# Pandemic influenza

Guidance on the Provision of Healthcare in a Primary and Community Care setting in Northern Ireland

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# 1 Introduction

## 1.1 Purpose

The purpose of this guidance is to provide the Health and Social Care Board (HSCB), Public Health Agency, and Business Service Organisation (BSO) with guidance on developing their plans for responding to an influenza pandemic.

It is anticipated the HSCB, hereafter referred to as the Board, will lead the development of response plans with support and input from the PHA and BSO as necessary. The Guidance is intended to provide general advice for planners, and to outline a model of care within which local plans should be developed.

The Guidance is also intended to be a useful document for primary care professionals such as those working in general practice, community pharmacy and nursing, and for partner agencies providing services in the community setting. Separate guidance is available for General Dental Practices and Community Dental Services.

Planners should be aware that the information available on pandemic influenza is changing rapidly. Guidance is therefore continually being revised and it is important that response plans are continually reviewed and monitored to ensure they reflect the principles underpinning the latest information.

## 1.2 Scope of the guidance

This guidance provides advice on preparing for and responding to an influenza pandemic in the primary and community care setting. Advice on preparing guidance for residential settings during a pandemic can be found in the guidance documents on adult social care (see below).

This guidance on healthcare in a community setting is supplementary to the *Northern Ireland Contingency Plan for Health Response to an Influenza Pandemic*, and should be read in conjunction with it and other Departmental guidance on pandemic influenza planning. These can be found at http://www.dhsspsni.gov.uk/index/phealth/php/infectious_diseases/pandemicflu.htm and include the following:

- *Northern Ireland Interim Contingency Plan for Health Response to an Influenza Pandemic*
- *Acute Hospitals Guidance*
- *Social Care Guidance*
- *Mental Health Service Guidance*
- *Northern Ireland Ambulance Service Guidance*

It should also be noted that a draft guidance paper, *Planning for a Possible Influenza Pandemic: A Framework for Planners Preparing to Manage Deaths* has also been prepared by the Home Office.

This guidance is for Northern Ireland only, and parallel guidance will be issued by the Department of Health, the Scottish Government and the Welsh Assembly Government. Whilst there may be some differences in operational approach and organisational responsibilities, all four health departments are working closely to ensure a consistent approach wherever possible.

## 1.3 Objectives

The objectives of the community healthcare response to an influenza pandemic, as outlined in the *National framework*, are to:

- reduce the spread of influenza
- limit the morbidity and mortality from influenza
- adopt a multi-agency approach and mobilise the available capacity and skills of all healthcare staff (including recently retired staff) and volunteers, slow or limit the spread of infection by supporting self care in the home, and by taking care to the patient (rather than patients to care) wherever possible to ensure assessment of all symptomatic patients rapidly, and prompt treatment with antiviral and other medicines if indicated and appropriate
- ensure the continued delivery of essential services for people with influenza and its complications and for non-influenza patients
- provide vaccination if and when suitable vaccines become available and ensure utilisation of other public health measures such as robust infection control
- make targeted and effective use of potentially scarce healthcare skills, facilities and resources
- apply transparent, consistent and equitable admission criteria that reserve available hospital capacity for the most seriously ill who are likely to benefit
- monitor the local epidemiology of influenza and maintain surveillance to inform local and national control measures and response arrangements
- provide accurate, timely and authoritative advice and information (that complements wider national messages) to professionals, the public and the media
- reduce the impact on health and social services as far as possible.

## 1.4 Audience

This guidance is primarily intended for those preparing plans in the Board and other primary care organisations for an influenza pandemic. However, it will have relevance to other stakeholders, including HSC trusts, local councils and independent sector providers. Additionally, it will be of interest to those seeking general information or an overview of the general preparations for and planned response to a pandemic.

## 1.5 How the guidance is intended to be used

The guidance is intentionally broad to ensure coverage of all the key issues that have been raised by planners and key stakeholders. Some sections are also deliberately detailed to provide operational guidance on areas where planners have consistently requested further information.

To aid usability, the guidance has been split into chapters that describe discrete areas of planning. Chapters can therefore be read (and selected) on a stand-alone basis as well as part of a comprehensive guidance document.

For a summary of the key points and actions of each chapter the reader should refer to the boxes at the beginning and end of that chapter.

# 2 Business continuity arrangements

**Key points**

- The Board should have robust business continuity plans in place for responding to an influenza pandemic.
- Plans should be developed according to risk assessments.
- All partners should be involved in the development of integrated response plans and arrangements.
- An influenza pandemic will result in increased demand for supplies at a time when the ability of suppliers to maintain deliveries could be compromised.
- Robust workforce planning will be required to ensure as far as possible that there is sufficient appropriate staffing and level of competencies in the areas of most need.

## 2.1 Business continuity plans

The Board should have business continuity plans in place, for managing the continuity of critical functions and recovery of primary care services from disruption due to any emergency, including pandemic influenza.

Contingency planning for a range of disruptive risks is a key business activity, and maintaining adequate staffing levels is critical to every organisation's ability to maintain its essential functions. However, the unique nature of some of the characteristics of an influenza pandemic need to be factored specifically into local business continuity plans, in particular the likely duration and higher levels of absenteeism.

Identifying the risks threatening the performance of critical functions in the event of an influenza pandemic will enable the Board to target resources at the right areas and develop appropriate plans. The UK Cabinet Office has issued business contingency planning guidance for a possible influenza pandemic, which contains specific guidance for Civil Contingencies Act Category 1 responders and therefore has specific relevance to the Board. The full document can be accessed at: www.ukresilience.info/publications/060710_revised_pandemic.pdf

Primary care contractors and other agencies (i.e. subcontracted services) should also ensure that they have robust business (service) continuity plans in place that take account of Sessional General Practitioners, where they maybe used. Some professional and/or representative bodies have developed service continuity guidance, which primary care professionals will wish to refer to:

- Royal College of General Practitioners (RCGP)
  www.rcgp.org.uk/PDF/Pandemic_Planning_GP_Guidance.pdf

- British Medical Association (BMA) and General Practitioners Committee (GPC)
  www.bma.org.uk/ap.nsf/content/flupanprep

- Royal College of Nursing
  www.rcn.org.uk
  www.rcn.org.uk/support/rcn_direct_online_advice/nursing_practice/pandemic_flu

- Pharmaceutical Society of Northern Ireland and Pharmaceutical Contractors Committee (NI)
  www.psni.org.uk
  www.pccni.org.uk

**2.1.1 Risk assessment-based planning**
As part of the influenza pandemic planning process, the Board should take a risk assessment based approach in order to understand each of the risks faced, set them in priority order, act on them accordingly and evaluate their progress in achieving optimum preparedness. Primary care contractors are also advised to undertake risk assessment based planning.

A risk assessment grid framework tool, which assesses the likelihood of event occurrence against the degree of impact if it occurs, may be a helpful way forward in developing this work.

**2.1.2 Exercising and reviewing business continuity plans**
The Board should not only put business continuity plans in place, but should also ensure that they are reviewed regularly and kept up to date.

Particular attention may need to be paid where changes have occurred to:

- staffing
- functions or services (including non-clinical functions such as facility maintenance, catering, cleaning, information technology, and waste handling)
- structure
- suppliers or contractors
- risk assessments
- business objectives or processes
- new guidance from the Department of Health, Social Services and Public Safety (the Department).

A business continuity plan cannot be considered reliable until it has been exercised and has been found to be robust. False confidence may be placed in the plan if there has not been rigorous testing. Exercising should involve plan validation, key staff role rehearsal and systems testing where systems are relied on to deliver resilience (e.g. uninterrupted power supply). The frequency and type of exercises will depend on the individual circumstances of the Board, but should take into account the rate of change and the outcomes of previous exercises (if particular weaknesses have been identified and changes made). Testing of response arrangements and

plans should involve those partners who are key to the response, including primary care contractors.

## 2.2 Partnership working and integrated planning

Planning should be undertaken in conjunction with local partners, particularly primary care contractors (and their field or head office teams where applicable), sessional General Practitioners, local medical and pharmaceutical committees, and social care providers. All partners should be involved from an early stage to ensure the development of integrated response plans and arrangements. Primary care contractors will also wish to ensure they develop good working arrangements between their services prior to a pandemic, so that opportunities for joint working can be maximised in the event of a pandemic (e.g. services supporting self care and those that help to ensure continued access to medicines such as repeat dispensing schemes).

Local stakeholders that the Board will wish to ensure are involved in planning for a pandemic include:

- patients and the public
- primary care contractors
- local medical, pharmaceutical, dental and ophthalmic committees
- Health and Social Care Trusts
- other secondary care providers in the locality
- Northern Ireland Ambulance Service Trust
- social services
- out-of-hours services and unscheduled care providers
- the police
- prison representatives
- the voluntary sector
- private healthcare providers (for both care homes and hospital services)
- hospices and end of life care providers
- education providers
- Local Resilience Forum (where they exist)

- the regional Preparedness for a Swine Influenza Pandemic Programme Board
- suppliers and contractors
- local businesses.

## 2.3 Contracts and service level agreements to ensure continued service delivery

Where possible the Board should give consideration to which contracts may need to be suspended or renegotiated during influenza pandemic, and where new contracts will be required. It would be sensible to build contingencies into any negotiations over new contracts or service level agreements. Arrangements should not destabilise other organisations in the post-pandemic period.

## 2.4 Supplies and consumables

An influenza pandemic will result in increased demand for supplies at a time when the ability of suppliers to maintain deliveries will be compromised. Most healthcare organisations do not hold large amounts of stock, instead relying on timely deliveries. Small stock reserves have implications for how healthcare facilities can continue to function in a prolonged emergency, particularly at its peak.

There are a number of key groups of supplies that should be considered. This list is not exhaustive, and will need to be supplemented according to local needs. These are:

- pharmaceuticals
- personal protective equipment
- utilities
- food supplies
- linen
- consumable medical items such as dressings, syringes and surgical stitches
- non-consumable medical items such as diagnostic equipment
- consumable non-medical items such as hand washing soaps, cleaning liquids and waste disposal bags
- non-consumable, non-medical items such as cleaning equipment and vehicles
- sterile supplies

- stationery, administration supplies and storage
- information technology.

The HSCB should consider what the vital supply requirements within localities are (both in terms of specific influenza-related use and general use) and ensure that they have systems in place that are capable of receiving, storing and distributing any share of national stockpiles they may be allocated. Local plans should also be made as to how these supplies could be conserved and maintained. HSC Trusts will wish to engage their procurement departments in this planning.

The HSCB should also ensure that there are robust tracking systems in place for medical and non-medical supplies to enable deteriorating stock positions to be readily highlighted. It would be advisable to have contingency plans in place for managing the situation when the availability of specific supplies becomes limited. The HSCB and primary care contractors will also wish to refer to the Medicines and Healthcare products Regulatory Agency Public Consultation proposals for changes to legislation and working procedures during an influenza pandemic, which aim to ensure, as far as possible, continued access to medicines during a pandemic.

In preparing these plans, consideration should be given to the possibility of a surge in demand occurring sooner rather than later and the HSCB through the BSO will therefore need to seek reassurance that suppliers have robust contingency plans in place to continue supplying their services in a prolonged emergency. Even where suppliers can give such assurances, the generalised effect of the emergency will impact on their resilience and planners should explore whether there is a need to stockpile some supplies, especially where suppliers cannot provide adequate assurances, or items are of particularly critical importance.

## 2.5 Blood, tissue and organ donation

Continuation of the collection and supply of blood, tissue and organs will be critical. Community healthcare providers should continue to help promote and encourage donation. It is likely that potential blood donors will contact their local healthcare centre, which should refer callers to the Northern Ireland Blood Transfusion Service on 02890321414.

## 2.6 Mutual aid and 'buddying up' arrangements

An influenza pandemic is likely to affect many areas simultaneously, and so the ability to provide and receive mutual aid from other providers will be limited. The Board should establish dialogue with other local or regional healthcare providers (including the independent sector) about providing mutual aid and support. Elements of mutual aid provision that should be considered include sharing staff (especially those with specific expertise), allocation of reserve staff, material resource sharing (clinical and non-clinical), pharmaceuticals, beds (where appropriate) and transport.

Single-handed general practices with low numbers of staff are likely to face the biggest challenges during a pandemic. This will have associated effects on the management of care for patients presenting with influenza and other serious health issues and where they can best access care at a time when capacity across the community setting and hospitals will be

stretched. As well as needing to develop local (practice-level) response plans, there will be a need for local coordination across a locality to consider how practices can best work with and/or cover for other practices to cope with demand and to maintain access to care. Practices will need clear guidance from the Board as to whom they contact to report sudden changes in their workforce capacity, and there needs to be clear contingency plans for coping with such reports. These issues will require planning at both practice and Board level and any outstanding issues discussed with the Department.

## 2.7 Workforce planning

Workforce planning for a pandemic should be taking place at Board and individual employer level, with the Board playing a key coordination role at the local level. This planning needs to incorporate the whole of the health and social care workforce and all other organisations employing healthcare or other staff that could contribute to the healthcare response. The challenge during a pandemic is to ensure as far as possible that there is sufficient appropriate staffing and level of competencies in the areas of most need. This will require, for example, utilisation of the skills and expertise of the workforce to the full, training and refresher training for groups of staff, and enhancing the staffing pool through ‘buddying up’ arrangements and mobilisation of nonpractising staff (e.g. recently retired staff).

Human resources guidance for pandemic flu planning has been developed by the Department and key stakeholders. This guidance addresses a range of workforce issues, including those around professional registration, and liability and indemnity issues associated with using staff outside their normal role and using volunteers or recently retired staff. The Board and primary care contractors will wish to refer to this guidance, which can be accessed at www.dhsspsni.gov.uk/index/hrd/pay_and_employment/pepublications.htm.

The Department is currently reviewing specific indemnity issues for primary care contractor staff, and further advice will follow.

### 2.7.1 Staffing and optimising available resources

Response plans should contain a strategy for coping with widespread staff shortages. As a minimum, organisations should ensure that plans are in place for handling staff absence rates of up to 15% to 20% over the two- to three-week peak of a pandemic (and up to 30% for smaller organisations). Each organisation should estimate the level of staff absence and its potential impact on its own activities in the period leading up to and during an influenza pandemic.

