



Summary

Overall influenza activity continued to decrease in Ireland during week 5 2023 compared to previous weeks. Influenza A viruses are predominating this season, however the proportion of Influenza B viruses has increased in recent weeks. It is recommended that antivirals are used for the treatment and prophylaxis of influenza in clinical at-risk groups and in those with severe influenza disease.

- **Influenza-like illness (ILI):** The sentinel GP influenza-like illness (ILI) consultation rate was 20.5/100,000 during week 5 2023. This is a decrease from the updated rate of 29.3/100,000 during week 4 2023. ILI consultation rates have been above the Irish baseline threshold (18.1/100,000 population) for thirteen consecutive weeks. Sentinel GP ILI age specific consultation rates decreased in all age groups (<15, 15 – 64, 65+) during week 5 2023.
- **National Virus Reference Laboratory (NVRL):** During week 5 2023, of 95 sentinel GP ARI specimens tested and reported by the NVRL, 13 (13.7%) were positive for influenza: three A(H3), two A(H1)pdm09 and eight influenza B. There was one specimen (1.1%) positive for RSV and six specimens (6.3%) positive for SARS-CoV-2. Of 160 non-sentinel respiratory specimens tested and reported by the NVRL during week 5 2023, 9 (5.6%) were positive for influenza: two A(H1)pdm09, five A(H3) and two influenza B. RSV positivity (non-sentinel respiratory specimens) is at low levels in recent weeks, at 3.7% (8/219) during week 4 2023 and 1.9% (3/160) during week 5 2023. Of 1,751 sentinel GP ARI specimens and non-sentinel respiratory specimens positive for influenza and reported by the NVRL during the 2022/2023 season, 443 (25.3%) were coinfecting with other respiratory viruses.
- **Influenza notifications:** 364 laboratory confirmed influenza cases were notified during week 5 2023 – 18 A(H1)pdm09, 36 A(H3), 181 influenza A (not subtyped), 125 influenza B and four influenza A & B coinfections. This is a slight decrease compared to 387 cases reported during week 4 2023. Age specific rates were highest in those aged 0-4 years.
- **RSV notifications:** 85 RSV cases were notified during week 5 2023, a decrease compared to 117 RSV cases notified during week 4 2023. Age specific rates for hospitalised cases were highest in those aged <1 year.
- **Hospitalisations:** During week 5 2023, 86 laboratory confirmed influenza cases were reported as hospital inpatients. Of these 86 hospitalised cases: five influenza A(H1)pdm09, seven A(H3), 50 influenza A (not subtyped), 23 influenza B and one Influenza A and B coinfection were reported. Influenza hospitalised cases during week 5 2023 decreased to 86 compared to 109 in week 4 2023.
- **Critical care admissions:** One laboratory confirmed influenza case (influenza A (not subtyped)) was admitted to critical care and notified to HPSC during week 5 2023. During weeks 40 2022-5 2023, 154 laboratory confirmed influenza cases – 27 A(H1)pdm09, 26 influenza A(H3), 96 influenza A (not subtyped) and five influenza B have been admitted to critical care and notified to HPSC. Age specific rates for the season to date were highest in those aged 65 years and older. During weeks 40 2022-5 2023, of 133 laboratory confirmed influenza ICU cases with known influenza vaccination status, 91 (68%) were reported as NOT having received the 2022/2023 influenza vaccine.
- **Mortality:** Three deaths (one influenza A & B coinfection and two influenza A (not subtyped)) in notified influenza cases were reported to HPSC during week 5 2023. During 40 2022- 5 2023, 127 deaths in notified influenza cases were reported to HPSC – 20 influenza A(H3), 12 influenza A(H1)pdm09, 93 influenza A (not subtyped), one influenza B and one influenza A and B coinfection. Overall excess mortality was reported in weeks 51-52 2022, pneumonia and influenza excess mortality was reported between weeks 51 2022-1 2023.
- **Outbreaks:** Two laboratory confirmed influenza outbreaks (one nursing home and one family outbreak) and two RSV outbreaks (both in nursing homes) were notified during week 5 2023.
- **International:** In Europe during week 4 2023, 27 countries reported widespread influenza activity indicating high influenza virus circulation across the European Region. Both influenza A(H3) and A(H1)pdm09 viruses are circulating in Europe, with predominance varying by setting and country. Lower levels of detection of influenza B viruses were reported.

1. GP sentinel surveillance system - Clinical Data

- During week 5 2023, 62 sentinel GP influenza-like illness (ILI) consultations were reported from the Irish sentinel GP network, corresponding to an ILI consultation rate of 20.5 per 100,000 population, compared to 29.3 per 100,000 population during week 4 (Figure 1).
- Sentinel GP ILI consultation rates were above the baseline during week 5 2023.
- The sentinel GP ILI consultation rates have been above the Irish sentinel GP ILI baseline threshold (18.1/100,000 population) for thirteen consecutive weeks (weeks 45 2022 to week 5 2023).
- Age specific rates decreased across all age groups during week 5 2023 with two of the age groups (<16 and 65+) below the baseline threshold for the first time since the peak in influenza activity in week 1 (Figure 2, Table 1).
- The Irish sentinel baseline ILI threshold for the 2022/2023 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. Age specific MEM threshold levels are shown in Table 1.

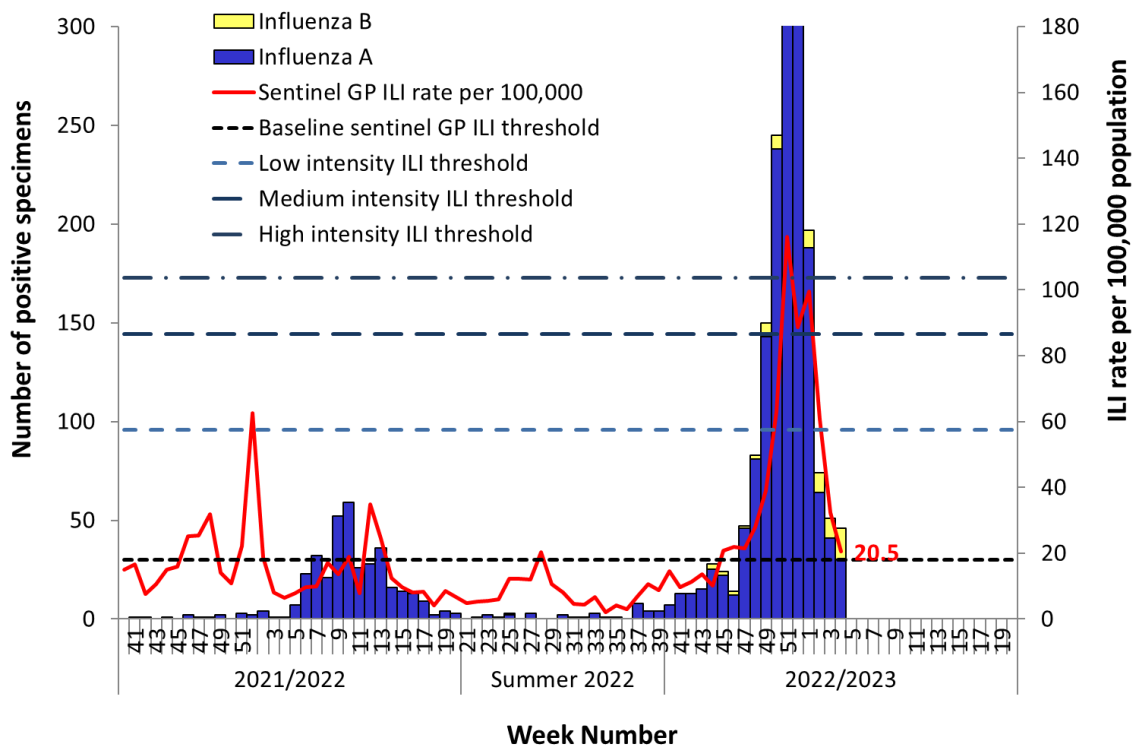


Figure 1: Sentinel GP Influenza-like illness (ILI) consultation rates per 100,000 population, baseline ILI threshold, medium and high intensity ILI thresholds and number of positive influenza A and B specimens tested by the NVRL, by influenza week and season. *Source: ICGP and NVRL*

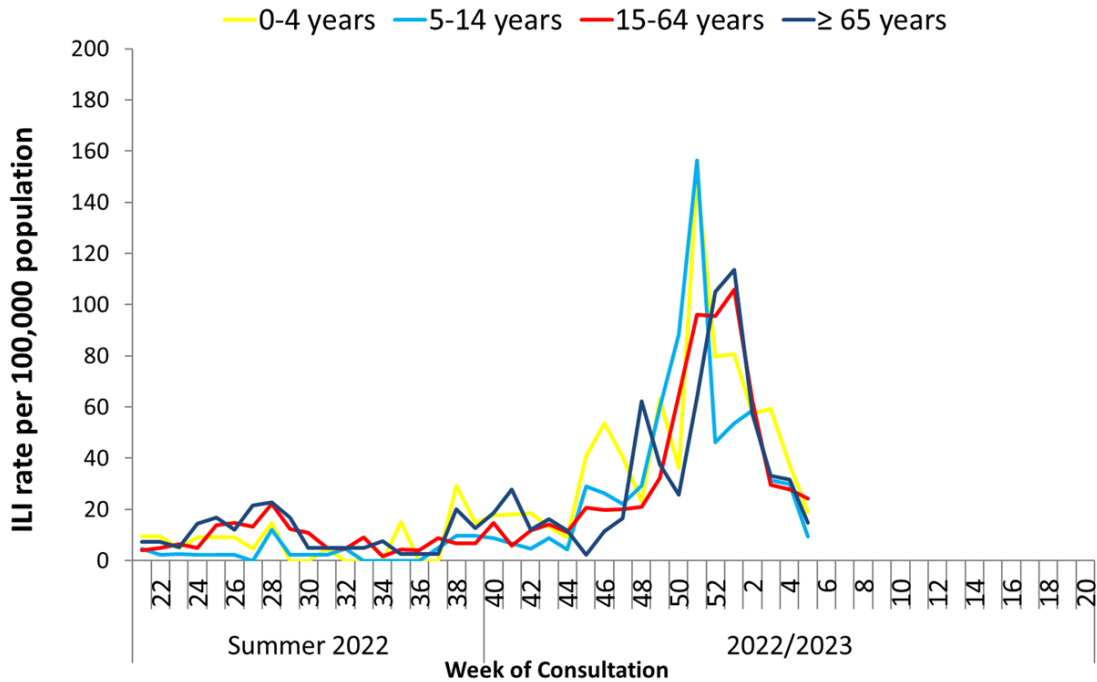


Figure 2: Age specific sentinel GP ILI consultation rate per 100,000 population by week during the summer of 2022 and the 2022/2023 influenza season to date. *Source: ICGP.*

