

Minutes of the Meeting of ICMR- Tribal Health Research Forum (THRF) held on 17th August, 2017 at National Institute for Research in Tribal Health, Jabalpur

Seventh Annual meeting “**Tribal Health Research Forum**” (THRF) was organized by NIRTH, Jabalpur on 17 August 2017. The meeting was chaired by Dr. P L Joshi, Former Director, NVBDCP, New Delhi, in place of Lt. (Gen.) Dr. D. Raghunath, Advisor, THRF who could not attend this meeting because of ill health.

The list of participants is at *Annexure-I*.

Dr. V.G. Rao, Scientist-G, NIRTH and THRF Coordinator, welcomed Chairperson **Dr. P.L. Joshi**, Former Director, NVBDCP, Co-chairperson **Dr. J.P. Narain**, Former Director, WHO SEARO, Special Guest **Prof. Kanchan Mukherjee**, Tata Institute of Social Science, Mumbai, **Dr. Suchitra Bhattacharyya**, visiting fellow at University of Liverpool, UK and other participants.

The meeting began with the release of the document: **Developed Diet and Nutrition Atlas of Tribes in India**, a publication by ICMR-NIN, Hyderabad.

Dr. J.P. Narain, Former Director, WHO SEARO, addressed the different health problems among tribal of different states and reported lack of close coordination among different state institute in taking tribal health problems. He appreciated the THRF meeting, which provided a platform to share knowledge and gap for different health problems of tribal communities. In his address, he reiterated the need for changing the current situation of poor health and accessibility among tribal with maximum involvement of tribal volunteers. He suggested compiling tribal community wise data records of several health problems with special emphases on malaria and was also interested to know the causes and risk factor of severe anaemia among pregnant women. **Dr. P.L. Joshi** suggested to initiate multi-disciplinary studies for betterment of tribal health with special thrust on the issues like malaria, malnutrition, hemoglobinopathies, tuberculosis etc. He also stressed for studies on risk factors and determinants of several health problems. He also emphasized the needs to identify the gaps and causes of different health problem with appropriate strategies to reduce the burden among tribes. In addition, he was more interested to develop network taking into account the government policies. He suggested that tribal community volunteers be involved in ICMR projects in tribal areas.

Presentation on the work done by different ICMR institutions

The project presentation from the participating Institutes/Centers and the comments/suggestions are as follows:

1. National Institute For Research in Tribal Health (NIRTH), Jabalpur

Dr. Praveen Kumar Bharti, Scientist-D, NIRTH, Jabalpur presented the activities carried out by the tribal health research unit (THRU).

Comments/Suggestions:

The chairperson, co-chairperson and all the partners appreciated the overall work in field of Malaria, Hemoglobinopathies and Nutrition and indicated that the impact of THR unit activities was visible. It was suggested to develop new strategies for reducing the burden of health problems which can be

implemented in the community. Need to involve tribal volunteers in ICMR projects to achieve success in Naxalite affected areas was also underlined.

2. Regional Medical Research Centre (RMRC), Port Blair

Dr. Vijayachari, Director, RMRC (Port Blair) presented the THRU and THRF activities of the centre based on the following areas: Tuberculosis, Malaria, Hepatitis-B, Diabetes, Hypertension, Cardiovascular disease, Nutritional status and Disease load with health risk. He also presented operation activities for elimination of Malaria, *W. bancrofti* lymphatic filariasis (in nancowry group of islands) and Tuberculosis in Car and Nicobar Island. The institute favoured the use of double fortified salt as supplementary intervention for mass drug administration. Their studies showed the significant effect of anti-viral therapy on reduction of Hepatitis-B cases.

Comments/Suggestions:

It was suggested that there is a need for follow up of interventions to reduce malarial prevalence. Chairperson emphasized on the need to initiate study on social, behaviour and risk factors associated with health problems among tribals of Car Nicobar.

3. National Institute of Nutrition (NIN), Hyderabad

Dr. A. Laxmaiah, Scientist-F, NIN presented the annual progress and status of various activities of THR unit of NIN, particularly on nutrition status, dietary habits, life style diseases, nutritional educational intervention, crop biodiversity, food insecurity, hypertension and related risk factors, etc. He said that the institute conducts study particularly on impact of socio-economic conditions and culture on nutritional status, maternal & child health care and utilization of cultural beliefs & practices in modern health care system.

