

Influenza Week 10 2023 (6th -12th March 2023)



Summary

Overall influenza activity remained stable in Ireland during week 10 2023, compared to recent weeks. Influenza viruses are circulating at low levels in the community. Influenza B viruses are currently the dominant circulating viruses.

- **Influenza-like illness (ILI):** The sentinel GP influenza-like illness (ILI) consultation rate was 12.7 per 100,000 population during week 10 2023. This is a stable trend from the updated rate of 12.4/100,000 during week 9 2023. ILI consultation rates have returned to below the Irish baseline threshold (18.1/100,000 population) for the last five weeks (since week 6 2023). Sentinel GP ILI age specific rates were below the age specific baseline thresholds in all age groups during week 10 2023.
- **National Virus Reference Laboratory (NVRL):** During week 10 2023, of 99 sentinel GP Acute Respiratory Infection (ARI) specimens tested and reported by the NVRL, 13 (13.1%) were positive for influenza, one A(H1)pdm09 and 12 influenza B. There were five specimens (5.1%) positive for SARS-CoV-2 and no specimens were positive for RSV.
- Of 184 non-sentinel respiratory specimens tested and reported by the NVRL during week 10 2023, 12 (6.5%) were positive for influenza: five A(H1)pdm09 and seven influenza B. RSV positivity (non-sentinel respiratory specimens) was at low levels in recent weeks, at 1.9% (3/157) during week 9 2023 and 1.6% (3/184) during week 10 2023.
- Of 1,855 sentinel GP ARI specimens and non-sentinel respiratory specimens positive for influenza and reported by the NVRL during the 2022/2023 season, 468 (25%) were coinfecting with other respiratory viruses.
- **Influenza notifications:** 174 laboratory confirmed influenza cases were notified during week 10 2023 – two A(H1)pdm09, two A(H3), 18 influenza A (not subtyped) and 152 influenza B. This is a stable trend compared to 133 cases reported during week 9 2023 and 178 cases reported during week 8 2023. Age specific rates were highest in those aged less than four years.
- **RSV notifications:** 29 RSV cases were notified during week 10 2023, a stable trend compared to 20 RSV cases notified during week 9 2023. Age specific rates for hospitalised cases were highest in those aged over 65 years.
- **Hospitalisations:** During week 10 2023, 37 laboratory confirmed influenza cases were reported as hospital inpatients: one A(H3), three influenza A (not subtyped) and 33 influenza B cases. Influenza hospitalised cases during week 10 2023 increased to 37, compared to 25 in week 9 2023.
- **Critical care admissions:** No laboratory confirmed influenza cases were admitted to critical care units and notified to HPSC during week 10 2023. During weeks 40 2022-10 2023, 168 laboratory confirmed influenza cases – 30 A(H1)pdm09, 32 A(H3), 97 A (not subtyped) and nine 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 2022-10 2023, of 144 laboratory confirmed influenza ICU cases with known influenza vaccination status, 99 (69%) were reported as NOT having received the 2022/2023 influenza vaccine.
- **Mortality:** There were no deaths in the notified influenza cases reported to HPSC during week 10 2023. During weeks 40 2022-10 2023, 183 deaths in notified influenza cases were reported – 30 influenza A(H3), 24 influenza A(H1)pdm09, 124 influenza A (not subtyped), four influenza B and one influenza A and B coinfection. During the 2022/2023 season, excess all-cause mortality was reported for four consecutive weeks (weeks 51 2022- week 2 2023). Excess pneumonia and influenza mortality was reported during the same period.
- **Outbreaks:** One Acute Respiratory Infection (ARI) outbreak (No pathogen identified) in a residential institution and no laboratory confirmed influenza or RSV outbreaks were notified to HPSC during week 10 2023. During weeks 40 2022-10 2023, 155 influenza outbreaks were notified.
- **International:** In Europe during week 9 2023, 21 countries reported widespread influenza activity indicating substantial influenza virus circulation across the European Region. Both influenza A and B viruses were detected, with influenza B viruses being dominant across all monitoring systems.

1. GP sentinel surveillance system - Clinical Data

- During week 10 2023, 40 sentinel GP influenza-like illness (ILI) consultations were reported from the Irish sentinel GP network, corresponding to an ILI consultation rate of 12.7 per 100,000 population, compared to 12.4 per 100,000 population during week 9 (Figure 1).
- Sentinel GP ILI consultation rates were below the baseline threshold during week 10.
- The sentinel GP ILI consultation rates have returned to below the Irish sentinel GP ILI baseline threshold (18.1/100,000 population) for five consecutive weeks, since week 6 2023.
- Age specific rates were below the baseline threshold in all age groups during week 10 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.

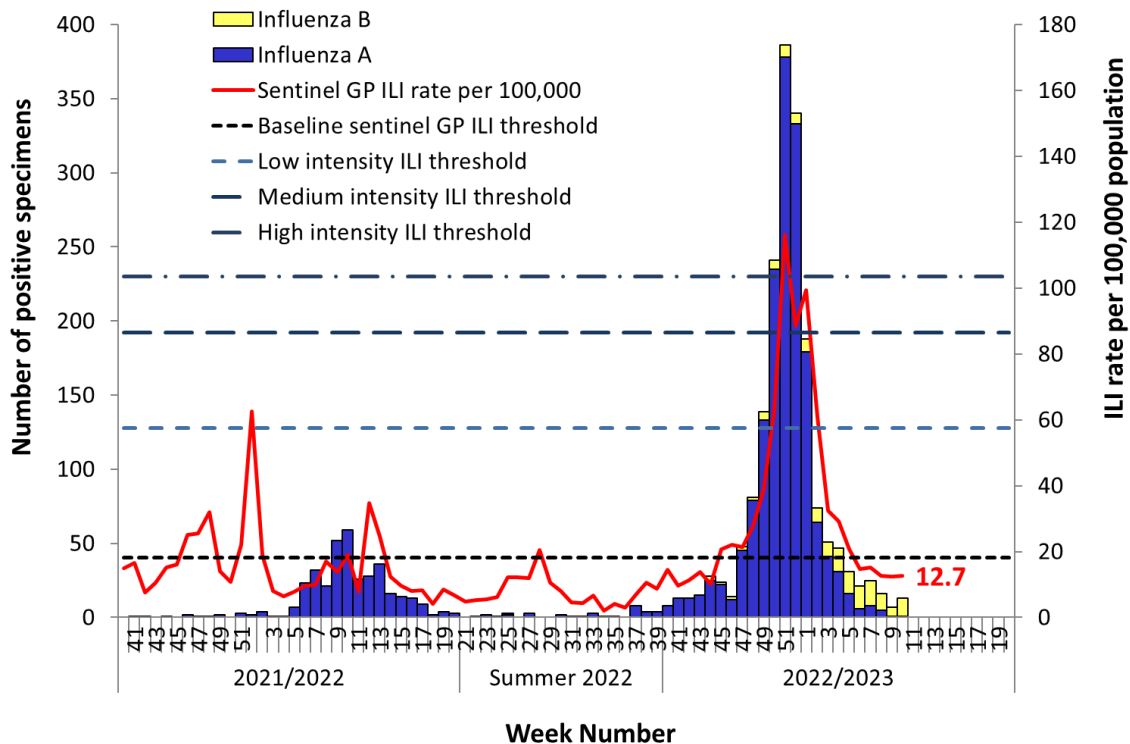


Figure 1: Sentinel GP Influenza-like illness (ILI) consultation rates per 100,000 population, baseline ILI threshold, medium and high intensity ILI thresholds and number of positive influenza A and B specimens tested by the NVRL, by influenza week and season. *Source: ICGP and NVRL*

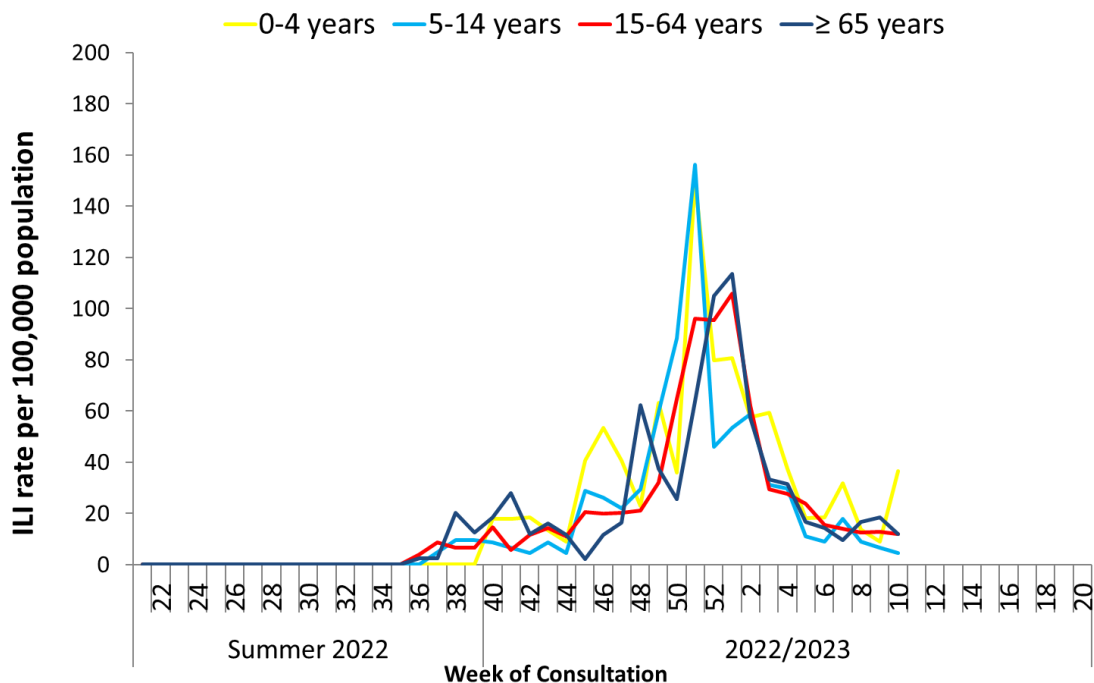


Figure 2: Age specific sentinel GP ILI consultation rate per 100,000 population by week during the summer of 2022 and the 2022/2023 influenza season to date. *Source: ICGP.*