Table 1: Age specific sentinel GP ILI consultation rate per 100,000 population by week (weeks 40 2022-5 2023), 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)	40	41	42	43	44	45	46	47	48	49	50	51	52	1	2	3	4	5
All Ages	14.6	9.7	11.3	13.7	10.1	20.8	22.0	21.4	27.9	38.9	63.0	116.2	88.6	99.4	60.7	32.4	29.3	20.5
<15 yrs	11.7	10.3	9.1	10.3	6.0	32.8	35.2	28.2	27.3	60.9	71.1	154.3	57.2	62.5	58.4	40.6	32.3	12.5
15-64 yrs	14.7	5.7	11.8	14.2	11.1	20.7	19.9	20.1	21.1	32.1	64.6	96.2	95.4	106.0	62.2	29.6	27.8	24.3
≥65 yrs	18.5	27.9	12.0	16.2	11.8	2.4	11.6	16.4	62.3	37.5	25.7	63.8	105.0	113.5	57.3	33.2	31.6	14.9
Reporting practices (N=61)	60	59	58	60	58	58	60	59	58	59	59	58	58	59	57	59	58	53

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 3a, 3b, 4). 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. As of 9th November 2022, the acute respiratory (ARI) case definition is being used by sentinel GPs for surveillance purposes and to identify cases for respiratory virus swabbing. Case definitions are available in Section 12. Sentinel GPs re-commenced in-surgery swabbing of ARI patients on November 16th 2022.

- A lag time with testing and reporting is noted for the most recent surveillance week.
- During week 5 2023, of 95 sentinel GP ARI specimens tested and reported by the NVRL, 13 (13.7%) were positive for influenza: three A(H3), two A(H1)pdm09 and eight influenza B. There was one specimen (1.1%) positive for RSV and six specimens (6.3%) positive for SARS-CoV-2.
- During week 4 2023, of 118 sentinel GP ARI specimens tested and reported by the NVRL, 23 (19.5%) were positive for influenza: eight A(H3), three A(H1)pdm09, two influenza A (not subtyped) and 10 influenza B. There were four specimens (3.4%) positive for RSV and six specimens (5.1%) positive for SARS-CoV-2.
- Of 160 non-sentinel respiratory specimens tested and reported by the NVRL during week 5 2023, 9 (5.6%) were positive for influenza: two A(H1)pdm09, five A(H3) and two influenza B.
- During week 4 2023, of 219 non-sentinel respiratory specimens tested, 23 (10.5%) were positive for influenza: four A(H1)pdm09, 13 A(H3) and six influenza B.
- RSV positivity (non-sentinel respiratory specimens) is at low levels in recent weeks, at 3.7% (8/219) during week 4 2023 and 1.9% (3/160) during week 5 2023.
- Rhinovirus/enterovirus positive detections from non-sentinel respiratory specimens have increased in recent weeks and were detected at a positivity rate of 20% (32/160) during week 5 2023, which is an increase compared to a positivity rate of 16.4% (36/219) during week 4 2023 (Figure 3b).
- Other respiratory viruses (ORVs) are being detected at lower levels (Figure 3a and 3b).
- Of 1,751 sentinel GP ARI specimens and non-sentinel respiratory specimens positive for influenza and reported by the NVRL during the 2022/2023 season, 443 (25.3%) were coinfecting with other respiratory viruses.

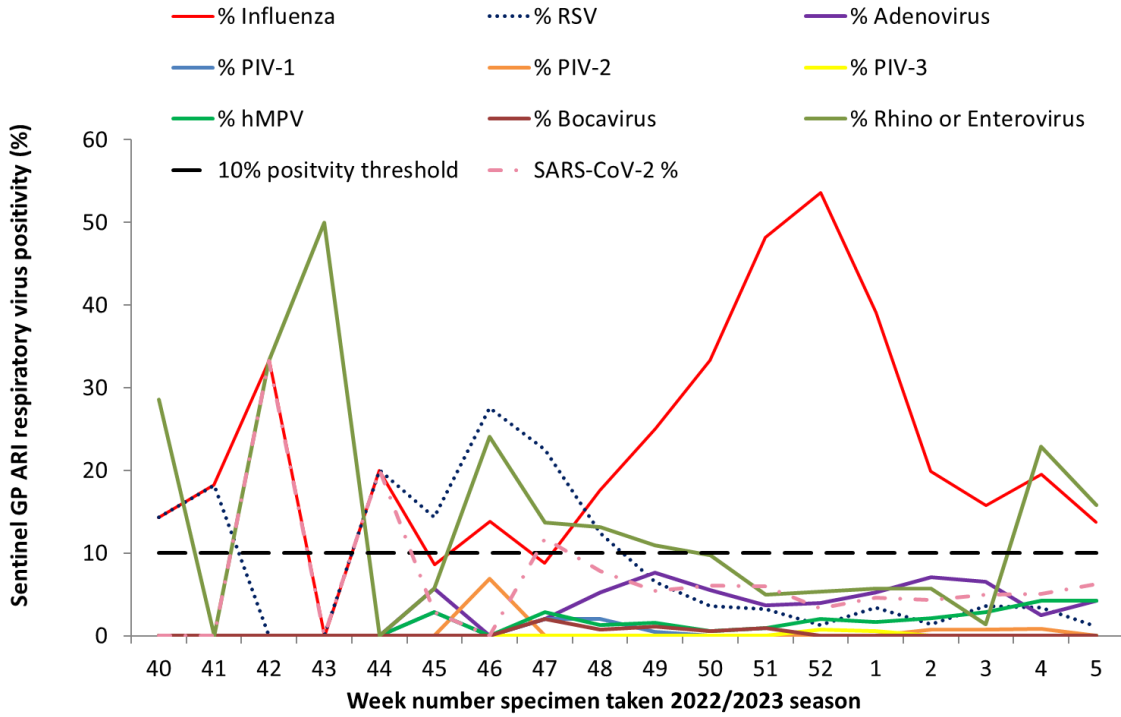


Figure 3a: Percentage positive results for **sentinel GP ARI** specimens tested by the NVRL for influenza, RSV and other respiratory viruses by week specimen was taken, weeks 40 2022-5 2023. *Source: NVRL*

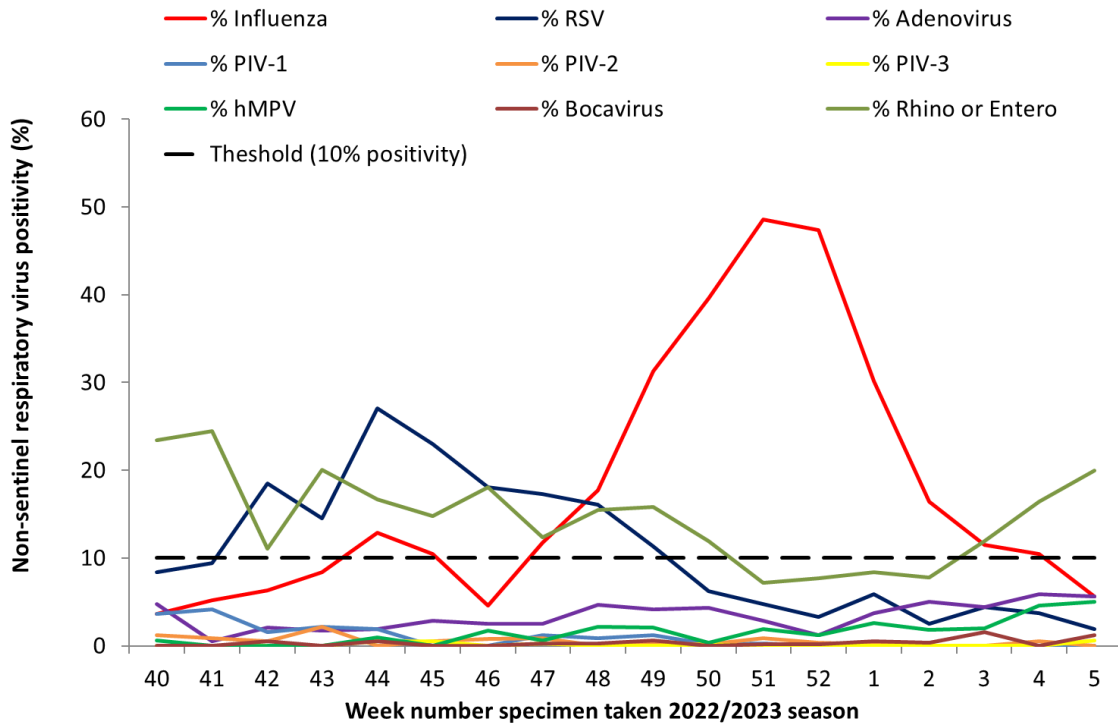


Figure 3b: Percentage positive results for **non-sentinel respiratory** specimen tested by the NVRL for influenza, RSV and other respiratory viruses by week specimen was taken, weeks 40 2022-5 2023. *Source: NVRL*

