



Summary

Influenza activity continued to decrease in Ireland during week 3 2023 compared to previous weeks. Influenza A viruses are predominating this season, with circulation of both influenza A(H1)pdm09 and A(H3). Respiratory syncytial virus (RSV) activity also continued to decrease in week 3 2023. 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 34.8/100,000 during week 3 2023. This is a decrease from the updated rate of 60.7/100,000 during week 2 2023. ILI consultation rates have been above the Irish baseline threshold (18.1/100,000 population) for eleven consecutive weeks. Sentinel GP ILI age specific consultation rates decreased in all age groups (<15, 15 – 64, 65+) during week 3 2023.
- **National Virus Reference Laboratory (NVRL):** During week 3 2023, of 113 sentinel GP ARI specimens tested and reported by the NVRL, 15 (13.4%) were positive for influenza: eight A(H3), three A(H1)pdm09 and four influenza B. There were five specimens (4.4%) positive for RSV and five specimens (4.4%) positive for SARS-CoV-2.
- Of 242 non-sentinel respiratory specimens tested and reported by the NVRL during week 3 2023, 25 (10.3%) were positive for influenza: five A(H1)pdm09, 14 A(H3), one A (not subtyped) and five influenza B. RSV positivity decreased to 2.5% (7/281) during week 2 2023 and 3.7% (9/242) during week 3 2023.
- Of 1,611 sentinel GP ARI specimens and non-sentinel respiratory specimens positive for influenza and reported by the NVRL during the 2022/2023 season, 405 (25.1%) were coinfecting with other respiratory viruses.
- **Influenza notifications:** 629 laboratory confirmed influenza cases were notified during week 3 2023 – 38 A(H1)pdm09, 48 A(H3), 467 influenza A (not subtyped), 75 influenza B and one influenza A & B coinfection. This is a decrease compared to 1564 cases reported during week 2 2023. Age specific rates were highest in those aged 65 years and older, however have declined in recent weeks.
- **RSV notifications:** 142 RSV cases were notified during week 3 2023, a decrease compared to 277 RSV cases notified during week 2 2023. Age specific rates for hospitalised cases were highest in those aged <1 year, however have declined in this age group in recent weeks.
- **Hospitalisations:** During week 3 2023, 166 laboratory confirmed influenza cases were reported as hospital inpatients. Of these 166 hospitalised cases: six influenza A(H1)pdm09, five A(H3), 144 influenza A (not subtyped) and 11 influenza B were reported. Influenza hospitalised cases decreased in week 3 compared to week 2 2023.
- **Critical care admissions:** Six laboratory confirmed influenza cases were admitted to critical care and notified to HPSC during week 3 2023. During weeks 40 2022-3 2023, 137 laboratory confirmed influenza cases – 21 A(H1)pdm09, 19 influenza A(H3), 93 influenza A (not subtyped) and four 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 2022-3 2023, of 119 laboratory confirmed influenza ICU cases with known influenza vaccination status, 80 (67%) were reported as NOT having received the 2022/2023 influenza vaccine.
- **Mortality:** One death in a notified influenza case was reported to HPSC during week 3 2023. During the 2022/2023 season (weeks 40 2022- 3 2023), 80 deaths in notified influenza cases were reported to HPSC – 12 influenza A(H3), eight influenza A(H1)pdm09, 59 influenza A (not subtyped) and one influenza B. Low level pneumonia and influenza excess mortality was reported in week 52 2022.
- **Outbreaks:** Nine laboratory confirmed influenza outbreaks (two nursing home, four hospital, one community hospital/long-stay unit, one family outbreak and one other setting) and four RSV outbreaks (one community hospital/long-stay unit, two nursing home and one other setting) were notified during week 3 2023.
- **International:** In Europe during week 2 2023, 30 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 3 2023, 99 sentinel GP influenza-like illness (ILI) consultations were reported from the Irish sentinel GP network, corresponding to an ILI consultation rate of 34.8 per 100,000 population, compared to 60.7 per 100,000 population during week 2 (Figure 1).
- Sentinel GP ILI consultation rates were above the baseline during week 3 2023.
- The sentinel GP ILI consultation rates have been above the Irish sentinel GP ILI baseline threshold (18.1/100,000 population) for eleven consecutive weeks (weeks 45 2022 to week 3 2023).
- Age specific rates were above baseline thresholds in all age groups during week 3 2023 (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.

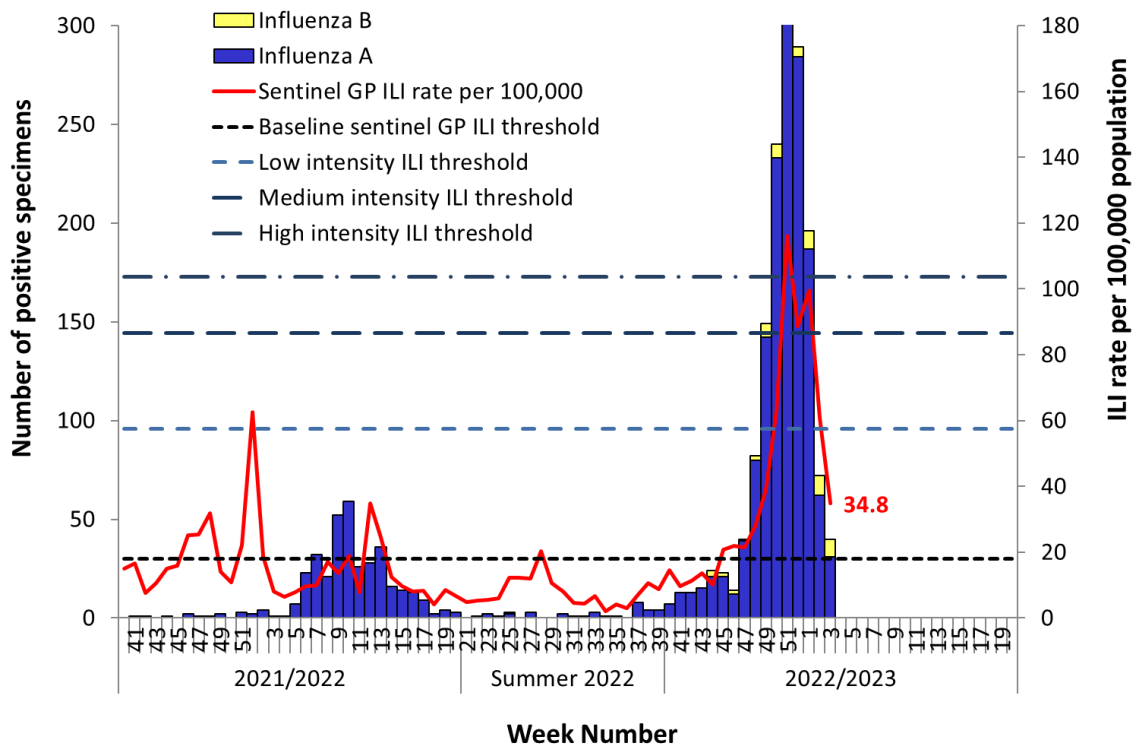


Figure 1: Sentinel GP Influenza-like illness (ILI) consultation rates per 100,000 population, baseline ILI threshold, medium and high intensity ILI thresholds and number of positive influenza A and B specimens tested by the NVRL, by influenza week and season. *Source: ICGP and NVRL*