When identifying resources available for the local response, the Board and primary care contractors will wish to consider:

- embracing the multi-agency team approach by taking a holistic view of the health and social care staff who can assist in the pandemic response
- undertaking a mapping exercise to identify:
    - those staff who have transferable skills in ‘non-essential’ functions and how they could be utilised to support core activities and the pandemic response. This may include dental staff and hospital practitioners, such as ophthalmologists, with a mostly elective workload (as elective workload is suspended)

- those staff who could be 'skilled up' to perform specific tasks that will be in high demand
- non-practising staff, such as those on career breaks and recently retired nurses, GPs and pharmacists, who would be willing to contribute to the pandemic response
- pre-registration staff and volunteers who might be able to support service continuity

- ensuring that contact details and characteristics of the available workforce are captured so that they can be easily contacted in the event of a pandemic, and identifying possible risks in service delivery and find solutions where possible.
- where a specific workforce or team has a high proportion of people with young children and other personal caring responsibilities that may impact upon their ability to attend work during 'normal' hours, it may be possible for them to work a different shift or perform some tasks from home
- developing a training and education programme that builds capacity into the existing workforce through teaching new skills and updating existing ones (both clinical and non-clinical). This will allow some staff to take on additional duties, so that those with higher clinical skills or experience can focus on those patients who may be at particular risk or on treating those suffering from the complications of influenza
- pooling staff as a 'critical mass', which would enable staff without a set stream of work to be directed towards the most necessary task within their capability
- ensuring that consideration has been given to employing and allocating locum staff to support the coordination of locum resource across the locality and, where this is possible, ensuring that appropriate arrangements are in place (i.e. that stipulate terms and conditions) prior to a pandemic
- facilitating arrangements for joint working in primary care and 'buddying up' of practices
- building on or developing any existing links with voluntary organisations, community partnerships and local businesses to maximise opportunities to support the community at large as well as the health service response
- reviewing normal and acceptable minimum staffing levels of core functions and services and addressing any potential changes to working practices that may be needed to facilitate this
- developing internal systems for monitoring and reporting real-time absence rates. Using this in conjunction with information on minimum staffing levels, the Board will have an accurate picture of which areas require additional resources and an indication of whether the necessary support can be sourced internally

- informing staff in an appropriate way of the risks associated with pandemic influenza and what action they can take to protect themselves and others, and instructing them not to attend work when they are symptomatic but to attend work when they are well

- reviewing locations of staff at home and at work, so that, if necessary, staff can be identified who can work closer to home to reduce travel, share journeys etc

- with partners, mapping out those health and social care professionals who provide services to the same patient and where care could be consolidated.

**2.7.2 Staff support**

It is recognised that, during a pandemic, healthcare workers will be under significant pressure for a sustained duration and may require support. In the lead up to a pandemic, many members of staff are likely to be anxious or apprehensive and to have a subjective perception of the degree of risk. As the pandemic develops, they may also experience fears for their own health, grief for the loss of relatives or friends, concern for family members, a sense of social isolation or other potential causes of psychological distress. Whilst some may be able to cope with little or no professional or specialist intervention, local plans should consider how the workforce could be supported. This will include how self-help and other explanatory material could be made available, how those experiencing particular problems might access assistance, and how mental health services, voluntary organisations and social care agencies might best be organised to offer support.

Local plans should also consider:

- identifying and developing options for staff to access counselling services

- reviewing local human resources policies and procedures to maximise flexibility for staff to be able to work and accommodate caring obligations, annual leave and special leave (carer's leave, bereavement leave, etc)

- education and training on pandemic influenza and infection control.

**2.7.3 Occupational health considerations**

Employers and occupational health providers will wish to consider how best to support the Government's efforts to reduce the impact of an influenza pandemic by taking all reasonable steps to ensure that employees who are symptomatic with influenza are positively encouraged not to come into work. Personnel policies may need to be reviewed to achieve this aim. Employers will therefore need to have systems in place for detecting staff who are symptomatic on arrival at work or who become ill whilst at work.

It may be appropriate for staff who have recovered from pandemic influenza to work in areas with infected patients, as they may be naturally immune. The Board will need to consider how they will use these staff safely, on the basis of any additional information on the virus at the time, and without putting them at additional risk. This will include ensuring the maintenance of infection control procedures and use of personal protective equipment, as they will still be at risk from secondary infections.

Guidance on infection control can be accessed on:
http://www.dhsspsni.gov.uk/guidance_for_infection_control_in_hospitals_and_primary_care_settings__614kb_.pdf
http://www.dhsspsni.gov.uk/guidance_for_infection_control_in_critical_care___420kb_.pdf

**Key actions**

- Review relevant contracts and service level agreements to ensure they can meet the challenges of a pandemic as far as possible.
- Develop mutual aid and/or shared agreements to support service delivery.
- Review the likely impact of a pandemic on consumables and supplies availability. Plan for how the organisation will manage if supplies become compromised and make provision as appropriate.
- Plan, with key stakeholders, how staff resources can be best utilised and maximised.
- Develop skills audits and plan redeployments using the results.
- Review working practices to ensure suitability for responding to a pandemic.
- Plan and make provision for the occupational health needs of staff.
- Develop and implement programmes of education and training.
- Consider how blood and organ donation will be promoted.
- Test response arrangements and plans with those partners who are key to the response, including primary care contractors.

# 3 Recovery phase: returning to normality

As the impact of the pandemic wave subsides and it is considered that there is no threat of further waves occurring, NI will move into the recovery phase. Although the objective is to return to inter-pandemic levels of functioning as soon as possible, the pace of recovery will depend on the residual impact of the pandemic, ongoing demands, backlogs, staff and organisational fatigue, and continuing supply difficulties. Therefore, a gradual return to normality should be anticipated and expectations shaped accordingly.

Plans at all levels should recognise the potential need to prioritise the restoration of services and to phase the return to normality in a managed and sustainable way. Restoration of normal working will include:

- assessment of the clinical and non-clinical workforce available to return to work
- a phasing-in period to allow the resumption of normal services, depending upon the residual skills and resources available
- provision of psychological support to staff
- recruitment at a potentially difficult time, owing to the nature of the work and sensitivities around loss of staff, and the potentially competitive environment
- ensuring that buildings are adequately cleaned;
  sanitised and otherwise made ready for resumption of normal service.

Primary care services are likely to experience persistent secondary effects for some time, with increased demand for continuing care from:

- patients whose existing illnesses have been exacerbated by influenza
- those who may continue to suffer potential medium- or long-term health complications (e.g. the encephalitis lethargica that may have been linked to the 1918 pandemic)
- a backlog of work resulting from the postponement of treatment for less urgent conditions

The reintroduction of performance targets and normal care standards also needs to recognise loss of skilled staff and their experience. Most services will have been working under acute pressure for prolonged periods and are likely to require rest and continuing support. Facilities and essential supplies may also be depleted, re-supply difficulties might persist, and critical physical assets are likely to be in need of backlog maintenance, refurbishment or replacement. Impact assessments will therefore be required.

# 4 The current context of influenza pandemic planning in the community setting

**Key points**

- Additional demand for healthcare will mean that most influenza patients will require an initial assessment (ideally by telephone), as well as the majority of their subsequent care and support, outside of hospital healthcare settings.
- Patients will need to access care (including self care) in their own home or residential settings as far as possible to help reduce and limit the spread of infection.
- Response plans should be flexible enough to deal with the **range** of possible attack rates.
- Symptomatic patients in at risk groups and all children under 1 year of age will require assessment and treatment by a GP or other appropriate health professional.
- All other symptomatic patients should be referred to the National Pandemic Flu Service when is becomes fully operational.

## 4.1 Potential impact of an influenza pandemic on primary care

An influenza pandemic will present unique international, national and local challenges to the delivery of health and social care, producing case numbers likely to be far in excess of the capacity and capability of the system to cope in conventional ways.

Those organisations and professionals providing services in the community setting are likely to come under significant pressure. Even when there are small numbers of people infected or potentially infected, it is likely that public concern and demands on primary care services for information (and, potentially, treatment and/or medication) will be high. As a pandemic spreads, primary care services will need to deal with large numbers of individuals infected with influenza. They will also find that, because of the parallel pressures on hospital services, there are more people with acute care needs that need to be cared for within the community setting. This will occur at a time when the Board and primary care contractors own resources in terms of staff, consumables and utilities are likely to be challenged.

The impact of an influenza pandemic across Health and Social Care Organisations is likely to be intense, sustained and nationwide. Services may quickly become overwhelmed as a result of:

- the increased workload from patients with influenza and its direct complications
- the increased workload from patients who are not able to access hospital care
- additional pressure on health services caused by anxiety and bereavement

- the particular needs for infection control facilities and equipment

- depletion of the workforce and of numbers of informal carers, due to the direct or indirect effects of influenza on themselves and their families

- delays or difficulties in dealing with other medical conditions

- logistical problems due to possible disruption of supplies, utilities and transport as part of the general disruption caused by an influenza pandemic

- the longer-term macro-economic effects of an influenza pandemic on the national (and global) economy

- pressure on mortuary facilities, possibly exacerbated by delays in death registrations and funerals

- pressure on social services, which will impact upon the health–social care interface, and on integrated health and social care teams.

It is crucial that the Board plans with other local and regional stakeholders so that they can respond to an influenza pandemic in a coherent, effective, coordinated and ethically appropriate way.

## 4.2 Key planning assumptions

The epidemiology of an emergent influenza pandemic virus and its clinical behaviour cannot be predicted with certainty. In previous pandemics, the overall UK clinical attack rate has been of the order of 25% to 35%, compared with the usual seasonal range of 5% to 15%. As the actual extent of illness will only become evident as person-to-person transmission develops, response plans should be flexible enough to deal with the range of possible attack rates, clinical impact and mortality assumptions as outlined in the *National framework*. This recognises the possibility of a clinical attack rate of up to 50% in a single-wave pandemic, and so should also be reflected in local response plans. A graded response to an increasing threat, with specific ‘trigger points’, would also be appropriate so that all partners understand at what stages of a pandemic certain functions or processes will cease and/or start.

The following planning assumptions outline the potential impact (severity and extent) of an influenza pandemic at a clinical attack rate of 50%.

### 4.2.1 Severity and extent

- Up to 50% of the population may show clinical symptoms of influenza over the entire period of a pandemic, and up to 25% of these may develop complications.

- Up to 2.5% of those who become symptomatic may die.

- Up to 22% of influenza cases can be expected during the 'peak week' of a pandemic wave.

- Up to 4% of those who are symptomatic may require hospital admission if sufficient capacity is available (with up to 25% of people admitted to hospital expected to require critical care).

- The average length of stay for those with complications may be up to six days (ten if in intensive care).

However, the epidemiology of an emergent influenza pandemic virus and its clinical behaviour cannot be predicted with certainty. Plans will have to be adjusted as new information becomes available.
See the *National Framework* for further information on what a pandemic influenza may look like.

#### 4.2.2 Health and social care demand

- Most health and social care will need to be delivered in the community setting, with hospital capacity protected and reserved for those in most clinical need.

- Most symptomatic patients will be treated at home with antiviral medicines where clinically appropriate.

- Those symptomatic patients who have complications, those with more complex needs, and children under 1 year of age will need to be assessed by a GP or suitable health professional (see chapter 8 for further advice on children and access to care). Assuming a 50% clinical attack rate and a complication rate of 25% and that those under 1 year of age will need to see a GP or suitable healthcare professional, demand for pandemic-related GP consultations can be expected to increase.

- Demand for hospital admission can be expected to increase to 440 new cases per 100,000 population per week **at the peak**. This is unlikely to be met from available acute hospital capacity.

- Hospitalisations and deaths are likely to be greatest if the highest attack rates are in older people.

- An increase in the numbers of people suffering with influenza and its direct complications may be accompanied by other demand (e.g. caused by anxiety and bereavement), and service provision challenges such as increased absenteeism and logistical difficulties.

See Annex B for additional information on expected healthcare demand during the peak week of a pandemic.

#### 4.2.3 Impact on the workforce

- Up to 50% of the workforce may require time off at some stage over the entire period of the pandemic, with individuals likely to be absent for a period of seven to ten working

days. Absenteeism should follow the pandemic profile, with an expectation that it will build to a peak lasting for two to three weeks, when between 15% and 20% of staff from the **workforce** may be absent, and then decline.

- Additional staff absences are likely to result from other illnesses, taking time off to provide care for dependants (e.g. children), family bereavement, other psychosocial impacts, and fear of infection or practical difficulties in getting to work.

- Modelling suggests that small organisational units (with 5 to 15 staff members) or small teams within larger organisational units should allow for higher percentages of absenteeism – up to 30–35% over a two- to three week peak period. Even higher rates are possible in very small organisations.

- The Government may advise schools and early years/childcare settings to close in order to reduce the spread of infection amongst children. This advice will be provided only if closure is anticipated to produce significant health benefits.

## 4.3 Key planning principles

It is also important that the Board and primary care contractors plan according to the same planning principles. These are as follows and are consistent with those outlined in the *National framework*:

- *Joint working and integrated planning between all key agencies*
  Effective response arrangements developed jointly by health and social care agencies will be critical to an effective response. Experience suggests that a consistent and coordinated response will not only help to reduce the impact of such an outbreak but will also aid recovery. The development of integrated local response plans that are robust, resilient, proportionate and flexible in responding to an influenza pandemic is therefore essential (see section 2.2).

- *Flexible planning*
  Given the difficulty of predicting the exact nature of an influenza pandemic, plans need to be flexible enough, within a clear overall structure, to deal with a range of possible scenarios. It is prudent that the Board and primary care contractors prepare up to a 'reasonable worst case' scenario, with plans that describe the response to the less likely but more challenging clinical attack rates, as well as the more likely possibilities (see section 4.2).

- *Flexible thinking in bolstering local staff capacity*
  Plans need to be based on using local skills to the full, and working in novel ways, for instance by moving staff between different parts of organisations or by mobilising recently retired staff. Plans should seek to mobilise the capacity and skills of all public and private sector healthcare staff, contractors and volunteers (see section 2.7).

