

Influenza Week 45 2022 (7th – 13th November 2022)



 **Intensive Care Society of Ireland**

Summary

Influenza activity increased in Ireland during week 45 2022 (week ending 13/11/2022) and overall remains at low levels. Sporadic detections of influenza A(H3), A(H1)pdm09 and B have been reported this season to date. Respiratory syncytial virus (RSV) activity increased further during week 45 2022, including RSV hospitalisations and remained at very high levels in Ireland.

Influenza-like illness (ILI): The sentinel GP influenza-like illness (ILI) ILI consultation rate was 24.3/100,000 population during week 45 2022 and above the Irish baseline threshold (18.1/100,000 population), this is an increase compared to the updated rate of 10.8/100,000 during week 44 2022.

- Sentinel GP ILI age specific consultation rates were above baseline thresholds in the 0-14 and 15-64 year age groups and below baseline in the ≥65 year age group.

National Virus Reference Laboratory (NVRL):

- Of 13 sentinel GP ILI/ARI specimens tested during weeks 44 and 45 2022, none were positive for influenza and one was positive for RSV. As of 9th of November 2022, the acute respiratory infection (ARI) case definition is being used by sentinel GPs to identify cases for referral of specimens for respiratory virus testing to NVRL.
- Of 369 non-sentinel respiratory specimens tested and reported by the NVRL during weeks 45 and 44 2022, 18 (4.9%) were positive for influenza: 5 A(H3), 8 A(H1)pdm09, 2 influenza B and three influenza A (not subtyped).
- Respiratory syncytial virus (RSV) positivity (non-sentinel respiratory specimens) remained very high in recent weeks, at 28.1% (57/203) during week 44 2022 and 18.7% (31/166) during week 45 2022.
- Influenza notifications: 170 laboratory confirmed influenza cases were notified during week 45 2022 – 8 A(H3), 10 A(H1)pdm09, 143 influenza A (not subtyped) and nine influenza B. The number of influenza notifications increased during week 45 to 170, compared to 117 during week 44 2022.
- RSV notifications: 648 RSV cases and 282 RSV hospitalised cases were notified during week 45 2022. During week 45 2022, 65% of notified RSV cases were in the 0-4-year age group.
- Hospitalisations and Critical care admissions: 64 laboratory confirmed influenza cases were reported as hospital inpatients during week 45 2022: 1 A(H3), 2 A(H1)pdm09, 58 influenza A (not subtyped), 3 influenza B. This is an increase compared to 47 laboratory confirmed influenza notifications reported as hospital inpatients during week 44 2022. One laboratory confirmed critical care influenza A (not subtyped) case was notified to HPSC during week 45 2022. During the weeks 40-45 2022, nine laboratory confirmed influenza cases have been admitted to critical care and notified to HPSC: 1 A(H3), 1 A(H1)pdm09 and 7 A (not subtyped)
- Mortality: One death in a notified influenza case was reported to HPSC during week 45 2022. During the 2022/2023 season, four deaths in notified influenza cases were reported to HPSC.
- Outbreaks: Two influenza A (not subtyped) outbreaks (one acute hospital and one in a nursing home), one RSV outbreak in a nursing home and one ARI outbreak in a residential institution were notified during week 45 2022.
- International: In Europe, influenza activity remained at inter-seasonal levels but above the levels seen in the previous season for the same time of year. Malta, Portugal and the United Kingdom (Scotland) reported widespread activity. WHO is 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 45 2022, 64 sentinel GP influenza-like illness (ILI) consultations were reported from the Irish sentinel GP network, corresponding to an ILI consultation rate of 24.3 per 100,000 population, an increase compared to the updated rate of 10.8 per 100,000 during week 44 2022 (Figure 1).
- The sentinel GP ILI consultation rate during the 2022/2023 was below baseline during weeks 40-44 2022 and above the Irish sentinel GP ILI baseline threshold (18.1/100,000 population) during week 45 2022.
- Sentinel GP ILI age specific consultation rates were above age specific baseline thresholds in those aged 0-14 (37.7/100,000), 15-64 (24.4/100,000) and below baseline in those aged ≥ 65 years (2.8/100,000) during week 45 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.

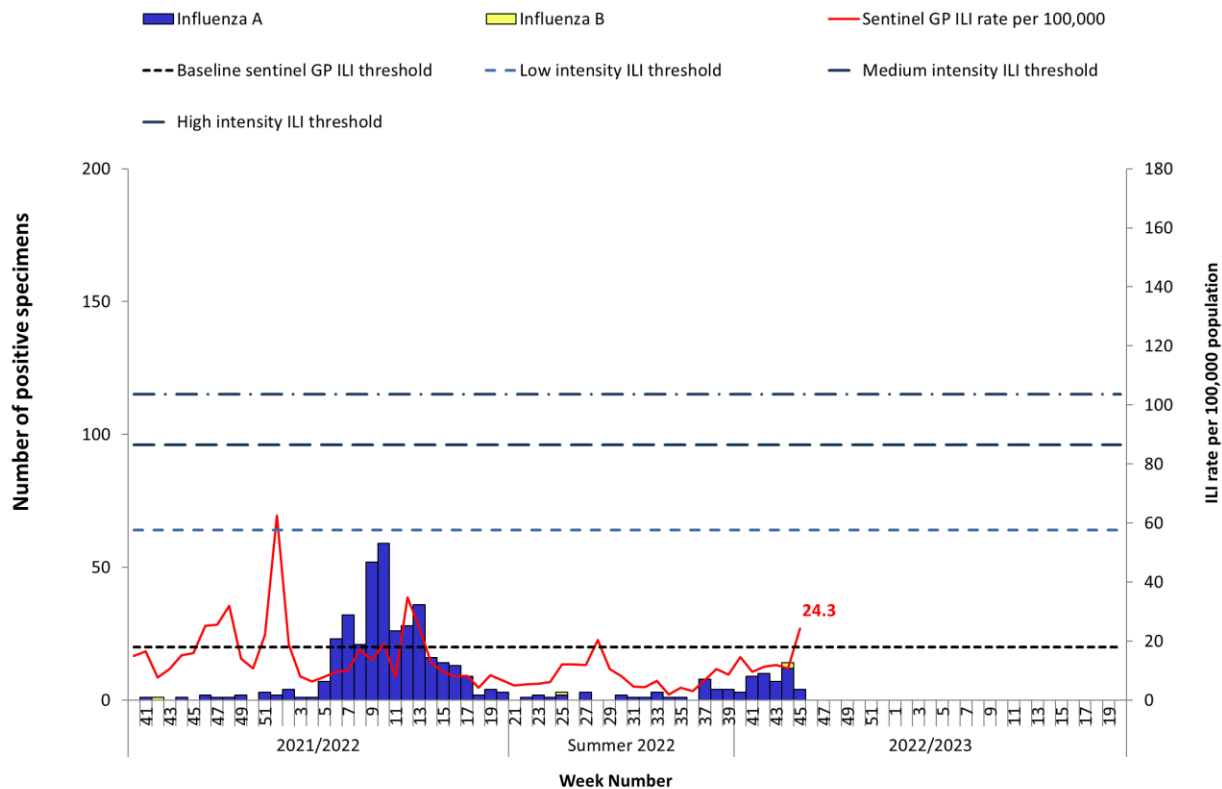


Figure 1: Sentinel GP Influenza-like illness (ILI) consultation rates per 100,000 population, baseline ILI threshold, medium and high intensity ILI thresholds and number of positive influenza A and B specimens tested by the NVRL, by influenza week and season. *Source: ICGP and NVRL*

