



Discussion Paper

# Global Pandemics and Global Public Health

Independent Commission on Multilateralism

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The world population reached 7.3 billion in mid-2015. It is growing at a rate of 1.18 percent per year (approximately an additional 83 million people annually) and is projected to increase to 9.7 billion by 2050 and 11.2 billion by 2100.<sup>1</sup> This trend is taking place against a backdrop of dramatic changes in the way humanity inhabits and treats the planet. The planet is becoming more crowded. Urbanization is exploding to the point that now more than half of the world's population lives in cities. This, in combination with the continuous industrialization of developing countries, is dramatically changing the world's biosphere, with severe implications for the livelihood and public health of mankind. Demand for food and water is outstripping supply, and the resulting scarcity increasingly fuels conflict and violence. The UN Food and Agriculture Organization (FAO) estimated that about 795 million people would suffer from chronic undernourishment in 2014–2016. Natural disasters are becoming more frequent and more severe.<sup>2</sup>

Pandemic diseases such as malaria, polio, Ebola, tuberculosis, and HIV/AIDS, resurgent diseases such as SARS, and accidental or deliberately perpetrated outbreaks pose additional threats to public health, particularly in developing countries. These threats take place amid a lack of investment in health infrastructure and uneven burden sharing during global health crises. It is impossible to divide the issue of responding to crises and outbreaks from that of national-level health systems. Robust health systems lie at the heart of building a stable multilateral environment comprising countries that have healthy populations, healthy societies, and healthy economies. Inadequate health systems have “a disproportionate and crippling effect on developing countries.”<sup>3</sup> An effective rethinking of how to strengthen approaches of managing global health is therefore needed more than ever.

## I. Mapping the Landscape

### *Epidemics and Pandemics*

Throughout human history, the threat of epidemics and pandemics has been a major challenge for the public health community. In fact, the basic concepts of public health and health regulations emerged from the need to prevent and control the spread of epidemics and pandemics. The current international normative framework to detect, assess, and respond to disease outbreaks with the potential to become epidemics or pandemics is the World Health Organization's (WHO) International Health Regulations (IHR) from 2005, which remains the only universal and comprehensive treaty on health. Recent, ongoing, or potential epidemics and pandemics include the following (see Box 1):

- **Influenza:** By far the greatest threat for a pandemic continues to come from influenza viruses, such as the H1N1 virus that caused an epidemic starting in 2009. The WHO's classification of pandemic phases is actually based on influenza outbreaks.

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<sup>1</sup> UN Department of Economics and Social Affairs, “World Population Prospects,” 2015.

<sup>2</sup> Centre for Research on the Epidemiology of Disasters, EM-DAT Database, available at [www.emdat.be/database](http://www.emdat.be/database).

<sup>3</sup> Brian Brink, “Inadequate Health Systems Damage the Growth of Developing Nations,” *The Guardian*, December 3, 2012, available at [www.theguardian.com/sustainable-business/poor-health-systems-damage-growth](http://www.theguardian.com/sustainable-business/poor-health-systems-damage-growth).

- **Ebola:** Beginning in 2013, West Africa experienced the worst outbreak of Ebola of all time. Its spillover, the inability of the countries affected to cope, and the international community's late and—according to some—inadequate response show that the world needs to find a way to prevent, anticipate, and respond to such health disasters more quickly and adequately. The 2013 Ebola outbreak was not just a health crisis; it evolved into a social, humanitarian, development, and economic crisis. Once an epidemic spreads and doubles its death toll every few weeks, it can destabilize whole countries and regions, as seen in Guinea, Liberia, and Sierra Leone. The epidemic paralyzed the healthcare systems in these countries, leading to preventable deaths from curable diseases. It also deteriorated the security situation, with local police and military using lethal force to quarantine areas and rioting mobs killing officials. The economic consequences are not yet fully apparent, but expected gross domestic product (GDP) growth rates in the region have been reduced by multiple percentage points, and experts expect the negative economic impact to be in the order of billions of dollars.
- **Neglected infectious diseases:** One billion people suffer from neglected infectious diseases, mostly in tropical areas. These diseases historically attract little investment for treatment, prevention, or control and disproportionately affect the poorest and most vulnerable people. Improved drug delivery and better diagnostic tools are required for effective treatment, mapping, and surveillance.<sup>4</sup>
- **Polio:** The persistence of polio in Afghanistan and Pakistan and recent cases in Cameroon, Equatorial Guinea, Ethiopia, Iraq, Nigeria, Somalia, and Syria starkly demonstrate how zones of instability are more vulnerable to disease. Better understanding the linkages between instability and polio is necessary to identify vulnerable regions and more effectively anticipate and respond to outbreaks. Diplomacy, strategic coordination, and advocacy, in combination with a broad range of healthcare services, could be the keys to accessing vulnerable regions.
- **HIV/AIDS:** While the global number of people dying from AIDS-related causes is steadily decreasing, from 2.3 million in 2005 to 1.6 million in 2012, HIV/AIDS remains a health crisis in parts of Africa, which accounts for about 70 percent of global deaths from the disease. Many people living with HIV, particularly in low- and middle-income countries, still do not know their HIV status.<sup>5</sup>
- **Malaria:** In 2015, there were roughly 214 million malaria cases and an estimated 438,000 deaths from malaria. Yet over 6.2 million malaria deaths have been averted between 2000 and 2015, primarily in children under five in sub-Saharan Africa. The global malaria incidence rate has fallen by an estimated 37 percent, and the mortality rate by 58 percent.<sup>6</sup>
- **Tuberculosis:** Tuberculosis (TB) kills over 4,100 people a day and is now the number one infectious killer in the world. Drug-resistant forms of TB represent a significant threat, in

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<sup>4</sup> Bill & Melinda Gates Foundation, "Neglected and Infectious Diseases," available at [www.gatesfoundation.org/What-We-Do/Global-Health/Neglected-Infectious-Diseases](http://www.gatesfoundation.org/What-We-Do/Global-Health/Neglected-Infectious-Diseases).