- *Building on normal delivery models (as far as possible)*
  Response arrangements based on building upon normal delivery models have the advantages of familiarity, reliability and local flexibility. Such arrangements may continue

to prove adequate and sustainable during the early and latter phases. Plans should, however, recognise that additional demand, compounded by higher levels of sickness absence and wider service continuity challenges, make it likely that normal services will require significant augmentation as the pandemic ‘wave(s)’ develops. Some reconfiguration of services will also be required to enable services to focus upon delivering care to those individuals in greatest need of them, and in order to respond to the specific needs of a pandemic (see chapter 10).

- *Advising and enabling symptomatic influenza patients to remain at home*
  Symptomatic patients risk infecting others if they present at healthcare facilities or ‘mix’ in public spaces where they are in close contact with other members of the public. Advising those who are ill with the influenza virus to self care (if they are able to), or access care from their own home if clinically necessary after telephone triage, is therefore agreed to be the most practical and effective way of slowing or limiting the general spread of infection. It also facilitates the delivery of standard and simple public messages, allows for the fact that many patients may not be well enough to travel, and avoids creating infection ‘hot spots’.

- *Rapid access to antiviral medicines*
  Available evidence and experience in managing seasonal influenza suggests that antivirals may have a significant beneficial impact in lessening the severity of illness in infected people and thereby reduce the risk of complications that may lead to mortality (see section 5.1.2). In order to maximise individual health benefits and limit the spread of infection, antivirals will be given to those patients based on emerging clinical evidence of effectiveness. This policy will be reviewed as information emerges on the attack rate, clinical impact, optimum dosing regime, stock consumption, and any resistance and timeframe within which treatment remains useful (see chapter8).

- *Reducing routine activity, but continuing to make essential care available*
  Although the intention will be to maintain normal services as far as possible, the unique nature of the threat presented by a pandemic will require the curtailment of some routine services and activities so that others can be expanded and/or continued. Pre-planned measures to reduce or cease some routine services, and to deliver others via alternative means, are therefore important, as are plans that demonstrate how essential services will be maintained to cope with additional demand and potential disruption (see chapter 10).

- *Adopting measures that maintain public confidence and ‘feel fair’*, and balancing individual care with the priority to reduce illness and save most lives in a way that is fair, are principles that should also be applied in response plans and arrangements.

**Key actions**

- The Board will need to ensure that their plans are based upon the planning assumptions and principles outlined within this guidance and the *National Framework*.

# 5 Interventions to support the delivery of healthcare in a community setting

**Key points**

- An integrated package of interventions will be critical in responding to an influenza pandemic in the community setting, including supporting the public to self care, access to medicines, measures to manage demand surge, and implementation of key public health measures such as robust infection control.
- Plans should ensure that there are robust arrangements in place to ensure the maintenance of **both** influenza and non-influenza essential services.

## 5.1 Model of care

In an influenza pandemic, there will be large numbers of people who require additional care and treatment within primary care. This is due to illness arising from the pandemic itself and also because if, as expected, acute care capacity is exceeded, many patients who might normally be admitted to hospital will require care and treatment in the community. In order to manage this additional demand, services will need to be reconfigured to focus upon delivering care to those individuals in greatest need, who cannot be managed by alternative means. GPs, for example, will need to focus on caring for those with more complex and urgent healthcare needs.

In addition, in order to limit the spread of the influenza virus, people with influenza will need either to access care, or to self care, from their own homes as far as possible. The public will be encouraged to identify a 'flu friend' who can collect their antiviral (and other) medicines for them when they are symptomatic (see chapter 8).

An integrated package of interventions will therefore be critical in responding to an influenza pandemic. These include supporting people to self care in their own homes, and providing rapid access to medicines such as antivirals and other influenza and noninfluenza medicines. It also includes augmenting and reconfiguring services to ensure essential services are maintained, and the implementation of other key public health measures such as the administration of a pandemic-specific vaccine (when it becomes available) and robust infection control.

This chapter provides an overview of this 'model of care', whilst chapters 7 to 10 provide detailed operational guidance, specifically for planners, on each of the intervention areas.

### 5.1.1 Supporting self care

Promotion of self care will be crucial in encouraging the community to look after its health and take steps to avoid contracting and/or spreading the influenza virus. Self care advice will also be critical in supporting those who are symptomatic with influenza to care for themselves at home where they are able to do so. This in turn will enable healthcare professionals to focus upon delivering care to those with more urgent and/or complex healthcare needs.

Key ways of supporting members of the public to self care will be through national and local information, educational materials and tools, and support networks. Specific self care support for those with long-term conditions, vulnerable groups, and for those people at the end of their lives (and who may die) and their families or informal carers is also important. These are discussed in more detail in chapter 6.

**5.1.2 Access to critical medicines**

Medicines have a key role to play in treating influenza and non-influenza patients. The Department is reviewing available stock levels of both influenza-specific and non-influenza medicines, and is working with the pharmaceutical sector and others to ensure, as far as possible, that people have access to the medicines they need. Critical medicines for treating influenza and the complications of influenza are highlighted below.

***Antiviral medicines***

Each UK country has established a stockpile of oseltamivir (Tamiflu) antiviral medicine that allows for the **treatment** of all symptomatic patients, where appropriate, at clinical attack rates of up to 50%. Arrangements to make it rapidly available, without symptomatic patients having to visit a healthcare facility (where they risk infecting others), are an important part of the health response and are described in detail in chapter 8.

Antiviral medicines reduce symptoms and may help reduce the spread of influenza. When used to treat seasonal influenza, antiviral medicines reduce the length of symptoms (by around a day) and usually their severity, as long as medication is started within 48 hours of the onset of symptoms and ideally within 12 hours. Although their effectiveness in reducing morbidity and mortality during a pandemic cannot be known until the virus emerges, it is reasonable to anticipate a similar effect and associated substantial reductions in severe morbidity.

***Pandemic-specific vaccine***

**Pandemic-specific vaccine** cannot be developed until the emerging influenza strain has been identified. The Government has awarded contracts to Baxter and GlaxoSmithKline to secure production capacity for the manufacture of pandemic-specific vaccine for the UK population. However, it may take four to six months before an effective vaccine is available and evaluated for safety, and considerably longer before it can be manufactured in sufficient quantities for the entire population, given that international demand will be high. Realistically, it is therefore unlikely that a specific vaccine will contribute much to dealing with the initial wave of a pandemic, unless its evolution, or the effectiveness of early control measures, result in a significantly slower-developing pandemic than anticipated. It could, however, be an effective intervention during the latter stages of the first wave and/or for subsequent waves should they occur.

Various technical challenges relating to pandemic vaccines are still being addressed by a worldwide collaborative scientific effort. One in particular is the relatively novel use of adjuvant compounds, such as alum, with influenza vaccines. These might boost vaccine efficacy and allow less viral antigen, the key ingredient of the vaccine, to be used in each dose – so called ‘antigen sparing’. Being able to use less antigen per dose could increase the number of vaccine doses available overall and reduce the time taken to provide sufficient vaccine doses for the population.

See chapter 9 for detailed guidance on delivering a pandemic-specific vaccine.

***Antibiotics***
Antibiotics are the most effective means of treating the secondary bacterial complications of influenza, but should be prescribed appropriately. It will be necessary to:

- determine the organisms most likely to cause complications (advice on this will come from the HPA)

- determine and ensure available stocks of antibiotics.

A stockpile of antibiotics is being established for the treatment of patients suffering from complications of pandemic influenza.

**5.1.3 Managing surge capacity and patient prioritisation in primary care**
Primary care services will not have the resources to conduct all their usual activities during a pandemic and will need to focus upon delivering care to those individuals in greatest need. It is important to identify what essential work or activity must continue and to make local decisions on what could be reduced, stopped or delivered by alternative means.

As well as prioritising services, some reconfiguration will be required to enable primary care services to support influenza patients at home. This may include practices 'buddying up' to enhance their ability to provide a domiciliary-based service to influenza patients, for example. It may also involve establishing multidisciplinary visiting 'teams' so that the range of healthcare professionals and their skills are fully utilised (i.e. nurses, healthcare assistants, allied healthcare professionals such as physiotherapists and occupational therapists, and pharmacists).

Both influenza and non-influenza patients will need to be managed as part of the day-to-day response. Although influenza will represent a large part of the primary care services' workload, people will continue to have non-influenza healthcare needs that require assessment, care and treatment. Plans must therefore ensure that there are robust arrangements in place for the maintenance of both influenza and non-influenza essential services. As far as possible, non-influenza ill people should access and receive care in the same way as in 'normal' circumstances. Practices should, for example, continue to provide essential practice-based care to those who are not symptomatic with the influenza virus.

See chapter 10 for further guidance on managing surge capacity and patient prioritisation.

**5.1.4 Other public health measures to promote and protect good health**
Other public health measures, such as promoting and applying basic infection control measures and encouraging compliance with public health advice, will form a critical part of an effective response to an influenza pandemic at the local level. They also include measures such as the maintenance of vaccination programmes, personal and protective equipment, and liaison with partner organisations or agencies on the storage of dead bodies and the collection of clinical waste.

See the *National framework* for further advice on public health interventions.

**Key actions**

- Ensure arrangements are in place that utilise the range of interventions that will be required to respond to and minimise the impact of an influenza pandemic.
- Plans should demonstrate that there are robust arrangements in place to ensure the maintenance of **both** influenza and non-influenza essential services.

# 6 Supporting self care

**Key points**

- Effective self care support will be critical to helping people to take steps to protect themselves and others from the virus, and to remain at home when they are symptomatic.
- An integrated package of information, education, support networks and practical community care will be required to support self care.
- The Board should seek to engage the voluntary sector, community pharmacists, local authorities and community networks as well as independent contractors to promote opportunities for a joint approach to self care.
- The Board and their partners will need to commence building social and community resilience at this stage, in order to ensure timely availability of support networks when an influenza pandemic arises.

## 6.1 Why self care is important

Self care will be critical in ensuring an effective response to an influenza pandemic. It will play an important role in enabling members of the public to take steps to protect their own health and reduce the risk of their contracting the influenza virus from others and/or passing it on. It will also play a crucial role in supporting those who are symptomatic with influenza to care for themselves at home where they are able to do so. By enabling those who are more able to self care to do so; this in turn will help to ensure that healthcare professionals are able to focus upon delivering care to those individuals in greatest need of their services.
Under non-pandemic circumstances, when people self care and are supported to do this, they are more likely to:

- experience better health and wellbeing
- improve medicines compliance
- reduce the need for emergency health and social services
- avoid unnecessary hospital admissions
- have better planned and coordinated care
- remain in their own home
- have greater confidence and a sense of control
- have better mental health and less depression
- improve timely diagnosis and treatment, plus rapid access to services when necessary.

During a pandemic, it will be important to aspire to these outcomes through an integrated package of information, education, support networks and practical community care. These are outlined in the sections below.

As part of its planning, the Board should ensure arrangements are in place to support self care for people across Northern Ireland in the build up to, during and in the recovery phases of a pandemic. In doing this, the Board will wish to work with its local healthcare teams and their representatives to ensure effective utilisation of their roles and skills in supporting self care. As the principles and practice of self care are already integrated into service provision in many areas of the community setting, the Board will wish to build upon this where appropriate. This will involve exploring what local and national initiatives link into self care support, e.g. community pharmacy medicines management and provision of healthy lifestyle advice, assistive technologies, integration with social services. Further information will be issued to households when appropriate.

## 6.2 National communications on self care

National communications that encourage the public to support and engage in self care prior to and during a pandemic are an important strand of the Department's communications strategy. Timely advice and information on how to protect themselves and others and what to do if they think they are symptomatic, for example, will help prepare the population for the potential impact of a pandemic and will be critical to its subsequent management.

In May 2009 households in Northern Ireland received a leaflet "Important information about swine flu". There will be further advertising campaigns to give members of the public clear and simple messages on pandemic influenza; and how to protect and care for themselves and others. A public information line, swine flu help line and information website have also been set up and there was a UK wide print and broadcast advertising campaign.

## 6.3 Supporting self care at the local level

### 6.3.1 Informing and educating the public on how to protect themselves and others

Public information and education materials will be important in preparing the public. Information prepared and/or communicated at the local level should seek to engage the community (including healthcare staff) and gain their cooperation in following advice. This should include taking personal responsibility for their health and accepting social responsibility for supporting each other, and (where they are not symptomatic) going about their normal activities as far as possible. The Board and primary care contractors will also wish to ensure that they have mechanisms in place to update the community on the local situation, including any changes to access in primary and secondary care, disruptions to services, and what provision is being made for access to medicines such as antivirals and vaccines.

National resources to support this are located on the Departments website at
http://www.dhsspsni.gov.uk/index/phealth/php/infectious_diseases/pandemicflu.htm

**6.3.2 Informing and educating the public on what to do if they become symptomatic**
Providing clear and easily accessible information to symptomatic patients will be crucial in supporting and encouraging patients to remain at home and self care where they are able to do so.

Information and education materials should aim to support people to:

- assess their own condition
- recognise and monitor their symptoms
- know what is ‘normal’ for their condition
- know when, where and how to get further help and advice
- identify a “flu friend” who may be able to provide assistance and support during the pandemic – in particular, a friend or relative who is able to collect their antiviral medicines (and other medicines) for them when they are symptomatic
- understand why it is important that they take their medicines and how to do so
- undertake strategies to aid their recovery.

The Board will also wish to recognise the role of informal carers in caring for relatives and friends, and ensure that appropriate information and education materials are accessible to them. They will also wish to review how information and education materials are best provided so that people have access to the required information, as and when they need it, and are supported to use it. Where possible, all material should use nationally available resources and, where required, contextually apply them to local circumstances. All materials should be available in suitable languages for the local population.

The Board will want to ensure that educating their local communities and staff about how to protect themselves and others, and what to do if they become symptomatic, are built into their self care project plans.

**6.3.3 Support networks**
Support networks have a critical role to play in supporting people to self care at home or in residential settings. Support networks can be particularly effective in helping to disseminate information, supplying advice and reassurance, identifying those who may be at particular risk, and providing support to those people who will be or may become vulnerable in a pandemic. Support may be in the form of providing informal care for those who are symptomatic, collecting their medicines for them, ordering their repeat prescriptions, attending to basic household tasks such as cooking, cleaning and shopping, or contacting them on a regular basis to check on their condition for example. All forms of support are important in enabling and supporting people to remain in their homes whilst they are symptomatic. Those people who provide informal care or tend to basic needs such as cleaning will need to be made aware of the measures they should take to protect themselves and others (see section 6.3.1). The Board will need to build this requirement into their education programmes.

