Influenza, RSV and Other Respiratory Viruses Surveillance Report
Week 4 2024 (22nd – 28th 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 4 2024

Influenza activity remained at high levels during week 4 2024, with sentinel GP influenza positivity at high levels. Influenza A(H3) viruses accounted 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.

- **Influenza-like illness (ILI):** The sentinel GP influenza-like illness (ILI) consultation rate was 13.6 per 100,000 population during week 4 2024 which is below the Irish baseline threshold (18.1/100,000) and below expected levels this season. ILI age specific rates were below the age specific baseline for all age groups during week 4 2024.
- **National Virus Reference Laboratory (NVRL):** Of 178 sentinel GP ARI specimens tested and reported by the NVRL during week 3 2024, 69 (38.8%) were positive for influenza (41 A(H3), 24 A(H1)pdm09, and four influenza B), four (2.2%) RSV, seven (3.9%) SARS-CoV-2, and 21 (11.8%) rhino/enterovirus.
- Of 273 non-sentinel respiratory specimens tested and reported by the NVRL during week 4 2024, 73 (26.7%) were positive for influenza (54 A(H3), 17 A(H1)pdm09, one A (not subtyped) and one influenza B), 33 (12.1%) SARS-CoV-2, 10 (3.7%) RSV and 12 (4.4%) rhino/enterovirus.
- **GP Out of hours (OOHs):** Cough calls comprised 22 (3143/14,344) of all reported GP OOHs calls during week 4 2024, which is above the baseline threshold of 10.8%. Thirty-one percent (986/3143) of cough calls were in those aged 0-4 years. Flu calls comprised 1.8% (263/14344) of all calls in week 4 2024, which is just below the baseline threshold level (2.3%). The majority (64%; 169/263) of all flu calls were in those aged 15-64 years.
- **Influenza notifications:** 1,562 laboratory confirmed influenza cases were notified during week 4 2024: 134 influenza A (H3), 80 A(H1)pdm09, 1,263 influenza A (not subtyped), 84 influenza B and one influenza A and B coinfection. This is an increase compared to 1287 cases notified during week 3 2024. The highest burden of notifications occurred in those aged 65 years and older at 32% (494/1562) of all influenza notifications in week 4 2024.
- **RSV notifications:** 155 RSV cases were notified during week 4 2024, a decrease compared to 212 cases during week 3 2024. Age specific rates were highest in those aged less than one year. The highest burden of notifications occurred in those aged 65 years and older at 50% (78/155) of all RSV notifications in week 4 2024.
- **Hospitalisations:** 383 laboratory confirmed influenza hospitalised cases were notified in week 4 2024, compared to 338 in week 3 2024. Of the hospitalised cases during week 4 2024, 343 were positive for influenza A (not subtyped), 19 A(H3), six A(H1)pdm09, 14 influenza B and one influenza A and B coinfection. Fifty laboratory confirmed RSV hospitalised cases were notified in week 4 2024, compared to 67 cases in week 3 2024.
- **Intensive care admissions:** 10 laboratory confirmed influenza cases: eight influenza A (not subtyped), one A(H3) and one A(H1)pdm09 were admitted to intensive care unit (ICU) and notified to HPSC during week 4 2024. Sixty-seven influenza ICU cases (13 A(H3), four A(H1)pdm09 and 50 A (not subtyped) have been notified during weeks 40 2023 – week 4 2024.
- **Mortality:** Two deaths in notified influenza cases were reported to HPSC during week 4 2024. 48 deaths were reported for the season to date – 39 influenza A (not-subtyped), six A(H3) and three A(H1)pdm09.
- **Outbreaks:** During week 4 2024, 33 influenza outbreaks (11 acute hospitals, 10 nursing homes, four residential institutions, three community long stay unit, one childcare facility and four in other settings) and six RSV outbreaks (five nursing homes and one community hospital).
- **International:** In the EU/EEA during week 4 2024, while there is variation across 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 4 2024, 109 sentinel GP influenza-like illness (ILI) consultations were reported from the Irish sentinel GP network, corresponding to an ILI consultation rate of 13.6 per 100,000 population which is below the sentinel GP ILI baseline threshold (18.1/100,000 population) and below expected levels this season. This is compared to an updated rate of 17 per 100,000 population during week 3 2024 (Figure 1).
- Out of the 96 GP practices in the Irish sentinel GP network, 91 reported clinical consultations data during week 4 2024.
- Age specific ILI consultation rates were below the age specific baseline thresholds in all age groups during week 4 2024.
- ILI age specific rates were highest in those aged 5-14 years (20.6/100,000) during week 4 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. The age specific baseline threshold for those aged <15 is 17.1/100,000, for those aged 15-64 is 12.6/100,000 and for those aged ≥65 years is 11.6/100,000.

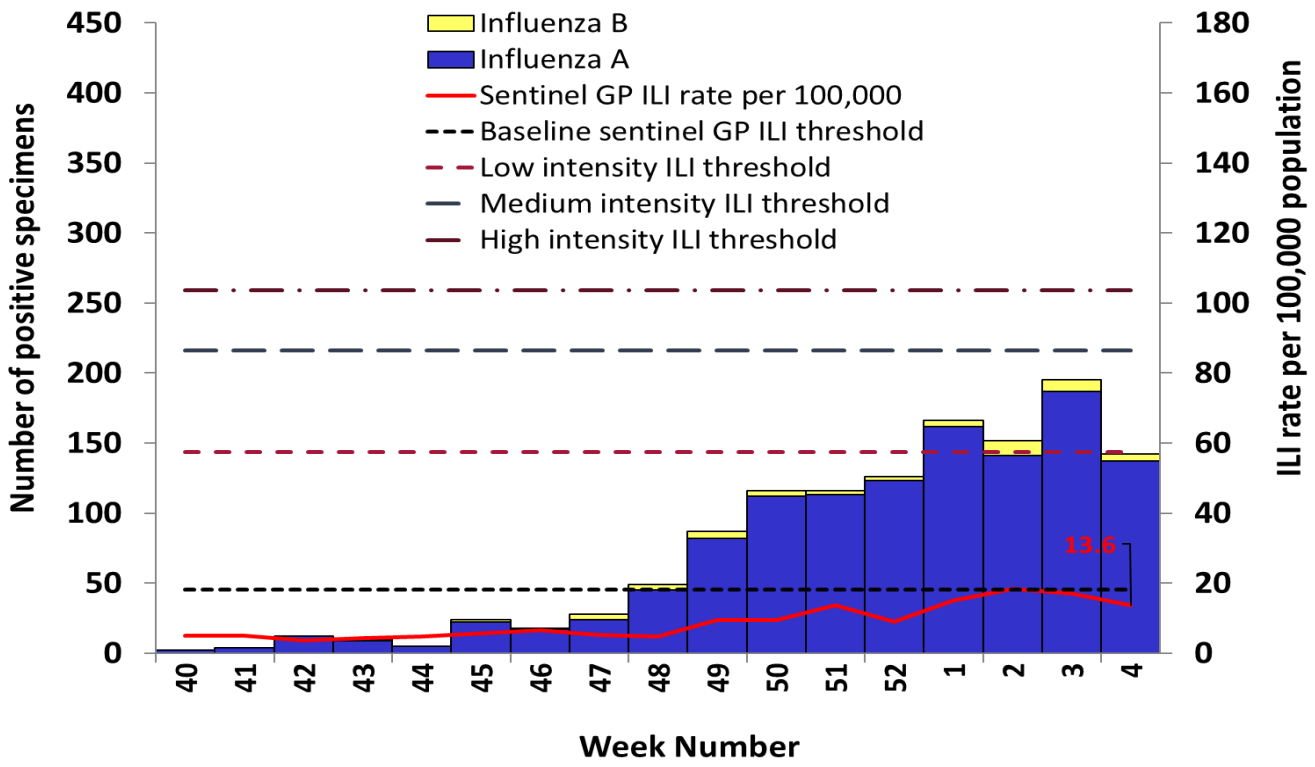

Figure 1: Sentinel GP **Influenza-like illness (ILI)** consultation rates per 100,000 population, baseline, low, medium and high intensity ILI thresholds and number of positive influenza A and B specimens tested by the NVRL, by influenza week for the 2023/2024 season. *Source: ICGP and NVRL*

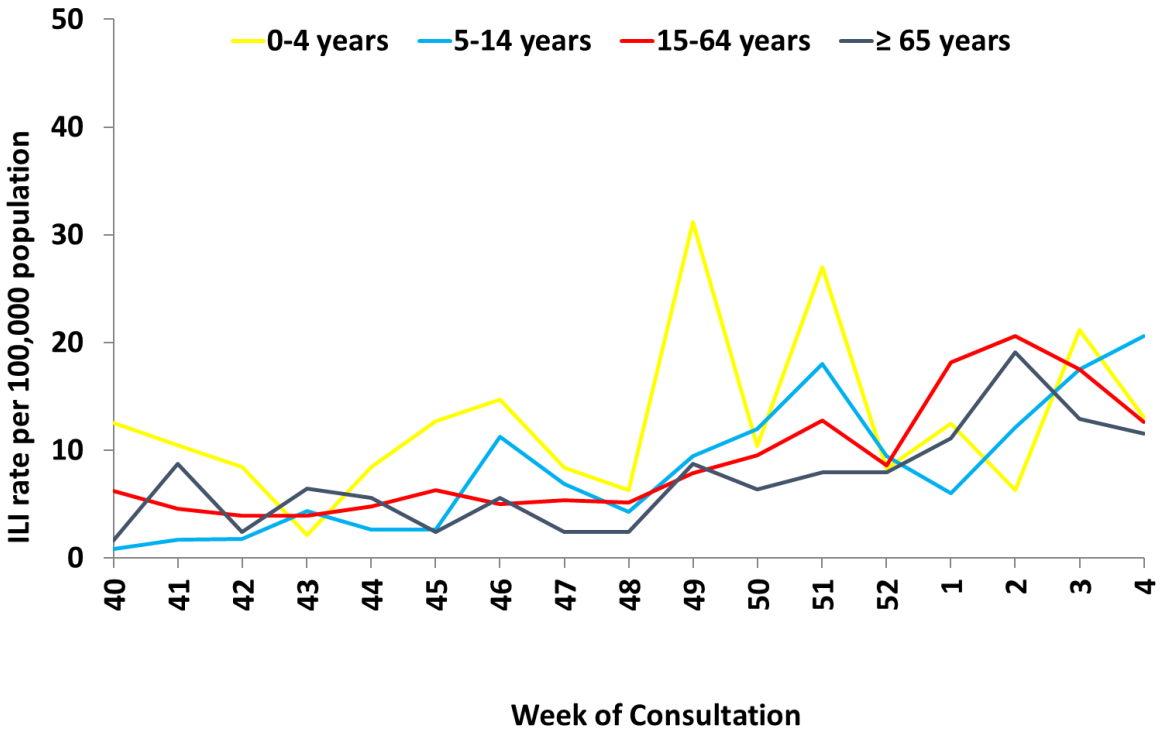

Figure 2: Age specific sentinel GP **ILI consultation** rate per 100,000 population by week (week 40 2023 to week 4 2024). *Source: ICGP.*