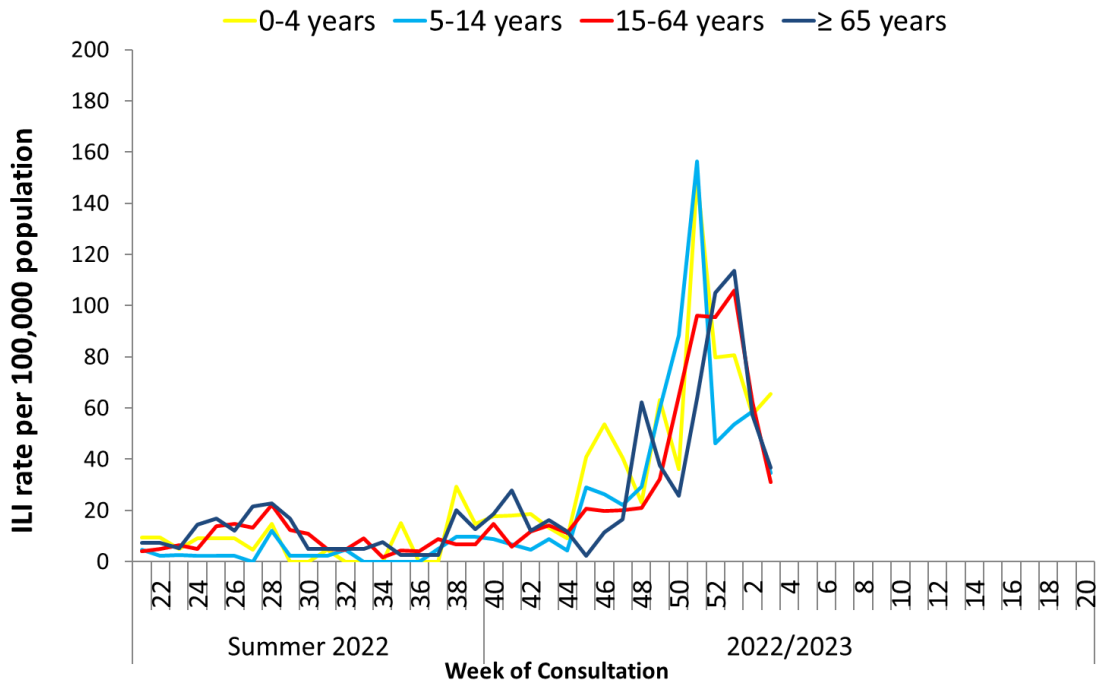


Figure 2: Age specific sentinel GP ILI consultation rate per 100,000 population by week during the summer of 2022 and the 2022/2023 influenza season to date. *Source: ICGP.*

Table 1: Age specific sentinel GP ILI consultation rate per 100,000 population by week (weeks 40 2022-3 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
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	34.8
<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	44.9
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	31.1
≥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	36.7
Reporting practices (N=61)	60	59	58	60	58	58	60	59	58	59	59	58	58	59	57	56

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 3 2023, of 113 sentinel GP ARI specimens tested and reported by the NVRL, 15 (13.4%) were positive for influenza: eight A(H3), three A(H1)pdm09 and four influenza B. There were five specimens (4.4%) positive for RSV and five specimens (4.4%) positive for SARS-CoV-2.
- During week 2 2023, of 120 sentinel GP ARI specimens tested and reported by the NVRL, 26 (21.7%) were positive for influenza: 13 A(H3), eight A(H1)pdm09 and five influenza B. There were two specimens (1.7%) positive for RSV and four specimens (3.3%) positive for SARS-CoV-2.
- Of 242 non-sentinel respiratory specimens tested and reported by the NVRL during week 3 2023, 25 (10.3%) were positive for influenza: five A(H1)pdm09, 14 A(H3), one A (not subtyped) and five influenza B.
- During week 2 2023, of 281 non-sentinel respiratory specimens tested, 46 (16.4%) were positive for influenza: 18 A(H1)pdm09, 18 A(H3), five A (not subtyped) and five influenza B.
- RSV positivity (non-sentinel respiratory specimens) decreased in recent weeks, at 2.5% (7/281) during week 2 2023 and 3.7% (9/242) during week 3 2023.
- Rhinovirus/enterovirus positive detections from non-sentinel respiratory specimens were detected at a positivity rate of 9.5% (23/242) during week 3 2023, which is an increase compared to a positivity rate of 7.8% (22/281) during week 2 2023 (Figure 3b).
- Other respiratory viruses (ORVs) are being detected at lower levels (Figure 3a and 3b).
- Of 1,611 sentinel GP ARI specimens and non-sentinel respiratory specimens positive for influenza and reported by the NVRL during the 2022/2023 season, 405 (25.1%) were coinfecting with other respiratory viruses.

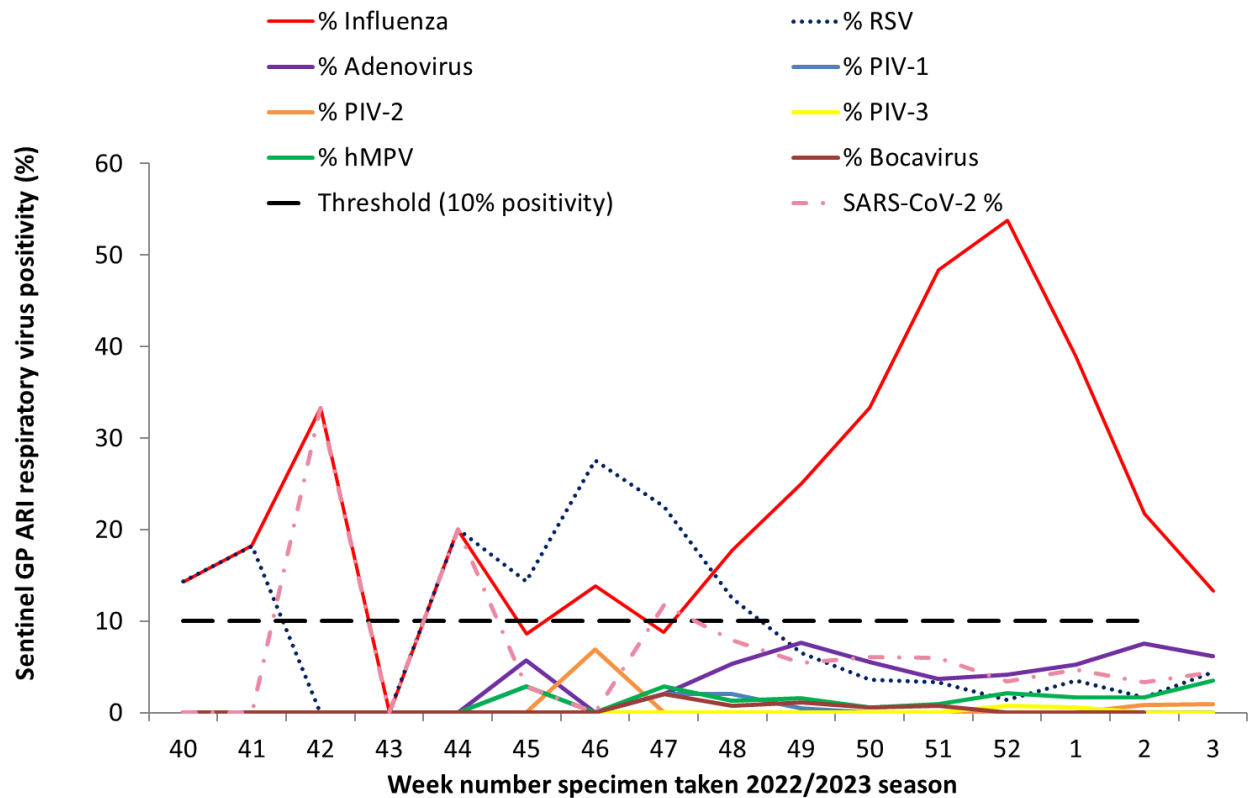


Figure 3a: Percentage positive results for **sentinel GP ARI** specimens tested by the NVRL for influenza, RSV and other respiratory viruses by week specimen was taken, weeks 40 2022-3 2023. *Source: NVRL*

