people living in rural areas. They felt religious beliefs impacted on the promotion of and low uptake of family planning, implying that it is thus not within the government's powers to resolve this discrepancy. Some suggested the Khasi people have large families because they think children are God's

gift, and are not able or willing to act themselves. While rural men and women often declared (with a smile) that children are a 'gift of God', they also said that it is the couple who decides the number of children they want. When men and women were asked to draw Venn diagrams visualising who decides on the number of children, they, without exception, showed two equal circles for husband and wife. God, the church, religious leaders, the health system and the state were all conspicuously absent. Discussing these diagrams, respondents elaborated on how they might discuss the issue with friends or a family member, but ultimately it was the couple who decided how many family members they wanted.

Couples' fertility decisions typically take into account their financial situation, the health condition of the mother, the need for labour, land ownership and their ability to provide education, love and food. Birth spacing is desired. Three years between children allows parents and children to manage the physical demands of childbirth on the mother, and other work such as childcare and chores.

It is common in villages to see men carrying babies and small children on their back while doing daily activities, such as food shopping or chopping wood. In large families, older girls in particular have to help with household chores. Avoiding this burden on children is a factor in familial fertility decisions:

Too many children will create a big burden on the first child. Then he or she cannot have a happy life and I don't want to make the first child suffer. (Lawan, female, 34, Siabatkon)

Both male and female participants said that they normally did not talk about sex with each other, but enjoyed the opportunity to do so. Most rural couples live with their children in thin-walled houses on stilts, and women and men giggled when they described the management of their sexual relations:

When you have no children it is easy to be together when you like. And when the children are babies they mostly sleep. But once they are around six years old they will know. From that age on, it gets more difficult for the parents to enjoy themselves. (Banjop, male, 34, FGD, Mawlyndun)

When you have a few children who are old enough to know we have to be careful. We have to be like thieves in the night. (Dahun, female, Mawlyndun)

Although men and women agreed that men take the initiative to have sex, women must consent, and they expect sex to be pleasurable.

Family planning using natural methods and perceptions of other methods

To achieve the desired family size and spacing between children, Khasi people living in rural areas practice primarily so-called natural or traditional methods. Couples may have children sleep between them in order to avoid sex, or build an extension to the home where they can have sex. They reported using a form of rhythm method. However, they calculated the safe period for intercourse based on an inexact approximation of 10 to 12 days after menstruation.

Khasi women breastfeed up to two years, but they do not mention that they do this as a family-planning strategy. When we showed respondents in group discussions the contraceptives offered by the state - IUDs, pills, injectables and condoms - they did not respond positively. None had seen an IUD before, and the men were particularly concerned about the effects of this form of contraception on a woman's body:

This does not look natural and it may not fit well in the body. In our community women have to work very hard in the field and orchards, and she has to move around. We are concerned that such an object will harm a woman's body. How does she get it out if there is a problem? (Iban, male, 32, Nongmadan Mawpran)

Only a handful of younger women had used the contraceptive pill, and then typically for only a few months. Men and women did not like the idea of having to take a pill for decades. They reasoned that pills are for sick people, might not be healthy for babies and are easy to forget about after a long day of farm work. Injectables are easier, but are currently not provided by the public healthcare system. Some women did express a preference for long-acting injectable contraceptives. The long distance to the CHC and the lack

of follow-up care in the village was also raised as a concern for sterilisation of women. Several men stated that if the alternative were for their wife to have to use an IUD, they preferred to have a vasectomy at the CHC. But men disliked vasectomies, as they feared it would make them fat and lazy. They associated it with the local practice of castrating pigs.

They also said that no one had clearly explained the duration of the operation or the post-operation consequences to them:

We are not sure. Nobody comes to give us information. Therefore, we have to use our own brains and experiences. We have never seen a man who had a vasectomy. We would like to meet him and hear his experiences. (Banshan, male, 38 years, Nongmadan Mawpran)

Most men had seen condoms, but had not learned how to put them on. They complained about the lack of feeling and found them technically complicated.

Women who had experience complained of condoms getting stuck inside them. They also raised practical problems, such as the safe and discreet disposal of used condoms in villages.

Men and women would like to receive biomedical information about their bodies and about traditional or natural family planning methods as part of the state's family planning programmes, in addition to information about contraceptive technologies.

Discussion and conclusion

In this part of India, current centrally planned and locally implemented family planning policies are failing because they do not match the fertility desires, contraceptive practices and reproductive health needs of the Khasi people in Meghalaya. Rather than fertility, infertility is seen as a problem. Most Khasi actively limit and space their pregnancies, mainly by using natural contraceptive methods.

Compared to the national average, Khasi women have greater decision-making power about their health and about family matters. However, this empowerment does not extend to independent decision making about contraception, as a third of the rural women in Meghalaya report having an unmet need for contraception. This suggests that traditional contraceptive practices are not working flawlessly. The poor understanding of the traditional method based on safe-period calculation among participants in this study, suggests that enhancing appropriate use of these methods could help in alleviating unmet contraceptive needs.

The contraceptive choices offered by health workers, especially IUDs and pills, are regarded with suspicion as 'foreign' objects that may harm women. Some of this suspicion may be due to a lack of information about these technologies. However, Khasi men and women are not opposed to receiving information on contraceptives and sexual or reproductive health. Rather, men and women resent not receiving adequate information about contraceptive options. They may not be used to having discussions on sexuality, and the Khasi language does not have words to describe certain body parts and sexual acts.

Villagers' suspicion of contraceptive technologies is related to the scarcity of trained health staff, long travel times to health facilities and the fact that the national government and the local state incentivises health staff to increase the number of institutional deliveries, rather than to promote safe assisted delivery at home or improve family planning. Our findings confirm findings elsewhere in India that the quantity and quality of the training in practice for ASHA workers must be improved in order to improve performance (Bajpai and Dholakia 2011). Distrust of IUD insertion may be a rational response to a poorly functioning health system where, according to the DHLS-4, 14.3% of all CHS have a trained obstetrician or gynaecologist. One might echo the critique of maternal health in India, levelled recently by a UN special rapporteur on human rights, that a policy that incentivises women to use facilities that do not actually have the services they need is 'offensive, unethical and in violation of their right to the highest attainable standard of health' (United Nations 2010, 13).

Khasi people's reluctance to adopt government-promoted contraceptives does not appear to be rooted in resentment of the national state as such. Rather, local people want more and different sexual and reproductive health services, with staff who support them in improving the natural contraceptive techniques they prefer and also increase their knowledge of other options. This confirms findings by another study that found fear among women who never used any contraceptives to adopt these and that more than a third (37.3%) of the women either do not like the existing methods or find them difficult to use (Deb 2010).

Sex-positive family planning should also engage with men and unmarried young people. The provision of context-specific sexual and reproductive health services will require radical reform of the current health system. Given the current political context and system of government, in which policies shaped and paid for by the central government are merely implemented by Meghalaya state, such a responsive, well-resourced and rights based public-health system will be a challenge to develop. The national government's lack of financial resources, and its restriction of their opportunities for independent economic development initiatives, are part of a much longer history of the difficulty of state-making in the Indigenous highlands. Low contraceptive prevalence among the Khasi people is partly a result of a lack of responsiveness of the state towards these communities. Health service delivery mechanisms are poor and are left to informal and traditional health providers. Couples are abandoned to create their own contraceptive options. Low awareness, distrust of modern contraceptive technologies and a preference for natural contraceptives derive at least in part from inadequate and insensitive healthcare delivery mechanisms.

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When the hen crows: obstacles that prevent indigenous women from influencing health-care policies—a case study of Shillong, Meghalaya, India

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Introduction

Meghalaya is a landlocked, largely agrarian state in northeast India with an approximate population of three million. Various government surveys report that roughly half the state lives below the poverty line. Most people live in rural areas but in recent years, Meghalaya has experienced rapid population growth and urbanisation. Large numbers of migrants are arriving from outside the state and many of those living in the villages are migrating to the cities for better economic and educational opportunities. This has put increasing pressure on urban areas. Today, one out of five people in the capital of Shillong live in a slum. These areas are overcrowded, with unsafe and substandard housing. They often lack electricity, water and sanitation services. They are prone to flooding and offer little protection from extreme heat or cold.

Meghalaya is part of India's northeast 'tribal belt', with a predominantly indigenous population (86 per cent), of which the Khasi constitute slightly more than half. Today, the Khasi people are one of the largest matrilineal cultures in the world. They have distinct political institutions, which coexist alongside India's modern state system. The children take the name of their mother's clan, and identities are closely linked with maternal lineage (Bareh 1997; Kyndiah 1990). Traditionally, the youngest daughter in a family inherits the ancestral land of her family, and she would be obliged to take care of her parents and unmarried siblings. The Khasis, who are largely Christian, differ from the many patrilocal and patrilineal groups in India: they do not have a caste system or a culture of expecting a dowry during marriage. Couples marry by mutual choice, often at a young age. It is not unusual for couples to elope if their parents do not agree to the match. Cohabitation is culturally and socially accepted, and prevalent, but it does not have the same legal status as marriage (The Shillong Times 2012b; War and Albert 2013). The Khasis have large families: the fertility rate of 3.8 is one of the highest in the country.

Despite living in a matrilineal society, when it comes to health, women in Meghalaya lag behind their peers in other northeastern states. The state has some of the worst maternal health indices in the country: home delivery without skilled birth care is 71 per cent of all births (IIPS 2010), the maternal mortality rate is 238 per 100,000 deliveries (HMIS – Meghalaya 2010–11), and 64 per cent of pregnant women are anaemic (IIPS 2009). Meghalaya has the highest unmet contraceptive needs in the country (IIPS 2007a; IIPS 2007b). According to the third National Family Health Survey (NFHS–3), 35 per cent of Meghalayan women in their child-bearing years do not have access to family planning, compared to India's average of 12.8 per cent.

Unlike other regions of India, Khasi women are largely able to make health-care decisions on their own (Singh et al. 2010; Chakrabarti and Chaudhuri 2007). Yet they appear no better off than other indigenous women living with health systems that don't respond adequately to their reproductive health needs (Kwagala 2013; Oosterhoff, White and Aggleton 2011). Under the Khasi's matrilineal system, property is registered in a woman's name, yet the men control the land and hold the power. Khasi women do

not actually participate in the political decision-making process. Public decision-making – including the allocation of public lands – is traditionally the male domain (Mawrie 2010: 91). In keeping with the matrilineal traditions of the tribe, succession to the office of the *syiem* (chief, sometimes translated as king) is through the female line, but it is men who assume positions of power (Government of Meghalaya 2009b; Bareh 1997). An unwritten but well-known code of conduct has prevented women from attending and participating in public, political decision-making processes in the traditional governance system (Lalkima 2009: 45). There is an old saying among Khasis: ‘*Ynda kynih ka ‘iar kynthei, la wai ka pyrtnei*’ or ‘When the hen crows the world is coming to an end.’ It is taken to mean that if women take part in politics, the world is doomed (Lalkima 2009: 45; Lyngdoh n.d.).

This paper examines how the Indian state prioritises health needs, and whether and how poor and indigenous women are able to participate in decisions about their sexual and reproductive health (SRH). In focusing on the indigenous population in Meghalaya and examining the complex web of traditional systems of governance that exist in tandem with modern state institutions, we document participation at these different levels in Shillong to understand what opportunities and barriers women have for political participation.

This case study explores the following questions:

- How are urban and state health priorities and policies developed in Meghalaya state?
- How can women and girls in urban areas engage with indigenous and state institutions with regard to SRH?

Box 1.1 Election and positions in the Khasi governance system

Syiem: A hereditary leader (chieftain) belonging to the *syiem* clan who looks after the *himas* (kingdoms). He is considered the first among equals in his council of *myntiris*.

Myntiri: A minister of the *syiem* elected from specific clans. Only a man can be a *myntiri*.

Dorbar: A village council (traditional governance body) headed by the *rangbah shnong* (headman) and the executive members. This forms the basic foundation of Khasi democracy. The *dorbar* may be held every year and only the men from the community can attend. The *dorbar* gets its authority to act via a *sanad* (authorisation/document) from the *syiem* under whose jurisdiction they fall.

Rangbah shnong: The headman, locally known as the *rangbah shnong*, should be an adult Khasi man. Traditionally, only someone who has grown a moustache can contest or become a *rangbah shnong*. He is elected by the men of the community at the *dorbar* who vote by show of hands. He looks after the affairs of the community (*shnong*) along with the executive members, which include mostly the community elders.

Rangbah dong: The *rangbah dong* is an executive member of the *dorbar*. He helps the *rangbah shnong* run the administration of the community and is also answerable to him. The *rangbah dong* looks after the *dong* (blocks) in the community. He is elected by the members of the *dong*, including women.

Seng longkmie/Seng kynthei: The women's group in a community. There is no age restriction but most members are elders in the community. These groups cannot participate in the local *dorbar* but they often help the headman in the administration and welfare of the society.

Khasi Hills Autonomous District Council (KHADC): The entire state of Meghalaya is covered under the provision of the Sixth Schedule of the Constitution of India. In Meghalaya, there are three autonomous district councils (ADCs): the KHADC; the Garo Hills Autonomous District Council (GHADC); and the Jaintia Hills Autonomous District Council (JHADC). The ADCs have authority over the traditional institutions in matters related to appointment and succession of the *syiem* and headman. The chief executive member (CEM) heads the ADCs. The CEM is elected by a council of 30 members, which forms the ADC legislative body. The CEM can be either a man or a woman; however, to date there has never been a female CEM.

Member of the Legislative Assembly (MLA): The MLA is an elected representative of the state legislature.

Fearing that they may become a minority in their own land, several powerful groups – notably the local Khasi Student Union – have pressed the government to implement the Inner Line Permit system. ² This controversial rule, left over from the colonial era to protect British interests, would require all outsiders to have a permit to enter the state. One of the reasons for implementing the permit system would be to check the influx of illegal migrants from Bangladesh and Nepal (Mukhim 2013).

Methods

This qualitative case study used multiple methods for data collection.

Literature review

Information pertaining to the policies and data on urban health, gender, SRH and citizens' participation in policymaking at the state and city level were collated from the Ministry of Health and Family Welfare's (MOHFW) websites for India and Meghalaya. Due to the paucity of peer-reviewed published articles on Meghalaya, we included grey literature, such as reports that contained original and recent data. Examples include census reports, NFHSs and District-level Household Surveys (DLHSs), and the Meghalaya State Development Report. These provided some relevant background information on SRH in Meghalaya and in India at large. These reports did not provide disaggregated data on the health status and health-seeking behaviour of the urban poor.

