Micronutrient Action Policy Support (MAPS)

– Louise Ander, Murray Lark, Kate Millar, Liz Bailey, Martin Broadley

Project overview

Micronutrient deficiencies (MNDs) are a widespread global problem, especially in sub-Saharan Africa (SSA), south and southeast Asia, generally impacting the poorest nations the most. The scale and impact of MNDs are, however, unequally distributed within nations due to geographic, socio-economic and dietary factors. Subnational-scale data are more rarely captured, quantified and used to inform action to redress MNDs than national-scale data. The consequences of MNDs include impaired growth, cognitive development and immune function, with women of reproductive age and young children at particular risk due to their greater micronutrient requirements. It is widely recognised that good nutrition underpins the successful achievement of many of the SDGs.

Project highlights and lessons learned

- **Co-created an open-access tool** to estimate micronutrient inadequacies and explore nutrition intervention pathways
- **Integrated agriculture, nutrition and health data** to support evidence-based policy and programme design
- **Built global capacity through training and collaboration,** including with national, regional and international partners, and UN agencies to support progress towards the SDG**s**

MAPS results and impact

MAPS co-created an open-access tool to estimate micronutrient inadequacies and explore pathways to improve nutrition. This project crossed disciplines around nutritious food systems, by blending datasets from Ag and Health, and delivered visualizations of micronutrient delivery scenarios within country contexts. The MAPS tool increases the usability of agriculture, nutrition, and health data to inform policies and programs across multiple sectors around the best ways to optimize resources to reduce MNDs in low- and middle-income country settings.

Training provision to our key users in national nutrition or nutrition-sensitive agriculture settings; this training focused on using the tool functionality, and enabling more researchers in low-income settings to use the underlying models outside the tool environment, for instance a Learning Lab on the tool itself, and a Side Event on some of our analytical methods both at ANH Academy week in Lilongwe, June 2023. The MAPS team also hosted a Learning Centre and contributed to the Micronutrient Forum at The Hague, October 2023.

Training on the open-source modelling methods was provided to a cohort of data scientists/modellers from the UN World Food Program in Rome (Oct 2023), with a small number of attendees from UN Food and Agriculture Organization (FAO) also in attendance.

MAPS, a Gates Foundation funded programme, secured aligned co-funding (projects funded by FAO in 2022 and 2024) focused on open-source methods to develop global food composition tables. In keeping with the MAPS ethos of equity, equal success is seen by the input of aligned funding to any of the team, such as the USAID Advancing Nutrition program grants to both LUANAR (Malawi) and to LSHTM (UK) in 2023.

Scaling impact

Micronutrient deficiency risks need to be understood better at various scales and time-horizons, to support evidence gathering for programmatic and policy interventions. This is especially required in nations which have not yet conducted detailed or recent micronutrient surveys (MNS). Even where MNS data do exist, there is a need to communicate how MND risks will change over time and how different interventions could deliver health benefits as food systems evolve and respond to environmental change.

The MAPS open access tool can be found on the website **www.micronutrient.support**