

Influenza Surveillance in Ireland – Weekly Report

Influenza Week 40 2016 (3rd – 9th October 2016)



Summary

This is the first influenza surveillance report of the 2016/2017 influenza season. All indicators of influenza activity in Ireland were at low levels during week 40 2016 (week ending 9th October 2016).

- **Influenza-like illness (ILI):** The sentinel GP influenza-like illness (ILI) consultation rate was 4.8 per 100,000 population in week 40 2016, remaining low, and stable compared to the rate of 6.8 per 100,000 reported during week 39 2016.
 - ILI rates were below the Irish baseline threshold (18.3 per 100,000 population)
 - ILI rates were 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 2016.
- **National Virus Reference Laboratory (NVRL):**
 - There were no confirmed influenza positive specimens reported from sentinel GP or non-sentinel sources during week 40 2016.
 - Sporadic positive specimens of influenza A(H3), A(H1)pdm09 and B were reported throughout the 2016 summer period.
 - Sporadic detections of respiratory syncytial virus (RSV), parainfluenza virus type 3 (PIV-3) and adenovirus were reported during week 40 2016.
- **Hospitalisations:** One confirmed influenza A(H3) hospitalised case was notified to HPSC during week 40 2016. It should be noted that this was a late notification from mid-September 2016.
- **Critical care admissions:** No confirmed influenza cases were admitted to critical care units and reported to HPSC during week 40 2016.
- **Mortality:** There were no reports of any influenza-associated deaths during week 40 2016.
- **Outbreaks:** No acute respiratory outbreaks were reported to HPSC during week 40 2016.
- **International:** As is usual for this time of year, influenza activity is low in the European Region.

1. GP sentinel surveillance system - Clinical Data

During week 40 2016, 10 influenza-like illness (ILI) cases were reported from sentinel GPs, corresponding to an ILI consultation rate of 4.8 per 100,000 population, remaining low, and stable compared to the rate of 6.8 per 100,000 reported during week 39 2015. The ILI rate for week 40 2016 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 2016/2017 influenza season to 18.3 per 100,000 population. ILI age specific rates were low in all age groups during week 40 2016 (figure 2).

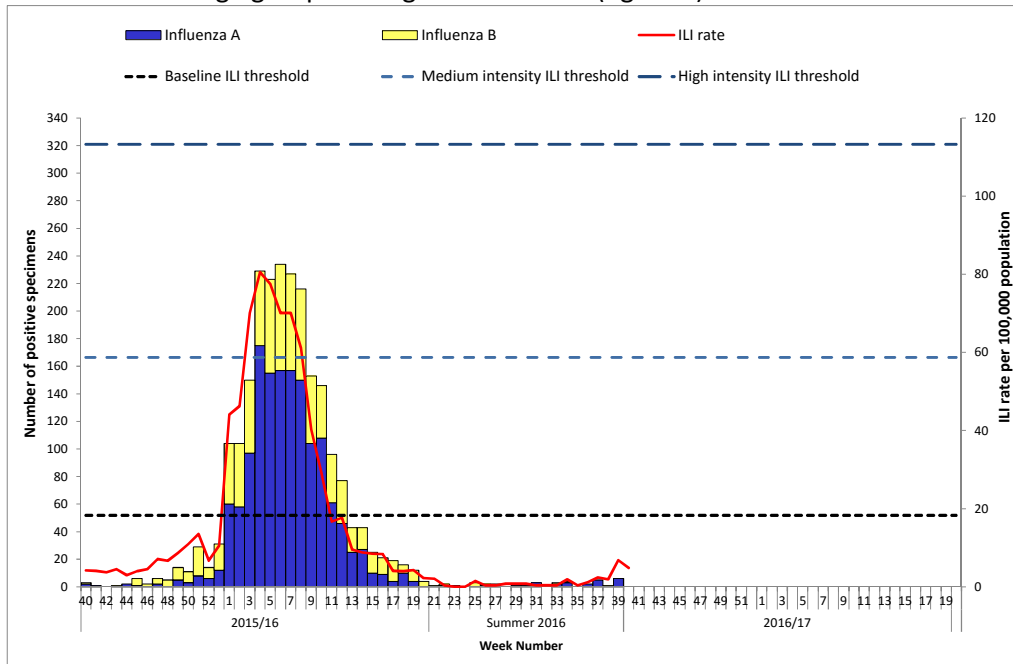


Figure 1. ILI sentinel GP consultation rates per 100,000 population, baseline ILI threshold rate, and number of positive influenza A and B specimens tested by the NVRL, by influenza week and season. *Source: ICGP and NVRL*