Comments/Suggestions:

It was recommended to devise a scale for indigenous food with respect of modern diet scale and also suggested to find out the gaps in food policies which are directly related with national as well state policies. It was also suggested to use Geographic Information System (GIS) technique which will be helpful in mapping of nutritional and micro nutritional problems in the country.

4. National Institute of Immunohaematology (NIIH), Mumbai

Dr. Malay Mukherjee, Scientist- E, NIIH presented the progress of THRU and THRF activities on multi-centric studies of hemoglobinopathies studies: newborn screening (NBS) for sickle cell, prenatal diagnosis for α & β - thalassemia, genetic counselling and G6PD deficiency. He also mentioned several workshops and trainings on Hemoglobinopathies were organized for medical officers and laboratory technicians by them.

Comments/Suggestions:

Chairperson suggested for a questionnaire, timelines and tools for validation of hemoglobinopathies studies/programmes. Further an involvement of social scientists in IEC activities during intervention of programme, was also suggested. Dr. Beena Thomas recommended that in hemoglobinopathies studies there is a need to find out the impact of socio-economic factors. There is a need of standard protocol which can be replicable and implementable.

5. Regional Medical Research Center (RMRC), Dibrugarh

Dr. K. Rekha Devi, Scientist-E, RMRC, Dibrugarh presented the THRU and THRF activities carried out at the centre. She informed that the project staffs under Tribal health Research unit were terminated as extension was not provided by the ICMR headquarter in the month of May 2017. This institute recently initiated an intervention study on Pulmonary Paragonimiasis using IEC activities in tribal areas of Nagaland. She also talked about the prevalence and drug resistance of tuberculosis, identification of mutational spectra in the key genes responsible for drug resistance in MTB isolates in Sikkim and Assam by direct sequencing, malaria in tribal dominant Karbi Anglong district, and Cancer research in Arunachal Pradesh and Sikkim.

Comments/Suggestions:

The chairperson, co-chairperson and all the partners appreciated the short-term study and suggested to work with new vision and mission for development of tribal health. It was recommended to focus on the determinants and interventions on carcinoma and following suggestions were offered:

- Regarding Paragonimiasis the experts suggested to continue the work on community survey of paragonimiasis in eight villages of Phek district of Nagaland with the project extension of one year.
- To study the interventions on carcinoma for the project on Risk factors of Hepatocellular Carcinoma in Arunachal Pradesh and Sikkim.
- To study of determinants of malaria for the project entitled on Prevalence and determinants of malaria in a tribal dominant population of Karbi Anglong district of Assam.

6. National Institute of Traditional Medicine, Belagavi

Dr. S.L. Hoti, Scientist-G & Director-in-charge presented the activities and progress of Tribal Health Research unit of Institute on malaria, diarrhoea, tuberculosis and NCDs (such as fluorosis, cardiovascular disease), hemoglobinopathies, nutritional deficiencies, anaemia, mortality and morbidity. He also presented studies on tribal ethno-medicine studies, mapping for G6PD deficiency and IEC activities among tribal populations. The institute also established relevant databank and knowledge centre on tribal health.

Comments/Suggestions:

The chairperson suggested to find out the risk factors for anaemia and asked to conduct Ethno-medicine studies on pregnant women of tribal communities.

7. Vector Control Research Centre, Puducherry

Dr. S.S. Sahu, Scientist- E, VCRC, presented the progress of various activities carried out by centre on G6PD and its relation in treatment of *P. vivax* malaria infection particularly in tribal areas.

Comments/Suggestions: None.

8. National Institute of Epidemiology (NIE), Chennai

Dr. Yuvaraj Jayaraman, Scientist-F, NIE, presented the annual progress report of THRU and THRF of institute on Health-needs-assessments study in particularly among hill tribes and proposed a new work entitled on Complete Census Enumeration and Mapping of tribals (living in deep forest) and assess the burden of infertility among Muthuvan tribe. He also requested the need to establish

a field station in Dindigul to work in close association with tribal communities in South Tamil Nadu.

