

FANTA III

FOOD AND NUTRITION  
TECHNICAL ASSISTANCE



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# INTEGRATING AND STRENGTHENING NUTRITION IN AGRICULTURE AND MATERNAL AND CHILD HEALTH PROGRAMS IN GUATEMALA: A Report on FANTA Activities from 2011 to 2017



## Abbreviations and Acronyms

ABC	activity-based costing
AGEXPORT	Asociación Guatemalteca de Exportadores (Association of Guatemalan Exporters)
ANAM	Asociación Nacional de Municipalidades (National Association of Municipalities)
CLUSA	Cooperative League of the USA
CSO	civil society organization
DMM	Dirección Municipal de la Mujer (Municipal Women's Department)
DTP	Dirección Técnica del Presupuesto (Technical Budget Office)
ENCA	Escuela Nacional Central de Agricultura (National Central Agricultural School)
ENPDC	Estrategia Nacional para la Prevención de la Desnutrición Crónica (National Strategy for the Prevention of Chronic Malnutrition)
FANTA	Food and Nutrition Technical Assistance III Project
FBR	food-based recommendation
GDP	gross domestic product
GoG	Government of Guatemala
HEP+	Health and Education Policy Plus Project
HEPP	Health and Education Policy Project
ICEFI	Instituto Centroamericano de Estudios Fiscales (Central American Institute of Fiscal Studies)
INCAP	Instituto de Nutrición de Centroamérica y Panamá (Institute of Nutrition of Central America and Panama)
INCOPAS	Instancia de Consulta y Participación Social (Instance for Consult and Social Participation)
MAGA	Ministerio de Agricultura, Ganadería y Alimentación (Ministry of Agriculture, Livestock, and Food)
MINFIN	Ministerio de Finanzas (Ministry of Finance)
MOH	Ministry of Health
NCBA	National Cooperative Business Association
PAFFEC	Programa de Agricultura Familiar para el Fortalecimiento de la Economía Campesina (Family Farming Program to Strengthen the Rural Economy)
PLANOCC	Plan Estratégico de Seguridad Alimentaria y Nutricional para Occidente (Food Security and Nutrition Strategic Plan for the Western Highlands)
REDHOSEN	Red de Hombres por la Salud, Educación y Nutrición (Men's Network for Health, Education, and Nutrition)
SESAN	Secretaría de Seguridad Alimentaria y Nutricional (Food Security and Nutrition Secretariat)
USAID	United States Agency for International Development
WFP	World Food Programme
WHIP	Western Highlands Integrated Program
WHO	World Health Organization

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COVER ART: Shutterstock

## Overview

Stunting, an indicator of chronic malnutrition, affects nearly half of Guatemala's children under 5, and is most severe in the indigenous and poor populations of the country's rural areas in the Western Highlands. The high prevalence of stunting in Guatemala is a direct consequence of inadequate dietary intake and repeated infections related to poor water, sanitation, and hygiene practices. The Government of Guatemala (GoG) has committed to reducing chronic malnutrition among children under 2 years of age by 10 percentage points between 2016 and 2020. From 2011 to 2017, the Food and Nutrition Technical Assistance III Project (FANTA), funded by the United States Agency for International Development (USAID)/Guatemala, collaborated with the Guatemalan Ministry of Health (MOH); Ministry of Agriculture, Livestock, and Food (MAGA); Ministry of Finance (MINFIN); the Food Security and Nutrition Secretariat (SESAN); USAID/Guatemala implementing partners; civil society; universities; and other nutrition stakeholders to address the high prevalence of stunting by improving multisectoral efforts to integrate and strengthen nutrition in health and agriculture interventions, particularly those targeting women and children in prioritized departments in USAID's Western Highlands Integrated Program (WHIP).

Specifically, FANTA's objectives were to:

1. Raise awareness of the need to invest in evidence-based nutrition services to address malnutrition, especially chronic malnutrition
2. Strengthen collaboration among the agriculture, health, and nutrition sectors to improve the quality and diversity of diets, particularly among children and pregnant and lactating women
3. Improve maternal, infant, and young child health and nutrition within the context of GoG efforts to reduce chronic malnutrition

## Advocacy to Increase Investment in Nutrition at the National and Local Levels

Fundamental constraints to strengthening nutrition service delivery in Guatemala included insufficient investment in nutrition and limited commitment to and coordination around preventing chronic malnutrition. FANTA addressed these constraints by developing a model to estimate the costs of comprehensive national maternal and child nutrition services, developing and disseminating PROFILES<sup>1</sup> estimates on the developmental impact if nutrition in Guatemala does not improve in the next decade, and preparing a national-level advocacy plan and advocacy briefs to promote investment in and implementation of nutrition-specific and nutrition-sensitive interventions to prevent chronic malnutrition at the national and local levels.

## Strengthening Linkages among Agriculture, Health, and Nutrition

To improve the diets of Guatemala's young children and pregnant and lactating women, linkages needed to be built and strengthened among the agriculture, health, and nutrition sectors to promote nutrition sensitive interventions. Although USAID has had expansive agriculture and health programs in Guatemala, few had a nutrition component and few linkages existed between agriculture and health programs prior to 2011, in either USAID/Guatemala or GoG programs. FANTA strengthened linkages among agriculture, health, and nutrition by developing food-based recommendations (FBRs) using the Optifood tool. The project also trained partner and GoG staff to use Optifood; conducted webinars and trainings to share the FBRs and what partners can do to implement them; trained USAID/Guatemala partners, GoG agriculture and health

<sup>1</sup> PROFILES is an evidence-based spreadsheet tool used for nutrition advocacy.

staff, and agriculture and health university students on nutrition-sensitive agriculture; and provided critical support for a process to integrate nutrition-sensitive agriculture into the MAGA 2017 Plan of Action.

## Improving Maternal and Child Health and Nutrition

FANTA provided technical assistance to the GoG to strengthen its capacity to integrate nutrition into its health programs. This included developing a maternal and child nutrition distance learning course for frontline health workers and adapting the course for use with civil society and universities, training university nutrition students in nutrition-sensitive interventions, and helping the MOH and SESAN to hold a national technical consultative meeting on micronutrient nutrition. The purpose of that meeting was to analyze the micronutrient situation in Guatemala and make recommendations to improve the micronutrient

status of the population, particularly young children and pregnant and lactating women.