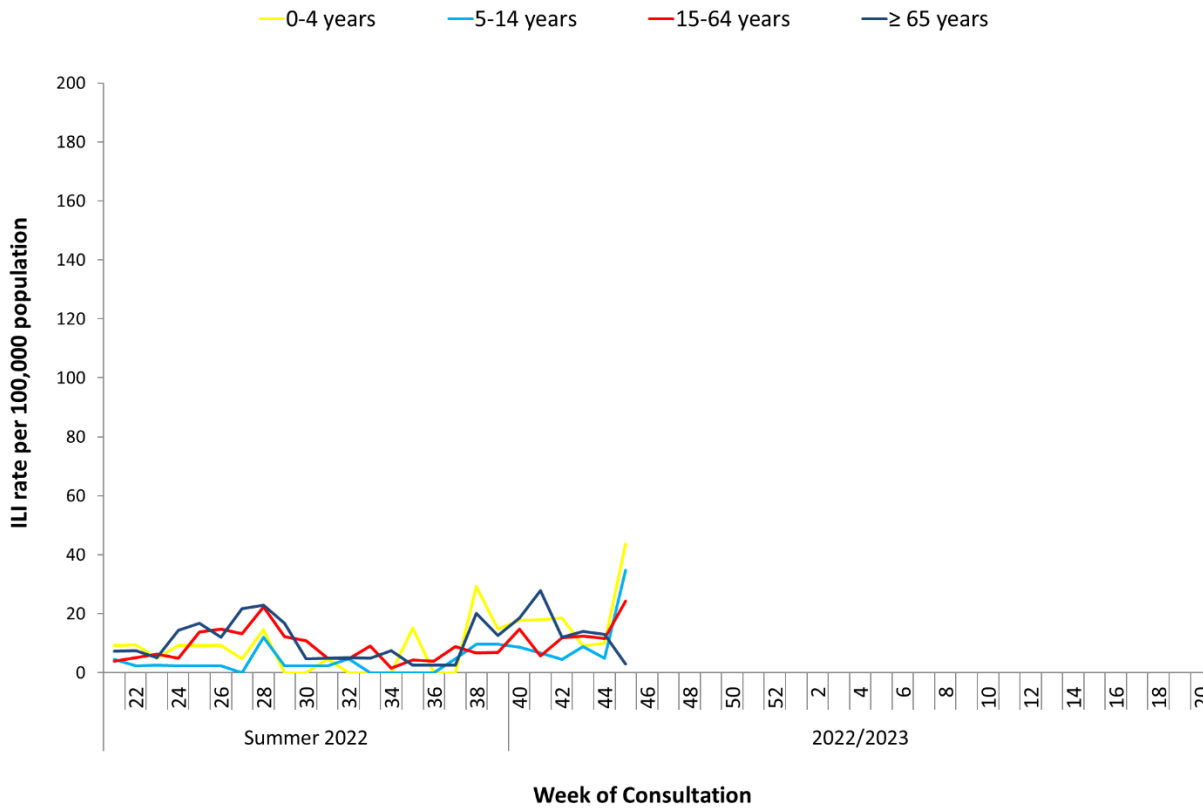


Figure 2: Age specific sentinel GP ILI consultation rate per 100,000 population by week during the summer of 2022 and the 2022/2023 influenza season to date. *Source: ICGP.*

Table 1: Age specific sentinel GP ILI consultation rate per 100,000 population by week (weeks 21-45 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)	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
All Ages	4.9	5.3	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	14.6	9.7	11.3	11.9	10.8	24.3
<15 yrs	6.1	4.7	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	11.7	10.3	9.1	8.9	6.6	37.7
15-64 yrs	4.0	5.1	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	14.7	5.7	11.8	12.5	11.7	24.4
≥65 yrs	7.3	7.4	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	18.5	27.9	12.0	14.1	13.0	2.8
Reporting practices (N=61)	56	55	56	57	57	57	57	55	57	57	56	54	57	56	57	58	57	58	57	60	59	58	59	55	50

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/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 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. Please note: As of 9th of November 2022, the acute respiratory (ARI) case definition is being used by sentinel GPs to identify cases for referral of specimens for respiratory virus testing to NVRL. Case definitions are available in Section 12.

- Of thirteen sentinel GP ILI/ARI specimens tested and reported by the NVRL during weeks 44 and 45 2022, none were positive for influenza.
- Of 369 non-sentinel respiratory specimens tested and reported by the NVRL during weeks 44 and 45 2022, 18 (4.9%) were positive for influenza: five A(H3), eight A(H1)pdm09, two influenza B and three influenza A (not subtyped); a lag time with testing and reporting is noted.
- Respiratory syncytial virus (RSV) positivity (non-sentinel respiratory specimens) remained very high in recent weeks, at 28.1% (57/203) during week 44 2022 and 18.7% (31/166) during week 45 2022. During weeks 44 and 45 2022, one sentinel GP ILI specimen was RSV positive.
- Rhinovirus/enterovirus positive detections from non-sentinel respiratory specimens were detected at a positivity rate of 13.3% (22/166) during week 45 2022, a slight decrease from 17.2% (35/203) during week 44 2022 (Figure 5).
- Other respiratory viruses (ORVs) are being detected at lower levels (Figure 3).

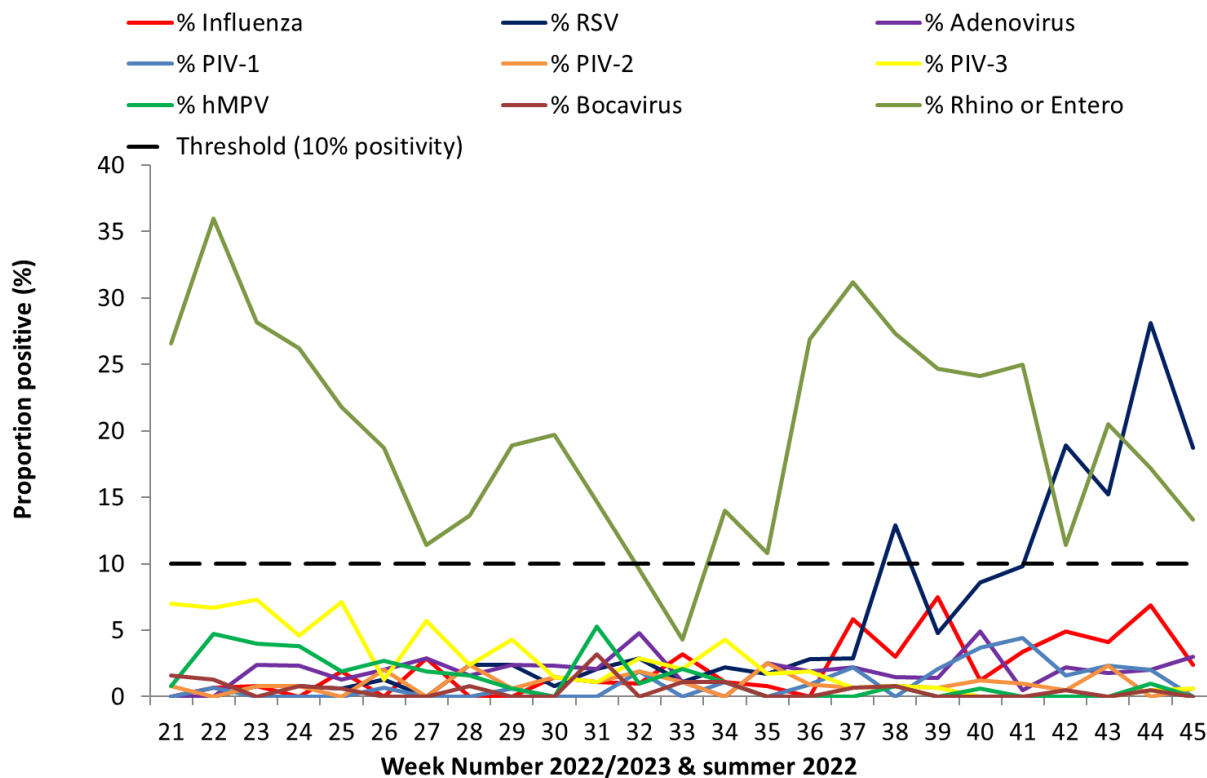


Figure 3: Percentage positive results for non-sentinel respiratory specimens tested by the NVRL for influenza, RSV and other respiratory viruses, weeks 21-45 2022. *Source: ICGP.*

