International Journal of Community Medicine and Public Health
Kumar V et al. Int J Community Med Public Health. 2023 Jan;10(1):515-524
http://www.ijcmph.com
pISSN 2394-6032 | eISSN 2394-6040

DOI: https://dx.doi.org/10.18203/2394-6040.ijcmph20223583

Review Article

Issues, challenges and opportunities in accessing primary health services in tribal-rural setting in India: a decadal view

Vivek Kumar, Dinesh Kumar*

Division of Social Sciences and Ethnomedicine, Indian Council of Medical Research, National Institute of Research in Tribal Health, Jabalpur, Madhya Pradesh, India

Received: 14 October 2022
Accepted: 03 December 2022

***Correspondence:**
Dr. Dinesh Kumar,
E-mail: drdkumar1970@gmail.com

ABSTRACT

Even after 75 years of independence, the country's most underprivileged tribal population is still far from getting health benefits. Tribals in India have poor health and present a bleak picture in terms of social development metrics, especially health. From this perspective, this paper is intended to identify the problems and existing challenges faced by tribal communities in accessing health care from primary health care settings. Exploring the observations based on reviewed scholarly articles published between 2012 and 2022 from databases like PubMed and Google Scholar and in addition to several government reports and articles. These articles were selected and subsequently analyzed to extract specific outcomes. By applying the principle of the 'five A' approach, the analysis revealed a significant shortfall in the service delivery of health wellness centers. It was implicit that despite the introduction of affirmative policies by the government, gaps still existed in the healthcare system at grass root level. Major gaps are lack of human resources, staff stereotyping indigenous population, and inadequate infrastructure; and high health costs due to out of pocket expenditure and informal payments were evident. The paper recommended both individual and community-level strategies to overcome the barriers of rural health services. More decentralized planning and cultural competency training are immediate measures for the inclusion of tribal-rural people in healthcare services. Further, we proposed developing a "Mangal Health Team' which will coordinate between Health and wellness centre and villagers.

Keywords: Health and wellness centre, Primary health care, Universal health coverage, Health system, Tribal health, Challenges

INTRODUCTION

Over the last 7 decades, healthcare has been making a substantial contribution to the population yet its benefits are still far from reaching the most underprivileged tribal population of the country. In India, tribal health is poor, mirroring a global trend of indigenous groups suffering from poor health.[1] A thorough meta-analysis of health outcomes in 104 million worldwide tribal communities revealed that Indian tribal people's health, education, and development indices are consistently worse than those of the rest of the country, despite overall improvements in population health in all Indian states.[1,2] Evidence already in existence shows that the tribal population suffers from more poor health outcomes than their non-tribal counterparts.[3]

In terms of social development metrics, notably health, tribals in India paint a grim image. On health indices, the indigenous population has worrying figures. The indigenous population's life expectancy at birth is 63.9 years, compared to the general population's 67 years, also it is alarming that between the ages of 15 and 49, anaemic conditions affect 65% of indigenous women.[4] When it comes to institutional delivery, tribal women experience

the lowest institutional delivery rate, at 70.1 percent.[4] The indigenous population has a 74 percent infant mortality rate, compared to 62 percent for the rest of the population. Also, the maternal mortality rate (MMR) is at 57 percent (National Family Health Survey-4). Children are immunised at a rate of 55.7 percent, compared to 71.6 percent in the general population.[5] In terms of the frequency of infectious diseases, the indigenous community suffers disproportionately, 80 percent of all malaria cases in the nation are found in tribal areas, and 50 percent of all malaria deaths occur there.[4] The tribal population has a significantly higher prevalence of pulmonary tuberculosis (TB), with 703 per 100,000 compared to 256 per 100,000 in the rest of the country, with Saharia tribe of Madhya Pradesh having the highest prevalence in India.[6,7] Thus, health indices in India vary substantially between tribal and non-tribal populations[8] as well as across various states, regions, and caste segments.[8,9] 25% of the indigenous population lacks adequate access to healthcare.[10] This is because their needs are not being met by the current healthcare system, and getting access to care is greatly exacerbated by the diverse geography, environments, social systems, and cultures in which they reside. Unsurprisingly, India was placed at 145th out of 195 nations and territories in healthcare access and quality index (HAQI).[11]

Access and quality are the key components of achieving universal health coverage(UHC), a sustainable development goal for 2030.[12,13] India embraced the SDGs and is now committed to Universal Health Coverage (UHC).[14] Universal Health Assurance, as envisaged in the new National Health Policy (2016), and Universal Health Coverage, as advocated by the HLEG (2011), should start with tribal territories. UHC is built on the foundation of equity and rights.[15] Everyone must be covered with services allocated according to people's need and the health system financed. With a vision to achieve universal health coverage, i.e. health for all, the Ayushman-Bharat health and wellness centre scheme came into existence, intended to provide comprehensive primary health care.[16] The theme for Universal Health Coverage (UHC) Day (2021) is 'Leave No One Behind When It Comes to Health: Invest in Health System for all.[17] HWCs are a new suggested facility for delivering 'comprehensive' primary health care (CPHC) services with a "time to care" - to be not more than 30 minutes at the grass root level (NHSRC 2018).[18] So it is important that health and wellness centres should act in fair equitable manner. This means giving a greater priority to covering the high-needs groups in society.

