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2010 GLOBAL HUNGER INDEX

THE CHALLENGE OF HUNGER

Focus on the Crisis of Child Undernutrition

IFPRI
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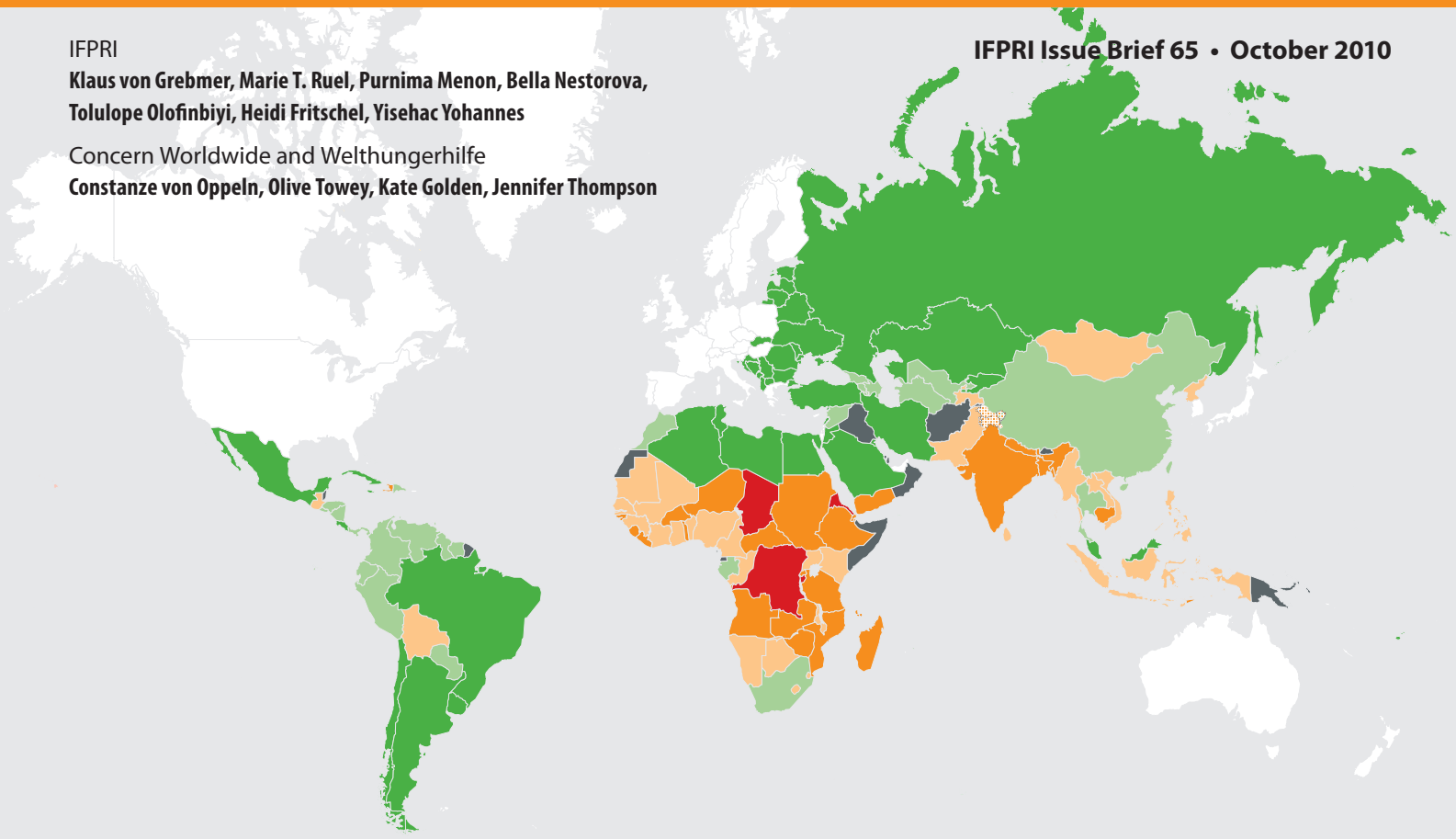


2010 Global Hunger Index Scores by Severity

Note: For the 2010 GHI, data on the proportion of undernourished are for 2004–06, data on child underweight are for the latest year in the period 2003–08 for which data are available, and data on child mortality are for 2008.