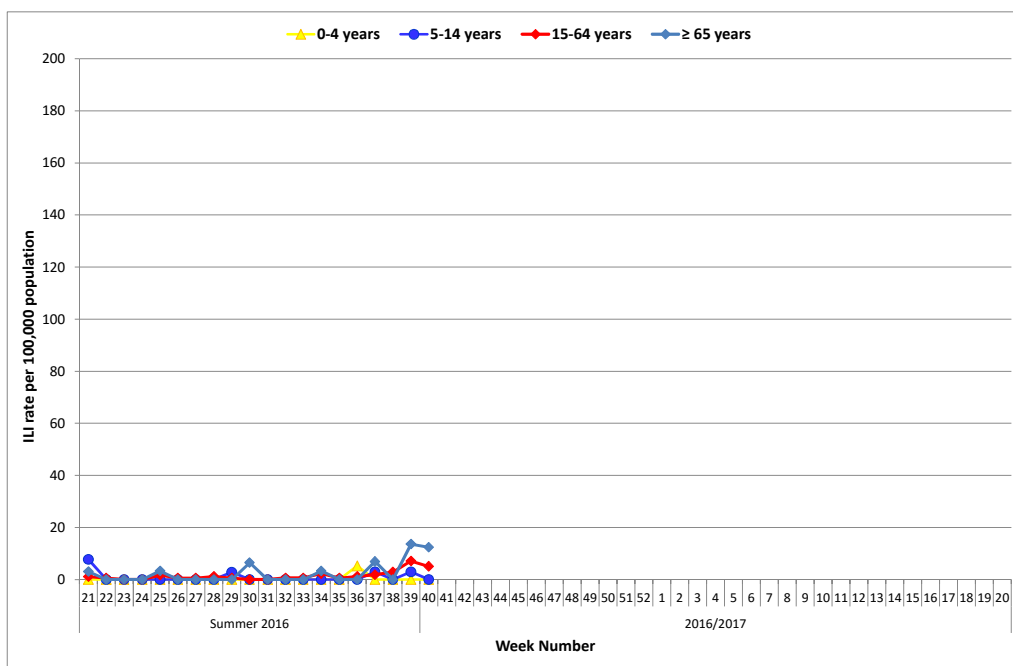


Figure 2: Age specific sentinel GP ILI consultation rate per 100,000 population by week during the summer of 2016 and the 2016/2017 influenza season to date. *Source: ICGP.*

2. Influenza and Other Respiratory Virus Detections - NVRL

The data reported in this section for the 2016/2017 influenza season refers to sentinel and non-sentinel respiratory specimens routinely tested for influenza, respiratory syncytial virus (RSV), adenovirus, parainfluenza viruses types 1, 2, 3 & 4 (PIV-1, -2, -3 & -4) and human metapneumovirus (hMPV) by the National Virus Reference Laboratory (NVRL) (figures 3, 4 & 5, tables 1 & 2).

- There were no confirmed influenza positive specimens reported from sentinel GP or non-sentinel sources during week 40 2016.
- Of 184 non-sentinel respiratory specimens tested during week 40 2016, seven (3.8%) were positive for respiratory syncytial virus (RSV), two (1.1%) for parainfluenza virus type 3 and one (0.5%) for adenovirus.
- Figure 3 shows the number and percentage of non-sentinel RSV positive specimens detected by the NVRL during the 2016/2017 season, compared to the 2015/2016 season.
- During the 2016 summer period, sporadic detections of influenza A(H3), A(H1)pdm09 and B, RSV, adenovirus, parainfluenza viruses and hMPV were reported from the NVRL, mainly from non-sentinel sources.