India has the second-highest global concentration of tribal people. According to the 2011 Census, tribal communities account for 8.6% of the nation's total population, or about 104 million people.[4] Approximately 2.6 million (2.5 percent) of Schedule Tribes are members of "Particularly Vulnerable Tribal Groups" (PVTGs), also known as "Primitive Tribes." Approximately 90 percent of tribal reside in rural settings, with the remainder living in urban areas.[19] In general, PVTGs are socially and economically marginalised, with limited access to resources for development.[20]

These insights will help us define the needs of a public health care system that can fulfil the "felt necessities" of tribal groups in order to enhance health equity by identifying the gaps in the system through five dimensions known as the 5A's, availability, accessibility, acceptability, affordability, and advocacy.

Is it the inadequacy of mainstream health care to fully address the requirements of Indigenous communities, or is it indigenous populations' inefficiency in accessing health services that raises the question? So, this article aims to highlight the issues and challenges faced by the tribal communities and suggest opportunities for availing health facilities from Primary health care setting.

METHODS

Being different from a typical systematic review, while searching literature, more attention was given to identifying the most relevant articles matching the particular objective than the comprehensiveness of available evidence. PubMed and Google Scholar were used to search for published literature. Documented evidence was also collected from government documents, organizational reports, and newspapers. Methodology for literature search is described in Figure 1. Search Items like "Universal health coverage", "Tribal health", "Tribal population", "Health service delivery", "Health care seeking behavior", "Service accessibility", and "health and wellness center" were used.

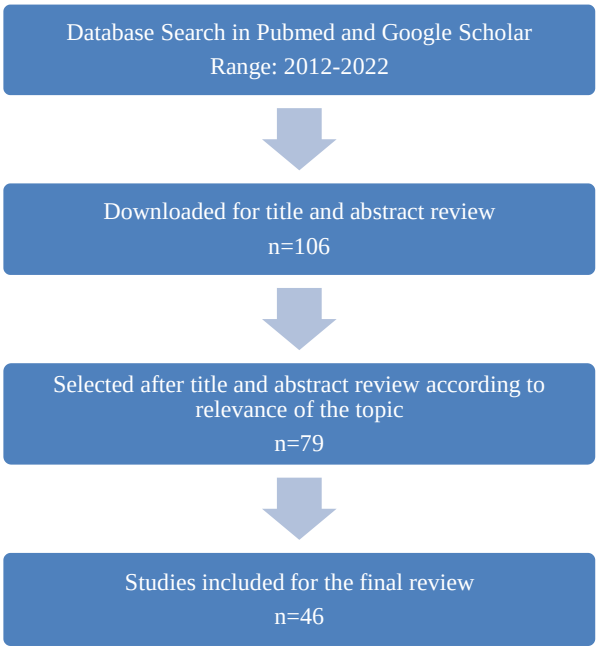

Figure 1: Methodology for literature search.

RESULTS

Describing the issues in availing health services results according to standard recommended five-dimension/issues 5A's (availability, adequacy, accessibility, acceptability, and Affordability) to draw the actual situation based on evidences.

1. Availability

1.1. Existing health services in rural tribal setting

The tribal regions are typically considered to be cut off from the health system. The indigenous population underutilizes healthcare services, primarily due to non-availability of public health services.[21-24] In determining whether to seek health care, perceived quality of care is crucial.[25] In tribal areas, the quality of the healthcare is still inadequate.[26] In addition, tribal people don't receive quality health facilities due to the scarcity and lack of effective implementation of health services.[27] For instance, the shortage of primary healthcare services was identified in 27 percent of Health Sub Centres (HSCs), 40 percent Primary Health Centres (PHCs), and 31 percent Community Health Centres (CHCs) throughout 18 states and three union territories.[28]

2. Adequacy

2.1. Infrastructure

As per Indian public health standard guidelines, tribal and hilly areas should have one health sub-centre (HSC) per 3,000 population and one Primary Health Centre (PHC) per 20,000 population.[29] However, in comparison to the disease burden, the healthcare infrastructure in tribal regions are insufficient. Meanwhile, in rural areas, there is a just 25% concentration of health infrastructure and other resources.[30] For example, as per the rural health statistics 2020-2021, there is a shortfall of 25.37% (n=8503) and 29.19% (n=1464) in sub centre and PHC respectively in tribal areas.[31]

2.2. Human resource

Inadequate human resources in the healthcare system is one of the key factors contributing to the decline of rural health care. As per the rural health statistics for 2020–2021, even among the sanctioned positions, a sizable portion of positions are unfilled at all levels.[31] For illustration, 21.1 percent of the approved Health worker (Female)/Auxiliary Nursing Midwifery positions (at SCs and PHCs) remain unfilled, compared to 41.9 percent of Health Worker (Male) positions at SCs in 2021. In PHCs, there are vacant positions for health assistants (male and female) and doctors in the proportions of 64.2% and 21.8%, respectively.[31] Additionally to vacant position, primary health facilities like Primary Health Centers (PHC) and Sub-Centers (SC) struggle greatly with health workers' absenteeism. Such things were also reported in a study done by Neelmani Jaysawal in 2015, in which there was a high rate of absenteeism seen among medical professionals, furthermore inadequate training, and a lack of motivation among staff was also seen in tribal communities.[30] Likewise during the times of extreme necessity, the doctors were frequently unavailable. As a result that locals choose to visit traditional healers, and thus the problem remains unsolved.[32]

2.3. Drugs and supplies

Government facilities were preferred because of the free drugs and thus is significant factor in seeking health care.[33] However, most health institutions lacked necessary drugs, forcing patients to purchase them from other private facilities, which resulted in out-of-pocket expenses.[34]

