



Chartered
Institute of
Environmental
Health

Pandemic (H1N1) 2009 Influenza: Guidance for Environmental Health Practitioners

Developed in association with the Health Protection Agency and the Department of Health

Everyone is involved in the response to the current influenza (flu) pandemic by managing the impact it will have on society and preventing further spread of the infection.

This guidance explains how environmental health practitioners (EHPs), in the course of their daily work, can protect themselves, their colleagues and their families, and prevent the spread of flu.

This guidance replaces *Pandemic flu: Guidance for Environmental Health Practitioners* and provides specific information about the current pandemic.

What is pandemic (H1N1) 2009 flu?

Flu is a familiar infection in the UK, especially during the winter months. The illness, caused by the flu virus, can be mild or severe and, at times, can lead to death.

Pandemic flu is different from ordinary flu because it occurs when a new flu virus emerges into the human population and spreads from person-to-person worldwide. As it is a new virus, the entire population is susceptible because no one will have any immunity to it.

In mid-April 2009, a new flu virus emerged in Mexico and California, this virus is known as pandemic (H1N1) 2009 influenza and is often referred to as "swine flu". The first cases were reported in the UK on 27 April 2009. Since then this new virus has spread around the world, with a first wave of infections in the UK during June and July 2009. A second wave of infections is expected in the autumn and winter of 2009/2010. Current Department of Health predictions are that up to 12 percent of the population may develop symptoms of pandemic flu between October 2009 and the end of the flu season¹.

What are the signs and symptoms of pandemic (H1N1) 2009 flu?

The signs and symptoms of pandemic (H1N1) 2009 flu are similar to ordinary (seasonal) flu but may be more severe and cause more serious complications.

The most significant symptoms are the sudden onset of:

- Fever
- Cough or shortness of breath

Other symptoms may include:

- Headache
- Tiredness
- Chills
- Aching muscles
- Sore throat
- Runny nose
- Sneezing
- Loss of appetite
- Diarrhoea
- Vomiting

The incubation period (time between contact with the virus and the onset of symptoms)

This can be up to seven days but is most likely to be usually between two and five days.

The infectious period (how long you are infectious to others)

People are most infectious in the first three days after they develop symptoms and continue to be infectious while they have symptoms, usually for about seven days. People become less infectious as their symptoms subside and once symptoms are gone, they are considered no longer infectious to others. Children and people who are immunosuppressed (their

¹Department of Health and Cabinet Office. *Swine flu: Guidance for planners*. 22nd October 2009.

http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/@ps/@sta/@perf/documents/digitalasset/dh_107428.pdf

immune systems do not work normally) may keep shedding the virus (and may be infectious) for longer.

What should you do if you have symptoms or are ill?

If you feel ill while at work,

- Do not simply carry on working
- Report it immediately to your manager or occupational health department
- You should go home until you are free of symptoms
- You can check your symptoms at the following websites www.nhs.uk or www.direct.gov.uk/pandemicflu
- If you don't have access to the internet or you are still concerned, call the National Pandemic Flu Service (NPFS) on 0800 1513 513 or visit www.pandemicflu.direct.gov.uk or contact your GP by telephone
- Certain groups are advised to contact their doctor rather than use the National Pandemic Flu Service. These are: people with serious underlying health conditions; pregnant women; children under one; or children whose condition suddenly gets worse; and those whose condition is still getting worse after seven days (five days for a child)

If you develop symptoms while not at work:

- Stay at home
- Phone your supervisor/manager or occupational health department
- Do not go to work until you are fully recovered
- For those with internet access you can check your symptoms by going to www.nhs.uk or www.direct.gov.uk/pandemicflu
- If you don't have access to the internet or are still concerned, call the National Pandemic Flu Service (NPFS) on 0800 1513 513 or visit www.pandemicflu.direct.gov.uk or contact your GP by telephone
- Certain groups are advised to contact their doctor rather than use the National Pandemic Flu Service. These are: people with serious underlying health conditions; pregnant women; children under one; or children whose condition suddenly gets worse; and those whose condition is still getting worse after seven days (five days for a child)

How is pandemic (H1N1) 2009 flu caught and spread to others?

Flu, including pandemic flu, is spread from person-to-person by close contact.

Some examples of how it can be spread include:

- Coughing and/or sneezing by an infected person within a short distance (usually one metre or less) of you
- Touching or shaking the hand of an infected person and then touching your mouth, eyes or nose without first washing your hands
- Touching surfaces or objects (e.g. door handles) that have become contaminated with the flu virus and then touching your mouth, eyes or nose without first washing your hands

On hard, non-porous surfaces (e.g. stainless steel counter or plastic bowls), flu virus is able to survive and pose an infection risk for up to 24 hours. On tissues, flu virus is able to survive and pose an infection risk about 15 minutes. Survival on other soft surfaces (e.g. clothes, handkerchiefs, soft furnishings) is likely to be similar to survival on tissues.

