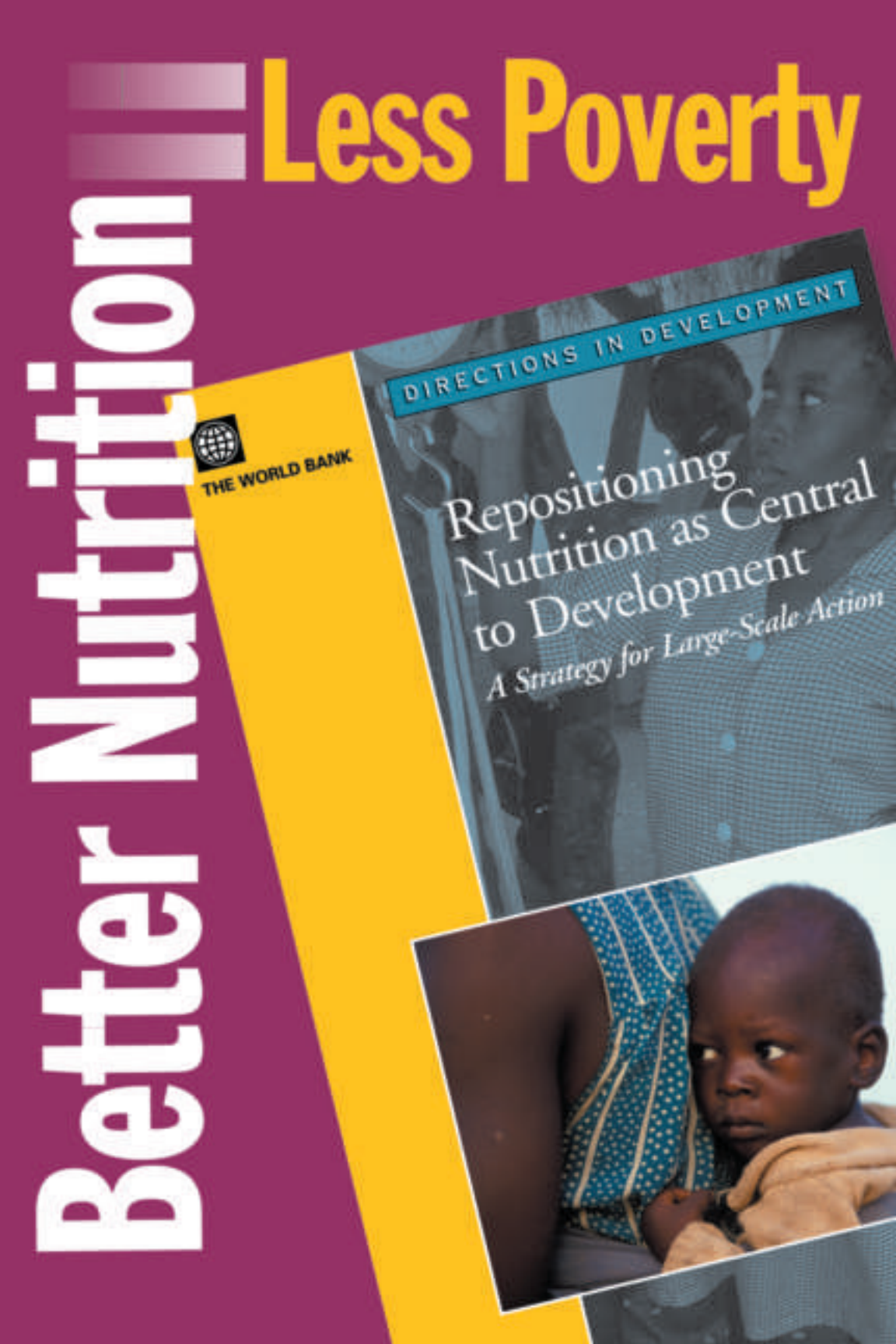
Better Nutrition = Less Poverty



Eradicating extreme poverty and hunger is the first of the Millennium Development Goals (MDGs). This note summarizes why improving nutrition is central to reducing poverty and making faster progress toward the MDGs.

Nutrition and income poverty

The two-way relationship between nutrition and incomes is not widely understood. Higher incomes do improve nutrition—but only slowly:

- A doubling of GNP per capita in developing countries has, on average, improved child underweight rates only from about 32% to about 23%.
- Looking to the future, it is estimated that sustained 2.5% growth in per capita GDP in developing countries would result in a 27% reduction in malnutrition between 1990 and 2015—only half the MDG target of 50%.