Table 2: Number of sentinel GP ILI/ARI and non-sentinel respiratory specimens tested by the NVRL and positive influenza results, for weeks 44 and 45 2022 and the 2022/2023 season (weeks 40-45 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
45 2022	Sentinel GP ILI/ARI referral	8	0	0.0	0	0	0	0	0	0	0	0
	Non-sentinel	166	4	2.4	1	3	0	4	0	0	0	0
	Total	174	4	2.3	1	3	0	4	0	0	0	0
44 2022	Sentinel GP ILI/ARI referral	5	0	0.0	0	0	0	0	0	0	0	0
	Non-sentinel	203	14	6.9	7	2	3	12	2	0	0	2
	Total	208	14	6.7	7	2	3	12	2	0	0	2
2022/2023	Sentinel GP ILI/ARI referral	37	4	10.8	2	2	0	4	0	0	0	0
	Non-sentinel	1091	43	3.9	19	17	5	41	2	0	0	2
	Total	1128	47	4.2	21	19	5	45	2	0	0	2

Table 3: Number of sentinel GP ILI/ARI and non-sentinel respiratory specimens tested by the NVRL and positive RSV results, for weeks 44 and 45 2022 and the 2022/2023 season (weeks 40-45 2022). *Source: NVRL*

Surveillance period	Specimen type	Total tested	Number RSV positive	% RSV positive	RSV A	RSV B	RSV (unspecified)
Week 45 2022	Sentinel GP ILI/ARI	8	0	0.0	0	0	0
	Non-sentinel	166	31	18.7	1	30	0
	Total	174	31	17.8	1	30	0
Week 44 2022	Sentinel GP ILI/ARI	5	1	20.0	0	1	0
	Non-sentinel	203	57	28.1	5	52	0
	Total	208	58	27.9	5	53	0
2022/2023	Sentinel GP ILI/ARI	37	4	10.8	0	4	0
	Non-sentinel	1091	183	16.8	34	149	0
	Total	1128	187	16.6	34	153	0

Table 4: Number of non-sentinel respiratory specimens tested by the NVRL for respiratory viruses and positive results, for weeks 44 and 45 2022 and 2022/2023 season (weeks 40-45 2022). *Source: NVRL*

Virus	Week 45 2022 (N=166)		Week 44 2022 (N=203)		2022/2023 (N=1091)	
	Total positive	% positive	Total positive	% positive	Total positive	% positive
Influenza virus	4	2.4	14	6.9	43	3.9
Respiratory Syncytial Virus (RSV)	31	18.7	57	28.1	183	16.8
Rhino/enterovirus	22	13.3	35	17.2	203	18.6
Adenovirus	5	3.0	4	2.0	25	2.3
Bocavirus	0	0.0	1	0.5	2	0.2
Human metapneumovirus (hMPV)	0	0.0	2	1.0	3	0.3
Parainfluenza virus type 1 (PIV-1)	0	0.0	4	2.0	26	2.4
Parainfluenza virus type 2 (PIV-2)	1	0.6	0	0.0	10	0.9
Parainfluenza virus type 3 (PIV-3)	1	0.6	1	0.5	2	0.2
Parainfluenza virus type 4 (PIV-4)	1	0.6	1	0.5	8	0.7

Table 5: Number of sentinel GP ILI/ARI specimens tested by the NVRL for respiratory viruses and positive results, for weeks 44 and 45 2022 and 2022/2023 season (weeks 40-45 2022). *Source: NVRL*

Virus	Week 45 2022 (N=8)		Week 44 2022 (N=5)		2022/2023 (N=37)	
	Total positive	% positive	Total positive	% positive	Total positive	% positive
Influenza virus	0	0.0	0	0.0	4	10.8
Respiratory Syncytial Virus (RSV)	0	0.0	1	20.0	4	10.8
Rhino/enterovirus	0	0.0	0	0.0	5	13.5
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	1	2.7
SARS-CoV-2	0	0.0	0	0.0	1	2.7

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.

- 5701 (39.9% of total calls; N=14,271) self-reported cough calls were reported by a network of GP OOHs services during week 45 2022, which was above baseline levels (10.7%) (Figure 4). An increase in the number and percentage of cough calls in the 0 – 4 year age group in recent weeks is evident.
- 150 (1.1% of total calls; N=14,271) self-reported ‘flu’ calls were reported by a network of GP OOHs services during week 45 2022. The baseline threshold level for self-reported ‘flu’ calls is 2.3% (Figure 6).
- Five GP OOH services provided data for week 45 2022.

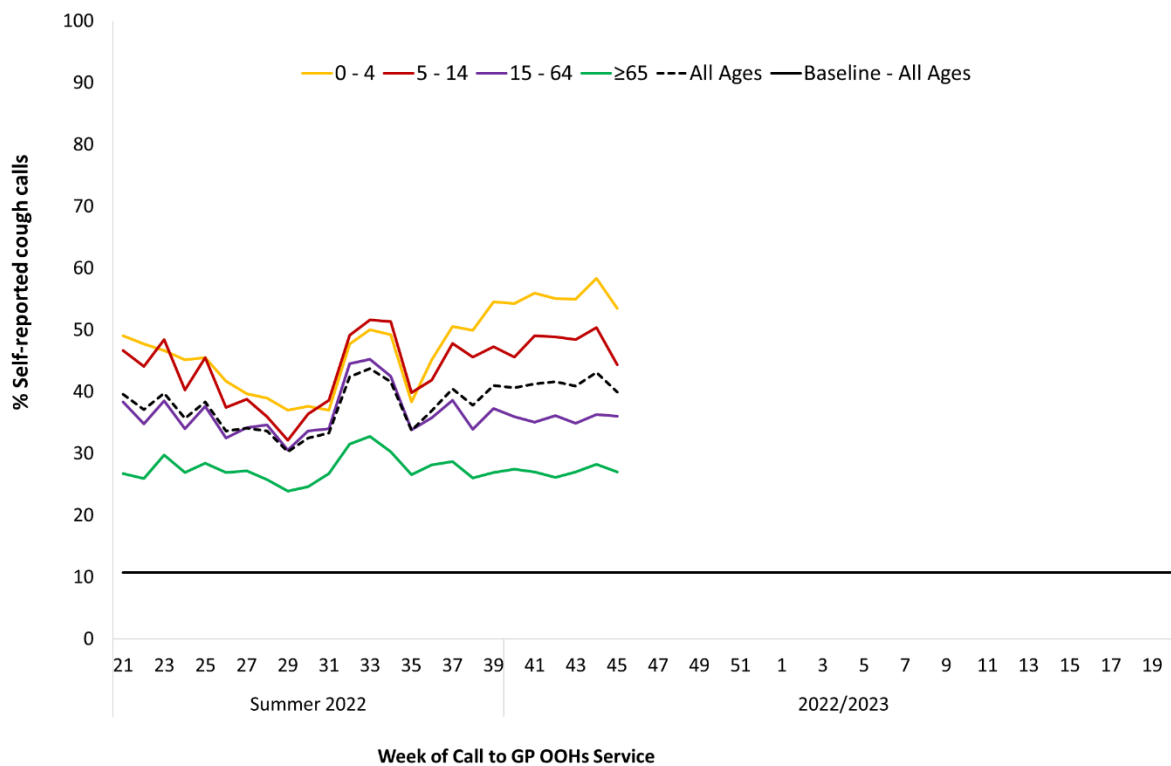


Figure 4: Percentage of self-reported COUGH calls for all ages and by age group as a proportion of total calls to GP Out-of-Hours services by week of call, summer 2022 and the 2022/2023 season. The % cough calls baseline for all ages calculated using the MEM method on historic data is shown. *Source: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