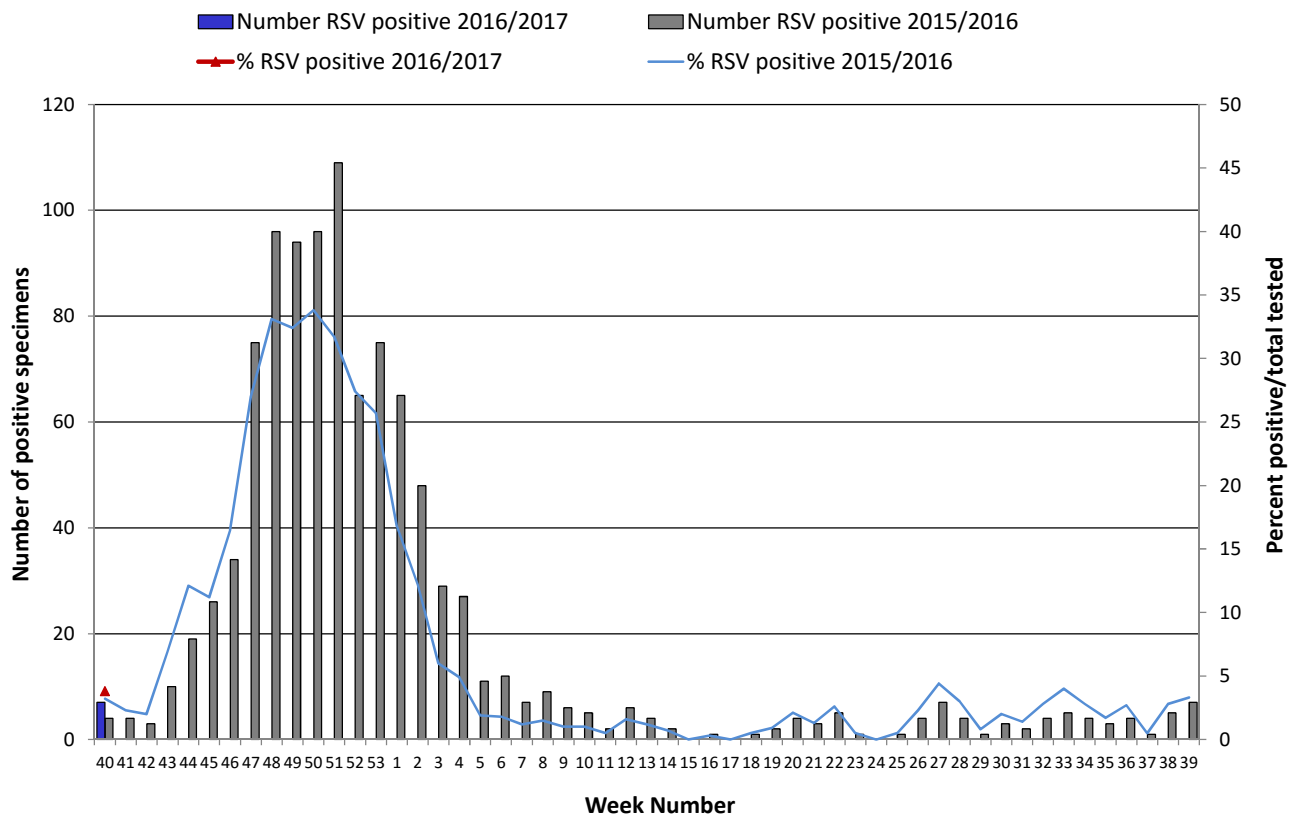


Figure 3: Number and percentage of non-sentinel RSV positive specimens detected by the NVRL during the 2016/2017 season, compared to the 2015/2016 season. Source: NVRL.

Table 1: Number of sentinel and non-sentinel* respiratory specimens tested by the NVRL and positive influenza results, for week 40 2016. 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 2016	Sentinel	0	0	0.0	0	0	0	0	0
	Non-sentinel	184	0	0.0	0	0	0	0	0
	Total	184	0	0.0	0	0	0	0	0

Table 2: Number of non-sentinel specimens tested by the NVRL for other respiratory viruses and positive results, for week 40 2016. 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 2016	Sentinel	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Non-sentinel	184	7	3.8	1	0.5	0	0.0	0	0.0	2	1.1	0	0.0	0	0.0
	Total	184	7	3.8	1	0.5	0	0.0	0	0.0	2	1.1	0	0.0	0	0.0

* 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 only) was reported in HSE-E, -NE and -MW and no influenza activity was reported in all other HSE-Areas during week 40 2016 (figure 4).

