NUTRITION INTERNATIONAL

Nourish Life

ENRICH PROJECT IN TANZANIA

2021

BACKGROUND

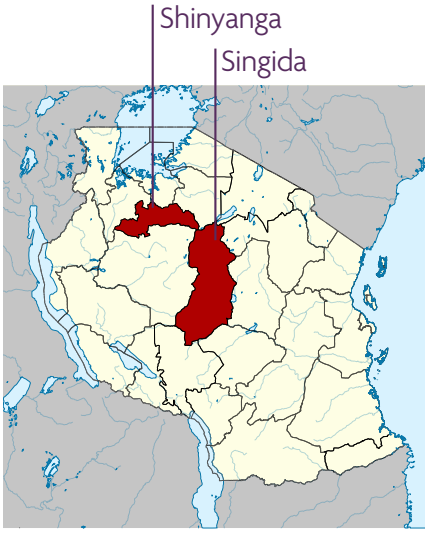
ENRICH project

In 2016, World Vision Canada and Nutrition International partnered to implement the Enhancing Nutrition Services to Improve Maternal and Child Health (ENRICH) project alongside HarvestPlus, the Canadian Society for International Health (CSIH), and the University of Toronto's Dalla Lana School of Public Health. Operating in targeted regions in Tanzania, Kenya, Bangladesh, Myanmar and Pakistan[i], the ENRICH project is funded by Government of Canada through Global Affairs Canada's Partnerships for Strengthening Maternal, Newborn and Child Health.

ENRICH aims to reduce maternal and child mortality by strengthening the public health system's ability to deliver quality gender-responsive facility- and community-based health services for improved health and nutrition of pregnant and lactating women and their young children, especially during the first 1,000 days — from conception to a child's second birthday — that set the foundation for optimum child health and development.

The ENRICH project took a comprehensive approach to health system strengthening (HSS) to:

- Improve the delivery of essential nutrition services,
- Promote optimal nutrition practices, such as the consumption and production of nutrient-rich and fortified foods, optimal infant and young child feeding and maternal nutrition, and
- Strengthen nutrition data collection and management for analysis of reliable information to track heath system performance.



The ENRICH project was implemented in partnership with the Government of Tanzania in five districts; three from Shinyanga region (Kahama, Kishapu, and Shinyanga Rural) and two from Singida region (Manyoni and Ikungi).

[i] *ENRICH Pakistan was implemented for two years in Sindh province. The project closed in December 2018.*

Nutrition in Tanzania

The Government of Tanzania has developed a strong framework for nutrition action. It takes a human development approach that prioritizes food and nutrition security through policies such as the National Multisectoral Nutrition Action Plan (NMNAP) 2016-2021[1] which aligns with the Health Sector Strategic Plan (2015-2020)[2], and the National Five-Year Development Plan (2016/17–2020/21).[3]

As nutrition increasingly became a national priority over the past decade, Tanzania experienced significant health improvements. These improvements can be attributed to government efforts and initiatives such as the establishment of the High Level Multisectoral Steering Committee on Nutrition (HLSCN) at the national level, as well as District Multisectoral Nutrition Steering Committees. Operating under the Prime Minister's Office, the HLSCN oversaw all nutrition policy and placement of trained Region and District Nutrition Officers. According to the Tanzania Demographic and Health Surveys (DHS),[4,5] the percentage of women who reported taking iron supplements for 90 days or more during their most recent pregnancy increased from 3.5 percent in 2010 to 21 percent in 2015. At the same time, stunting of children under five dropped from 43 percent in 2010 to 34 percent in 2015. However, the prevalence of stunting is still considered very high (> 20%),[6] and continues to signal more efforts are needed to address the burden of malnutrition.

Table 1: National and regional nutrition indicators for children under 5 years and women ages 15-49

Population	Nutrition Indicator	National[5]	ENRICH program areas baseline survey[7] (2017)	
			Shinyanga	Singida
Children under 5 years of age	Stunting	34%	28%	29%
	Wasting	4.5%	3.0%	5.0%
	Underweight	14%	12%	12%
	Anaemia among children 6-59 months (haemoglobin < 11.0 g/dl)	58%	71%[5]	37%[5]
Women 15-49 years of age	Underweight (BMI <18.5)	9.5%	6.4%	10.8%
	Iron supplements taken for 90+ days during most recent pregnancy	21%	11.4%	

IDENTIFICATION OF GAPS IN THE PROJECT AREA

Prior to the ENRICH project, there were limited data on health and nutrition service delivery and the nutrition status of the population in Shinyanga and Singida. In 2016, the ENRICH project conducted a baseline survey[7] of the nutrition status and practices in the five intervention districts within Singida and Shinyanga. The baseline survey included a quantitative household survey of caregivers of children under five years of age and assessment of those children, as well as a quantitative health facility assessment to understand the nutrition knowledge and skills of healthcare providers, check availability of nutrition commodities and routine health service information. The University of Toronto conducted the baseline survey in collaboration with Enhance Tanzania Foundation.

