Guatemala: Nutrition Profile

Malnutrition in childhood and pregnancy has many adverse consequences for child survival and long-term well-being. It also has far-reaching consequences for human capital, economic productivity, and national development overall. The consequences of malnutrition should be a significant concern for policymakers in Guatemala, since Guatemala has the sixth-highest rate of chronic malnutrition (stunting or low height-for-age) in the world—at 47 percent—with the prevalence reaching around 70 percent in Totonicapán, Quiche, and Huehuetenango—indigenous areas of Guatemala according to the 2014–15 Demographic and Health Survey (DHS) (MSPAS et al. 2017; UNICEF 2017).

Background

According to the World Bank (2017), Guatemala has the biggest economy in Central America and one of the strongest economies in Latin America, with an average GDP growth rate of 3.0 percent in the past five years. However, it is also one of the few countries in the region where poverty has increased in recent years, from 51 percent in 2006 to 59 percent in 2014, and around two-thirds of the population live on less than $2 USD a day (World Bank 2017; WFP 2017a). In addition, Guatemala has high levels of inequality, with indigenous populations (which comprise about 40 percent of the total population) often having much worse rates of poverty, malnutrition, and mortality and reduced access to education and health services (MSPAS et al. 2017). Guatemala is one of 10 countries most vulnerable to natural disasters and has been greatly affected by climate change (WFP 2017a). Over the past three years, longer dry seasons have negatively impacted subsistence farmers who rely on rain-fed agriculture for their crops, pushing marginal households into acute food insecurity. In 2016, 900,000 people were in need of food assistance (WFP 2017b). In addition, poor soil conditions, over-exploitation of forest resources, degraded lands, small plots of land, and lack of access to credit, agricultural supplies, and technical assistance all reduce agricultural productivity (WFP 2017a).

Currently, Guatemala ranks 112th out of 157 countries in progress toward meeting the Sustainable Development Goals (SDGs) (Sachs et al. 2017). According to the most recent DHS, known in Guatemala as the National Maternal and Child Health Survey (Encuesta Nacional de Salud Materno Infantil 2014–15), the maternal mortality ratio is 140 per 100,000 live births, while the neonatal mortality rate is 18 per 1,000 live births, the infant mortality rate is 30 per 1,000 live births, and the under-5 mortality rate is 39 per 1,000 live births (MSPAS et al. 2017). In Guatemala, the government spends only 2.4 percent of its gross domestic product (GDP) on health. This is the lowest in Latin America (WHO 2014).

Nutrition and Food Security Situation

In Guatemala, 47 percent of all children under five years are stunted, according to the most recent ENSMI (2014–15). However, national stunting data hide the significant disparities in the country, with stunting reaching around 70 percent in Totonicapán, Quiche, and Huehuetenango (highly indigenous areas of the country). In addition, stunting prevalence increases with age, peaking at 55 percent among children 18–23 months, indicating that poor complementary feeding and hygiene and sanitation practices are likely contributors to stunting in that age group (MSPAS et al. 2017). There is huge disparity in stunting according to maternal education and wealth levels—27 percent of children whose mothers have secondary education are stunted, while the prevalence rises to 67 percent of children whose mothers had no formal education. Similarly, 17 percent of children in the highest wealth quintile are stunted, while 66 percent of children in the lowest wealth quintile are stunted. Socioeconomic conditions and reproductive patterns are associated with increased stunting in children under 5 years in Guatemala; it is higher in indigenous populations (58 percent) and when the birth interval is less than 24 months (57 percent).

Nationally, stunting has only improved slightly from 2008–2009, when it was 50 percent (MSPAS 2011). At this rate, Guatemala faces serious challenges in reaching Sustainable Development Goal (SDG) 2 on ending hunger, achieving food security and improved nutrition, and promoting sustainable agriculture. Acute malnutrition (wasting or low weight-for-height) among children under 5 is not a significant problem currently in Guatemala at <1 percent (MSPAS et al. 2017).

In Guatemala, much of childbearing begins in adolescence, which contributes to the high prevalence of low birth weight (15 percent), which in turn, contributes to the high prevalence of chronic malnutrition among children under 5 years (MSPAS et al. 2017). About 41 percent of adolescent girls either have given birth or are pregnant with their first child by the age of 19, which has remained relatively stagnant since 2008 (MSPAS et al 2017; MSPAS 2011). The high prevalence of adolescent pregnancy has serious consequences because, relative to older mothers, adolescent girls are more likely to be malnourished and have a low birth weight baby who is more likely to become malnourished, and be at increased risk of illness and death than those born to older mothers. Adolescent fertility also contributes to the high prevalence of stunting in the country, as the risk of stunting is 63 percent higher among first-born children of girls under 18 years in Latin America and the Caribbean (Fink et al. 2014).

