



How to Protect and Promote the Nutrition
of Mothers and Children

Purpose of the toolkit

in Latin America and the Caribbean



THE WORLD BANK



opportunities for all



RAPID SOCIAL RESPONSE



How to Protect and Promote the Nutrition
of Mothers and Children

Purpose of the toolkit

in Latin America and the Caribbean

“Improving nutrition for pregnant women and children under two is one of the smartest investments we, or anyone, can make.”

**Hillary Clinton - United States Secretary of State,
September 2011**

Table of Contents

Foreword	iii
Acknowledgments	iv
List of Acronyms	v
Executive Summary	1
Objective of the Toolkit	3
Rationale for the Toolkit	4
Methodology for Development of the Toolkit	7
Introduction	10
The Importance of the “First 1,000 Days of Life”	10
Crises and Emergencies in Latin America and the Caribbean	11
The Nutrition of Mothers and Children in Times of Crisis and Emergency	13
Laying the Foundation to Protect and Promote the Nutrition of Mothers and Children in Times of Stability, Crisis, and Emergency	14

FOREWORD

In recent years, the region of Latin America and the Caribbean (LAC) has been hit recurrently by a range of crises, including social and economic upheavals, periods of major food-price volatility, and devastating natural disasters. Too often the poorest, least-educated, and indigenous groups live in a constant state of crisis, which prevents them from breaking out of poverty and contributing productively to society. While making significant socioeconomic strides over the past few decades, LAC remains one of the most unequal regions in the world, and eradication of undernutrition in the region is still an unfinished agenda.

A plethora of evidence demonstrates that crises and emergencies take a toll on the nutritional status of the most vulnerable, especially mothers and children. Failure to address the nutritional needs of mothers and children as part of crisis management results in human suffering and vast missed opportunities for developing every person's potential. The malnutrition that ensues has significant negative, permanent impacts on human development, the quality of the workforce, and the economic productivity of individuals and society. It follows that policy makers need to know what actions they should take to promote and protect the nutrition of the population in crises and emergencies.

This toolkit is the first of its kind to provide information on promoting and protecting the nutritional status of mothers and children in crises and emergencies. We hope that countries will find it useful to strengthen both their crisis response and human development policies and programs. We invite you to provide feedback on the toolkit and look forward to a more in-depth exchange of ideas and experience with countries on how to eradicate malnutrition in the region.



Keith Hansen
Director - Human Development



Joana Godinho
Sector Manager-Health, Nutrition & Population

ACKNOWLEDGMENTS

This document was produced by a team led by Marie Chantal Messier and composed of Christine Macdonald, Susan Shulman and Jennifer Bernal. Substantial contributions were also provided by Evelyn Rodriguez, Marcia Griffith, Tom Schaetzel and Geraldine Beneitez. Isadora Nouel provided resourceful assistance throughout the production of the Toolkit.

The authors are grateful to Keith Hansen, Director of the Human Development Department, Joana Godinho, Sector Manager for Health Nutrition and Population and Margaret Grosh, Lead Economist in the Latin America and Caribbean Region as well as Hideki Mori, Program Manager for the Rapid Social Response Trust Fund and Ludmilla Butenko, Country Manager for the World Bank Country Office in Panama, for their strategic support and judicious guidance in producing this Toolkit.

The authors would like to thank each and every one of the more than 130 people from the 12 countries who participated in the consultation process that led to the development of this toolkit for their kind collaboration and their willingness to generously share information. They would also like to thank all the colleagues from the World Bank, including Sector Leaders and Country Offices who have assisted with the organization of this extensive consultation process.

Detailed peer reviewer comments were provided by Ilka Esquivel (UNICEF), Israel Rios (World Food Program) as well as Benedicte Leroy de la Brière, Leslie Elder and Michel Matera from the World Bank.

Worthy comments and precious additional inputs have been provided by the following colleagues: Ruslan Yemtsov, Harold Alderman, Claudia Rokx, Lucy Bassett, Alessandra Marini and Barbara Coello from the World Bank as well as Mohamed AG Ayoya and Enrique Paz from UNICEF.

The report was skillfully edited by Judith Navarro. The design was elaborated by Jorham Moya.

This work was supported by a grant from the Rapid Social Response Trust Fund and the Human Development Department of the Latin America and the Caribbean Region and the Panama Country Office of the World Bank. The Rapid Social Response (RSR) Program is a multi-donor endeavor to help the world's poorest countries to build effective social protection and labor systems that safeguard poor and vulnerable people against severe shocks and crises. RSR has been generously supported by the Russian Federation, Norway, the United Kingdom, and Australia.

