Influenza, RSV and Other Respiratory Viruses Surveillance Report
Weeks 19-20 2024 (6th – 19th May 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. Data for this report were extracted on 20/05/2024.

Summary Weeks 19 and 20 2024

Almost all indicators of influenza activity were at low levels during weeks 19 and 20 2024. Influenza A viruses have predominated this season, with A(H3) and A(H1)pdm09 viruses co-circulating. In recent weeks, the proportion of circulating influenza B viruses accounted for 48% of all detections but the number of notifications remains low.

- **Influenza-like illness (ILI):** The sentinel GP influenza-like illness (ILI) consultation rate was 2.8/100,000 population during week 20 2024 and 2.4/100,000 population during week 19 2024, which is below the Irish baseline threshold (18.1/100,000). ILI age specific rates have remained below the age specific baseline for all age groups since week 3 2024.
- **National Virus Reference Laboratory (NVRL):** Of 48 sentinel GP ARI specimens tested and reported by the NVRL during week 20 2024, two (4.2%) were positive for influenza B, one (2.1%) for SARS-CoV-2, eight (16.7%) for rhino/enterovirus and three (6.2%) for hMPV. During week 19 2024, of 38 sentinel GP ARI specimens tested and reported by the NVRL, three (7.9%) were positive for influenza (one A(H1)pdm09 and two B), two (5.3%) for SARS-CoV-2, nine (23.7%) for rhino/enterovirus and three (7.9%) for hMPV.
- Of 124 non-sentinel respiratory specimens tested and reported by the NVRL during week 20 2024, three (2.4%) were positive for influenza (one A(H3) and two A(H1)pdm09), five (4%) for SARS-CoV-2, 19 (15.3%) for rhino/enterovirus and six (4.8%) hMPV. Of 156 non-sentinel respiratory specimens tested during week 19, 11 (7.1%) were positive for influenza (five A(H3), two A(H1)pdm09 and four B), eight (5.1%) for SARS-CoV-2, 27 (17.3%) for rhino/enterovirus and 15 (9.6%) for hMPV.
- **GP Out of hours (OOHs):** Cough calls comprised 16% (2039/12777) of all reported GP OOHs calls during week 20 2024 (above the baseline threshold of 10.8%); 32% (652/2039) of cough calls were in those aged 0-4 years. Flu calls comprised 0.6% (79/12777) of all calls in week 20 2024, which is below the baseline threshold level (2.3%).
- **Influenza notifications**: 101[1] laboratory confirmed influenza cases were notified during week 20 2024: two A(H3), three A(H1)pdm09, 46 A (not subtyped) and 50 B, compared to 140 (two A(H3), one A(H1)pdm09, 76 A (not subtyped) and 61 B) cases notified during week 19 2024. Influenza B accounted for 49.5% (50/101) of all notifications in week 20 2024 and 43.6% (61/140) in week 19 2024. The proportion of influenza B viruses has increased in recent weeks although the overall number of notifications remains low. The highest number of influenza notifications occurred in those aged 65 years and older at 22.8% (23/101) of all influenza notifications in week 20 2024.
- **RSV notifications:** Low numbers of sporadic RSV cases continue to be notified each week.
- **Hospitalisations:** 30 laboratory confirmed influenza hospitalised cases (19 A (not subtyped and 11 B) were notified in week 20 2024, compared to 32 (one A(H1)pdm09, 22 A (not subtyped) and nine B) in week 19 2024. During the 2023/2024 season, 4,143 laboratory confirmed influenza hospital inpatients were reported: 365 A(H3), 134 A(H1)pdm09, 3,254 A (not subtyped), 386 B and two A and B coinfections and two influenza A(H1)pdm09 and A(H3) coinfections. RSV hospitalisations remained at low levels during weeks 19 and 20 2024, with only sporadic cases notified. For the 2023/2024 season to date, 3,308 RSV hospitalisations were reported.
- **Intensive care admissions:** There were no laboratory confirmed influenza cases admitted to intensive care units (ICU) and notified to HPSC during weeks 19 and 20 2024. For the season to date, 119 influenza ICU cases (114 influenza A (32 A(H3), 17 A(H1)pdm09, 65 A (not subtyped) and one influenza A(H1)pdm09 and A(H3) coinfection) and four influenza B were notified.
- **Mortality:** There were no deaths in influenza cases notified to HPSC during weeks 19 and 20 2024. For the season to date, 214 deaths in notified influenza cases; 50 A(H3), 16 A(H1)pdm09, 144 A (not-subtyped) and four influenza B.
- **Outbreaks:** During weeks 19 and 20 2024, four influenza A (not subtyped) outbreaks (one in a nursing home, two in acute hospitals and one in another setting) were reported to HPSC.
- **International:** In the EU/EEA during week 19 2024, influenza activity is steadily decreasing across the region.

[1] Due to the denotification of four influenza cases for this period, the number of influenza cases cited in this report may temporarily differ to those reported in the national respiratory virus dashboard, which was not updated at the time of this report.

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

- During week 20 2024, 23 sentinel GP influenza-like illness (ILI) consultations were reported from the Irish sentinel GP network, corresponding to an ILI consultation rate of 2.8 per 100,000 population which is below the sentinel GP ILI baseline threshold (18.1/100,000 population). This is similar to an updated rate of 2.4 per 100,000 population during week 19 2024 (Figure 1).
- Of the 98 GP practices in the Irish sentinel GP network, 89 reported clinical consultation data (including data on non-respiratory clinical consultations) during week 20 2024 and 93 reported during week 19. Twelve practices reported ILI consultations during week 20 and 15 reported during week 19.
- Age specific ILI consultation rates were below the age specific baseline thresholds in all age groups during weeks 19 and 20 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.

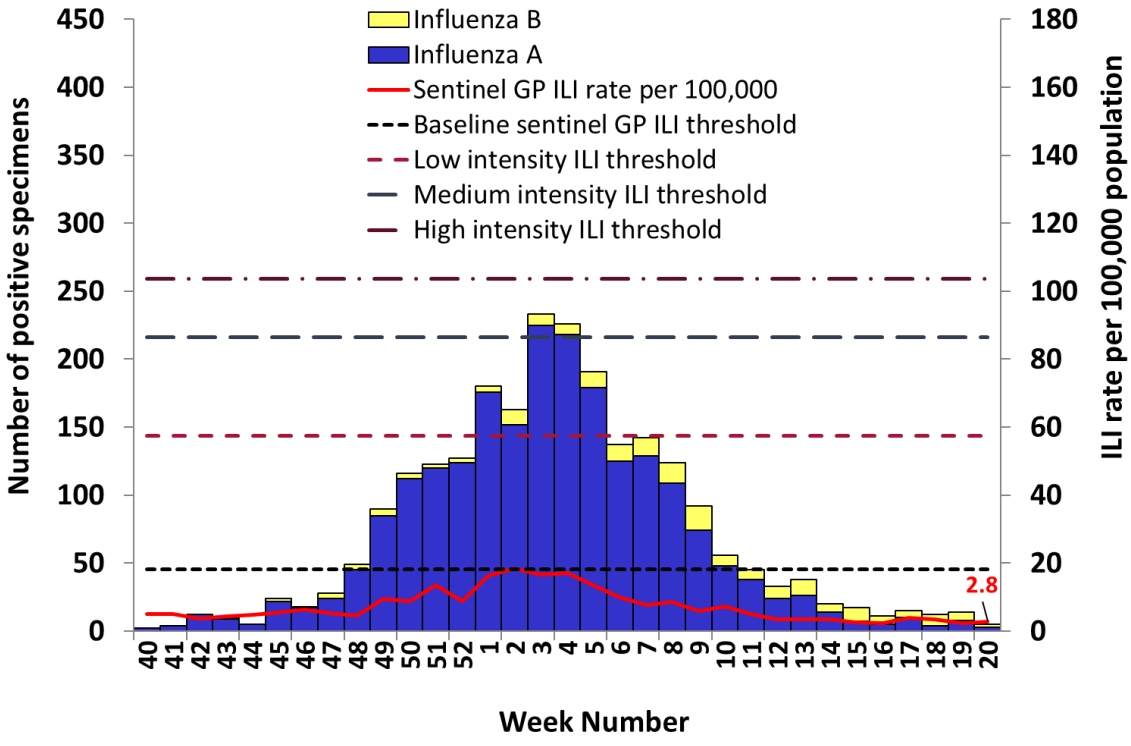

Figure 1: Sentinel GP Influenza-like illness (ILI) consultation rates per 100,000 population, baseline, low, medium and high intensity ILI thresholds and number of positive influenza A and B specimens tested by the NVRL, by influenza week for the 2023/2024 season. Source: ICGP and NVRL

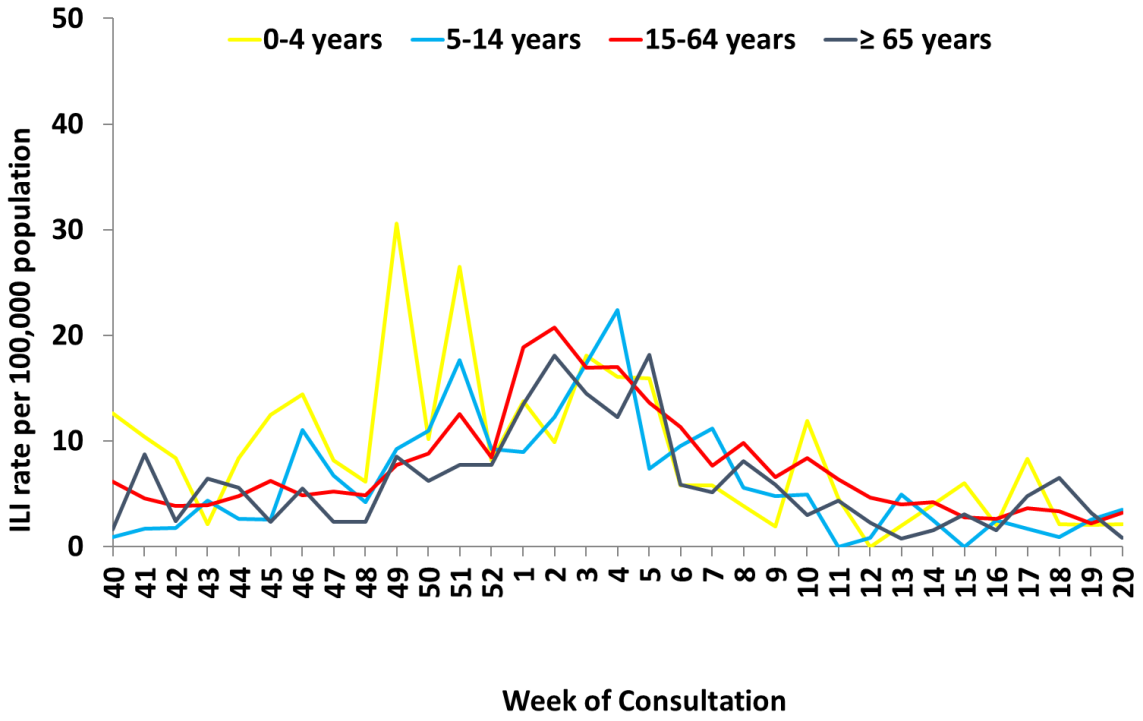

Figure 2: Age specific sentinel GP **ILI consultation** rate per 100,000 population by week (week 40 2023 to week 20 2024). *Source: ICGP.*

