Influenza, RSV and Other Respiratory Viruses Surveillance Report Week 41 2023 (9th – 15th October 2023)









This report presents data on the epidemiology of influenza, respiratory syncytial virus (RSV) and other respiratory viruses (ORVs). For further information on the epidemiology of COVID-19, please refer to COVID-19 surveillance <u>reports</u>.

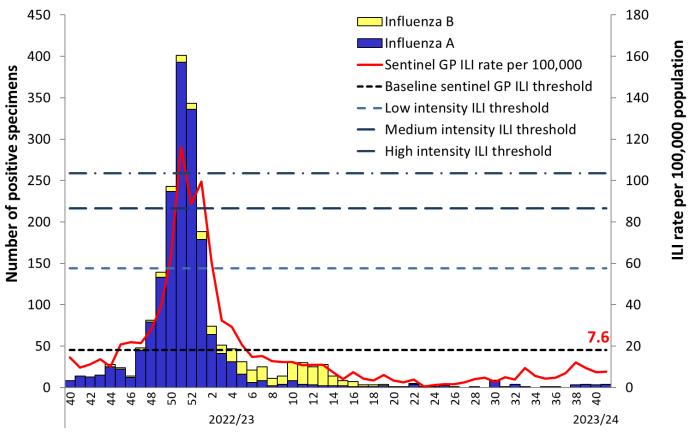
Summary

Influenza activity remained at low levels with sporadic cases notified in Ireland during week 41 2023. Respiratory syncytial virus (RSV) hospitalised cases have increased in recent weeks, with the highest rates in those aged less than one year old, followed by the 1-4 year age group. Rhino/enteroviruses have been circulating at high levels in recent weeks.

- <u>Influenza-like illness (ILI)</u>: The sentinel GP ILI consultation rate was 7.6 per 100,000 population during week 41 2023, compared to the updated rate of 7.4/100,000 in week 40. ILI consultation rates have been below the Irish baseline threshold (18.1/100,000 population) this season to date (weeks 40 and 41). Sentinel GP ILI age specific rates were below age specific baseline thresholds in all age groups during week 41 2023.
- National Virus Reference Laboratory (NVRL): During week 41 2023, of 118 sentinel GP Acute Respiratory Infection (ARI) specimens tested and reported by the NVRL, four (3.4 %) were positive for influenza (two A(H1)pdm09, one A(H3) and one A unsubtyped), 14 (11.9%) for SARS-CoV-2, and five (4.2%) for RSV. There were 28 (23.7%) rhino/enterovirus positive specimens reported during week 41.
- Of 130 non-sentinel respiratory specimens tested and reported by the NVRL during week 41 2023, none were positive for influenza and four (3.1%) were positive for RSV. Rhino/enterovirus positivity remained at high levels at 17.7% (23/130) during week 41 and 23.1% (28/121) during week 40.
- Of the seven respiratory specimens (including both sentinel GP ARI specimens and non-sentinel specimens) testing positive for influenza and reported by the NVRL to date during the 2023/2024 season, three (43%) were coinfected with other respiratory viruses.
- <u>GP Out of hours (OOHs)</u>: Cough calls comprised 14.2% (1,625/11,449) of all reported GP OOHs calls during week 41 2023, which is above the baseline threshold of 10.8%.
- Influenza notifications: 29 laboratory confirmed influenza cases were notified during week 41 2023 two influenza A (H3), five A(H1)pdm09, 21 A (not subtyped) and one influenza B. Age specific rates were low in all age groups during week 41.
- **<u>RSV notifications</u>**: 67 RSV cases were notified during week 41 2023, an increase compared on the 43 cases notified in week 40.
- <u>Hospitalisations</u>: Notified influenza hospitalised cases remained low at four cases during week 41, compared to five in week 40 2023. Three of the cases were influenza A and one influenza B. Thirty-three RSV hospitalised cases were notified during week 41 2023, 90% (30/33) were aged 0-4 years.
- <u>Intensive care admissions</u>: No laboratory confirmed influenza cases were admitted to intensive care units and notified to HPSC during week 41 2023 or for the 2023/2024 season to date.
- Mortality: No deaths in notified influenza cases were reported to HPSC during week 41 2023 or for the season to date. No excess all-cause mortality has been reported since week 2 2023.
- **Outbreaks:** During week 41 2023, no Influenza, RSV or ARI outbreaks were notified to HPSC.
- International: In Europe influenza detections remained at interseasonal levels. Early signs of RSV activity were recorded in some parts of Europe.