Table 1: Age specific sentinel GP ILI consultation rate per 100,000 population by week (weeks 40 2022-10 2023), colour coded by sentinel GP ILI age specific Moving Epidemic Method (MEM) threshold levels. *Source: ICGP.*

Age group (years)	40	41	42	43	44	45	46	47	48	49	50	51	52	1	2	3	4	5	6	7	8	9	10
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	20.6	14.7	15.2	12.7	12.4	12.7
<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	13.5	12.1	22.5	10.5	7.3	15.0
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	23.8	15.6	14.1	12.6	12.8	12.1
≥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	33.2	31.6	16.6	14.3	9.5	16.6	18.5	11.9
Reporting practices (N=61)	60	59	58	60	58	58	60	59	58	59	59	58	58	59	57	59	58	59	58	59	59	60	58

MEM Threshold Levels	Below Baseline	Low	Moderate	High	Extraordinary
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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 10 2023, of 99 sentinel GP Acute Respiratory Infection (ARI) specimens tested and reported by the NVRL, 13 (13.1%) were positive for influenza, one A(H1)pdm09 and 12 influenza B. There were five (5.1%) specimens positive for SARS-CoV-2 and no specimens were positive for RSV.
- During week 9 2023, of 91 sentinel GP ARI specimens tested and reported by the NVRL, seven (7.7%) were positive for influenza, one A(H1)pdm09 and six influenza B. There were six (6.6%) specimens positive for SARS-CoV-2 and no specimens were positive for RSV.
- Of 184 non-sentinel respiratory specimens tested and reported by the NVRL during week 10 2023, 12 (6.5%) were positive for influenza: five A(H1)pdm09 and seven influenza B.
- During week 9 2023, of 157 non-sentinel respiratory specimens tested, 7 (4.5%) were positive for influenza: three A(H1)pdm09 and four influenza B.
- RSV positivity (non-sentinel respiratory specimens) was at low levels in recent weeks, at 1.9% (3/157) during week 9 2023 and 1.6% (3/184) during week 10 2023.
- Rhinovirus/enterovirus positive detections from non-sentinel respiratory specimens were detected at a positivity rate of 18.5% (29/157) during week 9 2023 and 20.1% (37/184) during week 10 2023 (Figure 3b).
- Other respiratory viruses (ORVs) are being detected at lower levels in recent weeks except for adenovirus which was 11.1% in sentinel GP specimens and 5.4% in non-sentinel specimens during week 10 (Figure 3a and 3b).
- Of 1,855 sentinel GP ARI specimens and non-sentinel respiratory specimens positive for influenza and reported by the NVRL during the 2022/2023 season, 468 (25%) were coinfecting with other respiratory viruses.

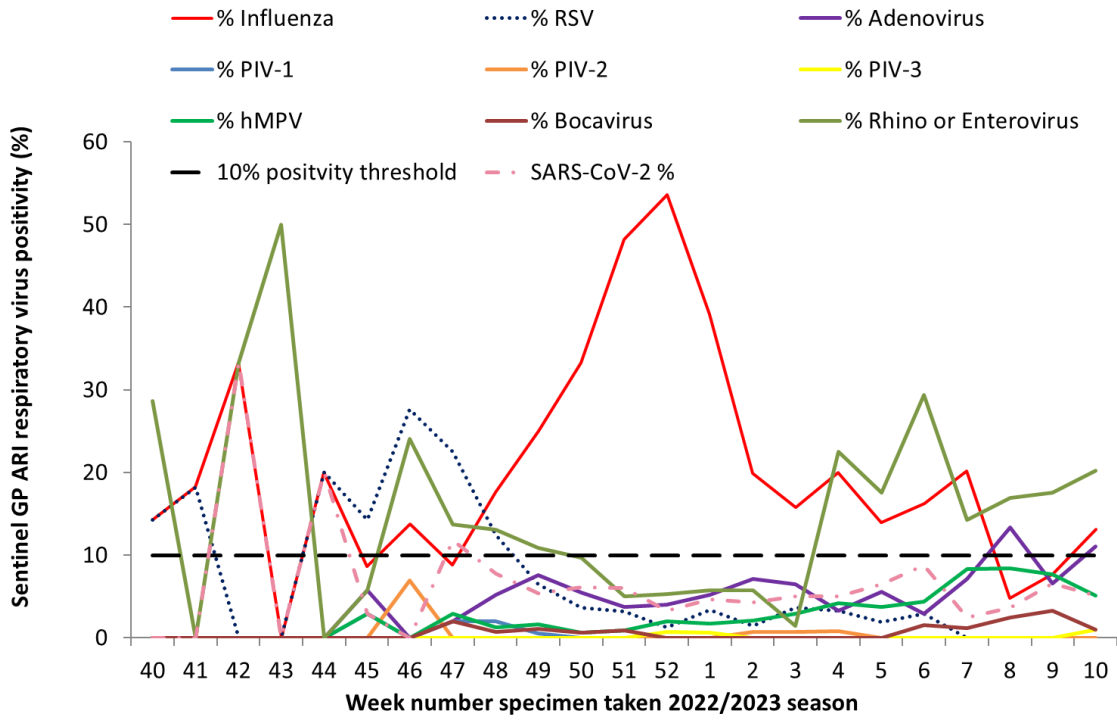


Figure 3a: Percentage positive results for **sentinel GP ARI** specimens tested by the NVRL for influenza, RSV and other respiratory viruses by week specimen was taken, weeks 40 2022-10 2023. *Source: NVRL*

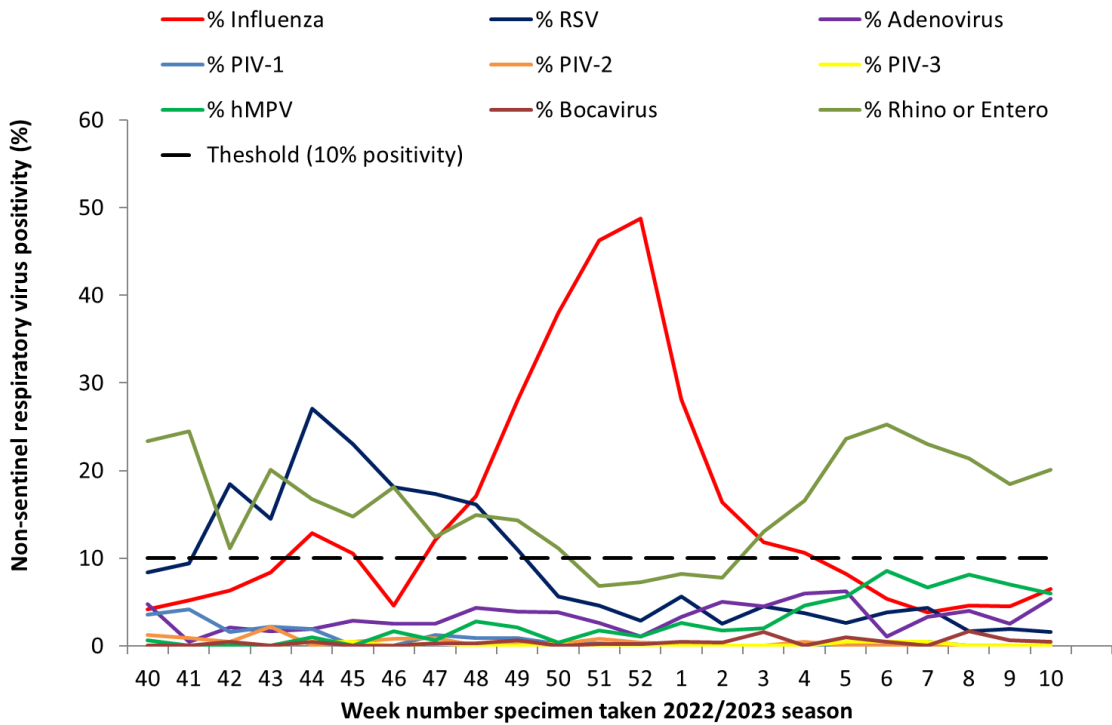


Figure 3b: Percentage positive results for **non-sentinel respiratory** specimens tested by the NVRL for influenza, RSV and other respiratory viruses by week specimen was taken, weeks 40 2022-10 2023. *Source: NVRL*