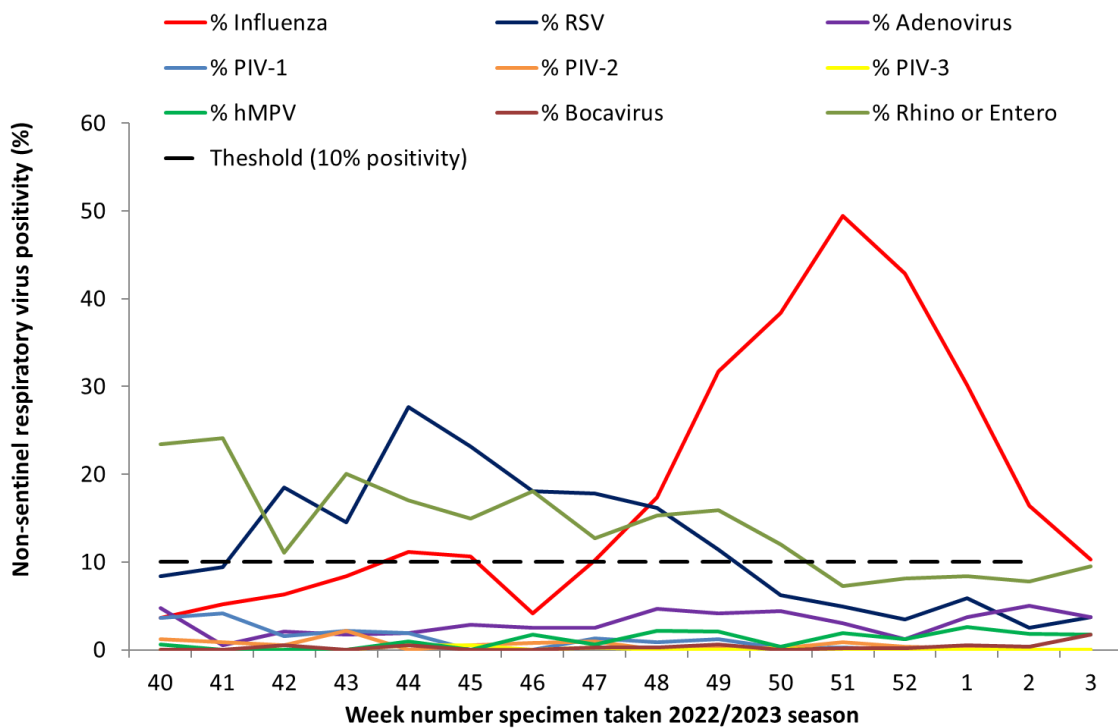


Figure 3b: Percentage positive results for **non-sentinel respiratory** specimens tested by the NVRL for influenza, RSV and other respiratory viruses by week specimen was taken, weeks 40 2022-3 2023. *Source: NVRL*

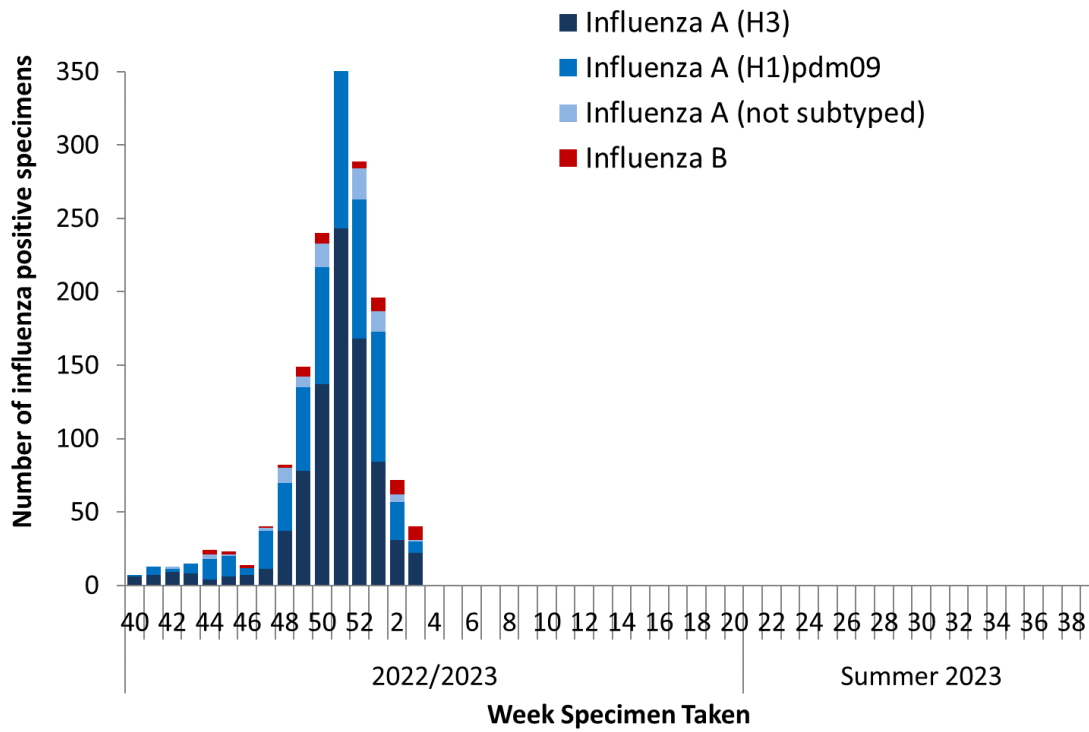


Figure 4: Number of positive influenza specimens (from sentinel GP ARI and non-sentinel respiratory sources) tested by the NVRL by influenza type/subtype and by week specimen was taken for the 2022/2023 influenza season. *Source: NVRL*

Table 2: Number of sentinel GP ARI and non-sentinel respiratory specimens tested by the NVRL and positive influenza results, for weeks 2 and 3 2023 and the 2022/2023 season (weeks 40 2022-3 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 3 2023	Sentinel GP ARI	113	15	13.3	3	8	0	11	4	0	0	4
	Non-sentinel respiratory	242	25	10.3	5	14	1	20	5	0	0	5
	Total	355	40	11.3	8	22	1	31	9	0	0	9
Week 2 2023	Sentinel GP ARI	120	26	21.7	8	13	0	21	5	0	0	5
	Non-sentinel respiratory	281	46	16.4	18	18	5	41	5	0	0	5
	Total	401	72	18.0	26	31	5	62	10	0	0	10
2022/2023	Sentinel GP ARI	1462	439	30.0	190	197	19	406	33	0	0	33
	Non-sentinel respiratory	4864	1172	24.1	381	661	84	1126	31	14	1	46
	Total	6326	1611	25.5	571	858	103	1532	64	14	1	79

Table 3: Number of sentinel GP ARI and non-sentinel respiratory specimens tested by the NVRL and positive RSV results, for weeks 2 and 3 2023 and the 2022/2023 season (weeks 40 2022-3 2023). *Source: NVRL*

Surveillance period	Specimen type	Total tested	Number RSV positive	% RSV positive	RSV A	RSV B	RSV (unspecified)
Week 3 2023	Sentinel GP ARI	113	5	4.4	0	5	0
	Non-sentinel	242	9	3.7	0	9	0
	Total	355	14	3.9	0	14	0
Week 2 2023	Sentinel GP ARI	120	2	1.7	0	2	0
	Non-sentinel	281	7	2.5	0	7	0
	Total	401	9	2.2	0	9	0
2022/2023	Sentinel GP ILI/ARI	1462	99	6.8	2	97	0
	Non-sentinel	4864	505	10.4	59	446	0
	Total	6326	604	9.5	61	543	0

Table 4: Number of sentinel GP ILI/ARI specimens tested by the NVRL for respiratory viruses and positive results, for weeks 3 2023 and 2 2023 and 2022/2023 season (weeks 40 2022-3 2023). *Source: NVRL*

Virus	Week 3 2023 (N=113)		Week 2 2023 (N=120)		2022/2023 (N=1462)	
	Total positive	% positive	Total positive	% positive	Total positive	% positive
Influenza virus	15	13.3	26	21.7	439	30.0
Respiratory Syncytial Virus (RSV)	5	4.4	2	1.7	99	6.8
Rhino/enterovirus	0	0.0	8	6.7	120	8.2
Adenovirus	7	6.2	9	7.5	74	5.1
Bocavirus	0	0.0	0	0.0	8	0.5
Human metapneumovirus (hMPV)	4	3.5	2	1.7	24	1.6
Parainfluenza virus type 1 (PIV-1)	0	0.0	0	0.0	7	0.5
Parainfluenza virus type 2 (PIV-2)	1	0.9	1	0.8	4	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	0.3
SARS-CoV-2	5	4.4	4	3.3	82	5.6

Table 5: Number of non-sentinel respiratory specimens tested by the NVRL for respiratory viruses and positive results, for weeks 3 and 2 2023 and 2022/2023 season (weeks 40 2022-3 2023). *Source: NVRL*

Virus	Week 3 2023 (N=242)		Week 2 2023 (N=281)		2022/2023 (N=4864)	
	Total positive	% positive	Total positive	% positive	Total positive	% positive
Influenza virus	25	10.3	46	16.4	1172	24.1
Respiratory Syncytial Virus (RSV)	9	3.7	7	2.5	505	10.4
Rhino/enterovirus	23	9.5	22	7.8	619	12.7
Adenovirus	9	3.7	14	5.0	152	3.1
Bocavirus	4	1.7	1	0.4	15	0.3
Human metapneumovirus (hMPV)	4	1.7	5	1.8	62	1.3
Parainfluenza virus type 1 (PIV-1)	0	0.0	0	0.0	40	0.8
Parainfluenza virus type 2 (PIV-2)	0	0.0	0	0.0	25	0.5
Parainfluenza virus type 3 (PIV-3)	0	0.0	0	0.0	4	0.1
Parainfluenza virus type 4 (PIV-4)	0	0.0	1	0.4	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.