Table 1: Age specific sentinel GP **ILI consultation** rate per 100,000 population by week (week 40 2023 to week 4 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	3	4
All Ages	5.1	5.1	3.6	4.3	4.8	5.6	6.5	5.3	4.7	9.5	9.4	13.7	9.1	15.1	18.4	17.0	13.6
<15 yrs	4.0	4.0	3.4	3.5	4.0	5.2	11.4	6.8	4.5	14.7	10.7	19.2	8.5	7.4	9.7	17.3	17.1
15-64 yrs	6.2	4.6	3.9	3.9	4.8	6.3	5.0	5.3	5.1	7.9	9.5	12.8	8.6	18.1	20.6	17.5	12.6
≥65 yrs	1.6	8.7	2.4	6.5	5.6	2.4	5.6	2.4	2.4	8.7	6.3	7.9	7.9	11.1	19.1	12.9	11.6
Reporting practices (N=96)	93	94	93	92	93	93	94	96	96	97	97	97	97	96	95	95	91

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 4 2024, of 178 sentinel GP ARI specimens tested and reported by the NVRL, 69 (38.8%) were positive for influenza (41 A(H3), 24 A(H1)pdm09 and four influenza B), four (2.2%) for RSV, seven (3.9%) for SARS-CoV-2, and 21 (11.8%) for rhino/enterovirus.
- In comparison during week 3 2024, of 227 sentinel GP ARI specimens tested and reported by the NVRL, 86 (37.9%) were positive for influenza (52 A(H3), 23 A(H1)pdm09, five A (not subtyped) and six B), nine (4%) for RSV, 11 (4.8%) for SARS-CoV-2, and 15 (6.6%) for rhino/enterovirus.
- For the 2023/2024 season to date (week 40 2023 to week 4 2024), of 2,562 sentinel GP ARI specimens tested and reported by the NVRL, 448 (17.5%) were positive for influenza, 247 (9.6%) for RSV, 187 (7.3%) for SARS-CoV-2, and 428 (16.7%) for rhino/enterovirus (Table 4).
- During week 4 2024, of 273 non-sentinel respiratory specimens tested and reported by the NVRL, 73 (26.7%) were positive for influenza (54 A(H3), 17 A(H1)pdm09, one A (not subtyped) and one influenza B), 33 (12.1%) for SARS-CoV-2, 10 (3.7%) for RSV and 12 (4.4%) for rhino/enterovirus.
- During week 3 2024, of 367 non-sentinel respiratory specimens tested, 109 (29.7%) were positive for influenza (69 A(H3), 34 A(H1)pdm09, four A (not subtyped), and two B), 38 (10.4%) for SARS-CoV-2, 14 (3.8%) for RSV, and 26 (7.1%) for rhino/enterovirus (Figure 3b).
- For the 2023/2024 season to date (week 40 2023 to week 4 2024), of 3,996 non-sentinel respiratory specimens tested and reported by the NVRL, 804 (20.1%) were positive for influenza, 260 (6.5%) for RSV, 314 (7.9%) for SARS-CoV-2, and 428 (10.7%) for rhino/enterovirus (Table 5).
- Other respiratory viruses (ORVs) are being detected at lower levels (Figure 3a and 3b).
- Of 1,252 sentinel GP ARI specimens and non-sentinel specimens positive for influenza and reported by the NVRL during the 2023/2024 season, 80 (6.4%) were coinfected with other viruses.

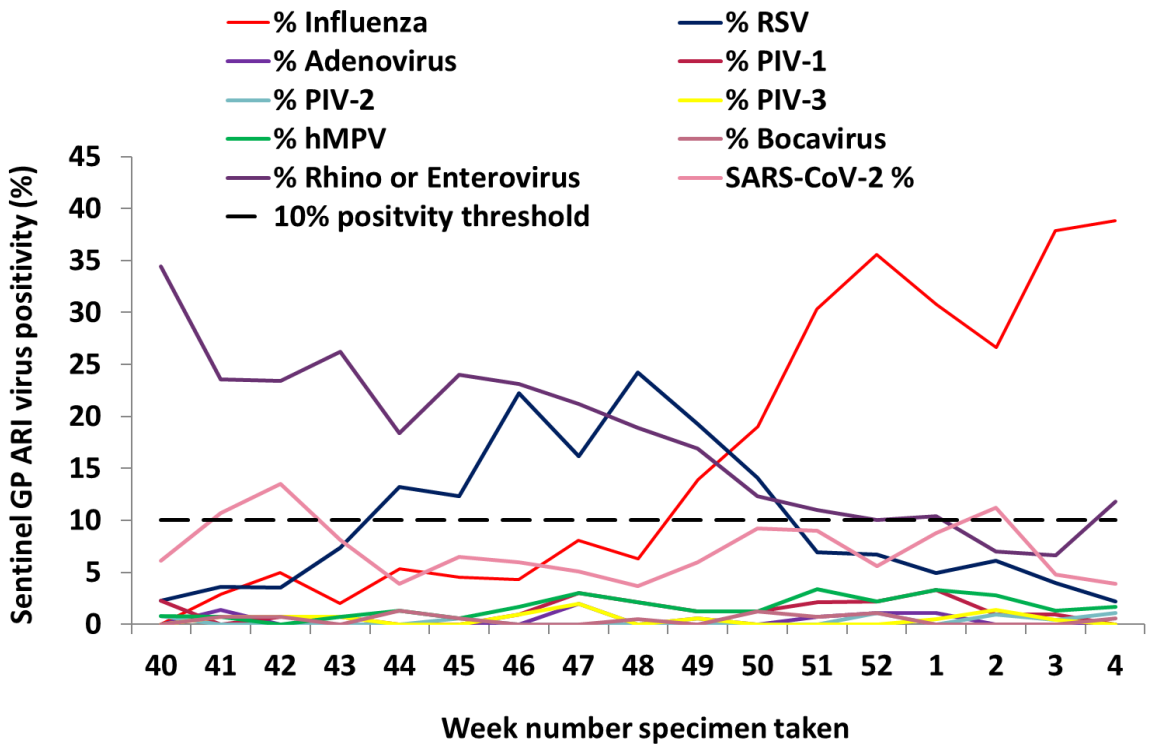

Figure 3a: Percentage positive results for **sentinel GP ARI** specimens tested by the NVRL for influenza, SARS-CoV-2, RSV and other respiratory viruses by week specimen was taken for the 2023/2024 season. *Source: NVRL*

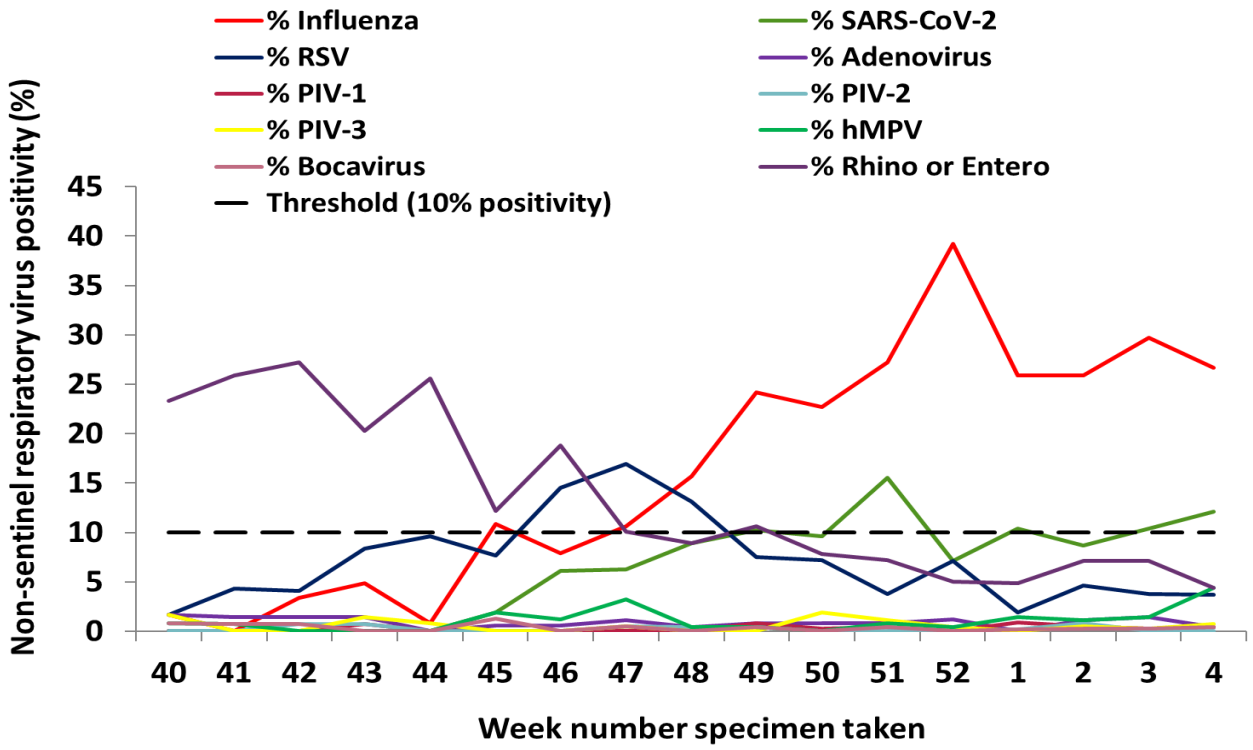

Figure 3b: Percentage positive results for **non-sentinel respiratory** specimens tested by the NVRL for influenza, SARS-CoV-2, RSV and other respiratory viruses by week specimen was taken for the 2023/2024 season. *Source: NVRL*