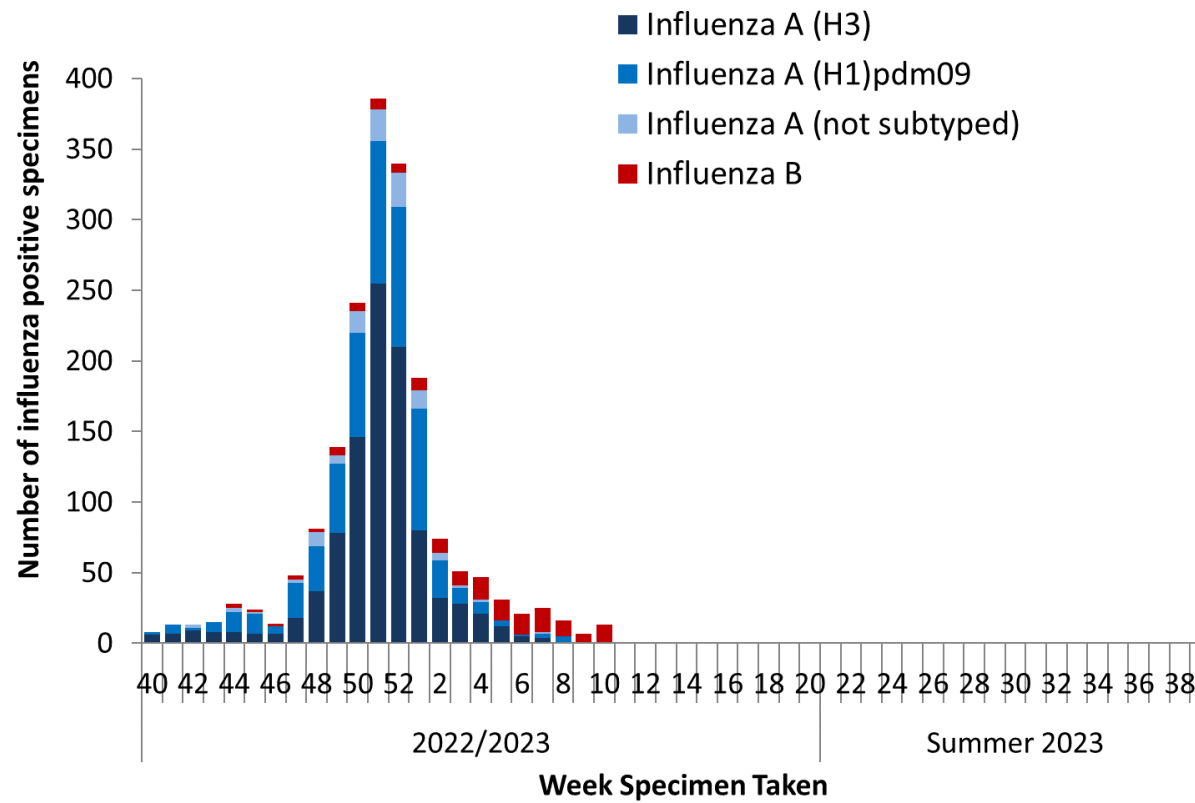


Figure 4: Number of positive influenza specimens (from sentinel GP ARI and non-sentinel respiratory sources) tested by the NVRL by influenza type/subtype and by week specimen was taken for the 2022/2023 influenza season. *Source: NVRL*

Table 2: Number of sentinel GP ARI and non-sentinel respiratory specimens tested by the NVRL and positive influenza results, for weeks 9 and 10 2023 and the 2022/2023 season (weeks 40 2022-10 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 10 2023	Sentinel GP ARI	99	13	13.1	1	0	0	1	12	0	0	12
	Non-sentinel respiratory	184	12	6.5	5	0	0	5	7	0	0	7
	Total	283	25	8.8	6	0	0	6	19	0	0	19
Week 9 2023	Sentinel GP ARI	91	7	7.7	1	0	0	1	6	0	0	6
	Non-sentinel respiratory	157	7	4.5	3	0	0	3	4	0	0	4
	Total	248	14	5.6	4	0	0	4	10	0	0	10
2022/2023	Sentinel GP ARI	2174	544	25.0	208	218	22	448	96	0	0	96
	Non-sentinel respiratory	6315	1311	20.8	373	761	86	1220	73	17	1	91
	Total	8489	1855	21.9	581	979	108	1668	169	17	1	187

Table 3: Number of sentinel GP ARI and non-sentinel respiratory specimens tested by the NVRL and positive RSV results, for weeks 9 and 10 2023 and the 2022/2023 season (weeks 40 2022-10 2023). *Source: NVRL*

Surveillance period	Specimen type	Total tested	Number RSV positive	% RSV positive	RSV A	RSV B	RSV (unspecified)
Week 10 2023	Sentinel GP ARI	99	0	0.0	0	0	0
	Non-sentinel	184	3	1.6	1	2	0
	Total	283	3	1.1	1	2	0
Week 9 2023	Sentinel GP ARI	91	0	0.0	0	0	0
	Non-sentinel	157	3	1.9	1	2	0
	Total	248	3	1.2	1	2	0
2022/2023	Sentinel GP ILI/ARI	2174	107	4.9	3	104	0
	Non-sentinel	6315	540	8.6	62	478	0
	Total	8489	647	7.6	65	582	0

Table 4: Number of sentinel GP ILI/ARI specimens tested by the NVRL for respiratory viruses and positive results, for weeks 9 and 10 2023 and 2022/2023 season (weeks 40 2022-10 2023). *Source: NVRL*

Virus	Week 10 2022 (N=99)		Week 9 2022 (N=91)		2022/2023 (N=2174)	
	Total	% positive	Total positive	% positive	Total positive	% positive
SARS-CoV-2	5	5.1	6	6.6	121	5.6
Influenza virus	13	13.1	7	7.7	544	25.0
Respiratory Syncytial Virus (RSV)	0	0.0	0	0.0	107	4.9
Rhino/enterovirus	20	20.2	16	17.6	251	11.5
Adenovirus	11	11.1	6	6.6	123	5.7
Bocavirus	1	1.0	3	3.3	16	0.7
Human metapneumovirus (hMPV)	5	5.1	7	7.7	63	2.9
Parainfluenza virus type 1 (PIV-1)	0	0.0	0	0.0	7	0.3
Parainfluenza virus type 2 (PIV-2)	0	0.0	0	0.0	5	0.2
Parainfluenza virus type 3 (PIV-3)	1	1.0	0	0.0	3	5.0
Parainfluenza virus type 4 (PIV-4)	0	0.0	0	0.0	4	0.2

Table 5: Number of non-sentinel respiratory specimens tested by the NVRL for respiratory viruses and positive results, for weeks 9 and 10 2023 and 2022/2023 season (weeks 40 2022-10 2023). *Source: NVRL*

Virus	Week 10 2023 (N=184)		Week 9 2023 (N=157)		2022/2023 (N=6315)	
	Total positive	% positive	Total positive	% positive	Total positive	% positive
Influenza virus	12	6.5	7	4.5	1311	20.8
Respiratory Syncytial Virus (RSV)	3	1.6	3	1.9	540	8.6
Rhino/enterovirus	37	20.1	29	18.5	898	14.2
Adenovirus	10	5.4	4	2.5	202	3.2
Bocavirus	1	0.5	1	0.6	23	0.4
Human metapneumovirus (hMPV)	11	6.0	11	7.0	152	2.4
Parainfluenza virus type 1 (PIV-1)	0	0.0	0	0.0	40	0.6
Parainfluenza virus type 2 (PIV-2)	0	0.0	0	0.0	26	0.4
Parainfluenza virus type 3 (PIV-3)	0	0.0	0	0.0	7	0.1
Parainfluenza virus type 4 (PIV-4)	0	0.0	0	0.0	21	0.3

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.

- 5,271 (39% of total calls; N=13,408) self-reported cough calls were reported by a network of GP OOHs services during week 10 2023, which was above baseline levels (10.7%) (Figure 5).
- 123 (0.9% of total calls; N=13,408) self-reported 'flu' calls were reported by a network of GP OOHs services during week 10 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 10 2023.

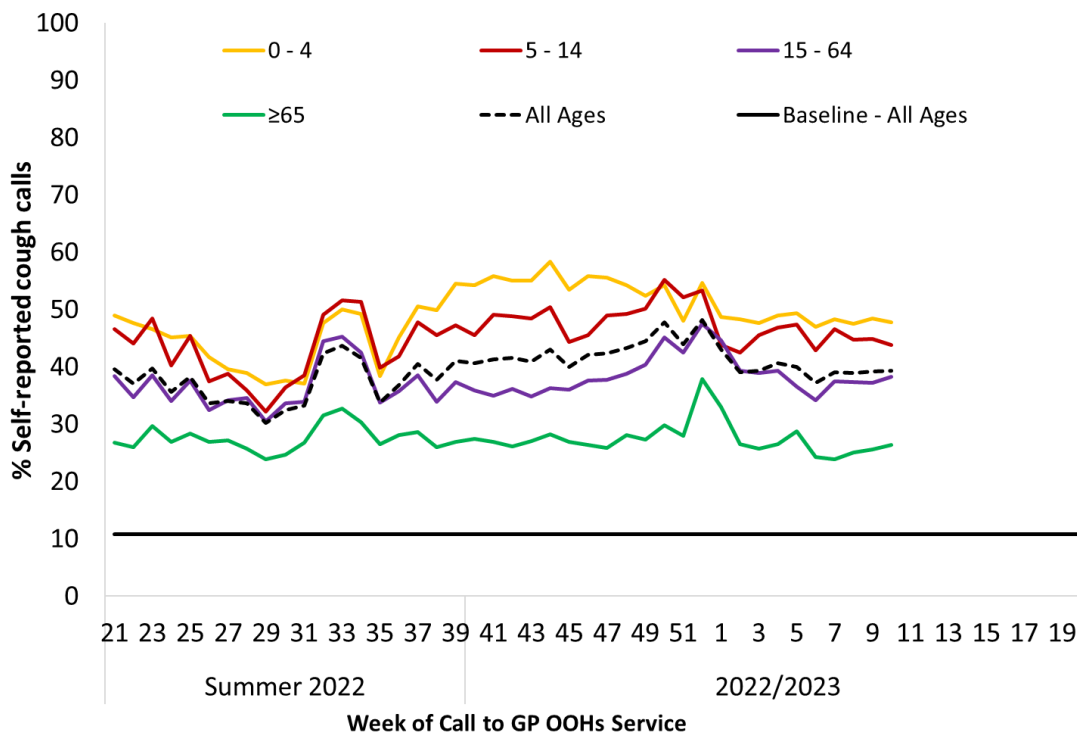


Figure 5: Percentage of self-reported COUGH calls for all ages and by age group as a proportion of total calls to GP Out-of-Hours services by week of call, summer 2022 and the 2022/2023 season. The % cough calls baseline for all ages calculated using the MEM method on historic data is shown. *Source: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