3. Accessibility

3.1. Tribal demographics in India and its effect on health

One of India's biggest issues with healthcare delivery is the lack of access to healthcare services in rural areas, predominantly in the tribal sections of the country. The presence of a health care system and facilities within easy access to any community may be used to determine its state of health. The issue of inaccessibility to health services also seems to direct the discussion on tribal health and is directly linked to the utilization of healthcare facilities among tribal groups due to its low inaccessibility.[23,35] Cone of the important findings that emerged from one of the study was the remoteness from the primary public health care setup, namely the health and wellness centre. The majority of primary health centres were more than 10 kilometres away.[36] According to Shrivastava, Shrivastava, and Ramasamy's (2013) article, the population standards for establishing primary health centres and sub-centres are for every 20,000 and 3,000 inhabitants, respectively.[37] However, the majority of tribal people lack access to health care owing for number of reasons, including lack of public transportation, no all-weather roads, lack of public transportation, a shortage of health workers in the health centres, poor service quality, and a lack of access to health facilities.[36,37] Inappropriate area placement of PHC and thus leading to greater distance (remoteness) to facilities has been attributed to lower treatment-seeking for basic and maternal health requirements, impacting disadvantaged populations such as scheduled tribes and women in particular.[38,39] Additionally, tribal had a low rate of institutional deliveries, and probable reason could be due of the distance from the health center, which leads births in huts, which lacked even basic sanitation and hygiene.[4] Similar geographic problems were reported by the Comptroller and Auditor General of India (CAG) that the health centers are located in remote, deserted places in Rajasthan's tribal districts, which makes it extremely difficult for people to receive the services.[40] The remoteness and inaccessibility of the locations add to the

complexity of the state of health.[41] All these factors give a compounded effect in obstructing accessibility to health care services.

4. Acceptability

4.1. Discriminatory behaviour

Due to cultural barriers, tribal tribes access to healthcare services is poor.[23] The substantial cultural divide between tribal communities and non-tribal healthcare professionals leads to dismissive and discriminating behaviour on the part of healthcare personnel.[42] Health staffs behaviour towards tribal people is unfair and unfriendly which makes access to health more difficult and complex.[25,33] Also, service providers are likely to blame tribes for their poor health habits.[43] The members of mainstream society and state authorities stigmatise, humiliate, and stereotype indigenous populations and so tribal people feel quite apprehensive and feel they shouldn't be present there when they visit the hospital to see a doctor and simply return as soon as possible after receiving the necessary medication and care.[43] The Baigas were literally "labelled" for discrimination for having a distinctive tattoo on their forehead.[36] In addition, study found that tribal population face language barriers while assessing healthcare since dialects are not easily understood.[44]

4.2. Health seeking behaviour

Antenatal screening and check-ups that are delayed or absent, particularly in indigenous people, may increase susceptibility and lead to unfavourable results.[45] Additionally, It is challenging for health provider to gain acceptance of tribal women because of their diverse lifestyles, attitudes, and notions of health and disease.[41]

4.3. Traditional healers and traditional medicines

Traditional medicine is deeply ingrained in the tribe's beliefs and practises, making it a widely accepted mode of treatment and apparently leading to less utilization of services from government health facility.[46] For instance, in another study, traditional medicine had greater acceptance than modern medicine, and people only visited doctors after failing to recuperate with Ojha and Kabiraj's medications.[32]

5. Affordability

5.1. Out of pocket expenditure (OOPE)

As per national health accounts, out of pocket expenditure (OOPE) has decreased from 62.6% in the 2014-2015 financial year to 48.8% in the 2017-2018 financial year, which is a progressive indicator. But, the high out of pocket expenditure (OOPE) on health in 2017-2018 was at 48.8% of total health expenditure which is a key health challenge.[47] Furthermore, in a study, indirect costs were also found to be involved.[48] Also, it has occasionally been reported for public transportation accepting informal payment. For instance, a 108 ambulance charged Rs.300 when requested to transport to the nearest PHC for Institutional delivery by a pregnant Bodo woman.[49] Similarly, in a study in Sabar tribe, the Mamata Vahan charged Rs.100 per km to carry pregnant ladies.[36] Additionally, loss of wages due to hospitalisation and additional monetary (informal payments) demands from health care staffs in return of health services also leads to catastrophic expenses.[48] Despite services being cost free, such ill practices leads to discouragement for seeking care, as in the case of mothers, 4% of women missed antenatal care (ANC) due to lack of money.[43] Many respondents stated that a healthcare facility's indirect costs were just as high as its direct costs. The cost of organising transportation to the facilities was the main worry.[32] Moreover, 73% of women from tribal areas reported that their or the accompanying person's day employment was impacted by ANC visits.[43]

DISCUSSION

This review identified numerous challenges in accessing health facilities among tribal populations in India (Figure 2). Firstly, this vulnerable groups face challenges in access to health services at availability level (e.g., low quality and unavailability of essential health services). Secondly, at adequacy level challenges include lack of basic infrastructure, human resource, drugs and basic amenities. Thirdly at accessibility level, the challenges include poor tribal demographics due to structural variable (e.g., geographic, transport, road condition) and ultimately these variables leading to poor access to health services. Fourthly, challenges include discriminatory behaviour due to low incompetency of service providers towards indigenous population, low literacy and dependence on traditional healers. Finally, at affordability includes out of pocket expenditure due to indirect and formal payments. Several approaches could be embraced to address these issues at the different levels of the challenges.

