

Influenza Surveillance in Ireland – Weekly Report

Influenza Week 40 2015 (28th September – 4th October 2015)



Summary

This is the first influenza surveillance report of the 2015/2016 influenza season. All indicators of influenza activity in Ireland were at low levels during week 40 2015 (week ending 4th October 2015).

- **Influenza-like illness (ILI):** The sentinel GP influenza-like illness (ILI) consultation rate was 4.0 per 100,000 population in week 40 2015, remaining low, and stable compared to the rate of 4.2 per 100,000 reported during week 39 2015.
 - ILI rates remain below the Irish baseline threshold (17.9 per 100,000 population)
 - ILI rates remain at low levels in all age groups
- **GP Out of Hours:** The proportion of influenza-related calls to GP Out-of-Hours services was at low levels during week 40 2015.
- **National Virus Reference Laboratory (NVRL):**
 - One confirmed influenza A(H1N1)pdm09 positive specimen was reported by the NVRL from sentinel GP sources during week 40 2015. This is the first influenza positive specimen reported from sentinel GP sources for the 2015/2016 influenza season.
 - Two confirmed influenza positive specimens were reported from non-sentinel sources during week 40 2015: 1 A(H3) and 1 B.
 - Respiratory syncytial virus (RSV) positivity was at low levels during week 40 2015.
 - Sporadic detections of parainfluenza virus type 1 (PIV-1) and human metapneumovirus (hMPV) were reported during week 40 2015.
- **Respiratory admissions:** Respiratory admissions reported from a network of sentinel hospitals were at low levels.
- **Hospitalisations:** No confirmed influenza hospitalised cases were notified to HPSC during the week ending 4th October 2015.
- **Critical care admissions:** No confirmed influenza cases were admitted to critical care units and reported to HPSC during the week ending 4th October 2015.
- **Mortality:** There were no reports of any influenza-associated deaths during week 40 2015.
- **Outbreaks:** No acute respiratory outbreaks were reported to HPSC during the week ending 4th October 2015.
- **International:** In Europe, low influenza activity was reported throughout the summer period. As of October 5th 2015, globally, influenza activity decreased or remained low, with only a few countries reporting elevated respiratory illness levels. In the Northern Hemisphere, influenza activity continued at low, inter-seasonal levels with sporadic influenza detections. Increased RSV activity was reported in the USA.

1. GP sentinel surveillance system - Clinical Data

During week 40 2015, 10 influenza-like illness (ILI) cases were reported from sentinel GPs, corresponding to an ILI consultation rate of 4.0 per 100,000 population, remaining low, and stable compared to the rate of 4.2 per 100,000 reported during week 39 2015. The ILI rate for week 40 2015 is below the Irish baseline threshold (figure 1). HPSC in consultation with the European Centre for Disease Prevention and Control (ECDC) have revised the Irish baseline threshold for the 2015/2016 influenza season to 17.9 per 100,000 population. ILI age specific rates were low in all age groups during week 40 2015 (figure 2).

