



Letter to the Editor

Connecting the dots in child undernutrition

Madam

Child undernutrition is a focus in the recently published *Global Nutrition Report 2016*⁽¹⁾. The report seeks to be a 'beacon' for the world community. It assesses progress and identifies challenges in meeting the goal of ending malnutrition by the year 2030. It calls for 'a data revolution for nutrition'. In this letter we observe that 'lay' knowledge held by local communities on child growth is a vital source of information. The leveraging of different knowledge sources for understanding and action on nutrition in general, and on child undernutrition in particular, is necessary for a malnutrition-free world.

Complementing knowledge sources

Quantitative methodology shapes the current understanding of child nutrition. Anthropometry defines the different types of child nutritional status. Height, weight and MUAC (mid-upper arm circumference) are some of the anthropometric measurements commonly used for understanding child nutritional status. Indicators such as stunting, wasting and underweight are computed from such information. Child nutritional status at the individual as well as at the population level is understood by such indicators. The growth trajectories of children are plotted on charts to understand their conformity or otherwise to how healthy children should be growing. For instance, the WHO Child Growth Standards of 2006 outline the growth trajectories of 'breastfed infants and appropriately fed children of different ethnic origins raised in optimal conditions and measured in a standardized way'⁽²⁾. Deviations from such growth trajectories can be plotted for individual children and groups of children.

There is emerging qualitative evidence of the knowledge held by local communities on child nutrition. Such evidence has been reported from countries with high levels of child undernutrition – a fact that is encouraging and filled with promise. Normative notions about how children should be growing are prevalent in multiple sites in India (Asia)^(3,4). Mishra *et al.* find many signifiers of child undernutrition in local communities (M Mishra, C Banerjee and colleagues, unpublished results). Young children who do not grow as per the culturally held normative patterns of healthy child growth are considered to be not growing properly. Shared meanings exist in the local communities about various symptoms of below-par child growth⁽³⁾. These include thinning of the hands and the legs, swelling of the abdomen, unsteady gait and an oversized head. The deterioration in the growth of young children is considered to happen gradually over time. It is perceived to be caused by a number of factors

including inadequate food, poor hygiene and ignored health care. Caregivers, and the local communities at large, recognise when children are not growing as per the culturally held normative patterns. They do not use the anthropometric terms denoting various types of child undernutrition. Rather, local idioms are used to refer to the below-par growth of young children.

Thinness is one of the many symptoms associated with severe acute malnutrition among infants in Bangladesh (Asia)⁽⁵⁾. In another study using focused ethnographic methods in Malawi (Africa), Flax and colleagues⁽⁶⁾ report that parents consider a child to be 'not growing well' if his/her weight stagnates or the child becomes thin. The hair and skin of such thin children are 'not normal'. Poor feeding is considered to be one of the many reasons for thinning in children. The authors note that parents value adiposity over stature in their assessment of child growth. Symptoms of malnutrition such as wasting or oedema rank low in the perceived symptoms of severe childhood illnesses.

Studies have observed that there is mismatch between caregivers' perceptions and the anthropometrically determined nutritional status of a child^(7–9). The mismatch is not only seen in child undernutrition, but has been observed in the case of overweight among children as well. Such mismatch between 'lay' and 'expert' knowledge may be expected, given their different provenance and often limited interface with each other. However, the cultural understanding of nutrition that has been seen in multiple sites provides a valuable resource that can be potentially leveraged upon. Narratives on the various symptoms of growth below expectations, the onset and process of deterioration in the growth of children, and idioms denoting poor child growth hold important insights into how local communities perceive child undernutrition. 'Lay' and 'expert' knowledge can complement each other in the fight against child undernutrition, if areas of complementarity can be identified and worked upon.

