

# Influenza Surveillance in Ireland – Weekly Report

Influenza Week 4 2013(21<sup>st</sup> – 27<sup>th</sup> January 2013)



## Summary

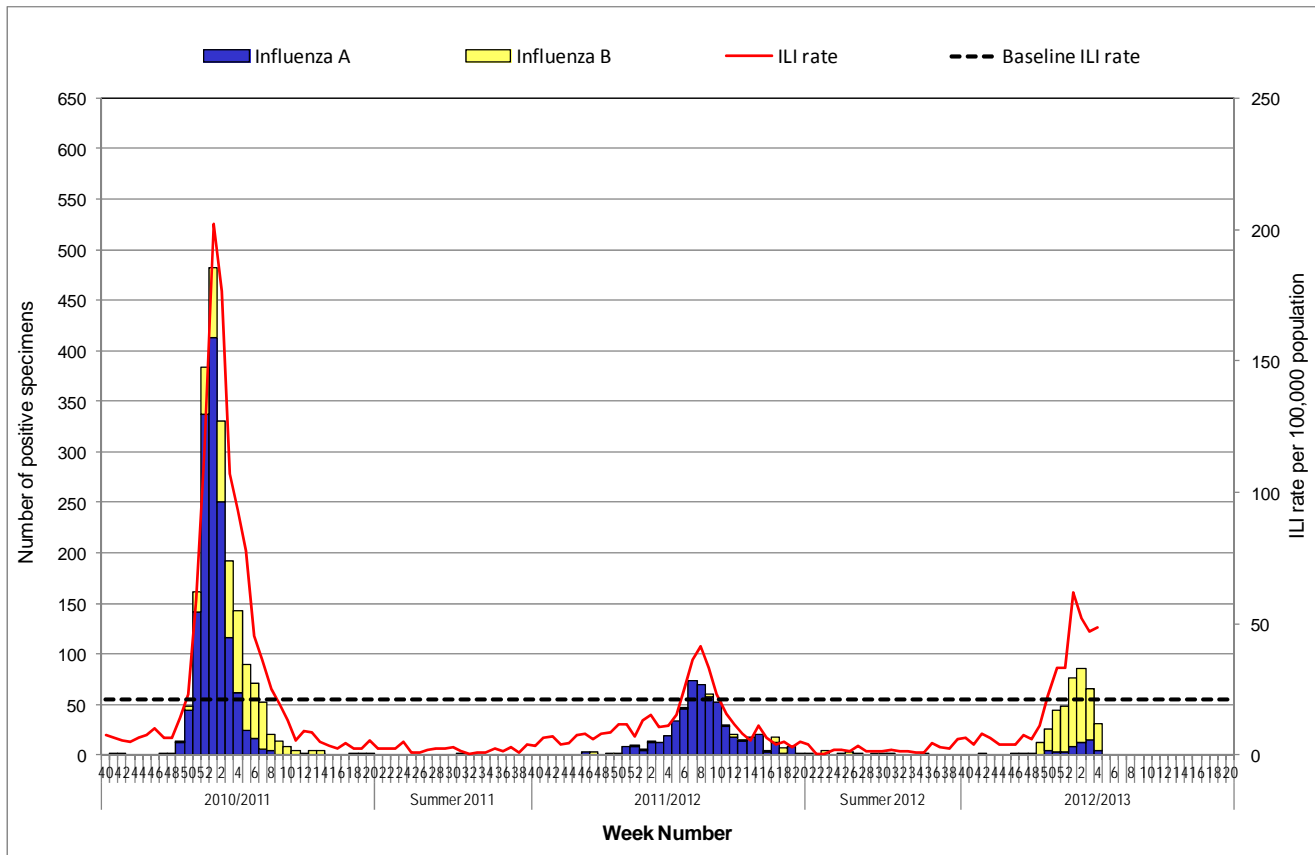
- **Influenza activity in Ireland remained stable during week 4 2013, compared to the previous week. Hospitalisations and outbreaks associated with influenza/influenza-like illness continue to be reported.**
  - The sentinel GP influenza-like illness (ILI) consultation rate was 48.5 per 100,000 population in week 4 2013, remaining unchanged compared to the updated rate of 47.2 per 100,000 during week 3 2013.
    - ◆ ILI rates are above the Irish baseline threshold (21.0 per 100,000 population)
    - ◆ ILI age specific rates increased significantly in the 5-14 year age group
- The proportion of influenza-related calls to GP Out-of-Hours services increased slightly during week 4 2013.
- Influenza positivity decreased to 12.9% during week 4 2013, compared to 22.2% during the previous week. Twenty-seven influenza B, three influenza A (H3) and one influenza A (unsubtyped) positive specimens were reported from the NVRL for week 4 2013.
- Influenza B remains the dominant circulating influenza virus to date this season, accounting for 86.6% of all influenza positive specimens detected by the NVRL this season. Influenza A and B positivity decreased during week 4 2013, compared to the previous week.
- Respiratory syncytial virus (RSV) positivity peaked during week 51 2012 and has decreased significantly since. RSV continues to circulate at low levels.
- Positivity levels for adenovirus, parainfluenza viruses and human metapneumovirus have remained at low levels this season.
- During week 4 2013, 20 confirmed influenza cases were reported as hospitalised, ten associated with influenza A and 10 with influenza B. To date this season, 86 confirmed influenza cases were reported as hospitalised, 77.9% were associated with influenza B.
- Nine adult and two paediatric confirmed influenza cases have been admitted to critical care to date this season. Of these 11 cases, eight were associated with influenza B, one with influenza A (H1)pdm09 and two with influenza A (unsubtyped). Thirty-two RSV\* paediatric cases were also admitted to critical care this season.
- There were no reports of any confirmed influenza-associated deaths occurring this season to date.
- One ILI outbreak in a school was reported to HPSC during week 4 2013.
- Influenza activity remained high and increasing in many European countries during week 3 2013, although transmission may have peaked in some countries, particularly in Western Europe.

\*The majority of these RSV admissions to critical care were admitted during November and December 2012.

