# PANDEMIC FLU INFLUENZA A (H1N1) VIRUS







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# INTRODUCTION

# WHAT IS THE NEW INFLUENZA A (H1N1) VIRUS THAT HAS BEEN CAUSING RECENT OUTBREAKS GLOBALLY?

The recent outbreaks of disease in people globally are caused by a new influenza (or "flu") type A (H1N1) virus. There is a human H5N1 virus circulating and causing seasonal influenza and in the past, very occasionally, H1N1 viruses from swine have infected humans. The specific type of the H1N1 virus causing illness now

is new or "novel" and in the current outbreak it is clear that this virus is able to infect humans and be passed from person to person. Although part of the virus may have originated from pigs, there is no evidence that the current spread of infection is coming from that source.



## How does the influenza A (H1N1) virus spread?

Spread of this new virus is thought to be happening in the same way that seasonal flu spreads. Flu viruses are spread mainly from person to person through coughing or sneezing of people with influenza. Sometimes people may become infected by touching something with flu viruses on it and then touching their mouth or nose.

# WHAT SHOULD I DO TO KEEP FROM GETTING INFECTED BY THE INFLUENZA A (H1N1) VIRUS?

First and most important: wash your hands. Try to stay in good general health. Get plenty of sleep, be physically active, manage your stress, drink plenty of fluids, and eat nutritious food. Try not touch surfaces that may be contaminated with the flu virus and avoid close contact with people who are sick.

## WHAT IS A 'PANDEMIC'?

Influenza pandemics happen when a new human flu virus emerges and spreads rapidly across the globe because humans have no previous immunity against this virus.

#### ARE WE AT RISK OF A PANDEMIC?

No one can say whether or not the current situation would evolve into a severe pandemic. But whether it turns out to be a



catastrophic health event or little more than a bad flu season, it is important to be prepared for the worst.

### WHAT CAN YOU DO?

Prepare yourself and your family immediately for a possible pandemic. This includes gathering and storing emergency supplies and adopting habits that will reduce the chance of you or your family getting infected and spreading it to others (for example, washing hands regularly, covering nose and mouth when you sneeze or cough, and not spitting in public).

# WHAT IS THE UN DOING?

UN organizations are working to educate and inform staff about the threat of a pandemic and how best to prepare for it. Departments and offices have prepared business continuity plans and decided which functions are to be considered "critical" during a pandemic. Non-critical functions may be suspended for a period. In the event of a severe pandemic, most staff will be requested to remain at home and follow the UN's Medical Guidelines. Please also see the UN pandemic influenza website: www.un.org/staff/pandemic.

# WHAT YOU NEED TO KNOW ABOUT PREVENTING AND DIAGNOSING INFLUENZA

# What is the difference between seasonal and pandemic influenza?



Seasonal influenza:	Pandemic influenza:
Human viral respiratory infection	Global outbreak of new strain of human influenza virus
Self-limiting, but can be serious and fatal in the elderly and the very young	Causes increased illness and death worldwide
Causes an estimated 250,000-500,000 deaths each year	Rare event; has occurred every 11-42 years over the past two centuries; could cause millions of deaths
Occurs seasonally every year; occurs in winter in temperate areas	Three pandemics in the past 100 years: 1968, 1957 and 1918
Routine vaccines available	Vaccines can only be developed once we know the strain of the virus.

# **ARE YOU AT RISK?**

#### Seasonal influenza

Everyone is at risk of getting seasonal influenza. It passes easily from person to person through droplets expelled from the nose and mouth of an infected person. These droplets can pass directly into the nose, mouth or eyes of a person who is nearby (less than 1 meter, or 3 feet, away) or indirectly when a person touches surfaces that droplets have fallen onto and then touches his or her nose, mouth or eyes before washing hands. Crowded, indoor environments may promote the chances of such transmission, which may explain the increase in respiratory infections during the winter months.

Seasonal influenza can lead to complications and even death. Most complications occur in people aged 65 years and over or in people with



pre-existing medical conditions such as heart or lung disease and diabetes. Pregnant women, infants and very young children are also at increased risk of complications from influenza.