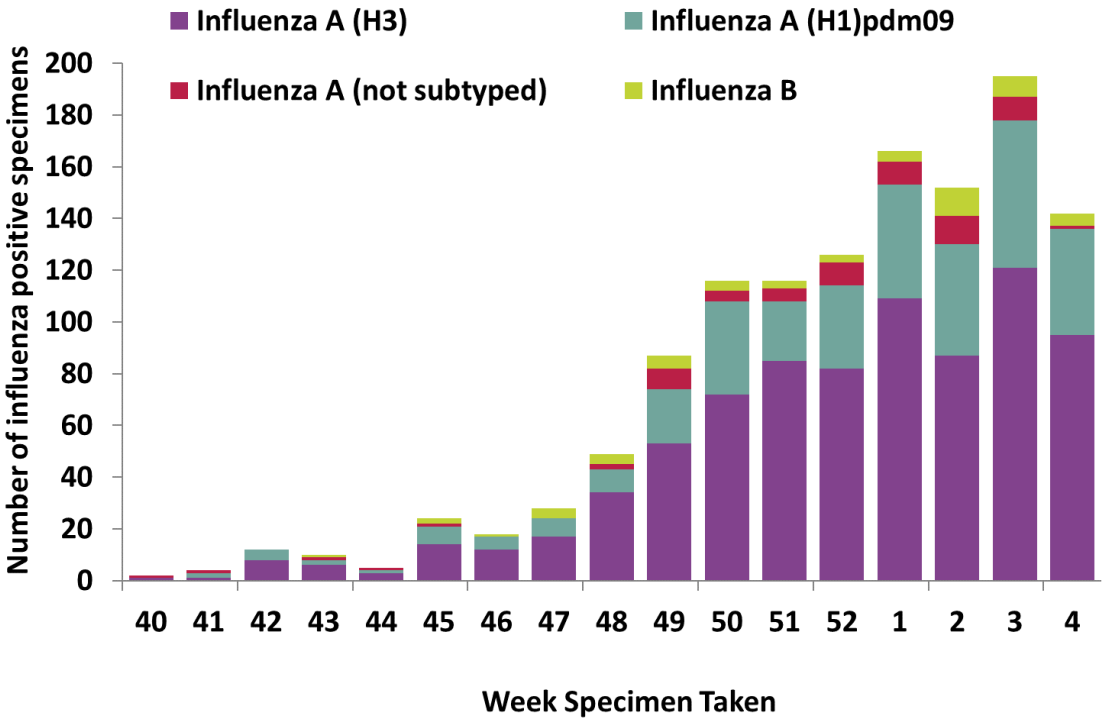

Figure 4: Number of positive **influenza** specimens (from sentinel GP ARI and non-sentinel respiratory sources) tested by the NVRL by influenza type/subtype and by week specimen was taken for the 2023/2024 season. *Source: NVRL*

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 3 and week 4 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 4 2024	Sentinel GP ARI	178	69	38.8	24	41	0	65	4	0	0	4
	Non-sentinel respiratory	273	73	26.7	17	54	1	72	1	0	0	1
	Total	**451**	**142**	**31.5**	**41**	**95**	**1**	**137**	**5**	**0**	**0**	**5**
Week 3 2024	Sentinel GP ARI	227	86	37.9	23	52	5	80	6	0	0	6
	Non-sentinel respiratory	367	109	29.7	34	69	4	107	2	0	0	2
	Total	**594**	**195**	**32.8**	**57**	**121**	**9**	**187**	**8**	**0**	**0**	**8**
2023/2024	Sentinel GP ARI	2562	448	17.5	123	262	30	415	33	0	0	33
	Non-sentinel respiratory	3996	804	20.1	211	538	33	782	16	6	0	22
	Total	**6558**	**1252**	**19.1**	**334**	**800**	**63**	**1197**	**49**	**6**	**0**	**55**

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 3 and week 4 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 4 2024	Sentinel GP ARI	178	4	2.2	3	1	0
	Non-sentinel	273	10	3.7	5	5	0
	Total	**451**	**14**	**3.1**	**8**	**6**	**0**
Week 3 2024	Sentinel GP ARI	227	9	4.0	7	2	0
	Non-sentinel	367	14	3.8	6	8	0
	Total	**594**	**23**	**3.9**	**13**	**10**	**0**
2023/2024	Sentinel GP ILI/ARI	2562	247	9.6	186	61	0
	Non-sentinel	3996	260	6.5	204	56	0
	Total	**6558**	**507**	**7.7**	**390**	**117**	**0**

Table 4: Number and percentage positive sentinel GP ARI specimens by **respiratory virus**, week 3 and week 4 2024, and the 2023/2024 season. *Source: NVRL*

Virus	Week 4 2024 (N=178)		Week 3 2024 (N=227)		2023/2024 (N=2562)	
	Total positive	% positive	Total positive	% positive	Total positive	% positive
SARS-CoV-2	7	3.9	11	4.8	187	7.3
Influenza virus	69	38.8	86	37.9	448	17.5
Respiratory Syncytial Virus (RSV)	4	2.2	9	4.0	247	9.6
Rhino/enterovirus	21	11.8	15	6.6	428	16.7
Adenovirus	0	0.0	0	0.0	9	0.4
Bocavirus	1	0.6	0	0.0	10	0.4
Human metapneumovirus (hMPV)	3	1.7	3	1.3	43	1.7
Parainfluenza virus type 1 (PIV-1)	0	0.0	2	0.9	32	1.2
Parainfluenza virus type 2 (PIV-2)	2	1.1	1	0.4	8	0.3
Parainfluenza virus type 3 (PIV-3)	0	0.0	1	0.4	12	0.5
Parainfluenza virus type 4 (PIV-4)	0	0.0	0	0.0	41	1.6

Table 5: Number and percentage positive non-sentinel respiratory specimens, by **respiratory virus**, week 3 and week 4 2024, and the 2023/2024 season. *Source: NVRL*

Virus	Week 4 2024 (N=273)		Week 3 2024 (N=367)		2023/2024 (N=3996)	
	Total positive	% positive	Total positive	% positive	Total positive	% positive
SARS-CoV-2	33	12.1	38	10.4	314	7.9
Influenza virus	73	26.7	109	29.7	804	20.1
Respiratory Syncytial Virus (RSV)	10	3.7	14	3.8	260	6.5
Rhino/enterovirus	12	4.4	26	7.1	428	10.7
Adenovirus	1	0.4	5	1.4	33	0.8
Bocavirus	1	0.4	1	0.3	12	0.3
Human metapneumovirus (hMPV)	12	4.4	5	1.4	45	1.1
Parainfluenza virus type 1 (PIV-1)	1	0.4	1	0.3	13	1.1
Parainfluenza virus type 2 (PIV-2)	0	0.0	0	0.0	9	0.2
Parainfluenza virus type 3 (PIV-3)	2	0.7	1	0.3	22	0.6
Parainfluenza virus type 4 (PIV-4)	1	0.4	0	0.0	24	0.6

3. GP Out-Of-Hours 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 4 2024.
- Out of a total of 14,344 calls made to the participating GP OOHs in week 4 2024:
    - 3143 (22%) were for self-reported 'cough', which is above the baseline threshold of 10.8% for cough calls, and which is stable compared to the percentage of cough calls (22%) reported in week 3 2024 (Figures 5 and 6). Thirty-one percent (986/3143) of all cough calls were from those aged four years and under.
    - 263 (1.8%) were for self-reported 'flu', which is just below baseline threshold of 2.3% for 'flu' calls (Figures 7 and 8). This is stable but a decreasing trend compared to 2.3% 'flu' calls made in week 3. The highest burden of flu calls and cough was in those aged 15 to 64 years at 64% (169/263).

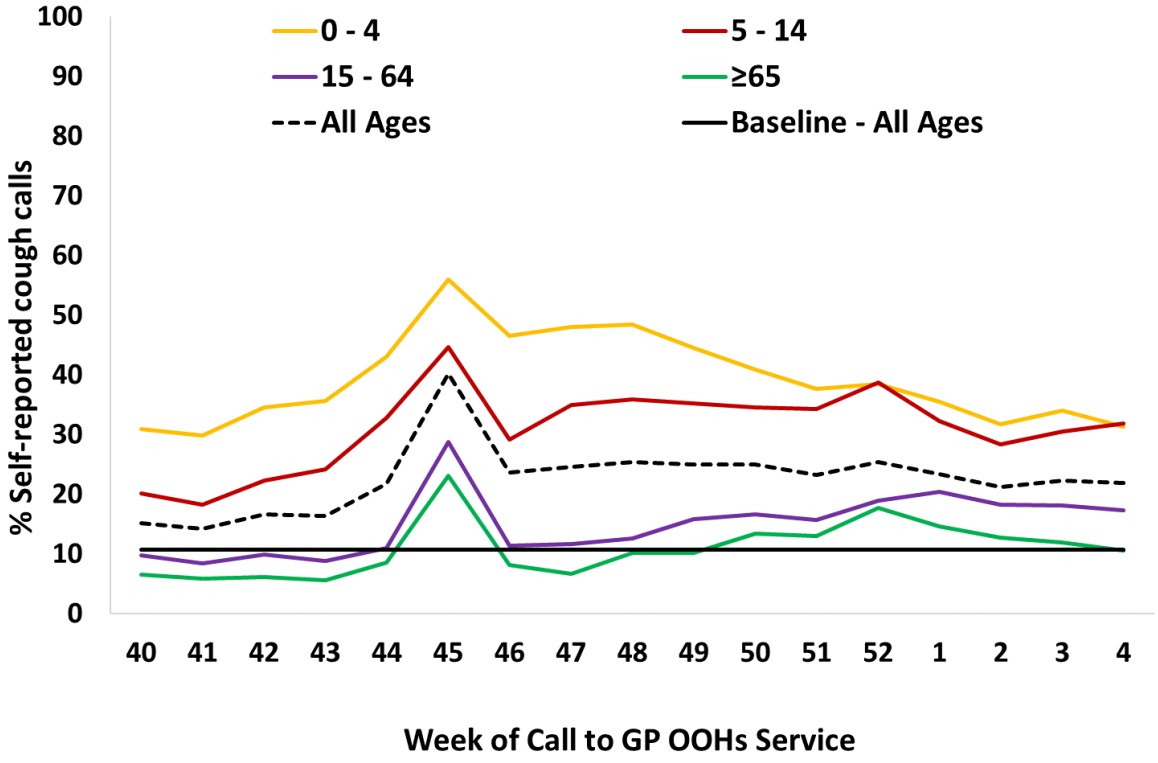

Figure 5: Percentage of self-reported **COUGH** calls for all ages and by age group as a proportion of total calls to GP Out-of-Hours services by week of call for the 2023/2024 season. The baseline % cough calls for all ages calculated using the MEM method on historic data is shown. *Source: GP Out-Of-Hours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