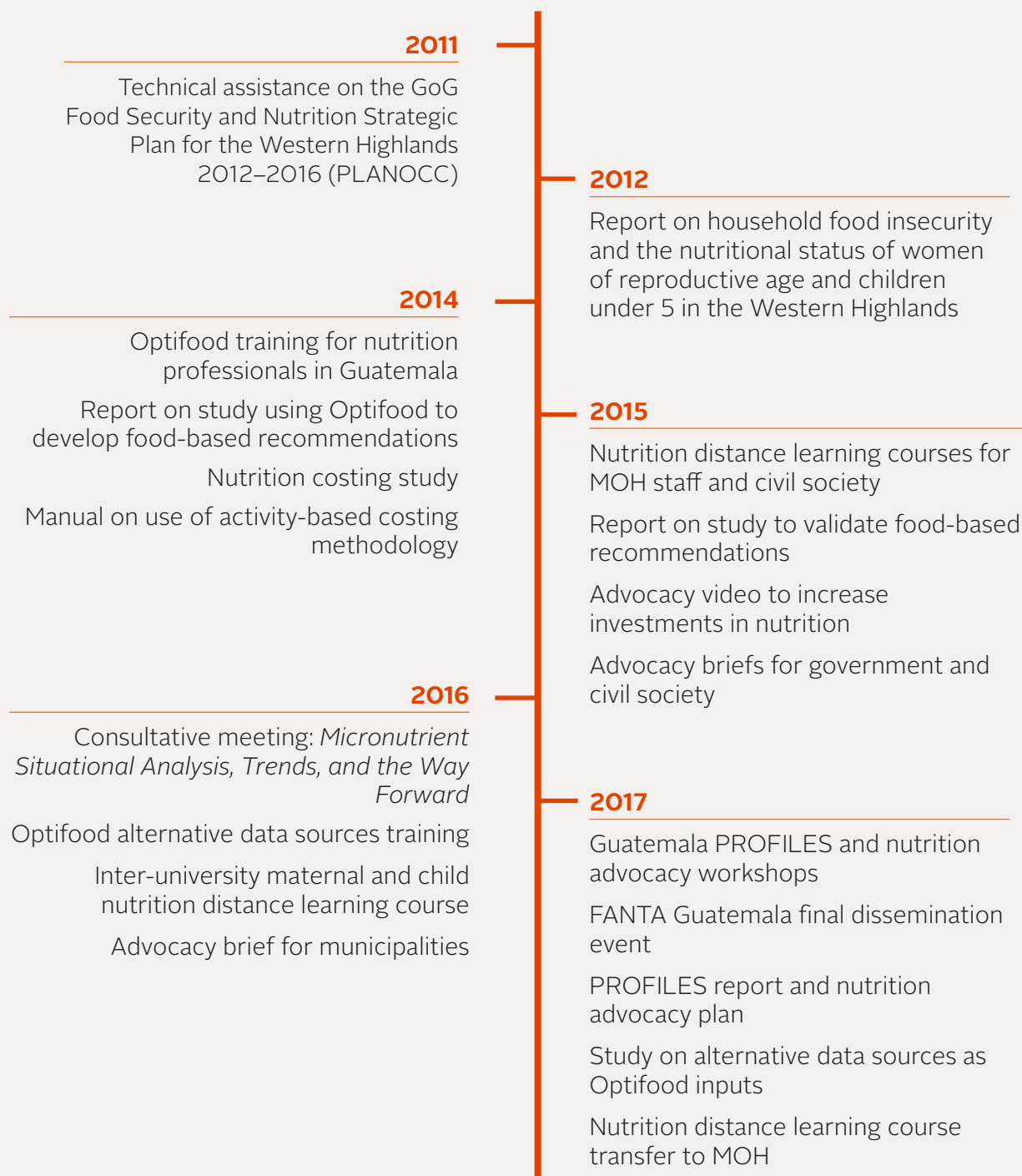
This report provides a summary of FANTA's achievements and results in Guatemala in three key areas—nutrition advocacy; strengthening cross-sectoral linkages among agriculture, health, and nutrition; and improving maternal and child health and nutrition—over the past 7 years. It showcases FANTA's multi-stakeholder collaboration and highlights lessons learned and recommendations for future programming.

*Nearly half of children under 5 years of age in Guatemala are chronically malnourished, 46.5%, a higher percentage than in Africa, Asia, and Latin America and the Caribbean, and in Guatemala's Western Highlands, as many as seven out of 10 children are stunted.*

## Major FANTA Guatemala Accomplishments

- 1,162** frontline health workers trained through nutrition distance learning course in 2015–2016
- 604** USAID/Guatemala agriculture partners, GoG agriculture staff, and university agronomy and nutrition students trained in nutrition-sensitive agriculture and agriculture-nutrition linkages
- 484** USAID/Guatemala health partners, GoG health staff, civil society youth, and university students trained in integrating nutrition into health services
- 83** staff from the MOH and partners trained as facilitators for nutrition distance learning course
- 69** civil society members completed adapted version of the nutrition distance learning course, including 15 youth
- 52** professors trained as facilitators for the inter-university nutrition distance learning course
- 35** USAID/Guatemala partners, GoG staff, and partners from other institutions trained in use of Optifood

## Timeline of FANTA Activities in Guatemala



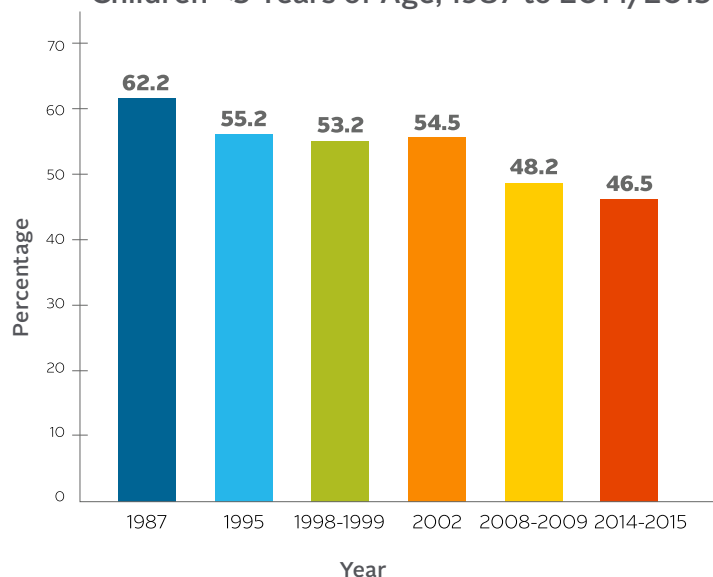
## Raising Awareness on the Need to Invest in Evidence-Based Nutrition Services

### Advocacy to Increase Investment in Nutrition at the National and Local Levels

Chronic malnutrition remains a widespread problem in Guatemala and estimates suggest that the prevalence of chronic malnutrition has declined very slowly over the past 30 years, with an average annual reduction of only 0.5 percentage points. The current rate of reduction is too slow, given Guatemala's commitment to reduce chronic malnutrition among children under 2 years of age by 10 percentage points by 2020.