In-depth interviews

We conducted a total of 27 in-depth interviews with participants ranging from residents of slum areas to government officials in the Department of Health. To understand issues around women's health, and urban women's participation in policy decision-making in Shillong, 17 participants (13 women and four men) were interviewed. They included women from the slums and the wider community, women leaders, female sex workers and *rangbah shnong* (Khasi male leaders). All the interviews were conducted in the local language by a team of two researchers, where one facilitated the discussion and the other took notes and observed the process. We also interviewed policy actors: government officials, members of the media, and leaders of non-governmental organisations (NGOs). Topic guides were developed and used to assist in conducting the interviews. Based on the preliminary findings and identification of information gaps, interview topic guides were refined in the field as needed. Areas that were further explored included the roles and participation of women and their ability to influence decision-making in traditional institutions. To better understand key issues, we also resorted to informal discussions with Khasi elders, men and women in the community. We had brief informal discussions (with verbal consent) with several government employees who were otherwise reluctant to sign consent forms without a specific approval letter/instructions from their supervisor.

Focus group discussions

Five focus group discussions (FGDs) were carried out, each with five to seven women. Taking into consideration participants' comfort level, FGDs were held in the women's homes, as decided by the participants. The FGDs were organised by a team of two to four researchers, and were generally conducted in the local language (Khasi). Each FGD lasted about 45–60 minutes.

All the in-depth interviews and FGDs were audio recorded. Field notes were also made by the researchers. The audio recordings were translated and transcribed by the research assistants, who were fluent in Khasi, Hindi and English.



Photographer: © IIPH-Northeast, 2014.

Fig 1: FGD in progress

Digital storytelling

We used personal digital storytelling (DST), a qualitative narrative story method capturing voice and imagery on iPads through various applications, to capture the lived experiences of six women from slum areas. None had ever used an iPad and were unfamiliar with the technology. They were trained in a four-day workshop to produce a personal film/digital story using iPads. The story lines were developed by the women themselves. These were transcribed and converted to story boards by participants with support from the research team. The women used the iPads to create images, to select and take photos, and art materials – pencils, crayons, coloured papers – to illustrate their stories. The women used their own voices during the audio-visual recording of their digital stories.

Participation and political system mapping

In order to understand how urban women can navigate and engage with the state and indigenous political systems on SRH, the study team brainstormed and mapped the existing social structures and institutions. In the mapping exercise, we then explored if both men and women had similar opportunities in terms of membership, voting rights, or the right to hold office in indigenous and state institutions. This exercise resulted in creating a schematic diagram (see Figure 4.2) that visualises the challenges that women face in participating in local indigenous and state government at different levels. We got feedback from Khasi women and adjusted this diagram in two focus group sessions with members of the *seng kynthei* (traditional women's organisation).

Sampling

We sampled six urban slums in Shillong, randomly chosen by drawing a straight line across the city map. Those slums that either fell on the line or in close proximity to the line were selected. The slums chosen were *Pynthor bah*, *Nongmynsong*, *Jhalupara*, *Paltan Bazar*, *Madanrting* and *Demseiniong*. A stakeholder listing was done in consultation with an NGO whose work includes interventions for female sex workers. Key informants, snowball sampling and the principle of maximum variation sampling were used to identify participants. We interviewed a total of 47 people, including NGO representatives, officials from the Department of Health, the Department of Urban Affairs, members of the media, representatives of

traditional governance institutions, sex workers, and lay members of the community who resided in the slums and surrounding areas. For digital storytelling, women who participated in interviews and/or FGDs were invited to participate as long as they were familiar with using a mobile phone.

Data analysis

Data collected during interviews and FGDs were translated and transcribed by the research team, usually by the interviewer herself for the sake of consistency and quality. To enhance the quality of the data, different members of the team compared the transcripts with the audio recordings. Individual and joint analysis of the data was undertaken by members of the research team. Data analysis was initiated during data collection itself. The ongoing analysis allowed the research team to discuss, adapt and probe further into themes. Emerging themes were noted and categorised, and relevant quotes extracted.

Quality and credibility

The field data were collected by three female indigenous research assistants who had past experience in gathering qualitative data. Prior to data collection, the research assistants were briefed on the purpose of the case study and trained in the use of data collection tools. Quality was maintained during the process of data collection through building good rapport with the respondents before the interviews, clarifying responses, and holding timely reviews and discussions among the research team. Field notes maintained by the researchers were used during debriefing sessions and for team reflections during the data collection process. We also validated the data by using different data sources and checking information with different people. Issues that needed clarification were investigated further either over the phone or in follow-up meetings. Preliminary findings were also presented to female Khasi community members during a feedback session for their comments.

Study limitations

The study had several limitations. Key concepts like health policy, policy process, community participation and SRH are difficult terms that were not easily translated into the local language and thus posed challenges and, at times, confusion. Researchers had to spend time explaining these concepts, and their explanations might have shaped people's responses. For instance, there is no exact translation for sexual reproductive health; hence, what was used was *jingpangkynthei*, which literally translates as 'diseases of women' or 'women's health issues.' Studying slums with mixed populations in a context of xenophobia can be difficult due to cultural and political sensitivities. In addition, there are sensitivities related to the marginalised position of indigenous peoples in India. Research permission is required from the *rangbah shnong* (Khasi male headmen), who are the indigenous authorities in charge of different parts of Shillong. Clearance from New Delhi does not have much authority in this setting. The fieldwork team worked through the headmen in line with cultural protocols; however, using these leaders as gatekeepers may have affected who we gained access to and how the researchers were perceived. This was a small sample that cannot claim to be representative of the entire urban Khasi community.

Ethics

The study received clearance from the Ethics Committee of the Public Health Foundation of India (PHFI). In addition, we obtained permission from the local council/headman before any fieldwork activities were carried out. The team also ensured that the purpose and background of the study was explained to potential participants in the local language. Prior to any interview or FGD, researchers obtained written consent from most of the participants. In some instances, for those not comfortable with signing forms, their verbal consent was obtained. Transcripts were coded and quotes anonymised during data analysis and report writing to maintain individual confidentiality.

We also obtained permission and written consent to publish the research results and reproduce the digital stories for educational, advocacy, and non-commercial purposes.

Results

Health policy and evidence-based urban health planning

In 2013, the National Urban Health Mission (NUHM) was launched with the aim ‘to improve the health status of the urban population in general, but particularly of the poor and other disadvantaged sections, by facilitating equitable access to quality health care through a revamped public health system, partnerships, community-based mechanism with the active involvement of the urban local bodies’ (NUHM 2013: 29). These goals are to be achieved by strengthening the existing health-care system, and by working with various government efforts in slum areas, such as those to improve access to sanitation, clean water and education. The NUHM framework for implementation provides for both institutional mechanisms as well as partnerships with community and local bodies for a more proactive involvement in planning, implementation and monitoring of health activities.

Under the NUHM there are 19 Urban Health Centres (UHCs) in Meghalaya that cater to the needs of the urban poor in terms of basic health-care services. The UHCs are located in Shillong (13), Jowai (2), Nongstoin (1) and Tura (3). The UHCs are functional but require additional manpower, equipment, and medicines to make them fully operational (CRM-7 2013). Urban Reproductive and Child Health (RCH) service delivery indicators like antenatal and postnatal check-ups show poor performance.

So, while there are policies to improve urban health, and ample political goodwill, there are still gaps in care and much more needs to be done on the ground.

Meghalaya state-specific policy and planning

Under India’s federal structure, health is the purview of the state (Article 246, List II, Constitution of India). States have the power and responsibility to develop their own health policy. But Meghalaya has not yet published one. Although a draft was formulated, it has not been finalised or made public. In its absence, the health policy and programme guidelines issued by the central government are used in shaping state programmes.

One of the reasons cited for poor health outcomes in Meghalaya is the low and declining levels of public spending on health. The state drafts a health budget and contributes a proportion of its finances towards health programmes. Yet in the decade 1999–2009, there was a steady decline in the share of expenditure on health and family welfare, from an 8 per cent share of total spending in 2001–02 to 3.9 per cent in 2008–09 (see Table 4.1).

The bulk of national programmes, such as the National Rural Health Mission (NRHM), are funded by the central government, where the Centre (central government) provides 90 per cent and states contribute 10 per cent of the fund (Chaturvedi 2011). In the absence of a declared state health policy, national guidelines and policies are implemented in the state by default.

Most of the SRH-related services are implemented through India’s RCH and HIV/AIDS control programmes. Though these are independent components, there is a convergence of these programmes. For example, all pregnant mothers reporting for antenatal care must undergo HIV screening.

Table 4.1 Expenditure on health and family welfare in Meghalaya

Year	State total: Expenditure in lakhs (1 lakh=100,000 rupees)	State expenditure on health and family welfare	Share of expenditure on health and family welfare (% of total)
1999–2000	85,864.37	6,368.00	7.4
2000–01	1,03,697.08	7,050.59	6.8
2001–02	1,02,447.99	8,206.93	8.0
2002–03	1,09,579.18	8,186.40	7.5
2003–04	1,82,084.77	8,256.43	4.5
2004–05	2,07,234.21	9,194.87	4.4
2005–06	2,00,709.28	9,602.81	4.8
2006–07	2,32,010.25	9,910.97	4.3
2007–08	3,44,846.82	12,742.89	3.7
2008–09	3,97,322.38	15,484.94	3.9

Source: Government of Meghalaya (2009b: 40).

On paper, national programmes recommend a bottom-up planning process of health schemes (MOHFW 2005). However, this bottom-up planning process, where the Centre tries to incorporate state-based plans, which are collated by districts, works only to a limited extent. The process is reportedly quite lengthy as the collation of information at different levels is both time consuming and fraught with challenges, especially when there are delays along the chain in submitting reports.

But see when we do the PIP [programme implementation plan], we do the planning [from district level], we have to prioritise our needs, but then approval is with the state. The state collects from all the districts and makes the state PIP. It is then sent to Centre, so it's not up to us. (Senior Medical Officer, woman)

Projections are made based on the number of pregnant women or women of reproductive age. One government official's interpretation of tailoring national guidelines to the state's needs is that this is at times limited to ordering the right number of items from the central government.

We have to ask the Centre according to our needs and what we require. For example, maternal care: according to the population or survey, we know the number of pregnant mothers. So, the Centre will provide money for iron, folic acid, for immunisations, for institutional birth corresponding to our requirements. (Senior Technocrat, government official, woman)

The amount that the state projects in its PIP is often not fully approved by the Centre. In such instances, one of the challenges reportedly faced within the health department is the lack of a mechanism to efficiently allocate resources at the block and district levels, taking into consideration the initial plans and the final (lower) allocation.

During interviews, NGOs and community members observed that the centrally sponsored schemes are developed based on indicators from national-level data that often represent much larger states. It was pointed out that states such as Uttar Pradesh, Bihar and Rajasthan are different socially, culturally and politically, thus strategies based on their experiences may not be appropriate for Meghalaya. One example that was provided is the emphasis on hospital-based deliveries and the overlooking of locally available and experienced traditional birth attendants.

For instance, if we are to make a health policy to address the infant mortality rate or maternal mortality rate, institutional delivery is not the best option [in Meghalaya]. As many women do not have the time or money to travel and spend two or three days in the hospital before labour. They have totally ignored the role of traditional birth attendants and traditional healers. It is the same old cut-and-paste policy. The national programme is important but there is no innovation anywhere. (Executive Director – NGO, woman)

The lack of participation and engagement with the community in an ongoing manner was indicated as a reason for the failure, or poor effectiveness, of many well-intended programmes.

It has been top down. It has been talked down to people and programmes never came from the ground. And it was never participatory you know. You had those Government of India programmes on reproductive health, so you just brought it here, and you just imposed it on people. And you are giving out condoms and you are telling people to do IUD and all of that without first explaining to them, without having these participatory sessions. Because I think the problem with the government is that, it takes shortcuts and it is target driven where you have to complete the target. (Activist and media representative, woman)

Those outside the health system were unsure if Meghalaya's officials engaged sufficiently with the Centre to develop more appropriate health intervention strategies. Bureaucrats having to handle multiple portfolios and the associated time constraints were cited as another potential reason for the lack of sufficient engagement.

I'm not sure it is done. Because in order to change any component of that policy you have to go to Delhi; you have to debate it out with people [at the national level]. You have to convince them that what you are giving us was conceived by looking at a few parameters in some of the big states, which don't suit the smaller states or the hill states [...] A bureaucrat doesn't specialise in any single issue or in any single sector. He is looking at health, he is looking at something else, and something else, and therefore his concentration is on diverse [portfolios] you know... They are not informed enough to be able to be engaged with the planning commission in Delhi. (Activist and media representative, woman)

Thus, despite the rhetoric of bottom-up planning and involvement of the community, planning is fairly centre dependent. To some activists the current planning is seen as inappropriate for Meghalaya, as the northeastern states are seen to differ from many of the larger Indian states. State plans are often based on population data, especially numbers of women of reproductive age in the community. This may not reflect the actual needs of SRH services within different age groups.

Evidence-based health systems planning

Accurate and pertinent data with regard to sexual health among slum dwellers generally does not exist in Meghalaya. The main source of health data is the Health Management Information System (HMIS), yet its statistics are not disaggregated for slums. The NFHSs gather information on urban dwellers but not on SRH. This is a challenge for policymakers.

We have 13 urban health centres [UHCs] in Shillong, so based on the HMIS reports from them we make the planning and all. We do not have any segregated data of slums or urban poor. But we have the aggregated information including the slums that lie within the jurisdiction of that UHC. (Senior Medical Officer, woman)

NGOs working in health expressed scepticism on the quality and relevance of the HMIS system as the main source of data for monthly plans and target setting for the government.

But how reliable are these HMIS reports? When most of the health centres do not function properly, my question is how are they able to generate data which shows good performance? It is not projected genuinely. Despite the drawback in the quality of data, these HMIS data are also not easily accessible to civil society, and the government maintains them as though they are their private property. (Executive Director – NGO, woman)

Overall, there is very little health research addressing local issues in the state. There is a paucity of epidemiological data, as well as information about sociocultural, political and economic factors. There is limited data on health-seeking behaviours in the state. From health records it is almost impossible to distinguish between the health-seeking behaviour of a slum dweller from those in other locations or of

a different social class. The geographic boundaries of the slum areas are rather fluid, especially in terms of residents' perception of what a slum is. Also, in many parts of the city, relatively economically well-off (middle-class) residents live adjacent to slums and use nearby health services. This highlights some of the challenges in detecting whether there are differences in health-seeking behaviours and the health status between the middle class, the urban poor and slum residents.

