

Influenza Pandemic Plan

A Northern Devon Healthcare NHS Trust plan for managing cases of Influenza Pandemic

Document Control Report

Title			
Influenza Pandemic Plan			
Author's job			
Emergency Preparedness, Resilience & Response (EPRR) Officer			
Directorate		Department	
Operations		Division of Emergency Services, Logistics and Resilience	
Version	Date	Status	Comment / Changes / Approval
0.1	July 2015	Draft	Initial draft for consultation
2.0	August 2015	Final	Final version following consultation, amendments, ratification and approval by the EPRR Board
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Document Class		Target Audience	
Plan		Infection, Prevention & Control All Heads of Department All Service Leads All Staff	
Distribution List		Distribution Method	
All Trust Staff		Intranet site (Bob)	
Superseded Documents			
Pandemic Influenza Plan 2009			
Issue Date	Review Date	Review Cycle	
February 2015	February 2016	Annually	
Consulted with the following stakeholders: (list all)		Contact responsible for implementation and monitoring compliance:	
<ul style="list-style-type: none"> • Members of EPRR Board • Divisional General Managers • Infection, Prevention, Control • Health & Social Care • Senior Nurses • Pharmacy • LRF partner organisations 		Emergency Preparedness Officer	
		Education/ training will be provided by:	
		Emergency Preparedness Officer	
Approval and Review Process		Ratified by Trust Board?	
Emergency Preparedness, Resilience and Response (EPRR) Board		Yes	

Local Path

G:\DIRECTORATE MANAGEMENT\Div of Emergency Services\Emergency Planning & Business Continuity\Plans\Pandemic Flu

Policy categories for Trust's internal website (Bob) Tags for Trust's internal website (BOB)

Pandemic	Emergency Preparedness, Resilience and Response (EPRR) / Pandemic / Pandemic Influenza /
Pandemic Influenza	Emergency Plan / Emergency Planning / Business
Emergency Planning	Continuity
Business Continuity	
Business Continuity	
Infection, Prevention, Control	

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Foreword

The patients and communities that we serve expect us to be there for them when they need it, irrespective of the circumstances we face. As such, we as a Trust must do all that we can to ensure we are well prepared to respond to any disruptive challenges or emergencies that we might come to face.

At the time of writing, Influenza Pandemic is the top risk on the UK Government's risk register for civil emergencies; representing the significant impacts which could be felt by both the NHS and society at large.

The most recent outbreak of influenza pandemic, H1N1 (swine flu) in 2009, demonstrated some of the challenges that the NHS might face during a pandemic and reinforced the need for robust and flexible plans which can be scaled both up and down to meet the characteristics of the pandemic.

To support us in this work, we have developed this Influenza Pandemic Plan which will support staff and departments across the Trust in planning for and responding to any future outbreak of influenza pandemic.

This plan has been developed in line with national guidance published by the Department of Health and is intended to work alongside similar influenza pandemic plans belonging to local and regional partner organisations.

All staff and departments, clinical and non-clinical, will be affected by any future outbreak of influenza. As such, it is important that staff read this document and familiarise themselves with any actions which they may be expected to carry out in preparation for or response to a future outbreak.

If you have any questions regarding this plan or would like further information on the Trust's wider emergency plans, please contact the Trust's Emergency Preparedness Officer.

Robert Sainsbury



Director of Operations

Abbreviations

ACP	Antiviral Collection Point
CAR	Clinical Attack Rate
CRR	Community Risk Register
DH	Department of Health
DCIoS	Devon, Cornwall and the Isles of Scilly
DIPC	Director of Infection, Prevention & Control
ED	Emergency Department
EPRR	Emergency Preparedness Resilience and Response
FF100	First Few 100 [Cases]
GP	General Practitioner
HSC	Health & Social Care
ICU	Intensive Care Unit
ILI	Influenza-like illness
IPC	Infection, Prevention & Control
IPG	Influenza Pandemic Group
LAT	Local Area Team
LHRG	Local Health Resilience Group
LHRP	Local Health Resilience Partnership
LRF	Local Resilience Forum
NDHT	Northern Devon Healthcare NHS Trust
NPFS	National Pandemic Flu Service
NHS	National Health Service
NRR	National Risk Register
SAGE	Scientific Advisory Group in Emergency
PHE	Public Health England
UN	United Nations
WHO	World Health Organisation

PART ONE: AN INTRODUCTION TO THIS PLAN

1.0 Introduction & Context

Seasonal influenza is an infectious respiratory disease capable of producing a range of symptoms ranging from those similar to a common cold, through to those which are very severe or even fatal.

Each year, seasonal influenza affects many thousands of people in the UK, the majority of which occur during the winter months and triggers intense pressure on the NHS and wider health and social care system.

From time to time, with unpredictable frequency, a distinctly different strain of influenza virus emerges that spreads rapidly across the world, causing an influenza pandemic. The World Health Organization (WHO) defines a pandemic as:

“...the worldwide spread of a new disease. An influenza pandemic occurs when a new influenza virus emerges and spreads around the world, and most people do not have immunity.”

When an influenza pandemic occurs, large swathes of the population may become infected by the new virus over a relatively short period of time. Influenza pandemics may be associated with mild to moderate illness in the population (which may or may not be widespread), or significant severe illness and mortality in certain age or patient groups.

Due to the potential impact posed by a future outbreak, the UK government currently rates the risk of influenza pandemic as the most significant civil emergency risk to the UK.

Fortunately, influenza pandemic can be responded to in many of the same ways as seasonal influenza, with the same good hygiene and self-care measures helping to meet the needs of most patients infected with an influenza virus that causes mild to moderate symptoms. However, additional plans that extend over and above those used for seasonal influenza are needed for influenza pandemic in order to:

- take account of the potentially much greater number of people who will become ill with influenza and / or experience more severe symptoms; and to
- prepare for an influenza pandemic that may have a high impact on the health system and wider society.

Whilst influenza pandemics have been relatively infrequent over the past century, a new pandemic could emerge at any time. Therefore, as a healthcare provider, it is of vital importance that Northern Devon Healthcare Trust (NDHT) has in place robust arrangements to plan for and respond to any future outbreak of influenza pandemic.

2.0 Aim of this Plan

The aim of this plan is to set out how Northern Devon Healthcare NHS Trust will plan for, respond to, and recover from an outbreak of pandemic influenza.

3.0 Objectives of this Plan

The objectives of this plan are:

- To define the Trust's key roles and responsibilities during each stage of the influenza pandemic, including intra-pandemic (planning), detection, assessment, treatment, escalation and recovery;
- To provide the Trust with robust and flexible plans which can be scaled both up and down to meet the characteristics of a future pandemic;
- To ensure the Trust's plans coexist with both national and regional plans for managing an outbreak of influenza pandemic;
- To fully integrate the lessons learned during the previous outbreak of influenza pandemic, H1N1 (Swine Flu), with the Trust's pandemic plans;
- To set out how the Trust will ensure its plans are relevant and fit for purpose.

4.0 Scope of this Plan

This policy applies to all Trust services and staff, including those on bank, agency or NHSP.

This plan only applies to influenza pandemic and does not apply to non-pandemic strains of flu or other influenza like illnesses. In these cases, you should refer to the Trust's Infection Control Policy on Influenza Like Illnesses.

5.0 Guidance

This plan has been developed in line with the following documents:

- World Health Organization, Pandemic Influenza Risk Management, WHO Interim Guidance;
- Department of Health, UK Influenza Pandemic Preparedness Strategy 2011;
- Department of Health, Health and Social Care Influenza Pandemic Preparedness and Response;
- Department of Health, England and Health Departments of the Devolved Administrations of Scotland, Wales and Northern Ireland, UK Pandemic Influenza Communications Strategy 2012;
- NHS England, Operating Framework for Managing the Response to Pandemic Influenza;
- Public Health England, Pandemic Influenza Strategic Framework;
- Public Health England, Pandemic Influenza Response Plan 2014;
- Department of Health, Report of the Swine Flu Critical Care Clinical Group and Key Learning Points for Future Surge Planning.

6.0 Links to other Plans & Policies

This plan should be read in conjunction with the following Trust plans:

- NDHT Incident Response Plan;
- NDHT Business Continuity Policy / Plan;
- NDHT Departmental Business Continuity Plans;
- NDHT Influenza Like Illness Operational Guidance 2014-15;
- NDHT Outbreak Policy.

PART TWO: INFLUENZA PANDEMIC & STRATEGIC MANAGEMENT

7.0 Introduction

This section sets out some of the key information regarding influenza pandemic and its strategic management, including:

- information regarding the nature and characteristics of influenza pandemic;
- the risk assessments and challenges associated with influenza pandemic;
- International and National approaches to planning for and responding to any future influenza pandemic.

All of the information within this section has been taken from the latest international and national guidance, as set out in Section 5.0.

8.0 Pandemic Influenza: Nature & Characteristics

8.1 Virology

Influenza, a viral respiratory disease, can cause high morbidity and mortality in humans and is known to affect some animal species. Clinical disease can range from mild to severe and in some cases result in death. While influenza B remains a human disease, influenza A viruses are found in human, avian and some mammalian species. An influenza pandemic occurs when an influenza A virus, to which most humans have little or no existing immunity, acquires the ability to cause sustained human-to-human transmission leading to community-wide outbreaks. Such a virus has the potential to spread rapidly worldwide, causing a pandemic.

8.2 Infectivity and mode of spread

Influenza spreads by droplets of infected respiratory secretions which are produced when an infected person talks, coughs or sneezes. It may also be spread by hand-to-face contact after a person or surface contaminated with infectious droplets has been touched.

Spread of the disease may also be possible via fine particles and aerosols but the contribution to spread is, as yet, still unclear with the latest evidence suggesting this mode of transmission may be more important than previously thought.

The incubation period will be in the range of one to four days (typically two to three). Adults are infectious for up to five days from the onset of symptoms. Longer periods have been found, particularly in those who are immunosuppressed. Children may be infectious for up to seven days. Some people can be infected, develop immunity, and have minimal or no symptoms but may still be able to pass on the virus.

8.3 Symptoms

Influenza is an acute viral infection typically characterised by sudden onset fever and cough, with or without a sore throat or other respiratory symptoms. Other common symptoms include headache, prostration (extreme lack of energy) and muscle and joint pains. The acute symptoms can last for about one week, although full recovery may take longer. Influenza is a seasonal illness, typically occurring during the winter months. The very young, pregnant women, the elderly and people with certain

underlying medical conditions are at particular risk of serious illness or death from influenza and its complications.

Regardless of the nature of the virus, it is likely that members of the population will exhibit a wide spectrum of illness, ranging from minor symptoms to pneumonia and death. Most people will return to normal activity within 7 - 10 days.

All ages are likely to be affected but those with certain underlying medical conditions, pregnant women, children and otherwise fit younger adults could be at relatively greater risk as older people may have some residual immunity from previous exposure to a similar virus earlier in their lifetime. The exact pattern will only become apparent as the pandemic progresses.

9.0 Pandemic Influenza: Historical Data

Influenza pandemics are unpredictable but recurring events that can have significant global consequences. Since the 16th century, influenza pandemics have been described at intervals ranging between 10 and 50 years with varying severity and impact.

Three pandemics occurred in the 20th century (in 1918, 1957 and 1968), with the first pandemic of the 21st century taking place in April 2009. The 20th century pandemics ranged in severity from something resembling a severe outbreak of seasonal influenza to a major event where millions of people became ill and died. They also varied with respect to number of waves of disease, age groups affected and symptoms caused. Planning at the start of the 21st century was based on these events, however the 2009 pandemic did not manifest as anticipated, thus illustrating the uncertainty underpinning the science behind pandemic preparedness.