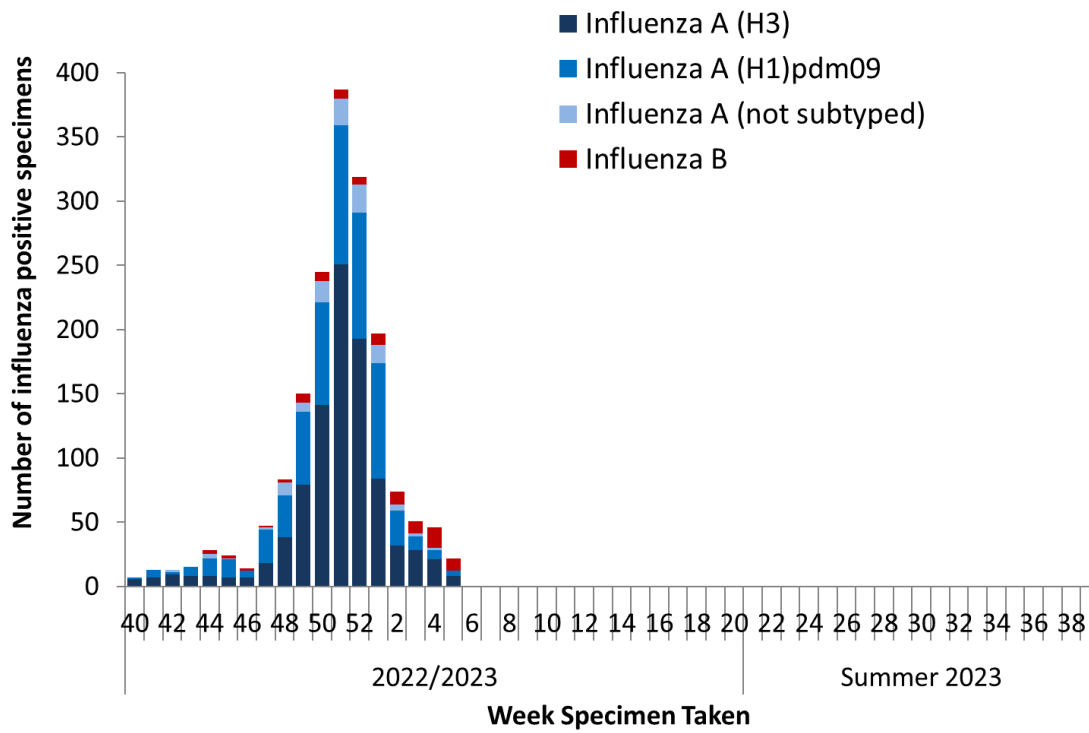


Figure 4: Number of positive influenza specimens (from sentinel GP ARI and non-sentinel respiratory sources) tested by the NVRL by influenza type/subtype and by week specimen was taken for the 2022/2023 influenza season. *Source: NVRL*

Table 2: Number of sentinel GP ARI and non-sentinel respiratory specimens tested by the NVRL and positive influenza results, for weeks 4 and 5 2023 and the 2022/2023 season (weeks 40 2022-5 2023). *Source: NVRL*

Surveillance period	Specimen type	Total tested	Number influenza	% Influenza positive	Influenza A				Influenza B			
					A(H1)pdm09	A(H3)	A (not subtyped)	Total	B	B Victoria	B Yamagata	Total
Week 5 2023	Sentinel GP ARI	95	13	13.7	2	3	0	5	8	0	0	8
	Non-sentinel respiratory	160	9	5.6	2	5	0	7	2	0	0	2
	Total	255	22	8.6	4	8	0	12	10	0	0	10
Week 4 2023	Sentinel GP ARI	118	23	19.5	3	8	2	13	10	0	0	10
	Non-sentinel respiratory	219	23	10.5	4	13	0	17	6	0	0	6
	Total	337	46	13.6	7	21	2	30	16	0	0	16
2022/2023	Sentinel GP ARI	1734	489	28.2	202	212	22	436	53	0	0	53
	Non-sentinel respiratory	5311	1262	23.8	388	733	86	1207	39	15	1	55
	Total	7045	1751	24.9	590	945	108	1643	92	15	1	108

Table 3: Number of sentinel GP ARI and non-sentinel respiratory specimens tested by the NVRL and positive RSV results, for weeks 4 and 5 2023 and the 2022/2023 season (weeks 40 2022-5 2023). *Source: NVRL*

Surveillance period	Specimen type	Total tested	Number RSV positive	% RSV positive	RSV A	RSV B	RSV (unspecified)
Week 5 2023	Sentinel GP ARI	95	1	1.1	0	1	0
	Non-sentinel	160	3	1.9	0	3	0
	Total	255	4	1.6	0	4	0
Week 4 2023	Sentinel GP ARI	118	4	3.4	0	4	0
	Non-sentinel	219	8	3.7	0	8	0
	Total	337	12	3.6	0	12	0
2022/2023	Sentinel GP ILI/ARI	1734	104	6.0	2	102	0
	Non-sentinel	5311	518	9.8	59	459	0
	Total	7045	622	8.8	61	561	0

Table 4: Number of sentinel GP ILI/ARI specimens tested by the NVRL for respiratory viruses and positive results, for weeks 4 2023 and 5 2023 and 2022/2023 season (weeks 40 2022-5 2023). *Source: NVRL*

Virus	Week 5 2023 (N=95)		Week 4 2023 (N=118)		2022/2023 (N=1734)	
	Total positive	% positive	Total positive	% positive	Total positive	% positive
Influenza virus	13	13.7	23	19.5	489	28.2
Respiratory Syncytial Virus (RSV)	1	1.1	4	3.4	104	6.0
Rhino/enterovirus	15	15.8	27	22.9	165	9.5
Adenovirus	4	4.2	3	2.5	84	4.8
Bocavirus	0	0.0	0	0.0	8	0.5
Human metapneumovirus (hMPV)	4	4.2	5	4.2	34	2.0
Parainfluenza virus type 1 (PIV-1)	0	0.0	0	0.0	7	0.4
Parainfluenza virus type 2 (PIV-2)	0	0.0	1	0.8	5	0.3
Parainfluenza virus type 3 (PIV-3)	0	0.0	0	0.0	2	0.1
Parainfluenza virus type 4 (PIV-4)	0	0.0	0	0.0	4	0.2
SARS-CoV-2	6	6.3	6	5.1	98	5.7

Table 5: Number of non-sentinel respiratory specimens tested by the NVRL for respiratory viruses and positive results, for weeks 4 and 5 2023 and 2022/2023 season (weeks 40 2022-4 2023). *Source: NVRL*

Virus	Week 5 2023 (N=160)		Week 4 2023 (N=219)		2022/2023 (N=5311)	
	Total positive	% positive	Total positive	% positive	Total positive	% positive
Influenza virus	9	5.6	23	10.5	1262	23.8
Respiratory Syncytial Virus (RSV)	3	1.9	8	3.7	518	9.8
Rhino/enterovirus	32	20.0	36	16.4	696	13.1
Adenovirus	9	5.6	13	5.9	176	3.3
Bocavirus	2	1.2	0	0.0	17	0.3
Human metapneumovirus (hMPV)	8	5.0	10	4.6	81	1.5
Parainfluenza virus type 1 (PIV-1)	0	0.0	0	0.0	40	0.8
Parainfluenza virus type 2 (PIV-2)	0	0.0	1	0.5	26	0.5
Parainfluenza virus type 3 (PIV-3)	1	0.6	0	0.0	5	0.1
Parainfluenza virus type 4 (PIV-4)	0	0.0	0	0.0	21	0.4

3. 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.

- 5,338 (40% of total calls; N=13,364) self-reported cough calls were reported by a network of GP OOHs services during week 5 2023, which was above baseline levels (10.7%) (Figure 5).
- 131 (1% of total calls; N=13,364) self-reported 'flu' calls were reported by a network of GP OOHs services during week 5 2023, which is below baseline levels. The baseline threshold level for self-reported 'flu' calls is 2.3% (Figure 7).
- Five GP OOH services provided data for week 5 2023.

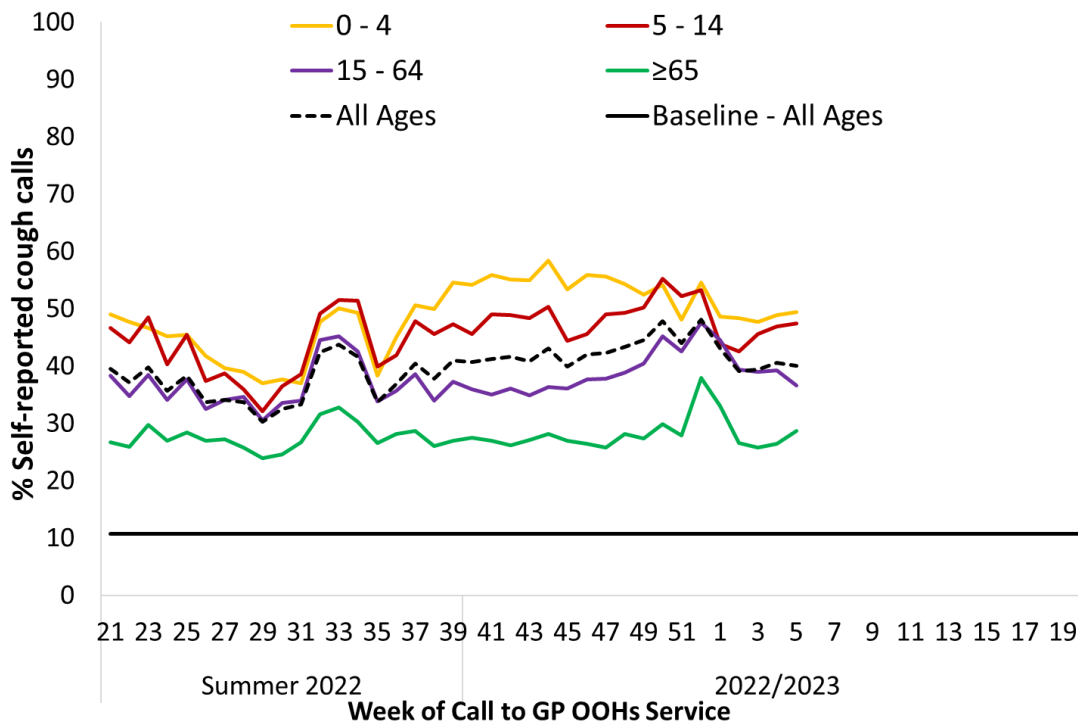


Figure 5: Percentage of self-reported COUGH calls for all ages and by age group as a proportion of total calls to GP Out-of-Hours services by week of call, summer 2022 and the 2022/2023 season. The % cough calls baseline for all ages calculated using the MEM method on historic data is shown. *Source: GP Out-Of-Hours services in Ireland (collated by HSE-NE & ICGP).*