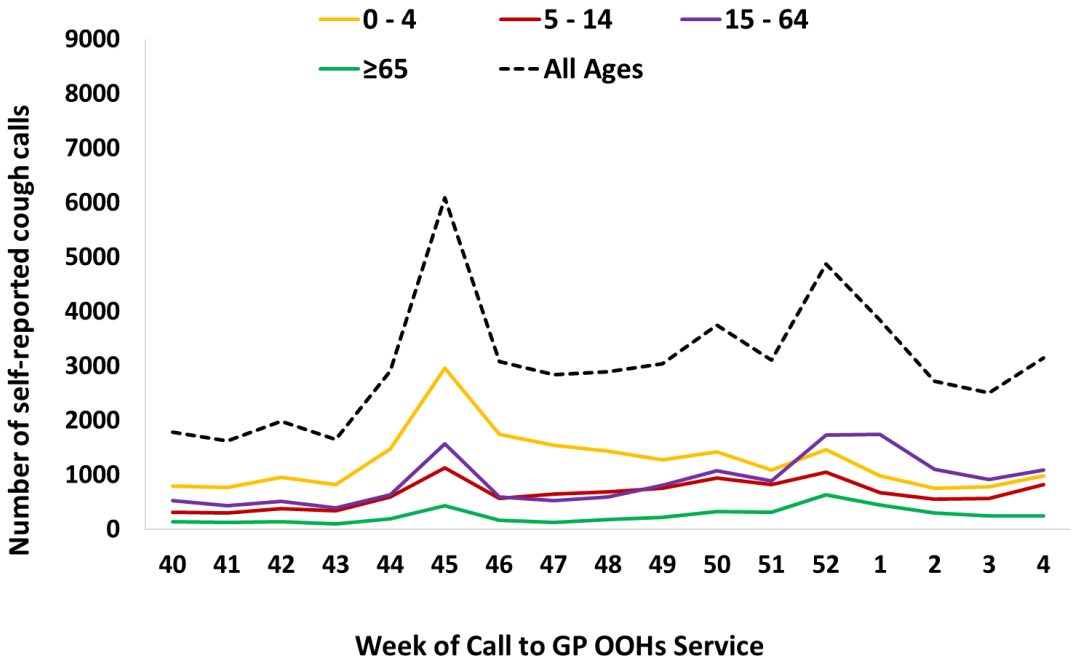

Figure 6: Number of self-reported **COUGH** calls for all ages and by age group to GP Out-of-Hours services by week of call for the 2023/2024 season. *Source: GP Out-Of-Hours services in Ireland (collated by HSE & ICGP).*

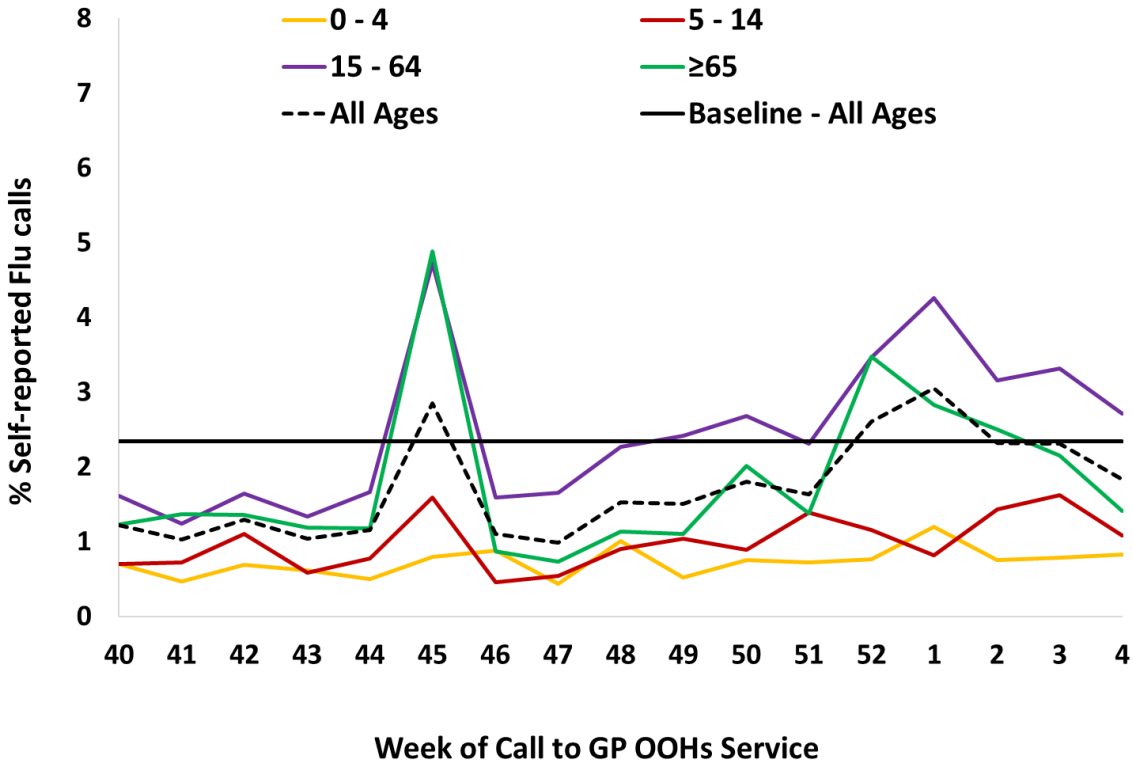

Figure 7: Percentage of self-reported **FLU** calls for all ages and by age group as a proportion of total calls to GP Out-of-Hours services by week of call for the 2023/2024 season. The baseline % flu calls for all ages calculated using the MEM method on historic data is shown. *Source: GP Out-Of-Hours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

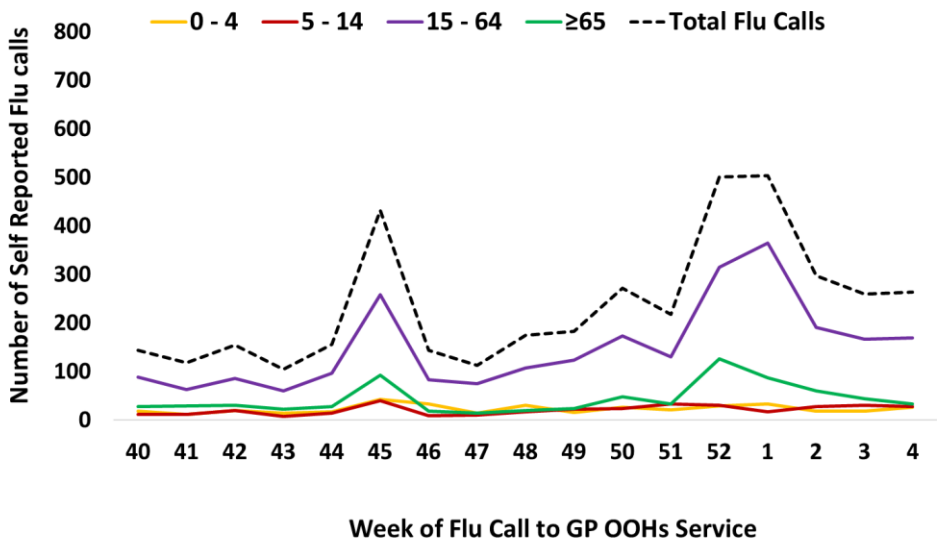

Figure 8: Number of self-reported **FLU** calls for all ages and by age group to GP Out-of-Hours services by week of call for the 2023/2024 season. *Source: GP Out-Of-Hours services in Ireland (collated by HSE & ICGP).*

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.
- 1562 laboratory confirmed influenza cases were notified during week 4 2024 (Table 6); corresponding to an overall notification rate of 30.0/100,000 population: 134 A(H3), 80 A(H1)pdm09, 1263 A (not subtyped), 84 B and one A and B coinfection. This is an increase compared to 1284 cases notified during week 3 2024 (Figure 10).
- Notification rates have slightly increased compared to the last two weeks (Figure 10) and notification rates in those aged 0-4 years continued to increase (Figure 11). Age specific influenza notification rates were highest in this age-group, at 78.5/100,000 population, followed by those aged 65 years and older at 63.6/100,000 during week 4 2024 (Figure 11).
- The highest burden of notifications occurred in those aged 65 years and older at 32% (494/1562) of all influenza notifications in week 4 2024.
- Influenza notification rates were highest in the West and Northwest health region at 41.9/100,000 population (Table 6) during week 4 2024, with notifications from this region accounting for 20% of all notifications (318/1562).
- RSV notifications continued to decline with 155 cases notified during week 4 2024, compared to 212 cases during week 3 2024 (Figure 12).
- Age specific notification rates for RSV were highest in those aged less than one year, at 48.4/100,000 population, followed by those aged 65 years and older at 10.0/100,000 (Figure 13). Notifications in those aged 65 years and older accounted for 50% (78/155) of all RSV notifications in week 4 2024.
- RSV notification rates were highest in the Mid-West health region at 4.1/100,000 (Table 7), followed by the Dublin and Midlands health region at 3.6/100,000 population during week 4 2024.

