

Influenza Surveillance in Ireland – Weekly Report

Influenza Week 42 2022 (17th – 23rd October 2022)



 **Intensive Care Society of Ireland**

Summary

Some indicators of influenza activity increased in Ireland during week 42 2022 (week ending 23/10/2022), however overall activity remained at low levels. Sporadic detections of influenza A(H3), A(H1)pdm09 and B have been detected this season to date. Respiratory syncytial virus (RSV) notifications of cases and hospitalised cases increased and are at high levels in Ireland.

Influenza-like illness (ILI): The sentinel GP influenza-like illness (ILI) consultation rate was 11.9 per 100,000 population during week 42 2022, an increase compared to the updated rate of 9.7 per 100,000 reported during week 41 2022.

- Sentinel GP ILI consultation rates were below the Irish baseline threshold (18.1/100,000 population) during week 42 2022.
- Sentinel GP ILI age specific consultation rates were all below age specific baselines during week 42 2022.

National Virus Reference Laboratory (NVRL):

- Of 13 sentinel GP ILI specimens tested by the NVRL during weeks 41 and 42 2022, three were positive for influenza: two A(H1)pdm09 and one A (H3). Of the 331 non-sentinel respiratory specimens tested and reported during weeks 41 and 42 2022, 10 (3.0%) were positive for influenza: five A(H1)pdm09, four A(H3), and one influenza A (not subtyped).
- Respiratory syncytial virus (RSV) positivity (non-sentinel respiratory specimens) has been elevated in recent weeks, at 10.2% (13/127) during week 42 2022 and 9.8% (20/204) during week 41 2022. During weeks 41 and 42 2022, 15.4% (2/13) of sentinel GP ILI specimens were RSV positive.
- Influenza notifications: 102 laboratory confirmed influenza cases were notified during week 42 2022– five A(H3), five A(H1)pdm09, 88 influenza A (not subtyped), one influenza A & B co-infection and three influenza B. This is an increase compared to 59 influenza notifications during week 41 2022.
- RSV notifications: 325 RSV cases were notified during week 42 2022, an increase compared to 177 cases notified during week 41 2022. During week 42 2022, 68% of notified RSV cases were in the 0-4-year age group.
- Hospitalisations and Critical care admissions: 28 confirmed influenza hospitalised cases were notified during week 42 2022: one influenza A (H3), 24 influenza A (not subtyped), one influenza A & B coinfection and two influenza B. Two laboratory confirmed critical care influenza A (not subtyped) cases were notified to HPSC during week 42 2022.
- Mortality: There were no reports of deaths occurring in notified influenza cases during week 42 2022.
- Outbreaks: No influenza, RSV or Acute Respiratory Infection (SARS-CoV-2 negative) outbreaks were notified during week 42 2022.
- International: In Europe, overall influenza activity remained at inter-seasonal levels, influenza detections and ILI activity increased in a few countries; Scotland and Germany reported regional influenza activity and Kazakhstan reported widespread activity. WHO are advising countries to remain vigilant for the likelihood of influenza circulating and to be prepared for co-circulation of SARS-CoV-2 and influenza.

1. GP sentinel surveillance system - Clinical Data

- During week 42 2022, 34 sentinel GP influenza-like illness (ILI) consultations were reported from the Irish sentinel GP network, corresponding to an ILI consultation rate of 11.9 per 100,000 population, an increase compared to the updated rate of 9.7 per 100,000 reported during week 41 2022 (Figure 1).
- The sentinel GP ILI consultation rate during week 42 2022 was below the Irish sentinel GP ILI baseline threshold (18.1/100,000 population).
- Sentinel GP ILI age specific consultation rates were below baseline in the ≥ 65 (10.4/100,000), 15-64 (12.8/100,000) and 0-14 (9.9/100,000) year age groups during week 42 2022 (Figure 2, Table 1).
- HPSC has reviewed the Irish sentinel baseline ILI threshold for the 2022/2023 influenza season, which will remain at 18.1 per 100,000 population. ILI rates above this baseline threshold combined with sentinel GP influenza positivity $>10\%$ indicate the likelihood that influenza is circulating in the community. The Moving Epidemic Method (MEM) is used to calculate thresholds for GP ILI consultations in a standardised approach across Europe. The baseline ILI threshold (18.1/100,000 population), medium (57.5/100,000 population) and high (86.5/100,000 population) intensity ILI thresholds are shown in figure 1. Age specific MEM threshold levels are shown in Table 1.

