# Pandemic Flu Contingency Plan:

This document outlines the business contingency plan that would be activated in the event of an influenza pandemic.

## Characteristics of an influenza pandemic

A flu pandemic occurs when a new flu virus emerges that is readily transmitted between humans, because they have little prior natural resistance, and the virus spreads rapidly across the world affecting many countries.

The severity of a pandemic cannot be forecast with any accuracy but history tells us that in the more serious pandemics large proportions of the population are likely to be affected, some severely and it is possible that there will be large numbers of deaths. In such severe pandemics it is inevitable that normal business activities are seriously affected

Until recently it was thought that the greatest likelihood of a new strain of human flu virus was a mutation of an avian flu virus and in particular the H5N1 strain of virus. However early 2009 saw the emergence of a new strain of human flu virus that has evolved from the mutation of a swine flu virus, this is the strain A(H1N1). This contingency plan is applicable to whatever strain of flu virus initiates a pandemic regardless of its source.

Whilst the contingency plan is primarily focussed on a flu pandemic scenario, specific plans and guidance has been prepared, particularly for the School of Veterinary Medicine, and the communication plans reflect the expectation that incidence of avian flu in the UK will result in press coverage and generation of fears and concerns in the general population who may not recognise that avian flu and a flu pandemic are completely different issues.

## Background

The following are extracts from the Health Department's "UK Pandemic Flu Contingency Plan" (October 2005):

"Three pandemics occurred in the last century – in 1918/19 ('Spanish' flu), 1957/58 ('Asian' flu) and 1968/69 ('Hong Kong' flu). Up to a quarter of the UK population developed illness in each of these pandemics, many thousands of people died, including children and young adults, and the associated economic and social disruption was huge. The most severe – that of 1918/19 – is estimated to have killed around 250,000 people in the UK and between 20 and 40 million people worldwide, a greater toll than the whole of the First World War."

"There is currently rising concern that a new influenza virus with pandemic potential will emerge and spread, and a further pandemic can be expected. When that will be is not known, but the consequences, when it does, will be



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serious. Around a quarter of the population could be affected, with over 50,000 deaths in the UK alone. This could be over one or more waves, each lasting around 3 months."

"Most experts believe that it is not a question of whether there will be another severe influenza pandemic, but when." (The Government's Chief Medical Officer, 2002)

"The widespread occurrence – and continued spread – of a highly pathogenic avian (bird) influenza virus (H5N1) in poultry in SE Asia since 2003 has increased concern that this could provide the seedbed for the emergence of a new human influenza virus with pandemic potential."

During 2006 and 2007, the H5N1 virus has continued its spread with dead poultry, wildfowl or mammals found to be infected with the virus turning up in a wide range of countries, including some within the EU. The UK has experienced two such events, the discovery of a dead swan, which was infected with the avian flu virus, in Fife, and an outbreak at a poultry farm in southern England.

There has been concern about possible human to human transmission of the virus in Indonesia, but in this case transmission appears to have occurred between members of an extended family but not outside that family.

However, recent concern has been the emergence of a new flu virus in Mexico that has originated from a swine flu virus this appears to have mutated to a strain A(H1N1) that is infecting humans and is being transmitted efficiently from human to human. It also appears to be affecting a number of countries; significantly many outside the Americas and including the UK. The WHO are monitoring the situation carefully and in the event of escalation by the WHO of their alert levels to phase 6 (Pandemic Phase), synonymous with UK Alert Levels 3/4 this Pandemic Flu Plan will be activated in whole or part as required.

Activation of the Plan will be in response to decisions of the Pandemic Flu Executive Group who in the event of a pandemic will monitor the situation and meet at intervals dictated by developing events at that time. However, it may well be the case that in response to an individual School's risk exposure that a head of School would have to take the decision to close a School, or part thereof, in order to control a safety or health risk without prior direction from central university management. Schools risk exposure during a pandemic may change daily and is closely allied to individual Schools work activities and staffing levels. The responsibility for the health and safety of staff and infrastructure will remain with the Head of School.

