

**Pandemic H1N1 (2009) Influenza:
Chief Medical Officer's Fortnightly Bulletin for Journalists**

Overview

Since the last bulletin of 21 January 2010, new cases of pandemic H1N1(2009) influenza in communities in England remain near their lowest level since the early stages of the disease in the United Kingdom.

Patients continue to be hospitalised and admitted to critical care facilities, although these numbers are in decline. There have been 19 further confirmed deaths in England attributable to pandemic H1N1 (2009) since our last bulletin. A substantial number of deaths from the last few months are still being investigated.

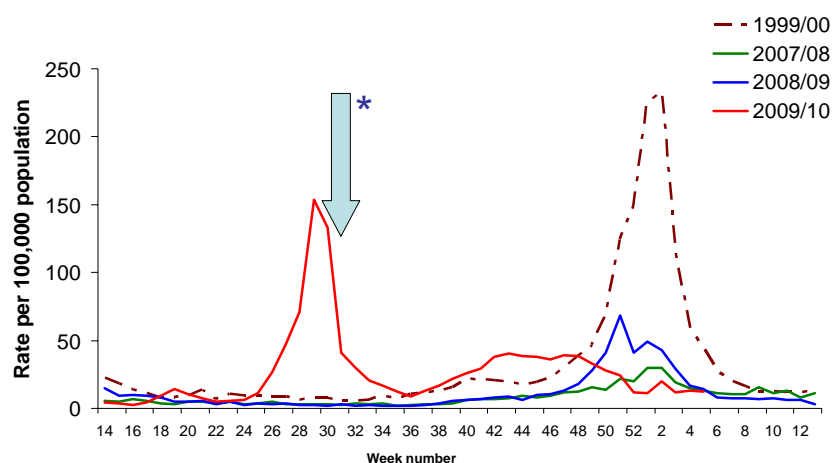
In light of the low levels of pandemic H1N1 (2009) influenza in the community and with the support of key professional bodies, the decision has been taken to stand down the National Pandemic Flu Service (NPFs) effective 1am Thursday 11 February 2010. Individuals with suspected H1N1 (2009) influenza should stay at home and contact their general practitioner for an assessment after this date.

The pandemic H1N1 (2009) vaccination programme is still being delivered: front line health and social care staff; highest priority groups (those with underlying illness and pregnant women); healthy children aged 6 months to under 5 years. Current public information campaigns are emphasising the importance of getting vaccinated to prevent complications, hospital admission and death in potential future outbreaks of the disease, especially given that pandemic H1N1 (2009) is likely to be the predominant influenza virus during the 2010 'flu season.

Disease Incidence

The time-honoured method of assessing the amount of influenza in the population (seasonal or pandemic) is general practitioner consultation rates in the sample of practices for which detailed data are gathered. In this pandemic, for the first time, patients have been able to self-medicate after telephone or internet assessment through the National Pandemic Flu Service (NPFS). Thus, an overall assessment of the level of influenza activity must take account of patient "consultations" through this new NHS channel of access. Also, for the first time during an ongoing pandemic, statisticians in the Health Protection Agency have estimated (using a variety of data sources) an overall number of pandemic H1N1(2009) influenza cases each week.

Figure 1: Weekly rate of general practitioner consultations for influenza like illness: Current influenza situation compared to selected previous seasonal 'flu outbreaks