The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the International Food Policy Research Institute (IFPRI) or its partners and contributors.

- ≥ 30.0 Extremely alarming
- 20.0–29.9 Alarming
- 10.0–19.9 Serious
- 5.0–9.9 Moderate
- ≤ 4.9 Low
- No data
- Industrialized country

As the world approaches the 2015 deadline for achieving the Millennium Development Goals (MDGs)—which include a goal of reducing the proportion of hungry people by half—the 2010 Global Hunger Index (GHI) offers a useful multidimensional overview of global hunger. The 2010 GHI is the fifth in an annual series that records the state of global, regional, and national hunger. The 2010 GHI shows some improvement over the 1990 GHI, falling by almost one-quarter, but overall the index for hunger in the world remains at a level characterized as serious.

THE GLOBAL HUNGER INDEX

The GHI captures three dimensions of hunger: insufficient availability of calories, shortfalls in the nutritional status of children, and child mortality. Accordingly, the Index includes the following three equally weighted indicators: the proportion of people who are undernourished, as estimated by the Food and Agri¬culture Organization of the United Nations (FAO); the prevalence of underweight in children under the age of five, as compiled by the World Health Organization (WHO); and the under-five mortality rate, as reported by the United Nations Children's Fund (UNICEF). The 2010 Index reflects data from 2003 to 2008—the most recent global data available on the three GHI components.

The Index ranks countries on a 100-point scale, with 0 being the best score (no hunger) and 100 being the worst, although neither of these extremes is reached in practice. Values less than 5.0 reflect low hunger, values between 5.0 and 9.9 reflect moderate hunger, values between 10.0 and 19.9 indicate a serious problem, values between 20.0 and 29.9 are alarming, and values of 30.0 or higher are extremely alarming.

RANKING AND TRENDS

The 2010 world GHI shows some improvement over the 1990 world GHI, falling from 19.8 to 15.1 or by almost one-quarter (Figure 1). In the world GHI, the proportion of underweight children still contributes close to

