Influenza, RSV and Other Respiratory Viruses Surveillance Report Week 2 2024 (8th – 14th January 2024)

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

Summary Week 2 2024

Influenza activity was at moderate to high levels during week 2 2024. Influenza A(H3) viruses account for the majority of subtyped viruses; with influenza A(H1)pdm09 and B also co-circulating. It is recommended that antivirals be used for the treatment and prophylaxis of influenza in clinical at-risk groups and in those with severe influenza disease. Respiratory syncytial virus (RSV) activity peaked in early December; declining further during week 2 2024.

- **Influenza-like illness (ILI):** The sentinel GP influenza-like illness (ILI) consultation rate was 18.9 per 100,000 population during week 2 2024 which is above the Irish baseline threshold (18.1/100,000) for the first time this season, compared to an updated rate of 15.5/100,000 in week 1 2024. ILI age specific rates were above the age specific baseline for those aged ≥65 years (19.7/100,000).
- **National Virus Reference Laboratory (NVRL):** Of 192 sentinel GP ARI specimens tested and reported by the NVRL during week 2 2024, 52 (27.1%) were positive for influenza (27 A(H3), 16 A(H1)pdm09, one A (not subtyped) and eight influenza B), 12 (6.3%) RSV, 20 (10.4%) SARS-CoV-2, and 14 (7.3%) rhino/enterovirus.
- Of 261 non-sentinel respiratory specimens tested and reported by the NVRL during week 2 2024, 36 (13.4%) were positive for influenza (25 A(H3), eight A(H1)pdm09, one A (not subtyped) and one influenza B), 25 (9.6%) SARS-CoV-2, 14 (5.4%) RSV and 19 (7.3%) rhino/enterovirus.
- **GP Out of hours (OOHs):** Cough calls comprised 21% (2722/12825) of all reported GP OOHs calls during week 2 2024, which is above the baseline threshold of 10.8%. Twenty-eight percent (759/2722) of cough calls were in those aged 0-4 years. Flu calls comprised 2.3% (297/12825) of all calls in week 2 2024, which is at the baseline threshold level (2.3%). The majority (64%; 191/297) of all flu calls were in those aged 15-64 years.
- **Influenza notifications:** 1448 laboratory confirmed influenza cases were notified during week 2 2024: 129 influenza A (H3), 46 A(H1)pdm09, 1211 influenza A (not subtyped) and 62 influenza B. This is a decrease compared to 1624 cases notified during week 1 2024.
- **RSV notifications:** 303 RSV cases were notified during week 2 2024, a decrease compared to 464 cases during week 1 2024. Age specific rates were highest in those aged less than one year.
- **Hospitalisations:** 305 laboratory confirmed influenza hospitalised cases were notified in week 2 2024, a decrease compared to 432 in week 1 2024. Of the hospitalised cases during week 2 2024, 270 were positive for influenza A (not subtyped), 19 A(H3), 3 A(H1)pdm09 and 13 influenza B. 109 laboratory confirmed RSV hospitalised cases were notified in week 2 2024, a decrease compared to 151 cases in week 1 2024. Of the hospitalised RSV cases notified during week 2 2024, 24% (26/109) were aged <1 year.
- **Intensive care admissions:** Seven laboratory confirmed influenza A cases (not subtyped) were admitted to intensive care unit (ICU) and notified to HPSC during week 2 2024. Forty-two influenza ICU cases (six A(H3), two A(H1)pdm09 and 34 A (not subtyped)) have been notified during weeks 40 2023 – 2 2024.
- **Mortality:** No deaths in notified influenza cases were reported to HPSC during week 2 2024 and 24 deaths were reported for the season to date – 21 influenza A (not-subtyped), one A(H3) and two A(H1)pdm09.
- **Outbreaks:** During week 2 2024, 19 influenza outbreaks (nine in nursing homes, eight in acute hospitals and two in community hospitals), two RSV outbreaks (one in a residential institution and one in a community hospital) and no other ARI (not influenza/RSV/COVID-19) outbreaks were notified to HPSC.
- **International:** In the EU/EEA during week 1 2024, while there is variation in the region, influenza activity remains at high levels. RSV continues to circulate but has declined in the last few weeks.

1. GP consultations for influenza-like illness - GP sentinel surveillance system

- During week 2 2024, 153 sentinel GP influenza-like illness (ILI) consultations were reported from the Irish sentinel GP network, corresponding to an ILI consultation rate of 18.9 per 100,000 population which is above the sentinel GP ILI baseline threshold for the first time this season. This is compared to an updated rate of 15.5 per 100,000 population during week 1 2024 (Figure 1).
- Out of the 100 GP practices in the Irish sentinel GP network, 94 reported clinical consultations data during week 2 2024.
- The sentinel GP ILI consultation rates were above the baseline threshold for week 2 2024 and below the Irish sentinel GP ILI baseline threshold (18.1/100,000 population) for weeks 40 2023-1 2024.
- Age specific ILI consultation rates were above age specific baseline thresholds in those aged 65 or over (19.7/100,000) and below baseline in all other age groups during week 2 2024. The age specific baseline threshold for those aged <15 is 19.0/100,000, for those aged 15-64 is 21.3/100,000 and for those aged ≥65 years is 19.4/100,000.
- ILI age specific rates were highest in those aged 15-64 years (21.2/100,000) during week 2 2024 (Figure 2, Table 1).
- The Irish sentinel baseline ILI threshold for the 2023/2024 influenza season is 18.1 per 100,000 population. ILI rates above this baseline threshold combined with sentinel GP influenza positivity >10% indicate the likelihood that influenza is circulating in the community. The Moving Epidemic Method (MEM) is used to calculate thresholds for GP ILI consultations in a standardised approach across Europe. The baseline ILI threshold (18.1/100,000 population), low (57.5/100,000 population), medium (86.5/100,000 population) and high (103.6/100,000 population) intensity ILI thresholds are shown in Figure 1.

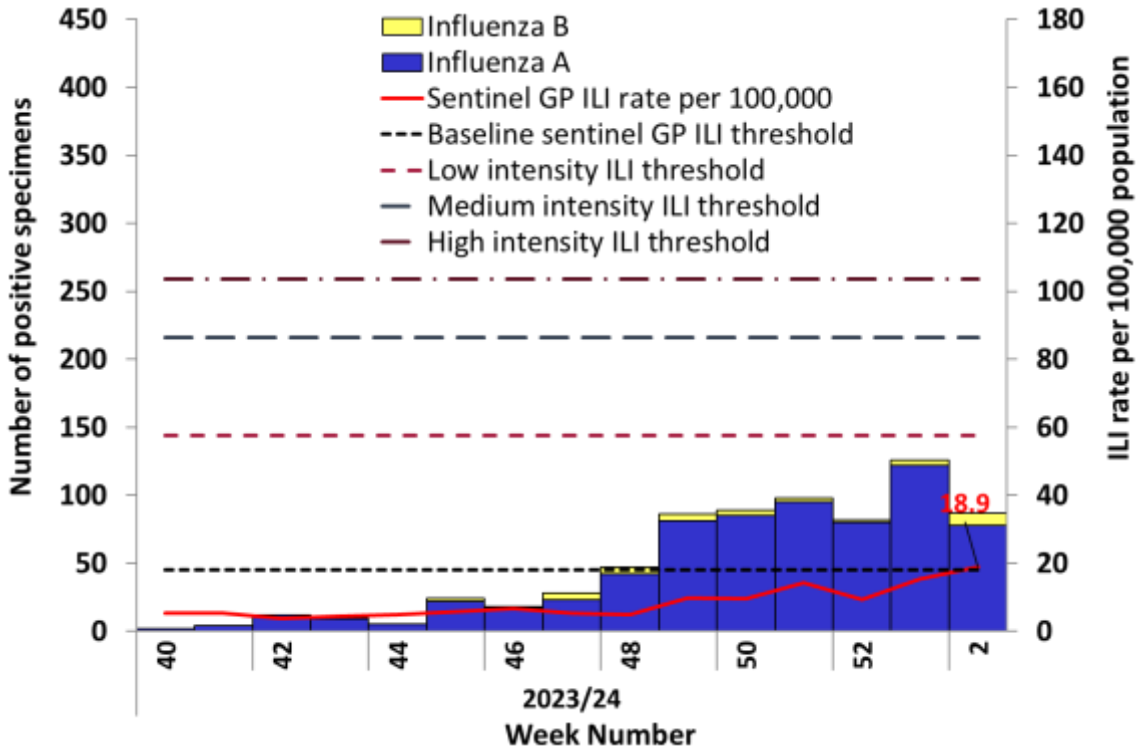

Figure 1: Sentinel GP **Influenza-like illness (ILI)** consultation rates per 100,000 population, baseline, low, medium and high intensity ILI thresholds and number of positive influenza A and B specimens tested by the NVRL, by influenza week for the 2023/2024 season. *Source: ICGP and NVRL*

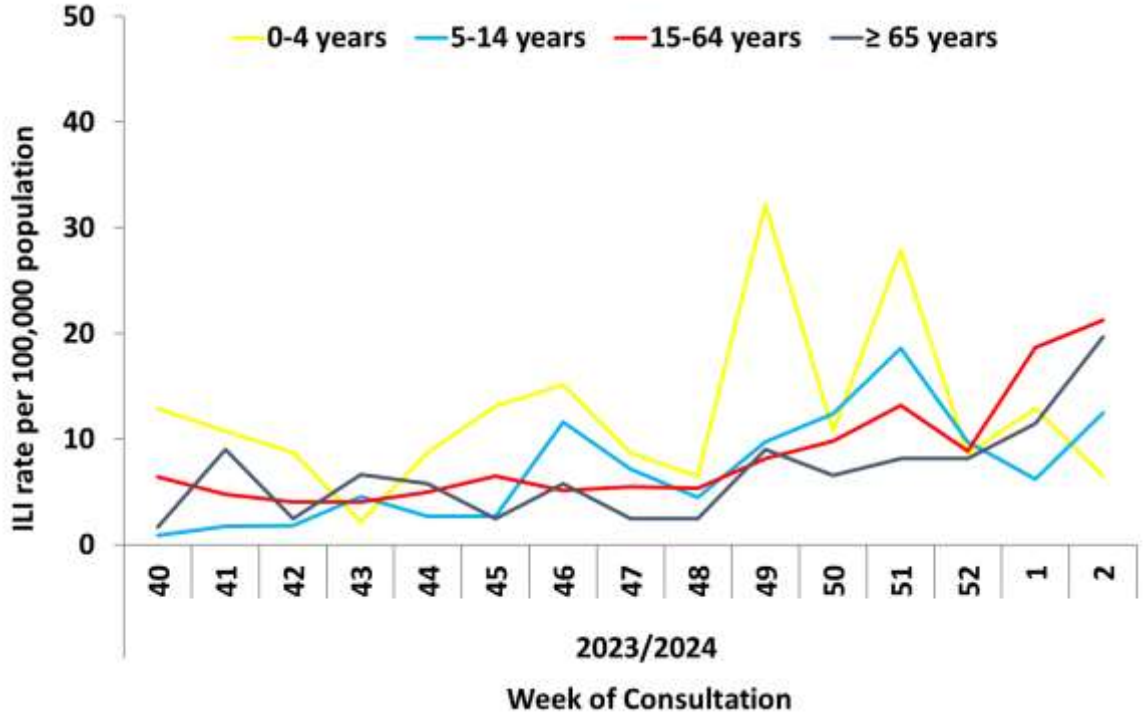

Figure 2: Age specific sentinel GP **ILI consultation** rate per 100,000 population by week (week 40 2023 to week 2 2024). *Source: ICGP.*