Health seeking and perceptions of quality of facilities

Government health services are available and relatively easy to access. In many instances, the urban poor access health services, including sexual and reproductive health (SRH) services, from government-managed public health centres. Those interviewed noted that health centres and tertiary hospitals were located near slum areas. The services provided were cost effective when compared to services in the private sector.

We are happy because the dispensary is nearer you see; moreover, we don't have to pay much. Visiting a private doctor, the expenses are more. (Lay member of the community, woman)

But it was reported that visits to (free or low-cost) government-managed health centres can result in out-of-pocket expenses, when patients must purchase prescription drugs and have laboratory tests performed at private labs.

Now if we go to the doctor, they say: go for blood tests, urine tests. If I listen to the amount [price] of the blood test, I am done. I do not have enough money and they say, go and do blood test. I cannot afford. (FGD No 2 – Demseiniong, lay member of the community, woman)

In recent years, the government introduced the Meghalaya Health Insurance Scheme (MHIS) that covers a family of five for a fixed amount of health expenses. But the programme, according to those interviewed, does not cover all costs.

There are those illnesses that are included and there are those that are excluded in this insurance. If the illness is covered in this scheme, the amount spent, say some thousands a year, will be given back by the government. Okay, some get this money and some do not. (Lay member of the community, woman)

Moralistic attitudes and rude behaviour of staff caused some women to hesitate seeking help from government-run facilities especially for sexually transmitted infections (STIs).

When I sent people for STIs to civil hospital [government], people are not so comfortable... The behaviour of the people at the ticket counter also is not so good: they don't open in time, have to wait so long, people are frustrated. The doctors are fine but the other people, they don't know how to speak. They should be very polite to the people – the suffering people, but they are rude. (Lay member of the community, woman)

Although the urban poor turned to public sector facilities, at times they report having to seek care at private hospitals due to the long waiting times that would force them to miss work.

There are many hospitals around Shillong but poor families mostly go to the dispensary [UHC] here. But sometimes they don't have time to wait there all day... They have to think [about time lost] for they work too. (Lay member of the community, woman)

Social determinants, poverty and health

Despite the close proximity of UHCs and the availability of health insurance, some women living in slums reportedly hold back from seeking health care for fear of out-of-pocket expenses. Going to the doctor could involve spending money that they would otherwise use to buy food or spend on their children's education. Women often subordinate their own health to the needs of others.

The only thing we fear are the medical bills. We know in advance that a certain sickness is going to cost us that much in this or that hospital. Other than that, there is no fear. If we can afford, yes, we would be happy to get our treatment at the hospitals. (Lay member of the community, woman)

In addition, to not always seeking health care, poor women reported not getting enough to eat. But a lack of education/nutritional awareness also contributes to poor dietary practices.

Food was a problem for us and we cannot afford nutritious food. We ate only twice a day, and only rice and some vegetables. (DST participant, woman)

Another thing is that the poor people in our locality, many of them are anaemic. Maybe many times they do not know what to eat or overeat other things that they are not supposed to. Also, the poor do not have too many choices as to the varieties of food to eat – food that contains sufficient nutrition. They only consume the food that they can afford to buy. Unless the poverty line can be raised, there will always be many poor and sick people. (Lay member of the community, woman)

During the making of the digital stories, the six women provided detailed narratives of their life stories. Issues, both economic and social, that affected their lives and influenced their decisions about health became evident in these narratives. Two of the six women reported that they lived in women-headed households because of an illness-related death. Three women had experienced the death of a child.

In the digital stories, alcohol and its effects on the family appeared as a cross-cutting theme. Although the women did not specifically highlight alcohol as an issue, the research team was struck by how excessive consumption of alcohol by a family member (usually a spouse or parent) had negatively affected four of the six women's lives at some point in time.

He starts drinking at night. When he is drunk, he looks for fights, accuses me of having an affair. When I was pregnant with my first child, he told me he had an affair with another woman. So, I decided to leave him, I was 20 years old. I could not think properly, I felt ashamed to be a single mother. I felt scared... I thought I would go crazy with worry. (DST participant, woman)

Women internalise notions of being second-class citizens, which prevents them from asserting their rights.

Some women will come with problems for not conceiving a baby... They don't know where to go and what to do. Maybe it is not because of the woman. It may be the husband. But they will never say it's the man who may have the problem. They will blame the women for not conceiving. (Lay member of the community, woman)

Although studies reported that Khasi women are able to make health-care decisions on their own (Singh et al. 2010; Chakrabarti and Chaudhuri 2007) we encountered several women who reported being subordinate to spousal decisions on seeking health care.

No, I haven't taken any medicines because when I told my husband that I need to take medicines regarding these [STI] problems, he doesn't allow me to. He always questions me if I ask him for money for medicines. (FGD No 5, Demseiniong, lay member of the community, woman)

In sum, poverty restricts women's decision-making when it comes to their own health and in using services that enable them to live a healthy life. While poverty influenced their healthseeking behaviour, a death in the family invariably pushed these women further into poverty. Excess alcohol consumption had a deleterious effect on the lives of several urban women interviewed. Despite the matrilineal family structures some women are subordinate to spousal decision-making when it comes to health.

Narrow view of sexual and reproductive health (SRH)

Sexual and reproductive health rights (SRHR) are understood as the rights of all people, irrespective of age, gender, and socioeconomic status to make informed choices regarding their own sexuality and reproduction, provided others' rights are respected (UNPFA 2008). It includes the right to access information and services to support these choices and promote SRH. In Shillong, there is seemingly a narrow understanding of SRH issues, which is often restricted to contraception and pregnancy. Women's rights and sexual rights are related. Women have a right to pleasurable and safe sexual experiences, free of coercion, discrimination and violence. 3 Domestic violence in various forms – including forced sex and forced pregnancy – was an important theme in the digital stories. Women recalled their own lack of awareness and the need for information about SRH.

I had a baby in my stomach. I did not even know that I was pregnant. There was an aunty in the neighbourhood she said, 'You are pregnant.' I said, 'No, I am not; my stomach is also same, I just had food, so it's big.' (Lay member of the community, woman)

I only want information about how to delay pregnancy, because I have never tried it before so I don't know anything about it. What should I do? I already have three children. (Lay member of the community, woman)

In general, people in the community are uncomfortable discussing sexual health. Societal norms and notions of what 'good manners' are contributes to the silence on sexuality within the community.

It'll be tough to speak about that [sexual matters] with people. They will say that women do not have manners or are shameless. (FGD No 5 – *Demseiniong*, lay member of the community, woman)

It is very difficult to talk about that with other people openly. (FGD No 2 – *Demseiniong*, lay member of the community, woman)

One limitation is the lack of appropriate words in the local language to discuss SRH. This was one of the challenges faced by the research team during fieldwork. Women often used general phrases that literally translated as women's problems or women's diseases.

It is very difficult we don't have such words to explain what sexual reproductive health means. (Lay member of the community, woman)

In most of the interviews, women reported that they prefer to receive information about SRH services from their peers. Women, especially, rely on the experiences of peers for decision making on choice of provider or general health-seeking behaviour.

If they tell us about their problems, if we know, we will tell them, 'Oh! I am facing the same problem. I go to this doctor for treatment and now I am cured.' So, we would only suggest where to seek help but we will never force them. (FGD No 1 – *Jhalupara*, lay member of the community, woman)

We talk only among ourselves with friends whom we can trust. (FGD No 2 – *Demseiniong*, lay member of the community, woman)

Some policymakers and survey findings have indicated the Khasi people have a cultural preference for large families (CRM-7 2013) and thus limited interest in family planning. Our interviews found that women did want more information on contraception and the spacing of children. In the view of one social activist, reflected in the quote below, men too would be interested if they were addressed appropriately:

The men will not come [if the focus is on women] whereas to my mind if you are looking at reproductive health you ought to look at men and women. Otherwise, it's never going to happen. Because at the end of the day, if you talk only to the woman and expect that the woman will convince the man, the man will not be convinced and they will say what nonsense and all. And I have seen this happening in West Khasi Hills where I have done a few programmes. We've called both men and women and the men became so enlightened, they feel that as if a veil is being lifted about something that they never thought of before and they said that if somebody would have told us 10–20 years ago, we might not have so many children. We would have known how to space and all that. (Activist and media representative, woman)

Men and women worry about the contraceptive technologies offered by the state because there is a shortage of trained staff, and facilities are often closed. There was some hesitation about relying on hormonal contraceptives, such as the Pill, and on technologies, such as IUDs and tubectomies that require regular follow-ups by trained medical staff. To suggest that the Khasi people have a lot of children only because of religious and cultural beliefs is a view based on very limited information (Oosterhoff, Dkhar and Albert 2014).

Overall, there is limited knowledge among women from the slums in Shillong about health conditions and choices when it comes to SRH. This lack of knowledge was also reinforced by a lack of service provision for SRH. For example, there are very limited services to terminate pregnancies in the state.

The lack of awareness of SRH-related issues and the need for raising awareness was also highlighted.

Counselling of people should be there, to teach what health is. Through this, only people will come to know and participate. Awareness should be there. Like there are women who have STIs and they drink alcohol; they want to die fast. They don't know it's curable, why? (Lay member of the community, woman)

In sum, there is a general silence in society about sexuality. Women find it difficult to discuss SRH issues due to negative cultural mores on the 'inappropriateness' of discussing sex and sexuality. There is a narrow understanding of SRH issues that is often restricted to contraception and pregnancy.

Civil society participation in policy

Few civil society organisations and NGOs engage with the state on policy. Most are implementing programmes that provide services.

In order to formulate a policy or to adapt central guidelines for the state, community people have to be consulted. It will be a long process. We've been waiting since 2009 [for the Meghalaya Health Policy draft]. We are in a democratic country so start practising democracy at least from one policy. But even when the health policy becomes a reality that still will not have voices of the people. (Programme Manager – NGO, woman)

NGOs in Shillong seemingly serve as either beneficiaries or implementing agencies of government projects. Though they also lobby the government, they are limited to securing services and benefits within the existing policies and programme.

We look if the CHC4 or the PHC5 is functioning properly or not, and we also assess the needs of the people. We look at different existing policies and programmes and the components in it. We advocate if those components do not reach the people. (Programme Manager – NGO, woman)

One activist and media representative argued that civilians in Meghalaya in general did not engage much with policymaking. One reason for disengagement was a lack in capacity of most civil society groups to engage meaningfully at different levels.⁶ The lack of an evolved and informed civil society that engages with government meaningfully in policy development was highlighted.

You see, the civil society here has never engaged itself with policymaking... So we don't really have an evolved civil society that is enlightened enough to engage with government. Because in order to engage with government you need to have a set of shadow policies of your own to present to the government. (Activist and media representative, woman)

Community engagement in health programmes could conceivably take place through the Village Health, Sanitation and Nutrition Committees (VHSNCs). A recent assessment of the state health system by a national team, however, observed that there is low engagement of VHSNCs in the state, and poor involvement of members of local governance institutions with the health system (CRM-7 Meghalaya 2013). They also observed that monitoring mechanisms are poor and that often immunisation schemes get priority over other health services.

When we asked about the relevance of various programmes under the NUHM in Meghalaya, a key informant and social activist flagged the need to put terms into the local language in order to improve the grasp of the relevant issues:

I asked somebody why do you have these funny Indian words... why not have a Khasi word appropriate for that? Then I can own it. If I don't understand that stupid word then how can I own it? Why would I collaborate? Why would I participate? I don't care, it's all a government of India thing. In some places people have understood the meaning of ASHA, ⁷ they've used their services, but this USHA⁸ is completely new to the people. (Activist and media representative, woman)

In general, community monitoring, social audits and grievance redressal systems are absent or rudimentary in the state. At the community level, it is not yet clear what the new urban public health system is, who

the partners are, and what the community mechanisms are through which people can speak about health care. The result is disengagement and a lack of interest in the formal governmental processes of urban health policy formulation even when there are opportunities for greater participation. The community also requires capacity strengthening for meaningful engagement with the government.

Participation in an indigenous context and relationship with the state Traditional governance institutions and their relevance

Governance structures in Meghalaya are complex, with both indigenous Khasi governance institutions, national state and government machinery, and constitutionally created autonomous district councils (ADC). These diverse institutions and structures exist independently yet wield power in parallel.

Urban Shillong consists of villages that have been absorbed by the city. The governance structures of these villages are still operational. At the village level, in terms of administration and justice, the Khasis have their own *dorbar* (traditional governance institutions). Khasi men choose their own *rangbah shnong* (village headman) and his *rangbah dong* (council of executives) to look after judicial and administrative affairs (Mawrie 2010: 88–91). Only men can be members.

Figure 4.1 Notification by *dorbar shnong*, village council



Photographer: © Oosterhoff, 2014.

Notionally and traditionally, the *dorbars* are accountable to *syiems*, dynastic rulers of kingdoms formed from grouping village clusters (Bareh 1997). The *syiems* and their councils of *myntiris*, perform both executive and judicial functions.

The Sixth Schedule of the Indian Constitution provides for a special administrative setup allowing partial self-governance of tribal areas in some northeastern states (NIPFP 2013: 1). It established ADCs, which have elaborated legislative, administrative and judicial powers on paper. In Meghalaya, there are three ADCs that have official authority over traditional institutions, although in practice their authority is fairly limited. The councils are endowed with power over traditional institutions in matters related to appointments and the succession of chiefs and headmen during emergencies (NIPFP 2013).

The creation of the ADCs, supposedly to preserve the traditional system of governance, has in fact thus introduced a non-traditional apex administrative institution that has – on paper – executive powers over the *hima* (kingdom) and the *dorbar shnong* (locality level). At the same time, the state government has overriding and overlapping powers with respect to the ADCs and this creates an anomalous governance system (Chatopadhyay 2013). Within the state government there are also some misgivings about the relevance of the ADCs, especially considering its record of achievements (Government of Meghalaya 2009a: 9). The Meghalaya People's Human Rights Council (MPHRC 2012) has criticised such an arrangement as ineffective and unproductive in the absence of adequate mechanisms for coordination between the district council, the state government, and traditional institutions. As a consequence, the MPHRC has argued that

‘the councils have neither been able to do anything of standard in the interest of hill masses nor to involve the poor indigenous peoples in development activities either as beneficiaries or as decision-makers on any significant scale’ (MPHRC 2012: 4).