1. Individual/family level strategies

1.1. Self-advocacy

Creating awareness is a cost-effective intervention and one of the best ways to captivate the individual's interest and make sure they are involved in the overall process of change. Raising awareness on health issues is the first step towards improving health outcomes through information education and communication. Tribal mostly have a shy nature and prefer to live in isolation. They mostly have low awareness of health issues and needs.[41] In addition, indigenous populations are more ignorant of health-related concerns due to low literacy. So there is a need to make them aware through self-advocacy, so that they can stand up for oneself for the things that are important to them. Self-advocacy is defined as “being aware of your obligations and rights, speaking out for

yourself, and having the freedom to make decisions that will impact their life".[50] Intensified awareness through the mass media approach may have positive implications in the future, leading to better health outcomes and favourable health indicators.[51] Many inventive initiatives were used in many states to enhance acceptability by incorporating local people and educating using methods that they could readily accept. For example, to raise awareness and appeal to tribal communities of health concerns in the state of Rajasthan, In Rajasthan, health messages were most usually transmitted through live performances by drummers, dancers, folk musicians, magicians, puppeteers, and others, and rewards were tied to the ASHAs following successful completion of activities.[28]

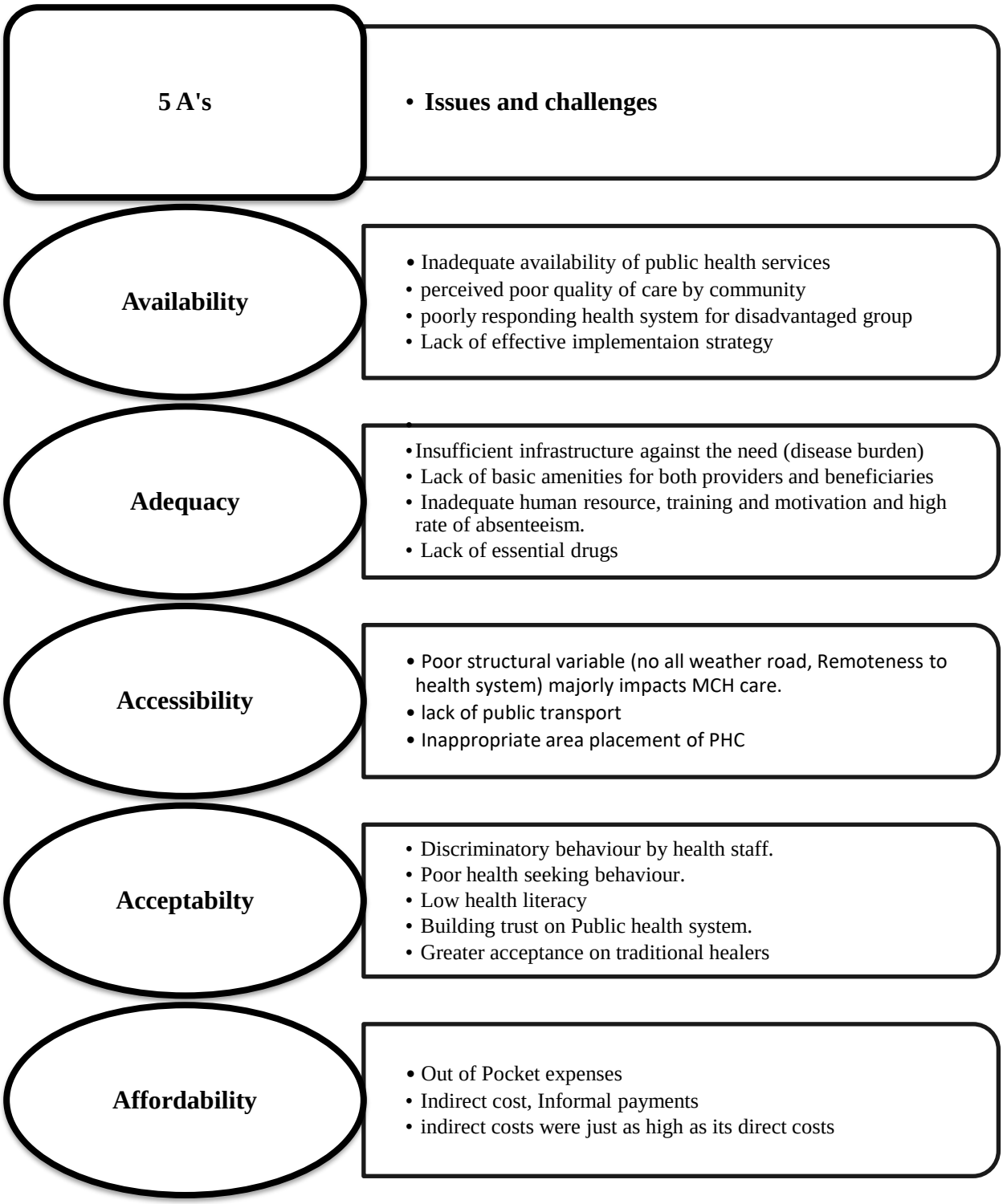

Figure 2: Issues and challenges on access to health services among tribal population of India.

2. Community and organizational level strategies

2.1. Enabling environment

The higher the sensation of belongingness, the greater will be the apparent fit. It is critical to provide a welcoming setting in which the community feels comfortable and is able to access services. So, by establishing a strategy for "Enabling Environment" in health facilities (HWCs), the health sector may ensure that tribal populations are neither stigmatised nor discriminated against. The goal should be to establish an atmosphere devoid of racism and prejudice, where people may receive health care without fear of harm. An enabling environment may be defined as "a process of making the environment user-friendly and to develop and maintain respectful processes and relationships based on mutual trust." It is required to provide health care to tribal communities in ways that respect their culture and history. For enabling environment, cultural competency training to improve their sensitivity and empathy while dealing with tribes might serve as a critical component and might contribute to the reduction of health inequalities and stereotypes. Hence, reflection of community's culture and language inside the health system will reflects cultural acceptability.