Table 1: Age specific sentinel GP **ILI consultation** rate per 100,000 population by week (week 40 2023 to week 20 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	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
All Ages	5.1	5.1	3.6	4.3	4.8	5.5	6.4	5.2	4.5	9.4	8.8	13.5	8.9	16.4	18.5	16.7	17.1	13.6	9.9	7.7	8.6	6.0	7.3	5.1	3.5	3.5	3.5	2.6	2.4	3.8	3.4	2.4	2.8
<15 yrs	4.0	4.0	3.4	3.4	4.0	5.1	11.2	6.7	4.4	14.4	10.0	18.8	8.3	9.6	10.7	16.4	19.1	9.2	7.8	8.9	4.7	3.7	6.4	1.2	0.5	3.8	2.7	1.6	2.2	3.4	1.2	2.3	2.9
15-64 yrs	6.1	4.6	3.9	3.9	4.8	6.2	4.9	5.2	4.9	7.7	8.8	12.6	8.4	18.9	20.7	17.0	17.0	13.6	11.3	7.7	9.8	6.6	8.4	6.4	4.7	4.0	4.2	2.8	2.7	3.7	3.4	2.2	3.2
≥65 yrs	1.6	8.7	2.4	6.4	5.6	2.4	5.5	2.3	2.3	8.5	6.2	7.8	7.8	13.5	18.1	14.5	12.3	18.2	5.9	5.2	8.1	5.9	3.0	4.3	2.2	0.8	1.5	3.0	1.5	4.7	6.5	0.8	3.2
Reporting practices (N=98)	92	94	92	90	92	93	94	96	95	96	95	97	97	96	95	94	94	97	98	99	98	98	97	85	97	95	95	94	92	93	88	93	89

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 20 2024, of 48 sentinel GP ARI specimens tested and reported by the NVRL, two (4.2%) were positive for influenza B, one (2.1%) for SARS-CoV-2, eight (16.7%) for rhino/enterovirus and three (6.2%) for hMPV.
- In comparison during week 19 2024, of 38 sentinel GP ARI specimens tested and reported by the NVRL, three (7.9%) were positive for influenza (one A(H1)pdm09 and two B), two (5.3%) for SARS-CoV-2, nine (23.7%) for rhino/enterovirus and three (7.9%) for hMPV.
- For the 2023/2024 season to date (week 40 2023 to week 20 2024), of 4,297 sentinel GP ARI specimens tested and reported by the NVRL, 805 (18.7%) were positive for influenza (436 A(H3), 193 A(H1)pdm09, 47 A (not subtyped) and 129 influenza B, 262 (6.1%) for RSV, 241 (5.6%) for SARS-CoV-2, and 662 (15.4%) for rhino/enterovirus (Table 4).
- During week 20 2024, of 124 non-sentinel respiratory specimens tested and reported by the NVRL, three (2.4%) were positive for influenza (one A(H3) and two A(H1)pdm09), five (4%) for SARS-CoV-2, 19 (15.3%) for rhino/enterovirus and six (4.8%) hMPV.
- During week 19 2024 of 156 non-sentinel respiratory specimens tested, 11 (7.1%) were positive for influenza (five A(H3), two A(H1) pdm09 and four B), eight (5.1%) for SARS-CoV-2, 27 (17.3%) for rhino/enterovirus and 15 (9.6%) for hMPV.
- For the 2023/2024 season to date (week 40 2023 to week 20 2024), of 7,716 non-sentinel respiratory specimens tested and reported by the NVRL, 1,557 (20.2%) were positive for influenza (1,018 A(H3), 396 A(H1)pdm09, 65 A (not subtyped) and 78 influenza B), 287 (3.7%) for RSV, 452 (5.9%) for SARS-CoV-2, and 770 (10.0%) for rhino/enterovirus (Table 5).
- Other respiratory viruses (ORVs) are being detected at lower levels (Figure 3a and 3b).
- Of 2,362 sentinel GP ARI specimens and non-sentinel specimens positive for influenza and reported by the NVRL during the 2023/2024 season, 150 (6.4%) were coinfected with other viruses.

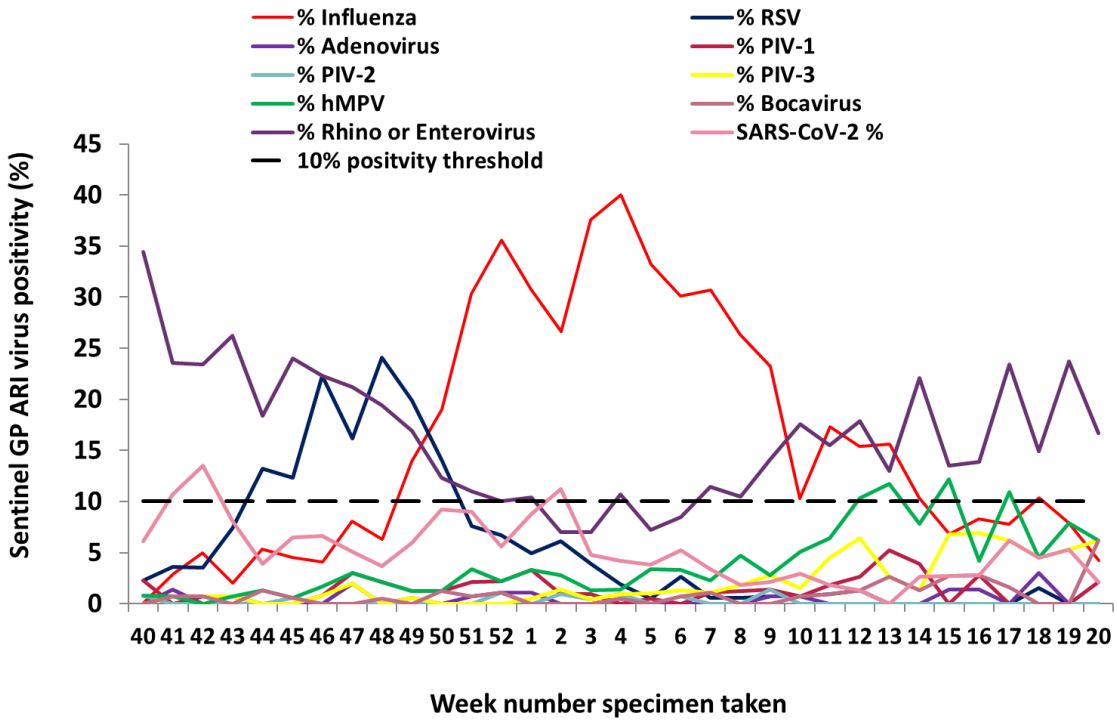

Figure 3a: Percentage positive results for **sentinel GP ARI** specimens tested by the NVRL for influenza, SARS-CoV-2, RSV and other respiratory viruses by week specimen was taken for the 2023/2024 season. *Source: NVRL*

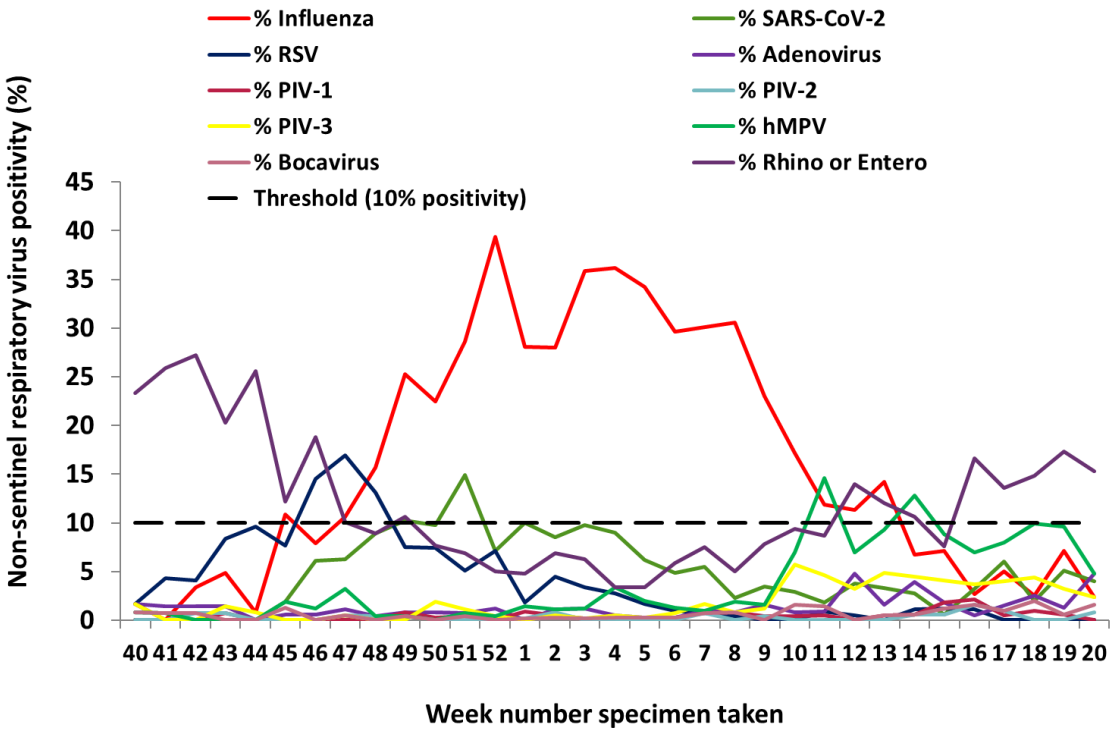

Figure 3b: Percentage positive results for **non-sentinel respiratory** specimens tested by the NVRL for influenza, SARS-CoV-2, RSV and other respiratory viruses by week specimen was taken for the 2023/2024 season. *Source: NVRL*

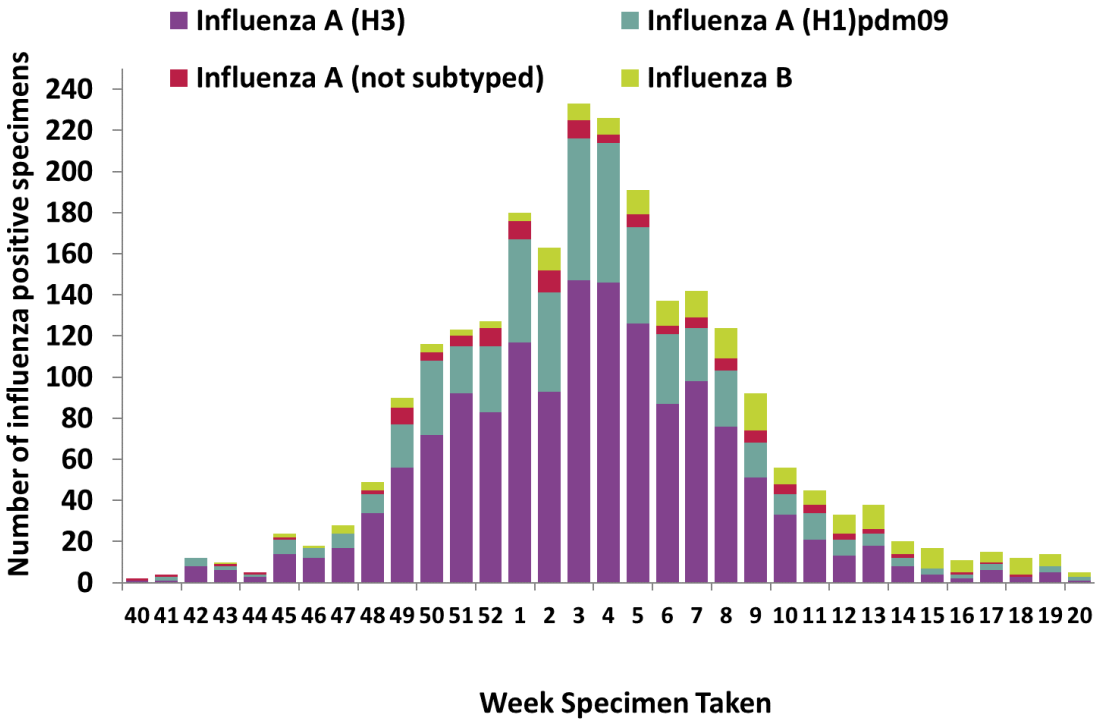

Figure 4: Number of positive **influenza** specimens (from sentinel GP ARI and non-sentinel respiratory sources) tested by the NVRL by influenza type/subtype and by week specimen was taken for the 2023/2024 season. *Source: NVRL*