The Cabinet Office guidance suggests that contingency plans should consider two possible scenarios, firstly a "base scenario" with a cumulative clinical attack rate of 25% of the population over one or more waves and fatality rate of 0.37%, and secondly a "reasonable worst case scenario" with a cumulative clinical attack rate of 50% over one or more waves and fatality rate of 2.5%. The document also suggests that absence from work will depend on the



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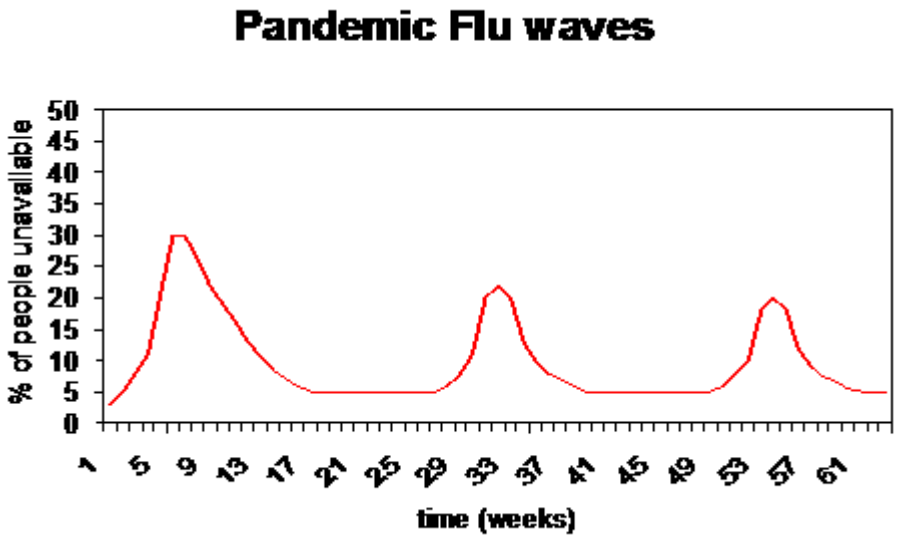
nature of the pandemic flu virus and may exceed the number actually infected by the virus for the following reasons:

- Absence due to the need to care for children or other family members who are ill with flu,
- Absence due to non-flu medical conditions,
- Absence due to employers advising staff to work from home,
- Absence for other reasons.

Based on the assumptions in the Cabinet Office guidance the University should assume staff absence rates of up to 40% or greater over the 2-3 week peak of a pandemic in addition to usual absence rates. However if the nature of the virus means that people take longer to recover from infection than assumed in the guidance, then absence rates could be higher.

Previous pandemics have indicated that whilst there are intuitively high risk groups (the young, the old, and those having other medical conditions), in practice all of the population are affected, and a new pandemic may adversely affect a different age group profile. An illustrative example of the impact of pandemic flu on the working population is shown below.




It is important to note that the Cabinet Office guidance states “During an influenza pandemic, the Government’s overall aim will be to encourage people to carry on as normal, as far as possible, if they are well, while taking additional precautions to protect themselves from infection and to lessen the risk of spread to others.” The main objectives towards achieving this aim are to:

- Limit illness and death arising from infection.
- Provide treatment and care for those who become ill.
- Minimise disruption to health and other essential services.
- Maintain business continuity as far as possible.
- Reduce as far as possible disruption to society.



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The UK Influenza Pandemic Contingency Plan contains the following statement: - “The timing, extent and severity of a future pandemic remain uncertain, but experience from previous pandemics is that it will spread rapidly to all parts of the globe causing sudden, sharp increases in illness and deaths over a matter of weeks”. This suggests that identification of infected persons would not be an indicator of the actual progress of the virus, which will progress rapidly due to normal population movement. Therefore waiting for symptoms of infection to appear in the UK before taking tactical decisions on restriction of gatherings or closures of buildings or venues is likely to prove too late to contain the spread of virus within a community. One estimate is that it could take as little as 2 weeks for the virus to spread across the globe.