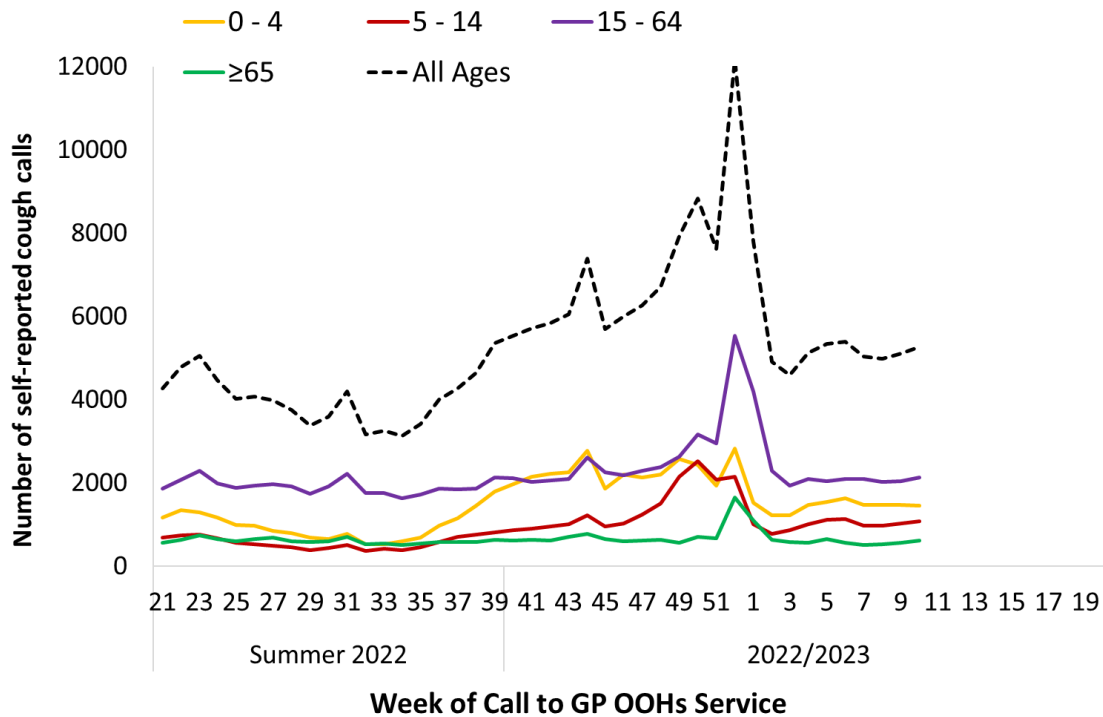


Figure 6: Number of self-reported COUGH calls for all ages and by age group to GP Out-of-Hours services by week of call, Summer 2022 and 2022/2023. *Source: GP Out-Of-Hours services in Ireland (collated by HSE-NE & ICGP).*

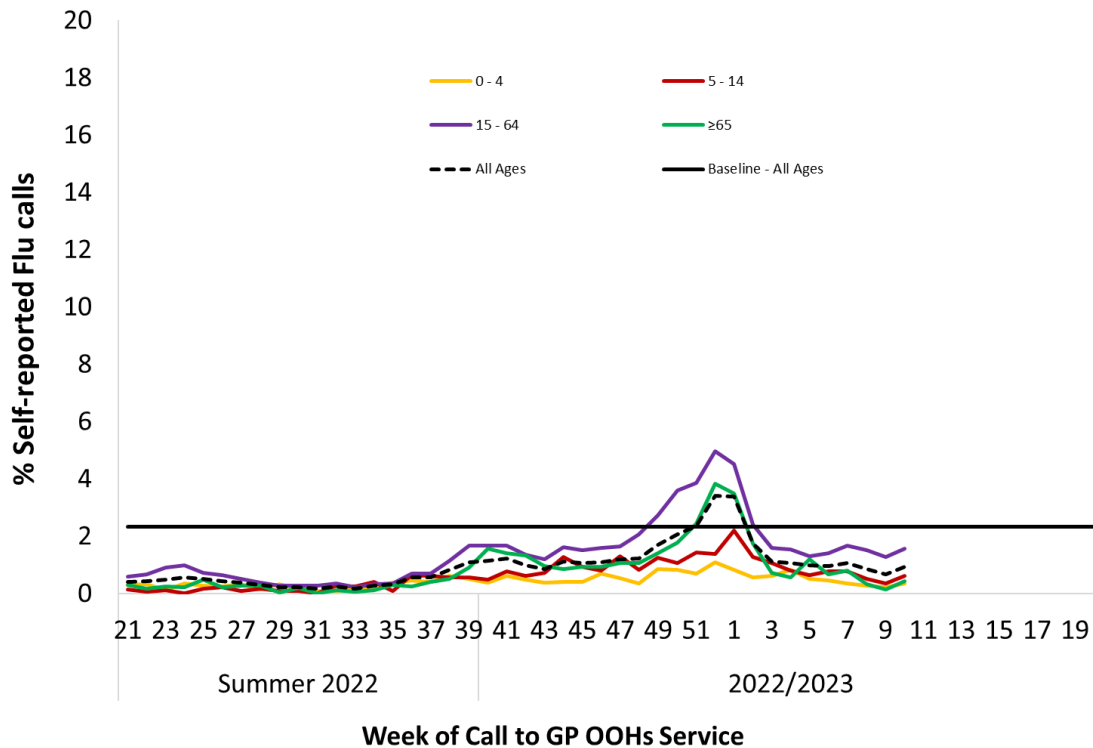


Figure 7: Percentage of self-reported FLU calls for all ages and by age group as a proportion of total calls to GP Out-of-Hours services by week of call, Summer 2022 and 2022/2023. The % flu calls baseline for all ages calculated using the MEM method on historic data is shown. *Source: GP Out-Of-Hours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

- 174 laboratory confirmed influenza cases were notified during week 10 2023 – two A(H1)pdm09, two A(H3), 18 influenza A (not subtyped), and 152 influenza B. This is a stable trend compared to 133 cases reported during week 9 2023 and 178 cases reported during week 8 2023 (Figure 8 & 9). Of note, as a proportion of the overall cases, influenza B cases increased to 87% of all cases in week 10 2023 (152/173), compared to 74% in week 9 2023 (98/133).
- During the 2022/2023 season to date (weeks 40 2022 -10 2023), 14,762 laboratory confirmed influenza cases have been notified to HPSC – 1,158 A(H1)pdm09, 970 A(H3), 11,225 influenza A (not subtyped), 1,341 influenza B, 46 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 less than four years. (Figure 10).
- 29 RSV cases were notified during week 10 2023, a stable trend compared to 20 RSV cases notified during week 9 2023 (Figure 11).
- During week 10 2023, age specific rates in notified laboratory confirmed RSV cases were highest in those aged less than one year of age (Figure 12).

Table 6: Number of laboratory confirmed influenza notifications by HSE Area during the 2022/2023 season (weeks 40 2022-10 2023) and week 10 2023 *Source: CIDR*

HSE area	Influenza confirmed cases week 10 2023	Influenza confirmed cases-season to date
HSE-East	68	4863
HSE-Midlands	7	1329
HSE-Mid-West	11	1443
HSE-North-East	11	1435
HSE-North-West	29	1341
HSE-South-East	9	1365
HSE-South	14	1530
HSE-West	25	1456
Total	174	14762