## 1. GP sentinel surveillance system

### Clinical Data

During week 4 2013, 110 influenza-like illness (ILI) cases were reported from sentinel GPs, corresponding to an ILI consultation rate of 48.5 per 100,000 population, remaining unchanged compared to the updated rate of 47.2 per 100,000 in week 3 2013. Fifty-one of 60 (85.0%) sentinel general practices provided data during week 4 2013, with 34 practices (66.7%) reporting ILI cases. The ILI consultation rates for week 4 2013 remained above the Irish baseline threshold (21.0 per 100,000 population)<sup>†</sup>. Figure 1 shows the ILI consultation rates, the baseline threshold rate and the number of positive specimens detected by the NVRL.



**Figure 1. ILI sentinel GP consultation rates per 100,000 population, baseline ILI threshold rate, and number of positive influenza A and B specimens tested by the NVRL, by influenza week and season.**

Source: Clinical ILI data from ICGPand virological data from the NVRL<sup>‡</sup>

ILI age specific rates were highest in the 5-14 year age group during week 4 2013, reaching 101.4 per 100,000 population, the highest age specific rate in any age group this season. During week 4 2013, three ILI cases were reported in the 0-4 year age group (17.2 per 100,000), 31 ILI cases were reported in the 5-14 year age group (101.4 per 100,000), 71 cases in the 15-64 year age group (47.1 per 100,000) and 5 ILI cases were reported in those aged 65 years and older (19.0 per 100,000) (figure 2).

<sup>†</sup> HPSIC in consultation with the European Centre for Disease Prevention and Control (ECDC) have revised the Irish baseline threshold for the 2012/2013 influenza season to 21.0 per 100,000 population.

<sup>‡</sup> Sentinel GP consultations and virological data are updated on an ongoing basis, ILI rates and virological data are adjusted accordingly.

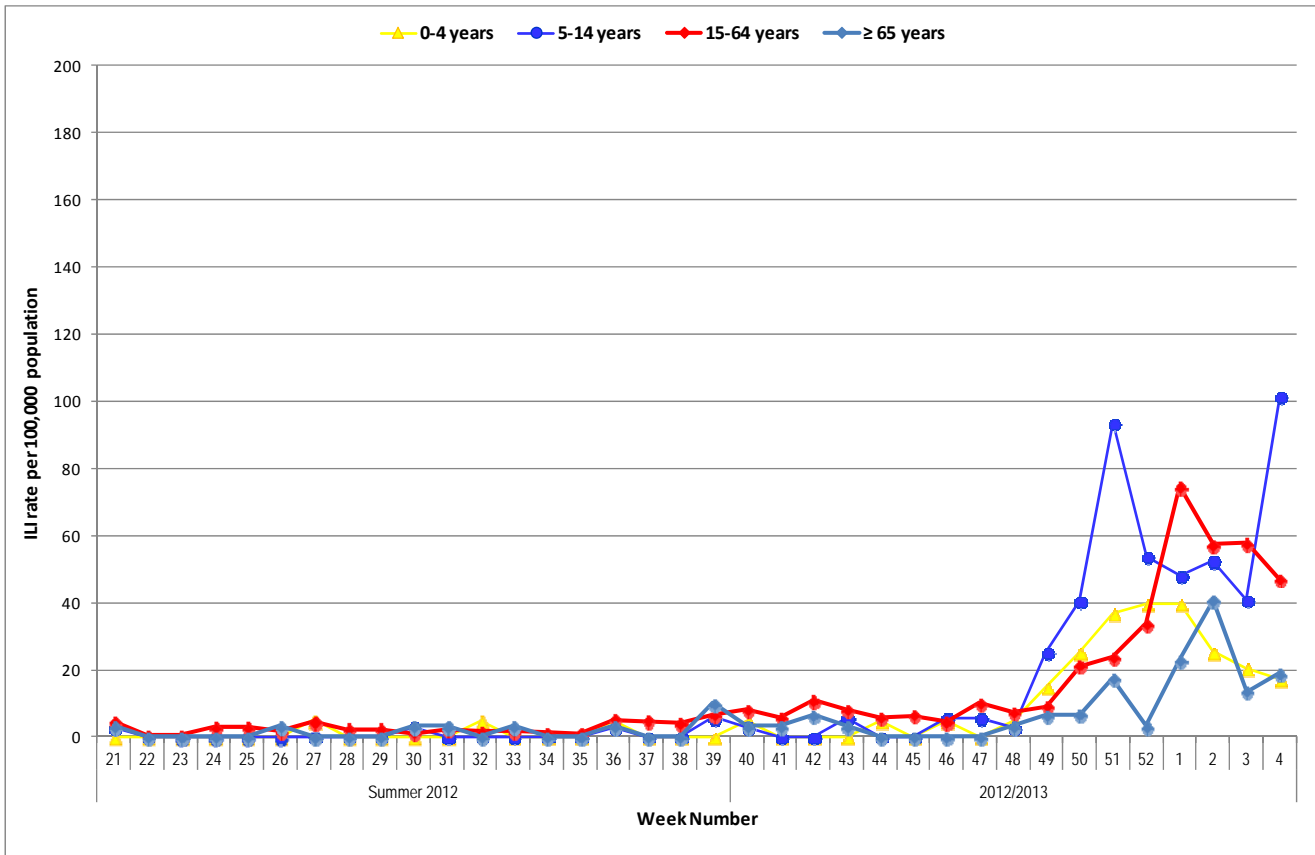


Figure 2: Age specific sentinel GP ILI consultation rate per 100,000 population by week during the summer of 2012 and the 2012/2013 influenza season to date. Source: ICGP ILI clinical data

## 2. Influenza and Other Respiratory Virus Detections - National Virus Reference Laboratory

The data reported in this section for the 2012/2013 influenza season refers to specimens tested by the National Virus Reference Laboratory (NVRL). The NVRL are now testing all sentinel and non-sentinel specimens for a panel of respiratory viruses: influenza A and B, respiratory syncytial virus (RSV), adenovirus, parainfluenza viruses types 1, 2, and 3 (PIV-1, -2 & -3) and human metapneumovirus.

During week 4 2013, a total of 241 specimens (37 sentinel and 204 non-sentinel<sup>§</sup> specimens) were tested by the NVRL. Thirty-one (31/241; 12.9%) sentinel and non-sentinel specimens tested positive for influenza virus during week 4 2013: 3 A(H3), 1 A(unsubtyped) and 27 B. Eighteen (18/37; 48.6%) sentinel specimens tested positive for influenza virus during week 4 2013: 2 A(H3) and 16 B. Thirteen (13/204; 6.4%) non-sentinel specimens tested positive for influenza virus during week 4 2013: 1 A(H3), 1 A(unsubtyped) and 11 B (tables 1 & 2).