Nutrition plays a crucial role in the health, education, and economic productivity of a country's people, but in Guatemala, there is limited understanding of the short- and long-term consequences of chronic malnutrition on society and limited commitment, visibility,

#### Guatemala: Trends in Chronic Malnutrition, Children <5 Years of Age, 1987 to 2014/2015<sup>2</sup>



and coordination in efforts to prevent chronic malnutrition. FANTA used a systematic process to promote investment in and commitment to nutrition by advocating for:

- An increase in financial and human resource allocations to nutrition to improve and expand nutrition service delivery
- Making nutrition a high priority for the Government of Guatemala at the national and municipal levels

The key steps in the advocacy process were to develop a nutrition costing model to calculate nutrition cost estimates for Guatemala; use PROFILES, an evidence-based spreadsheet tool for nutrition advocacy, to develop estimates of the consequences of not addressing malnutrition on health and development outcomes; and develop a national nutrition advocacy plan and advocacy briefs. Serving as a harmonized framework for the government and its implementing partners, the plan outlines a shared vision for nutrition and identifies key audiences for nutrition advocacy efforts. The GoG and USAID/Guatemala partners will use the PROFILES and costing results and advocacy briefs for meetings and workshops outlined in the nutrition advocacy plan with members of Guatemala's Congress, policy makers, civil society organizations (CSOs), the private sector, development partners, and the media to demonstrate the impact of nutrition on health, education, economic productivity, and development, and the need for increased resources and multisectoral coordination to achieve Guatemala's nutrition goals.

<sup>2</sup> Percent of children 0–36 months (1987) and 0–59 months (all other years) with height-for-age z-score < -2 SD, all values use 2006 World Health Organization (WHO) Child Growth Standards.

## Major Accomplishments in Nutrition Advocacy

- Worked with multisectoral stakeholders to develop PROFILES results and national nutrition cost estimates to guide and advocate for GoG nutrition service budgeting and planning.
- Developed costing materials and conducted nutrition advocacy efforts with over 125 representatives from SESAN, Ministry of Health, Ministry of Finance, Ministry of Agriculture, Ministry of Social Development, Ministry of Education, civil society, and USAID/Guatemala partners.
- Trained 51 staff from the Ministry of Finance and the Ministry of Health in the use of the activity-based costing methodology.
- Together with USAID/Guatemala Health and Education Office partners, conducted 4 workshops and meetings with 120 municipal leaders and 10 mayors to promote health and nutrition services.

## Nutrition Cost Estimates for Essential Nutrition-Specific and Nutrition-Sensitive Interventions

The MOH has prioritized a package of nine essential nutrition-specific and nutrition-sensitive interventions that need to be implemented at scale to achieve the GoG goal of a 10 percentage point reduction in stunting by 2020. Resource allocation for these interventions must be planned following the government's Results-Based Budget Management Agreement, which links budget allocations to performance-based outcome indicators—in this case, effective delivery of health and nutrition services to improve nutrition outcomes.

To help Guatemala plan and budget for nutrition services, FANTA and the Central American Institute of Fiscal Studies (ICEFI in Spanish) collaborated with the MOH and MINFIN to determine the costs of implementing the nine interventions nationally and in each of 10 high priority departments. The Government prioritized the departments according to chronic malnutrition prevalence, including departments in the Western Highlands, where USAID is supporting the Government's efforts to reduce stunting. The costing exercise used activity-based costing

## Nine Essential Interventions for Guatemala

### *Nutrition-specific interventions:*

- 1 Promotion of maternal nutrition during prenatal care
- 2 Promotion of exclusive breastfeeding for infants under 6 months of age and continued breastfeeding until 2 years of age or beyond
- 3 Promotion of complementary feeding and provision of fortified blended flour
- 4 Provision of micronutrients for mothers and children
- 5 Growth monitoring
- 6 Nutritional management of sick children
- 7 Management of acute malnutrition at the community level

### *Nutrition-sensitive interventions:*

- 8 Monitoring of water quality
- 9 Provision of vaccinations

(ABC), which estimates overall program costs by costing activity (intervention or cost center) within the program, marking the first use of ABC in Guatemala.

The results of the costing exercise showed that nutrition was severely underfunded in Guatemala. For example, in 2013, the government invested 637.2 million quetzales (about US\$80 million) in nutrition, only about one-third of the 1.8 billion quetzales (about US\$230 million) required for that year. The results also showed that if the government continues to increase its nutrition budget by only 5% a year, the nutrition investment gap could reach nearly 3 billion quetzales (about US\$380 million) by 2021. Based on these results, FANTA provided several recommendations to increase investment in nutrition and the health sector overall, to promote policies that support nutrition, and to strengthen nutrition programming.

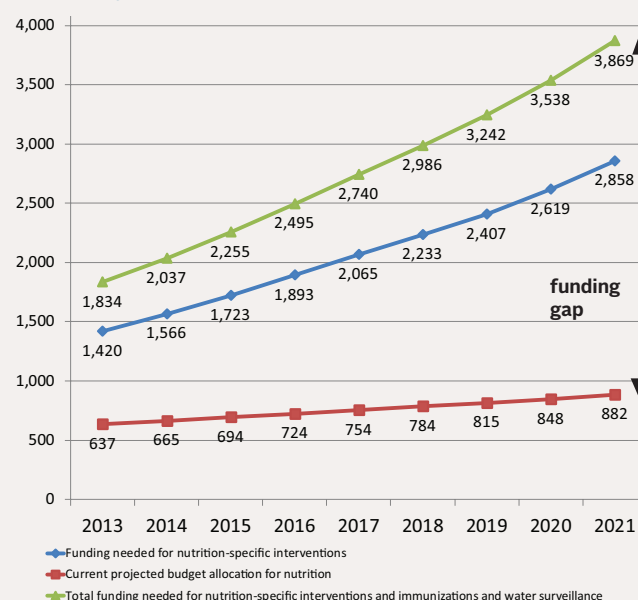
The results from the costing exercise are helping to raise awareness among key government stakeholders about the consequences of inadequate investment in nutrition for Guatemala, the need to increase investment in nutrition, and the need to support government planning and budgeting for nutrition to ensure adequate resource allocation. Data from the costing exercise fed the development of briefs for government, civil society, and municipalities to promote investment in nutrition. FANTA also trained key MINFIN and MOH officials in the ABC methodology and collaborated with the government to develop an ABC manual to increase capacity to conduct costing exercises and better plan and budget for nutrition in the future.



*"As DTP, we greatly appreciate and value all the support provided by the [FANTA] project and the momentum it gave to results based management in Guatemala..the project has left much knowledge and progress in DTP."*

*- Kildare Stanley Enríquez, Director, Technical Budget Office (DTP), Ministry of Finance*

**Funding Gap at the National Level for Nutrition Interventions: Projected Budget versus Funding Needed by Year (Millions of Quetzales)**



## Nutrition Costing: Key Findings

- In Guatemala, the government spends only 2.4% of its gross domestic product (GDP) on health. This is the lowest in Latin America.
- In 2013, the GoG invested Q637.2 million in nutrition—only one-third of what was required for national nutrition services.
- In 2016, only an estimated 0.15% of GDP was to be allocated for nutrition, which is not sufficient. About 0.5%, or Q2,495 million, would be needed in 2016 to provide nutrition services as required.

