Introduction

• Pandemic flu is an outbreak of influenza that affects many countries and millions of people and has huge implications for social and economic life. It is different from the ‘normal’ winter outbreaks of flu which annually affect a small proportion of the population.

• Pandemic flu appears to occur two or three times every century. The outbreak in 1918 caused an estimated 20 to 50 million deaths worldwide, mostly in young adults. The outbreak in 1968 caused between 1 and 4 million deaths and affected all age groups. Influenza pandemics have occurred every 10 to 50 years. It is considered that another pandemic will occur soon.

• Unlike the familiar annual outbreaks of flu, which tend to occur in the winter months, pandemic flu may occur at any time of the year. For a pandemic to occur, a new flu virus strain, that has not infected humans before, would need to emerge and be easily transmissible from human to human. There are many different influenza viruses, most of which are believed to reside in birds or mammals (eg pigs) and do not affect humans at all. However it can occasionally happen that a bird or mammal virus combines with a human virus or that a completely new bird or mammal virus evolves – and this new type of virus could be one that is transmissible to humans. It is thought that this is likely to be the cause of the next pandemic.

• The Department of Health estimates that pandemic flu could affect up to 50% of the population and that there could be a significant number of fatalities. This would have huge social implications. Organisations would have to plan how to function on half the workforce. They would also have to consider the interactive impact of workforce reduction in other organisations. For instance, if schools close, many parents – many of whom are employees - will have to stay at home. Some transport will be significantly affected and so even fit workers may not be able to get to work. Suppliers, utilities, banks, the police, the internet and telephones could be affected. Public gatherings are likely to be discouraged, and this will impact on all types of organisations.

• Employers need information about pandemic flu to inform their own contingency planning. They need to think how it would impact on their own particular business and how they could mitigate that impact. This short document from the Faculty of Occupational Medicine sets out the basic facts, some pointers to assist in contingency planning and a list of sources of further information.

Basic facts

1. Pandemic flu will occur only if a new subtype of virus emerges which is easily transmissible from person to person. Because it would be new, there would be little or no pre-existing immunity in the population. This could result in an illness which would cause more serious disease and which could spread quickly.

2. Flu can affect all age groups and can be associated with complications such as pneumonia. Serious complications tend to occur in the very young or in older people and those who have chronic health problems.

3. How it spreads

Flu, including pandemic flu, is spread from person to person by close contact. The ways in which it can be spread include:

- Being near (usually one metre or less) an infected person who is coughing and/or sneezing
- 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
- Outside the home, in addition to the risk of infection from people coughing and sneezing, transmission of infection may occur through contact with contaminated materials and surfaces – such as rails on buses and trains - and so everyone should wash their hands regularly.

4. The incubation period (time between being catching the infection and becoming ill) for seasonal flu ranges from one to four days; for most people it will be two to three days. It is assumed that this will be the case with a pandemic strain as well. Patients are infectious soon after they develop symptoms and can continue to spread the virus, for example in coughs and sneezes, typically for up to five days (seven days in children). People become less infectious as their symptoms subside and once symptoms are gone, they are considered no longer infectious.

5. Symptoms

The most significant symptoms are the sudden onset of high temperature and cough or shortness of breath.

Other symptoms include muscle aches and pains, severe headache, loss of appetite, sore throat and chest pain.
6. **Reducing the risk of infection**

In the event of a pandemic, the usual flu vaccines will not be effective. Because it will take laboratories some time to produce sufficient vaccine against the pandemic strain of the flu virus, immunisation is unlikely to be available early in the course of a pandemic. In preparation for an outbreak, the Government has put special contracts in place for the production of vaccines for the whole population, once the new subtype of a pandemic virus is identified but these vaccines would not be available immediately.

To reduce the spread of the flu virus, those with flu should be isolated as soon as possible.

Extra care needs to be taken to prevent the spread from infectious patients to their carers by reducing and controlling carers’ contact with infected materials and surfaces by:

- frequent and thorough hand washing, and particular attention to the cleanliness of all items which have been in contact with the ill person
- careful disposal of used tissues.

Commonly used face masks for use by healthy members of the public are unhelpful, or tend to lose efficacy quickly, in protecting against the spread of flu in public places.

7. **Treatment**

Treatment of both seasonal and pandemic flu is by bed rest, pain killers and drinking lots of fluids.

However, in a pandemic, antiviral drugs will also be available through a National Flu Line.

The UK has established a stockpile of anti-viral drugs, sufficient for the expected numbers of the UK population to be affected.

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**Advance planning in the workplace**

Organisations should already have in place disaster plans, for example in case of fire or loss of IT. The plan for pandemic flu will draw on these plans but there are other aspects to consider:

- Plan how you will cope with widespread cuts in supplies, transport, technical help etc
- Identify in advance any tasks or jobs that might offer potential for remote working
- Consider who might be able to step into the roles of front line staff
- Identify groups of staff who will be most affected by school closures, and make contingency plans for any key roles to be covered by those who do not have school age children or elderly dependants
- Review absence policies to take account of the special circumstances of pandemic flu – eg staggered shifts and absence due to voluntary quarantine, or unforeseen child care problems - and the implications for pay
- If employers have health care staff - eg occupational health departments - they should be aware that they may be called by the NHS to treat the population.

Additional specialised information applies to employers in the health care industry, particularly regarding appropriate infection control and isolation procedures. More detailed guidance for health care workers is given through the links below.

Local Resilience Forums and Strategic Co-ordination Groups will work with local public and private organisations to develop plans for maintaining services and business continuity.

The Department of Health has produced simple guidance on how to implement risk reduction measures in businesses that address Environmental, Organisational and Individual behaviour. This includes a simple matrix approach to effective controls:
Dealing with it when it happens

The key instructions to staff should be:

For those who may be infected

• Not to come into work if they think they have flu and not to return until their symptoms have stopped
• If they become unwell at work
  • Inform their manager and leave for home
  • Use disposable tissues to cover their mouth when coughing, or both nose and mouth, when sneezing
  • Dispose of used tissues appropriately.

For those who are well and need to protect themselves

• Be scrupulous about hand hygiene, including regular hand washing with soap and water (using alcohol gels where access to water is limited)
• Minimise touching of the mouth, eyes and nose.

Employers should:

• Improve cleaning procedures, concentrating on cleaning hard surfaces and moving to damp rather than dry dusting
• Seek out up-to-date information and advice from the national and local news and from the websites referred to – especially the Department of Health website.

Further information

Health Protection Agency
http://www.hpa.org.uk

Health Protection Agency – Pandemic flu contingency plan
http://www.hpa.org.uk/web/HPAwebFile/HPAweb_C/1194947380783

Health and Safety Executive
http://www.hse.gov.uk/biosafetyypandemic.htm

Department of Health
http://www.dh.gov.uk/en/Publichealth/Flu/PandemicFlu/index.htm

Department of Health - Pandemic influenza: Infection control in hospital and primary care settings

NHS
http://www.immunisation.nhs.uk

NHS Direct
http://www.nhsdirect.nhs.uk

Foreign and Commonwealth Office

World Health Organisation
http://www.who.int/topics/influenza/en/

TUC

Local Resilience Forums
http://www.ukresilience.info

Centers for Disease Control and Prevention, USA
http://www.pandemicflu.gov/

National Institute of Allergies and Infectious Diseases
http://www.niaid.nih.gov/

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