Table 1 below sets out in more detail the characteristics of the four most recent influenza pandemics.

Table 1: Characteristics of the past four influenza pandemics

Pandemic year of emergence and common name	Area of origin	Influenza A virus sub-type (type of animal genetic introduction/recombination event)	Estimated reproductive number (27, 28)	Estimated case fatality	Estimated attributable excess mortality worldwide	Age groups most affected (29)
1918 "Spanish flu"	Unclear	H1N1 (unknown)	1.2-3.0	2-3% (30)	20-50 million	Young adults
1957-1958 "Asian flu"	Southern China	H2N2 (avian)	1.5	<0.2%	1-4 million	All age groups
1968-1969 "Hong Kong flu"	Southern China	H3N2 (avian)	1.3-1.6	<0.2%	1-4 million	All age groups
2009-2010 "influenza A(H1N1) 2009"	North America	H1N1 (swine)	1.1-1.8 (31)	0.02% (32)	100 000-400 000 (33)	Children and young adults

10.0 Pandemic Influenza: Planning Assumptions

10.1 Introduction

The National Risk Register of Civil Emergencies recognises that the outbreak of H1N1 influenza in 2009 (Swine Flu) did not match the severity of the scenario that had previously been planned for and is **not** necessarily indicative of future pandemic influenzas. In addition, the risk assessment makes clear that the 2009 H1N1 pandemic has not changed the risk of another pandemic emerging or mean that the severity of any future pandemics will be the same as the 2009 H1N1 outbreak.

Whilst there is uncertainty around the nature and characteristics of any future pandemic, there are some key assumptions that will help to inform planning and these have been set out below in Table X: 2011 UK Planning Assumptions.

Appendix A compares national planning assumptions published in 2007 (used to plan for the 2009 pandemic), with commentary on the 2009 pandemic and with the 2011 UK Influenza Pandemic Preparedness Strategy. This illustrates the unpredictable nature of pandemics and the requirement for flexibility at all levels of preparedness and response.

10.2 UK Planning Assumptions (2011)

While the profile of the next pandemic remains by its very nature unknown, it is prudent to continue to plan and prepare using modelling assumptions based on experiences of previous pandemics.

Although all parts of society will be affected by a pandemic, the NHS is likely to be particularly impacted due to an increase in demand for services from patients coupled with a potential reduction in staffing (due to a variety of factors including personal illness and caring responsibilities) and possible supply chain disruptions.

Table 2 below sets out the UK Planning Assumptions for Influenza Pandemic (released in 2011) and includes details of how this translates to the population served by Northern Devon Healthcare NHS Trust.

Table 2: 2011 UK Planning Assumptions for Influenza Pandemic

Planning Assumption	2011 National Strategy
Where it will start...	An influenza pandemic could emerge anywhere in the world, including in the UK
When it will start...	An influenza pandemic could emerge at any time of the year
Stopping the spread...	It will not be possible to stop the spread of, or to eradicate, the pandemic influenza virus, either in the country of origin or in the UK, as it will spread too rapidly and too widely
When it will reach the UK...	Regardless of where or when it emerges, it is likely to reach the UK very quickly

Planning Assumption	2011 National Strategy
How spread will start in the UK...	From arrival in the UK, it will probably be a further one to two weeks until sporadic cases and small clusters of disease are occurring across the country
Where it will first enter the UK	Anywhere
How long it will last and when it will peak...	Initially, pandemic influenza activity in the UK may last for three to five months,
How many waves there will be...	There may be subsequent substantial activity weeks or months apart even after the pandemic is declared over; subsequent winters are likely to see a different level of flu activity compared to pre-pandemic winters
What the clinical attack rate will be...	<p>Studies suggest that roughly half of all people will display symptoms (ranging from mild to severe) but the proportion with severe symptoms will not be known in advance.</p> <p>For the population served by Northern Devon Healthcare NHS Trust across North, East & Mid Devon, Torridge and Exeter, this translates to approximately 250,000 people displaying symptoms.</p>
How patients will seek healthcare support...	<p>Health services should prepare for up to 30% of symptomatic patients requiring assessment and treatment in usual pathways of primary care. For the population served by Northern Devon Healthcare NHS Trust, this translates to approximately up to 75,000 people requiring assessment and treatment through means of primary care (non-NDHT services).</p> <p>1-4% of symptomatic patients will require hospital care, depending on how severe the illness caused by the virus is. For the population served by North Devon District Hospital, this translates to between 1,631 and 6,524 people possibly requiring acute care.</p> <p>In addition, there is likely to be increased demand for intensive care.</p>
How many deaths there will be...	Up to 2.5% of those with symptoms could die as a result of influenza if no treatment proved effective. Local planners should prepare to

Planning Assumption	2011 National Strategy
	<p>cope with a mortality rate of up to 210–315,000 additional deaths.</p> <p>For the population served by Northern Devon Healthcare NHS Trust across North, East & Mid Devon, Torrridge and Exeter, this translates to approximately up to 12,377 additional deaths.</p>
Which age groups will be affected...	All ages are likely to be affected but those with certain underlying medical conditions, children and otherwise fit younger adults could be at relatively greater risk as older people may have some residual immunity from previous exposure to a similar virus.
How many staff will be absent from work...	Absence should follow the pandemic profile. Up to 50% of staff may require time off at some stage. In a widespread and severe pandemic, some with caring responsibilities will need additional time off; 15-20% of staff may be absent on any given day. Small units or teams may suffer higher staff absences: 30-35% absent on any given day.
How long staff might be absent from work if sick...	Most people will return to normal activity within 7 to 10 days

11.0 Pandemic Influenza: Risk Assessment

11.1 Introduction

Risk assessment is a systematic process for gathering, assessing and documenting information in order to assign a level of risk and is used to form the basis for taking action to manage and reduce the negative consequences of these risks.

Locally, Northern Devon Healthcare NHS Trust (NDHT) has used the outcomes of influenza pandemic risk assessments at a national, regional and local level to inform its planning and response arrangements which are set out in Parts 3, 4 & 5 of this plan.

11.2 National Risk Assessment (UK)

The National Risk Register (NRR) of Civil Emergencies provides a government assessment of the likelihood and potential impact of a range of different civil emergency risks (including naturally and accidentally occurring hazards and malicious threats) that may directly affect the UK over the next 5 years.

The 2015 edition of the National Risk Register of Civil Emergencies rates pandemic influenza as the most significant civil emergency risk to the UK.

11.3 Regional Risk Assessment

The Devon, Cornwall & Isles of Scilly (DCIoS) Local Resilience Forum (LRF) is required under the Civil Contingencies Act 2004 to assess local risks and present this information within a Community Risk Register which is published online for the information of residents, visitors and businesses.

The Community Risk Register (CRR) is a strategic level document and sets out to assess the risks within a local resilience area so that the LRF can prepare, validate and exercise contingency plans.

Similarly to the National Risk Register, the local Community Risk Register rates pandemic influenza as very high.

11.4 Local Risk Assessment (NDHT)

The Trust has in place its own local risk assessment for Influenza Pandemic which is owned and managed by the Trust's Emergency Preparedness, Resilience and Response (EPRR) Board.

The EPRR Board are responsible for regularly reviewing the risk of influenza pandemic and ensuring any updates or changes are reported back to the Senior Governance Manager (Risks and Incidents).

A copy of the Trust's risk assessment for Influenza Pandemic can be found under Appendix B.

12.0 The Likely Impacts for the Trust of an Influenza Pandemic

The following impacts are likely to be felt by the Trust:

- A significant increase of demand for the Trust's services (surge),
 - An increase in the number of worried well presenting to minor injury units, walk in centres and the Trust's main emergency department
 - An increase in the number of patients requiring admission to the Trust's acute hospital to manage symptoms which cannot be managed independently through self-care in a home environment;
 - An increase in demand for the Trust's intensive care services. During a moderate or severe pandemic, demand may outstrip supply;
 - An increased number of deaths may put a strain on the Trust's mortuary capacity;
 - An increase number of people requiring support by community nursing, complex care and health and social care teams because
 - people who would normally be cared for in hospital may need to be cared for at home or in the community;
 - informal carers may become ill and /or may need to take on a higher level of caring responsibility, so will need to be supported;

- the demographic profile of those employed within the sector means that a higher than average proportion of the workforce has personal caring responsibilities (and schools may be closed for longer than usual), and
 - they support people who cannot manage their daily tasks without help and/or whose safety, wellbeing and independence, without intervention, would be at risk.
- Staff absenteeism due to illness, worry of becoming unwell, needing to care for family or dependents will result in a significantly reduced workforce;
 - Potential interruption to the supply chain;

13.0 International Approach to Influenza Pandemic

13.1 International Coordination

The World Health Organization (WHO) is responsible for providing leadership on global health matters, shaping the health research agenda, setting norms and standards, articulating evidence-based policy options, providing technical support to Member States and monitoring and assessing health trends. WHO promotes health as a shared responsibility, involving equitable access to essential care and collective defence against transnational threats.

As the directing and coordinating authority for health within the United Nations (UN) system, WHO has a mandate for global pandemic influenza risk management, which is reflected at all levels of the Organization.

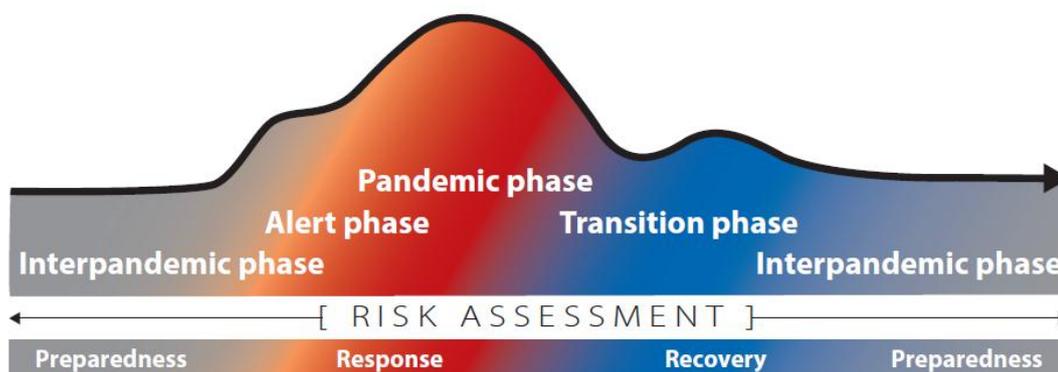
13.2 Global Pandemic Phases

The pandemic influenza phases reflect WHO's risk assessment of the global situation regarding each influenza virus with pandemic potential that is infecting humans. These assessments are made initially when such viruses are identified and are updated based on evolving virological, epidemiological and clinical data. The phases provide a high-level, global view of the evolving picture.

The global phases – interpandemic, alert, pandemic and transition – describe the spread of the new influenza subtype, taking account of the disease it causes, around the world. As pandemic viruses emerge, countries and regions face different risks at different times.

The risk-based approach to pandemic influenza phases is represented in Figure 1 below as a continuum, which also shows the phases in the context of preparedness, response and recovery, as part of an all-hazards approach to emergency risk management.

Figure 1: The Continuum of Pandemic Phases



^a This continuum is according to a “global average” of cases, over time, based on continued risk assessment and consistent with the broader emergency risk management continuum.