Influenza B remains the dominant influenza virus circulating this season. Eighty-seven percent (342/395) of all influenza positive sentinel and non-sentinel specimens detected by the NVRL this season were influenza B. Influenza A positivity decreased during week 4 2013, following slight increases during weeks 1, 2 and 3 2013 (figures 3 & 4).

<sup>§</sup>Please note that non-sentinel specimens relate to specimens referred to the NVRL (other than sentinel specimens) and may include more than one specimen from each case.

### Influenza Virus Characterisation

The National Virus Reference Laboratory (NVRL) has genetically characterised seven influenza B viruses this season to date. Of these seven influenza B viruses, six were similar to the B/Yamagata lineage which is included in the 2012/2013 influenza vaccine and one was similar to the B/Victoria lineage which is not included in the vaccine. As part of the WHO Global influenza surveillance programme, a proportion of influenza viruses are submitted to the WHO Collaborating Centre for Reference and Research on Influenza (Mill Hill, London) for characterisation of influenza strains. These viruses have been submitted for further antigenic characterisation and confirmatory testing.

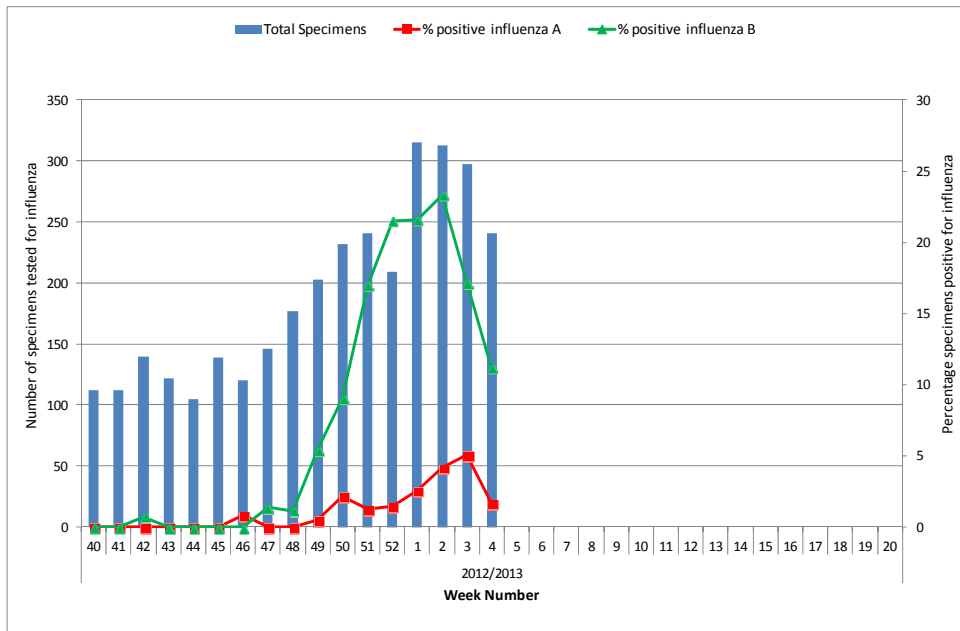


Figure 3: Number of sentinel and non-sentinel specimens tested for influenza and percentage influenza positive by week for the 2012/2013 influenza season. Source: NVRL

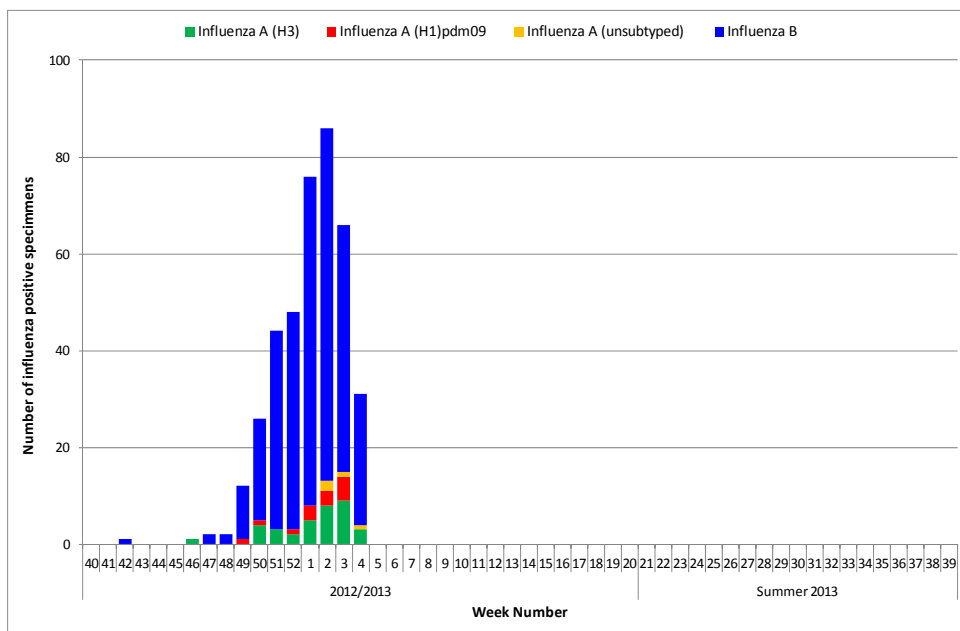


Figure 4: Number of positive influenza specimens by influenza type/subtype from sentinel and non-sentinel sources tested by the NVRL, by week for the 2012/2013 influenza season. Source: NVRL

## Respiratory Syncytial Virus (RSV)

Respiratory syncytial virus (RSV) positivity reported from the NVRL (non-sentinel sources) decreased to 7.8% (16/204) during week 4 2013, compared to 16.3% during week 3 2013. RSV positivity peaked at 36.9% during week 51 2012 (figure 5). Sporadic cases of RSV have been detected this season from sentinel GP sources (table 2).

RSV was made notifiable in Ireland on 1<sup>st</sup> January 2012. During week 4 2013, 68 laboratory notifications of RSV were reported on Ireland's Computerised Infectious Disease Reporting System (CIDR). Laboratory notifications of RSV are reported in more detail in the [Weekly Infectious Disease Report for Ireland](#).

