

Why Invest in Nutrition?

- Of the 4.4 million children under 5 years of age in Burma, approximately 1.6 million (35%) are stunted. These undernourished children have an increased risk of mortality, illness and infections, delayed development, cognitive deficits, poorer school performance, and fewer years in school.
- The mortality rate for children under 5 is 52 per 1,000 live births—nearly 45% of these child deaths are attributable to various forms of undernutrition.
- Malnutrition undermines human capital and economic productivity and can limit progress in achieving at least 6 of the 8 Millennium Development Goals and targets set by the World Health Assembly.
- Investing in nutrition in Burma is essential for the country's development; improved nutrition will significantly reduce child mortality, will improve children's school performance, and will result in greater economic productivity for the nation.

Summary of Nutritional Status and Priorities

Stunting affects more than one third of Burmese children under 5 nationally, reaching levels as high as 58% in some regions. From limited data, anemia affects close to three-quarters of pregnant women and children under 5, indicating that anemia, along with other micronutrient deficiencies, namely thiamine, vitamin A, and most likely iodine, deserve continued attention. Poverty continues to be a contributor to malnutrition in Burma, despite a reduction in poverty from 32% in 2005 to 25% in 2010 (United Nations). Interventions to address malnutrition need a strong focus on improving infant and young child feeding (IYCF) practices (in particular, exclusive breastfeeding), as well as strengthening nutrition service delivery and improving coordination of a multisectoral approach to malnutrition (particularly through improving water, sanitation, and hygiene access and practices and promoting livelihood and other programs that can help to reduce poverty).

Stunting. More than a third of children under 5 are stunted in Burma, a proportion that has decreased 0.6 percentage points per year, on average, since 2000. Stunting prevalence increases between approximately 9 and 30 months of age, although 14% of infants less than 6 months of age are already stunted. Stunting varies by urban/rural residence (38% rural versus 27% urban), geographic region (ranging from 24% to 58%), wealth quintile (50% in the lowest versus 20% in the highest), and maternal education level (50% of children with mothers with no education versus 27%

of children with mothers with secondary education or greater).

Anemia. Data from 2001 indicated that 45% of non-pregnant women of reproductive age in Burma were anemic, an increase from 42% in 1995 (more recent data are lacking) (UNSCN 2010). According to a 2013 Ministry of Health report, 26% of adolescent girls, 71% of pregnant women, and 75% of children under 5 (in 2002, 2003, and 2005 respectively) were anemic. Children under 2, children with anemic and/or uneducated mothers, and children with a recent fever or exposed to parasites are at increased risk of anemia (Zhao et al. 2012). Disease (including malaria), intestinal helminths (31% of children under 5 and 44% of pregnant women are infected [Ministry of Health]), and thalassemias may be significant non-nutritional causes of anemia among women and children in Burma (Zhao et al. 2012).

Infant and young child feeding. Exclusive breastfeeding is of particularly short duration in Burma—according to the 2009–2010 MICS, only 24% of infants 0–5 months are exclusively breastfed, although this has increased from 16% in 2000 (Ministry of Health).

Wasting. Eight percent of children under 5 are wasted, with children 12–23 months of age most affected (10%), reflecting the vulnerability of this particular age group to infection and suboptimal feeding practices. Wasting has declined only slightly

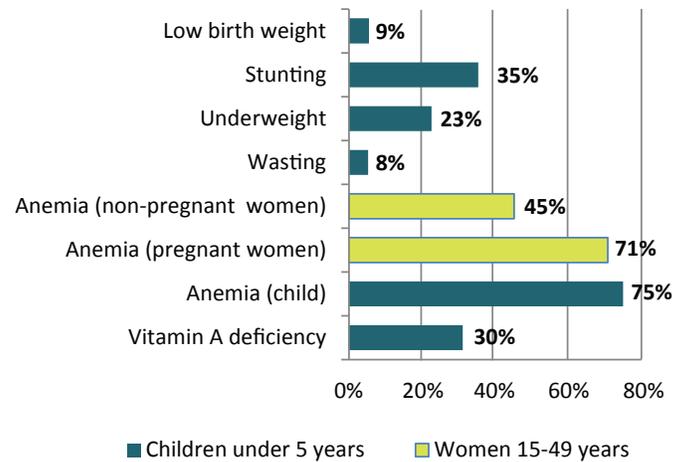
between 2000 and 2010, by 0.33 percentage points per year on average. Wasting prevalence does not vary as strongly as stunting (or underweight) by urban/rural residence or maternal education.