Direct investments in nutrition have the potential to improve nutrition outcomes much faster than economic growth alone can.

Improving nutrition increases economic growth and reduces income poverty through three routes. Bigger and healthier bodies lead to higher physical productivity. Well-nourished children are more intelligent, better learners in school, and more productive as adults. And well-nourished populations spend less on health care, freeing resources for investment and growth.

The economic benefits from improving nutrition are substantial—for individuals they average at least 10% of lifetime earnings, and for economies they can make a difference of 2-3% of GDP. And because nutrition programs are fairly inexpensive and increase productivity and growth, their benefit-cost ratios can be as high as 200:1 (see table). The recent Copenhagen Consensus ranked investments in micronutrients as having higher returns than those for trade liberalization, malaria, or water and sanitation.

Intervention	Benefits/costs
Breastfeeding promotion in hospitals	5-67
Integrated child care programs	9-16
Iodine supplementation (women)	15-520
Vitamin A supplementation (children under six)	4-43
Iron fortification (per capita)	176-200
Iron supplementation (per pregnant woman)	6-14

Source: Behrman and others (2004)

Investing in nutrition programs particularly benefits the poor. Although many non-poor people are malnourished, the prevalence of malnutrition is often two or three times—and sometimes many times—higher among the poorest income quintile than among the richest quintile. Bringing income-earning opportunities to poor people—the livelihood route to poverty reduction—has limited benefits if they are not healthy and well nourished enough to take advantage of the opportunities.

Nutrition investments targeted on the income-poor give them the mental and physical resources to profit from the opportunity when it comes. And since malnutrition does irreversible damage to children in the womb and before

they are two years old, getting nutrition interventions to pregnant women and very young children, especially those living in income-poor communities, is the highest priority.

Nutrition and non-income poverty

Malnutrition not only perpetuates income poverty, it is itself an indicator of poverty. Improving nutrition is therefore essential to reduce extreme poverty. Recognition of this is evident in the definition of the first Millennium Development Goal (MDG), which aims to eradicate extreme poverty and hunger. The two targets under this goal are to halve, between 1990 and 2015, both income poverty and non-income poverty:

- The proportion of people living on less than $1 a day. (Income poverty target)
- The proportion of people who suffer from hunger (as measured by the percentage of children under five who are underweight). (Non-income poverty target = nutrition MDG)

Assessments of progress toward the MDGs generally focus on the income poverty target, and the prognosis is that most countries are on track for achieving the poverty goal. But of 143 countries, only 34 are on track to achieve the non-income poverty target (nutrition MDG) (figure 1). No country in South Asia will achieve the target—though Bangladesh will come close, and Asia as a whole will achieve it. Alarmingly, nutrition is deteriorating in 26 countries, many of them in Africa, where the nexus of HIV and undernutrition is particularly strong and mutually reinforcing. And in 57 countries, no data are available to tell whether there is progress. A renewed focus on this non-income poverty target is clearly central to any poverty reduction efforts.

By the broader definition of poverty that incorporates non-income poverty, any individual so deprived of food or essential micronutrients as to be unable to develop to her or his full human potential is held to be poor, even if she or he lives in a family that has enough food for its needs and is not income-poor. Counter-intuitive though it may sound, this situation is extremely common.

Malnutrition occurs widely in food-secure families

Adequate food does not guarantee adequate nutrition. At any given level of food availability, underweight rates can range from as low as 2-10% to as high as 40-70%. Data from many countries show high undernutrition rates in regions and households where food is plentiful. Examples are the Arsi region in Ethiopia and the Iringa region in Tanzania, both with high food production rates but also very high stunting rates—62% in Arsi, and 66% in Iringa. The conclusion, confirmed by many studies, is that maternal knowledge, caring practices for young children, and access to health services and water and sanitation collectively contribute to good nutrition. Each is necessary, but none is sufficient in itself.