2.2. Optimizing health services

There is just a limited amount of information available on the quality of healthcare facilities in India.[52] However, the existence of several untrained providers, a lack of human resources, absentee physicians, and research on the skills of competent doctors point to low quality of healthcare services.[52,53] Enhancement of telemedicine and teleradiology services at each facility in accordance with local demands will improve access to care. According to a pilot study conducted in Tamil Nadu, India, the strengthening of sub-centre and primary health centres in three districts boosted outpatient consultation attendance while lowering OOPE for target users.[54]

2.3. Decentralized planning and administration

As mentioned out by the Indian government's expert committee on tribal health, restructuring of health services and systems among tribal people to enable for more involvement and representation to local communities is essential. However, in a study done by Islary in 2014, reported that health-seeking behaviour among indigenous groups is affected by their degree of autonomy, lack of awareness and education.[55] In addition, most health awareness initiatives, were formerly developed by the medical community rather than by communications specialists.[42]

Evidence suggests that optimistic outcomes was seen in terms of utilization influenced by community engagement.[56,57] Correspondingly, access to primary healthcare may be improved when services are tailored to the needs of Indigenous communities or when they are owned and administered by Indigenous communities themselves.[58] This might be due to the health care services being racism free and culturally acceptable. The strategies should be developed using a bottom-up approach, with active participation from all tribal community segments, and it should allow for flexibility and adaptation to local conditions. Services at a health and wellness centre should be tailored based on a tribal's local priority and burden of disease. We also propose formation of mangal Health team at each tribal village.

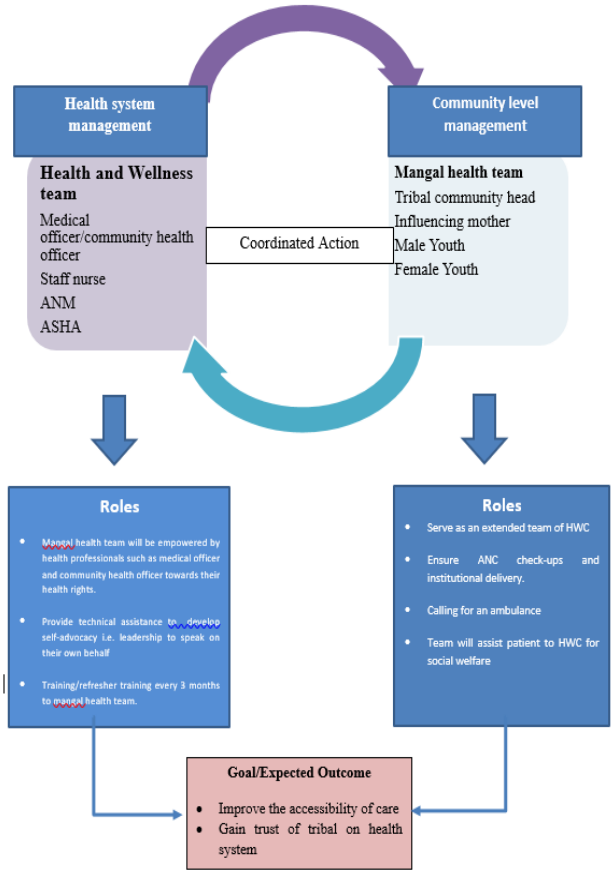

Figure 3: Framework for coordinated action between HWC team and mangal health team.

2.4. Mangal health team (empowerment of the tribal population)

Health system should make Mangal health team in every tribal village/community as an expanded form of HWC team, which will work in a deep-rooted manner with HWCs team in a coordinated fashion. Mangal health team may be defined as "an extended team of tribal individuals from its own community that will works with primary health care team in coordinated fashion to cater community health needs in order to achieve better health outcomes". The team will consist of 4 members, consisting of Influencing mother, Youth (male and female) and a tribal community head. The team would act as a bridge between the health system and the tribal

community. An influencing mother should be selected on the basis of her child bearing experience and her role would be to motivate women to have ANC check-ups and institutional delivery. Youth, male and female, would promote and guide their community towards child immunization and adolescent services available at HWCS. The community head will look at general health problems and will also act when there is a need to call a doctor or an ambulance. This committee will notify to HWC and will also work to remove mistrust of public health services. The team will be incentivised based on their work. Figure 3 describes the framework for coordination action between HWC team and Mangal Health team.

3. System and policy level strategies

3.1. Infrastructure upgradation

In February 2018, the government announced 1,50,000 AB-HWCs to be established across India by December 2022. The cumulative target was 70,000 HWCs by 31 March 2021, then was 110,000 by 31 March 2022, and is 1,50,000 by 31 December 2022.[59] The targets are on track to achieve the goal by December 31st 2022, i.e. till March 31st 2022, 1,17,440 HWCs have been operationalized against the target of 110,000.[60] However, in our review, we found insufficient infrastructure.[61] In addition to making facilities better for community, policymakers should also focus on making infrastructure, provider-friendly for health care providers posted in tribal area by ensuring accessibility to all basic amenities and safety so that they continue to give services without dropping out.

3.2. Human resource

The huge human resource gap in tribal health centres is attributed to factors such as limited opportunities for professional interaction and growth, a sense of social and professional isolation, weak human resource policies, poor working conditions, lack motivation to stay and environments in government health institutions, limited social infrastructure, and so on.[2,62] Various governments have tried a variety of approaches to address the doctor shortage, but the problem remains. The number of specialists stationed in tribal areas is scarce. However, the inclusion of more professionals in the form of CHO or mid-level healthcare professionals at the HWC-SHC level was a much-needed and positive step.