LIST OF ACRONYMS

AFAS	Acceptable, feasible, affordable, sustainable	LBW	Low birth weight (<2,500 g)
ARI	Acute respiratory infection	LNS	Lipid-based nutrient supplement
ART	Antiretroviral therapy	MAM	Moderate acute malnutrition
ARV	Antiretroviral	MDG	Millennium development goal
BMI	Body mass index	MIYCN	Maternal, infant, and young child nutrition
CGP	Community growth promoter	MNP	Micronutrient powder
CHW	Community health worker	MOA	Ministry of Agriculture
CMAM	Community-based management of acute malnutrition	MOH	Ministry of Health
COMBI	Communication for behavioral impact	MUAC	Mid-upper arm circumference
eLENA	WHO's e-Library of Evidence for Nutrition Actions	NIE	Nutrition in emergencies
ENN	Energy Nutrition Network	NGO	Nongovernmental organization
EWARN	Early warning and response	OCHA	United Nations Office for Coordination of Humanitarian Affairs
FAO	United Nations Food and Agriculture Organization	ORS	Oral rehydration salts (or solution)
FEWSNET	Famine Early Warning Systems Network	PLWHA	People living with HIV/AIDS
GDP	Gross domestic product	PMTCT	Prevention of mother-to-child transmission
GIEWS	Global information early warning system	PMNCH	Partnership for Maternal, Newborn, and Child Health
GMP	Growth monitoring and promotion	P4P	Purchase for Progress program
GNI	Gross national income	RNI	Recommended nutrient intake
HIV/AIDS	Human immunodeficiency virus/acquired immune deficiency syndrome	RUIF	Ready-to-use infant formula
HAZ	Height-for-age Z score	RUSF	Ready-to-use supplementary food
HTP	Harmonized training package	RUTF	Ready-to-use therapeutic food
IBFAN/GIFA	International Baby Food Action Network/ Geneva Infant Feeding Association	SAM	Severe acute malnutrition
IBRD	International Bank for Reconstruction and Development	SMART	Standardized monitoring and assessment of relief and transitions
ICRC	International Committee of the Red Cross	SUN	Scale up nutrition
IDA	Iron-deficiency anemia	U5MR	Under 5 mortality rate
IDA	International Development Association	UNHCR	United Nations High Commissioner for Refugees
IDD	Iodine-deficiency disorder	UNICEF	United Nations Children's Fund
IDP	Internally displaced person	USI	Universal salt iodization
IFA	Iron-folic acid	VAD	Vitamin A deficiency
IFE	Infant feeding in emergency	WASH	Water, sanitation, and hygiene
IMR	Infant mortality rate	WAZ	Weight-for-age Z score
IOM	Institute of Medicine, National Academy of Sciences, United States	WB	World Bank
IVM	Integrated vector management	WEDC	Water, Engineering, and Development Center
IYCF	Infant and young child feeding	WFP	World Food Program
LAC	Latin America and the Caribbean	WHZ	Weight-for-height Z score
		WHO	World Health Organization

EXECUTIVE SUMMARY

Latin America and the Caribbean is one of the most vulnerable regions in the world to major crises and emergencies. The resultant economic and human costs can set back countries' development for years. These crises and emergencies take a toll on the nutritional status of the most vulnerable, especially poor mothers and children. The poorest often live in a constant state of crisis as they are confronted with recurring financial, environmental, and social shocks. The malnutrition that ensues leads to irreversible negative impacts and generates high human, social, and economic costs that contribute to perpetuating poverty.

The rationale for this toolkit derives from three main principles: 1) the sound economic sense of investing in nutrition in the first 1,000 days of life; 2) the need to help countries faced with transitioning from stable times into and out of crisis to prevent potential irreversible damage to human capital and; 3) the imperative to build the resilience of the most vulnerable to shocks and to protect livelihoods.

The aim of this toolkit is to inform changes in countries' policies and practices and to guide their attempts to deal with persistently high prevalence rates of malnutrition among their poorest, least educated, and indigenous populations. In a single-source compilation, it offers clear guidance on cost-efficient interventions to assist countries in safeguarding the nutritional status of mothers and children during times of stability, crisis, and emergency.

The value added of this toolkit is that it is the first to underscore the importance of protecting and promoting nutrition of mothers and children during times of crisis. It addresses the existing policy and information gaps by providing direction on how countries can protect and promote nutrition when faced with transitioning in and out of a crisis, by focusing especially on the unique window of opportunity represented by the first 1,000 days of life. Moreover, it offers an

assessment tool to evaluate countries' readiness to protect the nutritional status of the most vulnerable as compared to international recommendations regarding key nutrition actions.

The toolkit comprises three main components: policy guidance for priority nutrition interventions and cross-cutting approaches; a country benchmarking; and case studies. The methodology used to produce this toolkit was based on internationally validated scientific evidence and extensive consultations with countries. Development of the policy guidance entailed a rigorous review and synthesis of international policy guidelines as well as programmatic and technical documents.

That approach resulted in an inventory of 13 major programmatic categories: six "priority nutrition interventions" and seven "cross-cutting approaches" that are necessary for the successful application of the nutrition interventions. The policy guidance on priority nutrition interventions cover assuring maternal, infant, and young child nutrition; promoting healthy growth and healthy motherhood; preventing and treating micronutrient deficiencies and infectious diseases; and ensuring food security. The cross-cutting approaches cover targeting; multisectoral coordination; policy making and planning; emergency communication; human resources and training; water, sanitation, and hygiene; and monitoring and evaluation.

The benchmarking exercise included 12 countries from the Latin American and Caribbean region: Dominica, Grenada, St. Lucia, St. Vincent, Haiti, Honduras, Nicaragua, El Salvador, Guatemala, Panama, Bolivia, and Colombia. They were selected on the basis of a number of criteria, such as poverty, malnutrition levels, susceptibility to natural catastrophes, and vulnerability to crises. Elaboration of the country benchmarking stemmed from discussion with some 130 key informants from governments, devel-

opment agencies, and civil society organizations. The information was analyzed with a view to identifying trends, strengths, and weaknesses in each of the countries and sub-regionally.

The results of the benchmarking exercise reveal that most crisis-response policies and programs in the region overlook the needs of mothers and young children. They are either poorly targeted or not prioritized, or the interventions used are not appropriate to protect and promote the nutrition of these groups. Countries either have not set up the appropriate programs in stable times or do not seize the opportunity of existing programs to expand coverage in times of crisis and emergency. This situation results in important inefficiencies and service-delivery gaps. It also appears that, in comparison to countries in Latin America, those in the Caribbean are less prepared and equipped. All countries need to reinforce the promotion and protection of breastfeeding. Also of concern are weak monitoring systems and rare systematic evaluations of the crisis response, a situation that impairs timely and informed decision making. A number of countries would benefit from updating their nutrition policies and adapting the food and water rations given in emergencies to the specific nutritional needs of pregnant and lactating women and children under 2 years of age. Some examples include the prevention of micronutrient deficiencies during emergencies with micronutrient powders; treatment of acute malnutrition, notably with provision of ready-to-use foods; and efficient treatment of diarrhea through the combined use of oral rehydration solution and zinc.