Table 1: Age specific sentinel GP **ILI consultation** rate per 100,000 population by week (week 40 2023 to week 2 2024), 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

	2023/2024														
Age group (years)	40	41	42	43	44	45	46	47	48	49	50	51	52	1	2
All Ages	5.3	5.3	3.7	4.4	5.0	5.8	6.7	5.4	4.8	9.9	9.7	14.2	9.4	15.5	18.9
<15 yrs	4.1	4.1	3.5	3.6	4.1	5.3	11.8	7.0	4.7	15.1	11.1	19.8	8.7	7.6	10.0
15-64 yrs	6.4	4.7	4.0	4.0	5.0	6.5	5.1	5.5	5.3	8.1	9.8	13.2	8.9	18.7	21.2
≥65 yrs	1.6	9.0	2.5	6.7	5.8	2.5	5.8	2.5	2.5	9.0	6.5	8.2	8.2	11.4	19.7
Reporting practices (N=100)	93	93	92	91	92	92	93	95	95	96	96	96	96	95	94

2. Influenza and Other Respiratory Virus Detections - NVRL

The data reported in this section for the 2023/2024 influenza season refers to sentinel GP ARI and non-sentinel respiratory specimens routinely tested for influenza, SARS-CoV-2, respiratory syncytial virus (RSV), adenovirus, parainfluenza virus types 1-4 (PIV-1-4), human metapneumovirus (hMPV) and rhino/enteroviruses by the National Virus Reference Laboratory (NVRL) (Tables 2 & 3, Figure 3a, 3b, 4).

- A lag time with testing and reporting is noted for the most recent surveillance week.
- During week 2 2024, of 192 sentinel GP ARI specimens tested and reported by the NVRL, 52 (27.1%) were positive for influenza (27 A(H3), 16 A(H1)pdm09, one A (not subtyped), and eight influenza B), 12 (6.3%) for RSV, 20 (10.4%) for SARS-CoV-2, and 14 (7.3%) for rhino/enterovirus.
- In comparison during week 1 2024, of 192 sentinel GP ARI specimens tested and reported by the NVRL, 55 (30.4%) were positive for influenza (30 A(H3), 18 A(H1)pdm09, four A (not subtyped) and three B), nine (5.0%) for RSV, 16 (8.8%) for SARS-CoV-2, and 19 (10.5%) for rhino/enterovirus.
- For the 2023/2024 season to date (week 40 2023 to week 2 2024), of 2,134 sentinel GP ARI specimens tested and reported by the NVRL, 287 (13.4%) were positive for influenza, 233 (10.9%) for RSV, 165 (7.7%) for SARS-CoV-2, and 391 (18.3%) for rhino/enterovirus (Table 4).
- During week 2 2024, of 261 non-sentinel respiratory specimens tested and reported by the NVRL, 35 (13.4%) were positive for influenza (25 A(H3), eight A(H1)pdm09,one A (not subtyped) and one influenza B), 25 (9.6%) for SARS-CoV-2, 14 (5.4%) for RSV and 19 (7.3%) for rhino/enterovirus.
- During week 1 2024, of 382 non-sentinel respiratory specimens tested, 71 (18.6%) were positive for influenza (50 A(H3), 17 A(H1)pdm09, three A (not subtyped), and one B), 43 (11.3%) for SARS-CoV-2, eight (2.1%) for RSV, and 21 (5.5%) for rhino/enterovirus (Figure 3b).
- For the 2023/2024 season to date (week 40 2023 to week 2 2024), of 3,111 non-sentinel respiratory specimens tested and reported by the NVRL, 431 (13.9%) were positive for influenza, 233 (7.5%) for RSV, 234 (7.5%) for SARS-CoV-2, and 382 (12.3%) for rhino/enterovirus (Table 5).
- Other respiratory viruses (ORVs) are being detected at lower levels (Figure 3a and 3b).
- Of 718 sentinel GP ARI specimens and non-sentinel specimens positive for influenza and reported by the NVRL during the 2023/2024 season, 47 (6.5%) were coinfected with other viruses.

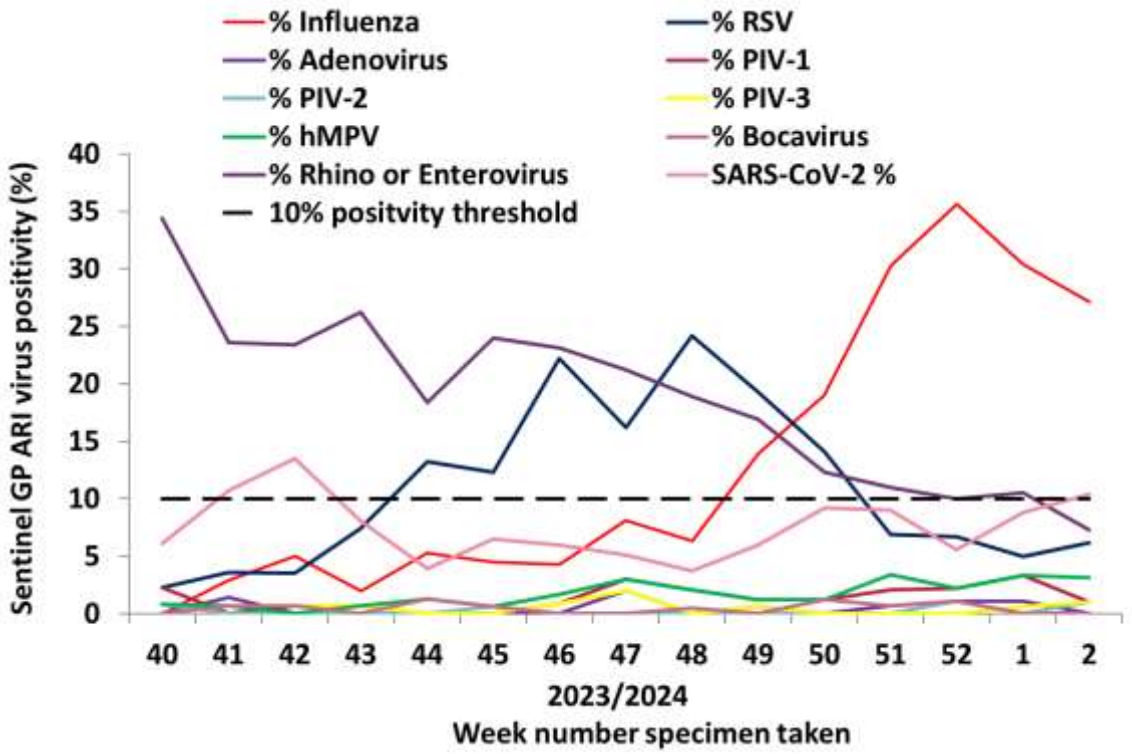

Figure 3a: Percentage positive results for **sentinel GP ARI** specimens tested by the NVRL for influenza, SARS-CoV-2, RSV and other respiratory viruses by week specimen was taken for the 2023/2024 season. *Source: NVRL*

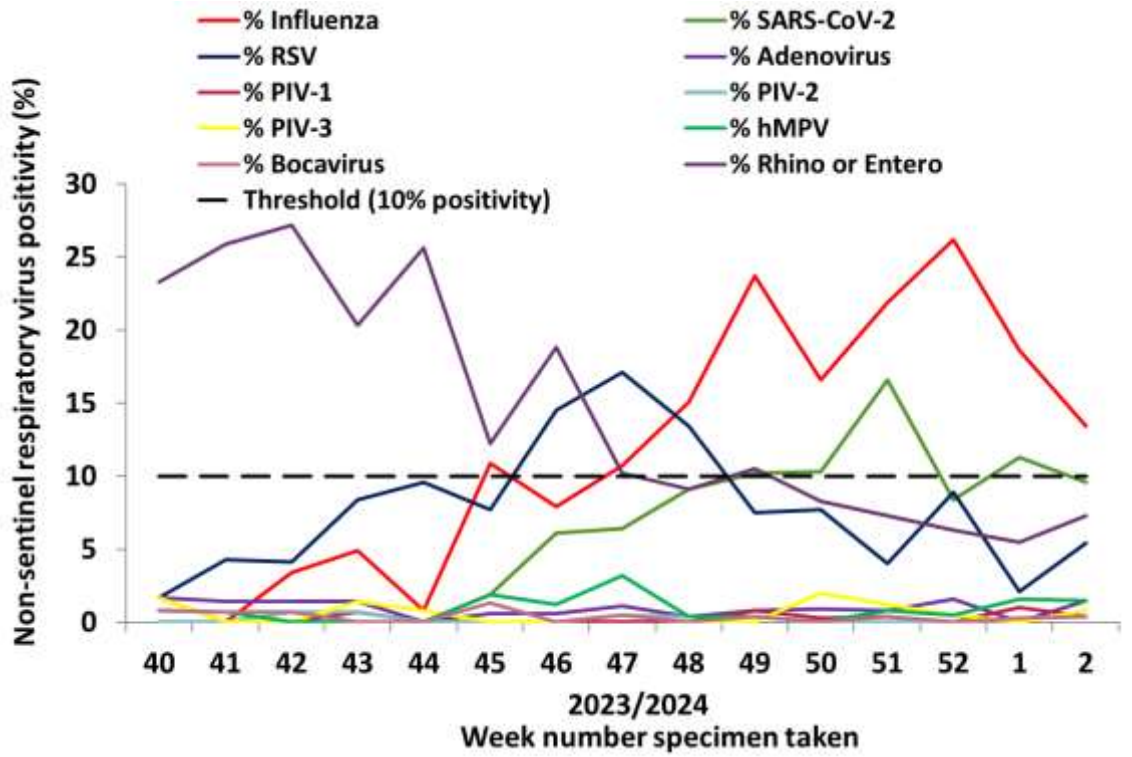

Figure 3b: Percentage positive results for **non-sentinel respiratory** specimens tested by the NVRL for influenza, SARS-CoV-2, RSV and other respiratory viruses by week specimen was taken for the 2023/2024 season. *Source: NVRL*