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 19 and week 20 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 20 2024	Sentinel GP ARI	48	2	4.2	0	0	0	0	2	0	0	2
	Non-sentinel respiratory	124	3	2.4	2	1	0	3	0	0	0	0
	Total	**172**	**5**	**2.9**	**2**	**1**	**0**	**3**	**2**	**0**	**0**	**2**
Week 19 2024	Sentinel GP ARI	38	3	7.9	1	0	0	1	2	0	0	2
	Non-sentinel respiratory	156	11	7.1	2	5	0	7	2	2	0	4
	Total	**194**	**14**	**7.2**	**3**	**5**	**0**	**8**	**4**	**2**	**0**	**6**
2023/2024	Sentinel GP ARI	4297	805	18.7	193	436	47	676	129	0	0	129
	Non-sentinel respiratory	7716	1557	20.2	396	1018	65	1479	61	17	0	78
	Total	**12013**	**2362**	**19.7**	**589**	**1454**	**112**	**2155**	**190**	**17**	**0**	**207**

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 19 and week 20 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 20 2024	Sentinel GP ARI	48	0	0.0	0	0	0
	Non-sentinel	124	0	0.0	0	0	0
	Total	**172**	**0**	**0.0**	**0**	**0**	**0**
Week 19 2024	Sentinel GP ARI	38	0	0.0	0	0	0
	Non-sentinel	156	0	0.0	0	0	0
	Total	**194**	**0**	**0.0**	**0**	**0**	**0**
2023/2024	Sentinel GP ILI/ARI	4297	262	6.1	197	65	0
	Non-sentinel	7716	287	3.7	220	66	1
	Total	**12013**	**549**	**4.6**	**417**	**131**	**1**

Table 4: Number and percentage positive sentinel GP ARI specimens by **respiratory virus**, week 19 and week 20 2024, and the 2023/2024 season. *Source: NVRL*

Virus	Week 20 2024 (N=48)		Week 19 2024 (N=38)		2023/2024 (N=4297)	
	Total positive	% positive	Total positive	% positive	Total positive	% positive
SARS-CoV-2	1	2.1	2	5.3	241	5.6
Influenza virus	2	4.2	3	7.9	805	18.7
Respiratory Syncytial Virus (RSV)	0	0.0	0	0.0	262	6.1
Rhino/enterovirus	8	16.7	9	23.7	662	15.4
Adenovirus	0	0.0	0	0.0	16	0.4
Bocavirus	3	6.2	0	0.0	27	0.6
Human metapneumovirus (hMPV)	3	6.2	3	7.9	136	3.2
Parainfluenza virus type 1 (PIV-1)	1	2.1	0	0.0	54	1.3
Parainfluenza virus type 2 (PIV-2)	0	0.0	0	0.0	11	0.3
Parainfluenza virus type 3 (PIV-3)	3	6.2	2	5.3	64	1.5
Parainfluenza virus type 4 (PIV-4)	0	0.0	0	0.0	42	1.0

Table 5: Number and percentage positive non-sentinel respiratory specimens, by **respiratory virus**, week 19 and week 20 2024, and the 2023/2024 season. *Source: NVRL*

Virus	Week 20 2024 (N=124)		Week 19 2024 (N=156)		2023/2024 (N=7716)	
	Total positive	% positive	Total positive	% positive	Total positive	% positive
SARS-CoV-2	5	4.0	8	5.1	452	5.9
Influenza virus	3	2.4	11	7.1	1557	20.2
Respiratory Syncytial Virus (RSV)	0	0.0	0	0.0	287	3.7
Rhino/enterovirus	19	15.3	27	17.3	770	10.0
Adenovirus	6	4.8	2	1.3	88	1.1
Bocavirus	2	1.6	1	0.6	41	0.5
Human metapneumovirus (hMPV)	6	4.8	15	9.6	256	3.3
Parainfluenza virus type 1 (PIV-1)	0	0.0	1	0.6	34	3.3
Parainfluenza virus type 2 (PIV-2)	1	0.8	0	0.0	20	0.3
Parainfluenza virus type 3 (PIV-3)	3	2.4	5	3.2	121	1.6
Parainfluenza virus type 4 (PIV-4)	0	0.0	0	0.0	28	0.4

3. Influenza genetic characterisation data

- The National Virus Reference Laboratory (NVRL) conducted genetic characterisation on 84 influenza positive cases detected between week 40 2023 and week 2 2024. This included 70 non-sentinel respiratory samples and 14 sentinel GP ARI samples. Of these, 55 were positive for influenza A(H3), 26 A(H1)pdm09 and three influenza B/Victoria viruses.
- Globally, all A(H1N1)pdm09 viruses detected recently descend from the 6B.1A.5a clade and therefore, new nomenclature has been introduced which drops the prefix 6B.1A. Clade 5a has split into two antigenically distinct clusters: Clade 5a.1 carries amino acid substitutions D187A, Q189E and is represented by the northern hemisphere 2020-2021 vaccine virus A/Guangdong-Maonan/SWL1536/2019 and Clade 5a.2 viruses carries amino acid substitutions K130N, N156K, A187D, L161I and V250A and is represented by the 2021/2022 and2022/2023 northern hemisphere and 2021/2022 southern hemisphere vaccine virus A/Victoria/2570/2019.
- In Ireland the hemagglutinin genes of influenza A(H1)pdm09 viruses characterised (n=26) since week 40 2022 were all attributed to clade 5a.2a of which 13 (50%) was represented by A/Sydney/5/2021 and 13 (50%) of which clustered with 5a.2a.1 virus represented by AH1/Wisconsin/67/2022 virus. A/Sydney/5/2021 group carries the same amino acid substitutions as the A/Victoria/2570/2019 group but with additional HA1 K54Q, D94N, A186T, Q189E, E224A, R259K, T261A and K308R substitutions and AH1/Wisconsin/67/2022 carrying P137S, K142R, D260E and T277A substitutions in the haemagglutinin.
- Globally recent antigenic analysis of viruses collected post-September 2023 found most viruses within subclades 5a.2a and 5a.2a.1 were effectively inhibited by post-ferret antisera raised against the 2024 Southern Hemisphere and 2023/2024 Northern Hemisphere influenza vaccine strains. This includes all Irish influenza A(H1)pdm09 viruses sequenced, which fall into these subclades, indicating that these strains are well protected by the current influenza vaccines for both the Southern and Northern Hemisphere seasons.
- Worldwide, all A(H3) viruses detected recently belong to clade 3C.2a1b.2a which has split into two clades, 3C.2a1b.2a.1 and 3C.2a1b.2a.2. The new nomenclature drops the prefix 3C.2a1b.2a, renaming these clades as 1 and 2. In particular, clade 2 has evolved further into clade 2a carrying Y159N, T160I (-CHO), L164Q, N171K, S186D, D190N, P198S with an additional H156S amino acid substitution and represented by A/Darwin/9/2021 virus which was recommended for use 2022/2023 northern hemisphere vaccine composition. Clade 2a viruses have further evolved into subclades 2a.1, 2a.2, and 2a.3. In particular, clades 2a.3a and 2a.3a.1 have been circulating in Europe since the beginning of this year's influenza season. 2a.3a viruses carry an amino acid substitution E50K and is represented by A/Finland/402/2023 virus, while 2a.3a.1 virus carry additional I140K, I223V amino acid substitutions and are represented by the A/Thailand/8/2022 virus.

- Among the A(H3) viruses n=55 characterised in Ireland up to week 2 2024, all were attributed to clade 2a.3a.1, represented by the A/Thailand/8/2022 virus and contained the signature amino acid substitutions characterised by this clade. The 2023/2024 Northern Hemisphere influenza vaccine strains effectively recognized many clade 2 viruses but showed reduced effectiveness against viruses with HA genes from subclades 2a.3a.1 such as A/Thailand/8/2022 virus which were observed in Ireland.
- In recent months, the influenza B/Victoria virus landscape has primarily consisted of viruses from clade V1A.3a.2, characterised by a set of signature amino acid substitutions and represented by the B/Austria/1359417/2021 virus the recommended vaccine virus for Northern and southern hemisphere. Additionally, there have been several notable subclades of the influenza B virus, each identified by unique amino acid substitutions that contribute to the genetic diversity of the virus, such as the B/Connecticut/01/2021, B/Catalonia/2279261NS/2023, and B/Moldova/2030521/2023 viruses.
- In Ireland, all three characterised influenza B/Victoria viruses up to week 48 were classified under clade V1A.3a.2, represented by B/Catalonia/2279261NS/2023 virus and characterised by its key amino acid substitutions of D197E and E183K. Antigenic analysis showed that the ferret antisera produced for the B/Austria/1359417/2021-like vaccines, designed for the 2024 Southern Hemisphere and the 2023/2024 Northern Hemisphere influenza seasons, effectively neutralized these V1A.3a.2 subclade viruses, confirming the vaccine's protection against these currently circulating strains.
- Genetic characterisation suggests that the current vaccine will protect against the influenza A(H1)pdm09 viruses circulating in Ireland, however there may be reduced effectiveness against A(H3) viruses.

4. 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.

- All five participating GP OOH services provided data for weeks 19 and 20 2024.
- Of a total of 12,777 calls made to the participating GP OOHs in week 20 2024:
  - 2,039 (16%) were for self-reported 'cough', which is above the baseline threshold of 10.8% for cough calls and is stable compared to 19.1% (2994/15712) of calls in week 19 2024 (Figures 5 and 6). The greatest burden of cough calls was in those aged 0-4 years in weeks 19 and 20 2024 at 31.1% and 27.6% respectively.
  - 79 (0.6%) calls were for self-reported 'flu', which is below the baseline threshold of 2.3% for 'flu' calls (Figures 7 and 8). This is stable compared to recent weeks.