<sup>5</sup> WHO, "10 Facts on the State of Global Health," available at [www.who.int/features/factfiles/global\\_burden/facts/en/index4.html](http://www.who.int/features/factfiles/global_burden/facts/en/index4.html).

<sup>6</sup> Ibid; United Nations, *The Millennium Development Goals Report*, 2015, available at [www.un.org/millenniumgoals/2015\\_MDG\\_Report/pdf/MDG%202015%20rev%20%28July%201%29.pdf](http://www.un.org/millenniumgoals/2015_MDG_Report/pdf/MDG%202015%20rev%20%28July%201%29.pdf).

particular multidrug-resistant tuberculosis (MDR-TB). An estimated 480,000 people around the world developed MDR-TB in 2014, and its cure rate hovers under 50 percent.<sup>7</sup> A recent UN report predicts that 75 million people could lose their lives to MDR-TB in the next 35 years. Yet between 2000 and 2013, TB prevention, diagnosis, and treatment saved an estimated 37 million lives.<sup>8</sup>

### Box 1. Epidemic and pandemic diseases<sup>9</sup>

- Airborne diseases: influenza (seasonal, pandemic, avian), Severe Acute Respiratory Syndrome (SARS), Middle East Respiratory Syndrome Coronavirus (MERS-CoV)
- Vector-borne diseases: yellow fever, chikungunya, Zika fever, West Nile fever
- Water-borne diseases: cholera, shigellosis, typhoid fever
- Epidemic meningitis
- Rodent-borne diseases: plague, leptospirosis, hantavirus, Lassa fever, rickettsia (murine typhus)
- Hemorrhagic fevers: Ebola virus disease, Marburg virus disease, Crimean-Congo hemorrhagic fever, Rift Valley fever
- Smallpox, monkeypox
- Other zoonotic diseases: Nipah virus infection, Hendra virus infection

### *Environmental Sustainability: A Healthy Planet for Healthy Humans*

Climate change, as well as environmental degradation and rapid urbanization, increases the likelihood and destructiveness of natural disasters like droughts, floods, tsunamis, and forest fires. This can lead to loss of life, displacement, and situations in which diseases like polio and hepatitis can spread quickly and cause damage on a massive scale. Moreover, climate change's negative impact on the availability of resources, such as water, food, and energy, has become an important driver of armed conflict and violence. In the twenty-first century, the world will have to become better prepared to cope with these challenges, including the following:

- **Human-animal interface:** With incursions into previously uninhabited areas, increased population density in cities and slums, and people living in close proximity to domestic animals, the human-animal interface presents increasing challenges. These are further exacerbated by industrialized food production, with large numbers of animals confined to close quarters. Around 75 percent of new human pathogens emerge from wild and domestic animals.<sup>10</sup>
- **Water scarcity:** Water scarcity affects about 700 million people in 43 countries, and it is predicted that, a decade from now, two-thirds of humanity will live under water-

<sup>7</sup> WHO, "Tuberculosis," Media Centre website, 2015, available at [www.who.int/mediacentre/factsheets/fs104/en/](http://www.who.int/mediacentre/factsheets/fs104/en/).

<sup>8</sup> United Nations, *The Millennium Development Goals Report*, 2015.

<sup>9</sup> WHO, "Pandemic and Epidemic Diseases," available at [www.who.int/csr/disease/WHO\\_PED\\_flyer\\_2014.PDF](http://www.who.int/csr/disease/WHO_PED_flyer_2014.PDF).

<sup>10</sup> David M. Morens and Anthony S. Fauci, "Emerging Infectious Diseases: Threats to Human Health and Global Stability," July 2013, available at <http://journals.plos.org/plospathogens/article?id=10.1371/journal.ppat.1003467>.

stressed conditions.<sup>11</sup> Water scarcity has a serious impact not only on public health but also on security; water-related issues increasingly lead to disputes and conflicts among and within states, which, in turn, have serious implications for public health. State and non-state actors, including the private and public sectors, nongovernmental organizations (NGOs), and the multilateral system, need to find new ways to provide fresh water to people in need.

- **Natural resources:** The issue of water cannot be looked at in isolation; the food-water-energy nexus must be considered together. According to the UN, by 2030, the world will need at least 30 percent more water, 45 percent more energy, and 50 percent more food.<sup>12</sup> Current use of natural resources is unsustainable, and this trend is worsening. A more sustainable way to protect and maintain the planet is needed.
- **CO<sub>2</sub> emissions:** More energy consumption is leading to record-high CO<sub>2</sub> emissions, more than half of which are being produced by the United States and China. Increasing CO<sub>2</sub> emissions, among other factors, have catalyzed global warming, leading to a rise in the world's average temperature of 1 degree Celsius since 1950. Climate change has been most dramatic in the north, causing the melting of the polar ice cap. A direct relationship exists between climate change and health: climate change affects the "social and environmental determinants of health—clean air, safe drinking water, sufficient food and secure shelter." In areas like North Africa and the Middle East, climate change can become a threat multiplier, aggravating resource scarcity. It has been estimated that, between 2030 and 2050, climate change will account for approximately 250,000 additional deaths as a result of malnutrition, malaria, diarrhea, and heat stress.<sup>13</sup> The Paris Agreement adopted at the Climate Change Conference in December 2015 marks an important step forward, but implementation is key and will represent an uphill challenge.
- **Deforestation:** Some 46,000–58,000 square miles of forest are lost each year—the equivalent of thirty-six football fields every minute.<sup>14</sup> It is estimated that this deforestation accounts for 15 percent of all greenhouse gas emissions. Deforestation poses a threat to all species, causing soil erosion and reducing mechanisms for coping with CO<sub>2</sub> emissions and changes in microclimates. Increasing efforts to combat deforestation and CO<sub>2</sub> emissions have already shown significant effects.
- **Change in microclimates and desertification:** Great civilizations have come to an end because of self-inflicted changes to their microclimate. Areas once fertile, green, and forested have changed as a result of deforestation due to the need for firewood and building materials. Ultimately, these areas turned into dry land unable to supply larger populations with food. It is important to consider the lessons from these cases to ensure history does not repeat itself. In addition to directly self-inflicted changes to

