

## **Planning for a Flu Pandemic – Essential information for voluntary and community groups**



**This booklet gives you all the information you might need  
to help you prepare for a flu pandemic and think about  
how your organisation would respond to a local major  
emergency.**

# **1 What is Pandemic flu?**

A pandemic is a global epidemic; a flu pandemic would require a new strain of flu that fulfils the following characteristics:

- a new strain that affects humans
- a strain to which humans have no immunity
- the ability to spread easily between humans
- the ability to cause severe illness in a high proportion of those infected

Although there is a large global focus on the H5N1 avian strain, it fulfils only three of these criteria as it does not currently have the ability to spread between humans directly.

However, the H5N1 avian strain could mutate independently to become a pandemic strain, or may infect a human or pig also infected with a human strain such as a seasonal strain of flu. If this happened there would be a risk that the animal flu strain takes on the most important characteristic of human flu – the ability to spread easily between humans.

In doing so it may become less dangerous, but because of the billions of people that would be affected, its impact on human activity would be considerable.

The effect on humans is to cause very severe flu, some may suffer severe complications such as pneumonia which could be fatal.

## **1.1 What is the risk of a human flu pandemic?**

The risk is high that this will happen.

The only uncertainty is when, since it depends on the chance mutation of an animal strain into the human flu. Three out of four requirements for a pandemic already exist, and bird flu is only two genetic changes away from becoming human flu.

The last severe flu pandemics were in 1918/19 (Spanish flu), 1957/58 (Asian flu) and 1968/69 (Hong Kong flu). However, this is the first time that we have had warning of such an event. The 1918/19 pandemic caused up to 40 million deaths worldwide, with most deaths among 20 to 45 year olds.

## **1.2 What would a flu pandemic do?**

This depends on how infectious and dangerous it is.

A pandemic can occur at any time of the year. The spread would be rapid, arriving in the UK within two to four weeks from anywhere in the world, with all UK population centres being exposed relatively quickly.

The Government is planning for up to 50% of the population being infected (looking at scenarios with a range of 10%, 25%, 35% and a worst case scenario of 50% being infected).

The exact pattern of a pandemic is uncertain. The first wave would last 15 – 16 weeks but some pandemics have come in two waves, the second worse than the first and often in the winter following the first wave.

Unlike seasonal flu, the risk of death in a flu pandemic may occur in any age including the usually robust 20 to 40 year olds.

### **1.3 Social impact of a pandemic**

Every business, supplier and service would be severely affected. Many would continue at reduced capacity, but some will close. This will impact on food, fuel, water and health supplies. There may be measures to stop mass meetings such as sporting events but the government is currently working on the details. Schools are likely to close.

### **1.4 What is bird flu?**

Bird flu (or 'avian' flu) is caused by the H5N1 flu virus. It is easily caught by birds and often kills them. However, it does not spread easily to humans unless there has been very close contact with an infected bird, and it does not spread between humans. Despite this, it appears that this strain may be the most likely to mutate to become a pandemic strain.

## 2 What will happen in the UK in a flu pandemic?

Below is the UK version of the World Health Organisation flu status alert with current UK planning assumptions.