There are too many parallel institutions, they are all working at cross purposes and the government is happy to allow this to happen because you can blame this and there are many people to blame... The district councils have no important matters to look after, frankly speaking, and they don’t have the mechanism to deliver. (Activist and media representative, woman)

Thus, there are multiple and parallel power structures, which lead to confusion and even paralysis in governance in some instances. The relationships between traditional institutions and the state authorities, including municipal authorities, are highly contentious, especially

with regard to land. A Supreme Court ruling upheld an appeal of the traditional authorities that establishes the authority of the indigenous authorities, the *syiem* of *Mylliem* in the municipal areas (The Shillong Times 2012a). Although the hierarchical relationships between the municipal and the indigenous authorities can be subject to diverse interpretations, for effective implementation of programmes, the state should involve local indigenous authorities, as governance at a local level is controlled by the traditional indigenous authorities.

Women’s participation in the indigenous context

We explored women’s participation in relation to the Khasi traditional governance and the state institutions further to understand the dynamics. Figure 4.2 was developed during the course of the study to visualise the various channels through which women could participate in decision-making. We focused on exploring the ability of women and men to vote and hold offices within traditional and modern institutions.

In Khasi society, women were traditionally not encouraged to participate in political matters. These sentiments were echoed by participants in this study:

Women are barred from holding office: they can’t be *rangbah shnong*, they can’t be the executive members, they can only be in the periphery – you know to sort of help the men to carry on their work. (Activist and media representative, woman)

In the traditional Khasi governance system, Khasi women – rich and poor – are excluded from voting and holding office. The *seng kynthei* (traditional women’s organisation) has a limited role in decision-making in community matters. The roles that women play in the community are mostly welfare-related activities, such as helping with funeral services and village cleaning tasks, and assisting in enforcing rules and regulations made by *rangbah shnong*. ‘We are only looking at whether there should be no alcohol in the village,’ said one member of *seng kynthei*. Larger decisions, she said, were left to the men.

Well, I would say that the *seng kynthei* or *seng samla* are the branches of the community *shnong* but finally if it comes into the decision-making, we [*dorbar*] are the ones to take the decision not them. (Headman)

In recent years, there is reportedly one locality, *Laitumkhrah*, where some progress has been made in allowing women to be part of the *dorbar*, but again it is a rather limited kind of participation as the quote below from the headman reveals:

Traditionally, *dorbars* don’t even allow the women to vote; they are not allowed to hold office in the executive committee. In a locality [like *Laitumkhrah*] you may have one or two women who are members of the executive committee, but they are not allowed to hold the post of secretary or *rangbah shnong* [headman].

Within the state governance system, the opportunities for Khasi women are relatively better, as women can vote and hold office at all levels. Political parties typically have a women’s wing, such as the Mahila Congress Committee and the women’s wing of the Hill People Union. These groups give some political and administrative representation to women (Joshi 2004). During elections, they actively participate in political campaigns. And despite the relative lack of a political voice in the state, women turn out in large numbers

to vote. In the 2013 state election, four women were elected to the 60-seat legislature. Three of them hold ministerial portfolios – in the Home Department, the Department of Urban Affairs and the Department of Social Welfare (Liberty Institute 2013a). In the 2013 assembly election, of the 345 candidates who ran for office, 25 were women and eight of these women ran as independent candidates, not representing any political party (Liberty Institute 2013b). The reasons cited for so few women in politics are a lack of interest among women and an unwillingness of political parties to field women candidates.

Opportunities and barriers for participation of men and women in traditional and constitutional political institutions

Figure 4.2 Opportunities and barriers for participation of men and women in traditional and constitutional political institutions

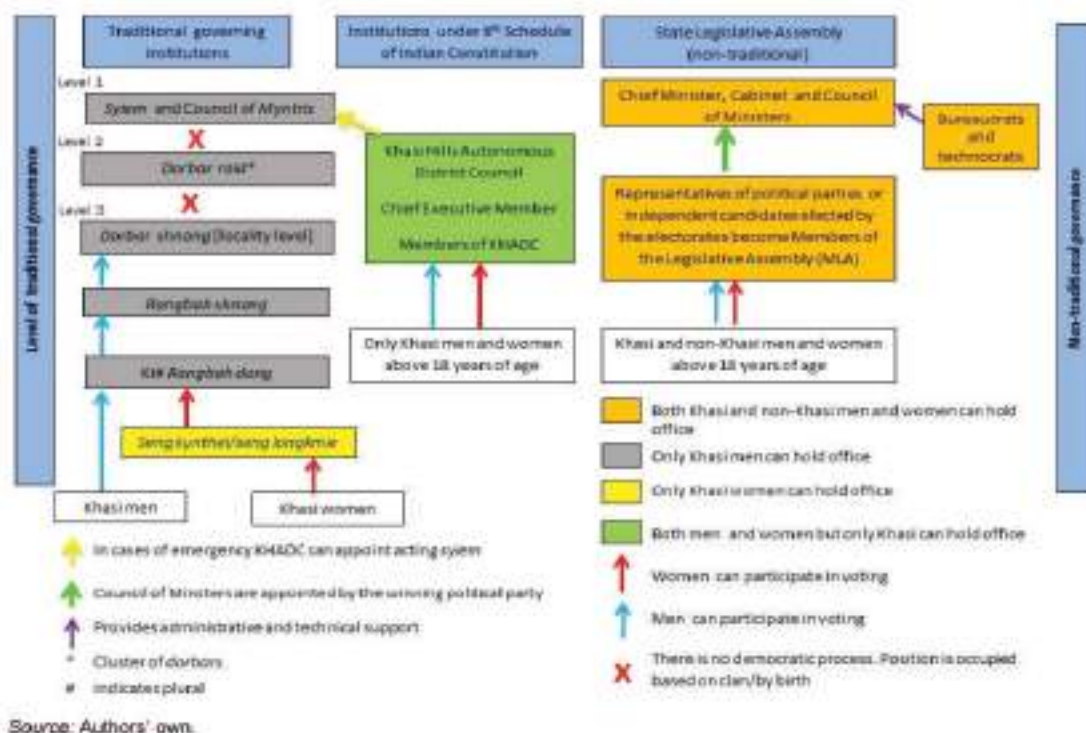


Figure 2: Opportunities and barriers for participation of men and women in traditional and constitutional political institutions

Discussion and conclusions

Research and collection of data at different levels is crucial for improving health systems (Ranson, Law and Bennett 2010; Remme et al. 2010; WHO 2007; WHO 2009). Estimation of disease burden based on sound epidemiological investigations can help shape public policy regarding health (NCMH 2005). Such evidence can also inform and enable policymakers and health professionals to judiciously target and prioritise disease and decide on where and when they will launch interventions (WHO 2014a). This is generally lacking in Meghalaya. Currently, there is no comprehensive data available on disease burden and health trends in the state. Nor is there much local research on the social and cultural factors that affect health. Similarly, the absence of good-quality empirical data can affect programme design and, consequently, outcomes (NCMH 2005). Most of the policies and programmes in the state of Meghalaya are Centre-driven to achieve national goals. It is unclear what proportion of the national priorities reflects local ones. Although it could be argued that poor health indices necessitate focusing on national health goals, it could also be argued that availability of locally relevant contextual data would enhance local goal setting and policy formulation, and also help in implementing programmes effectively (for example, family planning).

Meghalaya is not unique in terms of this lack of health-based statistics. Many cities lack city specific epidemiological data, have inadequate information on the urban poor, and/or are unaware of the use

of existing health facilities. The result is that health planning is not based on community needs (NUHM 2013: 27). When data is available in survey form, there is a lack of disaggregated data. This potentially hides health inequalities between and within communities, and obscures poor people's lack of access to health services. Being unable to determine which women are dying from what interferes with designing strategies to reach the most vulnerable populations (Khanna 2013; Hazarika 2010).

Though government and policymakers are beginning to recognize the importance of community participation in decision-making, often public policies are made without adequate input from outside sources and without adequate debate on the issues (Agrawal and Somanathan 2005). In Meghalaya, there is limited opportunity for public participation and a lack of transparency in the decision-making process. Poor understanding of the policy process and a lack of capacity may also be factors hindering the proactive participation of public and civil society in the process. There are few, if any, structural and procedural mechanisms for community participation when it comes to developing policy and prioritising health needs in Meghalaya. Although the NUHM envisages active community participation and provides guidelines for establishing community processes, these are rudimentary at present and fraught with challenges. The community-based selection of the ASHA worker is an important tenet of the NUHM but in Meghalaya often it is the headman who controls this selection (CRM-7 Meghalaya 2013).

In Meghalaya, despite the Khasi society being matrilineal and matrilocal, women are largely excluded from local indigenous political systems and processes. In the traditional institutions in Shillong, the *dorbar* (local council) women cannot hold office nor are they allowed to attend *dorbar* meetings (Lalkima 2009: 45). The *seng kynthei*, (traditional women's organisation) has a limited role and capacity in decision-making in community matters. The tradition of public politics and administration being a man's domain is strongly embedded in Khasi society. First, women cannot hold the highest post of governance. Second, their membership is limited to women's organisations. Third, they are deprived of voting rights within traditional institutions. As a result, women's views and perspectives are often not heard. The question is: when women's voices are never heard, can their SRH and rights be a priority?

SRHR are understood as the rights of all people, irrespective of age, gender and socioeconomic status to make informed choices regarding their own sexuality and reproduction (UNFPA 2008). Our findings suggest a narrow understanding of SRH issues among both the urban poor and policymakers in Shillong that is restricted to family planning. The dominant discourse among both groups pays no attention to women's sexual and reproductive rights, including the right to pleasure. Instead, SRH is related to a narrow view of family planning with a focus on specific contraceptive technologies and a narrow view of maternal health focusing on hospital-based deliveries.

There also exists a culture of silence with respect to SRH among Khasi women. Despite cultural mores that are more liberal than in other parts of the country, for example with regard to co-habitation and choice of marriage partner, women acknowledged that it is not easy to discuss matters pertaining to sexual health. These views have been corroborated by young indigenous Khasi students (War and Albert 2013).

Gender norms and inequalities are barriers to women in making decisions about their own health, which can then serve to limit their access to health services. Women reinforce their own exclusion by subordinating to a headman, who is also in many ways powerless in relationship with the government. Given their limited political power, the ability of women to participate in public decision-making when it comes to SRH is minimal. Although women do participate to some extent in state governance bodies, their own experiences, needs and preferences are largely invisible to policymakers. Many women have internalised a sense of inferiority that prevents them from actively participating and voicing their ideas.

Economic and social conditions are factors that influence differences in health status and health inequality. Poverty is a contributory factor to illness, as the poor typically lack proper shelter, clean water and sanitation, and they have limited access to nutritious food (WHO 2014b). The general issues related to water, sanitation and shelter hold true for urban slums in Shillong too. As purchasing power shrinks, so too does the ability to afford nutritional food. Malnutrition and illness mean that more money will be spent on health care (Black et al. 2008). Out-of-pocket expenditure for health can be so high that they can push households into poverty (WHO 2005). Our findings also suggest that poverty, illness, and out-of-pocket expenses are part of a vicious cycle that deters women from accessing health services.

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Exercises

1. According to the article, unlike other regions of India, Khasi women are largely able to make health-care decisions on their own. Yet they appear no better off than other women living with health systems that don't respond adequately to their reproductive health needs. According to NFHS5, women in Meghalaya have more empowerment to make decisions about health care for themselves

Currently married women who participate in household about health:

Meghalaya	Meghalaya	India
NFHS4	NFHS5	NFHS5
91.4%	92.3%	88.7%

In spite of being empowered to make her own decisions, why do women in Meghalaya have such poor health indices?

2. One of the participants, a young woman, said.

"He starts drinking at night. When he is drunk, he looks for fights, accuses me of having an affair. When I was pregnant with my first child, he told me he had an affair with another woman. So, I decided to leave him, I was 20 years old. I could not think properly, I felt ashamed to be a single mother. I felt scared... I thought I would go crazy with worry.

Please discuss the health problems that arise for women from these social issues.

- a. Alcoholism

b. Domestic disharmony

c. Adultery

d. Abandonment and divorce

e. Single motherhood

How Traditional Agriculture Contributes to The Global Narrative for Sustainability: A Case from A Community in Northeast India

Melari Shisha Nongrum and Bethamehi Joy Syiem

Introduction

In the global food systems narrative, Indigenous Peoples and their food practices and knowledge systems recently have been recognized as a system that fosters resilient agricultural systems; the contribution of farmers to the conservation and development of plant genetic resources has been recognized, leading to a re-evaluation of how to strengthen agri-food systems at the local level (Food and Agriculture Organization of the United Nations [FAO], 2009). Among these indigenous food systems, shifting cultivation is a major agricultural practice.

As per the United Nations' *Glossary of Environment Statistics* (1997), shifting agriculture is a "system in which a plot of land is cleared and cultivated for a short time, then abandoned and allowed to revert to producing its normal vegetation while the cultivator moves on to another plot" (p. 66). In 1957, the FAO declared shifting cultivation to be the most serious land use problem in the tropical world (FAO Staff, 1957). This resulted in the start of a consistent narrative around this agricultural practice (and any other form of indigenous farming) as primitive and unscientific, although it continues to exist as a critical farming method for Indigenous communities across the tropics.

A closer look at shifting cultivation reveals its potential to adapt and mitigate climate change through its agroecological features (Erni & Carling, 2014). It aligns with the United Nations' Committee on World Food Security (CFS) target goals for food security through its potential for sustainable food production. It can provide a diverse, extended, and nutritional food supply with lower pest pressures and higher surrounding biodiversity (FAO, n.d.). Carbon sequestration within the production area is also enhanced (Borah et al., 2018). Shifting cultivation, when "managed sustainably from the viewpoints of both natural resource management and household food security under conditions of sufficient and legally recognized access to land (Erni, 2015, p. viii), remains a suitable system for many Indigenous Peoples around the world.

Global Narrative

There is increased local government interest in traditional agriculture for sustainable food security (FAO, 2009) while also realizing the importance of maintaining the Indigenous people's cultures, environments, and food and knowledge systems (Kuhnlein et al., 2009). This discourse is relatively new in academia and policy, in contrast to the dominant international policy narrative that consistently 'dis-included' indigenous growing methods and which, in turn, influenced national agendas. For decades, laws and policies around indigenous food systems of colonial governments as well as postcolonial governments in Asia reflected this. The Lao government, for example, has consistently maintained a strict policy against swidden (shifting) cultivation since 1975 (Kenney-Lazar, 2012).

Indian Context

In India, too, shifting cultivation, locally known as *jhum*, *bewar*, *podu*, *valre*, and other names, has been misrepresented for decades. The geography textbook currently in use throughout the country and released by the National Council of Educational Research and Training (NCERT) refers to shifting cultivation as “slash and burn agriculture”—a form of “primitive subsistence farming” (NCERT, 2007, p. 34). This negative perception of shifting cultivation, which starts in school, continues to demonstrate the established paradigm: a narrative of shifting cultivation as harmful and backward.