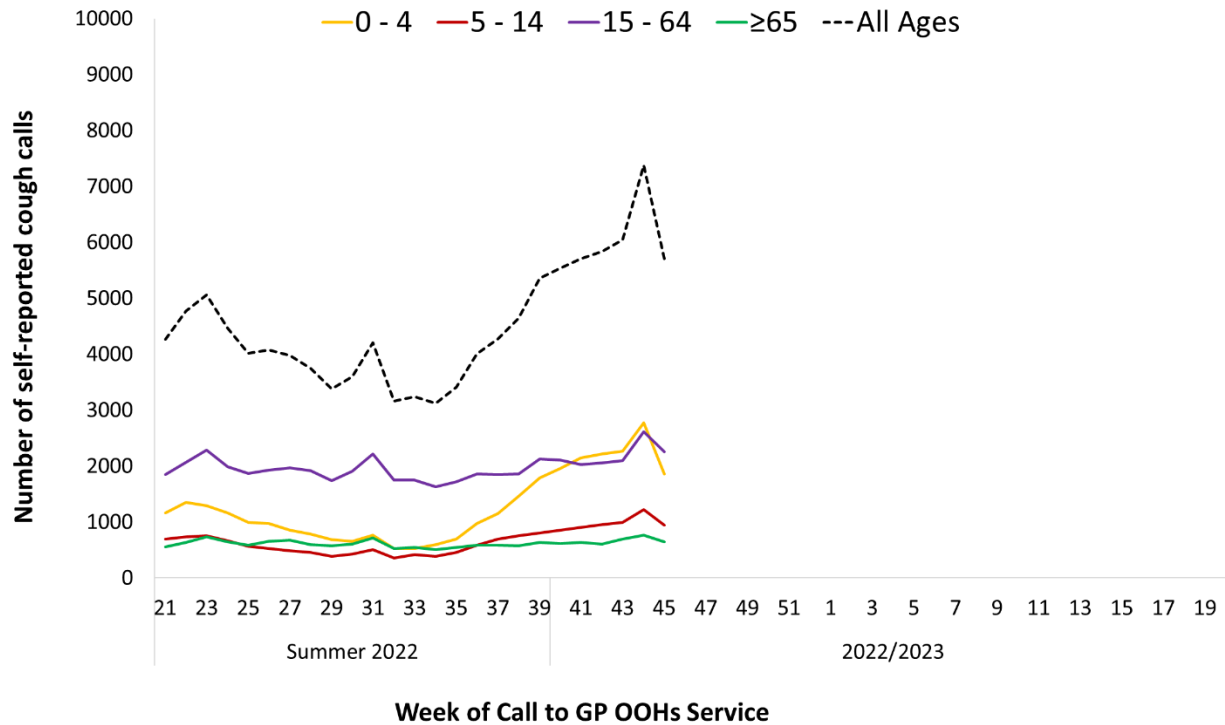


Figure 5: Number of self-reported COUGH calls for all ages and by age group to GP Out-of-Hours services by week of call, 2022-2023. *Source: GP Out-Of-Hours services in Ireland (collated by HSE-NE) & ICGP.*

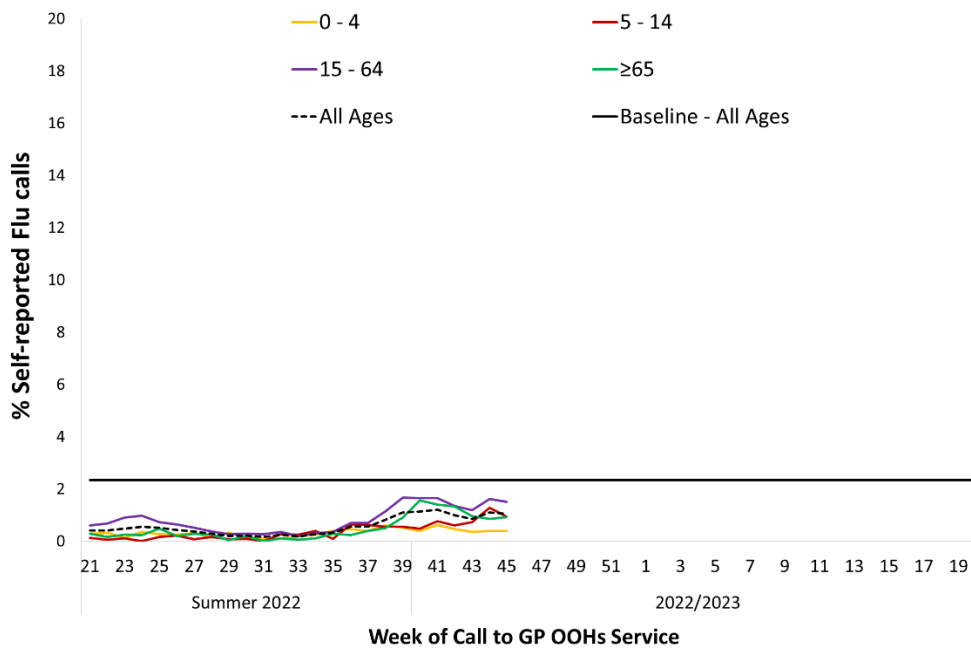


Figure 6: Percentage of self-reported FLU calls for all ages and by age group as a proportion of total calls to GP Out-of-Hours services by week of call, Summer 2022 and 2022/2023. The % flu calls baseline for all ages calculated using the MEM method on historic data is shown. *Source: GP Out-Of-Hours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

- 170 laboratory confirmed influenza cases were notified during week 45 2022 – 8 A(H3), 10 A(H1)pdm09, 143 influenza A (not subtyped) and nine influenza B. The number of influenza notifications increased during week 45 to 170, compared to 117 during week 44 2022. During the 2022/2023 season to date (weeks 40-45 2022) 636 laboratory confirmed influenza cases have been notified to HPSC.
- Confirmed influenza cases for week 45 2022 were notified in different HSE areas as outlined in Table 6.
- Age specific rates in notified laboratory confirmed influenza cases were highest in those aged 0-4 years (Figure 8).
- 648 RSV cases were notified during week 45 2022, an increase compared to 438 cases notified during week 44 2022 (Figure 9).
- During week 45 2022, age specific rates in notified laboratory confirmed RSV cases were highest in those aged 0-4 years (Figure 10).

Table 6: Summary of confirmed influenza notifications by HSE area during the 2022/2023 season (weeks 40-45 2022) and week 45 2022 *Source: CIDR*

HSE area	Influenza confirmed cases - season to date	Confirmed cases week 45 2022
HSE-E	256	55
HSE-M	26	8
HSE-MW	35	12
HSE-NE	71	16
HSE-NW	96	34
HSE-SE	43	19
HSE-S	56	8
HSE-W	53	18
Total	636	170