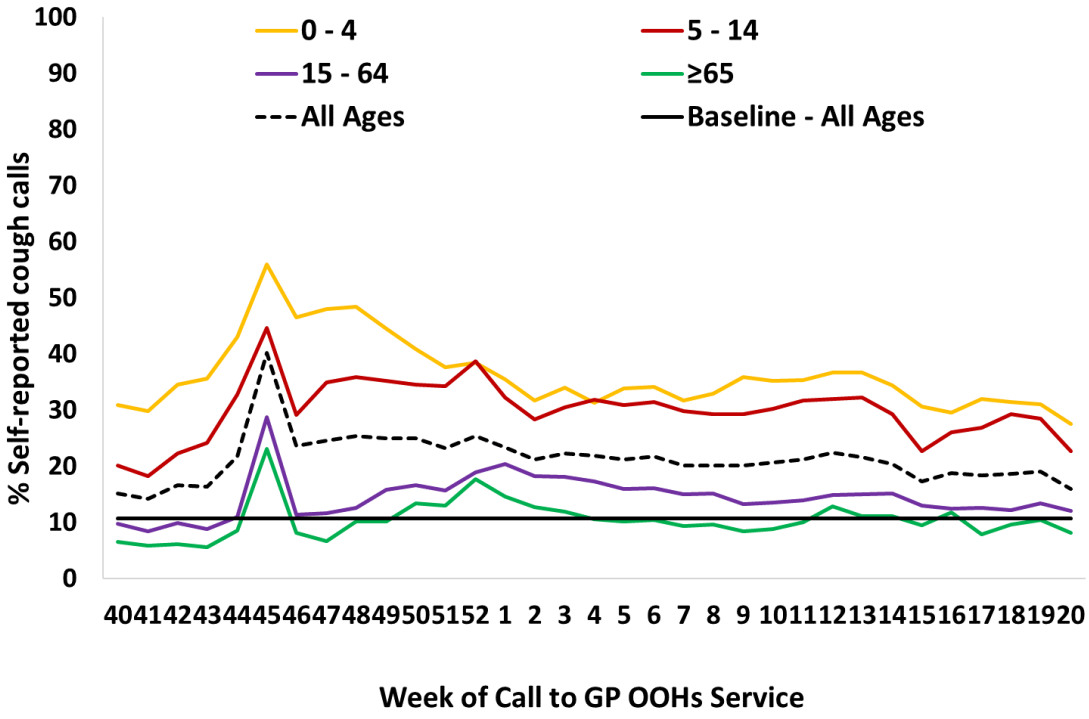

Figure 5: Percentage of self-reported **COUGH** calls for all ages and by age group as a proportion of total calls to GP Out-of-Hours services by week of call for the 2023/2024 season. The baseline % cough calls for all ages calculated using the MEM method on historic data is shown. *Source: GP Out-Of-Hours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

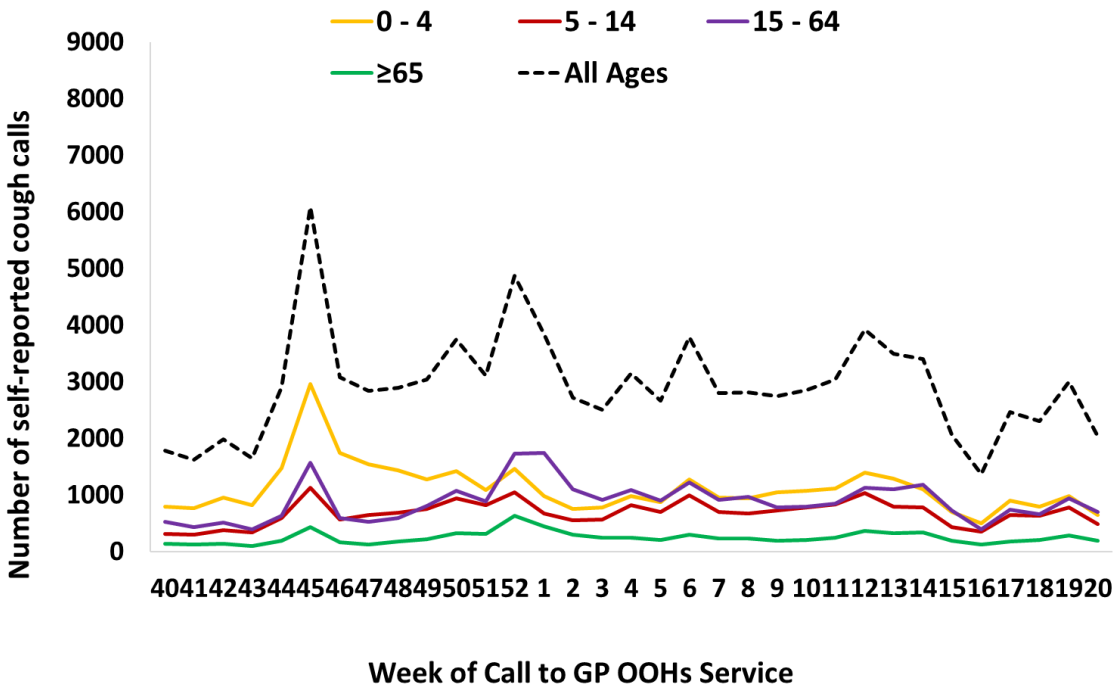

Figure 6: Number of self-reported **COUGH** calls for all ages and by age group to GP Out-of-Hours services by week of call for the 2023/2024 season. *Source: GP Out-Of-Hours services in Ireland (collated by HSE & ICGP).*

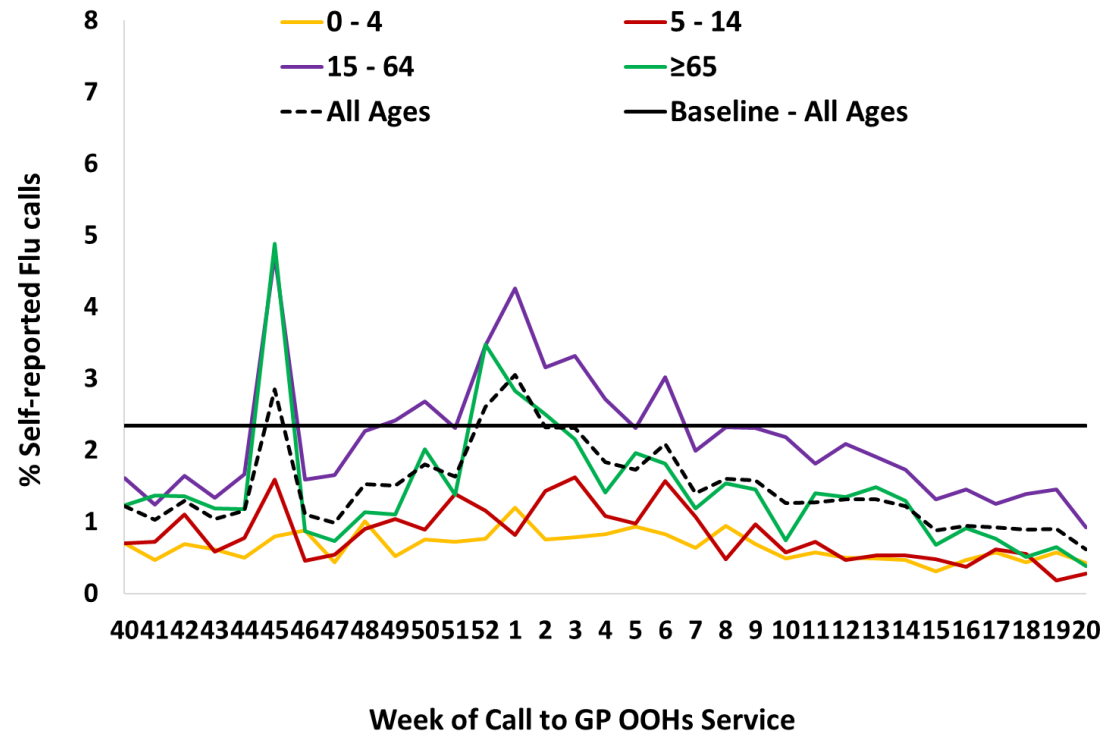

Figure 7: Percentage of self-reported **FLU** calls for all ages and by age group as a proportion of total calls to GP Out-of-Hours services by week of call for the 2023/2024 season. The baseline % flu calls for all ages calculated using the MEM method on historic data is shown. *Source: GP Out-Of-Hours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

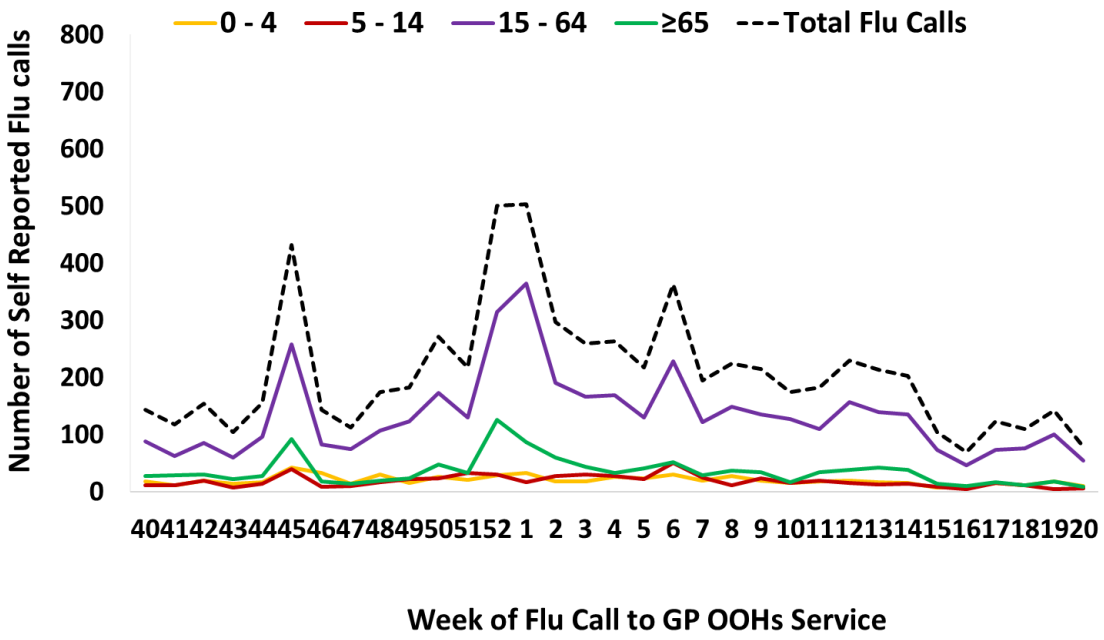

Figure 8: Number of self-reported **FLU** calls for all ages and by age group to GP Out-of-Hours services by week of call for the 2023/2024 season. *Source: GP Out-Of-Hours services in Ireland (collated by HSE & ICGP).*

5. 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.

