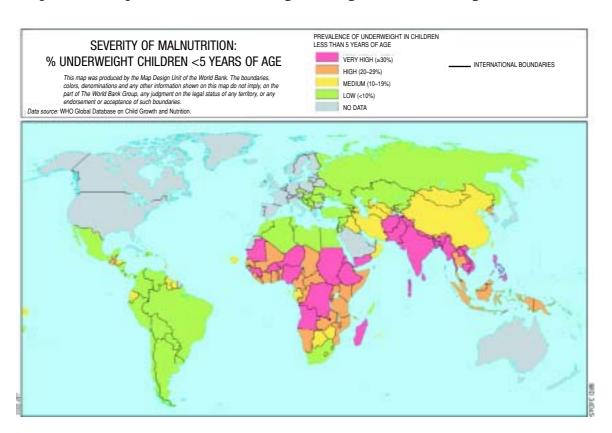
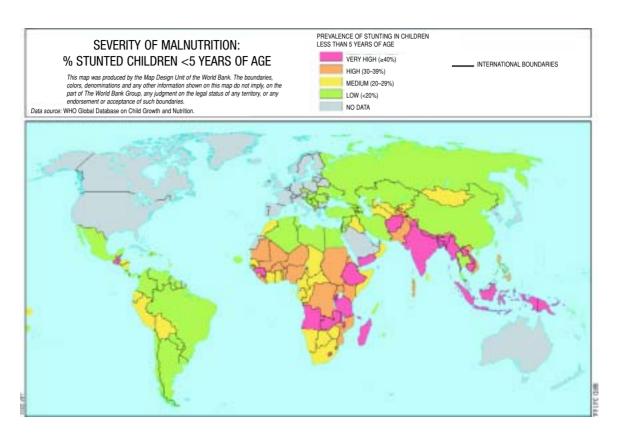
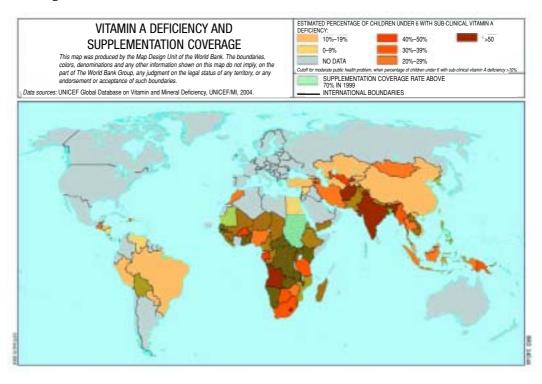
Map 1.1 Global prevalence of underweight among children under age five



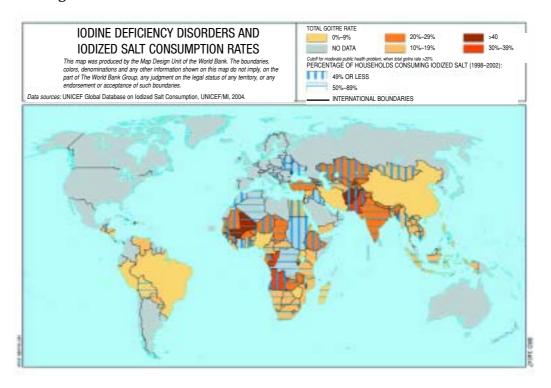
Map 1.2 Prevalence of stunting in children less than five years of age



## Map 1.3 Global prevalence of vitamin A deficiency and supplementation coverage rates



Map 1.4 Global prevalence of iodine deficiency disorders and iodized salt coverage rates



### Overview

It has long been known that malnutrition undermines economic growth and perpetuates poverty. Yet the international community and most governments in developing countries have failed to tackle malnutrition over the past decades, even though well-tested approaches for doing so exist. The consequences of this failure to act are now evident in the world's inadequate progress toward the Millennium Development Goals (MDGs) and toward poverty reduction more generally. Persistent malnutrition is contributing not only to widespread failure to meet the first MDG—to halve poverty and hunger—but to meet other goals in maternal and child health, HIV/AIDS, education, and gender equity. The unequivocal choice now is between continuing to fail, as the global community did with HIV/AIDS for more than a decade, or to finally make nutrition central to development so that a wide range of economic and social improvements that depend on nutrition can be realized.