International phases		UK planning assumptions
<b>Inter-pandemic period</b>		
1	No new influenza virus subtypes detected in humans.	No action.
2	Animal influenza subtype poses substantial risk.	No action.
<b>Pandemic alert period</b>		
3	Human infection(s) with a new subtype; no new human-to-human spread to a close contact.	No action.
4	Small cluster(s) with limited human-to-human transmission; spread is highly localised suggesting that the virus is not well adapted to humans.	Advice against non-essential travel to affected countries.
5	Large clusters but human-to-human spread is still localised suggesting that the virus is becoming increasingly better adapted to humans.	Advice against non-essential travel to affected countries.
<b>Pandemic period</b>		
6	Increased and sustained transmission in general population.	Primary Care Trusts (PCTs) will be responsible for community arrangements. Antivirals distributed through distribution centres in Oxfordshire. Voluntary organisations expected to develop their own service continuity arrangements.
	<b>UK Alert Level:</b> 1 Human virus/cases only outside the UK	Advice in some cases against any travel to certain countries.
	2 Human virus isolated in the UK (expected to last two weeks)	Two week Tamiflu supply given to each PCT. Limits on travel and large gatherings within UK, including international events. NHS plans to limit care to essential needs. Reduction in routine repairs on energy supplies, water supplies and communication lines.
	3 Outbreak(s) in the UK (expected to last one to three weeks)	Some disruptions to fuel supplies, banking systems, refuse collection. Closure of schools and child care settings. Ill patients advised to remain at home.
	4. Widespread activity in the UK (expected to last 15 – 16 weeks or more)	Clinical prioritisation of services across the health sector so all non essential work postponed

### 2.1 What will happen in Oxfordshire in a flu pandemic?

#### 2.1.1 Oxfordshire PCT's response

Primary Care Trusts (PCTs) are responsible for assessing local risk and for commissioning, supporting and monitoring the development of integrated plans. They have a responsibility for developing arrangements to support and maintain patients in a community setting and for coordinating the local health response, including mobilising community health services and primary care.

Underpinning Oxfordshire PCT's pandemic flu planning has been recognition that steady iterative processes are the road to success. Strong and facilitative leadership, together with a solution focused approach, has resulted in the building of trusting relationships, the cornerstone of effective planning, across the health economy at large and across all key agencies.

We therefore have in place, the building blocks and framework to support and enable Oxfordshire's health services to respond together in extremis and provide, to the best of its capacity, health services for Oxfordshire's resident population.

Oxfordshire PCT will co-ordinate their response through an Emergency Operation Centre based at the PCT Headquarters in Cowley, Oxford.

### **2.1.2 Local issues and planning**

The principal planning assumption is to respond by building upon existing services, systems and processes wherever possible; augmenting, adapting and complementing them as necessary.

Modelling the impact of a pandemic on our healthcare services is sobering: In a peak week with a 35 per cent clinical attack rate, 45,904 residents would be affected with flu, approximately 30% of these (16,067 people) would require a GP consultation and approximately 4% of those people (1,767) would require hospital admission. The impact on the functioning of primary care, community health services, acute hospital services admissions and discharges, ambulance services, social and health care services, mortuary capacity, educational establishments and prison populations has been heavily analysed.

Other critical issues considered and planned for include communication strategies; the purchase and use of personal protective equipment; antiviral drug storage and distribution; the capacity of primary care and Out of Hours; the number of staff whose capacity to work would be affected by their own caring responsibilities; the capability of staff with skills transferable to pandemic activities and their willingness to work in those areas.

Some of these work streams have required high level national decision making but many others have been solved by the local clinical and operational working groups.

Oxfordshire's clinical experts have formed the 'clinical group'. Consultants, GPs, medical directors joined by a specialist children's charity, Helen and Douglas House, worked within the nationally agreed algorithms for patients ill with flu and developed a locally focused patient pathway, agreed admission and discharge criteria and negotiated bed capacity.

The majority of patients with flu will be managed in the community. The response model provides access to telephone advice and triage, speedy access to antiviral drugs via designated distribution centres, encourages the use of over the counter medication promoting self care, and advocates strict triage and medical assessment prior to admission to hospital.

The Oxford Radcliffe Hospital Trust has agreed to use the Churchill Hospital, housing Infectious Diseases and Respiratory units, as an influenza hospital ensuring that the John Radcliffe Hospital could be maintained as an acute hospital for all other emergency medicine. The Nuffield Orthopaedic Centre, in recognition that most, if not all, elective procedures will be cancelled, has volunteered its beds as a step-down / nursing facility enabling 'recovering from flu' patients requiring nursing care but no longer requiring medical beds to be nursed until well enough to be transferred into the community.