Maternal short stature, which is a determinant of childhood stunting, is also a significant problem; nationally, 25 percent of women are shorter than 145 centimeters, and this prevalence rises to 37 percent among indigenous women (MSPAS et al. 2017). In addition, overweight/obesity is highly prevalent in Guatemala, with 52 percent of women of reproductive age either overweight or obese (MSPAS et al. 2017).

Suboptimal infant and young child feeding practices are common in Guatemala; although most children are breastfed (97 percent), only 63 percent are breastfed within an hour of birth, and only 53 percent of children under 6 months are exclusively breastfed; by 4–5 months of age, 44 percent are exclusively breastfed (MSPAS et al. 2017). In addition, among breastfed children 6–23 months, 86 percent were fed the minimum number of times in the previous 24 hours (minimum meal frequency), 59 percent were given foods from four or more food groups, and 56 percent were both given foods from four or more groups and fed the minimum number of times per day (minimum acceptable diet). A lack of knowledge of and access to a healthy, diverse diet contributes to the high stunting levels in Guatemala. Among breastfed children 6–23 months, 37 percent consumed meat, fish, or poultry in the previous 24 hours, compared to 90 percent who consumed grain-based foods such as maize, which is a concern given possible high aflatoxin and fumonisin levels in the country (MSPAS et al. 2017).

Due to the fortification of sugar in Guatemala with vitamin A (which has been in place since the 1970s), vitamin A deficiency has been virtually eliminated and is very low at 0.3 percent[1] (MSPAS 2012). According to the ENSMI, while anemia prevalence has dropped substantially from the 2008–2009 ENSMI where 48 percent of children under 5 years were anemic, anemia still affects around 32 percent of children under 5 years (reaching between 58 and 70 percent during key complementary feeding ages: 9–17 months), 24 percent of pregnant women, and 14 percent of all women of reproductive age (MSPAS 2011; MSPAS et al. 2017). Different national sources of data show positive trends in terms of iron deficiency anemia. However, this is still a public health issue that requires a multisectoral response.

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[1] Percent of children 6–59 months of age with serum retinol < 20 μg/dL.

Guatemala Nutrition Data (ENSMI 2008–2009 and 2014–2015)		
Population 2016 (UNICEF 2017)	16.6 million	
Population under 5 years (0–59 months) 2016 (UNICEF 2017)	2 million	
	2008–2009	2014–2015
Prevalence of stunting among children under 5 years (0–59 months)*	50%	47%
Prevalence of underweight among children under 5 years (0–59 months)*	13%	13%
Prevalence of wasting among children under 5 years (0–59 months)	1%	<1%
Prevalence of low birth weight (less than 2.5 kg) (of children whose birth weights are known)	11%	15%
Prevalence of anemia among children 6–59 months	48%	32%
Prevalence of anemia among women of reproductive age (15–49 years)**	23%	14%
Prevalence of thinness among women of reproductive age (15–49 years) (BMI less than 18.5 kg/m^2)***	2%	1%
Prevalence of thinness among adolescent girls (15–19 years)***	6%	7%
Prevalence of children 0–5 months exclusively breastfed	50%	53%
Prevalence of children 4–5 months exclusively breastfed	NA	44%
Prevalence of early initiation of breastfeeding (i.e., put to the breast within 1 hour of birth)	56%	63%
Prevalence of children who receive a pre-lacteal feed	NA	36%
Prevalence of breastfed children 6–23 months receiving minimum acceptable diet	NA	56%
Prevalence of overweight/obesity among children under 5 years (0–59 months)	NA	5%
Prevalence of overweight/obesity among women of reproductive age (15–49 years)***	51%	52%
Coverage of iron for pregnant women (for at least 90 days)	NA	29%
Coverage of vitamin A supplements for children (6–59 months, in the last 6 months)	NA	50%
Percentage of children 6–59 months living in households with iodized salt	NA	NA

NA: Not Available
*2008–2009 ENSMI used 3–59 months as the age group
** Weighted average calculated for pregnant and non-pregnant women
*** Only among women who had a child(ren) within the last 5 years

Global and Regional Commitment to Nutrition and Agriculture

Guatemala has made the following global and regional commitments to nutrition and agriculture:

Year of Commitment	Name	Description
2010	Scaling Up Nutrition (SUN) Movement	In 2010, Guatemala joined Scaling Up Nutrition (SUN), a global movement that unites national leaders, civil society, bilateral and multilateral organizations, donors, businesses, and researchers in a collective effort to improve nutrition. The donor conveners are the World Food Program (PMA-ONU) and the Inter-American Development Bank (BID). Priorities for 2017–2018 include the production of guidelines that will enable a common results framework; nutrition advocacy to promote further investment in nutrition and improved data collection; the development, updating, and implementation of advocacy and communication strategies; and the involvement of a representative from marginalized and vulnerable communities, among others (SUN 2017).