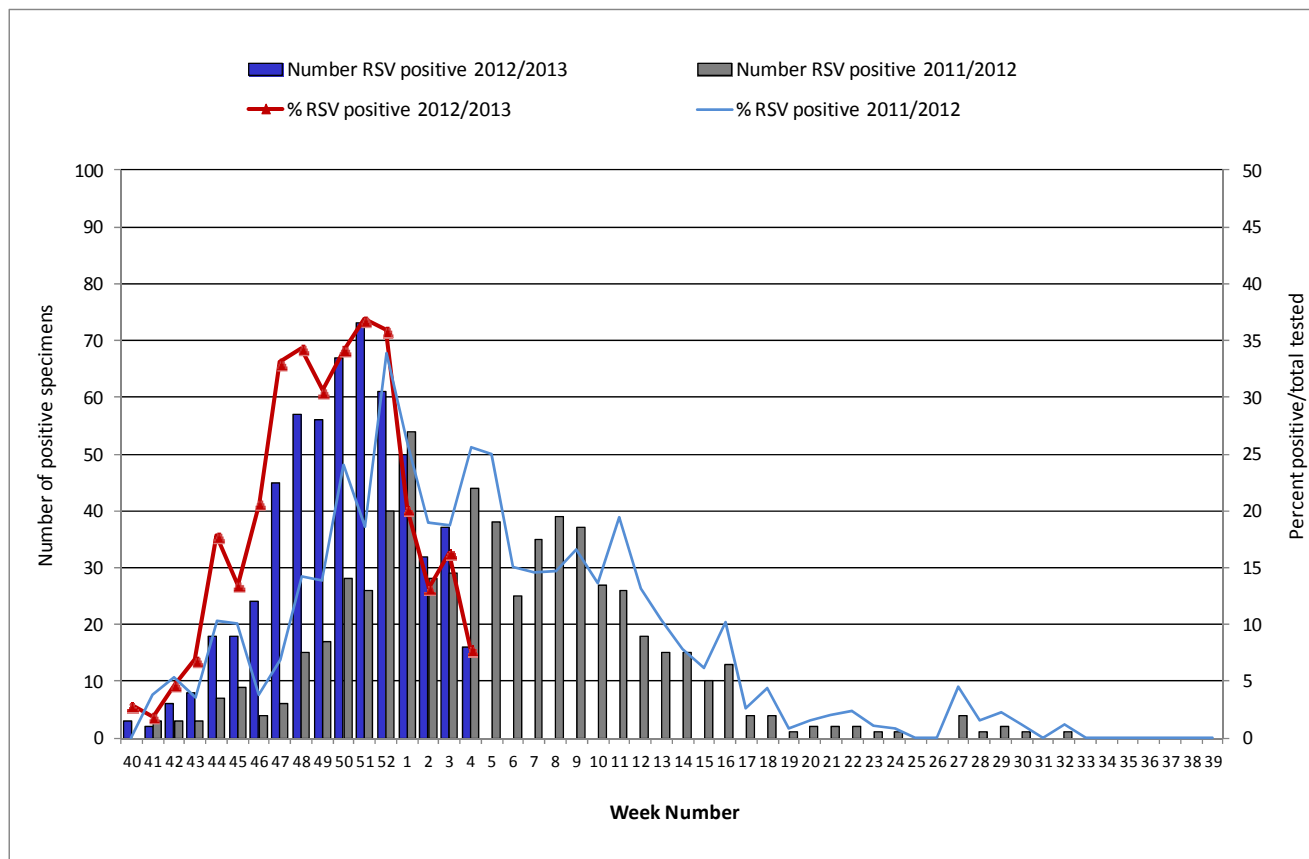


Figure 5: Number and percentage of non-sentinel RSV positive specimens detected by the NVRL during the 2012/2013 season, compared to the 2011/2012 season. Source: NVRL

## Other Respiratory Viruses

Five adenovirus, two parainfluenza virus (PIV) type 3 and two human metapneumovirus (hMPV) positive specimens were reported from the NVRL from non-sentinel sources during week 4 2013. One adenovirus and one hMPV positive detections were also reported from the NVRL from sentinel GP sources during week 4 2013 (table 2). Positivity levels for adenovirus, hMPV and parainfluenza viruses have remained at low levels this season.

**Table 1: Number of sentinel and non-sentinel\*\* respiratory specimens tested by the NVRL and positive influenza results, for week 4 2013 and the 2012/2013 season to date. Source: NVRL**

| Week             | Specimen type | Total tested | Number influenza positive | % Influenza positive | Influenza A |           |                |                   | Influenza B |
|------------------|---------------|--------------|---------------------------|----------------------|-------------|-----------|----------------|-------------------|-------------|
|                  |               |              |                           |                      | A (H1)pdm09 | A (H3)    | A (unsubtyped) | Total influenza A |             |
| <b>4 2013</b>    | Sentinel      | 37           | 18                        | 48.6                 | 0           | 2         | 0              | 2                 | 16          |
|                  | Non-sentinel  | 204          | 13                        | 6.4                  | 0           | 1         | 1              | 2                 | 11          |
|                  | <b>Total</b>  | <b>241</b>   | <b>31</b>                 | <b>12.9</b>          | <b>0</b>    | <b>3</b>  | <b>1</b>       | <b>4</b>          | <b>27</b>   |
| <b>2012/2013</b> | Sentinel      | 451          | 231                       | 51.2                 | 9           | 19        | 1              | 29                | 202         |
|                  | Non-sentinel  | 2773         | 164                       | 5.9                  | 5           | 16        | 3              | 24                | 140         |
|                  | <b>Total</b>  | <b>3224</b>  | <b>395</b>                | <b>12.3</b>          | <b>14</b>   | <b>35</b> | <b>4</b>       | <b>53</b>         | <b>342</b>  |

**Table 2: Number of sentinel and non-sentinel specimens tested by the NVRL for other respiratory viruses and positive results, for week 4 2013 and the 2012/2013 season to date. Source: NVRL**

