The Next One Hundred Years of Global Health

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In light of the revolutions undergone by global health during the last century, it is nearly impossible to predict what the status of global health will be in the next. Imagining a linear progression of scientific and social advancements is impractical even in the mid-term future, let alone beyond. Indeed, the speed with which diseases can spread, microorganisms can evolve, and technologies can improve, create an unknowable dynamic for global health experts. What is clear, however, is that improved global health can serve as a powerful tool for poverty reduction, equity, human rights, and security. And to understand the challenges that our global health system will face in the future, we must understand and address those that are posed to us today.

Today, many health problems, such as malaria and tuberculosis, seem to be intractable. Others, like non-communicable diseases such as cancer, heart attacks, and diabetes, are not only on the rise but seem to be spiraling out of control. These challenges are complicated by a fragmented global governance and an increasing politicization of health, stemming from the economic to the security realms. At the same time, we must note that some important progress has been made, particularly with regard to child mortality and poliomyelitis.

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The main policy challenges for the century ahead will center on how to preserve the distinctiveness of global health as its own critical policy matter—without being subsumed under different policy agendas such as security—while also securing its prominent role in the world as an effective balance for other interests and policy issues. With this crucial perspective in mind, what follows are five issues that will define the future of global health in the next century, each of which will raise its own mix of technical, policy, and legal questions.

First is the intensifying problem of anti-microbial resistance, whereby an increasing number of pathogens do not respond to first- or even second-line interventions. Experts accordingly envision a "post-antibiotic world," with devastating consequences. Before the discovery of antibiotics, bacterial infections were the number one killer of humans. A return would mean that a range of diseases would no longer be treatable. Preventing a return to this paradigm will require investing in medical innovation and rationalizing medical practices worldwide. This will necessitate international coordination on rules of food production and especially animal husbandry, as the extensive use of antibiotics on livestock is driving bacterial resistance.

The growing epidemic of preventable non-communicable diseases is the second concern. Cancer, diabetes, cardiovascular conditions, and respiratory diseases constitute an unsustainable burden for national health systems, generate trillions of dollars in overall costs, and induce unnecessary human suffering. The main challenge here will be achieving an effective regulation of products and industries, such as the tobacco, food, and beverage businesses, which have traditionally resisted strong regulations and have skillfully used international market access tools to promote an unhealthy global lifestyle and consumption model.

Thirdly, the international community must reach a standing agreement on the division of labor, coordination, and resources necessary to effectively control major outbreaks of infectious diseases. The shortcomings in tackling the 2014 Ebola outbreak in West Africa confirm that the World Health Organization's (WHO) international health regulations are necessary, but not sufficient. WHO regulations do not address the crucial issue of operational or humanitarian assistance to countries affected by major outbreaks of diseases nor do they address the immediate mobilization of financial resources; moreover, WHO can only recommend measures to prevent the international spread of diseases while avoiding overreactions. The experience with Ebola reveals very uneven compliance with those recommendations, for example with regard to border closures and suspen-

sion of flights. Ebola may be a harbinger of worse things to come, and the world cannot afford to improvise every time.

The fourth major challenge will be to overcome a severe structural deficiency of the pharmaceutical market, which is unable to produce new medicines to treat the "neglected" diseases that affect most of human-kind, but that do not generate sufficient profits to attract the necessary investments to develop new medicines. WHO has been discussing various measures that might promote research and development while simultaneously delinking high R&D costs from the final price of new medicines. However, an agreement on a credible and sustainable international framework looks to be very distant. But if achieved, aside from addressing a source of unacceptable inequity, such a model would protect the entire world from emerging infectious diseases, and would allow for increased global productivity and economic growth.

Lastly, global health governance is fragmented, uncoordinated, competitive, and arguably inadequate to face the problems of the future.

WHO has never been the only actor in global health, but many old and new stakeholders are increasingly challenging its previous centrality. Even though achieving a coherent and centralized global health architecture is next to impossible, the international community should continue to pursue the current trend toward "specialization," whereby a small number of major global organizations will perform normative, financial, and coordination functions, respectively. Prominent examples are the Global Fund on HIV,

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Malaria and Tuberculosis, and the GAVI Alliance, which have become important and successful vehicles to mobilize and disburse in innovative ways an unprecedented amount of financial resources. Thinking of global health governance in these terms is not impossible—but it will require a major strategic focus by a large number of actors. f