Micronutrient deficiencies. Thiamine (B1) deficiency (known as beriberi) has been identified as a concern in Burma, being the fifth leading cause of death among infants (Ministry of Health). Currently pregnant/postpartum women are provided with B1 supplements. According to a 2013 Ministry of Health report, adequately iodized salt coverage decreased dramatically from 73% in 2005 to 47% in 2008, indicating that iodine deficiency may be an issue in parts of the country.¹ However, the median urinary iodine concentration for school-age children is 205 ug/L (WHO 2007), which indicates more than adequate iodine intake as classified by WHO. Vitamin A deficiency has been estimated to affect nearly a third of preschool-age children, according to the UNSCN (2010), although other reports indicate that vitamin A deficiency affects 4% or less of preschool-age children in Burma (Ministry of Health).

Maternal nutrition. Data on the nutritional status of women of reproductive age (other than anemia) in Burma are needed.

¹There is conflicting evidence regarding the percentage of households with iodized salt—a UNICEF brief indicates that 93% of households in 2007 had adequately iodized salt.

Maternal and Child Malnutrition Indicators in Burma



Sources: Myanmar MICS 2009–2010; vitamin A deficiency: estimate from UNSCN 2010 (data from 2004); anemia—pregnant (2003) and child anemia (2005); Ministry of Health 2013; anemia non-pregnant (2001): estimate from UNSCN 2010

Note: The median urinary iodine concentration (UIC) for school-age children is 205 ug/L; the proportion of school-age children with low UIC (< 100 ug/L) is 22% (WHO 2007).

Key Drivers of Maternal and Child Malnutrition in Burma

Immediate and Underlying

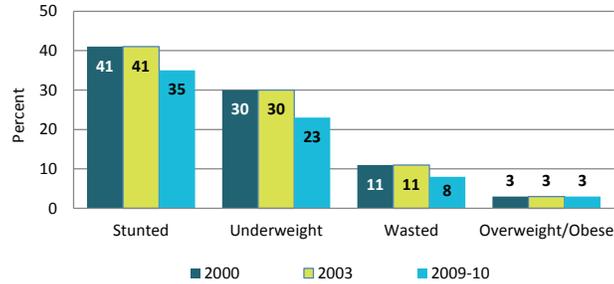
- Suboptimal infant feeding practices, including delayed initiation of breastfeeding and a very short period of exclusive breastfeeding.
- High infectious disease burden, including acute respiratory infections, diarrhea, and malaria, as well as intestinal parasites and tuberculosis.
- Inadequate health service access/delivery, particularly in remote, rural, or border areas, including insufficient staff and limited physical resources (infrastructure, equipment, and supplies).
- Inadequate hygiene and sanitation practices including handwashing with soap and disposal of child feces.

Basic

- Lack of preventive focus of existing health services (largely provided through the private sector and paid for out-of-pocket) and relative lack of importance given to maternal, neonatal, and child health and community/family interventions.
- Poverty that affects the lowest wealth quintile.
- Long-lasting localized conflicts leading to internal displacement, increased poverty, and food insecurity, particularly for minority ethnic groups and in border regions.
- Disaster-prone environment (e.g., natural disasters such as cyclones) as well as many flood-prone areas which, among other effects, can affect sanitation and access to safe water.
- Low social status of women and early marriage, particularly among certain ethnic groups.