The World Health Organization (WHO) estimates that each year 3 million to 5 million people have severe cases of seasonal influenza worldwide, and 250,000 to 500,000 people die.

#### Pandemic Influenza

When a pandemic occurs, everyone will be at risk, not just frail or elderly people. Pandemic influenza passes from person to person just as easily and quickly as seasonal flu. But, unlike with seasonal flu, people will not be immune to this new virus, so more people will become infected. In addition, it is possible that even young and healthy people who do not normally suffer complications from seasonal flu may develop serious complications and even die in a pandemic.

It is important to know, however, that the majority of people who will develop a flu-like illness in a pandemic will recover and develop immunity to the new human virus.

# WHAT SHOULD I KNOW ABOUT HUMAN INFLUENZA VIRUSES?

Things you should know about human influenza viruses:

- They spread through infected droplets from breathing passages.
- Droplets are expelled by talking, spitting, coughing, sneezing.
- The droplets spread about 1 meter (3 feet) from the infected person, either directly to other people or indirectly through hands and other surfaces.
- The viruses can live for several hours on hard surfaces, or on cloth and paper.
- If healthy people touch infected hands, doorknobs, keyboards, telephones, etc., they can infect themselves by touching mouths, noses or eyes.
- Sometimes the viruses can spread through the air.
- An infected person is most likely to spread the virus when he or she has fever and a cough.
- It is possible that an infected person will spread the virus a day before showing signs of illness.



# HOW DO YOU KNOW YOU HAVE INFLUENZA?

#### Seasonal Influenza:

- Fever
- Headache
- Aching muscles
- Exhaustion and feeling weak
- Loss of appetite
- Sore throat
- Runny or stuffy nose
- Dry cough

#### Pandemic Influenza:

While the first symptoms of pandemic influenza might be similar to seasonal flu symptoms, how the symptoms develop will depend on the nature of the specific virus. It is likely that most people will recover without needing medical attention, but the following symptoms may help you decide if you need to seek medical help:

- Shortness of breath while resting or doing very little work
- Persistent fever for 4 or 5 days
- Painful or difficult breathing
- Coughing up a lot of phlegm or bloody sputum
- Wheezing
- You are feeling better and then you develop a new fever or worsening cough with sputum
- You feel very drowsy and others have difficulty waking you up or note you seem confused or disorientated

Bear in mind that in a pandemic, medical services will be overwhelmed and some might even be closed. So it is important for you and your family to prepare for at-home care if the worst should happen.

#### COLD OR FLU?

Learn the differences between influenza symptoms and those of a common cold.\*



Symptoms	Cold	Flu
Fever	Rare	Usual; high (100°F to 102°F; occasionally higher, especially in young children); lasts 3-4 days
Headache	Rare	Common
General aches, pains	Slight	Usual; often severe
Fatigue, weakness	Sometimes	Usual; can last up to 2-3 weeks
Extreme exhaustion	Never	Usual; especially at the beginning of the illness
Stuffy nose	Common	Sometimes
Sneezing	Usual	Sometimes
Sore throat	Common	Sometimes
Chest discomfort, cough	Mild to moderate hacking cough	Common; can become severe

\* National Institute of Allergy and Infectious Diseases, U. S. Department of Health and Human Services, September 2005 (http://www.niaid.nih.gov/publications/cold/sick.pdf)

# HOW DO YOU REDUCE YOUR RISK OF CONTRACTING INFLUENZA?

#### Personal Hygiene

The practice of good personal hygiene is one of the most effective strategies any individual can implement to reduce their risk of being infected by the influenza virus. Important points are:

Cover the nose and mouth with the sleeve when coughing or sneezing (not with the hand, as that contaminates the hand for touching and

spreading organisms further);

- Use a tissue for cleaning/blowing the nose, and dispose of it after use;
- Clean your hands after coughing or sneezing, using a tissue, or touching any surface that may have become contaminated by a prior user. If using a



surgical mask, dispose of it carefully after use and wash hands:

- Wash hands with soap and water (preferable) or clean with alcohol-based hand cleaner;
- When you wash your hands, wash for at least 20 seconds, making sure that all surfaces of hands and fingers are cleaned.
- Become "touch aware", and avoid touching surfaces that are likely to have been touched by others (door handles, stair railings, etc);

- Avoid handshaking, social kissing, and other social rituals that involve touching others.
- Be careful with respiratory secretions when around other people (e.g. coughing and sneezing). If possible, avoid contact with individuals at risk (small children or those with underlying or chronic illnesses) until respiratory symptoms have resolved.

