

“TRACKING PROGRESS TOWARDS ELIMINATION OF IODINE DEFICIENCY DISORDERS IN TAMIL NADU, INDIA”

Pandav C S¹, Moorthy D¹, Krishnamurthy P.², Piruthivi V², Vasanthi², Sankar R³, Karmarkar M G⁴, Chakrabarty A⁴, Shukla A⁴

¹All India Institute of Medical Sciences, New Delhi, India, ²Institute of Public Health, Chennai, India, ³The Micronutrient Initiative, New Delhi, India,

⁴ ICCIDD, New Delhi, India

Objective: What is the current status of Iodine Deficiency Disorders in Tamilnadu?

Design: Cross-sectional community based survey

Setting: Tamil Nadu is the second largest producer of Salt in India.

Participants: The methodology followed for the study was the one recommended by WHO/UNICEF/ICCIDD (World Health Organization/ United Nations Children’s Fund/ International Council for Control of Iodine Deficiency Disorders). The Probability Proportionate to size (PPS) 30 Cluster methodology was used for sample selection. The study population was school children in the age group of 6-12 years.

Main Outcome Measures: The parameters studied were prevalence of Goitre, Urinary iodine excretion and Iodine content in Salt at the household level.

Results: A total of 1230 children aged between 6-12 years were studied. The total Goitre rate was 13.5%, prevalence of Grade I Goitre being 12.9% and Grade II 0.6%. The median urinary iodine excretion was found to be 89.5 µg/L. 56% of the values were ≤ 100 µg/L and 44% of the values ≥ 100 µg/L. A total of 1228 household salt samples were analyzed by titration. The proportion of households consuming adequately iodised salt (Iodine content > 15 parts per million) was 18.2%.

Conclusion: As per the criteria laid down by WHO/UNICEF/ICCIDD, the reported prevalence of total goitre of 13.5% suggests that Tamilnadu is endemic for IDD. The median urinary iodine is 89.5 µg/L which is indicative of iodine deficiency in the population. Only 18.2% of the households consume adequately iodised salt. The findings of this study warrant instituting corrective measures on a war footing to ensure that the population of Bihar has access to adequately iodised salt and at least 90% of the households receive and use adequately iodised salt.