

What you need to know about pandemic influenza

A briefing paper for humanitarian staff

This paper seeks to provide busy humanitarian staff in the field with a few key facts of which they should be aware in the event of a pandemic, and with advice on where to go for more detailed information. It also advises on key planning actions that organisations should take to be ready to continue serving beneficiaries during a pandemic.

(Note: this paper was created by the informal inter-agency Humanitarians in Pandemic (HiP) working group, with the collaboration of several UN agencies, international NGOs, the Red Cross / Red Crescent Movement, and USAID. For all enquiries, please contact OCHA's Pandemic Influenza Coordination team at PIC@un.org.)

Influenza pandemics are recurrent, global, deadly events that can have a devastating impact on vulnerable individuals, communities and the organisations that serve them. Experts warn that it is a question of *when* – and not *if* – the next pandemic will hit. Fortunately, there is much that humanitarians can do to prepare.

1. What is an influenza pandemic?

A pandemic is a worldwide epidemic. An influenza pandemic occurs when a new influenza virus appears against which the great majority of the human population has no immunity, resulting in several simultaneous epidemics worldwide with very substantial mortality and morbidity.

Influenza pandemics have happened before. There were three in the 20th century, including the 1918 “Spanish Flu” pandemic – known as the most devastating in history – that killed over 40 million people worldwide.

Pandemic influenza is not about birds or pigs. In contrast to avian influenza, or “bird flu” (which has devastated poultry populations across several continents since 2003, and occasionally infects and kills humans), an influenza pandemic will be propagated by *human-to-human transmission*, with international spread accelerated by commercial air travel.

Pandemic influenza is unlike any other hazard. A severe influenza pandemic represents a grave threat to humanitarian organizations, potentially affecting the well-being of their staff and the continuity of their life-saving operations. In contrast to most natural and man-made hazards – which tend to be of limited time span or geographical spread – an influenza pandemic is likely to span the entire planet and last for up to several months, with possible recurrence known as ‘waves’ within a year of the start of the pandemic.

Medical Aspects of Pandemic Influenza

Pandemic influenza is much worse than seasonal flu because almost no one is immune. It can affect many people, causing severe disease and death.

The virus is easily passed from person to person when infected individuals cough or sneeze. It then takes from one to several days for an infected person to develop symptoms. Someone suffering from influenza can be infectious from the day before developing symptoms until seven days afterwards.

There is no vaccine ready to protect against pandemic influenza. A robust vaccine to protect against pandemic flu is unlikely to be achievable until the new virus has been identified. After that, it will probably take around 6 months to make a pandemic vaccine available. Even then, there will not be enough for everyone, particularly in developing countries.

Antivirals can be used to treat and prevent influenza. Antiviral medicines such as oseltamivir (Tamiflu®) may stop the flu from developing, subdue the symptoms if taken early, and reduce the time people are sick. They can be used to treat symptoms, and can be used for prevention. In a pandemic, antivirals may save lives.

2. How will the next influenza pandemic affect the world?

We do not know exactly what the next pandemic will be like. If it is relatively severe, the following could be expected:

Geographical spread could be rapid and global. The pandemic might last between 12 and 18 months around the globe and is likely to come in several “waves”. Virtually all communities on earth are likely to experience outbreaks. If it were as severe as the 1918 Spanish flu, roughly 1 in 4 people in the world might become ill, and up to 2% of those affected might die.

Supplies of vaccines, antiviral drugs and other medicines will be inadequate. Vaccines and antiviral medicines are not likely to be available in developing countries, and are therefore not likely to play a major role in reducing severe illness and deaths, especially during the early phase of a pandemic. People who fall ill from pandemic influenza may get secondary infections that may require treatment with antibiotics.

Healthcare systems are likely to be overwhelmed and incapable of coping with the large number of people who suddenly fall ill or suspect they may be infected. Care will have to be provided at the community and household level; many routine, non-flu-related health services may also be unavailable during the pandemic waves because of the increased demand and reduced workforce.