Global Hunger Index

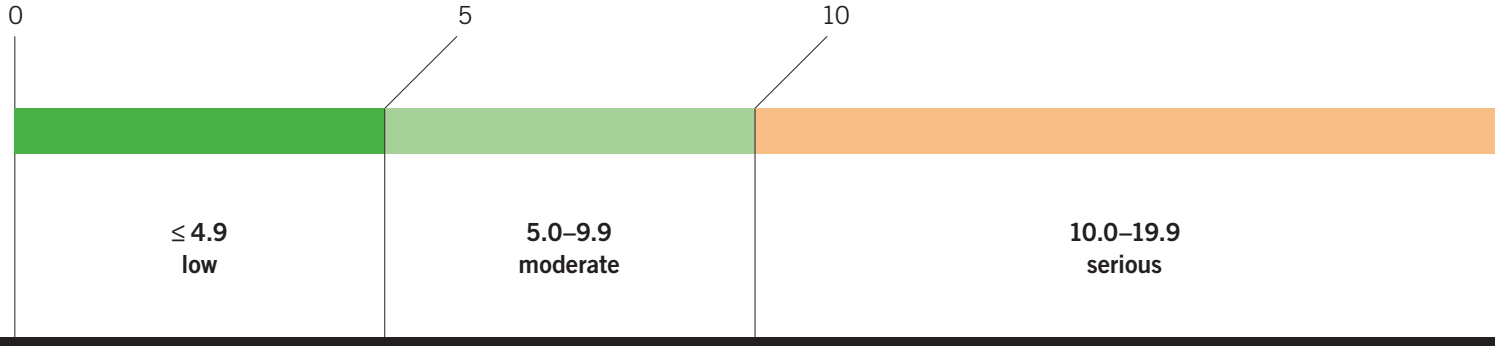
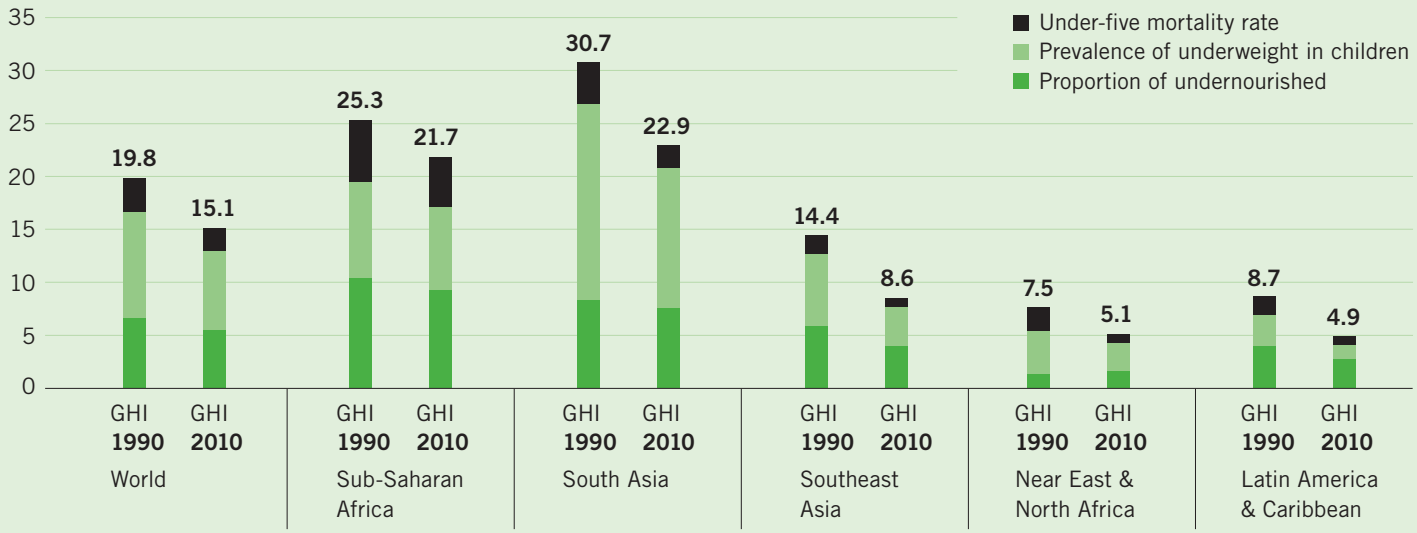


Figure 1—Contribution of components to 1990 GHI (based on data from 1988–92) and 2010 GHI (based on data from 2003–08)

