

# Influenza Surveillance Report - Week 16 2023 (17<sup>th</sup> – 23<sup>rd</sup> April 2023)



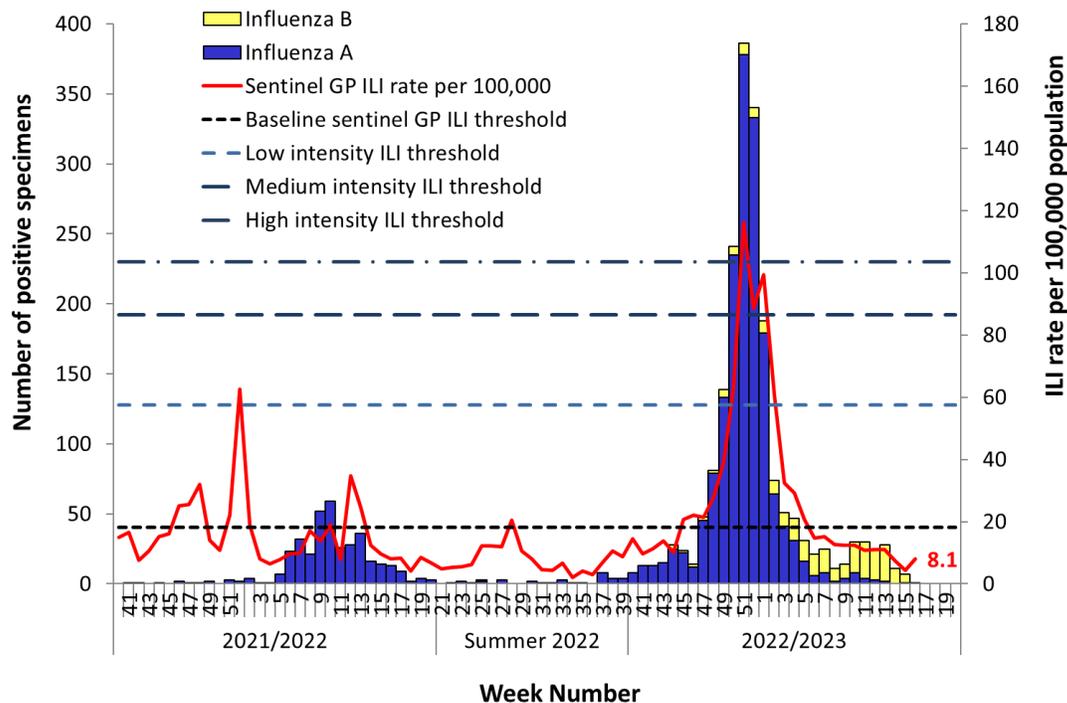
## Summary

Influenza activity remained at low levels in Ireland during week 16 2023, with influenza B viruses the dominant circulating viruses. Other respiratory viruses circulating include rhino/enteroviruses, human metapneumovirus (hMPV) and parainfluenza virus type 3 (PIV-3).