## University of Edinburgh Plans

As such, the University of Edinburgh’s Contingency Plan for a Pandemic Flu outbreak is constructed in such a way as to support the Government objectives marked in bold, as these are objectives over which we have an element of control within the University, but at the same time addressing the level of risk indicated by the relevant UK Pandemic Alert Level issued by HPA but acknowledging the need for swift tactical decisions.

Appendix 1 - Relation of UK Alert levels to WHO international Phases
Appendix 2 - Foreseeable risks to the University of Edinburgh
Appendix 3 - University of Edinburgh corporate actions at current UK Alert level
Appendix 4 - Minimising the risk of spread of flu and recognising the symptoms of flu
Appendix 5 - Pandemic flu planning checklist for individuals and families

The Action Plan outlined in Appendix 3 describes the framework within which Schools and other management units should identify their own essential activities and personnel.

## Approach to management of a Pandemic Flu outbreak

There are two distinct aspects of managing the impact of a pandemic flu outbreak:

### (a) Containment actions

Given that the spread of the virus takes place via close human to human contact, then actions to prevent or restrict human to human contact (“social distancing”) will slow the rate of infection, thus reducing the peaks at which the maximum staff/students are unable to work. Actions such as advising staff and students to stay at home or in their flats/rooms as soon as they contract the infection, rather than going out to common areas and mixing with other students, or for staff, coming into the office and mixing with colleagues will reduce the rate at which the infection spreads. Equally maintenance of high hygiene standards (regular disinfection and cleaning of common areas and commonly used equipment) and the use of tight fitting face masks to P3 standards would help slow the rate of transmission, and send messages to



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staff students (and their parents) that the University is actively doing its best to manage the outbreak.

**(b) Continuity actions**

Plans and actions are required to manage impact of the loss of a significant proportion of staff over a period of a few weeks at the peaks, and the inability of a significant proportion of students to undertake course work over a similar period. In considering the plans, it is important to identify the essential activity that must be undertaken over the period of the pandemic peak - either because they are time critical, or service critical - and distinguish these from activities that can be allowed to be deferred. For some activities (e.g. building maintenance, research) it may be perfectly acceptable to defer work for a month while people are off ill, whilst for other (e.g. payroll, student catering) the service have to be carried out in some way. The other aspect that must be considered is the recovery after the period of peak illness to bring staff, students and activities back to a state of normality.

**Policies and Approach**

- The University will endeavour to continue to operate throughout a pandemic
- The University will take guidance from the government and will comply with instructions issued by the government
- The health and well being of staff and students is paramount
- Students will not be disadvantaged as a result of the incidence of pandemic flu
- The University will provide communication and advice that aims to inform and calm fears, and will avoid creating concerns or worries in people, or attract unhelpful Press interest
- The University will adopt both containment strategies and continuity strategies to manage the impact of an outbreak

## Appendix 1

**Relation of UK Alert levels to WHO international Phases Health Protection**

**Agency Pandemic Plan for Influenza**

| International Phase (WHO) | Possible UK Response/Levels |
|---|---|
| **Inter-pandemic period** | |
| Phase 1<br>• No new influenza virus subtypes have been detected in humans. An influenza virus | |



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| subtype that has caused human infection may be present in animals. If present in animals, the risk of human infection or disease is considered to be low. | |
| Phase 2<br>• No new influenza virus subtypes have been detected in humans. However, a circulating animal influenza virus subtype poses a substantial risk of human disease | UK not affected OR<br>UK has strong travel/trade connections with affected country OR<br>UK affected |
| **Pandemic Alert Period** | |
| Phase 3<br>• Human infection(s) with a new subtype, but no new human-to human spread, or at most rare instances of spread to a close contact. | UK not affected OR<br>UK has strong travel/trade connections with affected country OR<br>UK affected |
| Phase 4<br>• Small cluster(s) with limited human-to human transmission but spread is highly localised, suggesting that the virus is not well adapted to humans | UK not affected OR<br>UK has strong travel/trade connections with affected country OR<br>UK affected |
| Phase 5<br>• Large cluster(s) but human-to human spread still localised, suggesting that the virus is becoming increasingly better adapted to humans, but may not yet be fully transmissible (substantial pandemic risk). | UK not affected OR<br>UK has strong travel/trade connections with affected country OR<br>UK affected |
| **Pandemic Period** | |
| Phase 6<br>• Pandemic phase: increased and sustained transmission in | UK (HPA) Alert Levels<br><br>1 Virus/cases only outside the UK |