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<sup>11</sup> UN Department of Economic and Social Affairs, "International Decade for Action 'Water for Life' 2005–2015," available at [www.un.org/waterforlifedecade/scarcity.shtml](http://www.un.org/waterforlifedecade/scarcity.shtml).

<sup>12</sup> High-Level Panel on Global Sustainability, *Resilient People, Resilient Planet: A Future Worth Choosing*, 2012, available at [http://uscib.org/docs/GSPReportOverview\\_A4%20size.pdf](http://uscib.org/docs/GSPReportOverview_A4%20size.pdf).

<sup>13</sup> WHO, "Climate Change and Health," available at [www.who.int/mediacentre/factsheets/fs266/en/](http://www.who.int/mediacentre/factsheets/fs266/en/).

<sup>14</sup> UN, "Sustainable Development Goals," available at <https://sustainabledevelopment.un.org/?menu=1300>.

microclimates, climate change indirectly allows the world's largest deserts, such as the Sahara, to expand significantly, leading to forced displacement.

- **Natural and manmade disasters:** The rise in natural and manmade disasters such as droughts, floods, and storms poses an immediate threat to people's livelihoods and can cause famine and forced displacement. Such disasters also can destroy the physical, biological, and social environment of the affected populations, thereby posing serious long-term effects on their health and well-being. The number of disastrous floods each year has quadrupled over the past thirty years, while the number of disastrous storms has doubled.<sup>15</sup>
- **Environmental crime:** The destruction of the planet is, in many cases, literally criminal. Illegal logging, illegal dumping of hazardous waste, poaching of endangered species to the point of extinction, and overfishing are stealing the earth's precious resources and threatening the health of humanity.

### ***Health, Conflict, and Fragility***

Armed conflict and other situations of violence, instability, and state fragility affect public health and well-being, disrupt livelihoods, and often halt the delivery of essential services, such as healthcare and education.<sup>16</sup> The relationship between armed conflict and health is established but complex. Despite the obvious, but important, fact that people are killed, injured, disabled, abused, or traumatized due to armed conflict, indirect and nonviolent deaths generally far outnumber violent ones. In Darfur, 87 percent of civilian deaths between 2003 and 2008 were nonviolent.<sup>17</sup> Displacement—triggered both by disasters and by armed conflict or other situations of violence—further negatively affects health; apart from the immediate impact on local populations and healthcare infrastructure, refugees and internally displaced persons suffer from increased mortality, disability, and psychological distress. Other indirect effects of armed conflict on global health include:

- **Impeded access of health professionals** and humanitarian agencies to populations in need;
- **"Flight" of health professionals** from conflict zones due to threats, harassment, and attacks by both government security forces and non-state armed groups;<sup>18</sup>

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<sup>15</sup> The number of floods increased from 39 in 1980 to 154 in 2011; the number of storms increased from 43 in 1980 to 84 in 2011. UN Office for Disaster Risk Reduction, "Disaster Statistics," available at [www.unisdr.org/we/inform/disaster-statistics](http://www.unisdr.org/we/inform/disaster-statistics).

<sup>16</sup> Margaret Kruk, Lynn Freedman, Grace Anglin, and Ronald Waldman, "Rebuilding Health Systems to Improve Health and Promote Statebuilding in Postconflict Countries: A Theoretical Framework and Research Agenda," *Social Science Medicine* 70 (2010).

<sup>17</sup> Olivier Degomme and Debarati Guha-Sapir, "Patterns of Mortality Rates in Darfur Conflict," *The Lancet* 375, no. 9,711 (2010).

<sup>18</sup> See, for example, International Committee of the Red Cross, "Health Care in Danger – Violent Incidents Affecting the Delivery of Health Care, January 2012 to December 2014," April 2015, available at [www.icrc.org/eng/resources/documents/publication/p4237-violent-incidents.htm](http://www.icrc.org/eng/resources/documents/publication/p4237-violent-incidents.htm). See also WHO, "Tracking Attacks on Health Workers – Don't Let Them Go Unnoticed," December 2015, available at [www.who.int/features/2015/healthworkers-in-emergencies/en/](http://www.who.int/features/2015/healthworkers-in-emergencies/en/).

- **Lack of supplies and basic equipment** in hospitals and clinics in conflict zones, as well as difficulty accessing health facilities for populations in need due to deterioration of infrastructure and transportation;
- **Destruction and looting of health infrastructure** by warring parties, demonstrating a clear disrespect, or at least under-prioritization, of health imperatives compared to military or security imperatives;<sup>19</sup>
- **Decrease in government expenditure on healthcare;**
- **Food shortages**, malnutrition, and famine due to damaged agricultural structures, economic collapse, deliberate withholding of aid, and disruption of the family unit;
- **Shortage of clean and potable water;**
- **Higher under-five mortality rates**, which are three to five times higher in conflict zones;<sup>20</sup>
- **Decline in basic childhood immunization** in conflict zones (e.g., routine immunization in Syria declined from 83 percent in 2010 to 52 percent in 2012);<sup>21</sup>
- **Higher maternal death rates** due to childbirth complications and other debilitating conditions in conflict-ridden or post-conflict states;
- **Increased incidence of sexual violence**, with greater incidence of sexually transmitted diseases, as well as physical and psychological trauma; and
- **Increased incidence of infectious diseases** (polio, malaria, cholera, measles, etc.) due to malnutrition, unsanitary conditions, lack of clean water, and other factors, which can create so many victims that it increases vulnerability to further political and military instability, as well as state failure.

