

Thought Leadership Forum: Global Health Factsheet



Global Markets
Institute

The economic benefits of good health

Good health is a key component of economic growth. Improvements in health support increases in **educational attainment, labor productivity** and **economic growth**. Healthy workers live longer, are more productive, earn higher wages, and are less likely to be absent from work due to illness.

Around the world, effective health systems have a sizable impact on economic output. A one-year increase in the population's life expectancy contributes to a 4% increase in the level of GDP, while a 10% increase in life expectancy over a 20-year period increases annual GDP per capita growth rates by 1.2%-1.7%. The World Health Organization (WHO) estimates that the direct economic benefits of investment in global health, as measured in extended healthy lifespan, are at least US\$180 billion as of 2015-2020, and roughly the same amount due to faster economic growth. This would yield a total economic gain of at least US\$360 billion per year, compared to \$2.6 trillion in global health spending. Lower childhood mortality leads to fewer births, smaller family size, and greater resources per child.

The GAVI Alliance

The GAVI Alliance provides funds to purchase and deliver vaccines and strengthen health services in 72 of the world's poorest countries, which are home to half of the world's population. The Alliance was launched in 2000 as a public-private partnership, committing to provide US\$3.7 billion to health programs between 2000 and 2015. Since 2000, it has vaccinated more than 200 million children and, by its calculations, prevented more than 3.4 million premature deaths.

By providing strong health care services, faster access to new vaccines and predictable long-term funding, the GAVI Alliance aims to make a major contribution to the UN Millennium Development Goal of reducing under-5 mortality by two-thirds by 2015.

Projected costs and economic benefits of the expanded GAVI immunization program				
	2005	2010	2015	2020
Total cost (\$ million)	638	862	1,059	748
Deaths averted (thousands)	733	1,125	1,914	2,014
Cost per death averted (\$)	871	766	553	371
Reduction in under-5 mortality rate (per 1,000)	4.1	7.1	12.2	12.6
Total increase in adult survival rate (per 1,000)	6.6	11.4	19.7	20.2
Increase in life expectancy (years)	0.6	1.0	1.7	1.8
Average percentage increase in income for all children in that cohort	0.8	1.4	2.3	2.4
Increased annual earnings per child in that cohort (\$)	4.6	8.0	13.7	14.1
Increase in total cohort income per year, once earning starts (\$ million)	410	732	1297	1376
Internal rate of return (%)	12.4	13.8	15.8	18.0

Source: *World Economics*, Vol. 6, No. 3, July-September 2005.

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In addition to recent research quantifying the economic benefits of higher education, GMI is conducting ongoing research into the relationship between gender equality and economic growth. One core measure of inequality is global health, and the distribution of the global health burden by sex. We expect to write more on this issue in coming months.

The changing profile of global health concerns

In high-income countries, a large share of health resources is devoted to addressing non-communicable diseases, such as heart disease and stroke, cancer, diabetes, and other illnesses associated with greater longevity.

In contrast, many developing countries face a 'double burden' of disease. They are still grappling with diseases related to poverty, including communicable diseases such as malaria and tuberculosis, poor maternal and newborn health and under-nutrition. At the same time, as average income and longevity rise, many of these countries also experience an increase in diseases more common among high-income populations. In addition to the health risks associated with poverty and underdevelopment, rapid urbanization and industrialization also present new challenges.

Globally, non-communicable conditions are projected to cause over three quarters of all deaths in 2030. As populations in middle- and low-income countries age and grow richer over the next 25 years, the proportion of deaths due to non-communicable diseases in these countries will rise significantly.

Exhibit 1: The 10 leading causes of death by broad income group, 2004

Low-income countries	Deaths in millions	% of deaths	High-income countries	Deaths in millions	% of deaths
Lower respiratory infections	2.94	11.2	Coronary heart disease	1.33	16.3
Coronary heart disease	2.47	9.4	Stroke & other cerebrovascular diseases	0.76	9.3
Diarrhoeal diseases	1.81	6.9	Trachea, bronchus, lung cancers	0.48	5.9
HIV/AIDS	1.51	5.7	Lower respiratory infections	0.31	3.8
Stroke & other cerebrovascular diseases	1.48	5.6	Chronic obstructive pulmonary disease	0.29	3.5
Chronic obstructive pulmonary disease	0.94	3.6	Alzheimer and other dementias	0.28	3.4
Tuberculosis	0.91	3.5	Colon and rectum cancers	0.27	3.3
Neonatal infections	0.90	3.4	Diabetes mellitus	0.22	2.8
Malaria	0.86	3.3	Breast cancer	0.16	2.0
Prematurity & low birth weight	0.84	3.2	Stomach cancer	0.14	1.8

Source: World Health Organization.