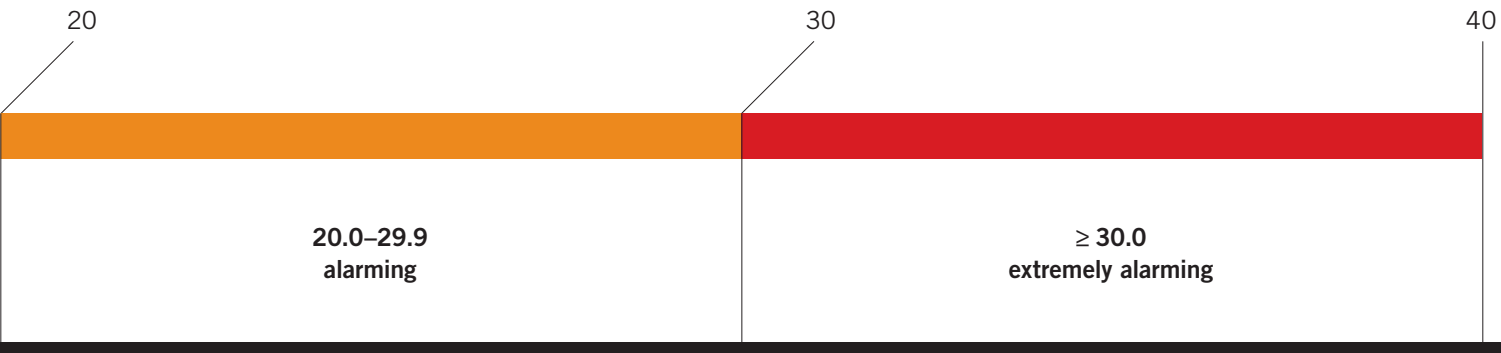


Note: For the 1990 GHI, data on the proportion of undernourished are for 1990–92; data on child underweight are for the latest year in the period 1988–92 for which data are available; and data on child mortality are for 1990. For the 2010 GHI, data on the proportion of undernourished are for 2004–06, data on child underweight are for the latest year in the period 2003–08 for which data are available, and data on child mortality are for 2008.

half of the total score (7.4 points in 2010 compared with 10.1 points in 1990). The proportion of undernourished people contributes 5.4 points and under-five mortality, 2.2 points. For countries to improve their global hunger score, they will need to work more aggressively to tackle the problem of child undernutrition.

The picture varies greatly by region and country. The 2010 GHI score fell by 14 percent in Sub-Saharan Africa compared with the 1990 score, by about 25 percent in South Asia, and by 33 percent in the Near East and North Africa. Progress in Southeast Asia and Latin America and the Caribbean was especially great, with the GHI scores decreasing by 40 percent and more.

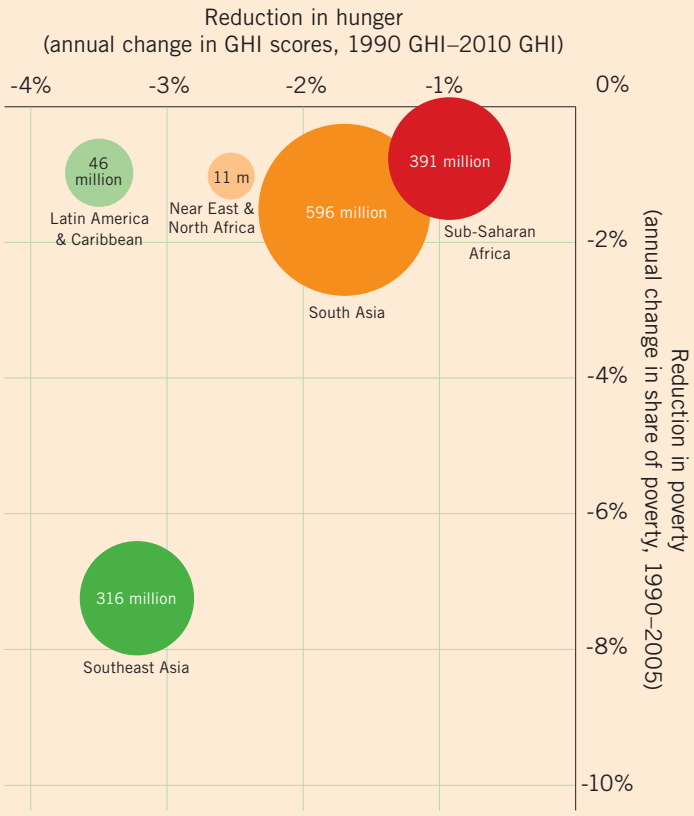
The highest regional GHI scores are for South Asia, at 22.9, and Sub-Saharan Africa, at 21.7. South Asia, however, has made much more progress than Sub-Saharan Africa since 1990, thanks mainly to a reduction in the contribution of the proportion of underweight children from 18.4 to 13.2. The contribution of under-five mortality rates also declined by about one-half—from 4 to 2.2—in South Asia during this period. In Sub-Saharan Africa, on the other hand, the contribution of under-five mortality



Hunger and Poverty

Progress in hunger reduction—measured by the annual reduction in GHI scores—often goes hand in hand with poverty reduction (see figure below). This finding is not surprising given that poverty is one of the key underlying causes of undernourishment, underweight in children, and child mortality. In South Asia, which is home to the largest number of poor people, poverty and hunger are slowly decreasing at about the same pace. Poverty reduction, however, sometimes outpaces hunger reduction and vice versa. In Southeast Asia, for example, poverty fell by nearly 8 percent a year while the GHI decreased by only about 3 percent. In Latin America and the Caribbean, on the other hand, poverty declined by only 1 percent while the GHI declined by 3.5 percent.

