

HPA Weekly National Influenza Report

24 June 2009 (Week 26)

Summary

As of 24 June 2009 there were 3254 confirmed cases of influenza A (H1N1v) in the UK. The highest numbers were in London (681) and the West Midlands (1243). One death has been reported and 64 hospitalisations.

Clinical rates have increased in England, Wales and Scotland and have decreased slightly in Northern Ireland. All rates remain low and below baseline levels. GP consultation rates for ILI are highest in the West Midlands and London. The estimated total proportion of calls for colds and flu to NHS Direct has increased, with the highest increase seen in the West Midlands. Nationally, calls for fever in the 5-14 age group are approaching national influenza early warning thresholds.

Twenty-nine specimens tested at the Respiratory Virus Unit (RVU) Influenza Reference Unit at the HPA Centre for Infections (Cfi) were positive for influenza (all H1N1v) in week 25/09. Thirty-two of the confirmed influenza H1N1v cases have come through enhanced virological surveillance in the community (sentinel GP practices and self-sampling of callers to NHS Direct). Seventeen of the novel virus isolates have been tested for antiviral drug susceptibility and all were found to be sensitive to oseltamivir and zanamivir but resistant to amantadine.

According to the World Health Organisation (WHO), by 07.00 GMT on 24 June, 55,867 cases of influenza A (H1N1v) had been reported globally with 238 deaths.

Daily updates on UK confirmed cases of influenza A (H1N1v) are also provided: <http://www.hpa.org.uk/webw/HPAweb&Page&HPAwebAutListName/Page/1242949541993?p=1242949541993>.

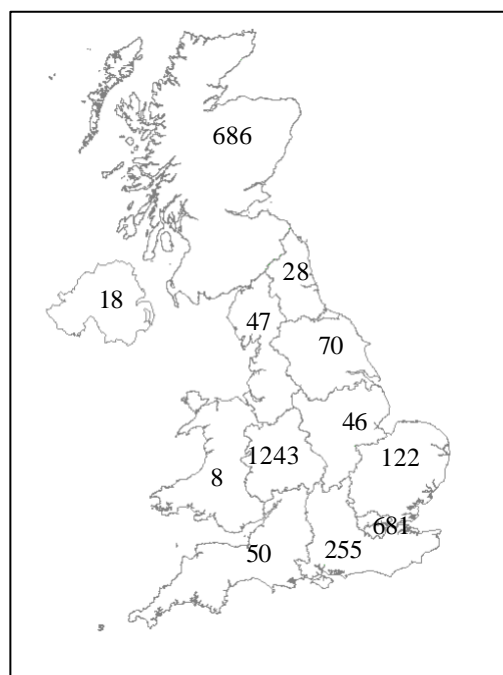
UK Cases of Influenza A (H1N1v)

As of 24 June 2009 there were 3254 confirmed cases of influenza A(H1N1v) in the UK, with the highest numbers in London (681), West Midlands (1243) and Scotland (686). A further 1641 clinically presumed cases have been reported (201 in England and 1440 in Scotland) (Table 1). Two hundred and ninety-one are assumed to have acquired the virus abroad, 2681 are assumed to have acquired the virus in the UK, of which 209 are thought to be sporadic cases (no known travel history or contact with a known case). For 282 cases data on the route of transmission is pending (figures 1 and 2). The highest number of cases have been males aged between 10 and 19 years (Figure 2). Of the 2647 cases with the sex recorded 53% of cases are males, and of the 2959 with the age recorded 62% are aged less than 20 years. Sixty-four associated hospitalisations (40 in England, 23 in Scotland and one in Northern Ireland) and one associated death (in Scotland) have been reported.