National Nutrition Policies/Legislation, Strategies, and Initiatives

Guatemala's commitment to improving nutrition is outlined in the following documents and is in line with the Government's 2032 Vision and Policy (2016–2020):

- National Plan for Food Security and Nutrition (PESAN) 2016–2020
- Seasonal Hunger Response Plan of the Food Security and Nutrition Secretariat (2016)
- Central American Technical Regulation RTCA 61.01.60: 10 - Nutrition Labeling of Prepackaged Food Products for Human Consumption for the Population from 3 Years of Age (2012)
- Law on School Feeding (2017)
- Law for Healthy Motherhood (2010)
- Law on the National System of Food and Nutrition Security (2005)
- National Policy on Food and Nutrition Security (2005–2015)
- National Strategy for the Prevention of Chronic Malnutrition (ENPDC) (2016–2020)
- Family Agriculture Programme to Strengthen the Rural Economy (2016–2020)
- Central American Technical Regulation RTCA 67.01.15.07 Flours. Fortified Wheat Flour Specifications (2007)

The Government of Guatemala has committed to intensifying efforts to reduce stunting and other forms of malnutrition. There is high-level commitment and momentum for multisectoral action on nutrition in Guatemala, as demonstrated by SESAN, the Government's National Secretariat for Food Security and Nutrition, which is tasked with oversight of the National Plan for Food Security and Nutrition (PESAN) 2016–2020 and supported by several Ministries, such as Health (MSPAS), Education (MINEDUC), Social Development (MIDES), Agriculture (MAGA), and Finance (MINFIN). The plan seeks to increase the annual budget related to food security and nutrition by 2.5 percent as well as strengthen the existing system to fight malnutrition. The government committed to tackle malnutrition by implementing the National Strategy for the Prevention of Chronic Malnutrition (ENPDC) 2016–2020, which proposes four programs and five cross-cutting strategies to reach the goal of reducing stunting by 10 percentage points by 2020. The program areas include primary health care, education for behavior change, water and sanitation, and food availability and access, while the cross-cutting strategies include behavior change, governance, information systems, monitoring and evaluation, and social audits and alliances. In its first phase, this plan will focus on Huehuetenango, Quiché, Alta Verapaz, and Chiquimula. In its second phase, it will focus on Totonicapán, San Marcos, and Sololá.

USAID Programs: Accelerating Progress in Nutrition

As of January 2018, the following USAID programs with a focus on nutrition were active in Guatemala. The U.S. Government selected Guatemala as one of 12 Feed the Future target countries for focused investment under the new U.S. Government Global Food Security Strategy.

Selected Projects and Programs Incorporating Nutrition in Guatemala		
Name	**Dates**	**Description**
Feed the Future	Ongoing	FTF projects support community health workers, community leaders, indigenous citizen advocacy groups, and women's groups to improve healthy behaviors and reduce chronic malnutrition. Feed the Future is helping to increase families' access to clean water, improve treatment of childhood diarrhea, expand child growth monitoring and prenatal care, and teach families how to grow and prepare nutritious foods at home. Feed the Future also works at the national level to improve food security policies and educate leaders on the prevalence and effects of chronic undernutrition as well as to strengthen national food security monitoring, data collection, and evaluation of the impacts of nutrition interventions.
Feed the Future Fomenting Agriculture	2017–2022	The objectives of the two projects are to increase agricultural incomes and improve resilience for small farmers and their families in five departments of