Comments/Suggestions:

The Chairperson suggested to look into sampling size related to Health-needs-assessments study. He recommended that the non-communicable disease is the health care priority in North-East States and the findings should be shared with respective states. It was also emphasized that notification on tribal status should be confirmed before initiating the study on tribe.

9. Desert Medical Research Centre (DMRC), Jodhpur

Dr. S. S. Mohanti, Scientist-D, DMRC, Jodhpur presented the THRU and THRF activities of the Centre. As per tribal health research forum (THRF) advisor comments and suggestions, this centre has initiated independent studies on awareness of tuberculosis, improving health and nutritional status by intervention, sickle cell disease, hypertension and inter-sectoral convergence among Sahariya.

Comments/Suggestions:

The Chairman appreciated the coordination existed in DMRC units and suggested to share information about tuberculosis with other ICMR institutions which are working in the same tribal communities and initiate multi-centric study. It was also suggested to study the prevalence on tuberculosis in Saharia PVTG, especially on the border areas shared with M.P. The chairperson and members questioned the purpose of KAP intervention in the present study and methodology behind Ethno-medicine studies conducted by the centre.

10. Rajendra Memorial Research Institute of Medical Science (RMRIMS), Patna

Dr. V.N.R. Das, Scientist-F and Dr. R. K. Topno, Scientist-D, RMRIMS presented the annual progress of the projects under THR forum and THR unit on tuberculosis with drug resistance, hemoglobinopathies, malaria and development of health model for tuberculosis.

Comments/Suggestions:

Dr. J.P. Narain (co-chairperson) suggested mapping of these diseases in tribal areas and need to design appropriate intervention strategy by involving public sector. Involvement of tribal youths was suggested.

11. National Institute for Research In Tuberculosis (NIRT), Chennai

Dr. Beena Thomas, Scientist-E, NIRT, presented the status of tuberculosis among tribal population. She discussed the major problems such as difficult terrain, poor transport, and attitude of health care providers and lack of staff that acts as hindrance in implementation of the programs. Moreover, the socio-cultural determinants like alcohol consumption and poor nourishment also affect the implementation. She informed that Madhya Pradesh ranked at the top in tuberculosis prevalence.

Comments/Suggestions:

Experts were of the views that need based intervention strategies should be formulated for better coverage of the programme. Dr Beena Thomas informed the group that an intervention project is in progress in tribal areas based on the findings from this study.

12. National Institute for Research in Tribal Health (NIRTH), Jabalpur

Dr. S. Rajasubramaniam, Scientist-E, NIRTH, presented the THRF progress on malaria control interventions in Balaghat district, Madhya Pradesh and prevalence of hemoglobinopathies and scabies in Dindori district of Maharashtra. He also discussed about the micromapping of G6PD deficiency among the tribal population. He also briefed about the work going on in field station Keylong, Himachal Pradesh and the baseline survey on malaria in South Odisha with Tata Trust intervention and the collaborative work between NIRTH and SEARCH at Gadchiroli, Maharashtra. He then added the information regarding multi-centric studies on tuberculosis in five states.

Comments/Suggestions:

The Chairman suggested to find out the reason of recurrence of tuberculosis in the study population..

13. Regional Medical Research Centre (RMRC), Bhubaneswar, Odisha

Dr. D. Das, Scientist-E presented work on major health problems in tribes of Odisha. He briefly mentioned the findings of the projects on tuberculosis, nutrition, anthrax, dengue, etc.

Comments/Suggestions: None**14. National Institute of Malaria Research (NIMR) - FS, Jabalpur**

Dr. S. K. Chand, Research Scientist, NIMR-FS, Jabalpur presented the progress in work on asymptomatic malaria, drug resistance and filariasis.

Comments/Suggestions:

The panel appreciated the work.

15. National Institute for Research in Reproductive Health (NIRRH), Mumbai

Dr. Ragini Kulkarni, Scientist-E, NIRRH, presented the studies on nutrition and gaps in implementation of nutrition programmes, intervention and awareness plans. She also gave details about the projects involving prevention and management of snake and scorpion bites, and non-pneumatic anti-shock garment (NASG).