1. GP sentinel surveillance system - Clinical Data

- During week 41 2023, 35 sentinel GP influenza-like illness (ILI) consultations were reported from the Irish sentinel GP network, corresponding to an ILI consultation rate of 7.6 per 100,000 population, compared to an updated rate of 7.4 per 100,000 population during week 40 2023 (Figure 1).
- The sentinel GP ILI consultation rates have been below the Irish sentinel GP ILI baseline threshold (18.1/100,000 population) for 36 consecutive weeks, since week 5 2023.
- Age specific ILI consultation rates were below age specific baseline thresholds in all age groups during weeks 40 and 41 2023 (Figure 2, Table 1).
- The Irish sentinel baseline ILI threshold for the 2023/2024 influenza season is 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), low (57.5/100,000 population), medium (86.5/100,000 population) and high (103.6/100,000 population) intensity ILI thresholds are shown in Figure 1.



Week Number

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*

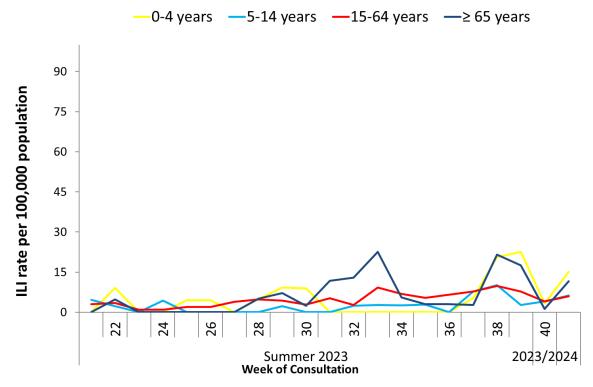


Figure 2: Age specific sentinel GP **ILI consultation** rate per 100,000 population by week (weeks 21-41 2023). *Source: ICGP*.

Table 1: Age specific sentinel GP **ILI consultation** rate per 100,000 population by week (weeks 40-41 2023), colour coded by sentinel GP ILI age specific Moving Epidemic Method (MEM) threshold levels. *Source: ICGP.*

MEM Threshold Levels	evels Below Baseline		Low Moderate		High	Extraordinary
	Age group (years) All ages		2023	/2024		
Age group			40	4	41	
All ages			7.4	7.6		
<15 yrs			3.6	8	.2	
15-64 yrs			4.1	6	.0	
≥65 yrs			1.3	11	L.5	
Reporting practices (N=98)			59	5	6	

2. Influenza and Other Respiratory Virus Detections - NVRL

The data reported in this section for the 2023/2024 influenza season refers to sentinel GP ARI 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 3a, 3b, 4).

- A lag time with testing and reporting is noted for the most recent surveillance week.
- During week 41 2023, of 118 sentinel GP ARI specimens tested and reported by the NVRL, four (3.4%) were positive for influenza (two A(H1)pdm09, one A(H3) and one influenza A unsubtyped), 14 (11.9%) for SARS-CoV-2, five (4.2%) for RSV and 28 (23.7%) for rhino/enterovirus.
- During week 40 2023, of 131 sentinel GP ARI specimens tested and reported by the NVRL, one (0.8%) was positive for influenza, eight (6.1%) for SARS-CoV-2, three (2.3%) for RSV and 45 (34.4%) for rhino/enterovirus.
- Of 130 non-sentinel respiratory specimens tested and reported by the NVRL during week 41 2023, none were positive for influenza, 23 (17.7%) were positive for rhinovirus/enterovirus and 4 (3.1%) for RSV.
- During week 40 2023, of 121 non-sentinel respiratory specimens tested, two (1.7%) were positive for influenza (one influenza A (H3) and one influenza A un subtyped), two (1.7%) RSV, and 28(23.1%) rhinovirus/enterovirus (Figure 3b).
- Other respiratory viruses (ORVs) are being detected at lower levels (Figure 3a and 3b).
- Of seven sentinel GP ARI specimens and non-sentinel respiratory specimens positive for influenza and reported by the NVRL during the 2023/2024 season, three (43%) were coinfected with other respiratory viruses.

