GLOBAL HEALTH 2035

A World Converging within a Generation

Returns on investing in health in India

Introduction

In 2013, the Lancet Commission on Investing in Health (CIH) published *Global Health 2035: A World Converging Within a Generation*, which laid out a series of opportunities for donor-, low- and middle-income countries to achieve dramatic gains in health.[1] The CIH, chaired by Professor Lawrence Summers (Harvard University) and co-chaired by Professor Dean Jamison (University of California, San Francisco), comprised 25 health and economics experts, including Professor Srinath Reddy (Public Health Foundation of India).

The report found that by 2035, most low-income countries (LICs) and lower-middle-income countries (LMICs) could achieve a "grand convergence" in global health—that is, a reduction in infectious, child, and maternal mortality rates to universally low levels. The CIH showed that countries could experience impressive economic returns from investing in health to achieve grand convergence.

Using a comprehensive "full income accounting" approach to benefit-cost analysis (see Box 1), *Global Health 2035* showed that every dollar invested in achieving convergence across 34 LICs and 48 LMICs would bring a return of $9–20 over the period from 2015–2035. Such a return on investment represents one of the greatest opportunities in all of global development. In financial markets, investments with foreseeable returns of between 9 to 1 and 20 to 1 over reasonable time horizons simply do not exist.

India is an important example of an LMIC that could save a huge number of lives, while also boosting its economy, by increasing health sector investments towards a grand convergence. In this policy brief, we first outline the pathway to achieve grand convergence on a global scale. Next, we identify the specific tools and financing investments that would be needed for India to achieve convergence. Lastly, we estimate the economic and health returns on these investments in India.

Box 1. Full income accounting

Full income is a more comprehensive measure of the returns to investing in health. Full income captures both the "instrumental" value of health investments (i.e., the benefits from increased economic productivity, as measured by GDP) and the "intrinsic" value of better health (i.e., the economic value of living longer in and of itself). The change in a country's full income over a period of time is estimated by adding its income growth (i.e., GDP growth) to the value of additional life years gained over that time period.

Between 2000 and 2011, about a quarter of the growth in full income in low-income and middle-income countries resulted from VLYs gained.

The path to global convergence

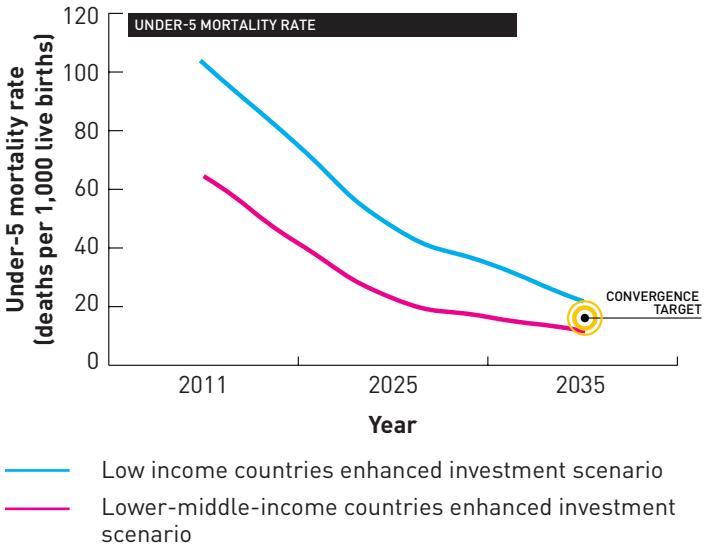
How can a grand convergence in global health be achieved?

Global Health 2035 showed that enhanced investments in LICs and LMICs will be needed to scale up:

- Current medicines, vaccines, and diagnostic tests to very high coverage levels (typically 90% or more)
- Strong public health systems that can deliver health tools and interventions
- Research and development (R&D) to discover and distribute new health technologies

By investing about $US 70 billion/year in these three areas over the next 20 years, rates of avertable infectious, child, and maternal deaths in most LICs and LMICs would fall to the rates presently seen in the best-performing upper middle-income countries, like China, Costa Rica, or Turkey (see Figure 1). For example, the child mortality rate in low-income countries could fall from the current rate of 104 per 1,000 live births down to 23 per 1,000 live births; in lower-middle-income countries it could fall from 63 to 16 per 1,000 live births. Achieving grand convergence would mean 10 million lives saved each year from 2035 onwards.