### Collaborators

ICEFI

MOH

MINFIN

SESAN

ANAM (National Association of Municipalities)

## SUCCESS STORY

### Video Provides a Call to Action on the Need to Increase Funding for Nutrition

FANTA used the results of the costing study to develop a video in Spanish to raise awareness among government officials, municipal leaders, and civil society about the negative consequences of chronic malnutrition in Guatemala. By shining light on the direct consequences of chronic malnutrition, such as poor child health and educational attainment, and longer-term effects, including poor earning potential and limited national development, the video emphasizes the need to increase funding for nutrition and provides a call to action. FANTA and partners have used the video in workshops to train the Instance for Consult and Social Participation (Instancia de Consulta y Participación Social, INCOPAS), USAID/Guatemala Health and Education Office partners, and municipal leaders, among others.



## National Nutrition Advocacy with PROFILES

To complement the nutrition cost estimates, FANTA and SESAN used PROFILES to develop estimates of the consequences of not addressing malnutrition on health and development outcomes in Guatemala. The combination of PROFILES and the costing model results provides an understanding of the losses that will occur if malnutrition is not reduced and how much it will cost to provide the nutrition services needed to reduce the prevalence of malnutrition.

Guatemala is a lower-middle income country. In this context, stunting and malnutrition have a much greater impact on human capital and economic productivity than on mortality, as shown

in the PROFILES estimates below. The GoG and its partners, including USAID/Guatemala partners, will continue to use these results to advocate for resources for nutrition services.

## Nutrition Advocacy Plan

FANTA supported SESAN in developing a nutrition advocacy plan targeting members of Guatemala's Congress, policy makers, municipal leaders, civil society, the media, the private sector, and development partners. FANTA also developed a series of nutrition advocacy briefs and a PowerPoint presentation containing the PROFILES and nutrition costing results, for the GoG, USAID/Guatemala, and partners to use in advocating for nutrition with key stakeholders in the country.

## Summary of Guatemala PROFILES 2017 Estimates

### If There Is No Improvement in Nutrition by 2026:

**30,542** infants will die from causes related to low birth weight

**38,019** children under 5 years of age will die from conditions related to stunting

**70,935** children under 2 years of age will die related to sub-optimal breastfeeding practices

**674** mothers and **5,549** infants will die at/around the time of birth related to maternal anemia

**33 million** equivalent school years of learning will be lost related to stunting

**US \$19.4 billion** in productivity-related economic losses will occur related to stunting in children under 5 years of age

## Strengthening Agriculture, Health, and Nutrition Sector Collaboration to Improve Maternal and Child Nutrition

### Improved Dietary Intake through Food-Based Recommendations

To help the GoG and partners implement nutrition-sensitive agricultural programs, FANTA conducted a study to develop evidence-based and population-specific dietary recommendations, known as food-based recommendations (FBRs). FBRs were developed with Optifood, a software program that uses linear programming to identify nutrient gaps in the diet and formulates dietary recommendations. Because stunting is attributable to not only poor complementary feeding practices, but also poor maternal nutritional status during pregnancy, FANTA developed FBRs for pregnant and lactating women and FBRs for young children.

FANTA's study identified a set of FBRs that included consumption of foods such as eggs, beans, vegetables, liver, and a porridge made from fortified blended flour for young children and a thick atole drink for women.<sup>3</sup> The project also carried out household trials with families to test the acceptability and feasibility of preparing and consuming the recommended foods with the specified quantity and frequency for young children and pregnant and lactating mothers. In response to the difficulties that some families encountered when trying the FBRs, further Optifood testing adjusted the FBRs to make their adoption more feasible and combined the FBRs with different scenarios that used micronutrient supplements, multiple micronutrient powders, and fortified blended flour to fill nutrient gaps.

FANTA's findings show that it is possible to improve the quality of women's and children's diets by developing and promoting FBRs that incorporate a set of low-cost, nutrient-dense local foods that meet most nutrient needs.

### Summary of Food-Based Recommendations

#### **Pregnant and lactating women:**

consumption of liver, vegetables, and a thick drink made from fortified blended flour.

**Children 6–11 months:** consumption of eggs, beans, and a porridge made from fortified blended flour.

**Children 12–23 months:** consumption of green leafy vegetables, eggs, beans, and a porridge made from fortified blended flour.

However, the results also indicate that in the Western Highlands communities where the trial was conducted, local foods as they are usually consumed are not enough to address nutrient gaps and achieve diet adequacy. Other strategies are also needed, such as fortified foods or micronutrient supplements and improved food production and economic and market access. FANTA used the FBR results in capacity building events with the GoG, USAID/Guatemala partners, civil society, and other key stakeholders. The project also disseminated the FBR results in webinars for GoG representatives and municipalities that addressed stakeholders' roles in promoting the FBRs and highlighted potential applications.

<sup>3</sup>FBRs are consumed in addition to the usual diet.

## Capacity to Implement Nutrition-Sensitive Agricultural Practices

GoG and USAID/Guatemala implementing partner staff have had few opportunities to learn about and apply nutrition-sensitive agricultural practices, including implementation of FBRs. To improve their understanding and practice, FANTA sponsored 23 training events on the FBRs, their application, and agriculture and nutrition linkages, which reached 720 individuals. Participants included various GoG staff from the Ministry of Agriculture, from central level directors to field extension workers; MOH staff from the central to the health facility level; staff from USAID/Guatemala Economic Growth Office partners, including Másfrijol, the Association of Guatemalan Exporters (Asociación Guatemalteca de Exportadores, AGEXPORT), and the National Cooperative Business Association-Cooperative League of the USA (NCBA/CLUSA); and university students, including nutritionists and agronomists. Participants learned about the magnitude and consequences of stunting in the Western Highlands; evidence-based essential nutrition

actions and nutrition-sensitive actions; principles of nutrition-sensitive agriculture; overcoming challenges in agriculture and local food production to improve diet quality; complementary feeding; measurement of dietary diversity; preparing recipes using foods included in the FBRs; and promoting animal-source foods, especially eggs, and dark green leafy vegetables as sources of micronutrients.

FANTA also developed a rapid monitoring tool for USAID/Guatemala partner projects to help them determine if the conditions exist at the community level to implement the FBRs and to track beneficiary adoption of the FBRs. The tool includes 8 sections covering topics such as food production and availability, seasonality, child feeding practices, and dietary diversity, especially among pregnant and lactating women and young children. FANTA also developed a recipe booklet and user's guide to help Ministry of Agriculture extension workers, MOH frontline health workers, and USAID/Guatemala partners to apply the FBRs with families in the Western Highlands.

## Major Accomplishments

- Developed and validated food-based recommendations for young children and women in the Western Highlands to improve dietary intake and close nutrient gaps
- Produced and disseminated two full reports, a summary report, and five briefs in English and Spanish on the FBR results
- Trained 720 staff and students from the Ministry of Agriculture, the MOH, USAID/Guatemala partner organizations, and several universities, on the FBRs and nutrition-sensitive agricultural practices
- Supported the incorporation of nutrition-sensitive agriculture into the Ministry of Agriculture's 2017 Plan of Action
- Conducted two webinars at the national and municipal levels to disseminate key messages about the FBRs and nutrition-sensitive agriculture

## Country Capacity to Develop Food-Based Recommendations Using Optifood

FANTA facilitated three training sessions to build local capacity to use Optifood. Between 2012–2016, the project trained 4 key Instituto de Nutrición de Centroamérica y Panamá (INCAP) personnel; 19 staff from USAID/Guatemala partner organizations, research institutions, and universities; and 12 staff from SESAN, INCAP, the World Food Programme (WFP), and Devtech.<sup>4</sup> Each session gave participants tools and guidance for carrying out Optifood analyses.