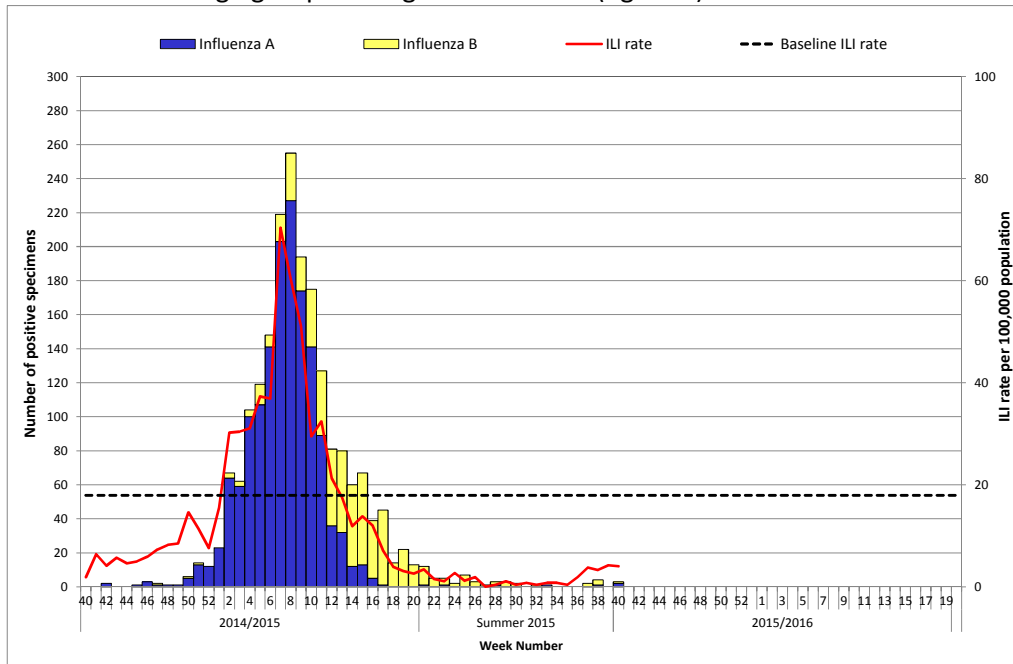


Figure 1. ILI sentinel GP consultation rates per 100,000 population, baseline ILI threshold rate, and number of positive influenza A and B specimens tested by the NVRL, by influenza week and season. *Source: ICGP and NVRL*

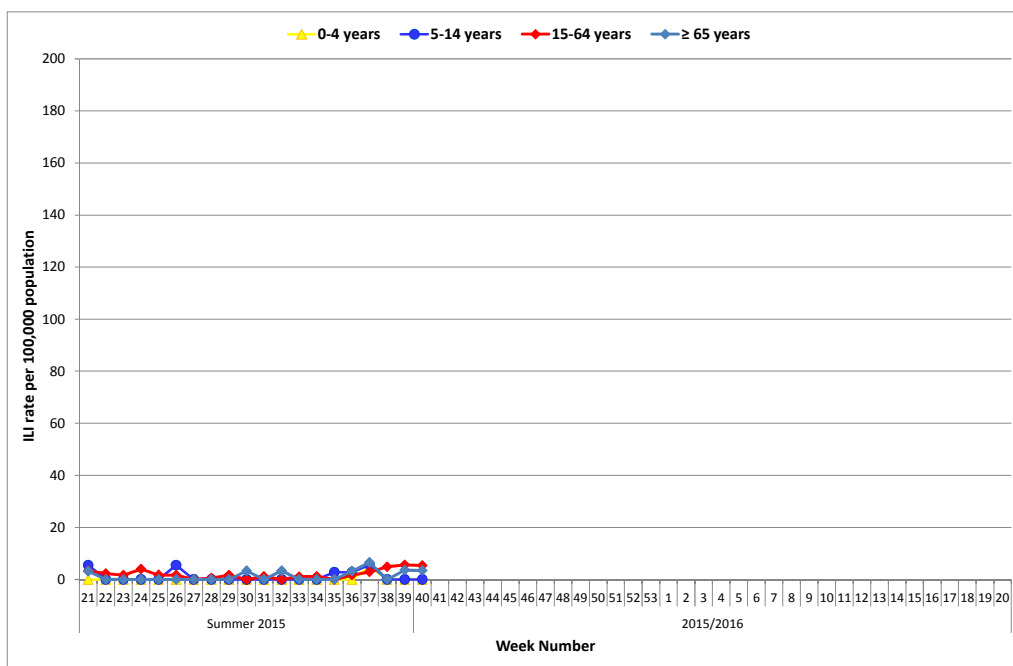


Figure 2: Age specific sentinel GP ILI consultation rate per 100,000 population by week during the summer of 2015 and the 2015/2016 influenza season to date. *Source: ICGP.*

2. Influenza and Other Respiratory Virus Detections - NVRL

The data reported in this section for the 2015/2016 influenza season refers to sentinel and non-sentinel respiratory specimens routinely tested for influenza, respiratory syncytial virus (RSV) and human metapneumovirus (hMPV) by the National Virus Reference Laboratory (NVRL). The NVRL also test respiratory specimens for adenovirus and parainfluenza viruses types 1, 2 & 3 (PIV-1, -2, & -3) upon clinical request (figure 3, tables 1 & 2).

