

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

Overview

Since the last bulletin of 4 March 2010, new cases of pandemic H1N1 (2009) influenza in communities in England remain at around their lowest level since the disease first appeared in the United Kingdom. Patients continue to be hospitalised and admitted to critical care facilities, though numbers remain small. There have been 10 more confirmed deaths in England attributable to pandemic H1N1 (2009) influenza since our last bulletin. Further deaths from the last few months are still being investigated.

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); and healthy children aged 6 months to under 5 years.

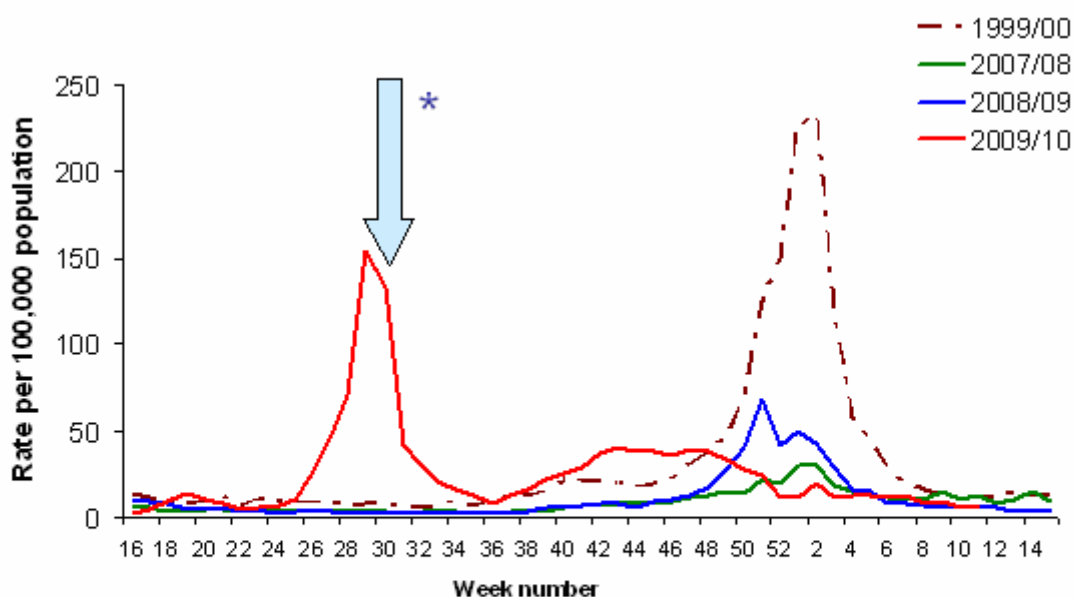
In accordance with the advice of the Joint Committee on Vaccination and Immunisation (JCVI) the monovalent pandemic H1N1 (2009) vaccine is now available as a travel vaccine for the protection of travellers to Southern Hemisphere countries. The Southern Hemisphere 'flu season is expected to start shortly and vaccination will reduce the risk of travellers, including those heading to the football World Cup in South Africa, catching the disease whilst abroad and bringing the virus back into the UK. Prof. David Salisbury, Director of Immunisation, has today written to General Practitioners providing guidance on this issue.

In the UK, it is highly likely that the pandemic H1N1 (2009) virus will be the predominant influenza strain in the 2010/ 2011 influenza season. Vaccination now will protect individuals against the disease and its complications when it returns later in the year.

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 were 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 over the weeks in which the NPFS was operating 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 14 March 2010: **6.2 consultations per 100,000 population**

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

Source: RCGP to 14 March 2010

In England, the rate of general practitioner consultations for influenza like illness was 6.2 per 100,000 population for the week ending 14 March 2010, shown in Figure 1. This is similar to previous weeks: 6.4 per 100,000 population for the week ending 7 March 2010, and 9.0 per 100,000 population for the week ending the 28 February 2010.

The National Pandemic Flu Service closed on 11 February 2010. Over the course of its operation (from 23 July 2009) over 2.7 million assessments were made and approximately 1.16 million antivirals collected. The service can be restored to full operation in seven days should it be required.

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 twelve weeks.

There is a risk that further localised outbreaks of pandemic H1N1 (2009) influenza might occur as a result of importation of the virus by travellers returning from Southern Hemisphere countries where the winter influenza season is expected to start soon.

Hospitalisations

Table 1: The number of hospitalised patients with pandemic H1N1 (2009) influenza, by age group in England (as at 8am 17th March 2010)

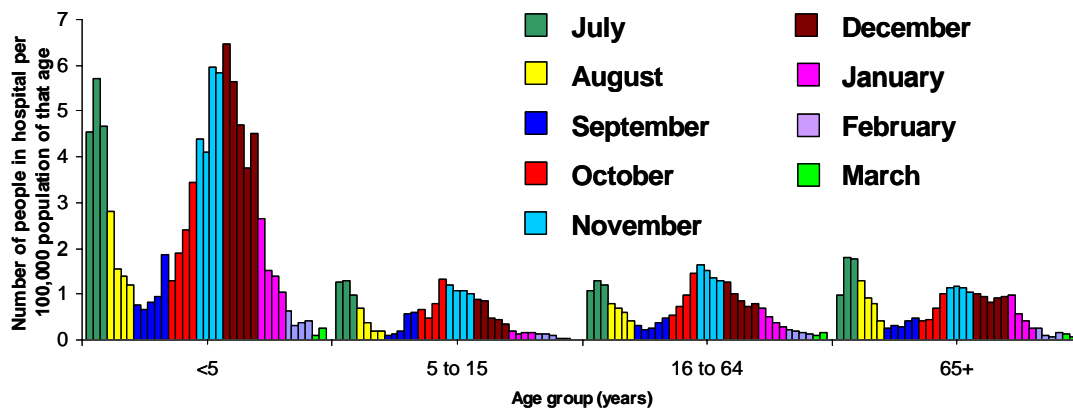
Age group (years)	< 5	5-15	16-64	65+	Total
Total number of patients in hospital	7	1	51	6	65
Number of patients in critical care	1	0	11	2	14

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 generally 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. Despite a general downwards trend, there has been a slight rise over the last fortnight. On 3 March, there were 50 patients in hospital and 13 patients in critical care compared to the figures in table 1 showing 65 patients in hospital and 14 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 – see Figure 3) have consistently been highest for the under 5s though the numbers now are too low to make meaningful comparisons by age.