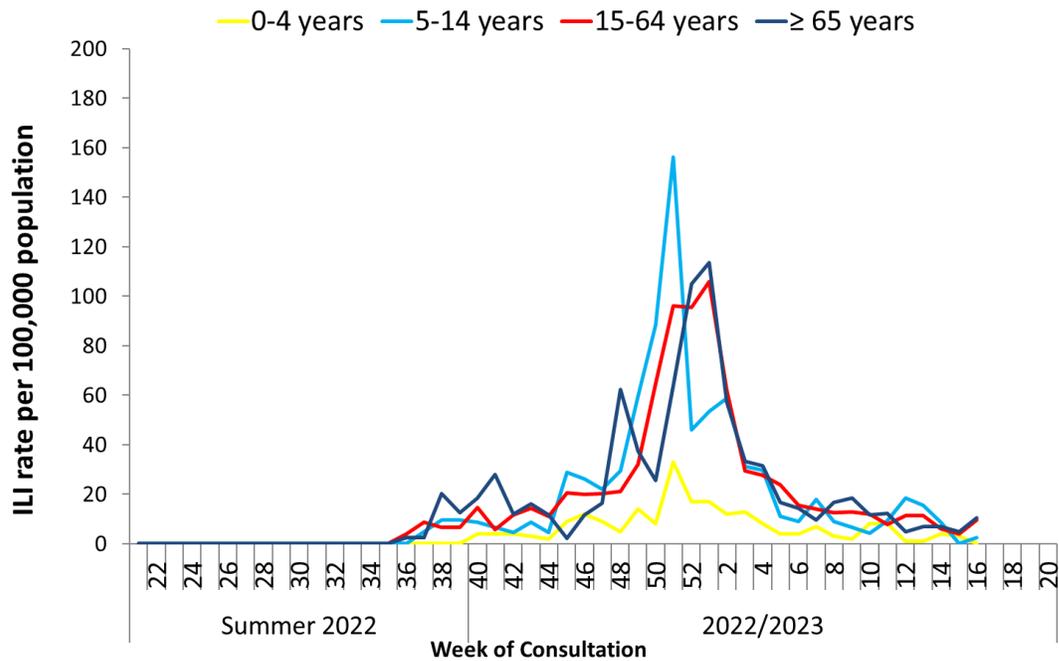
- **Influenza-like illness (ILI):** The sentinel GP influenza-like illness (ILI) consultation rate was 8.1 per 100,000 population during week 16 2023. This is a stable trend compared to the updated rate of 4.3/100,000 during week 15 2023. ILI consultation rates have been below the Irish baseline threshold (18.1/100,000 population) for the last 11 weeks (since week 6 2023). Sentinel GP ILI age specific rates were below age specific baseline thresholds in all age groups during week 16 2023.
- **National Virus Reference Laboratory (NVRL):**
- During week 16 2023, of 57 sentinel GP Acute Respiratory Infection (ARI) specimens tested and reported by the NVRL, one (1.8%) was positive for influenza B, one (1.8%) was positive for SARS-CoV-2 and no specimens were positive for RSV. hMPV positivity decreased to 3.5% (2/57) in week 16 2023, compared to 7.4% (4/54) in week 15 2023. There were five (8.8%) rhino/enterovirus and one (1.8%) PIV-3 positive specimens in week 16 2023.
- Of 145 non-sentinel respiratory specimens tested by the NVRL during week 16 2023, four (2.8%) were positive for influenza: one influenza A(H1N1)pdm09 and three influenza B. There were no positive specimens for RSV (0/145) detected during week 16 2023. Rhino/enterovirus positivity decreased to 11% (16/145) in week 16, compared to 16.7% (28/168) in week 15. hMPV positivity remained stable at 2.8% (4/145) in week 16 and PIV-3 positivity remained stable at 7.6% (11/145), compared to 7.1% (12/168) in week 15.
- Of 1,968 sentinel GP ARI specimens and non-sentinel respiratory specimens positive for influenza and reported by the NVRL during the 2022/2023 season, 482 (24.6%) were coinfecting with other respiratory viruses.
- **Influenza notifications:** 110 laboratory confirmed influenza cases were notified during week 16 2023 - 14 influenza A (not subtyped), one influenza A(H1N1)pdm09 and 95 influenza B. This is a decrease compared to 163 cases reported during week 15 2023. Age specific rates were low in all age groups during week 16.
- **RSV notifications:** Eight RSV cases were notified during week 16 2023, a decrease compared to 15 RSV cases notified in week 15 2023.
- **Hospitalisations:** During week 16 2023, 30 laboratory confirmed influenza cases were reported as hospital inpatients: four influenza A (not subtyped) and 26 influenza B cases. Influenza hospitalised cases during week 16 2023 decreased to 30, compared to 40 in week 15 2023.
- **Critical care admissions:** One laboratory confirmed case was admitted to critical care units and notified to HPSC during week 16 2023. During weeks 40 2022-16 2023, 183 laboratory confirmed influenza cases – 32 A(H1N1)pdm09, 31 A(H3N2), 107 A (not subtyped) and 13 influenza B have been admitted to critical care and notified to HPSC. Age specific rates for the season to date were highest in those aged 65 years and older. During weeks 40 2022-16 2023, of 160 laboratory confirmed influenza ICU cases with known influenza vaccination status, 107 (67%) were reported as NOT having received the 2022/2023 influenza vaccine.
- **Mortality:** There were no deaths in notified influenza cases reported to HPSC during week 16 2023. During weeks 40 2022-16 2023, 196 deaths in notified influenza cases were reported – 32 influenza A(H3N2), 26 A(H1N1)pdm09, 131 A (not subtyped), six influenza B and one influenza A and B coinfection. During the 2022/2023 season, excess all-cause mortality was reported for five consecutive weeks (weeks 51 2022 - 3 2023). Excess pneumonia and influenza mortality was reported for four consecutive weeks (weeks 51 2022 - 2 2023).
- **Outbreaks:** There was one RSV outbreak in community long stay unit notified during week 16 2023. During weeks 40 2022-16 2023, 156 influenza outbreaks were notified.
- **International:** Globally, influenza activity continued to decrease following the peak in late 2022. In Europe, influenza activity has decreased in recent weeks.