States rendered fragile or failed, whether due to protracted conflict or violence, disasters, or chronic underdevelopment, tend to have far worse population health indicators than states at comparable levels of development.<sup>22</sup> Protracted crises and emergencies, combined with weak or nonexistent local and national institutions, can seriously undermine any potential for health improvements and nullify health investments and programs in the long term. At the same time, it is no coincidence that countries with weak healthcare infrastructures are less able to deal with the health consequences of conflict and violence and are more vulnerable to the outbreak of diseases and less capable of managing such outbreaks and mitigating their effects.

Health investments can contribute to the well-being of the state and its population. In the long term, stronger health systems can improve the health and overall resilience of the population, leading to greater productivity, stronger economies, less violence, and state stability. Evidence also indicates that improved health services can increase trust in state institutions, thus contributing to the authority and legitimacy of the government.<sup>23</sup> Finally, strong health systems

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<sup>19</sup> Ibid.

<sup>20</sup> Ronald Waldman, "Infectious Diseases in the Context of War, Civil Strife and Social Dislocation," in *The Social Ecology of Infectious Diseases*, edited by Kenneth H. Mayer and H. F. Pizer (Burlington, MA: Academic Press, 2008).

<sup>21</sup> UNICEF and WHO, "Middle East Polio Outbreak Response Review," 2014, p. 6.

<sup>22</sup> Rohini Jonnalagadda Haar and Leonard S. Rubenstein, "Health in Postconflict and Fragile States," US Institute of Peace, 2012, p. 2.

<sup>23</sup> Kruk et al., "Rebuilding Health Systems to Improve Health and Promote Statebuilding in Postconflict Countries."

can better cope with the additional strain placed upon them by disease outbreaks, disasters, armed conflict, or refugee or migration flows.

### ***Other Health-Related Challenges***

Other issues that require multilateral attention include the following:

- **Hunger and malnutrition:** Hunger and malnutrition affect one in eight people worldwide. Approximately 100 million children (one in six) in developing countries are malnourished. More than 3 million children die each year because of poor nutrition, representing 45 percent of deaths in children under five.<sup>24</sup>
- **Noncommunicable diseases:** The global burden and threat of noncommunicable diseases present major challenges for economic and social development in the twenty-first century and may lead to increasing inequalities within and between countries and populations. Cardiovascular diseases, cancer, chronic respiratory diseases, and diabetes are linked to four main risk factors: tobacco use, harmful use of alcohol, unhealthy diet, and physical inactivity. Cardiovascular diseases are the leading cause of death in the world, accounting for three in ten deaths globally, while almost ten percent of adults worldwide suffer from diabetes, and the number is on the rise.<sup>25</sup>
- **Preventable deaths of babies and children under the age of five:** Each year, 6.6 million children under the age of five die. Children born into poverty are almost twice as likely to die before the age of five as those from wealthier families. Most of these children's lives could be saved if they had access to exclusive breastfeeding, vaccines, medication, clean water, and sanitation.<sup>26</sup>
- **Preterm birth:** Every year, 15 million babies, representing about 10 percent of all babies, are born preterm (before thirty-seven weeks of pregnancy). Complications attributable to preterm birth cause 1 million deaths each year, more than 75 percent of which could be prevented with cost-effective care.<sup>27</sup>
- **Maternal mortality:** There are wide gaps in maternal mortality between developing and developed countries; the proportion of mothers who do not survive childbirth compared to those who do in developing countries is fourteen times higher than in developed countries. While maternal mortality has fallen by almost 50 percent since 1990, about 300,000 women die every year due to complications related to pregnancy and childbirth.<sup>28</sup>

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<sup>24</sup> World Food Programme, "Hunger Statistics," available at [www.wfp.org/hunger/stats](http://www.wfp.org/hunger/stats).

<sup>25</sup> NCD Alliance, "Cardiovascular Diseases," available at [www.ncdalliance.org/node/38](http://www.ncdalliance.org/node/38); Hesel, "Facts on Health Around the World," available at [www.hesed.org/facts-on-health-around-the-world-hesed/](http://www.hesed.org/facts-on-health-around-the-world-hesed/).

<sup>26</sup> UNICEF, "Committing to Child Survival: A Promise Renewed," 2013, available at [www.unicef.org/publications/files/APR\\_Progress\\_Report\\_2013\\_9\\_Sept\\_2013.pdf](http://www.unicef.org/publications/files/APR_Progress_Report_2013_9_Sept_2013.pdf); UN, "Sustainable Development Goals," available at [www.un.org/sustainabledevelopment/health/](http://www.un.org/sustainabledevelopment/health/).

<sup>27</sup> March of Dimes, "The Global Problem of Premature Birth," available at [www.marchofdimes.org/mission/the-global-problem-of-premature-birth.aspx](http://www.marchofdimes.org/mission/the-global-problem-of-premature-birth.aspx).

<sup>28</sup> UN, "Sustainable Development Goals."