The last part of the toolkit offers a series of case studies that illustrate ways in which countries have implemented some of the recommended interventions.

As its design is simple and comprehensive, the toolkit is intended for non-specialists in nutrition such as policy makers, program managers, crisis-response personnel as well as by health and nutrition professionals. It can also be easily adapted and replicated beyond Latin America and the Caribbean to be used in other regions of the world.

Governments and their development partners are thus encouraged to use this toolkit to review, adapt, and update current policies and programs according to their specific contexts to ensure that the nutritional status of mothers and children is adequately taken into account at all times. They should establish a solid foundation during stable times by mainstreaming nutrition in their development programs, scale up and intensify those programs in times of crisis, and address immediate nutrition needs during emergencies. In addition, to more efficiently use their resources, they should seek closer collaboration across sectors such as crisis response, health, nutrition, agriculture, water and sanitation, and social protection. Doing so should contribute to protecting the human capital of the most vulnerable, promoting the economic development of countries, and interrupting the intergenerational cycle of poverty.

OBJECTIVE OF THE TOOLKIT

This toolkit aims to improve the resilience of the most vulnerable in times of intensified nutritional needs, most notably pregnant and lactating mothers as well as children under two years of age. Its principal objective is to offer countries, when faced with the transition from stable times into and out of crisis, clear guidance on how to safeguard the nutritional status of mothers and children during times of stability, crisis, and emergency. The principal objective of this toolkit is to offer clear guidance, in a single-source compilation, that will assist countries in safeguarding the nutritional status of mothers and children during times of stability, crisis, and emergency. It aims to inform changes in countries' policies and practices and to guide their attempts to deal with persistently high prevalence rates of malnutrition among their poorest, least educated, and indigenous populations. It provides policy and decision makers - charged with planning and implementing crisis-response systems - comprehensive and internationally validated information on how to protect the nutritional status of mothers and children in the first

1,000 days of life. Moreover, it offers an assessment tool to evaluate countries' readiness to protect nutritional status and build the resilience of the most vulnerable in the face of shocks.

This toolkit has been crafted so that it can be readily used by non-nutrition specialists. It is intended for policy makers, development program managers, crisis and disaster-response personnel, aid workers as well as health and nutrition professionals.

The full set of interventions proposed in this toolkit seeks to protect the human capital of the most vulnerable groups in society, contribute to the economic development of countries, and interrupt the inter-generational cycle of poverty that can be brought about by malnutrition. Toward that end, the information is presented through three main components: *policy guidance for priority nutrition interventions and cross-cutting approaches; a country benchmarking; and case studies.*



RATIONALE FOR THE TOOLKIT

The rationale for this toolkit is founded on three main principles:

1. the sound economic sense of investing in nutrition in the first 1,000 days of life;
2. the need to help countries faced with transitioning from stable times into and out of crisis to prevent potentially irreversible damage to human capital; and
3. the imperative to build the resilience of the most vulnerable to shocks to break the cycle of poverty.

The profitability of investing in maternal and child nutrition.

The most recent Copenhagen Consensus (2012) ranked a bundled set of nutrition interventions in the first 1,000 days of life—among them, micronutrients and infant and young child feeding—first out of 30 investment options. Considering the benefits that it offers for education and health, this bundled set of interventions was estimated to return \$30 for every \$1 spent, even in very poor countries (1)*.

Malnutrition in the early years of life can have catastrophic short- and long-term human and economic consequences for both individuals and society as a whole. A largely preventable cause of over one-third of all child deaths (2), malnutrition decreases children's ability to resist infection and disease. Those who suffer malnutrition in their early years fail to fully develop their physical and cognitive potential, have trouble in school, and as adults have an increased risk of non-communicable diseases and tend not to be as productive as those who were well nourished during infancy (3). Various forms of malnutrition reduce the intelligence-quotient metric by 5-25 points (4). Productivity losses as a result of malnutrition have been estimated to exceed 10% of an individual's lifetime earnings and to be responsible for at least a 2-3% drop in the GDP of countries whose populations are significantly affected by undernutrition (5).

Thus, ensuring good nutrition for mothers and children, rather than simply being an expression of compassionate welfare, makes economic sense and represents a sound investment in a country's economy, because it reduces health care costs, contributes to a better educated workforce, increases workers' incomes, and boosts national productivity.

* All references are located in a separate book named Glossary, References, and Annexes

Figure 1. Short- and long-term consequences of child malnutrition for individuals and society



The dearth of information on how to safeguard the nutritional status of mothers and children in unstable times.

Scant literature is available on how to address, during times of crisis, the particular nutritional needs of new mothers and young children, although several programs— the 1,000 Days Initiative, Scaling Up Nutrition, and UNICEF’s Renewed Efforts Against Childhood Hunger (REACH)—have highlighted this critical window of opportunity. WHO has established cutoffs to define crisis and emergency levels for individual nutritional issues, but does not recommend a combination of indicators for defining a multi-dimensional nutritional crisis or emergency. FAO has devised an Integrated Food Security Phase Classification scheme that provides an example of level/stage definitions that focus on outcomes and match responses with defined classes; the scheme relies on a broad range of outcome measures—crude mortality rate, wasting, stunting, disease, food access/availability, dietary diversity, water access/availability, destitution/displacement, civil security, hazards, coping, structural conditions, and livelihood assets—and specifies strategic responses for each classification level of food insecurity. Individual countries can thus create their own sets of indicators, but they should achieve consensus in their identification of situations for which specific interventions are appropriate. At present, little is known on how well countries in Latin America and the Caribbean are performing in effectively implementing internationally recommended nutrition actions.