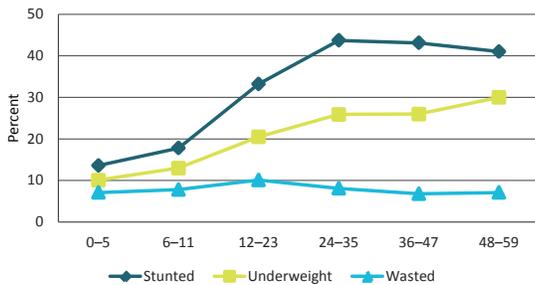
Child Nutrition

Trends in Nutritional Status of Children Under 5, 2000–2010



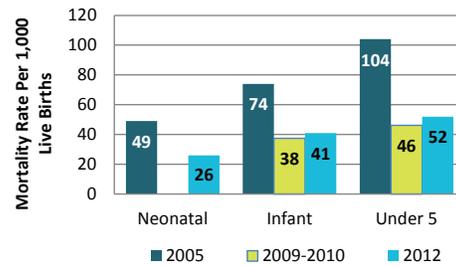
Sources: MICS 2009–2010; 2000 and 2003 data: WHO Global Database on Child Growth and Malnutrition

Nutritional Status of Children by Age (in Months)



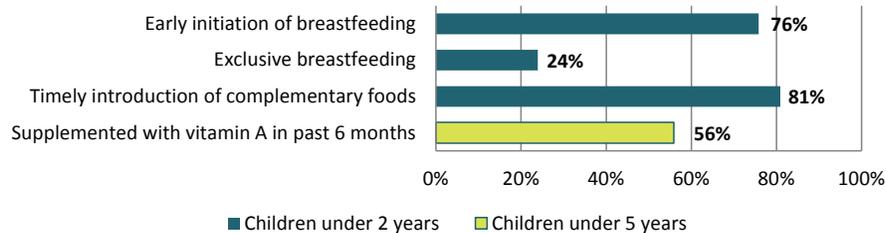
Source: MICS 2009–2010

Child Mortality Rates



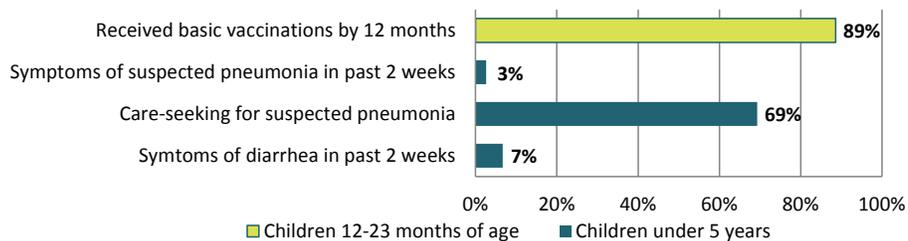
Sources: MICS 2009–2010; WHO 2007; UNICEF 2012b
Note: Data are for the time period within the previous 4 years of the survey.

Dietary Practices of Children



Source: MICS 2009–2010

Child Health Indicators



Source: MICS 2009–2010

Notes: Basic vaccinations include BCG, measles, and three doses each of DPT and polio vaccine. Use of oral rehydration therapy was 66%.

Maternal Nutrition

Maternal Health Indicators		
Maternal mortality ratio (per 100,000 live births)		200
Total fertility rate (children per women)		2.0
Median age at first marriage (of women 25–49 years)		No data*
Median age at first birth (of women 25–49 years)		No data
% of women (20–49 years) who gave birth by 18 years of age		No data
% of women 15–19 years who have begun childbearing by 19		No data
Median number of months since preceding birth (of women 15–49 years)		No data
% of ever-married women 15–49 years who are using (or whose partner is using) a contraceptive method		45.7
% of married women with an unmet need for family planning		No data
% of women 15–49 years with a live birth in past 2 years receiving antenatal care from a “medically-trained” or “skilled” provider (doctor, nurse, or midwife)		83.1
% of women 15–49 years with birth in the past 2 years who delivered in a health facility		36.2
% of women 15–49 years with birth in the past 2 years who delivered with a “medically-trained” or “skilled” provider (doctor, nurse, or midwife)		70.6
Maternal Nutrition		
% anemic	Pregnant (Hb < 11 g/dL)	71
	Non-pregnant (Hb < 12 g/dL)	45
% of women with birth in the last 2 years given vitamin A supplementation after birth of last child		66.4
% of women with birth in the last 2 years given any iron supplementation during last pregnancy		83.7
% of women with birth in the last 2 years who took at least 90 days of iron supplementation during pregnancy of last child		No data
% of women with birth in the last 2 years who took deworming medication in last pregnancy		No data
% living in houses with iodized salt		47.0**

Sources: MICS 2009-2010; maternal mortality: UNICEF 2012a; iodized salt: Ministry of Health 2013; total fertility rate: World Bank 2013

* 7.4% of women 15–19 are married.

