

Carers' and health workers' perspectives on malnutrition in infants aged under six months in rural Ethiopia: A qualitative study

This is a summary of the following paper: *Jibat N, Rana R, Negesse A et al (2022) Carers' and health workers' perspectives on malnutrition in infants aged under six months in rural Ethiopia: A qualitative study. PloS one, 17, 7. e0271733. <https://doi.org/10.1371/journal.pone.0271733>*

Similar to many other low- and middle-income countries, the Ethiopian Ministry of Health recommends inpatient-only treatment for infants under the age of six months as part of their national guideline for managing severe acute malnutrition.

To inform policy and research in this area, and in particular to inform a planned future cluster randomised controlled trial on the effectiveness of a new management of small and nutritionally at-risk infants under six months and their mothers (MAMI) Care Pathway Package, this qualitative study aimed to assess the perception and understanding of malnutrition in infants under the age of six months and their management among carers, communities and healthcare workers in rural Ethiopia.

In total, 31 interviews (17 in-depth interviews with carers/community members and 14 interviews with healthcare workers and managers as key informants) were conducted using purposive sampling between May and August 2020 in Jimma Zone and Deder District of Eastern Hararghe Zone. The data were analysed using a thematic analysis framework in which several barriers and facilitating factors were explored.

The main findings, according to the five key thematic areas, were as follows: 1) perceptions about health and well-being: an "ideal infant" was one that slept well, fed well, was active and looked "fat"; 2) perceptions about feeding infants: overall knowledge of key recommendations such as exclusive breastfeeding was generally good but practices were sub-optimal – one notable cultural practice was to give water to young infants, which runs contrary to WHO guidance that breastmilk alone is all that is needed for this age group; 3) awareness about malnutrition: a key limitation was knowledge of exactly how to identify small and nutritionally at-risk infants; 4) reasons for malnutrition: levels of understanding varied and included feeding problems and caregiver's work pressures resulting in the premature introduction of complementary feeds; and 5) perceptions of identification and treatment: carers preferred treatment close to home but were concerned about the quality of community-based services.

The study findings further highlight the need to expand efforts beyond a focus on shifting knowledge and attitudes, moving towards offering different practical and context-specific initiatives to support mothers with infants under the age of six months to prevent the occurrence of malnutrition and associated complications in this age group. Such initiatives include supporting the health and well-being of the mother (including maternal mental health), providing economic support to those in need and providing extended maternity leave for employed mothers.

There remains a need for improved nutrition education related to infants under the age of six months. Nutrition actors should also build on existing community/healthcare system strengths and address common myths/misconceptions to increase the likelihood of a positive impact. Future programmes must also ensure a trusted and non-judgemental relationship between mother and health worker, which remains essential. This study has provided the framework for other countries to profile and better understand their context and suggested a path-opening step to effectively implement the MAMI trial project in local and contextual bases.



A mother with her severely malnourished baby in a stabilization unit in Tigray region, Ethiopia

Bioenergy and Nutrition nexus: An exploration of the links for win-win opportunities

This is a summary of the following paper: Global Bioenergy Partnership (2022) Literature review of the linkages between bioenergy and nutrition. <http://www.globalbioenergy.org/programmeofwork/working-group-on-capacity-building-for-sustainable-bioenergy/linkages-between-bioenergy-and-nutrition/ru/>

Nutrition security remains crucial to achieving the Sustainable Development Goals (SDGs), particularly SDG2: zero hunger. At least 12 of the 17 goals contain indicators that are highly relevant to nutrition. However, as pressure on global agricultural systems increases, due predominantly to a combination of rapidly growing populations and climate change, nutrition security and the ability to ensure healthy diets for the global population are threatened. Affordable, reliable, sustainable and modern energy access for all is recognised in Agenda 2030 under SDG7 but also interacts with the achievement of almost all other SDGs. Modern bioenergy, a form of renewable energy produced from organic matter, has the potential to aid in the achievement of the SDGs, particularly for climate targets and nutrition, when managed in an appropriate and sustainable manner.

The Global Bioenergy Partnership (GBEP) and the Food and Agriculture Organization have been collaborating to develop a literature review aimed at collecting and analysing the available evidence most relevant to the relationship between bioenergy and nutrition. The literature review identifies the various positive interlinkages between good practices in bioenergy production and nutrition that have been explored in existing research, especially the implications for food security and better nutrition, and the impacts on agricultural land and soil quality that could influence the nutrient content of food.

The articles analysed for the literature review consisted of peer-reviewed papers, technical papers and documents prepared by non-profit organisations and governments from the period 2006 to 2021. In total, 42 articles were identified through internet searches, specifically Google Scholar, while the remaining articles were provided by the Partners and Observers of the GBEP after a request for specific examples at national and local level.

The strongest links identified between bioenergy and nutrition include improved soil quality through various stages of the bioenergy value chain, enhanced rural livelihoods and income diversification from biomass production for bioenergy, the use of modern bioenergy to encourage better cooking practices and to reduce indoor air pollution and the use of bioenergy in cold chains.

The production and use of bioenergy as part of integrated, sustainable production systems offers the potential to aid in the maintenance and enhancement of nutrition security. Bioenergy production and its byproducts offer the opportunity to facilitate nutrition security by improving soil quality through mechanisms such as phytoremediation, multiple cropping systems and the use of biochar and digestate as soil amendments. Biomass production for bioenergy additionally presents an opportunity to diversify income, particularly that of rural and smallholder farmers, which in turn can have positive impacts on food security. These findings, which highlight the multiple linkages between bioenergy, improved soil quality and nutrition, provide great opportunities for future research and multi-sector collaboration to address food security and improved nutrition.