### Three Reasons for Intervening to Reduce Malnutrition

High economic returns; high impact on economic growth and poverty reduction

The returns to investing in nutrition are very high. The Copenhagen Consensus concluded that nutrition interventions generate returns among the highest of 17 potential development investments (table 1). Investments in micronutrients were rated above those in trade liberalization, malaria, and water and sanitation. Community-based programs targeted to children under two years of age are also cost-effective in preventing undernutrition.

Overall, the benefit-cost ratios for nutrition interventions range between 5 and 200 (table 2).

Malnutrition slows economic growth and perpetuates poverty through three routes—direct losses in productivity from poor physical status; indirect losses from poor cognitive function and deficits in schooling; and losses

Table 1 The Copenhagen Consensus ranks the provision of micronutrients as a top investment

Rating	Challenge	Opportunity
Very good	<ol> <li>Diseases</li> <li>Malnutrition and hunger</li> <li>Subsidies and trade</li> <li>Diseases</li> </ol>	Controlling HIV/AIDS Providing micronutrients Liberalizing trade Controlling malaria
Good	<ul><li>5. Malnutrition and hunger</li><li>6. Sanitation and water</li></ul>	Developing new agricultural technologies Developing small-scale water technologies
	<ul><li>7. Sanitation and water</li><li>8. Sanitation and water</li><li>9. Government</li></ul>	Implementing community- managed systems Conducting research on water in agriculture Lowering costs of new business
Fair	<ul><li>10. Migration</li><li>11. Malnutrition and hunger</li><li>12. Diseases</li><li>13. Malnutrition and hunger</li></ul>	Lowering barriers to migration Improving infant and child malnutrition Scaling up basic health services Reducing the prevalence of low birthweight
Poor	14–17. Climate/migration	Various

Source: Bhagwati and others (2004).

owing to increased health care costs. Malnutrition's economic costs are substantial: productivity losses to individuals are estimated at more than 10 percent of lifetime earnings, and gross domestic product (GDP) lost to malnutrition runs as high as 2 to 3 percent. Improving nutrition is therefore as much—or more—of an issue of economics as one of welfare, social protection, and human rights.

Reducing undernutrition and micronutrient malnutrition directly reduces poverty, in the broad definition that includes human development and human capital formation. But undernutrition is also strongly linked to income poverty. The prevalence of malnutrition is often two or three times—sometimes many times—higher among the poorest income quintile than among the highest quintile. This means that improving nutrition is a propoor strategy, disproportionately increasing the income-earning potential of the poor.

Table 2 The benefit-cost ratios for nutrition programs

Intervention programs	Benefit-cost	
Breastfeeding promotion in hospitals	5–67	
Integrated child care programs	9–16	
Iodine supplementation (women)	15-520	
Vitamin A supplementation (children < 6 years)	4–43	
Iron fortification (per capita)	176–200	
Iron supplementation (per pregnant women)	6–14	

Source: Behrman, Alderman, and Hoddinott (2004).

Improving nutrition is essential to reduce extreme poverty. Recognition of this requirement is evident in the definition of the first MDG, which aims to eradicate extreme poverty and hunger. The two targets are to halve, between 1990 and 2015:

- The proportion of people whose income is less than \$1 a day.
- The proportion of people who suffer from hunger (as measured by the percentage of children under five who are underweight).

The first target refers to income poverty; the second addresses nonincome poverty. The key indicator used for measuring progress on the nonincome poverty goal is the prevalence of underweight children (under age five). Therefore, improving nutrition is in itself an MDG target. Yet most assessments of progress toward the MDGs have focused primarily on the income poverty target, and the prognosis in general is that most countries are on track for achieving the poverty goal. But of 143 countries, only 34 (24 percent) are on track to achieve the nonincome target (nutrition MDG) (figure 1). No country in South Asia, where undernutrition is the highest, will achieve the MDG—though Bangladesh will come close to achieving it, and Asia as a whole will achieve it. More alarmingly still, nutrition status is actually deteriorating in 26 countries, many of them in Africa, where the nexus between HIV and undernutrition is particularly strong and mutually reinforcing. And in 57 countries, no trend data are available to tell whether progress is being made. A renewed focus on this nonincome poverty target is clearly central to any poverty reduction efforts.