Comments/Suggestions:

Chairman .appreciated the work done by the centre

16. National Institute of Medical Statistics (NIMS), New Delhi

Dr. D.K. Shukla, Scientist-G & Director-in-charge, presented progress of projects on reproductive child health (RCH) services and gender inequity.

Comments/Suggestions:

Chairman appreciated the study on inequity in terms of tribal health.

17. National Jalma Institute of Leprosy & other Mycobacterial Diseases, Agra, Uttar Pradesh
Dr. Umesh Gupta, Scientist-G & Director-In-Charge presented the progress of tuberculosis study and RNTCP services in the tribal population.

Comments/Suggestions: None

18. Centre for Research in Medical Entomology (CRME), Madurai
Dr. R. Paramasivan, Scientist-F, CRME, presented the details of the necessary steps taken to fulfil the suggestions provided during last meeting of THRF.

Comments/Suggestions:

The Chairman suggested focusing on the genetic architecture of tribal population in India and their importance in genetic diversity in terms of disease.

19. Division of Nutrition, New Delhi,
Dr. A. Laxmaiah, Scientist-F, NIN, presented the progress in health and nutritional studies.

Comments/Suggestions:

The Chairman suggested promoting multi-centric study in the field of health and nutrition among tribal populations.

20. ICMR-Division of Reproductive Biology, Maternal and Child Health, New Delhi
Dr Shalini Singh, Scientist-F, Division RCH, presented progress on various ongoing and completed projects.

Comments/Suggestions: None

21. Division of Epidemiology & Communicable Diseases (ECD), New Delhi
Dr. Harpreet Kaur, Scientist-E and programme officer for Tribal Health, Division of ECD, presented updated progress and salient activities of tribal health research programmes in India being implemented under the tribal sub plan. She also briefly informed about the Tribal Health Research Forum (THRF) research studies being carried out by partner institutions across the country in extramural mode. especially in the areas of - thalassemia & Sickle cell disease, G6PD deficiency, HIV, TB, HPV and malnutrition, etc. under the tribal sub plan.

Comments/Suggestions: None

22. Division of Non-Communicable Diseases (NCD), New Delhi
Dr. R.S. Dhaliwal, Scientist-G & Head, presented the division activities.

Comments/Suggestions:

The Chairman appreciated the work carried by the Division.

General Suggestions and Comments

- Dr. P.L. Joshi, chairman, THRF opined in concluding session that the data regarding different health studies on tribals should be circulated to the partner institutes so that they

can work accordingly. He also appreciated the various projects and expected to have the final outcomes of the recently initiated projects. He emphasized not only for good publications but also to extend the research output for the benefit of the tribal community.

- Dr. Harpreet Kaur addressed the ways to move forward. She asserted that the present studies being pursued under this Forum are not uniformly designed. Therefore, there is a need for a lead Institute to take initiative in developing holistic collaborative / multi-centric studies covering different geographical and diverse tribal populations of India, incorporating common / uniform study design, taking on board, the various Institutes / Centers actively working on such areas. Accordingly, looking at the gaps identified in the Document entitled, "Taming the Tribal Health Care Needs: ICMR Initiatives and Working Towards Tribal Health: Present Status and Way Forward", formulated / circulated by NIRTH at the meeting, some of the suggested key priority areas / studies identified by various participants attending the forum, must be taken up on priority by the lead Institutes, as mentioned against the priorities identified and enlisted at *Annexure II*. Further, she urged that NIRTH, being the nodal institute for tribal health research of ICMR in India, should proactively bring out a Compendium encompassing the key achievements and outcomes of various studies conducted by Institutes / Centers of ICMR and others for the health benefit of the tribal communities.
- Dr. J.P. Narain emphasised the need of research studies related to health of the tribal people and integrating the relevant studies and data. He further stressed on compilation of state-wise data on tribals in a holistic manner.
- Dr. Kanchan Mukherjee stressed on importance to find out the ways to develop and modify the existing policy and carry it forward. He also mentioned the need of collective efforts to get success in intervention programs.