The baseline survey helped put the nutrition status of the population in context with the national averages. For example, the data showed the prevalence of anaemia among children between the ages of six months and five years was much higher in Shinyanga than Singida or nationally (see Table 1). It also revealed that only about half of the health facilities had a service provider who received any training in the two years prior on infant and young child feeding, growth monitoring and promotion, and nutrition assessment, counselling and support.

Other data collected at the beginning of the project included a functionality assessment of community health workers (CHW) by World Vision in 2017. This showed that although most health facilities had networks of CHWs, this cadre of healthcare providers had not been trained in nutrition.

The ENRICH team also conducted nutrition services delivery assessments (NSDA) in all facilities in the project area. The NSDAs assessed indicators such as staffing, provision of various nutrition services, community linkages, quality improvement initiatives, and logistics management practices. These findings informed project planning to address the needs identified during the assessments.

Formative research was also conducted in Singida and Shinyanga, and this research included household trials of improved practices. The research informed development of a context-specific Behaviour Change Intervention (BCI) strategy and communication messages to promote uptake of recommended nutrition practices at the health facility and community levels.

THE INTERVENTION: ENRICH PROJECT APPROACH

Results of these multiple baseline assessments highlighted specific gaps in health and nutrition service delivery and focused project efforts on developing knowledge and skills at the community and facility level. The ENRICH consortium used these insights to further refine the project logic model and underlying theory of change, and to design and plan multifaceted interventions to address these gaps in Shinyanga and Singida.

World Vision Tanzania worked at the community level to mobilize CHWs and village government as well as sensitize community groups and leaders on nutrition. They also coordinated with local government to promote home gardens, distribute livestock, and support service provision at health facility level. HarvestPlus reached farmers and their families with orange fleshed sweet potatoes, a good source of beta-carotene (provitamin A). They provided training on crop production and food preparation and collaborated with the government on developing capacity of seed production companies. CSIH worked with regional and council health management teams (R/C HMTs) to strengthen leadership and governance to ensure resources dedicated to the health sector enable adequate access to high-quality health and nutrition services. CSIH also worked with R/C HMTs and facility healthcare providers to enhance skills and competencies in information management. This capacity development aimed to help participants improve the quality of data entered to the national health information management system and to use this data to better plan and budget for health and nutrition programs.

Nutrition International worked in partnership with the government at national, regional and council levels to strengthen health systems through the development of guidelines, tools and practical resources—technical assistance that supported the effective implementation of nutrition interventions throughout the country. Nutrition International also supported capacity development of healthcare providers to deliver essential nutrition services and better manage the supply of nutrition commodities. The ENRICH impact pathway guided the intervention to specific outcomes such as improved delivery of gender-responsive essential nutrition services for mothers, pregnant women, women of child-bearing age, newborns and children under two to ultimately contribute to the reduction of maternal and child mortality in the region.

Health Service Delivery

Nutrition International supported the Ministry of Health to conduct training of master trainers at the national level and training of trainers of the health managers and supervisors from Shinyanga and Singida. Essential nutrition training was then cascaded to healthcare providers (both facility- and community-based) with the support of World Vision.

Healthcare providers reported that the comprehensive training facilitated by the ENRICH project improved the quality of nutrition service provision in facilities and communities. For example, deeper nutrition knowledge gained from the training gave healthcare providers more confidence in using BCI materials and providing specific nutrition messages tailored to the beneficiaries during counselling. Healthcare providers requested training for CHWs that work in the catchment area of their facilities as well as for incoming staff transferred into the project area.

The NMNAP includes micronutrient supplementation as one strategy to reduce the prevalence of micronutrient deficiencies, supported by a functional and reliable supply chain. However, the ENRICH baseline survey results showed that stock-outs of essential nutrition commodities such as iron-folic acid, vitamin A, and oral rehydration salts were very common in the project areas.[7] Nutrition International commissioned a supply chain assessment of maternal and child nutrition commodities at the national level and in Shinyanga and Singida[ii] and used the findings to inform updates to the Supply Chain Management Training Manual for Healthcare Providers. Frontline healthcare providers in the project targeted districts were then trained in supply and commodity management.