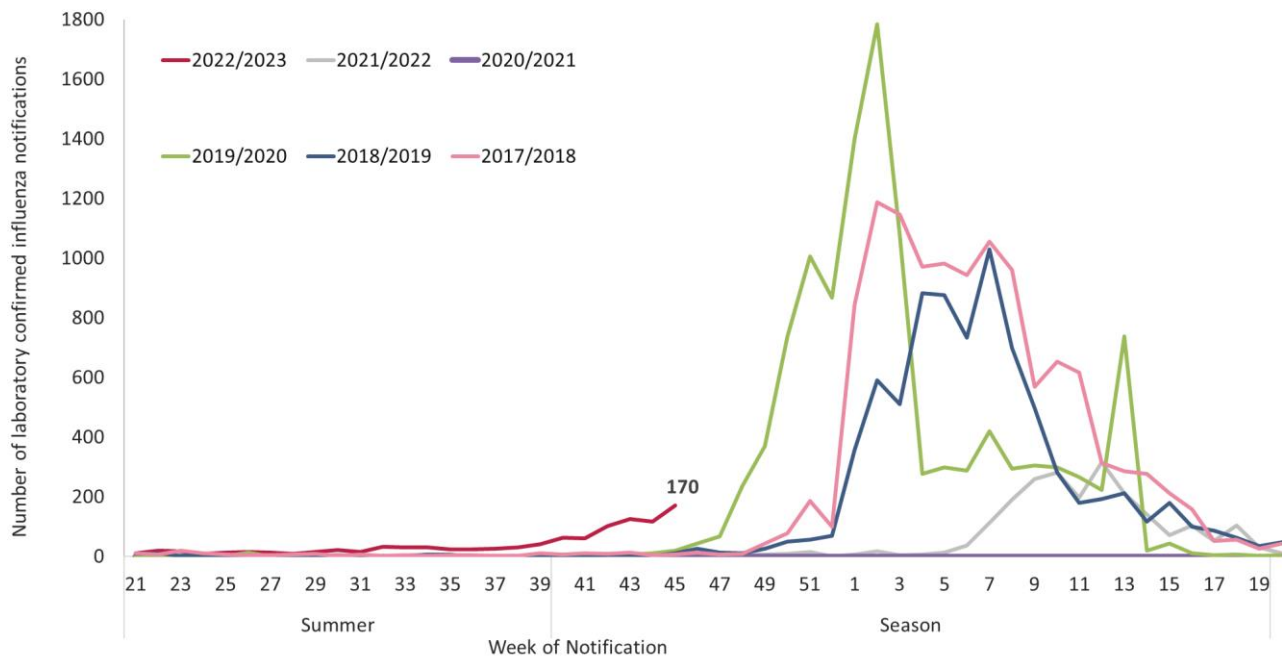


Figure 7: Laboratory confirmed influenza notifications to HSPC by week and season of notification, 2017/2018 to 2022/2023 influenza seasons. *Source: Ireland’s Computerised Infectious Disease Reporting System.*

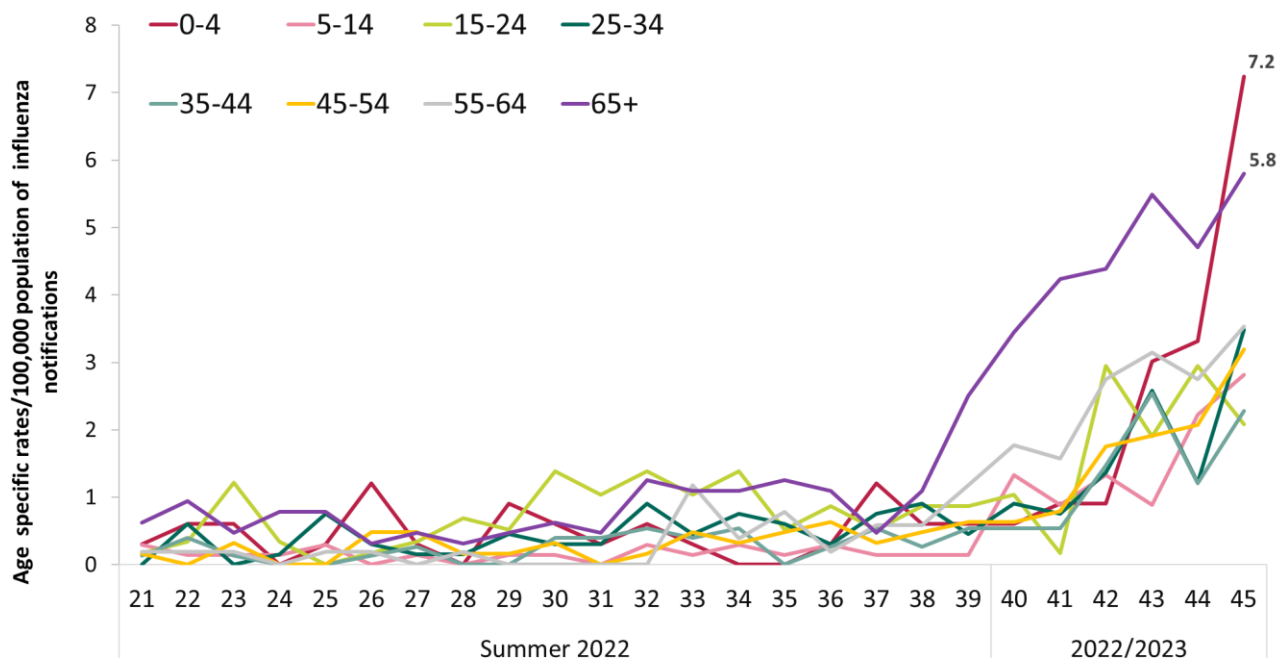


Figure 8: Age specific rates per 100,000 population for laboratory confirmed influenza notifications to HSPC by week of notification. *Source: Ireland’s Computerised Infectious Disease Reporting System.*

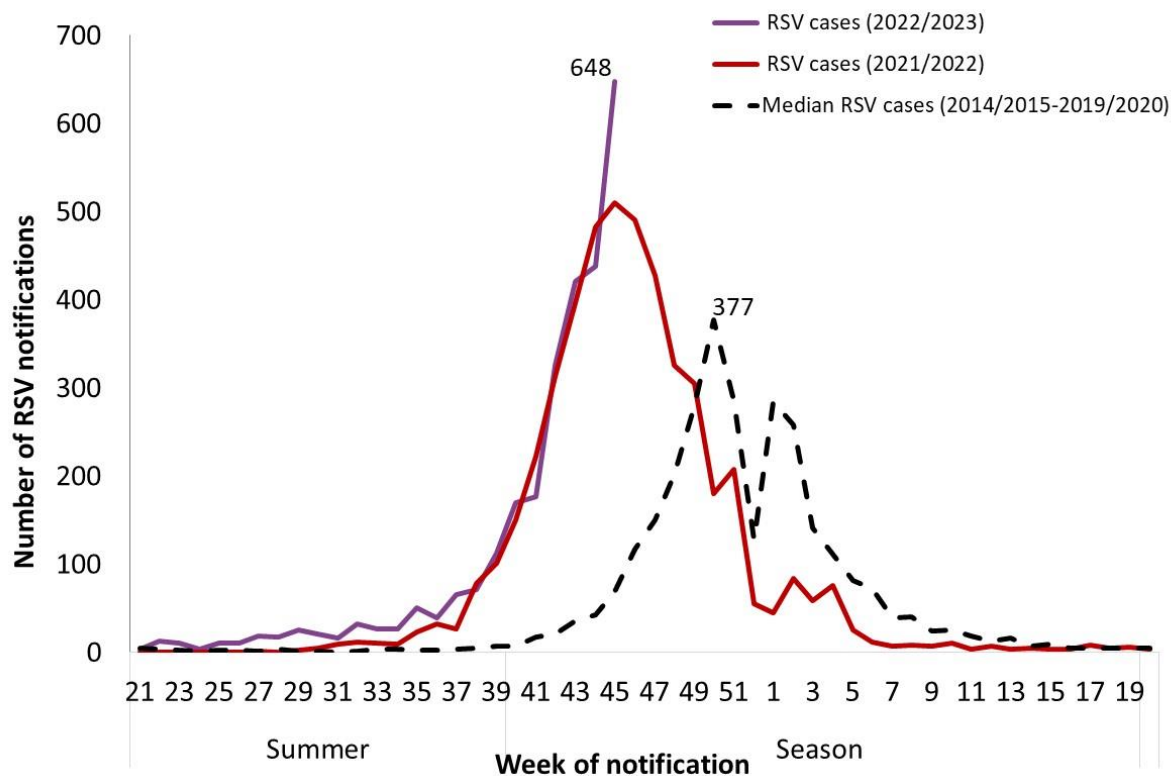


Figure 9: Number of laboratory confirmed RSV notifications to HPSC by week of notification 2022/2023 season 2021/2022 season and median number of RSV notifications by week (2014/2015-2019/2020). *Source: Ireland's Computerised Infectious Disease Reporting System.*