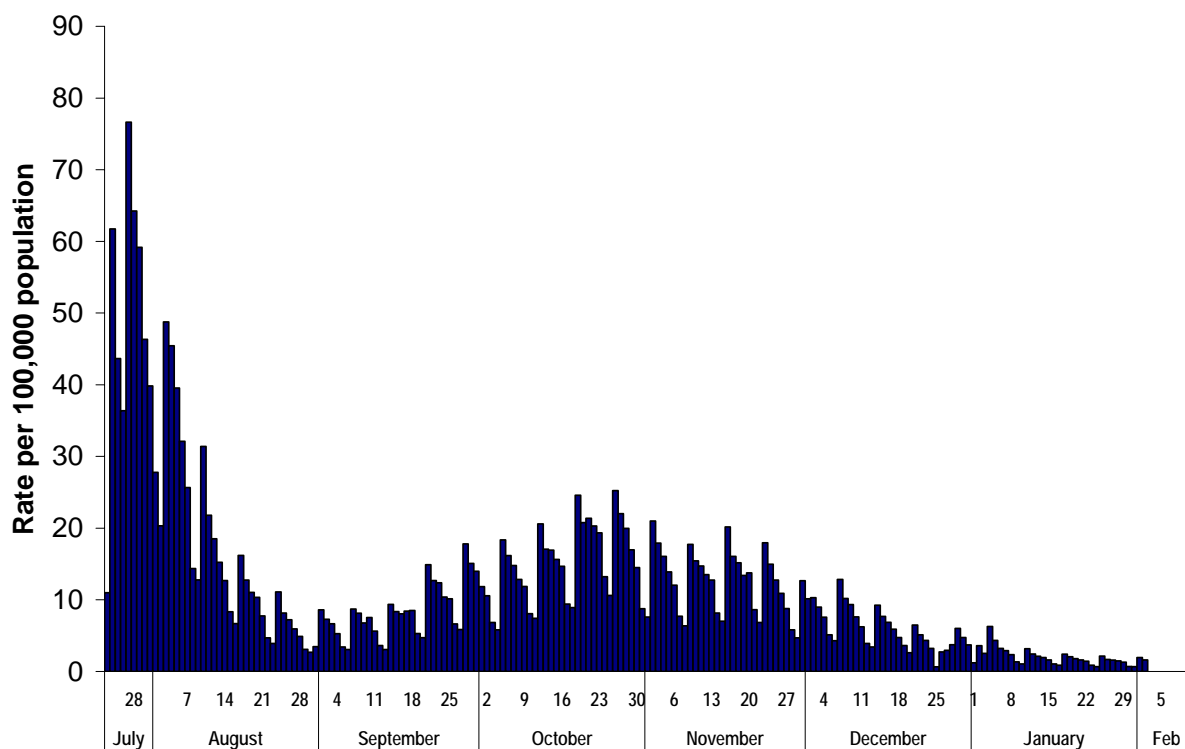
Week ending 31 January 2010: **12.5 consultations per 100,000 population**

* Level reduced by availability of NPFS for 2009/2010 period but not earlier periods

Source: RCGP to 31 January 2010

In England, the rate of general practitioner consultations for influenza like illness was 12.5 per 100,000 population for the week ending 31 January 2010, shown in Figure 1. This represents a slight increase on the figure of 12.1 per 100,000 population for the week ending 17 January 2010.

Figure 2: Daily rate of completed self-care from the National Pandemic Flu Service



Source: NPFS to 2 February 2010

The number of people receiving antiviral drugs through the National Pandemic Flu Service in the week ending 2 February 2010 was 4,730, shown in Figure 2. This represents a fall from the figure of 6,337 for the week ending 18 January 2010 and is the lowest weekly number since the NPFS was activated.

The Health Protection Agency overall estimate of the number of cases in the last week remains below 5,000 where it has been for the last six weeks.

Hospitalisations

Table 1: The number of hospitalised patients with pandemic H1N1 (2009) influenza, by age group in England (as of 8am, 3 February 2010)

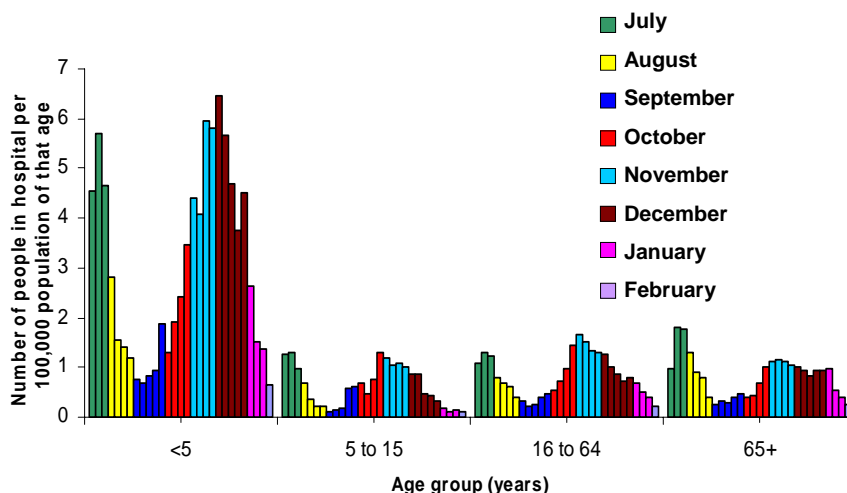
Age group (years)	< 5	5-15	16-64	65+	Total
Total number of patients in hospital	19	8	77	20	124
Number of patients in critical care	1	2	20	6	29

Information on patients admitted to hospital during the pandemic has been gathered through a NHS reporting system set up specifically to monitor hospital usage and give an impression of the numbers of more severely ill people.