Table 1: Confirmed cases by Region and Devolved Administration, United Kingdom as reported by 24 June 2009

Region name	Number of Cases
East	122
East Midlands	46
London	681
North East	28
North West	47
South East	255
South West	50
West Midlands	1243
Yorkshire & Humberside	70
Total England	2542*
Northern Ireland	18
Scotland	686
Wales	8
Total UK	3254

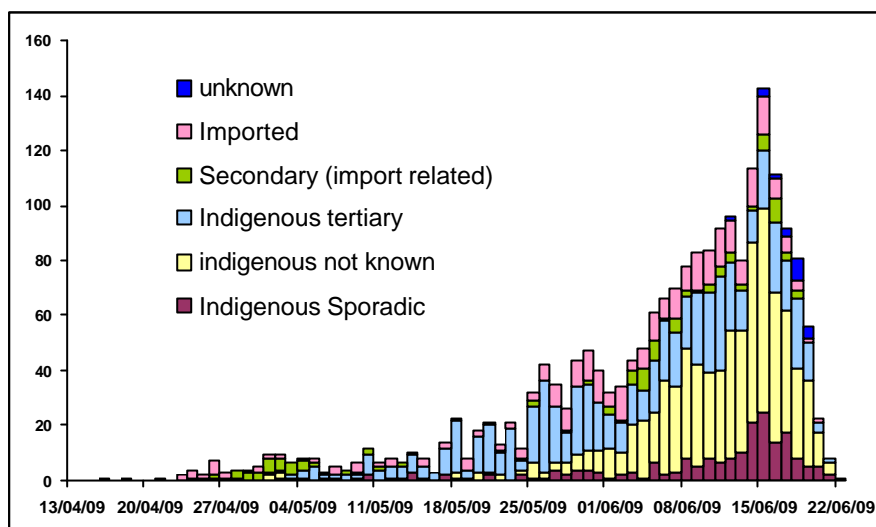
* 201 clinically presumed cases (not confirmed virologically) have been reported from England.



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Figure 1: Cases of laboratory confirmed novel influenza A (H1N1v) by date of onset and assumed mode of transmission*, 24 June 2009 (n=2038**), United Kingdom



* Imported – acquired abroad; Secondary (import related) – acquired through contact with imported case; Indigenous tertiary – acquired through contact with secondary or sporadic case; Indigenous not known – presumed acquired in the UK but further details not available; Indigenous sporadic – no known travel history or contact with known case.

** 1216 cases have an unknown date of onset, one assumed imported, 953 assumed non-imported, 262 unknown transmission.

Figure 2: Cases of laboratory confirmed novel influenza A (H1N1v) by date of report 24 June 2009 (n=3254) United Kingdom

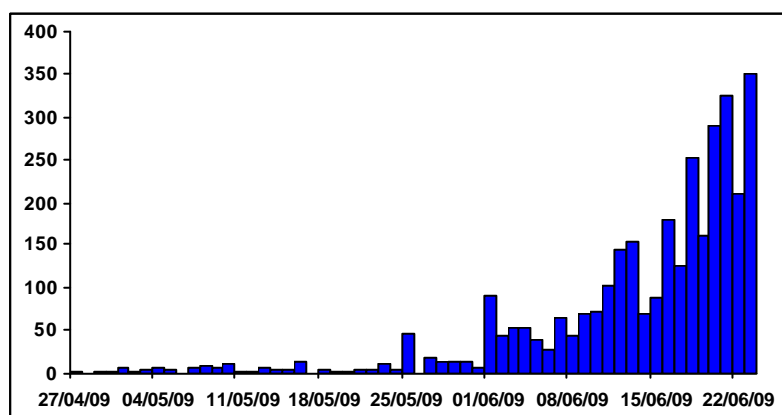
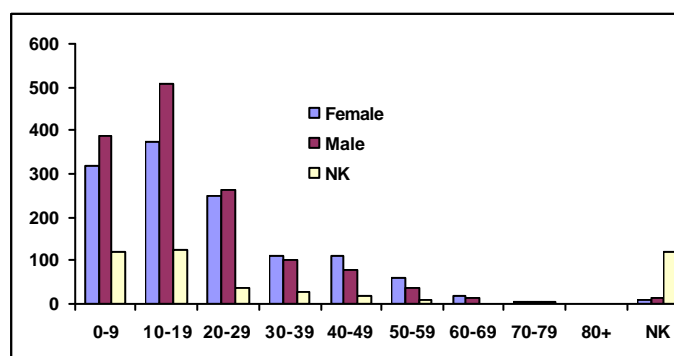


Figure 3: Cases of laboratory confirmed influenza A (H1N1v) by age group and sex, 17 June 2009 (n=3097*), United Kingdom



* Data not available on 157 cases.