Interpandemic phase: This is the period between influenza pandemics.

Alert phase: This is the phase when influenza caused by a new subtype has been identified in humans. Increased vigilance and careful risk assessment, at local, national and global levels, are characteristic of this phase. If the risk assessments indicate that the new virus is not developing into a pandemic strain, a de-escalation of activities towards those in the inter-pandemic phase may occur.

Pandemic phase: This is the period of global spread of human influenza caused by a new subtype. Movement between the inter-pandemic, alert and pandemic phases may occur quickly or gradually as indicated by the global risk assessment, principally based on virological, epidemiological and clinical data.

Transition phase: As the assessed global risk reduces, de-escalation of global actions may occur, and reduction in response activities or movement towards recovery actions by countries may be appropriate, according to their own risk assessments.

14.0 National Approach to Pandemic Influenza

The UK government collaborates actively with international partners on prevention, detection and research to limit the internal spread of a pandemic as far as possible and has in place an established approach for managing influenza pandemic.

14.1 Changes to the previous approach

Whilst the overall approach is not substantially different from the 2007 National Framework, there are a number of key changes, reflecting the lessons learned following the H1N1 (2009) influenza pandemic and the recommendations of the independent review and other reports. Chief among these are the need to:

- Develop better plans for the initial response to a new influenza pandemic, when the focus should be on rapid and accurate assessment of the nature of the influenza virus and its effects, both clinically and in relation to wider public health implications.

- Put in place plans to ensure a response that is proportionate to meet the differing demands of pandemic influenza viruses of milder and more severe impact, rather than just focusing on the “worst case” planning assumptions.
- Take greater account of age-specific and other differences in the rate and pattern of spread of the disease across the UK and internationally
- Further explore statistical population-based surveillance, such as serology, to measure the severity of a pandemic in its early stages.
- Take better account of the learning from behavioural scientists about how people are likely to think, feel and behave during an influenza pandemic.
- Develop better plans for managing the end of an influenza pandemic – the recovery phase and preparation for subsequent seasonal influenza outbreaks.

This strategy has been developed jointly across the four UK Governments, with professional, NHS, social care and public health organisations, and based on advice from clinical, scientific and other experts. As a result of their experience in the H1N1 (2009) influenza pandemic, many organisations and individuals gained extensive experience of the challenges that can be posed by a pandemic and this has been reflected throughout this document.

14.2 UK Influenza Pandemic Preparedness Strategy 2011

The *UK Influenza Pandemic Preparedness Strategy 2011* builds upon lessons identified during the 2009 pandemic and 2010/11 winter season. This section summarises key aspects of the 2011 strategy and includes references to a range of activities that will be undertaken by various health partners, including Public Health England (PHE), NHS England, providers of NHS funded care and other health and multi-agency partners.

The strategy recognises that the World Health Organization pandemic alert phases were not ideally suited as a response framework within individual countries. In 2009, the UK was well into its first wave of infection by the time WHO declared the official start of the pandemic. The use of WHO phases as a trigger for the different stages of local response, as detailed in the 2007 National Framework, proved to be challenging and were ultimately confusing for the public as did the categorisation of UK Alert Levels which were not used.

The 2011 UK Strategy recognises that a more flexible approach is required for pandemic preparedness and response. In June 2013, WHO revised its own pandemic preparedness arrangements and published interim guidance on pandemic influenza risk management that is also more flexible than previous guidance and reflects a continuum of influenza activity.

The overall objectives of the UK’s approach to preparing for an influenza pandemic are to:

- minimise the potential health impact of a future influenza pandemic
- minimise the potential impact of a pandemic on society and the economy
- instil and maintain trust and confidence

Towards this, the strategy identifies a series of stages, referred to as ‘**DATER**’

- Detection,
- Assessment,
- Treatment,
- Escalation; and
- Recovery.

The stages are not numbered as they are non-linear and may not follow in strict order; it is also possible to move back and forth or jump stages. It should also be recognised that there may not be clear delineation between stages, particularly when considering regional variation and comparisons.

The strategy further elaborates on the proportionate aspect of the response by describing the nature and scale of illness in low, moderate and high impact scenarios, and further attributes potential healthcare and wider societal actions as well as key public messages (see Appendix C).

15.0 Command and Control Arrangements

Details of the command and control arrangements during an outbreak of influenza pandemic are set out below in Table 3:

Table 3: Command & Control Arrangements

Escalation Level	Lead	Trigger	Mechanism
Detection and Assessment* Phases	PHE	WHO have declared a pandemic ‘Alert Phase’; or Public Health England has identified a novel influenza virus, with pandemic potential, circulating in the UK; or An influenza-related ‘Public Health Emergency of International Concern’ (PHEIC) is declared by the WHO.	Declaration of WHO phase 4 pandemic LHRP teleconference LRF teleconference (Operation Link)
Treatment Phase	NHS England	Containment no longer possible and sustained community transmission in DCIOS or Escalation no longer required and return to treatment phase	LHRP teleconference LRF teleconference (Operation Link)

Escalation Level	Lead	Trigger	Mechanism
Escalation Phase	NHS England	Continued escalation of demand causing acute pressures on all health services.	LHRP teleconference or meeting (if appropriate) LRF SCG teleconference
Recovery Phase	NHS England	Recovery planning and coordination is initiated during the initial Treatment phase Formal handover will occur when activity has returned to pre-pandemic levels.	LHRP teleconference LRF & local authority RCG teleconference

* Public Health England have a policy and protocol for identifying and collecting data on the first few hundred (FF100) confirmed cases. PHE will lead on all activity relating to the FF100 protocol collecting clinical, epidemiological and virological information from confirmed cases and their close contacts.

PART THREE: BEFORE THE PANDEMIC (INTRA-PANDEMIC STAGE)

16.0 Introduction

In the absence of effective planning, the effects of a pandemic could possibly lead to social and economic disruption, threats to the continuity of essential services, lower productivity, distribution difficulties and shortages of supplies and human resources. It is therefore essential that all organizations, and especially the NHS, plan for how it will respond to the potential challenges and disruptions that a pandemic may cause.

This section sets out what the Trust will do between pandemics, during the intra-pandemic phase, to ensure it is best placed to respond to any future outbreak of influenza pandemic.

17.0 Planning Principles

Planning and preparedness for the next influenza pandemic is beset by the uncertainty of when a pandemic may occur, the unpredictability of the severity of a future pandemic, where it will emerge and the speed with which it will spread, both globally and within the UK. Given this level of uncertainty, three key principles should underpin all pandemic preparedness and response activity:

- **Precautionary:** the response to any new virus should take into account the risk that it could be severe in nature;
- **Proportionality:** the response to a pandemic should be no more and no less than that necessary in relation to the known risks
- **Flexibility:** there should be a consistent, UK-wide approach to the response to a new pandemic but with local flexibility and agility in the timing of transition from one phase of response to another to take account of local patterns of spread of infection and the different healthcare systems in the four countries

18.0 Influenza Pandemic Group – *In Preparedness*

The Influenza Pandemic Group (IPG) is a working group of the Trust's Emergency Preparedness, Resilience and Response (EPRR) Board and is responsible for managing the Trust's preparedness for, response to and recovery from any outbreak of influenza pandemic.

The IPG is chaired jointly by the Trust's Accountable Emergency Officer (AEO), the Director of Operations, and the Director of Nursing.

The Chair is responsible for determining whether the IPG is acting in a state of ***preparedness, response, or recovery*** each of which carry their own set of distinct responsibilities. Determining the state of the Group should be undertaken dynamically and in line with that which is set out below in Table 4.

Between pandemics and during the earliest detection stage of an outbreak, the IPG will be in a state of ***preparedness***, during which it will meet no less frequently than on a quarterly basis.

Table 4: Determining the State of the Influenza Pandemic Group

DATER Stage	Influenza Pandemic Group
Intra-Pandemic	In Preparedness
Detection	
Assessment	In Response
Treatment	
Escalation	
Recovery	In Recovery

Whilst in preparedness, the IPG is responsible for developing an Influenza Preparedness Work Programme, focusing on specific work streams, including, but not limited to:

- Risk Assessment
- Influenza Pandemic Planning
- Business Continuity
- Workforce Planning
- Infection Prevention & Control
- Communications
- Reporting
- Training
- Testing & exercising

A copy of the Influenza Pandemic Group’s Work Programme for the period September 2015 – March 2017 can be found within the Group’s Terms of Reference.

19.0 Business Continuity Planning

An outbreak of influenza pandemic will likely trigger significant disruption for all staff and departments across the Trust. As such, it is essential that the Trust has in place robust business continuity plans to ensure the Trust can continue to deliver its critical and essential services and this will be delivered through the implementation of the Trust’s Business Continuity Policy and Trust-wide Business Continuity Plan which sets out how all departments will be expected to develop individual, locally owned, service-level business continuity plans.

To help and support Heads of Department develop their service-level business continuity plans, they should use the Trust’s Business Continuity Toolkit which will enable them to:

- Understand their critical and essential processes (Business Impact Analysis) so that they know what they must prioritise in the event of an outbreak of influenza pandemic or other business disruption;
- Examine the likely impact an outbreak of influenza pandemic on their department or service (Risk Assessment);

- Develop robust plans which they can follow in the event of an outbreak of influenza pandemic (Departmental Business Continuity Plan).

20.0 Workforce Planning & Development

It is essential that the Trust has in place robust arrangements to best maintain the capability of the workforce so it can continue to deliver the critical and essential processes identified within service-level business continuity plans. This should include staff planning, training, health protection and welfare for staff and volunteers (PPE/Vaccination), all of which should account for the specific needs of those who are pregnant or who may be in at risk groups.

Flexible planning to make best combined use of staff skills and competencies may enable better quality of services to be maintained, even if high sickness absence levels occur during moderate or severe pandemics.

To support the Trust in managing its workforce during an influenza pandemic, it should:

- Collate workforce information to assist the redeployment of staff during an influenza pandemic or other period of significant business disruption;
- Collate emergency contact information for all staff;
- Develop a framework and an operational plan for managing the redeployment of staff in the event of an influenza pandemic or other period of significant business disruption;
- Develop an operation plan for redeploying staff during an influenza pandemic or other period of significant business disruption;
- Liaise with local voluntary organisations to identify human and training resources that may be available from them, and vice-versa;
- Identify those retired professionals who would be willing to work if necessary, and preparing refresher training for them as required;
- Develop a strategy for managing the distribution and uptake of an influenza vaccine programme for staff;
- Identify what support will be offered for individual staff and professional groups to address ethical dilemmas that may arise out of their personal and work life during an outbreak of influenza pandemic.

21.0 Infection Prevention & Control

Good infection prevention and control procedures will be essential to the successful management of a future outbreak of influenza and as such, the Director of Infection Prevention and Control should ensure:

- Policies are in place to:

- identify how cases of influenza pandemic will be identified during different stages of a pandemic;
- identify how the Trust will seek to contain and isolate / cohort patients;
- identify what personal protective equipment staff will be required to use;
- Identify which staff require training on influenza pandemic PPE;
- Develop and roll out a training programme for staff requiring training on influenza pandemic PPE;

22.0 Communications

Strong internal and external communications will be essential to the successful management of a future outbreak of influenza and as such, the Head of Communications should:

- Setup a central email address for influenza pandemic (pandemic.ndht@nhs.net) and put in place robust governance arrangements for both security and access
- Setup dedicated influenza pandemic page setup on BOB
- Incorporate the requirements of the *UK Pandemic Influenza Communications Strategy 2012* in to departmental plans
- Review the Cabinet Office's *Mindspace – Influencing behaviour through public policy* to enhance the effectiveness of local communication strategies

23.0 Reporting

As was experienced during the last outbreak of influenza, (H1N1 – Swine Flu), NHS Trusts were routinely expected to submit various SITREPs to the commissioning and coordinating organisations. During the intra-pandemic phase, the Trust should work towards developing an efficient reporting system by identifying the most likely key performance indicators which the Trust may be required to submit during the different stages of an influenza outbreak and ensuring robust systems are put in place to support the collation of these data.