Indigenous people groups make up 8.2% of India’s population (Office of the Registrar General & Census Commissioner, India, 2011). Government policies continue to incentivize settled agriculture at the state and national level even as an estimated 2,100,000 acres (8,500 square kilometers) are still under shifting cultivation.

For example, in the state of Mizoram (inhabited largely by Indigenous people), a new land use policy was passed in 2011, banning shifting cultivation and replacing it mainly with the cultivation of palm oil plantations (Bose, 2019). Forest departments of various states continue to see the practice as bad land use and a cause of forest destruction due to burning. The National Forests Policies, 1952 and 1988, have also emphasized the need to control shifting cultivation and rehabilitate the affected areas (Tripathi & Barik, 2003). From 1983 to 2008, the government of India continued its drive to move away from shifting cultivation and toward the rehabilitation of Indigenous farmers through land consolidation, social forestry, the promotion of horticulture, the cultivation of cash crops, and other measures (Satapathy & Sarma, 2003).

Nonetheless, in 1997, the World Resources Institute (Thrupp et al., 1997) addressed various myths and realities around shifting cultivation, noting that the practice was diverse and nonlinear, responding to both agroecological and socioeconomic factors. Moreover, through the documentation in 2015 of the International Centre for Integrated Mountain Development (ICIMOD), supported by the International Fund for Agricultural Development (IFAD), it was revealed that the common stereotype of shifting cultivators as engaging in wanton destruction of forest ecosystems is more the result of “misunderstanding and misinterpretation than a real truth” (Erni, 2015, p. 12).

A historical analysis of the use of controlled fire among forest dwellers and Indigenous people shows that the use of controlled fire dates back to 50,000 years. This use of controlled fire has been mainly for the maintenance of forest ecosystems and pest control (Thekaekara et al., 2017). Since then, the FAO itself has changed its stance—most notably with the FAO Policy on Indigenous and Tribal Peoples 2015, which provides a clear framework that engages with the interests of Indigenous communities in the context of agriculture and food policy. This shift of perspective has emerged from key international instruments, such as the International Labour Organization (ILO) Convention 169 (Indigenous and Tribal Peoples Convention, 1989) and the subsequent United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) (2007), which has had significant policy implications in recognizing the role of Indigenous Peoples as indisputable stakeholders in the development mandate in the world.

In India, a similar change in policy orientation emerged with the National Institution for Transforming India (NITI) Aayog, the premier think tank of the national government, when releasing the report *Shifting Cultivation: Towards a Transformational Approach* (Pant et al., 2018). This was the first time the Indian government had recognized a road-map for a positively transformative approach to shifting cultivation policy in India. Recognizing the significance of indigenous food systems for many upland states in northeastern India, the need to do away with previous policies’ incoherence, and the importance of regenerating fallow land for increasing forest cover, the report brought about a new optimism for the possibility of new national policy that would be beneficial to Indigenous Peoples, and especially Indigenous farmers of upland regions (Pant et al., 2018).

However, questions remain. If New Delhi’s premier think tank recommends changes, will it translate into tangible outcomes for Indigenous farmers?

Shifting Cultivation in Meghalaya

Drawing from the above inquiry, we will examine the case of a small state in the Himalayan region of northeast India, Meghalaya. It has a population of 2.9 million, of which 86% are Indigenous people (Census of India, 2011). The state is inhabited mainly by the Khasi and Garo Indigenous communities, both of which practice the matrilineal system of lineage and inheritance. Women play crucial roles in agrobiodiversity management, subsistence agricultural production, and household food provisioning (Ellena & Nongkynrih, 2018). Both shifting and settled agriculture are practiced in this hilly state, with 80% of its population depending on agriculture for their livelihood (Rao et al., 2013). Meghalaya also represents an important part of the Indo-Burma biodiversity hotspot, with high species diversity and a high level of endemism (Meghalaya Biodiversity Board, Government of Meghalaya, 2017).

The mainstream narrative around jhum cultivation in Meghalaya, especially among policymakers and those in government, is negative. Despite Meghalaya's government being dominated by Indigenous people, it brought out a planning document detailing the government's vision for 2030 that explicitly stated that shifting cultivation poses one of the greatest dangers to Meghalaya's forests (Rao et al., 2013). Even the Meghalaya State Biodiversity Strategy & Action Plan 2017, released by the Meghalaya Biodiversity Board, sees shifting cultivation as a threat to biodiversity (Meghalaya Biodiversity Board, Government of Meghalaya, 2016).

Despite this dominant mindset about shifting cultivation, ethnological studies have shown that *jhumming* is a diversified system, well adapted to local conditions in moist forest and hilly tracts (Shankar Raman, 2000). Shifting cultivation in its practice of clearing small patches of forest with long fallow periods is, in fact, beneficial to biodiversity, due to the creation of a variety of habitats. Mixed cropping is managed over time through sequential harvesting and crop rotation (Prakash et al., 2017). Farmers in Meghalaya can plant at least 45 traditional varieties of crops throughout the different seasons (NESFAS, 2019).

Further, contrary to the common modern belief that shifting cultivation degrades forests, it has been documented that the fallows are a carbon sink and sustain the local climate. As a system, it is an integrated approach to establishing an agroecosystem in the difficult terrains of tropical hill regions that involve forest, soil, biodiversity, and livestock management through Indigenous culture, tradition, and rituals that coevolved with the associated ecosystem (Bhagawati et al., 2015). Also, a long fallow period of 15 years or more after a crop cycle can restore the original soil conditions (Karthik et al., 2009). It is essential to note that the fallow land continues to be a source of fuel and food for the Indigenous communities, as they can forage wild edible plants to supplement their food and nutritional security.

Besides the apparent benefits from shifting cultivation, the larger discourse of the rights of Indigenous people is to secure their food security and food sovereignty. Shifting cultivation relates to "food sovereignty" in that it allows for achieving food security at the local level while also protecting people's broader values and rights regarding traditional farming (Leventon & Laudan, 2017). This is largely due to the adaptable nature of shifting cultivation as a food system. In the upland areas of Meghalaya, bun cultivation, a modified version of the traditional shifting cultivation, is practiced. Modifications of bun include changes in cropping patterns, a reduced fallow period, and organic pest management, among others. These adapt well to the local climate and have demonstrated higher economic and food returns. Reasons behind the adaptation are linked to two essential factors: a steady rise in population and a reduction in available common lands (Upadhaya et al., 2020).

This adaptability also allows for indigenous sustainability solutions to emerge even in the face of new challenges, such as shifting cultivation. In Meghalaya, Indigenous farmers have responded in innovative ways, such as developing their own indigenous weather forecasting methods and saving traditional, stress-tolerant seeds, which demonstrates the climate-resilient nature of indigenous food systems (Mawlong, 2020; NESFAS, 2018, 2019, 2020). Also, in light of the COVID-19 pandemic, it is imperative to recognize the integral role of indigenous food systems in the larger discourse around "health and sustainability solutions." These indigenous food systems are also critical for Indigenous people's own response to current and future pandemics (Argumedo et al., 2020).

The Way Forward

The importance of shifting cultivation for Indigenous Peoples has been underlined in highlevel policy documents (such as reports, research papers, etc.) as well as through academic research and discourse. Yet, these have little influence on the ground unless they are made enforceable through policy or law and are disseminated and made widely available. Hence, we ask, how do we put policy into practice? What remains is the need for a change in perspective. In order for the narrative to change, the way that people think about shifting cultivation must change. A change in mindset among local policymakers and government officials through engagement and dialogue would pave the way toward support for this indigenous food system. This would then inform new policy in the state to shift its focus from narrow, sectoral approaches to more contextual interventions that bring about a balance between the promotion of traditional shifting cultivation and the prevention of overexploitation of natural resources. This is because if *jhumias* (or practitioners of shifting cultivation) are given adequate support, they will be able to leverage their traditional ecological knowledge (TEK) for better natural resource management and promote higher agrobiodiversity (Darlong, 2004).

A transformed and “transformational” approach to the subject also has larger implications for food sovereignty and nutrition security (Behera et al., 2016). Further research on the subject is also much needed to create a strong and credible database on shifting cultivation in the region. But beyond that, increasing education and raising the awareness of representatives in government, officials in positions of authority, and policymakers in the state are the most critical factors to a transformed approach. A change in mindset can only be the product of a gradual change in local narratives around traditional food systems.

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SECTION D

Annexures

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Annexures

Health data	QR Code
1. National Family Health Survey India Factsheet 5 https://rchiips.org/nfhs/NFHS-5_FCTS/India.pdf	
2. National Family Health Survey Meghalaya Factsheet 5 https://rchiips.org/nfhs/NFHS-5_FCTS/Meghalaya.pdf	
3. DLHS-4 Meghalaya State and Districts Facts Sheet Compendium https://rchiips.org/pdf/dlhs4/report/MG.pdf	
4. The Compendium of District Factsheets Tribal Health and Nutrition- https://anamaya.org.in/wp-content/uploads/2022/02/1-Compendium_Exec-Summary.pdf	
5. Tribal Health Factsheets: Meghalaya https://anamaya.org.in/wp-content/uploads/2022/02/1.-Vol-01_PART-A-Tribal-Health-Factsheet.pdf	
	QR Code
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8. Meghalaya Mental Health and Social Care Policy 2022 https://megsocialwelfare.gov.in/Meghalaya%20Mental%20Health%20and%20%20Social%20Care%20Policy%20%20(2022)%20.pdf	

Publications by MLCU

Articles and Thesis	QR Code
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Book and book chapters	
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7. The need for reproductive health and sexuality education for tribal youth R. Jennifer War and Sandra Albert (2021). In: <i>Gender, Sexuality & Society in Northeast India: Contextual studies of tribal communities</i>. Ed: Rytihlin Jennifer War and Glenn C Kharkongor. MLCU Press.	
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SECTION E

For Facilitators and Resource Persons

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For Facilitators and Resource Persons

Chapter 3: Factors Influencing Health Seeking Behaviours

Nandaris Marwein

Objectives

1. To enhance the students' theoretical knowledge and interpret tribal health-related issues through local worldviews
2. To enable students in identifying and evaluating the factors influencing the health-seeking behaviours in tribal communities
3. To provide students with planning skills for advocacy and intervention activities which are culturally relevant

Assessment Methods

- Take Class or Google form assessment on the concept of health, health-seeking behaviours and the related factors
- Interaction with traditional practitioners and frontline workers about health-seeking behaviours of tribal people
- Group discussion and presentation on the scenario/cases based on the factors affecting tribal health
- Summative Assessment to review the subject chapter

Tool:

Learning Cards

Factors

Chapter 3: Health Seeking Behaviours

Cultural and Religious Factors:

Despite the constitutional status and positive discriminatory measures, the lives of Schedule Tribes (STs) have remained miserable and often suffer from different forms of discrimination, suffer from poor educational, occupational and health status. Regardless of the facts that tribal people have rich art, artifacts and culture yet they often face atrocities and unequal opportunities to participate in the main stream as their culture and religious beliefs considered less important.

Scenario 1: In Meghalaya, many people still hold on to their traditional faith in local medicines. It was believed that infection such as *niangsohpet* (*niang* means germs, *sohpet* means the navel) which is infant diarrhea and yellowness of the conjunctiva and skin during infancy, known as neonatal jaundice can be treated by herbal medicine known as *ka dawai niangsohpet*, which kills the germs and eliminates them from the body. This medicine is prepared by local traditional healer.

Scenario 2: During pregnancy, tribal women in Odisha used to seek herbal medicine from the local guru or traditional practitioner and they also perform the *bejini* for *puchuna*, a ceremony which involves sacrificing a hen or goat. Illness during pregnancy is considered a sign of revenge of the spirit which is in mother's womb for the wrong done by the pregnant lady. There was also a belief that complications and death will occur anyway and nothing can really be done to stop the will of God.

Scenario 3: Some tribal communities believe that health is conditioned by natural balances of environmental and physiological factors such as wind, cold and the secretion of bile. Some have faith in the principle of Panchabhuta (five elements) earth, water, fire, sky and wind: that control the human body and mind. A person may fall sick because of evil eye, evil touch, and sorcery. These diseases may be treated by the traditional physician through of magico-religious acts and spells.

Instructions for Assessment:

1. Divide into 3 groups with 4-5 group members.
2. One group leader for each group.
3. Discuss on the case; justify your agreement and disagreement on Traditional healing practices.
4. Add more similar practices from your culture/religion.
4. Chart papers and sketch pens will be provided for writing the points.
5. After discussion, each group will present their findings.

Chapter 4: Communicable and Non-Communicable Diseases in Tribal Communities

Nandaris Marwein

Objectives

1. To enhance knowledge about communicable and non-communicable disease prevalent in tribal areas.
2. To analyse the burden of communicable and non-communicable diseases in tribal communities in tribal communities.

Assessment Methods

- Discussion with the community on communicable and & NCDs using seasonal calendar.
- Interaction with traditional practitioners and NGOs on their health management strategies and practices.
- Summative Assessment to review the subject chapter.

Tool kit

Seasonal Calendar Based on The Months of The Year:

Problem/s	J	F	M	A	M	J	J	A	S	O	N	D	Reasons/Factors
Tuberculosis													
Malaria													
Substance use (Alcohol)													
Cholera													
Air pollution													
Rain													
Drought													
Water pollution													
Flu/Cold													
Allergies													

Chapter 5: The Tribal Way of Life and Wellbeing

Nadeen Pakyntein

Objectives

1. To enhance the students' knowledge and comprehension of the concepts and implications of lifestyle.
2. To enhance the students' knowledge and comprehension of the concepts and types of wellbeing.
3. To describe the tribal way of life, and examine the tribal way of life and its impact on health.

Assessment Methods

Class Activity: Group Discussion on Lifestyle

Scenario analysis on the types of wellbeing: group discussion.

Chart paper presentation of tribes of Northeast India. Discussion with teacher and class after the presentation should pertain towards indigenous way of life and the impact on the wellbeing of the tribal communities caused by globalization, employment, education, and lifestyle habits.

Toolkits

Activity 1: Worksheet and discussion points.

Activity 2: Scenario vignettes.

Activity 3: Videos of the tribal way of life from other parts of the world to be shown to the students.

Activity 4: Chart paper presentation of tribes of Northeast India.

Activity 1

1. Objective of the activity: Students to be able to analyse their own daily activities and the impact of these daily activities on their health.