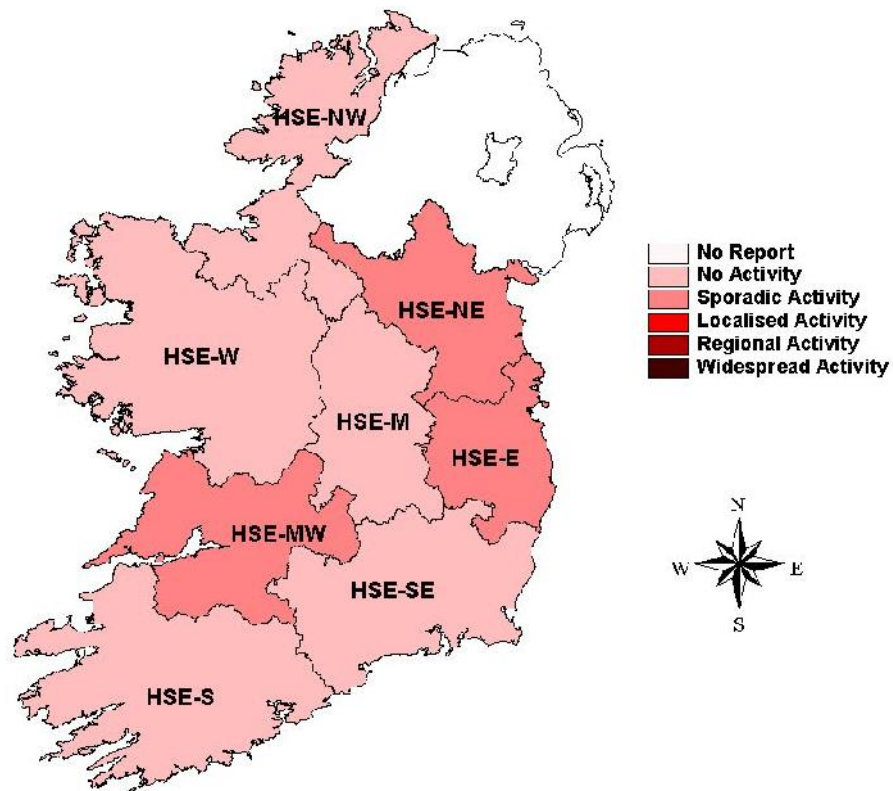


Figure 4: Map of provisional influenza activity by HSE-Area during influenza week 40 2016

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 a network of sentinel hospitals were at low levels during the 2016 summer period. Reporting of sentinel hospital admissions data for the 2016/2017 influenza season will resume in the week 41 2016 report.

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 2016 at 2.0%. A slight increase in the proportion of influenza related calls to GP Out-of-Hours services occurred between weeks 37-39 2016; this increase is usually observed each September when schools return from the summer break (figure 5).