- Influenza positivity was at low levels during week 40 2015, with 3 (2.6%) influenza positive specimens reported from the NVRL: 1 A(H3), 1 A(H1)pdm09 and 1 B.
 - 1 of 3 (33.3%) sentinel specimens were influenza positive: 1 A(H1)pdm09
 - 2 of 113 (1.8%) non-sentinel specimens were influenza positive: 1 A(H3) and 1 B.
- Four (4/113; 3.5%) respiratory syncytial virus (RSV) positive non-sentinel specimens were reported during week 40 2015. Figure 3 shows the number and percentage of non-sentinel RSV positive specimens detected by the NVRL during the 2015/2016 season, compared to the 2014/2015 season.
- One human metapneumovirus (hMPV) and three parainfluenza virus types -1 positive specimens were reported by the NVRL during week 40 2015.
- During the 2015 summer period, sporadic detections of influenza, RSV, adenovirus, parainfluenza viruses and hMPV were reported from the NVRL.

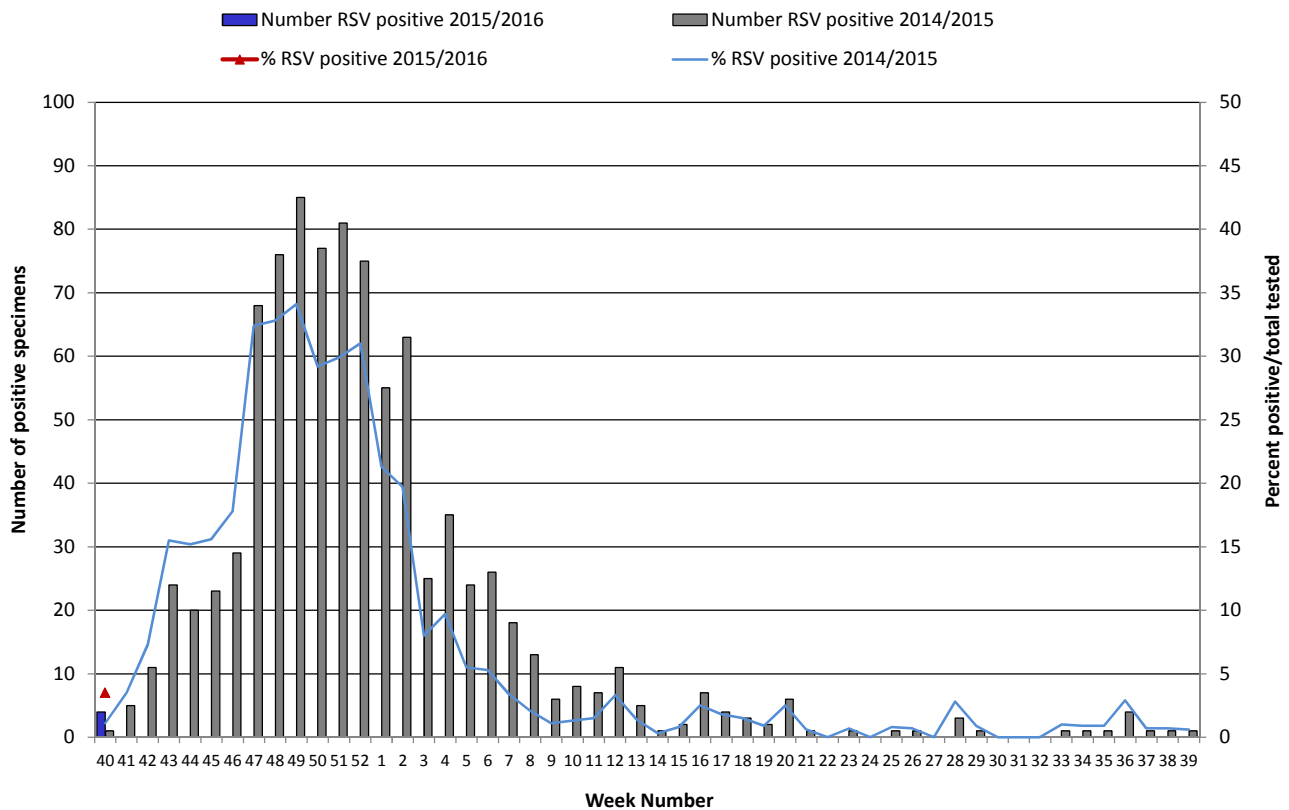


Figure 3: Number and percentage of non-sentinel RSV positive specimens detected by the NVRL during the 2015/2016 season, compared to the 2014/2015 season. Source: NVRL.

Table 1: Number of sentinel and non-sentinel* respiratory specimens tested by the NVRL and positive influenza results, for week 40 2015. Source: NVRL

Week	Specimen type	Total tested	Number influenza positive	% Influenza positive	Influenza A				Influenza B