** There is conflicting information on salt iodization. The 2013 Ministry of Health Nutrition Promotion document indicated that households with adequately iodized salt fell dramatically to 47% in 2008; a UNICEF Myanmar Nutrition Country Profile indicates that 93% of households in 2007 had adequately iodized salt.

Food Security; Diet Diversity; and Water, Sanitation, and Hygiene

Food Security Indicators	
Global Hunger Index	No data
% of households with poor or limited food consumption (food insecure)	No data
% of undernourished in total population	No data
Food supply (kcal/capita/day) (2009)	2,493
Depth of food deficit (kcal/capita/day)	No data
Diet Diversity Indicators	
% of dietary energy supply from cereals, roots, and tubers	No data
Average supply of protein from an animal source (grams/capita/day)	No data
Water, Sanitation, and Hygiene Indicators	
% of population with access to improved drinking water sources (2009–10)	82
% of population with access to sanitation facilities (2009–10)	85
% of population using appropriate treatment method for drinking water (2011)	35

Sources: MICS 2009–2010; food supply: FAOSTAT (<http://faostat3.fao.org/faostat-gateway/go/to/browse/FB/FB/E>)

Government Policies and Program Environment: Needs and Challenges

Policy. The Government of Burma has expressed commitment to nutrition and food security in the past, starting with their first National Plan of Action for Food and Nutrition (NPAFN) enacted in 1994 (Thwin 2001). Burma joined the Scaling Up Nutrition (SUN) Movement in April 2013 and the 2011–2016 NPAFN is currently under development (SUN 2013). Reducing malnutrition is also a key component of the recently launched poverty alleviation strategy (ibid) and a 5-year strategy for IYCF (2011–2016) has been endorsed (Ministry of Health).

Programs. The National Nutrition Center is the government body responsible for nutrition and is situated within the Ministry of Health (SUN 2013). The center has identified “protein-energy malnutrition” and vitamin A, iodine, iron, and vitamin B1 (thiamine) deficiencies as its major malnutrition problems (Ministry of Health). The country’s community-based nutrition program in rural areas includes growth monitoring and promotion for children under 5, community nutrition centers for moderately malnourished children, and village food banks for malnourished children. Hospital nutrition units for severely malnourished children also exist, as do community nutrition centers in urban areas (Ministry of Health). However, the majority of the Burmese population—72% in a study from 2007—receives primary health services through the private sector (Ministry of National Planning and Economic Development [MNPED] and UNICEF 2013).

Needs and challenges. Recent commitments to nutrition notwithstanding, nutrition has been underfunded and overlooked in the past and seen solely as the responsibility of the health sector (MNPED and UNICEF 2013). Access to and availability of high quality and timely nutrition and food security

Nutrition-Relevant Policies

National Plan of Action for Food and Nutrition (1994; to be updated for 2011–2016)

Infant and young child feeding strategy (2011–2016)

Food Law (1995) (includes breast milk substitutes as a controlled food item)

Universal Salt Iodization Regulation (1999)

data has been identified as a key challenge in Burma (MNPED and UNICEF 2013; WFP Myanmar 2012) and there is little data on the nutritional status of women in particular. In addition, due to low public spending in the health sector, access to and delivery of quality health services is a critical problem, particularly in hard-to-reach areas of Burma where adequately trained staff are few and retention is difficult (MNPED and UNICEF 2013). Coordination between different health programs/services—for example, reproductive health and nutrition or infectious disease control—is weak which prevents an effective and holistic approach to addressing the immediate and underlying causes of malnutrition (ibid).

Development Partner Support

- The Government of Burma receives pooled funding to support the provision of health services through the Three Millennium Development Goal Fund which is funded by bilateral and multilateral donors including the EU and the governments of Australia, Denmark, the Netherlands, Norway, Sweden, and the United Kingdom.