Hunger and poverty reduction by region



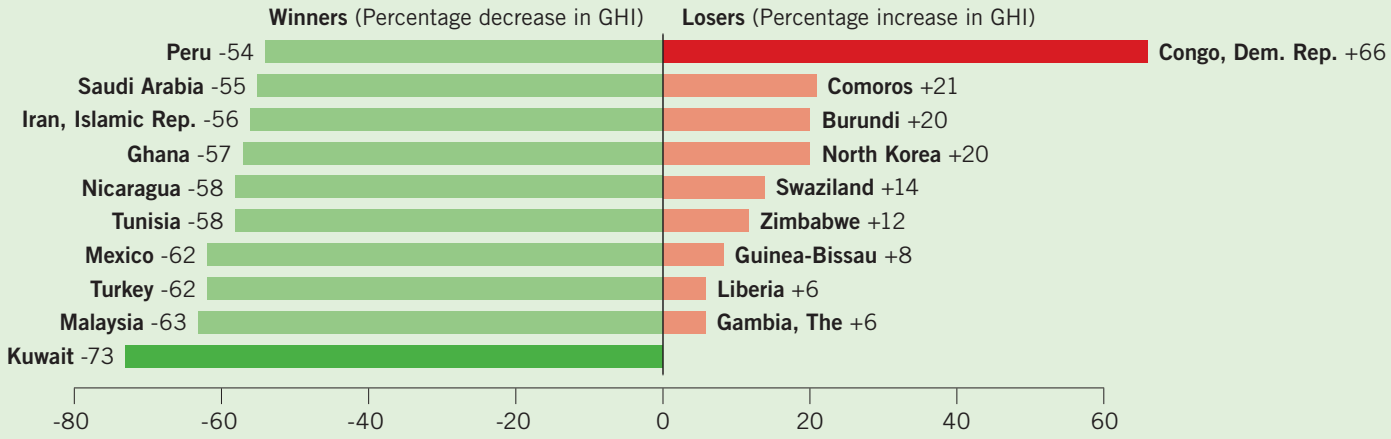
Source: Data on poverty from Chen and Ravallion (2008).
Note: The reference year used for the 2010 GHI in the annual change calculations is 2006.
The size of the bubbles represents millions of poor people in each region in 2005.

to the GHI score remains high, at 4.7 compared with 5.9 in 1990. The causes of hunger in the two regions are also different. In South Asia, the low nutritional, educational, and social status of women is among the major factors that contribute to a high prevalence of underweight in children under five. In contrast, in Sub-Saharan Africa, low government effectiveness, conflict, political instability, and high rates of HIV and AIDS are among the major factors that lead to high child mortality and a high proportion of people who cannot meet their calorie requirements. Across all regions, poverty and lack of access to health, water, and sanitation services are root causes of hunger and malnutrition.

From the 1990 GHI to the 2010 GHI, about one-third of the countries decreased their GHI scores by between 0 and 24.9 percent, and another third made modest progress, reducing their GHI scores by between 25 and 49.9 percent. Not many countries were able to reduce their scores by 50 percent or more (Figure 2). Only one country in Sub-Saharan Africa—Ghana—is among the 10 best performers. Kuwait's seemingly remarkable progress in reducing hunger is mainly due to its unusually high level in 1990, when Iraq invaded the country. The second-best performer, Malaysia, reduced hunger through a dramatic reduction in the prevalence of child underweight.

Among the nine countries in which the GHI rose (all in Sub-Saharan Africa, except for North Korea), the Democratic Republic of Congo is a clear outlier, with the GHI increasing by more than 65 percent (Figure 2). Conflict and political instability have increased hunger in that country, as well as in Burundi, Comoros, Guinea-Bissau, and Liberia. In Swaziland, the high prevalence of HIV and AIDS, coupled with high inequality, has severely undermined food security

Figure 2—GHI winners and losers from 1990 GHI to 2010 GHI



Note: Countries with both 1990 GHI less than five and 2010 GHI less than five are excluded.