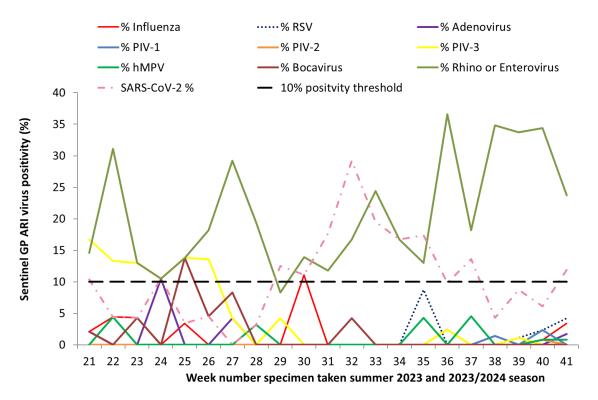


Figure 3a: Percentage positive results for **sentinel GP ARI** specimens tested by the NVRL for influenza, SARS-CoV-2, RSV and other respiratory viruses by week specimen was taken, weeks 21-41 2023. *Source: NVRL*

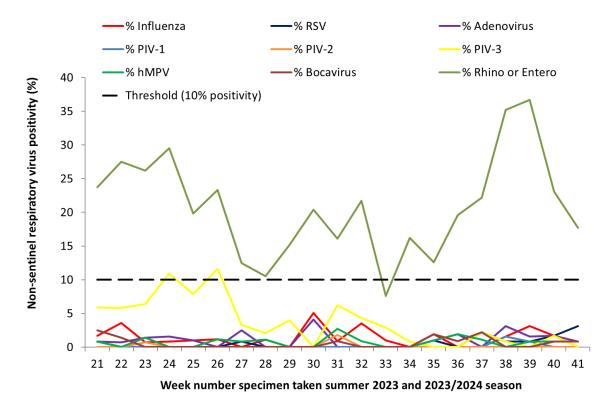


Figure 3b: Percentage positive results for **non-sentinel respiratory** specimens tested by the NVRL for influenza, RSV and other respiratory viruses by week specimen was taken, weeks 21-41 2023. *Source: NVRL*

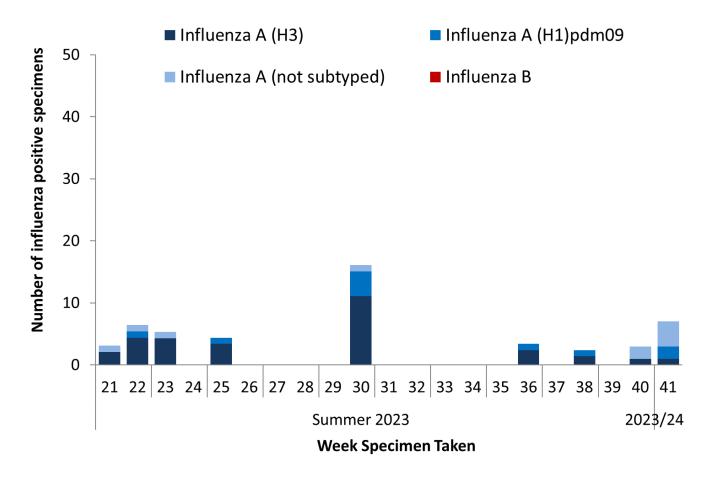


Figure 4: Number of positive **influenza** specimens (from sentinel GP ARI and non-sentinel respiratory sources) tested by the NVRL by influenza type/subtype and by week specimen was taken, weeks 21-41 2023. *Source: NVRL*

Table 2: Number of sentinel GP ARI and non-sentinel respiratory specimens tested by the NVRL and positive **influenza** results, overall and by influenza type and subtype, for weeks 40 and 41 2023 and the 2023/2024 Season. *Source: NVRL*

Surveillance	Specimen type	Total	Number	% Influenza	a Influenza A Influenza B							
					A(H1)pdm09	A(H3)	A (not subtyped)	Total	В	B Victoria	B Yamagata	Total
Week 41 2023	Sentinel GP ARI	118	4	3.4	2	1	1	4	0	0	0	0
	Non-sentinel respiratory	130	0	0	0	0	0	0	0	0	0	0
	Total	248	4	1.6	2	1	1	4	0	0	0	0
Week 40 2023	Sentinel GP ARI	131	1	0.8	0	0	1	1	0	0	0	0
	Non-sentinel respiratory	121	2	1.7	0	1	1	2	0	0	0	0
	Total	252	3	1.2	0	1	2	3	0	0	0	0
Season Total	Sentinel GP ARI	249	5	4.2	2	1	2	5	0	0	0	0
	Non-sentinel respiratory	251	2	1.7	0	1	1	2	0	0	0	0
	Total	500	7	1.4	2	2	3	7	0	0	0	0