Figure 1. The grand convergence in global health



The CIH estimated that most of the $70 billion annual investment could be financed from the expected economic growth of low- and lower-middle-income countries: real GDP growth per year is predicted to be 4.5% for today's LICs and 4.3% for today's LMICs from 2011 to 2035. Approximately 1–3% of the additional GDP that these countries will add by 2035 could fund convergence. LICs and LMICs can also find new sources of financing for health, such as taxation of tobacco. Development assistance for health will continue to play a crucial role for those countries with less rapid economic growth.

Many LICs and LMICs have committed themselves towards the goal of achieving universal health coverage. *Global Health 2035* argues that as these countries move forward towards this goal, they should begin by ensuring that their publicly financed benefit package is targeted at convergence, i.e. at infections, maternal, and child health conditions. This approach would be "pro-poor," since these conditions disproportionately affect the poor, and would yield high health and economic returns.

Achieving convergence in India

What would India's specific pathway to convergence look like?

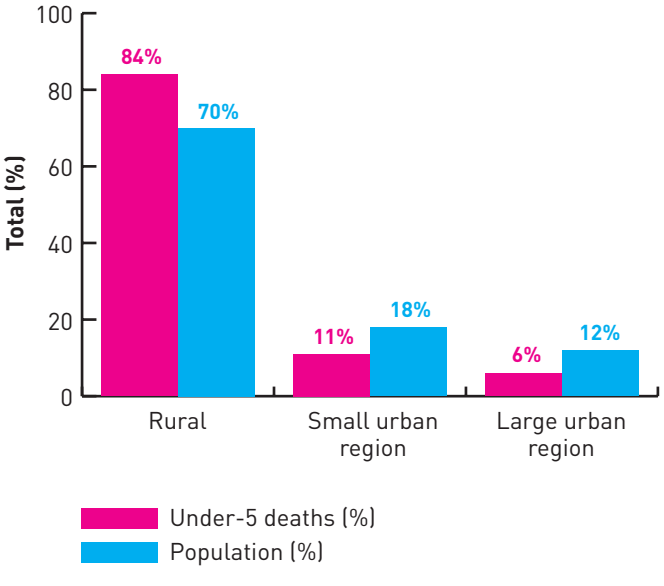
The CIH estimates that to achieve convergence, India would need to invest an average of about $US 24 billion annually over the next 20 years (see Table 1). The CIH's modeling suggests that for the next ten years, roughly half of India's health investments will need to be targeted towards health system strengthening to develop a health sector capable of scaling up priority interventions. As India's health system becomes stronger, more investments should then be targeted towards programmatic scale-up.

Table 1. Annual incremental costs of enhanced investment 2015–2035 (US $ millions)

Programmatic investments (current interventions)	9,200
Family planning	83
Immunization	1,500
Maternal and newborn health	2,200
Malaria	2,600
HIV	20
Tuberculosis	790
Child health	2,000
Programmatic investments (new tools)	3,400
Health systems strengthening	11,000
Total investment	**23,600**

Programmatic investments will go towards the scale-up of six packages of health interventions: family planning, maternal and newborn health, malaria, HIV, immunization, and child health.[2] These packages include high impact interventions such as modern family planning, treatment of malaria in pregnancy, prevention of mother to child transmission of HIV, and essential child vaccinations. To achieve convergence, the CIH modeling suggests that the largest investments in India would be for maternal and newborn health, malaria, and child health. From now through 2035, these health areas would require an average annual investment of $2.2 billion, $2.6 billion, and $2 billion, respectively. Achieving high coverage rates of such interventions is possible over a short time frame, as seen in countries like Rwanda. India should target these investments to high burden regions and populations, for example the large population of rural poor who experience disproportionately high rates of child mortality (see Figure 2).