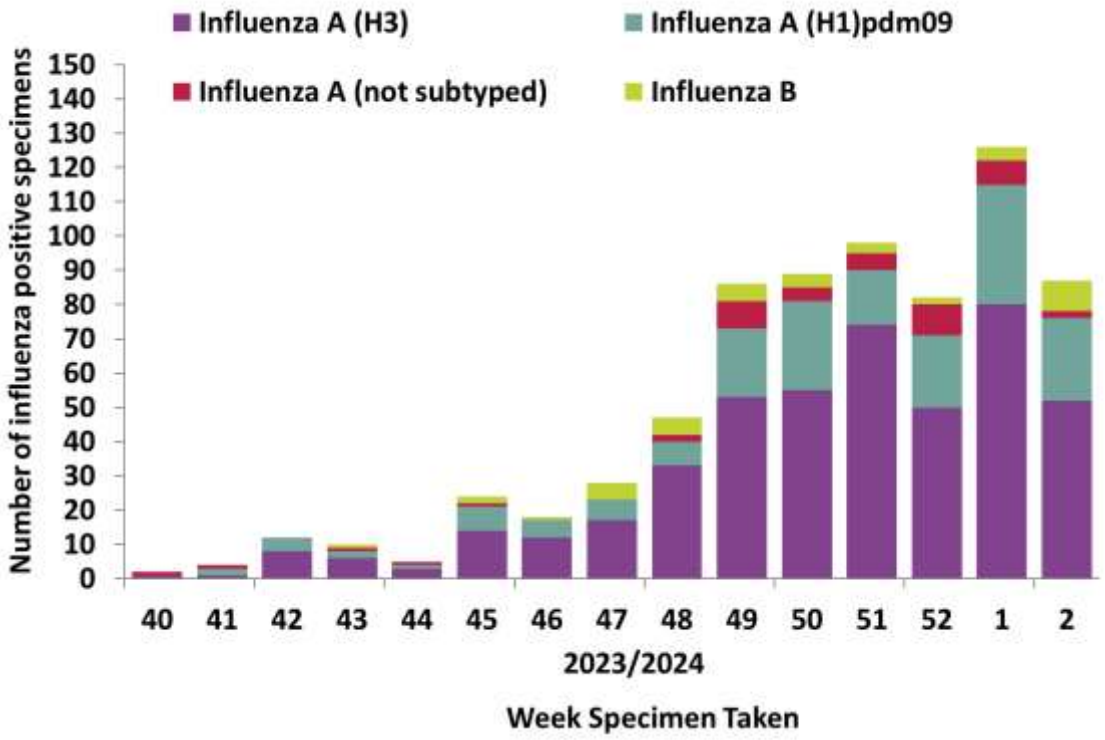

Figure 4: Number of positive **influenza** specimens (from sentinel GP ARI and non-sentinel respiratory sources) tested by the NVRL by influenza type/subtype and by week specimen was taken for the 2023/2024 season. *Source: NVRL*

Table 2: Number of sentinel GP ARI and non-sentinel respiratory specimens tested by the NVRL and positive **influenza** results, overall and by influenza type and subtype, for week 1 and week 2 2024, and the 2023/2024 Season. *Source: NVRL*

Surveillance period	Specimen type	Total tested	Number influenza positive	% Influenza positive	Influenza A				Influenza B			
					A(H1)pdm09	A(H3)	A (not subtyped)	Total influenza A	B (unspecified)	B Victoria lineage	B Yamagata lineage	Total influenza B
Week 2 2024	Sentinel GP ARI	192	52	27.1	16	27	1	44	8	0	0	8
	Non-sentinel respiratory	261	35	13.4	8	25	1	34	1	0	0	1
	Total	**453**	**87**	**19.2**	**24**	**52**	**2**	**78**	**9**	**0**	**0**	**9**
Week 1 2024	Sentinel GP ARI	181	55	30.4	18	30	4	52	3	0	0	3
	Non-sentinel respiratory	382	71	18.6	17	50	3	70	1	0	0	1
	Total	**563**	**126**	**22.4**	**35**	**80**	**7**	**122**	**4**	**0**	**0**	**4**
2023/2024	Sentinel GP ARI	2134	287	13.4	75	167	22	264	23	0	0	23
	Non-sentinel respiratory	3111	431	13.9	101	292	20	413	12	6	0	18
	Total	**5245**	**718**	**13.7**	**176**	**459**	**42**	**677**	**35**	**6**	**0**	**41**

Table 3: Number of sentinel GP ARI and non-sentinel respiratory specimens tested by the NVRL and positive **RSV** results, overall and by RSV type, for week 1 and week 2 2024, and the 2023/2024 Season. *Source: NVRL*

Surveillance period	Specimen type	Total tested	Number RSV positive	% RSV positive	RSV A	RSV B	RSV (unspecified)
Week 2 2024	Sentinel GP ARI	192	12	6.2	7	5	0
	Non-sentinel	261	14	5.4	9	5	0
	Total	**453**	**26**	**5.7**	**16**	**10**	**0**
Week 1 2024	Sentinel GP ARI	181	9	5.0	6	3	0
	Non-sentinel	382	8	2.1	5	3	0
	Total	**563**	**17**	**3.0**	**11**	**6**	**0**
2023/2024	Sentinel GP ILI/ARI	2134	233	10.9	175	58	0
	Non-sentinel	3111	233	7.5	190	43	0
	Total	**5245**	**466**	**8.9**	**365**	**101**	**0**

Table 4: Number and percentage positive sentinel GP ARI specimens by **respiratory virus**, week 1 and week 2 2024, and the 2023/2024 season. *Source: NVRL*

Virus	Week 2 2024 (N=192)		Week 1 2024 (N=181)		2023/2024 (N=2134)	
	Total positive	% positive	Total positive	% positive	Total positive	% positive
SARS-CoV-2	20	10.4	16	8.8	165	7.7
Influenza virus	52	27.1	55	30.4	287	13.4
Respiratory Syncytial Virus (RSV)	12	6.2	9	5.0	233	10.9
Rhino/enterovirus	14	7.3	19	10.5	391	18.3
Adenovirus	0	0.0	2	1.1	9	0.4
Bocavirus	0	0.0	0	0.0	9	0.4
Human metapneumovirus (hMPV)	6	3.1	6	3.3	37	1.7
Parainfluenza virus type 1 (PIV-1)	2	1.0	6	3.3	30	1.4
Parainfluenza virus type 2 (PIV-2)	2	1.0	0	0.0	5	0.2
Parainfluenza virus type 3 (PIV-3)	2	1.0	1	0.6	10	0.5
Parainfluenza virus type 4 (PIV-4)	0	0.0	1	0.6	41	1.9

Table 5: Number and percentage positive non-sentinel respiratory specimens, by **respiratory virus**, week 1 and week 2 2024, and the 2023/2024 season. *Source: NVRL*

Virus	Week 2 2024 (N=261)		Week 1 2024 (N=382)		2023/2024 (N=3111)	
	Total positive	% positive	Total positive	% positive	Total positive	% positive
SARS-CoV-2	25	9.6	43	11.3	234	7.5
Influenza virus	35	13.4	71	18.6	431	13.9
Respiratory Syncytial Virus (RSV)	14	5.4	8	2.1	233	7.5
Rhino/enterovirus	19	7.3	21	5.5	382	12.3
Adenovirus	4	1.5	0	0.0	27	0.9
Bocavirus	1	0.4	1	0.3	10	0.3
Human metapneumovirus (hMPV)	4	1.5	6	1.6	28	0.9
Parainfluenza virus type 1 (PIV-1)	1	0.4	4	1.0	10	0.9
Parainfluenza virus type 2 (PIV-2)	1	0.4	1	0.3	7	0.2
Parainfluenza virus type 3 (PIV-3)	2	0.8	0	0.0	19	0.6
Parainfluenza virus type 4 (PIV-4)	0	0.0	0	0.0	23	0.7

3. GP Out-Of-Hours services surveillance

National data on calls to GP Out-of-Hours services in Ireland are collated by HPSC. Five out of 14 Out-of-Hours GP services currently participate in this programme. Records of calls with clinical symptoms self-reported as 'flu' or 'cough' are included in the analysis. This information may act as an early indicator of circulation of influenza viruses, SARS-CoV-2, or other respiratory viruses.

- Five participating GP OOH services provided data for week 2 2024.
- Out of a total of 12,852 calls made to the participating GP OOHs in week 2 2024:
    - 2722 (21%) were for self-reported 'cough', which is above the baseline threshold of 10.8% for cough calls. Coughs as a percentage of all calls is stable compared to the percentage of cough calls (23%) in week 1 2024 (Figures 5 and 6). Twenty-eight percent (28%, 759/2722) of all cough calls were from those aged four years and under.
    - 297 (2.3%) were for self-reported 'flu', which is at the baseline threshold of 2.3% for 'flu' calls (Figures 7 and 8). This is a decline from the 503 "flu" calls made in week 1. The highest burden of flu calls was in those aged 16 to 64 years at 64% (191/297), followed by those aged 65 years and older at 20% (60/297).

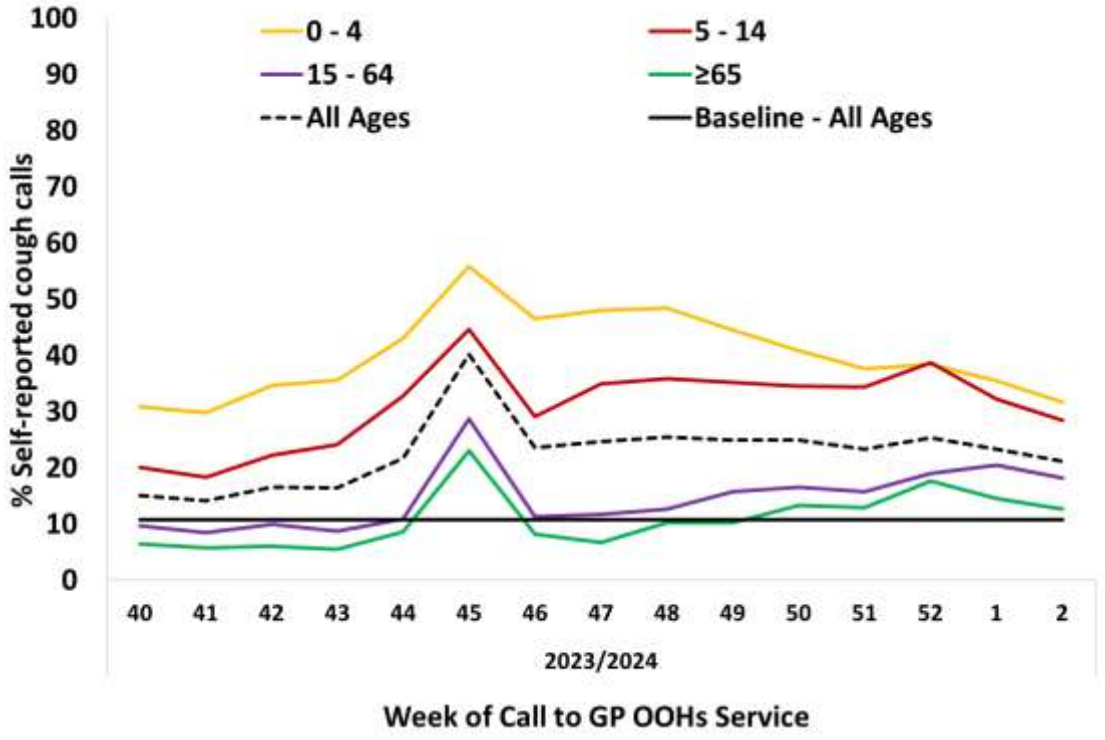

Figure 5: Percentage of self-reported **COUGH** calls for all ages and by age group as a proportion of total calls to GP Out-of-Hours services by week of call for the 2023/2024 season. The baseline % cough calls for all ages calculated using the MEM method on historic data is shown. *Source: GP Out-Of-Hours services in Ireland (collated by HSE & ICGP).*

