Global health on the G7 agenda: Priorities for international collective action

Introduction

The German government is chairing the G7 this year and has included global health as one of the key issues on its agenda. It started its G7 Presidency by hosting the replenishment of GAVI, the Vaccine Alliance in January 2015. There are three specific health topic areas that Germany will focus on: (1) neglected tropical diseases (NTDs); (2) pandemic response and preparedness; and (3) antimicrobial resistance (AMR). This briefing note leverages the findings of the recent Global Health 2035 report (globalhealth2035.org), written by the Commission on Investing in Health (CIH), to lay out key priorities for international collective action across these focus areas.

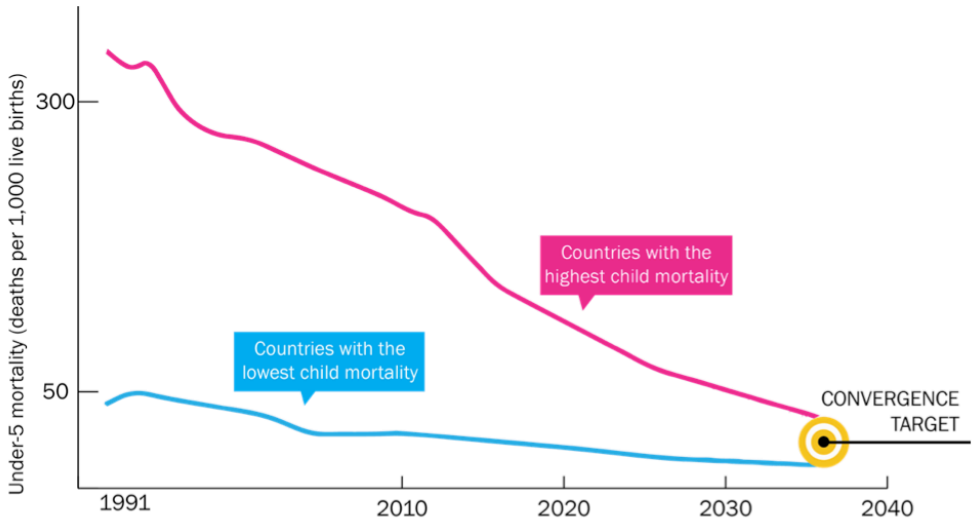
Global health on the G7 agenda

The G7 can send a strong signal that investing in health is the cornerstone of sustainable development if it places health prominently on its agenda.

The CIH report made a powerful case for putting health at the center of development. It found that the economic returns to health investments are very impressive:

- Reductions in mortality accounted for about 11% of recent economic growth (from 1970–2000) in low-income and middle-income countries as measured in their national income accounts.
- Increased investments in global health—to scale up existing and new medicines, vaccines, and diagnostic tests, and the systems to deliver them—could lead to a "grand convergence in global health" by 2035 (Figure). Grand convergence means a reduction in avertable infectious, maternal, and child deaths down to universally low levels. Achieving convergence would save around 10 million lives year on year from 2035 onwards.
- The economic benefits of this convergence would exceed costs by a factor of 9 to 20 over the period 2015–2035. Closing this global health equity gap is a historically unique opportunity: our generation has the financial and ever-improving technical capacity to make it happen.

A "grand convergence" in global health by 2035



Global Health 2035 also found that the highest impact, most cost-effective interventions for rapidly saving lives include childhood vaccinations, HIV medicines, and family planning. Given the current funding gap for vaccines, a successful GAVI replenishment, as championed by Germany, would be an important contribution towards reaching a "grand convergence" and would help to maintain the momentum of global health beyond the G7 Summit.

Neglected tropical diseases (NTDs)

The NTDs, such as intestinal worms, river blindness, and elephantiasis, are debilitating and often disfiguring infectious diseases that are mostly found among poor communities and that themselves cause poverty. More than one billion people suffer from these conditions. There are two broad groups:

- The first group **can be eliminated by mass drug administration**, involving low-cost anti-parasitic and antibiotic drugs. The CIH report found that seven NTDs (Box), which account for 90% of the burden of such diseases in sub-Saharan Africa, could be close to eliminated by 2020 at a cost of only about $US 300–400 million annually. The cost would then begin to fall as transmission of these infections is interrupted and as the burden falls to a level that can be managed by the public health system. Elimination of these seven high-burden NTDs for such low costs would represent very good value for money and a "best buy" in global health. To support control and elimination of these NTDs, the G7 should support an integrated treatment approach, known as the "rapid impact package," which treats these seven NTDs with a combination of four drugs. This approach is being coordinated by the Global Network for NTDs (globalnetwork.org).