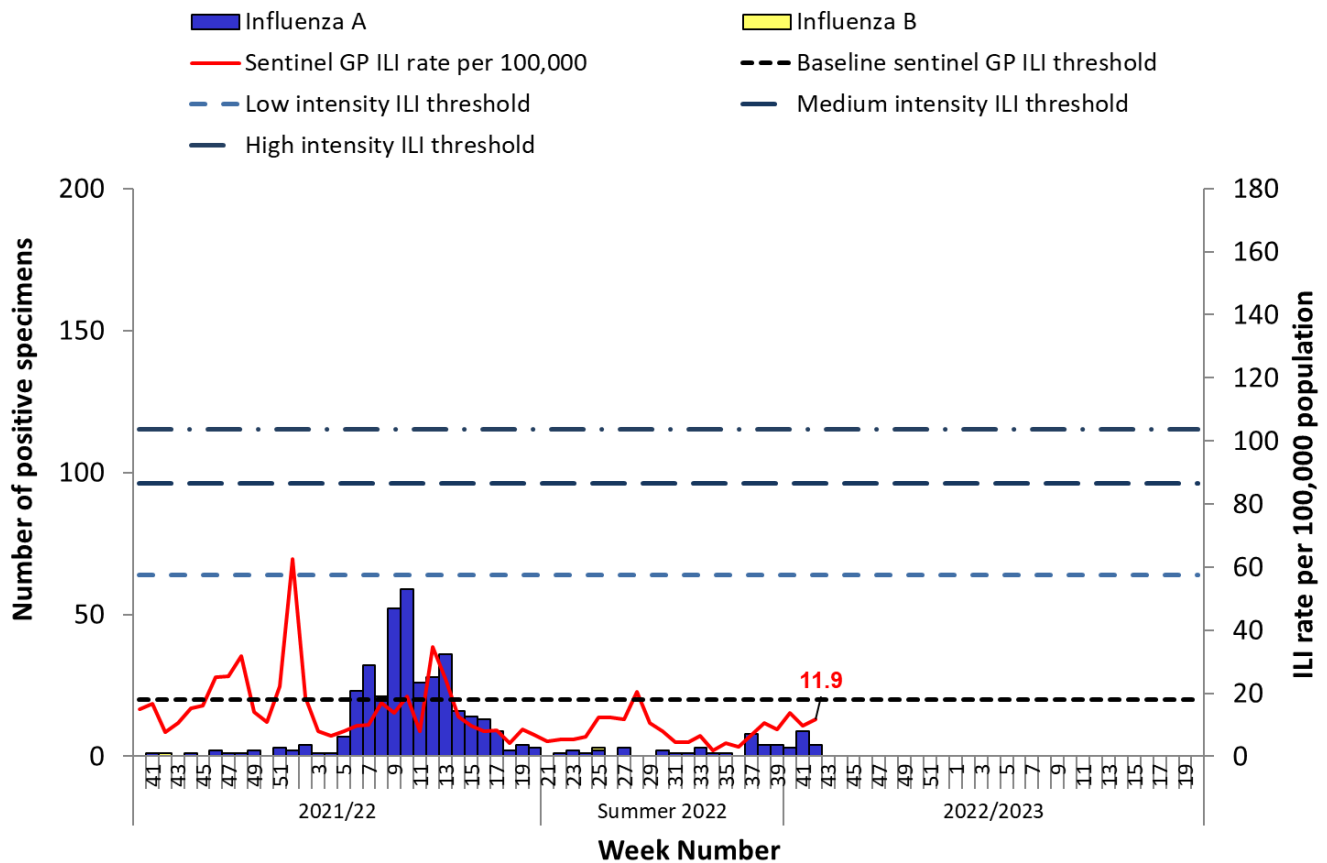


Figure 1: Sentinel GP Influenza-like illness (ILI) consultation rates per 100,000 population, baseline ILI threshold, medium and high intensity ILI thresholds and number of positive influenza A and B specimens tested by the NVRL, by influenza week and season. *Source: ICGP and NVRL*

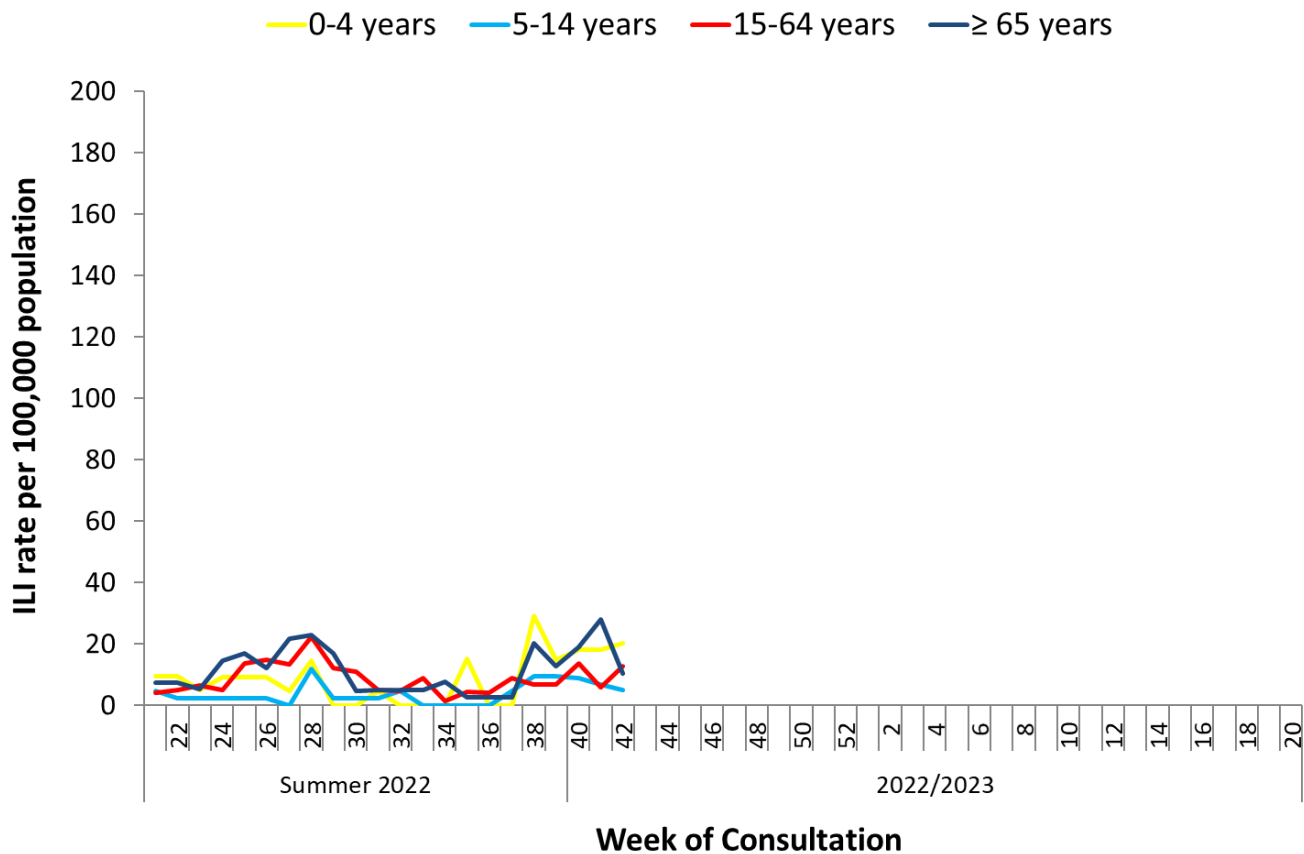


Figure 2: Age specific sentinel GP ILI consultation rate per 100,000 population by week during the summer of 2022 and the 2022/2023 influenza season to date. *Source: ICGP.*

Table 1: Age specific sentinel GP ILI consultation rate per 100,000 population by week (weeks 23-42 2022), colour coded by sentinel GP ILI age specific Moving Epidemic Method (MEM) threshold levels. *Source: ICGP.*

MEM Threshold Levels	Below Baseline		Low		Moderate		High		Extraordinary											
Age group (years)	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
All Ages	5.5	6.1	12.2	12.2	11.9	20.4	10.6	8.0	4.6	4.4	6.6	2.0	4.2	3.0	6.8	10.5	8.7	13.9	9.7	11.9
<15 yrs	3.3	4.6	4.6	4.6	1.5	12.9	1.5	1.5	3.1	3.2	0.0	0.0	5.0	0.0	3.2	16.0	11.3	12.0	10.4	9.9
15-64 yrs	6.3	4.9	13.8	14.7	13.3	22.3	12.3	10.8	5.0	4.6	9.0	1.5	4.3	4.0	8.8	6.7	6.8	13.5	5.7	12.8
≥65 yrs	5.2	14.4	16.8	12.0	21.6	22.8	16.8	4.8	4.9	5.0	4.9	7.5	2.6	2.5	2.5	20.2	12.7	18.9	28.1	10.4
Reporting practices (N=61)	56	57	57	57	57	55	57	57	56	54	57	56	57	58	57	57	56	58	58	55

2. Influenza and Other Respiratory Virus Detections - NVRL

The data reported in this section for the 2022/2023 influenza season refers to sentinel GP ILI and non-sentinel respiratory specimens routinely tested for influenza, respiratory syncytial virus (RSV), adenovirus, parainfluenza virus types 1-4 (PIV-1-4), human metapneumovirus (hMPV) and rhino/enteroviruses by the National Virus Reference Laboratory (NVRL) (Tables 2 & 3, Figure 3). In Ireland, virological surveillance for influenza, RSV and other respiratory viruses (ORVs) undertaken by the Irish sentinel GP network is integrated into current testing structures for COVID-19 primary care referrals.