24.0 Developing and Reviewing Plans

The Influenza Pandemic Group is responsible for ensuring the Trust has in place adequate plans to support:

- The initial response (detection and assessment stages) of an outbreak of influenza
- The treatment (treatment and escalation stages) of an outbreak of influenza

- The recovery (recovery stage) of an outbreak of influenza

This plan should then be reviewed:

- After any outbreak of an influenza pandemic;
- Following the release of any new/revised guidance for influenza pandemic;
- Following any test or exercise of this plan; or
- If none of these apply, annually.

25.0 Testing & Exercising Plans

To validate the Trust's plans and ensure they are fit for purpose, the Trust should test and exercise its plans for influenza pandemic on at least a bi-annual basis through holding a tabletop exercise. In addition, the Trust should make arrangements to attend any multi-agency exercises held by partner organisations.

PART FOUR: THE INITIAL RESPONSE (DETECTION & ASSESSMENT STAGES)

26.0 The Detection Stage

The Detection Stage would commence on either the declaration of the current WHO phase 4 or earlier on the basis of reliable intelligence or if an influenza-related 'Public Health Emergency of International Concern' (or PHEIC) is declared by the WHO.

The focus for this stage lies mainly with the Department of Health, health protection teams and Public Health England who are responsible for:

- intelligence gathering from countries already affected;
- undertaking enhanced surveillance within the UK;
- developing diagnostic tests specific to the new virus; and
- disseminating information and communications to the public and professionals;

The role of the Trust will be minimal at this stage and as such the IPG will remain in a state of preparedness, not response.

The indicator for moving to the next stage would be the identification of the novel influenza virus in patients in the UK.

27.0 The Assessment Stage

The Assessment Stage would commence when the influenza virus had been identified in patients in the UK. The focus in this stage would be:

- the collection and analysis of detailed clinical and epidemiological information on early cases, on which to base early estimates of impact and severity in the UK;
- reducing the risk of transmission and infection with the virus within the local community by:
 - actively finding cases;
 - encourage self-isolation of confirmed and suspected cases;
 - treatment of cases / suspected cases; and
 - use of antiviral prophylaxis for close / vulnerable contacts, based on a risk assessment of the possible impact of the disease.

The indicator for moving from this stage would be evidence of sustained community transmission of the virus, i.e. cases not linked to any known or previously identified cases.

Together, the detection and assessment stages are known as the **initial response**. This may be relatively short and the phases may be combined depending on the speed with which the virus spreads, or the severity with which individuals and communities are affected. It will not be possible to halt the spread of a new pandemic influenza virus, and it would be a waste of public health resources and capacity to attempt to do so.

28.0 Influenza Pandemic Group – *In Response*

Upon reaching the Assessment Stage, the IPG will move from a state of preparedness to response.

In response, the IPG is responsible for coordinating the Trust's response to an outbreak of influenza, in line with the details set out in this plan. In addition, the IPG should ensure that the response of the Trust is in line with the NHS's strategic response objectives, as set out below in Section 29.0.

In response, the IPG will meet on a much more regular basis than when in preparedness and this frequency will be determined by the co-chairs. Depending on the scale and impacts of the pandemic, the IPG may meet anywhere from a daily to monthly basis.

29.0 NHS Strategic Response Objectives

The strategic objectives for the NHS in a pandemic response are to:

- provide the public with information
- contain the emergency, limiting its escalation or spread
- maintain critical and normal services at an appropriate level in response to pressures during the pandemic
- protect the health and safety of personnel
- promote self-help and recovery
- maintain timely and appropriate reporting of the situation to inform decisions
- restore normality as soon as possible
- evaluate the response and identifying lessons to be learned

30.0 Identifying Cases of Influenza

Influenza cannot be distinguished on clinical grounds from many other respiratory viral infections, however, the probability of true influenza infection increases sharply when flu is actually circulating.

Early in the Assessment Stage, the Trust can expect to receive clinical information and algorithms which can be used to help determine whether or not a patient might have become infected with the new influenza virus.

As was experienced with H1N1 (Swine Flu) in 2009, the Trust can expect to receive many updates on this information as the epidemiological data becomes more available and better understood.

It is vital that clinical staff have access to the latest clinical information and algorithms and the IPG will ensure that this information is made available on a dedicated page on the Trust's Intranet, BOB.

31.0 Promoting Self-Help & Recovery

A key strategic objective during an outbreak of influenza pandemic is to promote self-help and recovery. Unless it is clinically unsafe, patients should be encouraged at every opportunity to isolate themselves at home and take antiviral medication which they will receive via Antiviral Collection Points (see Section 35.0 below).

32.0 Isolating and Cohorting Patients

Patients with confirmed or suspected influenza and who are coughing and / or sneezing should not mix with other patients.

Patients who are able to self-care should be encouraged in the first instance to take antiviral medication (see Section 35.0) at home or within their community setting.

Patients unable to self-care at home or already on an inpatient ward should be isolated as quickly as possible to avoid further spread of the virus and provided with antiviral medication (see Section 35.0). Patients who fall in to either of these categories should be isolated in line with the Trust's infection control policies and procedures, on the designated flu ward – Glossop Ward. Where no more single rooms are available on the designated ward, cohorting of patients should be considered for those patients. Where a number of patients are suspected or confirmed of having an influenza like illness, patients requiring isolation should be cohorted on the same designated flu ward, Glossop Ward.

33.0 Infection Prevention & Control

The meticulous use of infection control procedures such as segregation, isolation and cohort nursing are fundamental in limiting the transmission of the virus.

The Trust has in place an infection prevention and control policy for influenza like illnesses; although this may be revised/changed during an outbreak once the characteristics of the virus are better understood.

If any changes or enhancements are required to meet the needs of the virus, these will be made available to staff via the usual communication channels as well as being made available on a dedicated flu page on the Trust's Intranet, BOB.

34.0 Personal Protective Equipment

Influenza is an infectious respiratory disease and it is essential that staff wear the appropriate personal protective equipment (PPE). PPE requirements have been set out in the Trust's Infection Control Policy for Influenza Like Illnesses (ILIs), although these may be revised/changed during an outbreak once the characteristics of the virus are better understood.

If any changes or enhancements are required to meet the needs of the virus, these will be made available to staff via the usual communication channels as well as being made available on a dedicated flu page on the Trust's Intranet, BOB.

35.0 Antivirals

35.1 Introduction

When used to treat influenza, antiviral medicines, such as oseltamivir (Tamiflu™) and zanamivir (Relenza™), can reduce the length of symptoms and usually their severity. Evidence suggests that when antivirals are taken within two days of the onset of symptoms, the total duration of illness is reduced by around a half to one full day. There may therefore be a reduction in the burden on primary and secondary healthcare services. Further evidence suggests that a range of public health benefits may be achieved such as a reduction in the number of complications, hospitalisations and deaths.

During seasonal influenza outbreaks, the prescription of antiviral medicines is normally restricted to those in 'at risk' groups. The Department of Health is planning to change regulations to allow GPs to prescribe antiviral medicines for patients who are not in an at-risk group, but who they consider may be at risk of developing serious complications from influenza. However, in a pandemic, where infection levels are expected to be widespread due to the absence of population immunity and the nature and severity of the virus is unknown in advance, and when a vaccine may be unavailable for some time, more widespread deployment of antiviral medicines may be recommended.

35.2 Stockpiles

The Government plans to maintain a stockpile of antiviral medicines for use in a new pandemic. In line with current scientific advice, both oseltamivir and zanamivir have been stockpiled to ensure the response can be as flexible and resilient as possible, particularly against the risk of a pandemic virus strain developing resistance to oseltamivir.

In the light of scientific and clinical advice at the time, antiviral treatment may be limited, for part or all of the pandemic, to those in at risk groups if the pandemic proves to be very mild in nature or if antiviral medicine supplies are being depleted too rapidly.

35.3 Distribution of Antivirals

Antiviral medicines will be distributed in one of two ways:

- For hospital inpatients, via the Trust's own pharmacy;
- For everybody else, via Antiviral Collection Points (see Section 35.4)

35.4 Antiviral Collection Points (ACPs)

Antiviral collection points are nominated locations within the community where flu friends can collect antiviral medicines on behalf of a symptomatic person, on presentation of the person's valid authorisation. Antiviral collection points are likely to be required, irrespective of whether the National Pandemic Flu Service (NPFs) is in use.

The purpose of an antiviral collection point is to:

- enable symptomatic patients to remain at home but still gain rapid access to antiviral medicines if necessary via a flu friend; and

- minimise the impact on healthcare facilities, enabling them to retain their operational capacity for the assessment of patients who have non influenza illnesses.

ACPs are also intended to minimise the impact on secondary care facilities, as:

- hospitals will have antiviral medicines only for inpatients;
- Emergency Departments will not act as an issue point for antiviral medicines;
- GPs will not have stocks of antiviral medicines, and
- prescriptions will not be issued for antiviral medicines – GPs will use special authorisation vouchers for children under 13 years of age or the right hand side of the FP10SS for patients aged 13 or over.

The majority of ACPs during the H1N1 (2009) influenza pandemic operated out of pharmacies and this worked well in a relatively mild pandemic and discussions with the major pharmacy organisations should take place to ensure readiness if pharmacies are again to be used as ACPs. However, a more severe pandemic is likely to increase the pressure on pharmacies and plans need to consider the potential for using other sites to enable collection of antiviral medicines by flu friends on behalf of symptomatic individuals.

36.0 Prophylaxis

Antiviral medicines can also be used for the prophylaxis (or prevention) of pandemic influenza, as a way of limiting the spread of the disease from person to person.

Targeted prophylaxis on clinical grounds (i.e. for those in at risk groups) can be an effective way of protecting at risk individuals in a household where there is illness, as was demonstrated during the H1N1 (2009) influenza pandemic. Antiviral medicines used in prophylaxis will only protect an individual for as long as the medicine is taken. After the end of prophylaxis, the individual remains susceptible to infection and no long-term immunity is conferred.

Modelling data suggest that a widespread policy of “household prophylaxis” - that is giving antiviral medicines to the household contacts of a person with influenza symptoms - could, in theory at least, substantially reduce the overall number of cases of infection in the population. However, to achieve this effect, all household contacts of all patients with influenza symptoms would have to receive the antiviral medicines within 24 hours of the onset of their symptoms.

It is unlikely to be possible to assure these conditions have been met on a nationwide and universal basis, and such a strategy would further result in large numbers of antiviral medicines being wasted or issued unnecessarily (if, for example, the sick person in fact had another illness). In addition, there is evidence from the H1N1 (2009) influenza pandemic that many individuals who received them for prophylaxis did not complete the course. For these reasons, apart from a very limited initial period as part of a range of precautionary measures to attempt to reduce the risk of transmission and infection with the virus, the Government does not plan at the current time to adopt a general strategy of household prophylaxis.