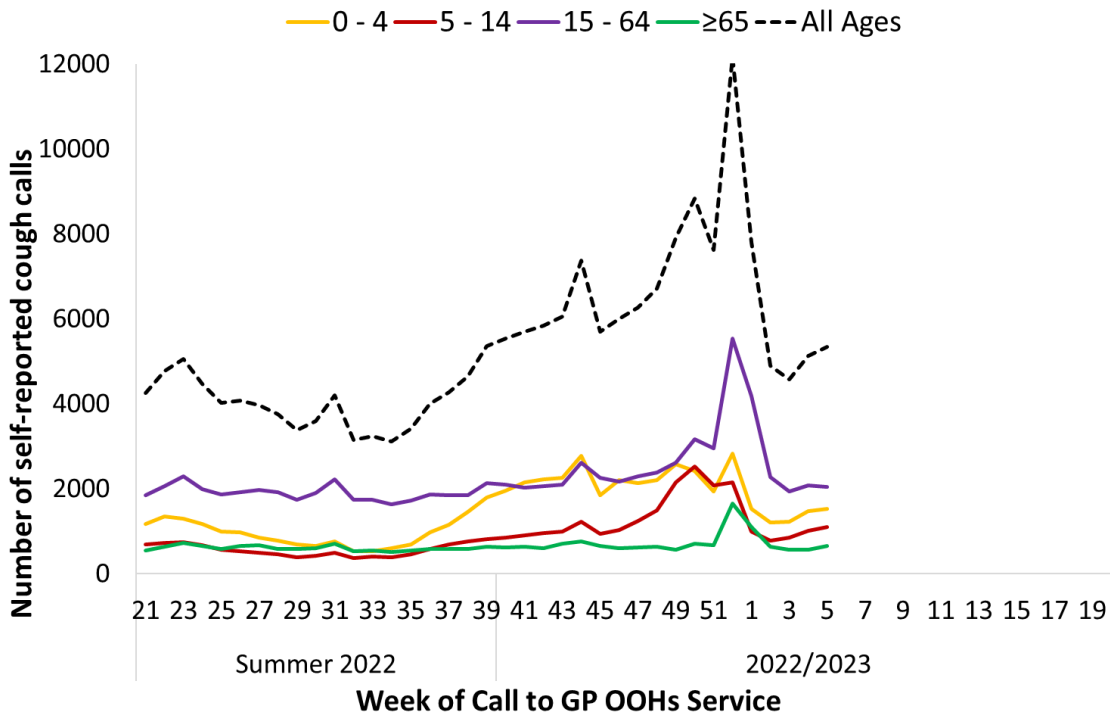


Figure 6: Number of self-reported COUGH calls for all ages and by age group to GP Out-of-Hours services by week of call, Summer 2022 and 2022/2023. *Source: GP Out-Of-Hours services in Ireland (collated by HSE-NE & ICGP).*

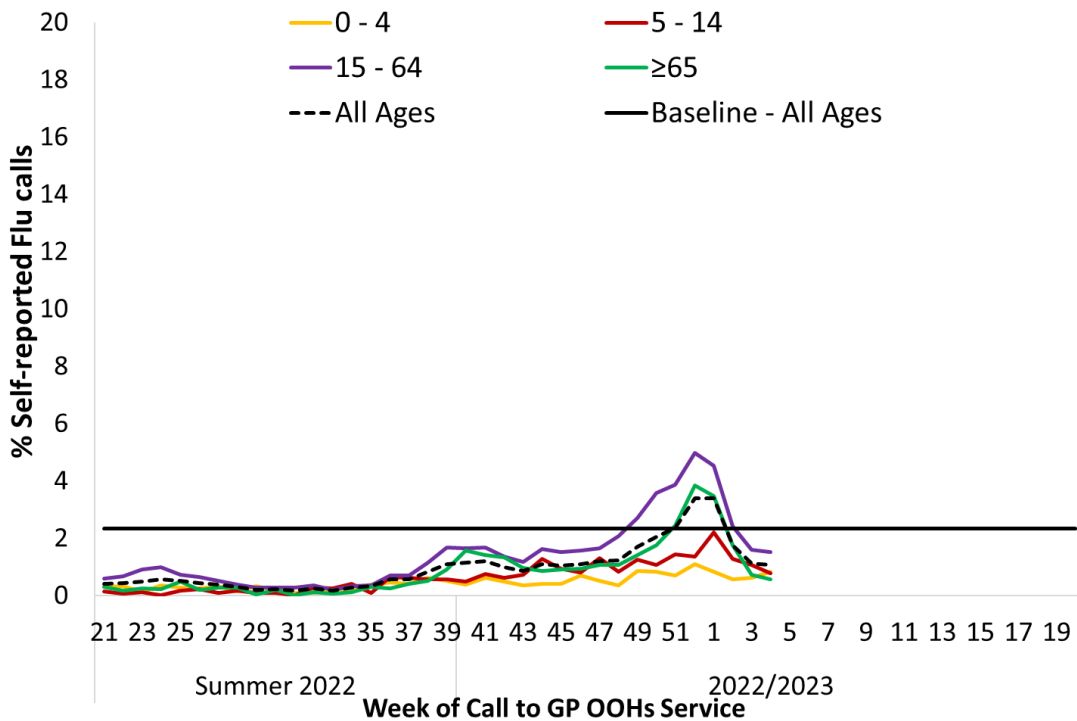


Figure 7: Percentage of self-reported FLU calls for all ages and by age group as a proportion of total calls to GP Out-of-Hours services by week of call, Summer 2022 and 2022/2023. The % flu calls baseline for all ages calculated using the MEM method on historic data is shown. *Source: GP Out-Of-Hours services in Ireland (collated by HSE-NE& ICGP)*

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 [Weekly Infectious Disease Report for Ireland](#).

- 364 laboratory confirmed influenza cases were notified during week 5 2023 – 18 A(H1)pdm09, 36 A(H3), 181 influenza A (not subtyped), 125 influenza B and four influenza A & B coinfections. This is a slight decrease compared to 387 cases reported during week 4 2023 (Figure 8 & 9). Of note, as a proportion of the overall cases, influenza B cases increased to 34% of all cases in week 5 2023 (124/364) compared to 23% in week 4 2023 (89/387).
- During the 2022/2023 season to date (weeks 40 2022 - 5 2023), 13,817 laboratory confirmed influenza cases have been notified to HPSC – 1,093 A(H1)pdm09, 882 A(H3), 11,049 influenza A (not subtyped), 730 influenza B, 41 influenza A and B coinfections, 16 influenza A(H1)pdm09 & A(H3) coinfections and six influenza (type not reported) (Figure 8).
- Laboratory confirmed influenza notified cases by HSE Area, are outlined in Table 6.
- Age specific rates in notified laboratory confirmed influenza cases were highest in those aged 0-4 years. (Figure 10).
- 85 RSV cases were notified during week 5 2023, a decrease compared to 117 RSV cases notified during week 4 2023 (Figure 11).
- During week 5 2023, age specific rates in notified laboratory confirmed RSV cases were highest in those aged less than one year, although have decreased in this age group in recent weeks (Figure 12).

Table 6: Summary of confirmed influenza notifications by HSE Area during the 2022/2023 season (weeks 40 2022-5 2023) and week 5 2023 *Source: CIDR*

HSE area	Influenza confirmed cases week 5 2023	Influenza confirmed cases-season to date
HSE-East	110	4514
HSE-Midlands	31	1458
HSE-Mid-West	20	1369
HSE-North-East	33	1354
HSE-North-West	37	1332
HSE-South-East	38	1289
HSE-South	37	1277
HSE-West	58	1224
Total	364	13817