- 101 laboratory confirmed influenza cases were notified during week 20 2024 (Table 6). Four influenza cases were de-notified for this period[1]. This corresponds to an overall notification rate of 2/100,000 population: two A(H3), three A(H1)pdm09, 46 A (not subtyped) and 50 B. This compares to 140 cases notified during week 19 2024 (two A(H3), one (A(H1)pdm09, 76 A (not subtyped) and 61 B. (Figure 10).
- 16,682 laboratory confirmed influenza cases were notified for the 2023/2024 season (week 40 2023 to week 20 2024): 1,768 A(H3), 711 A(H1)pdm09, 12,407 A (not subtyped), 1,783 B and thirteen influenza coinfections.
- Notification rates remained low in all age groups and in all HSE Health Regions during weeks 19 and 20 2024 (Figure 11).
- RSV notifications remain at low levels in weeks 19 and 20, with 29 and three cases notified each week, respectively (Figure 12).
- 7,827 RSV notifications have been reported for the 2023/2024 season to date.
- RSV notification rates were low in all age groups (Figure 13) and across all regions (Table 7) during weeks 20 and 19 2024.

[1] Due to the denotification of cases, the number of influenza cases cited in this report may temporarily differ to those reported in the national respiratory virus dashboard, which was not updated at the time of this report.

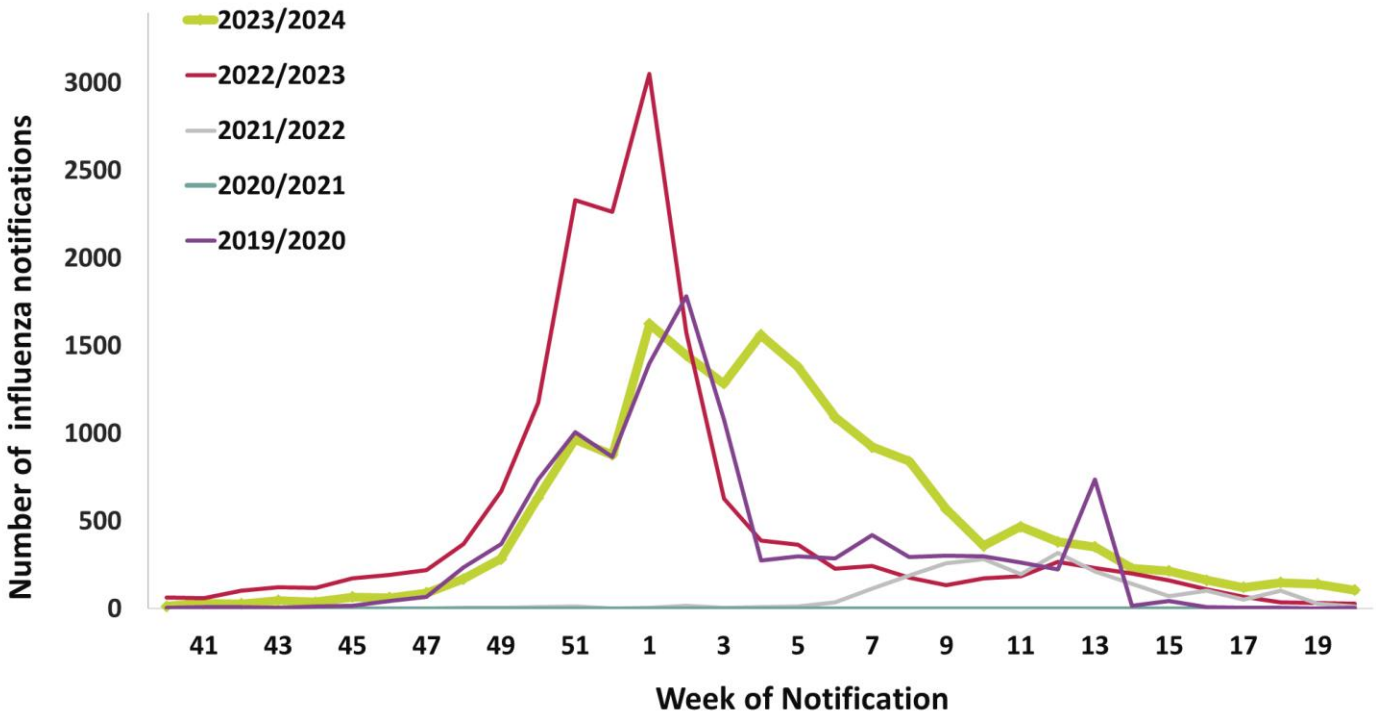

Figure 9: Number of laboratory confirmed **Influenza** notifications to HPSC by week of notification, 2019/2020 to 2023/2024 seasons. *Source: Ireland's Computerised Infectious Disease Reporting System*

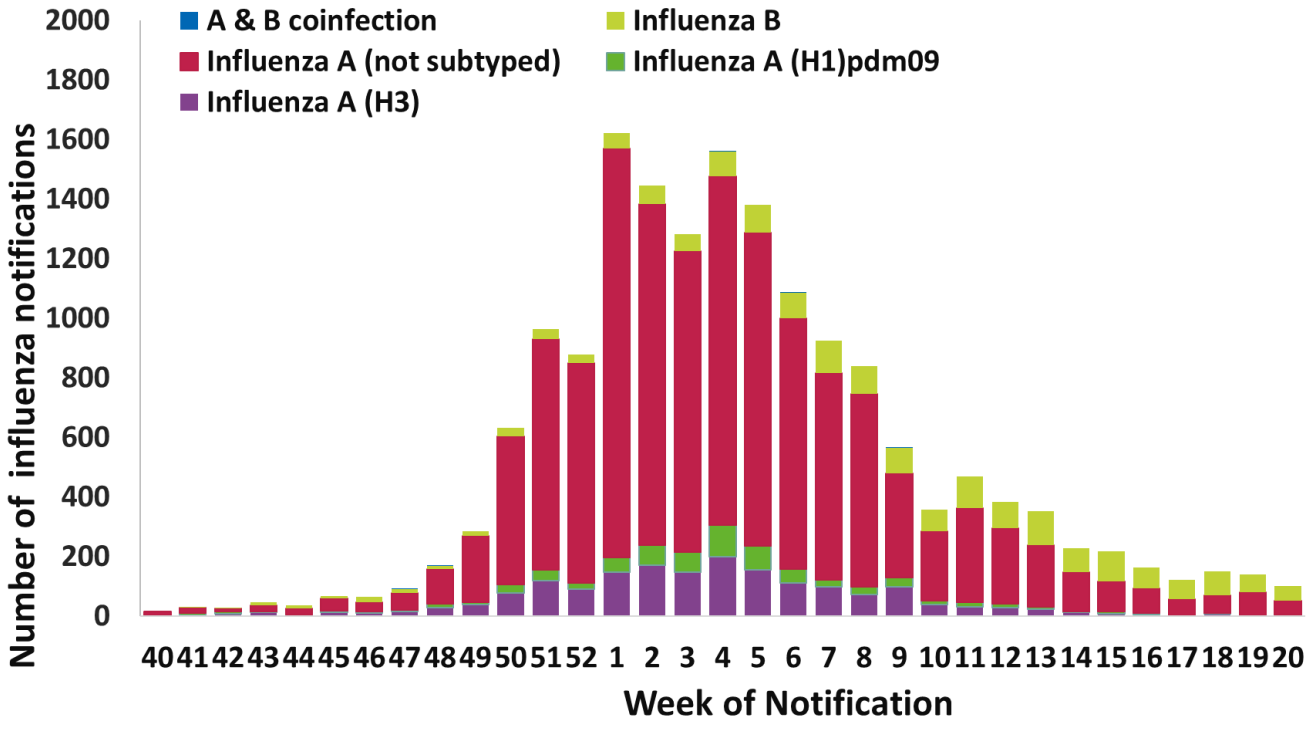

Figure 10: Number of laboratory confirmed **influenza** notifications by influenza type/subtype and week for the 2023/2024 season. *Source: Ireland's Computerised Infectious Disease Reporting System*

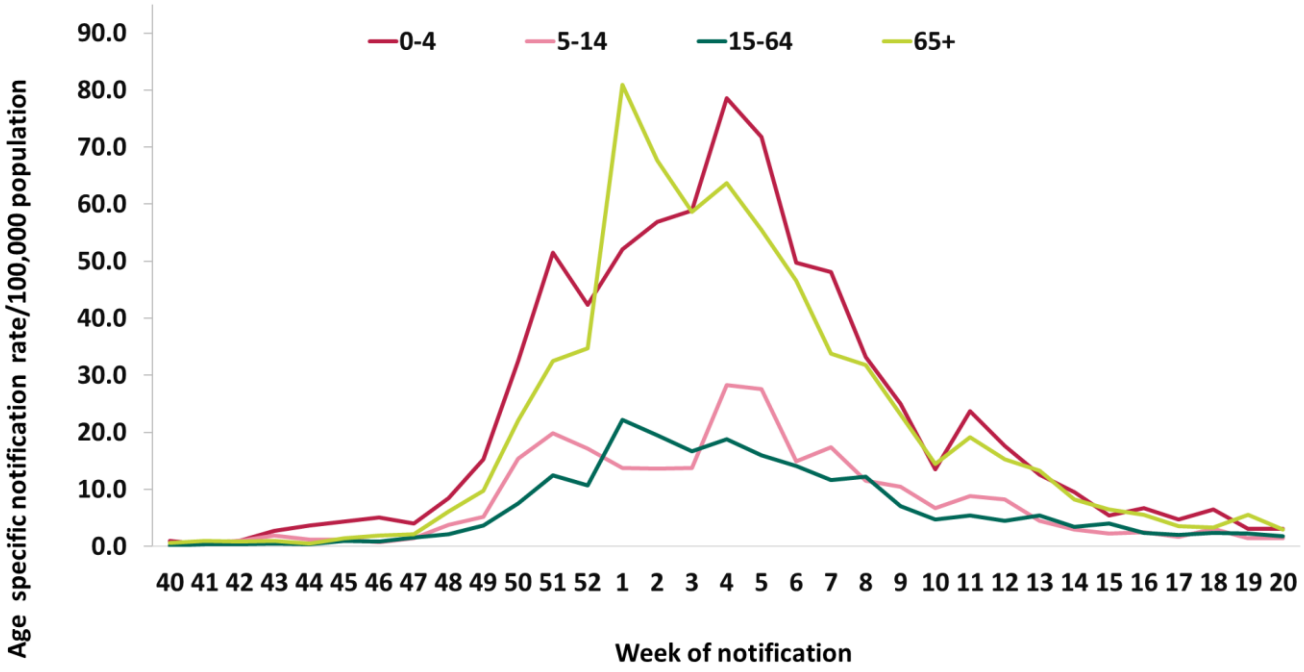

Figure 11: Age specific rates/100,000 population of laboratory confirmed **influenza** notifications to HPSC by week of notification for the 2023/2024 season. *Source: Ireland's Computerised Infectious Disease Reporting System.*

Table 6: Number and rate per 100,000 population of laboratory confirmed **influenza** notifications by HSE Health Region for week 20 2024 and the 2023/2024 season to date. *Source: CIDR*

HSE Health Region	Week 20 2024		2023/2024 season (Week 40 2023 - Week 20 2024)	
	Number	Rate/100,000 population	Number	Rate/100,000 population
Dublin and North East	28	2.4	4172	351.5
Dublin and Midlands	27	2.5	3101	287.8
Dublin and South East	9	0.9	2945	303.3
South West	12	1.6	2170	293.0
Mid West	12	2.9	966	233.9
West and North West	13	1.7	3326	437.8
Unknown	0		2	
Total	**101**	**2.0**	**16682**	324.0