Shortcomings in countries’ responses to promote and protect the nutrition of mothers and children, particularly in times of crisis.

While several countries in the region did scale up their responses during recent crises –e.g., school feeding, cash transfers, labor market mechanisms, and the easing of trade barriers on food or grain imports to help the population better cope with the effects of those crises—little is known about whether or how these measures protected the nutritional status of pregnant and lactating women and children under 2 years of age. In addition, food policy interventions in Latin America and the Caribbean often fail to pay attention to preventing the loss of human capital that can result from emergencies and crises, especially among children. Given the recurring shocks and crises that countries in Latin America and the Caribbean are facing, it is important to guide decision makers in countries with respect to the most profitable investment of their limited national resources in both stable and unstable times. In that regard, protecting mothers and young children from malnutrition should be an indisputable priority. In order to achieve this, countries need to build solid programs in health, food and nutrition security as well as social protection, which then can rapidly be expanded in times of crisis and emergencies to protect the poor and those at risk of falling into poverty.

Adaptability and replicability of this toolkit.

This toolkit should have widespread usefulness in regions beyond Latin America and the Caribbean. It can readily be adapted and applied by countries in regions throughout the world, given the international sources used to conduct the research from which it stems, the analysis and findings with regard to priority interventions and cross-cutting approaches, the inventory of best practices and international recommendations, the benchmarking methodology, and the lessons learned from country case studies.

METHODOLOGY FOR DEVELOPMENT OF THE TOOLKIT

Policy Guidance: Priority Nutrition Interventions and Cross-cutting Approaches

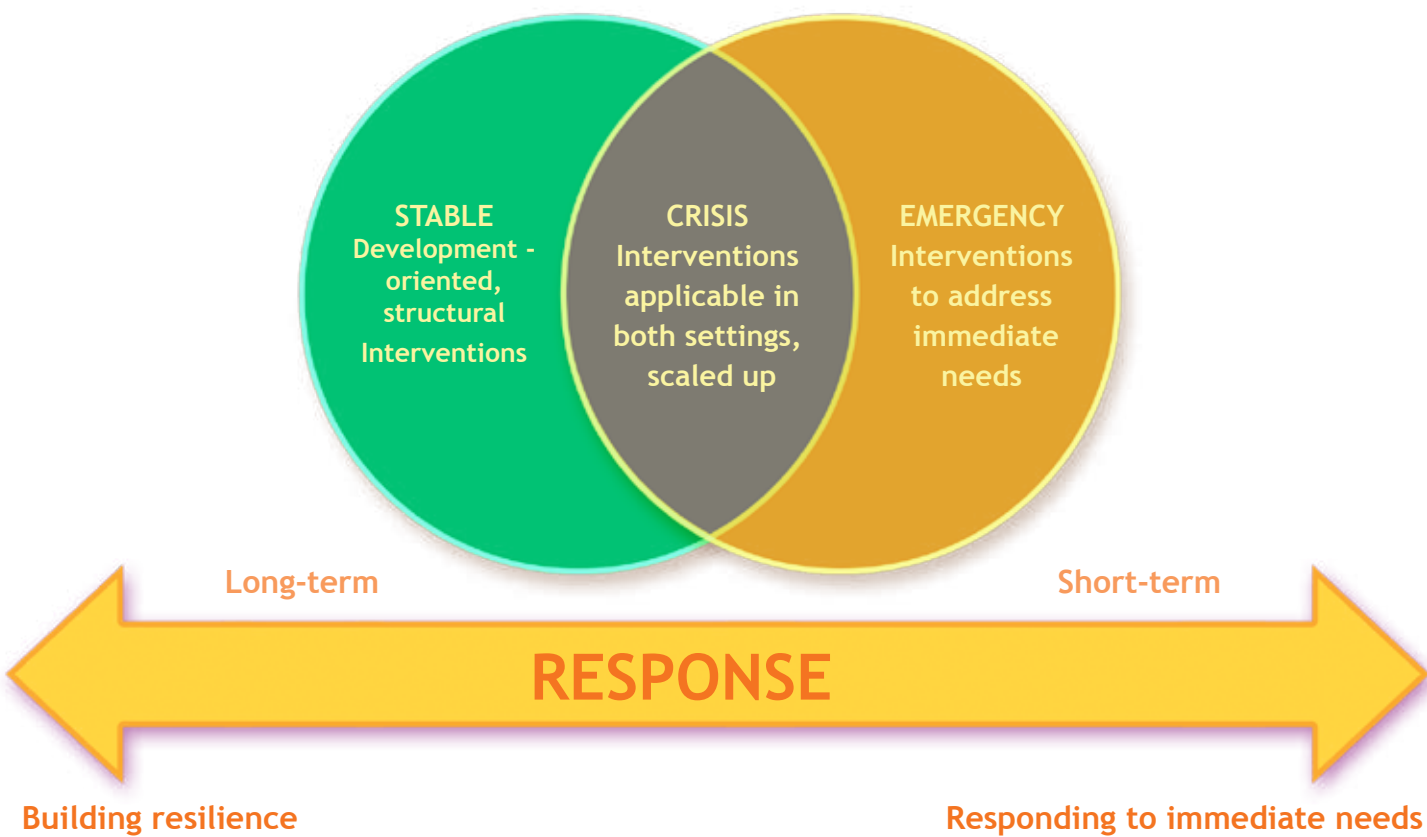
The purpose of this section is to identify and describe evidence-based interventions that promote nutrition and related positive health outcomes during the first 1,000 days of life in crises and emergencies. The guidance resulted from a review and synthesis of validated international scientific and technical literature on protecting the nutrition of mothers and children during the first 1,000 days of life in crises and emergencies. It included documents, publications, and resources from United Nations agencies as well as from reputable international and nongovernmental agencies such as the International Red Cross, the Micronutrient Initiative, and the Emergency Nutrition Network. Searches included online databases such as WHO's e-Library of Evidence for Nutrition Actions (eLENA). Consultations were also conducted with experts and international-development partners such as UNICEF, WFP, PAHO, and the World Bank. Guidance documents published by various United Nations agencies were emphasized, given their thorough processes of reviewing evidence, consulting with experts, and publishing recommendations.