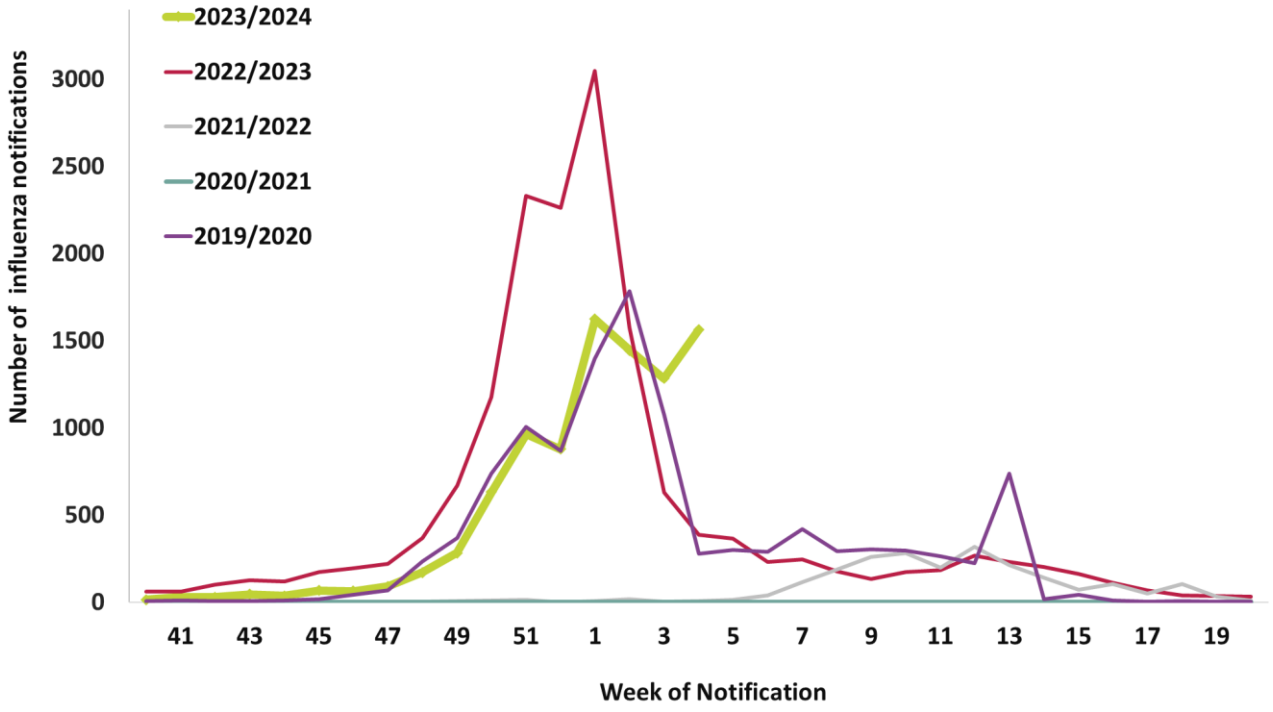

Figure 9: Number of laboratory confirmed **Influenza** notifications to HPSC by week of notification, 2019/2020 to 2023/2024 seasons. *Source: Ireland's Computerised Infectious Disease Reporting System*

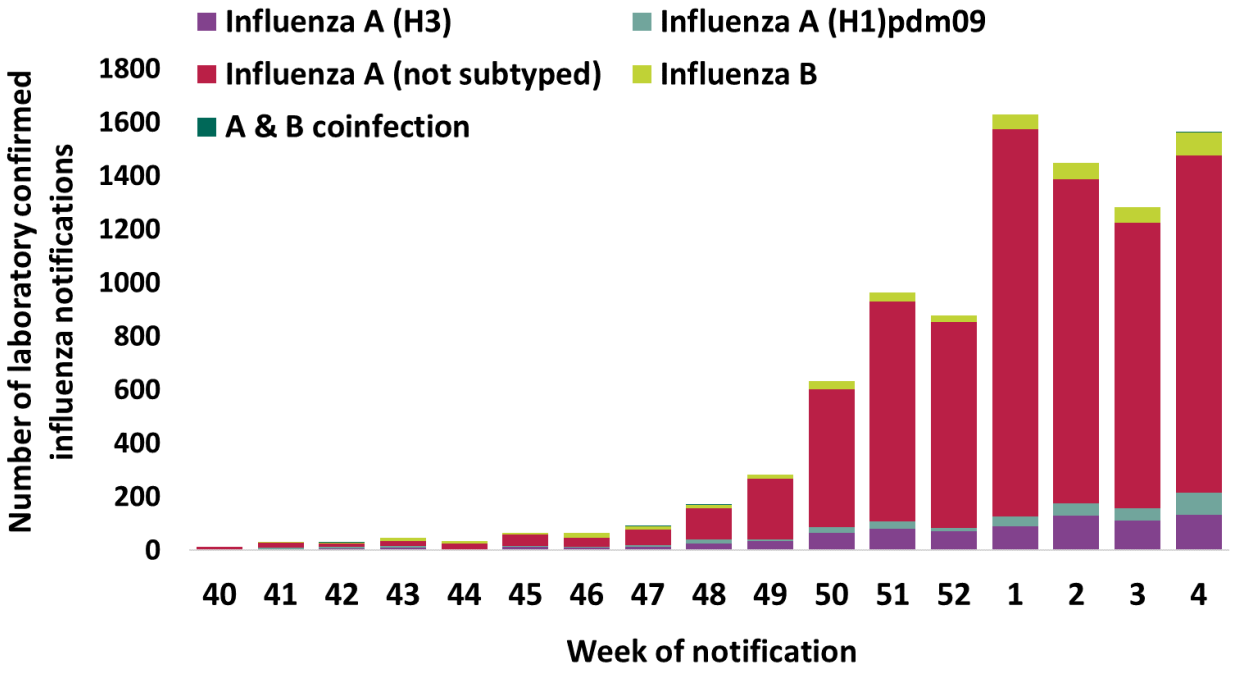

Figure 10: Number of laboratory confirmed **influenza** notifications by influenza type/subtype and week for the 2023/2024 season. *Source: Ireland's Computerised Infectious Disease Reporting System*

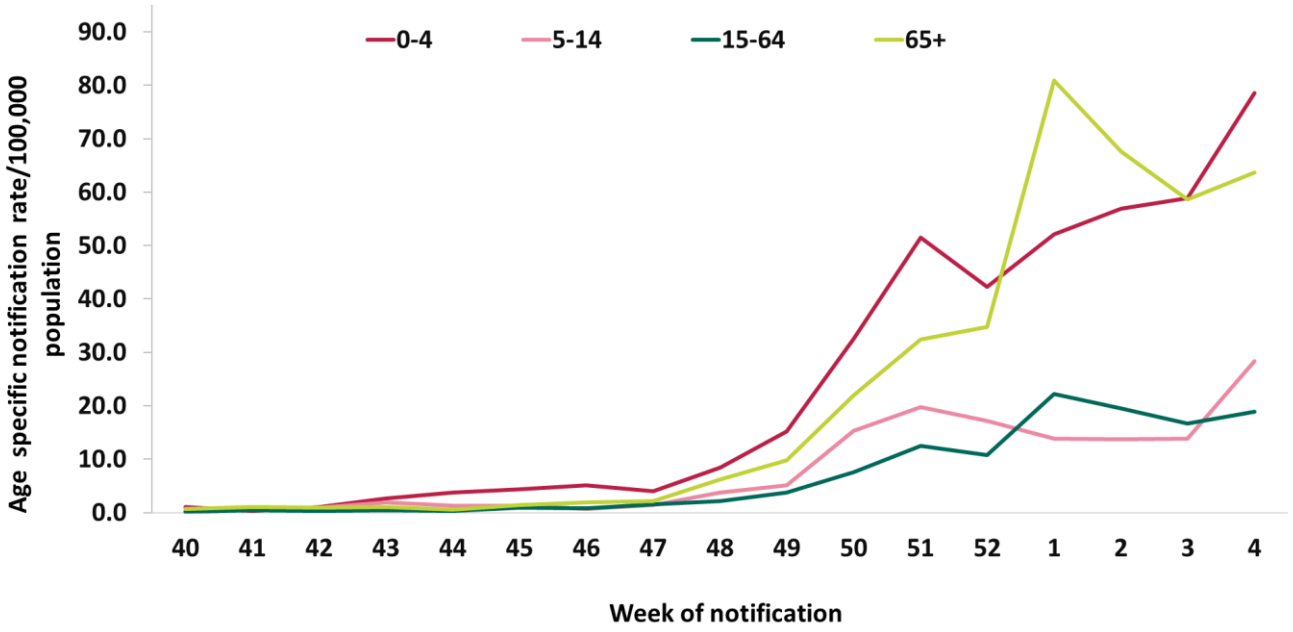

Figure 11: Age specific rates/100,000 population of laboratory confirmed **influenza** notifications to HPSC by week of notification for the 2023/2024 season. *Source: Ireland's Computerised Infectious Disease Reporting System.*

Table 6: Number and rate/100,000 population of laboratory confirmed **influenza** notifications by HSE Health Region for week 4 2024 and the 2023/2024 season to date. *Source: CIDR*

HSE Health Region	Week 4 2024		2023/2024 season (Week 40 2023 - Week 4 2024)	
	Number	Rate/100,000 population	Number	Rate/100,000 population
Dublin and North East	398	33.5	1790	150.8
Dublin and Midlands	292	27.1	1571	145.8
Dublin and South East	288	29.7	1457	150.0
South West	166	22.4	1495	201.9
Mid West	85	20.6	436	105.6
West and North West	318	41.9	2442	321.5
Unknown	15		21	
Total	**1562**	**30.3**	**9212**	178.9

Table 7: Number and rate/100,000 population of laboratory confirmed **RSV** notifications by HSE Health Region for week 4 2024 and the 2023/2024 season to date. *Source: CIDR*

HSE Health Region	Week 4 2024		2023/2024 season (Week 40 2023 - Week 4 2024)	
	Number	Rate/100,000 population	Number	Rate/100,000 population
Dublin and North East	28	2.4	1431	120.5
Dublin and Midlands	39	3.6	1579	146.5
Dublin and South East	27	2.8	1092	112.5
South West	17	2.3	917	123.8
Mid West	17	4.1	609	147.4
West and North West	27	3.6	1788	235.4
Total	**155**	**3.0**	**7416**	144.0