Organizations will experience high absenteeism rates. Because workers may not report to work due to illness, death, fear, school closures, or the need to take care of affected family members, organisations may face exceptionally high absenteeism rates.

Extraordinary public measures may be put into effect. Some areas may be subject to quarantine during “rapid containment” activities (i.e., aggressive measures to seek to prevent the disease from spreading beyond the area in which it is first identified). Authorities may impose travel restrictions, close the schools, stagger market hours, close working spaces, or prohibit mass gatherings such as sporting events, religious services and funerals.

Market disruptions will have major economic impacts. A severe pandemic is expected to have a massive effect on the global economy. Disruption in supply chains coupled with a rush to stockpile essential supplies could lead to shortages of certain basic commodities. Some small businesses will go bankrupt. Spikes in prices of critical supplies such as fuel are likely to have a profound impact on humanitarian organisations’ ability to carry out their life-saving activities.

Some essential public services will break down.

- *Food:* Food production and distribution may be significantly impaired as supply chains are disrupted.
- *Public Transport:* Public transport systems may suffer major disruptions due to lack of resources and imposed “social distancing” measures (i.e., attempts to reduce the extent to which people come within one metre of each other, in order to limit spread of infection).
- *Air Travel:* Commercial air travel is likely to be heavily disrupted, due to international restrictions, lack of fuel and personnel and reluctance of customers to travel.
- *Energy:* Prolonged electricity or gas outages may occur, due to absenteeism and lack of regular maintenance.
- *Telecommunications:* Increased demand for telecommunications may lead to slower service or interruptions in phone or internet service.
- *Law & Order:* Police, fire departments, prisons and the justice system may come under considerable stress due to absenteeism.

There will be civil unrest in some areas. During a severe pandemic, there will be an increased likelihood of unrest (due to factors such as food insecurity), resulting in increased security risks for staff, beneficiaries and property.

Impacts will be felt at the community and household levels.

- Communities will be heavily affected; massive absenteeism of staff and logistical difficulties will substantially limit the capacity of governmental structures and civil society organisations to provide support.

- In a severe pandemic, most families are likely to have one member who contracts the disease during one of the pandemic waves: there will be many families in which all potential care givers are ill at the same time and unable to care for their families.
- Because of illness, the need to care for the ill, fear, or movement constraints, many people are likely to be confined at home during the pandemic waves.
- Children may be out of school for extended periods of time.
- Many families will not be able to count on hospital-level health care.
- Some families will be able to count on at least some community-level health care services.
- People will experience variable levels of difficulty in accessing essential services (water and sanitation, energy, telecommunications, transport, education, energy, finance) during the pandemic waves. Some essential public services may be interrupted altogether.
- People may face the risk of food insecurity and may be temporarily unable to produce an income or to protect their assets.

International assistance on a large scale might not be available. Research suggests that 95% of deaths during a pandemic are likely to occur in developing countries, but the international humanitarian community might not be able to provide much support due to market disruptions, absenteeism, and travel restrictions. Humanitarian actors may have to rely on personnel, materials and financial assistance that is already *in situ* or available locally.

3. What can humanitarian organisations do to prepare?

Once the pandemic starts, time for final planning and preparations is likely to be limited to a few weeks. Before a pandemic starts, humanitarian organisations should focus on developing **business continuity plans** aimed at protecting staff health and safety and identifying how to continue the most essential programming during a pandemic. These plans should:

1. Identify who is responsible and accountable for implementing **preparedness actions**.
2. Analyze the **risks** facing the organization.
3. Decide which **programmes and services** need to be prioritized in a pandemic and which could be suspended.
4. Identify **critical staff and supplies** that are required to keep essential programmes and services running.
5. Establish or update **contingency plans** for **life-saving programmes** (e.g., TB, HIV/AIDS) and consider to what extent programmes could be taken over by local resources in case of expatriate evacuation.
6. Devise a **communication strategy** to keep staff and key partners informed.
7. Consider how to protect **staff health and safety**.
8. Identify **alternative ways** of running essential life-saving humanitarian programming which minimize the extent to which staff and beneficiaries need to come within one metre of each other so as to reduce the risk of spreading infection amongst staff and beneficiaries.
9. Coordinate with **external organizations** and **local authorities**.