That review and synthesis resulted in the identification of 13 major programmatic categories in two main groups: (1) “priority nutrition interventions” that are substantively related to the protection and promotion of nutritional status during the first 1,000 days; and (2) “cross-cutting approaches” that are complementary and necessary for the successful planning, implementation, monitoring and evaluation, and sustainability of those interventions. Under the group “priority nu-

trition interventions” are six interventions— assuring maternal, infant, and young child nutrition; promoting healthy growth; preventing and treating micronutrient deficiencies; preventing and treating infectious diseases; promoting healthy motherhood; and ensuring food security. Under the group “cross-cutting approaches” are seven approaches—targeting; multisectoral coordination; policy making and planning; emergency communication; human resources and training; water, sanitation, and hygiene; monitoring and evaluation. The guidance section provides international recommendations and best practices for each of those 13 categories, with examples of country experiences collected during the benchmarking exercise as well as suggested additional readings.

Countries should customize application of these interventions to fit their specific contexts and circumstances. Moreover, this toolkit suggests that interventions be considered in three general types of settings: stable times, crises, and emergencies. As shown in Figure 2, longer-term interventions build resilience to shocks as part of disaster-risk management and sustainable development efforts (e.g., agricultural policies to diversify local food production and enhance dietary diversity). Some interventions may be more relevant or applicable after a crisis has occurred or a disaster has struck (e.g., distribution of food rations). And some interventions are relevant in both emergency and more stable contexts (e.g., ensuring consumption of iodized salt).

Figure2. Applicability of interventions in stable, crisis, and emergency settings



Country Benchmarking

The country benchmarking section presents the results of an extensive consultation exercise that compared existing country policies and practices to the international recommendations regarding each priority nutrition intervention and cross-cutting approach presented in the policy guidance. Its findings as to existing national policies and practices pointed up both strengths and areas for improvement. That information was analyzed with a view to identifying trends within Latin America and the Caribbean and its subregions.

Latin American and Caribbean countries included in the benchmarking exercise were selected on the basis of several criteria: poverty levels¹, malnutrition prevalence, susceptibility to natural catastrophes, and increase in vulnerability as a result of recent financial crises and high food-price volatility. Countries meeting those criteria were then contacted to determine their willingness to participate in the benchmarking exercise. As a result, 12 countries in Latin America and the Caribbean were included: in the Caribbean—Dominica, Grenada, St. Lucia, St. Vincent, and Haiti; in Central America—Honduras, Nicaragua, El Salvador, Guatemala, and Panama; and in South America—Bolivia and Colombia².

Data collection for the benchmarking activity used two methodologies: online, semi-structured ques-

tionnaires; and face-to-face, in-depth interviews. For the online survey, two questionnaires were sent to pre-identified key informants in the 12 countries: one for senior managers of government institutions responsible for programs regarding health and nutrition and/or crisis and emergency planning; the other for respondents from country-level development partners such as United Nations agencies, international and national NGOs, as well as civil society organizations working on nutrition or emergency relief (see Annex 1)³. A total of 57 responses was received: Bolivia (n=5), Colombia (n=4), Grenada (n=2), Guatemala (n=17), Haiti (n=2), Honduras (n=12), Nicaragua (n=2), Panama (n=1), El Salvador (n=10), and St. Lucia (n=2).

The information collected through the online questionnaires was complemented by in-depth face-to-face interviews with in-country decision makers to ensure complete and precise data. In May-June 2012, five trained interviewers traveled to the selected countries and conducted a total of 130 interviews with key government and nongovernmental personnel involved in nutrition and emergency management (see Annex 2)⁴. Interviewees were asked about the presence of a national policy or norms and the strengths and areas for improvement relative to each priority intervention and cross-cutting approach identified in the policy guidance methodology.

Case Studies

The case study section presents examples of how countries recently faced with a crisis or emergency have implemented various nutrition interventions described in the policy guidance section. These studies

were elaborated by a range of international experts and program managers based on field data and documented experience of selected countries whose populations have lived through volatile times.

¹ All selected countries with the exception of Colombia, El Salvador, Guatemala, and Panama are members of the International Development Association (IDA) of the World Bank, with membership based on a country's relative poverty, defined as GNI per capita below the established threshold of US\$1,175 in fiscal year 2012. IDA also supports some countries, including several small islands, which are above the operational cut-off but lack the creditworthiness needed to borrow from the International Bank for Reconstruction and Development (IBRD).

² Dominica, Grenada, St. Lucia, St. Vincent, and Honduras are net food-importing countries (NFIDC), which makes them more vulnerable to food-price volatility.

³ Annexe 1 is located in a separate book named Glossary, References, and Annexes.

⁴ Annexe 2 is located in a separate book named Glossary, References, and Annexes.