3.3. Geographical accessibility

Our review found out insufficient infrastructure in tribal belts that might be due poor geographic condition. So, representatives, should act upon the suggestion by the National Health Policy of 2017, which suggests, health and wellness centres should be established based on geographical norms rather than demographic norms, with the necessary human resources, development plan, and logistical support system.[63] The feasibility of using bike ambulances in health service delivery has been noticed in Dantewada and Narayanpur.[64] These successful practises might be brought under AB-HWC. Usually, sick people or pregnant people from far-flung tribal hamlets can't get to hospitals in time for institutional delivery or emergency care. There is a need for feasible emergency public transportation by stationing a vehicle at a tribal village level will reduce one -way time.

FUTURE RESEARCH

The lack of empirical data on precise data on how indigenous groups access and use healthcare makes it difficult to formulate policies and programs for the most vulnerable people, despite government efforts to improve the indigenous community.[65] Thus, indigenous people still face social, economic, and political inequities that affects their abilities to access and afford the basic right to a healthy life.[65] Therefore, it is necessary to investigate and comprehend the factors that influence both the decision to avail services from health facilities against reasons that drive them away from free government care. This review recommends high-quality public health intervention and implementation research in different tribes and settings due to their diverse health inequities pattern, which will evaluate a multitude of strategies and develop methods to address tribal health challenges.

CONCLUSION

Even after 75 years of independence, India is still having difficulty closing the health-care gap between tribal and non-tribal populations. Health issues in tribal areas, predictably, remain unresolved.[66] If such issues are not prioritized, the socioeconomically disadvantaged population will remain left behind, ultimately a country's health indicators will not improve. Tribal people's problems cannot be seen from a single perspective. Utilization of services is impacted by both the beneficiaries' poor health-seeking behaviour and the provider's inability to deliver reliable, high-quality services. Given the challenge of geographical, cultural, social, infrastructural, and human resource limitations act as a barrier to access to health care. So, health care must be developed and delivered in such a way that everyone has access to it as close as possible. However, just improvement from the public health system alone won’t suffice. So, improving people's health seeking behaviour and thus mobilising them towards health system services should be the prime focus.

ACKNOWLEDGEMENTS

The manuscript has been approved by the Publication Screening Committee of ICMR-NIRTH, Jabalpur and assigned with the number ICMR-NIRTH/PSC/23/2022.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: Not required

REFERENCES

1. Anderson I, Robson B, Connolly M, Al-Yaman F, Bjertness E, King A, et al. Indigenous and tribal peoples' health (The Lancet-Lowitja Institute Global Collaboration): a population study. Lancet. 2016;388:131–57.
2. Reports of the expert committee on tribal health [Internet]. Available from: https://www.nhm.gov.in/nhm_components/tribal_report/Executive summary_. Last accessed 8 July 2022.
3. Haddad S, Mohindra KS, Siekmans K, Màk G, Narayana D. "Health divide" between indigenous and non-indigenous populations in Kerala, India: Population based study. BMC Public Health. 2012;12:390.
4. Tribal Health Report, India – First Comprehensive Report on Tribal Health in India [Internet]. Available from: http://tribalhealthreport.in/. Last accessed 8 July 2022.
5. Rapid Survey On Children (RSOC) 2013-14 | Ministry of Women & Child Development [Internet]. Available from: https://wcd.nic.in/acts/rapid-survey-children-rsoc-2013-14. Last accessed 8 July 2022.
6. Thomas BE, Adinarayanan S, Manogaran C, Swaminathan S. Pulmonary tuberculosis among tribals in India: A systematic review & meta-analysis. Indian J Med Res. 2015;141:614–23.
7. Rao VG, Bhat J, Yadav R, Muniyandi M, Sharma R, Bhondeley MK. Pulmonary tuberculosis - a health problem amongst Saharia tribe in Madhya Pradesh. Indian J Med Res. 2015;141:630–5.
8. International Institute for Population Sciences (IIPS) and Macro International. National Family Health Survey (NFHS-3); 2005-06. Vol. 1. India: 2007.
9. Dilip TR, Mishra US. Social divide in maternal health care use in rural India: The relative impact of education and economic status. International Population Conference of the IUSSP; 2009.
10. Rural Health Statistics 2018-19 | Ministry of Health and Family Welfare | GOI [Internet]. Available from: https://main.mohfw.gov.in. Last accessed 8 July 2022.
11. GBD 2016 Healthcare Access and Quality Collaborators. Measuring performance on the healthcare access and quality index for 195 countries and territories and selected subnational locations: A systematic analysis from the global burden of disease study 2016. Lancet. 2018;391:2236-71.
12. United Nations. United Nations resolution A/67/L.36: Global health and foreign policy, 67th session. Available from: https://documents-dds-ny.un.org/doc/UNDOC/LTD/N12/630/51/PDF/N1263051.pdf?OpenElement. Last accessed 23 July 2022.
13. Sustainable Development Goals | United Nations Development Programme [Internet]. UNDP. Available from: https://www.undp.org/sustainable-development-goals. Last accessed 11 August 2022.
14. India's Commitment to the SDGs | NITI Aayog [Internet]. Available from: https://www.niti.gov.in/index.php/indias-commitment-to-the-sdgs. Last accessed 8 July 2022.
15. Paul E, Deville C, Bodson O, Sambiéni NE, Thiam I, Bourgeois M, et al. How is equity approached in universal health coverage? An analysis of global and country policy documents in Benin and Senegal. International Journal for Equity in Health. 2019;18:195.
16. Operational Guidelines For Comprehensive Primary Health Care through Health and Wellness Centers. [Internet]. Available: http://nhsrcindia.org/sites/default/files/Operational%20Guidelines%20For%20Comprehensive%20Primary%20Health%20Care%20through%20Health%20and%20Wellness%20Centers.pdf. Last accessed 8 July 2022.
17. Administrator. Universal Health Coverage Day: leave no one's health behind 12 December 2021 [Internet]. World Health Organization - Regional Office for the Eastern Mediterranean [cited 2022 Jul 11]; -Available from: http://www.emro.who.int/media/news/universal-health-coverage-day-leave-no-ones-health-behind-12-december-2021.html. Last accessed 8 July 2022.
18. Comprehensive Primary Health Care | National Health Systems Resource Centre [Internet]. Available from: https://nhsrcindia.org/practice-areas/cpc-phc/comprehensive-primary-health-care. Last accessed 11 July 2022.
19. Tribal Health | National Health Systems Resource Centre [Internet]. Available from: https://nhsrcindia.org/practice-areas/kmd/tribal-health. Last accessed 8 July 2022.
20. Sahani R, Nandy S. Particularly Vulnerable Tribal Groups in India: An Overview. Journal of the Anthropological Survey of India. 2013;62:851–65.
21. National Family Health Survey-1 n.d. Available from: http://www.rchiips.org/nfhs/nfhs1.shtml. Last accessed 23 July 2022.
22. National Family Health Survey-2 n.d. Available from: http:// www.rchiips.org/nfhs/pub_nfhs-2.shtml. Last accessed on 23 July 2022.
23. Sumirtha G, Veenapani RV, Umakant D. Health seeking behaviour among particularly vulnerable tribal groups: A case study of Nilgiris. J. Public Health Epidemiol. 2017;9:74–83.
24. Sikder UK. Access to Health and Medical Services of Rural Poor in West Bengal: A Case study of a village of Birbhum District. Artha Backshan. 2012;21(3):81-91.
25. Prasad S. Preference of hospital usage in India. Ann Trop Med Public Health 2013;6:472.
26. Nayak DK, Naik D. Indigenous knowledge and health care practices among the santal communities: A case study of Mayurbhanj district of Odisha. International Journal of Humanities and Social Science Research. 2017;3:05–9.