- **Road accidents:** Nearly 1.3 million people die each year from road accidents. Road accidents are the number-one killer of 15-to-29-year-olds. Road accident injuries are projected to rise as vehicle ownership increases, particularly in developing countries.<sup>29</sup>
- **Alcohol abuse:** Worldwide, about 2.5 million alcohol-related deaths occur each year, representing nearly 4 percent of all deaths. Alcohol consumption is the third largest risk factor for disease and disability in the world, the largest risk factor in the Western Pacific and the Americas, and the second largest in Europe.<sup>30</sup>
- **Drug addiction:** In 2010, at least 230 million people are estimated to have used an illicit drug at least once. At least 15.3 million people have drug-use disorders. Injection drug use is reported in 148 countries, 120 of which report HIV infection among this population.<sup>31</sup>
- **Tobacco:** More than 5 million people die each year due to direct use of tobacco, and 600,000 non-smokers die due to second-hand exposure to smoke.<sup>32</sup>
- **Mental health and depression:** About 350 million people worldwide are affected by depression. Less than half of them have access to adequate treatment and healthcare.<sup>33</sup>
- **Suicide:** In the US, more people die from suicide than homicide. In addition to the 30,000 people who die from suicide each year in the US, 750,000 people attempt suicide.<sup>34</sup>
- **Small arms:** Small arms proliferation continues to cause deaths and short- and long-term injuries and disabilities, both in and outside of the context of conflict. According to the Small Arms Survey, approximately 60 percent of all violent deaths are committed with firearms, varying from a low of 19 percent in Western and Central Europe to a high of 77 percent in Central America, based on data from forty-five countries.<sup>35</sup>

## II. Overview of Current Debates

### *Centrality of the World Health Organization*

The World Health Organization has played a tremendous and pivotal role in coordinating and managing global public health. Nonetheless, the organization's structure and operational capacity have been a subject of serious debate. Operational capacity has been hindered by inadequate funding and a lack of political will on the part of member states to engage collectively in a transparent and accountable manner when a health crisis breaks out. The

<sup>29</sup> WHO, "10 Facts on the State of Global Health."

<sup>30</sup> WHO, *Global Status Report on Alcohol and Health*, 2011, available at [www.who.int/substance\\_abuse/publications/global\\_alcohol\\_report/msbgsruprofiles.pdf](http://www.who.int/substance_abuse/publications/global_alcohol_report/msbgsruprofiles.pdf); National Council on Alcoholism and Drug Dependence, "2.5 Million Alcohol-Related Deaths Worldwide Annually," April 16, 2011, available at <https://ncadd.org/in-the-news/155-25-million-alcohol-related-deaths-worldwide-annually>.

<sup>31</sup> WHO, "Management of Substance Abuse," available at [www.who.int/substance\\_abuse/facts/en/](http://www.who.int/substance_abuse/facts/en/).

<sup>32</sup> WHO, "Tobacco," available at [www.who.int/mediacentre/factsheets/fs339/en/](http://www.who.int/mediacentre/factsheets/fs339/en/).

<sup>33</sup> WHO, "Depression," available at [www.who.int/mediacentre/factsheets/fs369/en/](http://www.who.int/mediacentre/factsheets/fs369/en/).

<sup>34</sup> Kevin Caruso, "More People Die by Suicide than by Homicide," available at [www.suicide.org/more-people-die-by-suicide-than-by-homicide.html](http://www.suicide.org/more-people-die-by-suicide-than-by-homicide.html).

<sup>35</sup> Small Arms Survey, "Non-Conflict Armed Violence," available at [www.smallarmssurvey.org/armed-violence/non-conflict-armed-violence.html](http://www.smallarmssurvey.org/armed-violence/non-conflict-armed-violence.html).

organizational structure, in particular the role and responsibility of the seven regional directors, has been the subject of much criticism. The subsidiarity inherent in today's model has prevented the WHO from maximizing its potential and playing an adequate role when a crisis erupts. Rethinking the roles and responsibilities of regional directors—and their relationship to headquarters—is necessary in order to ensure that the system is working as effectively and efficiently as it can.

### ***Sustainable Development Goals***

Debates on global public health are inextricably linked to the Sustainable Development Goals (SDGs) adopted in September 2015. More than half of the seventeen SDGs relate to health, either directly or indirectly, including (1) ending poverty, (2) ending hunger and achieving food security, (3) ensuring healthy lives and promoting well-being, (6) water security, (7) sustainable energy, (13) climate change, (14) oceans and seas, and (15) life on land.<sup>36</sup>

Goal 3, in particular, is essential to sustainable development. While significant strides have been made in increasing life expectancy and reducing some of the common killers associated with child and maternal mortality, many more efforts are needed to fully eradicate a wide range of diseases and address many persistent and emerging health issues. While adoption of the 2030 Sustainable Development Agenda during the seventieth session of the UN General Assembly was a major step in the right direction, implementation and financing remain key challenges.

### ***Global Frameworks for Detecting and Responding to Health Crises***

While the 2005 International Health Regulations (IHR) provide a robust framework for preventing, detecting, and responding to major public health threats, the 2009 H1N1 influenza, SARS, MERS, and the recent Ebola epidemic in West Africa have exposed the huge gaps in the implementation of the IHR and in the WHO's ability to respond to emergencies. They have also drawn attention to the larger issue of preparedness capacities, research and development on emerging and neglected tropical diseases, and strengthening of health systems in developing countries.

To strengthen global preparedness for influenza pandemics, the World Health Assembly, in 2011, adopted the landmark Pandemic Influenza Preparedness (PIP) Framework, which brings together UN member states, industry, other stakeholders, and the WHO to implement a global approach to influenza preparedness and response.