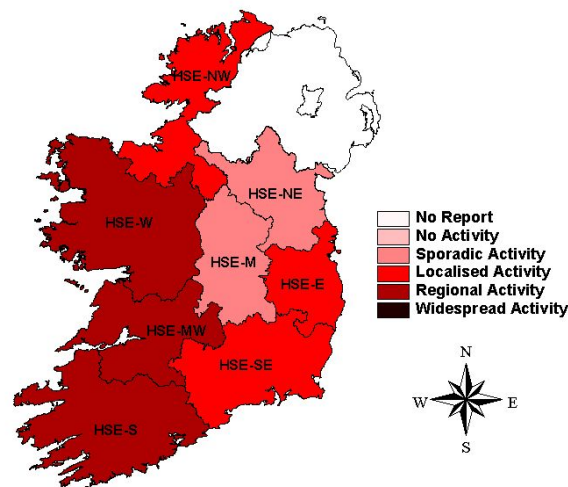
| Week             | Specimen type | Total tested | RSV        | % RSV       | Adenovirus | % Adenovirus | PIV-1    | % PIV-1    | PIV-2    | % PIV-2    | PIV-3     | % PIV-3    | hMPV      | % hMPV     |
|------------------|---------------|--------------|------------|-------------|------------|--------------|----------|------------|----------|------------|-----------|------------|-----------|------------|
| <b>4 2013</b>    | Sentinel      | 37           | 1          | 2.7         | 1          | 2.7          | 0        | 0.0        | 0        | 0.0        | 0         | 0.0        | 1         | 2.7        |
|                  | Non-sentinel  | 204          | 16         | 7.8         | 5          | 2.5          | 0        | 0.0        | 0        | 0.0        | 2         | 1.0        | 2         | 1.0        |
|                  | <b>Total</b>  | <b>241</b>   | <b>17</b>  | <b>7.1</b>  | <b>6</b>   | <b>2.5</b>   | <b>0</b> | <b>0.0</b> | <b>0</b> | <b>0.0</b> | <b>2</b>  | <b>0.8</b> | <b>3</b>  | <b>1.2</b> |
| <b>2012/2013</b> | Sentinel      | 451          | 13         | 2.9         | 14         | 3.1          | 1        | 0.2        | 0        | 0.0        | 1         | 0.2        | 6         | 1.3        |
|                  | Non-sentinel  | 2773         | 573        | 20.7        | 40         | 1.4          | 2        | 0.1        | 2        | 0.1        | 31        | 1.1        | 53        | 1.9        |
|                  | <b>Total</b>  | <b>3224</b>  | <b>586</b> | <b>18.2</b> | <b>54</b>  | <b>1.7</b>   | <b>3</b> | <b>0.1</b> | <b>2</b> | <b>0.1</b> | <b>32</b> | <b>1.0</b> | <b>59</b> | <b>1.8</b> |

\*\* Please note that non-sentinel specimens relate to specimens referred to the NVRL (other than sentinel specimens) and may include more than one specimen from each case.

### 3. Regional Influenza Activity by HSE-Area

Influenza activity is reported on a weekly basis for each HSE area. Influenza activity is based on sentinel GP ILI consultation rates, laboratory confirmed influenza cases and ILI/influenza outbreaks.

Regional influenza activity was reported from HSE-MW, -S and -W, localised influenza activity was reported from HSE-E, -NW and -SE and sporadic influenza activity was reported from HSE-M and -NE during week 4 2013 (figure 6).

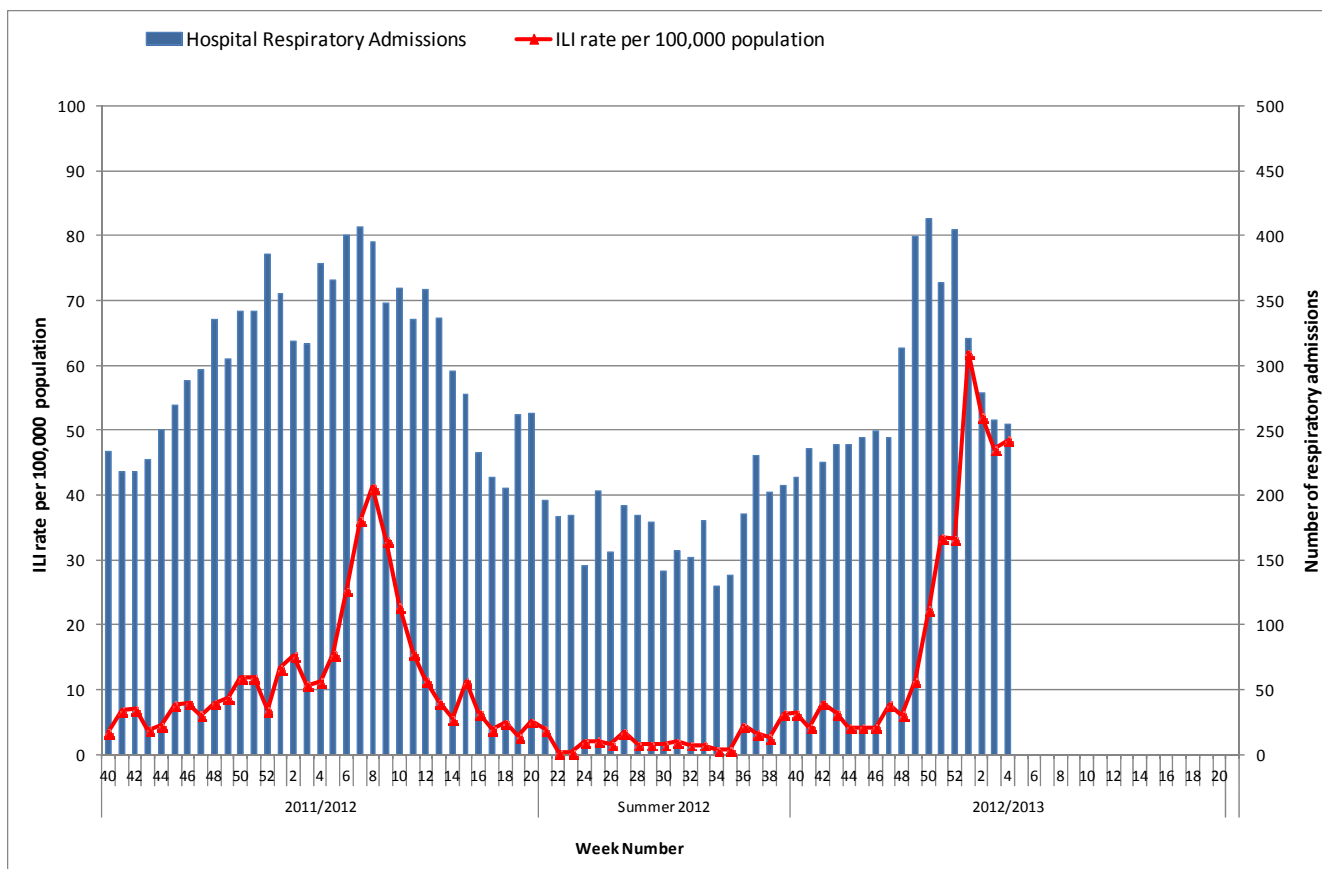


**Figure 6: Map of provisional influenza activity by HSE-Area during week 4 2013**

#### Sentinel hospitals

The Departments of Public Health have established at least one sentinel hospital in each HSE-Area, to report data on total hospital admissions, total emergency admissions and total respiratory admissions by age group on a weekly basis. Hospital admissions data act as a crude indicator for influenza activity.