ENRICH training topics

Basic nutrition: maternal nutrition, Infant and Young Child Feeding (IYCF), Nutrition Assessment, Counselling and Support (NACS), Growth Monitoring and Promotion (GMP), management of acute malnutrition, consumption of nutrient-rich foods and fortified foods, micronutrient supplementation.

Commodity management: demand forecasting, stock reporting and documentation, warehousing basics.

Micronutrient Powder (MNP) implementation: benefits of MNP, target group, dosing regimen, home fortification of complementary foods with MNP, side effects, role of behaviour change and communication in improving uptake of MNP, commodity management, and monitoring of coverage and utilization.

[ii] *Nutrition International commissioned DAMAX Solutions for this work which included assessment of product selection, quality assurance, forecasting and quantification, procurement, warehouse and storage, distribution, and client service.*

Micronutrient Powder (MNP) Programming

The prevalence of anaemia among children between the ages of six months and 5 years was nearly 60 percent in Tanzania in 2015 (71 percent and 37 percent in Shinyanga and Singida, respectively) at the time the ENRICH project began.[5] Also, only 26 percent of children under five years of age consumed an adequate variety of food and only nine percent had adequate frequency of meals and diversity of food (minimum acceptable diet).[5] Adding Micronutrient powder (MNP) to the meals of young children has been shown to halve rates of anemia and iron deficiency. For these reasons, MNP was included for the first time as an intervention in the NMNAP 2016-2021, and the ENRICH project designed and operationalized an MNP program in collaboration with the Tanzania Food and Nutrition Centre (TFNC) and Local Government Authorities (LGA). In line with its health systems strengthening approach, Nutrition International followed a multifaceted process to develop a comprehensive MNP program which involved:

- A landscape analysis of MNP interventions in Tanzania
- Formative research including household trials for MNP use
- Development of a BCI strategy
- Creation of a detailed program design and implementation plan
- MNP procurement, transportation, and distribution
- Development of comprehensive MNP training manuals
- Training for health management teams and healthcare providers
- Development of data collection, reporting, and monitoring tools
- Institutionalization of supportive supervision for MNP programming

MNP packets (local brand as distributed by SOLEO), packaging approved by Ministry of Health Community Development, Gender, Elderly, and Children (MoHCDGEC).

Biofortification increases the micronutrient content of staple crops naturally through selective breeding (not genetic modification). It is a long-term approach that can help fill identified micronutrient gaps in the diet, and complements supplementation and staple food fortification efforts. Evidence has shown that biofortification is effective, highly cost-effective, sustainable, and can reach populations where conventional nutrition interventions cannot.[9,10,11]

National Guidelines

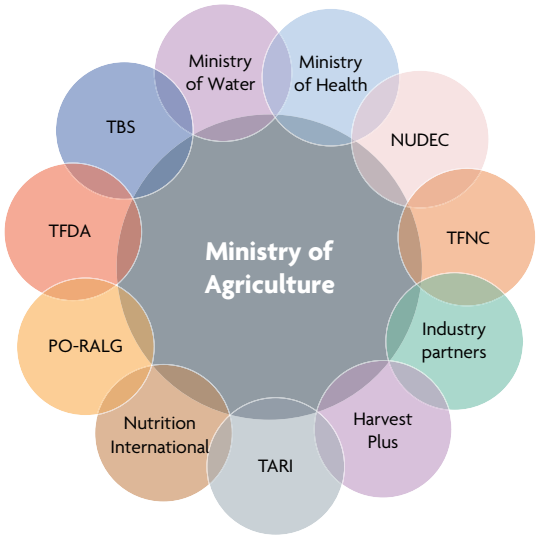
To support the creation of an enabling environment for nutrition, Nutrition International collaborated with the Government of Tanzania and nutrition partners to establish several guidelines for the implementation of both nutrition-specific and nutrition-sensitive interventions.

The Government of Tanzania included biofortification as an intervention in the NMNAP (2016-2021) and the Agriculture Sector Development Programme II (ASDP2) 2018-2023.[12] However, prior to ENRICH no national guidelines in biofortification existed. In 2019, the Ministry of Agriculture and TFNC led the development of Tanzania's first National Biofortification Guidelines, with support from HarvestPlus and Nutrition International.[13] The guidelines provide a framework for the planning, implementation, monitoring and evaluation of biofortification initiatives and associated regulatory mechanisms from production, processing, and marketing to distribution and consumption.