Those humanitarian country teams that have started to use the 'cluster' system as a basis for humanitarian coordination and contingency planning should prepare to work through the 'cluster' system during the humanitarian response to a pandemic.

Should I stay or should I go?

A difficult decision that agencies will face is whether to evacuate international staff or leave them in country. Advice from WHO and others on the nature and severity of the pandemic when it arises may impact this decision. Organizations will have to weigh their duty of care to staff against their responsibilities to beneficiaries. To what extent will life-saving programmes be affected if international staff are not present? During a severe pandemic, it is possible that it is judged unwise to travel owing to the higher risk of infection when in close proximity to other travelers. It is also possible that the pandemic risk is equally severe in the country of origin of international staff as in the country in which they are working.

4. What can individuals do during a pandemic?

How to avoid infection

- Social distancing: Maintain a distance of at least 1 metre between people.
- Hand hygiene: Wash your hands frequently with soap and water to reduce the spread of the virus from your hands to your face.
- Respiratory etiquette: Cover your nose and mouth when coughing or sneezing, using a disposable paper tissue when possible, or cough/sneeze onto your upper sleeve or arm pit – but *not* your hands. Dispose of the tissue and perform hand hygiene.
- Isolate the ill ; quarantine those exposed to the virus.
- Telecommuting: Work from home if possible.
- Avoid non-essential travel and large crowds whenever possible.
- Improve airflow through the use of windows and doors, natural air currents, and ventilation.
- Provide masks for caregivers and symptomatic individuals (not recommended for general use at community level).
- Frequently clean hard surfaces such as door handles and computer equipment using a normal cleaning product (such as soap and water).

What to do if you get sick

- Monitor your health, check yourself for fever and upper respiratory symptoms (e.g. sore throat, cough, runny nose).
- If you have one or more symptoms described above, contact health personnel and seek advice.
- Stay at home and rest.
- Take medicines such as paracetamol (acetaminophen) to relieve the symptoms.
- Drink plenty of fluids.
- If symptoms persist or worsen after three days, seek medical advice.

5. Where can I find more information?

WHO Pandemic Preparedness Website

<http://www.who.int/csr/disease/influenza/pandemic/en/index.html>

Contains essential information and guidance on pandemic preparedness for countries.

UN Influenza Portal

<http://un-influenza.org>

Features news and information about avian influenza and the pandemic threat from across the UN system and its partners.

Inter-Agency Pandemic Preparedness Website

<http://www.un-pic.org>

Provides information on the status of pandemic preparedness worldwide, as well as practical guidance and tools.

Humanitarian Pandemic Preparedness (H2P) Initiative Website

<http://www.pandemicpreparedness.org>

Pandemic preparedness resources from the Humanitarian Pandemic Preparedness (H2P) initiative.

CORE Group Pandemic Flu Preparedness Website

<http://www.coregroup.org/h2p/>

Pandemic preparedness resources for NGOs and information about H2P.

Guidance on Business Continuity Planning

http://www.ccohs.ca/pandemic/pdf/Business_continuity.pdf

An example of detailed guidance on how to undertake business continuity planning.

Checklist for Pandemic Influenza Business Continuity Planning

The following are key actions that a humanitarian organisation should take to minimise the impact of high levels of staff absenteeism on its activities. Implementation of these actions will help to protect staff health and safety and ensure the capacity to continue essential operations during a pandemic, so as to safeguard the delivery of the most important services to beneficiaries.