Figure 2. Under-5 child deaths by region, India, early 2000s



Total under-5 deaths: 2.1 million
Total population: 1.2 billion

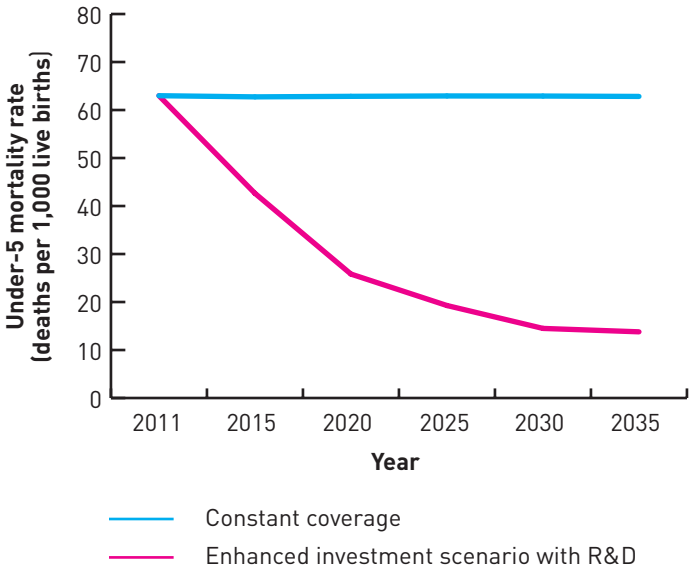
By increasing strategic domestic investments in health, India could experience very large reductions in the rates of infectious, maternal, and child deaths. For example, the maternal mortality ratio could fall from 200 per 100,000 live births in 2011 to 83 per 100,000 by 2035, and the child mortality rate could fall from 63 per 1,000 live births in 2011 to 19 per 1,000 live births by 2035. Table 2 shows the fall in the total number of deaths that could be achieved by 2035.

By achieving the convergence target, India would avert around 1 million deaths per year, from 2035 onwards. This would include averting 660,000 child deaths annually (see Figure 3).

Table 2. Estimated reductions in deaths by investing in convergence

Cause	2011 (# of deaths)	2035 (# of deaths)	% Reduction
Maternal	56,000	21,000	63%
Child	1.8 million	484,000	73%
Tuberculosis	350,000	57,000	84%
HIV	168,000	13,000	92%
TB & HIV	491,000	67,000	86%

Figure 3. Reductions in under-5 mortality rate with enhanced investments



The economic returns on convergence in India

The CIH estimates that the economic benefits of convergence would exceed costs by a factor of about ten in India. Every dollar that India invests in achieving convergence would return around US $10 dollars over the period 2015–2035 (see Table 3).

Table 3. Achieving convergence in India: costs, benefits, and benefit-cost ratio

India	
Population, billions	1.3
Incremental expenditures (billions of 2011$)	24
Incremental expenditures per capita (2011$)	18.5
Per capita income (2011$)	5,350
Deaths averted (weighted)	
Stillbirths (thousands)	25
Deaths age 0–4 (thousands)	658
Maternal deaths (thousands)	37
TB deaths (thousands)	201
HIV/AIDS deaths over 5 (thousands)	1
Total (thousands)	922
Cost per death averted (2011$)	26,000
Benefit-cost calculations	
Benefit-cost ratio	**10**