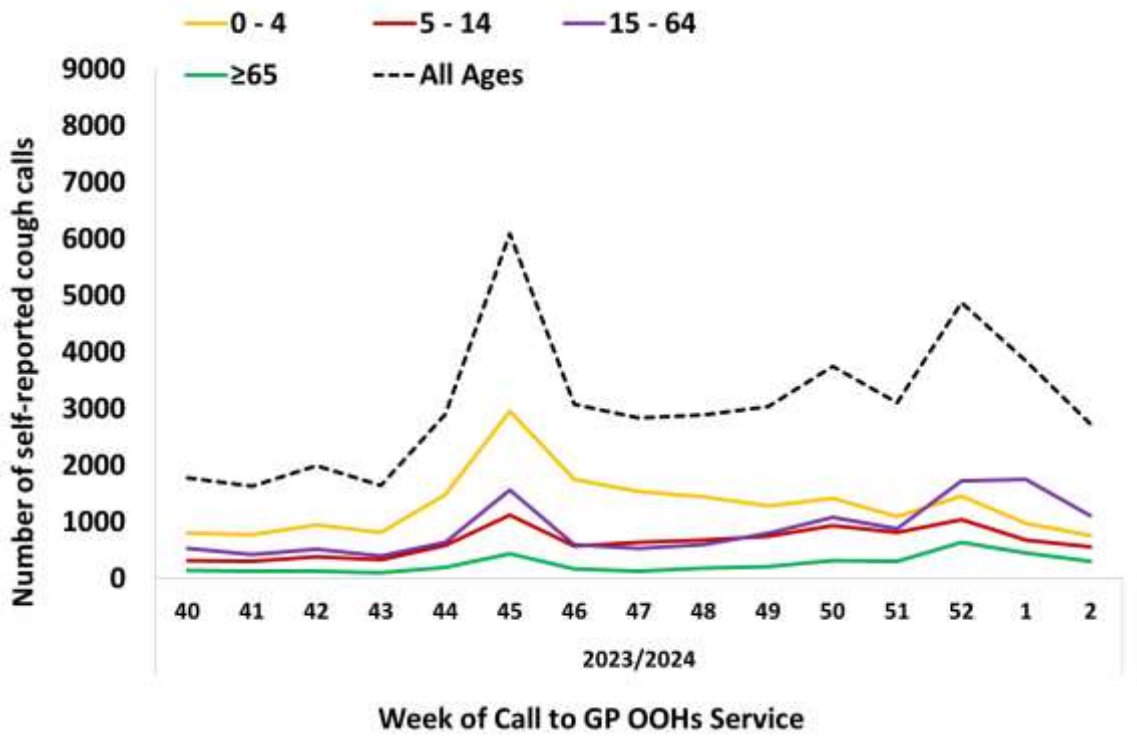

Figure 6: Number of self-reported **COUGH** calls for all ages and by age group to GP Out-of-Hours services by week of call for the 2023/2024 season. *Source: GP Out-Of-Hours services in Ireland (collated by HSE & ICGP).*

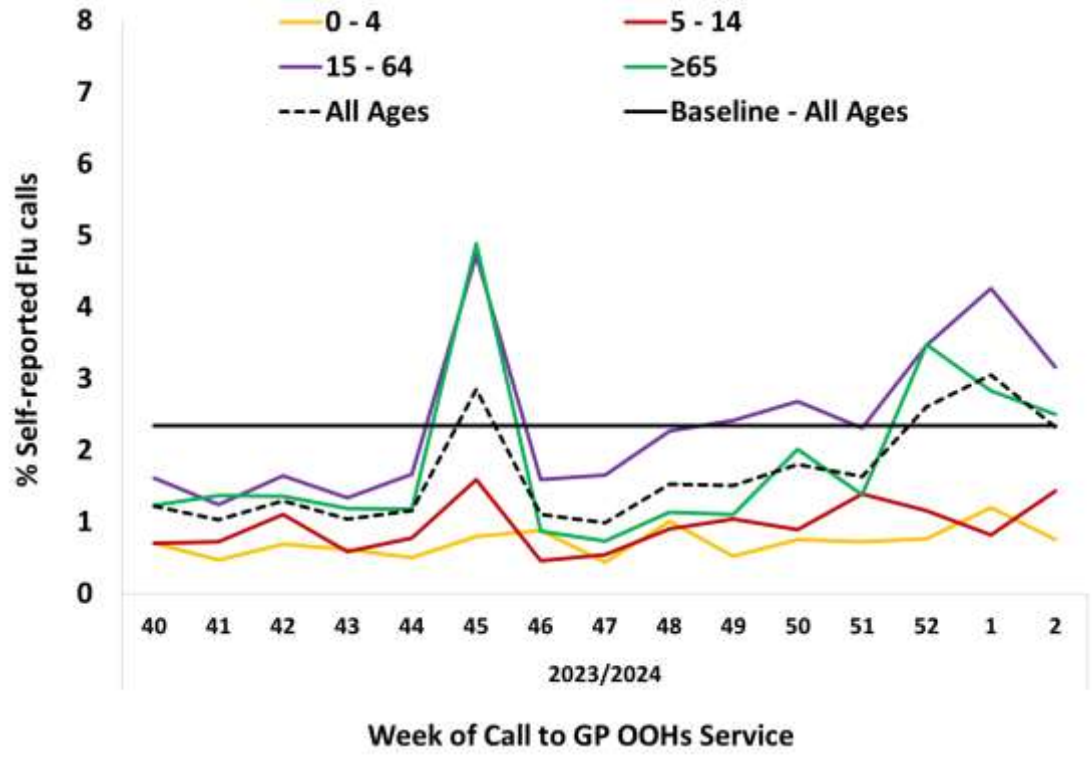

Figure 7: Percentage of self-reported **FLU** calls for all ages and by age group as a proportion of total calls to GP Out-of-Hours services by week of call for the 2023/2024 season. The baseline % flu calls for all ages calculated using the MEM method on historic data is shown. *Source: GP Out-Of-Hours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

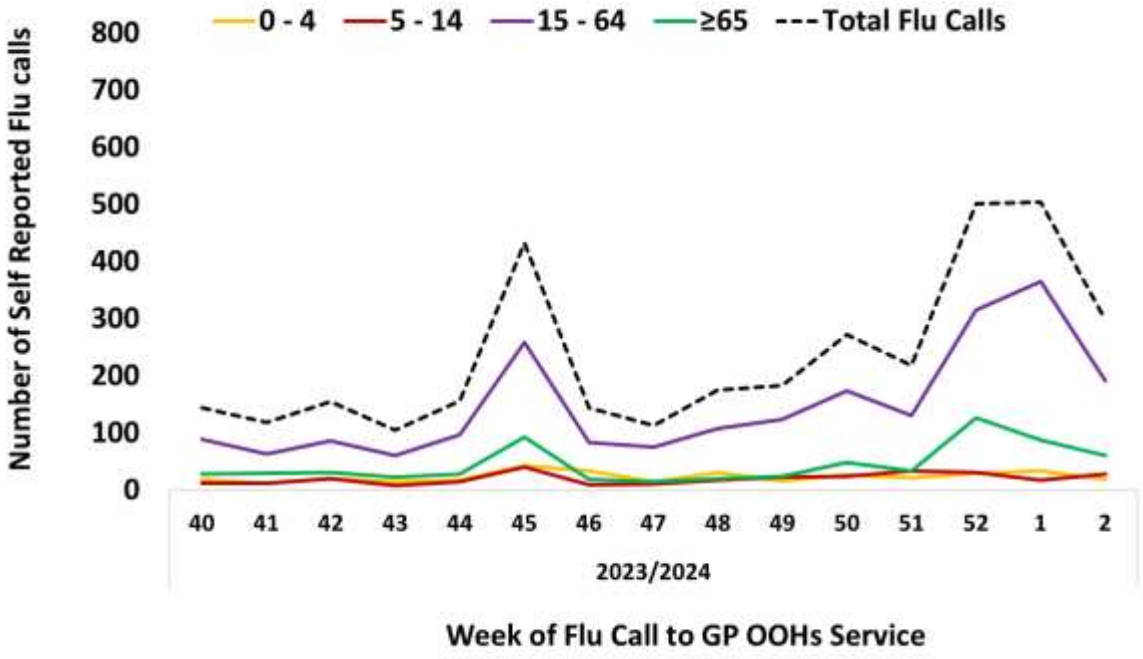

Figure 8: Number of self-reported **FLU** calls for all ages and by age group to GP Out-of-Hours services by week of call for the 2023/2024 season. *Source: GP Out-Of-Hours services in Ireland (collated by HSE & ICGP).*

4. Influenza & RSV notifications

Influenza and RSV case notifications are reported on Ireland's Computerised Infectious Disease Reporting System (CIDR), including all laboratory-confirmed influenza/RSV specimens reported from all laboratories testing for influenza/RSV.

- Influenza and RSV notifications are reported in the Weekly Infectious Disease Report for Ireland.
- 1448 laboratory confirmed influenza cases were notified during week 2 2024 (Table 6); corresponding to an overall notification rate of 28.1/100,000 population: 129 A(H3), 46 A(H1)pdm09, 1211 A (not subtyped) and 62 B. This is a decrease compared to 1628 cases notified during week 1 2024 (Figure 10).
- Age specific influenza notification rates were highest in those aged 65 years and older, at 67.6/100,000 population, followed by those aged 0 to 4 years at 56.9/100,000 during week 2 2024 (Figure 11).
- Influenza notification rates were highest in the West and Northwest health region at 51.6/100,000 population (Table 6) during week 2 2024, with notifications from this region accounting for 27% of all notifications (392/1448).
- RSV notifications continued to decline with 303 cases notified during week 2 2024, compared to 464 cases during week 1 2024 (Figure 12).
- Age specific notification rates for RSV were highest in those aged less than one year, at 140.1/100,000 population, followed by those aged 65 years and older at 13.5/100,000 (Figure 13). Notifications in those aged less than one year accounted for 27% (81/303) of all RSV notifications in week 2 2024.
- RSV notification rates were highest in the Mid-West health region at 8.7/100,000 (Table 7), followed by the West and North West at 8.4/100,000 population during week 2 2024.