Incomes and Resilience Projects		the Western Highlands, while improving nutrition outcomes. This will be achieved through: • Improving agricultural productivity and diversifying income generation alternatives • Expanding access to markets • Increasing resilience through implementation of climate-smart agriculture • Improving the nutritional status of focus populations, especially women and children • Strengthening the agriculture and food security enabling environment The projects will measure success through reductions in poverty, including the change in the depth and prevalence of poverty in target households over the 5 years of project implementation. The projects will also measure the change in household income from the agriculture sector among target households over the course of the projects.
Communities Leading Development Project	2016–2021	The project will work to improve the quality of life for vulnerable populations, including women, indigenous people, youth, and people with disabilities, in some of Guatemala's most marginalized communities. Communities Leading Development will work with 200 communities in the five departments targeted by USAID, including Huehuetenango, Quetzaltenango, Quiché, San Marcos, and Totonicapán, to support communities in creating and transparently implementing their own development plans over 5 years, through 2021. The project aims to empower communities through participation in the development and implementation of community development plans, identify and prioritize community needs and assets, improve resilience through strengthened community social cohesion, and build alliances with the public and private sector for community development at scale.
Sustainable Economic Observatory (SEOP)	2016–2021	SEOP aims to contribute to the well-being and development of Guatemalans by strengthening civil society engagement at national and local levels for more effective advocacy to advance public policies and programs that foster sustainable economic and social development.
Health and Education Policy Plus (HEP+)	2015–2020	The project supports the government's targeted health sector reform efforts while focusing on civil society and governance and central-level planning and policies in the education, nutrition, and health sectors (Health Policy Plus 2016).
Health and Nutrition Surveillance System (SIVESNU in Spanish)	2011–2020	The SIVESNU objective is to deliver accurate, timely, reliable, and nationally representative information on maternal and child health and nutrition, with specific focus on stunting, anemia, and overweight/obesity, as well as on health and nutrition determinants including socioeconomic conditions, family food security, maternal and child health programs, food fortification, and water and sanitation. USAID/CDC/INCAP will support the Government of Guatemala to carry out a continuous household survey surveillance system using a representative national sample. Simultaneously, as the survey is taking place, the project will use every available opportunity to teach and transfer critical survey processes to the appointed SESAN staff, including but not limited to: a) programming the questionnaire changes into the tablet software and participating in completing the needed programming revisions; and b) managing the software and conducting the analysis independently, utilizing USAID/CDC/INCAP technical assistance (trouble shooting, consultation), as needed. As part of the SIVESNU transfer processes, SESAN will participate in the analysis and writing of the 2016 and 2017 SIVESNU report. SIVESNU is a critical instrument for monitoring and evaluating the Government of Guatemala's multisectoral nutrition approach.

Maternal and Child Survival Program (MCSP)	2016–2019	MCSP aims to reduce maternal and newborn mortality and rates of chronic malnutrition in selected municipalities of five departments of the Western Highlands region of Guatemala: San Marcos, Quiché, Huehuetenango, Totonicapán, and Quetzaltenango. Its primary goal is to increase coverage and utilization of evidence-based, sustainable, high-quality, and Ministry of Health-supported reproductive, maternal, neonatal, child, and adolescent health care and nutrition interventions at the household, community, and health facility levels and thereby, improve the nutritional and health status of women of reproductive age and children under 5 years of age.
Nexos Locales (Local Governance Project)	2014–2019	The project works to strengthen municipalities in the Western Highlands to foster more responsive, inclusive, and effective socio-economic development while reducing local vulnerabilities, such as food insecurity and natural disasters.
International Food Policy Research Institute (IFPRI)	2011–2019	Under this project, USAID will support the Government of Guatemala's (GOG) efforts to track and report the implementation of the National Strategy to Reduce Chronic Malnutrition (ENDPC) 2016–2019. USAID assistance will increase the Secretariat for Food Security and Nutrition's (SESAN) capacity to design and implement impact evaluations, data management, and analysis of the GOG's ENDPC. FY 2017 funds will be used to implement a pilot monitoring activity in two of the four departments prioritized by the ENPDC to assess the use of mobile phones to monitor key health interventions of the chronic malnutrition strategy in real time.
Cooperative Development Program (CDP III)	2014–2018	This activity strengthens small holder cooperatives, producer organizations, private businesses, and support organizations to create the conditions for long-term income diversification and improved nutrition. It focuses on small animal husbandry to increase animal-source protein intake and income diversification of rural households, thereby contributing to reducing chronic malnutrition and poverty. In addition, CDP III promotes and provides technical assistance to establish home gardens for increased availability of vegetables and diet diversification.
Buena Milpa	2015–2018	Buena Milpa supports increased maize (corn) yields and nutrition through better maize management and reduced purchases of mycotoxin-contaminated corn. The goal is to reduce poverty, food insecurity, and malnutrition, while increasing sustainability and resilience of maize-based farming systems; decreasing environmental degradation; and improving the livelihoods of small-scale, resource-poor farmers.
Masfrijol: Feed the Future Innovation for Collaboration Research on Grain Legumes	2014–2018	Masfrijol will reach a minimum of 25,000 resource-poor smallholder households in approximately 200 communities located within the USAID Feed the Future target municipalities in five departments within the Guatemalan Western Highlands, with customized technologies and educational programs for low-education learners on bean productivity and improved dietary practices (Michigan State University n.d.). The project objectives are: 1. To substantially increase bean productivity by resource-poor smallholder farmers in the agro-ecologies of the Western Highlands of Guatemala. 2. To significantly improve the nutritional quality of family diets through increased consumption of beans, in combination with other complementary, nutritious vegetable and animal-source foods.
Food for Peace	Subject to funding on an annual	USAID's Office of Food for Peace (FFP) supports the UN World Food Program (WFP) and NGOs to provide food assistance to vulnerable households throughout the Dry Corridor of Guatemala that are affected by drought. In an