For more information on personal hygiene measures, see:

- www.cdc.gov/flu/protect/habits/index.htm
- www.cdc.gov/cleanhands/



# WHAT YOU NEED TO KNOW IN THE EVENT OF A PANDEMIC

# HOW WILL THE UN HELP YOU?

The UN has a website currently residing on iSeek (www.un.org/ staff/pandemic) that will keep all staff informed worldwide about the spread of the disease and its effect on staff members. The website operates in stand-alone mode on the internet and provides information about the current situation for UN personnel in each major duty station of the Secretariat along with appropriate links to the agencies, funds and programmes.

In order to provide you with the most up-to-date information, the UN works closely with WHO, the Organization responsible for monitoring health and outbreaks of disease worldwide. The UN also works closely with country health authorities, liaising with them regularly on plans for the locales in which the UN has staff.

In 2008, the UN published revised Medical Guidelines for a pandemic. All UN medical services are familiar with these guidelines. The UN has also approved Administrative Guidelines for the management of staff during a pandemic.

# WHAT SHOULD YOU DO TO PREPARE?

You should be prepared for the possibility that in a pandemic many supplies will be limited and mobility will be greatly reduced. Be sure to take the necessary steps to have your affairs in order and plenty of critical supplies on hand.

- Ensure ample supplies of ongoing and routine medications for self and family.
- Ensure medical insurance coverage.
- Purchase thermometers for each member of the family.
- Stockpile hygiene products, water, and food for six weeks (see pages 22-26 for a detailed list of supplies).
- Ensure passport, visa or permits are valid for staying put and for travel
- Update the emergency contact information that your organization has on file for you and your family

# WHAT IS "SOCIAL DISTANCING"?

**Physical distancing** is a term that refers to the practice of keeping a distance of one meter (three feet) between people. **Social distancing** refers to measures taken by health authorities to reduce transmission of a virus in the community.





Local governments may request that you remain in your community or home in the event of a pandemic. Reducing the contact people have with each other will reduce opportunities for transmission. Keep in mind that some of these measures could include:

- Closing of schools and universities
- Closing of day-care facilities
- Cancellation of mass gatherings and public transportation

# HOW DO YOU REDUCE THE CHANCES OF SPREADING INFLUENZA?

- Practice good personal hygiene as listed on pages 9 and 10.
- Don't share eating utensils and drinking glasses.
- Clean utensils used by sick people or surfaces they touch with warm, soapy water or disinfectant.



- Avoid crowded situations that place you in close contact with others.
- Don't smoke. Smoking makes it easier to catch influenza and increases the likelihood of serious complications.
- Stay home if sick with a fever or cough.

# HOW DO YOU CARE FOR YOURSELF AND OTHERS?

#### Caring for yourself

The following are a few of the things you or those you are caring for can do to help reduce influenza symptoms. Of course, if the influenza appears to be more severe, you should consult with a medical professional immediately.

- Measure your temperature. If it is not above 38°C (100.4°F), you probably don't have influenza.
- Rest and completely avoid rigorous exercise.
- Avoid contact with others.
- Stay at home.
- Drink plenty of fluids (a glass of water or juice every hour).
- Take paracetamol (also known as acetaminophen) to reduce fever and relieve pain. (It does not kill the virus, but it makes you feel better.)
- Gargle with warm water to ease a sore throat.
- Use saline (salt) solution nose drops to help relieve a stuffed nose.
- Keep your nose clean with disposable tissues and throw the used tissues in the garbage. Wash your hands afterwards.
- Don't smoke.

#### Caring for others

Most patients with pandemic influenza will be able to remain at home during the course of their illness and can be cared for by other family members or others who live in the household. Anyone residing in a household with an influenza patient during the incubation period and illness is at risk for developing

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influenza. A key objective in this setting is to limit transmission of pandemic influenza within and outside the home. Even though there is a risk of transmitting the virus, people are going to have to take care of each other if they get sick.