- 4,580 (39% of total calls; N=11,630) self-reported cough calls were reported by a network of GP OOHs services during week 3 2023, which was above baseline levels (10.7%) (Figure 5).
- 131 (1.1% of total calls; N=11,630) self-reported 'flu' calls were reported by a network of GP OOHs services during week 3 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 3 2023.

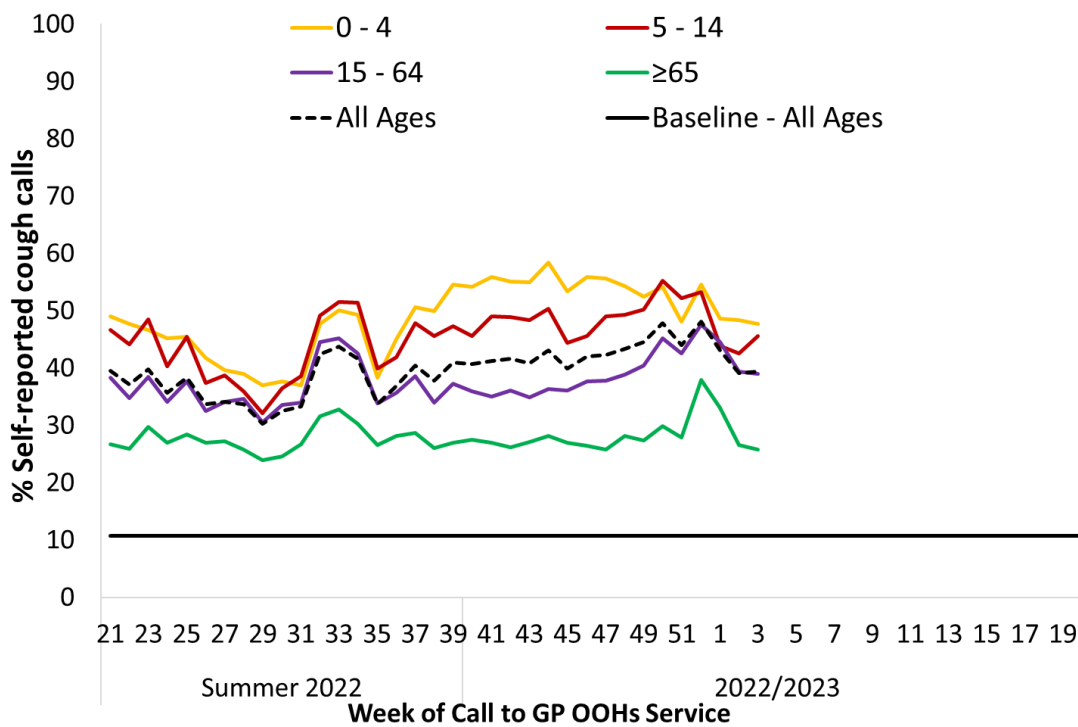


Figure 5: Percentage of self-reported COUGH calls for all ages and by age group as a proportion of total calls to GP Out-of-Hours services by week of call, summer 2022 and the 2022/2023 season. The % cough calls baseline for all ages calculated using the MEM method on historic data is shown. *Source: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

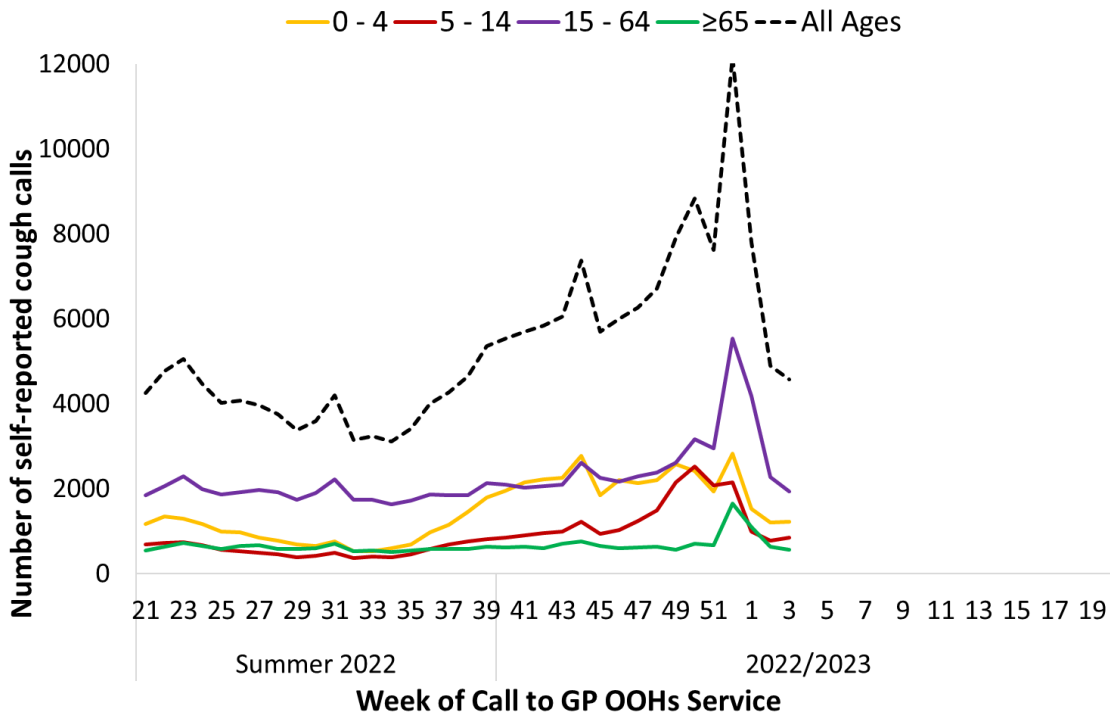


Figure 6: Number of self-reported COUGH calls for all ages and by age group to GP Out-of-Hours services by week of call, Summer 2022 and 2022/2023. *Source: GP Out-Of-Hours services in Ireland (collated by HSE-NE & ICGP).*

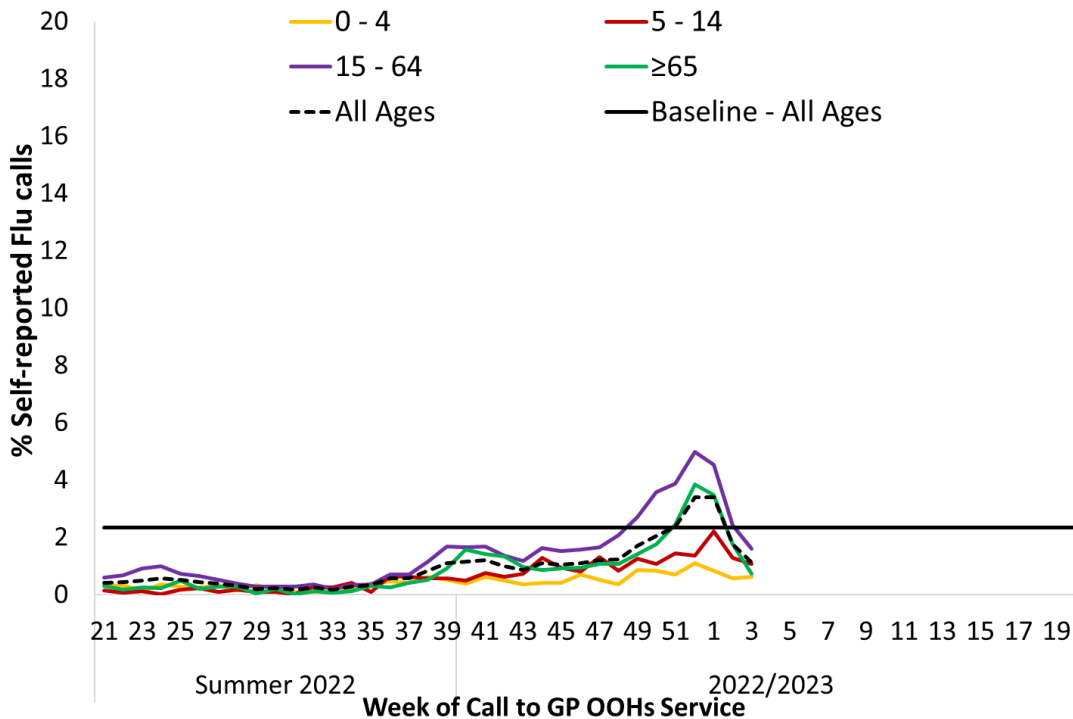


Figure 7: Percentage of self-reported FLU calls for all ages and by age group as a proportion of total calls to GP Out-of-Hours services by week of call, Summer 2022 and 2022/2023. The % flu calls baseline for all ages calculated using the MEM method on historic data is shown. *Source: GP Out-Of-Hours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

- 629 laboratory confirmed influenza cases were notified during week 3 2023 – 38 A(H1)pdm09, 48 A(H3), 467 influenza A (not subtyped), 75 influenza B and one influenza A & B coinfection. This is a decrease compared to 1,564 cases reported during week 2 2023.
- During the 2022/2023 season to date (weeks 40 2022 - 3 2023), 13,078 laboratory confirmed influenza cases have been notified to HPSC - 955 A(H1)pdm09, 754 A(H3), 10,802 influenza A (not subtyped), 516 influenza B, 29 influenza A and B coinfections, 16 influenza A(H1)pdm09 & A(H3) coinfections and six influenza (type not reported).
- 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 ≥65 years, although this has decreased in recent weeks (Figure 9).
- 142 RSV cases were notified during week 3 2023, a decrease compared to 277 RSV cases notified during week 2 2023 (Figure 10).
- During week 3 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 11).