### The alarming shape and scale of the malnutrition problem

Malnutrition is now a problem in both poor and rich countries, with the poorest people in both sets of countries affected most. In developed countries, obesity is rapidly becoming more widespread, especially among

Figure 1 Progress toward the nonincome poverty target

On track (24%)		Deteriorating status (18%)	
AFR (7)	LAC (10)	AFR (13)	ECA (4)
Angola	Bolivia	Niger	Albania
Benin	Chile	Burkina Faso	Azerbaijan
Botswana	Colombia	Cameroon	Russian Federation
Chad	Dominican Rep.	Comoros	Serbia and Montenegro
Gambia, The	Guyana	Ethiopia	8
Mauritania	Haiti	Guinea	LAC (3)
Zimbabwe	Jamaica	Lesotho	Argentina
	Mexico	Mali	Costa Rica
EAP (5)	Peru	Senegal*	Panama
China	Venezuela, R.B. de	Sudan	
Indonesia	ŕ	Tanzania*	MENA (2)
Malaysia	MENA (6)	Togo	Iraq
Thailand	Algeria	Zambia	Yemen, Rep. of
Vietnam	Egypt, Arab Rep. of		, 1
	Iran, Islamic	EAP (2)	SAR (2)
ECA (6)	Rep. of Jordan	Mongolia	Maldives
Armenia	Syrian Árab Rep.	Myanmar	Nepal
Croatia	Tunisia	,	1
Kazakhstan			
Kyrgyz Rep.	SAR (0)	No trend data av	ailable (40%)
Romania		110 tiena aata av	<u> </u>
Turkey		AFR (13)	Georgia
,		Burundi	Hungary
		Cape Verde	Latvia
Some improveme	nt, but not on track	Congo, Rep. of	Lithuania
Some improveme	210, 2 410 1100 011 1141011	Equatorial Guinea	Macedonia, FYR
AFR (14)		Guinea	Moldova
Central African Rep.	ECA (0)	Guinea-Bissau	Poland
Congo, DR	ECA (0)	Liberia	Slovak Republic
Côte d'Ivoire	LAC (4)	Mauritius	Tajikistan
Eritrea	El Salvador	Namibia	Turkmenistan
Gabon	Guatemala	São Tomé and Principe	Ukraine
Ghana	Honduras	Seychelles	Uzbekistan
Kenya	Nicaragua	Somalia	OZDERISTATI
Madagascar	Tvicurugua	South Africa	LAC (12)
Malawi	MENA (1)	Swaziland	Belize
Mozambique	Morocco	Swazhana	Brazil
Nigeria	Morocco	EAP (11)	Dominica
Rwanda	SAR (4)	Fiji	Ecuador
Sierra Leone	Bangladesh*	Kiribati	Grenada
Uganda	India	Marshall Is.	Paraguay
Ogurida	Pakistan	Micronesia, Federated	St. Kitts and Nevis
EAP (5)	Sri Lanka	States of	St. Lucia
Cambodia	orr Eurika	Palau	St. Vincent
Lao PDR		Papua New Guinea	Suriname
Phillippines		Samoa	Trinidad and Tobago
Timippines		Solomon Islands Timor-Leste	Uruguay
Source: Author's calculations. See also		Tonga	MENA (2)
technical annex 5.6.		Vanuatu	Djibouti
Note: All calculations are based on		variaata	Lebanon
		ECA (17)	Ecoanon
1990–2002 trend data from the WHO Global		Belarus	SAR (2)
D . 1 C1 11 C	D . 1 CHILC .1 13.61		

Bosnia and

Bulgaria

Estonia

Herzegovina

Czech Republic

Afghanistan

Bhutan

Database on Child Growth and Malnutri-

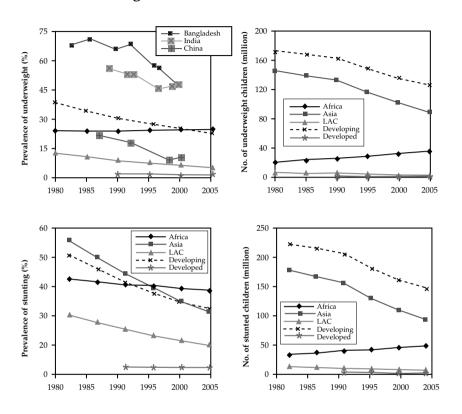
tion (as of April 2005). Countries indicated

inary DHS data that suggest improvement

and therefore may be reclassified when their data are officially released.

by an asterisk subsequently released prelim-

Figure 2 Prevalence of and trends in malnutrition among children under age five, 1980–2005



Source: De Onis (2004a); SCN (2004).

