

Men's Nutrition Knowledge is Important for Women's and Children's Nutrition in Ethiopia Research snapshot¹

Many nutrition-sensitive agriculture programmes focus on women as an entry point to effect positive household nutrition outcomes by improving their nutrition knowledge and empowering them to make decisions around food purchases and the allocation of nutritious food in the household. Despite the central role of men, very few programmes have explored the potential impact of men's engagement in household nutrition, including diets and the nutritional status of women. By default, men have been mostly left out of the design and implementation of these programmes. Using data from a cluster randomised trial in Ethiopia known as 'Agriculture to Nutrition', associations between men's and women's nutritional knowledge on the dietary diversity of households, children and women were explored, as well as specific components of nutrition knowledge that had the highest effect size on nutrition outcomes.

The Food and Agriculture Organisation (FAO)'s nutrition knowledge, attitudes and practice questionnaire was administered to men and women in 1,396 households. Four knowledge variables were examined: good nutrition for pregnant/lactating women, diets for children, vitamin A rich foods and iron-rich foods. Within households, 80% of men and women were found to have a

high knowledge and household knowledge agreement on optimal breastfeeding practices. However, only 56% to 66% of households had knowledge agreement on complementary feeding, iron-deficiency anaemia and vitamin A deficiency. Dietary knowledge was found to have a larger affect on women's and children's dietary diversities than vitamin knowledge. Men's nutrition knowledge was found to have a significant, positive and additive association with household diet diversity (0.24, P value= 0.001), children's diet diversity (0.19, P value= 0.008) and women's dietary diversity (0.18, P value<0.001) after adjusting for household wealth, women's education and nutrition knowledge. Distance to markets and men's education levels modified the effects of nutrition knowledge on dietary diversity.

Although not causal, the results provide useful reflections for future research exploring the gendering of nutrition knowledge and how engaging men in nutrition programming may lead to better outcomes.

¹ Ambikapathi R, Passarelli S, Madzorera I, Canavan CR, Noor RA, Abdelmenan S, Tewahido D, Tadesse AW, Sibanda L, Sibanda S, Munthali B, Madzivhandila T, Berhane Y, Fawzi W, Gunaratna NS. (2020). Men's nutrition knowledge is important for women's and children's nutrition in Ethiopia. *Matern Child Nutr.* 2020 Aug 4; e13062. doi: 10.1111/mcn.13062. Epub ahead of print. PMID: 32755057.

New approach to assess the nutrition and food security impacts of Ethiopia's safety net programme Research snapshot¹

The past two decades have seen a rapid increase in social protection programmes in African countries to alleviate poverty, food insecurity and the vulnerability of poor households. Ethiopia's Productive Safety Net Program (PSNP) is one of the largest social protection schemes and has been implemented since 2005. The ongoing fourth phase, which began in 2015, covers around eight million beneficiaries in all but two regions of Ethiopia.

Prior studies provide inconclusive evidence as to whether the PSNP has improved household food security and child nutrition, partly because household food security status is used as both the criteria for participation and a desirable programme outcome. This paper aimed to fill the gap in evidence by examining the impacts of the PSNP on household food security, child meal frequency, child diet diversity and child anthropometry using a marginal structural modelling approach, a method that allows an estimation of the causal association of time-dependent treatment (PSNP) in the presence of a time-dependent covariate (food security status) that is simultaneously a confounder and an intermediate variable.

Contrary to the author's expectations, the study found that household participation in the

PSNP did not have an impact on household food security, on child dietary diversity nor on child anthropometry (estimates of child linear growth, body mass index z-score, stunting and underweight show no significant difference when a household participates in the PSNP). A positive impact was only seen on increased child meal frequency: the number of meals a child would consume in the 24 hours prior to the survey increased by 0.308 units with household participation in the PSNP.

Results suggest that, unless the PSNP is combined with nutrition-sensitive programmes, it will be unable to address the problem of undernutrition among social protection recipients. Integrating the PSNP into broader multi-sectoral programmes that aim, for example, to improve access to clean water and sanitation, health services, agriculture, women's empowerment, employment and training and information on food utilisation, as well as investment in infrastructure, will provide opportunities to address undernutrition as well as the risk of nutrition-related chronic diseases.

¹ Bahru, B. A., Jebena, M. G., Birner, R., and Zeller, M. (2020). Impact of Ethiopia's productive safety net program on household food security and child nutrition: A marginal structural modeling approach. *SSM - population health*, 12, 100660. <https://doi.org/10.1016/j.ssmph.2020.100660>

Incidence correction factors for moderate and severe acute child malnutrition from two longitudinal cohorts in Mali and Burkina Faso

Accurate estimates of the burden of acute malnutrition (AM) are essential to support policy makers and nutrition programmers in decision making including predicting AM case-loads and preparing sufficient resources for treatment. As AM can be a transient state, incidence estimates, as opposed to prevalence rates, are needed to determine the true annual burden. In the absence of longitudinal data, obtaining incidence estimates is challenging and, as such, AM burden is typically approximated by converting prevalence estimates from cross-sectional surveys to a cumulative AM incidence using an 'incidence correction factor', 'K'.

This study aimed to add to the body of evidence related to incidence correction factors. It estimated 'K' factors for severe acute malnutrition (SAM) and moderate acute malnutrition (MAM) based on longitudinal data (monthly data collected for 18 months) from two cluster-randomised control trials conducted between 2014 and 2017 in Burkina Faso and Mali (Innovative Approaches for the Prevention of Childhood Malnutrition-PROMIS study). SAM cases were included in the incidence calculation if they were preceded by one or more SAM-free months. Children who met the MAM criteria while recovering from SAM were not included in the MAM incidence calculation. Data was compared using complete (weight-for-length z-scores, mid-upper arm circumference (MUAC) and oedema) and partial (MUAC, oedema) definitions of SAM and MAM.

'K' factors for SAM were 9.4 and 5.7 in Burkina Faso and in Mali, respectively. The 'K' factors for MAM were 4.7 in Burkina Faso and 5.1 in Mali. MUAC and oedema based definitions of AM did not lead to different 'K' estimates and thus results suggest that 'K' can be reliably estimated when only MUAC and oedema based data are available.

When comparing incidence correction estimates to available prevalence data in the two countries, prevalence was found to underestimate the annual burden of SAM by a factor of 7 to 10 and that of MAM by a factor of 6. This study highlights the need for more contextualised incidence data to accurately measure AM burden.

¹ Barba F M, Huybregts L, Leroy J L. (2020). Incidence Correction Factors for Moderate and Severe Acute Child Malnutrition From 2 Longitudinal Cohorts in Mali and Burkina Faso, *American Journal of Epidemiology*, Volume 189, Issue 12, December 2020, Pages 1623–1627, <https://doi.org/10.1093/aje/kwaa139>