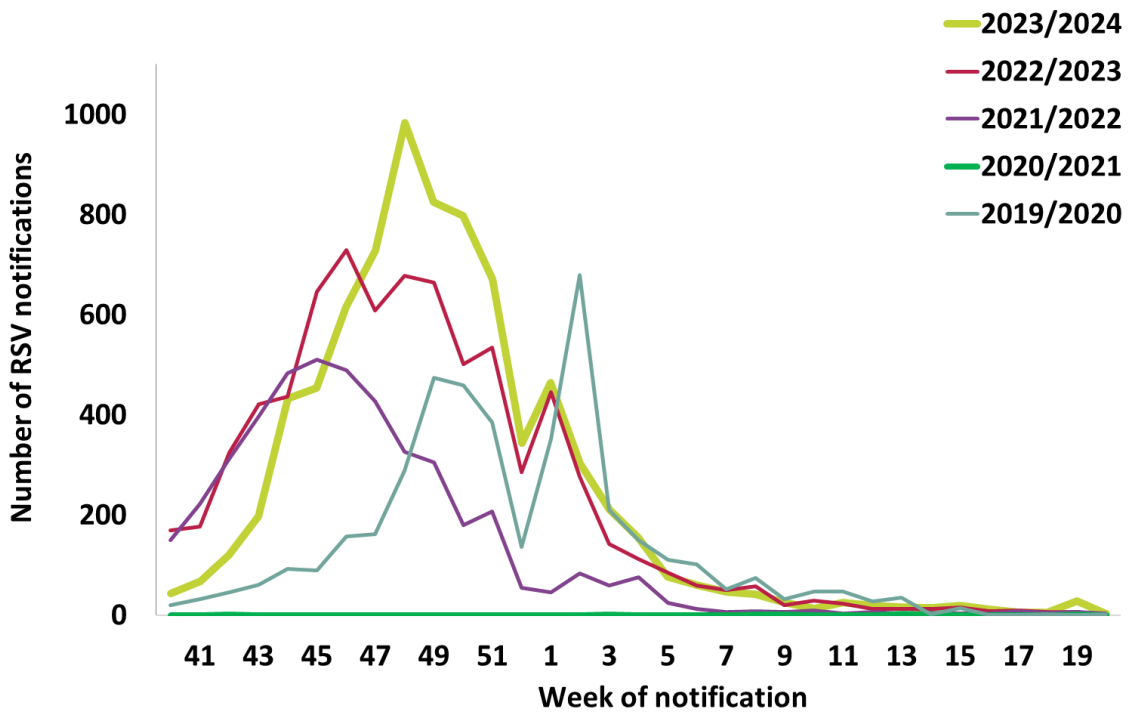

Figure 12: Number of laboratory confirmed **RSV** notifications to HPSC by week of notification, 2019/2020 to 2023/2024 seasons. *Source: Ireland's Computerised Infectious Disease Reporting System.*

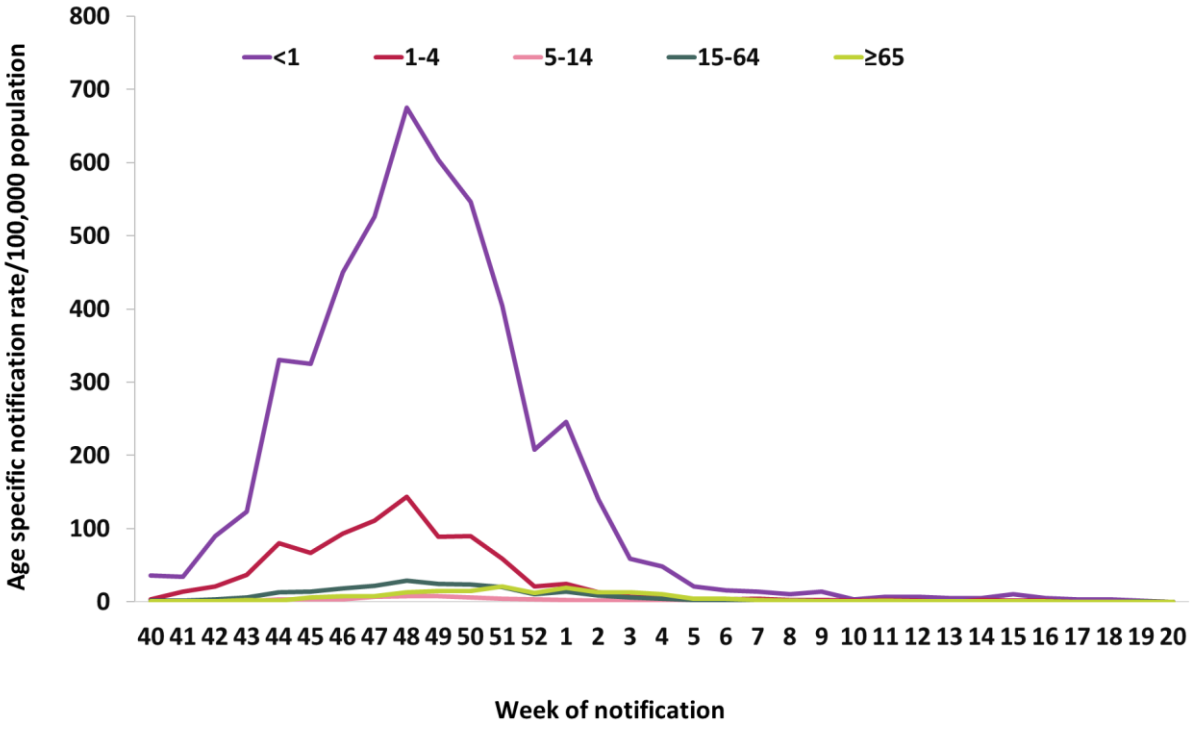

Figure 13: Age specific rates/100,000 population for laboratory confirmed **RSV** notifications to HPSC by week of notification for the 2023/2024 season. *Source: Ireland's Computerised Infectious Disease Reporting System.*

Table 7: Number and rate/100,000 population of laboratory confirmed **RSV** notifications by HSE Health Region for week 20 2024 and the 2023/2024 season to date. *Source: CIDR*

HSE Health Region	Week 20 2024		2023/2024 season (Week 40 2023 - Week 20 2024)	
	Number	Rate/100,000 population	Number	Rate/100,000 population
Dublin and North East	0	0.0	1562	131.6
Dublin and Midlands	2	0.2	1629	151.2
Dublin and South East	0	0.0	1167	120.2
South West	0	0.0	955	128.9
Mid West	0	0.0	646	156.4
West and North West	1	0.1	1868	245.9
Total	**3**	**0.1**	**7827**	152.0

6. Hospitalisations

- During week 20 2024, 30 laboratory confirmed influenza hospital inpatients were notified (19 A (not subtyped) and 11 B), compared to 32 (one A(H1)pdm09, 22 A (not subtyped) and nine B) in week 19 2024 (Figures 14 and 15).
- During the 2023/2024 season, 4,143 laboratory confirmed influenza hospital inpatients were reported: 365 A(H3), 134 A(H1)pdm09, 3,254 A (not subtyped), 386 B and two A and B coinfections and two influenza A(H1)pdm09 and A(H3) coinfections.
- Influenza B accounted for 37% (11/30) of all hospitalisations during week 20 2024 and 28% (9/32) in week 19 2024.
- During weeks 19 and 20 2024, the number and rate of age specific influenza hospitalisation rates were low in all age groups (Figure 16) (Table 8).
- There were no laboratory confirmed RSV hospitalised cases notified in week 20 2024 and two in week 19 2024 (Figure 17).
- 3,308 RSV hospitalisations were reported for the 2023/2024 season.
- 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.

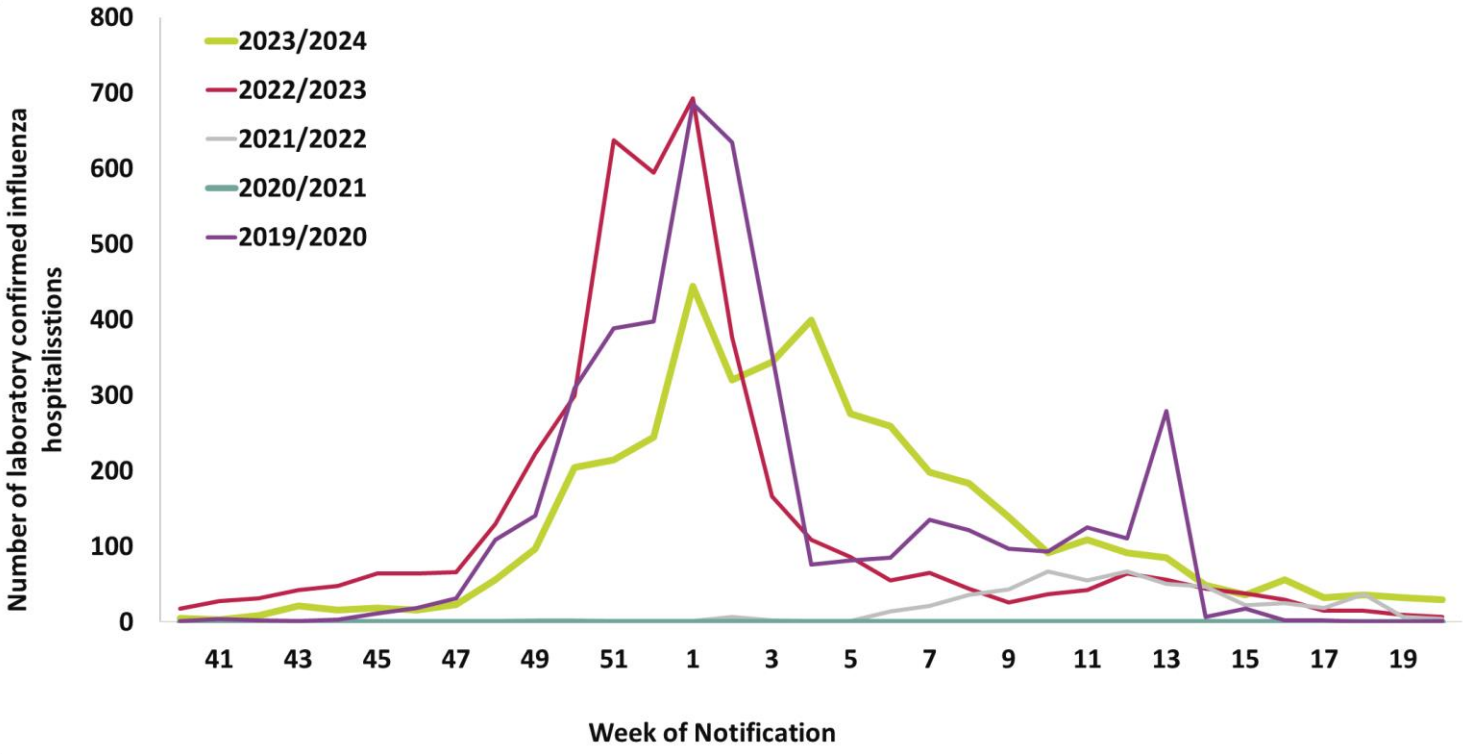

Figure 14: Number of notified **influenza** hospital inpatients, by week of notification and season, for the 2019/2020 to 2023/2024 seasons. *Source: Ireland's Computerised Infectious Disease Reporting System.*

