

potential outbreaks in the future. Even though, it is considered difficult to address the pandemic with AYUSH interventions at present, the efforts taken are worth in gaining knowledge. As the conduct of integrative clinical trials with AYUSH intervention is still uncertain, the Ministry of AYUSH, GoI has to make efforts to contribute in the management of COVID-19 through thoroughly scrutinized research proposals received by it.

1. Li, L.-Q. *et al.*, *J. Med. Virol.*, 2020, **10**; 1002/jmv.25757-10.1002/jmv.25757.
2. She, J., Jiang, J., Ye, L., Hu, L., Bai, C. and Song, Y., *Clin. Transl. Med.*, 2020, **9**(1), 19.
3. <https://www.who.int/dg/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-2020> (accessed on 2 April 2020).
4. Fan, H.-H. *et al.*, *Chin. Med. J. Engl.*, 2020, **10**; 1097/CM9.000000000000797.

5. Wang, Z. F., Wang, Y. P., Zhang, H. M., Fan, Y. P., Lü, C. and Wang, Y. Y., *Zhonghua Yi Xue Za Zhi.*, 2020, **100**, E016.
6. <http://ayush.gov.in/about-us/about-the-ministry> (accessed on 2 April 2020).
7. pib.gov.in/Pressreleaseshare.aspx?PRID=1600895 (accessed on 2 April 2020).
8. http://www.xinhuanet.com/english/2020-03/17/c_138887940.htm (accessed on 2 April 2020).
9. Chan, K. W., Wong, V. T. and Tang, S. C. W., *Am. J. Chin. Med.*, 2020, 1–26.
10. http://www.xinhuanet.com/english/2020-02/18/c_138796123.htm (accessed on 2 April 2020).
11. Zhang, Q., Wang, Y., Qi, C., Shen, L. and Li, J., *J. Med. Virol.*, 2020, **92**(6), 540–545; <https://doi.org/10.1002/jmv.25733>
12. Leung, P.-C., *Am. J. Chin. Med.*, 2007, **35**(4), 575–581.
13. http://en.nhc.gov.cn/2016-12/06/c_73253.htm (accessed on 2 April 2020).

14. <https://vikaspedia.in/health/nrhm/national-health-policies/national-health-policy-2017> (accessed on 2 April 2020).
15. Samal, J. and Dehury, R. K., *J. Clin. Diagn. Res.*, 2016, **10**(5), IE01–IE05.
16. <https://www.un.org/en/events/yogaday/background.shtml> (accessed on 2 April 2020).
17. <http://icssr.org/constitution-interdisciplinary-ayush-research-and-development-task-force-ministry-ayush-initiating> (accessed on 2 April 2020).

S. Natarajan and C. Anbarasi are in the Siddha Central Research Institute (Central Council for Research in Siddha, Ministry of AYUSH), Chennai 600 106, India; M. Sendhilkumar and P. Manickam are in the National Institute of Epidemiology (Indian Council of Medical Research), Chennai 600 077, India.
e-mail: drnatarajan78@gmail.com

Connecting the unconnected: the way forward for public health to reach the unreached tribal communities in India

Nishant Saxena, Dinesh Kumar and Aparup Das

India is home to more than 10.43 crore Scheduled Tribe (ST) people accounting for 8.6% of the country's total population. Among the 705 STs, 75 groups are categorized as particularly vulnerable tribal groups. The Government of India has a number of programmes and schemes for holistic development of the tribes. In spite of this, tribal health continues to be a major concern. Invariably, in every tribe there are traditional healer(s) who provide primary healthcare and also a medium to connect man with nature and the divine. However, till date there are no policies to recognize and acknowledge the services being provided by these healers for the community at large. This note envisages to draw attention to this critical policy gap which, if filled, could help in achieving universal health coverage for all, especially in tribal areas.

India is home to more than 104 million tribal people who comprise 705 different ethnic groups classified as Scheduled Tribes (STs) according to Article 342 of the Constitution of India¹. The tribal population is in fact not a homogenous group². Recent studies have shown that as a group STs fare much worse compared to non-STs in the country with respect to health outcome indicators³. The Government of India introduced affirmative provisions for the overall socio-economic development of this marginalized section of the society about seven decades ago soon after the independence. Even so, the concept of Tribal Sub Plan (TSP) was introduced about five decades

ago to ensure that there is no dearth of funds for the holistic development of the tribes. In spite of all these efforts, tribal health remains a major concern even now.