## 1. GP sentinel surveillance system - Clinical Data

- During week 16 2023, 23 sentinel GP influenza-like illness (ILI) consultations were reported from the Irish sentinel GP network, corresponding to an ILI consultation rate of 8.1 per 100,000 population, compared to 4.3 per 100,000 population during week 15 (Figure 1).
- Sentinel GP ILI consultation rates were below the baseline threshold during week 16 2023.
- The sentinel GP ILI consultation rates have been below the Irish sentinel GP ILI baseline threshold (18.1/100,000 population) for 11 consecutive weeks, since week 6 2023.
- Age specific ILI consultation rates were below age specific baseline thresholds in all age groups during week 16 2023 (Figure 2, Table 1).
- The Irish sentinel baseline ILI threshold for the 2022/2023 influenza season is 18.1 per 100,000 population. ILI rates above this baseline threshold combined with sentinel GP influenza positivity >10% indicate the likelihood that influenza is circulating in the community. The Moving Epidemic Method (MEM) is used to calculate thresholds for GP ILI consultations in a standardised approach across Europe. The baseline ILI threshold (18.1/100,000 population), low (57.5/100,000 population), medium (86.5/100,000 population) and high (103.6/100,000 population) intensity ILI thresholds are shown in Figure 1. Age specific MEM threshold levels are shown in Table 1.



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



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

**Table 1:** Age specific sentinel GP ILI consultation rate per 100,000 population by week (weeks 48 2022-16 2023), colour coded by sentinel GP ILI age specific Moving Epidemic Method (MEM) threshold levels. *Source: ICGP.*

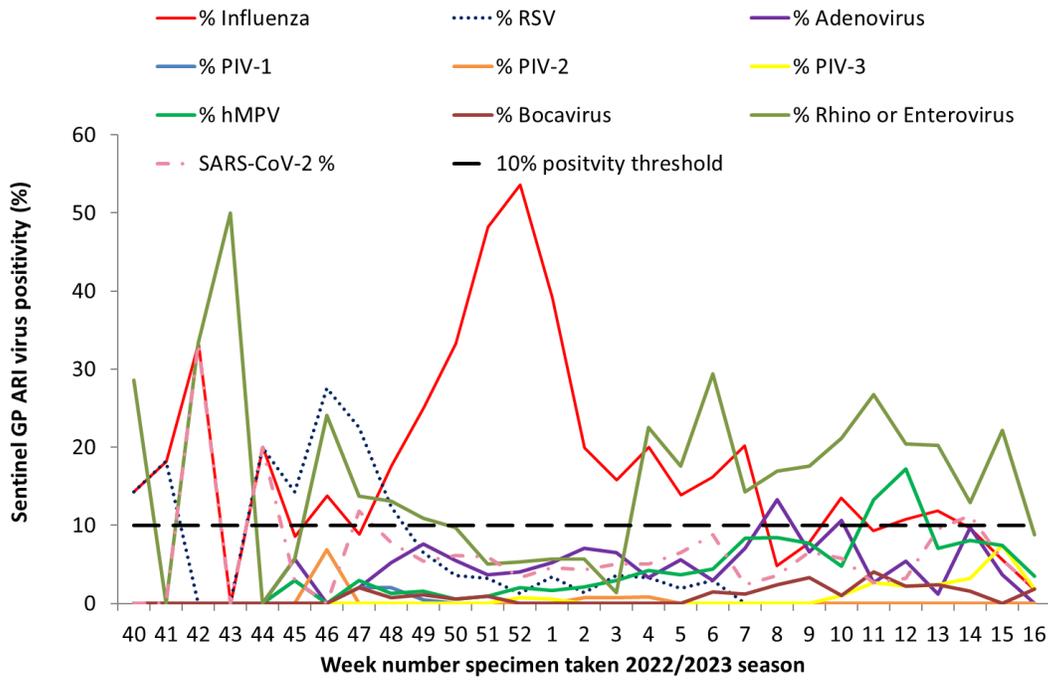
Age group (years)	48	49	50	51	52	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
All Ages	27.9	38.9	63.0	116.2	88.6	99.4	60.7	32.4	29.3	20.6	14.7	15.2	12.7	12.4	12.4	10.8	11.1	11.0	7.7	4.3	8.1
<15 yrs	27.3	60.9	71.1	154.3	57.2	62.5	58.4	40.6	32.3	13.5	12.1	22.5	10.5	7.3	14.7	18.5	13.9	11.9	11.7	4.7	1.7
15-64 yrs	21.1	32.1	64.6	96.2	95.4	106.0	62.2	29.6	27.8	23.8	15.6	14.1	12.6	12.8	11.9	8.0	11.5	11.5	6.2	4.0	9.7
≥65 yrs	62.3	37.5	25.7	63.8	105.0	113.5	57.3	33.2	31.6	16.6	14.3	9.5	16.6	18.5	11.6	12.2	4.9	7.0	7.0	4.9	10.5
Reporting practices (N=61)	58	59	59	58	58	59	57	59	58	59	58	59	59	60	60	58	57	59	60	56	54