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| the general population<br><br>• Past experience suggests that a second, and possibly further, waves of illness caused by the new virus are likely 3-9 months after the first wave has subsided. The second wave may be as, or more, intense than the first | 2 Virus isolated in the UK<br><br>3 Outbreak(s) in the UK<br><br>4 widespread activity across the UK |
| **Postpandemic Period** | |
| Return to inter-pandemic period | |

## Appendix 2

### Foreseeable risks to the University of Edinburgh

The main risks to the University's operations arising from a pandemic flu outbreak resulting in widespread clinical infection rates of 25% or greater nationally and rates of absence at the University of 40% or greater, are: -

1. Inability to continue normal teaching and learning activities
2. Inability to continue, or loss of, normal research activities
3. Inability to continue normal examination timetables
4. Severe reduction in the numbers of students (overseas and home) arriving for registration at the beginning of a new academic year
5. Inability to carry out the registration process for new students
6. Difficulties obtaining critical supplies, e.g. catering at Residences
7. Financial problems created as a result of reduced student numbers or inability to fulfil contract with students
8. Inability to provide adequate central support functions for normal operations, including IT network system support, student support, building and equipment maintenance, etc
9. Reliance on external providers for remote learning systems e.g. Web CT or telephone lines (e.g. Virgin Media, BT), whose service may be compromised by a pandemic
10. Loss of key individuals due to illness
11. Dealing with sick students unable to travel home
12. Unavailability of staff to work in some areas during a pandemic due to illness or other reason for absence
13. Inability to treat and monitor numbers of student casualties (assuming 25% clinical attack rate), many of whom live in buildings for which University has no access
14. Inability to handle calls from families and friends of students enquiring about the health status of their friends and relatives
15. Limited ability to handle calls/enquiries from abroad due to depleted staff resources



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16. In the event of widespread concerns by students and families students may leave without informing the university, making accurate data collection difficult
17. Awaiting Govt/HPA advice prior to making appropriate decisions for the University, which could result in deciding to close the University too late to be able to send the majority of students home due to illness or travel restrictions imposed by Government

## Appendix 3

## Corporate Action Plan at Current WHO/UK Alert Level

Three main strands of action have been, and continue to be, taken forward under the heading of pandemic flu preparedness:

### A. COMMUNICATION

- General preparedness communications have been put on the on main U of E www site, including links to latest UUK guidance, and to other key information sites.
- Guidance on personal infection control measures – cough etiquette, hand washing, surface cleaning predicated on protection of individuals from seasonal flu/other infectious diseases, has been formulated, and is ready for publication, should the pandemic alert level change.
- UoE Pandemic Flu Working Group has been briefed on the latest UUK guidance, and membership and remits of Control Groups. College representatives have been reminded of the template for identification of essential activities.

### B. INFECTION CONTROL

- Support Services contingency measures for a pandemic situation, including stockpiling of specialist cleaning materials are in place and will be implemented as dictated by the evolving pandemic.
- Support Services measures are tied in to the communication issues relating to infection control, noted at A. above.
- Appropriate respiratory protective equipment has been purchased for key workers who may still be at work during a severe pandemic that results in high levels of absenteeism, to minimise the risk of infection to them.
- Strategies for the possible application of anti-viral measures to (a) key worker cohorts, and (b) the wider University community are being finalised
- Strategy for seasonal flu vaccination for at risk Veterinary staff has been implemented.

### C. STUDENT ACCOMMODATION ISSUES

- Strategy for home and foreign students in pandemic situation – social distancing, communication and infection control is being formulated.