Types of support networks may include:

- informal networks, e.g. friends, family and informal carers
- voluntary organisation networks
- community networks, e.g. faith and religious groups, community groups and local schemes such as Neighbourhood Watch.

The Board should seek to involve local authorities, the voluntary sector, private sector, community groups and the public in preparing for and responding to an influenza pandemic, and should encourage all members of the public to be part of a local network. Local authorities, voluntary organisations and community groups have a wealth of information on those people who will be or may become vulnerable in a pandemic that would particularly benefit from being part of a support network.

The Board and their partners will need to commence building social and community resilience at this stage, in order to ensure timely availability of support networks when an influenza pandemic arises.

**6.3.4 Practical community care**

All healthcare professionals have an important role to play in encouraging and supporting self care. Community pharmacy, for example, is well placed to support self care through advice on the use of over-the-counter medicines for influenza and noninfluenza symptoms and to support those with long-term conditions through integrated medicines management and provision of healthy lifestyle advice. Professionals such as physiotherapists may also be able to play an enhanced role in supporting people to self care in the community (e.g. providing breathing control advice and exercises to those with respiratory problems) as routine appointments in hospital settings are reduced or suspended. Nurses, healthcare assistants and other allied health professionals will also be critical in providing practical advice to patients and their carers on how to support their own care, and the Board will wish to work with them to determine how best their skills can be utilised and coordinated.

## 6.4 Supporting people with long-term conditions to self care

As well as the national general public health messages, there will be additional, specific messages for people with long-term conditions. The Department of Health's document *Supporting people with long-term conditions to self care: A guide to developing local strategies and best practice* (February 2006) is a guide to developing local strategies and good practice. There are four key areas where people with long-term conditions might benefit from additional support:

- information - how influenza or antivirals might affect or exacerbate a specific condition, and what to do and who to contact if this happens
- skills/confidence building – what support is available for enabling people to take decisions about their own care if they are symptomatic with influenza
- equipment – additional considerations about using, or changes in, any self monitoring devices and assistive technology

- support networks – what organisations and groups (local and national) might be available to provide support in terms of a person's health and other wider needs.

These elements could be provided by a mix of providers, including private and voluntary sector agencies. It is important to involve patients, lay experts and local professionals in identifying the best practice in approaches to needs, information and communication. Within their project plans, the Board will need to consider and plan for how they will continue to provide services to those with long-term conditions during an influenza pandemic.

In addition to increasing the resilience of individuals with long-term conditions the Board will also need to plan for how, during a time of possible supply disruption, they will continue to supply essential medicines to those dependent on them for continued health.

## 6.5 Identification of, and provision for, those people who will be and may become vulnerable in a pandemic

Some people may be less able to help themselves in an emergency than others. Whilst this will continue to be the case during a pandemic, the impact of a pandemic may also mean that there are more individuals and groups who become temporarily vulnerable.

The Board should work with other agencies, including general practices, providers of out-of-hours and unscheduled care, social care services and voluntary organisations, to identify those patients and groups who are potentially 'at risk', and ensure that services will be accessible to them. These may be groups that are at risk because of underlying health or social conditions e.g. those who do not speak or understand English and those who are not registered with a GP.

These groups should be identified early on so that their needs can be taken into account when developing local arrangements for the provision of healthcare in the community setting.

The following list identifies ways in which people will be and may become vulnerable in a pandemic:

- Those people who may need extra care and support e.g. some people with an existing clinical or social need

- Those people who do not have an identified flu friend e.g. some people that live alone, some people who are homeless

- Those people not registered with a GP e.g. some groups of asylum seekers

Voluntary organisations that support, for example, older people, children with special needs, mental health groups, people with long-term conditions or chronic illness, and ethnic minority will have an important role. These organisations are well placed to provide information and advice, but also to act as a support network to their members. The Board should seek to engage the voluntary sector in pandemic influenza planning and promote opportunities for a joint approach to self care and supporting vulnerable individuals to remain in their own homes (or other

community/residential setting) during a pandemic.  This should be demonstrated in their self care project plans.

## 6.6 Supporting people at the end of their lives – bereavement and end of life care

Over the course of a pandemic, it is estimated that up to 2.5% of those who become symptomatic may die.  This represents up to 625 deaths per 100,000 people at a 25% clinical attack rate and up to 1,250 deaths per 100,000 people at a 50% clinical attack rate.  Although some of these deaths will occur in hospital, care home and hospice settings, larger numbers of people than usual will pass away in their own homes.  Supporting people to die as comfortably and peacefully as possible in their own homes at the end of their lives will therefore be important. Appropriate management of deaths at home will also be key to maintaining public confidence and preventing panic, and will require particular training and support.

The types of support that may be required, which are akin to the normal aims of end of life care, are as follows:

- affirmation of life and regard of dying as a normal process
- relief from pain and other distressing symptoms
- psychological, spiritual and social support
- support networks and systems for the patient, and for the family to help them cope during the patient's illness and in their own bereavement.

As demand for such services will be high, the Board will need to engage with those providing end of life care and other services in their locality to decide how best the existing resources should be utilised and care coordinated.  As services will be under extreme pressure, accustomed levels of face-to-face contact by health and social care professionals may not always be possible and family members, friends and carers may need to play an 'enhanced' role in caring for patients who are at home and nearing the end of their lives. To support them in this enhanced role, the Board will wish to ensure that family members, friends and carers of the patient can obtain rapid access to both printed and telephone information and advice.

## 6.7 Everyone has a role

To increase awareness of the importance of self care, patients, parents, carers, professionals, employers and employees all need to get involved in providing and communicating useful self care information and advice.  Valuable information that has been created by patients groups and support groups, as well as strategies to encourage people to get more involved in their own care, can be provided by many community and voluntary organisations.

**Key actions**

- Put in place arrangements on how people in the locality will be supported to self care in the build up to, during, and in the recovery phases of a pandemic. This should ensure effective utilisation of existing programmes, and the skills of those professionals and volunteers, that support self care.
- Identify what information people may need and mechanisms for sharing information, so that they have access to the required information as and when they need it, and are supported to use it. This includes information and education campaigns for staff and the public on how to protect themselves in a pandemic, and what to do if they become symptomatic.
- Ensure that appropriate information and education materials are accessible to specific groups in the population – staff, carers, those whose first language is not English, those people who will be and may become vulnerable in a pandemic, families/carers of those who are very ill or need end of life care, those with long-term conditions etc.
- Engage with primary care contractors, the voluntary sector, local authorities, community groups and the public to maximise opportunities for a joint approach to supporting self care.
- Consider and plan for how specific groups such as those with long-term conditions and those people who will be and may become vulnerable can be supported to self care during a pandemic.
- Engage with those providing end of life care and other relevant services in the locality to decide how best existing resources should be utilised and care coordinated.
- Ensure that health and social care professionals have details about community contacts and support networks that people can access.
- Encourage all members of the public to be part of a local network and to identify a friend/relative/carer (‘flu friend’) that they can gain support from during a pandemic.
- Involve patients, lay experts and appropriate local professionals in identifying best practice in approaches to needs, information and communication.

# 7 Other public health measures

**Key points**

- Public support and compliance with public health measures will be critical.
- Applying basic infection control measures and encouraging compliance with public health advice are likely to make an important contribution to the response.
- Maintaining surveillance on the virus strain or any illness attributable to it, as well as information on the impact and effectiveness of interventions, will be critical in informing the national and local response to a pandemic.

The demands and uncertainties associated with an influenza pandemic require flexible plans based on a combination of strategies to develop an effective and sustainable response. Medical and pharmaceutical countermeasures, combined with public health and personal infection control initiatives, and the possible application of measures to reduce social mixing, form the basis of the Department's strategy.

## 7.1 Infection control

Applying basic infection control measures and encouraging compliance with public health advice are likely to make an important contribution to the UK's overall response to an influenza pandemic.

Infection control guidance for hospital and primary care settings is available and located on both the Departments and HPA websites. The advice and principles within this guidance should be applied across all local plans to assist in limiting and preventing the spread of infection. See http://www.dhsspsni.gov.uk/index/phealth/php/infectious_diseases/pandemicflu.htm; and www.hpa.org.uk/infections/topics_az/influenza/pandemic/fluplan.htm

Some professional bodies have also developed infection control guidance, such as the RCGP and the BMA. See ww.rcgp.org.uk/service_continuity/service_continuity_
home.aspx and www.bma.org.uk/ap.nsf/content/flupanprep

The Board and primary care contractors will wish to think about the importance of their staff acting as role models for good practice in infection control. They will also need to take action to minimise the potential for their premises to spread the virus. This will include consideration of the following:

- how they will reduce the risks of droplet spread in seated areas, such as waiting areas and antiviral collection points

- the availability and adequacy of hand washing facilities and hand washing procedures/advice for staff, patients and patients' relatives and carers

- the availability and adequacy of other facilities that help minimize virus spread, e.g. tissues and tissue disposal facilities for those people coughing and sneezing in areas of close person-to-person contact

- how mixing can be minimised in areas of high person-to-person contact, such as reception areas, waiting rooms and triage stations

- standards and procedures to ensure high-quality cleaning of premises and facilities before and after use, with particular attention given to places affected by droplet spread

- the duty of care to their staff so that they can continue to provide their services whilst minimising social exposure where possible, e.g. by using screens between reception staff and patients or telephone interaction systems.

Infection control standards are important at all times, regardless of the presence of an influenza pandemic. It is important to have the above arrangements in place even when influenza patients are not advised to attend practices, as there is the possibility that some patients may still present or attend a practice when they unknowingly have influenza (such as in the very early stages of the pandemic).

## 7.2 Health and safety and risk mitigation

In an influenza pandemic, it is possible that staff could be adversely affected. Health and Social Care organisations, including Primary Care Contractors will be expected to consider and mitigate these risks where possible.

Patients could also be put at higher than normal risk by contact with staff or using treatment locations not usually used for the types of care required in an influenza pandemic. Examples of such risks include:

- Staff at high personal risk of influenza complications (e.g. those who have pre-existing respiratory disease or another chronic disease likely to be exacerbated by influenza). Consideration should be given to reallocating such staff to work where they are less likely to be exposed.

- Exposure risk from clinical activity and risks of infection. Personal protective equipment measures will need to be considered for all staff. Employers have a duty of care to provide a safe working environment for their staff. Personal protective equipment should be made available according to most up to date guidance.

- FFP3 masks require fit-testing for all relevant staff, in particular those who will be undertaking or will be exposed to aerosol-generating procedures as part of their work. Fluid-repellent masks will be used for most interactions involving close contact with patients to prevent droplet spread of the disease but will not be sufficient where an aerosol-generating procedure is undertaken. The Board is therefore advised to arrange for fit-testing of FFP3 masks to be carried out on these staff. A fit-testing programme may take a considerable length of time to deliver and also will need to take account of alterations in staffing.

There may be other individual staff health issues that have to be considered when assessing fit of FFP3 masks. These should be addressed as part of the process. Staff health issues will also affect decisions over appropriate staff deployment where underlying health problems are a relevant consideration.

The Department has also issued guidance on the use of personal protective equipment within the infection control guidance as referenced above.

## 7.3 Dealing with a large number of deaths

Local authorities are responsible for producing local multi-agency plans for managing excess deaths. The Board and primary care contractors should be engaged in this planning process.

A draft guidance paper, *Planning for a possible influenza pandemic: A framework for planners preparing to manage deaths*, has been prepared by the Home Office and is available at www.ukresilience.info/news/manage_deaths_guidance.aspx

Concerns have been reported that certification of the excess deaths resulting from a pandemic will further stretch the resources of GPs. Work is ongoing at a national level to identify and address these issues, and it is likely that new powers will come into force (subject to consultation and parliamentary approval) on sickness and death certification, which will aim to ease pressure on general practices and other services. Consideration is being given to legal requirements (e.g. the Medical Act 1983, the Births and Deaths Registration (Northern Ireland) Order 1976, and the Coroners Act (Northern Ireland)1959). Once options are finalised, multiagency guidelines will be issued to doctors and healthcare workers, coroners and coroners' officers, and registrars.

## 7.4 Surveillance, reporting and data collection

It will be important that information is available, in a timely, systematic, consistent and accurate manner, to assess the impact of a pandemic in the UK and to inform national and local planning. Pandemic surveillance should build on existing information systems wherever possible and will keep to a minimum any additional data collection burden on the Health Service during a pandemic.

During a pandemic, the primary sources of information for managing the national response will be through the Public Health Agency, Communicable Disease Surveillance Centre, the Regional Health and Social Care Board, Trusts and the Northern Ireland Statistics and Research Agency working with Information Analysis Directorate in the Department. Further surveillance information will be available from the National Pandemic Flu Service.

Service pressures on the Health Service capacity are captured through daily winter pressures reports, with an additional assessment of the impact of the 'pandemic surge' on a consistent basis reported via a daily **FluCon**dition report. This is similar to a Red / Amber /Green-type of assessment, ranging from FluCon0 which indicates normal operation through to FluCon3 which indicates major disruption to services with demand outstripping supply for critical services. Arrangements have been made for capturing this information from primary care also. The four legacy Board areas provide the HSC Board with a FluCon report on a daily basis which is disaggregated by the five Local Commissioning Group Areas. A single report covering Northern

Ireland is also provided for OOH services. The HSC Board collates these and provides a daily composite report which covers GP, Community Pharmacy, OOH and other services (including dentistry and optometry).

Additional information on detailed epidemiological and clinical information will be collected centrally on a sample basis through a Clinical Information Network, and HPA laboratories (for virological and bacteriological testing).

The DHSSPS pandemic flu surveillance working group is currently working to ensure that the arrangements for collecting the information during a pandemic are robust and resilient and to confirm the arrangements for providing information back to local areas. Local arrangements may need to be put in place to collect any further information required by the Board to manage its response.