PART FIVE: TREATMENT (TREATMENT & ESCALATION STAGES)

37.0 Introduction

Once there is evidence of sustained transmission of the virus in the community, the focus will move to the treatment of influenza-like-illnesses (ILIs). The decision to move to 'Treatment and Escalation' will be taken nationally, although some hotspot areas may already have moved to this phase following consultation between local NHS and public health services, and those at a national level.

Diagnosis will be based on clinical assessment, with antiviral treatment of clinical at risk groups and those who may be at risk of serious complications, or possibly a "treat all" strategy depending upon the behaviour of the virus. Key risk groups and best practice will be determined nationally in response to the situation at the time. Some swab testing may continue in order to survey the behaviour of the virus in a good representative sample of the population.

On moving to the Treatment and Escalation phases all services will be preparing for, or undertaking, a pre-agreed capacity expansion process and may need to consider the implementation of mutual aid arrangements or the reduction of non-urgent work. The decision to activate capacity expansion plans is likely to be made at a local level, as not all parts of the UK will be affected at the same time or to the same extent.

All health and social care services should also be undertaking vaccination planning although initial vaccine supplies may not start to be available for four to six months from the emergence of the new virus.

The impact on services will vary according to the characteristics of the virus, the number of people affected, and the severity of the illness. A high service impact pandemic causing widespread and severe illness in the population is likely to result in intense and sustained pressure on all parts of the health and social care system. Most age groups could be affected, and wider services and business sectors will be affected owing to higher levels of absence due to sickness, and deaths.

In such a scenario, there will be limited capacity for mutual aid and extraordinary measures will need to be considered. It will also be essential to consider the cumulative impact of ill health, anxiety and bereavement on services. All parties will need to work closely together and coordinate their activities in order to support essential care provision. The ability to prioritise services both geographically and throughout each 24 hour period will be critical to the ability of local areas in managing a capacity crisis. This will include helping clinicians to prioritise workload, co-ordinating temporary re-provision of services, and establishing an environment that promotes cooperation whilst minimising both clinical risk and the risk of loss of confidence in either provider or commissioner. Communication and the provision of up to date information to health and social care staff will be essential.

Each scenario (whether low, medium or high impact) will require different response strategies and an ability to adapt plans to cope with changing circumstances (see the table in Appendix C for details).

38.0 The Treatment Stage

The focus in this stage would be:

- treatment of individual cases and population treatment through routine NHS services, including the potential for using the National Pandemic Flu Service (NPFSS) if the level of pressures on primary care necessitate this;
- enhancement of the health response to deal with increasing numbers of cases;
- consider enhancing public health measures to disrupt local transmission of the virus as appropriate, such as localised school closures based on public health risk assessment; and
- depending upon the development of the pandemic, to prepare for targeted vaccinations as the vaccine becomes available.

Arrangements will be activated to ensure that necessary detailed surveillance activity continues in relation to samples of community cases, hospitalised cases and deaths.

When demands for services start to exceed the available capacity, additional measures will need to be taken. This decision is likely to be made at a regional or local level as not all parts of the UK will be affected at the same time or to the same degree of intensity.

39.0 The Escalation Stage

The focus in this stage would be:

- escalation of surge management arrangements in health and other sectors
- prioritisation and triage of service delivery with the aim to maintain essential services
- resiliency measures, encompassing robust contingency plans
- consideration of de-escalation of response if the situation is judged to have improved sufficiently

The Treatment and Escalation stages collectively form the **Treatment** phase of the pandemic. Whilst escalation measures may not be needed in mild pandemics, it would be prudent to prepare for the implementation of the Escalation stage at an early part of the Treatment stage, if not before.

40.0 National Pandemic Flu Service

When there is evidence of sustained community transmission or a large number of de novo cases, an England-wide decision will be made to move from the initial response phase to a response designed to mitigate the impact of the disease on the individual, society and the NHS.

Any decision to make the NPFS operational will be taken at a UK level. It will be initialised if the service is required to supplement normal primary care services because of pandemic pressures. The service may be implemented by any of the UK countries based on pressures in their respective primary care system. The NPFS aims to:

- reduce pressure on primary care services;
- allow people with flu like symptoms to remain at home;
- enable rapid self-service assessment, care advice, GP referral and antiviral authorisation, and
- provide an additional source of data relating to trends in activity and profile of people assessed as suffering from pandemic symptoms.

The service will be available through the web or a dedicated call centre facility for members of the public to be assessed and authorised antiviral medicines if appropriate. The telephony service can be accessed via Textphone and the web version is available in a number of different languages. The process is:

- A symptomatic individual, or their Flu Friend, will contact the NPFS and an assessment using a clinical algorithm will be undertaken.
- If required, the individual will be authorised to receive an antiviral medicine. The individual will then need to note down an authorisation number (12 alphanumeric characters). A Flu Friend can do this on behalf of a symptomatic individual.
- The Flu Friend (with their own identification and the symptomatic individual's) will then attend an ACP, provide the authorisation number and collect the antiviral medicines. The NPFS will also direct patients to a GP practice or other NHS service should they require any additional advice or treatment.

41.0 Communication Arrangements

41.1 Communications Strategy

Consistent, clear public messaging, aligned at national and local level, is critical to a successful and collaborative UK-wide response to a pandemic. This will help to maintain public trust and support, as well as in increasing uptake of recommended actions such as good respiratory and hand hygiene practices, effective and responsible use of antiviral medicines, and uptake of vaccination.

As well as consistency of public messaging, it is vital that communications within and between national and local health and resilience organisations are also clear and consistent. Pandemics require the whole of society to respond, and this response will be improved if everyone has access to the information they need, in a form which works for them. This is not an easy task, but one which all organisations should strive towards.

The main aims of the Government's pandemic influenza communications and public engagement strategy remain to:

Explain the outbreak

- Government is responsible for providing accurate and timely information throughout the course of the pandemic to the public, staff and stakeholders. In particular, it should ensure that health and social care staff have the right information at the right time to perform their role and enable them to respond to enquiries from the public.

Establish confidence

- Communications should also establish and maintain confidence in the ability of the Government and the health services to prepare and manage an effective response.

Minimise the risk of infection

- Communications will advise people what to do to protect themselves and others and encourage them to modify their behaviour through:
 - Helping them understand the potential seriousness for themselves, their family and society at large and encouraging them to take positive action through hygiene behaviours;
 - helping people to recognise the symptoms;
 - helping them to understand what to do if they get infected;
 - advising people how best to look after themselves and others; and
 - communicating the role of vaccines and antiviral medicines.

41.2 Communications Aim

Communications will aim to:

- manage public expectations
- engage the media to ensure timely and accurate information and technical explanations are available to support responsible, informed reporting
- provide open access to various direct sources of accurate information such as an automated telephone helpline and website/s
- deliver research and pre-testing to identify communication priorities and to ensure that messages are clear, effective, and meet public needs
- deliver public information campaigns directly and/or through healthcare and service providers and partners using a variety of media
- provide specialist advice and information for particular settings and sectors.
- encourage ongoing debate about the ethical, professional and practical implications of an influenza pandemic.

41.3 Learning from Swine Flu

A key learning from swine flu was the potential to use insights from behavioural science better.

Research also suggests that people are more likely to take up recommended behaviours when they clearly understand the risk the pandemic poses to them. Alongside understanding the risk, people need to have access to the tools and information to respond to it.

Awareness is not always correlated with action, for example with vaccinations. Demonstrating the normality of having a vaccination could be more effective than focusing on non-compliance as it harnesses the impact of social norms. Messaging should avoid 'one-size fits all' approaches and instead be targeted to segments of the population to achieve the greatest level of engagement with any communications campaign.

42.0 Treatment

42.1 Treatment of Adults

Patients who are able to self-care should be encouraged in the first instance to take antiviral medication (see Section 35.0) at home or within their community setting.

Patients unable to self-care at home or who are already on an inpatient ward should receive antiviral treatment and possible antibiotics (see Section 42.3) on the Trust's specialist respiratory ward – Glossop Ward. Patients on Glossop Ward should be isolated and cohorted in line with that which is set out in Section 32.0.

If patients' symptoms worsen, they should be transferred to the Trust's Intensive Care Unit (ICU) (see Section 42.4).

42.2 Treatment of Babies and Children

Children who are able to receive care at home from a parent or carer should be encouraged in the first instance to take antiviral medication (see Section 35.0) at home or within their community setting.

The Children's Community Nursing team will have an important role both in supporting care for children at home and in preventing admission to the inpatient ward and enabling early discharge.

Children who are unable to receive self-care at home or who are already on an inpatient ward should be receive antiviral treatment and possible antibiotics (see Section 42.3) on the Trust's paediatric ward – Caroline Thorpe Ward. Children on Caroline Thorpe Ward should be isolated and cohorted in line with that which is set out in Section 32.0.

If a child's/baby's symptoms worsen, they should be:

- Transferred to the Trust's Intensive Care Unit (ICU) (see Section 42.4)
- Transferred to Network Paediatric Intensive Care Unit/Neonatal Intensive Care Unit
- Or, supported in Trust Paediatric High Dependency/Special Care Unit by Neonatal Staff.

During the treatment and escalation stages there may be increased workload due to

- Inability to transfer sick babies/children because of local and tertiary Intensive Care areas at capacity across the South West Network
- The need to admit babies/children from other compromised units across the South West Networks
- Unexpected surge in births

During treatment and escalation stages the staff working in the Neonatal and Paediatric areas including the Community Paediatric and Children's Outpatient team will work flexibly across areas, supporting priority of need. Training will be on-going to support staff to work across specialties.

Table 5: Neonatal / Paediatric Care Capacity

	Area	Bed space	Equipment
Normal working	SCU	2 HD/IC cots 6 SC cots	2 ventilators
	CTW	12 spaces	
	PHDU	2 HDU	
In Escalation	SCU	4 HD/IC cots 4 SC cots	2 ventilators One transport incubator with ventilator One transport ventilator
	CTW	15 spaces	
	PHDU	3 HDU	May use SCU equipment in HDU (see above)

During escalation additional bed spaces can be gained through use of space in Children's Assessment Unit.

42.3 Antibiotics

Secondary bacterial infections are likely to be a major cause of death during an influenza pandemic. The main role of antibiotics is to reduce the severe illness and deaths which could arise from such secondary complications.

To ensure sufficient levels of antibiotics would be available in a pandemic, the Government will maintain a stockpile of antibiotics most likely to be useful for complications arising from pandemic influenza. These would be made available if there was clear evidence of shortages in the supply chain in primary or secondary care during a pandemic.

42.4 Intensive Care Unit

The Trust has in place a dedicated Intensive Care Unit (ICU) to support the delivery of critical care. See Table 6 below for the capacity of ICU during normal working and in escalation.

Table 6: ICU Capacity

	Number of ICU Beds	Number of ventilated patients
Normal Working	6	5 ventilators 1 transport ventilator
In Escalation*	16	5 ventilators 1 transport ventilator 10 anaesthetic machines

*During escalation, additional ICU bed spaces are gained through the use of beds in theatre recovery and anaesthetic suites. This will have a significant impact on the ability of the Trust to perform non-emergency surgical procedures and will form part of the Trust's escalation and business continuity plans, ensuring critical and essential services are maintained through an outbreak of influenza pandemic.

Where plans to increase capacity require the suspension of some or all high risk elective surgery, such suspension should be in line with local critical care network escalation plans and should differentiate time-critical from non time-critical surgery. During periods of high pressure in hospitals where doctors may be diverted to provide care for critically ill patients, consideration should be given to utilising the skills of other healthcare professionals including nurses and specialist clinical pharmacists for supporting the provision of some clinical services.