Dr. S. Rajasubramaniam, Scientist-E, ICMR-NIRTH, Jabalpur proposed a vote of thanks.

LIST OF PARTICIPANTS:

Experts

Lt. Gen. (Dr.) D. Raghunath*, Advisor, THRF
Dr. P. L. Joshi, Former Director, NVBDCP, New Delhi (**Chairman**)
Dr. J.P. Narain, Former Director, WHO SEARO (**Special Invitee**)
Prof. Kanchan Mukherjee, Tata Institute of Social Science (TISS), Mumbai
Dr. Suchita Bhattacharyya, Visiting Fellow at University of Liverpool, UK

Representatives from THRF Institutes / Centers of ICMR

Dr. V.G. Rao, Scientist -Gø & THRF Coordinator, NIRTH, Jabalpur
Dr. Samita Mahale, Director, NIRRH, Mumbai
Dr. Vijayachari, Director, RMRC, Port Blair
Dr. S.L. Hoti, Scientist -Gø & Director-in-charge, NITM, Belagavi
Dr. Manisha Madkaikar, Director-in-charge, NIIH, Mumbai
Dr. Umesh Gupta, Scientist -Gø & Director-In-Charge, NJIL & OMD, Agra
Dr. DK Shukla, Scientist -Gø & Director-In-Charge, NIMS, New Delhi
Dr. K. Gunasekaran, Scientist -Gø VCRC, Puducherry
Dr. Tapas Chakma, Scientist -Gø NIRTH, Jabalpur
Dr. A. Laxmaiah, Scientist -Fø NIN, Hyderabad
Dr. Yuvaraj Jayaraman, Scientist -Fø NIE, Chennai
Dr. R. Paramasivan, Scientist -Fø CRME, Madurai
Dr. V.N.R. Das Scientist -Fø RMRIMS, Patna
Dr. Malay Mukherjee, Scientist -Eø NIIH, Mumbai
Dr. Beena Thomas, Scientist -Eø NIRT, Chennai
Dr. Ragini Kulkarni, Scientist -Eø NIRRH, Mumbai
Dr. D. Das, Scientist -Eø RMRC, Bhubaneswar
Dr. S. Rajasubramaniam, Scientist -Eø NIRTH, Jabalpur
Dr. Jyothi Bhat, Scientist -Eø NIRTH, Jabalpur
Dr. S.S. Sahu, Scientist -Eø VCRC, Puducherry
Dr. K. Rekha Devi, Scientist -Eø RMRC, Dibrugarh
Dr. A. K. Mishra, Scientist -Eø NIRTH, Jabalpur
Dr. K. B. Sahu, Scientist -Eø NIRTH, Jabalpur
Dr. Praveen K. Bharti Scientist -Dø NIRTH, Jabalpur
Dr. Gyan Chand, Scientist -Dø NIRTH, Jabalpur
Dr. Harsha Hegde, Scientist -Dø NITM, Belagavi
Dr. S. S. Mohanti, Scientist -Dø DMRC, Jodhpur
Dr. R. K. Topno, Scientist -Dø RMRIMS, Patna
Dr. Rajiv Yadav, Scientist -Dø NIRTH, Jabalpur
Dr. Dinesh Kumar, Scientist -Dø NIRTH, Jabalpur
Dr. R. K. Sharma, Scientist -Dø NIRTH, Jabalpur
Dr. Suyesh Srivastava, Scientist -Bø NIRTH, Jabalpur
Dr. Anil Kumar Verma, Scientist -Bø NIRTH, Jabalpur
Dr. Manjunathachari, Scientist -Bø NIRTH, Jabalpur

Dr. Ravindra Kumar, Scientist -B, NIRTH, Jabalpur
Dr. S.K. Chand, Research Scientist, NIMR-FS, Jabalpur

ICMR Hqrs., New Delhi

Dr. R.S. Dhaliwal, Scientist -G & Head, Division of NCD

Dr. Reeta Rasaily, Scientist -F, Division of RBMCH

Dr Shalini Singh, Scientist -F, Division of RBMCH

Dr. Harpreet Kaur, Scientist -E, Division of ECD

Dr. Madhuchhanda Das, Scientist -C, Division of ECD

(*Could not attend)

KEY PRIORITY AREAS / STUDIES ON TRIBAL HEALTH RESEARCH

National Institute of Immunohaematology (NIIH), Mumbai

- Extension of existing **G₆PD deficiency**: multicentric study to all other populations in India with genotypic-phenotype correlation.
- **Neonatal screening for sickle cell anemia** for understanding natural history and better management.
- Understanding **impact of distribution of white / yellow cards** for sickle cell anemia.
- **Strengthening antenatal screening programme** of state for **hemoglobinopathies** including molecular confirmation and antenatal diagnosis.