Studies from across the globe, and not just in India, have shown that tribal groups have their own unique ways of defining health and disease, and also dealing with health issues⁴. Almost all these communities have traditional healers who provide the connect between man, and nature and the divine. There is no formal system of learning these practices and all these healers are carrying forward the traditional knowledge gathered over generations of habitation

close to nature. Most importantly, it has been seen that the tribal people in India approach this traditional medicine man first when facing health issues⁵, irrespective of their education level. However, when we evaluate the connect between traditional healers and the public health system, we find that it simply does not exist. In a country with such a huge tribal population, the public health system has so far failed to acknowledge the presence of this age-old system of healing which is still in vogue, especially in areas inhabited by these ethnic groups. The need of the hour is to integrate the traditional healers, known as *Gunia*, *Guni* or *Bhumka* in Baiga, Bhil and Bhabria tribes

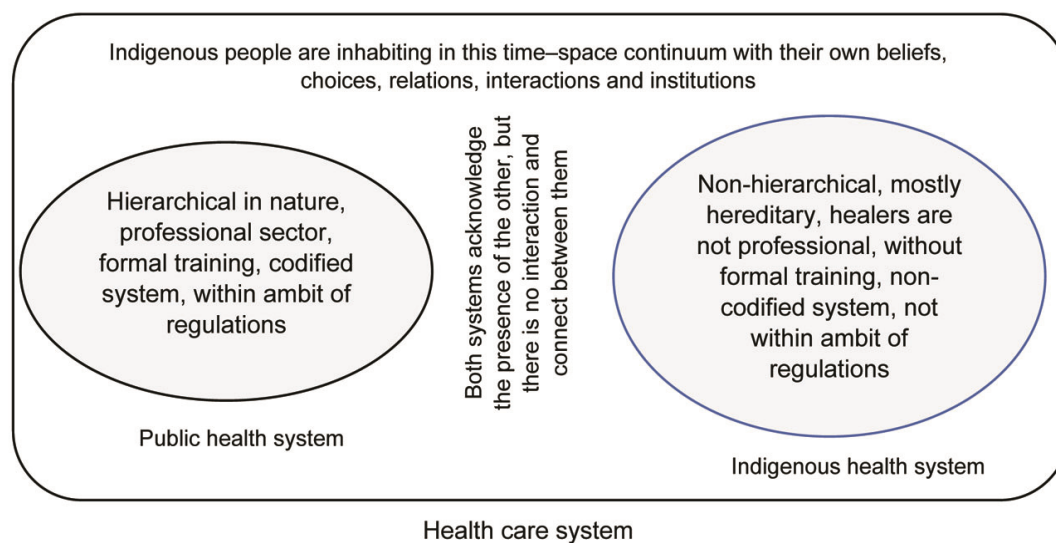


Figure 1. Status-quo of healthcare system in areas inhabited by tribal populations in India.

respectively, into the public health system, as they have the 4A advantage, i.e. availability, accessibility, affordability⁶ and acceptability in this ecosystem⁷.

In a bid to foster a dialogue between modern medicine and traditional systems of healing in tribal communities, the ICMR-National Institute of Research in Tribal Health, Jabalpur, Madhya Pradesh (which is the only permanent institution of the Indian Council of Medical Research dedicated to improving tribal health and also WHO Collaborating Centre for the Health of Indigenous Population in India) organized an interactive symposium in Dindori district, Madhya Pradesh, on the occasion of International Day of the World's Indigenous Peoples on 9 August 2019. In India, Madhya Pradesh has the highest tribal population (15,316,784)¹. In Dindori district, the abode of Baiga tribe known as the '*Baigachak*' is situated. Baiga are one of the three particularly vulnerable tribal groups (PVTGs) in Madhya Pradesh.

This interactive symposium was attended by: representatives from the modern public health system at three distinct levels – district level (Chief Medical Health Officer, District Programme Officer), block level (three Block Medical Officers) and village level (one ANM or Auxillary Nurse Midwife, one ASHA or Accredited Social Health Activist, one Anganwadi worker – all frontline health workers in a tribal village); civil society representatives of the area; constitutionally elected political heads of tribal villages (Sarpanch); traditional political

leader of the Baiga community (Mukadam); two school teachers from the tribal villages, and most importantly, 27 traditional healers (i.e. Guniai, three female healers) from this community along with their 12 patients who had been cured by these traditional healers. Informed consent was taken from all regarding participating in the event. The patients of traditional healers were verified before taking part in the event.