**Key actions**

- Ensure robust infection control arrangements are in place and staff are adequately trained.
- Develop educational resources for staff, patients and relatives/carers, especially around reducing infection spread.
- Have plans in place to mitigate health and safety risks as far as possible.
- Engage with local authorities on plans to manage deaths.
- Ensure surveillance systems are in place.

# 8 Antiviral Implementation Strategy

**Key points**

- The UK is establishing a stockpile of oseltamivir (Tamiflu) antiviral medicine that allows for the treatment of all symptomatic patients at clinical attack rates of up to 50%.
- The Board has the lead role in coordinating and monitoring the distribution of antiviral medicines within the region, and should determine the locations from which antiviral medicines can be collected (antiviral collection points).
- A designated licensed hospital pharmacy manufacturing unit within NI will manufacture oral Oseltamivir 15mg/ml Solution for infants under 1 year old, from the active ingredient powder that, have been stockpiled.
- Amendments to medicines and related legislation will be brought into force for the duration of the pandemic to enhance access to medicines arrangements.

In order to limit the spread of infection and maximise individual health benefits, patients should take an antiviral medicine as soon as possible after the onset of symptoms – ideally within 12 hours, but, in any case, within 48 hours. Rapid antiviral provision is therefore specified as an important planning aim in the *Northern Ireland Contingency Plan for Health Response for a Pandemic Influenza.*

The objective of the antiviral implementation strategy is to ensure that the UK responds effectively to a pandemic, employing a range of measures in advance of and during a pandemic to mitigate its impact on health and social care services', through project work in three focal areas:

1. providing assessment and prescription or authorisation of antivirals during a pandemic
2. ensuring that there is a robust system in place to distribute antivirals (i.e. collection points)
3. ensuring that there is a robust system in place to manage antiviral stock during a pandemic (i.e. stock management, storage and distribution).

The antiviral implementation strategy is based on the following principles:

- symptomatic patients in the UK should be eligible for treatment
- capabilities will be both regional and local as appropriate; local capabilities will be subject to regional guidance for consistency
- symptomatic patients will be directed to use a standard process for accessing treatment in order to reduce societal disruption
- alternatives to clinicians will be used where possible so that clinicians are available to manage flu complications and reduce deaths
- symptomatic patients will be encouraged to stay at home and ask 'flu friends' to collect their antivirals, so as to limit the spread of the virus

- a flu friend is a representative of a symptomatic patient who collects antivirals on their behalf. A flu friend may be a family member, a friend, a carer or a trusted individual allocated by the Board
- flu friends will be able to make contact with services on the patients' behalf, so that those who are too ill to make contact can still obtain antivirals.

## 8.1 Supply of antivirals - Overview

**Clinical Overview**
For maximum treatment benefit, antivirals need to be taken as soon as possible, preferably within 12 hours but at least within 48 hours of the onset of symptoms. Developing sufficient capacity in primary care to assess patients promptly is therefore critical to the effective provision of antiviral medicines.

The UK currently has a stockpile of antivirals built on the basis of a 50% clinical attack rate. The Government has announced plans to increase the stockpile to cover 80% of the population. This is in line with the planning assumptions in the National Framework.

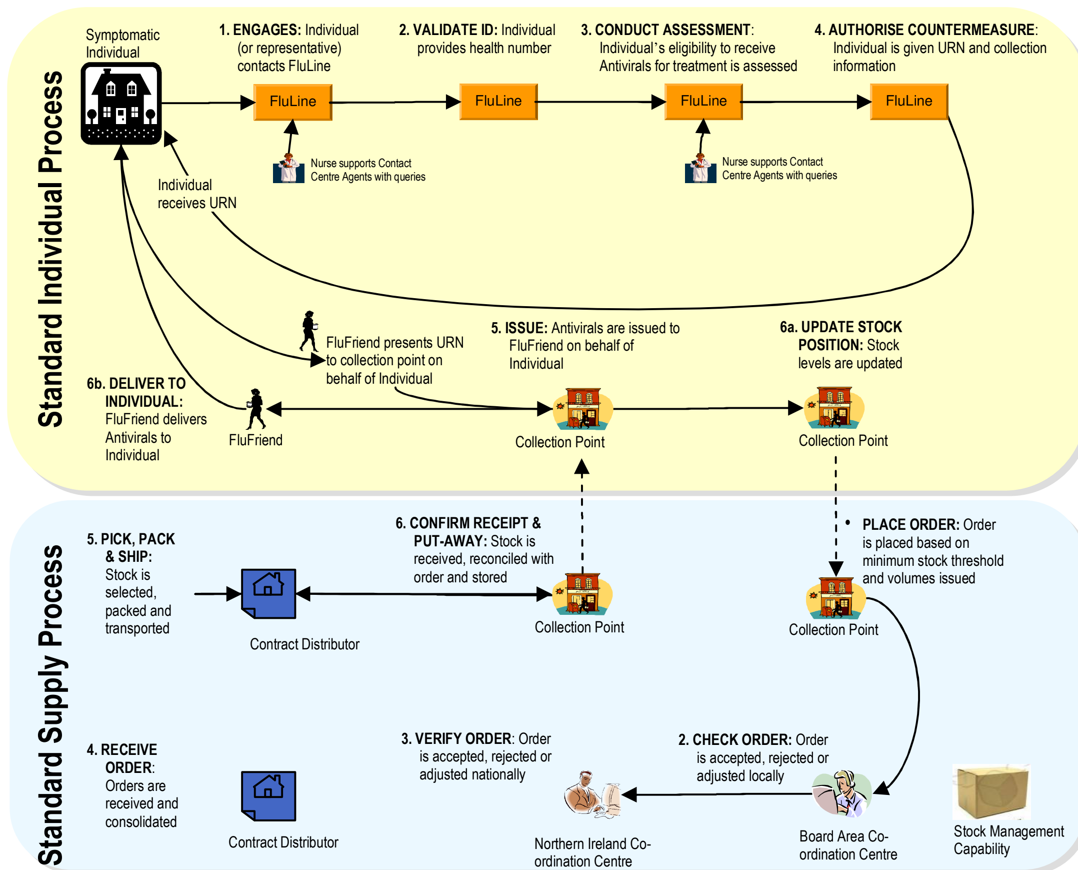
For the treatment of influenza the normal adult dose is Oseltamivir Capsules 75mg twice daily for 5 days. Low dose 45mg and 30mg capsules are available for children and a special formulation is being manufactured for children under 1 year (see chapter 8.5).

The government has also procured Relenza as part of the stockpile. This will be made available in specific clinical circumstances that will depend on the pandemic virus and the individual patient at that time.

**Legislation governing the supply of antivirals**
When the National Pandemic Flu Service is activated, legislation will be enacted in Northern Ireland and across the UK which will enable antiviral medicines to be supplied without a prescription and if necessary without the supervision of a pharmacist or other relevant healthcare professional. This will allow supply of antivirals from designated antiviral collection points (ACPs) which may be located in community pharmacies or non pharmacy locations. Protocols for the supply of 75mg, 45mg and 30mg capsules from ACPs have been developed. Note, in advance of the enactment of this enabling legislation access to prescription-only medicines will require a prescription to be written by a prescriber.

## High level end-to-end process

This section of the document provides an overview of the high level end-to-end standard process from patient contact to antiviral receipt.




Symptomatic patients will contact the National Pandemic Flu Service, which will provide a standard route for large numbers of them to be assessed, receive advice, obtain authorisation for antivirals for treatment and receive information on antiviral collection points. The National Pandemic Flu Service will be accessible by telephone and via the internet. Patients will be processed as follows:

1. The symptomatic patient will be taken through a clinical algorithm and assessed to determine eligibility for antivirals
2. If antivirals are authorised, the symptomatic patient will be given a Unique Reference Number (URN) to be used at the collection point and advised of their nearest collection point
3. Symptomatic patients should then contact a flu friend to arrange collection of authorised antivirals on their behalf from a convenient collection point.

To support this process:

- a regionally coordinated distribution process will supply collection points with antivirals from the regional stockpile

- stock will be re-ordered by means of a threshold system
- the National Pandemic Flu Service will be activated by the UK Governments during the treatment phase in WHO phase 6.
- there will be an information only service (on a different telephone number) for 'worried well' members of the public
- communications will provide information about pandemic flu to all organisations involved, helping them to manage alert levels and make decisions to resolve escalated issues
- the National Pandemic Flu Service will be designed for routine cases, but some individuals who are symptomatic or have complications, and some of those who cannot access the National Pandemic Flu Service, will be referred to existing services such as GPs for medical attention
- where symptomatic patients cannot access the National Pandemic Flu Service, provision of care will need to be made available locally (without compromising the incentive for other symptomatic patients to use the National Pandemic Flu Service). This is necessary to reach those in closed communities, such as prisons and mental health institutions, and those with access barriers, such as people with no verifiable proof of identity and non-English speakers.

It is proposed that as well as enabling antiviral medicine treatment to be authorised via the National Pandemic Flu Service, it can be supplied without a prescription and by non healthcare staff. An influenza protocol has been developed to enable this.

## 8.2 The National Pandemic Flu Service

The National Pandemic Flu Service will offer self-service assessment, care advice and antiviral authorisation during a flu pandemic. The service will be available by web, automated telephony or through call centres.

Antivirals are an important part of the country's countermeasures against pandemic flu as, if taken within 24 hours of a patient exhibiting symptoms, they reduce the likelihood of that person contracting secondary infections (e.g. pneumonia) and therefore lessen the risk of mortality. To maximise accessibility the National Pandemic Flu Service will be available across the UK and will be contactable 24 hours a day, 7 days a week.

In providing an assessment and antiviral authorisation service the National Pandemic Flu Service will be focused on all routine cases of pandemic flu and in doing so will enable frontline Health Service staff to concentrate on those with the greatest needs.

The National Pandemic Flu Service assessment is centred on a clinical algorithm which has been developed by NHS Direct in partnership with the Royal Colleges, medical unions and a range of other stakeholders to establish clinically safe outcomes for individuals including referral to 999, referral to primary care, antiviral authorisation and/or provision of self care advice. Surveillance data will be collected by the National Pandemic Flu Service and will be a vital management information tool for government co-ordination of the pandemic response.

The National Pandemic Flu Service will be targeted at those who believe themselves to be symptomatic with pandemic flu. All general public health information will be available through the Departments information service including a telephone information line.

The separation of these two services has been designed for resilience purposes to enable each service to cope with the spikes of demand expected during a severe pandemic.

The National Pandemic Flu Service will be ready to be mobilised at short notice. The National Pandemic Flu Service will undergo regular tests to ensure that the solution and organisations are in a constant state of readiness.

All users of the National Pandemic Flu Service will use a unique identifier to validate their identity. The purpose of this check is to prevent fraud and to maintain clinical safety. Initially, it is intended that all UK nationals will be identified through their Health and Care number. Current awareness of Health and Care numbers is low across the population but the Department is considering options for raising awareness. The Department is exploring the potential for use of passports for non-UK nationals and overseas visitors.

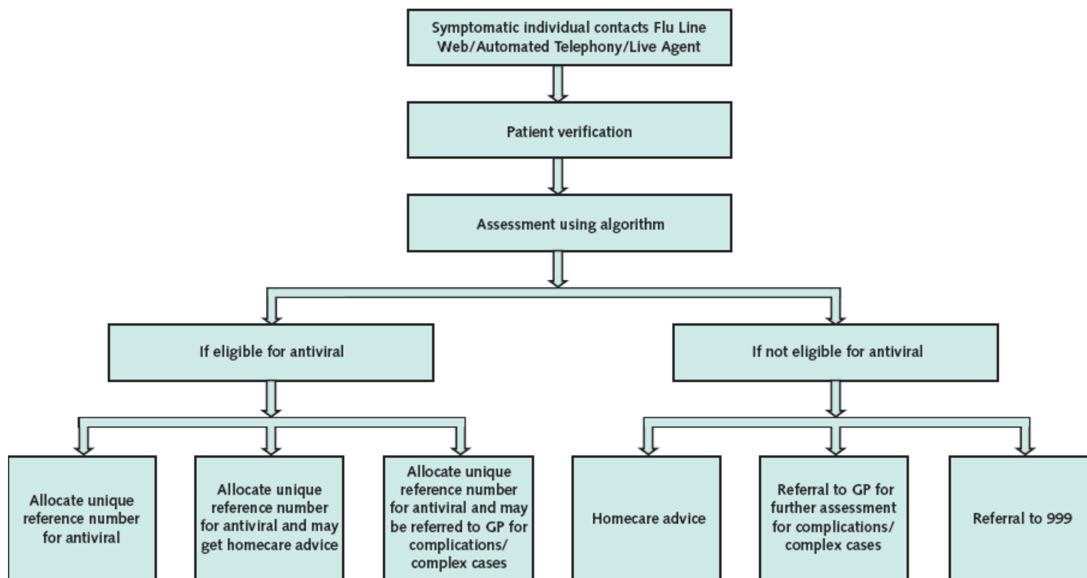
### 8.2.1 National Pandemic Flu Service processes

The standard National Pandemic Flu Service process is:

- The caller (or web user) makes contact with the National Pandemic Flu Service. The caller identifies which country they are calling from to determine which of the UK countries is to handle their call (i.e. Northern Ireland, England, Scotland or Wales).
- An initial question checks whether the caller is calling for a flu assessment (and is therefore in the correct service) or wishes to be routed to the information line for general information.
- The patient identification process is completed. Callers/users are asked to provide the patient's Health and Care number and some supporting evidence such as date of birth and/or postcode digits. Those who fail these tests will be queued for a call centre agent who can also check their name against the Health and Care number. Those without a Health and Care number or who fail all subsequent tests are directed to local exception processes outside of the National Pandemic Flu Service. All the data captured will be recorded against the patient record.
- The National Pandemic Flu Service will not authorise more than one antiviral per patient. A clinical assessment is undertaken based on the clinical algorithm. Working through the algorithm symptomatic patients will be advised, as appropriate, to contact 999 if it is an emergency or their GP if there are complications, or provided with home care advice.
- All others will be provided with an antiviral authorisation code (a URN or 'unique reference number') and based on postcode will be directed to their nearest antiviral collection point.
- In order to collect the antiviral, the URN will need to be taken to a collection point by the patient's flu friend. The collection point agent will validate the URN using the collection point system against data provided by the National Pandemic Flu Line.
- The National Pandemic Flu Service database is updated with the information that the antiviral has been collected. This prevents the URN being used more than once.