- Of 13 sentinel GP ILI specimens tested during weeks 41 and 42 2022, three were positive for influenza A, two for A(H1)pdm09 and one for influenza A(H3). Of 127 non-sentinel respiratory specimens tested and reported by the NVRL during week 42 2022, three were positive for influenza (2.4%). During week 41 2022, of 204 non-sentinel respiratory specimens tested, seven were positive for influenza (3.4%). Of the 10 non-sentinel influenza positive detections during weeks 41 and 42 2022, four were positive for influenza A(H3), five were positive for A(H1)pdm09 and one was positive for influenza A (not subtyped); a lag time with testing and reporting is noted.
- Respiratory syncytial virus (RSV) positivity (non-sentinel respiratory specimens) increased in recent weeks, to 10.2% (13/127) during week 42 2022 and 9.8% (20/204) during week 41 2022. During weeks 41 and 42 2022, 15.4% (2/13) of sentinel GP ILI specimens were RSV positive.
- Rhinovirus/enterovirus positive detections from non-sentinel respiratory specimens were detected at a positivity rate of 5.5% (7/127) during week 42 2022, a decrease from 24.5% (50/204) during week 41 2022 (Figure 5).
- Other respiratory viruses (ORVs) are being detected at lower levels (Figure 3).

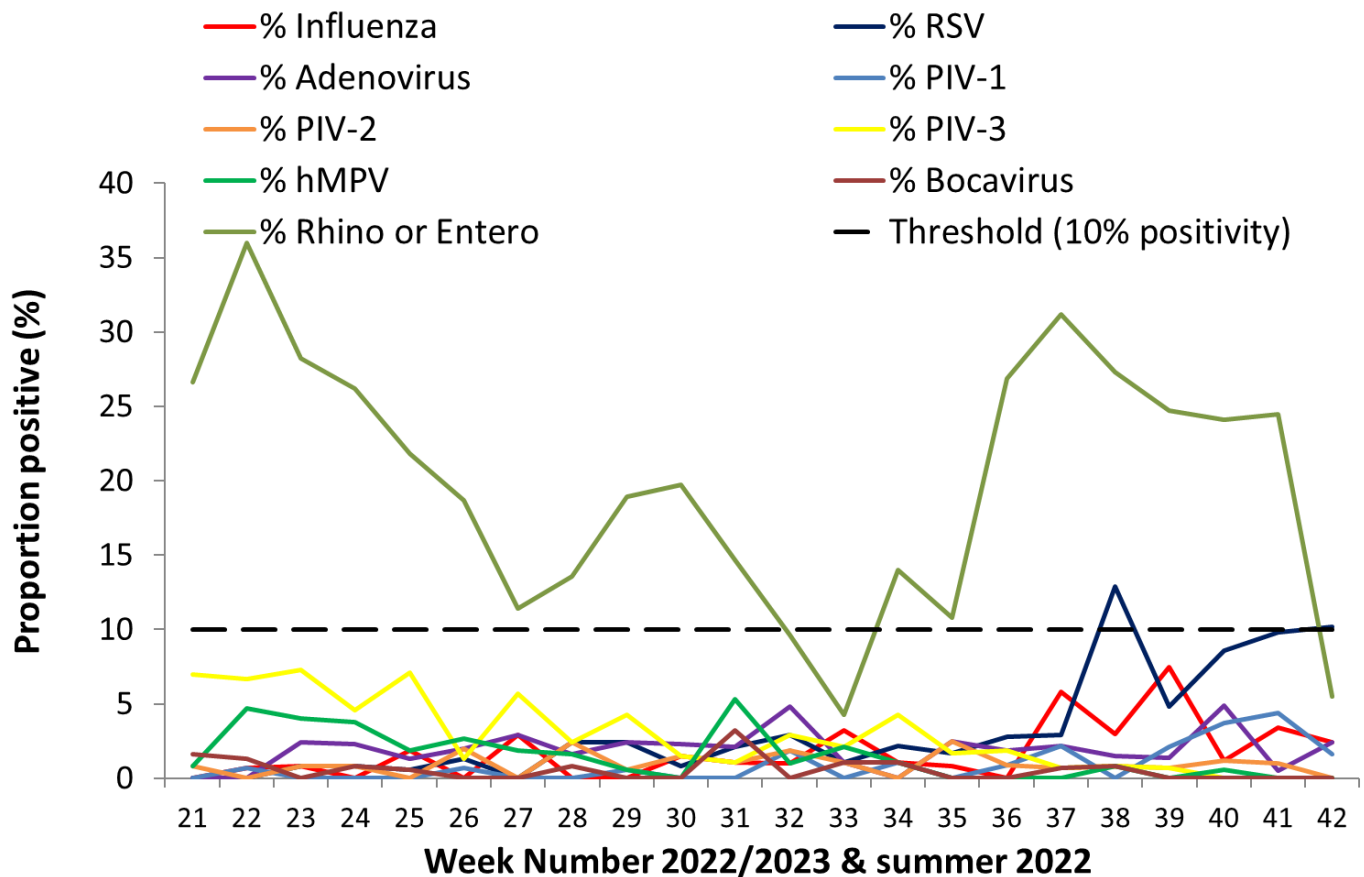


Figure 3: Percentage positive results for non-sentinel respiratory specimens tested by the NVRL for influenza, RSV and other respiratory viruses, weeks 21-42 2022. *Source: ICGP.*

Table 2: Number of sentinel GP ILI and non-sentinel respiratory specimens tested by the NVRL and positive influenza results, for weeks 41 and 42 2022 and the 2022/2023 season (weeks 40-42 2022). *Source: NVRL*

Surveillance period	Specimen type	Total tested	Number influenza positive	% Influenza positive	Influenza A				Influenza B			
					A(H1)pdm09	A(H3)	A (not subtyped)	Total influenza A	B (unspecified)	B Victoria lineage	B Yamagata lineage	Total influenza B
42 2022	Sentinel GP ILI referral	3	1	33.3	1	0	0	1	0	0	0	0
	Non-sentinel	127	3	2.4	0	2	1	3	0	0	0	0
	Total	130	4	3.1	1	2	1	4	0	0	0	0
41 2022	Sentinel GP ILI referral	10	2	20.0	1	1	0	2	0	0	0	0
	Non-sentinel	204	7	3.4	5	2	0	7	0	0	0	0
	Total	214	9	4.2	6	3	0	9	0	0	0	0
2022/2023	Sentinel GP ILI referral	20	4	20.0	2	2	0	4	0	0	0	0
	Non-sentinel	493	12	2.4	5	6	1	12	0	0	0	0
	Total	513	16	3.1	7	8	1	16	0	0	0	0

Table 3: Number of sentinel GP ILI and non-sentinel respiratory specimens tested by the NVRL and positive RSV results, for weeks 41 and 42 2022 and the 2022/2023 season (weeks 40-42 2022). *Source: NVRL*