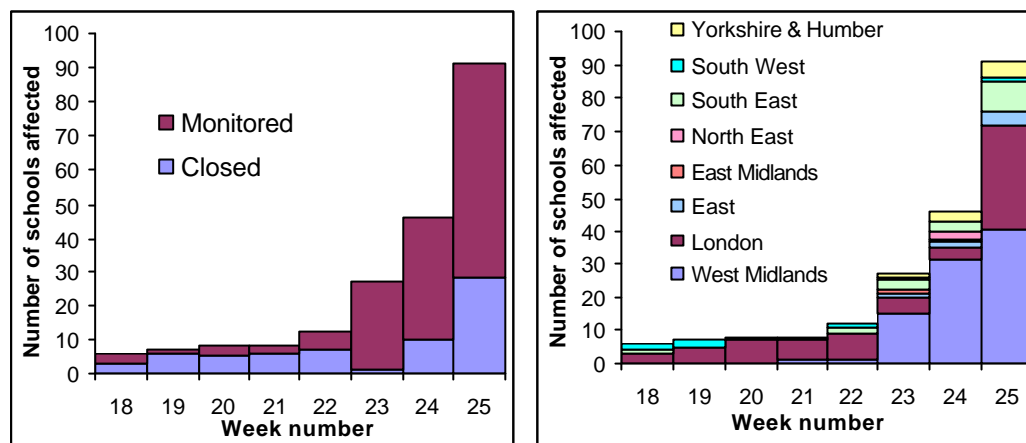
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Schools

As of 23 June 2009, 31 schools in England were fully or partially closed due to one or more possible or confirmed cases of influenza A (H1N1v) in pupils and/or staff. A total of 211 schools in England have been affected since April; 150 had confirmed cases but did not close and 61 closed (including the 31 currently closed). The number of schools in England affected by week is shown in figure 4. In Scotland, as of 23 June, 32 schools have closed since April due to influenza A (H1N1v) of which 16 schools are currently fully or partially closed.

Figure 4: Affected schools in England by week and region (up to week 25)



Clinical Indicators

In week 25 rates have increased in England, Wales and Scotland and have decreased slightly in Northern Ireland (Table 2, Figures 5 and 6). All rates are at low levels, slightly higher than might be expected for this time of year but below threshold levels (where they are set).

In England, the highest ILI rate was in the central region (13.3 per 100,000) and in the 0-1 year age group (21.9 per 100,000). In Wales the highest rate was in the 25-34 year age group (5.6 per 100,000), in Northern Ireland it was highest in the 15-44 year age group (19.4 per 100,000).

For further information on the different schemes please see the following websites:

- RCGP – <http://www.rcgp.org.uk/bru/index.asp>
- Northern Ireland – <http://www.cdscni.org.uk/>
- Scotland – <http://www.hps.scot.nhs.uk/resp/index.aspx>
- Wales – <http://www.wales.nhs.uk/sites3/page.cfm?orgid=457&pid=27922>
- QSurveillance@ – <http://www.qresearch.org>

Table 2: GP consultation rates for ILI/influenza in the UK.

Scheme / Country	Threshold (per 100,000)	Clinical rate* per 100,000				
		Week 21	Week 22	Week 23	Week 24	Week 25
RCGP (England & Wales)	30	7.9	4.8	6.2	6.8	11.2
Northern Ireland	N/A**	17.5	13.8	7.9	18.1	12.7
Scotland	50	7	6	10	15	32
Wales	25	5.0	1.85	0.33	0.4	1.7
QSurveillance@ (UK)	N/A**	6.5	4.2	4.4	5.8	8.9

* RCGP, Scotland and QSurveillance@ rate is for influenza-like illness (ILI), for Northern Ireland it is a combined ILI and influenza rate and for Wales it is for influenza. This, and differences in health-seeking behaviour and diagnoses across the four countries, is reflected in the different threshold levels and activity rates, for further information see the HPA website:

(http://www.hpa.org.uk/webw/HPAweb&HPAwebStandard/HPAweb_C/1195733821514?p=1191942171484).