Overall, the total number of respiratory admissions reported from sentinel hospitals was 255 during week 4 2013, remaining stable compared to 258 during week 3 2013. It should be noted that data for week 4 2013 were incomplete. To date this season, hospital respiratory admissions peaked at 413 during week 50 2012 (figure 7).



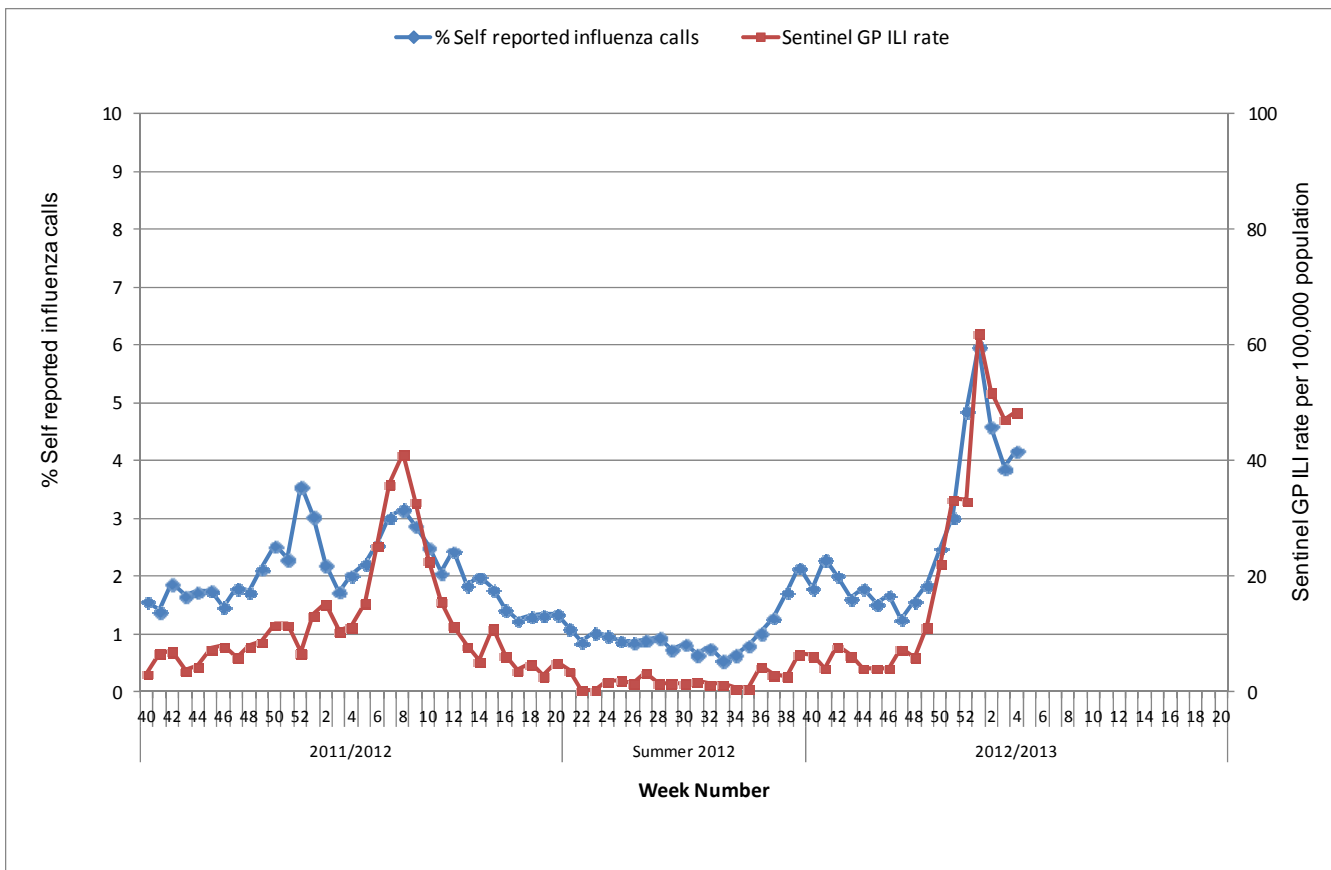
**Figure 7: Number of respiratory admissions reported from sentinel hospitals and national sentinel GP ILI consultation rate per 100,000 population by week for the 2011/2012 season, summer 2012 and the 2012/2013 season to date.**  
 Source: Departments of Public Health - Sentinel Hospitals & ICGP.

#### 4. GP Out-Of-Hours services surveillance

The Department of Public Health in HSE-NE is collating national data on calls to nine of thirteen GP Out-of-Hours services in Ireland. Clinical details from all calls are recorded. Records with clinical symptoms reported as flu or influenza are extracted for analysis. This information may act as an early indicator of increased ILI activity. However, data are self-reported by callers and are not based on coded influenza diagnoses.

The proportion of influenza-related calls to GP Out-of-Hours services during week 4 2013 increased slightly to 4.2%, compared to 3.9% in the previous week. Six GP Out-of-Hours services reported during week 4 2013. To date this season, the proportion of influenza-related calls to GP Out-of-Hours services peaked at 6.0% during week 1 2013 (figure 8).





**Figure8: Self-reported influenza-related calls as a proportion of total calls to Out-of-Hours GP Co-ops and national sentinel GP ILI consultation rate per 100,000 population by week for the 2011/2012 and 2012/2013 seasons**

Source: GP Out-Of-Hours services in Ireland (collated by HSE-NE) & ICGP.