The interactive session revealed that both modern and traditional healthcare personnel are aware about each other's presence and the services being provided. However, both admitted lack of interaction between them. The traditional healers provide cure for a range of health issues, including non-communicable diseases like type-II diabetes. The traditional healers mentioned that the community members approach them first when in need of medical attention, and this view was seconded by the community members as well as the elected leaders present. Village-level functionaries and members of the local civil society expressed that the choice of availing health service either from traditional healer or public health facility nearby is circumstantial. They further stressed that traditional healers do have a substantial clientele; however preserving their wisdom and knowledge is a challenge because now-a-days the new generation is not willing to take up this profession. Patients who had availed treatment from the traditional healers echoed the view that they are satisfied with the treatment.

The novel idea of introducing an incentive-based model for traditional healers so as to integrate them with the public health system was discussed threadbare, and it received affirmatory from all sides. The healers agreed to share their traditional knowledge with the health agencies and at the same time act as channels of timely referral for cases where immediate intervention is required. They agreed that this approach could lure the young community members to take up this profession which is highly revered in the community and also open avenues for sustainable livelihood. Figure 1 depicts the status-quo about the healthcare system in areas inhabited by tribal populations in India.

It was agreed that a round of dialogue between practitioners of modern medicine and traditional medicine is not enough in a nation like India, which is endowed with such huge biocultural diversity. Nevertheless, a start has been made in this direction, which is imperative. Further, it was felt that need of the hour is to introduce some incentives from the public health system side for the traditional tribal healers and also integrate them with the process. India is a signatory to the UN Sustainable Development Goals (SDGs) and achieving universal health coverage (UHC) is a critical yardstick for measuring progress towards achieving the SDGs. The linkage of traditional tribal healers with public health in a sustainable way will certainly supplement to achieving UHC and add value to this fading art. Ample

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opportunity will also be generated to scientifically validate these practices, which when proved beneficial could be utilized for the betterment of all. Most importantly, the traditional tribal healers could act as a channel for timely referral of cases where immediate medical attention is required, and envisaged as Tribal Health Ambassadors.

1. Statistical Profile of Scheduled Tribes of India, 2013, Ministry of Tribal Affairs, Government of India, 2013; <https://tribal.nic.in/ST/StatisticalProfileofSTs2013.pdf> (accessed on 25 February 2020).
2. Saha, K. B., Saha, U. C., Sharma, R. K. and Singh, N., *Lancet*, 2016, **388**(10062), 2867; doi:10.1016/S0140-6736(16)32463-1.
3. Bang, A. et al., In *A Global Snapshot of Indigenous and Tribal People's Health:*

The Lancet – Lowitja Institute Collaboration (eds Silburn, K., Reich, H. and Anderson, I.), Lowitja Publishing, Carlton South, 2016, pp. 24–25.

4. Gaur, M. and Patnaik, S. M., *Med. Ant. Qut.*, 2011, **25**(1), 85–102; doi:10.1111/j.1548-1387.2010.01138.x
5. Maske, A. P., Sawant, P. A., Joseph, S., Mahajan, U. S. and Kudale, A. M., *Infect. Dis. Poverty*, 2015, **4**, 33; doi:10.1186/s40249-015-0064-y.
6. Abdullahi, A. A., *Afr. J. Tradit. Complement Altern. Med.*, 2011, **8**(5 suppl.), 115–123; doi:10.4314/ajtcam.v8i5S.5.
7. Patwardhan, B., WHO – Commission on Intellectual Property, Innovation and Public Health (CIPIH) Study 9 on Traditional Medicine, World Health Organization, Geneva, 2005; <https://www.who.int/intellectualproperty/studies/B.Patwardhan2.pdf> (accessed on 20 January 2020).

ACKNOWLEDGEMENTS. We thank Secretary, Department of Health Research and Director General, Indian Council of Medical Research for support to organize the symposium. We also acknowledge the support received from Indian Council of Social Science Research, Ministry of Education under the IMPRESS Scheme which helped to generate the baseline data. The manuscript is approved by the Publication Screening Committee and assigned with unique number ICMR-NIRTH/PSC/21/2020.

*Nishant Saxena**, *Dinesh Kumar and Aparup Das are in the ICMR-National Institute of Research in Tribal Health, Nagpur Road, Jabalpur 482 003, India.*

**e-mail: nishant.7483@gmail.com*