Cases reported are those patients whom clinicians suspect to have pandemic H1N1 (2009) influenza. On detailed investigation, not all will turn out to have the disease. However, the high periods of hospitalisation have mirrored high 'flu levels in the community. Since people with serious complications of 'flu tend to stay in hospital for a few days or longer, the fall in the rate of hospitalisation has lagged behind the overall fall in disease incidence. The hospital data also include information on the number of people admitted to critical care facilities. Since the beginning of the year the number of people in hospital with illness attributed to pandemic H1N1 (2009) influenza has fallen. The worst recent daily estimate was at the height of the second wave (4 November 2009) with 172 patients hospitalised in critical care and 848 patients hospitalised overall. This week has shown a further decline from 20 January 2010 when there were 211 patients in hospital and 62 patients in critical care.

Throughout the pandemic the age-specific hospitalisation ratios (i.e. the number in hospital per head of population of that same age) has consistently been highest for the under 5s, shown in Figure 3. This is still the case in the most recent data though overall ratios have fallen.

Figure 3: Pandemic H1N1 (2009) influenza hospital ratios by week, for age groups



Deaths

Table 2 (i): Chief Medical Officer’s Confidential Investigation into pandemic H1N1 (2009) influenza deaths in England

Total number of confirmed deaths during the outbreak in England	298
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This is an increase of 19 newly validated deaths since the last bulletin on 21 January 2010, which reported 279 validated deaths in England.

Table 2 (ii) Figures for the other countries of the UK (as provided by their respective Chief Medical Officers) and the resulting total UK number of pandemic H1N1 (2009) influenza related deaths

Scotland	67
Wales	28
Northern Ireland	18
UK Total	411

Across the UK there have been 23 deaths in the under five years age group and 13 deaths in pregnancy.

With the onset of the pandemic, hospitals were asked to report all suspected and confirmed deaths from pandemic H1N1 (2009) influenza. A separate reporting system was introduced later for deaths occurring in the community.

Medical staff, working directly for the Chief Medical Officer, received these reports and made direct contact with the clinicians in the organisation reporting a death, to collect data including the age distribution and underlying conditions shown in Figures 4 and 5.

A confirmed death was defined as related to pandemic H1N1(2009) influenza if recorded on any part of the death certificate or confirmed on laboratory testing, either before or after death.

Figure 4: Age distribution of fully investigated deaths related to pandemic H1N1 (2009) influenza

The deaths related to pandemic H1N1 (2009) influenza are in the youngest age groups in marked contrast to the pattern of deaths in seasonal 'flu outbreaks.

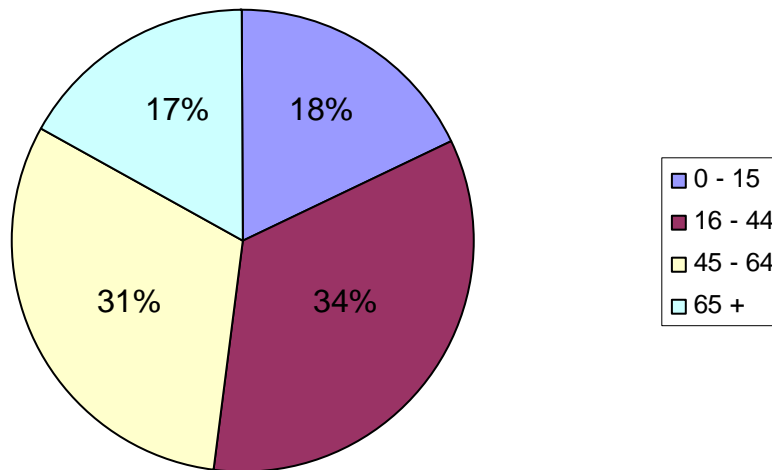
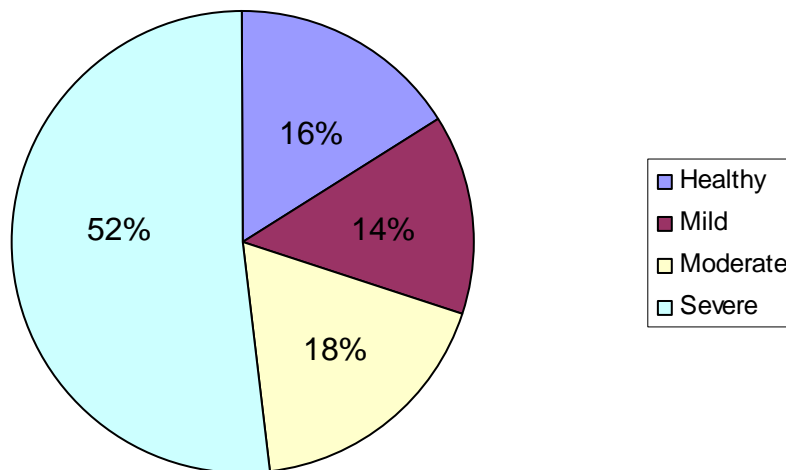