MEM Threshold Levels	Below Baseline	Low	Moderate	High	Extraordinary
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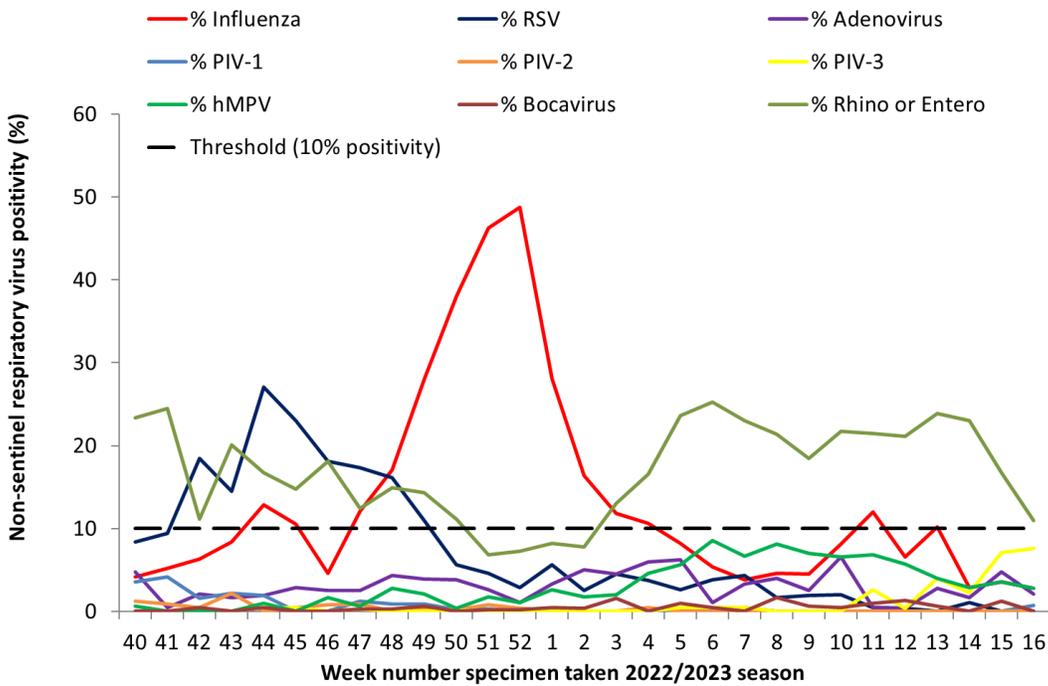
## 2. Influenza and Other Respiratory Virus Detections - NVRL