*Note:* Estimates are based on WHO regions. Prevalence and numbers also appear in technical annex 2.1.

poorer people, bringing with it an epidemic of diet-related noncommunicable diseases (NCDs) such as diabetes and heart disease, which increase health care costs and reduce productivity. In developing countries, while widespread undernutrition and micronutrient deficiencies persist, obesity is also fast emerging as a problem. Underweight children and overweight adults are now often found in the same households in both developing and developed countries.

Nearly one-third of children in the developing world remain underweight or stunted, and 30 percent of the developing world's population

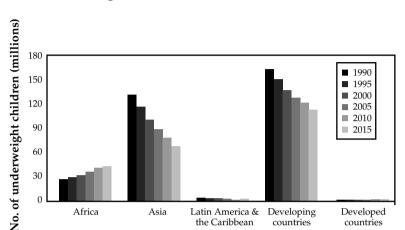


Figure 3 Projected trends in numbers of underweight children under age five, 1990–2015

*Source:* De Onis and others (2004a, 2004b). *Note:* Estimates are based on WHO regions.

continues to suffer from micronutrient deficiencies. But the picture is changing (figure 2):

- In Sub-Saharan Africa malnutrition is on the rise. Malnutrition and HIV/AIDS reinforce each other, so the success of HIV/AIDS programs in Africa depends in part on paying more attention to nutrition.
- In Asia malnutrition is decreasing, but South Asia still has both the highest rates and the largest numbers of malnourished children. Contrary to common perceptions, undernutrition prevalence rates in the populous South Asian countries—India, Bangladesh, Afghanistan, Pakistan—are much higher (38 to 51 percent) than those in Sub-Saharan Africa (26 percent).
- Even in East Asia, Latin America, and Eastern Europe, many countries have a serious problem of undernutrition or micronutrient malnutrition. Examples include Cambodia, Indonesia, Lao PDR, the Philippines, and Vietnam; Guatemala, Haiti, and Honduras; and Uzbekistan.

In a recent WHO study (De Onis and others 2004b), underweight prevalence in developing countries was forecast to decline by 36 percent (from 30 percent in 1990 to 19 percent in 2015)—significantly below the 50 percent required to meet the MDG over the same time frame (figure 3). These

global data mask interregional differences that are widening disturbingly. Much of the forecast global improvement derives from a projected prevalence decline from 35 to 18 percent in Asia—driven primarily by the improvements in China. By contrast, in Africa, the prevalence is projected to increase from 24 to 27 percent. And the situation in Eastern Africa—a region blighted by HIV/AIDS, which has major interactions with malnutrition—is critical. Here underweight prevalences are forecast to be 25 percent higher in 2015 than they were in 1990.

Many countries (excluding several in Sub-Saharan Africa) will achieve the MDG income poverty target (percentage of people living on less than \$1 a day), but less than 25 percent will achieve the nonincome poverty target of halving underweight (figure 3). Even if Asia as a whole achieves that target, large countries there including Afghanistan, Bangladesh, India, and Pakistan will still have unacceptably high rates of undernutrition in 2015, widening existing inequities between the rich and the poor in these countries.

Deficiencies of key vitamins and minerals continue to be pervasive, and they overlap considerably with problems of general undernutrition (underweight and stunting). A recent global progress report states that 35 percent of people in the world lack adequate iodine, 40 percent of people in the developing world suffer from iron deficiency, and more than 40 percent of children are vitamin A deficient.

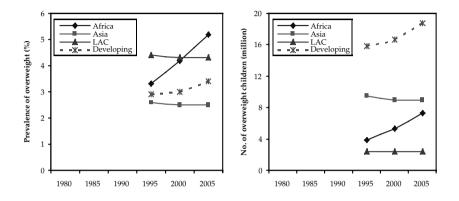
Trends in overweight among children under five, though based on data from a limited number of countries, are alarming (figure 4)—for all developing countries and particularly for those in Africa, where rates seem to be increasing at a far greater rate (58 percent increase) than in the developing world as a whole (17 percent increase). The lack of data does not allow us to give definitive answers for why Africa is experiencing this exaggerated trend; however, the correlation between maternal overweight and child overweight suggests that one of the answers may lie therein.

Comparable data for overweight and obesity rates among mothers show similar alarming trends. Countries in the Middle East and North Africa have the highest maternal overweight rates, followed by those in Latin America and the Caribbean. However, several African countries have more than 20 percent maternal overweight rates.