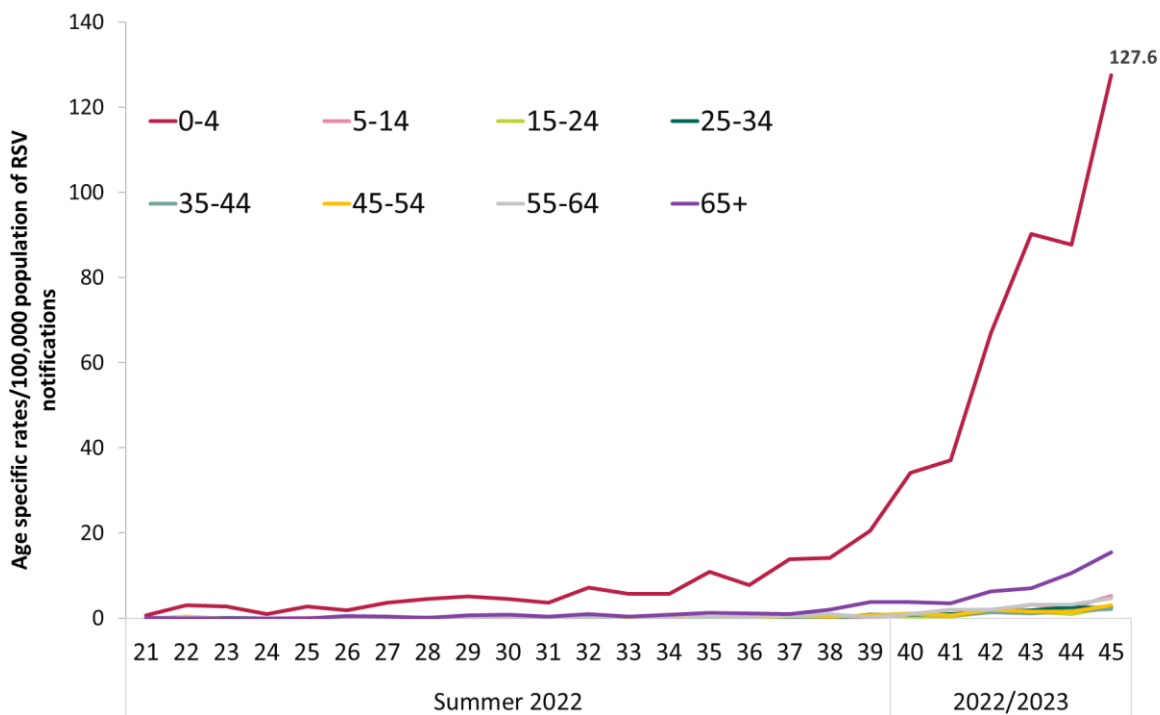


Figure 10: Age specific rates per 100,000 population for laboratory confirmed RSV notifications to HSPC by week of notification. *Source: Ireland's Computerised Infectious Disease Reporting System.*

6. Hospitalisations

- During week 44 2022, 64 laboratory confirmed influenza cases were reported as hospital inpatients: one A(H3), two A(H1)pdm09, 58 influenza A (not subtyped) and three influenza B (Figure 11). This is an increase compared to 47 laboratory confirmed influenza notifications reported as hospital inpatients during week 44 2022. During the 2022/2023 season to date (weeks 40-45 2022), 230 laboratory confirmed influenza cases have been reported as being hospital inpatients.
- In week 45 2022, age specific rates in notified laboratory confirmed hospitalised influenza cases were highest in those aged 0-4 years (Figure 12).
- 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.
- Patient type of laboratory confirmed influenza and RSV notifications by week for the 2022/2023 season are reported in Table 6 and 7.
- During week 45 2022, 282 RSV cases out of 648 (44%) were reported as hospital inpatients (Figure 13). It should be noted that patient type is not always reported/updated for notified RSV cases.
- In week 45 2022, age specific rates in notified laboratory confirmed hospitalised RSV cases were highest in those aged 0-4 years (Figure 14).

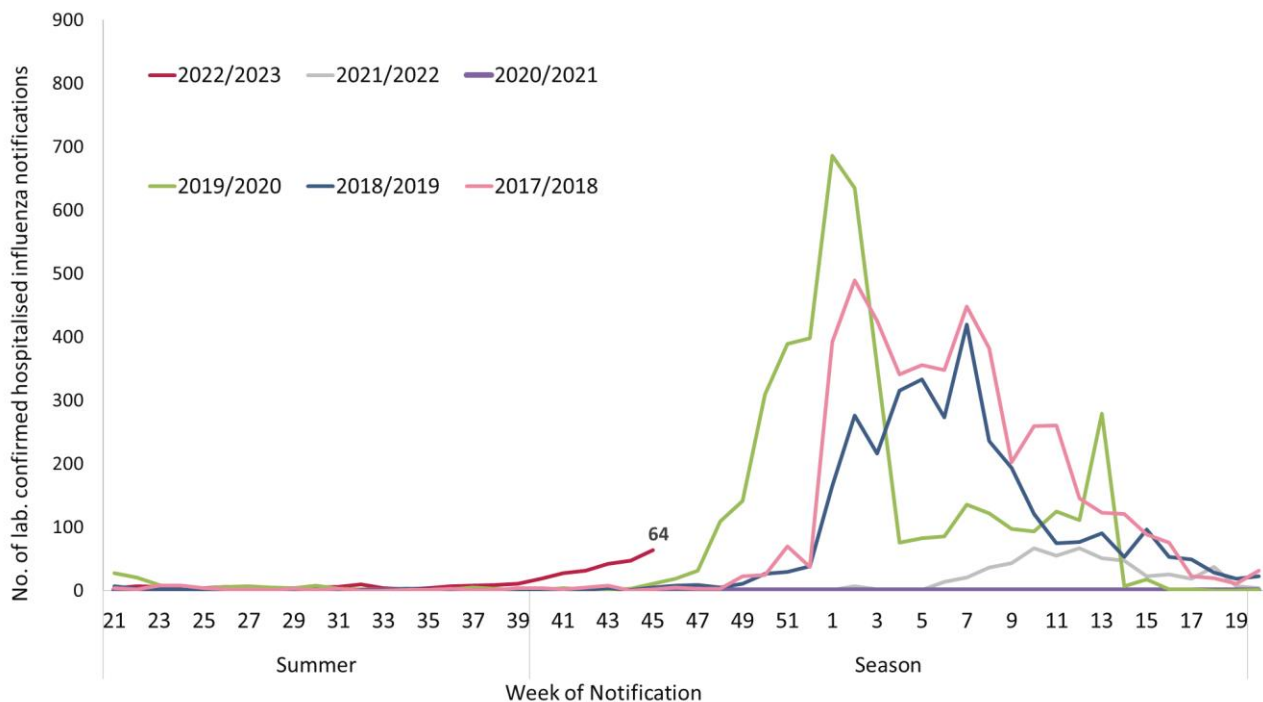


Figure 11: Number of notified laboratory confirmed influenza cases reported as hospital inpatients, for the 2017/2018 to 2022/2023 season. *Source: Ireland's Computerised Infectious Disease Reporting System*