Figure 1: Only 34 of 143 countries are on track to meet the nutrition target

On track (24%)

AFR (7)	EAP (5)	ECA (6)	LAC (10)	MENA (6)	SAR (0)
Angola	China	Armenia	Bolivia	Algeria	
Benin	Indonesia	Croatia	Chile	Egypt, Arab Rep. of	
Botswana	Malaysia	Kazakhstan	Colombia	Iran, Islamic Rep. of	
Chad	Thailand	Kyrgyz Rep.	Dominican Rep.	Jordan	
Gambia, The	Vietnam	Romania	Guyana	Syrian Arab Rep.	
Mauritania		Turkey	Haiti	Tunisia	
Zimbabwe			Jamaica		
			Mexico		
			Peru		
			Venezuela, R. B. de		

Deteriorating status (18%)

AFR (13)	EAP (2)	ECA (4)	LAC (3)	MENA (2)	SAR (2)
Niger	Mongolia	Albania	Argentina	Iraq	Maldives
Burkina Faso	Myanmar	Azerbaijan	Costa Rica	Yemen, Republic of	Nepal
Cameroon		Russian Federation	Panama		
Comoros		Serbia and Montenegro			
Ethiopia					
Guinea					
Lesotho					
Mali					
Senegal*					
Sudan					
Tanzania*					
Togo					
Zambia					

Note: All analyses for this are based on data from the WHO Global data base as of April 2005.

* Preliminary data from the 2004 DHS suggest that Tanzania may be in the category of "some improvement, but not on track."

Some improvement, but not on track (18%)

AFR (14)
Central African Republic
Congo, DR
Côte d'Ivoire
Eritrea
Gabon
Ghana
Kenya
Madagascar
Malawi
Mozambique
Nigeria
Rwanda
Sierra Leone
Uganda

EAP (3)
Cambodia
Lao PDR
Philippines

ECA (0)

LAC (4)
El Salvador
Guatemala
Honduras
Nicaragua

MENA (1)
Morocco

SAR (4)
Bangladesh*
India
Pakistan
Sri Lanka

No trend data available (40%)

AFR (13)
Burundi
Cape Verde
Congo, Rep. of
Equatorial Guinea
Guinea-Bissau
Liberia
Mauritius
Namibia
São Tomé and Principe
Seychelles
Somalia
South Africa
Swaziland

EAP (11)
Fiji
Kiribati
Marshall Is.
Micronesia, Federated States of
Palau
Papua New Guinea
Samoa
Solomon Islands
Timor-Leste
Tonga
Vanuatu

ECA (17)
Belarus
Bosnia and Herzegovina
Bulgaria
Czech Republic
Estonia
Georgia
Hungary
Latvia
Lithuania
Macedonia, FYR
Moldova
Poland
Slovak Republic
Tajikistan
Turkmenistan
Ukraine
Uzbekistan

LAC (12)
Belize
Brazil
Dominica
Ecuador
Grenada
Paraguay
St. Kitts and Nevis
St. Lucia
St. Vincent
Suriname
Trinidad and Tobago
Uruguay

MENA (2)
Djibouti
Lebanon

SAR (2)
Afghanistan
Bhutan

Malnutrition also occurs widely in income-secure families

An adequate income does not guarantee adequate nutrition. The nutrition status of children from the richest 20% of households is much better than of those from the poorest 20% in many countries, such as Dominican Republic, Morocco, Nicaragua, Peru, and Turkey). But it does not differ much by income in many other countries (Burkina Faso, Cambodia, Ethiopia, Kazakhstan, Madagascar, Niger, Tanzania, Turkmenistan). Even among the richest quintile in India, which has 40% of the world's malnourished children, 64% of preschoolers are anemic and 26% are underweight. So income poverty is not the only, or even the main, cause of malnutrition (figure 2).

Conclusions

According to a recent World Bank sector report on nutrition—many countries will achieve the MDG income-poverty target (percent people living on less than $1a day), but fewer than 25% will achieve the non-income-poverty target of halving underweight. So in 75% of the countries, human capital formation will continue to be compromised, unless action is initiated to address nutrition directly.

These findings have significant policy implications for institutions and agencies like the World Bank, whose corporate priority is to reduce poverty and progress faster toward the MDGs:

1. Pursuing economic growth may rapidly reduce income poverty but not malnutrition, a core indicator of non-income poverty.