Also evident is that overweight coexists in the same countries where both child and maternal undernutrition are very widespread and in many countries with low per capita GNP (figure 5). In Mauritania, more than 40 percent of mothers are overweight, while at the same time more than 30 percent children are underweight. Furthermore, as many as 60 percent of households with an underweight person also had an overweight person, demonstrating that underweight and overweight coexist not only in the same countries but also in the same households. In Guatemala, stunted children and over-

weight mothers coexist. Again, these data support the premise that, except under famine conditions, access to and availability of food at the household level are not the major causes of undernutrition.

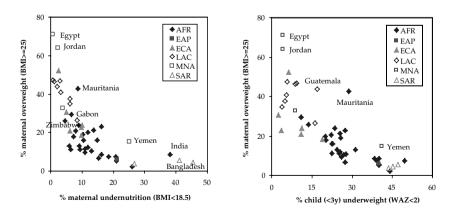
Figure 4 Trends in obesity among children under age five



Source: SCN (2004).

Note: Estimates are based on WHO regions.

Figure 5 Maternal overweight rates across regions



Source: Author's calculations using data from measuredhs.com.

### Markets are failing

Markets are failing to address the malnutrition problem wherever families do not have the money to buy adequate food or health care. Human rights and equity arguments, as well as economic return arguments, can be made for governments to intervene to help such families. But malnutrition occurs also in many families that are not poor—because people do not always know what food or feeding practices are best for their children or themselves, and because people cannot easily tell when their children are becoming malnourished, since faltering growth rates and micronutrient deficiencies are not usually visible to the untrained eye. The need to correct these "informational asymmetries" is another argument for government intervention (box 1). And governments should intervene because improved nutrition is a public good, benefiting everybody; for example, better nutrition can reduce the spread of contagious diseases and increase national economic productivity.

## Box 1 Why malnutrition persists in many food-secure households

- Pregnant and nursing women eat too few calories and too little protein, have untreated infections, such as sexually transmitted diseases that lead to low birthweight, or do not get enough rest.
- Mothers have too little time to take care of their young children or themselves during pregnancy.
- Mothers of newborns discard colostrum, the first milk, which strengthens the child's immune system.
- Mothers often feed children under age 6 months foods other than breast milk even though exclusive breastfeeding is the best source of nutrients and the best protection against many infectious and chronic diseases.
- Caregivers start introducing complementary solid foods too late.
- Caregivers feed children under age two years too little food, or foods that are not energy dense.
- Though food is available, because of inappropriate household food allocation, women and young children's needs are not met and their diets often
  - do not contain enough of the right micronutrients or protein.
- Caregivers do not know how to feed children during and following diarrhea or fever.
- Caregivers' poor hygiene contaminates food with bacteria or parasites.

### What Causes Malnutrition and How Should Governments Intervene?

Contrary to popular perceptions, undernutrition is not simply a result of food insecurity: many children in food-secure environments and from non-poor families are underweight or stunted because of inappropriate infant feeding and care practices, poor access to health services, or poor sanitation. In many countries where malnutrition is widespread, food production is not the limiting factor (box 2), except under famine conditions. The most important factors are, first, inadequate knowledge about the benefits of exclusive breastfeeding and complementary feeding practices and the role of micronutrients and second, the lack of time women have available for appropriate infant care practices and their own care during pregnancy.

Undernutrition's most damaging effect occurs during pregnancy and in the first two years of life, and the effects of this early damage on health, brain development, intelligence, educability, and productivity are largely irreversible (box 3). Actions targeted to older children have little, if any effect. Initial evidence suggests that the origins of obesity and NCDs such as cardiovascular heart disease and diabetes may also lie in early childhood. Governments with limited resources are therefore best advised to focus actions on this small window of opportunity, between conception and 24 months of age, although actions to control obesity may need to continue later.

In countries where mean overweight rates among children under age five are high, a large proportion of children are already overweight at birth—suggesting again that the damage happens in pregnancy. These results are consistent with physiological evidence that the origins of obesity start very early in life, often in the womb, though interventions to prevent obesity must likely continue in later life.

Income growth and food production, as well as birth spacing and women's education, are therefore important but long routes to improving nutrition. Shorter routes are providing health and nutrition education and services (such as promoting exclusive breastfeeding and appropriate complementary feeding, coupled with prenatal care and basic maternal and child health services) and micronutrient supplementation and fortification. Experience in Mexico shows that in middle-income countries conditional cash transfers, coupled with improved health and nutrition service delivery on the supply side, have gotten poor people to use nutrition services. Other countries, such as Bangladesh, Honduras, and Madagascar, have successfully used government-nongovernment partnerships to mobilize communities to tackle malnutrition through community-based approaches.