*“We thank USAID/FANTA, because without this support, we would not have been able to train our directors of our vice ministries, or our technicians, headquarters chiefs, and all those involved in the nine workshops that were held in the capital and in the four prioritized departments. Without this timely assistance, we would not have our 2017 Action Plan... The FANTA project permitted us to advance the National Strategy for the Prevention of Chronic Malnutrition. The people of Guatemala and our team at the ENPDC are eternally grateful for the timely assistance.”*

*- Guillermo Leiva, Coordination Unit, National Strategy for the Prevention of Chronic Malnutrition, MAGA*

### SUCCESS STORY

### Integration of Nutrition-Sensitive Agriculture into the Ministry of Agriculture's 2017 Plan of Action

FANTA provided technical assistance to the Ministry of Agriculture to incorporate nutrition-sensitive agricultural activities into its 2017 Plan of Action. These nutrition-sensitive agricultural activities are part of the Ministry's contribution to the National Strategy for the Prevention of Chronic Malnutrition (ENPDC). They include:

- Improving production and access to animal-source protein and micronutrient-rich foods, particularly those containing iron, zinc, and other micronutrients lacking in the diets of vulnerable groups in Guatemala.
- Promoting the FBRs to improve nutrient intake and decrease nutrient gaps in the diet and to improve dietary diversity and quality among vulnerable groups, especially in prioritized departments.

The nutrition-sensitive activities are being promoted within the ministry's Family Farming Program to Strengthen the Rural Economy (PAFFEC) within the National Rural Extension System, and in the context of the ENPDC. FANTA held multiple meetings and workshops with the Presidential Commissioner for the ENPDC, the Commissioner's assistant, the ENPDC Subcommittee on Food Availability and Family Economy, and key officials from the Ministry of Agriculture at the central level, including those from PAFFEC, the Planning Department, and the Department for Regional Coordination and Rural Extension. The workshops that took place in Guatemala City included participation of 68 members of the Ministry's technical and planning teams. The 2017 Plan of Action was successfully launched in February 2017.

<sup>4</sup>DevTech Systems, Inc. (DevTech) is an international consulting firm focused on development that provides technical assistance to government, private-sector, and civil-society stakeholders. In Guatemala, DevTech has supported USAID/Guatemala's Monitoring and Evaluation Program under a 5-year contract since 2013.

## Results and Impact

- 129 MOH and agricultural extension workers trained in FBRs.
- 591 people trained in agriculture-nutrition linkages – ranging from Ministry of Agriculture directors and field workers, to MOH frontline health workers, USAID/Guatemala partners, and university students.
- For the first time, the National Association of Municipalities (ANAM) used a webinar to share information with its members – the focus was on the FBRs and what municipalities can do to invest in activities to prevent stunting.

### Collaborators

AGEXPORT  
DevTech  
INCAP  
Másfrijol  
Ministry of Agriculture  
Ministry of Health  
NCBA/CLUSA  
Nutri-Salud  
SESAN  
WFP  
ENCA (Escuela Nacional Central de Agricultura [National Central Agricultural School])

*It is important to emphasize that the most important public health problem in Guatemala is chronic malnutrition, and the FANTA project dedicated itself to strengthening the capacity of the Government of Guatemala to focus in an integrated way on nutrition, agriculture, and human resources to address this problem through the 1,000-day window of opportunity for women and children at the local and national level. The project produced materials, information, and online courses that are available for the country to continue using. SESAN will continue using this valuable information for implementation of the National Food Security and Nutrition System.*

*- German González, Secretary, SESAN*

*I will not forget when we first visited FANTA at the beginning of the project. FANTA supported us from the first day with excellent ideas, information, and advice that have served us to this day. Thanks to the FANTA team, we also made very good connections in the city and in the Western Highlands. Másfrijol's success is also FANTA's success, and we are proud to make a difference with innovative ideas that set examples that other implementers can follow. Joining agriculture and health is a long-term task, but we have given it a good boost!*

*- Luis Flores, Assistant Professor, Feed the Future Legume Innovation Lab, Michigan State University*

## Improving GoG Programs in Maternal, Infant, and Young Child Health and Nutrition

FANTA strengthened GoG capacity to integrate nutrition into its health programs by developing a maternal and child nutrition distance learning course for frontline health workers and adapting the course for civil society and universities;

training municipal leaders and university students in nutrition-sensitive interventions; and sponsoring a national technical consultative meeting on micronutrient nutrition.

### SUCCESS STORY

#### Maternal and Child Nutrition Distance Learning Course – Strengthening the Nutrition Knowledge and Skills of Frontline Health Workers

FANTA collaborated with the MOH and partners to develop Guatemala's first full-scale nutrition distance learning course to strengthen the nutrition knowledge and skills among frontline health workers, especially in the Western Highlands. The course, implemented under the stewardship of the MOH, promotes essential nutrition actions to improve the health and nutrition of pregnant and lactating women and children under 2 years of age.

The course includes an innovative “module (self study)-study circle” design. FANTA trained 83 MOH and partner staff to facilitate the course, and 1,099 staff successfully completed the 6-month course in 2015–2016, and earned 25 credits as part of the MOH Department of Development and Training certification program. The MOH allows staff to take the course during normal working hours, which prevents interruptions in health service provision. The course duration enables participants to assimilate new knowledge and skills by applying what they learn on the job. Participants discuss their experiences at study circles, which meet biweekly with a course facilitator for group discussion and practical exercises. FANTA and partners helped the MOH to establish a core team responsible for implementing and monitoring the course and to develop tools to monitor participants' nutrition competencies after the course. The course has been officially adopted by the MOH and transferred to the MOH virtual classroom, which will ensure its sustainability. Course content has also been adapted for civil society and universities.



Photo credit: FANTA

#### Collaborators

Ministry of Health  
Health and Education Policy  
Plus Project (HEP+)  
INCAP

Nutri-Salud  
Pan American Social Marketing  
Organization  
Rafael Landívar University  
San Carlos University

Da Vinci University  
Mesoamerican University  
Mariano Galvez University

## Inter-University Distance Learning Course

Guatemalan universities play a pivotal role in forming the country's nutrition leaders of tomorrow. These individuals will be the experts who will design programs, formulate policy, conduct research, and advocate for nutrition at the national and local levels. FANTA worked together with INCAP and Rafael Landívar University in Quetzaltenango to adapt the maternal and child nutrition distance learning course for universities. Fifty-two professors of medicine, nutrition, nursing, and social work successfully completed the course and now serve as course facilitators in five universities in the Western Highlands. Representatives of each university also developed plans to strengthen maternal and child nutrition activities in their institutions. Participants recognized the magnitude and consequences of stunting in the Western Highlands and the proactive and strategic role that they play in promoting research to influence policy dialogue, guide informed decisions, and support local governments. As part of the curriculum in health-related fields, the course will continue to strengthen the capacity of local health professionals in maternal and child nutrition.