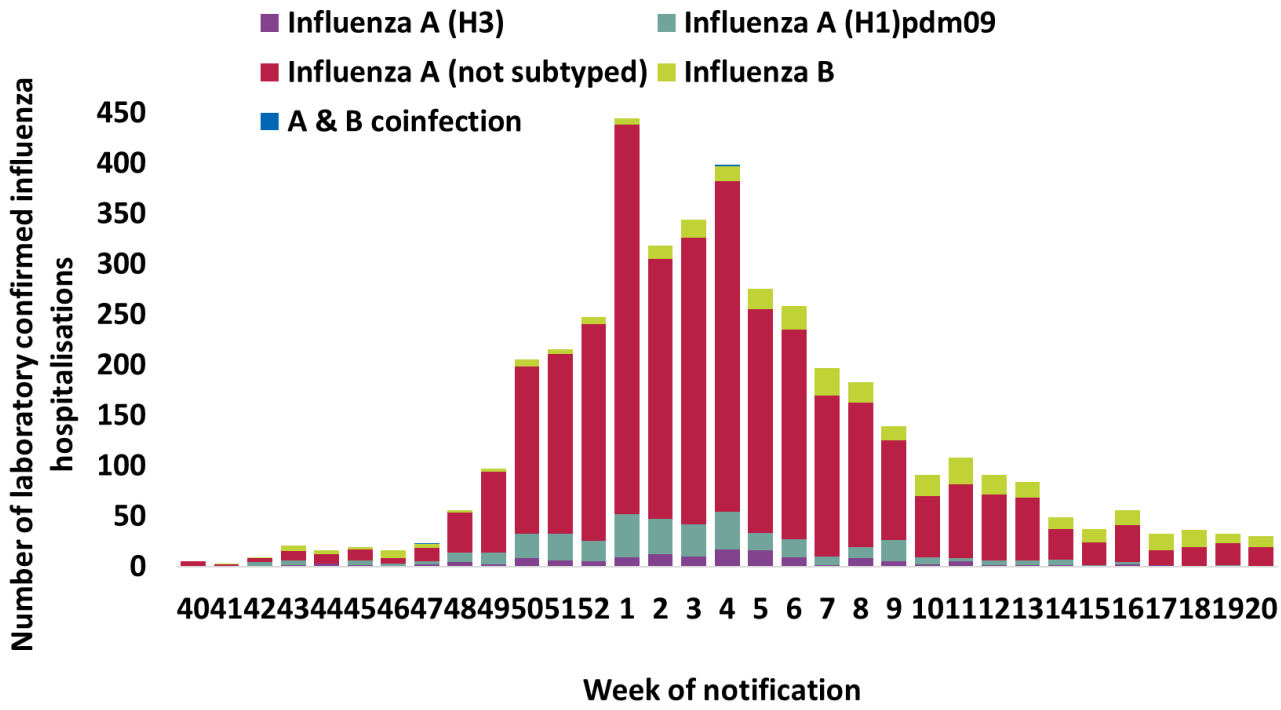

Figure 15: Number of notified laboratory confirmed **influenza** hospital inpatients by influenza type/subtype by week for the 2023/2024 season. *Source: Ireland's Computerised Infectious Disease Reporting System.*

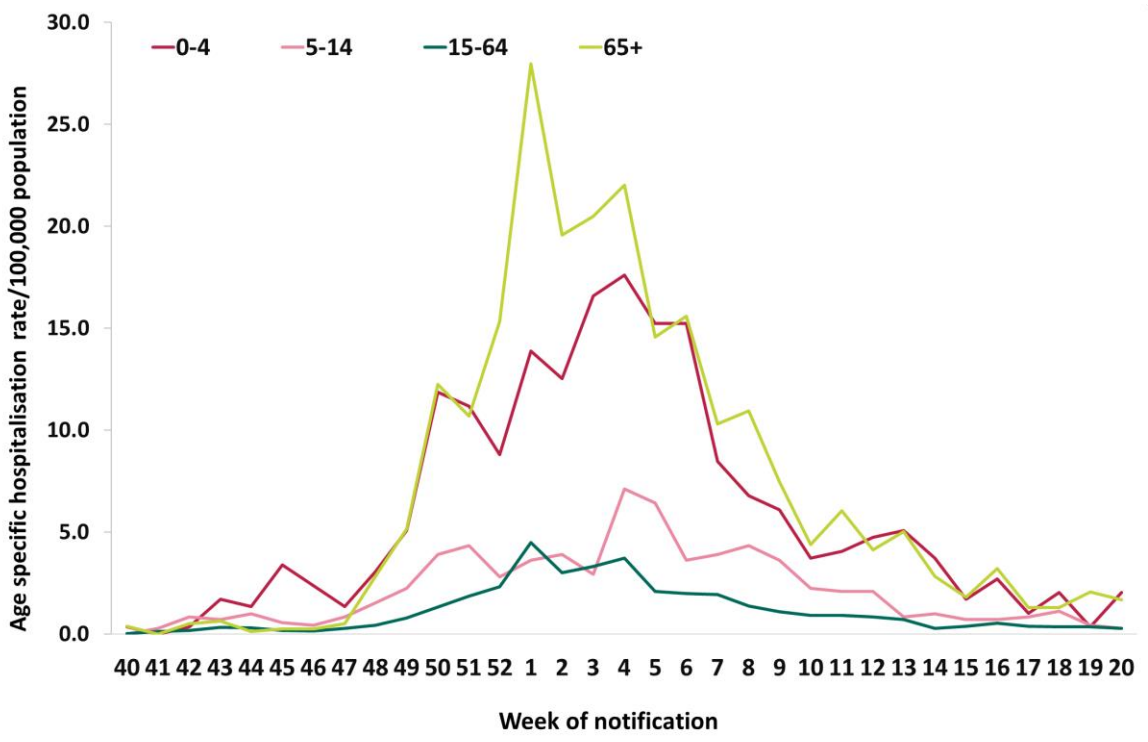

Figure 16: Age specific rates/100,000 population for laboratory confirmed **influenza** cases reported as **hospital inpatients** by week of notification for the 2023/2024 season. *Source: Ireland's Computerised Infectious Disease Reporting System.*

Table 8: Number, percentage and rate per 100,000 population of notified laboratory-confirmed **influenza hospitalised cases notified** in week 20 2024 and the 2023/2024 season (week 40 2023 onwards). *Source: Ireland's Computerised infectious Disease Reporting System*

Age (years)	Hospitalised Week 20			Season to date (Week 40 2023 - Week 20 2024)		
	Number	% of all Hospitalisations	Rate/ 100,000	Number	% of all Hospitalisations	Rate/ 100,000
<1	3	10.0	5.2	127	3.1	219.7
1-4	3	10.0	1.3	452	10.9	190.2
5-14	2	6.7	0.3	511	12.3	71.3
15-24	1	3.3	0.2	172	4.2	26.7
25-34	2	6.7	0.3	240	5.8	38.2
35-44	3	10.0	0.4	264	6.4	33.2
45-54	2	6.7	0.3	217	5.2	30.4
55-64	1	3.3	0.2	339	8.2	58.5
≥65	13	43.3	1.7	1821	44.0	234.6
Total	**30**	**100**	**0.6**	**4143**	**100**	**80.5**

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 20	4	42	30	1	8	1	15	**101**
Week 19	2	63	32	1	11	0	31	**140**
Week 18	8	71	36	1	12	1	20	**149**
Week 17	7	72	32	1	2	0	7	**121**
Week 16	5	85	56	2	6	2	7	**163**
Week 15	16	105	36	5	14	2	38	**216**
Week 14	8	134	49	4	10	7	16	**228**
Week 13	23	167	85	2	28	4	43	**352**
Week 12	30	182	92	1	21	4	52	**382**
Week 11	21	228	109	7	10	6	86	**467**
Week 10	26	176	92	3	24	9	28	**358**
Week 9	59	235	139	4	29	14	86	**566**
Week 8	74	407	184	6	30	5	133	**839**
Week 7	93	406	198	9	56	31	130	**922**
Week 6	75	544	259	9	71	18	114	**1090**
Week 5	130	644	276	7	50	30	242	**1379**
Week 4	139	682	400	12	82	46	200	**1561**
Week 3	117	591	344	16	49	32	134	**1283**
Week 2	111	801	320	17	55	30	110	**1444**
Week 1	95	809	444	14	73	28	161	**1624**
Week 52	56	450	245	11	33	15	65	**876**
Week 51	66	535	215	7	53	13	75	**964**
Week 50	40	309	205	5	35	3	35	**632**
Week 49	11	136	97	1	17	7	14	**283**
Week 48	19	63	56	1	11	6	14	**170**
Week 47	9	39	23	1	9	2	7	**90**
Week 46	8	28	16	0	5	1	5	**63**
Week 45	9	26	19	0	6	4	2	**66**
Week 44	2	15	16	1	1	0	1	**36**
Week 43	8	16	21	0	0	0	1	**46**
Week 42	8	9	9	0	1	0	1	**28**
Week 41	6	15	3	1	2	0	2	**29**
Week 40	0	6	5	0	3	0	0	**14**
Total	**1285**	**8091**	**4143**	**150**	**817**	**321**	**1875**	**16682**

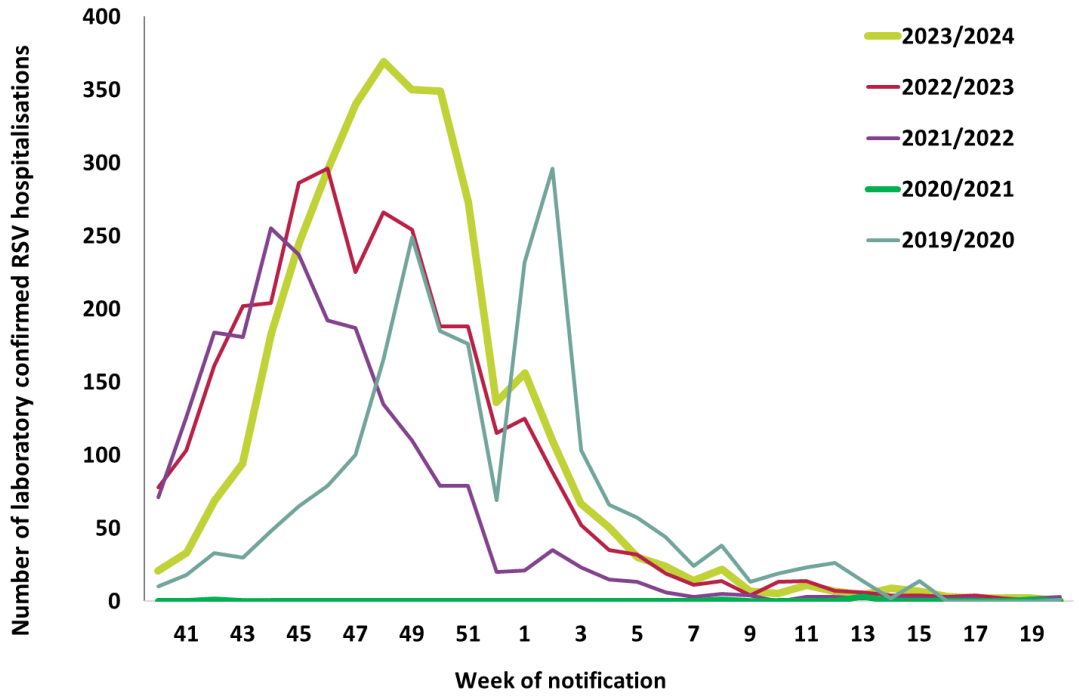

Figure 17: Number of notified **RSV** hospitalised cases notified, by week of notification and season, for the 2019/2020 to 2023/2024 seasons. *Source: Ireland's Computerised Infectious Disease Reporting System.*