Morning/ Afternoon/ Evening/ Night	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday

- a. List Down the Daily Activities You Do in A Week:

- b. Out of these activities that you do, which ones would you consider as healthy activities and which ones do you think are impacting your life in a negative way?

Activity	Healthy	Unhealthy	Remarks

- c. Group Discussion on the Activity (students to form groups of 5 with a group leader)

2. Scenario Analysis on The Types of Wellbeing

Case 1

Hamepaia is a 20-year old Pnar male youth studying in a college, on a full scholarship. His single mother works as a domestic helper. In college, initially he struggled with making friends and also struggled in communicating with his teachers during lectures and discussions. Eventually he did make friends with a group of boys in his class. They were nice to him at first but as the weeks passed, they began excluding him from the group. Hamepaia felt unhappy. He felt that he needed to be like them so that they would accept him in the group. He wanted to wear the same brands of clothes and shoes that his friends wore. He wanted to have the latest smart phones that his friends had. He then pressured his mother to give him money to buy things.

He also started a romantic relationship with a girl because all his friends had girlfriends. Hamepaia began bunking classes with his friends to go out for drives and drinking. These were the activities that his friends were engaged in and he wanted to do the same. Within a month's time Hamepaia had changed from when he first joined college. After a year, Hamepaia was called by the scholarship coordinator who informed him that his performance for the year had been weak and his attendance was bad.

1. Due to this, Hamepaia was asked to withdraw from the college.
2. What do you think is the reason for Hamepaia not attending classes regularly?
3. Do you think that social relationships can affect the wellbeing of an individual?
4. How did social relationships affect Hamepaia's life?
5. What could have Hamepaia done differently?

Case 2

Wandabaieid is a 16-year old Khasi girl studying in class 12 in a good school. She was a popular student, who worked hard in her studies and had many friends. She was involved in all the activities of her school and was appointed the School Representative. Wandabaieid was active in social media and was often tagged in posts that involved her friends and school activities. One day as Wandabaieid was scrolling through her Instagram account, she received a friend request from an account with the name of a schoolmate. Wanda did not think twice and accepted the follow request. Eventually she became buddies with this person and shared a lot of messages and pictures.

One Saturday morning, Wanda awoke to many notifications in her Instagram account, she tried accessing her account but could not open the account. She was worried but did not think much as she had to get ready for her morning tuition and left her phone charging at home. When she reached her school, she saw that her peers looked at her in a strange way, but she did not say anything. She went class. Her friends ignored her, walked away and sat separately. Wanda wondered why her friends were behaving strangely and decided to talk to them after class. But as soon as the classes were over, her friends left hurriedly and did not even bother to talk to her. Wandabaieid was getting more worried. By the time she reached home, she was in tears. Wanda checked her phone and still could not access her account. Her brother scolded her for sending inappropriate messages to his friends and for posting inappropriate images on her account. Wanda was shocked about this and cried telling her brother that she could not access her Instagram account and they realised that her account was hacked.

Over the next few weeks, Wanda had to undergo public shaming and lewd comments from peers and people in her community. This caused her distress and anxiety. Even when the issue was resolved and her friends started to talk to her again she was still suffering from anxiety and sleepless nights. Wanda stopped taking part in school activities, her academic performance and attendance was affected badly. She wanted to drop out of school but her family did not let her. In the months that came Wandabiang complained of headaches and sleepless nights. Eventually she dropped out of school and went back to her village to work in her grandparent's farm.

1. Do you think that adverse circumstances can affect the psychological wellbeing of a young adolescent?
2. How do you think the incident affected Wandabaieid's emotions and mental health?
3. How do you think the incident affected Wandabaieid's performance in school?
4. What kind of support can be given to Wandabaieid at the level of the school and the community?

Case 3

Bahduh is a 25-year old youth who had just completed his undergraduate course in a reputed college. Bahduh decided that he would start looking for jobs and not pursue further education. Eventually in a few months he gained employment in a company. As the years passed, Bahduh became accustomed to long hours of work, less sleep and eating food ordered through a delivery app. Bahduh loved his job and was performing really well.

After five years of service, he was up for a promotion. The long hours of sitting, typing, reading files, eating take out and not getting enough sleep finally got to him. Just the day before his promotion, as Bahduh was getting ready for work, he felt a tightness on his chest and thought maybe he was getting too fat. By lunch time his entire left arm was aching. He carried on working. In the evening, Bahduh was found unconscious in his office. He had suffered a fatal heart attack.

1. What do you think actually happened to Bahduh?
2. What could have Bahduh done differently in his situation?
3. Do you think our daily habits can affect our physical wellbeing? Explain

Activity 3: Videos of the way of life of indigenous communities from other parts of the world to be shown to the students.



Activity 4: Chart paper presentation of tribes of Northeast India

Students are to be divided in groups of 3-5 members each

1. Students will present the following about any tribe of the Northeast:
 - a. Traditional wear and the significance of the attire.
 - b. Traditional marriage customs.
 - c. Traditional foods, foods with medicinal properties.
 - d. Traditional livelihoods.
 - e. Education in rural areas and education in urban areas.
2. Discussion with teacher after the presentation should pertain to indigenous way of life and the impact on the wellbeing of the tribal communities caused by globalization, employment, education and lifestyle habits.

CHAPTER 6: Maternal and Child Health

Nandaris Marwein and Careen J Langstieh

Objectives

1. To review health indices, and maternal and child health services, especially among tribal communities.
2. To reflect on traditional beliefs and practices pertaining to the health of tribal women and children.
3. To design health education interventions for health behaviour change in women and child healthcare.

Assessment Methods

Class assessment on the components of service delivery under RMNCH+A:

- Interaction with Traditional practitioners, Mothers, Wise elders, Farmers, NGOs, frontline workers on their roles to maternal health.
- Data/Pictorial interpretation maternal and child health.
- Story telling on the experiences from traditional medicine treatment.
- Documentary/Article analyses on RMNCH+A services from tribal perspective
- Summative Assessment to review the subject chapter.

Assessment Method 2 (1credit: 30 hours)

No	Community/health facility	Hours	Assessments	Remarks
1	Traditional practitioners	10 hrs	Reflective essay & Presentation on learning outcome. (pictorial/Videos/ Reflective dairy)	No Format will be provided, Teachers will assess based on student's creativity and innovative ideas
2	ASHAs & AWWs; Mothers	2+3 (5hrs)		
3	PHC/CHC; Wise elders	2+3 (5 hrs)		
4	NGOs	5 hrs		
5	Farmers	5 hrs		

Maternal and Child Health Pictorial Album



Things to Remember:

1. Discuss & generate one Title from the pictures.
2. List down anything you see in the pictures.
3. Interpret the meaning/concept of each picture keeping in mind maternal & child health.
4. If a Khasi learner, narrate the story of each picture.
5. Insert caption in each picture.
6. Divide into groups with 3 members each.
7. Note down in chart paper and then present.

Chapter 7: Food, Nutrition, and Wellbeing of Tribal Communities

Melodynia Marpna

Objectives

1. To describe the food, nutrition, and nutritional status of tribal communities.
2. To learn from tribal people to identify and document their edible foods.
3. To identify the food groups of the Food Agriculture Organisation (FAO).
4. To categorize the local and seasonal food of tribal people according to the 10 food groups.

Learning Outcome

- Acquiring a positive attitude and integrating traditional food systems of tribal communities to combat malnutrition in communities.
- Identify and document the edible food of tribal communities from tribal people.
- Skillful to measure the minimum dietary diversity of women in tribal communities.

Assessment Methods

- Class or Google form assessment on the concept of food and nutrition in tribal communities.
- Students to prepare a report on their visit to the farmer's market and agrobiodiversity walk or transect walk.
- Report on field learning about the dietary intake of tribal people.

Toolkit

- Worksheet: Minimum Dietary Diversity for Women (WDD).
- Worksheet: Fieldwork- visit a farmers' market and document locally available food.
- Worksheet: Agrobiodiversity walk or transit walk- documenting wild edibles.
- Worksheet: Colourful foods - Think and categorize the food groups.

Activities and Assessment

Activity 1: Minimum Dietary Diversity for Women (WDD)

Interview and record the Minimum Women's Dietary Diversity (WDD) of five tribal women in the community. Use the worksheet "Measuring Minimum Dietary Diversity (MDD) for Women in tribal communities".

Instructions

Ask the respondent to recall the food she ate the previous day. Enter the information in the worksheet under section 1.

Ask the respondent if she ate any food from the food groups. Tick either "yes" or "no" in section 2.

Ask her if she took any unhealthy food groups (grey highlighted area) the previous day

Enter the total number of food groups she ate the previous day excluding the unhealthy food groups.

Ask and fill in the additional information.

How to Determine the Women's Dietary Diversity (WDD)?

FAO (2021) states that an intake of:

- more than 5 food groups are considered a good dietary diversity.
- intake of 4 or less than 4 is considered poor dietary diversity. If the dietary diversity is less than 4, you can encourage the women to eat more than five food groups. You can conduct activity 4: Colourful foods- Think and categorize the food groups.

Remember

Always encourage tribal communities to eat traditional diets and food that are locally and seasonally available.

Activity 2: Fieldwork

Visit a farmers' market and document locally available food. Use the worksheet "Farmers' Market Survey". The survey participants are the farmers or vendors who sell their produce in the market.

Please note: it is advisable to get prior permission from the local governing body before collecting data from the market.

Let's Stop and Think:

- What did you experience in the farmers' market?
- Your key learnings (pricing, seasonal availability, food diversity, unique foods, any other).
- Reflect on the experience.

Activity 3: Agrobiodiversity Walk or Transit Walk- Documenting Wild Edibles

Tribal communities are aware of a variety of food found in their ecosystem. An agrobiodiversity walk is a walk in the tribal community. They observe and learn to identify and cook different edible foods from a wise elder with traditional knowledge of edible food and uncultivated food. Students can document the edible foods and uncultivated food in the Worksheet "Agrobiodiversity Walk- Documenting Wild Edibles, and Uncultivated Food"

Activity 4: Colourful foods - Think and categorize the Food Groups

Materials required: blue tag, pictures of locally available foods, Chart- think and categorize the food group. Time: 15 minutes for the activity

Instructions for the Facilitator:

1. Divide the participants into groups of 3 people
2. Distribute randomly the pictures to the group

Instructions for the Participants:

1. Look at the pictures given to: your group and discuss with your team where to stick the pictures in the Chart- think and categorize the food groups. Use a blue tag to stick them.
2. You need to categorize the locally available food as per the 10 food groups (FAO).

Let's Stop and Think:

(Individual Reflection)

- Yesterday, did you eat at least five food groups from locally and seasonally available food?
- If yes, list down the foods and reasons for eating them *(Possible reasons: easily available, I like them, they are cheap, any other reasons)*
- If no, what were the reasons that you were unable to include locally and seasonally available food *(Possible reasons: not available, dislike, not aware of, don't know to prepare, cultural reasons, any other reasons)*

Worksheet

Farmers' Market survey

Date of Survey (dd/mm/yyyy): _____

Season: _____

Location (District and Block): _____

Name of the market: _____

[illegible]

Information collected by: _____

Worksheet

Measuring Minimum Dietary Diversity (MDD) for Women in Tribal Communities
(Food Agriculture Organisation, 2021, Gibson and Ferguson 2008)

Code No: _____ Date of survey (dd/mm/yy): _____

*District and Block:*_____ *Community name:* _____

Name of respondent: _____ Age (in years): _____

The respondent ate and drank the previous day:

Section 1			Section 2		
Time of day	Food/ Beverage	Ingredients of the food/beverage	Food Groups	Yes	No
			Grains, white roots and tubers, and plantains		
			Pulses (beans, peas or lentils)		
			Nuts and seeds		
			Dairy		
			Meat, poultry, and fish		
			Eggs		
			Dark green leafy vegetables		
			Vitamin A-rich fruits and vegetables (Yellow/orange vegetables and fruits)		
			Other vegetables		
			Other fruits		
			Fired and salty food (packaged salted food, deep-fried food, instant noodles, Fast food restaurant)		
			Sweet food		
			Sweet beverages (Sugar-sweetened beverage and sweetened infusion)		

Total Food Groups: _____

Additional Information: _____

Was the food taken, unusual? Yes: ☐ No: ☐ If yes, how was it unusual?	Probe for sickness: Yes: ☐ No: ☐ If yes, does sickness affects appetite? Yes: ☐ No: ☐ If yes, how? Increased appetite: ☐ Decreased: ☐
Was it a feast day? Yes: ☐ No: ☐ Was it a market day? Yes: ☐ No: ☐ Was it a fasting day? Yes: ☐ No: ☐	For tablets: Yes: ☐ No: ☐ Multivitamins: ☐ Iron: ☐ Others: _____

Worksheet

Agrobiodiversity walk: Documenting Wild Edibles, and uncultivated food

District and Block: _____ Community Name: _____

Date of Survey (dd/mm/yyyy): _____

Name of the Wise Elder of the Tribal Community: _____

Sl. No.	Local Name	Scientific Name	Edible part (Whole plant, leaves, roots, shoots, flowers, fruits, any other	Availability (Which Months)	Brief Description of cooking/preparing Method (Use a separate sheet to note down the detailed descriptions)

Chapter 8: Cultural Syndromes and Traditional Healing

Nadeen Pakyntein

Objectives

1. To enhance the students' knowledge and comprehension of the concept of cultural syndrome.
2. To comprehend the cultural syndrome and the symptoms that are prevalent in Meghalaya among the Khasi tribe, the Garo tribe and the Jaintia tribe.
3. To assess the cultural syndrome treatments that are provided by the traditional healers.
4. To understand and comprehend traditional healing as a practice.
5. To assess traditional healing practices for common illnesses prevalent in communities.

Learning Outcome

- Comprehension on the concept of cultural syndrome.
- Comprehension of cultural syndrome and the symptoms present among the Khasi tribe, the Garo tribe and the Jaintia tribe.
- Determining the cultural syndromes that are prevalent in Meghalaya.
- Examining the treatment procedure that are provided by the traditional healers.
- Inculcating a sense of appreciation for traditional healing practice.
- Demonstrating a positive attitude towards traditional healing practices.
- Acquiring knowledge on traditional healing practices and their significance for the indigenous communities.

Assessment Methods

- Class or Google form assessments on the concept of cultural syndrome.
- Students' ability to comprehend and explain the cultural syndromes present in their own communities.
- Students to prepare a report and roleplay on their visit to meet traditional healers and wise elders and other community members of the Khasi tribe, Jaintia tribe and Garo tribe.
- Report on field learning about the life of traditional healers.