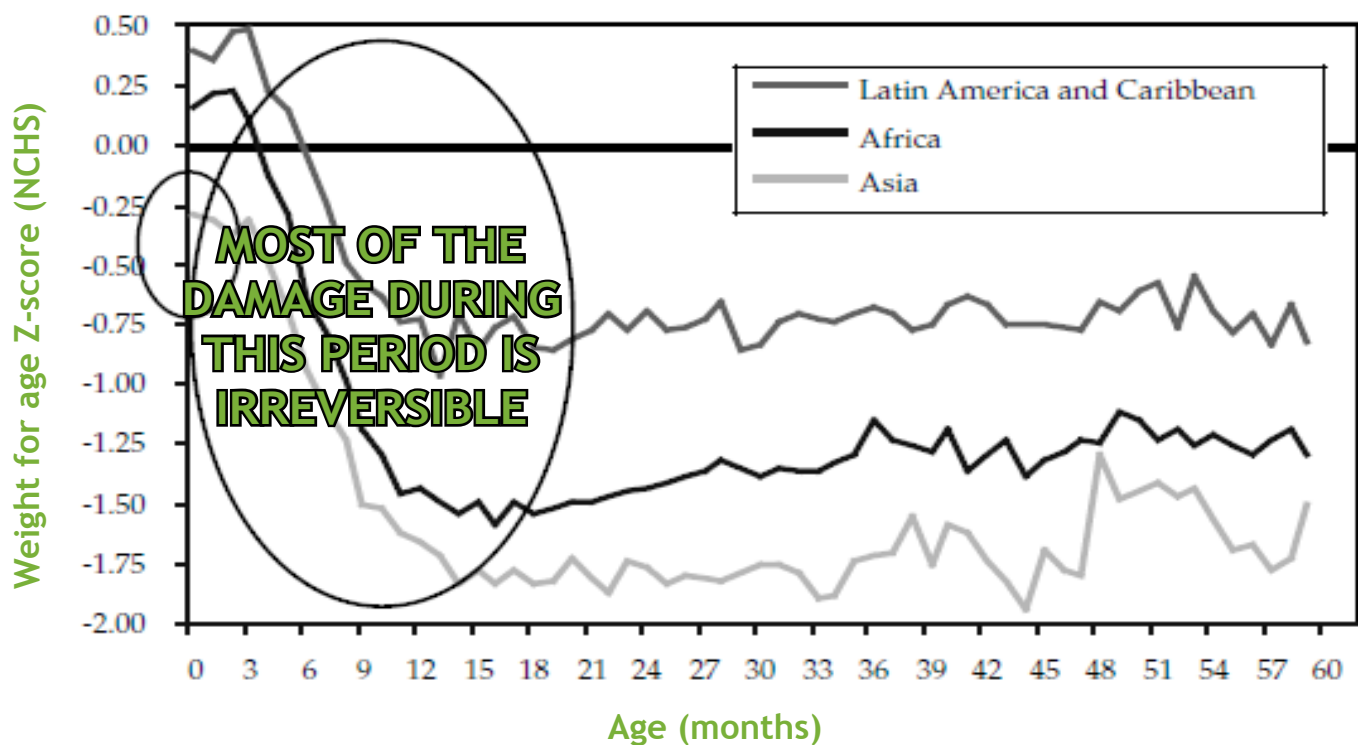
INTRODUCTION

The Importance of the “First 1,000 Days of Life”

The first 1,000 days of life, represented by the period from conception until 2 years of age, are commonly referred to as the critical “window of opportunity” for child growth and development. As such, failure to provide adequate nutrition during this period can

lead to the period of greatest growth faltering. As shown in Figure 3, this is especially the case for children who are born with a low weight and children aged 6-24 months.

Figure 3. The first 1,000 days of life: the “window of opportunity” for addressing undernutrition



Source: Adapted from (6).

During this period, numerous causes can result in child undernutrition including, among others, inadequate food intake, diarrhea, respiratory infections, measles, and malaria. In addition, when access to food and health services is compromised during this

time—a situation that is aggravated in crises and emergencies—failure to intervene with the aim of helping the very young among vulnerable populations can have severe and irreversible consequences.

Crises and Emergencies in Latin America and the Caribbean

Latin America and the Caribbean is one of the most vulnerable regions in the world to crises and emergencies. These range from devastating natural disasters, economic shocks, recurrent social upheavals, and food-price fluctuations to complex humanitarian crises stemming from the aforementioned factors as well as political instability, food insecurity, and rapid urbanization. Though most countries in the re-

gion experienced economic growth in recent years, that growth has not always directly translated into improvements in indicators of health, food security, and nutrition, especially amongst the poorest, least educated, and the indigenous population. In view of that, many of the most vulnerable in Latin America and the Caribbean live in a state of constant crisis.

Natural disasters

In many countries in the region, the effects of economic shocks, rising and fluctuating food prices, climate change, environmental degradation, pressure on natural resources, inappropriate land tenure systems, and insufficient investment in agriculture have resulted in greater exposure to risk, notably from natural disasters. Approximately one-third of the region's population is exposed to sudden-onset disasters such as hurricanes, floods, landslides, earthquakes, and volcanic eruptions, as well as gradual-onset events such as droughts. From 1991 to 2010, three of the five countries in the world most affected by natural disasters—both in terms of fatalities and economic losses—were in Latin America and the Caribbean (Honduras, Nicaragua, and Haiti) (2). In 1998 Hurricane Mitch affected almost 2 million people in

Honduras and Guatemala, resulting in some 10,000 deaths, the disappearance of almost as many people (7), and agricultural losses estimated at more than US\$2.3 million (8). In 2010 the earthquake in Haiti obliterated much of that country's infrastructure, killed approximately 220,000 persons, injured another 300,000, and left 1 million people homeless. In 2011, natural disasters in the region were responsible for US\$22 billion in economic losses and some 2,000 deaths; that year the most significant weather-related event was a tropical depression ("12-E"), which caused massive flooding that affected an estimated 2.6 million people in six countries (Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, and Mexico), caused 117 deaths, and resulted in US\$2 billion in losses (9).