					A (H1)pdm09	A (H3)	A (not subtyped)	Total influenza A	
40 2015	Sentinel	3	1	33.3	1	0	0	1	0
	Non-sentinel	113	2	1.8	0	1	0	1	1
	Total	116	3	2.6	1	1	0	2	1

Table 2: Number of non-sentinel specimens tested by the NVRL for other respiratory viruses and positive results, for week 40 2015. Source: NVRL

Week	Specimen type	Total tested	RSV	% RSV	Adenovirus	% Adenovirus	PIV-1	% PIV-1	PIV-2	% PIV-2	PIV-3	% PIV-3	PIV-4	% PIV-4	hMPV	% hMPV
40 2015	Sentinel	3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Non-sentinel	113	4	3.5	0	0.0	3	2.7	0	0.0	0	0.0	0	0.0	1	0.9
	Total	116	4	3.4	0	0.0	3	2.6	0	0.0	0	0.0	0	0.0	1	0.9

* 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 based on sentinel GP ILI consultation rates, laboratory data and outbreaks.

Sporadic influenza activity (based on ILI cases and/or confirmed influenza cases) was reported in HSE-E, -M, -SE and -W and no influenza activity was reported in all other HSE-Areas during week 40 2015 (figure 4).

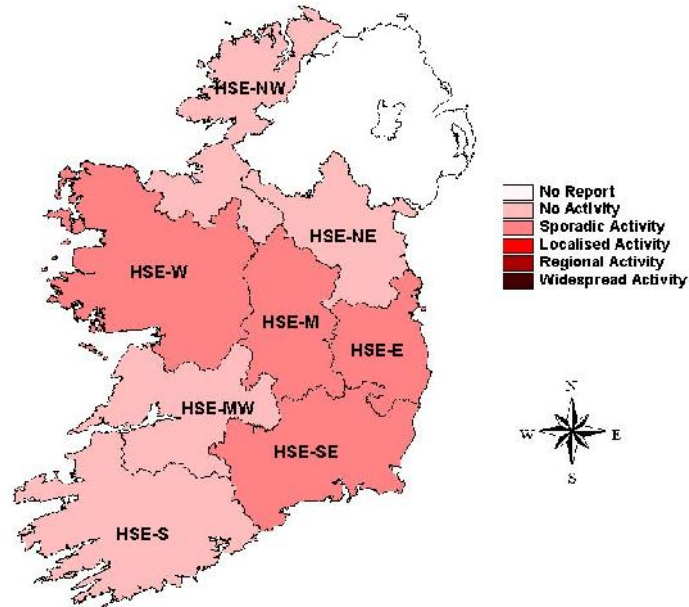


Figure 4: Map of provisional influenza activity by HSE-Area during influenza week 40 2015

Sentinel hospitals

The Departments of Public Health have established at least one sentinel hospital in each HSE-Area, to report data on total, emergency and respiratory admissions on a weekly basis.

