

# Multidimensional Index for Child Growth and Development

Report Form 2019



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## Task Force Chair/s

- Hinke Haisma, University of Groningen, Faculty Spatial Sciences, Population Research Centre, Netherlands;
- Gretel Pelto, Cornell University, Ithaca, USA;

## Task Force Members

- 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;
- Sridhar Venkatapuram - King's College, London;
- Ko van Wouwe - Child Health Group, TNO, Leiden (retired in 2019, no longer a member);
- Sepideh Yousefzadeh - University of Groningen, Netherlands (has moved to another position, no longer a member);
- Ali Dhansay - South African Medical Research Council and Stellenbosch University, Cape Town, South Africa (Council member)

## Summary of Activities in 2019

In 2019, the focus has been on acting on the findings of the first task force period (2013-2017), with an emphasis on disseminating the results and on designing the second phase - the actual index development.

This year's dissemination highlights were publishing of the meeting report of our working group session at the IAEA/WHO/UNICEF conference in Vienna (December 2018) in the Annals of Nutrition Metabolism; a presentation at the Dept of Nutrition at UNICEF HQ in September 2019; and a workshop at the World Breastfeeding Conference in Rio de Janeiro in November, 2019. In relation to design of the second phase, the two chairs in collaboration with Prof.

Jean-Pierre Habicht, spending a week in September, working in Ithaca on the design of the multi-dimensional child growth index. In November, in Pelotas, we had renewed conversations with members of the International Centre for Equity to explore further collaboration in the second phase. This resulted in a potential candidate for an empirical analysis towards index development.

## Report of Activities and Achievements in 2019

The report is built around the objectives, as described in the proposal, namely:

- To serve as a platform where a capability approach to child growth can be discussed between scientists, health professionals, and between professionals from international organizations;

By the time of the meeting of the IAEA/WHO/UNICEF on Understanding the Double Burden of Malnutrition in December 2018, we were able to present ourselves as this knowledge platform. We had invited Paul Anand from the Open University, Oxford to this meeting as an expert in index development and in applying the capability approach. This working group session resulted in broadening the knowledge base of our already interdisciplinary group, while also making the link to international organisations for its potential implementation. This event has been instrumental in showing the direction for the second phase, i.e. the development of an index of (dis)advantage for child growth. It has also resulted in an invitation to present our approach at UNICEF HQ and in co-authoring in a invited paper in Science that has recently been submitted.

In another activity, Dr. Inês Rugani (State University Rio de Janeiro) initiated a skype call with Brazilian researchers who might be interested and/or contribute to the development of the index. As a potential field site for the project, Brazil is an interesting country to start implementing a capability approach to child growth. The large inequalities in the country and the focus on human rights and rights-based approaches that have their origin in Brazilian history and are supported by grassroots movements have created an environment that open to holistic approaches , such as our capability framework for child growth.

As a first research phase to develop a test of a capability measurement tool, we have developed studies in Bangladesh, Tanzania, India, Netherlands:

In 2019, Chumki Chakraborty and Zaina Mchome continued their PhD work in Bangladesh and Tanzania. In Bangladesh the focus is on capabilities for healthy child growth in haor regions, i.e. those region that are flooded a large part of the year. Chumki is a nutritionist, employed at BRAC University, and applies qualitative methods to identify capabilities for healthy child growth. In Tanzania, Zaina applies an ethnographic approach. She has a background as a sociologist and lived in a rural village in Morogoro to explore and understand local understandings of child growth. Both candidates will defend their thesis in 2020.

Secondly, Sepideh Yousefzadeh developed the capability framework to child growth and conducted an empirical analysis of the Indian DHS using it. In the Netherlands we have applied the capability framework to understand feeding practices in a context with high levels of overweight and low socio-economic position.

Setting our work in a larger theoretical context, we note the connection to the rights-based approaches to child growth, which has been previously proposed, for example, by Urban Jonnson, Wenke Barth Eide). Operationalisation of children's rights into workable conceptual models has not yet happened. To facilitate operationalizing it and to expand our understanding and learning, we are interviewing "the old and wise", i.e. those scientists and scholars who have worked in the field of (child) nutrition.

With respect to disseminating the findings from our research to date, we have engaged in several activities in 2019:

### **Seminars**

Haisma, Hinke; Pelto, Gretel. Brown bag seminar on "Towards a multi-dimensional index of child growth" at Dept of Nutrition, UNICEF HQ, 9 December, New York, USA.

