

Pandemic Disease Preparedness in Developing Nations

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Introduction

The current worldwide attention and fear generated by the H1N1 pandemic influenza or swine flu has highlighted the issue of pandemic disease preparedness. In the past decade alone, the world has seen various periodic outbreaks of regional or global scope: Salmonella, E. Coli, SARS, Dengue fever, avian flu, and others, each of which pose a possible threat of truly catastrophic proportions. Even the resource-rich Western countries have had to scramble to provide adequate and timely measures of safety and treatment for their populations. For the poorer developing nations—blighted as they are by limited resources, crumbling or non-existent public-health infrastructures, and the pressures of social and economic instabilities—the prospect is much graver indeed.

The issue strikes to the core of problems of uneven economic development, endangering people in poorer countries—with less access to health care—more than others. But because disease can reach epidemic proportions, the dangers in poor countries cannot be separated from the rest of the world. Global interests are not abstract in this case, but whether international institutions can be equipped to provide global solutions is not certain.

Pandemic Diseases

The World Health Organization (WHO) defines pandemic diseases as those human communicable infections that transfer easily among other humans and quickly spread across large geographical regions. Simply because a disease is widespread does not make it a pandemic–for example: cancer is widespread across the globe but not a pandemic. To be a pandemic, the criterion is that the disease be infectious.

There are many examples of pandemic diseases in human history. The fourteenth century Black Death is the best known instance, during which more than 75 million people are estimated to have died in Europe and Asia. In the last century, the Spanish Flu after World War One killed more than the war itself during 1918-1919. The HIV/AIDS virus has spread across the world during the last forty years and continues to take a huge toll. Other significant causes of pandemics include cholera, tuberculosis, malaria, measles, etc.

In today's globalized world, when the cheap and easy means of transportation has made travel and interaction between countries and continents easier than ever, the rate of spread of diseases



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has become alarmingly fast. One just has to see the recent explosion of H1N1 virus, which travelled from Mexico to America, Europe, Asia and throughout the world in a matter of a couple of weeks, shows the distressing speed of worldwide transfer of a new virus.

When the disease transmission rate can be so high, it is imperative that the governments, international, transnational and non-profit organizations, and the international media work swiftly and closely together to break the chain of transmission and limit the spread of a potential pandemic. In 2003 when the SARS virus threatened the global community, the rapid coordination and effort of the various actors was crediting to some extent in being able to limit its spread and avert a potential global pandemic. However, it is sufficiently clear that such preparedness against diseases is not evenly distributed across all countries and regions of the world.

Impact on Developing Nations

Although there is no single definition of a developing country, the term is widely used to mean those countries with low levels of economic development and material well-being of their populations, especially when compared to the rich economies of the world. Certainly, there are different levels of economic activity and wealth among the developing countries but the poorer countries face unique and widespread problems trying to address the issue of public health. Therefore, while it is indisputable that preparedness for pandemic diseases is crucial in mitigating the effects of possible outbreaks, it is the sad truth that poorer developing nations have low levels of pandemic diseases preparation.

United Nations Secretary General Ban Ki-moon announced that the world was experiencing a pandemic because of the H1N1 flu virus in June 2009. In his address he stressed the specific circumstances for developing nations. He cited three main reasons that poorer nations were at higher risk: they have less developed public health systems, people tend to seek health care later, and there is often a higher level of other diseases in the general population. These factors point us toward the level of low preparation in developing nations and also help us formulate the most important ways that may address the situation.

Public health effort involves population level health issues with specific focus on prevention and spread of diseases. Public health is differentiated from medical health-care's focus on treatment of individual patients and curing their diseases. Education, communication, collaboration,



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surveillance, vaccinations, and health campaigns come under the purview of public health. In the United States, the Centers for Disease Control and Prevention (CDC) is the federal agency tasked with public health issues just like the UN World Health Organization (WHO) plays that role among others for the entire world. In developing countries, the lack of adequate public health awareness and resources means that the general population is less informed and less prepared for pandemic diseases. A lack of information, education and access means that patients who contract infections may not seek treatment immediately or may not even have access to do so in time to avoid further transmission.

It must be underscored that in developing countries populations already live under high levels of common diseases. Diarrhea kills 1.5 million children per year, resulting primarily from a lack of clean drinking water, proper sanitation and good hygiene Among common diseases, diarrhea is one that can be treated with simple measures such as hand-washing and hydration salts. When governments, NGOs and populations are fighting such threats already, it is understandable that they may not be allocating enough resources toward preparation for future pandemic diseases. Such dire situations suggests that governments, international organizations such as the WHO and UNICEF, and NGOs have to design and implement public health campaigns not just for pandemic diseases but also focusing on the long-term basic need for proper hygiene and good health.

Moving Forward

The United Nations, through the World Health Organization, has been the central leader in coordination and collaboration with member countries in planning, tracking, and preparing for possible pandemic outbreaks. In the last decade the WHO has produced various studies and guidelines for the rapid alert and response to any possible outbreaks. These guidelines specify measures that all nations can take to prepare for pandemics, specifically the "avian flu" virus. So far only 40 developed, rich countries have met these preparatory guidelines. Obviously, there is more work to do.

Also, the WHO has urged all countries with the means to stockpile antiviral drugs nationally to do so for later use at the start of an outbreak. Not all countries are able to afford a stockpile. Neither are the manufacturers able to supply the required amount for most countries. The obvious conclusion that the WHO makes is that most developing countries will have no access to vaccines or antiviral drugs throughout the duration of a possible pandemic.



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The next steps for the UN include building up the capabilities of its health organizations. But many countries prefer to dispense aid bi-laterally rather than give resources over to international control. Others fear that preoccupation with epidemics will distort international aid, underlining more traditional economic assistance. For some aid donors, other priorities get in the way. For the United States, for example, fear that aid will benefit terrorist organizations makes assistance to some regions difficult or impossible.

Conclusion

The UN, WHO and the international community must foster and facilitate a public health approach to help developing countries best prepare against pandemic diseases. It is in the interest of all countries and peoples of the world to stop a breakout or limit the spread of pandemics. The WHO's role in dissemination of pertinent information and supporting a global network of rapid response and alert is laudatory. For developing countries, as they prepare for possible outbreaks, promoting and expanding such efforts will be crucial.

Recommended Resources

Pandemic! 10 Deadliest Diseases, Popular Science Magazine: http://www.popsci.com/scitech/article/2008-07/pandemic-10-deadliest-diseases

Fedson, David, *Meeting the challenge of influenza pandemic preparedness in developing countries*. Emerging Infectious Diseases: http://www.cdc.gov/EID/content/15/3/365.htm

Pandemic, Wikipedia:

http://en.wikipedia.org/wiki/Pandemic

Public Health, Wikipedia:

http://en.wikipedia.org/wiki/Public health

Pandemic Preparedness, World Health Organization (WHO): http://www.who.int/csr/disease/influenza/pandemic/en/



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Global Outbreak Alert & Response Network, World Health Organization (WHO): http://www.who.int/csr/outbreaknetwork/en/

Avian influenza frequently asked questions, World Health Organization (WHO): http://www.who.int/csr/disease/avian_influenza/avian_faqs/en/#prepared

Global Alert and Response (GAR), World Health Organization (WHO): http://www.who.int/csr/en/

Ban stresses preparedness as UN declares global flu pandemic, UN News Center: <a href="http://www.un.org/apps/news/story.asp?NewsID=31104&Cr=h1n1&Cr1="http://www.un.org/apps/news/story.asp?N

Diarrhea kills 1.5 mln children every year: UN, The News, Pakistan: http://www.thenews.com.pk/updates.asp?id=89163