

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

Overview

Over the Christmas and New Year period, new cases of pandemic H1N1(2009) influenza in communities in England fell to their lowest level since the early stages of the disease in the United Kingdom.

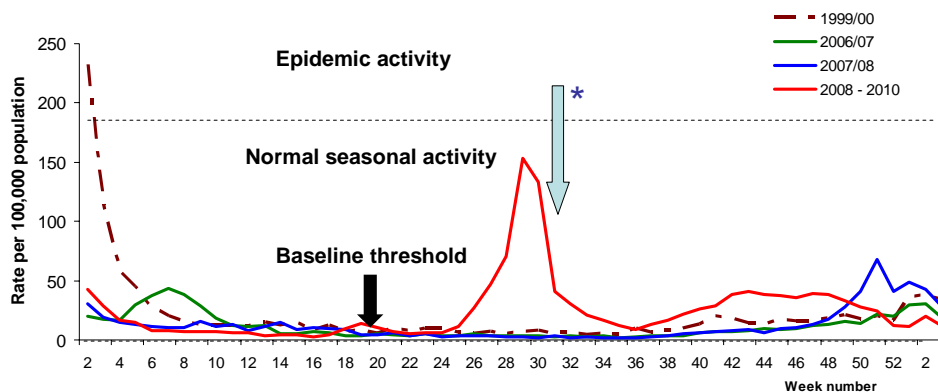
Since then there has been a slight increase in the rate of patients consulting their general practitioners for influenza-like illness. This probably represents general practitioner surgeries and health centres opening after the holiday period rather than any suggestion of a resurgence of pandemic H1N1 (2009). Patients continue to be hospitalised and admitted to critical care facilities, although these numbers are falling off. Deaths attributable to pandemic H1N1 (2009) are also still occurring. Falls in serious illness and death figures tend to lag behind overall incidence of flu. Discussions at the World Health Organization's Executive Board meeting this week reflected broad international support for WHO's handling of the pandemic, and the need to prepare for future outbreaks, particularly in the 2010 Northern and Southern hemisphere 'flu seasons and in sub-Saharan Africa which may be particularly vulnerable.

The pandemic H1N1 (2009) vaccination programme slowed over the holiday period but all three elements are 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. It remains to be seen how high the eventual uptake in these last two categories will be. Perceptions of the mildness of the illness and the waning of the disease for now are likely to be reducing the demand for the vaccine. Current public information campaigns are emphasising the importance of getting vaccinated to prevent complications, hospital admission and death in future outbreaks of the disease.

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 the current 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



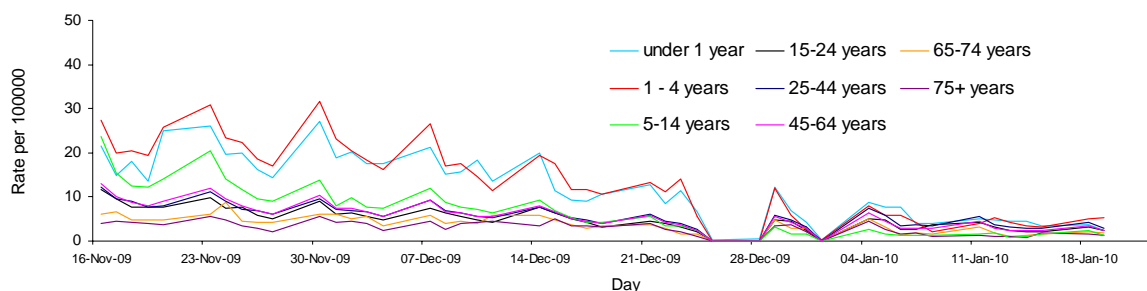
Week ending 17 January: **12.1 consultations per 100,000 population**

* Level reduced by availability of NPFS for 2009/10 period but not earlier time periods

Source: RCGP, to 17 January 2010

In England, the rate of general practitioner consultations for influenza like illness was 12.1 per 100,000 population for the week ending 17 January 2010, shown in Figure 1. This represents a slight increase on the figure of 11.3 per 100,000 population for the week immediately following the holiday period (8 January 2010). The increase is almost certainly due to the post-holiday opening of general practitioner surgeries and health centres rather than any evidence of resurgence of the pandemic H1N1(2009) influenza virus.