** No thresholds have yet been set for Northern Ireland or QSurveillance@.

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Figure 5: RCGP consultation rate for influenza like illness 2008/09 and recent years.

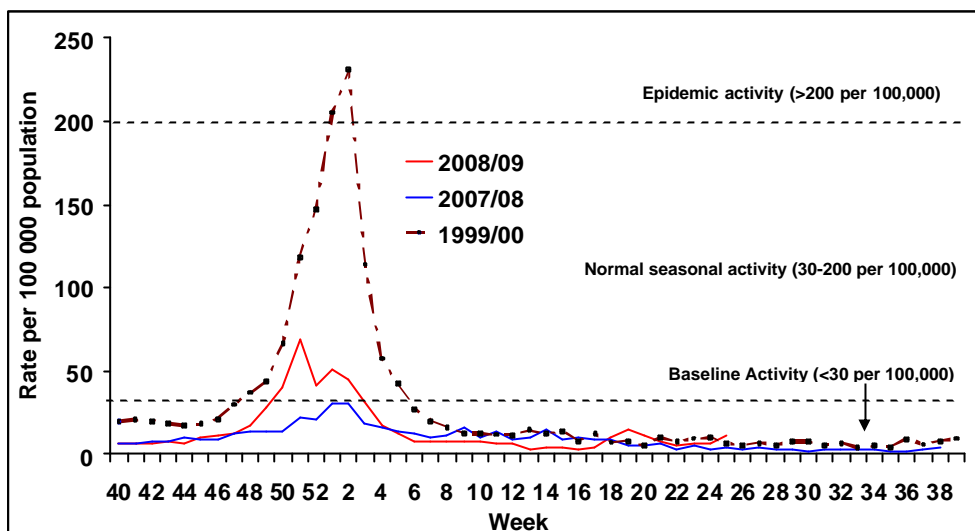
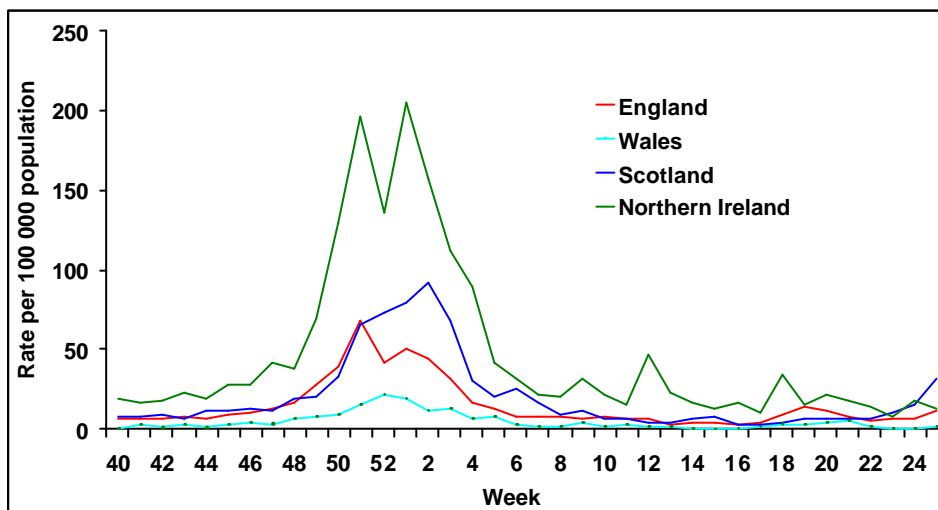


Figure 6: GP consultation rates for influenza/ILI in the UK 2008/09 season.



Enhanced Daily Syndromic Surveillance

NHS Direct/HPA Syndromic Surveillance System

NHS Direct has an existing algorithm for 'cold/flu' calls, in response to the current situation, a new algorithm to handle 'swine flu' calls was introduced. When both indices are added together, they show that the 'estimated total' proportion of cold/flu calls to NHS Direct peaked and decreased very quickly initially soon after the outbreak was declared. The estimated total proportion of cold/flu calls has increased rapidly again recently (figure 7) and on 22 and 23 June showed the highest proportion since 05 May. The West Midlands showed an increase in the proportion of 'cold/flu' calls and remains markedly higher than other SHAs (figure 8). Calls for fever in the 5-14 age group are approaching national influenza early warning thresholds, accounting for 7.6% of the calls in week 25/09 (threshold is 9%).