Early Childhood Undernutrition Takes Different Forms

Child undernutrition can manifest itself in different ways, depending on the cause, severity, and duration. The three main measures of child undernutrition are

- **stunting – low height for one's age,**
- **wasting – low weight for one's height, and**
- **underweight – low weight for one's age.**

Stunting is a good overall indicator of undernutrition because it reflects the cumulative effects of chronic undernutrition. Wasting reflects acute undernutrition resulting from inadequate food and nutrient intake and/or repeated or severe disease. Underweight reflects either stunting or wasting, or both.

Another form of undernutrition consists of deficiencies of essential micronutrients—vitamins and minerals such as iron, iodine, zinc, and vitamin A. Micronutrient deficiencies can have devastating effects in women and young children and can affect child growth, motor and cognitive development, resistance to infections, and survival.

despite higher national incomes. Negative trends in economic growth and food production in North Korea have increased rates of undernourishment. In The Gambia, undernourishment deteriorated in part due to lower social protection spending for vulnerable households. In Zimbabwe, once regarded as the breadbasket of Africa, the economic collapse has increased the proportion of underweight children and child mortality.

Twenty-nine countries still have levels of hunger that are extremely alarming or alarming. The countries with extremely alarming 2010 GHI scores—Burundi, Chad, the Democratic Republic of Congo, and Eritrea—are in Sub-Saharan Africa. Most of the countries with alarming GHI scores are in Sub-Saharan Africa and South Asia.

THE CRISIS OF EARLY CHILDHOOD UNDERNUTRITION

Child undernutrition—an important component of the GHI—remains stubbornly entrenched in many areas. Stunting affects about 195 million children under the age of five in the developing world—about one in three children. Nearly one in four children under age five—129 million—is underweight, and one in 10 is wasted.

Recent evidence clearly shows that the window of opportunity for improving child nutrition spans the period from -9 to +24 months (that is, the 1,000 days between conception and a child's second birthday). This is the period not only when children are in greatest need of adequate amounts of nutritious food for healthy development, but also when interventions are most likely to prevent undernutrition from setting in. After the age of two, the effects of undernutrition are largely irreversible. Children who are undernourished during the thousand-day window risk experiencing lifelong damage, including poor physical and cognitive development, poor health, and even early death. These children are likely to grow up to be shorter, less productive, and less healthy than they might have been. Evidence shows that poor nutrition in early childhood can affect earnings in adulthood. Furthermore, when poorly nourished girls grow up, they are likely to give birth to small babies, perpetuating the cycle of undernutrition. This means that improving the well-being of mothers throughout the life cycle is a critical element of the solution.

The ingredients of proper early childhood nutrition are well-known: a well-nourished and empowered mother who has good nutrition and health before and during her pregnancy; who receives adequate health support and care to ensure a safe delivery for herself and her newborn baby; who breastfeeds exclusively for the first six months of the infant's life and continues breastfeeding until at least two years of age; who provides the infant with nutritious complementary foods in adequate quantities and frequency starting at six months of age; and who has access to safe water, sanitation, and preventive and curative healthcare. Yet millions of people lack these basic ingredients.

More than 90 percent of the world's stunted children live in Africa and Asia, where rates of stunting are 40 percent and 36 percent respectively. Indeed, more than 80 percent of the global burden of child undernutrition (as measured by stunting) occurs in just 24 countries. India alone accounts for a large share of the world's undernourished children. In 2005–06, about 44 percent of Indian children under age five were underweight and 48 percent were stunted. Because of the country's sheer size, these numbers mean that India is home to 42 percent of the world's underweight children and 31 percent of its stunted children.