- The EU and the World Bank provide funding to increase food security within the country.
- UNICEF provides most of the vitamin A supplementation for children under 5 and supports deworming, iron supplementation for pregnant women, salt iodization, cooking demonstrations for maternal nutrition, and breastfeeding promotion.
- WFP works to improve nutrition and food security within Burma through food-for-work and food-for-training programs, distribution of “super cereals,” provision of fortified food for pregnant and lactating women, and provision of supplemental and fortified food for children 6–59 months (for both preventative and curative services). WFP also promotes growth monitoring, breastfeeding, deworming, nutrition education, multiple micronutrient supplementation, and school feeding.
- FAO implements numerous food security projects including supporting: fisheries, rebuilding farms after the 2008 cyclone, rice production, and school gardens.

Recommended Nutrition Priorities

Key nutrition priorities for Burma include focusing on stunting and wasting, infant and young child feeding practices, maternal nutrition, anemia, and micronutrient deficiencies. Programs and activities should be focused on women and children in the lowest wealth quintile, who are disproportionately affected. USAID has invested in health activities in Burma, but none of these funds were allocated to nutrition specifically. However, given the high prevalence of stunting, and that Burma is a SUN Movement country, increasing the allocation for nutrition could be used to implement key targeted activities. Among existing USAID-funded activities and programs this includes integrating evidence-based nutrition-specific interventions and actions. Additional opportunities include:

- Undertaking nutrition advocacy to strengthen multisectoral coordination and augment accountability and governance for nutrition
- Focusing nutrition interventions on the first 1,000 days, with a particular focus on improving early initiation of breastfeeding, exclusive breastfeeding, and IYCF practices

- Integrating nutrition services within efforts to strengthen and expand the health service delivery system and improving quality of service delivery
- Strengthening the capacity of health service providers in nutrition
- Providing direct technical assistance on nutrition
- Identifying public-private partnerships to improve/increase nutrition service delivery

In terms of opportunities to support the Government of Burma, opportunities include:

- Engaging with the government to support efforts to finalize, implement, and coordinate the National Plan of Action for Food and Nutrition
- Encouraging and supporting sustained high-level political commitment for action toward reducing malnutrition
- Engaging with the government to support and monitor universal salt iodization

- Assisting with multisectoral coordination of actions within government
- Encouraging policies to support optimal IYCF practices, such as extended maternity leave (currently 12 weeks), code of marketing of breast milk substitutes, and implementation of a government IYCF strategy

USAID can also work in close coordination with other donors to:

- Support the SUN Movement and other Government of Burma initiatives to promote nutrition service delivery
- Align resource allocation to limit duplication of activities and leverage donor investments to strategically invest in nutrition, focusing on areas that need added resources such as IYCF and quality nutrition service delivery
- Support efforts for information-sharing (particularly food security and nutrition data) among donors
- Support health systems strengthening to provide equitable high-quality low-cost preventive and curative health care with an increased focus on prevention and integrated maternal, neonatal, and child services
- Support improved IYCF practices, particularly exclusive breastfeeding, through training of midwives and hospital/health center staff on breastfeeding practices and support certification of baby-friendly hospitals (through UNICEF)

Recommended Indicators to Monitor Nutritional Impact

It is recommended that USAID incorporate the following key nutrition indicators into new and existing implementation plans in order to specifically monitor the impact of USAID programs on maternal and child nutrition status.

1. Prevalence of underweight children under 5 years of age (< -2 SD)
2. Prevalence of stunted children under 5 years of age (< -2 SD)
3. Prevalence of stunted children under 2 years of age (< -2 SD)
4. Prevalence of wasted children under 5 years of age (< -2 SD)
5. Prevalence of underweight women (BMI < 18.5)
6. Women's dietary diversity: mean number of food groups consumed by women of reproductive age
7. Prevalence of exclusive breastfeeding of children under 6 months of age
8. Prevalence of children 6–23 months receiving a minimum acceptable diet

While nutrition-sensitive interventions can have an impact on these indicators, it is critical to implement nutrition-specific activities that address the direct causes of malnutrition in order to see reductions in these key indicators.

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The intended purpose of this profile is to provide a broad overview of the status of nutrition in Burma in order to inform potential US-supported efforts. For more information on USAID health programming in Burma, please visit: www.usaid.gov/burma. To view USAID's Global Health nutrition portfolio and its extensive contributions, please visit: www.usaid.gov/what-we-do/global-health/nutrition.