The data reported in this section for the 2022/2023 influenza season refers to sentinel GP ILI/ARI and non-sentinel respiratory specimens routinely tested for influenza, respiratory syncytial virus (RSV), adenovirus, parainfluenza virus types 1-4 (PIV-1-4), human metapneumovirus (hMPV) and rhino/enteroviruses by the National Virus Reference Laboratory (NVRL) (Tables 2 & 3, Figure 3a, 3b, 4). In Ireland, virological surveillance for influenza, RSV and other respiratory viruses (ORVs) undertaken by the Irish sentinel GP network is integrated into current testing structures for COVID-19 primary care referrals. As of 9<sup>th</sup> November 2022, the acute respiratory (ARI) case definition is being used by sentinel GPs for surveillance purposes and to identify cases for respiratory virus swabbing. Case definitions are available in Section 12. Sentinel GPs re-commenced in-surgery swabbing of ARI patients on November 16<sup>th</sup> 2022.

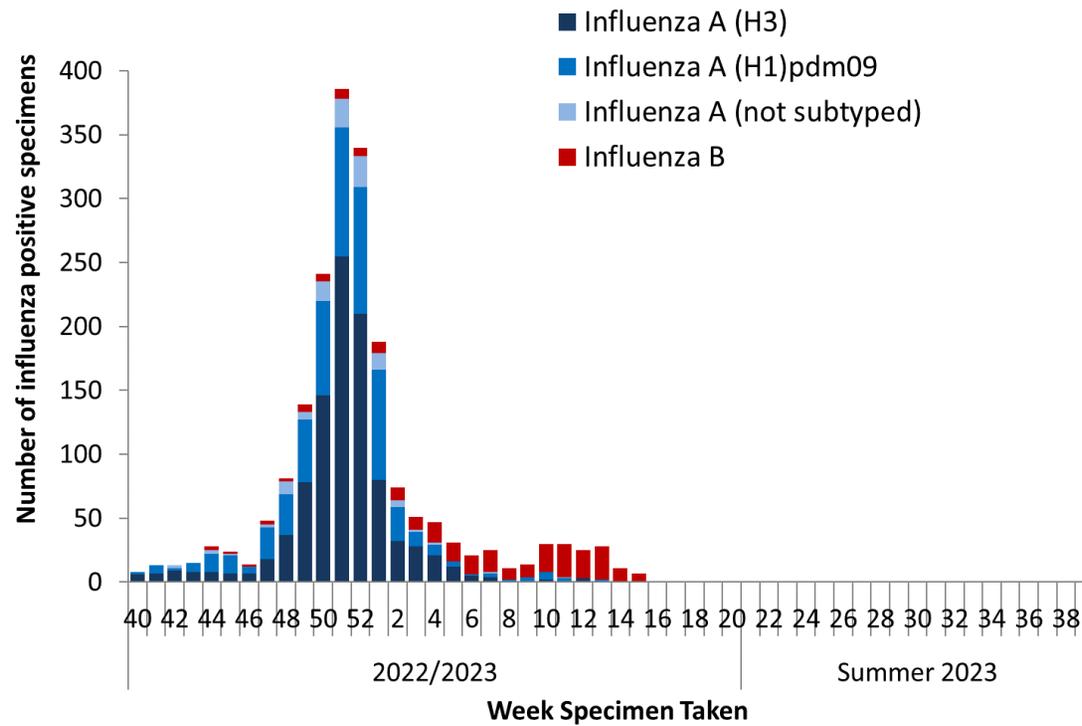
- A lag time with testing and reporting is noted for the most recent surveillance week.
- During week 16 2023, of 57 sentinel GP Acute Respiratory Infection (ARI) specimens tested and reported by the NVRL, one (1.8%) was positive for influenza B, one (1.8%) was positive for SARS-CoV-2 and no specimens were positive for RSV. hMPV positivity decreased to 3.5% (2/57) in week 16 2023, compared to 7.4% (4/54) in week 15 2023. There were five (8.8%) rhino/enterovirus and one (1.8%) PIV-3 positive specimens in week 16 2023.
- During week 15 2023, of 54 sentinel GP ARI specimens tested and reported by the NVRL, three (5.6%) were positive for influenza B. There were three (5.6%) specimens positive for SARS-CoV-2 and no specimens were positive for RSV. There were 12 (22.2%) rhino/enterovirus and four (7.4%) PIV-3 positive specimens in week 15 2023.
- Of 145 non-sentinel respiratory specimens tested and reported by the NVRL during week 16 2023, four (2.8%) were positive for influenza: one influenza A(H1)pdm09 and three influenza B.
- During week 15 2023, of 168 non-sentinel respiratory specimens tested, six (3.6%) were positive for influenza: four influenza B, one influenza A(H1)pdm09 and one influenza A(H3).
- RSV positivity (non-sentinel respiratory specimens) was at low levels in recent weeks, no positive RSV specimens were detected (0/168) during week 15 2023 and during week 16 (0/145).
- Rhinovirus/enterovirus positivity from non-sentinel respiratory specimens decreased to 11% (16/145) during week 16 2023 compared to 16.7% (28/168) during week 15 2023 (Figure 3b).
- Parainfluenza virus type 3 (PIV-3) positivity remained stable at 7.6% (11/145) in week 16 2023 compared to 7.1% (12/168) in week 15 2023
- Other respiratory viruses (ORVs) are being detected at lower levels (Figure 3a and 3b).
- Of 1,968 sentinel GP ARI specimens and non-sentinel respiratory specimens positive for influenza and reported by the NVRL during the 2022/2023 season, 482 (24.6%) were coinfecting with other respiratory viruses.