## 5. Influenza notifications and hospitalisation status

Laboratory confirmed influenza cases notified on Ireland’s Computerised Infectious Disease Reporting System (CIDR) include all positive influenza specimens reported from all laboratories testing for influenza and reporting to CIDR. Currently, the NVRL is the only laboratory subtyping positive influenza A specimens for *all* influenza A subtypes.

Sixty-four laboratory confirmed influenza cases were notified during week 4 2013, 18 influenza A (8 A(H3), 5 A(H1)pdm09 & 5 A(unsubtyped)) and 46 influenza B. The number of confirmed influenza cases reported as hospitalised during week 4 2013 was 20, compared to 21 during week 3 2013. Of the 20 cases reported as hospitalised during week 4 2013, 10 were associated with influenza A (6 A(H3), 2 A(H1)pdm09, 2 A(unsubtyped)) and 10 were associated with influenza B. To date this season, 86 confirmed influenza cases (67 influenza B, 10 influenza A (H3), 5 A (H1)pdm09 and 4 influenza A (unsubtyped)) have been reported as hospitalised, 77.9% of these cases were associated with influenza B.

## 6. Critical care surveillance

The Intensive Care Society of Ireland (ICSI) are continuing with the enhanced surveillance system set up during the 2009 pandemic, on all critical care patients with confirmed influenza. A study on severe acute respiratory infections (SARI) in critical care at two pilot ICU sites which commenced during the 2011/2012 season will continue during the 2012/2013 season. HPSC process and report on this information on behalf of the regional Directors of Public Health/Medical Officers of Health and ICSI.

To date this season, nine adult and two paediatric confirmed influenza cases have been admitted to critical care and reported to HPSC, eight were associated with influenza B, one with influenza A (H1)pdm09, and two influenza A (unsubtyped). Thirty-two RSV paediatric cases were also admitted to critical care this season. The majority (90.6%) of these RSV admissions to critical care were admitted during November and December 2012.

## 7. Mortality surveillance

There were no reports of any confirmed influenza-associated deaths occurring during week 4 2013 or for the 2012/2013 season to date. Influenza-associated deaths include all deaths where influenza is reported as the primary/main cause of death by the physician or if influenza is listed anywhere on the death certificate as the cause of death.

HPSC receives daily mortality data from the General Register Office (GRO) on all deaths from all causes registered in Ireland. These data have been used to monitor excess all-cause and influenza and pneumonia deaths as part of the influenza surveillance system and the European Mortality Monitoring Project (Euro MoMo). During week 4 2013, no excess all-cause mortality was reported in Ireland after correcting GRO data for reporting delays with the standardised EuroMOMO algorithm. However, during week 52 2012, excess all-cause mortality in those aged 65 years and older and excess mortality due to influenza and pneumonia were reported. These data are provisional due to the time delay in deaths' registration in Ireland. <http://www.euromomo.eu/>

## 8. Outbreak surveillance

One acute respiratory outbreak (an ILI outbreak) in a primary school in HSE-W, was reported to HPSC during week 4 2013. To date this influenza season, 13 acute respiratory outbreaks have been reported to HPSC, six with influenza B, one influenza A (H3), one associated with RSV, one hMPV and four associated with unidentified pathogens (two of which were not associated with influenza). The majority of these outbreaks have been associated with residential care facilities/long stay units for the elderly. It should be noted that family outbreaks are not recorded in this report.

## 9. International summary

### United Kingdom

Indicators of influenza activity across England decreased during week 3 2013, compared to the previous week; however hospitalisations continued to be reported. In week 3 2013, the weekly primary care ILI consultation rate decreased in England (13.6 per 100,000), Northern Ireland (53.7 per 100,000), Scotland (33.8 per 100,000) and Wales (11.2 per 100,000). The weekly proportion of NHS Direct calls for colds/influenza remained stable below the influenza threshold of 1.6%. The weekly proportion of calls for fever (in 5-14 year olds) increased slightly but remained below the influenza threshold of 11.7%. Three acute respiratory disease outbreaks were reported during week 3 2013 (two in primary schools and one in a hospital). One had a virological result available (influenza A(H3)). Ninety (12.7%) of the 709 respiratory specimens reported to DataMart (England) tested positive for influenza in week 3 (48 B, 16 A(H3), 6 A(H1N1)pdm09, and 20 A subtype not known). The proportion of samples positive in DataMart (England) increased for rhinovirus and remained stable for RSV, hMPV, adenovirus and parainfluenza. Seven influenza positive detections were recorded through the two English GP-based sentinel schemes in week 3 (5 B, 1 A(H3) and 1 A(H1N1)pdm09), giving a positivity of 44%. Fifty new admissions to ICU/HDU with confirmed influenza (28 B, 13 A(subtype not known), five A(H1N1)pdm09 and four A(H3N2) were reported across the UK in week 3. Fifty-seven new hospitalised confirmed influenza cases were reported across England during this period. In week 3 2013, excess all-cause mortality was reported in those aged 65 years or older in England and no excess was reported in Scotland, Wales and Northern Ireland. Since week 40 2012, the HPA Respiratory Virus Unit has isolated and antigenically characterised forty-nine influenza A(H3N2) viruses, all similar to the A/Victoria/361/2011 vaccine strain, and five influenza A(H1N1)pdm09 viruses similar to the A/California/07/2009 vaccine strain. Of 72 influenza B

viruses isolated, sixty-five (90%) belong to the B-Yamagata lineage, and are antigenically related to the influenza B vaccine strain, B/Wisconsin/1/2010, and seven (10%) to the B-Victoria lineage.

### Europe

Influenza activity remained high and increasing in many European countries during week 3 2013, although transmission may have peaked in some countries, mostly in Western Europe. Notable transmission of influenza began in Europe during week 49 2012, about six weeks earlier than during the 2011/2012 influenza season. During week 3 2013, 13 countries and the UK (Northern Ireland) reported medium intensity of influenza activity and Iceland reported high intensity. Seventeen countries reported increasing transmission, compared to 19 countries in week 2 2013. Five countries, mostly in Western Europe, reported decreasing trends, compared to only two countries in week 2 2013. Since week 40 2012, 48% of influenza-positive sentinel specimens were influenza A, and 52% were influenza B. Of 1253 influenza A viruses subtyped, 58% were A(H1)pdm09 and 42% were A(H3). Of 269 influenza B viruses with known lineage, 86% were B/Yamagata and 14% were B/Victoria. The latter lineage is not included in the 2012/2013 vaccine. Since week 40 2012, 465 hospitalised laboratory-confirmed influenza cases have been reported, of which 19 had a fatal outcome. Of the 994 antigenic characterisations of influenza viruses reported for sentinel and non-sentinel specimens since week 40 2012, 620 (62%) have been characterised as A(H3)/Victoria/361/2011-like. Influenza A(H1N1)pdm09 viruses have continued to show genetic drift from the vaccine virus, A/California/07/2009, but the vast majority have remained antigenically similar. Generally, the viruses circulating this season remain well-matched with the recommended 2012/2013 seasonal vaccine viruses.