Aside from launching the inter-university course, FANTA also educated more than 80 university-level nutrition students on the nutrition situation in the Western Highlands and nutrition-specific and nutrition-sensitive interventions to prevent stunting.

## Civil Society as Advocates for Nutrition Services

As important advocates for nutrition services, civil society helps to ensure that nutrition services are provided at the expected level of quality for all individuals who need them, especially vulnerable groups, such as women and children in the Western Highlands. FANTA collaborated with the USAID-funded Health and Education Policy Project (HEPP) to adapt the nutrition distance learning course for civil society leaders, including women, men, and youth. FANTA focused the course on the essential nutrition actions and what civil society can do to advocate for these essential actions in health services. In July 2015, a total of 69 civil society participants from 30 Western Highlands municipalities successfully completed the 6-month course. On average, participants improved their knowledge of maternal and child nutrition and its importance to health by 24 percentage points,

### Raising Civil Society Nutrition Awareness: Nutrition Distance Learning Course

- Teaches how good nutrition affects mothers' and children's lives
- Shows civil society leaders how to be nutrition advocates
- Empowers civil society to work with local authorities on maternal and child health-related issues
- Strengthens monitoring capacity and social audits by civil society networks

*"This experience [participating as a facilitator for the course] provided me and the participants with an opportunity to learn more about maternal and child nutrition and to put what we've learned into practice in our communities and as nutrition advocates."*

*- Civil Society Course Facilitator, Department of Alta Verapaz*

*"We're motivated to advocate with municipal, health, and education authorities and to make sure they understand that our community's development is largely dependent on providing children with proper nutrition."*

*- Course participant, youth leader and Men's Network for Health, Education, and Nutrition (Red de Hombres por la Salud, Educación y Nutrición, REDHOSEN) member*

based on comparisons of their pre- and post-test scores—a remarkable achievement, given that some participants only had a primary-level education. Course participants shared that they not only gained knowledge, but also came away from the course with new ideas on how to be catalysts for change in their communities, for example, by monitoring maternal and child nutrition service delivery during social audits and presenting their findings to local decision-makers so that maternal and child nutrition remains a political priority.

Following the successful training experience with civil society members, USAID/Guatemala requested that FANTA continue working with the Health and Education Policy Plus (HEP+) project to design a series of training and coaching sessions for civil society leaders, titled *“Diplomacy to Strengthen Civil Society Advocacy and Advocacy Roles in Support of Maternal and Child Nutrition.”* The course was designed to strengthen the capacity of civil society leaders to advocate for plans, action, and decisions in their role as participants on the National Food Security and Nutrition Counsel—in effect, to be champions for nutrition. FANTA implemented the course over one year using monthly face-to-face meetings (2 days each) that addressed topics such as the status and consequences of chronic malnutrition in Guatemala, legal and institutional frameworks to address chronic malnutrition, key nutrition-specific interventions to prevent malnutrition that can be promoted by civil society, and monitoring of micronutrient nutrition. FANTA also invited guest speakers from, for example, the Office of the Comptroller General to address legal issues and the Ministry of Finance to discuss municipal-level budgeting and financial management. These speakers provided guidelines that could be used by participants when conducting social audits to monitor nutrition services or when preparing community proposals for municipal submission.

### Creating Civil Society Champions to Advocate for Nutrition Services

- Nine civil society leaders coached and trained over one year to advocate for quality nutrition services
- Social audit conducted on micronutrient nutrition services by civil society
- Social audit results presented to the Ministry of Health, Congressional leaders, and the Human Rights Ombudsman (*Procurador de los Derechos Humanos*)

Following these trainings, several participants met on two occasions with the appointed Presidential Commissioner for the National Strategy for the Prevention of Chronic Malnutrition to discuss civil society and its role in the national strategy. Participants put into action what they had learned through a practical field exercise—a social audit to monitor micronutrient supplementation, including availability of micronutrients and adherence by users in health services and households in the Western Highlands. The civil society participants presented the results of the social audit at a public event for the Human Rights Ombudsman, the Vice Minister of Health, and the President of the Health Committee of Congress.

## Strengthening the Municipal Women's Department to Advocate for and Support Nutrition Services

Municipal leaders, including those in the Municipal Women's Department, play a key role in promoting nutrition interventions in Municipal Development Councils and Municipal Food Security and Nutrition Commissions. Recognizing this important role, FANTA worked with the Nexos Locales project to strengthen the nutrition capacity of 17 coordinators from the newly formed Municipal Women's Departments (DMM) in USAID/WHIP-prioritized municipalities.<sup>5</sup> Through the training, FANTA strengthened the maternal and child nutrition knowledge of the coordinators, particularly related to nutrition-specific interventions that can be supported by municipalities. As a result of the training, the staff are able to identify specific activities that they can promote through the DMM in support of women and children's nutrition and health in their municipalities, including advocacy with municipal-level community development councils and food security and nutrition commissions, investments in training and production projects for women, nutrition and health information sharing, and delivery of key messages to local stakeholders and groups, such as leaders, women, youth, and schools, through radio programs and social networks.

## Increasing Awareness about Guatemala's Evolving Micronutrient Deficiency Situation

Micronutrient malnutrition is a serious problem in Guatemala, particularly in the Western Highlands. While micronutrient deficiencies have been addressed previously in Guatemala through government initiatives such as fortification of sugar with vitamin A and vitamin

A supplementation for children under 5 years of age, the nature and magnitude of micronutrient deficiencies have changed over the years. Recent surveys indicate that vitamin A deficiency is not the widespread problem that it used to be, and other micronutrients, such as zinc and vitamin B12, warrant attention. To better understand and address current priority micronutrient problems in the country, FANTA collaborated with INCAP to support the MOH and SESAN in holding a national technical consultative meeting on micronutrient nutrition. The meeting brought together approximately 60 participants from the GoG, U.S. Government, United Nations, and civil society, to review the micronutrient status in Guatemala and discuss strategies to prevent and reduce micronutrient deficiencies. By the end of the meeting, representatives from the MOH committed to next steps, including developing and incorporating new guidelines and plans related to micronutrient nutrition into annual GoG action plans and the National Strategy for the Prevention of Chronic Malnutrition. The meeting report was endorsed by the Minister of Health and the Vice Minister of Primary Health Care.

To inform the meeting sessions, FANTA worked with INCAP to write a situation analysis report that provides an extensive overview of the micronutrient situation in Guatemala and recommendations on the way forward. The report also served as an input for the development of MOH and Ministry of Agriculture annual action plans and the micronutrient component of the National Strategy for the Prevention of Chronic Malnutrition.

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<sup>5</sup> The DMMs were formed in September 2016 through Decree No. 39-2016, Article 2.