When demand for critical care services threatens to exceed capacity, pressure on healthcare services can be mitigated initially by careful selection of patients for hospital assessment and admission, and subsequently by a coordinated approach to patient pathways to higher levels of care. The CATs and model hospital pathways are available to assist decision making. Provision should also be made for interim, respite or step-down care for patients who are less likely to benefit from critical care, or who have received critical care but now require a lower level of care.

Various tools, such as Sequential Organ Failure Assessment, Modified Early Warning Score, and Paediatric Modified Early Warning Scores, can assign patients into approximate prognostic groups and aid decisions on required levels of care. However, they cannot reliably predict the likelihood of a poor outcome. Clinical judgement therefore remains essential in making decisions on admission to, and discharge from, critical care. During care, decision support tools can aid assessment of a patient's response and likely prognosis.

The ethical framework can support staff in addressing the ethical issues which may arise and provides a framework of the principles involved in making difficult decisions for individual situations. The availability of established clinical ethics committees or support groups at a local level may also be helpful.

Information on the benefits of various clinical interventions in managing a new pandemic disease may be limited, especially during the early stages of the pandemic. While laboratory and investigative test results can help, there is great

benefit in sharing information and pooling experience. In the H1N1 (2009) influenza pandemic, a series of clinical teleconferences engaged intensivists from the UK and other severely affected countries in sharing clinical information and best practice. This forum also provided surveillance information on case-numbers, age-groups affected and localities with high numbers of cases, which greatly aided decision-making and planning for service provision.

Difficult triage decisions were not called for during the H1N1 (2009) influenza pandemic. However, such a discussion forum would permit sharing of effective decision criteria and greatly increase confidence in triage decision-making. Such peer engagement is also known to be a valuable addition to more formal counselling and planned 'down time' in supporting staff who are working under severe pressure, and in aiding recovery afterwards. Advice is contained in *Psychosocial care for NHS staff during an influenza pandemic*.

Collaborative intensive care networks working across geographical areas can play a key part in pandemic management in:

- real time data gathering to provide information on numbers of influenza cases in Critical Care and clinical relevance in the context of other Critical Care activity;
- identifying pressure points in the service and providing advice about appropriate actions to maximise capacity and minimise disruption to other users of Critical Care;
- collating and sharing of clinical experience locally, nationally and internationally;
- facilitating mutual aid between organisations within and outside the Network boundaries, including the transfer of critically ill patients between Acute Trusts, and
- promotion and co-ordination of training to staff to give them enhanced competencies to treat adult and paediatric critically ill patients.

43.0 Business Continuity

During a moderate or severe pandemic, it will not be possible to continue "business as usual" activities and an escalating series of actions to reduce non-essential activity will be required in order to prevent service failures.

The IPG will be responsible for ensuring the Trust maintains its critical and essential activities, as identified by pre-agreed service level business impact analyses (BIAs). To achieve this, the IPG will need to dynamically assess the situation (risk assessment) and weigh up the benefits of postponing or cancelling some activities/services/procedures in order to create additional capacity or free up staff for redeployment.

The IPG should at all times refer to the Trust's Business Continuity Policy, Business Continuity Plan and supporting Business Impact Analysis.

44.0 Ethical Considerations

In more severe circumstances, it may be necessary to prioritise access to some services in an ethically appropriate way. The provision of the best available alternative care in situations of extreme demand will be an important part of the response, as will professional support and close discussion with families.

Ethical considerations are important in determining how to make the fairest use of resources and capacity. Decisions should be in proportion to the demands of the pandemic and other existing pressures and should be aimed at minimising the overall harm caused by the pandemic. Many people will also face personal dilemmas such as tensions between their personal and professional obligations. Decisions are more likely to be understood and the need accepted if these have been made in an open, transparent and inclusive way and based on widely held ethical values.

Given the potential level of additional demand, capacity limitations, staffing constraints and potential shortages of essential medical material, including medicines, hard choices and compromises may be particularly necessary in the fields of health and social care.

People are more likely to understand and accept the need for, and the consequences of, difficult decisions if these have been made in an open, transparent and inclusive way. National and local preparations for an influenza pandemic should therefore be based on widely held ethical values, and the choices that may become necessary should be discussed openly as plans are developed, so that they reflect what most people will accept as proportionate and fair. At the request of the Department of Health, an independent committee with cross-UK representation has developed an ethical framework to inform the development and implementation of response policy both in the health and social care sector and more widely. The systematic use of the principles it contains can act as a checklist to ensure that all the ethical aspects have been considered at all levels.

The ethical framework was first published in 2007. It has been reviewed by the Committee on Ethical Aspects of Pandemic Influenza (CEAPI) in the light of the experience of the H1N1 (2009) influenza pandemic and the Committee has concluded that it remains appropriate and fit for purpose in planning for a further pandemic. The framework is available online. The routine use, in each organisation, of professional practice mechanisms based on the ethical framework will support staff in resolving any ethical issues that may arise out of their work.

Management of an influenza pandemic, as with any urgent public health situation, requires certain decisions that balance potentially conflicting individual and community interests. For example, during the influenza A(H1N1) 2009 pandemic, countries experienced pressures on critical services that required prioritization (8) and impacted at the individual level. In addition, questions about social distancing measures, forced isolation and quarantine arose, together with debates on mandatory vaccination of health-care workers. (WHO, 2013)

A communications strategy involves processes to collect, develop and distribute information in a timely manner and procedures to ensure that formats are appropriate to the target audiences. The strategy should take into account behavioural aspects of how people react to and act on advice and information they receive, not only from authorities but also from sources such as mass and social media. (WHO 2013).

45.0 Excess Deaths

The influenza virus can be fatal, often for individuals with other underlying health conditions. A pandemic flu strain is no different and, if severe, could be responsible for a significant number of deaths in a relatively short period of time.

The number of additional deaths expected as a result of a pandemic is impossible to predict ahead of a pandemic. However, in line with Dame Deirdre Hine's recommendation that ministers should decide the levels of deaths for which planning is appropriate, Local Authorities in conjunction with local service providers should ensure that they have plans in place to surge their capacity to cope with an increase in burials and cremations during a pandemic. When planning for excess deaths, local planners should prepare to extend capacity on a precautionary but reasonably practicable basis, and aim to cope with up to 210,000 - 315,000 additional deaths across the UK over a 15 week period (or a higher level where possible). In a less widespread and lower impact influenza pandemic, the number of additional deaths would be lower.

46.0 Vaccination

46.1 Introduction

People considered to be "at risk" from seasonal influenza are invited for vaccination each year. However, as an influenza pandemic will result unexpectedly from an entirely new viral strain or subtype, seasonal influenza vaccines could not be expected to provide any protection against pandemic influenza.

There are two distinct types of pandemic vaccine – pre-pandemic vaccine and pandemic-specific vaccine:

46.2 Pre-Pandemic Vaccine

Pre-pandemic vaccines that are produced in advance of a pandemic and are designed to protect against a strain of influenza virus that experts judge to be a potential cause of a future pandemic, e.g. H5N1. The degree of protection will depend on how similar the pandemic viral strain is to the strain used to prepare the vaccine.

The Government currently holds a limited supply of H5N1 vaccine. This could potentially offer some protection in the event of an increased threat of a new pandemic arising from this highly pathogenic virus ("avian flu"). However, this vaccine would not necessarily be well-matched to the specific pandemic strain once it emerges and so the level of protection offered by the vaccine would not be known until a new pandemic virus emerges.

Taking account of this and the current Joint Committee on Vaccination and Immunisation (JCVI) advice, the Government's policy is that these vaccines, if useful, would be prioritised for the protection of frontline healthcare workers and those in clinically at-risk groups.

46.3 Pandemic-Specific Vaccine

Pandemic-specific vaccines that are developed specifically to protect against the pandemic viral strain, once it has been isolated. Once available, a pandemic specific

vaccine should protect most recipients from clinical illness and may also reduce illness severity, hospitalisation and death and therefore the national impact of subsequent waves of the virus.

The development of a new pandemic-specific vaccine can only begin once the new pandemic influenza viral strain has been identified and isolated. Arrangements have been put in place by the European Medicines Agency (EMA) to enable manufacturers to conduct studies with prototype pandemic-specific vaccines and seek approval of 'mock up' licences in the inter-pandemic period. These studies mean that the form of pandemic-specific vaccine will already have undergone detailed clinical trials, including safety studies, which allows the new vaccine to be licensed and available for use as quickly as possible.

The production process is highly complex and it is likely to take at least four to six months after the start of a pandemic before a pandemic-specific vaccine would start to become available.

As a contingency measure, the Government is currently in discussion with manufacturers about the possibility of securing new advance supply agreements for a pandemic-specific vaccine to be available as soon as it is developed.

However, it is not realistic to expect that vaccination with a pandemic-specific vaccine will have an impact during the first wave of an influenza pandemic although pandemic specific vaccines could be an important tool in preventing further cases and protecting the vulnerable, particularly if further waves of infection occur.

46.4 Pandemic Vaccination Programme

Even once pandemic-specific vaccine starts becoming available, deliveries of supplies will be phased over a number of months. The Joint Committee on Vaccination and Immunisation (JCVI) has agreed that the primary objective of a pandemic-specific vaccination programme should be to reduce morbidity and mortality. Therefore, vaccine, once available, would be prioritised to groups of the population to reduce morbidity and mortality as far as may be possible.

JCVI also supported the proposed early use of the vaccine in front-line health and social care workers, given the greater potential exposure to the virus and the possibility of transmitting that infection to susceptible patients or people they were supporting and because this will help to maintain the resilience of the NHS.

CEAPI has previously considered the use and prioritisation of vaccine. They concluded that the most appropriate course of action would depend on the particular circumstances, including what could be achieved with the amount of vaccine available at the time, and this remains their view following the experience of the H1N1 (2009) influenza pandemic. If it is not possible to limit the spread by achieving herd immunity²¹, where so many people are immune that the disease cannot continue to infect people to maintain itself in the population, it is important to reduce the impact of the pandemic.

Given this advice, the presumption should be that the prioritisation of vaccine will depend on the emerging profile of at-risk groups for a new pandemic virus, with priority given to clinical risk groups and front-line health and social care workers. There are no plans to prioritise vaccine for any other specific groups or sectors for business continuity reasons.

Throughout the pandemic, the case for vaccinating other groups will be based on advice from the JCVI and will take into account factors such as vaccine availability, the specific characteristics of the virus and the potential health benefits of implementing an extended vaccination programme compared to the risk that so doing might pose to other important health programmes, such as the general childhood vaccination programme.

Planning for vaccination should begin at an early stage of a pandemic. Local areas will need to plan for receiving vaccine supplies, storage of the vaccine in appropriate conditions, distribution and staffing of vaccine clinics. Distribution will be via the normal channels and for reporting purposes the established system, ImmForm, will be used. However, if ordering or storage is organised at a future health authority level then a WDL may be required, unless the MHRA permit the use of special arrangements such as the naming of the authorities on the Department of Health.

Vaccine specific to the influenza pandemic can only start to be manufactured once the pandemic viral strain has been isolated. It is expected that initial supplies of vaccine will not be available until after the first pandemic wave. It may be four to six months from the emergence and establishment of the new virus before a population-wide vaccination campaign can commence. Initial vaccine deliveries will be in limited quantities so prioritisation will be essential. Due to the need to distribute the vaccine at the earliest opportunity, it is not possible to specify such issues as pack sizes, types of syringe etc. and this will also vary between manufacturers.