What can you do to protect yourself and others from pandemic (H1N1) 2009 flu?

- "Catch it, Bin it, Kill it"
 - Carry disposable tissues
 - Use a tissue to cover your nose and mouth when coughing and/or sneezing
 - Dispose of the tissue promptly
 - Wash your hands
- Clean hands frequently with soap and water, especially after coughing, sneezing, and using tissues. Wash your hands as soon as you get to work, before leaving work and soon after you arrive home. An alcohol handrub can be used as an alternative way of cleaning hands if they are not visibly dirty
- Avoid touching your mouth, eyes and/or nose, unless you have recently cleaned your hands
- Used tissues should be put in a waste bin immediately after use or as soon as is feasible. Tissues should be disposed of in domestic waste and do not require any special treatment
- Do not use cloth handkerchiefs or reuse tissues. Reusing tissues or handkerchiefs may contaminate pockets or handbags which may then re-contaminate hands every time they go into those pockets or handbags
- Normal household detergent and water should be used to clean surfaces frequently touched by hands

What personal protective equipment (PPE) should I wear at work?

- Ensure that you are aware of your employer's procedures regarding personal protective equipment (PPE) and that you are using them correctly
- Use the PPE (usually aprons, surgical masks and gloves) as directed by your manager, when there is a risk of contamination from respiratory secretions
- Used PPE can be disposed of in domestic waste, preferably in tied black bags. There is no need for non-healthcare settings to introduce clinical waste procedures for the disposal of PPE during an influenza pandemic

What can you do to prepare for pandemic (H1N1) 2009 flu?

Pandemic flu is spreading fast in the UK. Prepare now by:

- Learning to recognise the symptoms of pandemic (H1N1) 2009 flu
- Establishing 'flu friends' - friends and relatives who can help if you fall ill
- Keeping paracetamol-based cold remedies and tissues in the house
- Having a thermometer available so you can check your temperature if needed

Note: If you have elderly or vulnerable neighbours please check on them. They may need your help but be reluctant to ask for it.

Specific issues

This section considers infection control measures for EHPs themselves and the role of EHPs in supporting businesses and other organisations in appropriate risk assessment and control measures.

Infection control measures for EHPs

EHPs will be exposed to flu during normal day to day living, while performing their usual role, as well as any pandemic specific roles undertaken. Pandemic specific roles may include promoting respiratory and hand hygiene; promoting business continuity planning; as well as roles in resilience and recovery measures and in other emergency measures to safeguard public health. This section outlines how EHPs can reduce the risk of contracting influenza.

Change to working practices

If the pandemic escalates and there is a second or subsequent wave, it may be necessary to reduce non urgent/routine activities. This would reduce the risk of exposure to people with flu-like illness in the population and ensure that sufficient staff are available to deal with emergencies. Work patterns may be altered to try to minimise contact between officers and shift patterns may be changed if large numbers of officers are affected by flu at the same time.

Hand hygiene

Hand hygiene reduces the transmission of respiratory viruses including flu. Hands should be cleaned:

- When arriving at and leaving the workplace
- When arriving at home from work or outside activities
- Before and after direct contact with potentially contaminated surfaces
- After contact with body secretions
- After removing protective work clothing and gloves
- After handling soiled items
- Before handling food, eating, smoking, or touching your mouth, nose or eyes

Hands can be cleaned by washing with soap and water (followed by drying) or using alcohol handrubs. If your hands are visibly dirty, soap and water should be used. Alcohol handrubs are good alternatives if water is not available and hands are not visibly dirty.

A poster on effective hand hygiene (aimed primarily at the healthcare sector) can be accessed at: www.dh.gov.uk/en/PandemicFlu/DH_078752.

Environmental hygiene

The flu virus is easily killed by commonly available cleaning products and detergents. Freshly prepared detergent and warm water should be used for surface cleaning. Hand contact surfaces in workplaces and public areas should be cleaned frequently and at least once a day. Damp rather than dry dusting should be performed.

Further guidance on environmental hygiene for businesses is included in this document.

PPE

During a pandemic, visits to premises may be restricted to those that are essential. As everyone will have been advised to stay at home if they have flu-like symptoms, most people you will meet in the course of your work will not have flu.

There may be specific situations where environmental health practitioners may be involved in visiting premises where there may be someone who has flu-like symptoms, e.g. investigating or preventing food poisoning in a care home. In these situations, you should follow standard guidance as issued by your employer, which may include the use of PPE.

Removing and disposing of PPE

In order to minimise risk to others from used PPE, it must be removed in a standard manner.