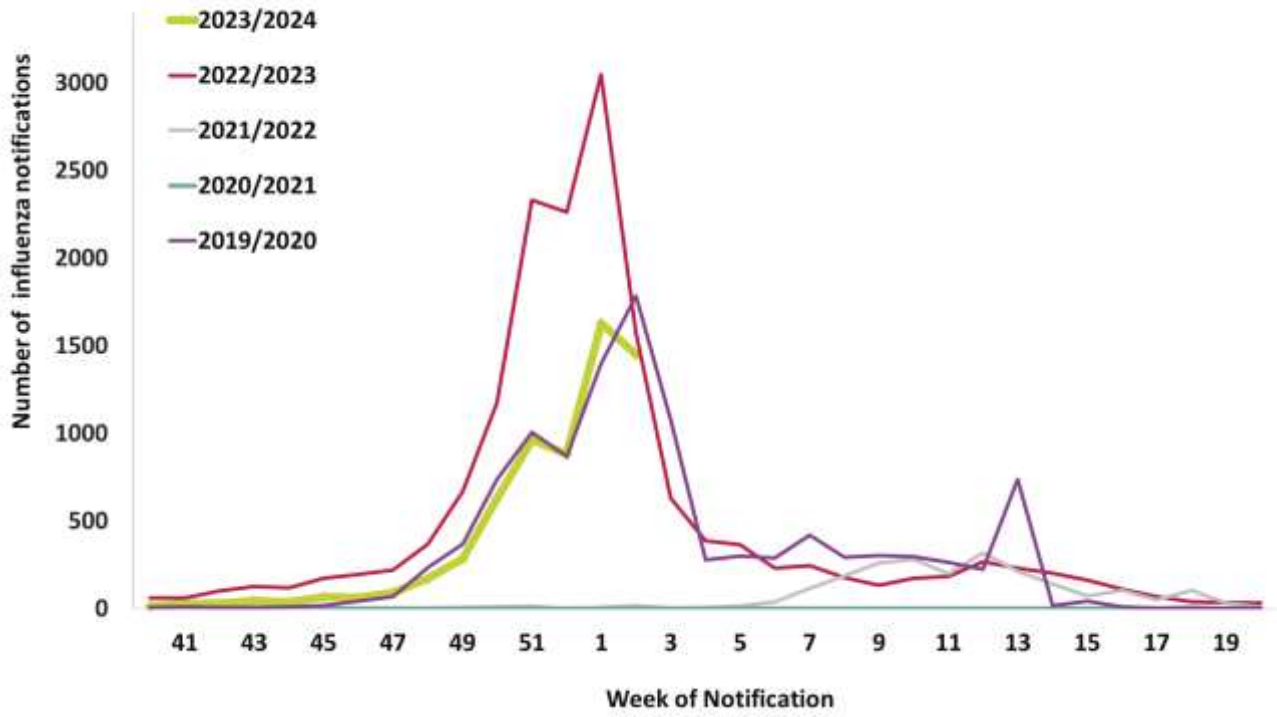

Figure 9: Number of laboratory confirmed **Influenza** notifications to HPSC by week of notification, 2019/2020 to 2023/2024 seasons. *Source: Ireland's Computerised Infectious Disease Reporting System*

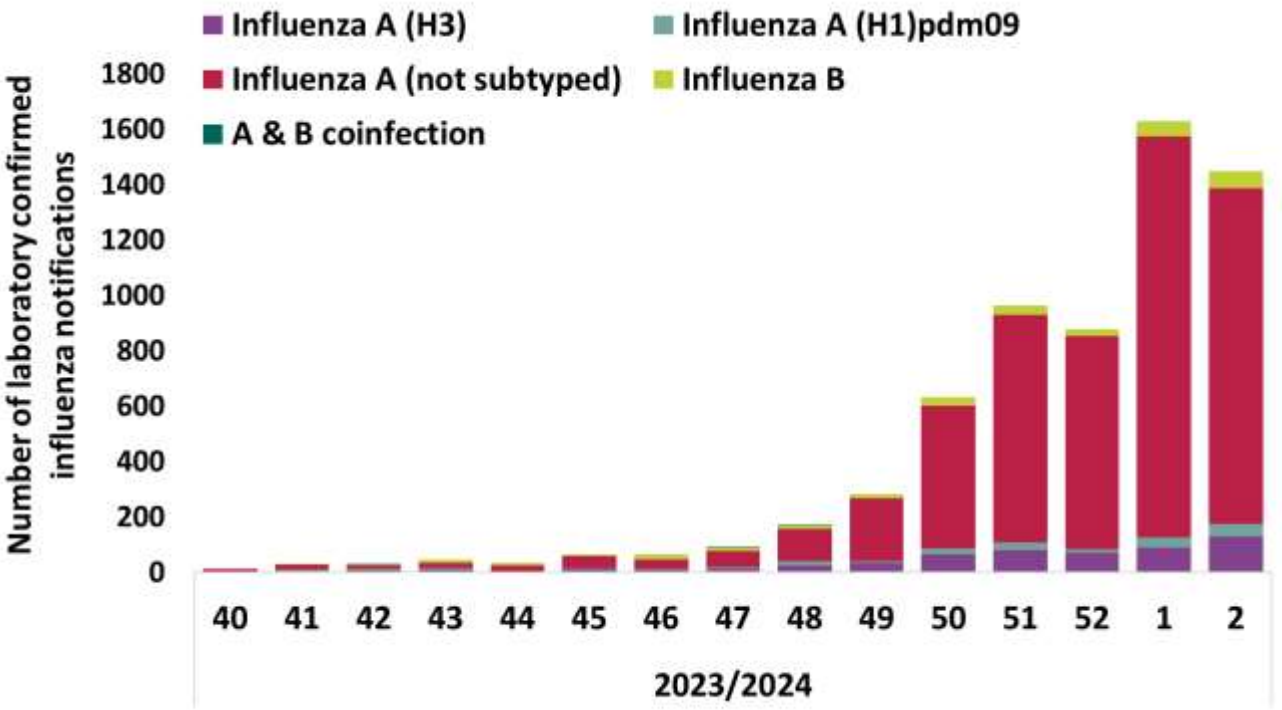

Figure 10: Number of laboratory confirmed **influenza** notifications by influenza type/subtype and week for the 2023/2024 season. *Source: Ireland's Computerised Infectious Disease Reporting System*

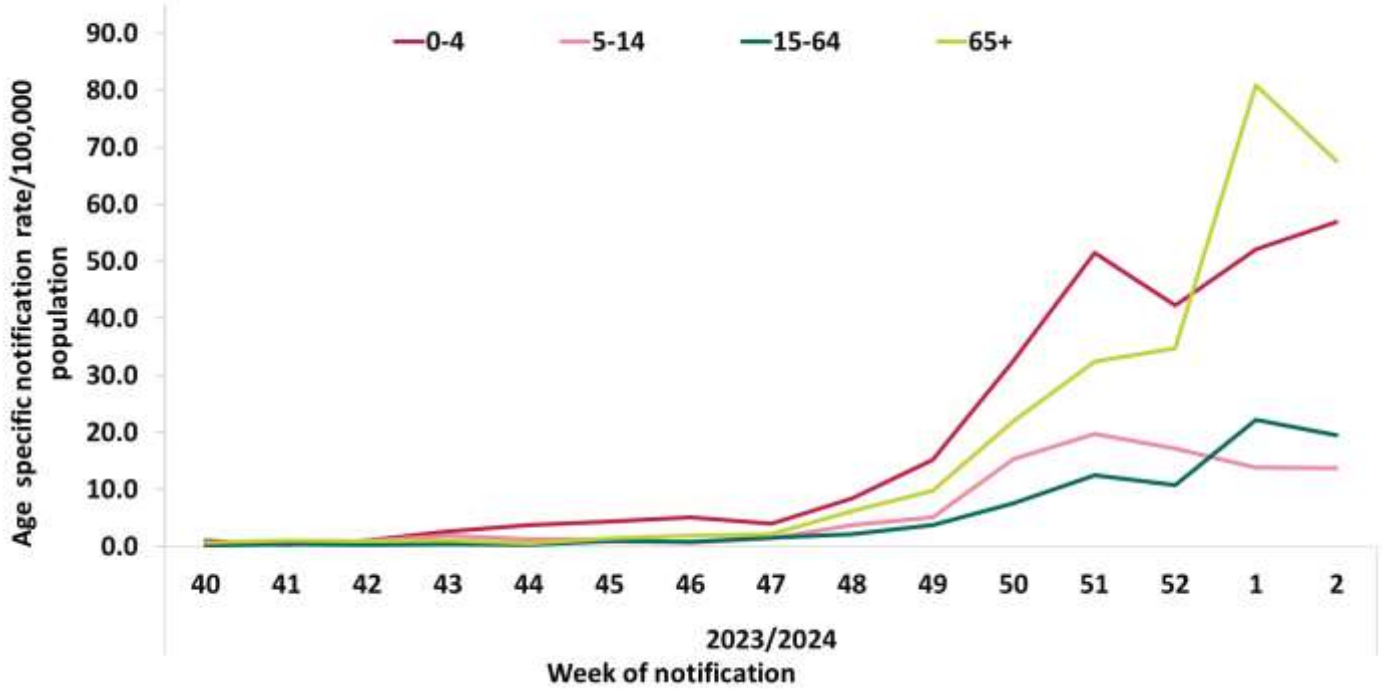

Figure 11: Age specific rates/100,000 population of laboratory confirmed **influenza** notifications to HPSC by week of notification for the 2023/2024 season. *Source: Ireland's Computerised Infectious Disease Reporting System.*

Table 6: Number and rate/100,000 population of laboratory confirmed **influenza** notifications by HSE Health Region for week 2 2024 and the 2023/2024 season to date. *Source: CIDR*

HSE Health Region	Week 2 2024		2023/2024 season (Week 40 2023 - Week 2 2024)	
	Number	Rate/100,000 population	Number	Rate/100,000 population
Dublin and North East	329	27.7	1144	96.4
Dublin and Midlands	290	26.9	1014	94.1
Dublin and South East	207	21.3	967	99.6
South West	170	23.0	1142	154.2
Mid West	59	14.3	282	68.3
West and North West	392	51.6	1821	239.7
Unknown	1		1	
Total	**1448**	**28.1**	**6371**	123.7

Table 7: Number and rate/100,000 population of laboratory confirmed **RSV** notifications by HSE Health Region for week 2 2024 and the 2023/2024 season to date. *Source: CIDR*

HSE Health Region	Week 2 2024		2023/2024 season (Week 40 2023 - Week 2 2024)	
	Number	Rate/100,000 population	Number	Rate/100,000 population
Dublin and North East	63	5.3	1364	114.9
Dublin and Midlands	65	6.0	1493	138.5
Dublin and South East	38	3.9	1028	105.9
South West	37	5.0	877	118.4
Mid West	36	8.7	557	134.8
West and North West	64	8.4	1730	227.7
Total	**303**	**5.9**	**7049**	136.9