The importance of maternal and child health

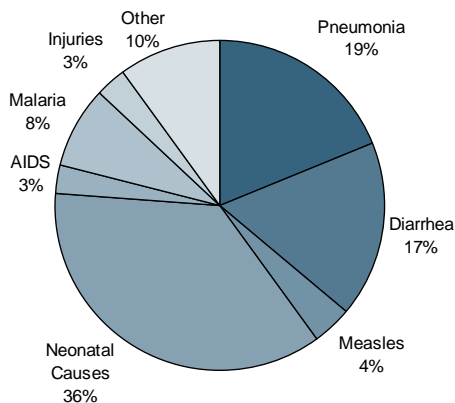
Despite substantial reductions in child mortality in low- and middle-income countries, approximately 10 million children under the age of 5 still die each year. 99% of these deaths are in low- and middle-income countries. Deaths are concentrated in South Asia and sub-Saharan Africa, with six countries accounting for half of all deaths in children younger than 5 years, and 42 countries for 90%. Pneumonia and diarrhea are responsible for 36% of these deaths.

Safeguarding health during childhood is more important than at any other age, because poor health in childhood has lifelong implications. Children born into poor families have poorer health as children, receive less education and fewer investments in human capital, and often have poorer health as adults. They earn lower wages and are less able to invest in the next generation of children, perpetuating a cycle of poverty. But as investments in children's health increase economic output, positive feedback reinforces the incentives for further investment in children's own human capital.

Improving maternal and child health has a direct impact on economic growth. Data suggest that a reduction in the infant mortality rate by even 1 death per every 1,000 births has a demonstrably positive effect on the average annual growth rate. As family size declines alongside improving maternal health, families with fewer children to support are able to save more, contributing to greater investment and faster economic growth.

Exhibit 2: Global distribution of child deaths by cause, 2000-2003

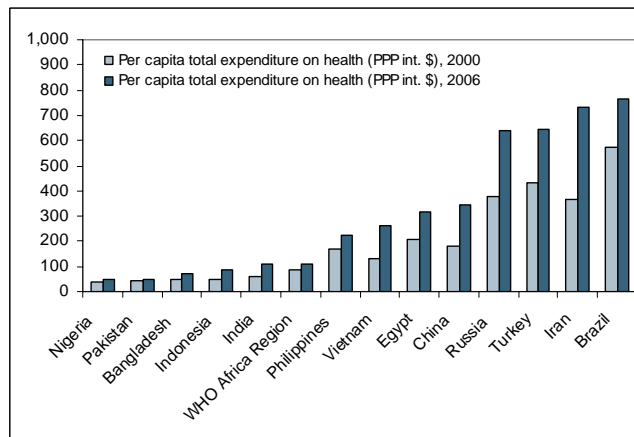
Small number of diseases account for most under-5 deaths



Source: UNICEF.

Exhibit 3: Per capita total health expenditure, 2000 vs. 2006

By contrast, per capita total US health expenditure is \$6,400



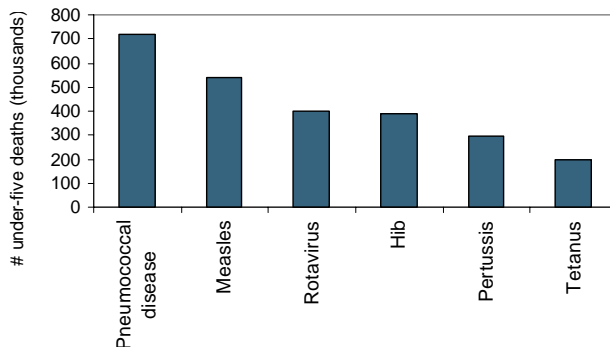
Source: World Health Organization.

The importance of vaccination

Immunization is among the most cost-effective health investments. Immunization currently averts more than 2.5 million deaths every year in all age groups from diphtheria, tetanus, pertussis (whooping cough) and measles. At the same time, more than 2 million people die each year of diseases preventable by widely used vaccines.

The WHO estimates that the worldwide scaling up of health investment to provide essential health interventions in low-income countries would cost just \$34 per person per year. This would require approximately \$27 billion per year in donor grants. The funding gap is \$19 per person per year, or \$14 billion based on a population of 750 million people in the least-developed countries in 2007. By contrast, average per capita health spending in high-income countries exceeds \$2,000 per year. There are practical difficulties as well, including the absence of reliable infrastructure and trained health staff, as well as the fact that much of the easiest-to-reach population has been vaccinated.

Exhibit 4: Leading causes of vaccine-preventable deaths in under-five population



Source: The GAVI Alliance.

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