Surveillance period	Specimen type	Total tested	Number RSV positive	% RSV positive	RSV A	RSV B	RSV (unspecified)
Week 42 2022	Sentinel GP ILI	3	0	0.0	0	0	0
	Non-sentinel	127	13	10.2	2	11	0
	Total	130	13	10.0	2	11	0
Week 41 2022	Sentinel GP ILI	10	2	20.0	0	2	0
	Non-sentinel	204	20	9.8	10	10	0
	Total	214	22	10.3	10	12	0
2022/2023	Sentinel GP ILI	20	3	15.0	0	3	0
	Non-sentinel	493	47	9.5	19	28	0
	Total	513	50	9.7	19	31	0

Table 4: Number of non-sentinel respiratory specimens tested by the NVRL for respiratory viruses and positive results, for weeks 41 and 42 2022 and 2022/2023 season (weeks 40-42 2022). *Source: NVRL*

Virus	Week 42 2022 (N=127)		Week 41 2022 (N=204)		2022/2023 (N=493)	
	Total positive	% positive	Total positive	% positive	Total positive	% positive
Influenza virus	3	2.4	7	3.4	12	2.4
Respiratory Syncytial Virus (RSV)	13	10.2	20	9.8	47	9.5
Rhino/enterovirus	7	5.5	50	24.5	96	19.5
Adenovirus	3	2.4	1	0.5	12	2.4
Bocavirus	0	0.0	0	0.0	0	0.0
Human metapneumovirus (hMPV)	0	0.0	0	0.0	1	0.2
Parainfluenza virus type 1 (PIV-1)	2	1.6	9	4.4	17	0.2
Parainfluenza virus type 2 (PIV-2)	0	0.0	2	1.0	4	0.8
Parainfluenza virus type 3 (PIV-3)	0	0.0	0	0.0	0	0.0
Parainfluenza virus type 4 (PIV-4)	3	2.4	1	0.5	5	1.0

Table 5: Number of sentinel GP ILI specimens tested by the NVRL for respiratory viruses and positive results, for weeks 41 and 42 2022 and 2022/2023 season (weeks 40-42 2022). *Source: NVRL*

Virus	Week 42 2022 (N=3)		Week 41 2022 (N=10)		2022/2023 (N=20)	
	Total positive	% positive	Total positive	% positive	Total positive	% positive
Influenza virus	1	33.3	2	20.0	4	20.0
Respiratory Syncytial Virus (RSV)	0	0.0	2	20.0	3	15.0
Rhino/enterovirus	1	33.3	0	0.0	3	15.0
Adenovirus	0	0.0	0	0.0	0	0.0
Bocavirus	0	0.0	0	0.0	0	0.0
Human metapneumovirus (hMPV)	0	0.0	0	0.0	0	0.0
Parainfluenza virus type 1 (PIV-1)	0	0.0	0	0.0	0	0.0
Parainfluenza virus type 2 (PIV-2)	0	0.0	0	0.0	0	0.0
Parainfluenza virus type 3 (PIV-3)	0	0.0	0	0.0	0	0.0
Parainfluenza virus type 4 (PIV-4)	0	0.0	0	0.0	0	0.0
SARS-CoV-2	1	33.3	0	0.0	1	1.0

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/influenza or cough are extracted for analysis. This information may act as an early indicator of circulation of influenza, SARS-CoV-2 or other respiratory viruses. Data are self-reported by callers and are not based on coded diagnoses.

- 5837 (41.6% of total calls; N=14,031) self-reported cough calls were reported by a network of GP OOHs services during week 42 2022, which was above baseline levels (10.7%) (Figures 6).
- 139 (1.0 % of total calls; N=14,031) self-reported 'flu' calls were reported by a network of GP OOHs services during week 42 2022. The baseline threshold level for self-reported 'flu' calls is 2.3% (Figure 7).
- Five GP OOH services provided data for week 42 2022.

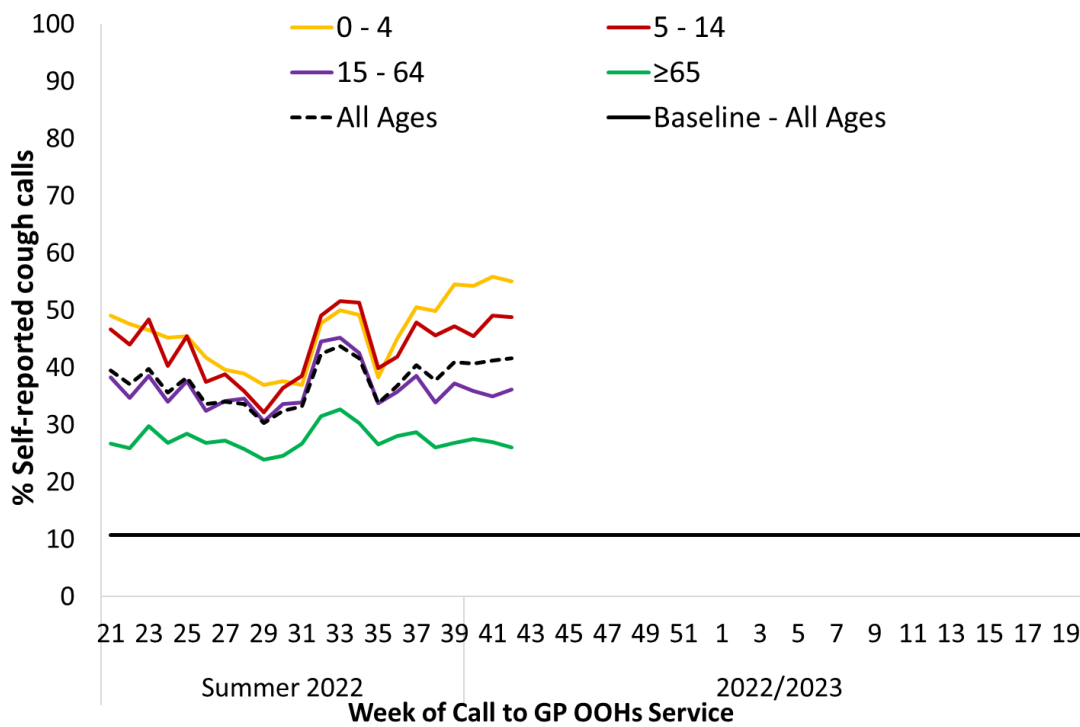


Figure 4: Percentage of self-reported COUGH calls for all ages and by age group as a proportion of total calls to GP Out-of-Hours services by week of call, summer 2022 and the 2022/2023 season. The % cough calls baseline for all ages calculated using the MEM method on historic data is shown. *Source: GP Out-Of-Hours services in Ireland (collated by HSE-NE) & ICGP.*