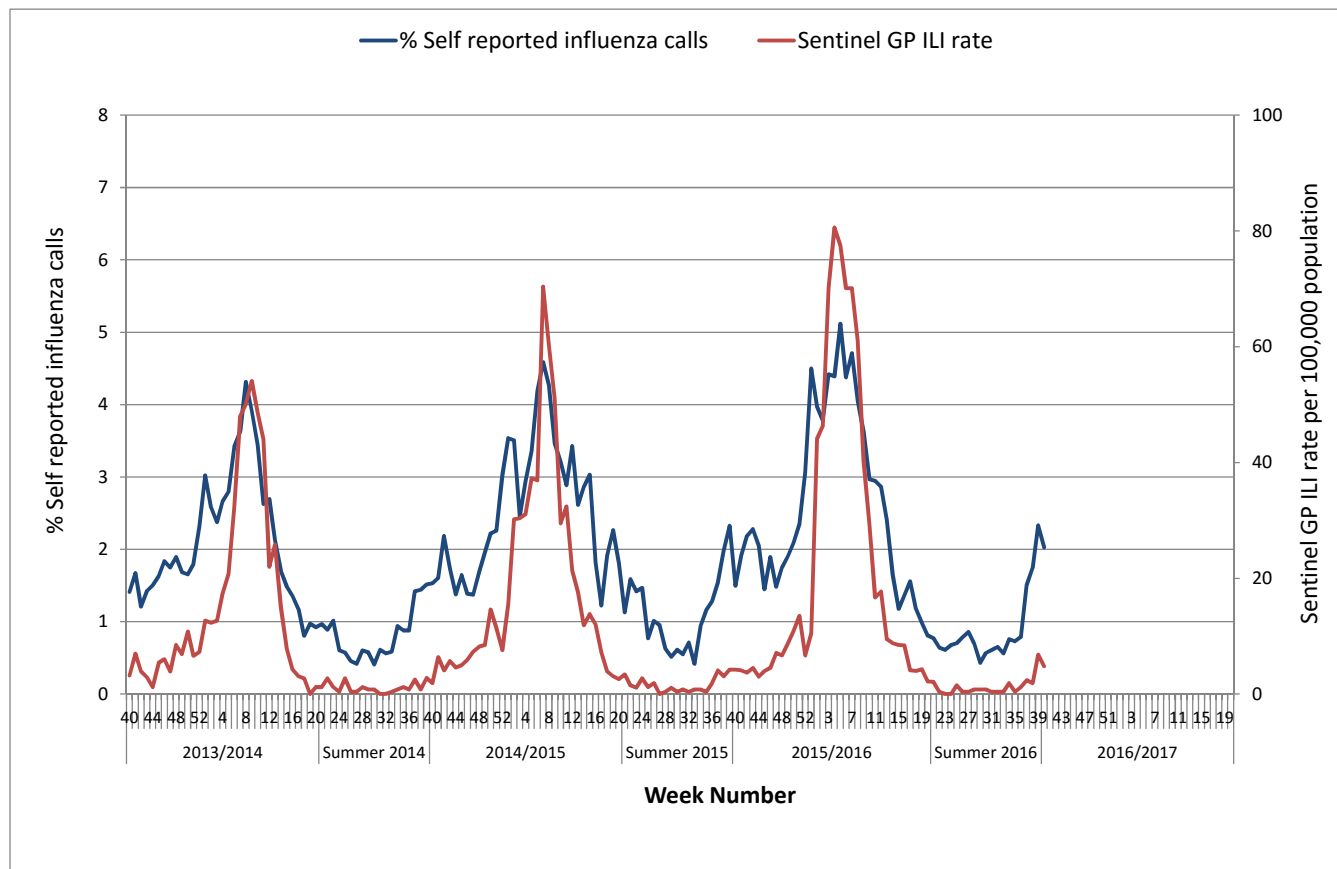


Figure 5: Self-reported influenza-related calls as a proportion of total calls to Out-of-Hours GP Co-ops and sentinel GP ILI consultation rate per 100,000 population by week and season. Source: GP Out-Of-Hours services in Ireland (collated by HSE-NE) & ICGP.

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](#). Influenza notifications were at low levels during week 40 2016, with only three cases notified. RSV notifications were also at low levels, with only seven cases notified during week 40 2016.

6. Influenza Hospitalisations

One confirmed influenza A(H3) hospitalised case was notified to HPSC during week 40 2016. It should be noted that this was a late notification from mid-September 2016.

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 2016.

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 2016.
- During week 40 2016, 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 2016.

10. International Summary

As is usual for this time of year, influenza activity is low in the European Region. As of October 3rd 2016, globally, influenza activity varied in countries of temperate South America and decreased in Oceania. In South Africa, influenza detections continued, with mainly influenza A(H1N1)pdm09 virus detections following a predominance of influenza B and then A(H3N2) viruses earlier in the season. Influenza activity in the temperate zone of the northern hemisphere was at inter-seasonal levels. 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), 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.

- Further information on avian influenza is available on the [ECDC website](#). The latest ECDC rapid risk assessment on highly pathogenic avian influenza A of H5 type is also available on the [ECDC website](#).

11. WHO recommendations on the composition of influenza virus vaccines

On February 25, 2016, the WHO vaccine strain selection committee recommended that trivalent vaccines for use in the 2016/2017 influenza season (northern hemisphere winter) contain the following: an A/California/7/2009 (H1N1)pdm09-like virus; an A/Hong Kong/4801/2014 (H3N2)-like virus; a B/Brisbane/60/2008-like virus. <http://www.who.int/influenza/vaccines/virus/recommendations/en/>

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

Acknowledgements

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