Experience in dealing with different forms of malnutrition is at different stages of development:

#### Box 2 Three myths about nutrition

Poor nutrition is implicated in more than half of all child deaths world-wide—a proportion unmatched by any infectious disease since the Black Death. It is intimately linked with poor health and environmental factors. But planners, politicians, and economists often fail to recognize these connections. Serious misapprehensions include the following myths:

**Myth 1:** *Malnutrition is primarily a matter of inadequate food intake.* Not so. Food is of course important. But most serious malnutrition is caused by bad sanitation and disease, leading to diarrhea, especially among young children. Women's status and women's education play big parts in improving nutrition. Improving care of young children is vital.

**Myth 2:** Improved nutrition is a by-product of other measures of poverty reduction and economic advance. It is not possible to jump-start the process. Again, untrue. Improving nutrition requires focused action by parents and communities, backed by local and national action in health and public services, especially water and sanitation. Thailand has shown that moderate and severe malnutrition can be reduced by 75 percent or more in a decade by such means.

Myth 3: Given scarce resources, broad-based action on nutrition is hardly feasible on a mass scale, especially in poor countries. Wrong again. In spite of severe economic setbacks, many developing countries have made impressive progress. More than two-thirds of the people in developing countries now eat iodized salt, combating the iodine deficiency and anemia that affect about 3.5 billion people, especially women and children in some 100 nations. About 450 million children a year now receive vitamin A capsules, tackling the deficiency that causes blindness and increases child mortality. New ways have been found to promote and support breastfeeding, and breastfeeding rates are being maintained in many countries and increased in some. Mass immunization and promotion of oral rehydration to reduce deaths from diarrhea have also done much to improve nutrition.

Source: Extracted from Jolly (1996).

 For undernutrition and micronutrient malnutrition, several large-scale programs have worked (in Bangladesh and Thailand, in Madagascar, and in Chile, Cuba, Honduras, and Mexico). The challenge is to apply their lessons at scale in more countries. The issue is less about what to do than about how to strengthen both countries' and development partners' commitment and capacity to scale up.

## Box 3 The window of opportunity for addressing undernutrition

The window of opportunity for improving nutrition is small—from before pregnancy through the first two years of life. There is consensus that the damage to physical growth, brain development, and human capital formation that occurs during this period is extensive and largely irreversible. Therefore interventions must focus on this window of opportunity. Any investments after this critical period are much less likely to improve nutrition.



Source: Shrimpton and others (2001). *Note:* Estimates are based on WHO regions.

 By contrast, for overweight and diet-related NCDs, low birthweight, and the complex interactions between malnutrition and HIV/AIDS, there are few tried and tested large-scale models. Action research and learning-by-doing are the priority here, but large-scale HIV or NCD control efforts cannot be successful without addressing nutrition—so the challenge is to shorten the time lag between developing the science and scaling up action.

Although some successful programs have been scaled up without comprehensive nutrition policies, policy is important as well. Few countries have well-developed and well-resourced nutrition policies. More often, policies in other sectors (trade, foreign exchange, employment, gender, agriculture, social welfare, and health) have a haphazard, sometimes negative effect on nutrition and become unintentional but de facto nutrition policies. Poverty and Social Impact Analyses (PSIAs) should be more widely used to assess the intentional and unintentional effects of development policies on nutrition outcomes. And the capacity to advise policy makers about the nutrition implications of policy needs to be developed in a focal institution, such as a ministry of finance or a poverty monitoring office.

Policy also has a potential role in diminishing the poor health and negative economic outcomes associated with the increase in overweight and obesity in developing countries through both demand-side and supplyside interventions.

## If effective interventions exist, why have they not been scaled up in more countries?

Nutrition programs have been low priority for both governments and development partners for three reasons (box 5). First, there is little demand for nutrition services from communities because malnutrition is often invisible: families and communities are unaware that even moderate and mild malnutrition contributes substantially to death, disease, and low intelligence; and most malnourished families are poor and hence have little voice. Second, governments and development partners have been slow to recognize how high malnutrition's economic costs are, that malnutrition is holding back progress not only toward the malnutrition MDG but also toward other MDGs, or that there is now substantial experience with how to implement cost-effective, affordable nutrition programs on a large scale. Third, there are multiple organizational stakeholders in nutrition, so malnutrition often falls between the cracks both in governments and in development assistance agencies—the partial responsibility of several sectoral ministries or agency departments, but the main responsibility of none. Country financing is usually allocated by sectors or ministries, so unless one sector takes the lead, no large-scale action can follow.