### United States of America

During week 3 2013, influenza activity remained elevated in the United States, but decreased in some areas. The proportion of outpatient ILI visits was 4.3%; this is above the national baseline of 2.2%. Of 11,984 specimens tested and reported by collaborating laboratories, 3,129 (26.1%) were positive for influenza: 1579 A(H3), 57 A(H1N1)pdm09, 879 A(unsubtyped) and 614 B. A cumulative rate for the season of 22.2 laboratory-confirmed influenza-associated hospitalisations per 100,000 population was reported. Of all hospitalisations, 50% were among adults 65 years and older. The proportion of deaths attributed to pneumonia and influenza was above the epidemic threshold. Eight influenza-associated paediatric deaths were reported. CDC has antigenically characterised 751 influenza viruses to date this season: 54 (100%) influenza A(H1N1)pdm09 viruses were similar to the vaccine strain A/California/7/2009-like, 463 (99.6%) (H3N2) viruses were similar to the vaccine strain A/Victoria/361/2011-like, 160 (69.0%) influenza B viruses were similar to the vaccine strain B/Wisconsin/1/2010-like and 72 (31.0%) influenza B viruses were similar to the B/Victoria lineage of viruses.

### Canada

The percentage of positive laboratory tests for influenza declined in week 3 2013, for the third consecutive week. Influenza A(H3N2) continued to be the predominant strain in Canada. Many regions across Canada continued to report widespread and localised influenza activity and 118 new influenza outbreaks were reported. The ILI consultation rate decreased but continued to be above the expected range for this time of year, possibly due in part to the circulation of both influenza and RSV in many regions. Similar to previous years, older adults (persons aged  $\geq 65$  years) are the most affected this season; with 49.4% of laboratory detections to date, 67.6% of adult hospitalisations reported, outbreaks in long-term care facilities, and a high proportion of antiviral prescriptions. During the 2012/2013 season, all 201 influenza A(H3N2) viruses tested were antigenically similar to the vaccine strain A/Victoria/361/2011 and all 37 A(H1N1)pdm09 viruses tested were antigenically similar to the vaccine strain A/California/07/09. Among the influenza B viruses, 37 were antigenically similar to the vaccine strain B/Wisconsin/01/2010 (Yamagata lineage) and 10 were similar to B/Brisbane/60/2008 (Victoria lineage; component of the 2011/2012 seasonal influenza vaccine).

### Worldwide

The WHO Global Influenza Programme monitors influenza activity worldwide and publishes an update every two weeks. The most recent update of 18<sup>th</sup> January 2013 stated that influenza activity in North America

remained high with some indications that activity might have peaked in areas. Some but not all indicators of severity in the United States of America and Canada have been slightly higher than in recent seasons. The onset of the 2012/2013 season was earlier than usual and coincided with the circulation of other respiratory viruses. Influenza A(H3N2) predominates in North America, with A(H1N1)pdm09 being uncommon. Many countries in Europe and temperate Asia are reporting increasing influenza activity with A(H1N1)pdm09. Some countries in the Eastern Mediterranean and North Africa have reported declining detections of influenza, with A(H1N1)pdm09 predominance. In tropical Asia, influenza activity was similar to previous weeks, with persistent low-level circulation. Influenza activity in sub-Saharan Africa has declined in most countries. In the Caribbean, central America and tropical south America, influenza activity decreased to low levels, except for Bolivia, where there was increasing circulation of influenza A(H3N2). Influenza in countries of the southern hemisphere are currently at inter-seasonal levels.

## Human Avian Influenza and Novel Coronavirus Updates

### Human Avian Influenza

WHO report monthly risk assessments on influenza at the human-animal interface (HAI). The latest summary on 16<sup>th</sup> January 2013, stated that 610 laboratory-confirmed human cases with avian influenza A(H5N1) virus infection have been officially reported to WHO between 2003 and 16<sup>th</sup> January 2013 from 15 countries, of which 360 died.

### Novel Coronavirus

Information from WHO on novel coronaviruses can be found here: <http://www.euro.who.int/en/what-we-do/health-topics/communicable-diseases/influenza/coronavirus-infections>

## 2012/2013 seasonal influenza vaccine recommendations – WHO

The WHO vaccine strain selection committee recommended that vaccines for use in the 2012/2013 influenza season (northern hemisphere winter) contain the following:

- an A/California/7/2009 (H1N1)pdm09-like virus;
- an A/Victoria/361/2011 (H3N2)-like virus;
- a B/Wisconsin/1/2010-like virus.

## Surveillance Systems

In order to monitor influenza activity in Ireland a number of surveillance systems are currently in place:

1. Irish College of General Practitioners (ICGP) GP sentinel surveillance system
2. Virological data from the National Virus Reference Laboratory (NVRL)
3. GP Out-of-Hours surveillance system
4. Influenza notifications reported on the Computerised Infectious Disease Reporting system (CIDR)
5. Enhanced surveillance of all hospitalised confirmed influenza cases aged 0-14 years
6. Intensive Care Society of Ireland (ICSI) enhanced surveillance of all critical care patients with confirmed influenza and enhanced surveillance of all severe acute respiratory infections (SARI) in two pilot ICU sites.
7. Outbreak reporting on CIDR
8. Network of sentinel hospitals reporting admission data

## Further information on influenza in Ireland and internationally

|                  |   |
|------------------|---|
| Ireland          | <a href="http://www.hpsc.ie">www.hpsc.ie</a>                          |
| Northern Ireland | <a href="http://www.fluawareni.info/">http://www.fluawareni.info/</a> |
| Europe – ECDC    | <a href="http://ecdc.europa.eu/">http://ecdc.europa.eu/</a>           |

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