



Quantifying SDG3 by modeling the scale-up of existing health interventions, delivery systems, and new technologies

The Open Working Group on Sustainable Development Goals has proposed one overarching health goal, SDG3: “ensure healthy lives and promote well-being for all at all ages.” This goal is associated with three mortality targets for 2030 related to reducing infectious, maternal, and child deaths:

- 3.1—by 2030 reduce the global maternal mortality ratio to less than 70 per 100,000 live births
- 3.2—by 2030 end preventable deaths of newborns and under-five children
- 3.3—by 2030 end the epidemics of AIDS, tuberculosis, malaria, and neglected tropical diseases and combat hepatitis, water-borne diseases, and other communicable diseases.

An important area of discussion is how to quantify the mortality levels for infections and maternal and child health conditions that countries could reasonably be expected to achieve by 2030. Quantification will be important in setting ambitious yet realistic expectations for all countries and for developing robust indicators of progress.

One recent effort to quantify the health outcomes that could be achieved by 2030 was the Global Health 2035 report, written by the Lancet Commission on Investing in Health (CIH), an independent, international group of 25 health and economics experts.¹ The Commission includes ministers of health, central bankers, and academics from several low- and middle-income countries, including Agnes Binagwaho (Rwanda’s Minister of Health), Mthuli Ncube (Chief Economist of the African Development Bank), Yan Guo (Peking University), Linah Mohohlo (Governor of the Bank of Botswana), and Srinath Reddy (Public Health Foundation of India).

How did the Commission go about quantifying the mortality levels that countries could realistically achieve by 2030 and what did it find?

The Commission’s scale-up model

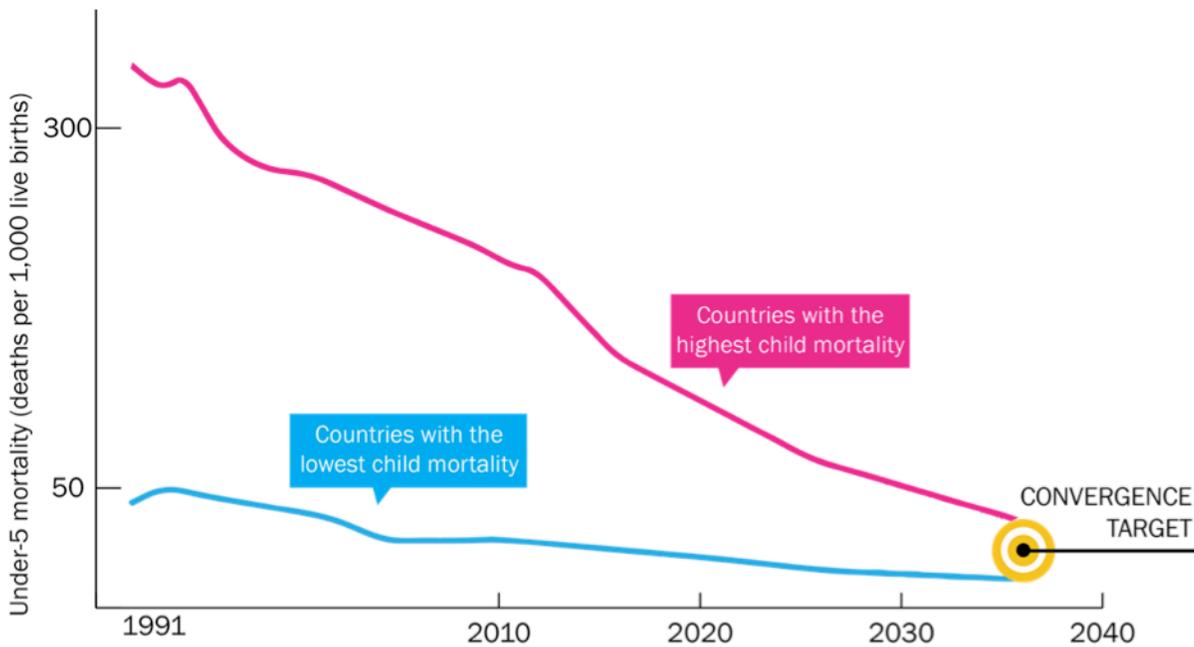
The Commission’s approach was to model the fall in deaths that would occur if low-income countries (LICs) and lower-middle-income countries (LMICs) are able to aggressively scale up (1) existing health interventions (e.g., medicines, vaccines, diagnostic tests), (2) the systems to deliver these interventions, and (3) the new health technologies that will become available from now to 2030. Such scale-up would require substantially increased health sector investments.

The model assumed that all LICs and LMICs could scale up existing health interventions over time to very high coverage rates (e.g. by 2030, all children with diarrhea are receiving treatment, and all pregnant women at risk of malaria are sleeping under an insecticide-treated net).² We know that this kind of success in delivering health tools is possible, as we have seen such success in countries like Rwanda and Turkey. The model also incorporated the costs and impacts of building strong health systems to deliver these tools, and the additional impact of new health technologies (adoption of these new technologies speeds up the rate of mortality decline).

The key findings: a “grand convergence” in global health

This scale-up study found that by 2030, most LICs and LMICs could achieve a **“grand convergence in global health”**—that is, a reduction in preventable infectious and child deaths down to the levels seen today in high-performing upper-middle-income countries (see figure on next page).

Most countries could converge by 2030



For example, on average across LICs and LMICs, child mortality could fall to 20 per 1,000 live births by 2030 (on average, LICs would reach 27 and LMICs would reach 13 per 1,000 live births). This rate of 20 per 1,000 is seen today in a set of four high-performing upper-middle-income countries, conveniently labeled “the 4 Ps” (Palau, Panama, Paraguay, and Peru).

Furthermore, on average across LICs and LMICs, the maternal mortality ratio could fall to 94 per 100,000 live

births (on average, LICs would reach 119 and LMICs would reach 69 per 100,000 live births). The mortality burden of AIDS, tuberculosis, and malaria could be also greatly reduced, although it would not be zero.

The Commission’s modeling suggests mortality reductions that are measurable and feasible by 2030, which will be critical in ensuring the SDGs catalyze dramatic gains in global health.

References

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