The Ebola epidemic, in particular, has led to a serious review of global health security and health preparedness. Multiple initiatives have been launched, both within and outside of the UN system, to identify and address critical gaps and challenges in effectively responding to future outbreaks (see Boxes 2 and 3). In response to Ebola, the WHO was required to rethink its emergency response programs, including increasing member states' capacity to implement the IHR core capacities regime, creating a research and development blueprint to accelerate

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<sup>36</sup> See [www.un.org/sustainabledevelopment/sustainable-development-goals/](http://www.un.org/sustainabledevelopment/sustainable-development-goals/).

diagnosis and treatment during a crisis, and building a global health emergency workforce. The Ebola crisis also highlighted the importance of coordinating between multilateral, regional, national, and community responses. Community engagement, in particular, was key to changing behaviors, patterns, and funeral rites that were contributing to the spread of the disease.

Unlike the HIV/AIDS pandemic, which led to the creation of UNAIDS as a separate entity to mobilize and coordinate global efforts against HIV/AIDS, one conclusion that has come out of all the major post-Ebola reviews held so far is that the WHO should remain the lead global agency in responding to health emergencies and that its operational emergency response capacities should be significantly strengthened. Some actions in this direction have already been initiated by member states within the WHO, like the creation of the WHO Contingency Fund for Emergencies and the work on the Global Health Emergency Workforce. Other actions will be informed by the outcomes of other reviews, in particular the recommendations of the UN secretary-general's High-Level Panel on the Global Response to Health Crises<sup>37</sup> and the IHR Review Committee.<sup>38</sup>

## **Box 2. Major internal and external evaluations of the Ebola response**

### Within WHO

- Ebola Interim Assessment Panel
  - *Final report published in July 2015*
- Director-general of the WHO's Advisory Group on Reform of WHO's Work in Outbreaks and Emergencies with Health and Humanitarian Consequences
  - *First report published in November 2015, second and final report published in January 2016*
- Review Committee on the Role of the IHR in the Ebola Outbreak and Response
  - *Final report submitted to 69<sup>th</sup> World Health Assembly in May 2016*

### Other UN agencies

- UN secretary-general's High-Level Panel on the Global Response to Health Crises
  - *Final report published in February 2016*

### Outside of UN system

- Independent Panel on the Global Response to Ebola, convened by Harvard Global Health Institute and London School of Hygiene & Tropical Medicine
  - *Report published in The Lancet in November 2015*
- Global Health Risk Framework for the Future, convened by National Academy of Medicine (an independent international group of experts in finance, governance, research and

<sup>37</sup> High-Level Panel on the Global Response to Health Crises, *Protecting Humanity from Future Health Crises*, January 25, 2016, available at [www.un.org/News/dh/infocus/HLP/2016-02-05\\_Final\\_Report\\_Global\\_Response\\_to\\_Health\\_Crises.pdf](http://www.un.org/News/dh/infocus/HLP/2016-02-05_Final_Report_Global_Response_to_Health_Crises.pdf).

<sup>38</sup> The final report of the committee was presented at the 69<sup>th</sup> World Health Assembly in May 2016. See <http://www.who.int/ihr/review-committee-2016/en/>.

### **Box 3. Initiatives to strengthen global emergency response and preparedness**

#### Within WHO

- Ebola Special Session Resolution and Decision adopted at 68<sup>th</sup> World Health Assembly in May 2015
- Launch of WHO Contingency Fund for Emergencies
- WHO Emergency Reform to enhance WHO's capacities in responding to emergencies
- Strengthening of the Global Health Emergency Workforce

#### Outside of UN system

- Global Health Security Agenda (US-led multi-stakeholder initiative to strengthen member countries' capacities to prevent, detect, and respond to infectious disease threats, both natural and accidental or intentional)
- World Bank's Pandemic Emergency Facility

The multilateral system has also taken action to address other types of health crises. For example, in 2013, the secretary-general established an Interagency Task Force on the Prevention and Control of Noncommunicable Diseases under the leadership of the WHO. This task force is intended to support national efforts to implement the commitments included in the 2011 political declaration of the high-level meeting of the General Assembly on the prevention and control of noncommunicable diseases and the 2014 outcome document of the high-level meeting of the General Assembly on the comprehensive review and assessment of the progress achieved in the prevention and control of noncommunicable diseases.

#### ***High-Level Panel on the Global Response to Health Crises***

The UN secretary-general appointed a High-Level Panel on the Global Response to Health Crises in 2015 to make recommendations for strengthening national and international systems to “prevent and manage future health crises, taking into account lessons learned from the response to the Ebola outbreak.”<sup>39</sup> In carrying out its work, the panel has undertaken a wide range of consultations, including with representatives from the affected countries and communities, the UN system, multilateral and bilateral financial institutions and regional development banks, NGOs, countries supporting the response effort, other member states, healthcare providers, academic and research institutions, the private sector, and other experts.

In its report, the panel argues that the capacity to respond is woefully insufficient.<sup>40</sup> Future epidemics could far exceed the devastation and scale of Ebola. Whenever a pandemic breaks out, the initial panic is invariably followed by complacency and inaction. Most of the

<sup>39</sup> UN, “Secretary-General Appoints High-Level Panel on the Global Response to Health Crises,” April 2, 2015, available at [www.un.org/press/en/2015/sga1558.doc.htm](http://www.un.org/press/en/2015/sga1558.doc.htm).

<sup>40</sup> High-Level Panel on the Global Response to Health Crises, *Protecting Humanity from Future Health Crises*.

recommendations made in the aftermath of the 2009 influenza outbreak—particularly those made by the Centers for Disease Control and Prevention (CDC)—remain unaddressed. This begs the question of whether thousands of lives could have been saved in West Africa had the earlier recommendations been acted upon.

At the national level, the report recommends full compliance with the IHR by 2020. It underscores that full compliance will put people at the center of the national response, which would mean integrating all national planning processes, engaging all national partners in the preparedness process, and ensuring the adoption of a “One Health” approach that links the health of humans, animals, and the environment.