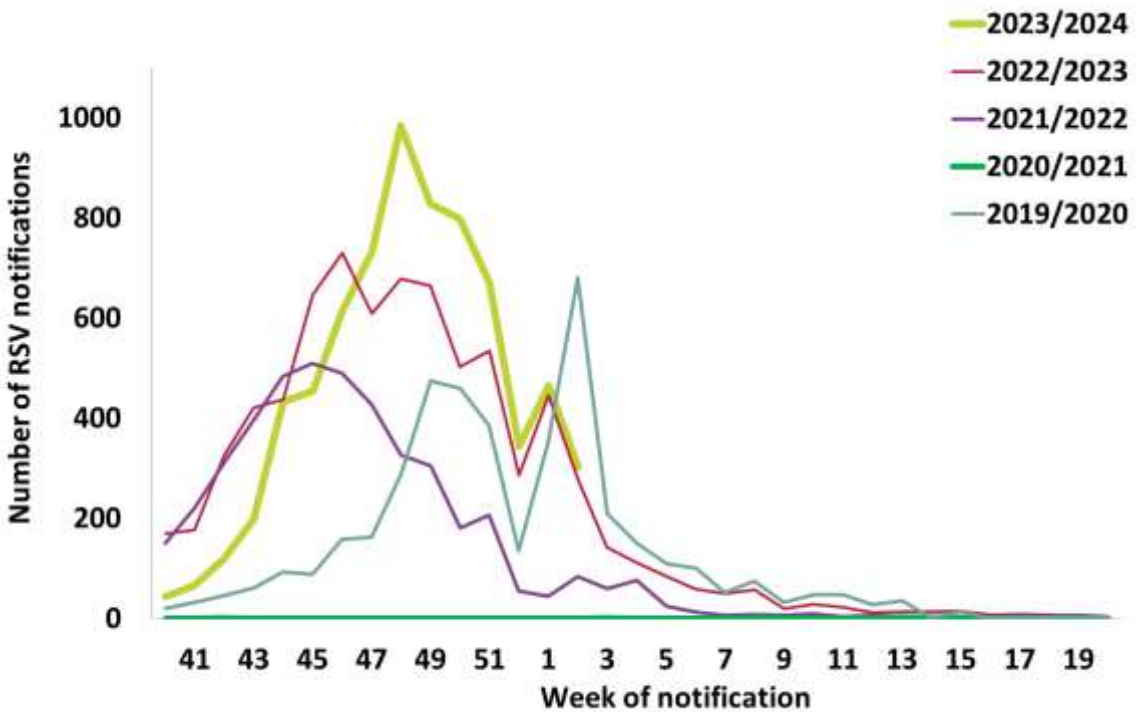

Figure 12: Number of laboratory confirmed **RSV** notifications to HPSC by week of notification, 2019/2020 to 2023/2024 seasons. *Source: Ireland's Computerised Infectious Disease Reporting System.*

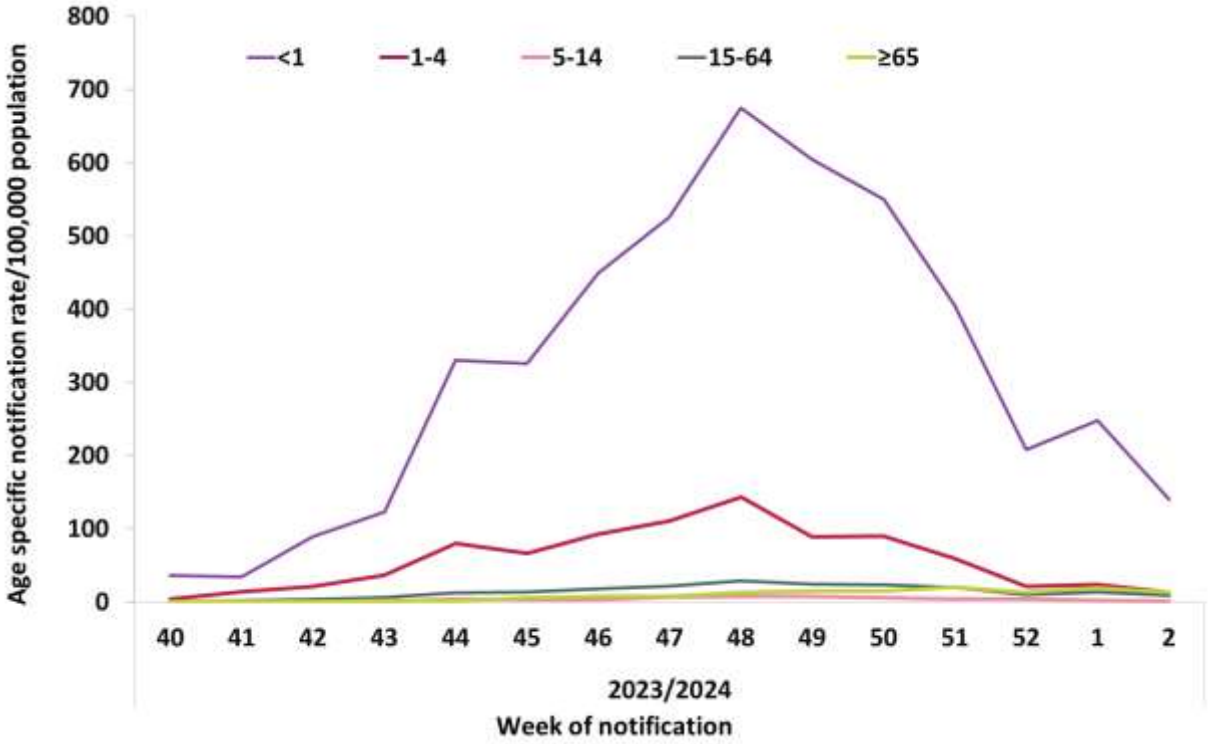

Figure 13: Age specific rates/100,000 population for laboratory confirmed **RSV** notifications to HPSC by week of notification for the 2023/2024 season. *Source: Ireland's Computerised Infectious Disease Reporting System.*

5. Hospitalisations

- During week 2 2024, the number of notified laboratory confirmed influenza hospital inpatients decreased to 305, compared to 432 in week 1 2024. Of hospitalised cases, 270 were positive for A (not subtyped), 19 A(H3), three A(H1)pdm09 and 13 B (Figure 15).
- During week 2 2024, the age specific influenza hospitalisation rate was highest in those aged ≥65 years (18.5/100,000 population) and those aged 0-4 years (12.5/100,000 population) (Figure 16). Almost half (47%, 144/305) of all influenza hospitalisations occurred in those aged 65 years and older (Table 8).
- During week 2 2024, 109 laboratory confirmed RSV hospitalised cases were notified, a decrease compared to 151 cases in week 1 2024 (Figure 17).
- The age specific RSV hospitalisation rate was highest in those aged less than one year (45/100,000 population) and those aged over 65 years (5.4/100,000 population) during week 2 2024 (Figure 18). Of the hospitalised RSV cases, 24% (26/109) were aged less than one year (Table 10).
- The number of laboratory confirmed influenza and RSV notifications by patient type and week for the 2023/2024 season are reported in Tables 9 and 11.

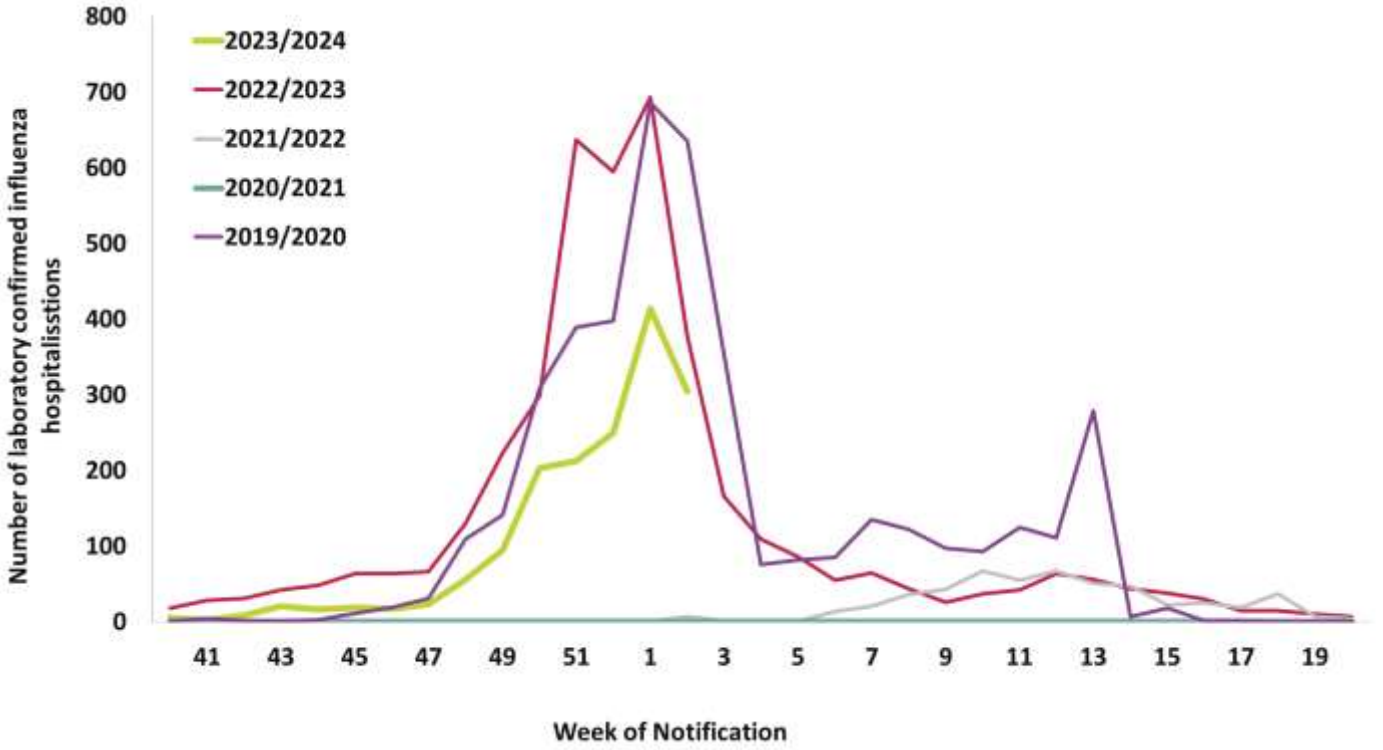

Figure 14: Number of notified **influenza** hospital inpatients, by week of notification and season, for the 2019/2020 to 2023/2024 seasons. *Source: Ireland's Computerised Infectious Disease Reporting System.*