- First remove the gloves, by turning them inside out in one single motion; then remove the apron and finally the face mask if worn
- You should avoid touching the front of the mask (by using the ties or tapes)
- Used PPE should be bagged, tied or sealed and disposed of as domestic waste
- After disposing of the PPE in the bin, you should clean your hands with soap and water
- If the hands are not visibly soiled, an alcohol hand rub can be used as an alternative

Environmental health practitioners may need to demonstrate the correct and appropriate use of PPE. A poster outlining techniques for putting on and removing PPE (aimed primarily at healthcare staff) is available at www.dh.gov.uk/en/PandemicFlu/DH_078752

Role of EHPs in supporting businesses and other organisations

Risk assessment model

Businesses need to take account of pandemic influenza as part of their business continuity plans. For many businesses the ability to cope with such an outbreak will also prepare them to cover other similar risks which have a lesser effect. Businesses also need to consider how they can contribute to a wider societal effort against the spread of flu.

Detailed planning assumptions for the pandemic have been published².

Some sector specific guidance has been provided (available at www.businesslink.gov.uk), including for:

- Cleaning and refuse staff in non health care settings
- Fire and Rescue services
- Funeral Directors
- Healthcare
- Hospitality Industry
- Police

It is not feasible to write detailed guidance for each industry, therefore, businesses and other organisations should use the risk assessment model outlined in *Pandemic (H1N1) 2009 flu: a guide for businesses* to identify environmental, organisational, and individual behaviour measures to control the spread of flu.

This model is based on a source, transmission, recipient pathway. It aims to identify interventions that block all or part of the transmission route of a virus from a person with an influenza like illness (ILI) to a susceptible person, and thus have the potential to stop the chain of infection. Such interventions aim to either reduce transmission of infection from

² Department of Health and Cabinet Office. *Swine flu: Guidance for planners*. 22nd October 2009. http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/@ps/@sta/@perf/documents/digitalassets/dh_107428.pdf

individuals with an ILI to susceptible people, and/or reduce the risk of susceptible people becoming infected.

Categories of control measures

The measures that businesses may want to consider in an effort to reduce the spread of the flu virus within the work environment fall into three broad categories

<i>Environmental</i>	actions taken within the environment to reduce the spread of the flu virus
<i>Organisational</i>	actions taken to modify behaviour and practice in the workplace to help reduce the spread of the flu virus
<i>Individual behaviour</i>	actions taken at the level of the individual to restrict the spread of the flu virus

These actions are ranked in this way to reflect their potential effectiveness. In general, the most effective measures will be those that are easy to accommodate, implement and interpret within a given workplace.

The use of personal protective equipment, such as face masks, by individuals is deemed to be the least effective because it relies on compliance and interpretation of guidance, and is easy for individuals to misuse, misapply or fail to use. It tends to give a false sense of protection and can lead to the abandonment of other, more effective, control measures. The specific evidence base regarding the use of face masks by the general public is currently too uncertain and too limited to firmly support face masks for use by the public during a flu pandemic³.

Risk Assessment Matrix

To provide a simple framework to help businesses assess possible control measures, the matrix below has been developed.

Control Measures		Aim of intervention	
		To reduce transmission from a symptomatic individual to healthy/ susceptible people	To reduce the risk of healthy/ susceptible people becoming infected
Level of intervention	<i>Environmental</i> (action taken to alter the immediate environment)		
	<i>Organisational</i> (measures taken to modify the organisation/ pattern of daily life)		
	<i>Individual</i> (actions taken at the level of the individual to modify behaviour)		

³ Department of Health. *The use of face masks during an influenza pandemic: scientific evidence base*
http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyandGuidance/dH_077276?icsevice=GeT_file&did=147067&rendition=Web

Details of this model and its application will be published in *Pandemic H1N1 2009 flu: a guide for businesses* (due to be published November 2009). This document includes potential control measures to consider within this matrix, checklists, and communication materials.

Further information

Go to NHS Direct www.nhs.uk/NHSDirect for health information

Go to Directgov www.direct.gov.uk for cross-government information on swine flu, including latest advice on travel, schools and other public services

Go to BusinessLink www.businesslink.gov.uk for information to help businesses deal with the effects of swine flu

Go to HSE www.hse.gov.uk for additional information on health and safety at work

Go to HPA www.hpa.org.uk for detailed information on pandemic influenza

Go to CIEH http://www.cieh.org/policy/pandemic_flu.html for guidance specific to environmental health, including links to key sources of advice and information for EHPs.

Infection control training materials aimed primarily at the healthcare sector can be accessed at: www.dh.gov.uk/en/PandemicFlu/DH_078752. This includes posters on the correct use of personal protective equipment (PPE) and effective hand hygiene.