### **Conferences and symposia**

Chakraborty, Chumki; Yousefzadeh, Sepideh; Darak, Shirish; Haisma, Hinke. Father's capabilities to provide care for healthy child growth in haor areas in Bangladesh. The Feed the Future Innovation Labs for Nutrition and Horticulture (UC Davis and Helen Keller International) Scientific Symposium on Agriculture to Nutrition Pathways and Technology Expo, December 3-4, 2019 at Hotel Lakeshore, Dhaka, Bangladesh.

Haisma, Hinke. World Breastfeeding Conference, Pre-conference workshop on "Towards a multi-dimensional index to child growth, 11 and 12 November 2019, Rio de Janeiro, Brazil.

## Peer-reviewed publications

Hinke Haisma, Gretel Pelto, Sridhar Venkatapuram, Sepideh Yousefzadeh, Lybrich Kramer, Paul Anand, and members of the working group. Towards a Multi-Dimensional Index of Child Growth to Combat the Double Burden of Malnutrition. *Annals of Nutrition and Metabolism*;75:123–126. DOI: 10.1159/000503670

Yousefzadeh S, Biggeri M, Arciprete C, Haisma H. A Capability Approach to Child Growth. *Child Indicators Research*, 12 (2), 711-731, <https://doi.org/10.1007/s12187-018-9548-1>

Mchome ZS, Bailey A, Darak S, Haisma H. A child may be tall but also stunted. Conceptualisations of and meanings attached to childhood height and short stature in rural Tanzania. *Maternal and Child Nutrition*. <https://doi.org/10.1111/mcn.12769>

Mchome Z, Bailey A, Darak S, Kessy F, Haisma H. "He usually has what we call normal fevers": Cultural perspectives on healthy child growth in rural Southeastern Tanzania: An ethnographic enquiry. *PLoS ONE*, 14 (9), [e0222231]. <https://doi.org/10.1371/journal.pone.0222231>

- **To start applying the approach for the development of interventions;**

We are currently exploring the possibility of applying the capability framework for child growth as a tool to monitor the return of malnourished Rohingya child refugees to their homes after they have been re-nourished by UNICEF in the refugee camps. This research project was suggested by Dr. Victor Aguayo when we presented the approach at UNICEF HQ in September. Chumki Chakraborty, our task force member from BRAC University in Bangladesh could play a role here.

- **To apply for funding to expand our efforts.**

The above activity in Bangladesh requires funding and we are exploring possibilities; In addition, the task force activities would benefit from substantial funding, and the chair is actively working on this. Potential sources of funding are the Dutch Research Council (NWO) or EU.

- Context Assessment in Growth Monitoring: a comparison of current practices. Zadelhoff, Yousefzadeh, Haisma;
- 'How should children grow?': Analysis of a cross cultural ethnographic database to understand perceptions about child growth. Darak, Hitzert, Haisma;
- From a biomedical to a social epidemiology approach of child growth and beyond: a systematic review. Haisma, Kramer, Mchome, Yousefzadeh, Hitzert, Darak;
- Post-partum sex taboo: Socio-cultural explanations of poor child growth and its implication to child care. Mchome, Bailey, Kessy, Haisma;
- Capabilities of child growth in Tanzania. Mchome, Bailey, Yousefzadeh, Haisma

## Plan for the Next Year

The focus will be shifting from the conceptual phase towards further operationalising and applying the approach. Again, our plans are presented in relation to the objectives as they are mentioned in the proposal (2017-2021):

- To serve as a platform where a capability approach to child growth can be discussed between scientists, health professionals, and between professionals from international organizations;

Continuation of current activities in 2020

- To disseminate the findings from the research, and create a knowledge base;

Several papers are in the pipeline/ two PhD defences are foreseen for 2020;

- To start applying the approach for the development of interventions;

Applying the capability framework for child growth as an analytical frame to monitor child Rohingya refugees when they return to their homes after having been re-nourished by UNICEF in the refugee camps will help to understand why these children became malnourished and how this could be prevented, i.e. what would be needed in terms of interventions.

In January (13-16), Paul Anand, an economist from the Open University in Oxford, with expertise in index developing applying a capability approach, will spend a week at the University of Groningen to continue working on the design of an index of (dis)advantage for child growth. Gretel Pelto and Jean-Pierre Habicht will collaborate through skype.

In April/ May, Paul Anand, Inês Rugani, Jean-Pierre Habicht, and Gretel Pelto are planning to meet in Ithaca to continue this work.

By early summer we hope to begin the empirical work required to construct an index. This requires a health economist (to be identified)

Applying for funding to expand our efforts requires our continuing attention.