Table 3: Number of sentinel GP ARI and non-sentinel respiratory specimens tested by the NVRL and positive **RSV** results, overall and by RSV type, for weeks 40 and 41 2023 and the 2023/2024 Season. *Source: NVRL*

Surveillance	Specimen type	Total	Number RSV positive	% RSV positive	RSV A	RSV B	RSV (unspecified)
Week 41 2023	Sentinel GP ARI	118	5	4.2	4	1	0
	Non-sentinel respiratory	130	4	3.1	3	1	0
	Total	248	9	3.6	7	2	0
Week 40 2023	Sentinel GP ARI	131	3	2.3	1	2	0
	Non-sentinel respiratory	121	2	1.7	2	0	0
	Total	252	5	2.0	3	2	0
Season Total	Sentinel GP ARI	249	8	6.5	5	3	0
	Non-sentinel respiratory	251	6	4.8	5	1	0
	Total	500	14	2.8	10	4	0

Table 4: Number and percentage positive sentinel GP ARI specimens tested by the NVRL by **respiratory virus**, weeks 40 and 41 2023, and the 2023/2024 season. *Source: NVRL*

	Week 41 2	023 (N=118)	Week 40 2023 (N=131)		Season To	otal (N=249)
Virus	Total		Total		Total	
	positive	% positive	positive	% positive	positive	% positive
Influenza virus	4	3.4	1	0.8	5	2.0
Respiratory Synctial Virus (RSV)	5	4.2	3	2.3	8	3.2
Rhino/enterovirus	28	23.7	45	34.4	73	29.3
Adenovirus	2	1.7	0	0.0	2	0.8
Bocavirus	0	0.0	0	0.0	0	0.0
Human metapneumovirus (hMPV)	1	0.8	1	0.8	2	0.8
Parainfluenza virus type 1 (PIV-1)	0	0.0	3	2.3	3	1.2
Parainfluenza virus type 2 (PIV-2)	0	0.0	1	0.8	1	0.4
Parainfluenza virus type 3 (PIV-3)	0	0.0	0	0.0	0	0.0
Parainfluenza virus type 4 (PIV-4)	3	2.5	5	3.8	8	3.2
SARS-CoV-2	14	11.9	8	6.1	22	8.8

Table 5: Number and percentage positive non-sentinel respiratory specimens tested by the NVRL, by respiratory virus, weeks 40 and 41 2023, and the 2023/2024 season. *Source: NVRL*

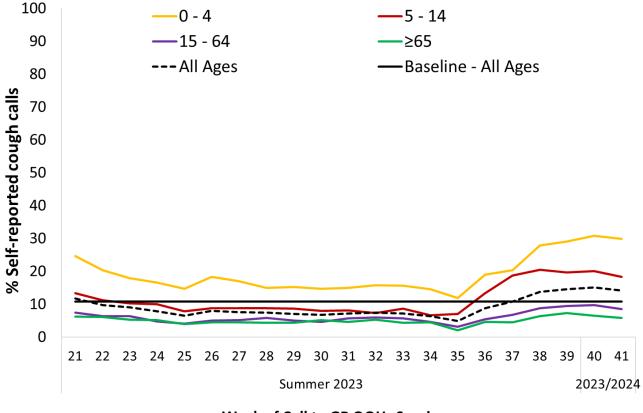
	Week 41 20	023 (N=130)	Week 40 2	023 (N=121)	Season To	tal (N=251)
Virus	Total		Total		Total	
	positive	% positive	positive	% positive	positive	% positive
Influenza virus	0	0.0	2	1.7	2	0.8
Respiratory Synctial Virus (RSV)	4	3.1	2	1.7	6	2.4
Rhino/enterovirus	23	17.7	28	23.1	51	20.3
Adenovirus	1	0.8	2	1.7	3	1.2
Bocavirus	1	0.8	1	0.8	2	0.8
Human metapneumovirus (hMPV)	1	0.8	1	0.8	2	0.8
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	2	1.7	2	0.8
Parainfluenza virus type 4 (PIV-4)	2	1.5	3	2.5	5	2.0