Respiratory admissions reported from sentinel hospitals was at low levels during week 40 2015 at 143. Data reported for week 40 2015 (shown in figure 5) should be interpreted with caution as data were incomplete; with 4 of 8 sentinel hospitals reporting at the time of publication of this report.

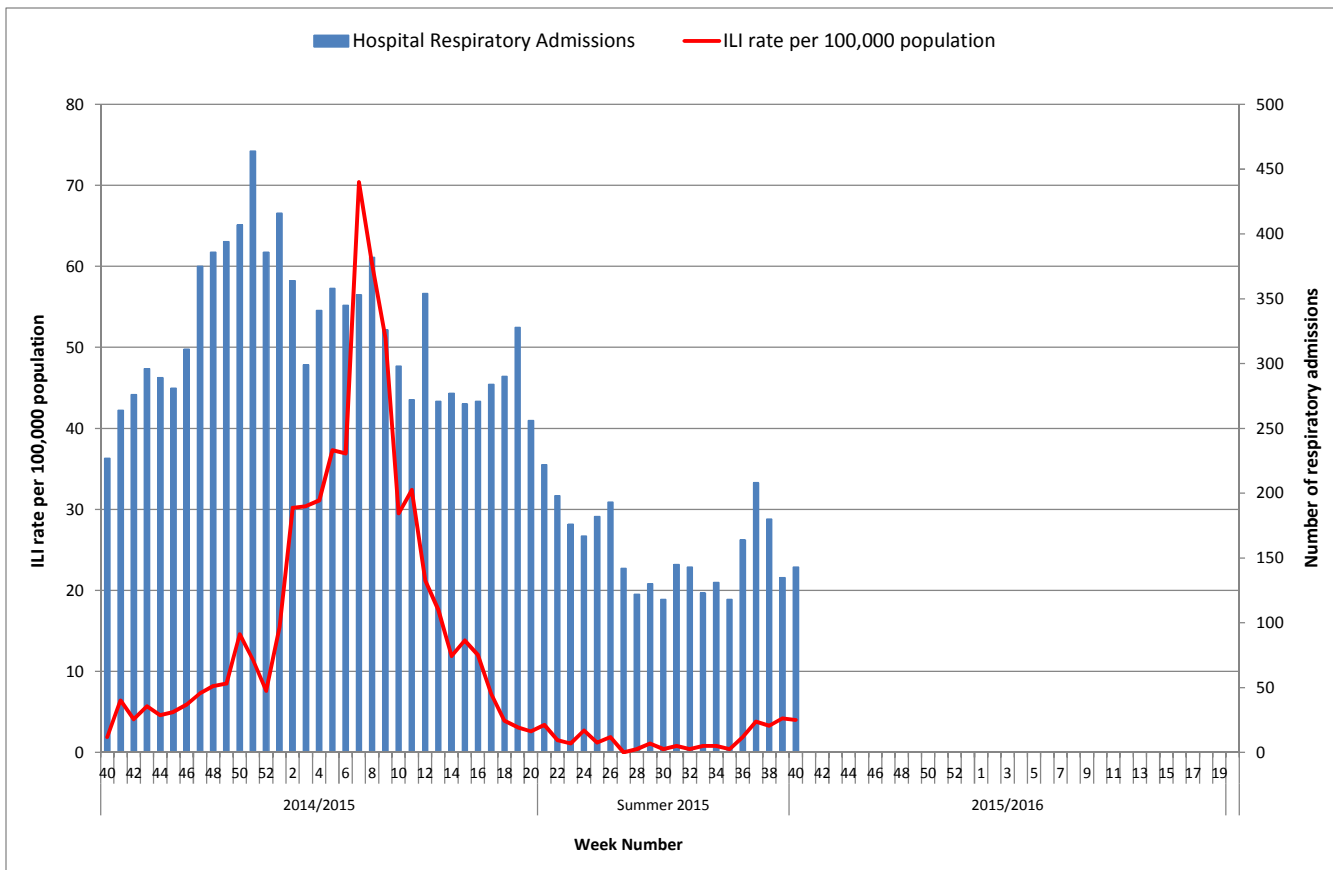


Figure 5: Number of respiratory admissions reported from sentinel hospitals and ILI sentinel GP consultation rate per 100,000 population by week and season. *Source: Departments of Public Health - Sentinel Hospitals & ICGP. It should be noted that data for week 40 2015 were incomplete, with 4 of 8 sentinel hospitals reporting.*

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. 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 remained at low levels during week 40 2015 at 1.6%. A slight increase in the proportion of influenza related calls to GP Out-of-Hours services occurred between weeks 37-39 2015; this increase is usually observed each September when schools return from the summer break (figure 6).