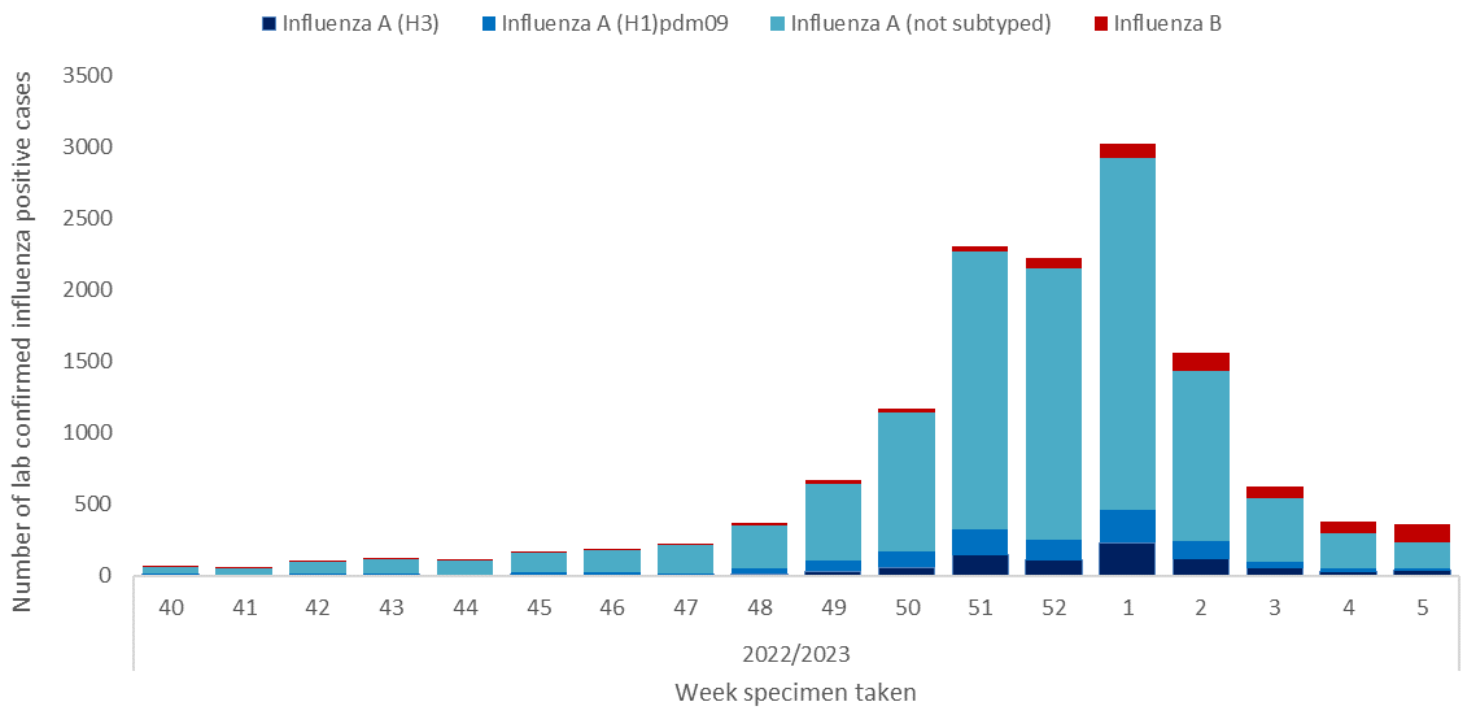


Figure 8: Laboratory confirmed **influenza** notifications by influenza type/subtype to HPSC by week and season. *Source: Ireland's Computerised Infectious Disease Reporting System.*

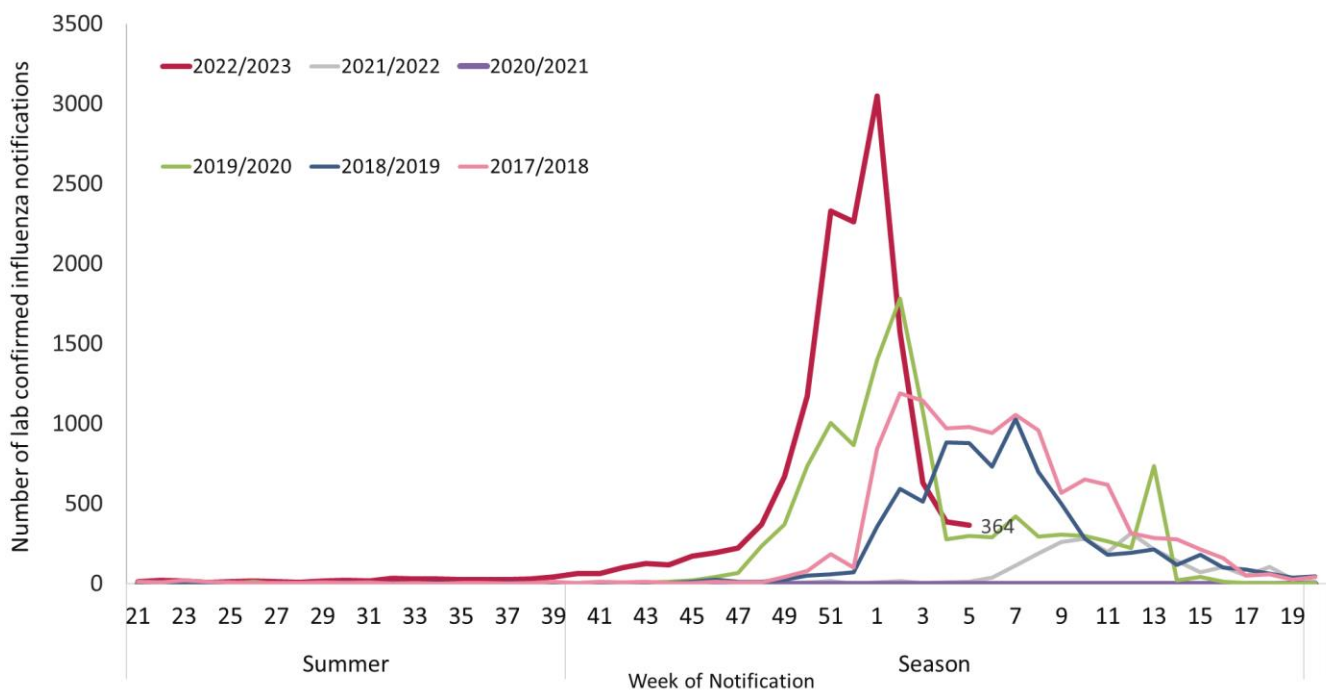


Figure 9: Laboratory confirmed **influenza** notifications to HPSC by week and season of notification, 2017/2018 to 2022/2023 influenza seasons. *Source: Ireland's Computerised Infectious Disease Reporting System.*

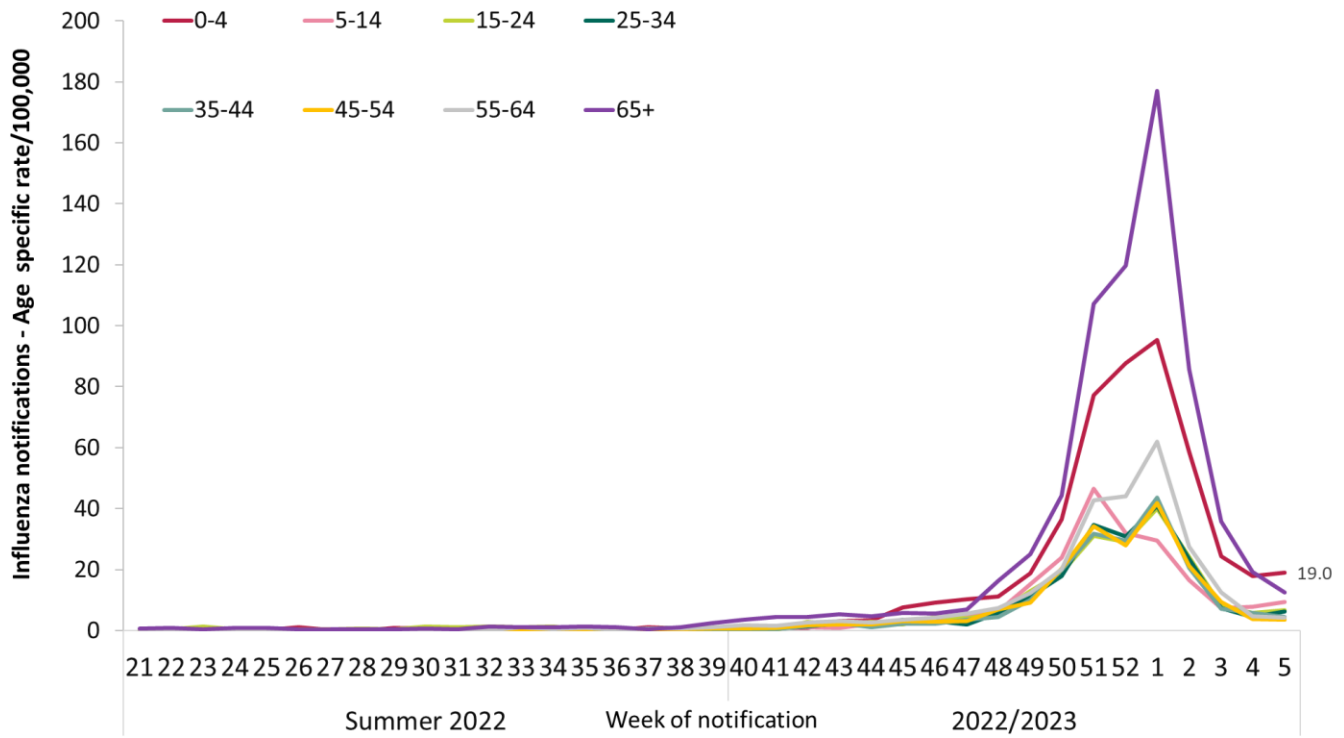


Figure 10: Age specific rates per 100,000 population for laboratory confirmed **influenza** notifications to HPSC by week of notification. *Source: Ireland’s Computerised Infectious Disease Reporting System.*

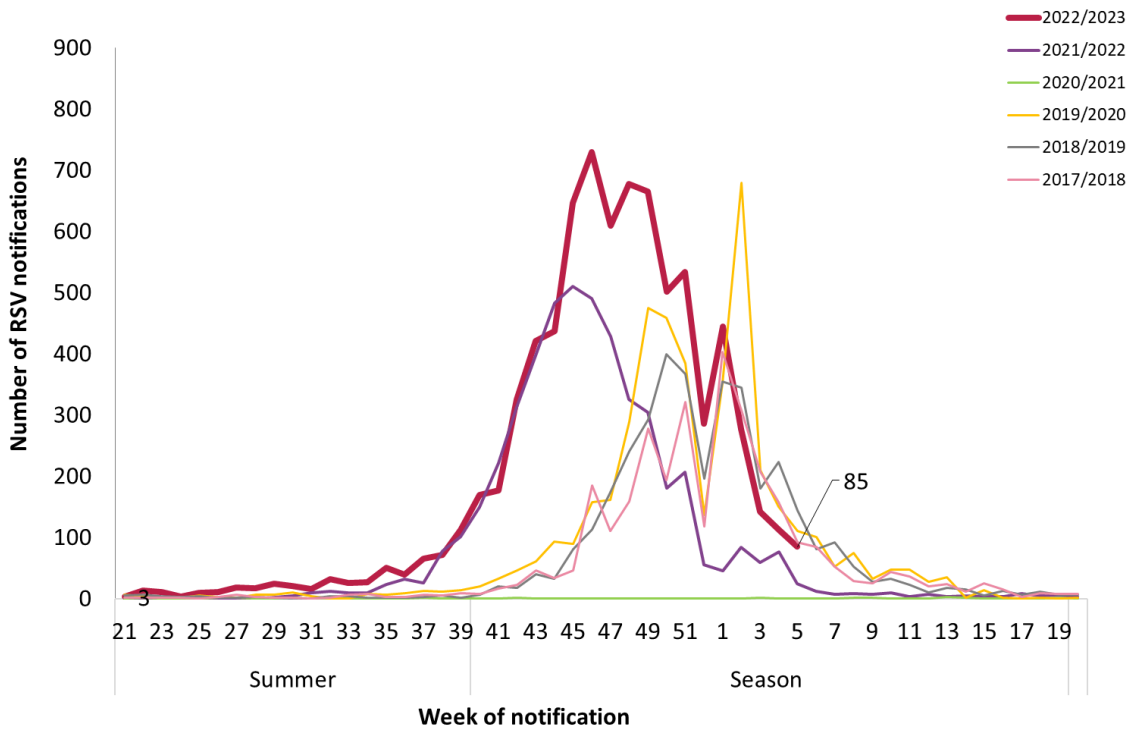


Figure 11: Number of laboratory confirmed **RSV** notifications to HPSC by week of notification, 2017/2018 to 2022/2023 season. *Source: Ireland’s Computerised Infectious Disease Reporting System.*