27. Powale DTV. A STUDY OF HEALTH CARE SERVICES IN TRIBAL AREA. 2015;12.
28. Kumar MM, Pathak VK, Ruikar M. Tribal population in India: A public health challenge and road to future. J Family Med Prim Care. 2020;9:508–12.
29. Indian Public Health Standards :: National Health Mission [Internet]. Available from: https://nhm.gov.in/index1.php?lang=1&level=2&sublinkid=971&lid=154. Last accessed 8 July 2022.
30. Jaysawal N. Rural Health System in India: A Review. International Journal of Social Work and Human Services Practice 2015;9.
31. Rural Health Statistics 2020-21 | Ministry of Health and Family Welfare | GOI [Internet]. Available from: https://main.mohfw.gov.in. Last accessed 8 July 2022.
32. Boro B, Saikia N. A qualitative study of the barriers to utilizing healthcare services among the tribal population in Assam. PLOS ONE 2020;15:e0240096.
33. Jose JA, Sarkar S, Kumar SG, Kar SS. Utilization of maternal health-care services by tribal women in Kerala. J Nat Sci Biol Med. 2014;5:144–7.
34. Mohapatra A. the health scenario? – Reflections. Journal of Education and Health Promotion. 2019;8:6.
35. Report of the High Level Committee on Socio-Economic, Health and Educational Status of Tribal Communities of India; 2014.
36. PHRN (Public Health Resource Network, New Delhi). Exploring Health Inequities amongst Particularly Vulnerable Tribal Groups: Case Studies of Baiga and Sabar in Chhattisgarh and Jharkhand States of India. Closing the Gap: Health Equity Research Initiative in India, Achutha Menon Centre for Health Science Studies, Sree Chitra Tirunal Institute for Medical Sciences and Technology, Trivandrum; 2017.
37. Shrivastava SR, Shrivastava PS, Ramasamy J. Implementation of public health practices in tribal populations of India: challenges and remedies. Healthcare in Low-resource Settings. 2013;1(1):e3-e5.
38. De K. Health Awareness Among Tribes of Rural India. J Mol Genet Med [Internet] 2017. Available from: https://www.omicsonline.com/open-access/health-awareness-among-tribes-of-rural-india-1747-0862-1000244.php?aid=85873. Last accessed 10 August 2022.
39. Kumar S, Dansereau EA, Murray CJL. Does distance matter for institutional delivery in rural India? Applied Economics. 2014;46:4091–103.
40. Provide accessible healthcare in rural areas, CAG tells Rajasthan govt [Internet]. Hindustan Times2017. Available from: https://www.hindustantimes.com/jaipur/provide-accessible-healthcare-in-rural-areas-cag-tells-rajasthan-govt/story-4zDflT3SA2WMDBmROjo8hI.html. Last accessed 8 July 2022.
41. Jose JA, Sarkar S, Kar SS, Kumar SG. Experiences of junior public health nurses in delivery of maternal healthcare services to tribal women in Kerala. J Fam Med Primary Care. 2013;2:60-3.
42. The World Bank. Improving Health Services for Tribal Populations. 2012, February 28. Retrieved from http://www.worldbank.org/en/news/feature/2012/02/28/improving-health-services-for-tribal-populations. Last accessed 8 July 2022.
43. Ravindran TKS, Seshadri T. HAP (Health Action by People). 2017. Exploring Health Inequity by Assessing the Nature of Healthcare Utilisation and its Correlates among the Tribal Population of Kerala. Closing the Gap: Health Equity Research Initiative in India, Achutha Menon Centre for Health Science Studies, Sree Chitra Tirunal Institute for Medical Sciences and Technology, Trivandrum. Health Res Policy Syst. 2018;16:94.
44. Improving Health Services for Tribal Populations [Internet]. World Bank. Available from: https://www.worldbank.org/en/news/feature/2012/02/28/improving-health-services-for-tribal-populations. Last accessed 11 July 2022.
45. Choubey M, Mishra H, Soni K, Patra PK. Implementation of Indigenous Electronic Medical Record System to Facilitate Care of Sickle Cell Disease Patients in Chhattisgarh. J Clin Diagn Res. 2016;10:LC01-06.
46. Negi DP, Singh MM. Tribal Health and Health Care Beliefs in India: A Systematic. International Journal of Research in Social Sciences. 2018;8(5):1.
47. National Health Accounts | National Health Systems Resource Centre [Internet]. Available from: https://nhsrcindia.org/national-health-accounts-records. Last accessed 20 July 2022.
48. Zodpey S, Farooqui HH. Universal health coverage in India: Progress achieved & the way forward. The Indian Journal of Medical Research. 2018;147(4):327.
49. The Ant (The Action Northeast Trust, Assam). Health Inequities in a Conflict Area – An In-Depth Qualitative Study in Assam. Closing the Gap: Health Equity Research Initiative in India, Achutha Menon Centre for Health Science Studies, Sree Chitra Tirunal Institute for Medical Sciences and Technology, Trivandrum; 2017.
50. Self Advocacy [Internet]. Down Syndrome Federation of India. Available from: https://downsyndrome.in/self-advocacy/ Last accessed 20 July 2022.
51. Chandwani H, Pandor J. Healthcare-Seeking Behaviors of Mothers regarding their Children in a Tribal Community of Gujarat, India. Electronic Physician. 2015;990–7.
52. Planning Commission, Government of India. Twelfth Five Year Plan of India: Health Chapter. New Delhi; 2017: 1-60.
53. Das J, Holla A, Das V, Mohanan M, Tabak D, Chan B. In urban and rural India, a standardized patient study showed low levels of provider training and