The JCVI will advise on priority groups for vaccination and it is essential to encourage vaccination uptake in these priority groups. Initial assumptions are that the usual seasonal flu clinical at risk groups will be at greatest risk but there may be rapid modifications to these priorities once more is known about the characteristics and impact of the new virus. Local communication, and flexibility in delivery models to encourage vaccine uptake will be critical.

46.5 Staff Vaccination

Vaccination of frontline health and social care workers should be carried out as soon as pandemic influenza vaccine becomes available. Frontline health and social care staff will be a priority group for vaccination. Encouraging vaccine uptake to become the norm in inter-pandemic years, ensuring open communication about the risks and benefits, providing opportunities for staff to access the vaccine easily both in and out of hours, and providing leadership through example, all contribute to successful uptake. Professional bodies may also play a role in encouraging uptake. A best practice document "*Learning the lessons from the H1N1 vaccination campaign for Health Care Workers*"²⁵ was issued in July 2010. Successful initiatives include:

- training additional staff to administer vaccine to their colleagues in support of occupational health departments (eg ward nurses and paramedics);
- using private providers to immunise staff, particularly social care staff;
- local leadership to promote vaccination (eg lead clinicians having the vaccine on the first day it becomes available locally);
- using roving clinics to take the vaccine to staff (eg to wards and satellite sites);
- engaging with staff side to support the campaign and promote it's importance;
- holding clinics outside of normal working hours, and
- enabling staff to take time out of their working day to have the vaccine.

PART SIX: AFTER THE PANDEMIC (RECOVERY STAGE)

47.0 Recovery Stage

The recovery stage will start once demands on services reduce to a level that there may be a gradual return to “normalisation” of services or a regrouping prior to a further wave of the pandemic. It may not be possible to predict whether there will be further pandemic waves so regrouping during this phase will be important to allow staff to rest and take periods of leave to allow some personal recovery prior to a further wave.

The focus in this stage would be:

- normalisation of services, perhaps to a new definition of what constitutes normal service
- restoration of business as usual services, including an element of catching-up with activity that may have been scaled-down as part of the pandemic response e.g. reschedule routine operations
- post-incident review of response, and sharing information on what went well, what could be improved, and lessons learnt
- taking steps to address staff exhaustion
- planning and preparation for a resurgence of influenza, including activities carried out in the Detection phase
- continuing to consider targeted vaccination, when available
- preparing for post-pandemic seasonal influenza

The indicator for this stage would be when influenza activity is either significantly reduced compared to the peak or when the activity is considered to be within acceptable parameters. An overview of how services' capacities are able to meet demand will also inform this decision.

48.0 Influenza Pandemic Group – *In Recovery*

The Chair of the IPG is responsible for determining whether the IPG is acting in a state of **preparedness**, **response**, or **recovery** and this should be undertaken dynamically and in line with that which is set out in Table 3. It is expected that the IPG's move to recovery will mirror that of the UK's wider strategic move, although there may be a case for doing this earlier or later depending on the impact of the outbreak locally in Devon.

Whilst in recovery, the IPG is responsible for identifying the short, medium and long term impacts of the outbreak and developing a work programme accordingly. In particular, the Group will need to account for:

- Patients whose existing illnesses have been exacerbated by influenza;
- Patients who may continue to suffer potential medium or long-term health complications;
- A backlog of work resulting from the postponement of treatment for less urgent conditions;

- Possible increased demand for services through post-pandemic seasonal influenza;
- Financial implications of the outbreak and its subsequent management;
- A reduction in the workforce as some staff may not return to work due to altered family circumstances, severe illness, or even death. Plans should therefore recognise the potential need to prioritise the restoration of services and to phase the return to normality in a managed and sustainable way;
- A reduction in the efficiency of the workforce due to exhaustion, welfare issues, or missed training;

49.0 Debrief & Lessons Learned

The retention of knowledge and incorporation of lessons identified into the pandemic plans is an important part of this phase. Planning for recovery should be integrated into normal planning before, during and after any pandemic as part of business continuity planning.

SECTION SEVEN: SUPPORTING INFORMATION

50.0 Monitoring Compliance with and the Effectiveness of this Plan

50.1 Standards/ Key Performance Indicators

Key performance indicators include:

- Compliance with the Core Standards for Emergency Preparedness, Resilience and Response demonstrated to NHS England Local Area Team and NEW Devon Clinical Commissioning Group on an annual basis;
- Outcomes of any emergency test or exercise of the Trust's Influenza Pandemic Plan(s)

50.2 Process for Implementation, Monitoring Compliance and Effectiveness

This policy will be published on the Trust's Intranet and included in the Chief Executives Bulletin - Policy Update News. Information on the policy will be included during corporate and local induction training, and at targeted training sessions for staff who have key roles and responsibilities.

Monitoring compliance with this policy will be the responsibility of the Influenza Pandemic Group who will need to assess the outcomes of any test or exercise of the Influenza Pandemic Plan(s).

Where non-compliance is identified, support and advice will be provided to improve practice.

54.0 Equality Impact Assessment

Table 7: Equality Impact Assessment

Group	Positive Impact	Negative Impact	No Impact	Comment
Age			X	
Disability			X	
Gender			X	
Gender Reassignment			X	
Human Rights (rights to privacy, dignity, liberty and non-degrading treatment), marriage and civil partnership		X		All efforts will be made to ensure that human rights are preserved and any impacts will take account of agreed national guidance set out in Section 44.0 of this plan
Pregnancy			X	
Maternity and Breastfeeding			X	
Race (ethnic origin)			X	
Religion (or belief)			X	
Sexual Orientation			X	

SECTION EIGHT: APPENDIX

Appendix A: Pandemic Planning Assumptions

This table compares the pandemic planning assumptions in *Pandemic Flu: A national framework for responding to an influenza pandemic* (2007), the events of the 2009/10 pandemic, and the *UK Influenza Pandemic Preparedness Strategy* (2011). It illustrates the need for flexibility and proportionality at the local level as part of the national response to a pandemic.

Planning Assumption	2007 National Framework	2009/10 pandemic experiences	2011 National Strategy
Where it will start...	While it is unknown where the next pandemic will start, a strain of avian influenza from the Middle East, Africa or south east Asia such as A/H5N1 remains a potential source	The 2009/10 pandemic originated in central America (Mexico), from a virus largely of swine origin	An influenza pandemic could emerge anywhere in the world, including in the UK
When it will start...	Unlike seasonal flu, a pandemic can start at any time of the year	The 2009/10 pandemic commenced in April 2009	An influenza pandemic could emerge at any time of the year
Stopping the spread...	Although it may be theoretically possible to contain the initial spread of a pandemic virus originating in a rural area, the measures required to do so are likely to prove difficult to implement.	The 2009/10 pandemic spread rapidly from central America to the rest of the world	It will not be possible to stop the spread of, or to eradicate, the pandemic influenza virus, either in the country of origin or in the UK, as it will spread too rapidly and too widely
When it will reach the UK...	A pandemic virus arising anywhere in the world could reach the UK within two to four weeks	The 2009/10 virus reached the UK within days of being identified in Mexico	Regardless of where or when it emerges, it is likely to reach the UK very quickly

Planning Assumption	2007 National Framework	2009/10 pandemic experiences	2011 National Strategy
How spread will start in the UK...	Spread across the country to all major population centres could take one to two weeks, peaking within 50 days of arrival	It took around 100 days to spread significantly across the country	From arrival in the UK, it will probably be a further one to two weeks until sporadic cases and small clusters of disease are occurring across the country
Where it will first enter the UK	As a major international hub, London is a likely site for introduction of the pandemic virus into the UK	The first UK cases were identified in Glasgow, and cases were identified in London a few days later	
How long it will last and when it will peak...	A pandemic in the UK could last 15 weeks, with peak incidence around weeks six to eight; local epidemics could be over quicker (six to eight weeks) with a proportionally higher peak	The first wave lasted around 16 weeks, with a peak at week 12.	Initially, pandemic influenza activity in the UK may last for three to five months,
How many waves there will be...	A pandemic in the UK could occur over one or more waves, weeks or months apart; subsequent waves could be more severe than the first	There were two waves of the 2009/10 pandemic in the UK, the second wave was of similar intensity to the first; the 2010/11 winter saw more severe cases requiring critical care than either 2009/10 wave	There may be subsequent substantial activity weeks or months apart even after the pandemic is declared over; subsequent winters are likely to see a different level of flu activity compared to pre-pandemic winters

Planning Assumption	2007 National Framework	2009/10 pandemic experiences	2011 National Strategy
What the clinical attack rate will be...	The reasonable worst case scenario could be 50% clinical attack rate over the whole pandemic with up to 22% of cases in the peak week	The clinical attack rate of the 2009/10 pandemic will not be known for some time, however initial data indicates that around 50% of adults and 66% of children were exposed	Studies suggest that roughly half of all people will display symptoms (ranging from mild to severe) but the proportion with severe symptoms will not be known in advance
How patients will seek healthcare support...	28.5% of affected individuals could need GP/ health care attention; up to 4% of cases could need acute care (thus exceeding normal capacity) and there could be a maximum case fatality rate of 2.5% (range from 0.4% to 2.5%)	Fewer patients sought healthcare during the 2009/10 pandemic than anticipated, although it is expected that there were a large number of asymptomatic cases (as above) and the 2010/11 winter saw more severe cases requiring critical care than either 2009/10 wave	Health services should prepare for up to 30% of symptomatic patients requiring assessment and treatment in usual pathways of primary care. 1-4% of symptomatic patients will require hospital care, depending on how severe the illness caused by the virus is. There is likely to be increased demand for intensive care
How many deaths there will be...	A pandemic could cause 50 - 750,000 excess deaths across the country	There were approximately 450 deaths across the country attributed to the virus being a pandemic	Up to 2.5% of those with symptoms could die as a result of influenza if no treatment proved effective. Local planners should prepare to cope with a mortality rate of up to 210–315,000 additional deaths

Planning Assumption	2007 National Framework	2009/10 pandemic experiences	2011 National Strategy
Which age groups will be affected...	The 1918 pandemic particularly affected those aged 20-45, whereas the 1957 and 1968 pandemics mainly affected the very young and elderly; we do not know which age groups will be affected in the next pandemic	The 2009 pandemic affected all age groups; the majority of cases were in teens and young adults, hospitalisations in under-5's and deaths in 50-64 year olds	All ages are likely to be affected but those with certain underlying medical conditions, children and otherwise fit younger adults could be at relatively greater risk as older people may have some residual immunity from previous exposure to a similar virus.
How many staff will be absent from work...	Over the duration of a pandemic, up to 50% of employees may be absent from work due to illness, caring responsibilities and/or societal disruptions, with up to 20% absent in the peak week; for smaller units/teams this could rise to 35%	For the majority patients, the illness caused by the 2009/10 pandemic virus was mild and consequently there was minimal impact on wider society; many people had asymptomatic infections and so would not have known they were ill	Absence should follow the pandemic profile. Up to 50% of staff may require time off at some stage. In a widespread and severe pandemic, some with caring responsibilities will need additional time off; 15-20% of staff may be absent on any given day. Small units or teams may suffer higher staff absences: 30-35% absent on any given day.
How long staff might be absent from work if sick...	Ill staff could be absent from work for 7-10 days, and may not be able to function to capacity upon return to work for a further fortnight or so	For the majority patients, the illness caused by the 2009/10 pandemic virus was mild and staff absence was minimal	Most people will return to normal activity within 7 to 10 days