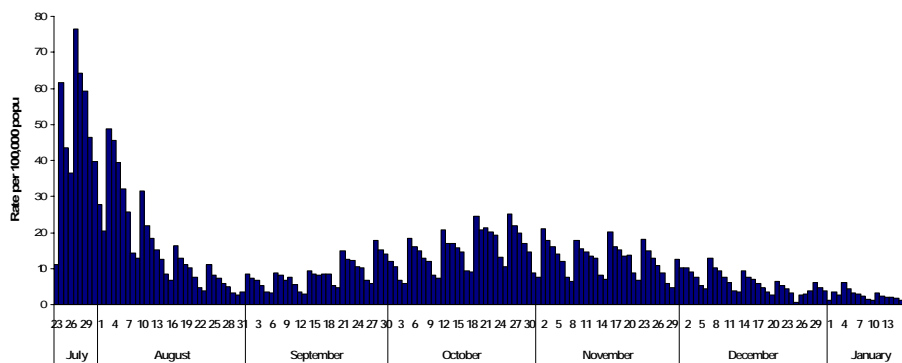
Figure 2: Daily rate of general practitioner consultations for influenza-like illness: England, by age



Source: QSurveillance, to 18 January 2010

Age-specific general practitioner consultation rates for influenza like illness show low levels of activity in all age groups, apart from a slight increase in the 1 – 4 years (Figure 2).

Figure 3: Daily rate of completed self-care from the National Pandemic Flu Service



Source: NPFS, to 18 January 2010

The number of people receiving antiviral drugs through the National Pandemic Flu Service in the week ending 18 January 2010 was 6,337, shown in Figure 3. This represents a fall from the figure of 13,436 for the week ending 5 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 three weeks.

Hospitalisations

Table 1: The number of hospitalised patients with pandemic H1N1 (2009) influenza, by age group in England (as of 8am, 20 January 2010)

Age group (years)	< 5	5 – 15	16 – 64	65+	Total
Total number of patients in hospital	41	10	127	33	211
Number of patients in critical care	2	2	49	9	62

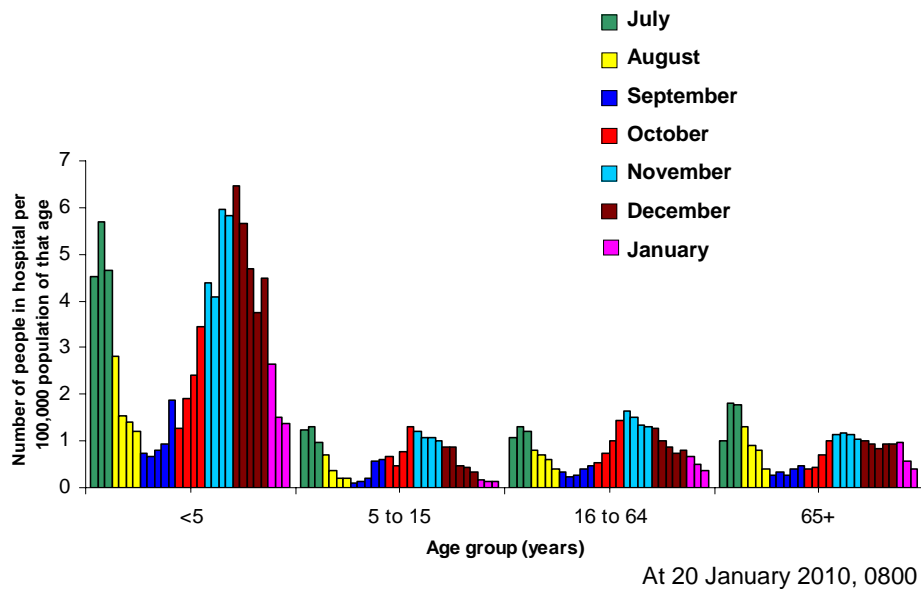
Information on patients admitted to hospital during the pandemic has been gathered through a NHS reporting system set up specifically to monitor hospital usage and give an impression of the numbers of more severely ill people.

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 seen a further decline from last week (13 January 2010) when there were 268 patients in hospital and 79 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 4. This is still the case in the most recent data though overall ratios have fallen.

Figure 4: 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	279
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This is an increase of 28 newly validated deaths since the last press briefing on 8 January 2010, which reported 251 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	66
Wales	28
Northern Ireland	17
UK Total	390

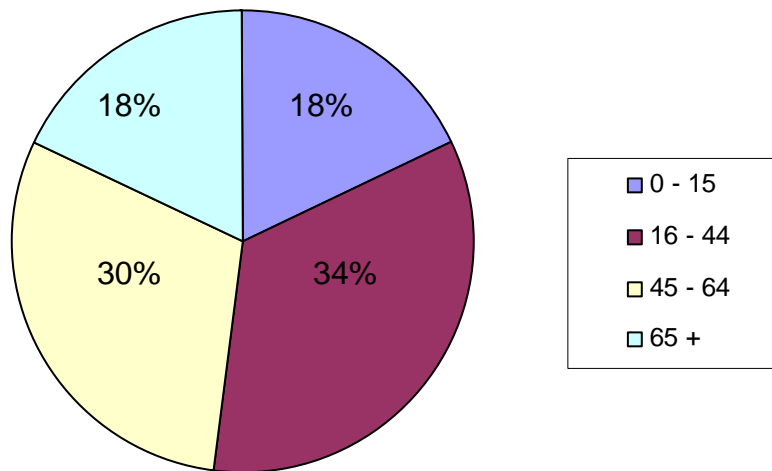
Across the UK there have been 21 deaths in the under 5 years age group and 12 deaths in pregnancy.