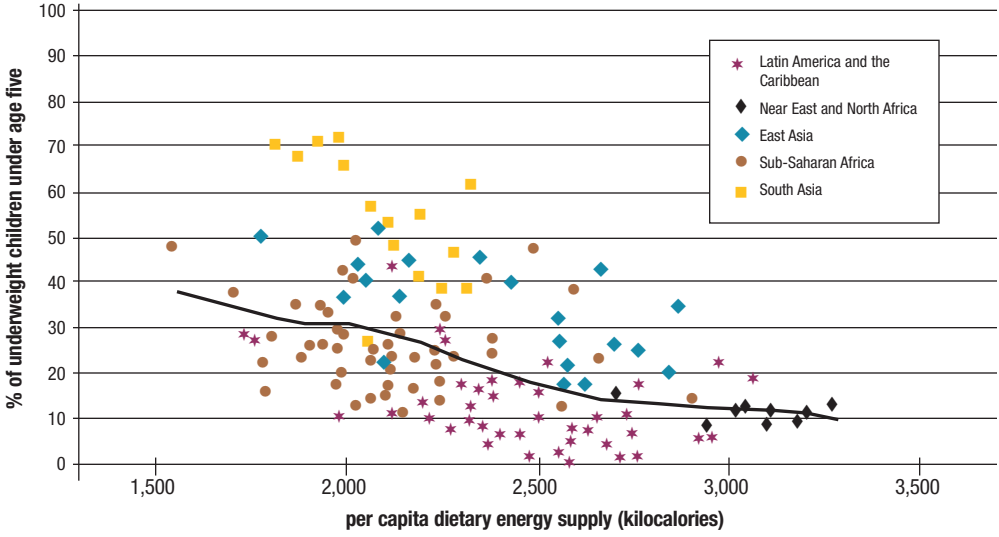


Figure 2. Prevalence of underweight children by per capita dietary energy supply, by region, 1970-96

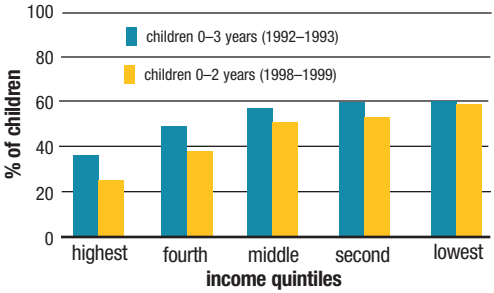


Figure 3: Percent of Under-Five Children with Weight-for-Age Lower than 2 Standard Deviations Below the Mean Distributed Across Income Quintiles (India: 1992/93 and 1997/98)

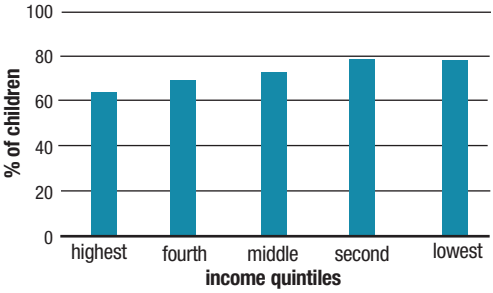


Figure 4: Percent of Under-Five Children with Anemia (Iron Less than 11 gm/dl) Distributed Across Income Quintiles (India: 1997/98)

2. Programs aimed at directly reducing malnutrition attack a core manifestation of non-income poverty and contribute strongly to income-poverty reduction, through their effects on economic growth and productivity. Because such programs are affordable and cost-effective, they should be an investment priority.
3. Countries and their development partners, including the Bank, have underinvested in nutrition: over the past five years, less than 1.5% of the Bank's human development lending has gone into nutrition. Action to correct this neglect is urgent, because of the limited window of opportunity—before children are two years old—to head off malnutrition's lifelong effects. Each delay in getting nutrition programs to pregnant women and children under two means another cohort of children whose physical and mental development is stunted for life, with corresponding costs in poverty, productivity, and lost economic growth.
4. Producing and updating Poverty Reduction Strategy Papers (PRSPs) are now poor countries' main tool for deciding what priority to give to different components of poverty reduction. A recent review shows that most PRSPs give little priority to nutrition, even where malnutrition is serious. Making sure PRSPs prioritize nutrition and propose budget allocations that adequately reflect nutrition's contribution to poverty reduction is one practical, immediate step to reverse its neglect. The next step is to ensure that these budgets appropriately address the causes of malnutrition and prioritize the window of opportunity offered before pregnancy through the first two years of a child's life, so there is a match between the causes and the responses to malnutrition.

The sources for the data in this note, and further details on why and how to invest in nutrition, can be found in the World Bank sector report: *Repositioning Nutrition as Central to Development: A Strategy for Large Scale Action* (World Bank, Directions in Development series 2005).

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