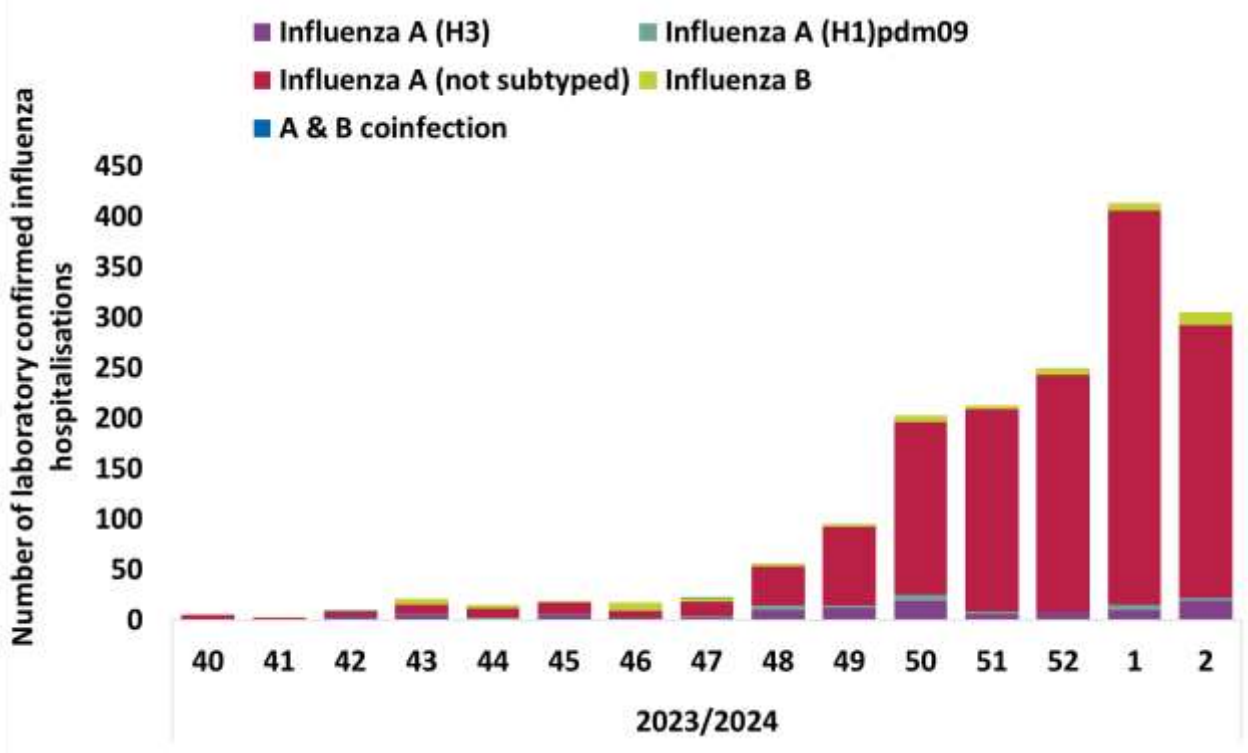

Figure 15: Number of notified laboratory confirmed **influenza** hospital inpatients by influenza type/subtype by week for the 2023/2024 season. *Source: Ireland's Computerised Infectious Disease Reporting System.*

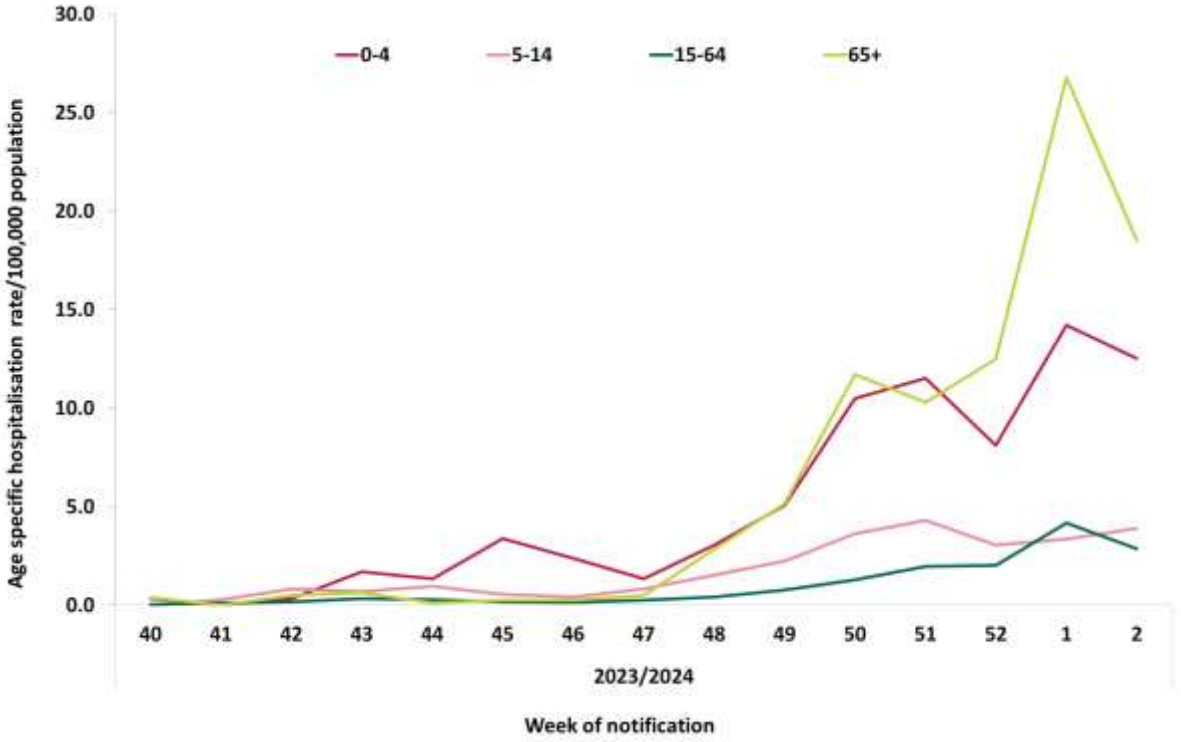

Figure 16: Age specific rates/100,000 population for laboratory confirmed **influenza** cases reported as **hospital inpatients** by week of notification for the 2023/2024 season. *Source: Ireland's Computerised Infectious Disease Reporting System.*

Table 8: Number, percentage and rate /100,000 population of notified laboratory-confirmed **influenza hospitalised cases notified** in week 2 2024 and the 2023/2024 season (week 40 2023 onwards). *Source: Ireland's Computerised infectious Disease Reporting System*

Age (years)	Hospitalised (Week 2)			Season to date (Week 40 2023 - Week 2 2024)		
	Number	% of all Hospitalisations	Rate/ 100,000 population	Number	% of all Hospitalisations	Rate/ 100,000 population
<1	15	4.9	26.0	47	2.8	81.3
1-4	22	7.2	9.3	180	10.9	75.8
5-14	28	9.2	3.9	190	11.5	26.5
15-24	12	3.9	1.9	64	3.9	9.9
25-34	20	6.6	3.2	93	5.6	14.8
35-44	20	6.6	2.5	116	7.0	14.6
45-54	18	5.9	2.5	84	5.1	11.8
55-64	26	8.5	4.5	141	8.5	24.3
≥65	144	47.2	18.5	738	44.6	95.1
Unknown	0		–	0		–
Total	**305**	**100**	**5.9**	**1653**	**100**	**285.1**

Table 9: Number of notified laboratory-confirmed **influenza** cases by patient type and week of notification 2023/2024 season (week 40 2023 onwards). *Source: Ireland's Computerised infectious Disease Reporting System*

	Patient Type							
	GP Patient	ED patient	Hospital Inpatient	Hospital Day Patient	Hospital Outpatient	Other	Unknown	Total
Week 2	62	820	305	18	55	32	156	**1448**
Week 1	98	817	432	14	74	28	161	**1624**
Week 52	56	456	240	11	32	16	67	**878**
Week 51	64	537	209	8	52	13	81	**964**
Week 50	27	311	203	5	35	5	45	**631**
Week 49	8	139	96	1	16	8	15	**283**
Week 48	16	64	55	1	11	4	19	**170**
Week 47	7	39	23	1	9	2	9	**90**
Week 46	8	28	17	0	5	1	5	**64**
Week 45	4	26	19	0	6	4	7	**66**
Week 44	0	15	16	1	1	0	3	**36**
Week 43	7	16	21	0	0	0	2	**46**
Week 42	6	9	9	0	1	0	3	**28**
Week 41	3	15	3	1	2	0	5	**29**
Week 40	0	6	5	0	3	0	0	**14**
Total	**366**	**3298**	**1653**	**61**	**302**	**113**	**578**	**6371**

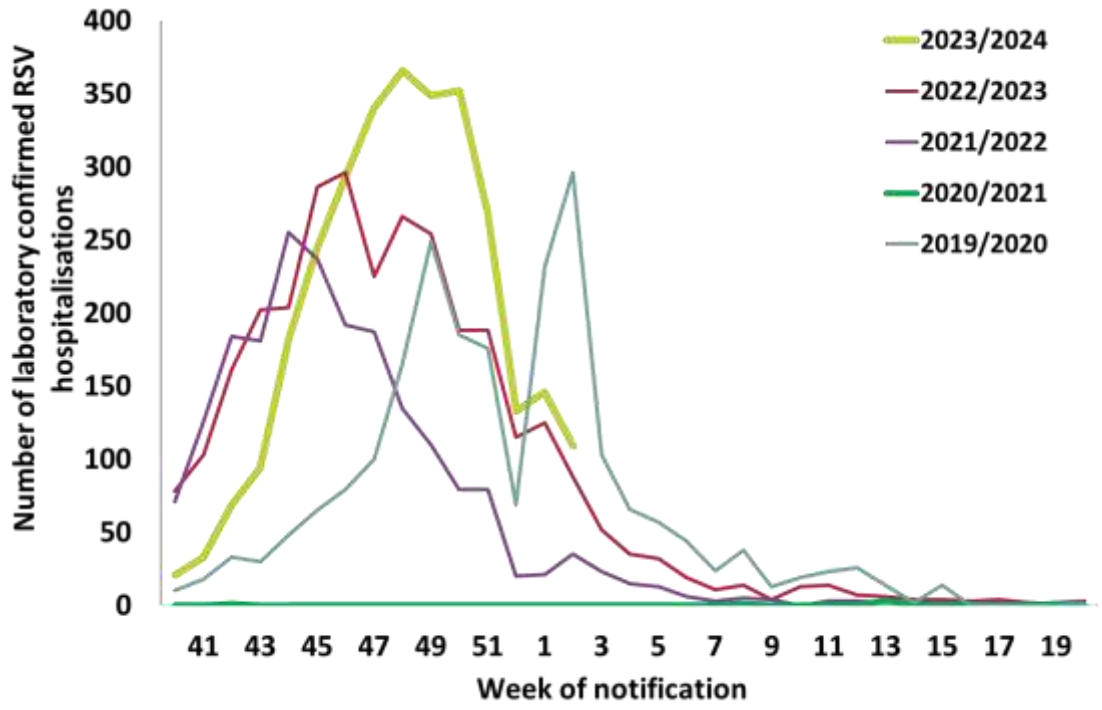

Figure 17: Number of notified **RSV** hospitalised cases notified, by week of notification and season, for the 2019/2020 to 2023/2024 seasons. *Source: Ireland's Computerised Infectious Disease Reporting System.*