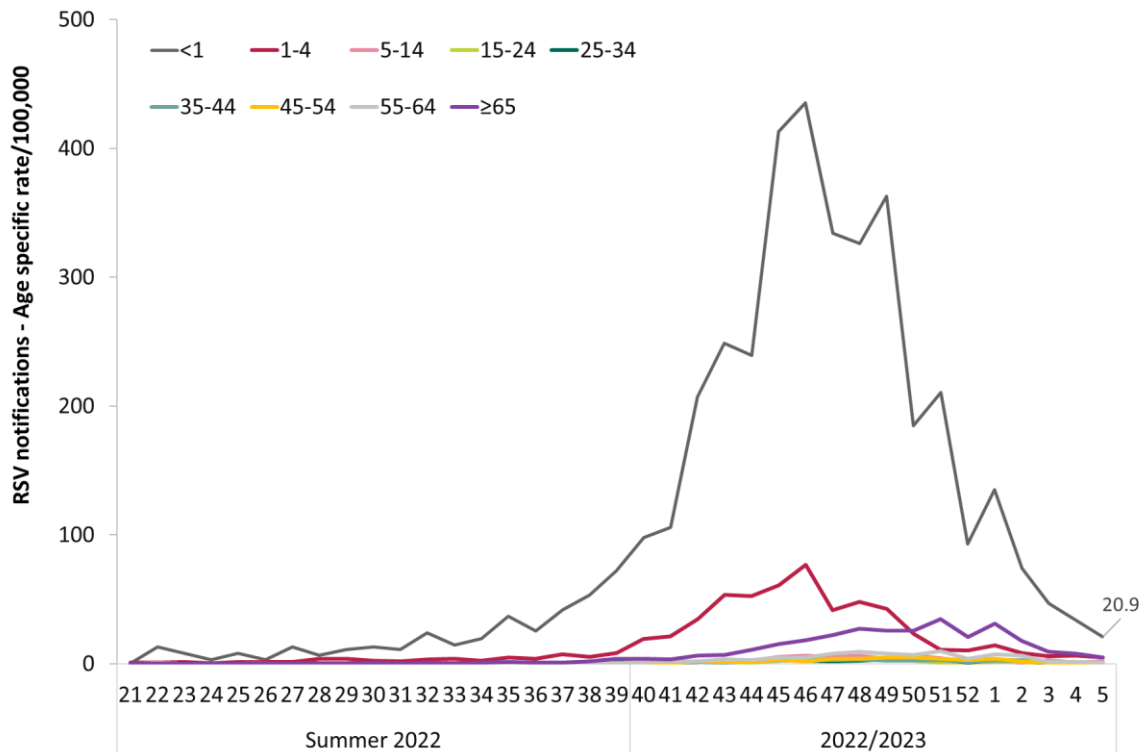


Figure 12: Age specific rates per 100,000 population for laboratory confirmed RSV notifications to HPSC by week of notification. Source: Ireland’s Computerised Infectious Disease Reporting System.

5. Hospitalisations

- During week 5 2023, 86 laboratory confirmed influenza cases were reported as hospital inpatients. Of these 86 hospitalised cases: five influenza A(H1N1)pdm09, seven A(H3N2), 50 influenza A (not subtyped), 23 influenza B and one Influenza A and B coinfection were reported (Figure 13 & 14). Influenza hospitalised cases during week 5 2023 decreased to 86 compared to 109 in week 4 2023.
- During the 2022/2023 season to date (weeks 40 2022 to week 5 2023), 3,971 laboratory confirmed influenza cases have been notified as hospital inpatients: 270 influenza A(H1N1)pdm09, 143 A(H3N2), 3,372 influenza A (not subtyped), 172 influenza B, 11 influenza coinfections and three influenza (type not reported) (Figure 13).
- During week 5 2023, age specific rates in notified laboratory confirmed hospitalised influenza cases were highest in those aged 0-4 years (Figure 15).
- 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 9.
- During week 5 2023, 33 RSV cases were reported as hospital inpatients (Figure 16).
- During week 5 2023, age specific rates in notified laboratory confirmed hospitalised RSV cases were highest in those aged less than one year (Figure 17).
- Patient type of laboratory confirmed influenza and RSV notifications by week for the 2022/2023 season are reported in Tables 7 and 8.

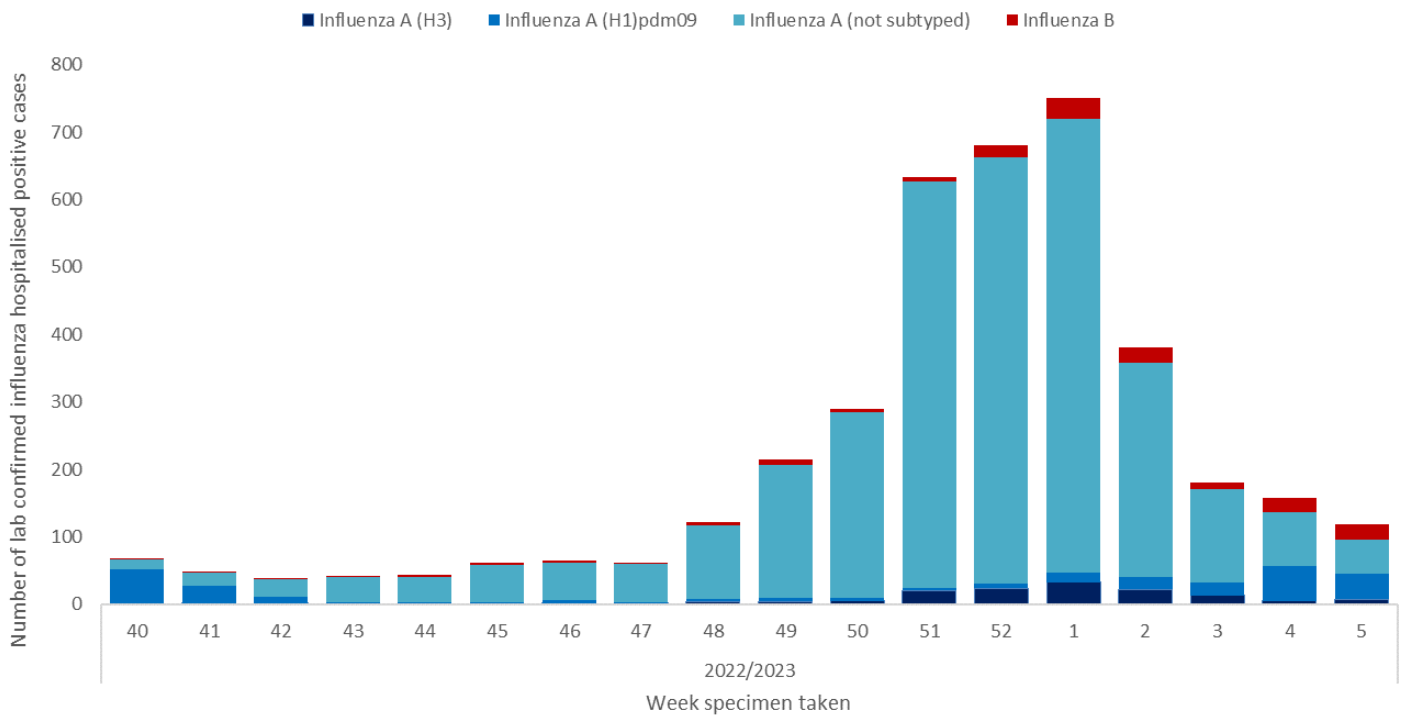


Figure 13: Laboratory confirmed **influenza hospitalised** notifications by influenza type/subtype to HPSC by week and season. *Source: Ireland's Computerised Infectious Disease Reporting System.*