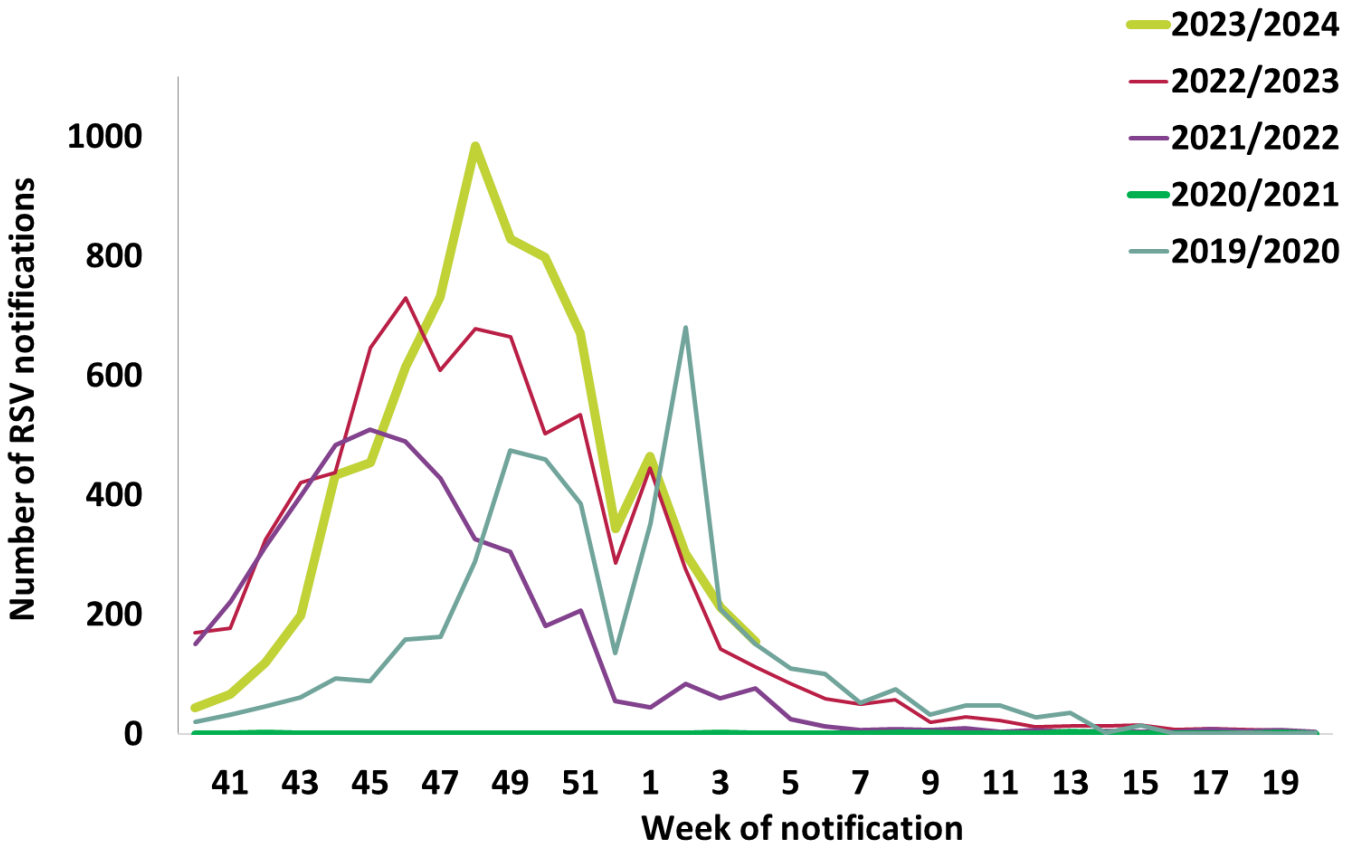

Figure 12: Number of laboratory confirmed **RSV** notifications to HPSC by week of notification, 2019/2020 to 2023/2024 seasons. *Source: Ireland's Computerised Infectious Disease Reporting System.*

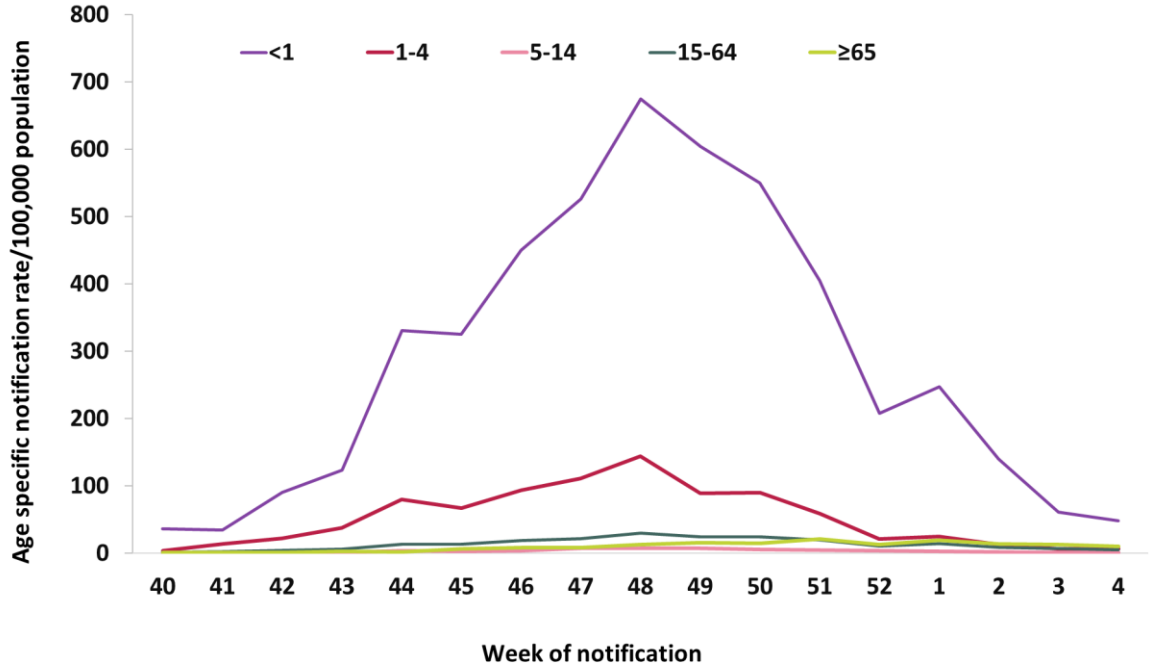

Figure 13: Age specific rates/100,000 population for laboratory confirmed **RSV** notifications to HPSC by week of notification for the 2023/2024 season. *Source: Ireland's Computerised Infectious Disease Reporting System.*

5. Hospitalisations

- During week 4 2024, the number of notified laboratory confirmed influenza hospital inpatients increased slightly to 383, compared to 338 in week 3 2024. Of hospitalised cases, 343 were positive for A (not subtyped), 19 A(H3), six A(H1)pdm09, 14 B and one A and B coinfection (Figure 15).
- During week 4 2024, the age specific influenza hospitalisation rate was highest in those aged ≥65 years (21.1/100,000 population) and those aged 0-4 years (16.9/100,000 population) (Figure 16). Approximately half (43%, 164/383) of all influenza hospitalisations occurred in those aged 65 years and older (Table 8).
- RSV hospitalisations continued to decrease during week 4 2024, 50 laboratory confirmed RSV hospitalised cases were notified, a 25% decrease compared to 67 cases in week 3 2024 (Figure 17).
- The age specific RSV hospitalisation rate was highest in those aged less than one year (15.6/100,000 population) and those aged 65 years and older (3.5/100,000 population) during week 4 2024 (Figure 18). Of the hospitalised RSV cases, 54% (27/50) were aged 65 years and older (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.

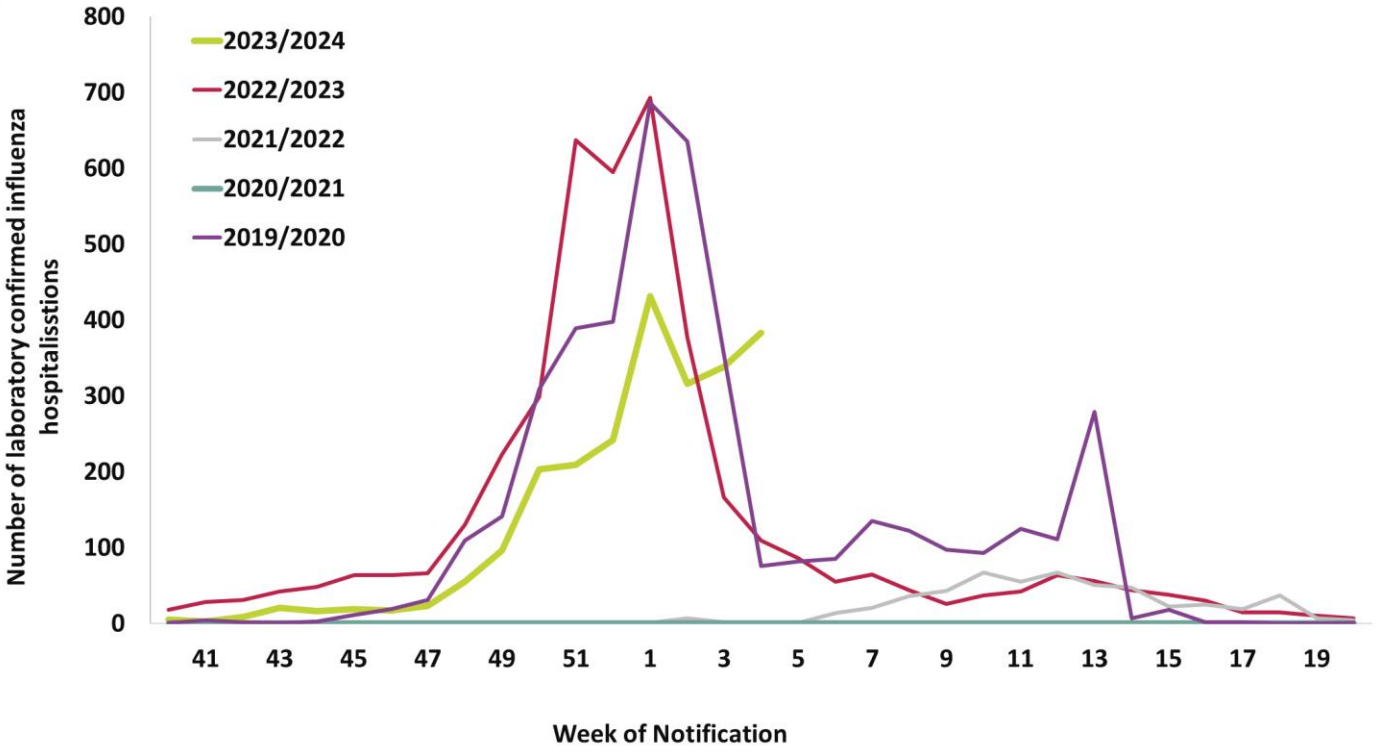

Figure 14: Number of notified **influenza** hospital inpatients, by week of notification and season, for the 2019/2020 to 2023/2024 seasons. *Source: Ireland's Computerised Infectious Disease Reporting System.*