Launched in August 2020, the guidelines are seen as foundational to the continued advancement of biofortification work in Tanzania, bridging health and agriculture sectors.

Nutrition International has also supported the creation of an enabling environment by:

- Working with TFNC to adapt the existing Eastern Central Southern African Health Community (ECSA-HC) In-service Nutrition Training Package for Frontline Healthcare Providers to address the gaps in workforce capacity with a comprehensive basic nutrition training curriculum contextualized for Tanzania.
- Collaborating with the Technical Assistance for Nutrition (TAN) project and the Government of Tanzania to develop comprehensive National Guidelines on Prevention and Control of Micronutrient Deficiencies, which provides a framework for optimal prevention and control measures of micronutrient deficiencies for vulnerable groups.



The multisectoral process of developing biofortification guidelines involved representation from government, industry, and NGOs

PO-RLAG = President's Office, Regional Administration and Local Government
TFDA = Tanzania Food and Drug Administration
TBS = Tanzania Bureau of Standards
NUDEC = Nutrition and Sustainable Development Centre
TARI = Tanzania Agricultural Research Institute
TFNC = Tanzania Food and Nutrition Centre

Nutrition Advocacy

Although there is strong framework for nutrition action in Tanzania, national policies and guidelines have not always been fully implemented. Some of the challenges to implementation include insufficient domestic resource allocation and poor translation of government policies at the regional and council levels. To be effective, these policies need to be translated into concrete, sustainable multisectoral plans and actions that are well-coordinated, integrated, sufficiently resourced and monitored.

Through ENRICH, Nutrition International engaged the Partnership for Nutrition in Tanzania (PANITA)[iii] in 2019 to conduct targeted advocacy efforts to sustain the project gains beyond its lifespan. The project advocated for increased ownership, accountability and oversight of LGAs for maternal and child health and nutrition. At the project level, key government leaders[iv] met with PANITA to agree upon actions to increase budget allocation for nutrition service provision. At the national level, workshops were conducted with stakeholders including TFNC and the Medical Stores Department on how to sustain the procurement of nutrition commodities. Actions agreed upon in the project area were presented to Members of Regional and Council Multisectoral Steering Committees on Nutrition from all five councils in which ENRICH was implemented as well as Members of Parliament to facilitate buy-in. PANITA's work generated awareness among key health and nutrition decision-makers and helped institutionalize ENRICH nutrition activities into plans and budgets.

[iii] *PANITA is the Scaling Up Nutrition (SUN) civil society network (CSN) supporting Tanzania in advancing nutrition through advocacy and coordination of over 300 civil society organizations, the media, political leaders, and other key stakeholders in Tanzania for a more effective national and local response to addressing malnutrition.*

[iv] *Regional and Council Health Management Teams, and the Regional and Council Multisectoral Steering Committees on Nutrition from all five councils in which ENRICH was implemented.*

EARLY RESULTS

Effective implementation of a comprehensive and systematic health system strengthening intervention requires a long timeframe. For ENRICH, gap assessments, updates to curricula and training materials, and capacity development activities took up the first year of the project. Intensive discussions and consultation with government on the scope of work to better align with existing operational plans was also time-intensive but facilitated a close and synergistic working relationship.

Given these factors, progress towards achieving some outcomes were not fully evident by the time the midterm survey was conducted. However, ENRICH midterm survey data does show several indicators of health system strengthening were trending in a positive direction. ENRICH will conduct the endline survey in 2021.

Table 2: Select nutrition indicators in the ENRICH project area (select districts of Shinyanga and Singida) from baseline to midterm

Select Indicators	Baseline Survey (2016)	Midterm Survey (2018)[14]
Coverage of MNP: Percentage of children aged 6-23.9 months who received any MNP in the past 1 year	0%	13%
Coverage of IFA receipt: Percentage of mothers of children aged 0-23.9 months who received any iron and folic acid supplements during their last pregnancy	53%	76%
Child weight monitoring: Percentage of children 0-23.9 months who was weighed at least once (≥1 times) in the last 3 months	76%	83%
Health facility stock: Percentage/number of health facilities with "no stock-out" of essential nutrition medicines and commodities for the pregnant and lactating women and children under two years of age for at least one (≥1) week in the past 90 days (among those who reported managing that specific commodities)		
• Folic acid tablet	33%	50%
• Iron-folate tablet	26%	52%
• Vitamin A capsule	57%	59%
• Oral rehydration salt (ORS)	44%	71%
• Zinc tablet	23%	43%
• MNP	17%	88%
Mother knew about ≥3 recommendations for appropriate feeding of children aged 6-23.9 months	1%	7%
Mother knew about ≥3 good nutrition practices for pregnant women to follow during pregnancy	2%	7%

