

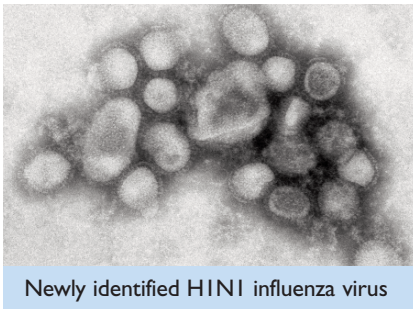


USAID
FROM THE AMERICAN PEOPLE

ISSUE BRIEF

USAID Emergency Response to the H1N1 Pandemic

A novel influenza A (H1N1) outbreak that initially involved Mexico and the United States has spread to countries in Europe, Asia, the Middle East, Oceania, and, most recently, sub-Saharan Africa, and currently shows no sign of abating. In June, the World Health Organization (WHO) declared a phase six pandemic and mobilized the international public health community to take action to mitigate the impact of this significant event. To date, the H1N1 pandemic has been relatively mild with minimal mortality; however, experts warn that the virus could mutate further over the winter months in the southern hemisphere and return to the northern hemisphere in the upcoming flu season as a much more significant disease. Should this happen, an international response of significant magnitude will be required to minimize the negative impact on health that a high-mortality pandemic would cause.



Newly identified H1N1 influenza virus

Current H1N1 Situation

The current outbreak of the novel H1N1 influenza virus constitutes the first influenza pandemic of the 21st century. As of July 23, 2009, the United States has recorded more than 43,000 confirmed and probable cases, but the U.S. Centers for Disease Control and Prevention (CDC) estimates there have been more than 2 million cases nationwide. The United States has also confirmed more than 5,000 hospitalizations and more than 350 deaths from the novel H1N1 influenza virus. As of July 27, the novel H1N1 influenza virus has been confirmed in nearly 140 countries, with almost 135,000 confirmed cases and 816 deaths worldwide.

Experts are uncertain about what to expect from the novel H1N1 influenza virus in the coming months. Even as experts cite encouraging signs to date: overall case fatality ratio in the first wave of countries affected by the virus (principally those in North America and Europe) is similar to seasonal influenza; the virus is susceptible to treatment with standard antiviral medications; older persons appear to have some protection against the virus; and transmission rates have been relatively modest for flu, more ominous signs exist: hospitalization and death among children and adults under the age of 65 are many times that associated with seasonal flu; the virus circulates unusually well in the summer; many countries in the southern hemisphere are currently experiencing very intense flu seasons; drug-resistant H1N1 viruses have popped up; attack rates in children in some affected communities have been over 50 percent; the novel H1N1 influenza virus is able to replicate efficiently in the trachea and deep in the lungs causing more lung damage, a pathology similar to the 1918 pandemic virus.

There is concern that populations in the developing world may be disproportionately affected. The impact of the virus in the lowest-income countries has yet to be seen, as it is only just beginning to penetrate into very poor communities. Based on the epidemiological analysis available to date, it appears likely that in the 49 lowest-income countries whose populations are comparatively young have high rates of underlying medical conditions (particularly HIV, TB, and diabetes), have poor nutrition due to food insecurity and poverty, have weak preventive and curative health care services, have suboptimal health education, and have low (tens of dollars) per capita annual health care; therefore, the health impact of the novel H1N1 influenza virus will be considerably higher than what has been seen to date. It has been estimated that more than 96 percent of the total deaths in an influenza pandemic would likely occur in developing countries. Together, developing countries account for about 82 percent of the world's population.

The capacity to monitor for the impact and possible changes in the virus in the most vulnerable countries is limited. Within these countries, limited laboratory/diagnostic and reporting capacity will make it very difficult to monitor movement and changes of virulence of the novel H1N1 influenza virus among high-risk populations; mutations in the virus and related changes in its epidemiological profile; and recombination between the novel H1N1 influenza virus and the H5N1 avian influenza virus in countries where the H5N1 avian influenza virus remains endemic (Indonesia, Egypt, Vietnam, Bangladesh, and India).

USAID's Response

Over the coming six months, the U.S. Agency for International Development (USAID) will lead U.S. Government humanitarian assistance in 40 to 50 developing countries to characterize and mitigate the effects of this first wave of the H1N1 pandemic virus. During this period, USAID will focus on characterizing the clinical impact of the H1N1 pandemic virus as it spreads across the tropics and, in particular, document whether there are populations that may be disproportionately at risk of severe life-threatening infections, as has been the case in the United States and Europe. These efforts are to ensure a strategically effective and proportional response to the H1N1 pandemic and potential changes in its severity. Assistance will also focus on monitoring for any genetic changes in the virus, either from random mutations or recombination with other viruses, and characterization of any related changes in its epidemiological profile.

USAID, in close collaboration with CDC, WHO, our Humanitarian Pandemic Preparedness (H2P) partners (which include the International Federation of Red Cross/Red Crescent Societies, the World Food Program, UNHCR, UNICEF, and a coalition of non-governmental organizations), is providing assistance in five key areas:

Characterizing the impact and evolution of the pandemic virus

- Strengthening the capacity of a network of diagnostic laboratories
- Supporting sample collection and case investigation capacities
- Monitoring impact of H1N1 infections on potential high-risk groups
- Monitoring for mutations, particularly a H5/H1 recombinant

Supporting treatment/management of severe H1N1 infections

- Providing antivirals for H1N1 treatment, particularly to documented high-risk groups
- Strengthening health worker capacity in management of potential H1N1 cases

Ensuring protection of first responders

- Providing personal protective equipment to health workers in targeted facilities
- Strengthening infection control practices in health facilities

Minimizing Impact on Communities

- Supporting H1N1 public awareness campaigns to minimize infection transmission and providing of proper home care

Maximizing National Pandemic Readiness

- Supporting national authorities to finalize pandemic response plans

Efforts to characterize the magnitude and severity of H1N1 infections over the next six months will form the basis for guiding any efforts to mitigate its impact and any future request for additional resources from the H1N1 contingency fund being managed by the Office of Management and Budget to support these efforts.

July 30, 2009