Influenza Surveillance Report

3. GP Out-Of-Hours services surveillance

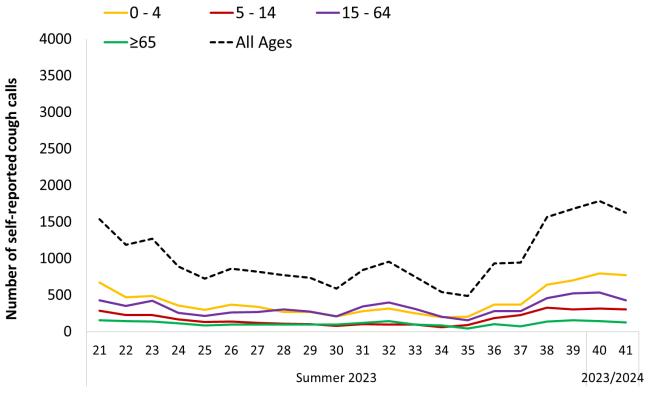
National data on calls to GP Out-of-Hours services in Ireland are collated by HPSC. Five services currently contribute data to this programme. Records of calls with clinical symptoms self-reported as 'flu' or 'cough are included in the analysis. This information may act as an early indicator of circulation of influenza viruses, SARS-CoV-2 or other respiratory viruses.

- All five GP OOH services provided data for week 41 2023.
- Out of a total of 11,449 calls made to the participating GP OOHs in week 41:
 - 1,625 (14.2%) were for self-reported 'cough', which is above the baseline threshold of 10.8% for cough calls (Figure 5 and 6).
 - 118 (1.0%) were for self-reported 'flu', which is below the baseline threshold for 'flu' calls of 2.3% (Figure 7 and 8).
- The greatest burden (30%) of cough calls was in those aged 0-4 years.



Week of Call to GP OOHs Service

Figure 5: 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 2023 and the 2023/2024 season. The baseline % cough calls for all ages calculated using the MEM method on historic data is shown. *Source: GP Out-Of-Hours services in Ireland (collated by HSE & ICGP).*



Week of Call to GP OOHs Service

Figure 6: Number of self-reported **COUGH** calls for all ages and by age group to GP Out-of-Hours services by week of call, Summer 2023 and 2023/2024. *Source: GP Out-Of-Hours services in Ireland (collated by HSE & ICGP)*.

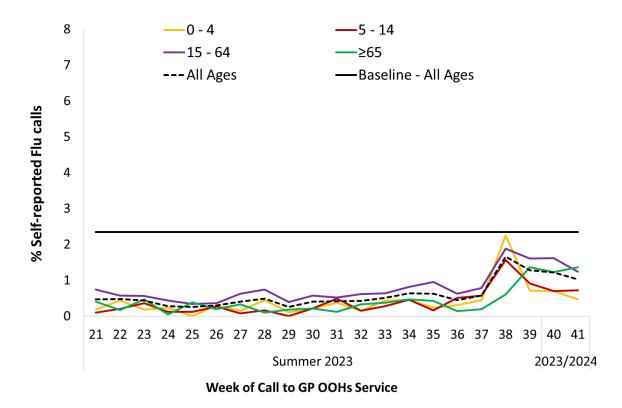


Figure 7: Percentage of self-reported **FLU** calls for all ages and by age group as a proportion of total calls to GP Outof-Hours services by week of call, Summer 2023 and 2023/2024. The baseline % flu calls for all ages calculated using the MEM method on historic data is shown. *Source: GP Out-Of-Hours services in Ireland (collated by HSE & ICGP)*

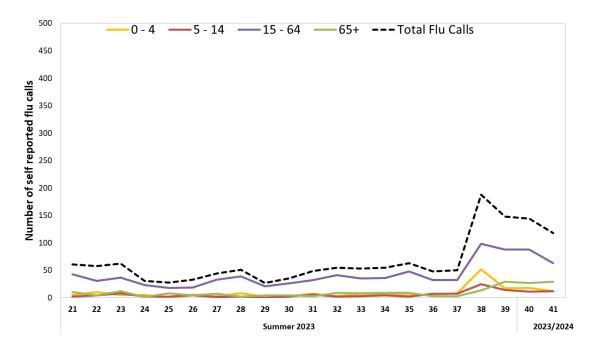


Figure 8: Number of self-reported FLU calls for all ages and by age group to GP Out-of-Hours services by week of call, Summer 2023 and 2023/2024. Source: GP Out-Of-Hours services in Ireland (collated by HSE & ICGP).