LESSONS LEARNED

ENRICH sought to assist the Government of Tanzania in the operationalization of their existing nutrition strategies and plans, with the aim of helping improve maternal and newborn health and nutrition. The project was successful in large part because it was planned and implemented in close consultation with, and endorsed by, key government entities.[v]

Key takeaways from the ENRICH project experience include:

- **Transfers of healthcare providers left gaps in knowledge and affected nutrition service delivery at health facilities.** Trained frontline healthcare providers were regularly transferred to health facilities outside the geographic scope of the project, leaving few or no healthcare providers with the knowledge and skills to deliver nutrition services. Project baseline assessments should study the distribution and number of healthcare providers in the districts and implementing partners should hold discussions with LGAs to identify practical solutions to the management of healthcare provider transfers to mitigate its risk to project impact.
- **Close consultation with government stakeholders from the beginning of a project is essential.** This enables alignment with existing policies, guidelines, and ongoing government efforts to improve nutrition. For example, national dissemination of the basic nutrition training package and the MNP training manuals which Nutrition International supported government to develop was possible because of effective partnership with, and supporting leadership of, TFNC and MoHCDGEC. Also, active collaboration with existing nutrition multisectoral platforms such as the MIYCAN Thematic Working Group (TWG), the Micronutrient TWG, and Development Partners Group in Nutrition further facilitated the uptake of these training materials. Similarly, implementation of the supply chain management assessment and training, and development of the National Biofortification Guidelines, were only successful due to effective consultation and coordination with government at the national and district levels.

[v] *Ministry of Health, Tanzania Food and Nutrition Centre (TFNC), President's Office – Regional Administrations and Local Government (PO-RALG), Medical Stores Department (MSD)*

- **A landscape analysis of MNP programs in the country provided insights that benefited the design and implementation of the ENRICH intervention.** MNP programming is complex; a thorough understanding of the gaps and challenges of previous MNP interventions allowed the project to avoid the same pitfalls (such as not using health facilities as a distribution platform and failure to comply with the policy that all health services must be provided free of charge for children under the age of five). The resulting MNP program design and implementation plan was a clear roadmap for all stakeholders to successfully navigate the operationalization of the program.
- **Advocacy for sustainable improvements in nutrition service must be conducted throughout the project lifespan.** The ENRICH project advocated for project interventions in coordination meetings and other stakeholder forums. However, it takes time for project evidence to be generated for use as an advocacy tool, and meaningful long-term partnerships must be forged for receptivity to advocacy efforts. Nutrition International engaged PANITA to facilitate further advocacy for sustainability of the project in year three of the project once the project team had established good rapport with government stakeholders in the project area and evidence of progress was available through the mid-term survey. However, this did not allow enough time to bring to conclusion decisions with stakeholders on concrete solutions to the challenges of the project's sustainability.

RECOMMENDATIONS

From the ENRICH experience in Tanzania, the following are recommended for future programming:

- **Refresher training for healthcare providers** is vital to fill the knowledge gap left by staff transfers and to enhance the capacity of new service providers. Refresher training should also be provided to CHWs.
- **Timely and wide consultation** with both government and non-government project stakeholders must be conducted to facilitate strong program design and effective planning and implementation.
- **Partnerships with government at all levels** should be fostered for maximal project effectiveness and to ensure the project complements existing government strategies.
- It takes time for complex projects like ENRICH to be adequately implemented, strategic relationships and trust to be built, and evidence to be generated from project results. **Projects should involve advocacy** for sustainability of interventions throughout the project lifespan for maximal uptake and continuation of interventions.

MORE INFORMATION

Founded in 1992, Nutrition International is a global organization dedicated to delivering proven nutrition interventions to those who need them most. Working in partnership with countries, donors and implementers, our experts conduct cutting-edge nutrition research, support critical policy formulation, and integrate nutrition into broader development programs. In more than 60 countries, primarily in Asia and Africa, Nutrition International nourishes people to nourish life.
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