Toolkits

- Activity 1: Group work on cultural syndrome.
- Activity 2: Mini project-story telling and roleplay.
- Activity 3: A day in the life of a traditional healer.

Activity 1: Group work

- Students to be divided into groups of 3 to 5 members each.
- Students are to make a list of the illnesses that are considered cultural syndrome in their own tribes.
- Students to explain what the symptoms of these cultural syndromes are and how they think these illnesses are cured in the community.

Activity 2: Mini Project - Story Telling and Roleplay

1. Students will visit traditional healers and wise elders and other community members of the Khasi tribe, Jaintia tribe, and Garo tribe.
2. Students to sit with the traditional healer in a circle for this activity.
3. They will prepare questions with the following objectives:

- To identify the cultural syndrome that are prevalent in the community.
- To learn about the symptoms of the cultural syndromes.
- To learn about the belief of the cultural syndromes.
- To examine the treatment practices of these syndromes.
- A group report must be prepared.
- The students will present their findings and reflection on the interview.
- Marks will be allotted based on the following criteria.
- Preparation of the unstructured interview schedule.
- Findings of the interview- the illness, the belief, the symptoms and treatment.
- Reflection.
- Reference management.
- Presentation skill.
- Time management.
- Presentation on anyone of the cultural syndrome will be made in the form of a roleplay.

Chapter 9: Disasters, Conflicts and Displacement in Tribal Communities

Larilin Kharpuri

Activities

1. Look at the illustration provided. List and identify the recovery capital in a Khasi community.

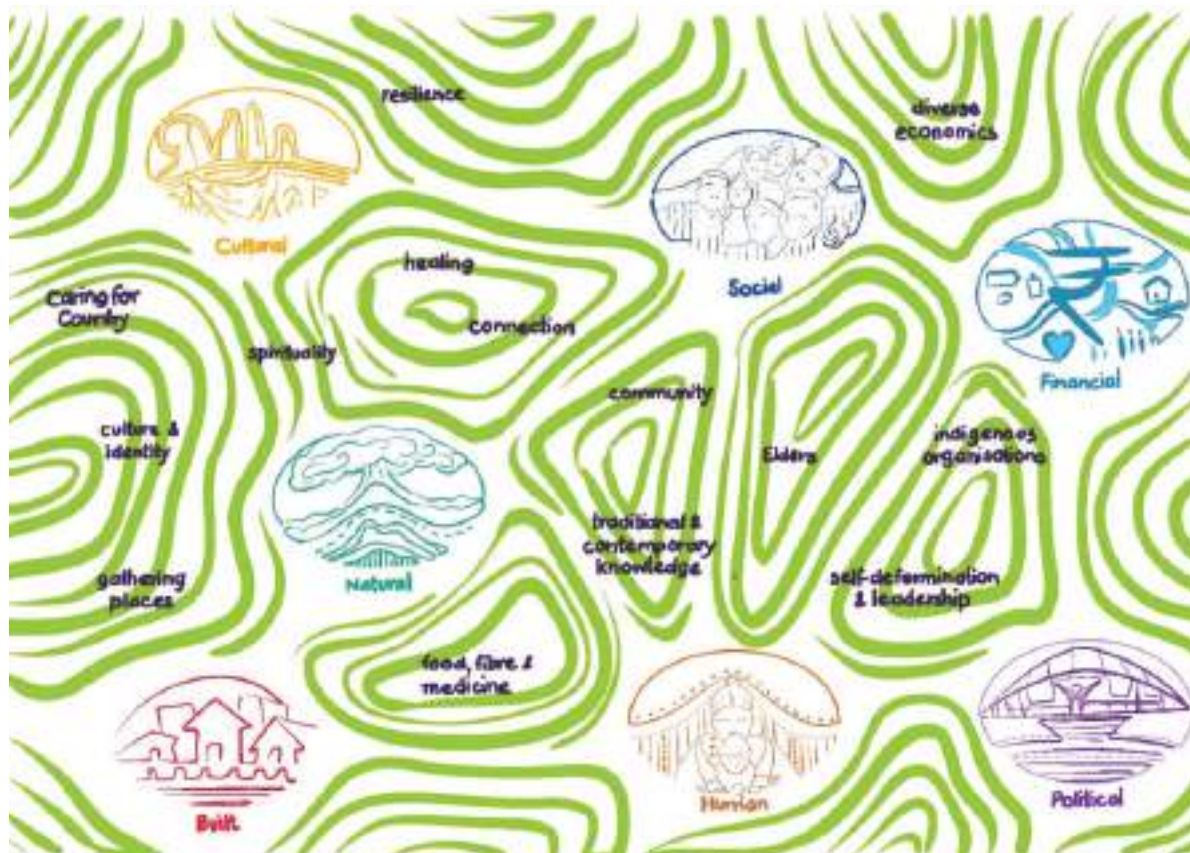


Figure: Khasi recovery capital (Artwork by Careen J. Langstieh)

At the community, identify the coping mechanism for trauma and displacement.

2. Visit a tribal community and find out the following:
 - a) List the conflicts that the community has faced to date.
 - b) What were the factors that led to the conflicts?
 - c) How did the community suffer due to these conflicts?
 - d) What are the ways and means that can resolve such conflicts?

Chapter 10: Traditional Health Practices

Badalamshisha Dkhar and Larilin Kharpuri

Objectives

- To familiarise the learners with the traditional health practices, specialisations of the traditional healers and types of diseases being treated.
- To inculcate a sense of respect towards the traditional healers and their contribution to primary health care systems especially in rural areas.
- To initiate a discourse on the challenges faced by traditional healers and herb cultivators.

Assessment Methods

- Community visits by the students to interact with traditional healers.

Activities

1. Students will interact with traditional healers in the community and find out the following:
 - List the diseases being treated by the traditional healers.
 - List the specialisation of the healers in the community.
 - Trace the source of knowledge, skills and talent that made them traditional healers.
 - Read *Sap* and the Traditional Healer: A Tribal (Khasi) Understanding of the Human Potential by Albert et al. (2015).
 - Compare and categorise with your findings from the field.
 - Are there any other sources that you have documented from the field which is not listed in the above article?
 - Write a reflective report on your interaction and observation with the traditional healers.

Toolkit

1. Students will interact with traditional healers in the community and find out the following:
 - a. List the diseases being treated by the traditional healers.
 - b. List the specialisation of the healers in the community.
 - c. Trace the source of knowledge, skills and talent that made them traditional healers.
 - d. Read *Sap* and the Traditional Healer: A Tribal (Khasi) Understanding of the Human Potential by Albert et al. (2015).
 - i. Compare and categorise with your findings from the field.
 - ii. Are there any other sources that you have documented from the field which is not listed in the above article?
 - e. Write a reflective report on your interaction and observation with the traditional healers.

Chapter 12: Tribal Health: Resilience and Wellness

Melissa D Kyndiah

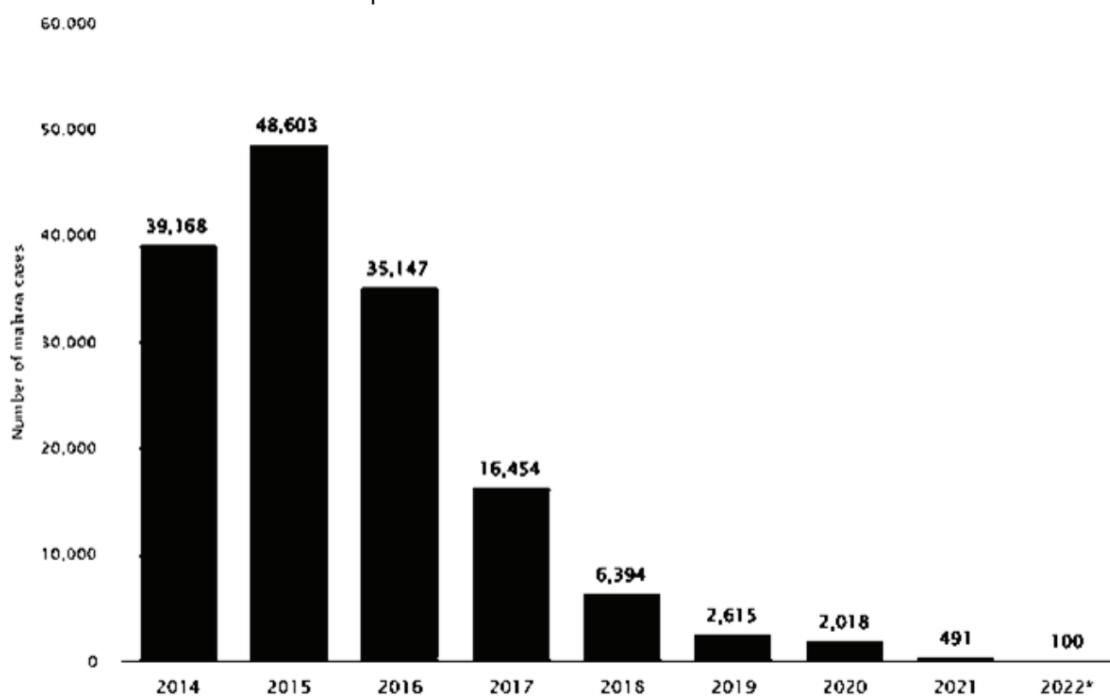
Objectives

1. Explain the concept of tribal resilience and wellness in relation to health, especially among the tribal people
2. Explore tribal people's attitude and behaviour modification in relation to health
3. Be aware of the resilience factors that tribals have in relation to health and prevention

Activity 1:

- What are the various health-related challenges that are faced by the tribal people?
- Study the graph below and answer the following questions:
- Which year shows the show the highest increase in malaria cases in Meghalaya?
- What does the graph indicate with regards to the year wise cases of malaria?

- Find out the reasons that led to increases in cases in 2015 and the drop in the cases from 2016 onwards?
- What are the tribal disparities that led to increase in malaria cases?



Source: <https://www.statista.com/statistics/976243/india-number-of-malaria-cases-in-meghalaya/>

1. Write a reflective paper on, "If traditional healing is the most acceptable, assessable and commonly used treatment method amongst the tribal people, then why are traditional health care practices not given much importance as compare to allopathy?"
2. What are the factors that contributes to tribal resilience?
3. How can tribal resilience be used as a mechanism for promoting tribal health.

2. Identification of Tribal Resilience Factors

A Case Study of the X Tribe (a Fictional Tribe):

In this case study, we will explore the story of a fictional tribe the X Tribe, a remote indigenous community, to understand how they have harnessed resilience to address their health challenges. The X Tribe resides in a secluded region, deep within a dense forest, far from urban centers. Access to modern healthcare facilities and education is limited, and the tribe's traditional way of life is deeply rooted in their identity. Historically, their health outcomes were inferior, with high rates of preventable diseases and limited health education. The challenges faced by the people includes, limited Healthcare access, poverty was widespread among the X people, with limited access to clean water, proper nutrition, and sanitation facilities and the tribe held strong cultural beliefs and practices that sometimes clashed with modern healthcare, leading to low vaccination rates and reluctance to adopt new health practices. In spite of the various challenge the community also has strong resilience strategies, the X Tribe trained a group of local community health workers.

These individuals were selected based on their knowledge of tribal culture and a desire to bridge the gap between traditional practices and modern healthcare. They conducted regular health camps and provided basic medical care within the community, the tribe-initiated health education programs that blended traditional knowledge with evidence-based healthcare practices.

This approach ensured that tribal customs and beliefs were respected while addressing health issues, efforts were made to improve living conditions. Access to clean water, improved sanitation, and sustainable agricultural practices were introduced to address some of the socioeconomic disparities affecting health. The healthcare providers working with the X Tribe adopted a culturally sensitive approach, respecting

tribal traditions and beliefs. They built trust and cooperation within the community. Over the years, these resilience strategies led to significant improvements in the health and wellbeing of the X Tribe. Preventable diseases were reduced, child mortality rates decreased, and life expectancy increased. The community also experienced a positive shift in their overall outlook on healthcare and wellbeing.

ATTITUDE TOWARDS HEALTH:

1. Inferior health outcomes.
2. tribe's traditional way of life is deeply rooted in their identity.
3. High rates of preventable diseases.
4. Ensured that tribal customs and beliefs were respected while addressing health issues.

HEALTH EDUCATION STATUS

1. People have limited health education.

BEHAVIOUR MODIFICATION

1. In spite of the various challenge the community also has strong resilience strategies.

TRIBAL'S HEALTH RELATE SKILLS/ PREVENTIVE STRATEGIES

1. Trained a group of local community health workers.
2. knowledge of tribal culture and a desire to bridge the gap between traditional practices and modern healthcare.

Instructions:

- The above exercise depicts the four areas which helps in enhancing resilience and maintaining wellbeing.
- Now, observe the health status of your own tribe or community and write down a narrative of your own community. After the narrative place the important points as per the four given areas.
- Write down the health status, challenges and preventive measures/outcomes of your community.

Depict the narrative under the four areas below in bullet points:

ATTITUDE TOWARDS HEALTH

HEALTH EDUCATION STATUS

BEHAVIOUR MODIFICATION

**TRIBAL HEALTH-RELATED SKILLS/
PREVENTIVE STRATEGIES**

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Contributors

Nandaris Marwein (MSW, MPH-CH, PhD in Social Work) belongs to a matrilineal society from a hilly region of Meghalaya called South West Khasi Hills. She has been serving as a faculty at Martin Luther Christian University for 10 years, Shillong. Her area of expertise is Social Work and Community Health. As a Tribal, she had a concern about the health of people in the state and hence she engaged in various programs, projects, research relating to health as well as designing of curriculum on Tribal health. Chapters focused in the curriculum are relevant because Tribal communities are commonly influenced by multiple social, religious, economic, cultural, environment, geographic, political factors.

Melodynia Marpna (MSc, PhD in Nutrition and Dietetics) is a Nutritionist and belongs to the Khasi tribe of Meghalaya, India. Her doctoral research focused on malnutrition and the social factors affecting tribal children in Meghalaya. For 11 years, she taught at Martin Luther Christian University in Shillong, India. Her area of expertise is nutrition and the traditional food systems of tribal communities.

Nadeen Pakyntein (MSW, NET, PhD in Social Work) belongs to the Pnar tribe of Meghalaya, India. In her doctoral research, she studied caregivers of elderly with dementia in Meghalaya, their challenges and coping strategies. She worked with SOS Children's Village as an Educational Co-worker. For the past seven years she worked as an Assistant Professor and currently holds the position of Associate Dean of Students, Martin Luther Christian University, Shillong.