### 8.2.2 Patient pathway

An overview of the patient pathway is provided below. This is the standard procedure that symptomatic patients and flu friends will experience. The pathway is as straightforward as possible to make antivirals accessible without unduly compromising security or patient data.




The National Pandemic Flu Service also provides the following:

- Enables a member of the public to register a complaint which is followed up by the National Pandemic Flu Service operations team
- Enables a caller/user to obtain a new URN when an earlier one is lost (for security reasons this replaces the previous URN)
- A 'National Pandemic Flu Service Professional' screen which provides a secure web-based mechanism for authorised National Pandemic Flu Service health professionals to record on the National Pandemic Flu Service database that an antiviral has been given to a patient without the need to work through the National Pandemic Flu Service algorithm. This enables the National Pandemic Flu Service to keep track of antivirals issued or prescribed by GPs, hospitals, care homes, prisons and other institutions outside of the normal National Pandemic Flu Service processes and thereby minimise the risk of multiple antiviral authorisations for patients
- Real-time monitoring of operational aspects of the National Pandemic Flu Service such as inbound calls received/handled, usage of call centres, use of website and ability to manage operational loads
- Reporting of National Pandemic Flu Service activity based on contact records and patient data such as postcodes and ages – including fraud detection and management, algorithm question responses, authorisations and collections, trends etc
- Provides regular surveillance data to the national flu surveillance system: A key benefit of the National Pandemic Flu Service is that it will provide information that can be used to help manage the regional and national antiviral stockpile and to inform the local and national

response. By enabling allocation of the antiviral course and provision of a unique identifier, data will be available on who has been given antiviral treatment. The service will also enable data to be produced on how many antivirals have been allocated and within which localities, and when re-supply of antivirals will be likely to be required.
- Enables updates to the clinical algorithm (such as changes to questions and response actions) which can be implemented consistently and quickly across all the channels.

## 8.3 Stock management

### 8.3.1 Stock management system

The Board have developed an interim stock management system for antivirals which will provide stock usage reports to the Department and PHA.

When the National Pandemic Flu Service is launched it will include a stock management function the primary objectives of which are to achieve the following:

- To provide an allocation of antiviral stock to newly registered antiviral collection points
- To maintain supply of antivirals to the antiviral collection points
    - In pandemic phase, the stock management system will monitor the level of stock at each registered collection point on regular intervals and will create antiviral re-orders for all the collection points which have stock levels at/or below contingency stock. This leads to the creation of re-orders in the system.
    - Contingency stock is a quantity of stock that can help collection point sustain for a specific period without the need of re-ordering of antivirals. This period of sustenance can vary differently for different types of collection points.
- To have traceability of the stock
    - The stock management system will provide complete order history of antivirals to the Board for antiviral collection points.
- To provide the available collection point information to the National Pandemic Flu Service
- To provide reports on the usage of stock
    - Provide regular antiviral stock reports at Board Area and collection point level for effective monitoring and follow-up where local use is not in line with expected take-up and use.

The Board should make specific plans for the supply of antiviral solution for children aged under 1 year.

An operational management cell should be established at the Board to coordinate antiviral distribution, monitor and manage the national antiviral stockpile.

## 8.4 Collection Points

All community pharmacies and dispensing doctors in Northern Ireland have been nominated to act as antivirals collection points at the start of the pandemic and are being supplied with antiviral medicines from the central Government stockpile.

The Board are currently working on contingency arrangements to identify alternative locations for antiviral collection points should that become necessary.

Collection points are Board-nominated locations where flu friends can collect antivirals on behalf of a symptomatic person, on presentation of the person's valid URN.
The purpose of a collection point is:

- to enable symptomatic patients to remain at home but still gain access to antivirals
- to help prevent people burdening hospitals and GPs unnecessarily during a pandemic (standard cases will be directed to the National Pandemic Flu Service and then to collection points)
- to enable GPs and other healthcare staff to access antivirals for people with no access to the National Pandemic Flu Service where appropriate.

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

- hospitals will have antivirals for inpatients only
- A&E departments will not issue antivirals

***Collection point functions***
Collection points will vary in size and location depending on the population of the Board. However, all collection points will have 5 key functions:

- verifying patient URNs and checking them against the collection point issuing system
- issuing antivirals to flu friends and confirming their identity
- issuing information leaflets to flu friends
- receiving and securely storing supplies of antivirals
- signing off deliveries of supplies.

Collection points should undertake daily stock checks. This document details the arrangements and processes required to complete these key functions. Interim Guidance on the National Flu Service was issued to the Health and Social Care Organisations on 25/05/09. This guidance identified the need for the Board to nominate a number of antiviral collection points and to conduct a formal risk assessment of possible venues in conjunction with key stakeholders such as the police, local pharmacy advisers and other partner agencies.

### 8.4.1 The role of the Board

The Board will be responsible for setting up, monitoring and managing antiviral collection points. They will also be responsible for developing local arrangements to ensure that people who cannot use the National Pandemic Flu Service are able to gain access to antivirals. It is envisaged that to carry out these functions the Board will have a central coordination role. The activities they are expected to carry out are as follows.

***Collection points***

- Risk assessing and identifying antiviral collection points within their locality
- Ensuring that all antiviral collection points have appropriate operational, business and resilience procedures in place, and that they are kept under review
- Confirmation of suitable collection point locations and facilities
- Setting up of collection points
- Nominating a team of appropriately skilled staff who are responsible for antiviral distribution coordination within the Board
- Management and maintenance of collection points
- Ensuring adequate access to antiviral collection points across the locality
- Reporting any changes to the collection points (e.g. alterations to opening times) or any issues or problems they are experiencing

***Delivering care to people with no access to the National Pandemic Flu Service***

- Developing and implementing local arrangements to serve people with no access to the National Pandemic Flu Service
- Managing relationships with voluntary organisations and community groups and charities to ensure that members of such groups of people with no access to the National Pandemic Flu Service are treated if they fall ill
- Managing local arrangements for closed communities such as prisons and mental health institutions (e.g. prisons could be allocated a non-public-facing collection point; or the Board may wish to have control over the stock and locally deliver from a collection point to a prison)
- Managing the collection of antivirals by GPs and clinicians for home visits
- Allocating a flu friend to people with no access to the National Pandemic Flu Service if needed in exceptional circumstances.

***Management reporting and reporting to the National Pandemic Flu Service***

- Management and reporting of stock to the Northern Ireland coordination centre
- Reporting on the levels of stock to the Northern Ireland coordination centre informing the stock management system on a timely basis (at least once a day) of operational collection points in their area.

***System access management and technical support***

- Designating National Pandemic Flu Service Professional users within their area so that logon information can be provided and then managed
- Designating, managing and monitoring trusted users for the collection point issuing system and National Pandemic Flu Service Professional
- Potentially providing local technical support, such as password resets for the issuing system and National Pandemic Flu Service Professional

- Managing the registration of individuals and their security passwords.

***Stock management***

- Operating manual reordering processes should the stock management system fail
- Moving stock around locally to accommodate local surges in demand or collection point closures
- Arrange for supplies that are not needed to be returned to the regional stockpile
- Reporting on stock usage and investigating unusual patterns to assist the national coordination centre in managing stock
- Stock will be automatically reordered for collection points; the Board will have a role in managing this process. The Board will also be responsible for reporting stock usage and managing local stockpiles at collection points. Usage will be reported to the national coordination centre to assist with the management of the regional stockpile.

***Communications***

The Board will be provided with leaflets to issue with the antivirals; these leaflets will be centrally produced and will provide information on a number of areas. For example:

- possible side effects and what to do if they occur
- how and when to take the antivirals
- what to do if the patient's condition worsens.

The Board will be required to produce local communications detailing, for example, which collection points are open and when they should consider how they communicate simple information about the collection point function – as an important way of managing demand is to supply clear, simple knowledge and advice. The national communications strategy will explain the process for accessing antivirals and the role of collection points.

***Business continuity planning***

- Local business continuity and contingency plans need to be in place. This should state the possible issues and risks faced and the process and actions for mitigating and/or the contingency arrangement(s).
- the business continuity plan should consider (though this is not an exhaustive list) maintenance and contingency arrangements for the following functions:
    - antiviral functions or services
    - non-antiviral functions or services that may impact upon the distribution of antivirals
    - staffing
    - security
    - maintenance of site
    - utilities, e.g. electricity, water, fuel (for heating)
    - telecommunications (including emergency back-ups – if not on N3, ADSL users need to make local arrangements)
    - maintenance of IT equipment
    - cleaning
    - suppliers or contractors.

- business continuity plans must be developed in conjunction with local partners, e.g. collection points could 'buddy up' to ensure business continuity.
- robust workforce planning will be required to ensure, as far as possible, that there is sufficient and appropriate staffing and level of competencies to enable distribution of the antivirals.

## 8.5 Antivirals for children

**8.5.1 Access for children**
Oseltamivir is licensed for use in children over 1 year old and the Government has procured low dose capsules from the manufacturer for use in children under 14 years.
Unless the child is obviously over or under weight, the dose is determined by age as a proxy and it set out below:

- Age 1 year or over but under 3 years (body weight up to and including 15kg) 30mg 12-hourly for five days.
- Age 3 years or over but under 7 years (body weight over 15kg and up to 23kg) – 45mg 12-hourly for five days.
- Age 7 years or over but under 14 years (body weight 24kg and above) – adult dose (capsule – 60mg 12-hourly for five days).

Oseltamivir is not licensed for use in children under 1. There is however published evidence from Japan that it has been used safely at a dose of 2mg per kg twice daily in children under one year of age. The dose for this age group will be weight dependent. The Royal College of Paediatrics and Child Health have developed a consensus statement that will help clinicians to make a decision on whether to treat and the dose to be prescribed. The Government has purchased the active ingredient powder for reconstitution into a solution for use during a pandemic. There are sufficient drums to make up antiviral solution to treat the UK population of under 1s at a clinical attack rate of 50%. This will continue to be made up in licensed Manufacturing Units in NHS hospitals.

Children within the normal weight range for their age who have high fever and cough or influenza-like symptoms should, if:

- aged under 1 year or children of all ages if at high risk of complications (due to severe co-morbid disease) – be seen and assessed by a GP or hospital emergency department _
- aged 1 year or over – can be assessed by the National Pandemic Flu Service staff using a clinically based paediatric triage protocol and referred for antivirals and/or to a medical practitioner if indicated (e.g. those at risk of suffering complications of influenza).

**8.5.2 Manufacture and distribution of antiviral solution for children under 1 years**
A Northern Ireland based licensed hospital pharmacy manufacturing unit has been identified to manufacture oral oseltamivir solution for use by children under 1 year during a pandemic. The shelf life of oral oseltamivir has been extended following further validation and now has a shelf life of 90 days.

In order for the hospital pharmacy manufacturing unit to respond effectively to demand for solution during a pandemic, and to make the necessary changes to their production capacity, they will also require real-time data on usage. This will require regular communication with, and instruction from, the Northern Ireland coordination centre.

Once the solution has been manufactured, it will be bottled and labelled at the manufacturing unit.

## 8.6 Access for those who are ill at work

People who become symptomatic at work should be advised to contact the National Pandemic Flu Service and to go home as quickly as possible, isolating themselves from well members of the family where possible. Whilst travelling home they should seek to have as little contact with other people as possible, and should ensure that they follow basic infection control measures to limit spreading the virus to others (i.e. to cover the nose and mouth with a tissue when coughing or sneezing and to dispose of dirty tissues promptly and carefully – bagging and binning them).

## 8.7 Access to other essential and over-the-counter medicines

Demand for essential medicines and over-the-counter remedies is likely to be high in a pandemic, and re-supply may be uncertain. The Department is reviewing available stock levels of both influenza-specific and non-influenza medicines and is working with the pharmaceutical sector and others to enhance stocks, increase supply chain resilience and consider options for enhancing the supply of such medicines.

In order to ensure, as far as possible, that people have ready access to the medicines they need, it is proposed that once an influenza pandemic is declared by WHO, amendments to medicines and related legislation will be brought into force for its duration. The changes were outlined in *Proposals to amend medicines and associated legislation during an influenza pandemic* document, and would include:

- protocols for the mass supply of key influenza-related medicines
- new powers of emergency medicines supply for pharmacists
- powers for dispensers to repeat ongoing prescriptions without recourse to a doctor

The final legislation will be enacted when a pandemic influenza outbreak is declared in the UK. It would cease to be law when the pandemic ended.

The Board will wish to consider opportunities to encourage the public to think about what basic supplies of medicines they would require in a pandemic and whether they are in date.

**Key actions**

- Ensure that a contingency arrangement is in place that could be activated if an influenza pandemic was to take place before the National Pandemic Flu Service was set up, or in the event that additional local arrangements are required to support the National Pandemic Flu Service during a pandemic. The Board will need to liaise with their Pandemic Influenza Coordinator on the contingency arrangement.
- Identify what clinical resources could be used from the healthcare team to support in administering the National Pandemic Flu Service.
- Risk assess and identify antiviral collection points, and other points of use (i.e. hospitals for inpatient use), within their locality and communicate these to the Department.
- Ensure that robust arrangements are in place at collection points and other points of use in the Board's locality to ensure timely re-ordering of antivirals and maintenance of local stocks.
- Nominate a team of appropriately skilled staff who are responsible for antiviral distribution coordination within the Board. This team should be part of the Board's coordination centre/operational management cell.
- Encourage all members of the public to identify a representative (i.e. a friend, relative or carer – their 'flu friend') who could collect their antiviral medication for them in the event of a pandemic.
- Ensure that an arrangement is in place to coordinate the delivery of antiviral medicines from the collection points to a patient where, under exceptional circumstances, they do not have a representative who is able to collect their medication for them.
- Consider opportunities to encourage the public to think about what basic supplies of medicines they would require in a pandemic and whether they are in date.