**Figure 3a:** Percentage positive results for **sentinel GP ARI** specimens tested by the NVRL for influenza, RSV and other respiratory viruses by week specimen was taken, weeks 40 2022-16 2023. *Source: NVRL*



**Figure 3b:** Percentage positive results for **non-sentinel respiratory** specimens tested by the NVRL for influenza, RSV and other respiratory viruses by week specimen was taken, weeks 40 2022-16 2023. *Source: NVRL*



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

**Table 2:** Number of sentinel GP ARI and non-sentinel respiratory specimens tested by the NVRL and positive influenza results, for weeks 15 and 16 2023 and the 2022/2023 season (weeks 40 2022-16 2023). *Source: NVRL*

Surveillance period	Specimen type	Total tested	Number influenza	% Influenza positive	Influenza A				Influenza B			
					A(H1)pdm09	A(H3)	A (not subtyped)	Total	B	B Victoria	B Yamagata	Total
Week 16 2023	Sentinel GP ARI	57	1	1.8	0	0	0	0	1	0	0	1
	Non-sentinel respiratory	145	4	2.8	1	0	0	1	3	0	0	3
	<b>Total</b>	<b>202</b>	<b>5</b>	<b>2.5</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>4</b>
Week 15 2023	Sentinel GP ARI	54	3	5.6	0	0	0	0	3	0	0	3
	Non-sentinel respiratory	168	6	3.6	1	1	0	2	3	1	0	4
	<b>Total</b>	<b>222</b>	<b>9</b>	<b>4.1</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>6</b>	<b>1</b>	<b>0</b>	<b>7</b>
2022/2023	Sentinel GP ARI	2604	582	22.4	209	218	22	449	133	0	0	133
	Non-sentinel respiratory	7411	1386	18.7	378	768	87	1233	134	18	1	153
	<b>Total</b>	<b>10015</b>	<b>1968</b>	<b>19.7</b>	<b>587</b>	<b>986</b>	<b>109</b>	<b>1682</b>	<b>267</b>	<b>18</b>	<b>1</b>	<b>286</b>

**Table 3:** Number of sentinel GP ARI and non-sentinel respiratory specimens tested by the NVRL and positive RSV results, for weeks 15 and 16 2023 and the 2022/2023 season (weeks 40 2022-16 2023). *Source: NVRL*

Surveillance period	Specimen type	Total tested	Number RSV positive	% RSV positive	RSV A	RSV B	RSV (unspecified)
Week 16 2023	Sentinel GP ARI	57	0	0.0	0	0	0
	Non-sentinel	145	0	0.0	0	0	0
	<b>Total</b>	<b>202</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Week 15 2023	Sentinel GP ARI	54	0	0.0	0	0	0
	Non-sentinel	168	0	0.0	0	0	0
	<b>Total</b>	<b>222</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>
2022/2023	Sentinel GP ILI/ARI	2604	107	4.1	3	104	0
	Non-sentinel	7411	545	7.4	64	480	1
	<b>Total</b>	<b>10015</b>	<b>652</b>	<b>6.5</b>	<b>67</b>	<b>584</b>	<b>1</b>