Advancing the Sustainable Development Goals

The *Global Nutrition Report 2016* remarks that at least twelve of the seventeen Sustainable Development Goals (SDG) 'contain indicators that are highly relevant for nutrition'. It recognises that 'it is important to work with citizens and civil society'. SDG 17 calls for revitalisation of the 'global partnership for sustainable development'⁽¹⁰⁾. It encourages partnerships at the 'global, regional, national and local level', placing 'people and the planet at the centre'. Tapping into the knowledge held by local communities on the issue of child undernutrition can deepen partnership with citizens across the world. It presents the potential to advance the SDG in



multiple ways. An engaged citizenry with its cultural repository can help connect the dots in child undernutrition. Moreover, typically, women are the caregivers of young children. Listening to women's voices in child undernutrition can, in particular, advance target 5 of SDG 5 on gender equality, viz. 'Ensure women's full and effective participation and equal opportunities for leadership at all levels of decisionmaking in political, economic and public life'⁽¹⁾. Listening to local communities, and the actors therein, can lead to a 'culturally informed, context rich approach to child nutrition'⁽³⁾. It can lead to prevention, timely detection, care seeking and an ultimate end to the problem of malnutrition, through the active engagement of its major stakeholders.

Acknowledgements

Financial support: This research received no specific grant from any funding agency in the public, commercial or not-for-profit sectors. *Conflict of interest:* None. *Authorship:* M.M. wrote the manuscript. C.B. commented on it. Both authors have read and approved the manuscript for submission. The earlier collaborative work of the authors on the topic has actively informed this manuscript. *Ethics of human subject participation:* This is a Letter to the Editor. It does not involve any primary research with human or non-human subjects. The letter seeks to bring about beneficence and participatory decision making.

Manasee Mishra¹ and Charulatha Banerjee²

¹IHMR University
1 Prabhu Dayal Marg
Sanganer Airport
Jaipur 302 029, India
Email: manaseemishra@gmail.com

²ENN
India

References

1. International Food Policy Research Institute (2016) *Global Nutrition Report 2016. From Promise to Impact: Ending Malnutrition by 2030*. Washington, DC: IFPRI; available at <http://ebrary.ifpri.org/utils/getfile/collection/p15738coll2/id/130354/filename/130565.pdf> (accessed June 2016).
2. World Health Organization (2009) *WHO Child Growth Standards and the Identification of Severe Acute Malnutrition in Infants and Children*. Geneva: WHO; available at http://apps.who.int/iris/bitstream/10665/44129/1/9789241598163_eng.pdf (accessed September 2016).
3. Mishra M & Banerjee C (2016) Caregivers' perceptions of child under-nutrition in India: bringing people's knowledge into the discourse. Abstract accepted for poster presentation at the conference on 'Sparking Population Health Solutions: Research for a Healthier Future', Canadian Institutes of Health Research (CIHR), Ottawa, Canada, 25–28 April 2016.
4. Mohan P, Agarwal K & Jain P (2016) Child malnutrition in Rajasthan: study of tribal migrant communities. *Econ Polit Wkly* **51**, issue 33, 73–81.
5. Arafat Y (2016) Perceptions of severe acute malnutrition and its management in infants under six months of age: an exploratory study in Bangladesh. *Nutrition Exchange* issue 6. <http://www.enonline.net/nex/6/perceptionsofmalnutrition> (accessed August 2016).
6. Flax VL, Thakwalakwa C & Ashorn U (2015) Perceptions of child body size and health care seeking for undernourished children in southern Malawi. *Qual Health Res* (Epublication ahead of print version).
7. Mwangome MK, Fegan G, Prentice AM *et al.* (2015) Maternal perception of malnutrition among infants using verbal and pictorial methods in Kenya. *Public Health Nutr* **18**, 869–876.
8. Molina MCB, de Faria CP, Montero P *et al.* (2009) Correspondence between children's nutritional status and mothers' perceptions: a population-based study. *Cad Saude Publica* **25**, 2285–2290.
9. Maynard LM, Galuska DA, Blanck HM *et al.* (2003) Maternal perceptions of weight status of children. *Pediatrics* **111**, 1226–1231.
10. United Nations Sustainable Development Goals (n.d.) Goal 17: Revitalize the global partnership for sustainable development. <http://www.un.org/sustainabledevelopment/globalpartnerships> (accessed July 2016).
11. United Nations Sustainable Development Goals (n.d.) Goal 5: Achieve gender equality and empower all women and girls. <http://www.un.org/sustainabledevelopment/gender-equality/> (accessed August 2016).