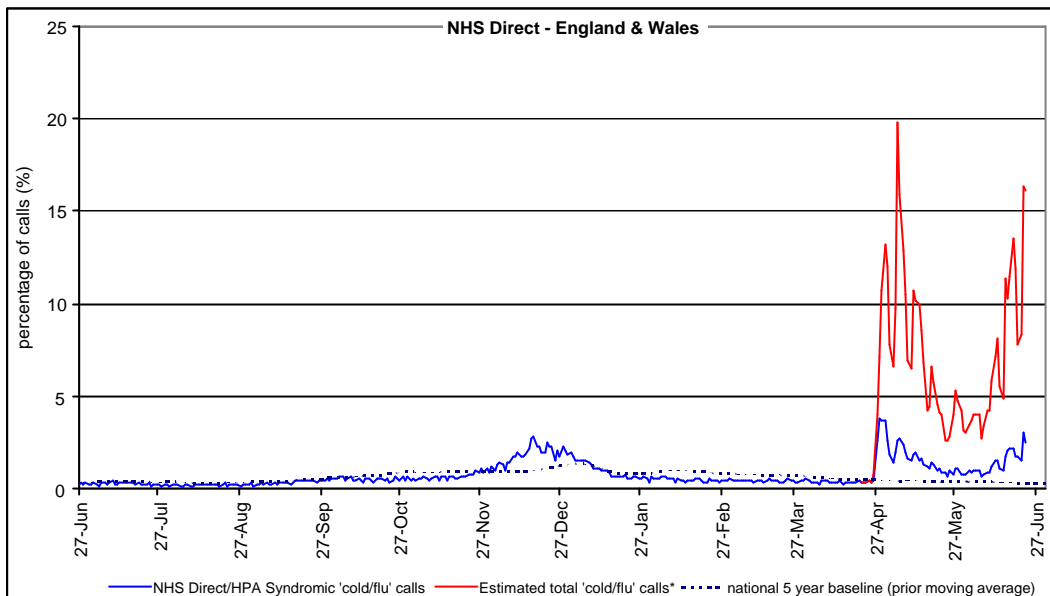
QSurveillance®

The daily GP ILI consultation rate on 22 June (3.5 per 100,000) was the highest since 05 May; on 23 June it decreased to 2.9 per 100,000. In the West Midlands the rate was 9.8 per 100,000 on 22 June and decreased to 7.9 per 100,000 on 23 June. Several West Midlands PCTs were significantly high on Mon 23 June - in particular Birmingham East & North, South Birmingham, Sandwell and Heart of Birmingham PCTs. There were also several London PCTs with rates significantly higher than the UK including Islington, Tower Hamlets and Enfield PCTs. The main impact of ILI nationally is in the 5-14 year age group (figure 9).