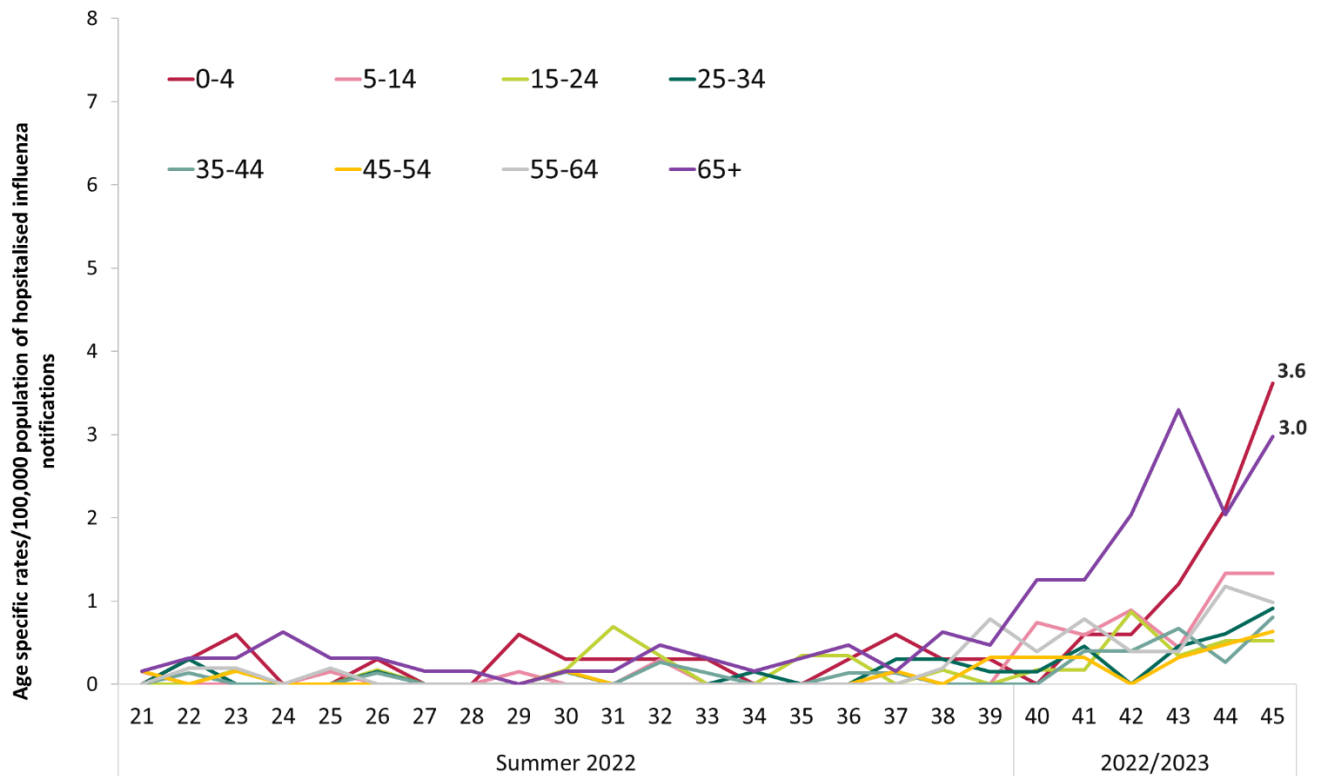


Figure 12: Age specific rates per 100,000 population for laboratory confirmed influenza cases reported as hospital inpatients by week of notification. *Source: Ireland’s Computerised Infectious Disease Reporting System.*

Table 6: Number of notified influenza cases reported by patient type and week of notification and 2022/2023 season (weeks 40-45 2022). *Source: Ireland’s Computerised infectious Disease Reporting System*

	Patient Type							Total
	GP Patient	ED patient	Hospital Inpatient	Hospital Day Patient	Hospital Outpatient	Other	Unknown	
Week 40	2	11	19	2	9	7	12	62
Week 41	4	21	27	0	3	2	2	59
Week 42	1	45	31	1	16	3	5	102
Week 43	7	34	42	6	22	8	7	126
Week 44	2	38	47	4	18	2	6	117
Week 45	1	65	64	6	12	11	11	170
Total	17	214	230	19	80	33	43	636

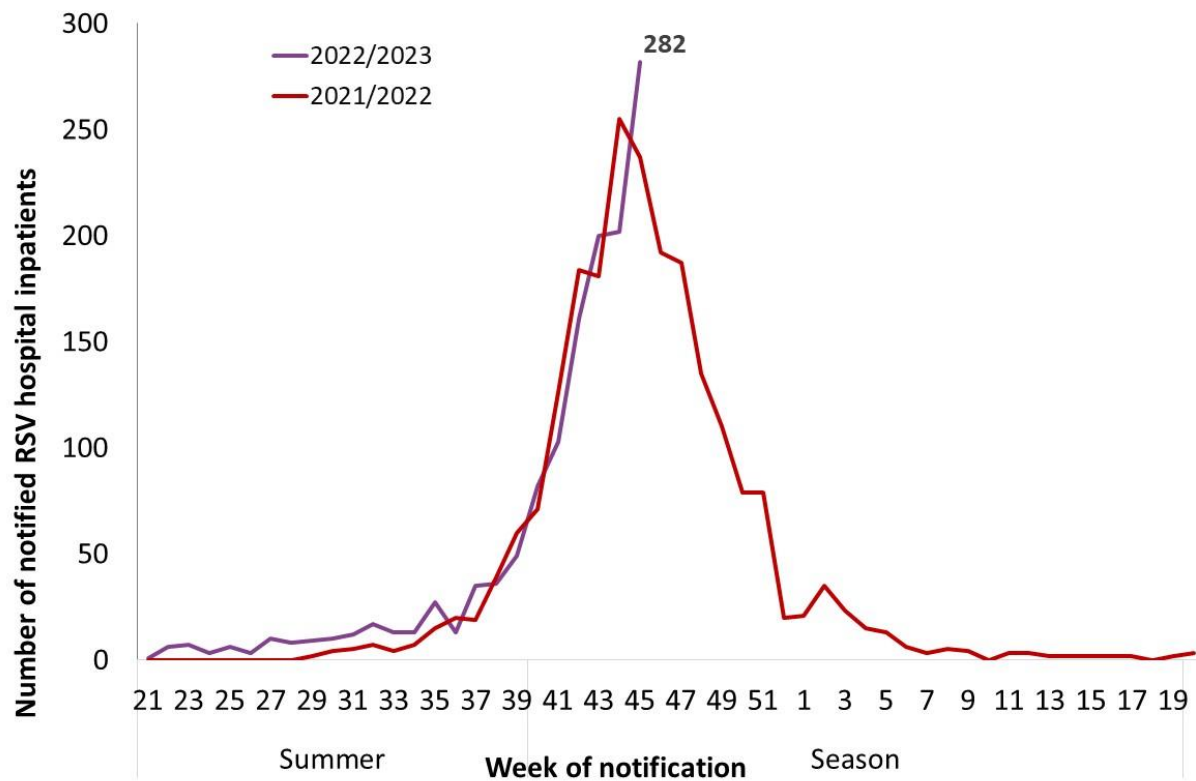


Figure 13: Number of notified RSV cases reported as hospital inpatients, by week of notification and season, 2021/2022 and 2022/2023. *Source: Ireland’s Computerised Infectious Disease Reporting System.*