At the regional and subregional levels, the report highlights the role of regional organizations, which should take economic and political responsibility for their member states before, during, and after a crisis. A recent example of the need for regional platforms and regional responses comes from South America and the outbreak of the Zika crisis. Nonetheless, the primary responsibility rests with member states themselves as the initial responders to an outbreak or crisis.

At the international level, the report emphasizes the role of the WHO. It recommends that the WHO strengthen compliance with the IHR through periodic reviews and assessments and that it establish a center for emergency response and preparedness with command-and-control authority, as well as the capacity to identify, track, and respond to global health issues. The report also emphasizes the need for better methods of reporting on crises throughout the UN system, starting with the UN secretary-general and within the WHO itself. It recommends integrating health and humanitarian crisis trigger mechanisms and creating a direct reporting line between the head of the WHO and the secretary-general. It also recommends better coordination between the WHO director-general and regional directors, as no supervisory line of authority currently exists.

In the area of research and development, the report recommends establishing a \$1 billion fund housed wherever appropriate within the existing structure to develop platforms for big manufacturers to research and develop vaccines and rapid-diagnosis tests for all neglected communicable diseases, not just tropical diseases. In the area of financing, the panel recommends a 10 percent increase in assessed contributions to the WHO for investment in core capacity for compliance with the IHR. In relation to emergency response, the panel suggests that the current ceiling of \$100 million for the WHO’s Contingency Fund for Emergencies should be expanded to \$300 million, be fully funded by the end of 2016, and be replenished whenever depleted. It also suggests that these funds be made available to all players in times of health emergencies (e.g., Médecins Sans Frontières, the International Committee of the Red Cross, and other first respondents), not just to the WHO.

### **III. Conclusions and Recommendations**

The aim of the various actors of the multilateral system should be to proactively provide and implement solutions, as well as to encourage adaptive leadership, in order to improve the

effectiveness of the multilateral system in reducing the harm caused by pandemics and other threats to global public health.<sup>41</sup> Since many health issues are transnational and closely related to the three pillars of the UN—peace and security, development, and human rights—they require a multilateral response. (Indeed, it is worth recalling that one of the first examples of international cooperation came as a result of states working together to deal with an outbreak of cholera in the mid-nineteenth century.) The goal should be to develop and implement policies to be better prepared to cope with these crises and to face the challenges of the future—even the unexpected ones. Doing so may require adjusting and strengthening the global health infrastructure and normative framework.

### ***Recommendations for the UN System***

#### **1. Follow up on the High-Level Panel report and other review process**

While it was a welcome and timely initiative, follow-up on and implementation of the recommendations of the secretary-general's High-Level Panel on the Global Response to Health Crises is critical. This requires better defining and identifying triggers of health crises, renewing focus on compliance capacity throughout the WHO and UN system, and undertaking research and development for better detection and treatment.

The secretary-general, with the WHO, should also draw upon the different review processes that took place in the past two years to establish a roadmap for implementation of recommendations made and to identify areas that require further reviews, such as the specific challenges related to delivering healthcare in situations of armed conflict.

It would also be worth considering the possibility of a framework convention for global health with a focus on monitoring compliance with the IHR and accountability.

#### **2. Create a high-level council on global health crises**

A high-level council on global health crises could significantly contribute to an accountability framework for compliance by governments and other partners with the IHR by complementing countries' self-assessments with independent assessments. The reports produced by this council should go to the World Health Assembly and then to the UN General Assembly. Such a council should not be made up only of Ministers of Health but also of Ministers of Foreign Affairs and Finance.

#### **3. Establish synergies with other agendas and bridge silos**

Apart from drawing upon the various review processes related to global health crises, there is a need to establish further synergies and coherence with other recently adopted agendas and

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<sup>41</sup> As conflicts and disasters have a significant impact on public health, the multilateral system should also invest heavily in preventing and mitigating the negative impact of such conflicts and disasters. See also first section of the ICM's Discussion Paper on Humanitarian Engagements, available at [www.icm2016.org/humanitarian-engagements](http://www.icm2016.org/humanitarian-engagements).

frameworks that seek to address challenges that have a direct impact on global health, such as the 2030 Agenda and all seventeen of the SDGs (particularly SDG 3, the standalone goal on health), the Paris Agreement on climate change, and the Sendai Framework on Disaster Risk Reduction. The 2030 Agenda should be a catalyst for the health community and should encourage a systemic approach. The implementation of SDG 3 should also encourage greater interaction and accountability between citizens and their governments. Implementation of these agendas and frameworks would go a long way toward improving public health globally, minimizing the outbreak, spread, and impact of pandemics and other diseases, strengthening the capacity to respond to such outbreaks, and making the biosphere more sustainable.

Institutional silos impede sound and holistic policymaking, smooth implementation, and operational capacity. Institutional silos have created an international system that is insufficiently prepared and reacts too slowly when an outbreak escalates to a global health security threat. To improve global health, policies need to be holistic and to take into account the entire health system instead of only a fragment. For example, focusing only on surveillance will not prevent the outbreak of the next epidemic.

#### **4. Adopt an integrated approach to global health**

In order to improve the effectiveness of global health programs at the multilateral level, it would be beneficial to follow an integrated two-level approach. On one level, a coordinated approach to health issues by a wide range of government ministries (e.g., health, defense, foreign affairs) could facilitate more effective coordination of healthcare services with security and development efforts. On the second level, there could be increased coordination among different healthcare services. For this integrated approach to have maximum impact and effectiveness, the same integrated model would need to be mirrored at the national and local levels. The response to polio shows that overemphasis on one healthcare issue in countries where other healthcare threats are more acute (e.g., diarrhea, malaria, typhus) can lead to resistance to polio campaigns. Therefore, it should be explored how efforts targeting one particular healthcare issue can be combined with improvements in overall healthcare treatment.