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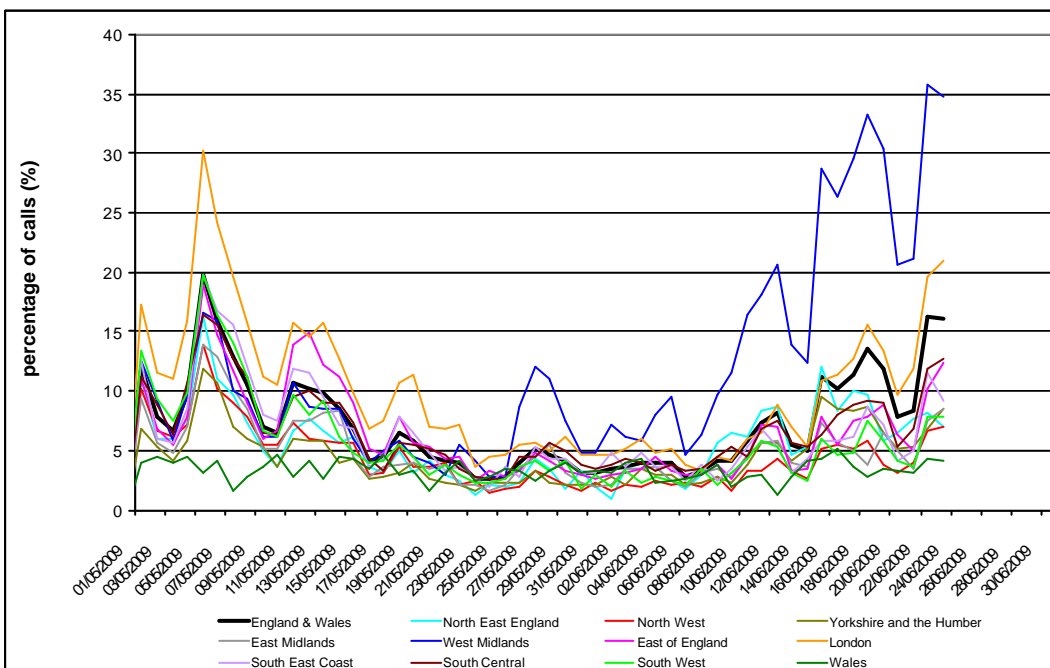
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Figure 7: Daily NHS Direct/HPA Syndromic Surveillance System cold/flu calls 20082009 and daily NHS Direct adjusted total 'cold/flu' calls*.



*Adjusted total 'cold/flu' calls calculated by adding NHS Direct/HPA Syndromic 'cold/flu' calls to NHS Direct 'swine flu' algorithm 'cold/flu' calls (and calculating percentage using all NHS Direct calls as the denominator).

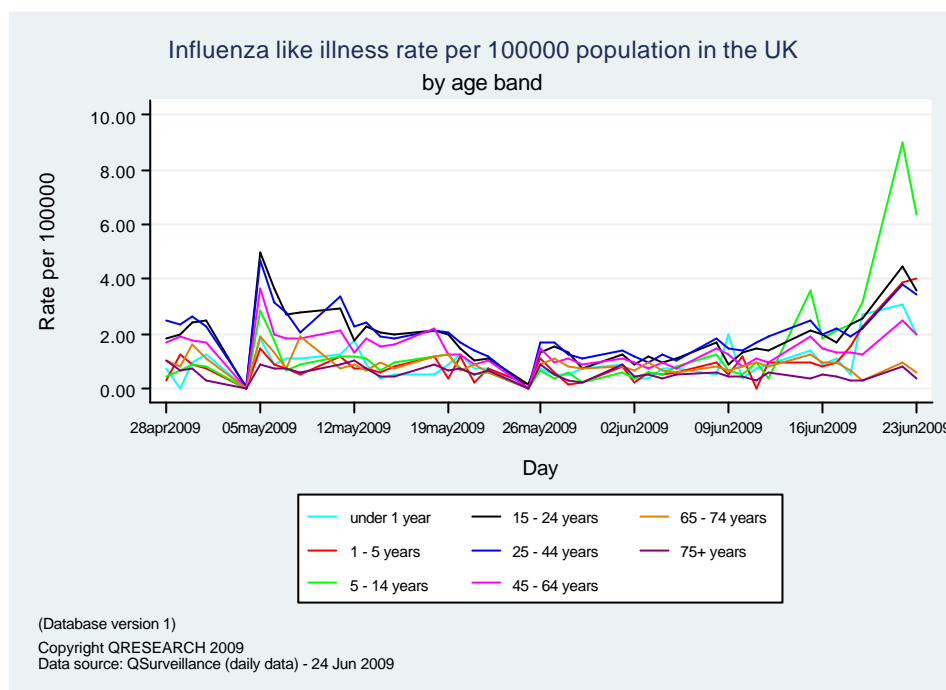
Figure 8: Daily NHS Direct/HPA Syndromic Surveillance System estimated total 'cold/flu' calls by SHA.*



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Figure 9: QSurveillance® – daily consultation rate for influenza like illness in UK by age band



Virological Data

In week 25/09 29 samples were positive for influenza A (H1N1v) at RVU, Cfl (table 3).