1. Identify a **pandemic coordinator** with defined roles and responsibilities for preparedness and response planning.
2. Identify the **critical activities** and functions undertaken by your organisation, which would **have to continue** during a pandemic, as well as the personnel, supplies and equipment vital to maintain those activities.
3. Assess the need to **stockpile strategic reserves** of supplies, material and equipment (including masks, cleaning supplies, antivirals, antibiotics, and paracetamol).
4. Provide clear **command** structures, delegations of authority and orders of succession for workers.
5. Identify **who** is going to do **what, when** and how.
6. **Assign** and train alternates for critical posts.
7. Determine **standard operating procedures (SOPs)** that must be followed, when they should be implemented and suspended.
8. Consider your **financial risks** in the event of an influenza pandemic.
9. Consider your **beneficiaries' needs** during a pandemic and whether to review your modus operandi to meet those needs.
10. Plan for **security risks** to operations and supply chains.
11. **Implement an exercise to test your plan and revise periodically.**
12. Establish a **personnel policy**, addressing sickness, absenteeism, and when to return to work.
13. Assess your need for continued **face-to-face contact** with your customers and consider plans to modify the frequency and/or type of face-to-face contact among employees and between employees and customers (e.g., changes to shift patterns, working from home).
14. Consider **social distancing protocols** that may be used during a pandemic to modify the frequency and type of person-to-person contact in your workplace (reducing hand-shaking, limiting face-to-face meetings and shared workstations, promoting telecommuting, staggered shifts), and test these.
15. Establish guidelines for how to **prioritise amongst programmes and beneficiaries.**
16. Encourage good **hygiene and respiratory etiquette** at the workplace. Provide employees and staff with information about the importance of hand hygiene, as well as convenient access to soap and water and/or alcohol-based hand gel in your facility.
17. Procure **adequate infection control supplies** such as hand-hygiene products, appropriate personal protective equipment, tissues, and waste receptacles. Ensure convenient access for all employees.
18. Consider the need for **family and childcare** support for critical workers.
19. Agree on a system of **communication** with your beneficiaries, customers, employees and interlocutors in the event of an influenza pandemic.
20. Ensure that **information** about the measures that your organisation will be taking in the event of an influenza pandemic is readily available to your employees.
21. **Train staff** on infection control and communicate essential safety messages.

Glossary of Pandemic-related Terms

Attack rate – percentage of the overall population that becomes infected with the virus

Avian Influenza – “bird flu” – disease that spreads between animals and occasionally infects humans

Case fatality ratio – proportion of deaths among clinically ill persons

H1N1 – “swine flu” – a novel strain of influenza A(H1N1) combining avian, swine and human influenza virus strains ; responsible for an outbreak of disease in humans initially detected in Mexico in April 2009

H5N1 – the influenza subtype currently causing devastation among wild birds and poultry worldwide

Incubation period – the time interval between the initial infection by a disease-causing agent (such as a virus) and the first appearance of symptoms of the infection

Morbidity – the prevalence of illness in a population due to a particular disease (can also refer more generally to the state of being ill)

Pandemic influenza – an epidemic occurring worldwide (or over a wide area crossing international boundaries) and affecting a large number of people, caused by the emergence of a novel influenza strain to which humans have little or no immunity and which evolves the capacity for sustained and efficient human-to-human transmission

Pandemic vaccine – vaccine recommended by WHO against the virus strain responsible for the pandemic (can only be developed once the pandemic strain emerges)

Personal protective equipment (PPE) – individual protective wear (clothing, goggles, gloves, masks and other gear) used to protect people against the hazards they may encounter

Prophylaxis – prevention of disease or of a process that can lead to disease. With respect to pandemic influenza, this refers to the administration of antiviral medications to healthy individuals for the prevention of influenza. *Post-exposure prophylaxis* refers to the use of antiviral medications in individuals that have been exposed to other individuals already infected with influenza.

Quarantine – physical separation or restriction of movement within the community or work setting of an individual who has been exposed to an infection, in order to prevent the spread of disease

Rapid Containment – concerted attempts to prevent the disease from spreading beyond the area where it is first identified

Respiratory etiquette and hand hygiene – personal hygiene measures aimed at preventing the spread of disease (such as covering the mouth and nose while coughing or sneezing, using tissues and disposing of them in no-touch receptacles, or washing hands often)

Seasonal influenza – human viral infections that recur in familiar annual patterns

Social distancing – measures to increase the space between people and decrease the frequency of contact among people, in order to limit the spread of infectious disease

Virulence – the ability of a pathogen to produce disease and its degree of harmfulness