# How the international development community can help countries do more

Countries need to take the lead in repositioning nutrition much higher in their development agenda. When countries request help in nutrition, development partners must respond first by helping countries develop a shared

## Box 5 Ten reasons for weak commitment to nutrition programs

- Malnutrition is usually invisible to malnourished families and communities.
- Families and governments do not recognize the human and economic costs of malnutrition.
- Governments may not know there are faster interventions for combating malnutrition than economic growth and poverty reduction or that nutrition programs are affordable.
- Because there are multiple organizational stakeholders in nutrition, it can fall between the cracks.
- There is not always a consensus about how to intervene against malnutrition.
- Adequate nutrition is seldom treated as a human right.
- The malnourished have little voice.
- Some politicians and managers do not care whether programs are well implemented.
- Governments sometimes claim they are investing in improving nutrition when the programs they are financing have little effect on it (for example, school feeding).
- A vicious circle: lack of commitment to nutrition leads to underinvestment in nutrition, which leads to weak impact, which reinforces lack of commitment since governments believe nutrition programs do not work.

Source: Abridged from Heaver (2005b).

vision and consensus on what needs to be done, how, and by whom, and then by providing financial and other assistance. This report argues that much of the failure to scale up action in nutrition results from a lack of sustained government commitment, leading to low demand for assistance in nutrition. In this situation, the role of development partners must extend beyond responding when requested to do so by governments. They must use their combined resources of analysis, advocacy, and capacity-building to encourage and influence governments to move nutrition higher on the agenda wherever it is holding back achievement of the MDGs (table 3). This role can be fulfilled only if the development partners share a common view of the malnutrition problem and broad strategies to address it, and if they speak with a common voice. The development partners therefore also need to reposition themselves. They need to convene around a common

Table 3 How investing in nutrition is critical to achieving the MDGs

Goal	Nutrition effect	
Goal 1: Eradicate extreme poverty and hunger.	Malnutrition erodes human capital through irreversible and intergenerational effects on cognitive and physical development.	
Goal 2: Achieve universal primary education.	Malnutrition affects the chances that a child will go to school, stay in school, and perform well.	
Goal 3: Promote gender equality and empower women.	Antifemale biases in access to food, health, and care resources may result in malnutrition, possibly reducing women's access to assets. Addressing malnutrition empowers women more than men.	
Goal 4: Reduce child mortality.	Malnutrition is directly or indirectly associated with most child deaths, and it is the main contributor to the burden of disease in the developing world.	
Goal 5: Improve maternal health.	Maternal health is compromised by malnutrition, which is associated with most major risk factors for maternal mortality. Maternal stunting and iron and iodine deficiencies particularly pose serious problems.	
Goal 6: Combat HIV/AIDS, malaria, and other diseases.	Malnutrition may increase risk of HIV transmission, compromise antiretroviral therapy, and hasten the onset of full-blown AIDS and premature death. It increases the chances of tuberculosis infection, resulting in disease, and it also reduces malarial survival rates.	

Source: Adapted from Gillespie and Haddad (2003).

strategic agenda in nutrition, focusing on scaled-up and more effective action for undernutrition and micronutrients in priority countries and on action research or learning-by-doing for overweight, low birthweight, and HIV/AIDS and nutrition. This repositioning must involve reviewing and revising the current inadequate levels of funding for nutrition. For example, though the World Bank is the largest development partner investing in global nutrition, between 2000 and 2004 its investments in the short route interventions that improve nutrition fastest amounted to not more than 1.5 percent of its lending for human development—and only 0.3 percent of total World Bank lending.