Children (under 3 years) will be triaged and or seen by GPs or other medical practitioners. Strict triage will aim to ensure hospitalisation is available for the sickest children. A local charity, Helen and Douglas House has generously volunteered its specialist beds as a step down facility for those children who have flu, with life limiting conditions or for those who may require palliative care.

The next phase of planning is to extend out and engage in flu planning with a wider representation from many more voluntary organisations, representatives from parish, district and town councils, faith communities and leaders from ethnic minority communities.

All health and social care services capacity will be severely challenged. The positive response of the public which the government hopes will be supportive of a 'caring for each other' community spirit is very important. For example: Government would like people to identify a 'flu buddy' so that if they catch flu, they stay at home and ask their buddy to collect the antivirals from the PCT distribution centres for them thus limiting the spread of the virus.

Numerous public health messages are currently being trialled on members of the public so that national and local communication is supportive, focused and consistent.

We are all going to be affected by a pandemic – we can plan to the best of our ability now as individuals and as communities.



## 4 Useful resources and further information

### 4.1 Sources of guidance

- [www.oxfordshirepct.nhs.uk](http://www.oxfordshirepct.nhs.uk) (local plans)
- [www.dh.gov.uk/pandemicflu](http://www.dh.gov.uk/pandemicflu)
- [www.immunisation.nhs.uk](http://www.immunisation.nhs.uk)
- [www.hpa.org.uk](http://www.hpa.org.uk)
- [www.who.int/csr](http://www.who.int/csr)
- [www.bnf.org.uk](http://www.bnf.org.uk)
- [www.scotland.gov.uk](http://www.scotland.gov.uk)
- [www.wales.gov.uk](http://www.wales.gov.uk)
- [www.northernireland.gov.uk](http://www.northernireland.gov.uk)
  
- Department of Health (DH). *Pandemic influenza: a national framework for responding to an influenza pandemic*. London: DH; 2007
- Department of Health (DH). *Pandemic influenza: guidance for primary care trusts and primary care professionals on the provision of healthcare in a community setting in England*. London: DH; 2007
- Department of Health (DH). *Responding to pandemic influenza – the ethical framework for policy*. London: DH; 2007
- Department of Health (DH). *An operational and strategic framework: planning for pandemic influenza in adult social care*. London: DH; 2007
- The Scottish Government (SG). *Pandemic flu: a Scottish framework for responding to an influenza pandemic*. Edinburgh: SG; 2007

## Appendix 1: Further information on pandemic flu

Although most people will be susceptible to being infected, only half of those infected develop symptoms. Older people may be less at risk as they may have some immunity from previous flu pandemics.

### Symptoms and signs of likely pandemic flu

<p>Fever (99%) (&gt;38° C in adults, &gt;38.5° C in children). Peaks within 24 hours and lasts one to five days Cough (85%) Malaise (80%) Chills (70%) Headache (65%) Anorexia (60%)</p>	<p>Myalgia (muscle pain) (53%) Sore throat (50%) Hot and moist skin Flushed face Infected eyes Enlarged neck nodes (10%) Wheezing (10%)</p>
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The illness resolves in seven days, but cough, malaise and fatigue can last for weeks.

<p>Warning signs suggesting urgent hospital admission are: <b>C</b>onfusion <b>U</b>rea &gt; 7mmol/l <b>R</b>espiratory rate &gt; 30/min <b>B</b>lood pressure low <b>A</b>ge &gt; 65 years high</p>	<p>Other warning prompts:</p> <ul style="list-style-type: none"> <li>▪ shortness of breath on doing very little</li> <li>▪ painful or difficult breathing</li> <li>▪ coughing up blood</li> <li>▪ fever lasting longer than five days</li> <li>▪ starting to feel better then developing a fever again.</li> </ul>
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### Basic advice for those with flu symptoms

