



A CASE STUDY OF ETHIOPIA

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Leveraging Micronutrient Data to Catalyze Change

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SUMMARY

Vitamin and mineral deficiencies remain a serious concern in Ethiopia, with two out of every three women deficient in one or more micronutrients. Ethiopia has committed to addressing this problem by developing multisectoral policies and programs informed by integrated micronutrient data. National nutrition programming has benefited from strong leadership by academic partnerships, including investments in a platform to compile national micronutrient data and coordinate research across institutes. Population-based micronutrient survey data has informed targets for national fortification strategies and the National Nutrition Program. Ethiopia has invested in a National Micronutrient Survey and integrated routine micronutrient data collection systems to provide baseline information on food consumption patterns and micronutrient deficiencies. The government has also established a Nutrition Information System that integrates regular nutrition and early warning data, empowering local administrations to address local micronutrient needs. Ethiopia serves as an example of how leveraging the support of multiple contributing partners and developing an integrated data collection system can inform important nutrition policy and program decision making.

CONTEXT

Ethiopia is the second most populous African nation with a population of 117 million. Despite being the fastest growing economy in the region, nearly one-fourth of its people live on less than \$1 USD a day. Widespread rates of micronutrient deficiencies persist due to food insecurity, low bioavailability of micronutrients from traditional diets, and frequent infections.^{1–5} However, the Ethiopian government, along with development partners, has committed to combating micronutrient deficiencies by developing and implementing multisectoral policies, data collection initiatives, and nutrition programs with the goal of ending all forms of malnutrition by 2030.⁶



Source: ⁷ Ethiopian Public Health Institute (2016). Ethiopian National Micronutrient Survey Report

SUCCESS FACTORS

Ethiopia's efforts to address nutrition across different sectors rely on a multisectoral nutrition approach and strong government leadership. The country has successfully utilized the support of multiple contributing partners to implement an integrated data collection system that informs nutrition policy and program decisions.

Multisectoral Approach—Over the past two decades, Ethiopia made an intentional transition from siloed efforts governed by the Ministry of Health to a model that involves multiple stakeholders across sectors. This is demonstrated by the most recent National Nutrition Program, led by a National Nutrition Coordinating Body composed of 13 sectors and nutrition stakeholders. In 2019, Ethiopia launched the first Ethiopia Nutrition Leaders Network to train and connect a new generation of nutrition leaders.⁷

National initiatives are bolstered by strong leadership from the Ethiopian Public Health Institute and support from development partners, including UNICEF, Nutrition International, Global Alliance for Improved Nutrition (GAIN), the World Bank, World Food Programme, USAID, Eleanor Crook Foundation, and the Bill & Melinda Gates Foundation. These partnerships have resulted in establishing a platform of compiled national data and the Bio and Emerging Technology Institute that coordinates research efforts across institutes.

Integrated Data Collection System—Ethiopia has invested in national micronutrient surveys and has an integrated routine micronutrient data collection system. In 2015, the Ethiopian Public Health Institute conducted the first population-based National Micronutrient Survey. The survey estimated the adequacy of iodized salt, prevalence of anemia, and deficiency rates for iron, vitamin A and B12, folate, zinc, and iodine. To inform the National Fortification Strategy, data were integrated from the Child Health and Mortality Prevention Surveillance initiative and a food consumption survey. Collectively, these data generated baseline information on food consumption patterns, classified population sub-groups with the greatest risk of micronutrient deficiencies, identified suitable foods for fortification, and determined to what extent fortification could address micronutrient deficiencies nationally.

Over the past decade, the government has strengthened the national Nutrition Information System by incorporating routine nutrition data and integrating it into the early warning system. This system is a part of the Health Extension Programme, which frequently collects data across expansive catchment areas. By integrating these data, duplication in data collection has been reduced and sharing and timely use of available information has been promoted. As a result, local administrations are empowered to assess, analyze, and address their local micronutrient needs when most urgent.⁸

“The Federal Ministry of Health is a key actor even identifying [micronutrient deficiencies] as a public health problem. There is high commitment at the government level.”