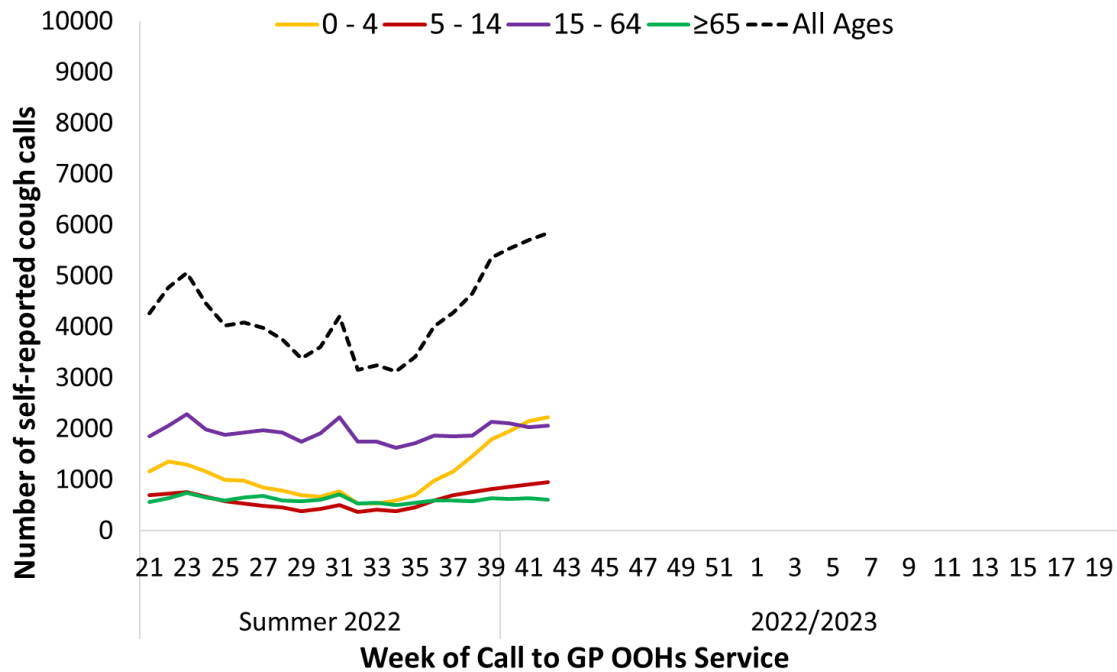


Figure 5: Number of self-reported COUGH calls for all ages and by age group to GP Out-of-Hours services by week of call, 2022-2023. *Source: GP Out-Of-Hours services in Ireland (collated by HSE-NE) & ICGP.*

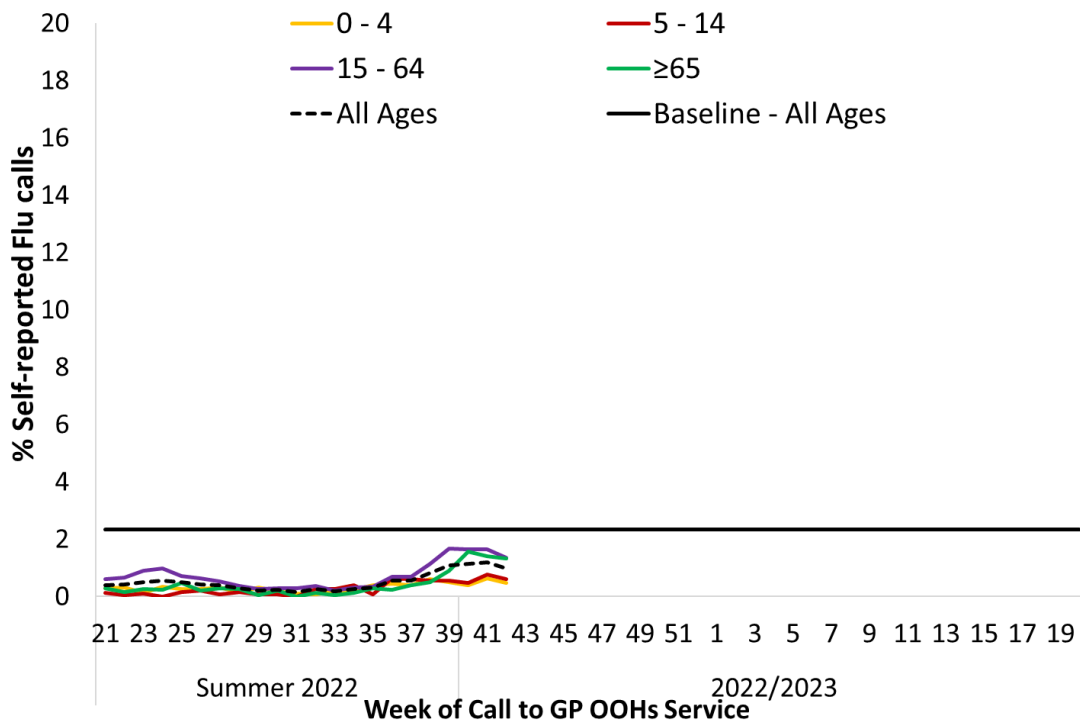


Figure 6: Percentage of self-reported FLU calls for all ages and by age group as a proportion of total calls to GP Out-of-Hours services by week of call, Summer 2022 and 2022/2023. The % flu calls baseline for all ages calculated using the MEM method on historic data is shown. *Source: GP Out-Of-Hours 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](#).

- 102 laboratory confirmed influenza cases were notified during week 42 2022– five A(H3), five A(H1)pdm09, 88 influenza A (not subtyped), three influenza B and one influenza A & B co-infection. This is an increase compared to 59 influenza notifications during week 41 2022 (Figure 7).
- Confirmed influenza cases for week 42 2022 were notified in the following HSE areas: HSE-East (n=50), HSE-MidWest (n=3), HSE-Midlands (n=2), HSE-Northeast (n=10), HSE-Northwest (n=12), HSE-Southeast (n=6), HSE-South (n=8) and HSE-West (n=11).
- 325 RSV cases were notified during week 42 2022 and an increase compared to 177 cases notified during week 41 2022 (Figure 8). During week 42 2022, 68% of notified RSV cases were in the 0-4-year age group.