Table 6: Summary of confirmed influenza notifications by HSE Area during the 2022/2023 season (weeks 40 2022-3 2023) and week 3 2023 *Source: CIDR*

HSE area	Influenza confirmed cases week 3 2023	Influenza confirmed cases-season to date
HSE-East	212	4282
HSE-Midlands	54	1234
HSE-Mid-West	42	1314
HSE-North-East	48	1303
HSE-North-West	57	1150
HSE-South-East	86	1189
HSE-South	63	1371
HSE-West	67	1235
Total	629	13078

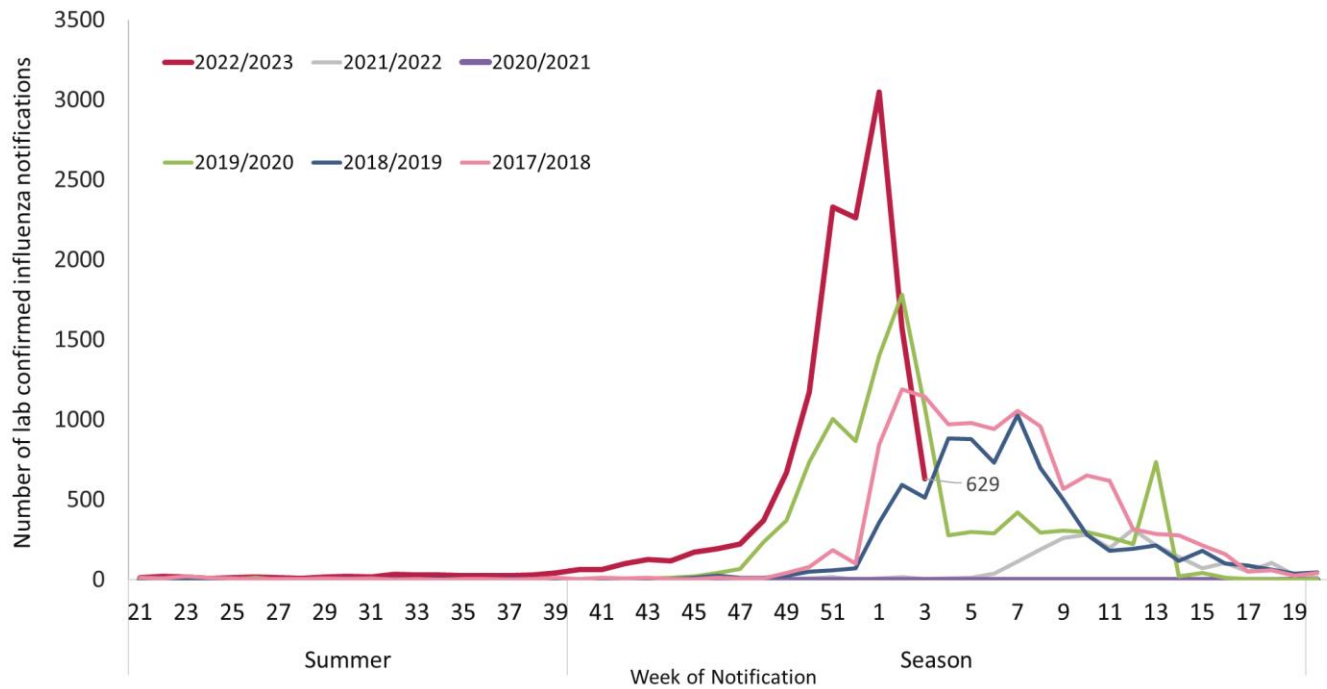


Figure 8: Laboratory confirmed **influenza** notifications to HPSC by week and season of notification, 2017/2018 to 2022/2023 influenza seasons. *Source: Ireland's Computerised Infectious Disease Reporting System.*

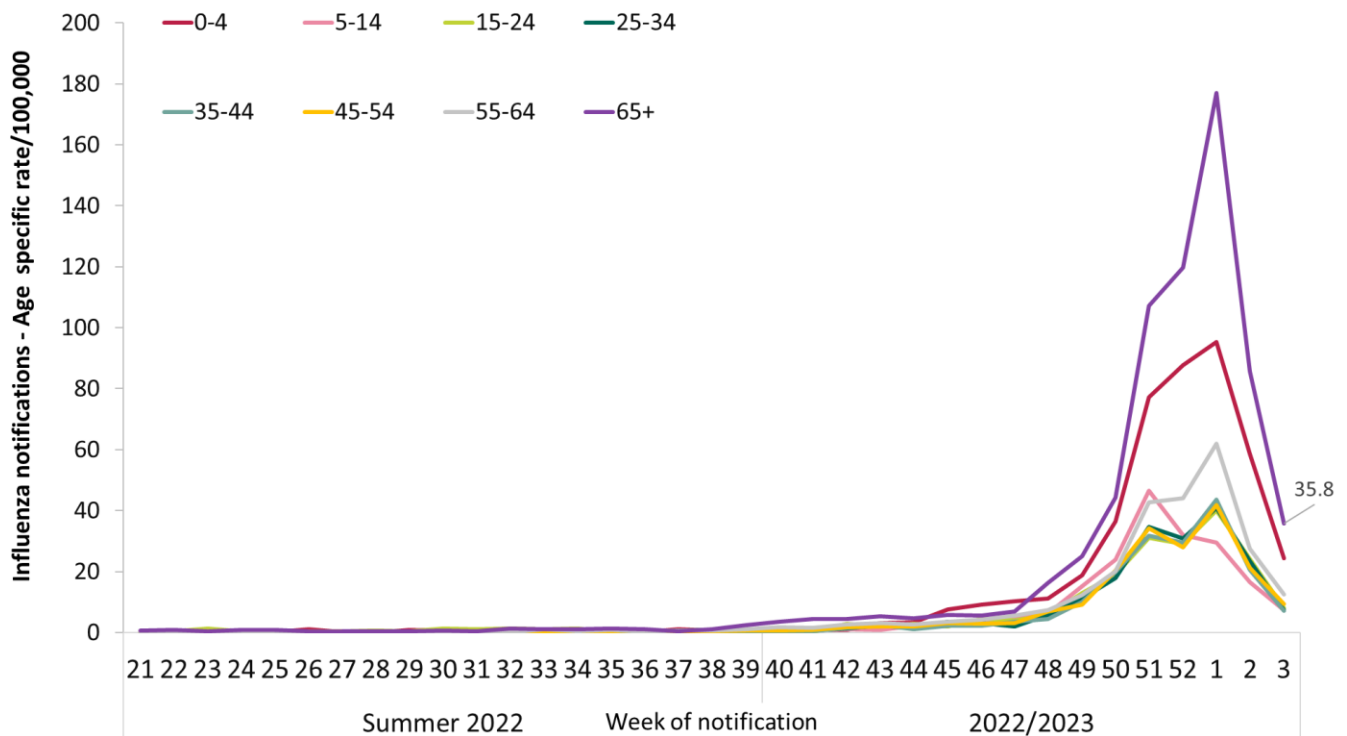


Figure 9: Age specific rates per 100,000 population for laboratory confirmed **influenza** notifications to HPSC by week of notification. *Source: Ireland's Computerised Infectious Disease Reporting System.*