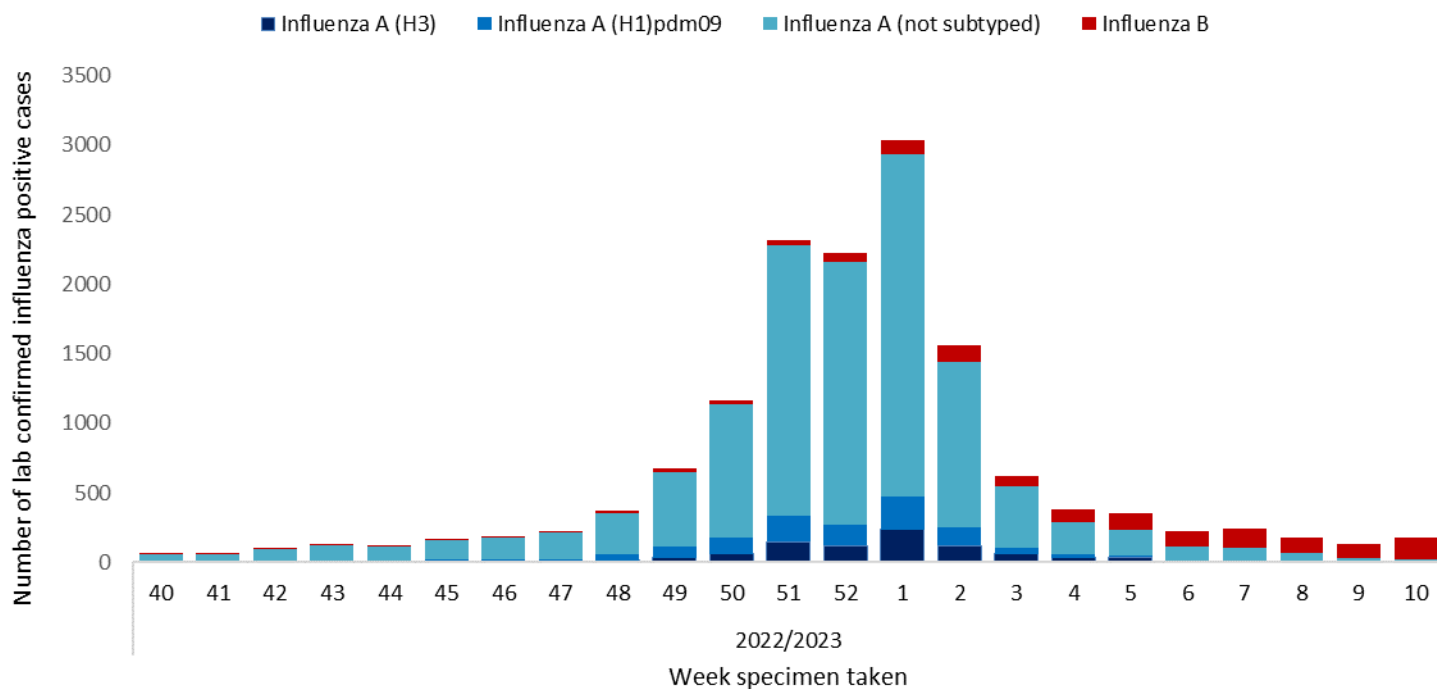


Figure 8: Number of laboratory confirmed influenza notifications by influenza type/subtype to HPSC by week 2022-2023 season. Source: Ireland's Computerised Infectious Disease Reporting System.

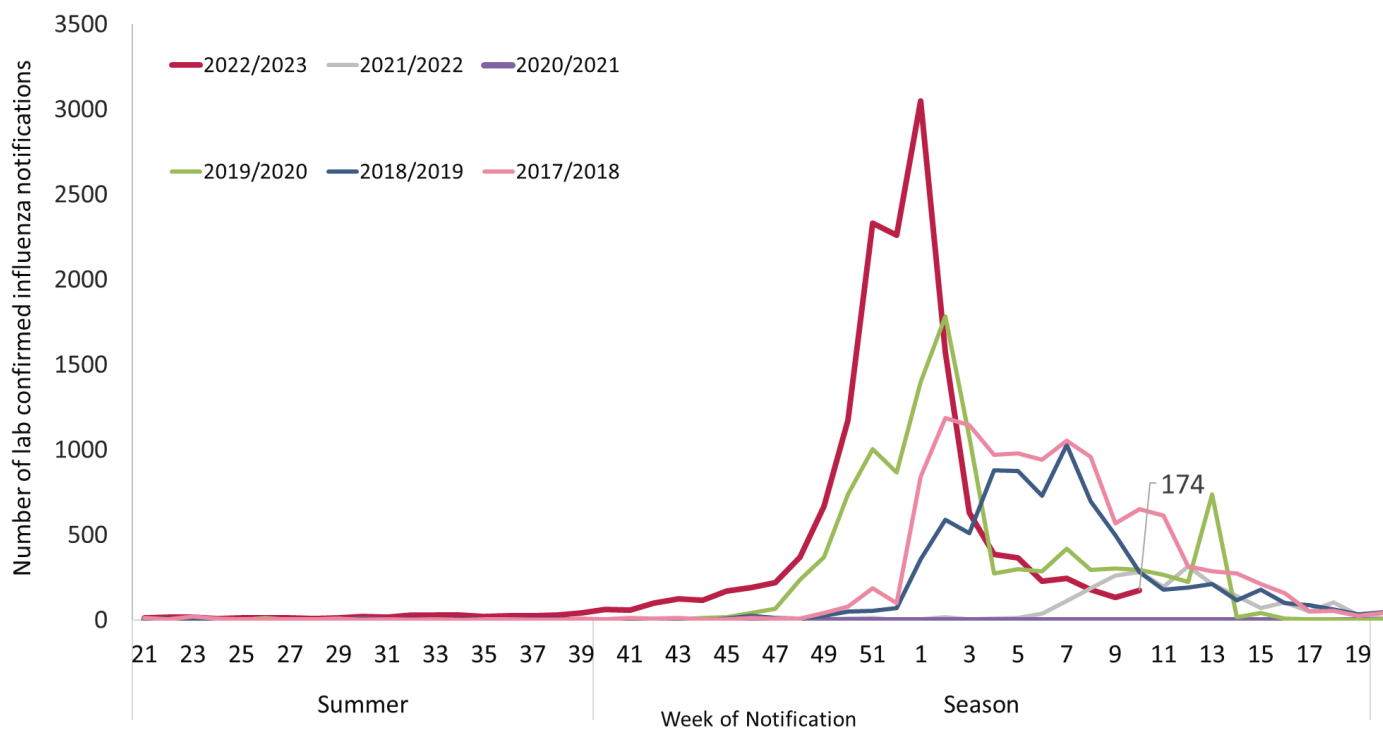


Figure 9: Number of laboratory confirmed influenza notifications to HPSC by week and season, 2017/2018 to 2022/2023 influenza seasons. Source: Ireland's Computerised Infectious Disease Reporting System.

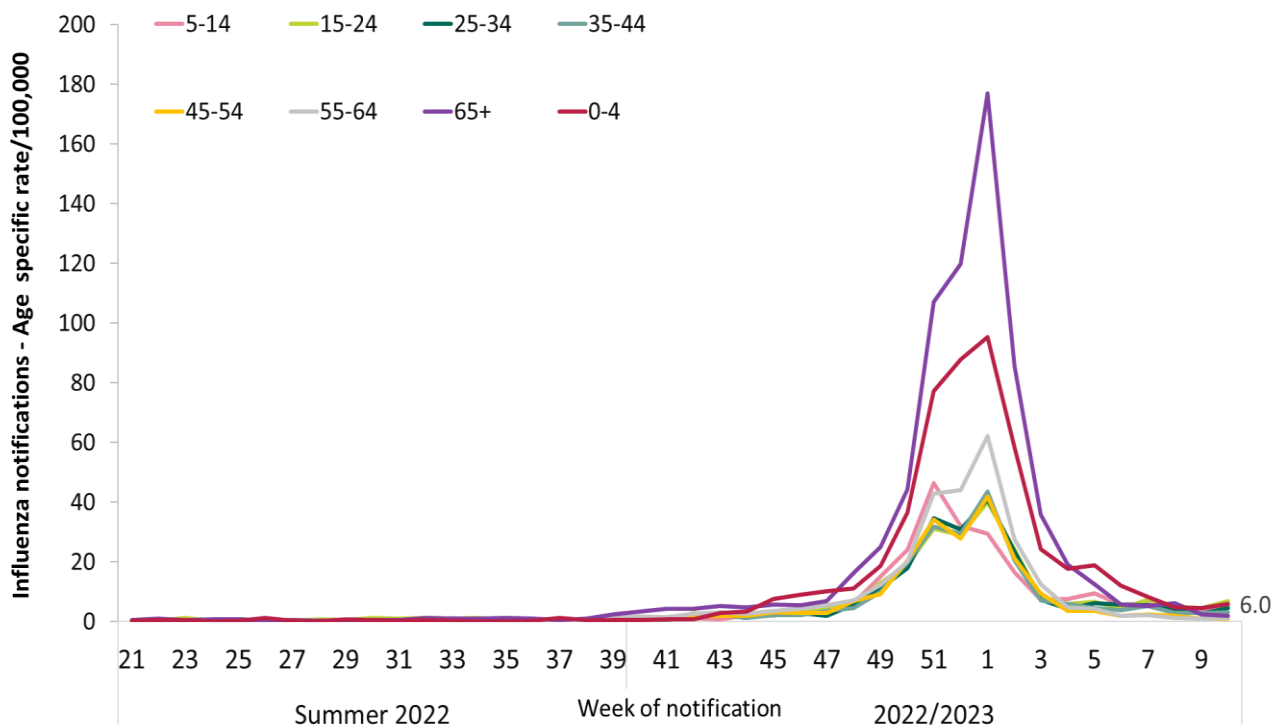


Figure 10: Age specific rates per 100,000 population for laboratory confirmed **influenza** notifications to HPSC by week of notification. *Source: Ireland’s Computerised Infectious Disease Reporting System.*