# 9 Delivery of pandemic-specific vaccine population-wide

**Key points**

- The provision of specific pandemic vaccine will take place over a number of months.
- A primary-care-based model, with additional input from School Health and Occupational Health is the favoured approach for delivery of a specific pandemic vaccine to the whole population. Staff may be deployed to provide additional support to primary care.

Vaccination is vital in combating a new pandemic influenza virus. This chapter sets out the practical means by which a **specific** pandemic vaccine will be delivered to the population.

As we are planning for vaccination against a new influenza virus (currently A/H1N1), vaccine policy and its implementation will have to be adapted in light of the epidemiology of the evolving pandemic and the effectiveness of current or new vaccines.

## 9.1 Delivery model

The provision of specific pandemic vaccine will take place over a number of months, depending on the rate of delivery of vaccine. Emergency response arrangements should build on normal delivery mechanisms where possible and bolster capacity as required.

This chapter describes a primary-care-based model for population-wide pandemic-specific vaccination, and includes redeploying other staff to work in general practices to provide additional support to primary care. Local arrangements vary and the Agency and Board should work together with Trusts and Primary Care to develop tailored solutions, recognising that the former Health and Social Services Boards may already have undertaken planning for the provision of vaccination to the whole population in the event of a pandemic. The School Health Service and Occupational Health Service will play a vital role in delivery of vaccine to specific sub-sections of the population.

Although the intention will be to maintain normal services as far as possible, the unique nature of the threat presented by a pandemic may require curtailment of services and activities. It is acknowledged that services, including primary care, will be ‘catching up’ with a backlog of non-urgent work following a pandemic wave, when vaccination may start.

## 9.2 Planning assumptions

Policy decisions on vaccination may have to be revised depending on the characteristics of an emerging pandemic. Likely key parameters of pandemic vaccination policy are as follows:

- Two doses of influenza vaccine will be required to produce immunity against a novel virus.

- These doses should be separated by at least three weeks.
- Vaccine production capacity is finite, and production of sufficient vaccine for the whole population will take a number of months.
- Priority groups will need to be agreed (at national level) particularly for the first few weeks of vaccination.
- The choice of priority groups (as specified by the Government) would be based on a number of factors – including ethical considerations as well as scientific factors – such as the incidence and risk of clinically severe disease in different population groups, and the possible impact on slowing the spread of disease by prioritising particular population groups.
- It may not be possible, on the population scale needed, to reliably distinguish those who have been previously infected with pandemic influenza.

### 9.2.1 Vaccine availability

Sleeping contracts for specific pandemic vaccine have been finalised with vaccine manufacturers. This allows for the provision of up to 132 million doses for the UK population. This will provide two doses per head of population, with an allowance for vaccine wastage.

Once vaccine production has started, it will take over 12 months to receive delivery of the full quantity of vaccine. Planning of the vaccination programme will be led by the Pandemic Vaccination Implementation Group, hosted by the Public Health Agency, working closely with the Departmental Pandemic Vaccination Policy Group.

### 9.2.2 Further clinical advice

In the event of a pandemic, or the increased threat of a pandemic, further detailed guidance will be provided by the Department – covering clinical advice such as the dosage schedule, contraindications and likely side effects of the vaccine.

For planning purposes, however, it can be assumed that although the presentation and dosage schedule might be different from the current seasonal influenza vaccines, the general clinical advice regarding administering the new pandemic vaccines is likely to be similar.

Further specific clinical guidance would be provided within the context of the general vaccination advice already provided by *Immunisation against infectious disease* (Department of Health, 2006).

### 9.2.3 Provision for schoolchildren

The most efficient method of vaccinating school children is through the School Health Service. School Nurses already deliver vaccination programmes in schools through well established methods and the pandemic vaccination programme should build on these tried and tested routines. However, the possibility of alternative arrangements for school age children should be considered in the event of prolonged school closures. If this occurs, it may be necessary to

deliver vaccine to some school children in primary care. School nurses could be redeployed to support primary care in this situation.

### 9.2.4 Provision for health and social care workers

Occupational Health services are well established to support vaccination of health and social care workers in Trusts. Consideration should also be given to the delivery of vaccine to health and social care workers working in the Independent sector, in order to support the Trusts and Primary Care in a pandemic situation. Local arrangements may be put in place for vaccination of independent sector workers depending on capacity in occupational health and primary care.

## 9.3 National and Regional (Northern Ireland) arrangements

A successful programme of vaccination on a population wide scale will require a coordinated effort. Whilst vaccination will be delivered locally, important responsibilities lie at the national and regional level. This includes the setting of vaccination policy, including the impact that delivery of pandemic vaccines may have on routine immunisation programmes, and also the choice of priority groups.

The Department of Health (London), as the lead government department in the event of a pandemic, will provide overall leadership. It will review, finalise and initiate national vaccination policy in consultation with the health departments in each of the devolved administrations.

In Northern Ireland, the Department will establish a Pandemic Vaccination Policy Group, while the Public Health Agency will establish a Pandemic Vaccination Implementation Group. Both groups will work closely together to coordinate the regional response.

### 9.3.1 Vaccine distribution

Distribution and storage of vaccine, ensuring that the cold chain is maintained, will require planning at regional level.

### 9.3.2 Monitoring arrangements

Vaccine coverage, effectiveness and safety will need to be carefully monitored in the event of a pandemic. Arrangements are required to monitor immunisation coverage, probably similar to arrangements currently used to monitor seasonal influenza immunisation and pneumococcal immunisation coverage.

The Department of Health and the Medicines and Healthcare products Regulatory Agency (MHRA) will, working with the HPA's Centre for Infections, define clear data requirements for monitoring vaccine safety. The MHRA has responsibility for collection and evaluation of information on vaccine safety in the UK. The MHRA also works in conjunction with other European regulatory bodies and ensures that vaccine manufacturers are meeting their legal obligations in respect of vaccine safety evaluation.

Existing national systems for collection of vaccine safety data will be used where possible. However, depending on the situation, special measures for reporting of information on suspected

side effects may be required. The MHRA and Department will issue further guidance on reporting of vaccine side effects when an immunisation campaign is implemented.

## 9.4 Local planning by Health and Social Care organisations in Northern Ireland

The Public Health Agency and Health and Social Care Board have responsibility for protecting public health. This includes planning the response to an influenza pandemic and working with Trusts and Primary Care providers to deliver a vaccination programme.

Key tasks in the planning of a vaccination programme will be to:

- ensure that plans are in place to deliver immunisation to the local population in the event of a pandemic
- agree arrangements for reporting progress to the Agency and Board, including early identification of any problems or concerns
- ensure that planning is coordinated with relevant local stakeholders, particularly primary care colleagues
- consider the needs of those people who will be or may become vulnerable in a pandemic
- develop contingency plans if particular general practices or other services become unable to deliver the immunisation programme in the event of a pandemic
- work with the Department to ensure that there is proactive dissemination of information that comprehensively covers the likely questions the public will ask about local vaccination arrangements. This includes providing clear information about how to access vaccination locally, the nature of the vaccination, and making clear any vaccine contraindications.

### 9.4.1 Contingency arrangements

Some general practices, particularly smaller practices, may face difficulty in making suitable arrangements, or be temporarily unable to deliver immunisation due to staff sickness. Similarly, a nursing home, prison or residential school may need additional support. The Agency and Board will need to monitor vaccine delivery and make contingency arrangements to provide additional support if necessary. Contingency plans should be put in place to ensure that the vaccine delivery can be maintained.

### 9.4.2 Hard to reach groups

Some population groups will require special arrangements to ensure that individuals receive vaccination. These include people not registered with a GP, the housebound, travellers, people with disabilities, non-English speakers and those in prisons.

### 9.4.3 Capacity to deliver the vaccination programme

Working practices will need to be flexible during a pandemic in order to mount the challenging response needed, particularly as there may be staff shortages as a result of illness. It is particularly important that administrative staff are available to support those undertaking vaccination.

The Agency and Board should work with the Trusts and Primary Care to consider how the local workforce can be used flexibly in the event of a pandemic, and identify which staff groups could be redeployed to support vaccination across all settings.

The Agency and Board need to work together with Trusts and Primary Care to identify the training needs of these and other staff groups. Business continuity planning is also required to prioritise duties which staff currently undertake in light of the need to provide immunisation across the population through general practices, School Health and Occupational Health.

In the event of a pandemic, high rates of sickness absence among staff may require additional staff to undertake immunisation duties. Other professional groups that could possibly be called upon to immunise, with appropriate training and within clear clinical governance arrangements, include:

- agency staff
- retired staff, particularly those recently retired
- healthcare assistants
- nurses and doctors in non-clinical or administrative roles, such as research, medical and nursing students
- community pharmacists.

Calling upon these professional groups as an additional reserve capacity for providing specific pandemic vaccination would need to be negotiated with the relevant professional bodies. Arrangements for training would also need to be agreed.

### 9.4.4 Staff training

All vaccinators will need to be up to date with immunisation, resuscitation and anaphylaxis procedures. Provision of necessary training of healthcare workers will be a key task if untrained or partially trained staff is needed to assist in the immunisation effort.

Health and Social Care organisations will need to compile a comprehensive list of staff who are trained to immunise and can be called on to assist.

In addition to general immunisation training, educational sessions should be arranged by the Agency, Board, Trusts and Primary Care for all vaccinators to explain the immunisation programme and its rationale, the overall context of the pandemic and how to report adverse events, and to answer questions about issues such as the side effects of the vaccine.

The information provided should be based on national advice and assistance sought from those with particular local knowledge and expertise, such as health protection staff from the Public Health Agency.

### 9.4.5 Vaccine storage and distribution

Appropriate vaccine storage and distribution needs to be considered in local plans. The delivery arrangements will be coordinated at regional level.

Specific tasks include:

- identifying a named individual, and a deputy, from local pharmacy services to take the lead role in coordinating the storage, distribution and stock control arrangements

- ensuring business continuity, identifying key personnel within the pharmacy department to support the lead individual and who can, in their absence, organise and authorise the order, delivery, storage and distribution of vaccine

- ensuring sufficient cold storage capacity for the vaccine and associated storage of needles, syringes and other consumables

- ensuring the security of vaccine supplies.

Given the high levels of concern and anxiety which are likely to occur in a pandemic situation, security of vaccine supplies needs careful consideration. The Agency and Board may need to support general practices in ensuring appropriate levels of security.

**Key actions**

- Establish a plan for delivery of specific pandemic vaccine in accordance with the guidance set out in this chapter.
- Identify which professional groups will support delivery of immunisation, any training needs they may have, and a plan for how these will be met.
- Ensure arrangements are in place for appropriate vaccine storage, distribution and stock control.
- Ensure that clinic plans for administering the vaccine are in place and updated to meet the specific requirements of a pandemic.
- Ensure contingency arrangements are in place in the event that individual practices are overwhelmed and unable to deliver immunisation.

# 10 Managing demand surge capacity and patient prioritisation: key roles and services

**Key points**

- In order to manage demand surge, prioritisation of services will be required.
- A graded approach to configuring services (i.e. that states which non-essential activity can be reduced, ceased and/or transferred to other trained workers earlier than others) will be appropriate, so that the response is proportionate to the severity of the pandemic in a particular locality.
- Integrated plans and a whole-systems approach to managing surge demand is critical to ensure patient pathways are maintained and all partners understand what will and will not be delivered by whom.
- Arrangements for admission and discharge are also critical in managing demand surge and need to be comprehensive and transparent to all health and social care professionals.

## 10.1 Managing demand surge capacity and patient prioritisation

In a pandemic, more people will require care and treatment within primary care, some of whom would ‘normally’ be cared for in a hospital setting. This will be due to illness from the pandemic itself and because secondary care services are likely to become overwhelmed. In order to manage this surge in demand, primary care services will need to focus upon delivering care to those individuals in greatest need of their services and who cannot be managed with alternative means. This will require a focus on delivering essential services and on mobilising staff within a locality (including those who are recently retired) to bolster frontline resources. Supporting the public to self care, effective management of the flow of patients between primary and secondary care (including care homes and residential settings), will also be important in managing demand. The Board will need to ensure that their response plans include how demand surge will be managed and essential services maintained.

Surge capacity and prioritisation guidance is being drafted for Northern Ireland. This chapter draws on similar guidance which has been developed by DH and the Scottish government. It also provides advice on what are considered key roles and services in the event of a pandemic. Identifying what might be considered key services will help determine what roles are usefully played by other health providers and professionals, and what the needs for support and coordination (by the Board) are. No attempt is made to differentiate between what may be critical, core or non-core services, as this level of detail will be considered when developing the broader surge demand and admission/discharge frameworks. It is also recognised that as different localities have varying needs, there may be additional services that the Board, in consultation with providers, wish to define as being ‘key’ services.

#### 10.1.1 Integrated configuration of services

Integrated plans and a whole-systems approach to managing surge demand are critical to ensure that patient pathways are maintained and all partners understand what will and will not be delivered by whom. If, for example, it is agreed that general practices plan to suspend some more routine work to enable them to focus on caring for and treating those with more acute or urgent needs, it will be important to maintain pharmacy services such as medicines management for those with long-term conditions and repeat dispensing schemes (where they are established). In order to promote integrated response plans, the Board should seek to fully involve practices, regional or head office teams (for pharmacy multiples), local medical, pharmaceutical and (where appropriate) dental and ophthalmic committees, and acute and mental health trusts in the development and testing of plans. The Board should also demonstrate how surge demand will be managed and coordinated across primary care services within their plans.

### 10.2 Framework for local decision-making on service priorities during a pandemic

It will be important for the Board and all independent contractors to maintain normal services for as long as possible and appropriate, and then activate a proportionate response to the pandemic.

During WHO Phase 6, UK alert level 2 it is anticipated that there will be central delegation of decision-making powers concerning key responsibilities to the Board. At this point, the Board will need to use its responsibility for managing health services under special/exceptional circumstances and lead the strategic response across the health economy. This will include decisions (in line with national guidance) about which services receive priority and which targets and standards can be explicitly suspended whilst maintaining internal governance arrangements.

A graded approach to configuring services (i.e. that states which non-essential activities can be reduced, ceased and/or transferred to other trained workers earlier than others) may be appropriate, so that the response is proportionate to the severity of the pandemic in a particular locality. The Board will need to ensure that their response plans include how services will be enhanced, scaled back and/or stopped as the pandemic threat increases.