TACKLING EARLY CHILDHOOD UNDERNUTRITION

A range of factors contribute to the crisis of early childhood undernutrition, and policy and program solutions must address both the immediate and the underlying causes. The following actions are recommended:

Target nutrition interventions to the window of opportunity. Governments and development agencies should scale up targeted nutrition interventions for women and children in the window of opportunity (that is, the thousand days between conception and the age of two), using evidence-based and locally appropriate approaches. These interventions should focus on improving the nutrition of pregnant and lactating mothers, promoting sound breastfeeding and complementary feeding practices for young children, providing vitamin A and zinc supplements where necessary, immunizing children, ensuring universal salt iodization, improving the care of children affected by diarrhea and HIV and AIDS, and improving hygiene and sanitation practices. Universal coverage of a package of preventive nutrition interventions for children under age two could reduce the global burden of childhood undernutrition by 25–36 percent. Scaling up these interventions in poor countries will not be easy, however. It will require addressing the substantial challenges related to resources, governance, and capacity.

Tackle the underlying conditions that cause undernutrition. To achieve sustainable improvements in child nutrition, decisionmakers must tackle the underlying causes of undernutrition: poverty and food insecurity, insufficient care for women and children, and limited access to healthcare and a healthy environment. Nutrition-sensitive policies; protective and productive social safety-net programs; and pro-poor, pro-women, pro-nutrition agricultural policies and programs that specifically

integrate nutrition goals and actions can play a critical role in improving the overall environment in which young children grow and develop.

Foster gender equity. Gender inequality and poor nutrition are intertwined. Therefore, in areas where women's health, nutrition, and social status are poor, these factors will compromise the impacts of interventions targeted to the window of opportunity and reduce overall household food security. Gender inequality needs to be tackled at all stages of the life cycle to prepare women for a healthy and safe reproductive life. It is particularly important to protect the health and nutrition of girls and young women before pregnancy, and this can be done by improving their access to health, nutrition, education, and social protection programs during adolescence and early adult life.

Prioritize nutrition in political and policy processes. Nutrition is at last inching its way up the international development agenda, but the process of rolling out new food security and nutrition initiatives is only beginning. The next few years will be crucial, and much work remains to be done to ensure that nutrition remains central in these initiatives as they are implemented. The commitment to increased emphasis on nutrition will need to be backed by additional resources. Accountability mechanisms are vital to ensure that commitments are fulfilled. In addition, for these initiatives to be effective, joint action and cooperation will be required by all stakeholders—governments, civil society, the private sector, academia, and research institutions—with each stakeholder having clear roles and responsibilities. It is important to find new ways to keep nutrition high on the political agenda and central to the initiatives outlined.

Empower and support local and municipal actors whose capacities and skills will ensure that nutritional needs are addressed. Case studies of community nutrition programs point to a number of clear principles that should underpin the process of formulating and implementing such programs. Decisionmakers should build ownership of interventions by engaging all relevant stakeholders, including mothers, health workers, local leaders, and municipal structures. Programs should build

on existing structures and capacities, such as those of existing health workers and coordination committees. Programs should build the capacity of community members and leaders, extending beyond technical expertise to include communication skills, appropriate behavioral-change messaging, and counseling of caregivers, as well as organization, management, and monitoring of services and outcomes. Finally, decisionmakers should build trust and inspire investment among community members by demonstrating results.

Actions to improve early childhood nutrition have enormous potential, and the 2010 GHI helps pinpoint the countries and regions where the need for such actions is greatest. Improvements to early childhood nutrition can help create a healthy, productive population and thereby make all other development interventions more effective in both the short and the long term. Most important, such improvements will alleviate needless suffering for millions—even billions—of people worldwide. It is not only the smart thing to do, but the right thing to do.

For more information, see the full report:

K. von Grebmer, M. T. Ruel, P. Menon, B. Nestorova, T. Olofinbiyi, H. Fritschel, Y. Yohannes, C. von Oppeln, O. Towey, K. Golden, and J. Thompson, *2010 Global Hunger Index, The Challenge of Hunger: Focus on the Crisis of Child Undernutrition* (Bonn, Washington, D.C., and Dublin: Welthungerhilfe, International Food Policy Research Institute (IFPRI), and Concern Worldwide, 2010). Also available at www.ifpri.org/publication/2010-global-hunger-index.

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