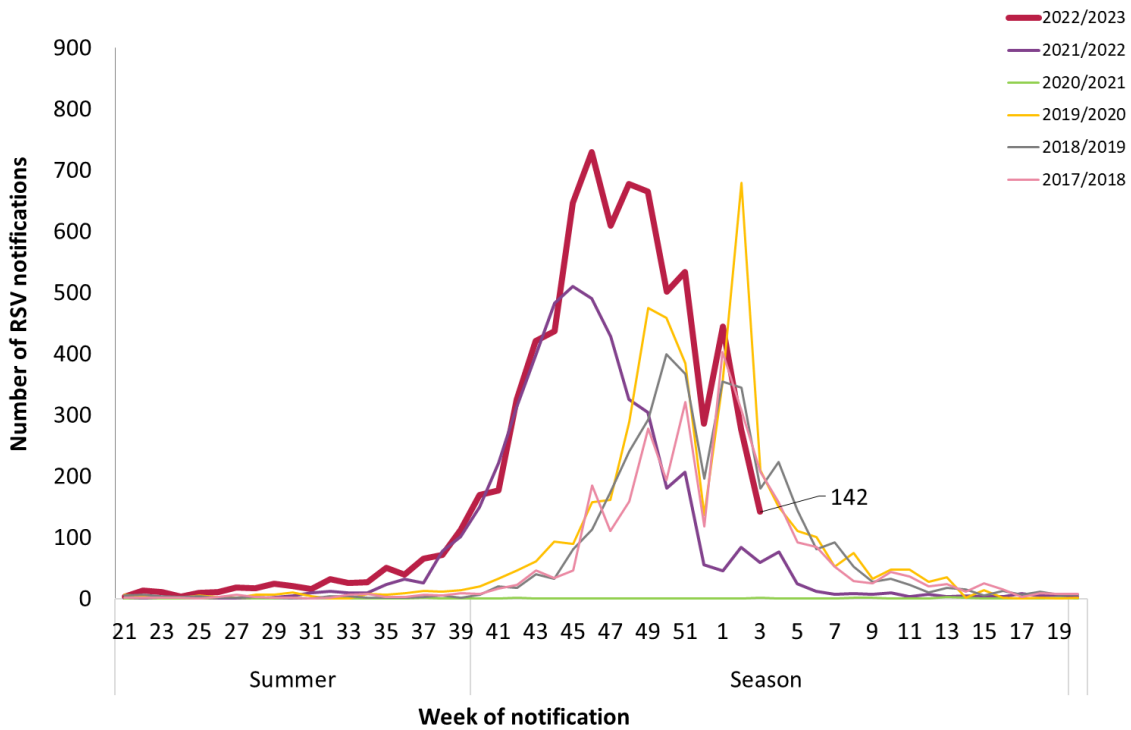


Figure 10: Number of laboratory confirmed **RSV** notifications to HPSC by week of notification, 2017/2018 to 2022/2023 season. *Source: Ireland’s Computerised Infectious Disease Reporting System.*

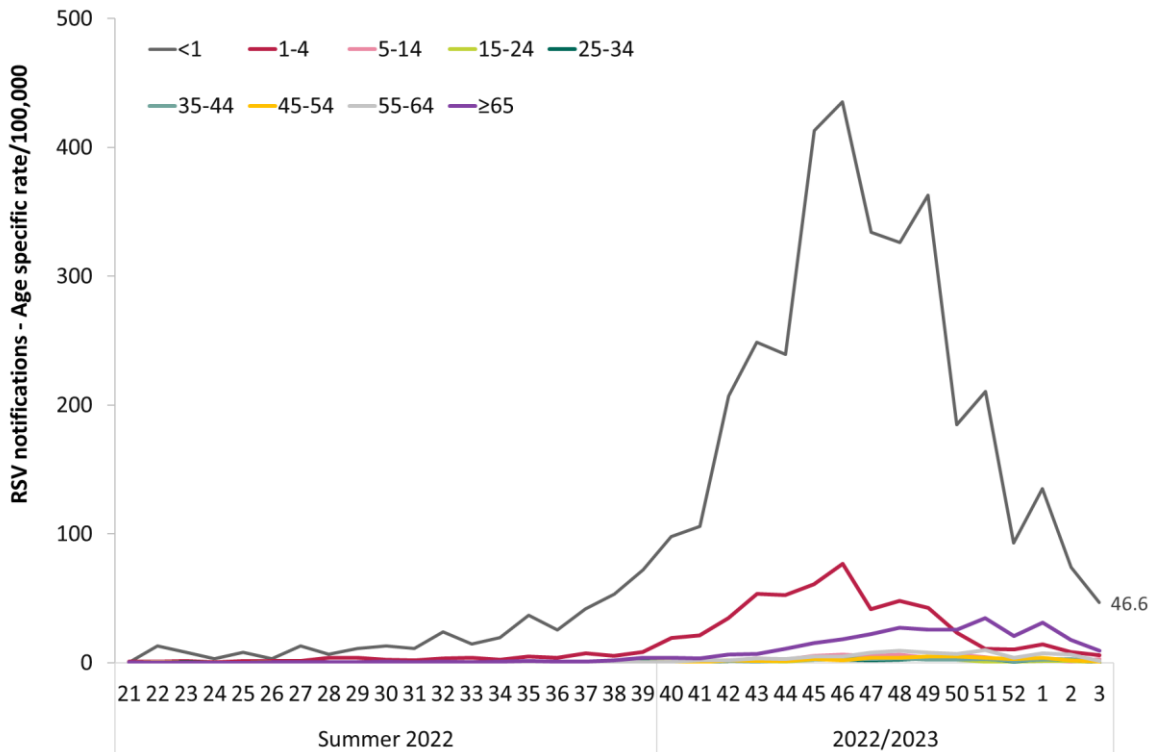


Figure 11: Age specific rates per 100,000 population for laboratory confirmed **RSV** notifications to HPSC by week of notification. *Source: Ireland’s Computerised Infectious Disease Reporting System.*

5. Hospitalisations

- During week 3 2023, 166 laboratory confirmed influenza cases were reported as hospital inpatients. Of these 166 hospitalised cases: six influenza A(H1)pdm09, five A(H3), 144 influenza A (not subtyped) and 11 influenza B were reported (Figure 12). Influenza hospitalised cases during week 3 2023 decreased to 166 compared to 382 in week 2 2023.
- During the 2022/2023 season to date (weeks 40 2022 to week 3 2023), 3,698 laboratory confirmed influenza cases have been notified as hospital inpatients: 208 influenza A(H1)pdm09, 94 A(H3), 3,257 influenza A (not subtyped), 127 influenza B, nine influenza coinfections and three influenza (type not reported).
- During week 3 2023, age specific rates in notified laboratory confirmed hospitalised influenza cases were highest in those aged ≥ 65 years, although this rate has decreased in recent weeks (Figure 13).
- 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 3 2023, 49 RSV cases were reported as hospital inpatients (Figure 14).
- During week 3 2023, age specific rates in notified laboratory confirmed hospitalised RSV cases were highest in those aged less than one year, although have decreased in this age group in recent weeks (Figure 15).
- Patient type of laboratory confirmed influenza and RSV notifications by week for the 2022/2023 season are reported in Tables 7 and 8.

