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These search terms are highlighted: **enormous numbers of deaths and illness**

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## Epidemic and Pandemic Alert and Response (EPR)

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## Pandemic preparedness

- **New-** [Pandemic influenza preparedness and response- A WHO guidance document](#)
- **New-** [WHO pandemic phase descriptions and main actions by phase \[pdf 456kb\]](#)
- [Considerations on exercises to validate pandemic preparedness plans \[pdf 30kb\]](#)
- [WHO checklist for influenza pandemic preparedness planning](#)
- [Swine influenza](#)

### An influenza pandemic

An influenza pandemic occurs when a new influenza virus appears against which the human population has no immunity, resulting in epidemics worldwide with **enormous numbers of deaths and illness**. With the increase in global transport, as well as urbanization and overcrowded conditions, epidemics due the new influenza virus are likely to quickly take hold around the world.

Outbreaks of influenza in animals, especially when happening simultaneously with annual outbreaks of seasonal influenza in humans, increase the chances of a pandemic, through the merging of animal and human influenza viruses. During the last few years, the world has faced several threats with pandemic potential, making the occurrence of the next pandemic a matter of time.

### Consequences of an influenza pandemic

In the past, influenza pandemics have resulted in increased morbidity and mortality and great social disruption. In the 20th century, the most severe influenza pandemic occurred in 1918 -1919 and caused an estimated 40–50 million deaths world wide. Current epidemiological models project that a pandemic could result in 2 to 7.4 million deaths globally.

If an influenza pandemic were to occur today, we could expect:

- the pandemic virus to spread rapidly due to the high level of global traffic;
- vaccines, antiviral agents and antibiotics to treat secondary infections to be in short supply, with a period of several months before any vaccine becomes available;
- medical facilities to be overwhelmed with demands to care for both influenza and non-influenza patients;
- widespread illness to result in sudden and potentially significant shortages of personnel to provide essential community services.

### Detecting a new pandemic virus

Continuous global surveillance of influenza is key to the early detection of a virus with pandemic potential. WHO has a network of more than 120 National Influenza Centres in over 90 countries that monitor influenza activity and isolate influenza viruses in every region of the world. National Influenza Centres will report the detection of an "unusual" influenza virus immediately to the [WHO Global Influenza Programme](#) and one of the five [WHO Collaborating Centres](#). Rapid detection of unusual influenza outbreaks, isolation of viruses with pandemic potential and immediate alert to WHO by national authorities is critical to a timely and efficient response.

### Preparing for an influenza pandemic

Contingency planning for an event that will occur at an undetermined time in the future is difficult, particularly in the face of limited resources and other urgent problems and priorities. However, there are two main reasons to invest in pandemic preparedness

WHO has developed a [global influenza preparedness plan](#), which outlines the responsibilities of WHO and national authorities in the event of an influenza pandemic. WHO also offers guidance tools and training to assist in the development of national pandemic preparedness plans.

**More information**

- [WHO statement on modelling papers published in Science and Nature](#)  
4 August 2005
- [Strengthening pandemic influenza preparedness and response](#)  
Report by the Secretariat, World Health Assembly, 2005
- [Influenza pandemic preparedness and response, Report by the Secretariat to the WHO Executive Board, January 2005](#)
- [Informal consultation on influenza pandemic preparedness in countries with limited resources](#)
- [WHO Guidelines on the Use of Vaccines and Antivirals during Influenza Pandemics](#)
- [WHO consultation on priority public health interventions before and during an influenza pandemic](#)
- [Report of the WHO consultation on surveillance for pandemic influenza \[pdf 603kb\]](#)



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## Global Alert and Response (GAR)

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- [Pandemic \(H1N1\) 2009](#)

### What is an influenza pandemic?

A disease epidemic occurs when there are more cases of that disease than normal. A pandemic is a worldwide epidemic of a disease. An influenza pandemic may occur when a new influenza virus appears against which the human population has no immunity. With the increase in global transport, as well as urbanization and overcrowded conditions in some areas, epidemics due to a new influenza virus are likely to take hold around the world, and become a pandemic faster than before. WHO has defined the phases of a pandemic to provide a global framework to aid countries in pandemic preparedness and response planning. Pandemics can be either mild or severe in the illness and death they cause, and the severity of a pandemic can change over the course of that pandemic.

### Potential consequences

In the past, influenza pandemics have resulted in increased death and disease and great social disruption. In the 20th century, the most severe influenza pandemic occurred in 1918-1919 and caused an estimated 40 to 50 million deaths world wide. Current epidemiological models project that a pandemic could result in two to 7.4 million deaths globally.

If an influenza pandemic were to occur today, we could expect the virus to spread rapidly due to the interconnected nature of the world and the high level of global travel.

If the pandemic evolved to become severe and widespread over time, we could also expect:

- vaccines, antiviral agents and antibiotics to treat secondary infections to be in high demand, and potentially in short supply;
- medical facilities to be strained with demands to care for both influenza and non-influenza patients;
- potentially significant shortages of personnel to provide essential community services.

Effective pandemic preparedness around the world is essential to mitigate the effects of a pandemic, particularly if it becomes severe.

### Detecting a new pandemic virus

Continuous global surveillance of influenza is key to the early detection of a virus with pandemic potential. WHO has a network of more than 120 National Influenza Centres in over 90 countries that monitor influenza activity and isolate influenza viruses in every region of the world. National Influenza Centres report the detection of an "unusual" influenza virus immediately to the WHO Global Influenza Programme and one of the five WHO Collaborating Centres. Rapid detection of unusual influenza outbreaks, isolation of viruses with pandemic potential and immediate alert to WHO by national authorities is critical to a timely and efficient response.

### Preparing for an influenza pandemic

Contingency planning for an event that will occur at an undetermined time in the future is difficult, particularly in the face of limited resources and other urgent problems and priorities, especially in developing countries. However, there are two main reasons to invest in pandemic preparedness.

1. Improving public health infrastructure through pandemic planning has immediate and lasting benefits, increasing overall response capacity for all threats to public health.
2. Strengthening coordination mechanisms at national and international levels contributes to better global preparedness and response for disasters and public health emergencies.

WHO has developed a global influenza preparedness plan that outlines the responsibilities of WHO and national authorities in the event of an influenza pandemic. WHO also offers guidance tools and

4 August 2005

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Report by the Secretariat, World Health Assembly, 2005

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