Although we do not wish to propose a global "one size fits all" approach to addressing malnutrition, we do recommend that when developing strategies specific to a country or region, countries and their development partners pay special attention to the following:

- Focusing strategies and actions on the poor so as to address the nonincome aspects of poverty reduction that are closely linked to human development and human capital formation.
- Focusing interventions on the window of opportunity—pregnancy through the first two years of life—because this is when irreparable damage happens.
- Improving maternal and child care practices to reduce the incidence of low birthweight and to improve infant-feeding practices, including exclusive breastfeeding and appropriate and timely complementary feeding, because many countries and development partners have neglected to invest in such programs.
- Scaling up micronutrient programs because of their widespread prevalence, their effect on productivity, their affordability, and their extraordinarily high benefit-cost ratios.
- Building on country capacities developed through micronutrient programming to extend actions to community-based nutrition programs.
- Working to improve nutrition not only through health but also through appropriate actions in agriculture, rural development, water supply and sanitation, social protection, education, gender, and community-driven development.
- Strengthening investments in the short routes to improving nutrition, yet maintaining balance between the short and the long routes.
- Integrating appropriately designed and balanced nutrition actions in country assistance strategies, sectorwide approaches (SWAps) in multiple sectors, multicountry AIDS projects (MAPs), and Poverty Reduction Strategy Papers (PRSPs).

In addition to these generic recommendations, practical suggestions are available for how countries might take some of these considerations into account as they position nutrition in their national development strategies.

#### **Next Steps**

Scaled-up and more effective action requires addressing key operational challenges:

- 1. Building global and national commitment and capacity to invest in nutrition.
- 2. Mainstreaming nutrition in country development strategies where it is not now given priority.
- 3. Reorienting ineffective, large-scale nutrition programs to maximize their effect.

Action research and learning-by-doing need to focus on:

- 1. Documenting how best to strengthen commitment and capacity and to mainstream nutrition in the development agenda.
- 2. Strengthening and fine-tuning service delivery mechanisms for nutrition.
- 3. Further strengthening the evidence base for investing in nutrition.

At the global level, the development community needs to unite in explicitly rethinking and repositioning the role of malnutrition as an underlying cause of slow economic growth, mortality, and morbidity, and agree to:

- Coordinate efforts to strengthen commitment and funding for nutrition within global and national partnerships.
- Pursue a set of broad strategic priorities (such as the six outlined above) for the next decade, contributing wherever they have the most comparative advantage.
- Focus on an agreed-on set of priority countries for investing in nutrition and for mainstreaming and scaling up nutrition programs.
- Focus on an agreed-on set of priority countries for developing best practices in building commitment and capacity, mainstreaming nutrition, and reducing overweight and obesity.
- Make a collective effort to switch from financing small-scale projects to financing large-scale programs, except where small projects with strong monitoring and evaluation components are required to pilot-test interventions and delivery systems, or to build capacity in nutrition.

At the country level, the development community needs to scale up its assistance by helping all countries that have micronutrient deficiencies develop a national strategy for micronutrients, finance it, and scale it up to nationwide coverage within five years—without crowding out the larger undernutrition agenda.

The development community must also support countries with undernutrition problems as follows:

- Identify and support at least 5 to 10 countries with serious nutrition
  problems that have the commitment to work with development partners to mainstream nutrition into SWAps, MAPs, and Poverty Reduction
  Strategy Credits (PRSCs). In countries that have little experience in nutrition, nutrition projects may be the first step; in other cases, specific efforts
  to develop country capacity will be needed.
- Identify and support three to five countries where large-scale investments need to be reoriented to maximize their effect. In these countries, provide coordinated support to reorient program design and to strengthen implementation quality and monitoring and evaluation.
- Identify and support at least three to five countries where nutrition issues loom large but appropriate action is not being taken. In these countries, focus on building commitment, analyzing policy, and developing intervention strategies that can be financed with assistance from development partners.

To help achieve these goals, the development partners will need to cofinance a grant fund to catalyze action in commitment-building and action research, complementing the Bank's recent allocation of \$3.6 million from the Development Grant Facility to help mainstream nutrition into maternal and child health programs. Large-scale funding for the national actions outlined above should come through normal financing channels, rather than through the creation of a special fund for nutrition. Initial estimates suggest that the costs of addressing the micronutrient agenda in Africa are approximately \$235 million per year. Costs for other regions and for other aspects of the nutrition agenda have yet to be estimated. Other estimates are much larger (\$750 million for global costs for two doses of Vitamin A supplementation per year; between \$1 billion and \$1.5 billion for global salt iodization, including \$800 million to \$1.2 billion leveraged from the private sector; and several billion dollars for community nutrition programs). A more detailed costing exercise is being undertaken by the World Bank to come up with more rigorous figures.

The agenda proposed here needs to be debated, modified, agreed on, and acted on by development partners with developing countries. Without coordinated, focused, and increased action, no significant progress in nutrition or toward several other MDGs can be expected.

#### **Notes**

- 1. De Onis and others (2004b).
- 2. Doak and others (2005).

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