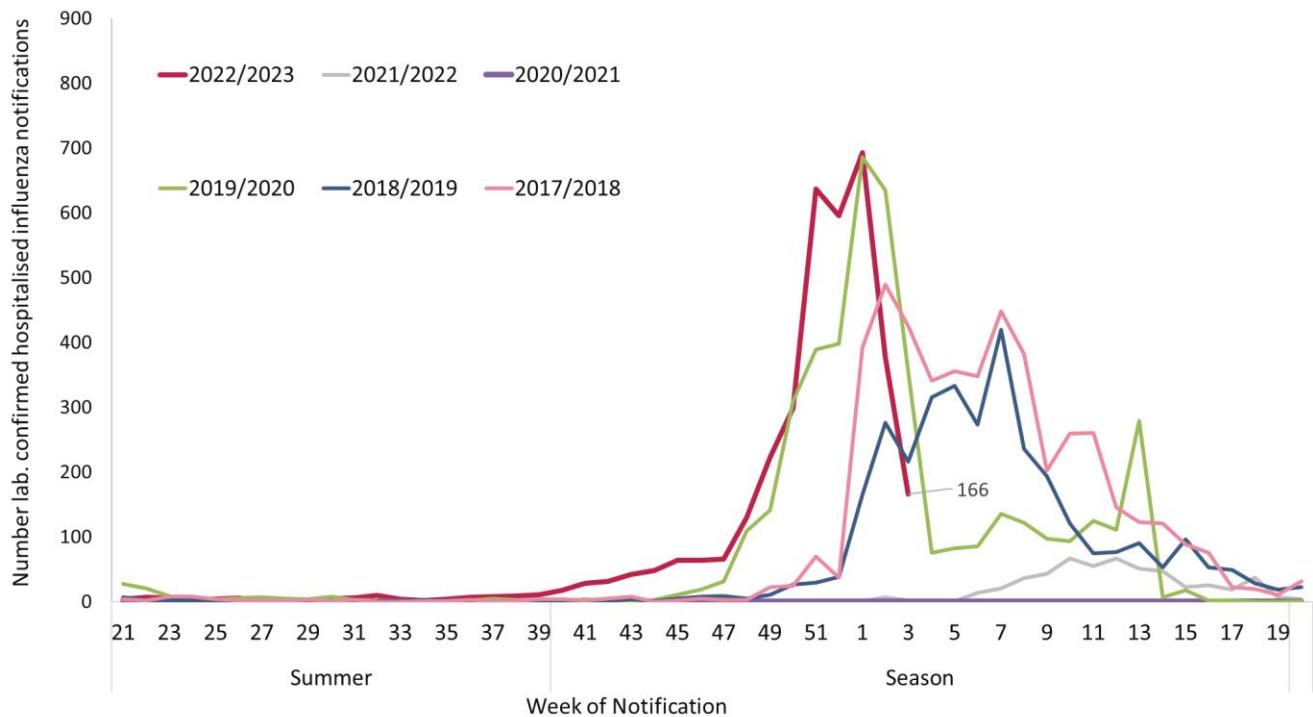


Figure 12: Number of notified laboratory confirmed **influenza** cases reported as hospital inpatients, for the 2017/2018 to 2022/2023 season. *Source: Ireland's Computerised Infectious Disease Reporting System*

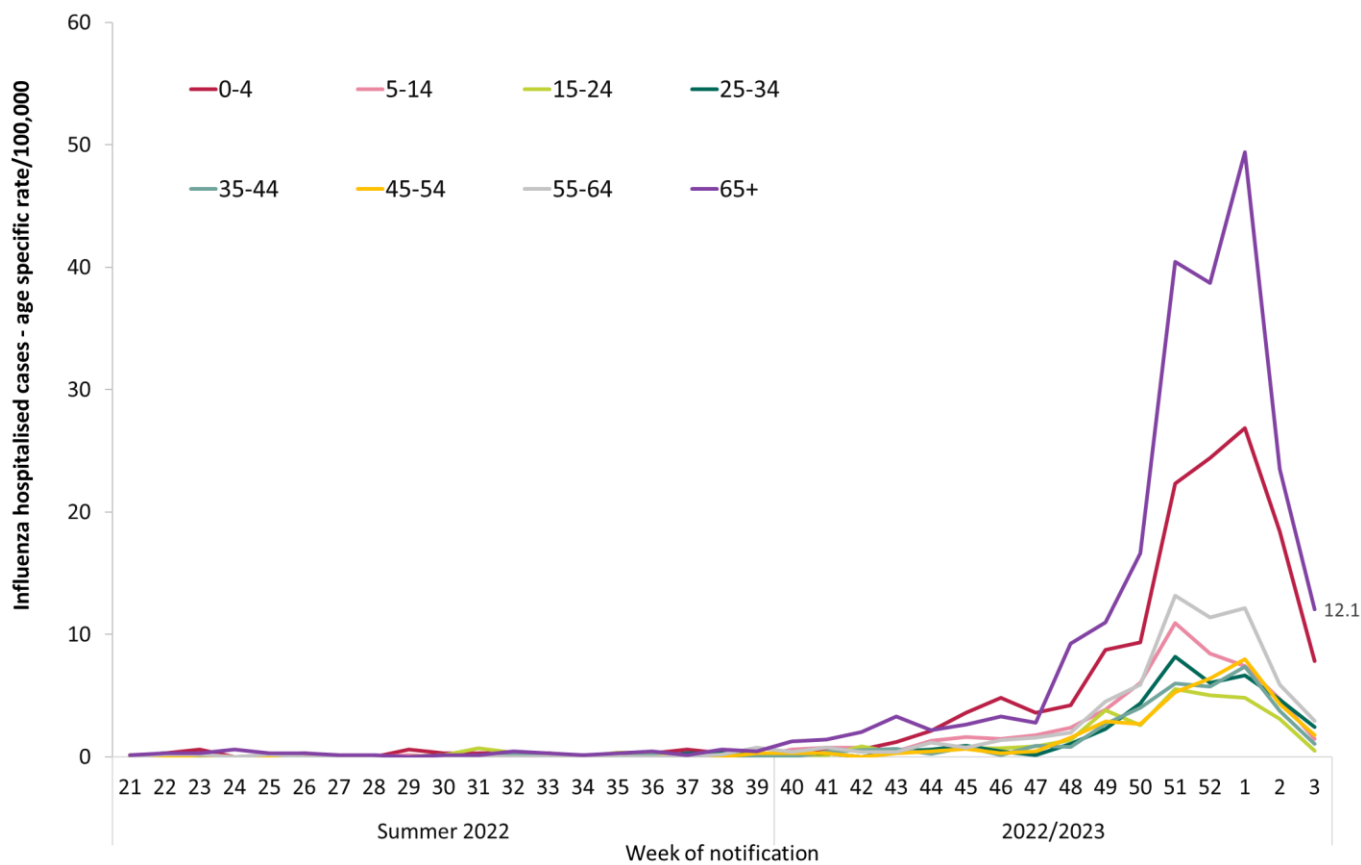


Figure 13: Age specific rates per 100,000 population for laboratory confirmed **influenza** cases reported as hospital inpatients by week of notification. *Source: Ireland's Computerised Infectious Disease Reporting System.*

Table 7: Number of notified **influenza** cases reported by patient type and week of notification and 2022/2023 season (weeks 40 2022-3 2023). *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 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	654	29	227	135	380	2331
Week 52	49	1000	686	16	162	144	182	2239
Week 1	120	1344	786	48	199	197	354	3048
Week 2	42	603	382	27	146	169	195	1564
Week 3	31	239	166	8	51	22	112	629
Total	447	5209	3698	242	1089	803	1590	13078

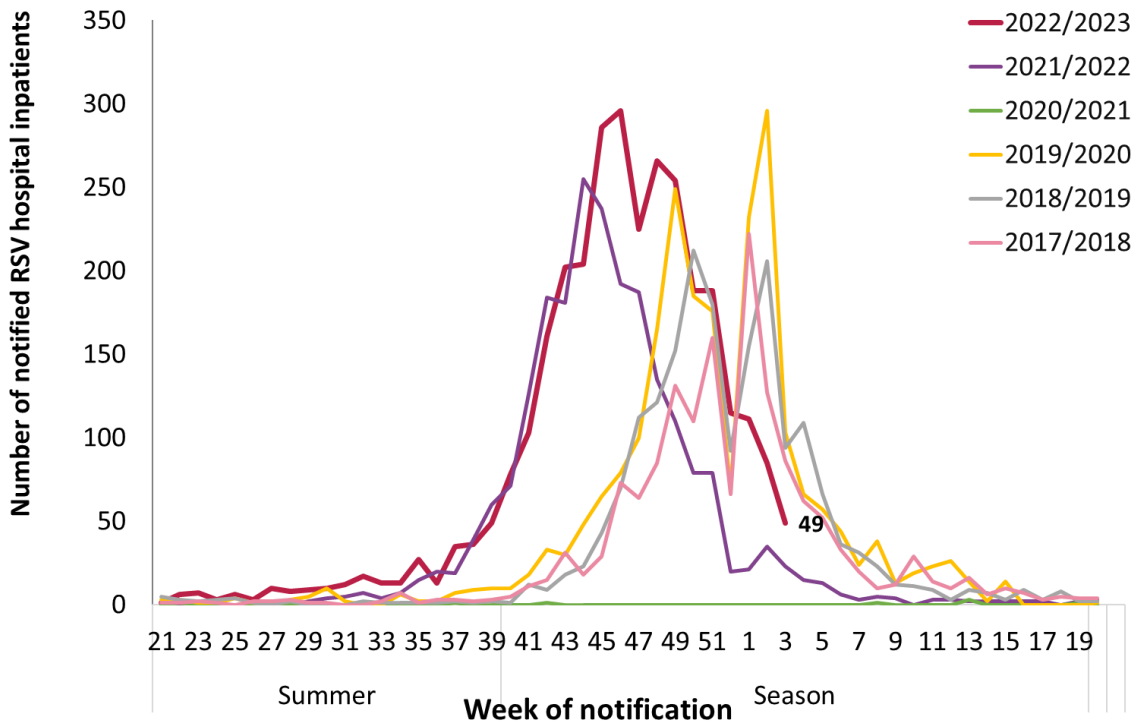


Figure 14: Number of notified **RSV** cases reported as hospital inpatients, by week of notification and season, for the 2017/2018 to 2022/2023 season. *Source: Ireland's Computerised Infectious Disease Reporting System.*