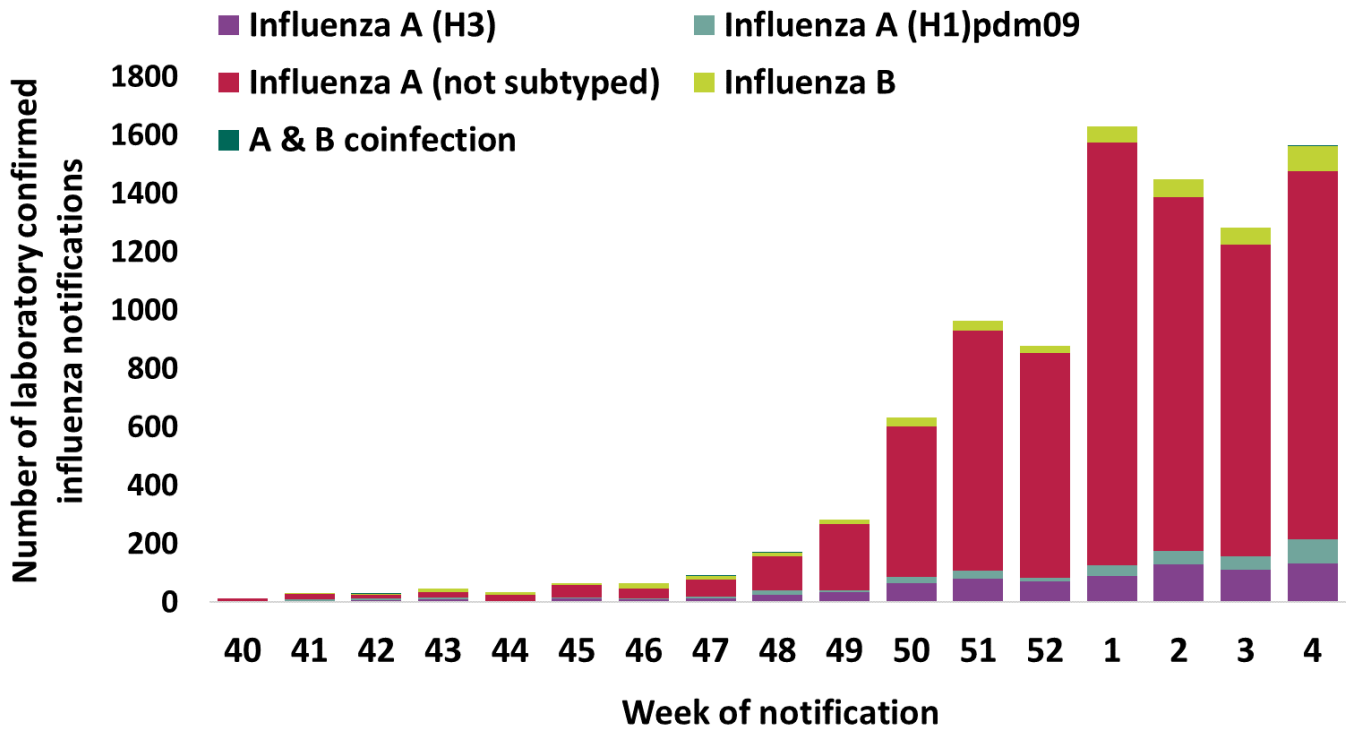

Figure 15: Number of notified laboratory confirmed **influenza** hospital inpatients by influenza type/subtype by week for the 2023/2024 season. *Source: Ireland's Computerised Infectious Disease Reporting System.*

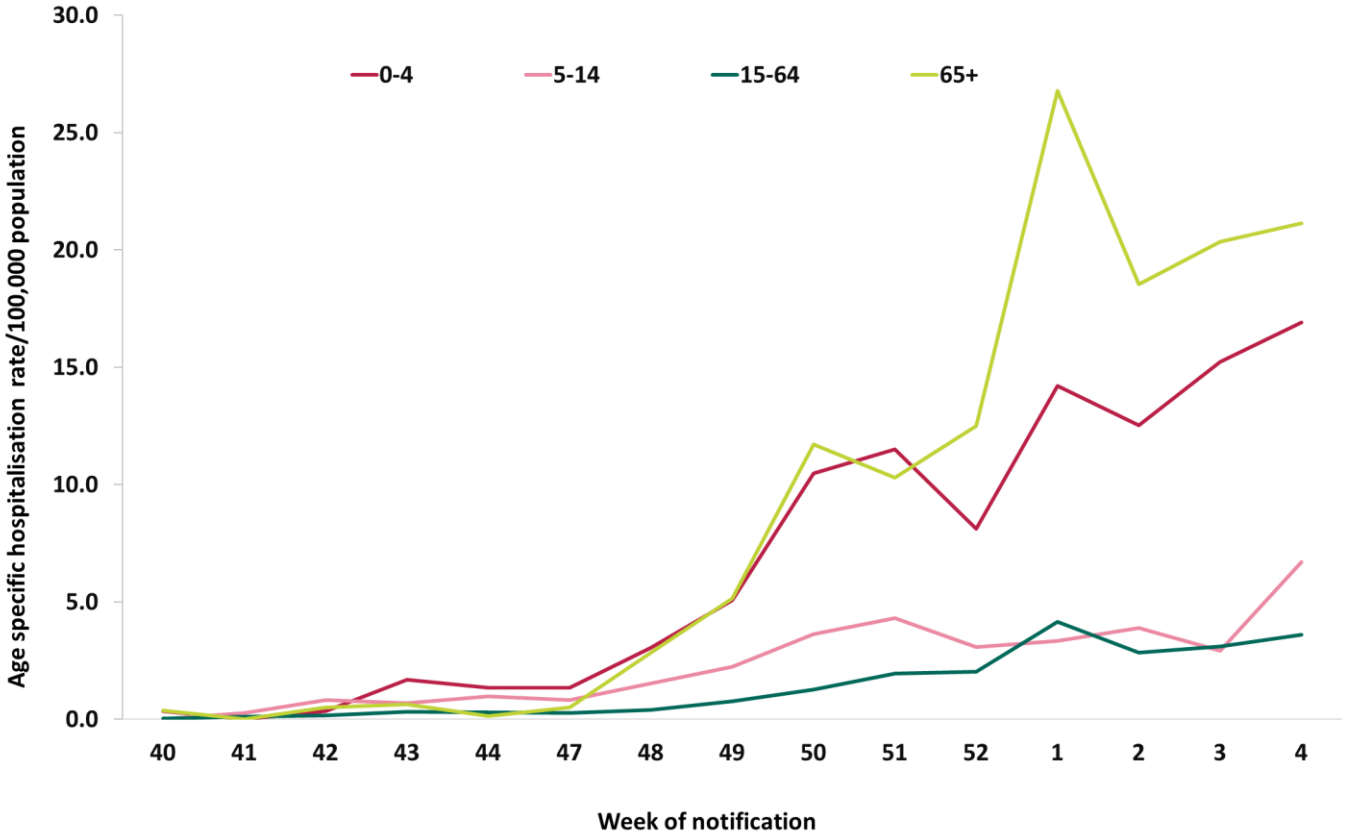

Figure 16: Age specific rates/100,000 population for laboratory confirmed **influenza** cases reported as **hospital inpatients** by week of notification for the 2023/2024 season. *Source: Ireland's Computerised Infectious Disease Reporting System.*

Table 8: Number, percentage and rate /100,000 population of notified laboratory-confirmed **influenza hospitalised cases notified** in week 4 2024 and the 2023/2024 season (week 40 2023 onwards). *Source: Ireland's Computerised infectious Disease Reporting System*

Age (years)	Hospitalised (Week 4)			Season to date (Week 40 2023 - Week 4 2024)		
	Number	% of all Hospitalisations	Rate/ 100,000 population	Number	% of all Hospitalisations	Rate/ 100,000 population
<1	4	1.0	6.9	64	2.7	110.7
1-4	46	12.0	19.4	260	10.9	109.4
5-14	48	12.5	6.7	259	10.9	36.1
15-24	11	2.9	1.7	93	3.9	14.4
25-34	23	6.0	3.7	136	5.7	21.7
35-44	25	6.5	3.1	169	7.1	21.3
45-54	22	5.7	3.1	122	5.1	17.1
55-64	40	10.4	6.9	215	9.0	37.1
≥65	164	42.8	21.1	1066	44.7	137.3
Unknown	0		–	0		–
Total	**383**	**100**	**7.4**	**2384**	**100**	**46.3**

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 4	79	687	383	12	83	49	269	**1562**
Week 3	118	591	338	16	49	34	138	**1284**
Week 2	89	813	310	17	55	31	129	**1444**
Week 1	98	817	432	14	74	28	161	**1624**
Week 52	56	455	242	11	32	16	65	**877**
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	**590**	**4568**	**2381**	**88**	**434**	**195**	**956**	**9212**

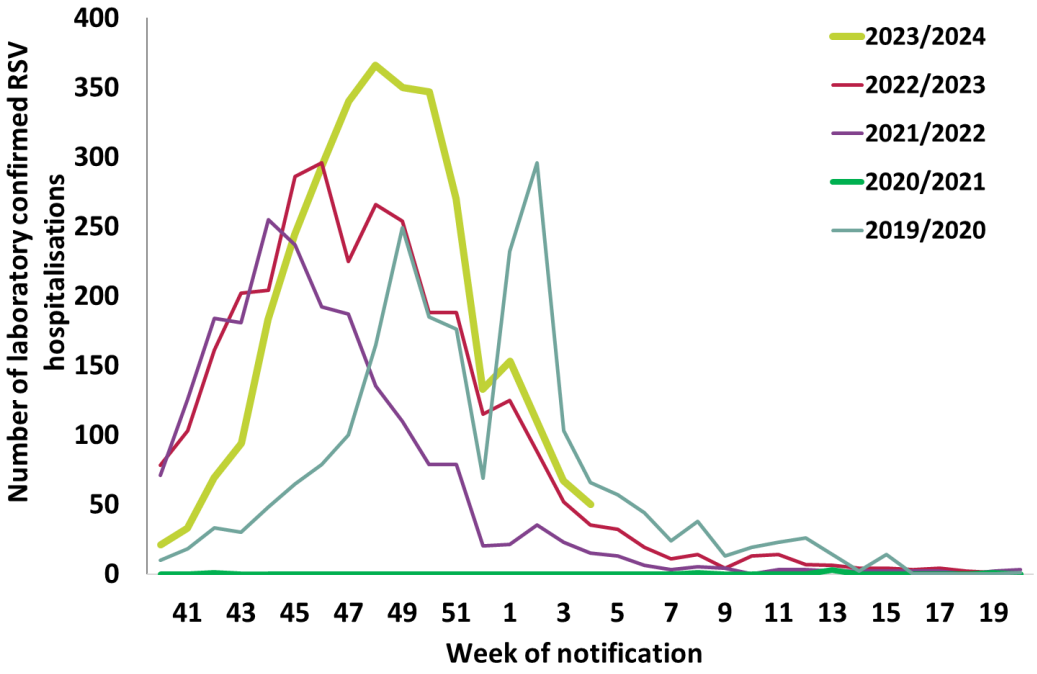

Figure 17: Number of notified **RSV** hospitalised cases notified, by week of notification and season, for the 2019/2020 to 2023/2024 seasons. *Source: Ireland's Computerised Infectious Disease Reporting System.*