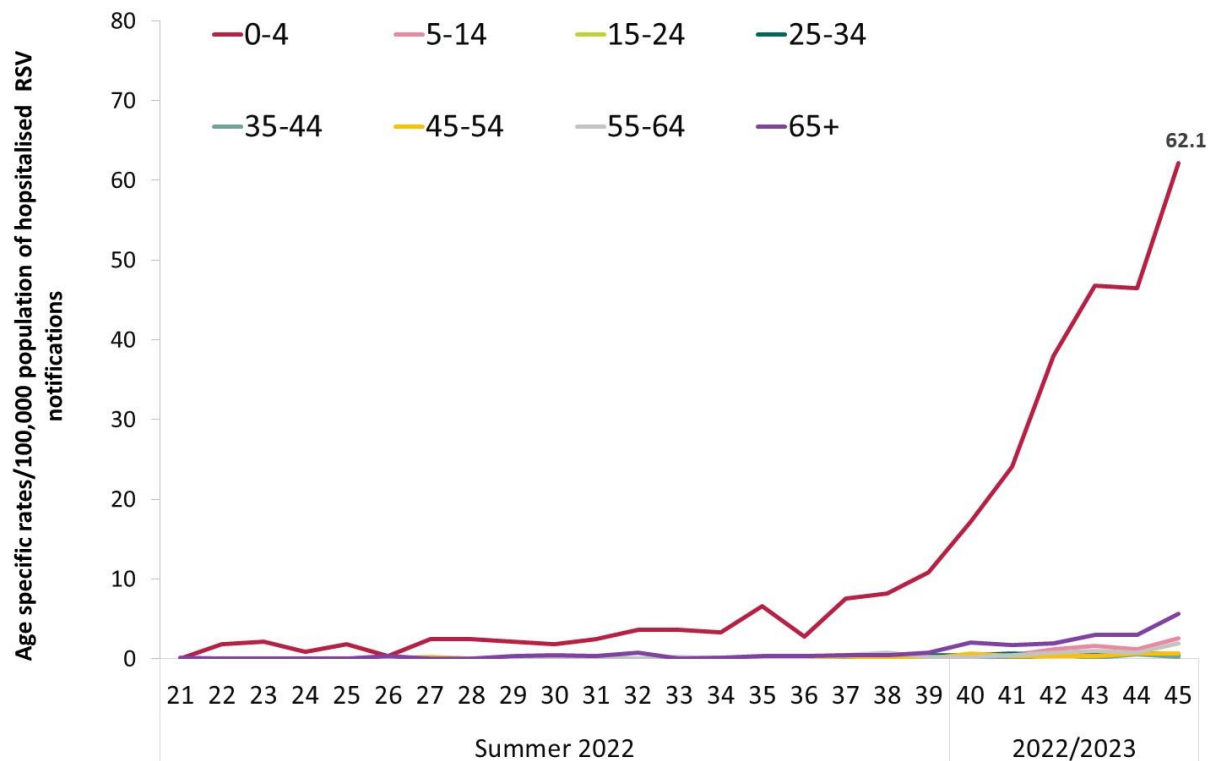


Figure 14: Age specific rates per 100,000 population for laboratory confirmed RSV cases reported as hospital inpatients by week of notification. *Source: Ireland’s Computerised Infectious Disease Reporting System*

Table 7: Number of notified RSV cases reported by patient type and week of notification (weeks 40-45/2022). *Source: Ireland's Computerised infectious Disease Reporting System*

	Patient Type							Total
	GP Patient	ED patient	Hospital Inpatient	Hospital Day Patient	Hospital Outpatient	Other	Unknown	
Week 40	5	52	82	1	12	7	11	170
Week 41	3	45	103	2	13	5	6	177
Week 42	5	121	161	2	14	7	15	325
Week 43	5	149	200	9	20	20	18	421
Week 44	6	173	202	3	22	16	16	438
Week 45	8	245	282	12	37	28	36	648
Total	32	785	1030	29	118	83	102	2179

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.

- One laboratory confirmed influenza A (not subtyped) case was admitted to critical care and notified to HPSC during week 45 2022.
- During the 2022/2023 season to date (weeks 40-45), nine laboratory confirmed influenza – one influenza A(H3), one A(H1)pdm09 and 7 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: Cumulative number (and age specific rate per 100,000 population) of laboratory confirmed notified influenza hospitalised and critical care cases, weeks 40-45 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	5	8.0	0	0.0
1-4	22	8.2	0	0.0
5-14	36	5.3	0	0.0
15-24	15	2.6	2	0.3
25-34	17	2.6	1	0.2
35-44	19	2.9	0	0.0
45-54	13	2.1	0	0.0
55-64	21	4.1	2	0.4
≥65	82	12.9	4	0.6
Unknown		-		-
Total	230	4.8	9	0.2

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/>

- One death in a notified influenza case was reported to HPSC during week 45 2022- influenza A (not subtyped).
- During the 2022/2023 season (weeks 40 - 45 2022), four deaths in notified influenza cases were reported to HPSC – two influenza AH3, two influenza A (not subtyped).
- No excess all-cause mortality was reported during week 44 2022 or for weeks 40-44 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/>

- Two influenza A (not subtyped) outbreaks - one nursing home outbreak in the HSE-North East and one acute hospital outbreak in the HSE-West were notified to HPSC during week 45 2022.
- One RSV outbreak in a nursing home at HSE-South and one ARI outbreak (organism unknown) in a residential institution in HSE-North West were notified to HPSC during week 45 2022
- For an overview of outbreaks for the season to date (weeks 40-45 2022) please see Tables 9 and 10.

Table 9: Summary of respiratory virus and ARI outbreaks by HSE area and infection during the 2022/2023 season

Source: CIDR

HSE area	Influenza		Respiratory syncytial virus		Acute respiratory infection		Total	
	Week 45	2022/2023	Week 45	2022/2023	Week 45	2022/2023	Week 45	2022/2023
HSE-E	0	3	0	2	0	0	0	5
HSE-M	0	0	0	0	0	0	0	0
HSE-MW	0	0	0	0	0	0	0	0
HSE-NE	1	2	0	8	0	0	1	10
HSE-NW	0	1	0	2	1	2	1	5
HSE-SE	0	0	0	0	0	0	0	0
HSE-S	0	1	1	2	0	0	1	3
HSE-W	1	1	0	0	0	0	1	1
Total	2	8	1	14	1	2	4	24

Table 10: Summary of respiratory virus and ARI outbreaks by outbreak location & pathogen during 2022/2023 season *Source: CIDR*

HSE area	Influenza		Respiratory syncytial virus		Acute respiratory infection		Total	
	Week 45	2022/2023	Week 45	2022/2023	Week 45	2022/2023	Week 45	2022/2023
Community hospital/Long-stay unit	0	0	0	1	0	1	0	2
Nursing Home	1	3	1	2	0	0	2	5
Hospital	1	4	0	2	0	0	1	6
Residential Institution	0	1	0	1	1	1	1	3
Childcare facility	0	0	0	1	0	0	0	1
Family Outbreaks	0	0	0	7	0	0	0	7
Total	2	8	1	14	1	2	4	24

10. International Summary

In the European region, during week 44 2022 (week ending 06/11/2022), influenza virus positivity in sentinel primary care specimens was 7%, remaining stable compared to 8% during week 43 2022, which is below the ECDC influenza positivity threshold of 10%. For week 44 2022, 79 (7%) of 1,241 sentinel GP specimens tested positive for an influenza virus; 85% were type A and 15% were type B. Of 58 subtyped A viruses, 72% were A(H3) and 28% were A(H1)pdm09. The type B viruses were not ascribed to a lineage.

For week 44 2022, 934 of 37,252 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; 690 (74%) were type A and 244 (26%) were type B. Of 176 subtyped A viruses, 92 (52%) were A(H3) and 84 (48%) were A(H1)pdm09. Two influenza B viruses ascribed to a lineage were of B/Victoria lineage. Of 36 countries and areas reporting on geographic spread of influenza viruses, 9 reported no activity, 19 reported sporadic spread, three reported local spread (Bosnia and Herzegovina, Lithuania and Malta), three reported regional spread (France, Germany and Ukraine) and two reported widespread influenza activity (Portugal and United Kingdom (Scotland)).

WHO is 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>

12. Case Definitions

<i>Influenza-like illness (ILI)</i>	<i>Acute respiratory infection (ARI)</i>
<ul style="list-style-type: none"> • Sudden onset of symptoms AND at least one of the following four systemic symptoms: <ul style="list-style-type: none"> • Fever or feverishness, malaise, headache, myalgia AND at least one of the following three respiratory symptoms: <ul style="list-style-type: none"> • Cough, sore throat, shortness of breath 	<ul style="list-style-type: none"> • Sudden onset of symptoms AND at least one of the following four respiratory symptoms: <ul style="list-style-type: none"> • Cough, sore throat, shortness of breath, coryza AND <ul style="list-style-type: none"> • A clinician’s judgement that the illness is due to an infection

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

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