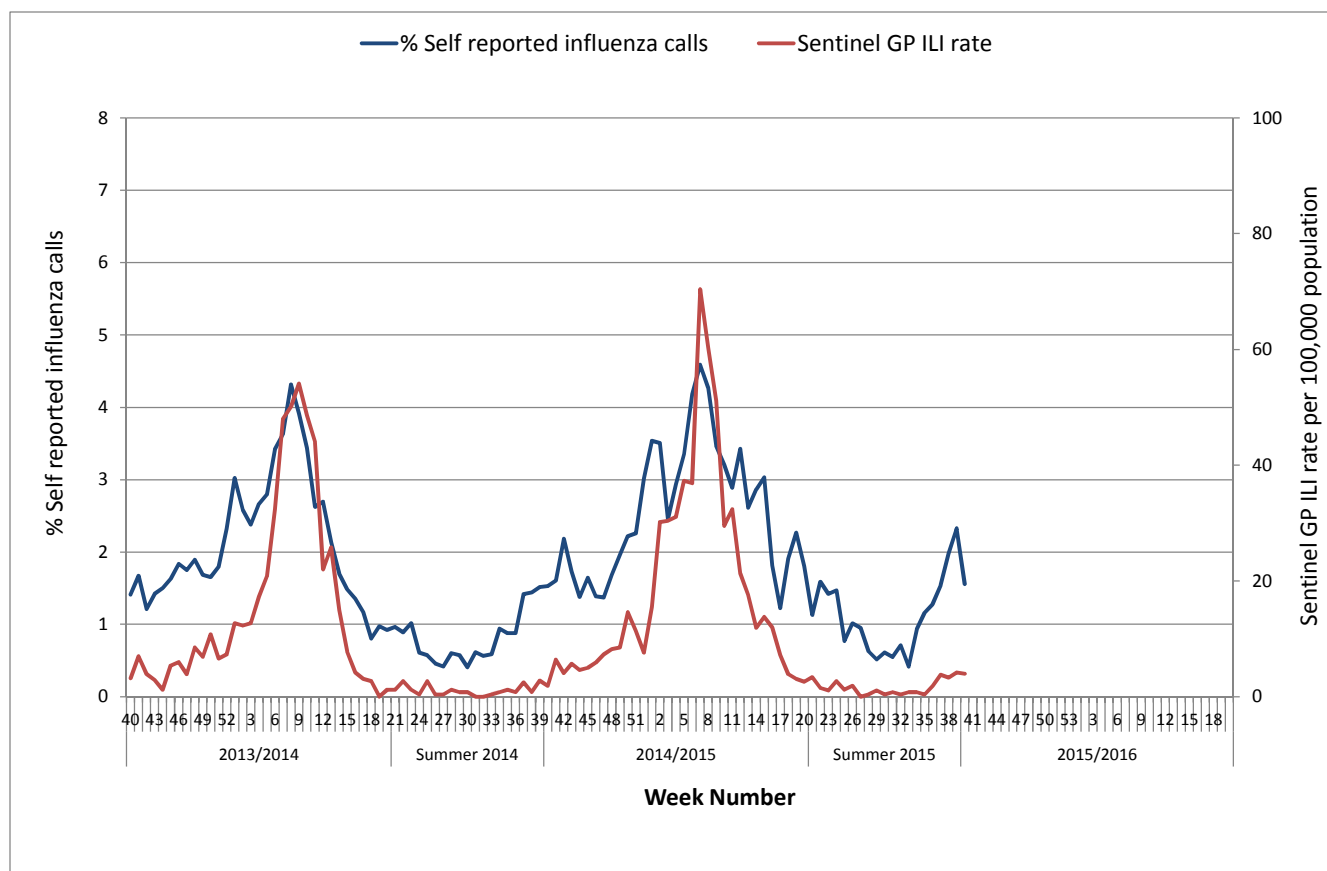


Figure 6: Self-reported influenza-related calls as a proportion of total calls to Out-of-Hours GP Co-ops and sentinel GP ILI consultation rate per 100,000 population by week and season. Source: GP Out-Of-Hours services in Ireland (collated by HSE-NE) & ICGP.

5. Influenza & RSV notifications

Influenza and RSV cases notifications are reported on Ireland’s Computerised Infectious Disease Reporting System (CIDR), including all positive influenza /RSV specimens reported from all laboratories testing for influenza/RSV and reporting to CIDR.

Influenza and RSV notifications are reported in the [Weekly Infectious Disease Report for Ireland](#).

6. Influenza Hospitalisations

No confirmed influenza cases were reported as hospitalised during week 40 2015.

7. 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. HPSC process and report on this information on behalf of the regional Directors of Public Health/Medical Officers of Health.

No confirmed influenza cases were admitted to critical care and reported to HPSC during week 40 2015.

8. Mortality Surveillance

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. These data are provisional due to the time delay in deaths' registration in Ireland. <http://www.euromomo.eu/>

- There were no reports of any influenza-associated deaths occurring during week 40 2015.
- During week 40 2015, no excess all-cause mortality was reported in Ireland after correcting GRO data for reporting delays with the standardised EuroMOMO algorithm.

9. Outbreak Surveillance

No acute respiratory outbreaks were reported to HPSC during week 40 2015.

10. International Summary