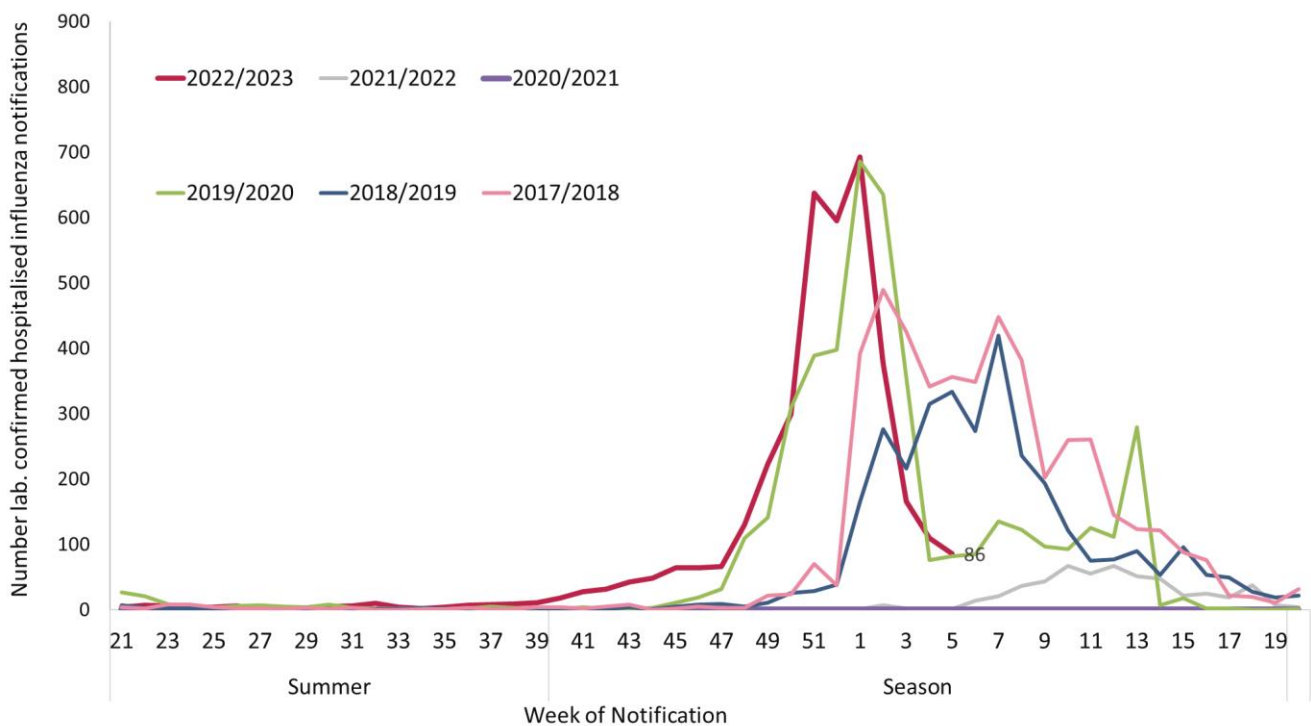


Figure 14: Number of notified laboratory confirmed **influenza** cases reported as hospital inpatients, for the 2017/2018 to 2022/2023 season. *Source: Ireland's Computerised Infectious Disease Reporting System*

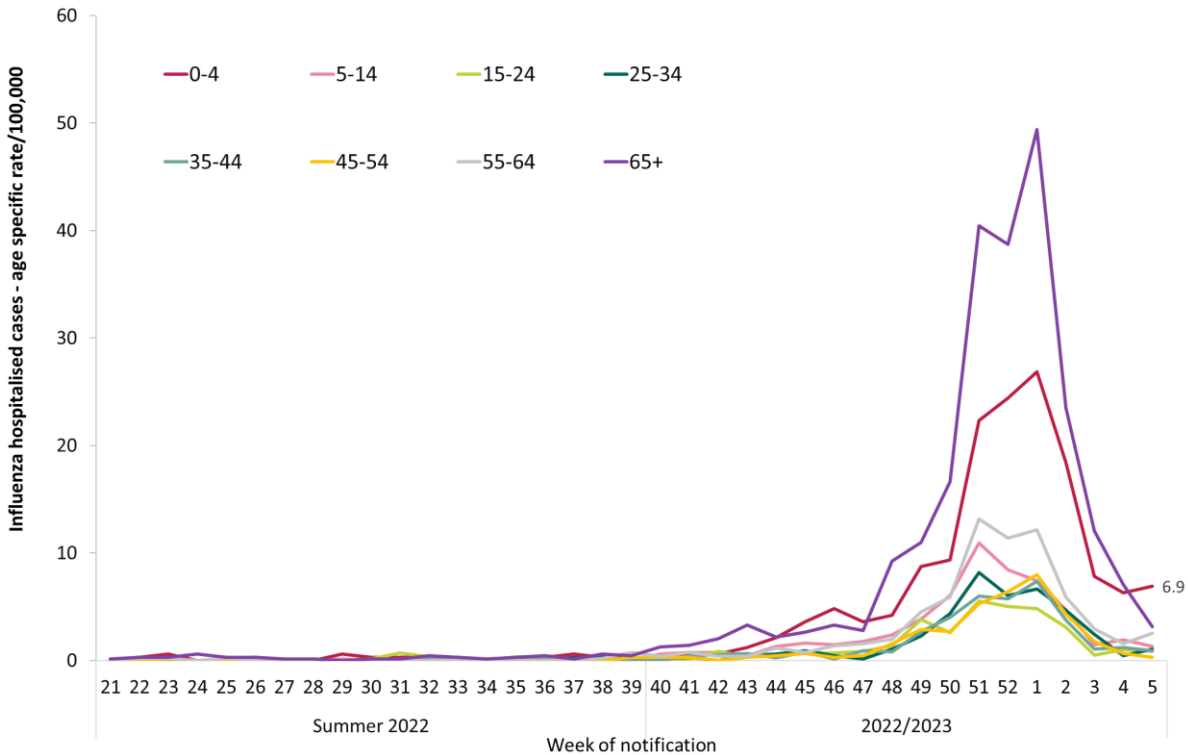


Figure 15: Age specific rates per 100,000 population for laboratory confirmed **influenza** cases reported as hospital inpatients by week of notification. *Source: Ireland’s Computerised Infectious Disease Reporting System.*

Table 7: Number of notified **influenza** cases reported by patient type and week of notification and 2022/2023 season (weeks 40 2022-5 2023). *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	18	3	9	7	12	62
Week 41	4	20	28	1	3	2	2	60
Week 42	0	45	31	1	16	3	5	101
Week 43	7	35	42	6	20	8	6	124
Week 44	2	38	48	6	16	2	5	117
Week 45	3	66	64	7	12	12	8	172
Week 46	5	81	64	11	15	12	5	193
Week 47	3	92	66	18	19	7	16	221
Week 48	18	122	132	8	31	19	40	370
Week 49	17	262	228	31	57	18	62	675
Week 50	44	445	303	22	106	46	206	1172
Week 51	100	806	686	29	226	134	347	2328
Week 52	49	1009	714	16	163	143	141	2235
Week 1	120	1342	792	47	200	196	350	3047
Week 2	42	599	389	26	146	167	195	1564
Week 3	31	240	171	8	50	23	102	625
Week 4	20	150	109	5	27	25	51	387
Week 5	30	142	86	7	33	17	49	364
Total	497	5505	3971	252	1149	841	1602	13817

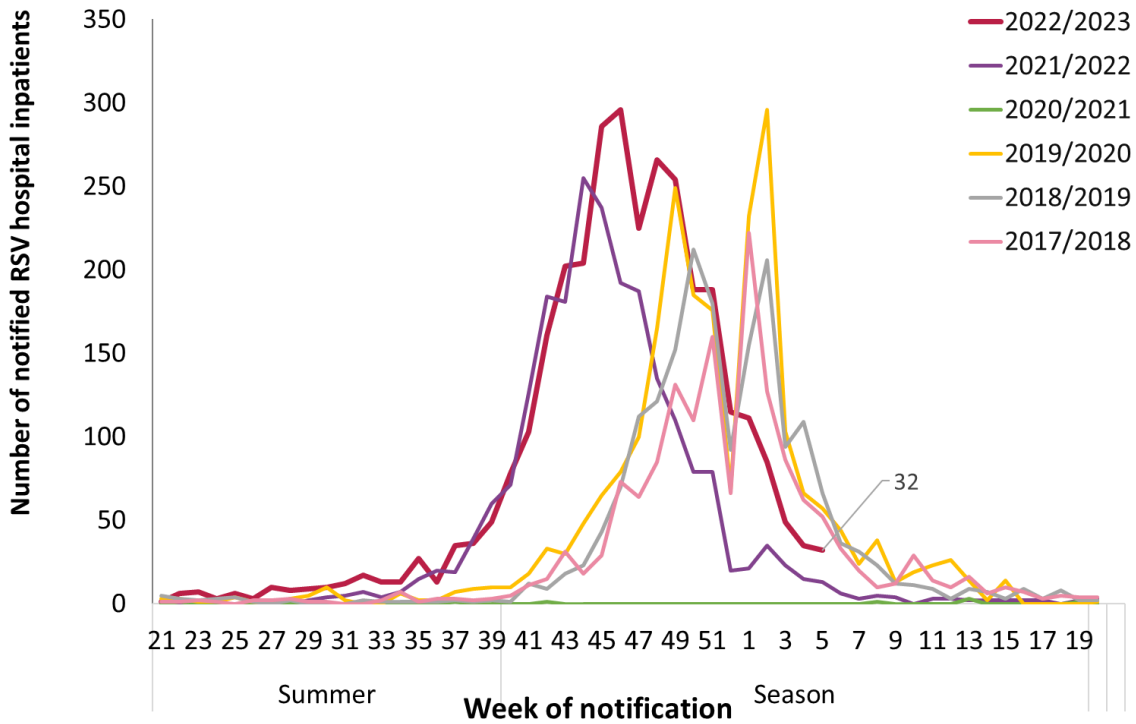


Figure 16: Number of notified RSV cases reported as hospital inpatients, by week of notification and season, for the 2017/2018 to 2022/2023 season. *Source: Ireland’s Computerised Infectious Disease Reporting System.*