Appendix B: NDHT Risk Assessment for Influenza Pandemic

General Risk Assessment Form

Title: Pandemic Influenza

Risk Assessor – (Please PRINT name and title)	
	Job Title: EPRR Officer
	Location: CSM Office, Level 5, NDDH
Telephone No: 01271 314 074	Assessment Date: 22 January 2015
Source of risk: Influenza Pandemic	
Description of Hazard and Risks	
<p><i>There is a risk of (taken from 2011 Department of Health planning assumptions...</i></p> <ul style="list-style-type: none"> • Half of all people displaying symptoms, ranging from mild to severe. The proportion of people with severe symptoms will not be known in advance. For the population served by Northern Devon Healthcare NHS Trust across North, East & Mid Devon, Torridge and Exeter, this translates to approximately 250,000 people displaying symptoms of influenza like illness. • 1-4% of symptomatic patients requiring hospital care, depending on how severe the illness caused by the virus is. For the population served by North Devon District Hospital, this translates to between 1,631 and 6,524 people possibly requiring acute care. In addition, there is likely to be a marked increase in demand for intensive care. • Up to 2.5% of those with symptoms could die as a result of influenza if no treatment proved effective and local planners should prepare to cope with a mortality rate of up to 210–315,000 additional deaths. For the population served by Northern Devon Healthcare NHS Trust across North, East & Mid Devon, Torridge and Exeter, this translates to approximately up to 12,377 additional deaths. • All ages are likely to be affected but those with certain underlying medical conditions, children and otherwise fit younger adults could be at relatively greater risk as older people may have some residual immunity from previous exposure to a similar virus. • Significant impacts to the Trust's workforce. Absences should follow the pandemic profile and up to 50% of staff may require time off at some stage. In a widespread and severe pandemic, some with caring responsibilities will need additional time off; 15-20% of staff may be absent on any given day. Small units or teams may suffer higher staff absences: 30-35% absent on any given day. Most people will return to normal activity within 7 to 10 days. • Disruption to the supply chain with potentially reduced access to resources. <p>due to ...</p> <p>An outbreak of influenza pandemic.</p>	
Risk Location Site/Unit: Trust wide	Location Locally / Regionally / Nationally / Internationally

Directorate: Trust wide		Speciality: Emergency Preparedness, Resilience & Response Infection, Prevention & Control					
Who or what is at risk – Place an X against all that apply							
<input type="checkbox"/>	Buildings	<input checked="" type="checkbox"/>	Environment	<input checked="" type="checkbox"/>	Suppliers	<input type="checkbox"/>	Other
<input checked="" type="checkbox"/>	Contractors	<input checked="" type="checkbox"/>	Patients/Service users	<input checked="" type="checkbox"/>	Trust services		
<input type="checkbox"/>	Equipment	<input checked="" type="checkbox"/>	Staff/workforce	<input checked="" type="checkbox"/>	Visitors/Carers		
Strategic Objective – Place a X against the main one that applies							
<input type="checkbox"/>	Efficient and effective	<input type="checkbox"/>	Integrated care				
<input type="checkbox"/>	Flexible and multi-skilled workforce	<input type="checkbox"/>	Local provider of choice				
<input type="checkbox"/>	High Quality	<input checked="" type="checkbox"/>	Sustainable				
Risk Treatment - Place an X against the main one that applies							
<input checked="" type="checkbox"/>	Contingency & disaster planning	<input type="checkbox"/>	Risk reduction				
<input type="checkbox"/>	Risk acceptance	<input type="checkbox"/>	Risk transfer				
<input type="checkbox"/>	Risk avoidance	<input type="checkbox"/>					

Risk Lead- (Please PRINT name and title)			
Ben Collins, EPRR Officer			
Description of existing controls and assurances – e.g. strategies, policies, standard operating procedures, training, competent staff, reports, committees, etc.			
<ul style="list-style-type: none"> Existence of the Emergency Preparedness, Resilience and Response (EPRR) Board The Trust has an Influenza Pandemic Plan (2015) The Trust has an Influenza-like Illness Operational Guidance (2015) FIT Testing programme, as delivered Infection, Prevention and Control (IPC) Team 			
Are these controls adequate to manage and accept the risk?			
<input type="checkbox"/>	Yes – Insert final risk score below – see section C.	<input checked="" type="checkbox"/>	No – Complete action plans to reduce the risk
Risk Consequence - Place an X against all that apply (see risk scoring matrix)			
<input checked="" type="checkbox"/>	Adverse publicity / reputation	<input type="checkbox"/>	Information risks
<input checked="" type="checkbox"/>	Business objectives & projects	<input type="checkbox"/>	Inspection & Statutory duty
<input checked="" type="checkbox"/>	Environmental Impact	<input checked="" type="checkbox"/>	Patient experience
<input checked="" type="checkbox"/>	Finance including claims	<input checked="" type="checkbox"/>	Quality / complaints / audit
<input checked="" type="checkbox"/>	Human resources / Organisational development/ Staffing competence	<input checked="" type="checkbox"/>	Service / Business interruption
<input checked="" type="checkbox"/>	Impact on safety		
A - Initial Risk Score – Risk score with existing controls and assurances in place (see risk scoring matrix)			
Consequence 4	x	Likelihood 4	= Score 16
B - Target Risk Score – (see risk scoring matrix)			
Consequence 4	x	Likelihood 4	= Score 16
C - Final Risk Score – (see risk scoring matrix)			
Consequence 4	x	Likelihood 4	= Score 16
Action Plans -			

Number of Action Plans Completed:	Copies of Action Plans Attached to Risk Assessment	<input type="checkbox"/>	Yes
		<input type="checkbox"/>	No

Summary Risk Scoring Matrix - For more details see risk scoring matrix		
Score	Consequence	Likelihood
1	Insignificant	Rare
2	Minor	Unlikely
3	Moderate	Possible
4	Major	Likely
5	Catastrophic	Almost certain

Appendix C: Proportionality: Planning for Uncertainty

As reliable information becomes available, the appropriate response to the pandemic can be determined. The table below (taken from the *UK Influenza Pandemic Preparedness Strategy 2011*) outlines how the response might be taken forward in different pandemic scenarios. It is important to recognise that these are indicative only, the actual response measures will be determined at the time in the light of scientific, clinical and operational advice.

Impact	Nature & scale of illness	Key healthcare delivery	Impact on wider society	Public messages
INITIAL PHASE (pandemic impact unknown at this stage)	Sporadic influenza cases may be reported from the community Possible limited local outbreaks (schools, care homes) Possible increased proportion of critical care cases with influenza	Response led by public health services supported by primary care and pharmacy services, and making preparations for extra support should this initial phase be extended Detection, diagnosis and reporting of early cases through testing and contact tracing National Pandemic Flu Service (NPFS) not activated. Local areas may start initial preparations to use NPFS and Antiviral Collection Points (ACPs) Influenza information line may be activated Consider support arrangements for Health Protection Teams Normal health services continue	Possible public concern arising from media reporting of cases at home or abroad Possible disruption to international travel and concern among intending / returning travellers Possible school closures to disrupt the spread of local disease outbreak, based on public health risk assessment Review and update of pandemic response plans	Advice on good respiratory and hand hygiene Advice about how to obtain further information e.g. to consult Government and NHS websites and other channels for up to date information Establish transparent approach to communicating emerging science, the level of uncertainty about severity and impact, and the likely evolution
LOW	Similar numbers of cases to moderate or severe seasonal influenza	Primary and hospital services coping with increased pressures associated with respiratory	Increase in staff absence due to sickness – similar to levels seen in seasonal	As above; Information on the pandemic and the clinical

	<p>outbreaks AND In the vast majority of cases – mild to moderate clinical features</p>	<p>illness, with maximum effort Paediatric/Intensive care units (PICU/ICU) nearing or at maximum pressure No significant deferral of usual activities Influenza information line function active ACPs established in hotspots only – consider using community pharmacies alongside other arrangements NPFS active depending on pressures in primary care Scottish Flu Response centre at NHS 24 may be active in Scotland Use existing legislation to allow the supply of antiviral medicines at premises that are not a registered pharmacy Continued compliance with statistical reporting standards to maintain confidence in publicly disseminated information</p>	<p>influenza outbreaks Consider arrangements for sickness absence surveillance No significant or sustained impact on service and business capacity</p>	<p>effects of infection, and what to do Information about antiviral medicines and tailored messages for children, pregnant women, elderly and other at risk groups (in liaison with expert bodies and support groups) How to use your local health service Employers planning in advance for sickness absence, service reprioritisation and alternative ways of working</p>
MEDIUM	<p>Higher number of cases than large seasonal epidemic Young healthy people and those in at-risk groups severely affected AND/OR</p>	<p>Health services no longer able to continue all activity ICUs/PICUs under severe pressure Local and regional decisions to cease some health care activity Influenza information line function active</p>	<p>Supplies of electricity, gas and fuel will remain at near-normal levels of supply. Routine maintenance afforded a lower level of priority if there are staffing shortfalls, essential repairs</p>	<p>Information on the pandemic and the clinical effects of the infection Advice on seeking medical assessment when not improving or getting worse</p>

	<p>more severe illness</p>	<p>NPFS activated as required in each country Local areas establish ACPs as required in each country Contingency plans for supporting care at home and respite care Continued compliance with statistical reporting standards</p>	<p>expected to continue. Potential disruption to general supplies if peak staff absence coincides with technical or weather related supply difficulties Prepare to implement business continuity arrangements for management of excess deaths, if necessary Concern among teachers and parents about infection spread in educational settings may lead to teacher and pupil absence Supply chain companies implement business continuity plans Possible review of legislation regarding drivers' hours Justice system affected by absence of staff, judiciary and other parties. Maintain essential services in accordance with established business priorities</p>	<p>Information on NPFS Information on collection of medicines Information about antiviral medicines and tailored messages for children, pregnant women, elderly; and other at-risk groups (in liaison with expert bodies and support groups) Infection control and business continuity advice for specific occupations. E.g. funeral directors, registrars, cemetery and crematorium managers, police etc as appropriate Managing expectations of Critical Care</p>
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<p>HIGH</p>	<p>Widespread disease in the UK AND/OR most age-groups affected AND/OR severe, debilitating illness with or without severe or frequent complications</p>	<p>GPs, community pharmacies, district nurses, dental practitioners and social carers, independent sector, residential homes and voluntary organisations fully stretched trying to support essential care in the community with consequential pressure on secondary care Hospitals can only provide emergency services NPFS working to capacity; ACPs under pressure Influenza information line function active Critical Care services: demand outstrips supply, even at maximum expansion Continued compliance with statistical reporting standards</p>	<p>Emphasis on maintaining supplies and staffing Transport, schools, shops affected by sickness and family care absences Numbers of deaths putting pressure on mortuary and undertaker services Possible implementation of national legislative changes to facilitate changes in working practice (e.g. death certification, drivers' hours, sickness self-certification requirements, Mental Health Act, benefits payments) Justice system affected by absence of staff, judiciary and other parties. Maintain essential services in accordance with established business priorities</p>	<p>Messages about progress of the pandemic, availability of healthcare and other services Advice on how to minimise risks of transmission Information on how to support family members and neighbours Advice on where to get help for emergencies Truth about how services are coping and what they are doing to cope Explanation of triage systems to align demand and capacity Some civil contingencies advice, including advice to specific occupations such as paramedics, funeral directors, registrars, cemetery and crematorium managers, police etc as appropriate</p>
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