#### **5. Increase accountability, inclusivity, and transparency**

The multilateral system requires effective feedback loops and should find innovative means of enforcing member states' compliance with and accountability for global health protocols. Approaches to increase accountability could include more effectively using human rights mechanisms and instruments (e.g., the Human Rights Up Front initiative within the UN and the Human Rights Council), holding citizens' hearings at the national and global levels to ensure greater inclusivity, and empowering parliamentarians and parliaments. The Ebola response demonstrated the importance of finding mechanisms for bringing local community voices into national and international responses. Moreover, given the centrality of the WHO in crisis response and prevention, providing the necessary tools and mechanisms for information sharing between member states remains a key priority.

## **6. Convene a global health summit in 2018**

The secretary-general should consider convening an inter-ministerial forum for addressing the future of the global health architecture and normative framework. This forum should not be too broad and should focus primarily on issues of finance and accountability. Such a summit would determine what key instruments, structures, and players could help create a stable and sustainable global health architecture.

## **7. Recognize the centrality of the WHO and the role of partnerships**

The WHO remains the right organization to coordinate international policies and action in the area of global public health. However, the organization's structure—particularly the question of regional directors—and its operational capacity need to be reformed, strengthened, and complemented with existing and new partnerships, including regional organizations and the private sector.

The private sector drives innovation. The multilateral system should engage with private actors, such as the transportation, airline, tourism, and insurance industries. It should engage these actors in their particular areas of expertise, including financial services, core skills, risk management, and fund management. This engagement can lead to a variety of partnerships, including public-private partnerships like the Global Fund to Fight AIDS, Tuberculosis, and Malaria; Gavi, the Vaccine Alliance; and the Bill & Melinda Gates Foundation.

However, the existing model of public-private partnerships needs tweaking. Multilateral agencies should devise an incentive-driven approach. Alternatively, states should find a way to get the private sector to support global public health through taxes or another type of levy that would give it benefits in exchange. Establishing stronger relationships with the private sector before a crisis erupts would enhance the multilateral system's ability to respond more effectively to outbreaks and could encourage research and development to respond to people's well-being instead of market demand. A useful case study is the Pandemic Influenza Preparedness (PIP) Framework, which reflected solidarity between multilateral mechanisms and pharmaceutical companies. In addition, in cases of noncompliance with public health regulations, the WHO should reinforce links with the World Trade Organization to look into litigation possibilities.

### ***Recommendations for UN Member States***

#### **1. Build the capacity of national healthcare systems**

UN member states should create robust healthcare systems that are sustainable, reliable, comprehensive, resilient, and based on inclusive approaches. Toward this end, member states should:



- Improve the capacity of responders at the local level to prevent, detect, and respond early to outbreaks through better infrastructure, training, and sufficient stockpiles of medical supplies;
- Treat human capital as the foundation of healthcare systems by implementing programs for the training and continuous improvement of healthcare professionals that harmoniously integrate healthcare needs;
- Ensure adequate budgets for healthcare, including adequate funding for preventing and responding to health emergencies;
- Develop pharmaceutical and drug policies to improve access to medicine;
- Better implement the International Health Regulations;
- Adopt inter-sectoral approaches to health, such as inclusive dialogue and information exchange between health officials and practitioners and other governments ministries (foreign affairs, trade, interior, security, etc.), to increase the health and well-being of the population, risk perception, citizen self-responsibility, and sustainability;
- Respond to development needs and health emergencies as part of a holistic, two-track response so that new pandemics do not take the focus away from older health crises that still present development challenges; and
- Engage communities in identifying, prioritizing, and implementing health responses and in monitoring and evaluating results to ensure that public health programs respond to people's needs.

## **2. Reaffirm protection, particularly of health professionals and facilities**

Existing obligations under international law to protect and respect medical personnel, facilities, and means of transportation must be complied with in all circumstances. The same holds true for medical ethics and principles for delivery of healthcare in situations of armed conflict. States should fully implement Security Council Resolution 2286 (2016), Resolution 4 of the 32<sup>nd</sup> International Conference of the Red Cross and Red Crescent (2015), and other recommendations to protect the delivery of healthcare in armed conflicts and other emergencies.<sup>42</sup>

## **3. Explore the role of military forces**

Although rarely recognized, military forces can play a positive role in responding to global health crises, as they often have the logistical capacity to quickly respond to emergency needs. However, caution is in order in situations of armed conflict or other situations of violence so as not to compromise the real or perceived neutrality and impartiality of the response to health needs.

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<sup>42</sup> UN Security Council Resolution 2286 (May 3, 2016), UN Doc. S/RES/2286; 32<sup>nd</sup> International Conference of the Red Cross and Red Crescent, "Resolution 4: Healthcare in Danger: Continuing to Protect the Delivery of Healthcare Together," available at <http://rcrcconference.org/wp-content/uploads/sites/3/2015/04/32IC-AR-HCiD- EN.pdf>; International Committee of the Red Cross, *Protecting Healthcare: Key Recommendations*, April 2016, available at [http://healthcareindanger.org/wp-content/uploads/2016/05/4266\\_002\\_ProtectingHealthcare.pdf](http://healthcareindanger.org/wp-content/uploads/2016/05/4266_002_ProtectingHealthcare.pdf).

#### **4. Consider increasing assessed contributions to UN agencies dealing with health crises**

The lack of assessed contributions to UN agencies dealing with health crises hampers their ability to fulfill their mandate. As recommended by the High-Level Panel on the Global Response to Health Crises, assessed contributions to the WHO should be increased by 10 percent.

#### **5. Adopt a consensus-driven approach to negotiations**

When it comes to global health discussions, everyone wants more. This changes the opportunity for outcomes. Consensus-driven approaches have worked in the past (e.g., the WHO Framework Convention on Tobacco Control).