## Lessons Learned and Recommendations

### Advocacy to Increase Investment in Nutrition at the National and Local Levels

**Lesson Learned:** Challenges to providing quality nutrition services on a national scale in Guatemala have included a lack of integration, coordination, and oversight on the part of the government. To achieve its development goals, the GoG will need to invest more in nutrition-specific and nutrition-sensitive interventions. The nutrition situation in Guatemala is also evolving, but the GoG has not maintained pace with these changes.

**Recommendation:** The GoG's National Strategy for the Prevention of Chronic Malnutrition needs to serve as the central guide for both the GoG and its key partners, including international and local NGOs, to address the critical problem of chronic malnutrition in the country. The strategy also needs to be accompanied by a detailed plan of action. The strategy and action plan are essential to build focused synergy among ministries within the GoG, as well as with policy makers, program managers, and implementing partners in efforts to improve the nutrition situation in Guatemala. Having a unified focus on the strategy and action plan would also strengthen the GoG's vision and planning, and provide a roadmap for how the country is going to prevent and reduce chronic malnutrition. Incorporating key activities to prevent and reduce chronic malnutrition in ministry annual plans of action would help define how the GoG and its partners can coordinate and leverage resources to achieve the goal of preventing and reducing stunting. Without such a plan of action, current efforts to tackle malnutrition can easily become scattered. The GoG and partners also need to dedicate resources to better analyze and understand the changing nature of the malnutrition problem in Guatemala to effectively manage the evolving situation.

**Lesson Learned:** Unique opportunities to strengthen civil society as advocates and champions for nutrition in Guatemala resulted in high interest in and commitment to nutrition issues. Civil society leaders improved their knowledge about nutrition and health and recognized their role in supporting and promoting nutrition in Guatemala through social audits and advocacy with ministry leaders and members of Congress, and through sharing key messages about the critical importance of good nutrition for women and children with local stakeholders and groups.

**Recommendation:** Additional work should be done to continue to support civil society leaders in their role as champions and advocates for nutrition, so they will continue to monitor health services, promote increased investment in nutrition at the municipal level, and raise nutrition awareness among community leaders and members.

**Lesson Learned:** It is of strategic importance that municipalities clearly recognize their role in preventing stunting in Guatemala and strongly commit to doing so by including resources for nutrition-specific and nutrition-sensitive actions in annual municipal budgets. It is also essential that members of Congress recognize their crucial role in supporting multisectoral nutrition interventions to prevent stunting and improve human capital and economic productivity.

**Recommendation:** Additional work with municipal leaders and networks (such as ANAM) should be conducted as part of a formal program to provide the technical, administrative, and legal support necessary for municipal leaders to be active players in stunting prevention at the municipal level. To achieve this, additional investment in nutrition, advocacy, and communication efforts

is necessary. In addition, work is needed with members of Congress to ensure allocation of adequate financial resources to nutrition and oversight, which is necessary to track the implementation of nutrition service delivery at the community level.

### Strengthening Linkages among Agriculture, Health, and Nutrition

**Lesson Learned:** Food-based recommendations were successfully developed and validated for pregnant and lactating women and young children in the Western Highlands of Guatemala, but local foods alone were not adequate to meet all nutrient needs, given local patterns of food intake. Families also experienced challenges in implementing the FBRs, including financial limitations, seasonal variation in home food production and market prices, difficulties in accessing and storing fresh foods, and the cost and time associated with transport to markets.

**Recommendation:** To fill gaps in nutrient intake, it is imperative that the GoG and partners consider strategies such as expanding access to fortified foods or micronutrient supplements for pregnant and lactating women and young children, and reviewing the formulation of micronutrient supplements and fortified blended flour. It is crucial for the GoG and partners to expand access to animal-source foods, fruits, and vegetables through increased access to local markets and home production. They should also explore options for improving storage of perishable foods, improving incomes so families can afford more nutrient-dense foods and perhaps subsidizing the cost of certain foods, and targeting social and behavior change efforts toward overcoming feeding challenges for young children, especially those 6–11 months of age. Of particular importance is promoting optimal frequency of feeding, responsive feeding, food hygiene practices, and quantity, quality, and variety of the diet.

**Lesson Learned:** The lack of awareness among staff at various levels of the MOH and the Ministry of Agriculture about the extent and implications of chronic malnutrition in the Western Highlands of Guatemala and the complementary roles that each ministry plays in nutrition-specific and nutrition-sensitive interventions to prevent chronic malnutrition were major barriers to creating effective linkages between the sectors. FANTA was able to break down these barriers by training staff in each sector using a participatory approach, so that each gained a better appreciation of its own role as well as that of other sectors. The training also emphasized the importance of multisectoral initiatives and working together to prevent chronic malnutrition. The use of respected experts in each field to train staff provided additional credibility.

**Recommendation:** It is imperative that the GoG and partners in Guatemala continue to foster and cultivate multisectoral understanding and coordination to overcome barriers to effective implementation of nutrition-specific and nutrition-sensitive interventions. In addition to the MOH and Ministry of Agriculture, there is a need to strengthen the roles and responsibilities of other sectors such as water and sanitation, education, economic growth, social development, and local governance to effectively prevent and reduce stunting. GoG leaders and partners will need to identify champions in each sector at both the national and local levels, as well as experts with complementary capacities to create synergies for achieving shared objectives around stunting prevention and nutrition improvements among vulnerable populations.

## Improving Maternal and Child Health and Nutrition

**Lesson Learned:** There are still many challenges to overcome in the MOH to effectively integrate and implement nutrition services. Among these are lack of recognition of stunting as a problem that needs to be tackled specifically by the MOH, limited coordination of efforts, high turnover of staff, limited resources and inputs, and inadequate funding, all of which impair the GoG's ability to accomplish expected nutrition tasks.

**Recommendation:** The MOH needs continued technical assistance to scale up and fully implement quality nutrition services nationwide and to fully incorporate nutrition into its models for health care. The scale-up should focus on implementation of prioritized interventions that align with essential nutrition actions in programs at the individual, family, and community levels. To achieve quality implementation of nutrition services at scale, the MOH will need support to provide staff with the necessary nutrition knowledge and skills, to supervise and mentor staff in nutrition, to monitor and evaluate nutrition programs, to implement quality improvement processes in nutrition services, and to ensure that MOH plans of action support the National Strategy for the Prevention of Chronic Malnutrition.

**Lesson Learned:** The successful experience with the maternal and child nutrition distance learning course for frontline health workers revealed the importance and positive impact of a modular nutrition course that can be taken over a period of months and that provides breadth and depth in nutrition topics and issues. Elements that contributed to the success of the course were

that participants were allowed to take the course during normal working hours and facilitators, through the study circles, were able to tutor participants, reinforce learning, and ensure that participants clearly understood course content and could apply it on the job. This type of training modality can significantly strengthen the capacity of health providers in nutrition and support the creation of a strong cadre of nutrition providers in the country.