huge quality gaps. Health Aff (Millwood). 2012;31:2774-84.
54. Muraleedharan VR, Dash U, Vaishnavi SV, Rajesh M, Gopinath R, Hariharan M, et al. Universal health coverage-pilot in Tamil Nadu: has it delivered what was expected? IIT Madras; 2018. Available from: http://www. nrhmtn.gov.in/adv/UHC%20Pilot% 20Report_Tamilnadu_ IITM_24Feb2018.pdf. Last accessed on 18 July 2022.
55. Islary J. Health and health seeking behaviour among tribal communities in India: A socio-cultural perspective. Journal of Tribal Intellectual Collective India. 2014: 1-6.
56. Nimgaonkar V, Krishnamurti L, Prabhakar H, Menon N. Comprehensive integrated care for patients with sickle cell disease in a remote aboriginal tribal population in southern India. Pediatr Blood Cancer. 2014;61:702–5.
57. Patel J, Patel B, Gamit N, Serjeant GR. Screening for the sickle cell gene in Gujarat, India: a village-based model. J Community Genet. 2013;4:43–7.
58. Davy C, Harfield S, McArthur A, Munn Z, Brown A. Access to primary health care services for Indigenous peoples: A framework synthesis. Int J Equity Health. 2016;15:163.
59. Lahariya C. Health & Wellness Centers to Strengthen Primary Health Care in India: Concept, Progress and Ways Forward. Indian J Pediatr. 2020;87:916–29.
60. HWCs_Booklet_English_updated_5_April_2022. [Internet]. Available from: https://nhm.gov.in/ infocus/HWCs_Booklet_English_updated_5_April_ 2022.pdf. Last accessed 20 July 2022.
61. Report of the Expert Committee on Tribal Health | National Health Systems Resource Centre [Internet]. Available from: https://nhsrcindia.org/report-expert-committee-tribal-health. Last accessed 8 July 2022.
62. Mavalankar D. Doctors for tribal areas: Issues and solutions. Indian J Community Med. 2016;41:172.
63. National_health_policy_2017.pdf [Internet]. Available from: https://www.nhp.gov.in/nhpfiles/ national_health_policy_2017.pdf. Last accessed 10 July 2022.
64. How Motorbike ambulances have been a boon for tribals in Naxal hit India [Internet]. YourStory.com2016. Available from: https://yourstory.com/2016/02/motorbike-ambulances-chhatisgarh/amp. Last accessed 10 July 2022.
65. SDG-India-Index-2.0_27-Dec.pdf [Internet]. Available from: https://www.niti.gov.in/sites/ default/files/SDG-India-Index-2.0_27-Dec.pdf. Last accessed 11 August 2022.
66. Anderson I, Robson B, Connolly M, Al-Yaman F, Bjertness E, King A, et al. Indigenous and tribal peoples' health (The Lancet-Lowitja Institute Global Collaboration): a population study. Lancet. 2016;388:131–57.

Cite this article as: Kumar V, Kumar D. Issues, challenges and opportunities in accessing primary health services in tribal-rural setting in India: a decadal view. Int J Community Med Public Health 2023;10:515-24.