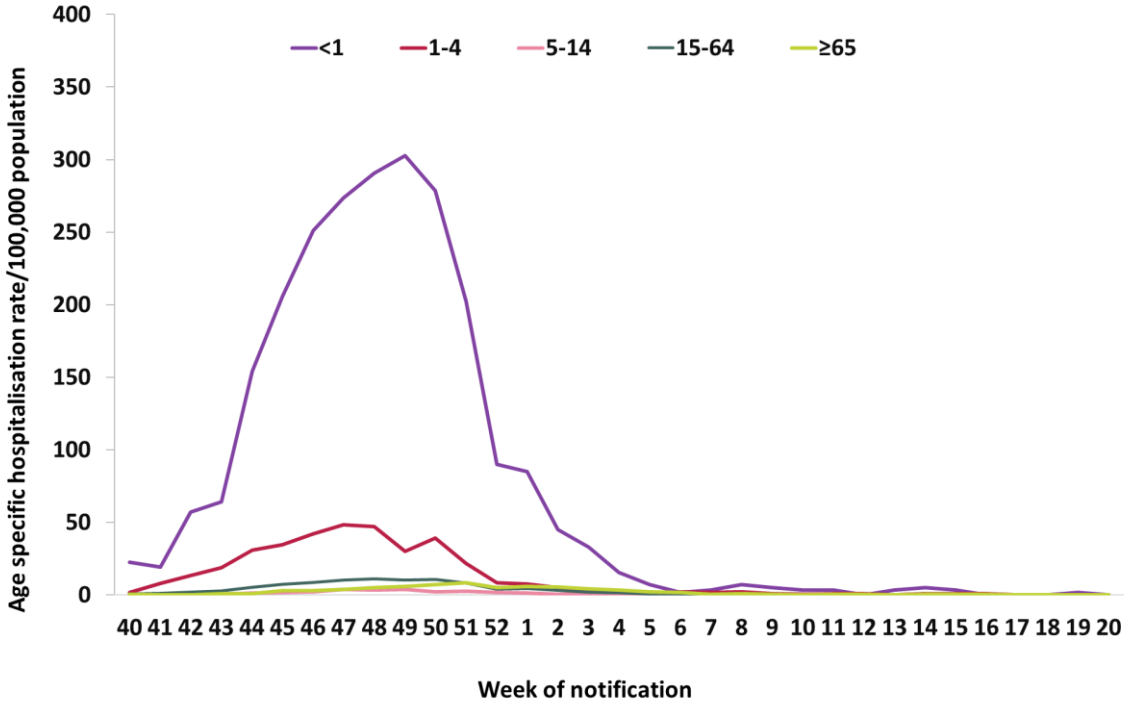

Figure 18: Age specific notification rates/100,000 population for laboratory confirmed **RSV** hospitalised cases notified by week of notification for the 2023/2024 season. *Source: Ireland's Computerised Infectious Disease Reporting System*

Table 10: Number, percentage and rate per 100,000 population of notified laboratory-confirmed **RSV hospitalised cases notified** in week 20 2024 and the 2023/2024 season (week 40 2023 onwards). *Source: Ireland's Computerised infectious Disease Reporting System*

Age (years)	Hospitalised (Week 20 2024)			Season to date (Week 40 2023 - Week 20 2024)		
	Number	% of all Hospitalisations	Rate/ 100,000 population	Number	% of all Hospitalisations	Rate/ 100,000 population
<1	0	0.0	0.0	1430	43.2	2474.2
1-4	0	0.0	0.0	895	27.1	376.7
5-14	0	0.0	0.0	189	5.7	26.4
15-24	0	0.0	0.0	29	0.9	4.5
25-34	0	0.0	0.0	31	0.9	4.9
35-44	0	0.0	0.0	39	1.2	4.9
45-54	0	0.0	0.0	50	1.5	7.0
55-64	0	0.0	0.0	94	2.8	16.2
≥65	0	0.0	0.0	551	16.7	71.0
Total	**0**	**100**	0.0	**3308**	**100**	64.2

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 20	0	2	0	1	0	0	0	**0**
Week 19	0	1	2	0	0	0	26	**29**
Week 18	0	2	2	0	0	0	2	**6**
Week 17	0	0	2	0	1	0	3	**6**
Week 16	0	4	3	0	0	0	5	**12**
Week 15	0	8	7	0	1	1	2	**19**
Week 14	0	4	9	0	0	0	2	**15**
Week 13	1	6	4	0	0	0	5	**16**
Week 12	0	8	7	0	1	1	2	**19**
Week 11	0	10	11	0	1	1	3	**26**
Week 10	0	6	5	0	1	0	2	**14**
Week 9	1	10	7	4	0	1	3	**26**
Week 8	4	8	22	0	0	0	8	**42**
Week 7	6	12	14	1	0	1	13	**47**
Week 6	7	17	24	1	3	0	8	**60**
Week 5	3	18	31	2	1	1	20	**76**
Week 4	16	55	50	3	7	6	18	**155**
Week 3	18	60	67	2	9	26	29	**211**
Week 2	14	115	109	7	10	12	36	**303**
Week 1	17	144	158	10	14	18	106	**467**
Week 52	7	136	136	7	5	17	34	**342**
Week 51	33	263	274	8	13	9	71	**671**
Week 50	33	325	350	6	33	12	39	**798**
Week 49	26	343	352	8	19	9	68	**825**
Week 48	20	479	376	11	15	11	72	**984**
Week 47	14	283	342	3	18	17	52	**729**
Week 46	7	258	296	8	8	1	37	**615**
Week 45	7	166	246	5	6	2	22	**454**
Week 44	6	212	185	3	12	3	12	**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	**246**	**3099**	**3308**	**94**	**186**	**158**	**739**	**7827**

7. 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 no laboratory confirmed influenza cases admitted to intensive care units (ICU) and notified to HPSC during weeks 19 and 20 2024.
- One-hundred and nineteen influenza cases (114 influenza A (32 A(H3), 17 A(H1)pdm09, 65 A (not subtyped), one influenza A(H1)pdm09 and A (H3) coinfection, and four influenza B) were notified for the season to date (weeks 40 2023- 20 2024).

Table 12: Cumulative number and age specific rate per 100,000 population of laboratory confirmed notified influenza hospitalised and intensive care cases, week 40 2023 – week 20 2024. *Source: Ireland's Computerised infectious Disease Reporting System*

Age-group (years)	Hospitalised		Admitted to ICU	
	Number	Rate/100,000 population	Number	Rate/100,000 population
<1	127	219.7	4	6.9
1-4	452	190.2	5	2.1
5-14	511	71.3	8	1.1
15-24	172	26.7	3	0.5
25-34	240	38.2	5	0.8
35-44	264	42.0	6	0.8
45-54	217	30.4	18	2.5
55-64	339	58.5	22	3.8
≥65	1821	234.6	48	6.2
Total	**4143**	**80.5**	**119**	**2.3**

8. 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 reported to HPSC during weeks 19 or 20 2024.
- For the season to date (weeks 40 2023 - 20 2024), 214 deaths in notified influenza cases; 50 A(H3), 16 A(H1)pdm09, 144 A (not-subtyped) and four influenza B.
- There was no excess all-cause mortality for the entire population reported for week 19 2024.

9. 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 20 2024, three influenza A (not subtyped) outbreaks (one in a nursing home, one in an acute hospital and one in another setting) were reported to HPSC (Tables 13 & 14).
- During week 19 2024, one influenza A (not subtyped) outbreak in an acute hospital was notified to HPSC.
- There have been 328 ARI/influenza/RSV (excluding COVID-19) outbreaks notified to HPSC to date this season, including 237 influenza outbreaks, 37 RSV outbreaks and 54 other ARI outbreaks.

Table 13: Summary of influenza, RSV and other ARI (influenza/RSV/SARS-CoV-2 negative) outbreaks by HSE Health Region during week 20 2024 and the 2023/2024 season (week 40 2023 – week 20 2024) *Source: CIDR*

HSE Health Region	Influenza		RSV		ARI		Total	
	Week 20	2023/2024	Week 20	2023/2024	Week 20	2023/2024	Week 20	2023/2024
Dublin and North East	1	44	0	7	0	26	1	77
Dublin and Midlands	1	35	0	12	0	0	1	47
Dubin and South East	0	49	0	3	0	12	0	64
South West	0	29	0	1	0	6	0	36
Mid West	0	9	0	3	0	0	0	12
West and North West	1	70	0	9	0	10	1	89
Unknown	0	1	0	2	0	0	0	3
Total	**3**	**237**	**0**	**37**	**0**	**54**	**3**	**328**

Table 14: Summary of influenza, RSV and other ARI (influenza/RSV/SARS-CoV-2 negative) outbreaks by outbreak setting during week 20 2024 and the 2023/2024 season (week 40 2023 – week 20 2024). *Source: CIDR*

Setting	Influenza		RSV		ARI		Total	
	Week 20	2023/2024	Week 20	2023/2024	Week 20	2023/2024	Week 20	2023/2024
Community hospital/Long-stay unit	0	18	0	2	0	6	0	26
Nursing Home	1	84	0	15	0	36	1	135
Hospital	1	79	0	10	0	1	1	90
Residential Institution	0	29	0	4	0	6	0	39
Childcare facility	0	2	0	2	0	0	0	4
Other settings	1	25	0	4	0	5	1	34
Total	**3**	**237**	**0**	**37**	**0**	**54**	**3**	**328**

10. International Summary

According to the European Respiratory Virus Surveillance Summary, in the WHO European region during week 19 2024 (including data up to 12/05/2024), influenza activity remained stable at low levels; all three influenza virus types/subtypes - A(H1)pdm09, A(H3) and B - are co-circulating. Influenza type B accounted for 92% of the influenza virus detections in the EU/EEA, although the detections remain low and continue to decrease overall. Most countries reported baseline or low levels of influenza intensity, only two countries continue to report widespread geographical spread. RSV activity remained low in all reporting countries.

As of 12th May 2024, WHO has reported that globally influenza detections continue to decrease in most countries in the Northern Hemisphere. Some countries in Central America and the Caribbean, Eastern Europe and Western Asia are reporting some continued influenza activity. In the southern hemisphere, some countries in South America have seen increases in influenza activity, with mainly influenza A viruses detected. In Southern Africa, influenza activity increased relative to previous weeks with influenza A virus predominating.

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 2024/2025 northern hemisphere influenza season contain the following:

- an A/Victoria/4897/2022 (H1N1)pdm09-like virus;
- an A/Thailand/8/2022 (H3N2)-like virus; and
- a B/Austria/1359417/2021 (B/Victoria lineage)-like virus.

Recommended composition of influenza virus vaccines for use in the 2024-2025 northern hemisphere influenza season (who.int)

- 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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