The seven NTDs that could be close to eliminated by 2020

- Lymphatic filariasis (elephantiasis)
- Onchocerciasis (river blindness)
- Schistosomiasis (snail fever)
- Trachoma
- Ascariasis (roundworm)
- Hookworm
- Trichuriasis (whipworm)

- The second group **should be the focus of enhanced research and development (R&D)**, since their control requires new diagnostic tests, drug treatments, vaccines, and surveillance tools. This group includes African sleeping sickness, Chagas disease, and visceral leishmaniasis.

The international community currently spends about $US 3 billion a year on R&D for NTDs and other infections that disproportionately impact the poor (e.g., HIV/AIDS, TB, malaria, and childhood pneumonia and diarrhea). This figure represents just 1–2% of global spending on health R&D. The CIH report calls for a doubling to $US 6 billion a year by 2020 and for all countries to play their part in reaching this target. Non-profit product-development partnerships (PDPs) are a particularly promising mechanism for international collective action on R&D for diseases of poverty. They are effective coordination instruments that bring various research efforts together.

Pandemic response and preparedness

The Ebola crisis in West Africa has shown that the world does not yet have an effective system for detecting, preventing, and managing outbreaks. While the immediate Ebola response requires continued mobilization of human, financial, and logistical resources, the crisis is also an opportunity to begin building a strong global system for pandemic preparedness.

There are no short cuts: building such a system will take time and money. It will require more health workers, better disease surveillance, and stronger health infrastructure. The CIH estimated that the price tag of this "systems strengthening" would be about $US 30 billion a year for the next two decades. The good news is that we have the financing to pay for this through a combination of aid and domestic spending. The cost represents well under 1 per cent of the additional gross domestic product (GDP) that will be available to low- and lower-middle-income countries due to increased GDP growth over the next 20 years.

The Ebola crisis also points to the global under-investment in R&D for poverty-related diseases. If we had developed a rapid diagnostic test, a vaccine, and a treatment for Ebola, we could have stopped the outbreak in its tracks. R&D is a crucial component in pandemic preparedness.

Concern is growing that the world could soon face an especially deadly global flu pandemic, one that is even deadlier than the 1918 pandemic that killed 50 million people in an era before mass, international transit. The next flu pandemic will disproportionately affect poor populations. Global Health 2035 calls for the international community

to support the development of new flu pandemic control methods—these include developing a universal flu vaccine, building national and international surveillance and response systems, and ensuring that we have the "surge capacity" to urgently produce drugs and vaccines in the event of a global crisis.

Antimicrobial resistance (AMR)

The global crisis of AMR has been aptly described as "an apocalyptic threat" that is of a similar magnitude to climate change, and it warrants a particular priority in the R&D agenda.

The antibiotics used for decades to treat TB no longer work in 1 in 5 patients in some countries. For malaria, just one new drug class—called the artemisinins—stands between cure and failure. Even more dangerous, and with greater long-term consequences, common fatal infections like pneumonia are becoming resistant to first-line antibiotics such as penicillin. The development of antibiotics has decreased steadily since the 1960s, with fewer companies bringing forth ever fewer compounds.

Although there is no single technological fix to tackling AMR, the CIH report argues that new antibiotics, vaccines, and point-of-care diagnostics will be needed, along with a reduction in both inappropriate use of, and the need for, antibiotics.

Conclusion

As the global community is setting its goals for the post-2015 era, massive health disparities still exist across countries. The vast majority of people who die from preventable deaths caused by infectious diseases or maternal and child health conditions live in low- and lower-middle-income countries. It is these communities who bear the brunt of NTDs, infectious disease outbreaks, and the fatal consequences of AMR.

But we are now at a truly remarkable inflection point in history. We can dramatically transform the landscape of global health within a generation. Such an outcome is within our grasp—it will require enhanced scale up of existing health interventions, R&D to develop "tomorrow's interventions," and strong health delivery systems. Germany has the opportunity to help achieve this revolution in global development. If it prioritizes health and R&D for new health tools, it can send a strong signal to the global community and help to accelerate the path to a global convergence in health.