Economic crisis and food-price volatility

In addition to natural disasters, the region was also hit by the 2008 global economic crisis. Though overall, Latin America and the Caribbean absorbed the shock better than expected, the situation was not uniform across every country, and the negative impact on countries in the Caribbean was particularly severe. An estimated 180 million people in the region continue to dwell in poverty.

The effects of the economic crisis were compounded by rising food prices. Between March 2006 and March 2008 the international food-price index nearly doubled in nominal terms, and food-price inflation increased across the entire region. Food-price volatility continued in late 2010 and early 2011, and in 2012 countries remain vulnerable to food-price fluctuations triggered by droughts in the United States and elsewhere.

Higher food prices push people into poverty, decreasing their available income and eroding their purchasing power, which in turn can force them to reduce the quantity and quality of foods they consume, cut back on health and education services, sell productive assets, migrate to find better-paying jobs, and adopt risky behaviors. Since the poor spend a larger share of their income on food, high food prices further aggravate their limited access to food, which can negatively impact the nutritional and health status of a population's most vulnerable groups, notably mothers and young children (10). The urban poor are particularly susceptible to food insecurity, as—because they do not grow their own food—they must rely on income to purchase it; loss of revenue or sharp increases in food prices can significantly compromise their ability to procure nutritious food; in addition, they may be more isolated and have less access to supportive social networks.

Social instability

Despite a marked trend in the region over the past decade towards stronger democratic governments and significant economic progress, crime-related violence is common in many areas (11). Colombia, having suffered an internal armed conflict for more than 40 years, has the second largest number of internally displaced people of any country in the world (the first being Sudan) (12), and Honduras and El Salvador have the highest homicide rates (13).

The Nutrition of Mothers and Children in Times of Crisis and Emergency

Poor households tend to react to crisis by lowering spending on items that build human capital—such as education, health, and food—contributing to future vulnerability (14,15). Women frequently become the “shock absorbers” for the family, taking less food in order to protect their children’s diets (15), thereby compromising their own nutritional status and, if they are pregnant, potentially harming their children.

These coping mechanisms have severe repercussions for the nutritional status of mothers and children. In Latin America and the Caribbean, it is estimated that 7.2 million children under 5 years of age are chronically malnourished, while anemia affects almost 38 million women and 22.5 million young children. Young children 6-24 months of age are most susceptible to chronic undernutrition, and more than two-thirds of this age group suffers from anemia (16). The direct causes of child undernutrition, mainly inadequate consumption of food and various infectious diseases, are similar in stable times and during crises and emergencies. However, their increased prevalence during unstable times—especially when coupled with crisis-associated conditions such as rapid increase of food insecurity, economic instability, and social disruption—can significantly undermine the nutritional status of mothers and young children, particularly that of the poorest among them.

Young children can rapidly develop acute malnutrition—characterized by low weight for height—as a result of a recent shock, such as an illness, lack of adequate food, or social change. Children with moderate and severe acute malnutrition are, respectively, more than three and nine times as likely to die as

their well-nourished counterparts (17). Malnourished children who survive tend to experience increased susceptibility to infection, stunted growth, micronutrient deficiencies, and impaired cognitive development—all of which can have life-long repercussions that include impeding their productivity as adults (18). Children with signs of malnutrition at 3 years of age are also predisposed to neurocognitive deficits, which can lead to antisocial behavior throughout childhood and adolescence (19).

Crises can also influence negatively the quality of the food people purchase, thereby affecting the prevalence of both under- and overnutrition. During times of economic hardship, poor families reduce the quantity of food they consume or replace high-value, nutritious foods with cheaper, lower-quality alternatives, such as foods with refined sugars and fats. Increasingly, evidence points to early undernutrition as a risk factor for adult obesity. While stunting is often a result of poverty, obesity is not necessarily the prerogative of the rich: in many countries, a considerable proportion of the urban poor and the less educated is overweight. It is increasingly the case in the region that significant numbers of women and children in the region suffer from both undernutrition (often in the form of micronutrient deficiencies or stunting) and overnutrition. Three of the four countries in the world with the highest percentage of overweight mothers and malnourished children living in the same household are in Latin America: Guatemala (13%), Bolivia (11%), and Nicaragua (10%) (20). If left unchecked, this double burden of malnutrition will result in high human and economic costs to the region.