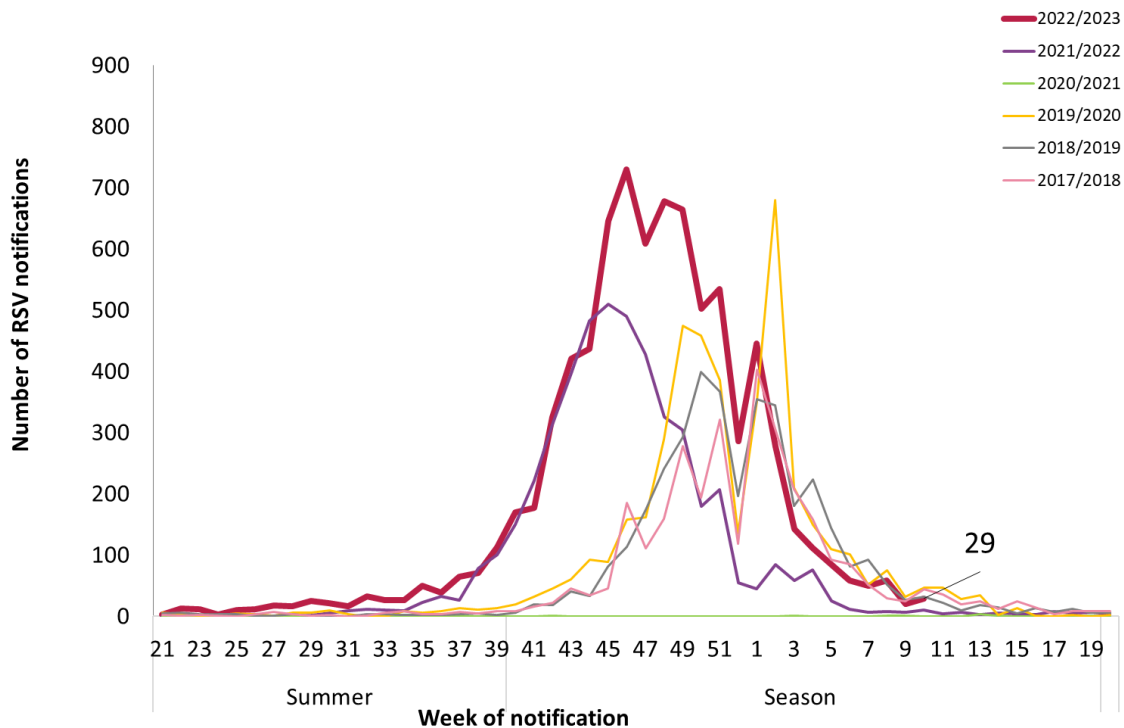


Figure 11: Number of laboratory confirmed **RSV** notifications to HPSC by week of notification, 2017/2018 to 2022/2023 seasons. *Source: Ireland’s Computerised Infectious Disease Reporting System.*

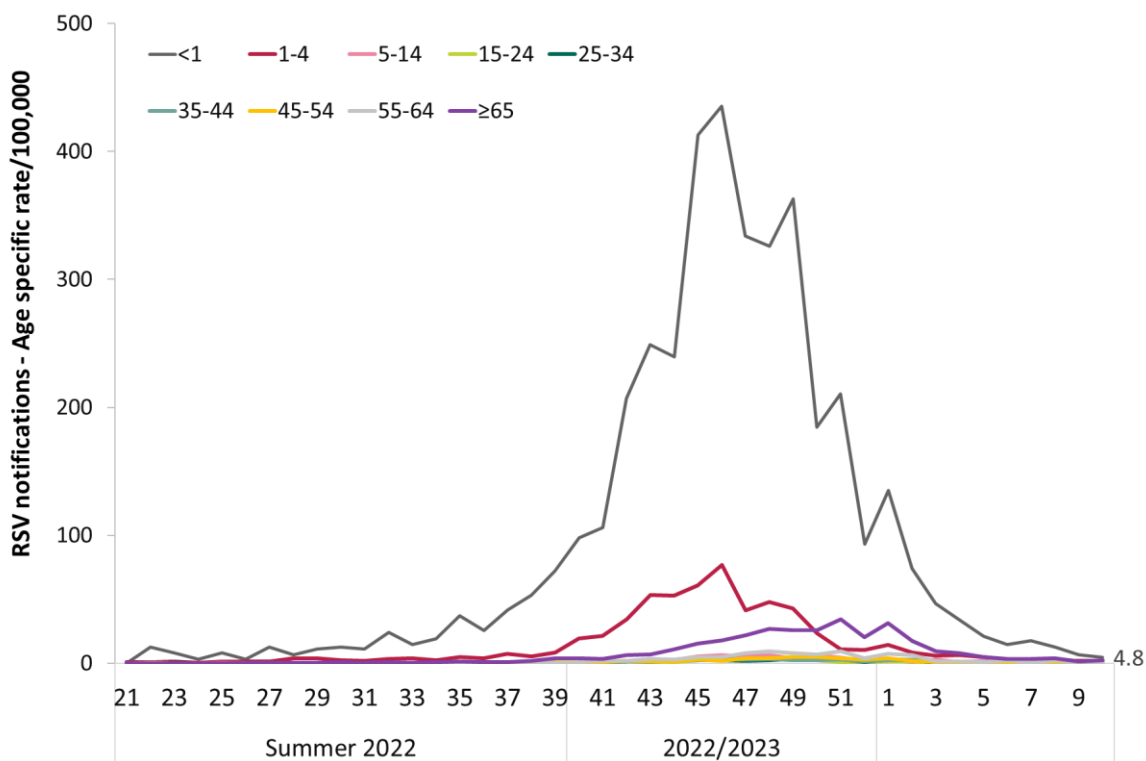


Figure 12: Age specific rates per 100,000 population for laboratory confirmed RSV notifications to HPSC by week of notification. *Source: Ireland's Computerised Infectious Disease Reporting System.*

5. Hospitalisations

- During week 10 2023, 37 laboratory confirmed influenza cases were reported as hospital inpatients: three influenza A (not subtyped), one A(H3), and 33 influenza B (Figure 13 & 14). Influenza hospitalised cases during week 10 2023 increased to 37, compared to 25 in week 9 2023.
- During the 2022/2023 season to date (weeks 40 2022 to week 10 2023), 4,244 laboratory confirmed influenza cases have been notified as hospital inpatients: 290 influenza A(H1)pdm09, 179 A(H3), 3,472 influenza A (not subtyped), 288 influenza B, 12 influenza coinfections and three influenza (type not reported) (Figure 13).
- During week 10 2023, age specific rates in notified laboratory confirmed hospitalised influenza cases were highest in those aged less than four years old. (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 10 2023, 13 RSV cases were reported as hospital inpatients (Figure 16).
- During week 10 2023, age specific rates in notified laboratory confirmed hospitalised RSV cases were highest in those aged 65 years and older (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.

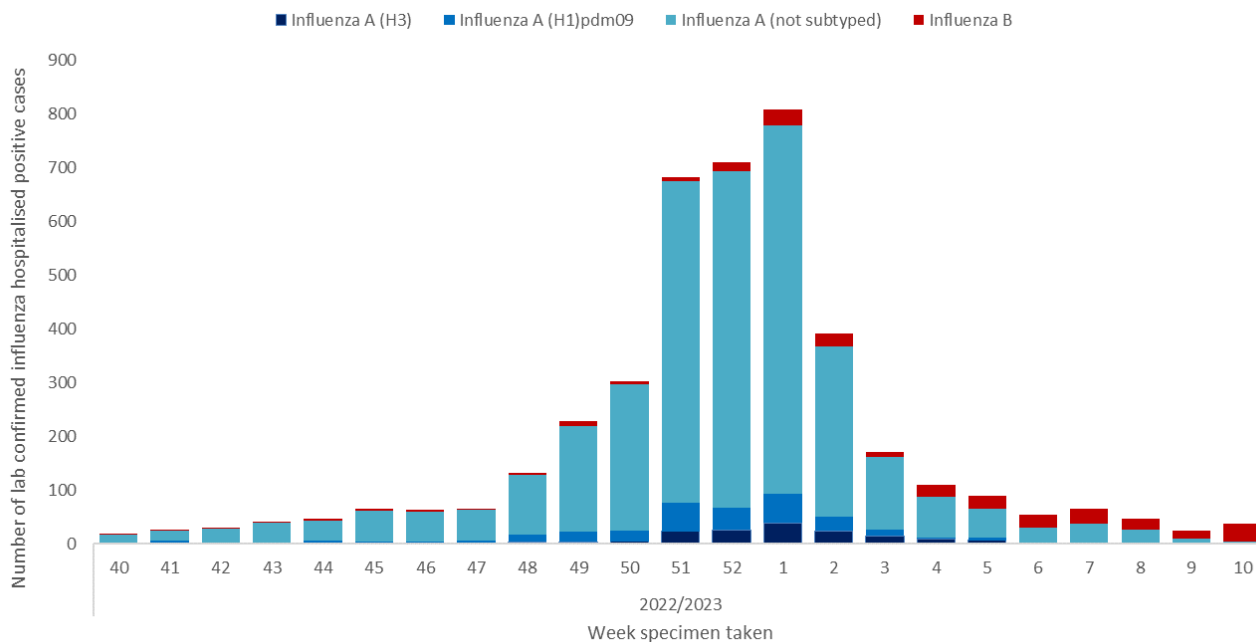


Figure 13: Number of laboratory confirmed influenza notifications reported as hospital inpatients by influenza type/subtype to HPSC by week, 2022/2023 season . Source: Ireland’s Computerised Infectious Disease Reporting System.