#### **Management of Influenza Patients**

Physically separate the patient with influenza from non-ill persons living in the home as much as possible. A separate room should be set up so that the sick person can be isolated. To set up a separate room, you may need extra bedding supplies, including sheets, towels and plastic mattress covers.

Consider where you could make up a sickbay that would be isolated from the rest of the house. Also consider how you would ventilate this room. It is important that air from the room is expelled to the outside of the house and not back into the house, so make a plan of how that might be done.

 To minimize the risk of spread, only the caregivers who are absolutely necessary should visit the sick person's room, and they should always wash their hands thoroughly upon leaving. Wearing of masks can be helpful as long as you realize that it is not a panacea.

- Patients should not leave the home during the period when they are most likely to be infectious to others (i.e., 7 days from the onset of symptoms for adults or until 24-48 hours after resolution of symptoms, whichever is longer). When movement outside the home is necessary (e.g., for medical care), the patient should follow cough etiquette (i.e., cover the mouth and nose when coughing and sneezing) and wear a surgical mask if available.
- How to wear a mask: If you choose to wear a mask, place it over your nose, mouth and chin and secure in place with either the strings or elastic bands provided. Adjust the metallic strip over the bridge of your nose to ensure a secure fit so that leaks are prevented. When removing the mask, do so by touching the straps only. Carefully place the face mask into a plastic bag and tie the bag closed before putting it into a rubbish bin, preferably one with a lid. Remember that masks cannot eliminate the possibility of infection.

#### Management of Other Persons in the Home

- Persons/visitors who have not been exposed to pandemic influenza and who are not essential for patient care or support should not enter the home while persons are actively ill with pandemic influenza.
- If unexposed persons must enter the home, they should avoid close contact with the patient.
- Persons living in the home with the pandemic influenza patient should limit contact with the patient to the extent possible; consider designating one person as the primary care provider.
- Household members should be vigilant for the development of influenza symptoms.



#### Infection Control Measures in the Home

- All persons in the household should carefully follow recommendations for hand hygiene (i.e., hand washing with soap and water or use of an alcoholbased hand rub) after contact with an influenza patient or the environment in which care is provided.
- Although no studies have assessed the use of masks at home to decrease the spread of infection, use of surgical masks by the patient and/or caregiver during interactions may be of benefit. The wearing of gloves and gowns is not recommended for household members providing care in the home.



 Soiled dishes and eating utensils should be washed
either in a dishwasher or by hand with warm water and soap. Separation of eating utensils for use by a patient with influenza is not necessary.

Laundry can be washed in a standard washing machine with warm or cold water and detergent. It is not necessary to separate soiled linen and laundry used by a patient with influenza from other household laundry. Care should be used when handling soiled laundry (e.g., avoid "hugging" the laundry) to avoid contami-

nation. Hand hygiene should be performed after handling soiled laundry.

- Tissues used by the ill patient should be placed in a bag and disposed with other household waste.
  Consider placing a bag for this purpose at the bedside.
- Normal cleaning of environmental surfaces in the home should be followed.

# WHAT YOU SHOULD DO IF YOU PERFORM A CRITICAL FUNCTION

UN offices will be responsible for ensuring that operations continue in the event of a pandemic. To do this, each department or office has identified critical operations, also known as critical functions, and the staff needed to maintain them. It is important to note that critical staff positions are voluntary.

While some critical staff may be required to work on-site, others staff who are identified as required to perform critical functions during a pandemic, either on-site or off, should at all times avoid public gatherings, public places where uncontrolled close contact with others might occur, or any other close contact with potentially infectious persons.

## How do you reduce the risk of Exposure during transport to work

Public transport should be avoided.

Options for transport to the workplace, in order of preference from a risk perspective, are:

- a) Travel alone in own vehicle.
- Under such circumstances, no special protective measures are required.
- b) Travel alone in a rented vehicle.
- On first acquisition of the vehicle, commonly touched surfaces (door handles, driving controls,

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surfaces in immediate vicinity of seating) should be wiped down with a recommended disinfectant solution.