In week 25/09 forty-seven influenza A and two influenza B positive specimens were reported from other NHS and HPA laboratories. It should be noted that these detections are by PCR or isolation only and that the data is based on week of report.

Seventeen of the influenza A (H1N1v) isolates have been tested for susceptibility at RVU; all 17 were found to be sensitive to oseltamivir and zanamivir and resistant to amantadine.

Table 3: Samples positive for influenza (by PCR or isolation) reported by the RVU reference laboratory by subtype (week of report).

Week	A (H1)	A (H3)	B	A (H1N1v)
22	0	2	1	23
23	0	1	2	30
24	0	1	0	22
25	0	0	0	29

Enhanced Virological Surveillance

Three schemes for virological surveillance of influenza are being used; results up to 23 June from these schemes are shown in table 4:

- **RCGP/HPA** – A subset of GPs who contribute clinical data via the RCGP network take samples from patients with ILI. This scheme continued from the normal influenza season. Twenty-five specimens from the scheme have been positive for influenza A (H1N1v) (figure 10).
- **HPA/RMN** – A network of GPs across the country swab patients with ILI, this is a scheme which normally operates in the influenza season but was restarted in week 22 this year. One specimen has been positive for influenza.
- **NHS Direct/HPA** - Callers aged 16 or over to NHS Direct who are identified as 'cold/flu' enquirers and who reach a 'self-care' outcome, are offered the opportunity to participate in this scheme, if they agree a self-sampling kit is sent to them. This is a new scheme which started in week 23. Sixteen specimens (6 from London, 11 from the West Midlands) have been positive for influenza A (H1N1v).

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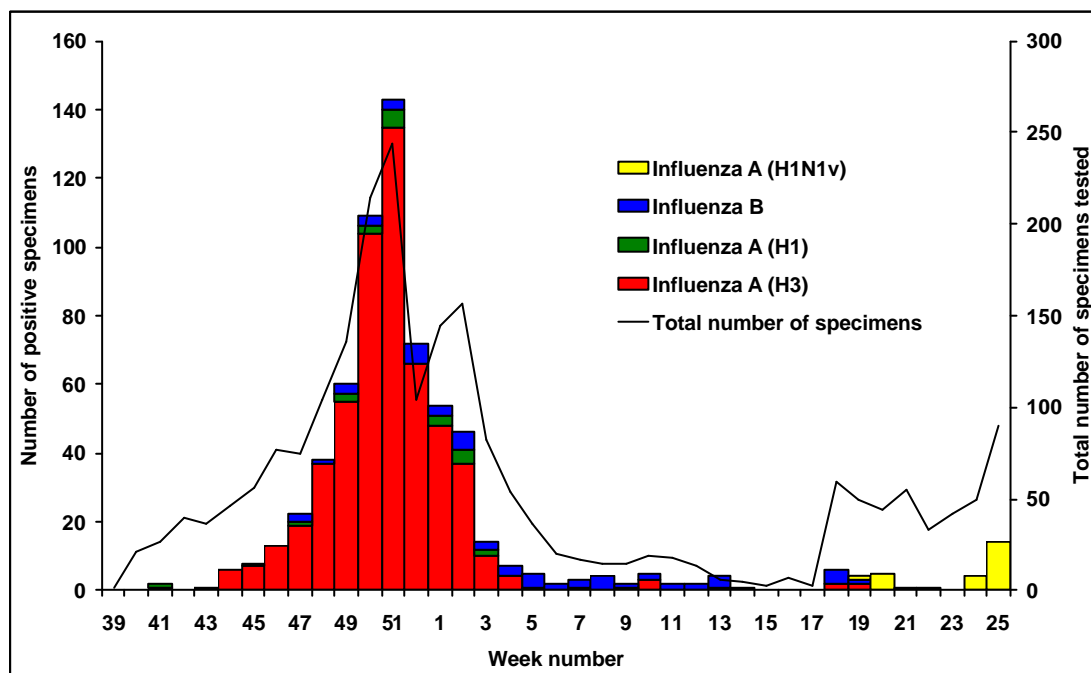
Table 4: Total number of samples tested and positive for influenza A (H1N1v) from three enhanced virological schemes (week of specimen).