	basis	effort to reduce food and nutrition insecurity and mitigate impacts of drought, FFP provides assistance in the form of cash transfers for food, food vouchers, cash-for-training, and cash-for-assets programs. (See descriptions of PAISANO and SEGAMIL below.)
Food Security Focused on the 1,000-Day Window of Opportunity (SEGAMIL)	2012–2018	This Food for Peace project will work to improve the health and nutrition of pregnant women, lactating mothers, and children under 2 years of age, benefitting approximately 10,500 families by promoting the adoption of improved health and nutrition practices. The most vulnerable families are entitled to a monthly food voucher as incentive to participate in the health and nutrition activities.
Western Highlands Program of Integrated Actions for Food Security and Nutrition (PAISANO)	2012–2018	This Food for Peace project will work to improve children's nutritional status, reaching approximately 9,500 households. In addition, agricultural promoters receive training in improved maize, bean, and horticulture production systems, small animal husbandry, and technical production of forest and fruit species. The most vulnerable families are entitled to a monthly food voucher as an incentive to participate in the health and nutrition activities.

References

Fink, G., Sudfeld, C.R., Danaei, G., Ezzati, M., and Fawzi, W.W. 2014. Scaling-Up Access to Family Planning May Improve Linear Growth and Child Development in Low and Middle Income Countries. *PLoS ONE* 9(7): e102391. Doi: 10.1371/journal.pone.0102391.

Health Policy Plus. 2016. "Guatemala Overview." Available at: http://www.healthpolicyplus.com/guatemala.cfm

Michigan State University. N.d. "Masfrijol: Feed the Future Innovation for Collaboration Research on Grain Legumes." Available at: http://cgc.msu.edu/projects/masfrijol_feed_the_future_innovation_for_collaboration_research_on_grain_le

Ministerio de Salud Pública y Asistencia Social (MSPAS). (2012). *Encuesta Nacional de Micronutrientes 2009–2010* (ENMICRON 2009–2010). Guatemala: MSPAS.

Ministerio de Salud Pública y Asistencia Social (MSPAS), Instituto Nacional de Estadística (INE), ICF International. 2017. *Encuesta Nacional de Salud Materno Infantil 2014–2015. Informe Final.* Guatemala: MSPAS/INE/ICF.

Ministerio de Salud Pública y Asistencia Social (MSPAS). 2011. *Encuesta Nacional de Salud Materno Infantil 2008* (ENSMI-2008/09). Guatemala: Ministerio de Salud Pública y Asistencia Social (MSPAS)/Instituto Nacional de Estadística (INE)/Centros de Control y Prevención de Enfermedades (CDC).

Sachs, J., Schmidt-Traub, G., Kroll, C., Durand-Delacre, D., and Teksoz, K. 2017. *SDG Index and Dashboards Report 2017*. New York, NY: Bertelsmann Stiftung and Sustainable Development Solutions Network (SDSN).

SUN. 2017. "Guatemala." Available at: http://docs.scalingupnutrition.org/wp-content/uploads/2017/10/Guatemala-SUN-Movement-Annual-Progress-Report-2017.pdf.

UNICEF. 2017. *The State of the World's Children 2017*. Available at: https://www.unicef.org/sowc/.

World Health Organization (WHO). 2014. Global Health Expenditure Database. Available at: http://www.who.int/health-accounts/ghed/en/.

World Bank. 2017. "Guatemala Country Overview." Available at: http://www.worldbank.org/en/country/guatemala/overview.

World Food Program. 2017a. "Guatemala." Available at: http://www1.wfp.org/countries/guatemala.

World Food Program. 2017b. "WFP Guatemala Country Brief." Available at: http://documents.wfp.org/stellent/groups/public/documents/ep/wfp272220.pdf?_ga=2.20035134.787094.1513611553-167317987.1511791614.