- Hands should be washed after any wipedown procedure.
- c) Shared travel where passengers come within 1 meter (3 feet) of one another.
- Vehicle occupants are advised to wear a surgical mask while in the vehicle. Commonly touched surfaces (door handles, driving controls, surfaces in immediate vicinity of seating) should be wiped down with a recommended disinfectant solution before each use of the vehicle.
- All occupants should wash their hands soon after leaving the vehicle, and avoid touching their faces during transport.
- Hands should be washed after any wipe-down procedure.

## WHEN SHOULD YOU STAY HOME?

During a pandemic situation, staff who are identified to perform on-site critical functions should **not** come to work under any of the following circumstances:

 They are feeling unwell, or have any cold/flu type symptoms (headache, fever, sore throat, cough, body aches, runny nose, nasal congestion, abdominal pain, cramps or diarrhoea). Staff will be advised to check their body temperature each morning and evening. No staff member should go to work if they have a fever;

- One of their family members has or is suspected to have influenza;
- They are aware that they have had recent contact (<48 hours) with someone who is now known to have contracted pandemic influenza.

Any staff member who becomes ill should be asked to stay at home for 7 days from the onset of symptoms, and not return until 2 days after the symptoms end. They should also wear a simple surgical mask when meeting other people.

Persons who have been exposed to a known case of pandemic influenza should also be asked to stay home for the period of 7 days, from the first known exposure to the virus, to cover the maximum incubation period.

If a staff member has a relative or someone else at home suspected of being affected by pandemic influenza, he/she should be monitored at least daily for fever and respiratory symptoms and not come to work for 7 days after the resolution of fever of the infected household member.



# WHAT YOU SHOULD STOCKPILE AT HOME

# WHAT ITEMS SHOULD YOU STOCKPILE TO LAST SIX WEEKS?

A pandemic wave is expected to last 6-8 weeks in each location.

#### Water

It is a good idea to stockpile supplies for any emergency. Stock bottled water or store water in plastic containers such as soft drink bottles. Plan to store 4 litres of water per person per day (2 litres for drinking and 2 litres for household use). Water requirements will also depend on other factors such as tempera-



ture. In hot seasons an individual's water requirement may double and children, nursing mothers and those who are ill often require additional supplies. You should store enough water for at least a six-week period, if possible. Water purification kits or filters should be purchased if it is difficult to store large quantities of water.

#### Food

- Store a six-week supply of non-perishable foods.
- Select some foods that require no refrigeration in case electricity is temporarily unavailable. As clean water

may be limited, choose foods that require little or no water to prepare. Foods that you may consider are:

- Ready-to-eat canned meats and soups, fruits and vegetables
- Dry goods such as noodles (remember that you will need to allow for enough water to cook these items). Dry cereal, granola, dried fruits and crackers
- Canned juices
- Peanut butter or nuts
- Staples (salt, sugar, pepper, spices, etc.)
- High energy foods such as protein or fruit bars
- Food for infants canned or jarred baby food and formula
- Comfort/stress foods
- Pet food

#### HOW SHOULD FOOD ITEMS BE STORED?

- Keep food in the driest and coolest spot in the house a dark area if possible.
- Keep food covered at all times.
- Open food boxes or cans carefully so that you can close them tightly after each use.
- Wrap cookies and crackers in plastic bags, keep them in tight containers to stop them from going stale and prolong shelf life.
- Empty opened packages of sugar, dried fruits and nuts into screw-top jars or airtight cans to protect them from pests.
- Inspect all food containers for signs of spoilage before use.
- If you lose power, minimize waste by using the food in your fridge first, then the freezer and then finally your non-perishable items.



#### **Energy Sources**

- Buy extra provisions of candles, paraffin lamps, batteries, etc., as electricity may not be available.
- Consider how you might prepare foods without electricity or gas.
- Purchase a hand-crank radio/flashlight.
- Consider purchasing a telephone that can be connected directly to the phone line and does not require another energy source.

#### WHAT MEDICAL ITEMS SHOULD BE STORED?

Emergency services may be limited during a time of crisis; therefore, make sure your home emergency medical kit is not out of date, check all supplies for expiry dates, and replace any



items that are out of date or nearing the expiration date.