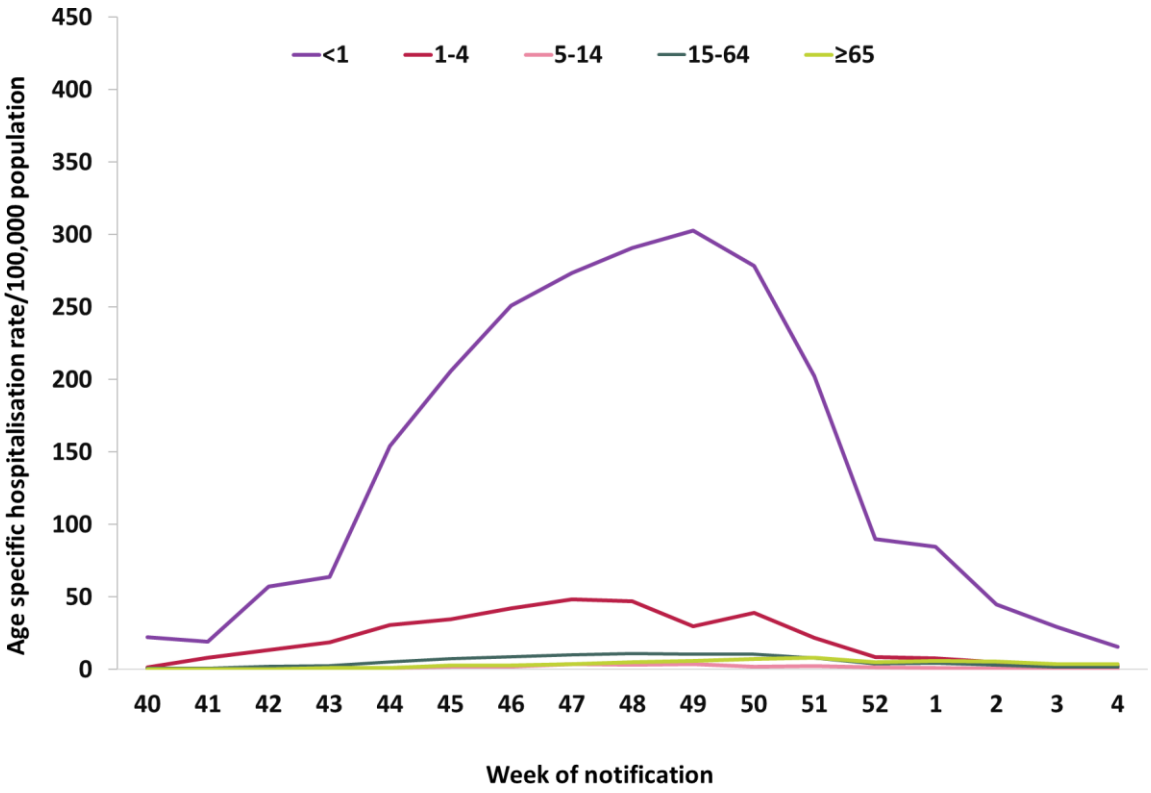

Figure 18: Age specific notification rates/100,000 population for laboratory confirmed **RSV** hospitalised cases notified by week of notification for the 2023/2024 season. *Source: Ireland's Computerised Infectious Disease Reporting System*

Table 10: Number, percentage and rate/100,000 population of notified laboratory-confirmed **RSV hospitalised cases notified** in week 4 2024 and the 2023/2024 season (week 40 2023 onwards). *Source: Ireland's Computerised infectious Disease Reporting System*

Age (years)	Hospitalised (Week 4)			Season to date (Week 40 2023 - Week 4 2024)		
	Number	% of all Hospitalisations	Rate/ 100,000 population	Number	% of all Hospitalisations	Rate/ 100,000 population
<1	9	18.0	15.6	1383	44.3	2392.9
1-4	6	12.0	2.5	861	27.6	362.3
5-14	1	2.0	0.1	178	5.7	24.8
15-24	1	2.0	0.2	26	0.8	4.0
25-34	1	2.0	0.2	30	1.0	4.8
35-44	1	2.0	0.1	37	1.2	4.7
45-54	2	4.0	0.3	47	1.5	6.6
55-64	2	4.0	0.3	84	2.7	14.5
≥65	27	54.0	3.5	479	15.3	61.7
Unknown	0		–	0		–
Total	**50**	**100**	**1.0**	**3125**	**100**	**60.7**

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 4	13	53	50	3	7	8	21	**155**
Week 3	19	59	67	1	8	28	30	**212**
Week 2	15	114	110	6	10	11	37	**303**
Week 1	17	146	153	10	14	16	108	**464**
Week 52	6	140	133	7	5	17	36	**344**
Week 51	33	266	270	8	13	9	72	**671**
Week 50	33	327	347	6	33	13	39	**798**
Week 49	26	346	350	8	19	9	67	**825**
Week 48	20	490	366	11	15	11	72	**985**
Week 47	14	285	340	3	19	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	**222**	**3013**	**3125**	**83**	**177**	**154**	**642**	**7416**

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 ten laboratory confirmed influenza cases (one A(H3), one A(H1)pdm09 and eight A (not subtyped)) admitted to intensive care units (ICU) and notified to HPSC during week 4 2024.
- Sixty seven influenza (50 A (not subtyped), 13 A(H3) and four A(H1)pdm09)) ICU cases have been notified for the season to date (weeks 40 2023- 4 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 4 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	64	110.7	1	1.7
1-4	260	109.4	2	0.8
5-14	259	36.1	4	0.6
15-24	93	14.4	4	0.6
25-34	136	21.7	4	0.6
35-44	169	26.9	4	0.5
45-54	122	17.1	7	1.0
55-64	215	37.1	14	2.4
≥65	1066	137.3	27	3.5
Unknown	0	–	0	–
Total	**2384**	**46.3**	**67**	**1.3**

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 two deaths in notified influenza cases reported to HPSC during week 4 2024.
- 48 influenza A deaths (39 A (not-subtyped), six A(H3) and three A(H1)pdm09) have been notified for the season to date (weeks 40 2023-4 2024).
- There was no excess all-cause mortality for the entire population reported for week 3 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 4 2024, 33 influenza outbreaks (11 acute hospitals, 10 nursing homes, four residential institutions, three community long stay unit, one childcare facility and four in other settings) were notified to HPSC. (Tables 13 & 14).
- One RSV outbreak and four other ARI outbreaks in nursing homes (caused by pathogens other than influenza, SARS-CoV-2, or RSV) were notified to HPSC during week 4 2024.
- There have been 198 ARI/influenza/RSV (excluding COVID-19) outbreaks notified to HPSC to date this season, comprising 135 influenza outbreaks, 33 RSV outbreaks and 30 other ARI outbreaks.

Table 13: Summary of influenza, RSV and ARI (influenza/RSV/SARS-CoV-2 negative) outbreaks by HSE Health Region during week 4 2024 and the 2023/2024 season (week 40 2023 – week 4 2024) *Source: CIDR*

HSE Health Region	Influenza		RSV		ARI		Total	
	Week 4	2023/2024	Week 4	2023/2024	Week 4	2023/2024	Week 4	2023/2024
Dublin and North East	8	15	0	7	4	17	12	39
Dublin and Midlands	7	20	1	12	0	0	8	32
Dubin and South East	4	19	0	3	0	6	4	28
South West	4	22	0	0	0	1	4	23
Mid West	3	6	0	3	0	0	3	9
West and North West	6	49	0	6	0	6	6	61
Unknown	1	4	0	2	0	0	1	6
Total	**33**	**135**	**1**	**33**	**4**	**30**	**38**	**198**

Table 14: Summary of influenza, RSV and ARI (influenza/RSV/SARS-CoV-2 negative) outbreaks by outbreak setting during week 4 2024 and the 2023/2024 season (week 40 2023 – week 4 2024). *Source: CIDR*

Setting	Influenza		RSV		ARI		Total	
	Week 4	2023/2024	Week 4	2023/2024	Week 4	2023/2024	Week 4	2023/2024
Community hospital/Long-stay unit	3	12	0	2	0	3	3	17
Nursing Home	10	45	1	12	4	21	15	78
Hospital	11	45	0	10	0	0	11	55
Residential Institution	4	19	0	4	0	3	4	26
Childcare facility	1	1	0	2	0	0	1	3
Other settings	4	13	0	3	0	3	4	19
Total	**33**	**135**	**1**	**33**	**4**	**30**	**38**	**198**

9. International Summary

According to European Respiratory Virus Surveillance Summary, in the WHO European region during week 3 2024 (including data up to 21/01/2024), influenza activity is above baseline levels; all three influenza virus types/subtypes - A(H1)pdm09, A(H3) and B - are co-circulating. Of 40 countries reporting geographical spread of influenza in the WHO European region, 30 reported widespread activity, five reported regional, three reported sporadic, one reported local and one reported no activity. During the 2023/2024 season, 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 7th January 2024, WHO has reported that globally influenza detections decreased but detections continue to increase 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 remained elevated and influenza activity was above the baseline threshold. Influenza A(H1N1)pdm09 viruses predominated among the detections in the countries of North America. In East Asia, influenza activity remained elevated but there is a slight decrease in China and the Republic of Korea. Influenza activity increased in the Caribbean with detections of predominantly influenza A(H1N1)pdm09 and decreased in Central America with detections of predominantly B/Victoria lineage viruses. In tropical Africa, influenza detections remained low in Western Africa and decreased 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

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