In Europe, low influenza activity was reported throughout the summer period. As of October 5th 2015, globally, influenza activity decreased or remained low, with only a few countries reporting elevated respiratory illness levels. In the Northern Hemisphere, influenza activity continued at low, inter-seasonal levels with sporadic detections. Increased RSV activity was reported in the USA. See [ECDC](#) and [WHO](#) influenza surveillance reports for further information.

- Further information is available on the following websites:
 - Northern Ireland <http://www.fluawareni.info/>
 - Europe – ECDC <http://ecdc.europa.eu/>
 - Public Health England <http://www.hpa.org.uk/Topics/InfectiousDiseases/InfectionsAZ/SeasonalInfluenza/>
 - United States CDC <http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>
 - Public Health Agency of Canada <http://www.phac-aspc.gc.ca/fluwatch/index-eng.php>
- Information on Middle Eastern Respiratory Syndrome Coronavirus (MERS-CoV), including the latest ECDC rapid risk assessment is available on the [ECDC website](#). Further information and guidance documents are also available on the [HPSC](#) and [WHO](#) websites.

11. WHO recommendations on the composition of influenza virus vaccines

The WHO vaccine strain selection committee recommended that vaccines for use in the 2015/2016 influenza season (northern hemisphere winter) contain the following: an A/California/7/2009 (H1N1)pdm09-like virus; an A/Switzerland/9715293/2013 (H3N2)-like virus; a B/Phuket/3073/2013-like virus.

<http://www.who.int/influenza/vaccines/virus/recommendations/en/>

Further information on influenza in Ireland is available at www.hpsc.ie

Acknowledgements

This report was prepared by Lisa Domegan and Joan O'Donnell, HPSC. HPSC wishes to thank the sentinel GPs, the ICGP, NVRL, Departments of Public Health, ICSI and HSE-NE for providing data for this report.