Jemimah Marak (BEd, MSc in Counselling Psychology) serves as the Director of Social Outreach at the Martin Luther Christian University. She belongs to the Garo tribe of Meghalaya. Prior to joining MLCU, she worked as Head of Programmes for Anant Foundation for Innovation and Social Inclusion that focused on rural livelihoods development.

Melissa D. Kyndiah (MSc, MPhil, PhD in Psychology and Wellbeing) belongs to the Khasi tribe of Meghalaya, India. In her doctoral research she studied depression among tribal youth which led to a development of a local glossary on depression. She worked in a mental health hospital for six years and has taught in Martin Luther Christian University, Shillong, India, for seven years. She has been involved in various projects and is currently an investigator for two projects; anxiety and religious coping among youths in India with the Miami University, USA and stigma and discrimination among the PLHIVs and KPs in Meghalaya. Tribal health, knowledge and resilience are important components because both of these highlight the need for health education and the strength that tribal people have for wellness.

Badalamshisha Dkhar (MSW, PhD in Social Work) is a member of the Khasi tribe of Meghalaya, India and has been working in MLCU for the last 15 years. Currently she is working as a Project Officer in the Department of Doctoral Studies and Research. Her doctoral research focuses on the study of traditional medicine and traditional healers of the Khasi and Jaintia tribes. She has been extensively associated with traditional healers of Meghalaya under various projects implemented by Martin Luther Christian University (MLCU), Shillong. Traditional health practices/traditional healers hold significant importance in Meghalaya due to their easy accessibility, affordability, and effectiveness. However, despite these advantages, the lack of documentation and research has hindered the codification and official recognition of these practices.

Merril N Sangma (BSc Agri, MACM, MDiv and PhD in the Conservation of Endangered Medicinal plants of West Garo Hills, Meghalaya) belongs to Garo Community of Meghalaya India. He served as Assistant Director of Agriculture and also as Deputy Director of Horticulture in the Government of Meghalaya. He also served as Block Development Officer for 20 years in the Government of Meghalaya. At present he is an administrator of Mason Phillips Academy, Tura. He is also serving as General Secretary of North East Academy for Human Resource Development Trust.

Careen Joplin Langstieh (Visual Artist, illustrator) is a visual artist and serves as faculty and head of Community Centre for Art, Craft and Culture at Martin Luther Christian University. She has been an active visual art practitioner here in Shillong for almost 20 years. Most of her works are women centric, particularly the women of her own Khasi community. She has documented stories and narratives during the pandemic which further allowed her to understand the importance of storytelling and the role of women in the Khasi society. Women's and child's health during and after childbirth provide an insight on the role of other women members who lend their support and help during this important part of a mother's and child's journey. She has also authored, illustrated and published few story books for children.

Sandra Albert (MBBS, MD, MDB, DrPH) Sandra Albert is the Director of the Indian Institute of Public Health in Shillong (IIPHS), in Northeast India. She is a dermatologist with an MD in Skin & Sexually Transmitted Infections from the Kasturba Medical College, Manipal, India. From clinical medicine she broadened her field of interest to public health and received a Doctor of Public Health (DrPH) from the London School of Hygiene & Tropical Medicine, UK. Subsequently she became the founding director of the IIPHS.

Glenn Christo Kharkongor (MBBS, MPH, DABP, FAAP) is the founder Vice Chancellor, and now Chancellor of MLCU. He is a graduate of Christian Medical College, Vellore. After completing his residency in paediatrics at the Loma Linda University Medical Center, USA, he joined Kasturba Medical College as a lecturer in 1986. He worked in various academic and administrative roles in the Manipal group for eighteen years. In 2006, he returned to Shillong, his home town, and to his Khasi tribal roots, taking his mother's clan name in their matrilineal society. He was the founder vice-chancellor of Martin Luther Christian University, the first private university in Meghalaya. Glenn was named a Times of India fellow in 1995, and a senior fellow at the Centre for Policy Research, New Delhi, in 1996.

Larilin Kharपुरi (MSc, PhD in Environment and Traditional Ecosystems) belongs to the Khasi tribe of Meghalaya, India and has been working in MLCU for the last 17 years. Currently, she is working in the capacity of Dean, Research and is also one of the faculty members of the Department of the Environment and Traditional Ecosystems, MLCU. She was involved in a UNDP-funded project on the stewardship roles in natural resource management and climate change by the community. She had the opportunity to work closely with traditional healers of Meghalaya through projects funded by DBT, NEIFM, and AYUSH. She was the main consultant on a GIZ funded project on the documentation of Traditional Knowledge of aquatic resources. Traditional health practices are important in Meghalaya especially in rural areas where accessibility to primary health care is limited.

Acronyms

A

ACP	AIDS Competence Process
AHCA	Agglomerative Hierarchical Cluster Analysis
APA	American Psychological Association
ASHA	Accredited Social Health Activist
ASU&H	Ayurveda, Siddha, Unani & Homeopathy
AWW	Anganwadi Worker
AYUSH	Ayurveda, Yoga, Naturopathy, Unani, Siddha and Homeopathy

B

BCC	Behavioural Change Communication
BCG	Bacillus Calmette–Guérin Vaccine
BIMSTEC	Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation
BMI	Body Mass Index
BMJ	British Medical Journal
BMZ	Federal Ministry for Economic Cooperation and Development (<i>Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung</i>)
BRDC	Bio-Resources Development Centre

C

CACL	Campaign Against Child Labour
CAM	Complementary and Alternative Medicine
CBS	Culture Bound Syndromes
CCT	Conditional Cash Transfer
CDC	Centres for Disease Control and Prevention
CFI	Cultural Formulation Interview
CHC	Community Health Centres
CIAT	Alliance of Bioversity International and the International Centre for Tropical Agriculture
CM-SMS	Chief Minister's Safe Motherhood Scheme
CRCT	Cluster Randomized Controlled Trial
CoWIN	Covid Vaccine Intelligence Network

D

DLHS	District Level Household & Facility Survey
DPT3	Diphtheria-pertussis-tetanus Vaccine
DRR	Disaster Risk Reduction
DSM IV	Diagnostic and Statistical Manual for Mental Disorders
DST	Digital Storytelling

F

FAO	Food Agriculture Organisation
FF	Forgotten Food
FGD	Focus Groups Discussions
FIC	Full Immunization Coverage

G

GAFF	Global Alliance for the Future of Food
GATS	Global Adult Tobacco Survey
GoI	Government of India
GoM	Government of Meghalaya
GVAP	Global Vaccine Action Plan
GYTS	Global Youth Tobacco Survey

H

HAQCRC	HAQ (Urdu word for 'Rights') Centre for Child Rights
HFWD	Health and Family Welfare Department
HIV & AIDS	Human Immunodeficiency Viruses & Acquired Immune Deficiency Syndrome
HTN	Hypertension

I

IASG	Indian Association of Surgical Gastroenterology
ICC	Intraclass Correlation Coefficient
ICDS	Integrated Child Development Services
ICMR	Indian Council of Medical Research
IDMC	International Displacement Index
IEC	Information, Education and Communication
IIPH	Indian Institute of Public Health
IIPH IEC	Indian Institute of Public Health Shillong Institutional Ethics Committee
ILO	International Labour Organisation
IPCC	Inter-governmental Panel on Climate Change
ISM/H	Indian Systems of Medicine and Homeopathy
ITC	Indigenous and Tribal Communities
IUD	An Intrauterine Device (IUD)
IWGIA	International Work Group for Indigenous Affairs

J

JSSK	Janani Shishu Suraksha Kayakaram
JSY	Janani Suraksha Yojna

K

KHADC	Khasi Hills Autonomous District Council
KIIs	Key Informant Interviews

L

LHT	Local Health Traditions

M

MCA	Multiple Correspondence Analysis
MDD-W	Minimum Dietary Diversity-Women
MHFW	Ministry of Health and Family Welfare
MHIS	Meghalaya Health Insurance Scheme
MLCU	Martin Luther Christian University, Shillong
MMBS	Meghalaya Maternity Benefit Scheme
MMR	Maternal Mortality Rate
MRG	Minority Rights Group International
MSMPB	Meghalaya State Medicinal Plants Board
MTA	Ministry of Tribal Affairs
MUAC	Mid-Upper Arm Circumference

N

NACP	National AIDS Control Programme
NCCP	National Cancer Control Programme
NCD	Noncommunicable Diseases
NCRP	National Cancer Registry Programme
NCRP	National Cancer Registry Programme
NCST	National Commission of Schedule Tribes
NCVBDC	National Centre for Vector Borne Diseases Control
NEIAH	North Eastern Institute of Ayurveda & Homoeopathy
NEIFM	North Eastern Institute of Folk Medicine
NER	North Eastern Region
NESFAS	North East Society for Agroecology Support
NFHS	National Family Health Survey
NGO	Non-Government Organisation
NNI	Native Nations Institute
NRHM	National Rural Health Mission
NTCP	National Tobacco Control Programme
NUF	Neglected Underutilized Food
NVBDCP	National Vector Borne Diseases Control Programme

O

OPV	Oral Polio Vaccine

P

PCA	Principal Component Analysis
PHC	Primary Health Centres
PHFI	Public Health Foundation of India
PMMVY	Pradhan Mantri Matru Vandana Yojana

POSHAN Abhiyaan	Prime Minister's Overarching Scheme for Holistic Nutrition.
PRA	Participatory Rural Appraisal
PSM	Preventive and Social Medicine
PVTG	Particularly Vulnerable Tribal Group
R	
RGI	Registrar General India
RI	Routine Immunization
RLS	Rosa-Luxemburg-Stiftung
RMNCAH+N	Reproductive, Maternal, New born, Child, Adolescent Health and Nutrition
RNTCP	Revised National TB Control Programme
RSBY	Rashtriya Swasthya Bima Yojana
RSOP	Regional Security Operations Center
S	
SAGE	Strategic Advisory Group of Experts on Immunization
SALT	Stimulate, Appreciate, Learn, and Transfer.
SBA	Skilled Birth Attendants
SEBC	Socially and Educationally Backward Classes
SRH	Sexual and Reproductive Health
ST	Scheduled Tribe
STDs	Sexually Transmitted Diseases
T&CM	Traditional and Complementary Medicine
TB	Tuberculosis
TBA	Traditional Birth Attendant
TFR	Total Fertility Rate
TK	Traditional Knowledge
TKDL	Traditional Knowledge Digital Library
TM	Traditional Medicine
TMRCA	Time to The Most Recent Common Ancestor (TMRCA)
U	
UHC	Universal Health Coverage
UNDESAIP	The United Nations Department of Economic and Social Affairs International Press
UNDRIP	United Nations Declaration on the Rights of Indigenous Peoples
UNDRR	United Nations office for Disaster Risk Reduction
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNHR	United Nations Human Rights (Office)
UNISDR	United Nations International Strategy for Disaster Reduction
UNPFII	United Nations Permanent Forum on Indigenous Issues
UN	United Nations (Organisation)
V	
VHAI	Voluntary Health Association of India
W	
WDD	Minimum Dietary Diversity for Women
WHO	World Health Organisation
WIPO	World Intellectual Property Organisation

Glossary

<i>Ba ai ksuid:</i>	To cast an evil spell
<i>Dawai Khasi:</i>	Traditional Khasi medicine (“ <i>dawai</i> ”, derived by the Hindi word for the same)
<i>Dawai niangsohpet:</i>	Khasi herbal medicine for a medical condition that affects babies, thereby inducing infantile colic pain.
<i>Ka blei sam-um:</i>	Khasi water deity who is prayed for water-related blessings
<i>Ka kha lani:</i>	A type of fish found in Meghalaya
<i>Ka trap:</i>	A round flat mat which is woven specially for bathing a baby
<i>Ka Umphniang bam:</i>	Mustard oil which has been heated and cooled.
<i>Lungsiej:</i>	Fermented bamboo shoot used in Khasi and other Northeast tribal cuisines
<i>Lyngknot:</i>	a low wooden stool
<i>Nongpynsum:</i>	A Khasi traditional person who bathes the baby and the mother
<i>Panchabhuta:</i>	(five elements) earth, water, fire, sky and wind - An ayurvedic plant
<i>Soh nairiang:</i>	A citrus fruit variety available in Meghalaya (<i>Citrus sinensis</i>)
<i>Law adong:</i>	A variant of sacred forest practiced by the Khasis
<i>Thlong:</i>	A Khasi mortar and pestle, usually made of wood or metal
<i>Mawjingshoh:</i>	Grinding stone, consisting of a flat stone board and a smaller grinding stone, similar to <i>ammi kallu</i> and <i>sill batta</i>
<i>Meieit:</i>	Maternal grandmother
<i>Til pitha:</i>	An Assamese rice snack made of till/coconut filling and crispy, course rice flour wrap
<i>Pudoh:</i>	A Khasi rice snacks with pork filings, similar to a dumpling made of rice flour dough and a chunk of meat inside
<i>Pusyep:</i>	A type of Khasi steamed rice cake
<i>Tungrymbai:</i>	A Khasi chutney made of fermented soya beans and black sesame paste
<i>Tungtap:</i>	A Khasi chutney made of chillies and fermented dry fish
<i>U sying makhir:</i>	<i>Zingiber rubens</i> , a potent ginger that is used to treat common cold and other health problems.
<i>Wan kyrteng:</i>	A Khasi cultural syndrome that a dead family member or friend watches the child with a malevolent eye
<i>Ynda kynih ka ‘iar kynthei, La wai ka pyrthei:</i>	A Khasi phrase translated to ‘When the hen crows, the world will end’

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About the Book

In the existential struggle for survival and self-sustenance, tribal identity and culture provide rootedness and stability. In the preceding centuries of colonialism and then domination by majoritarian groups in independent nations, tribals have lost much of their agency. In Meghalaya we will use tribal knowledge and strategies to face traditional social problems like cultural syndromes, to revive traditional diets in combating micronutrient deficiency and malnutrition, and to strengthen the practice of traditional healers.

This book is an outcome of a project entitled, 'Creation of a Curriculum on The Health of Indigenous and Tribal Communities: Meghalaya' funded by Rosa Luxemburg Stiftung, Germany. The objective of the project was to create a curriculum with a local focus and integrate a holistic, pluralistic, and multidisciplinary approach with wider perspectives. This book has been curated as an information and learning model for organisations and communities in Meghalaya, but also possibly serve as a prototype for other tribal communities who may want to replicate the same for themselves.

The target group for this curriculum are students of social sciences, psychology and counselling, health sciences, environment, and cultural studies. It may also be useful for voluntary and government organizations working in indigenous and tribal communities.

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