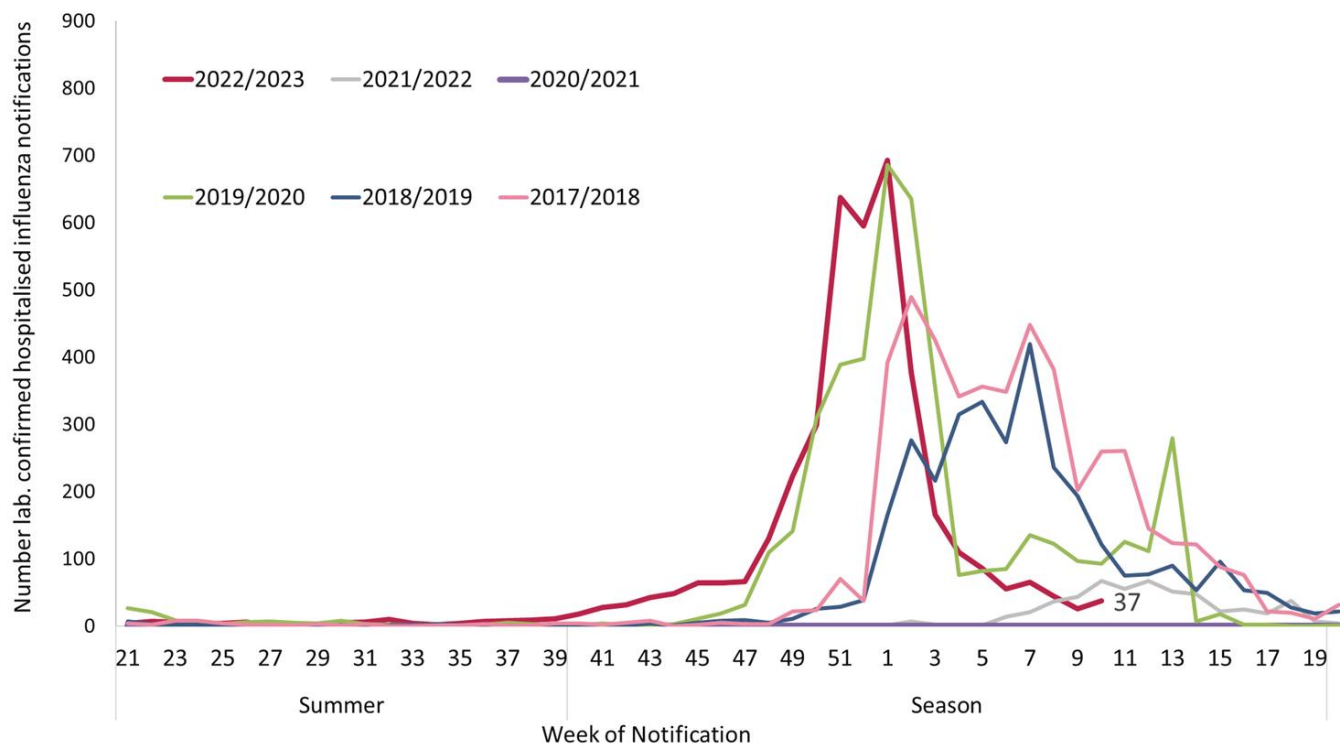


Figure 14: Number of notified laboratory confirmed influenza cases reported as hospital inpatients, for the 2017/2018 to 2022/2023 season. Source: Ireland’s Computerised Infectious Disease Reporting System

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.*

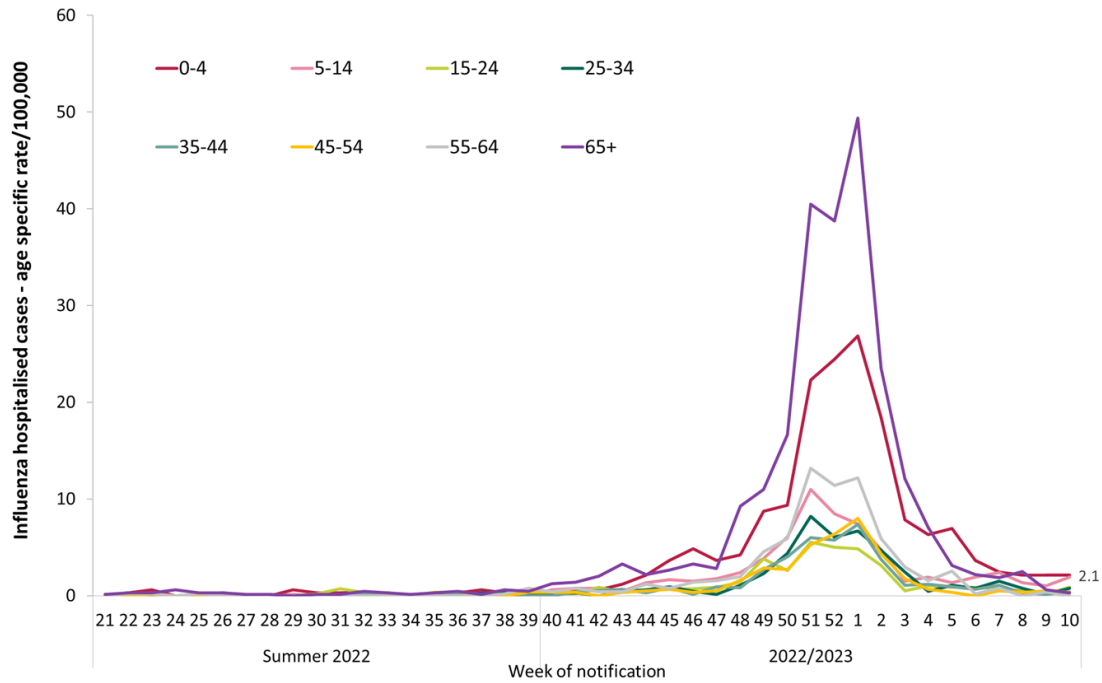


Table 7: Number of notified **influenza** cases reported by patient type and week of notification, 2022/2023 season (weeks 40 2022-10 2023). *Source: Ireland's Computerised infectious Disease Reporting System*

	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	34	43	6	20	8	6	124
Week 44	2	38	48	6	16	2	5	117
Week 45	2	66	65	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	261	229	31	57	19	61	675
Week 50	43	445	303	22	105	46	206	1170
Week 51	100	806	687	29	226	134	346	2328
Week 52	49	1008	715	16	163	143	141	2235
Week 1	121	1308	819	48	201	198	352	3047
Week 2	42	580	403	30	146	167	193	1561
Week 3	31	235	170	8	51	25	102	622
Week 4	20	150	109	5	26	24	51	385
Week 5	30	139	89	7	33	17	44	359
Week 6	9	107	56	4	17	15	20	228
Week 7	15	106	62	4	28	10	20	245
Week 8	9	68	45	1	21	14	20	178
Week 9	5	74	25	0	15	3	13	135
Week 10	4	84	37	1	18	7	23	174
Total	538	5880	4244	267	1248	894	1691	14762

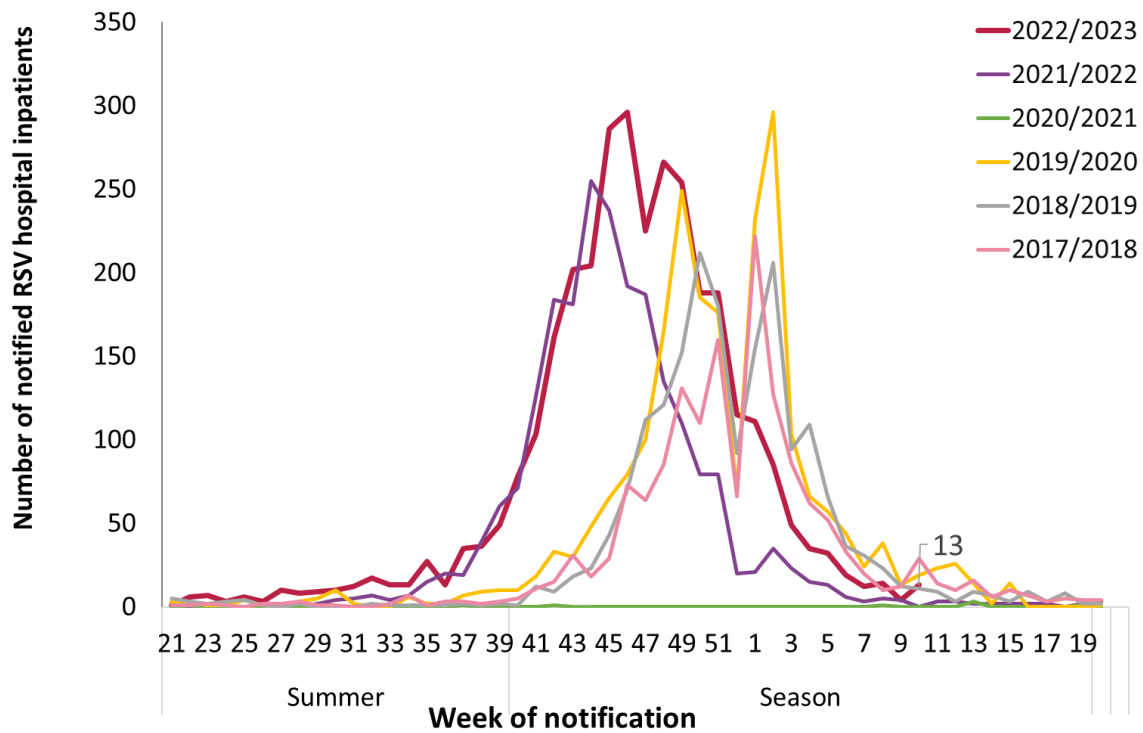


Figure 16: Number of notified RSV cases reported as hospital inpatients, by week of notification and season, for the 2017/2018 to 2022/2023 seasons. *Source: Ireland's Computerised Infectious Disease Reporting System.*