<ul style="list-style-type: none"> <li>▪ <b>Stay at home.</b></li> <li>▪ If you have flu symptoms, phone the Government flu advice line.</li> <li>▪ Ask a friend or relative to collect a Tamiflu course from a designated antiviral distribution centre.</li> <li>▪ Start taking Tamiflu ideally within 12 hours of the onset of symptoms but certainly no later than 48 hours after the onset.</li> <li>▪ If a child below one year old has a temperature of 38.5° C or higher, phone the GP.</li> <li>▪ For fever and myalgia (muscle pain), take paracetamol or ibuprofen following the instructions on the packet</li> <li>▪ Drink plenty of fluids.</li> <li>▪ Avoid smoking.</li> <li>▪ Consider: steam inhalation (carefully) decongestants; throat lozenges; saline nose drops.</li> </ul>
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## **Appendix 2: Infection control**

### Staffing

- Staff and volunteers with symptoms should be excluded from work.
- Staff and volunteers who have recovered from the illness can return to work.
- Ideally, carers looking after patients with flu should not care for patients who have not yet had flu.
- Staff and volunteers who have recovered from flu, or been vaccinated against the new flu strain, should be allocated to care for patients with flu.
- Pregnant staff and volunteers should be considered for non-clinical work.

### Flu virus persistence

The flu virus:

- survives 24 hours on hard surfaces
- survives two hours on soft surfaces very low quantities after 15 minutes
- survives five minutes on hands

### Infectivity

Being infective means a person is still spreading the virus. Patients are infective for up to five days after the onset of symptoms; children can be infective for longer.

### Hand hygiene

Hand hygiene is essential in a pandemic. Staff should remove watches and wrist/hand jewellery.

### Coughing and sneezing

- Use only single-use tissues
- Provide frequent waste bins for disposal of tissues in a plastic bag (do not have to be yellow bags)
- Wash hands after coughing or sneezing
- Keep hands away from nose or eyes

### Environmental

- Avoid the use of dry vacuum cleaners
- Remove all fans from clinical areas
- Increase the cleaning of all frequently touched surfaces, especially door knobs and door plates
- Neutral detergent and hot water is sufficient
- Do damp, not dry, dusting

## Appendix 3: Action template

### Pandemic flu EMERGENCY PLAN

Activity:
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Trigger	
Action	

Key Staff	Names	Contact Numbers

Key Organisations	Names	Contact Numbers

Reporting Arrangements	During Normal Working Hours	Out of Hours

Resource for plans to be effective	
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Distribution list		

Plan completed by	
Date Plan prepared	
Date Plan Reviewed	

## Appendix 4: Actions at different phases and alert levels

### Phase 3 (current level)

- Convene a Contingency Planning Group to establish a contingency plan.
- Start stocking any relevant items

### Phases 4 and 5

- Start stocking consumables (eg foodstuffs,).

### Phase 6: UK alert level 1 and 2 – prior to declaration of pandemic

- Integrate the organisation plan with the local emergency planning response.
- Train staff in priority support roles, eg infection control/food preparation/switchboard/housekeeping.
- Confirm orders/deliveries of key supplies and adjust stock levels.
- Advise staff on self care
- Issue agreed communications to staff and communities ( with especial reference to non English speaking community leaders

### Phase 6: UK alert level 3 – on declaration of the pandemic

- Activate all aspects of the contingency plan.
- Cancel all non-essential meetings and visits (including training).
- Cancel non-urgent activity (re-deploy staff as required).
- Do a staff roster to minimise spread/voluntary quarantine of teams affected by flu.

### Phase 6: UK alert level 4 – widespread infection in local population

- Implement ad hoc re-deployment of all staff in support of local communities
- Re-deploy staff infected in the initial wave who are now ready to return to work and may have built up some immunity.

### Post Event Actions

- Stand down major incident arrangements.
- Review