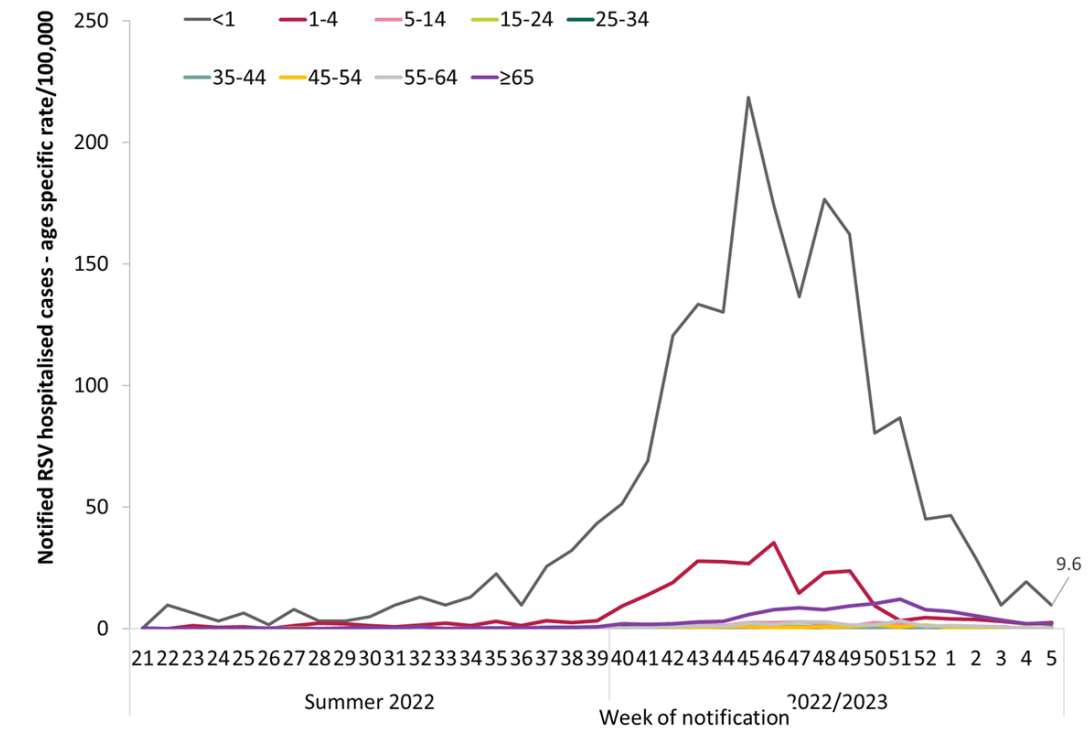


Figure 17: Age specific rates per 100,000 population for laboratory confirmed RSV cases reported as hospital inpatients by week of notification and season, Summer 2022 and 2022/2023. *Source: Ireland’s Computerised Infectious Disease Reporting System*

Table 8: Number of notified RSV cases reported by patient type and week of notification (weeks 40 2022-5 2023).
 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	51	78	6	12	7	11	170
Week 41	3	45	103	3	12	5	6	177
Week 42	5	121	161	2	14	7	15	325
Week 43	6	148	201	9	21	19	17	421
Week 44	6	172	204	3	22	15	15	437
Week 45	8	239	286	12	37	28	36	646
Week 46	10	319	295	5	32	34	34	729
Week 47	6	273	225	8	24	36	37	609
Week 48	34	246	267	3	35	36	57	678
Week 49	19	254	255	13	17	24	83	665
Week 50	20	175	187	2	28	23	67	502
Week 51	14	172	190	5	33	30	88	532
Week 52	8	82	119	0	12	29	36	286
Week 1	26	165	126	5	21	31	71	445
Week 2	7	92	88	3	20	23	44	277
Week 3	4	44	52	2	13	5	22	142
Week 4	6	40	35	5	6	11	9	112
Week 5	4	27	32	0	9	1	12	85
Total	191	2665	2904	86	368	364	660	4857

6. 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 case (influenza A (not subtyped) was admitted to critical care and notified to HPSC during week 5 2023.
- During the 2022/2023 season to date (weeks 40 2022-5 2023), 154 laboratory confirmed influenza cases – 27 A(H1)pdm09, 26 influenza A(H3), 96 influenza A (not subtyped) and five influenza B have been admitted to critical care and notified to HPSC. Age specific rates for the season to date were highest in those aged 65 years and older.
- During the 2022/2023 season (weeks 40 2022-5 2023), of 133 laboratory confirmed influenza ICU cases with known influenza vaccination status, 91 (68%) were reported as NOT having received the 2022/2023 influenza vaccine.
- 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 9.

Table 9: Cumulative number and age specific rate per 100,000 population of laboratory confirmed notified influenza hospitalised and critical care cases, weeks 40 2022-5 2023. *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	116	186.3	2	3.2
1-4	394	146.3	11	4.1
5-14	402	59.6	8	1.2
15-24	203	35.2	8	1.4
25-34	285	43.2	4	0.6
35-44	299	45.3	18	2.4
45-54	249	39.8	21	3.4
55-64	370	72.7	22	4.3
≥65	1653	259.3	60	9.4
Unknown		-		-
Total	3971	83.4	154	3.2

7. 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/>

- Three deaths (one influenza A & B coinfection and two influenza A (not subtyped)) in notified influenza cases were reported to HPSC during week 5 2023.
- During the 2022/2023 season (weeks 40 2022- 5 2023), 127 deaths in notified influenza cases were reported to HPSC – 20 influenza A(H3), 12 influenza A(H1)pdm09, 93 influenza A (not subtyped), one influenza B and one influenza A and B coinfection.
- Overall low-level excess mortality was reported in weeks 51-52 2022, pneumonia and influenza excess mortality was reported between weeks 51 2022 – 1 2023. Low level excess mortality was also reported in the 75 to 84 year age group during weeks 50-52 2022 and in those aged 65 and older in weeks 51-52 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.

8. 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 laboratory confirmed influenza outbreaks were notified to HPSC during week 5 2023, two influenza (type unknown). One outbreak was in a nursing home and one was a family outbreak.
- For an overview of outbreaks for the season to date (weeks 40 2022-5 2023) please see Tables 10 and 11.

Table 10: Summary of influenza, RSV, COVID-19 & influenza mixed outbreaks and ARI (influenza/RSV/SARS-CoV-2 negative) outbreaks by HSE Area during week 5 2023 and the 2022/2023 season (weeks 40 2022-5 2023) *Source: CIDR*

HSE area	Influenza		Respiratory syncytial virus infection		Acute respiratory infection		COVID-19 & Influenza		Total	
	Week 5	2022/2023	Week 5	2022/2023	Week 5	2022/2023	Week 5	2022/2023	Week 5	2022/2023
HSE-East	0	54	1	13	0	0	0	0	1	67
HSE-Midlands	0	6	0	0	0	1	0	0	0	7
HSE-Mid-West	0	12	0	4	0	0	0	0	0	16
HSE-North-East	0	22	0	19	0	3	0	2	0	46
HSE-North-West	0	20	0	6	0	4	0	3	0	33
HSE-South-East	0	13	0	0	0	0	0	0	0	13
HSE-South	0	8	0	8	0	0	0	0	0	16
HSE-West	2	15	1	3	0	0	0	0	3	18
Total	2	150	2	53	0	8	0	5	4	216

Table 11: Summary of influenza, RSV, COVID-19 & influenza mixed outbreaks and ARI (influenza/RSV/SARS-CoV-2 negative) outbreaks by outbreak setting during week 5 2023 and the 2022/2023 season (weeks 40 2022-5 2023). *Source: CIDR*

Setting	Influenza		Respiratory syncytial virus		Acute respiratory		COVID-19 & Influenza		Total	
	Week 5	2022/2023	Week 5	2022/2023	Week 5	2022/2023	Week 5	2022/2023	Week 5	2022/2023
Community hospital/Long-stay unit	0	8	0	8	0	2	0	1	0	19
Nursing Home	1	53	2	20	0	4	0	2	3	79
Hospital	0	67	0	8	0	0	0	2	0	77
Residential Institution	0	10	0	3	0	2	0	0	0	15
Childcare facility	0	0	0	1	0	0	0	0	0	1
Family Outbreaks	1	8	0	12	0	0	0	0	1	20
Other settings	0	4	0	1	0	0	0	0	0	5
Total	2	150	2	53	0	8	0	5	4	216

9. International Summary

In the European region, during week 4 2023 (week ending 29/01/2023), influenza virus positivity in sentinel primary care specimens slightly decreased to 21% from 23% in the previous week, which is above the ECDC influenza positivity threshold of 10%. For week 4 2023, 679 (21%) of 3,264 sentinel GP specimens tested positive for an influenza virus; 68% were type A and 32% were type B. Of 302 subtyped A viruses, 31% were A(H3) and 69% were A(H1)pdm09. Of 32 type B viruses ascribed to a lineage, all were B/Victoria.

For week 4 2023, 7,206 of 53,124 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; 5,069 (70%) were type A and 2,137 (30%) were type B. Of 1,034 subtyped A viruses, 767 (74%) were A(H1)pdm09 and 267 (26%) were A(H3). Of 37 influenza B viruses ascribed to a lineage, all were of B/Victoria lineage. Of 38 countries and areas reporting on geographic spread of influenza viruses, one reported no activity, two reported sporadic spread, three reported local spread, five reported regional spread and 27 reported widespread influenza activity.

In Europe as of week 52/2022, 109,321 influenza detections had been reported. Of these detections, 94% were type A viruses, with A(H3N2) and A(H1N1)pdm09 showing near equal proportions, 51% and 49% respectively, and 6% type B of which 707 were ascribed to a lineage, with all being B/Victoria. This represents a 5-fold increase in detections compared to the 2021-2022 season, despite only a modest increase (5%) in the number of samples tested. Globally, the great majority of the A(H1N1)pdm09 viruses detected in the first 13 weeks of the 2022-2023 season have fallen in the HA 6B.1A.5a.2 subgroup. As a percentage of type A viruses detected in the WHO European Region there has been an increase to 49% from 4% in the same period in 2021. In Europe and across the world generally, few B/Victoria-lineage viruses have been detected during weeks 40- 52 2022.

As of 23rd January 2023, globally, influenza activity decreased but remained somewhat elevated due to activity in the northern hemisphere. Influenza A viruses predominated with a slightly larger proportion of A(H1N1)pdm09 viruses detected among the subtyped influenza A viruses during the reporting period.

In the countries of North America, most indicators of influenza activity decreased to levels similar or below levels typically observed this time of year. Influenza A(H3N2) was the predominant virus detected. In Western Asia, influenza activity decreased overall with all seasonal influenza subtypes detected, though increased activity was reported in some countries. In East Asia, influenza activity of predominantly influenza A(H3N2) viruses remained low overall among reporting countries but with increases reported in Mongolia and the Republic of Korea. In the Caribbean and Central American countries, influenza activity of predominantly influenza A(H3N2) viruses was low overall but remained elevated in Mexico.

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, Nancy Somi, Adele McKenna, Maeve McEnery, Amy Griffin, 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.