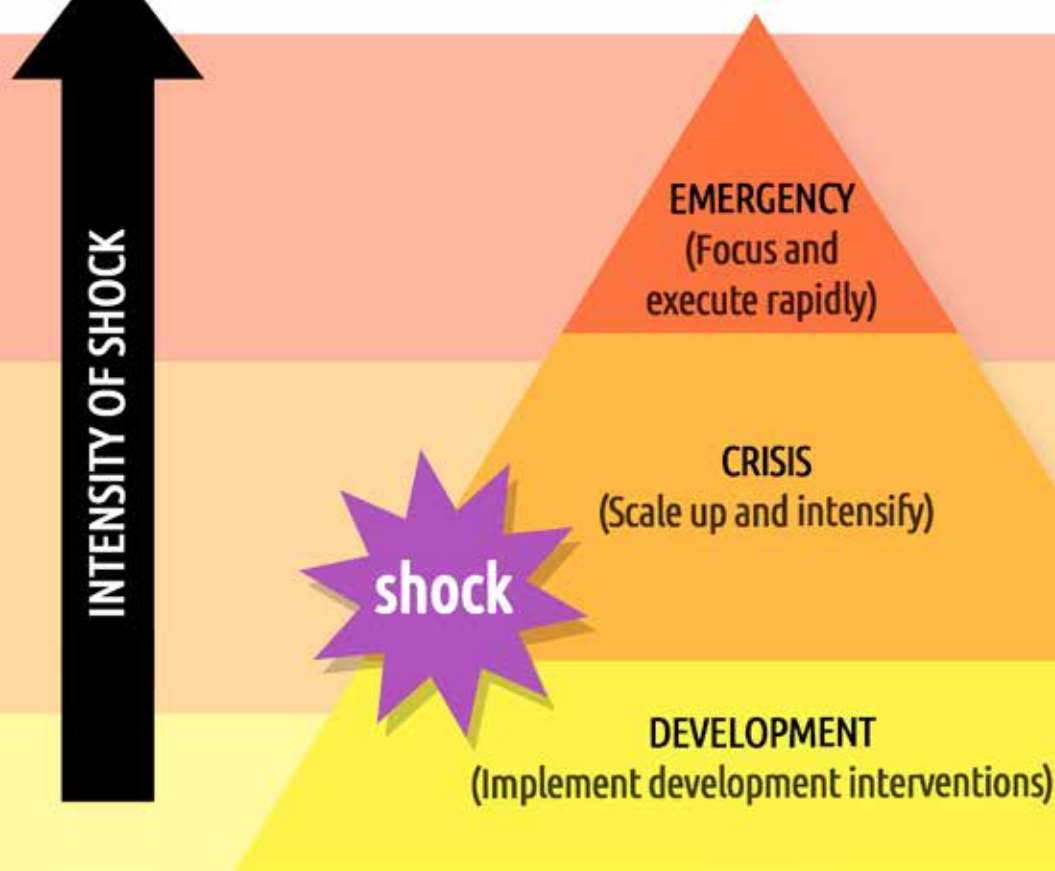
Laying the Foundation to Protect and Promote the Nutrition of Mothers and Children in Times of Stability, Crisis, and Emergency

Stable, crisis, and emergency situations can be seen as representing a continuum: at one end lies the stable situation during which a developmental, structural foundation and adequate social resiliency can be built that will enable a population to deal with eventual economic, health, and nutrition shocks. At the other end lies the emergency situation, which requires an immediate, focused rescue response. In between these two extremes is the crisis situation, which can be precipitated by a shock. Crisis situations are not as acute as emergencies, but can result in sufficiently precarious conditions that heighten individuals' vulnerability. A prolonged crisis gradually erodes the economic, social, health, and nutritional status of households, forcing them to adopt coping

mechanisms to deal with the situation. The need to recur to these coping mechanisms can eventually undermine the well-being of the poorest in society, triggering possibly irreversible human and social consequences.

Countries' policies should aim to build a solid foundation during stable times through a combination of balanced income growth strategy and investment in more direct interventions in health and nutrition. Policy makers also need to be prepared to be able to strengthen, scale up, and intensify these interventions during times of crisis—periods which may aggravate vulnerability and trigger poverty. And, in times of emergency, they need to be able to swiftly

Figure 4. Nature of the response in stable, crisis, and emergency situations



respond to the needs, and procure the basic necessities, of children in the first 1,000 days of life, who otherwise might suffer long-term consequences due to privation, even for a relatively short time. Figure 4 depicts how the proposed interventions are part of a comprehensive response system depending on the situation.

It is important to remember that the various “situations” described above are interdependent. During a stable situation, a foundation can be created and strengthened for unstable times. For example, a country that aims to build resilience through a program for preventing micronutrient deficiencies can offer various means for households to meet their micronutrient requirements (e.g., micronutrient supplements, fortified foods, diverse diets). In a crisis situation, one or more of these means may become inaccessible to some households (a diverse and nutritious diet, for instance, may become unaffordable or unavailable). If, however, the foundation has been laid with a sound program that enables resilience, the remaining means of micronutrient intake (supplements or fortified foods) can compensate. To meet crisis-level needs, existing programs have to expand in order to protect an increasing number of vulnerable households (e.g., increased numbers of households receiving micronutrient supplements). Emergency responses go beyond those of a crisis and focus only on the most efficient means of preserving lives (in the example given, micronutrient supplementation), but they benefit from the ramping up that occurs during a crisis.

Independent of economic considerations, households maintaining adequate nutritional status better withstand shocks. In order to build the resilience of mothers and children who are regularly exposed to shocks, it is important to strengthen the conditions that contribute to their good health and nutrition.

Establishing a strong base of quality nutritional support services, with wide coverage, in times of stability creates an infrastructure for expanding services in times of crisis, while reducing vulnerability and increasing resilience in the face of shocks (21).

Sound, comprehensive health, nutrition, education, and social policies during stable times can influence the possibilities and conditions of entry into the labor market, affecting a country’s ability to cope with technological and economic change (22). For example, safety nets can enhance resilience by moderating the effects of shocks, expanding their countercyclical response when a shock-induced crisis reduces economic activity, food availability, and institutional supports. Rapid scale-up of response to crisis is difficult, however, without an existing infrastructure to sustain it, so design and creation of safety net programs in times of stability are essential for timely response to meet needs during a crisis (23). Furthermore, the countercyclical nature of crisis management requires governments to expand services at a time when revenues are decreasing. In order to support a “surge” response during a crisis, when revenues and spending decrease, governments must act during times of stability to create set-aside or “rainy-day” resources reserved for this purpose (24).

Meeting a population’s needs in crises and emergencies requires close collaboration across time, situations, and sectors—notably, nutrition, health, education, water and sanitation, social protection, agriculture, food security, as well as with crisis- and emergency-response personnel. Such collaboration will not only enable countries to break the cycle of poverty, giving the next generation a strong base for a bright and productive future, but it will also contribute to accelerating economic development.



THE WORLD BANK