**Table 4:** Number of sentinel GP ILI/ARI specimens tested by the NVRL for respiratory viruses and positive results, for weeks 15 and 16 2023 and 2022/2023 season (weeks 40 2022-16 2023). *Source: NVRL*

Virus	Week 16 2022 (N=57)		Week 15 2022 (N=54)		2022/2023 (N=2604)	
	Total	% positive	Total positive	% positive	Total positive	% positive
SARS-CoV-2	1	1.8	3	5.6	146	5.6
Influenza virus	1	1.8	3	5.6	582	22.4
Respiratory Syncytial Virus (RSV)	0	0.0	0	0.0	107	4.1
Rhino/enterovirus	5	8.8	12	22.2	334	12.8
Adenovirus	0	0.0	2	3.7	139	5.3
Bocavirus	1	1.8	0	0.0	25	1.0
Human metapneumovirus (hMPV)	2	3.5	4	7.4	106	4.1
Parainfluenza virus type 1 (PIV-1)	0	0.0	0	0.0	7	0.3
Parainfluenza virus type 2 (PIV-2)	0	0.0	0	0.0	5	0.2
Parainfluenza virus type 3 (PIV-3)	1	1.8	4	7.4	16	5.0
Parainfluenza virus type 4 (PIV-4)	0	0.0	0	0.0	4	0.2

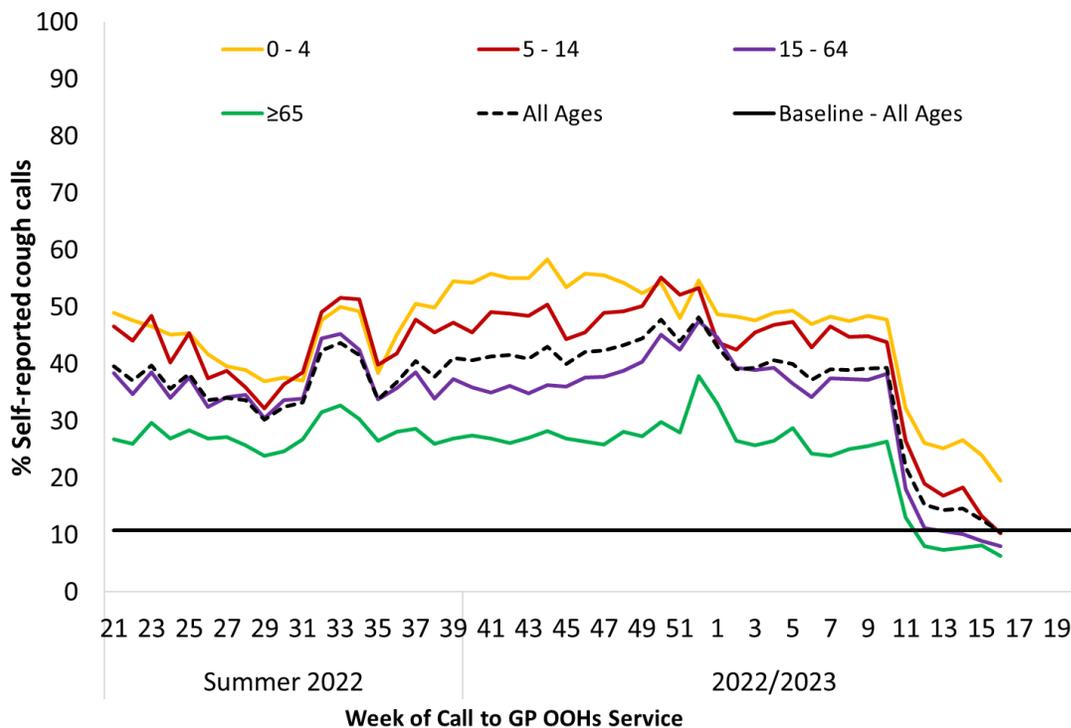
**Table 5:** Number of non-sentinel respiratory specimens tested by the NVRL for respiratory viruses and positive results, for weeks 15 and 16 2023 and 2022/2023 season (weeks 40 2022-16 2023). *Source: NVRL*

