INTERNATIONAL UNION OF NUTRITIONAL SCIENCES

Task Force Proposal

Task Force Title: Towards Multidimensional Indicators of Child Growth and Development

---

Task Force Chair/s and Affiliations and brief biosketch:

- Hinke Haisma (chair) -
Hinke holds a position as adjunct professor in Population and Child Health at the Population Research Centre, at the Faculty of Spatial Sciences, University of Groningen, the Netherlands. She has a background (MSc) in Human Nutrition from Wageningen University (1992), and a PhD in Medical Sciences from the University of Groningen (2004). She was a nutrition officer at the IAEA from 1995 to 1998, and was thereafter employed by WHO and seconded to the Federal University in Pelotas, Brazil (until 2002). In her research she applies theories from various disciplines (social and behavioural sciences, evolutionary biology), and applies both quantitative and qualitative methods for data collection and analysis including ethnographic methods. Her research focuses on inequalities in child growth.

- Gretel Pelto (co-chair) - Cornell University, USA;
Gretel H. Pelto is a Graduate Professor at Cornell University, Division of Nutritional Sciences. A medical anthropologist by training, her teaching has focused on maternal and child nutrition, community nutrition, and program planning and policy. During the 1990s she directed behavioural research in the Division of Child Health at the World Health Organization, Geneva, Switzerland. The substantive focus of her work is infant and young child feeding and the management of illness in infants and children. She is a recipient of a number of awards, including an honorary doctorate from the University of Helsinki, Fellow of American Society for Nutrition, the Kellogg Award in International Nutrition and the Malinowski Award from the Society for Applied Anthropology , given "to an outstanding social scientist in recognition of efforts to understand and serve the needs of the world's societies and who has actively pursued the goal of solving human problems using the concepts and tools of social science."

Task Force Members and Affiliations:

- Chumki Chakraborty, BRAC, Bangladesh;
- Enrica Chiappero-Martinetti - University of Pavia, Italy;
- Shirish Darak, Prayas Health Group, Pune, India;
- Zaina Mchome - National Institute for Medical Research, Mwanza, Tanzania;
- Inês Rugani - State University of Rio de Janeiro, Centre for Equity, Brazil
- Sridhar Venkatapuram - King's College, London;
- Ko van Wouwe - Child Health Group, TNO, Leiden;
- Sepideh Yousefzadeh - University of Groningen, Netherlands;
- Ali Dhansay - South African Medical Research Council, Cape Town, South Africa, IUNS Council member.

The task force consists of a group of experts from different disciplines, but the research has its origin in nutrition sciences. The aim to develop a capability approach to child growth requires input from experts in the capability approach (Sridhar, philosopher of health justice; Enrica, economist, expert in analytical methods using the capability approach, Sepideh, social scientist with experience in using the capability approach for child poverty in Iran). The other members (Hinke, Gretel, Sridhar, Chumki, Ko, Shirish) are from a nutrition/biomedical background. Zaina is a sociologist.

INTERNATIONAL UNION OF NUTRITIONAL SCIENCES

Rationale and justification:
Current child growth monitoring practices using anthropometric metrics have been highly effective in identifying children who are malnourished, and have helped reduce child malnutrition and associated mortality around the world. However, despite pervasive assessment of child anthropometry worldwide, high child mortality rates and large group disparities in child growth continue to exist (Lancet2015:386(10010). Such child growth monitoring was central to the Millennium Development Goals (MDGs) agenda and resulted in reducing under-five child malnutrition and mortality globally. But both still remain high. Of the 6 million children dying in 2011, the underlying cause is attributed to under-nutrition in 45% of all under-five child deaths world-wide (Lancet2013:382(9890)). The current SDGs are expected to not reach their target in many countries (BMJ 2018;360:k373). This raises the question: Should we continue to use anthropometic indicators as the sole measures of childhood malnutrition or is this an appropriate time to revisit the frame from which we approach this problem?
We aim to advance the socio-epidemiological approach to child growth through developing better measures using the "Capability framework, initially proposed by Amartya Sen. This approach, which seeks analytic measures of a child's opportunities, would expand current attained size indicators to encompass parameters of healthy growth that are increasingly being embraced by nutritionists. From the proposed perspective, child growth is defined as the achievement of a set of capabilities or opportunities that include the capability to be growing well (as assessed by anthropometry) yet go beyond the physical dimension, to include additional measures that refer to a child's "opportunities". These are derived from the Convention of the Rights of the Child (such as mental wellbeing, love and care, autonomy, play, shelter). Care-givers' capabilities are considered an integral component of the child's opportunities to be growing well, and should thus be included in the assessment. A more expanded set of indicators would have consequences for assessment at the individual level, at the level of the health professionals, in the development of interventions, and at the level of comparisons between countries.
The idea to conceptualise child growth as a capability set stems from the work by Amartya Sen and Martha Nussbaum in the field of human development. The development of the Human Development Index as a multi-dimensional index, including per capita GDP but not restricted to the economic dimension of development and including education and health as additional dimensions, has been inspirational to our work, and is helpful in explaining the concept of multi-dimensionality to the biomedical audience that we are part of.
The aim that we have set for the task force requires a strong foundation in a recognised scientific body as is the IUNS. Our approach can be seen as a paradigm shift in how we conceptualise and thus measure child growth. This is not a small thing to do. The opportunity to present our approach at the ICN in Buenos Aires has given a great boost to the recognition of the potential of the approach. The resistance to the new approach we had anticipated did not happen. On the contrary, the reactions have been very positive, and nutritionists recognised the need for such a paradigm shift if we are to confront the current problems, including the double burden of malnutrition. Many of the activities presented below are a result of this acknowledgement. The activities presented are mostly at the individual level, yet they require the platform of the task force and its engagement with IUNS for its integration and uptake in the nutritional domain and by international organisations.

Specific objectives:
For the new council period (2018-2022), we will work to further elaborate the aims as formulated for the first council period:

- To serve as a platform where a capability approach to child growth can be discussed between scientists, h professionals, and between professionals from international organizations;
- To conduct research on the multiple dimensions of child growth in different countries (Bangladesh, Tanza India, Netherlands);
- To disseminate the findings from this research, and create a knowledge base;
- To start applying the approach for the development of interventions;
- To apply for funding to expand our efforts.

IUNS
INTERNATIONAL
UNION OF
NUTRITIONAL
SCIENCES

INTERNATIONAL UNION OF NUTRITIONAL SCIENCES