4. Influenza & RSV notifications

Influenza and RSV case 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 <u>Weekly Infectious Disease Report for Ireland</u>.

- 29 laboratory confirmed influenza cases were notified during week 41 2023: two influenza A (H3), five A(H1)pdm09, 21 influenza A (not subtyped) and one influenza B. This is an increase compared to 14 cases notified during week 40 2023 (Figure 9).
- Age specific rates in notified laboratory confirmed influenza cases were low in all age groups during week 41 2023.
- Laboratory confirmed influenza notified cases by HSE Health Region, are outlined in Table 6.
- Sixty-seven RSV cases were notified during week 41 2023, an increase compared to 43 cases notified during week 40 2023 (Figure 10).
- Age specific notification rates for RSV were highest in those aged less than one year old (Figure 11), at 32.1 /100 000 population, followed by the 1–4-year age group at 12.3/100,000.

Table 6: Number of laboratory confirmed influenza notifications by HSE Health Region for week 41 2023 and the2023/2024 season to date. Source: CIDR

HSE Health Region	Week 41 2023	2023/2024 season (Week 40- 41 2023)
Dublin and North East	10	13
Dublin and Midlands	2	3
Dublin and South East	3	7
South West	5	7
Mid West	2	2
North and North West	7	11
Total	29	43

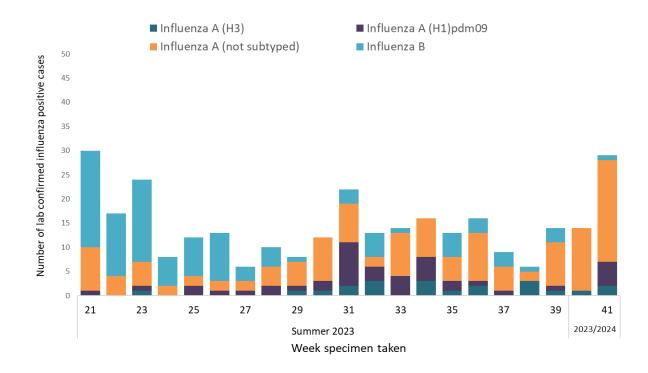


Figure 9: Number of laboratory confirmed **influenza** notifications by influenza type/subtype by week, summer 2023 and 2023/2024 season. *Source: Ireland's Computerised Infectious Disease Reporting System*.

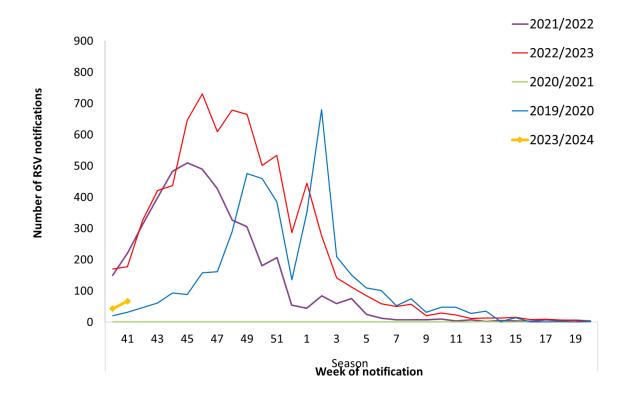


Figure 10: Number of laboratory confirmed **RSV** notifications to HPSC by week of notification, 2019/2020 to 2023/2024 seasons. *Source: Ireland's Computerised Infectious Disease Reporting System.*

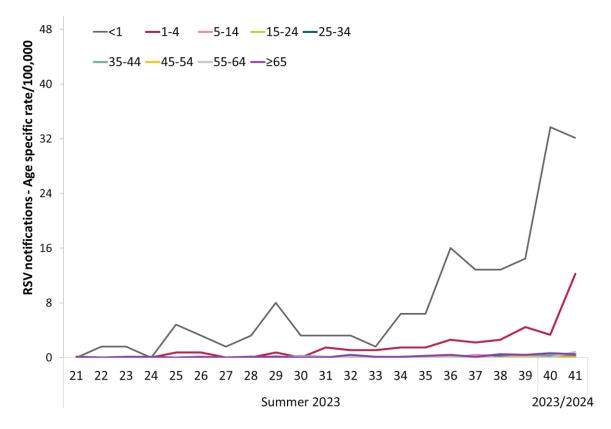


Figure 11: Age specific rates per 100,000 population for laboratory confirmed **RSV** notifications to HPSC by week of notification. *Source: Ireland's Computerised Infectious Disease Reporting System.*