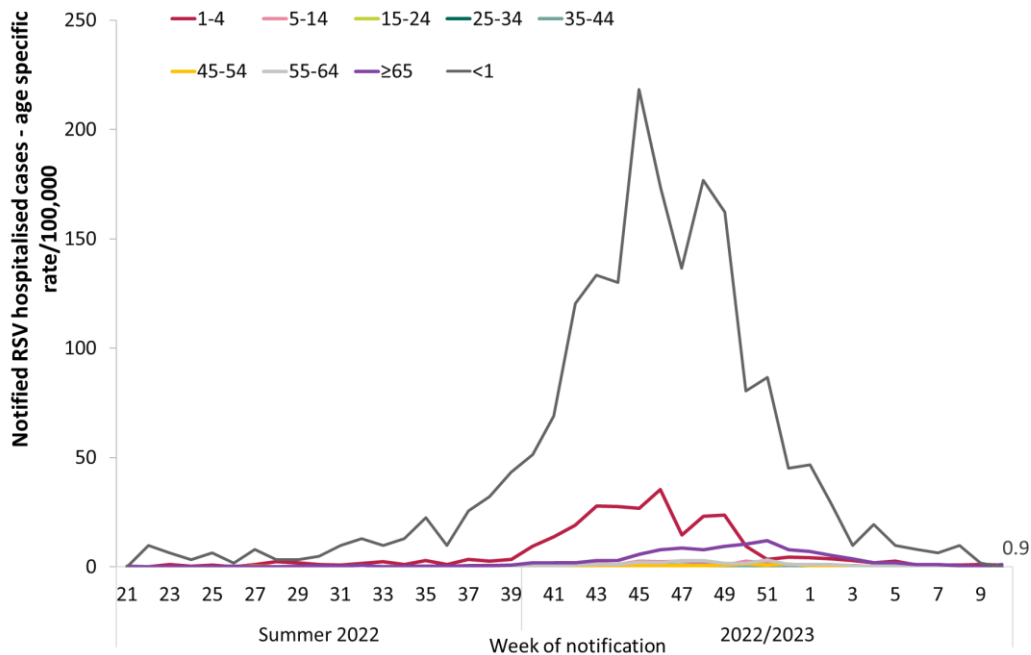


Figure 17: Age specific rates per 100,000 population for laboratory confirmed RSV cases reported as hospital inpatients by week of notification and season, Summer 2022 and 2022/2023. *Source: Ireland's Computerised Infectious Disease Reporting System*

Table 8: Number of notified **RSV** cases reported by patient type and week of notification (weeks 40 2022-9 2023) , 2022/2023 season. *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	149	201	9	20	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	191	5	32	30	88	532
Week 52	8	82	119	0	12	29	36	286
Week 1	26	165	125	5	21	31	71	444
Week 2	7	92	88	3	20	23	44	277
Week 3	4	44	52	2	13	5	22	142
Week 4	6	39	35	5	6	11	9	111
Week 5	4	27	32	0	9	2	11	85
Week 6	4	23	19	0	3	4	6	59
Week 7	1	23	11	2	3	3	7	50
Week 8	0	19	14	1	7	4	13	58
Week 9	0	13	4	0	2	1	0	20
Week 10	0	8	13	1	2	1	4	29
Total	196	2751	2965	90	383	378	689	7452

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.

- No laboratory confirmed influenza case was admitted to critical care and notified to HPSC during week 10 2023.
- During the 2022/2023 season to date (weeks 40 2022-10 2023), 168 laboratory confirmed influenza cases – 30 A(H1)pdm09, 32 influenza A(H3), 97 influenza A (not subtyped) and nine influenza B have been admitted to critical care units 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 2022-10 2023), of 144 laboratory confirmed influenza ICU cases with known influenza vaccination status, 99 (69%) 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 2022-10 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	127	204.0	2	3.2
1-4	422	156.7	14	5.2
5-14	460	68.1	10	1.5
15-24	223	38.7	8	1.4
25-34	314	47.6	4	0.6
35-44	316	47.9	18	2.4
45-54	267	42.6	23	3.7
55-64	384	75.4	24	4.7
≥65	1731	271.5	65	10.2
Unknown		–		–
Total	4244	89.1	168	3.5

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/>

- There were no deaths in the notified influenza cases reported to HPSC during week 10 2023.
- During the 2022/2023 season (weeks 40 2022-10 2023), 183 deaths in notified influenza cases were reported to HPSC – 30 influenza A(H3), 24 influenza A(H1)pdm09, 124 influenza A (not subtyped), four influenza B and one influenza A and B coinfection.

During the 2022/2023 season, excess all-cause mortality was reported over four consecutive weeks (weeks 51 2022-2 2023). Excess pneumonia and influenza mortality was also reported over four consecutive weeks (weeks 51 2022 – 2 2023).

Excess mortality analysis is corrected for reporting delays with the standardised EuroMOMO algorithm. Due to delays in death registrations in Ireland, excess mortality data included in this report are reported with a one-week lag time.

8. Outbreak Surveillance

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/>

- One Acute Respiratory Infection (ARI) outbreak (No pathogen identified) in a residential institution and no laboratory confirmed influenza or RSV outbreaks were notified to HPSC during week 10 2023. During the 2022/2023 season (weeks 40 2022-10 2023), 155 influenza outbreaks have been notified to HPSC.
- For an overview of outbreaks for the season to date (weeks 40 2022-10 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 10 2023 and the 2022/2023 season (weeks 40 2022-10 2023) *Source: CIDR*

HSE area	Influenza		Respiratory syncytial virus infection		Acute respiratory infection		COVID-19 & Influenza		Total	
	Week 10	2022/2023	Week 10	2022/2023	Week 10	2022/2023	Week 10	2022/2023	Week 10	2022/2023
HSE-East	0	55	0	15	1	1	0	0	0	71
HSE-Midlands	0	6	0	0	0	1	0	0	0	7
HSE-Mid-West	0	13	0	4	0	0	0	0	0	17
HSE-North-East	0	22	0	19	0	3	0	2	0	46
HSE-North-West	0	21	0	6	0	4	0	3	0	34
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	0	17	0	3	0	1	0	0	0	21
Total	0	155	0	55	1	10	0	5	0	225

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 10 2023 and the 2022/2023 season (weeks 40 2022-10 2023). *Source: CIDR*

Setting	Influenza		Respiratory syncytial virus		Acute respiratory		COVID-19 & Influenza		Total	
	Week 10	2022/2023	Week 10	2022/2023	Week 10	2022/2023	Week 10	2022/2023	Week 10	2022/2023
Community hospital/Long-stay unit	0	8	0	8	0	2	0	1	0	19
Nursing Home	0	56	0	21	0	5	0	2	0	84
Hospital	0	67	0	8	0	0	0	2	0	77
Residential Institution	0	11	0	4	1	3	0	0	1	18
Childcare facility	0	0	0	1	0	0	0	0	0	1
Family Outbreaks	0	9	0	12	0	0	0	0	0	21
Other settings	0	4	0	1	0	0	0	0	0	5
Total	0	155	0	55	1	10	0	5	1	225

9. International Summary

In the European region, during week 9 2023 (week ending 05/03/2023), influenza virus positivity in sentinel primary care specimens was 24%, compared to 27% in the previous week, which is above the ECDC influenza positivity threshold of 10%. For week 9 2023, 864 (24%) of 3,673 sentinel GP specimens tested positive for an influenza virus; 33% were type A and 67% were type B. Of 198 subtyped A viruses, 15% were A(H3) and 85% were A(H1)pdm09. Of 143 influenza B viruses ascribed to a lineage, all were B/Victoria.

For week 9 2023, 7,437 of 60,298 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; 3,201 (43%) were influenza A and 4,236 (57%) were influenza B. Of 376 subtyped A viruses, 289 (77%) were A(H1)pdm09 and 87 (23%) were A(H3). Of 142 influenza B viruses ascribed to a lineage, all were of B/Victoria lineage. Of 39 countries and areas reporting on geographic spread of influenza viruses, seven reported sporadic spread, four reported local spread, seven reported regional spread and 21 reported widespread influenza activity.

As of 20th February 2023, globally, influenza activity decreased compared to peak in late 2022. 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. The detections of influenza B increased during this 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. In the Caribbean and Central American countries, influenza activity of predominantly influenza A(H3N2) viruses continued to decrease due to decreases detections reported 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 recommends 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>

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

- an A/Victoria/4897/2022 (H1N1)pdm09-like virus;
- an A/Darwin/9/2021 (H3N2)-like virus; and
- a B/Austria/1359417/2021 (B/Victoria lineage)-like virus; and
- a B/Phuket/3073/2013 (B/Yamagata lineage)-like virus.

<https://www.who.int/news/item/24-02-2023-recommendations-announced-for-influenza-vaccine-composition-for-the-2023-2024-northern-hemisphere-influenza-season>

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

Acknowledgements

This report was prepared by the HPSC influenza epidemiology team: Nancy Somi, Eva Kelly, Adele McKenna, 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.