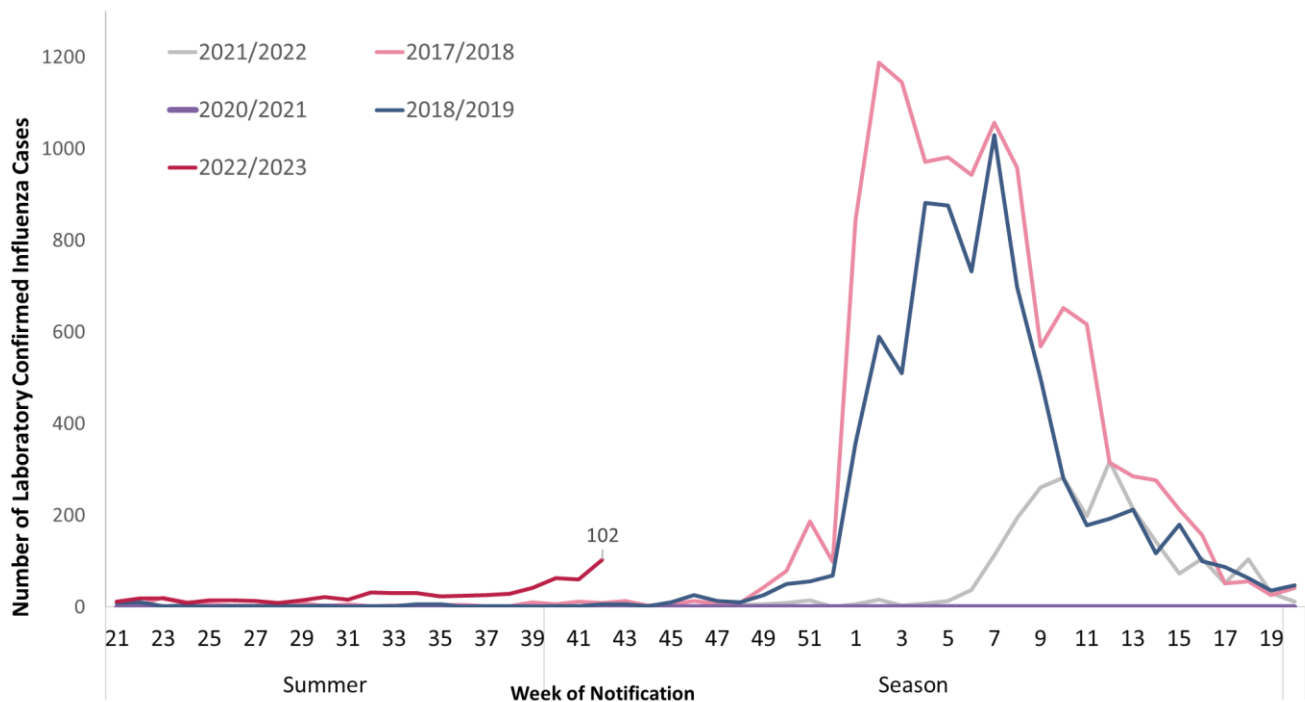


Figure 7: Laboratory confirmed influenza notifications to HSPC by week and season of notification, 2017/2018 to 2022/2023 influenza seasons. *Source: Ireland's Computerised Infectious Disease Reporting System.*

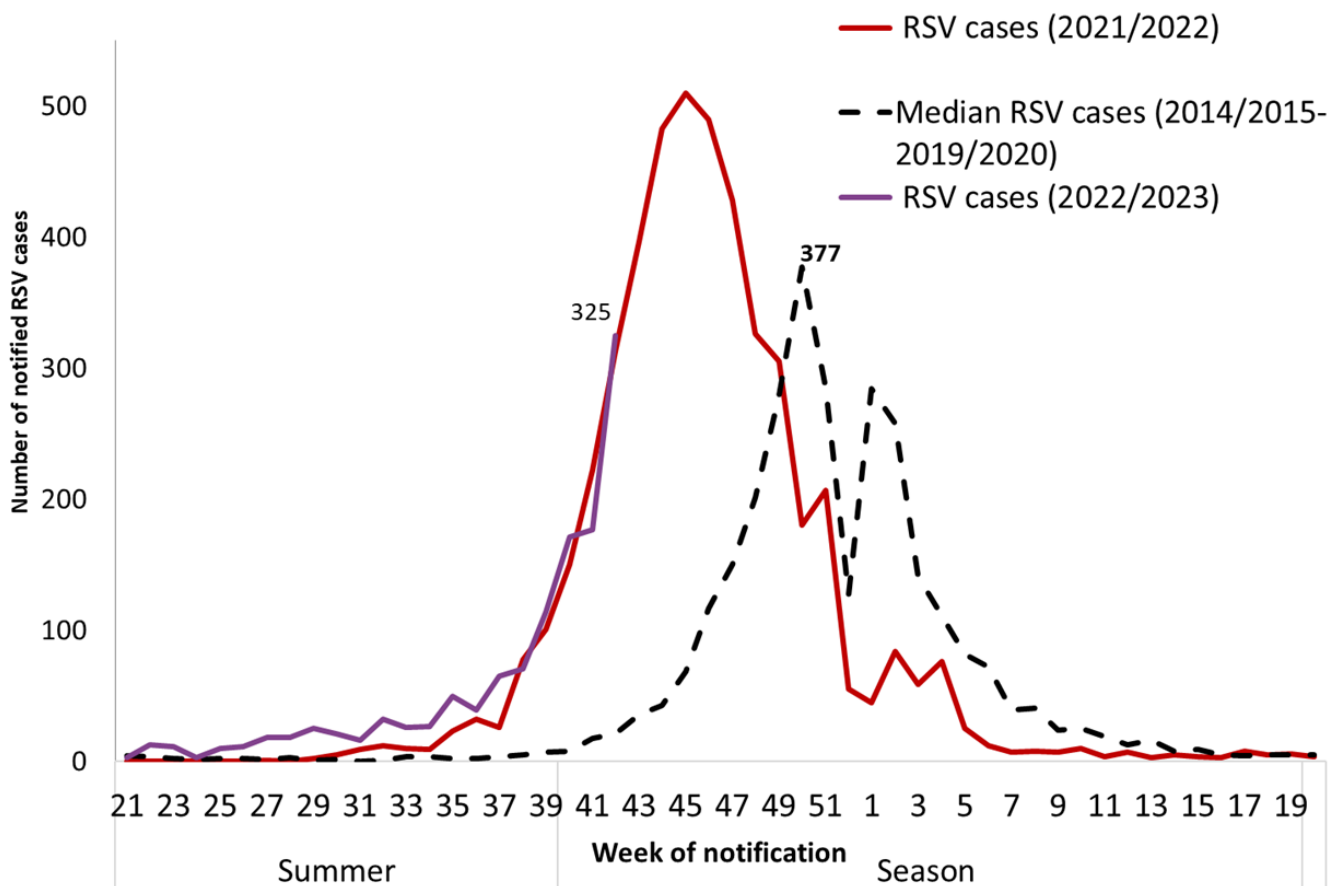


Figure 8: Number of laboratory confirmed RSV notifications to HPSC by week of notification 2022/2023 season 2021/2022 season and median number of RSV notifications by week (2014/2015-2019/2020). *Source: Ireland's Computerised Infectious Disease Reporting System.*

6. Hospitalisations

- During week 42 2022, 28 laboratory confirmed influenza cases were reported as hospital inpatients, - one influenza A(H3), 24 influenza A (not subtyped), two influenza B and one influenza A & B co-infection. (Figure 9). This is stable compared to 28 laboratory confirmed influenza notifications reported as hospital inpatients during week 41 2022.
- The number (and age specific rate per 100,000 population) of laboratory confirmed notified influenza hospitalised and critical care cases for the 2022/2023 season are detailed in table 8.
- In week 42 2022, of the 102 laboratory confirmed influenza cases notified, 46 notifications were reported in Emergency Department patients (Table 6).
- During week 42 2022, 155 RSV cases out of 325 (48%) were reported as hospital inpatients (Figure 10). It should be noted that patient type is not always reported/updated for RSV notified cases; an RSV patient may be admitted to hospital and patient type not updated on CIDR.
- In week 42 2022, of the 325 laboratory confirmed RSV notifications, 123 were reported in Emergency Department patients. (Table 7).