5. Hospitalisations

- During week 41 2023, the number of notified laboratory confirmed influenza hospital inpatients remained low and stable, with four cases notified compared to five in week 40. Three of the cases were influenza A (not subtyped) and one influenza B (Figure 12).
- During week 41 2023, age specific notification rates for laboratory confirmed influenza hospital inpatients were low in all age groups.
- During week 41 2023, 33 laboratory confirmed RSV hospital inpatients were notified, an increase from 20 cases in week 40 2023 (Figures 13).
- The age specific rate for RSV hospitalisation was highest for those aged less than one year old (32.1/100000 population) and those aged 1-4 years (12.3/100,000 population).
- The number of laboratory confirmed influenza and RSV notifications by patient type and week for the 2023/2024 season are reported in Tables 7 and 8.

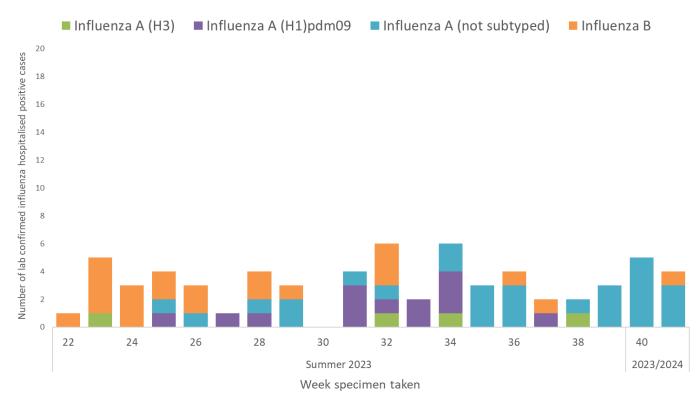


Figure 12: Number of notified laboratory-confirmed **influenza** hospital inpatients by influenza type/subtype to HPSC by week, summer 2023 and 2023/2024 season. *Source: Ireland's Computerised Infectious Disease Reporting System.*

 Table 7: Number of notified laboratory-confirmed influenza cases by patient type and week of notification 2023/2024

 season (week 40 2023 onwards). Source: Ireland's Computerised infectious Disease Reporting System

	Patient Type									
	GP Patient	ED patient	Hospital Inpatient	Hospital Day Patient	Hospital Outpatient	Other	Unknown	Total	Deaths	
Week 41	3	14	4	0	3	0	5	29	0	
Week 40	0	6	5	0	3	0	0	14	0	
Total	3	20	9	0	6	0	5	43	0	

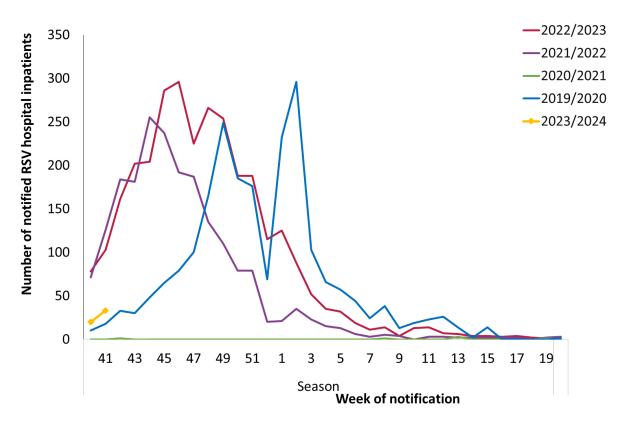


Figure 13: Number of notified **RSV** hospital inpatients, by week of notification and season, for the 2019/2020 to 2023/2024 seasons. *Source: Ireland's Computerised Infectious Disease Reporting System.*