Figure 4. Value of mortality decline as percent of change in full income

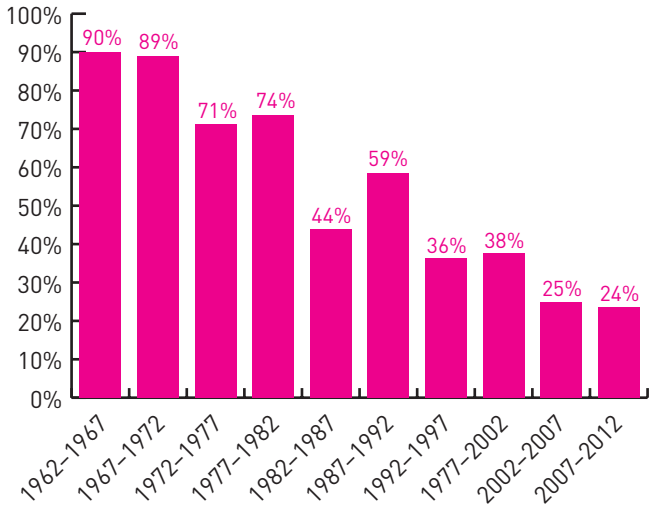
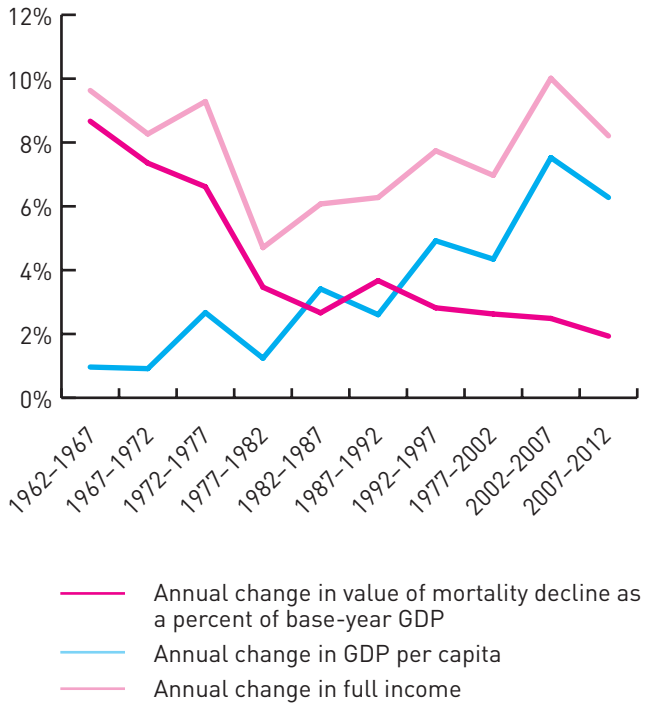


Figure 5. Contribution of change in life expectancy to full income



The CIH's full income models show the large contribution of health to the country's economic growth. Over the six years from 2007–2012, a quarter of India's growth in full income was the result of the value of the mortality decline experienced in the country during this time (see Figure 4). Over this period, the value of this change in full income accounted for about 3% of India's 2007 GDP (see Figure 5).

Opportunities for revenue generation

The outlined investments are feasible given India's projected economic growth over the next 20 years. Additionally, fiscal policies such as taxation of alcohol, tobacco, and sugar-sweetened beverages, and removal of fossil fuel subsidies have the potential to generate substantial revenue while simultaneously acting as a powerful lever to curb the incidence of non-communicable disease and injuries. A recent Asian Development Bank study found that if India were to use taxation to increase the price of cigarettes by 50%, this would prevent 4 million deaths and generate $2 billion in revenue annually over the next 50 years.[3]

Conclusion

The *Global Health 2035* report lays out a series of opportunities for India to make dramatic gains in health through achieving a "grand convergence,"—reducing non-communicable diseases and injuries, and rolling out pro-poor universal health coverage. The CIH's full income approach provides a powerful economic rationale for increasing domestic investment in the health sector. With annual investments of about US $24 billion over the coming 20 years, India could avert about 1 million deaths annually from 2035 onwards. For every dollar of this investment about US $10 dollars would be returned.

Many of the CIH commissioners are economists and policymakers in low- and middle-income countries, and have successfully used the report as a tool to promote increased domestic investments in health. As India considers the post-2015 agenda, health and finance ministers can use this evidence to guide health investments.

References

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3. Jha P, Joseph R, Li D, et al. (2012). Tobacco Taxes: A Win-Win Measure for Fiscal Space and Health. Asian Development Bank. Mandaluyong City, Philippines.