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- This strategy links to strands A and B above.
- Trigger points for actions, such as strongly advising UK students to leave residences and return home, are under discussion by the Scottish Universities CP and BCM Group.

# Appendix 4

## Minimise the risk of spread of flu and recognising the symptoms of flu

### Simple steps to minimise the risk of spread of flu

1. Wash your hands frequently with soap and water to reduce the risks of spreading the virus from your hands to your face or to other people.
2. Cover your nose and mouth when coughing or sneezing, use a tissue whenever possible and wash your hands immediately afterwards.
3. Dispose of used tissues promptly and carefully - bag and bin them.
4. Clean hard surfaces and door handles with detergent daily
5. Don't share unwashed cups or cutlery
6. Avoid non-essential travel and crowds at times of higher risk
7. If you have been to an area where flu is prevalent, avoid contact with people if possible until the incubation period for the infection has passed.

If you feel unwell, with a cough, aching limbs or joints, headaches and a temperature of 38 degrees centigrade, you should;

- stay in your room and rest and
- take cold or flu remedies to relieve the symptoms
- take specific anti-viral medication (e.g. Tamiflu$^{tm}$), if that is available to you *

* Anti-viral medication, such as Tamiflu$^{tm}$ must only be employed under medical supervision, and in line with the instructions supplied with the medication, very soon after an individual has begun to exhibit symptoms.

If you have the following warning signs you should phone your doctor immediately;

- getting worse after seeming to get better
- no improvement and temperature not coming down after 4 days
- severe or increasing breathlessness or difficulties breathing
- drowsiness or confusion
- coughing up blood



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**The importance of hand washing**

It is important to keep your hands clean because we all unconsciously touch our mouths, noses and ears many times each day, which allows the ready transfer of cold and flu viruses from unclean hands.

When washing your hands, wet them with clean, comfortably hot water and apply soap and work up lather by rubbing your hands together briskly. Bars of soap should be kept clean of debris and allowed to drain and dry after use. Dry your hands using paper towels or a warm air dryer if possible.

## Appendix 5

**Pandemic flu planning checklist for individuals and families**

**To plan for a pandemic:**

- Stock a supply of water and food. It may be difficult to get to a supermarket or shop or they may be out of stock of essential items.
- Have any non-prescription drugs and health supplies on hand, including pain relievers, stomach remedies, cough and cold medicines, vitamins etc.
- Have a supply of specific anti-viral medication (e.g. Tamiflu$^{tm}$) to hand, if that is available to you
- Let you family know the arrangements the University is making for a pandemic, especially those unable to travel home

**To limit the spread of germs and prevent infection:**

- Teach children to cover coughs and sneezes with tissues, to dispose of tissues carefully and to wash hands frequently with soap and water.
- Keep children away from those who are ill as much as possible and to stay away from school or work if they or you are ill.

**Foodstuffs to have on hand for an extended stay at home:**

- Keep in mind that utilities such as water, gas and electric may be affected during a pandemic too, so stocks of foodstuffs should be non-perishable, not require refrigeration, should be easy to prepare and require little or no water so you can conserve water for drinking.

| Examples of food and non-perishables: | Examples of medical, health & emergency supplies: |
|---|---|
| Ready to eat canned meats & fruits | Prescribed medicines |
| Protein or fruit bars | Liquid soap & alcohol based hand washes |
| Dry cereal, e.g. rice, pasta etc | Pain relievers & anti-inflammatories |



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| Nuts & dried fruit | Thermometer |
| Crackers & biscuits | Anti-diarrhoeal medication |
| Canned juices | Vitamins |
| Plenty of bottled water (min 1 litre /hd/dy) | Torch & batteries |
| Cans or jars of babyfood | Portable radio |
| Pet food | Can opener |
| | Rubbish sacks |
| | Tissue paper, toilet paper |
| | Disposable nappies |

If you have any queries regarding the above information, please email Health.Safety@ed.ac.uk.



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