### 10.3 Primary Care Independent Contractors: key roles and services

Guidance on the role and responsibilities for community pharmacists is set out at Annex D. Guidance on the roles and responsibilities for GP practices and dental practices in a pandemic is currently being developed and will issue as a separate addendum to this guidance.

### 10.4 The role of other healthcare professionals

Community health professions represent an important workforce that will be called upon in the event of a pandemic. Community nurses, practice nurses, healthcare assistants, allied health professionals, physiotherapists, dentists, opticians and a range of other professionals in the broader ambit of primary healthcare will be required to ensure that a comprehensive service is maintained as far as possible. Nursing staff, for example, will be critical in providing key diagnostic, management and prescribing skills to support essential services and in ensuring the

delivery of certain pandemic-specific services such as the administration of a pandemic-specific vaccine.

In order to bolster practice capacity and ensure the delivery of essential services, healthcare and administrative staff may be required to work outside their usual roles (though within their skill base). The Board and general practices will wish to give thought to training requirements for the primary care workforce, and how to ensure that appropriate training has taken place before a pandemic. The Board will also wish to have arrangements in place to ensure the full mobilisation of staff within their locality. This includes staff who are not yet qualified (e.g. pre-registration students) and those who are employed in non-patient-facing environments such as the pharmaceutical industry. The Board should also ensure that the allocation of staff to different services, including locum resource, is coordinated across the locality so that priority services and locations receive a proportionate share of the resource available.

### 10.4.1 Support staff

General practices and community pharmacies will need to have plans in place that enable them to make the best use of all of the skills and expertise available to them.
For example, it will be critical for support staff such as healthcare assistants, medicines counter assistants and pharmacy technicians to provide more routine advice and services to free up GP, nursing, and pharmacist time for delivering care to those with higher healthcare needs. Practice managers and administrative staff will also play a crucial role in helping to manage demand through management of phone calls from the public, advising the public on basic self care measures, signposting them to other services where appropriate, and in managing appointments, for example.

## 10.5 Out-of-hours services and unscheduled care arrangements

Out-of-hours services and unscheduled care providers are key to the pandemic influenza response. The Board should work closely with out-of-hours service providers and unscheduled care providers, to ensure that response plans are robust and that arrangements for a pandemic are in place. As out-of-hours services are likely to be under intense pressure during a pandemic, the Board will wish to utilise opportunities for bolstering their service with additional resource where this is possible. Opportunities to extend the hours of some other services may also help to alleviate some demand on out-of-hours and unscheduled care services. Careful monitoring of extended and out-of-hours service demand and capacity will be required to ensure careful positioning of additional resources and resilience to where they are most required. The Board will also wish to ensure out-of -hour's access to medicines within the locality, and will need to liaise with services (including community pharmacies and out-of -hour's providers) as and where appropriate. Planned changes to medicines legislation (subject to consultation and Parliamentary approval) will enable community pharmacies to issue emergency supplies of medicines for up to 30 days treatment. The Board will wish to consider how this change could be used to alleviate the pressure on out of hour's services that are caused by patients' requests for recently prescribed medicines. (Applicable only to medicines that have been prescribed by a GP within the six months prior to the emergency supply)

## 10.6 Local response management

The Board will need to coordinate the development of health plans and provision of services in the event of a pandemic, and will need to define in detail the functions that are needed to perform the coordination of services locally. In particular, local response management will be required in order to:

- engage with frontline practitioners
- monitor service continuity amongst primary care contractors, and act as a conduit for information to the Department
- communicate to primary care contractors when essential services may be suspended (and when they are re-commissioned)
- coordinate cooperative arrangements to strengthen service continuity, such as staggered opening hours amongst contractors
- coordinate any consolidation that may be required amongst primary care contractors if service continuity fails, including the redeployment of both staff and stock resources (recognising that pharmacy multiples will wish to consolidate their resources using existing procedures)
- coordinate the development of admission and discharge criteria with the engagement and input of all key stakeholders
- ensure that any change in service is communicated to the public
- coordinate regional implementation of measures such as pandemic influenza protocols
- coordinate public health information
- link with local authority services, particularly social care services but potentially also including transport, housing and others.

# Annex A: Other available support and guidance

## Information available for health professionals

**GPs and doctors**
Royal College of General Practitioners
www.rcgp.org.uk
British Medical Association
www.bma.org.uk/ap.nsf/content/flupanprep

**Pharmacists**
Pharmaceutical Society of Northern Ireland
www.psni.org.uk
Pharmaceutical Contractors Committee (NI)
www.pccni.org.uk

**Nurses**
Royal College of Nursing
www.rcn.org.uk

## Other organisations providing information

**Health Protection Agency**
The HPA website has a wide range of information and guidance on pandemic influenza, including surveillance, emergency planning, exercises and training, as well as contact details for local health protection units and regional and national centres.
www.hpa.org.uk

**Department of Health**
All documents available at www.dh.gov.uk/pandemicflu
*Explaining pandemic flu: A guide from the Chief Medical Officer*
*Pandemic flu: A national framework for responding to an influenza pandemic*
*Responding to pandemic influenza: The ethical framework for policy and planning*

**UK Resilience**
www.ukresilience.info/ccact/index.shtm

# Annex B: Expected healthcare demand during the peak week of a pandemic

| | 25% attack rate | | 35% attack rate | | 50% attack rate | |
|---|---|---|---|---|---|---|
| | Per 100,000 population | † Per general practice | Per 100,000 population | † Per general practice | Per 100,000 population | † Per general practice |
| Clinical cases | 5,500 | 330 | 7,700 | 470 | 11,000 | 640 |
| Expected number of telephone calls | 6,880 | 420 | 9,630 | 590 | 13,750 | 800 |
| *GP consultations | 1,570 | 95 | 2,200 | 135 | 3,135 | 185 |
| Hospital admissions (rate of 4%) | 200 | 15 | 310 | 20 | 440 | 30 |
| Deaths (fatality rate of 2.5%) | 140 | 10 | 200 | 15 | 280 | 20 |

*Assuming the National Pandemic Flu Service is in place for purposes of initial assessment and authorisation of antivirals.
†This is based on a practice list size of 6,000 patients

Assuming alternative attack rates of 50%, 35% and 25%, the pandemic flu demand given in the table represents a reasonable worst-case scenario based on the following assumptions:

- 22% of cases occurring during the peak week of a pandemic wave
- 4% of symptomatic patients requiring hospital admission (given sufficient capacity)
- a 2.5% case fatality rate
- 25% of clinical cases having complications
- general practices seeing all complications (25%) and children under 1 year old or under 10kg (3.5%)
- 25% of hospitalisations requiring critical care
- 25% of clinical cases making a second call
- average length of stay in hospital of six days for patients not requiring
- critical care
- average length of stay in hospital of ten days for patients requiring critical care.

# Annex C: WHO international phases and UK alert levels

WHO has defined phases in the evolution of a pandemic that allow for a step-wise escalation in planning and response. If a pandemic were declared, action would depend on whether cases had been identified in the UK and on the extent of spread. For UK purposes, four additional alert levels have therefore been included within WHO Phase 6; these are consistent with those used for other communicable disease emergencies.

**WHO international phases overarching public health goals**
**Inter-pandemic period**
1 No new influenza virus subtypes Strengthen influenza pandemic detected in humans preparedness at global, regional, national and sub-national levels

2 Animal influenza virus subtype Minimise the risk of transmission to poses substantial risk humans; detect and report such transmission rapidly if it occurs

**Pandemic alert period**
3 Human infection(s) with a new Ensure rapid characterisation of the new subtype, but no (or rare) virus subtype and early detection, person-to-person spread to a notification and response to additional close contact cases

4 Small cluster(s) with limited Contain new virus or delay its spread person-to-person transmission but to gain time to implement preparedness spread is highly localised, suggesting measures, including vaccine development that the virus is not well adapted to humans

5 Large cluster(s) but person-to-person Maximise efforts to contain or delay spread still localised, suggesting that spread, to possibly avert a pandemic and to the virus is becoming increasingly gain time to implement response measures better adapted to humans

**Pandemic period**
6 Increased and sustained transmission minimise the impact of the pandemic in general population

**UK alert levels**
1 Virus/cases only outside the UK
2 Virus isolated in the UK
3 Outbreak(s) in the UK
4 Widespread activity across the UK

# Annex D: Community pharmacy: key roles and services during a pandemic influenza

**Role of community pharmacies**

Community pharmacies will play a critical role in responding to an influenza pandemic and should be fully integrated into the primary care response. As General Practices (GP) will need to focus on caring for those with more critical and urgent healthcare needs, it is likely that many patients who are not able to gain access to a GP (quickly) will turn to their community pharmacies for advice and care. Demand for information, prescribed and over-the-counter medicines, and flu-related medicines and advice is likely to be high. As this could mean that community pharmacies become quickly overwhelmed, it will be important for them to have arrangements in place prior to a pandemic that allow them to focus on delivering essential business.

Assuming that stock availability can be maintained, pharmacists will be expected to ensure that patients continue as far as possible to have uninterrupted access to the medicines they need. Medicines will continue to be needed to maintain the health of patients with long-term conditions such as asthma, diabetes and hypertension, for example, as well as those who have illnesses that arise as a consequence of the pandemic flu. In addition, during a pandemic, community pharmacists and their staff will play a key role in encouraging self care so that people who are able to manage their own symptoms can do so safely and effectively without placing an extra burden on the healthcare system. Pharmacies will wish to maximise opportunities to work in partnership with other agencies where they may be able to provide support or a joint approach to supporting patients (e.g. the voluntary sector local community groups and supporting patients to self care). Where possible, existing partnerships between pharmacies, community and voluntary groups such as Building the Community Pharmacy Partnerships should be maintained.

In line with the planning principle of encouraging symptomatic patients to remain at home, community pharmacies will not wish to encourage symptomatic patients to attend community pharmacy premises where they could potentially infect other members of the public. Support to symptomatic patients during a pandemic will therefore largely need to be achieved by advising and/or supplying medicines to the flu friend of the patient or through leaflets or web-based information or over the telephone. Pharmacies will wish to ensure that communication with patients or their representative over the telephone does not compromise their ability to receive calls and communicate with the Board, GP and other partner agencies.

**Preparing the public for a pandemic**

As pharmacies are well placed to promote public health messages, a key role for community pharmacy is in supporting the public to prepare for the influenza pandemic. This includes informing and educating the public on how to protect themselves and others from contracting and spreading influenza, and on what preparations they can make now. The Board will wish to work with community pharmacies to decide how best to utilise their services to promote good hygiene

practices and support national communications on pandemic influenza preparedness during the pandemic. The Board will also wish to work with pharmacies to consider opportunities for encouraging the public to keep basic supplies of medicines in their cupboards and ensure that they are rotated so that they are kept in date.

Leaflets and resources that can be used by practices will be available from the Board.

**Key community pharmacy services in responding to the pandemic**

During the pandemic key pharmacy services will include:

- support for self care, including advising on the use of over-the-counter medicines for symptoms of influenza and other conditions
- dispensing medicines
- providing repeat dispensing services which allows a GP to issue a prescription for up to a year, with pharmacies being able to dispense medicines on a monthly instalment basis.
- managing medicines shortages by, for example, limiting the number of packs dispensed or sold
- offering a minor ailments service
- supplying oxygen
- signposting to other available health services
- accepting unwanted medicines for disposal
- supplying regular medicines to those people who will be, or may become vulnerable in a pandemic such as residents of residential and nursing homes or patients with long-term conditions
- maintaining medicines supplies under contracts with other bodies, e.g. mental health trusts, hospices and prisons
- supporting and promoting national public health campaigns on basic hygiene measures such as hand hygiene and other positive health messages.

The Board will also wish to ensure out-of-hours access to medicines, and will need to liaise with services (including community pharmacies and out-of-hours providers) as and where appropriate.

A range of changes to UK medicines and associated legislation will be enacted during the pandemic to maintain people's access to key medicines and healthcare products. Details of the proposals are contained in the MHRA consultation document, available at www.dh.gov.uk

Professional Guidance for pharmacists and dispensing doctors if medicines are in short supply due to a pandemic influenza is being developed by the Department for issue during August/September 2009.

One change which was enacted in May 2009 allows community pharmacies to provide 30-day emergency supplies of medicines. The Board should consider how this change could be used to alleviate the pressure on Out of Hours Services and GP practices caused by patients' requests for recently prescribed medicines.

Pharmacists provide many other key services that are likely to need to be continued during a pandemic. Careful consideration will be required with the Board (including the Board's pharmaceutical advisers) on which services will need to continue, e.g. supply of substitution therapy to substance misuse clients or discontinue, e.g. smoking cessation support.

A Managing your Medicines service is also available from many community pharmacies which aim to help people use their medicines effectively, safely and as intended. The Board will need to consider what aspects of this service can be maintained during a pandemic.

In striving to maintain patients' access to medicines, the Board may also wish to consider the role of Non-Medical Prescribers and Patient Group Directions during a pandemic.

Community pharmacies may be involved in a number of other pandemic-specific roles which may include:

- Acting as antiviral collection points.
- Administration of a pandemic vaccine, following training
- Any other locally identified services and roles specific to a pandemic situation, subject to appropriate training.

The Board will, however, wish to ensure that community pharmacies are involved in the above roles only where this does not prevent the community pharmacy from providing its core services.

Community pharmacies have already received guidance to develop their own business continuity plans, but they may wish to consider:

- Team working with neighbouring pharmacies;
- Identifying recently retired, pre-registration or non-practising colleagues who might be able to support service continuity. (The Pharmaceutical Society of Northern Ireland has a database of pharmacists who may be able to support service continuity)
- Security arrangements if they are asked to distribute antiviral medicines or administer vaccines.

(See *Service continuity planning for pandemic flu* (www.npa.co.uk), which was jointly developed for Northern Ireland by the National Pharmacy Association and the Pharmaceutical Contractors' Committee with input from the Department.)

**Payment for community pharmacies**

Community pharmacists may be concerned about how the changes in working practice that accompany pandemic influenza could impact on the income of their business. The Department does not intend any community pharmacy to be disadvantaged financially by its participation in responding to an influenza pandemic. Details will be negotiated through the usual channels.