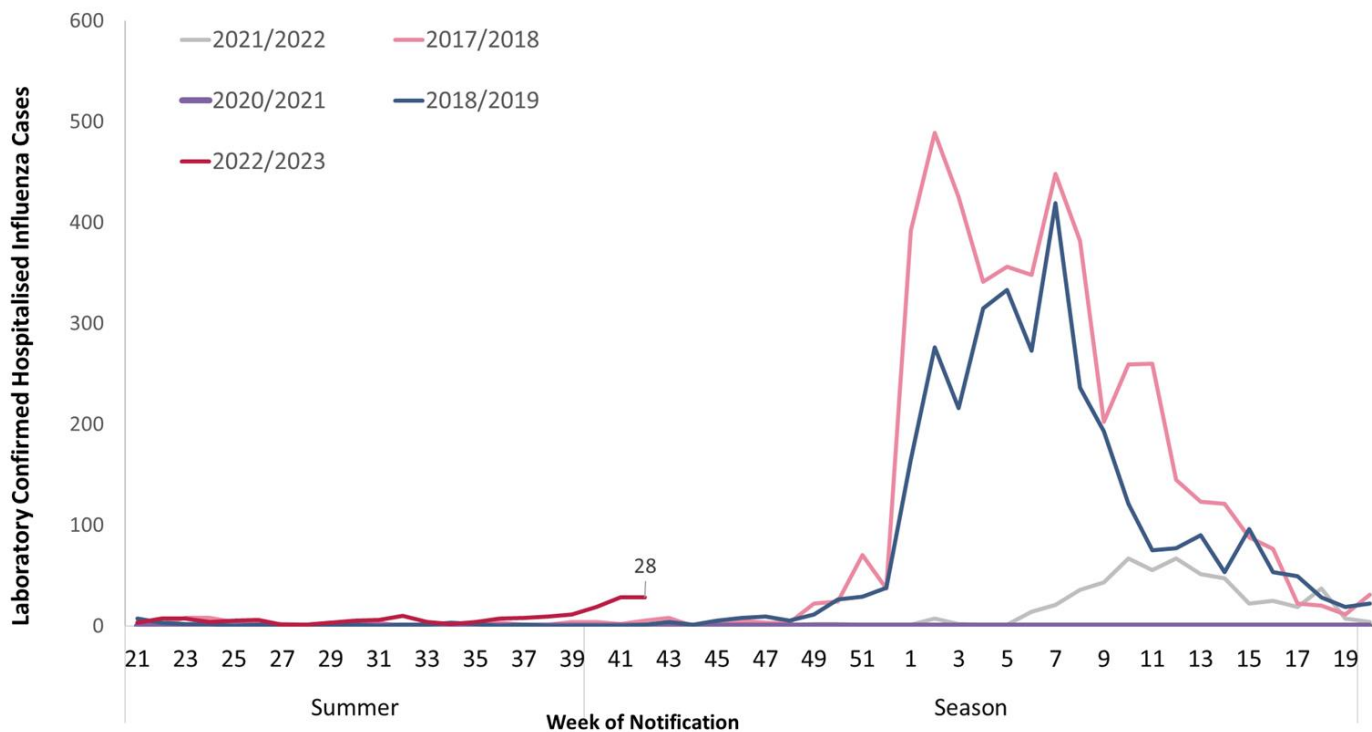


Figure 9: Number of notified laboratory confirmed influenza cases reported as hospital inpatients, for the 2017/2018 to 2022/2023 season. *Source: Ireland's Computerised Infectious Disease Reporting System*

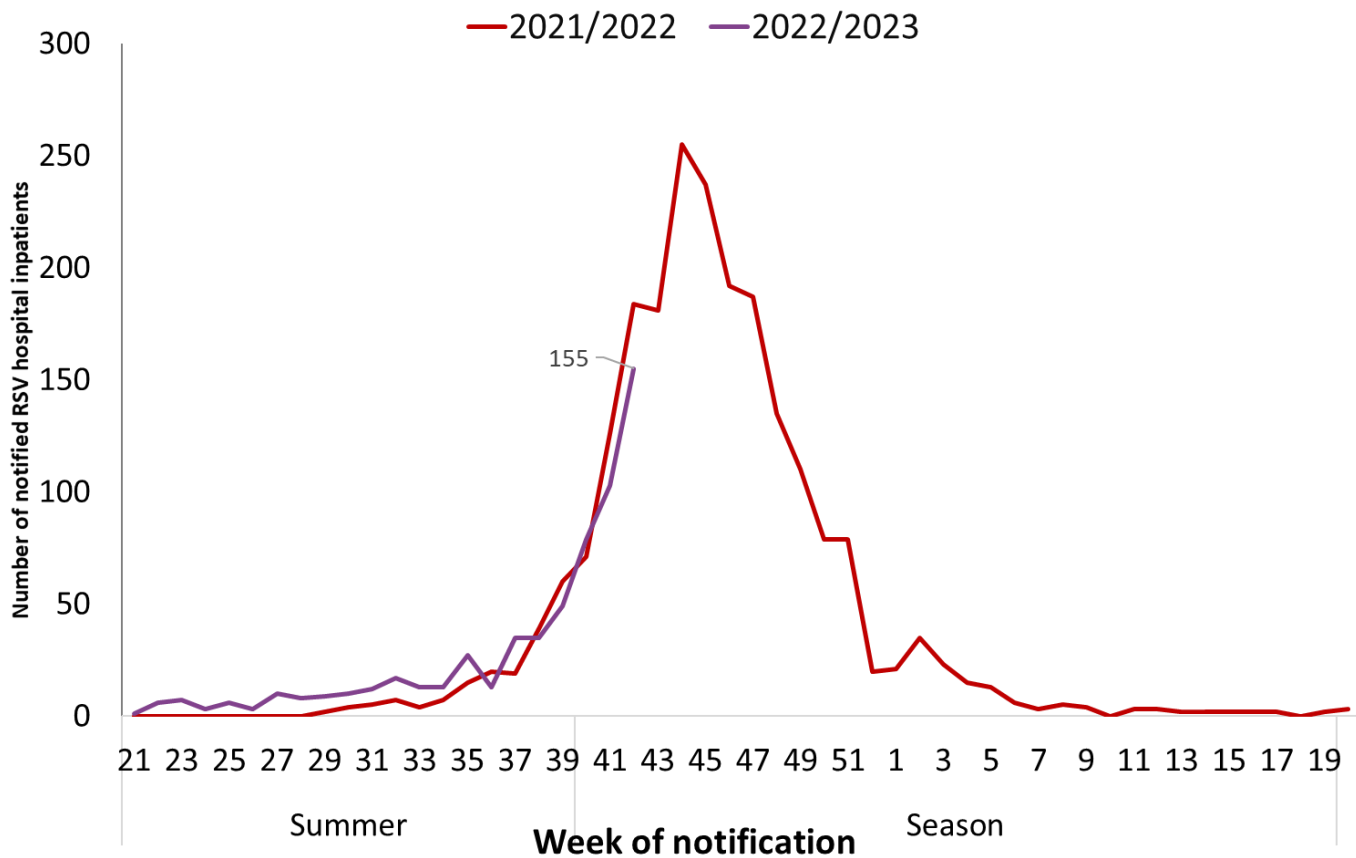


Figure 10: Number of notified RSV cases reported as hospital inpatients, by week of notification and season, 2021/2022 and 2022/2023. *Source: Ireland’s Computerised Infectious Disease Reporting System.*