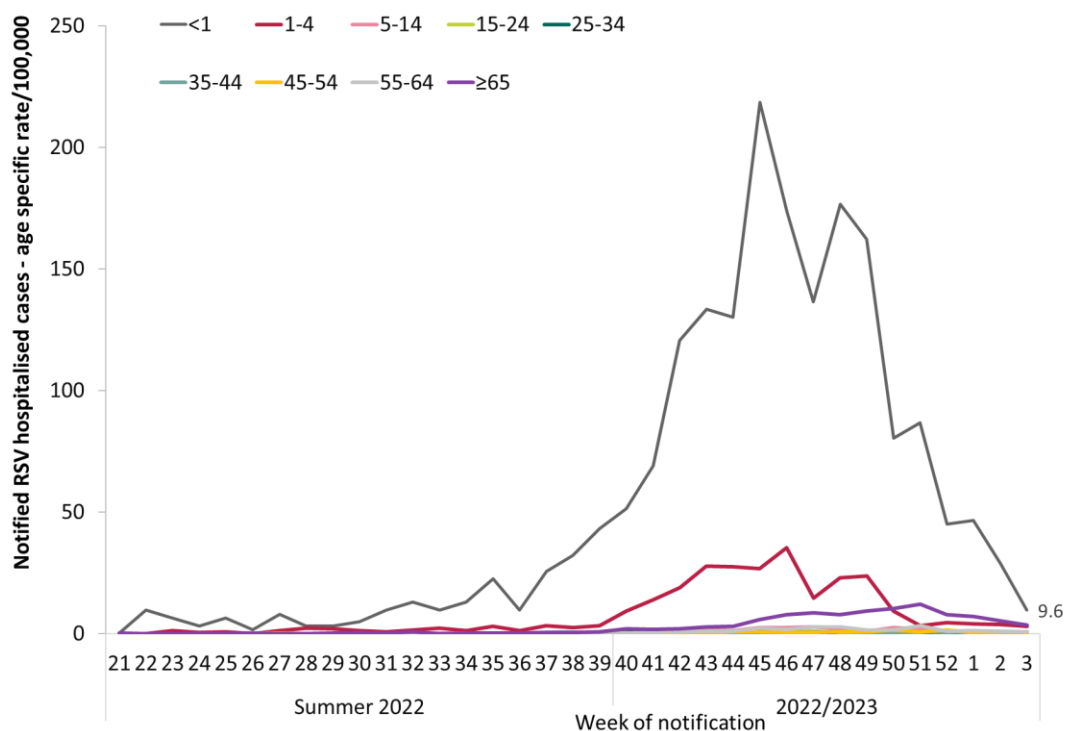


Figure 15: Age specific rates per 100,000 population for laboratory confirmed **RSV** cases reported as hospital inpatients by week of notification and season, Summer 2022 and 2022/2023. *Source: Ireland’s Computerised Infectious Disease Reporting System*

Table 8: Number of notified **RSV** cases reported by patient type and week of notification (weeks 40 2022-3 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	255	254	13	17	24	83	665
Week 50	20	175	187	2	28	23	67	502
Week 51	14	171	190	5	33	30	89	532
Week 52	8	82	119	0	12	29	36	286
Week 1	26	167	122	5	22	32	71	445
Week 2	7	94	85	3	21	23	44	277
Week 3	3	47	49	2	13	6	22	142
Total	180	2605	2826	81	355	354	640	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.

- Six laboratory confirmed influenza cases were admitted to critical care and notified to HPSC during week 3 2023.
- During the 2022/2023 season to date (weeks 40 2022-3 2023), 137 laboratory confirmed influenza cases – 21 A(H1)pdm09, 19 influenza A(H3), 93 influenza A (not subtyped) and four 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 2022-3 2023), of 119 laboratory confirmed influenza ICU cases with known influenza vaccination status, 80 (67%) 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 2022-3 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	104	167.0	2	3.2
1-4	361	134.1	9	3.3
5-14	368	54.5	6	0.9
15-24	189	32.8	7	1.2
25-34	268	40.6	2	0.3
35-44	277	42.0	14	1.9
45-54	238	38.0	20	3.2
55-64	350	68.8	19	3.7
≥65	1543	242.0	58	9.1
Unknown		-		-
Total	3698	77.7	137	2.9

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/>

- One death in a notified influenza case was reported to HPSC during week 3 2023.
- During the 2022/2023 season (weeks 40 2022- 3 2023), 80 deaths in notified influenza cases were reported to HPSC – 12 influenza A(H3), eight influenza A(H1)pdm09, 59 influenza A (not subtyped) and one influenza B.
- No excess all-cause mortality in all ages was reported during week 2 2023. Low level pneumonia and influenza excess mortality was reported in week 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/>

- Nine laboratory confirmed influenza outbreaks were notified to HPSC during week 3 2023, eight influenza A and one influenza A & B coinfection.
- For an overview of outbreaks for the season to date (weeks 40 2022-3 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 3 2023 and the 2022/2023 season (weeks 40 2022-3 2023) *Source: CIDR*

HSE area	Influenza		Respiratory syncytial virus infection		Acute respiratory infection		COVID-19 & Influenza		Total	
	Week 3	2022/2023	Week 3	2022/2023	Week 3	2022/2023	Week 3	2022/2023	Week 3	2022/2023
HSE-East	4	54	2	12	0	0	0	0	6	66
HSE-Midlands	0	6	0	0	0	1	0	0	0	7
HSE-Mid-West	0	12	1	4	0	0	0	0	1	16
HSE-North-East	1	22	0	19	0	3	0	2	1	46
HSE-North-West	1	19	0	6	0	3	0	3	1	31
HSE-South-East	1	13	0	0	0	0	0	0	1	13
HSE-South	0	7	0	8	0	0	0	0	0	15
HSE-West	2	12	1	2	0	0	0	0	3	14
Total	9	145	4	51	0	7	0	5	13	208

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 3 2023 and the 2022/2023 season (weeks 40 2022-3 2023). *Source: CIDR*

Setting	Influenza		Respiratory syncytial virus		Acute respiratory		COVID-19 & Influenza		Total	
	Week 3	2022/2023	Week 3	2022/2023	Week 3	2022/2023	Week 3	2022/2023	Week 3	2022/2023
Community hospital/Long-stay unit	1	8	1	8	0	2	0	1	2	19
Nursing Home	2	51	2	18	0	3	0	2	4	74
Hospital	4	66	0	8	0	0	0	2	4	76
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	7	0	12	0	0	0	0	1	19
Other settings	1	3	1	1	0	0	0	0	2	4
Total	9	145	4	51	0	7	0	5	13	208

9. International Summary

In the European region, during week 2 2023 (week ending 15/01/2023), influenza virus positivity in sentinel primary care specimens slightly decreased to 22% from 29%, which is above the ECDC influenza positivity threshold of 10%. For week 2 2023, 822 (22%) of 3,629 sentinel GP specimens tested positive for an influenza virus; 87% were type A and 13% were type B. Of 511 subtyped A viruses, 40% were A(H3) and 60% were A(H1)pdm09. Of 13 type B viruses ascribed to a lineage, all were B/Victoria.

For week 2 2023, 10,984 of 78,699 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; 9,402 (86%) were type A and 1,492 (14%) were type B. Of 2,341 subtyped A viruses, 1,813 (77%) were A(H1)pdm09 and 528 (23%) were A(H3). Of 26 influenza B viruses ascribed to a lineage, all were of B/Victoria lineage. Of 40 countries and areas reporting on geographic spread of influenza viruses, none reported no activity, three reported sporadic spread, two reported local spread, five reported regional spread and 30 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

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