

## Editorial

### Understanding poor man's diseases in contemporary perspective

Our intention in publishing the special issue was to address the complex health problems of tribal people. We attempted to include studies on the differentials in the burden and patterns of a number of diseases among tribal and their linkages with nutritional, genetic, environmental and poverty and socio-economic factors. This issue highlights the scourge of various communicable and non communicable diseases prevalent regionally in both general tribes and particularly vulnerable tribal group (PVTG). The 28 articles included in this issue make it clear that malaria is a major health problem<sup>1-6</sup> followed by tuberculosis (TB)<sup>7-11</sup>. Other non-communicable diseases like haemoglobinopathies<sup>12-15</sup>, hypertension<sup>16</sup>, malnutrition<sup>17,18</sup>, *etc.* have grossly been underestimated. On the other hand, dengue<sup>19</sup> and chikungunya<sup>20</sup> are emerging in tribal areas.

A historical event in the ongoing fight against various diseases prevalent among ethnic tribes took place on August 9, 2010, when the Directors of ten institutes of Indian Council of Medical Research (ICMR), senior scientists, researchers and experts gathered at National Institute for Research in Tribal Health formerly known as Regional Medical Research Centre for Tribals in Jabalpur to attend the first meeting of the Tribal Health Research Forum (THRF) under the chairmanship of Dr V.M. Katoch, Former Secretary, Department of Health Research (DHR) and Director General (DG), ICMR, New Delhi. It was for the first time that senior experts of ICMR have gathered in large number at one place to discuss and devise effective strategies to fight various diseases and thereby alleviate the physical and economic suffering of tribal people. THRF demonstrated its presence soon as Tribal Task Force was formed at the Ministry of Health in 2013 to identify gaps in the existing policies for control of various diseases, particularly malaria and enumerate

the actions that need to be taken for its success as part of the National Health Mission (NHM). In line with the THRF, Tribal Task Force also focuses on partnerships for strengthening the entire health sector and on the enhanced role of communities in the development and implementation of new tools to overcome the shortcoming of the existing policies. NHM will carry these activities within the primary health care system, thus strengthening the performance of health services, ensuring their wider accessibility and promoting increased equity of services among tribal populations. Studies carried out among the *Saharia* tribe where the prevalence of TB was very high<sup>8</sup>, showed that nearly half of people surveyed had not heard of TB indicating an important gap in health literacy<sup>11</sup>. THRF and Tribal Task Force, both aimed towards reducing the burden of diseases have created a positive momentum. While considerable investment in capacity building for research and control of infectious diseases has been made over the past century, there is still a need for increased investments in developing more and more Indian programme managers and epidemiologists to work in tribal areas. Local experts are required to understand region specific health problems to inform health policy and operational programmes to form a robust health research platform.

In this regard, it is worthwhile to mention that as per the country's conservative estimates, overall 124 districts with 30 per cent or more tribal population comprising about eight per cent country's population contribute to 46 per cent of total malaria cases, 70 per cent *Plasmodium falciparum* and 47 per cent malaria deaths in the country<sup>1</sup>. The true figures are likely to be much greater. The prospective study conducted in Baiga Chak of Dindori district, which is predominantly occupied by *Baiga* PVTG provides vital information on the perennial transmission, highly efficient vectors, insecticide resistance and higher infection rates in young

children than older children and adults<sup>3</sup>. In view of this, the IEC strategy designed by using local children and youths was found effective<sup>5</sup>. Effective malaria control in the tribal areas is essential for Indian renaissance. There is a need to continue capacity building for research at all levels particularly operational research. Programme infrastructure and management has to be developed to respond to the new challenges that we are certain to face, whether it is high child and infant mortality<sup>21</sup>, neglected burden of *P. vivax*<sup>2</sup>, emerging problem of drug resistance<sup>1</sup>, ecological succession favouring vector invasion in newer areas or new sibling species of *Anopheles culicifacies* (E) transmitting malaria<sup>6</sup>.

Haemoglobinopathies particularly sickle cell disease and  $\beta$ -thalassaemia are important challenges for tribal population<sup>12-15</sup>. The ICMR and the National Rural Health Mission (NRHM) in different States are undertaking an outreach programme for better management and control of the disease. Researches in this field are focusing on various challenges in health care delivery, prevention, and basic studies on the interaction of haemoglobinopathies with various other infections, immunity, vascular biology and ethnopharmacology, *etc.*

Crucial information on the burden of communicable and non-communicable diseases in tribal areas has been widely dispersed and much of it is brought together in this issue<sup>18</sup>. This will greatly benefit researchers, particularly epidemiologists and those involved in control programme. This issue provides crucial evidence to support increased investment in capacity strengthening in research and operations and indicates why it is important for researchers and programme managers to work together.

PVTG in various parts of the country suffers a disproportionate burden of diseases amidst worrisome levels of undernutrition<sup>16-18</sup>. In an effort to bring PVTG into main stream brought another serious setback. Conducive man made environment is favouring mosquitogenic conditions and seeding virus of other vector borne diseases such as dengue in Mandla district<sup>19</sup> and chikungunya in Garo Hills, Meghalaya<sup>20</sup>. Urgent attention is needed to bring a halt to this new threat among tribal population, which is already overburdened with other vector borne diseases<sup>22</sup>.

On the other hand, it is heartening to note that yaws has been eradicated and Indian model of yaws

eradication can be adapted in other endemic countries of Asia and Africa for yaws eradication<sup>23</sup>. Similarly, the successful experience to control hepatitis B (HB) infection among the Nicobarese of Andaman & Nicobar Islands by universal HB vaccination programme may also be tried in other tribal areas of the country<sup>24,25</sup>. Further, the decline in prevalence of paragonimiasis was encouraging by implementing the strategy of hot spot case detection and treatment of infected cases in North Eastern region of India<sup>26</sup>.

The fight against the increasing burden of various diseases requires adoption of multiple approaches that have proven effective in the past or contemporary, traditional or modern. In this regard, we must not forget that tribal people often depend on herbal medicines and traditional knowledge of the remedies which passed down from one generation to the other following oral traditions<sup>27,28</sup>. However, we need to document these practices not only as very useful medical practices, but also for the sake of biodiversity and preservation of our rich heritage.

I hope that the major legacy of this issue will be the engagement of more scientists in tribal health research, particularly for diseases which are shrinking and are to be eliminated in the near future. At the same time, it is expected that the institutes working on various diseases among the tribes will be instrumental in giving a thrust and dynamism to the dilapidated life of these vulnerable section of the society and will become the centers of excellence.

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