Table 6: Number of notified influenza cases reported by patient type and week of notification and 2022/2023 season (weeks 40-42 2022). *Source: Ireland’s Computerised infectious Disease Reporting System*

Patient type	Week of notification			Season total
	40	41	42	
GP Patient	2	4	1	7
ED Patient	11	21	46	78
Hospital Inpatient	19	27	28	74
Hospital Day Patient	2	0	1	3
Hospital Outpatient	9	3	17	29
Other	7	2	4	13
Not Specified	1	0	0	1
Unknown	11	2	5	18
Total	62	59	102	223

Table 7: Number of notified RSV cases reported by patient type and week of notification and 2022/2023 season (weeks 40-42 2022). *Source: Ireland's Computerised infectious Disease Reporting System*

Patient type	Week of notification			Season total
	40	41	42	
GP Patient	5	3	5	13
ED Patient	53	45	123	221
Hospital Inpatient	79	103	155	337
Hospital Day Patient	1	2	2	5
Hospital Outpatient	13	13	14	40
Other	7	5	11	23
Not Specified	1	2	1	4
Unknown	11	4	14	29
Total	170	177	325	672

7. Critical Care Surveillance

The Intensive Care Society of Ireland (ICSI) and the HSE Critical Care Programme are continuing with the enhanced surveillance system set up during the 2009 pandemic, on all critical care patients with confirmed influenza. HPSC processes and reports on this information on behalf of the regional Directors of Public Health/Medical Officers of Health.

- Two laboratory confirmed influenza A (not subtyped) cases were admitted to critical care and notified to HPSC during week 42 2022.
- During 2022/2023 season to date (weeks 40-42), three laboratory confirmed influenza A (not subtyped) cases have been admitted to critical care and notified to HPSC.
- The number (and age specific rate per 100,000 population) of laboratory confirmed notified influenza hospitalised and critical care cases for the 2022/2023 season are detailed in table 8.

Table 8: Number (and age specific rate per 100,000 population) of laboratory confirmed notified influenza hospitalised and critical care cases, weeks 40-42 2022. *Source: Ireland's Computerised infectious Disease Reporting System.*

Age (years)	Hospitalised		Admitted to ICU	
	Number	Age specific rate per 100,000 pop.	Number	Age specific rate per 100,000 pop.
<1	1	1.6	0	0.0
1-4	3	1.1	0	0.0
5-14	15	2.2	0	0.0
15-24	6	1.0	1	0.2
25-34	4	0.6	0	0.0
35-44	6	0.9	0	0.0
45-54	4	0.6	0	0.0
55-64	9	1.8	0	0.0
≥65	27	4.2	2	0.3
Unknown		-		-
Total	75	1.6	3	0.1

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 deaths occurring in notified influenza cases occurring during week 42 2022.
- No excess all-cause mortality was reported during week 41 2022, after correcting data for reporting delays with the standardised EuroMOMO algorithm. Due to delays in death registrations in Ireland, excess mortality data included in this report are reported with a one-week lag time.

9. Outbreak Surveillance

COVID-19 outbreaks are not included in this report; surveillance data on COVID-19 outbreaks are detailed on the HPSC website. <https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/casesinireland/>

- No influenza, RSV or Acute Respiratory Infection (ARI – SARS-CoV-2 negative) outbreaks were notified to HPSC during week 42 2022.
- For the season to date (weeks 40-42 2022) two influenza outbreaks in nursing homes, three RSV outbreaks in private houses, and one ARI (SARS-CoV-2 negative) outbreak in a community hospital/long-stay unit were notified to HPSC.

10. International Summary

In the European region, during week 41 2022 (week ending 16/10/2022) influenza virus positivity in sentinel primary care specimens was 4%, which is below the threshold of 10% positivity. For week 41 2022, 41 (4%) of 956 sentinel GP specimens tested positive for an influenza virus; 40 (98%) were type A and one (2%) was type B (no lineage ascribed). Of 33 subtyped A viruses, 85% were A(H3) and 15% were A(H1)pdm09. For week 41 2022, 398 of 31,588 specimens from non-sentinel sources (such as hospitals, schools, primary care facilities not involved in sentinel surveillance, or nursing homes and other institutions) tested positive for an influenza virus; 360 (90%) were type A and 38 (10%) were type B. Of 98 subtyped A viruses, 46 (47%) were A(H3) and 52 (53%) were A(H1)pdm09. Of the four type B viruses ascribed to a lineage, all were B/Victoria lineage. Of 41 countries and areas reporting on geographic spread of influenza viruses, 20 reported no activity (across the Region), 17 reported sporadic spread (across the Region), one reported local spread (Malta), two reported regional spread (Scotland and Germany) and one reported widespread activity (Kazakhstan).

WHO are advising countries to remain vigilant for the likelihood of influenza circulating and to be prepared for co-circulation of SARS-CoV-2 and influenza. See [ECDC](#) and [WHO](#) influenza surveillance reports for further information.

- Further information on influenza is available on the following websites:
 - Europe – ECDC <http://ecdc.europa.eu/>
 - Public Health England <https://www.gov.uk/government/collections/weekly-national-flu-reports>
 - 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>
- Influenza case definition in Ireland <https://www.hpsc.ie/a-z/respiratory/influenza/casedefinitions/>
- COVID-19 case definition in Ireland <https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/casedefinitions/>
- Avian influenza overview May – August 2020 <https://www.ecdc.europa.eu/en/publications-data/avian-influenza-overview-may-august-2020>
- Avian influenza: EU on alert for new outbreaks <https://www.ecdc.europa.eu/en/news-events/avian-influenza-eu-alert-new-outbreaks>
- Information on COVID-19 in Ireland is available on the HPSC website <https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/>
- The WHO categorised COVID-19 as a pandemic on 11 March 2020. For more information about the situation in the WHO European Region visit:
 - WHO website: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019>
 - ECDC website: <https://www.ecdc.europa.eu/en/novel-coronavirus-china>

11. WHO recommendations on the composition of influenza virus vaccines

The WHO vaccine strain selection committee recommend that quadrivalent egg-based vaccines for use in the 2022/2023 northern hemisphere influenza season contain the following:

- an A/Victoria/2570/2019 (H1N1)pdm09-like virus;
- an A/Darwin/9/2021 (H3N2)-like virus;
- a B/Austria/1359417/2021 (B/Victoria lineage)-like virus; and
- a B/Phuket/3073/2013 (B/Yamagata lineage)-like virus

<https://www.who.int/teams/global-influenza-programme/vaccines/who-recommendations>

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

Acknowledgements

This report was prepared by the HPSC influenza epidemiology team: Eva Kelly, Maeve McEnery, Amy Griffin, Adele McKenna, Martha Neary, Elaine Brabazon, Lisa Domegan and Joan O'Donnell. HPSC wishes to thank the sentinel GPs, the ICGP, NVRL, Departments of Public Health, ICSI, HSE-Healthlink and HSE-NE for providing data for this report.