

Available online at www.sciencedirect.com

ScienceDirect

journal homepage: www.elsevier.com/locate/cegh



Editorial

Is measuring malnutrition in children enough?

India has the highest number of cases of protein energy malnutrition in the world even in year 2015¹ and the proportion has remained unchanged over the last three decades, despite introduction of various national programs, improved economy, food security and even health indices. This paradox has multiple contributing factors, which vary, region wise. Malnutrition in children under five years of age (U5) in India is greater in rural areas and urban slums when compared to the urban areas. However, the rates of U5 malnutrition in the tribal areas of India are scarcely studied. Dani et al, worked in the tribal areas Melghat, situated in Central India, surveying 2926 children in 33 randomly selected villages distributed over 2 blocks. They report that almost one-thirds had severe stunting, one-fifth were severely underweight and one in fifteen had severe malnutrition, according to the Indian Academy of Pediatrics Classification.3

The study by Dhani et al² has been conducted very methodically. Details about the one sampling strategy have been well described and can be replicated. The consent of the community leaders was taken prior to the study. Thereafter, written informed parental consent prior to inclusion. Anthropometric measurements of the children were also validated. The study gives an accurate methodology for replication of such work to assess time and geographical trends in the U5 malnutrition indices globally. However in rural Indian setup, determining the accurate age of the children is a challenge as birth records are seldom available. This could have introduced a bias in the current study while calculating the age dependent indices of malnutrition.

The study found that 209 children (7.1%) had severe acute malnutrition (SAM), a condition which is potentially life threatening and requires hospital based care for the initial treatment. The tribal areas have very little health infrastructure to deal with such cases. Hence home based supervised care packages for SAM have to be validated in these areas. While data published in this article will provide useful baseline information about the magnitude of malnutrition in Melghat, during the conduct of project work there was perhaps an opportunity to assess the dietary practices and other known determinants of malnutrition and perhaps get an insight into the reasons for its persistence. Future studies estimating the prevalence and determinants of malnutrition should also collect information on household expenditure on food since it has been found to be directly correlated with income quintiles

in Lucknow, India⁴ as well related with dietary diversity and financial crisis result in increased risk of malnutrition in Bangladesh.⁵ Information on socio-economic determinants of malnutrition will assist in planning a targeted intervention for a specific area or a implementing innovative, effective and efficacious nation wide policy, especially since there was a high prevalence of stunting, indicative of chronic malnutrition, in India and other South Asian countries.

REFERENCES

- Sahu SK, Kumar SG, Bhat BV, et al. Malnutrition among underfive children in India and strategies for control. J Nat Sci Biol Med. 2015 Jan–Jun;6:18–23.
- Dani V, Satav A, Pendharkar J, et al. Prevalence of under nutrition in under-five tribal areas of Melghat: a community based cross sectional study in Central India. Clin Epidemiol Glob Health. 2015;3:77–84.
- Nutrition sub-committee of the Indian Academy of Pediatrics. Report of Convener. Indian Pediatr. 1972;7:360.
- 4. Misra S, Awasthi S, Singh JV, Agarwal M, Kumar V. Assessing the magnitude, distribution and determinants of catastrophic health expenditure in urban Lucknow, North India. Clin Epidemiol Glob Health. 2015;3:10–16.
- Thorne-Lyman AL, Valpiani N, Sun K, et al. Household dietary diversity and food expenditures are closely linked in rural Bangladesh, increasing the risk of malnutrition due to the financial crisis. J Nutr. 2010;140:1825–188S.

Saumya Misra PhD Scholar, Department of Community Medicine and Public Health, King George's Medical University, Lucknow, India

Shally Awasthi* Professor, Department of Pediatrics, King George's Medical University, Lucknow, India

> *Corresponding author. E-mail address: shally07@gmail.com

http://dx.doi.org/10.1016/S2213-3984(15)00028-7 2213-3984/Copyright © 2015, INDIACLEN. Publishing Services by Reed Elsevier India Pvt Ltd. All rights reserved.