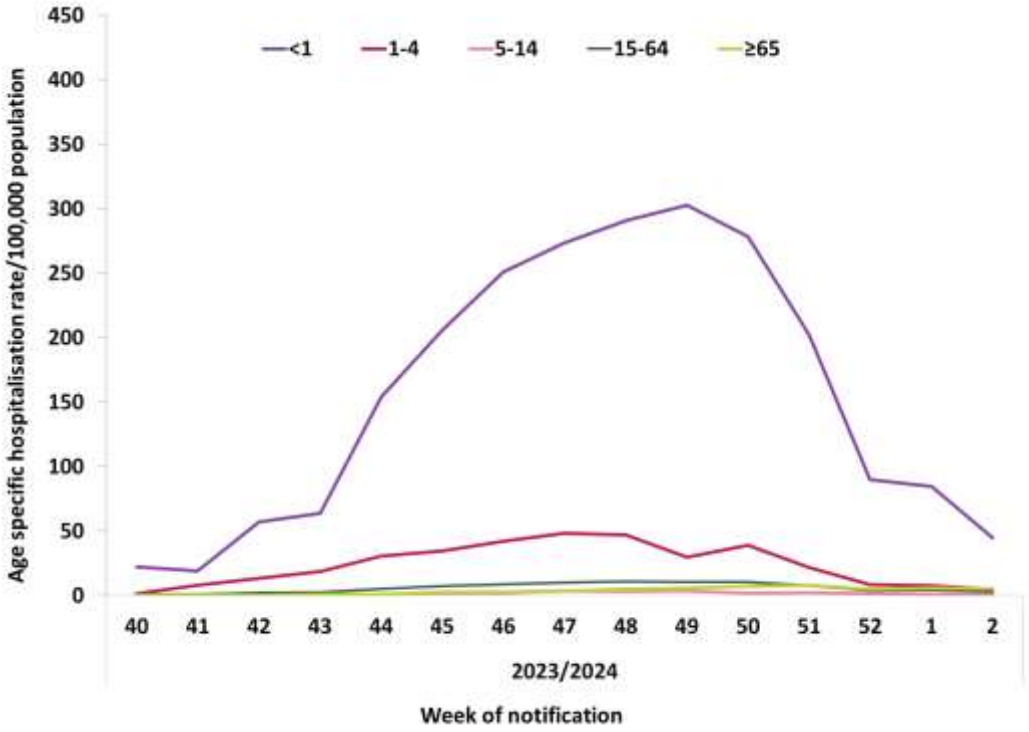

Figure 18: Age specific notification rates/100,000 population for laboratory confirmed **RSV** hospitalised cases notified by week of notification for the 2023/2024 season. *Source: Ireland's Computerised Infectious Disease Reporting System*

Table 10: Number, percentage and rate/100,000 population of notified laboratory-confirmed **RSV hospitalised cases notified** in week 2 2024 and the 2023/2024 season (week 40 2023 onwards). *Source: Ireland's Computerised infectious Disease Reporting System*

Age (years)	Hospitalised (Week 2 2024)			Season to date (Week 40 2023 - Week 2 2024)		
	Number	% of all Hospitalisations	Rate/ 100,000 population	Number	% of all Hospitalisations	Rate/ 100,000 population
<1	26	23.9	45.0	1356	45.1	2346.2
1-4	12	11.0	5.1	851	28.3	358.1
5-14	4	3.7	0.6	172	5.7	24.0
15-24	3	2.8	0.5	23	0.8	3.6
25-34	4	3.7	0.6	29	1.0	4.6
35-44	0	.0	0.0	33	1.1	4.2
45-54	5	4.6	0.7	44	1.5	6.2
55-64	13	11.9	2.2	79	2.6	13.6
≥65	42	38.5	5.4	419	13.9	54.0
Unknown	0		–	0		–
Total	**109**	**100**	**2.1**	**3006**	**100**	**58.4**

Table 11: Number of notified laboratory confirmed **RSV** cases by patient type and week of notification, 2023/2024 season (week 40 2023 onwards). *Source: Ireland's Computerised infectious Disease Reporting System*

	Patient Type							
	GP Patient	ED patient	Hospital Inpatient	Hospital Day Patient	Hospital Outpatient	Other	Unknown	Total
Week 2	13	110	109	6	11	14	40	**303**
Week 1	17	146	151	9	16	17	108	**464**
Week 52	6	140	133	7	5	17	36	**344**
Week 51	32	266	270	8	13	9	73	**671**
Week 50	33	327	347	6	33	13	39	**798**
Week 49	26	346	350	8	19	9	67	**825**
Week 48	20	489	366	11	16	11	72	**985**
Week 47	14	285	341	3	18	17	52	**730**
Week 46	7	260	294	7	9	1	37	**615**
Week 45	7	167	245	5	6	2	22	**454**
Week 44	6	216	183	4	11	3	10	**433**
Week 43	2	74	94	0	4	2	21	**197**
Week 42	2	32	69	2	1	6	8	**120**
Week 41	1	23	33	1	1	1	7	**67**
Week 40	1	15	21	1	2	0	3	**43**
Total	**187**	**2896**	**3006**	**78**	**165**	**122**	**595**	**7049**

6. Intensive Care Surveillance

The Intensive Care Society of Ireland (ICSI) and the HSE Critical Care Programme conducts enhanced surveillance (established during the 2009 pandemic), on all intensive care patients with laboratory confirmed influenza. HPSC processes and reports on this information on behalf of the regional Directors of Public Health/Medical Officers of Health.

- There were seven laboratory confirmed influenza cases (A (not subtyped)) admitted to intensive care units (ICU) and notified to HPSC during week 2 2024.
- Forty-two influenza (34 A (not subtyped), six A(H3) and two A(H1)pdm09)) ICU cases have been notified for the season to date (Week 40 2023-Week 2 2024).

Table 12: Cumulative number and age specific rate/100,000 population of laboratory confirmed notified influenza hospitalised and intensive care cases, week 40 2023 – week 2 2024. *Source: Ireland's Computerised infectious Disease Reporting System*

Age (years)	Hospitalised		Admitted to ICU	
	Number	Age specific rate/100,000 population	Number	Age specific rate/100,000 population
<1	47	81.3	1	1.7
1-4	184	77.4	0	0.0
5-14	190	26.5	1	0.1
15-24	64	9.9	2	0.3
25-34	93	14.8	3	0.5
35-44	117	18.6	3	0.4
45-54	81	11.4	5	0.7
55-64	135	23.3	8	1.4
≥65	734	94.5	19	2.4
Unknown	0	–	0	–
Total	**1645**	**31.9**	**42**	**0.8**

7. Mortality Surveillance

Influenza deaths include all deaths in notified influenza cases. HPSC receives daily mortality data from the General Register Office (GRO) on all deaths from all causes registered in Ireland. These data have been used to monitor excess all-cause and influenza and pneumonia mortality as part of the influenza surveillance system and the European Mortality Monitoring Project. Excess mortality analyses are corrected for reporting delays with the standardised EuroMOMO algorithm. Due to delays in death registrations in Ireland, excess mortality data included in this report are reported with a one-week lag time. These data are provisional due to the time delay in deaths' registration in Ireland. http://www.euromomo.eu/

- There were no deaths in notified influenza cases notified to HPSC during week 2 2024.
- 24 influenza A deaths (22 A (not-subtyped), one A(H3) and one A(H1)pdm09) have been notified for the season to date (weeks 40 2023-2 2024).
- There was no excess all-cause mortality for the entire population reported for week 1 2024.

8. Outbreak Surveillance

In this surveillance report, ARI outbreaks refer to outbreaks of acute respiratory infection caused by pathogens other than influenza, SARS-CoV-2 or RSV. 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/

- During week 2 2024, 19 influenza outbreaks (nine in nursing homes, eight in acute hospitals and two in community hospitals/long-stay units) were notified to HPSC. (Tables 13 & 14).
- There were also two RSV outbreaks (one in a community hospitals/long-stay unit and one in a residential institution) and no other ARI (caused by pathogens other than influenza, SARS-CoV-2, or RSV) outbreaks notified to HPSC during week 2 2024.
- There have been 131 ARI/influenza/RSV (excluding COVID-19) outbreaks notified to HPSC to date this season, comprising 81 influenza outbreaks, 26 RSV outbreaks and 24 other ARI outbreaks.

Table 13: Summary of influenza, RSV and ARI (influenza/RSV/SARS-CoV-2 negative) outbreaks by HSE Health Region during week 2 2024 and the 2023/2024 season (week 40 2023 – week 2 2024) *Source: CIDR*

HSE Health Region	Influenza		RSV		ARI		Total	
	Week 2	2023/2024	Week 2	2023/2024	Week 2	2023/2024	Week 2	2023/2024
Dublin and North East	2	5	0	6	0	11	2	22
Dublin and Midlands	2	8	1	10	0	0	3	18
Dubin and South East	1	13	0	2	0	6	1	21
South West	1	16	0	0	0	1	1	17
Mid West	1	3	0	2	0	0	1	5
West and North West	12	36	1	6	0	6	13	48
Unknown	0	0	0	0	0	0	0	0
Total	**19**	**81**	**2**	**26**	**0**	**24**	**21**	**131**

Table 14: Summary of influenza, RSV and ARI (influenza/RSV/SARS-CoV-2 negative) outbreaks by outbreak setting during week 2 2024 and the 2023/2024 season (week 40 2023 – week 2 2024). *Source: CIDR*

Setting	Influenza		RSV		ARI		Total	
	Week 2	2023/2024	Week 2	2023/2024	Week 2	2023/2024	Week 2	2023/2024
Community hospital/Long-stay unit	2	8	1	1	0	3	3	12
Nursing Home	9	28	0	6	0	15	9	49
Hospital	8	25	0	10	0	0	8	35
Residential Institution	0	12	1	4	0	3	1	19
Childcare facility	0	0	0	2	0	0	0	2
Other settings	0	8	0	3	0	3	2	14
Total	**19**	**81**	**2**	**26**	**0**	**24**	**23**	**131**

9. International Summary

According to European Respiratory Virus Surveillance Summary, in the WHO European region during week 1 2024 (including data up to 07/01/2024), influenza activity is increasing; all three influenza virus types/subtypes - A(H1)pdm09, A(H3) and B - are co-circulating. Of 22 countries reporting the geographical spread of influenza in the WHO European region, 14 reported widespread activity, two reported regional, three reported local and three reported sporadic activity. RSV activity began to increase around week 36 2023. Countries continue to report a mix of increasing and decreasing trends for RSV activity and severity indicators. The increase appears to have occurred around four weeks later than last year.

As of 24th December 2023, WHO has reported that globally influenza detections increased due to increases in parts of the temperate Northern hemisphere, including parts of Europe and Central Asia, North America, and Eastern and Western Asia. In the countries of North America, influenza detections increased and influenza activity was above the baseline threshold. Influenza A(H1N1)pdm09 viruses predominated among the detections. In East Asia, influenza activity continued to increase mainly due to activity in China and the Republic of Korea. Influenza activity remained moderate in the Caribbean with detections of predominantly influenza A(H1N1)pdm09 and remained low overall in Central America with detections of predominantly B/Victoria lineage viruses. In tropical Africa, influenza detections decreased in Western Africa but increased in Eastern and Middle Africa.

See ECDC and WHO influenza surveillance reports for further information.

11. WHO recommendations on the composition of influenza virus vaccines

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

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

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

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

European respiratory virus surveillance summary	https://erviss.org/
Europe – ECDC	http://ecdc.europa.eu/
UK Health Security Agency	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

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, Adele McKenna, Nancy Somi, Karen O'Reilly, Amy Griffin, Pamella Lima, Maureen O'Leary, Lisa Domegan and Joan O'Donnell. HPSC wishes to thank the sentinel GPs, the ICGP, NVRL, Departments of Public Health, ICSI and HSE-Healthlink for providing data for this report.