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 5 and 6.

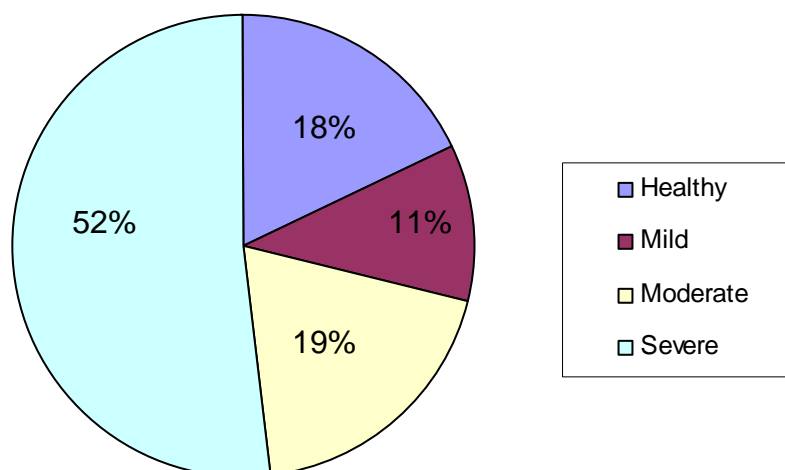
A confirmed death was defined as related to pandemic H1N1(2009) influenza if recorded on any part of the death certificate or confirmed on laboratory testing, either before or after death.

Figure 5: Age distribution of fully investigated deaths related to pandemic H1N1 (2009) influenza



Less than one-fifth of deaths related to pandemic H1N1 (2009) influenza are in the over 65 age group.

Figure 6: Underlying conditions for fully investigated deaths related to pandemic H1N1 (2009) influenza



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

International Position

This briefing coincides with the January session of the World Health Organization Executive Board of which the United Kingdom is currently a member. The subject of pandemic H1N1 (2009) influenza has been discussed at the Executive Board meeting, allowing valuable sharing of experience. The level of disease activity has tailed off in many parts of the world, but the general consensus of WHO experts and member states was that there was no room for complacency. The most intense areas of pandemic H1N1 (2009) influenza are in North Africa, South Asia and East and South East Europe. There remains a risk therefore of further imported cases from travellers returning to the UK from these areas. The disease was considered likely to be the predominant virus in the 2010 'flu season in both Southern and Northern Hemispheres. The risk of a genetic change (so-called 'drift') in the virus is ever present and this could lead to more illness at any time.

"When the history of this pandemic is written, I believe that the speed of actions taken by governments to protect their populations will earn the highest marks."

Margaret Chan

Director General, World Health Organization, Monday 18 January 2010

Pandemic H1N1 (2009) influenza has not yet affected major parts of Africa. That part of the world is particularly vulnerable because: its population is relatively young (the age group most at risk of illness); levels of pre-existing illness (e.g. HIV/AIDS, malaria, tuberculosis) are very high and healthcare systems are not as strong as in other parts of the world.

WHO estimates that 175 million doses of vaccine have been administered worldwide. No unusual safety issues have been reported.

Other views expressed during discussion were of interest. Some countries strongly believed that school closures during the early stages had helped them to reduce transmission. Some countries had experienced high levels of demand for vaccine. The

consensus was that the WHO responded proportionately and appropriately to the first pandemic of influenza for 40 years. To have adopted a lower grade response would have been a huge gamble with a new and poorly-understood virus and could have had disastrous consequences. Nevertheless, WHO is setting up a review to see what lessons can be learned from the 2009/10 experience.

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 scientific committee (SAGE) 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 20 January 2010, 12.6 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 387,000.

The total number of doses given to the priority groups in England to-date is 3.7 million.

This figure includes:

- ❑ 132,000 pregnant women
- ❑ 214,000 healthy children aged 6 months to under 5 years in England

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:

"Levels of pandemic 'flu are currently very low virtually concluding the second wave of the infection in this country. Although throughout it has not been a severe illness for most people, children and younger adults have developed serious complications, been admitted to hospital and some have died. When the virus returns in the 2010 'flu season those who develop complications or die will be doing so from a vaccine preventable disease. I strongly advise that those eligible for the vaccine who have not yet had it get the jab and protect themselves."

Useful information

DirectGov:

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

General information and link to the National Pandemic Flu Service

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>