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



At 17 March 2010, 0800

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	342
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This is an increase of 10 newly validated deaths since the last bulletin on 4 March 2010, which reported 332 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	69
Wales	28
Northern Ireland	18
UK Total	457

Across the UK, there have been 26 deaths in the under five years age group and 15 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 number of deaths related to pandemic H1N1 (2009) influenza in younger age groups is in marked contrast to the pattern of deaths in seasonal 'flu outbreaks.

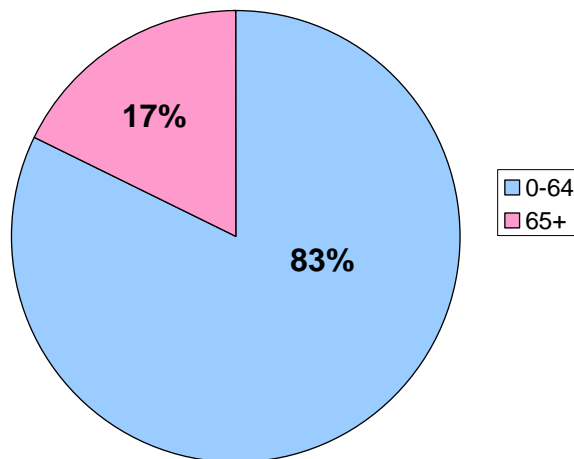
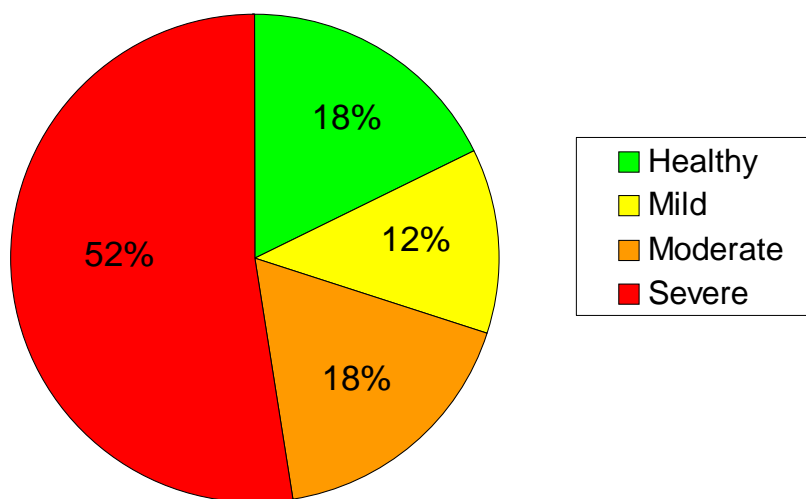


Figure 5: Underlying conditions for fully investigated deaths related to pandemic H1N1 (2009) influenza



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.

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 initial programme targeted:

- Pregnant women, people with certain underlying illnesses and household contacts of immunocompromised individuals
- Front line health and social care workers

The second phase opened up the programme to healthy children aged six months to under five years. Both programmes are still open for those who have not yet been vaccinated.

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.

All pandemic H1N1 (2009) influenza vaccination programmes remain open. The Department urges all those eligible for vaccination who have not yet had the jab to approach their General Practitioner or vaccination clinic and take up this offer of protection. Vaccination will protect individuals both now and in future influenza seasons when it is highly likely that pandemic H1N1 (2009) will be the predominant influenza strain.

In accordance with the advice of the JCVI the monovalent pandemic H1N1 (2009) vaccine will now be offered as a travel vaccine to those members of the public travelling to Southern Hemisphere countries. The Southern Hemisphere 'flu season is expected to start soon. Vaccination may protect travellers from catching the disease whilst abroad and may also prevent them from bringing the virus back to the UK and passing it on to friends and relatives. Prof. David Salisbury, Director of Immunisation, has today written to General Practitioners advising them of this and that they should be mindful of the potential demand for vaccination from fans attending the football World Cup in South Africa.

Vaccination figures

By 18 March 2010, 12.8 million doses of GSK vaccine and 0.39 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 doses given to front line health care workers to-date in England is 405,000.

The total estimated number of doses given to the priority groups in England to-date is 4.74 million. This figure includes:

- 159,000 doses given to pregnant women
- 649,000 doses given to healthy children aged six months to under five years

A further 38,000 doses of vaccine have been given to healthy children aged six months to under five years since our last bulletin - 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.

The Department has also published on its website today vaccination uptake figures broken down by Strategic Health Authority and Primary Care Trust. These can be found at the following link:

http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_114203

It should be noted that this is a preliminary data set to the 28th February 2010, and final data on vaccinations up to the end of March 2010 that will go through a process of quality assurance by GPs and Trusts will be published later.

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:

“The next ‘flu season in the Southern Hemisphere will be starting soon and the pandemic ‘flu virus is expected to return. Travellers should protect themselves by getting the vaccine well before they travel. Those attending the World Cup in South Africa in June should also take advantage of the protection the vaccine can offer.”

Note to Editors: Due to the upcoming Easter period, our next bulletin will be issued on 15 April 2010.

Useful information

DirectGov:

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

General information

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>