MASRESHA TESSEMA, Director of Food Science and Research Directorate at the Ethiopian Public Health Institute



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POLICIES & PROGRAMS DRIVEN BY DATA

Ethiopia’s micronutrient data has informed the design, implementation, and evaluation of numerous policies, strategies, and programming efforts related to micronutrients. Survey data was instrumental in setting micronutrient targets for the National Nutrition Program II (2016-2020), which followed the original National Nutrition Program (2008-2015) and allowed Ethiopia to compare its findings with other jurisdictions.⁹

“Using [the National Micronutrient Survey and the Food Consumption Survey]—we have proposed mandatory fortification of wheat flour and edible oil. The justification we presented to the Food and Nutrition Council and different policymakers is sourced from these two documents.”

ABEL AHMED, National Food Fortification Technical Advisor,
Ethiopia Ministry of Industry and Food & Beverage
Industry Research and Development Center

In 2015, the Ethiopian government made a high-level, three phase, 15-year commitment—the Seqota Declaration—to end child undernutrition by bringing together multiple government sectors partners. Three of the seven essential nutrition priority areas address micronutrient deficiencies.¹⁰ In 2018, the Ethiopian Food and Nutrition Policy was endorsed, which supports raising awareness about micronutrient deficiencies and implementing food fortification as a key nutrition strategy. The government subsequently approved and launched the National Food and Nutrition Strategy (2021–2030) to operationalize the policy and set key indicators for micronutrient deficiencies.

Programmatic activities aimed at improving nutrition in Ethiopia include a national vitamin A supplementation program, weekly iron and folic acid supplementation for adolescent girls, multiple micronutrient supplementation in pregnant women, and double fortification of salt with iodine and folic acid.¹¹ In addition, a compulsory standard for the fortification program was endorsed in mid-2022, and regulated mandatory fortification of wheat flour and oil is set to be enforced by mid-2023.

According to Girma Mamo, Deputy Country Director at Nutrition International, policy decisions in Ethiopia are not dictated by global recommendations. Instead, *“tangible local evidence is required to convince key actors and policymakers to implement initiatives”* like the salt iodization program. As such, additional data-informed efforts are underway, including implementation of a multisectoral nutrition scorecard endorsed by the National Nutrition Coordination Body, and the early stages of a

policy plan of action for a mandatory fortification program to address B vitamins and zinc. With the next published National Micronutrient Survey anticipated for 2023, further targeted policies and programs are also expected to emerge.

Lessons Learned

- Establishing an open-access database will help ensure micronutrient data are more accessible to a wider range of stakeholders, leading to more effective tracking of nutrition outcomes.
- Equipping decision-makers with the necessary skills to interpret data can help them use the data more effectively in policymaking and program implementation.
- New knowledge transfer strategies are necessary to share results clearly and concisely with policy decision makers. Concrete, evidence-based guidance using local data can help convince stakeholders and policymakers to implement micronutrient initiatives such as large-scale food fortification programs.

PATH FORWARD

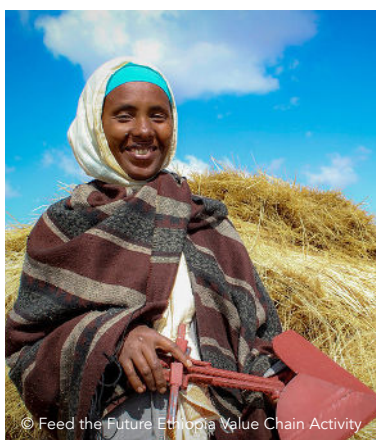
Ethiopia’s success, to date, has been guided by leaders who are deeply invested in the country’s rapidly growing micronutrient data space. Future data efforts can help further enhance the interpretation and utilization of data. A central, open-access micronutrient database to house national survey and local routine monitoring data would enhance usability. Tesfaye Chuko, Nutrition Officer, UNICEF, also highlights the need for timely release of data and integration with the WHO Vitamin and Mineral Nutrition Information System data repository to inform important regional and global estimates of the prevalence of micronutrient deficiencies. Additionally, decision-makers need to be equipped with the skills necessary to correctly interpret data to make informed policies and programs. The abundance of data is not enough; it is essential to present the data in a palatable way to different stakeholders. Overall, Ethiopia stands out as a data leader for Sub-Saharan Africa, showcasing how multisector stakeholders can achieve nutrition goals with strong government leadership and coordination.



The Micronutrient Data Innovation Alliance (DInA) is an alliance of diverse members collaborating to improve the availability, quality, accessibility, and use of data to support national-level decision-makers to better design, implement, evaluate, and optimize programs and policies.

DInA is made possible through a partnership with:

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