The most important supply is a thermometer for each member of the family. Buy in advance.

Stock up on prescription medications that you might need; for example, if one of your family members is diabetic, ensure that you have enough supplies for at least 6 weeks, or if someone has a heart condition, ask your

doctor for an extra prescription so that you can have an emergency supply of all the medications your family members need.





#### You may wish to consider stockpiling the following items:

- Soap
- Pairs of medical grade non-latex gloves
- Antiseptic wipes
- Anti-bacterial ointment
- Cold pack
- Scissors (small, personal)
- CPR breathing barrier, such as a face shield
- Face masks, 3-ply simple surgical masks
- Pain and fever reliever remember to include both child and adult supplies
- Antidiarrhoeal medication
- Antacid (for stomach upset)
- Vitamins
- Fluids with electrolytes (an oral rehydration solution (ORS))



#### **Other Supplies**

- Extra bedding such as sheets, towels, plastic mattress covers, etc.
- Alcohol-based hand wash
- Garbage bags and cleaning supplies; viruses are easily cleaned away with formalin and iodinebased disinfectants. For bathing, soap and water is sufficient
- Spare contact lenses
- Denture and personal hygiene needs (tissues, toilet paper, disposable diapers)
- Hearing aid batteries
- Fire extinguisher (make sure you all know how to use it)
- A clock that runs off batteries (include spare batteries)
- Flashlight
- Extra batteries
- Portable radio
- Manual can opener



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# WHAT MEASURES YOU SHOULD TAKE IF TRAVELLING

- As with other infectious illnesses, one of the most important preventive practices is careful and frequent hand washing. Cleaning your hands often, using either soap and water (or waterless, alcohol-based hand rubs when soap is not available and hands are not visibly soiled), removes potentially infectious materials from your skin and helps prevent disease transmission.
- Try to avoid close contact with sick people.

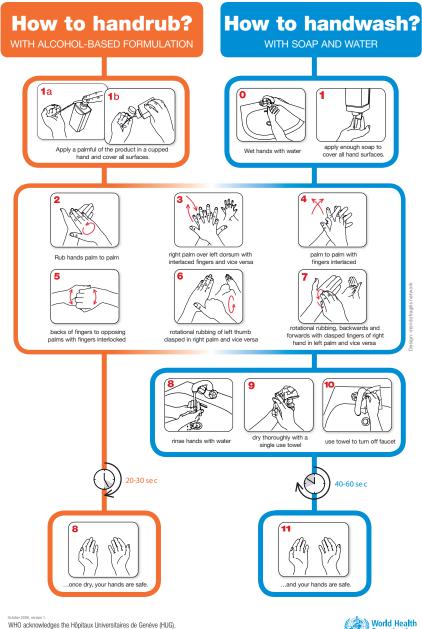
# WHAT SHOULD YOU DO IF YOU MAY HAVE BEEN EXPOSED?

- Monitor your health for 7 days.
- If you become ill with fever and develop a cough or difficulty breathing, or if you develop any illness during this 7-day period, consult a health-care provider.
- At first contact with your health-care provider, remember to give him the following information:
  - your symptoms
  - whether or not you had direct poultry contact
  - where you travelled
- Do not travel while sick, and limit contact with others as much as possible to help prevent the spread of any infectious illness.

**NOTE:** In the event of a pandemic, you should be prepared for the possibility that you and your dependants may be expected to remain at your duty station because of the risks of travel.

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### SUGGESTED HAND HYGIENE TECHNIQUES



in particular the members of the Infection Control Programme, for their active participation in developing this material.



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#### What measures you should take if travelling

# RESOURCES

### **USEFUL WEBSITES**

United Nations: http://www.un.un.org/staff/pandemic

World Health Organization: http://www.who.int/csr/disease/swineflu/en.index.html

**Centers for Disease Control and Prevention (CDC):** http://www.cdc.gov.swineflu/investigation.htm

### TELEPHONE

CDC Hotline: 1-800-CDC-INFO (1-800-232-4636) or 1-888-232-6348

7 days/24 hours. English and Spanish





# WWW.UN.ORG/STAFF/PANDEMIC

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