Week*		Scheme							
Number	Ending (Sun)**	RCGP-HPA		HPA-RMN		NHSD-HPA		Total	
		H1N1v +ve	Total tested	H1N1v +ve	Total tested	H1N1v +ve	Total tested	H1N1v +ve (%)	Total tested
18-21	May-24	7	208	—	—	—	—	7	208
22	May-31	0	33	0	6	—	—	0	39
23	Jun-07	0	42	0	10	0	105	0	157
24	Jun-14	4	50	0	16	4	281	8	347
25	Jun-21	14	90	1	13	8	263	17	366
Total		25	423	1	45	16	729	32 (3%)	1117

* For current week results are given up to day of report

** Includes RCGP-HPA data from April 27 to May 23

Figure 10: Number of specimens positive for influenza from the RCGP virological surveillance scheme 2008/09 (week of specimen).



Mortality data from the Office of National Statistics

In week 24/09, an estimated 9364 all-cause deaths were registered, which is a slight increase from 9048 in week 23/09. It should be noted that these deaths are due to all causes and cannot be attributed to influenza. The number is in the expected range for this time of year and no excess deaths have been observed since week 05/09 in February.

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International Situation

World Health Organisation

<http://www.who.int/csr/disease/swineflu/en/index.html>

According to the World Health Organisation (WHO), by 07.00 GMT on 24 June, 55,867 cases of influenza A (H1N1v) had been reported globally with 238 deaths. Countries with greater than 1000 cases are shown in table 5.

Table 5: Countries with greater than 1000 confirmed cases of influenza A (H1N1v) according to latest WHO report.

Country	Number of Cases	Number of Deaths
United States of America	21449	87
Mexico	7847	115
Canada	6457	15
Chile	4315	4
United Kingdom	2905	1
Australia	2857	2
Argentina	1213	7

Europe

<http://www.ecdc.europa.eu/en/Health%5Ftopics/novel%5Finfluenza%5Fvirus/2009%5FOutbreak/>

As of 23 June 2009, 4459 cases of influenza A (H1N1v) had been reported from 28 European countries. One death from the novel virus has been reported from the UK. The countries with the highest number of confirmed cases are the UK, followed by Spain (539 cases), Germany (301 cases) and France (150 cases). Overall influenza activity remains low across Europe.

United States of America

<http://www.cdc.gov/h1n1flu/>

As of 19 June 2009 the USA had reported 21,449 confirmed and probable cases of influenza A (H1N1v). A total of 87 deaths due to the novel virus have been reported. Influenza A (H1N1v) activity is being detected through CDC's routine influenza surveillance systems. During week 23 (June 07-13, 2009), influenza activity decreased in the United States, however, there are still higher levels of influenza-like illness than is normal for this time of year.

Mexico

<http://portal.salud.gob.mx/contenidos/noticias/influenza/estadisticas.html>

As of 18 June 2009 Mexico had reported 7624 cases of influenza A (H1N1v) with 113 deaths (1.5%). The peak in the number of cases according to date of onset occurred in late April 2009. The majority of the confirmed cases were aged under 20 years (4471 cases or 59%), and 51% were women.

Canada

<http://www.phac-aspc.gc.ca/alert-alerte/swine-porcine/surveillance-eng.php>

As of 22 June 2009 Canada had reported 6457 cases of influenza A (H1N1v) from all provinces and territories. Four hundred and four hospitalisations and fifteen deaths due to the novel virus have been reported. During week 23 overall influenza activity increased, in particular for rates of visits to healthcare professionals for ILI consultations and proportion of tests positive for influenza

Australia

http://www.healthemergency.gov.au/internet/healthemergency/publishing.nsf/Content/health-swine_influenza-index.htm

The first cases of influenza A (H1N1v) was reported from Australia on 09 May, in a person returning from the USA. Since then the number of cases has increased rapidly, and as of 23 June 2009 2857 cases have been reported, with three deaths.