Figure 5: Underlying conditions for fully investigated deaths related to pandemic H1N1 (2009) influenza



70 per cent of people in England who died from pandemic H1N1 (2009) influenza had a moderate or severe underlying health condition, but 30 per cent had no (or only mild) prior illness.

National Pandemic Flu Service (NPFS)

The NPFS was launched on 23 July 2009 at the height of the first wave of the pandemic. It successfully reduced the pressure on GP practices by providing a means for individuals with suspected H1N1 (2009) influenza to rapidly have their symptoms assessed and, if appropriate, be prescribed antivirals either online or over the telephone. The clinical algorithm upon which the NPFS was based was designed in conjunction with medical experts and key professional bodies. Clinicians from the Royal Society of General Practitioners have overseen the operation of NPFS call centres to ensure quality of service.

With levels of influenza in the community currently low the decision has been taken to stand down the NPFS at 1am on Thursday 11 February. Should the situation change, the service can be restored to full operation in seven days. From 11 February onwards, individuals with suspected H1N1 (2009) influenza should stay at home and contact their GP for an assessment. GPs will be able to prescribe antiviral drugs should they judge this appropriate and patients' "flu friends" will be able to collect these as usual from antiviral collection points.

We would like to thank all those who have been involved in setting up, running and overseeing this ground breaking health care service. We stress though that it is important the stand down of the service does not induce a feeling of complacency – the importance of the vaccination programme remains. H1N1 (2009) is likely to be the predominant flu virus in the 2010/ 2011 'flu season.

Vaccination Programme

The UK vaccination programme is based on scientific advice provided by the Government's main vaccine advisory committee, the Joint Committee on Vaccination and Immunisation (JCVI), and endorsed by the main expert scientific committees including SAGE which is chaired by the Government's Chief Scientific Adviser and the chair of the Department of Health's independent expert committee on pandemic influenza.

The first recommendation of the committee was to vaccinate:

- People with certain underlying illness and pregnant women
- Front line health and social care workers

The second recommendation was to vaccinate children aged 6 months to under 5 years.

The government purchased vaccine from two suppliers - GSK and Baxter - the majority from the former. Initially the licenses specified that two injections would be necessary to provide effective protection but this was later revised to allow only one injection being necessary for the GSK vaccine, except in individuals who were immunocompromised either by disease or treatment. The vaccines are different to traditional seasonal 'flu vaccines in that they are monovalent and may provide protection for longer against the present virus and possibly against changes ('drifts') in the make-up of the pandemic H1N1(2009) influenza virus.

By 4 February 2010, 12.7 million doses of GSK vaccine and 0.37 million doses of Baxter vaccine had been sent out to the NHS in England. Further supplies are in warehouse stores.

The total estimated number of front line health and social care workers vaccinated to-date in England is 393,000.

The total number of doses given to the priority groups in England to-date is 4.25 million. This figure includes:

- ❑ 140,000 pregnant women
- ❑ 404,000 healthy children aged 6 months to under 5 years in England

Figure 6: Number of doses of pandemic H1N1 (2009) influenza vaccine administered to healthy children aged between 6 months and under 5 years