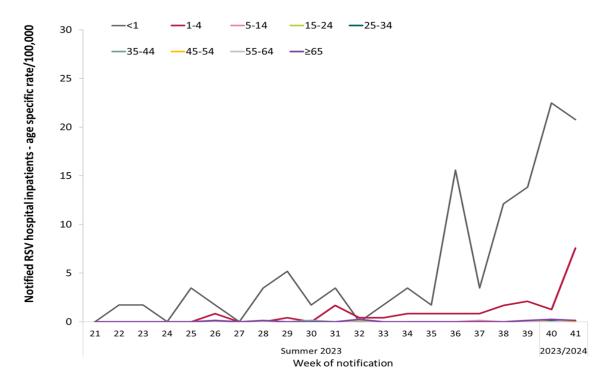


Figure 14: Age specific notification rates per 100,000 population for laboratory confirmed **RSV** hospital inpatients by week of notification and season, Summer 2023 and 2023/2024. *Source: Ireland's Computerised Infectious Disease Reporting System*

Table 8: Number of notified laboratory confirmed **RSV** cases by patient type and week of notification, 2023/2024

 season (week 40 2023 onwards). Source: Ireland's Computerised infectious Disease Reporting System

		Patient Type									
	GP Patient	ED patient	Hospital Inpatient	Hospital Day Patient	Hospital Outpatient	Other	Unknown	Total			
Week 41	1	23	33	1	1	1	7	67			
Week 40	0	16	20	1	2	3	1	43			
Total	1	39	53	2	3	4	8	110			

6. Intensive 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 intensive 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.

• No laboratory confirmed influenza cases were admitted to intensive care and notified to HPSC during week 41 2023 or for the season to date.

7. Mortality Surveillance

Influenza deaths include all deaths in notified influenza cases. 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 deaths in notified influenza cases reported to HPSC during week 41 2023 or the season to date.
- There was no excess mortality reported for week 40 2023. Excess mortality analyses are corrected 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.

8. Outbreak Surveillance

- In this surveillance report, ARI outbreaks refer to outbreaks of acute respiratory infection caused by pathogens other than influenza, SARS-CoV-2 or RSV.
- During week 41 2023, no Influenza, RSV or ARI outbreaks were notified to HPSC.
- 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/

9. International Summary

According to the latest published ECDC reports, in the European region, during weeks 36-39 2023 (up and including week ending 01/10/2023), influenza remained at interseasonal levels. Early signs of RSV activity were recorded in some parts of Europe.

As of 1st October 2023, WHO has reported that globally influenza detections remained low. In the temperate zones of the Northern hemisphere influenza activity was reported at low levels.

See <u>ECDC</u> and <u>WHO</u> influenza surveillance reports for further information.

• Further information on influenza is available on the following websites:

Europe – ECDChttp://ecdc.europa.eu/Public Health Englandhttps://www.gov.uk/government/collections/weekly-national-flu-reportsUnited States CDChttp://www.cdc.gov/flu/weekly/fluactivitysurv.htmPublic Health Agency of Canadahttp://www.phac-aspc.gc.ca/fluwatch/index-eng.php

- Influenza case definition in Ireland <u>https://www.hpsc.ie/a-z/respiratory/influenza/casedefinitions/</u>
- COVID-19 case definition in Ireland <u>https://www.hpsc.ie/a-</u> z/respiratory/coronavirus/novelcoronavirus/casedefinitions/
- Avian influenza overview May August 2020 <u>https://www.ecdc.europa.eu/en/publications-data/avian-influenza-overview-may-august-2020</u>
- Avian influenza: EU on alert for new outbreaks <u>https://www.ecdc.europa.eu/en/news-events/avian-influenza-eu-alert-new-outbreaks</u>
- Information on COVID-19 in Ireland is available on the HPSC website https://www.hpsc.ie/a-z/respiratory/coronavirus/

- 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: <u>https://www.who.int/emergencies/diseases/novel-coronavirus-2019</u>
 - o ECDC website: <u>https://www.ecdc.europa.eu/en/novel-coronavirus-china</u>

11. WHO recommendations on the composition of influenza virus vaccines

The WHO vaccine strain selection committee recommends that quadrivalent egg-based vaccines for use in the 2023/2024 northern hemisphere influenza season contain the following:

- an A/Victoria/4897/2022 (H1N1)pdm09-like virus;
- an A/Darwin/9/2021 (H3N2)-like virus; and
- 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/news/item/24-02-2023-recommendations-announced-for-influenza-vaccine-composition-forthe-2023-2024-northern-hemisphere-influenza-season

Further information on influenza in Ireland is available at <u>www.hpsc.ie</u>

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