**Recommendation:** Comprehensive modular courses such as the maternal and child nutrition distance learning course should continue to be supported. The course should be periodically assessed and improved to address evolving public health nutrition problems in Guatemala and to meet the needs of health and nutrition care providers. New areas can be added to the course as needed, such as modules to address the double burden of chronic malnutrition in young children and overweight/obesity in older children and adults. The inter-university modules should also continue to be supported, promoted, and improved to strengthen pre-service training in nutrition. In addition, a formal nutrition distance learning course tailored to the needs of civil society should be developed and include the topics of maternal and child nutrition and food security.

## Nutrition Materials for Guatemala Developed by FANTA

Visit [www.fantaproject.org/countries/guatemala](http://www.fantaproject.org/countries/guatemala) to access these materials.

### Advocacy to Increase Investment in Nutrition

The Cost of Essential Nutrition Interventions to Reduce Chronic Malnutrition in Guatemala (English and Spanish)

Informe: Costeo de Intervenciones de Nutrición en el Primer y Segundo Nivel de Atención en el Marco del Convenio de Gestión por Resultados entre el Ministerio de Finanzas Públicas y el Ministerio de Salud Pública y Asistencia Social

Guía para la Aplicación del Método de Costeo Basado en Actividades en las Intervenciones de Nutrición Llevadas a Cabo en el Primer y Segundo Nivel de Atención del MSPAS para la Reducción de la Desnutrición Infantil en Guatemala

Guía de Consulta Rápida para el Uso de la Metodología de Costeo Basada en Actividades con un Enfoque en Nutrición

Costing Approach Raises Awareness of Malnutrition in Guatemala

Reducing Malnutrition in Guatemala: Estimates to Support Nutrition Advocacy—Guatemala PROFILES 2017 (English and Spanish)

Reducing Malnutrition in Guatemala: Summary of Estimates to Support Nutrition Advocacy—Guatemala PROFILES 2017 (English and Spanish)

Plan de Abogacía en Nutrición para Guatemala 2018–2019

Nutrition Early in Life, an Investment for the Future, Advocating for a Guatemala without Chronic Malnutrition (PPT presentation) (English and Spanish)

Malnutrition in Guatemala: Holding our Country Back. A Call to Action for Government to Invest in Nutrition (English and Spanish)

Malnutrition in Guatemala: Holding our Country Back. A Call to Action for Civil Society to Advocate for Investment in Nutrition (English and Spanish)

Malnutrition in Guatemala: Holding our Country Back. A Call to Action for Municipalities in Guatemala (English and Spanish)

Increasing Nutrition Investments in Guatemala: A Call to Action (Video, Spanish)

### Strengthening Linkages among Agriculture, Health, and Nutrition

Validation of Food-Based Recommendations Developed Using Optifood for Groups at Nutritional Risk in the Western Highlands of Guatemala (English and Spanish)

Validation of Food-Based Recommendations Developed Using Optifood for Groups at Nutritional Risk in the Western Highlands of Guatemala (Executive Summary)

Improving the Diet Quality of Young Children in the Guatemalan Western Highlands: Validation of Food-Based Recommendations to Optimize Diets Using Local Foods (English and Spanish)

Improving the Diet Quality of Pregnant and Lactating Women in the Guatemalan Western Highlands: Validation of Food-Based Recommendations to Optimize Diets Using Local Foods (English and Spanish)

Reducing Stunting in the Western Highlands of Guatemala: Promoting the Consumption of Animal-Source Food to Optimize the Diets of Women and Young Children (English and Spanish)

Micronutrient Malnutrition among Women and Young Children in the Western Highlands of Guatemala: What Are the Needs and What Can Be Done? (English and Spanish)

Can Local Foods Provide Adequate Nutrition for Women and Children at Nutritional Risk? An Analysis from the Western Highlands of Guatemala

Improving Dietary Diversity to Enhance Women's and Children's Nutritional Status in Guatemala's Western Highlands: Recommendations for the Guatemalan Agriculture Sector (English and Spanish)

Development of Evidence-Based Dietary Recommendations for Children, Pregnant Women, and Lactating Women Living in the Western Highlands in Guatemala (English and Spanish)

Summary Report Development of Evidence-Based Dietary Recommendations for Children, Pregnant Women, and Lactating Women Living in the Western Highlands of Guatemala (English and Spanish)

Food-Based Approaches to Improve the Quality and Diversity of Diets in the Western Highlands of Guatemala

Recetario "Mejoremos la Calidad de la Alimentación de las Mujeres y los Niños en el Altiplano Occidental Utilizando las Recomendaciones Basadas en Alimentos"

Guía para el Uso del Recetario: "Mejoremos la Calidad de la Alimentación de las Mujeres y los Niños en el Altiplano Occidental Utilizando las Recomendaciones Basadas en Alimentos"

Use of Guatemalan Household Consumption and Expenditure Survey (HCES) Data to Develop Optifood Food-Based Recommendations

Use of Guatemalan Household Consumption and Expenditure Survey (HCES) Data to Develop Optifood Food-Based Recommendations (Summary Report) (English and Spanish)

Household Food Insecurity and Nutritional Status of Women of Reproductive Age and Children under 5 Years of Age in Five Departments of the Western Highlands of Guatemala: An Analysis of Data from the National Maternal-Infant Health Survey 2008–09 of Guatemala (English and Spanish)

Recomendaciones Basadas en Alimentos (RBAs) para Mejorar la Calidad y Diversidad de la Dieta del Grupo Materno Infantil en el Altiplano Occidental de Guatemala y Oportunidades para su Implementación. Webinar (Spanish)

¿Qué Podemos Hacer desde el Municipio para Prevenir la Desnutrición Crónica? Webinar (Spanish)

## Improving Maternal and Child Health and Nutrition

Guatemala Maternal and Child Nutrition Distance Learning Course (Spanish)

Distance Learning Course Closes the Nutrition Knowledge Gap among Nurses in Guatemala's Western Highlands (English and Spanish)

Memorias Reunión Técnica Consultiva: Análisis de Situación, Tendencias y Ruta a Seguir para la Reducción de las Deficiencias por Micronutrientes en Guatemala

Análisis de la Situación y Tendencias de los Micronutrientes Clave en Guatemala, con un Llamado a la Acción desde las Políticas Públicas

## Maternal and Child Nutrition Research Studies in Guatemala

Strengthening and Evaluating the "Preventing Malnutrition in Children under Two Years of Age Approach" (PM2A) in Guatemala: Cross-Sectional Baseline Report

Report of Formative Research Conducted in Alta Verapaz, Guatemala, to Help Inform the Health-Strengthening Activities and the Social and Behavior Change Communication Strategy That Will Be Implemented through the Mercy Corps PM2A Program – PROCOMIDA

Strengthening and Evaluating the Preventing Malnutrition in Children under 2 Approach in Guatemala: Report of the Enrollment Survey

A Process Evaluation of the PROCOMIDA "Preventing Malnutrition in Children under 2 Approach" in Guatemala

Strengthening and Evaluating the Preventing Malnutrition in Children under 2 Years of Age Approach in Guatemala: Follow-up Report

Cost Study of the Preventing Malnutrition in Children under 2 Years of Age Approach in Burundi and Guatemala

Acceptability of a Lipid-Based Nutrient Supplement among Guatemalan Infants and Young Children

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