National Institute of Traditional Medicine (NITM), Belagavi

- **Re-empowering tribals with ethnomedicinal practices** for primary healthcare (in collaboration with NIRTH, RMRC- Port Blair, RMRC-Dibrugarh, DMRC- Jodhpur etc).
- **Screening of Siddi tribe** in Karnataka and Gujarat for **prevalence of G₆PD deficiency** (in collaboration with NIIH and NIMR ó FS, Nadiad).
- **Screening and control of sickle cell anemia, thalassemia and G₆PD deficiency** in Tamil Nadu and control (in collaboration with NIE).
- Screening of sickle cell anemia, thalassemia and G₆PD deficiency in Bihar (in collaboration with RMRIMS and Darbhanga Medical College in Bihar).

National Institute of Nutrition (NIN), Hyderabad

- Development of food models in various states for intervention / supplementation to prevent and control **under-nutrition** among 6-59 months tribal children in India.

National Institute of Research in Tuberculosis (NIRT), Chennai

- **Social network analysis to understand MDR-TB transmission** and develop innovative feasible intervention ó A multicentric study.
- This project would include **genotyping** to be able to **identify super spreaders for MDR**.

National Institute of Research in Tribal Health (NIRTH), Jabalpur

- Task force study on **malaria disease burden, parasite diversity and antimalarial efficacy** in tribals of India (in collaboration with RMRC-Bhubaneswar, RMRC-Dibrugarh, CRME / VCRC, NIMR etc.)

RMRC – Port Blair

- Hepatitis B carrier stage under **study of chronic sequelae and markers for HCC and chronic active hepatitis**.
- To extend the usage and **distribution of double fortified salt to MDA arm** in the Nicobarees natives migrating to deep jungles for farming activities, an initiative to be taken up by RMRC, Port Blair for implementation by A&N Administration.

National Institute of Epidemiology (NIE), Chennai

- To improve the immunization coverage by 50% in Paliyan and other scheduled tribes especially PT & VG.
- Spatial map of tribal population in TN
 - Generate among hemoglobinopathy / sickle cell disease map involving state health Departments.
 - Nutritional status of < 5 children and improve nutritional stature by 50% by adopting multi-sectoral approaches involving ICDs, WCD, state health department through food supplement & BCC to improve quality of food intake.
- To develop BCC intervention and implementation in Muthuvan girls of reproductive age group on the use of Mala D (with the help of state health department and NIRRH).

National Institute of Medical Statistics (NIMS), New Delhi

- **Burden of Disease** of chronic diseases, NCD in tribal population through alternative methodology.
- **Biomarkers** alongwith NFHSI in tribal population.

Division of NCD, ICMR Hqrs., New Delhi

- **Risk factor prevalence for NCDs** ó Hypertension, alcohol, tobacco, physical activity. Preferable ó Diabetes also.
- **Health system for drug delivery** for HT and Diabetes.

National Institute of Research in Reproductive Health (NIRRH), Mumbai

- Strengthening the **perinatal death review surveillance and response** in tribal areas.
- Prevention of **post-partum hemorrhage** by non-pneumatic anti shock garments in tribal women.

Division of RBMCH, ICMR Hqrs., New Delhi

- Community based management of **severe malnutrition**.
- Population based **socio-demographic / ethnographic, health data** related to **maternal and child health**.
- Studies on **indigenous / traditional health practices**.
- **Mapping of health infrastructure** and utilization pattern of health services by tribals.
- **Reproductive health morbidities**
- Complications during **pregnancy** ó a survey.