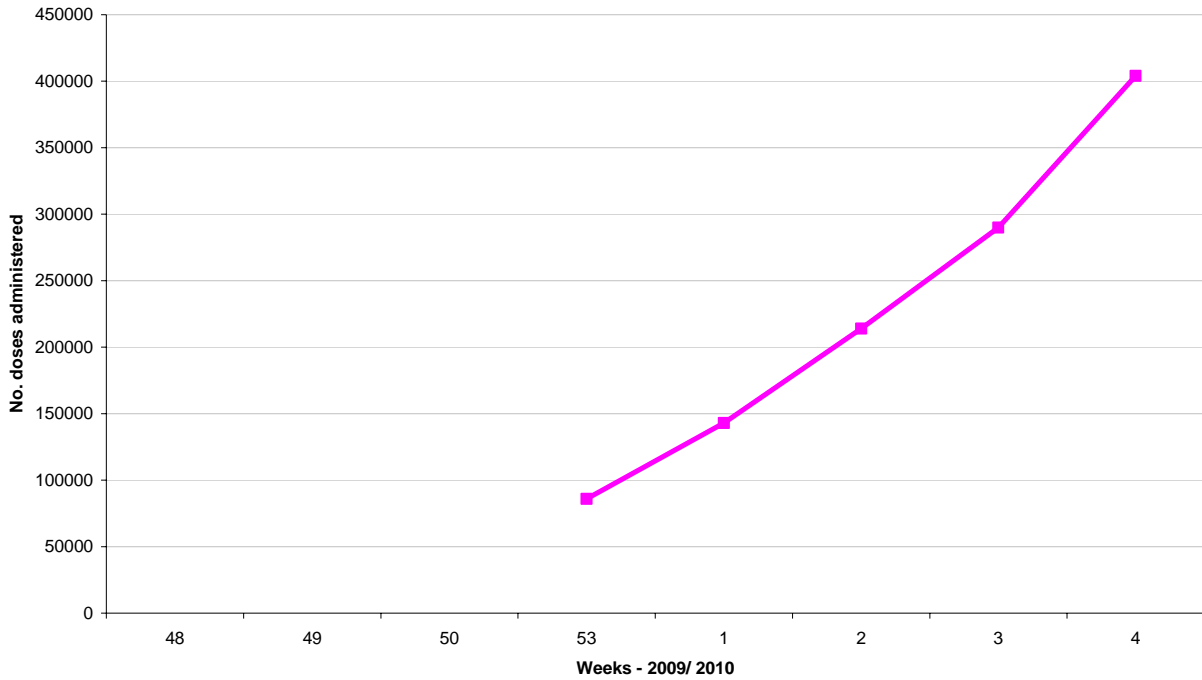


Figure 6 shows the trends in vaccination in healthy children aged over 6 months and under 5 years. The number of children in this age group being vaccinated continues to increase at a steady and even accelerating rate – evidence perhaps that parents are aware that the H1N1 (2009) virus disproportionately affects the young and that the H1N1 (2009) vaccine will offer children protection against this threat.

Prospects and Future developments

The pandemic H1N1 (2009) influenza virus is now well established in populations around the world. WHO experts expect it to be a major feature of influenza seasons in the Southern and Northern hemispheres during 2010. It cannot be predicted whether the other influenza strains that have caused illness in recent seasons will appear in a significant way.

The pattern of attack of the pandemic H1N1(2009) influenza virus is now clear from studies of its transmission in different countries during the second half of 2009. For most people infected, their illness is less severe than in previous influenza pandemics of the 20th century. It predominantly attacks children and younger adults. The majority of serious complications are amongst people with underlying health problems, though about a fifth have been previously healthy. Many of the deaths are due to viral pneumonia.

This profile is completely different to seasonal influenza.

When the 2010 influenza season begins it is likely that the pandemic H1N1(2009) virus will return. If its profile of attack remains as now most people will not suffer a severe illness but another cohort of children and young adults will be admitted to hospital and some will die from viral pneumonia and other causes. If many more people in the recommended groups take up the vaccine then the risks to many individuals next autumn will largely recede.

Quote

Commenting on the latest situation, Sir Liam Donaldson, Chief Medical Officer for England said:

“I am pleased to see increasing uptake of vaccine amongst the under fives. Deaths in this age group have been deeply distressing. When the virus returns I would very much like to see young children already protected. From now on, most deaths from the pandemic ‘flu virus should be regarded as potentially preventable; general practitioners have the vaccine and stand ready to offer this vital protection. Parents should contact their general practitioner now to make an appointment. Young children who have the jab now will be protected should H1N1 (2009) influenza return in the next ‘flu season. Pregnant women and those in all other at-risk groups should continue to have the vaccine as well.”

Useful information

DirectGov:

http://www.direct.gov.uk/en/Swineflu/DG_177831

General information and

Department of Health:

<http://www.dh.gov.uk/en/Publichealth/Flu/Swineflu/index.htm>

Guidance for medical professionals

NHS Choices:

<http://www.nhs.uk/conditions/pandemic-flu/Pages/Introduction.aspx>

Advice for members of the public

Chief Medical Officer's webpage:

<http://www.dh.gov.uk/en/Aboutus/MinistersandDepartmentLeaders/ChiefMedicalOfficer/index.htm>