Virus	Week 16 2022 (N=145)		Week 15 2022 (N=168)		2022/2023 (N=7411)	
	Total positive	% positive	Total positive	% positive	Total positive	% positive
Influenza virus	4	2.8	6	3.6	1386	18.7
Respiratory Syncytial Virus (RSV)	0	0.0	0	0.0	545	7.4
Rhino/enterovirus	16	11.0	28	16.7	1119	15.1
Adenovirus	3	2.1	8	4.8	226	3.0
Bocavirus	0	0.0	2	1.2	31	0.4
Human metapneumovirus (hMPV)	4	2.8	6	3.6	202	2.7
Parainfluenza virus type 1 (PIV-1)	1	0.7	0	0.0	41	2.7
Parainfluenza virus type 2 (PIV-2)	0	0.0	0	0.0	26	0.4
Parainfluenza virus type 3 (PIV-3)	11	7.6	12	7.1	47	0.6
Parainfluenza virus type 4 (PIV-4)	1	0.7	0	0.0	26	0.4

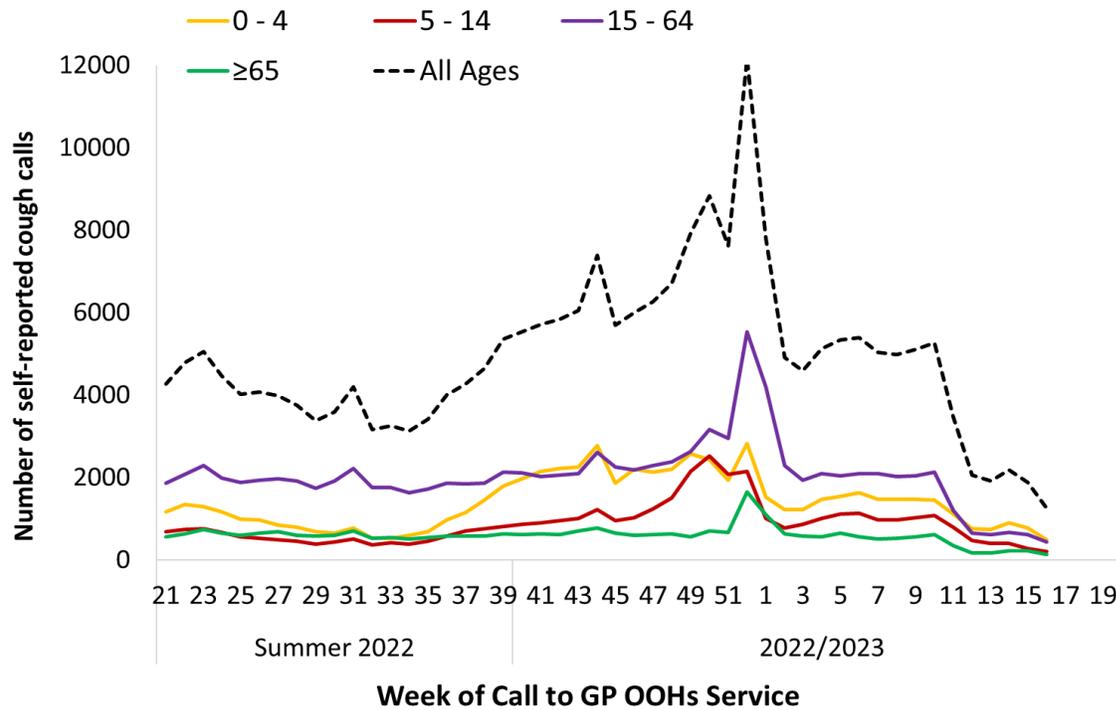
### 3. GP Out-Of-Hours services surveillance

National data on calls to GP Out-of-Hours services in Ireland are collated by HPSC. Five services currently participate in this program. Records with clinical symptoms reported as flu/influenza or cough are extracted for analysis. This information may act as an early indicator of circulation of influenza, SARS-CoV-2 or other respiratory viruses. Data are self-reported by callers and are not based on coded diagnoses.

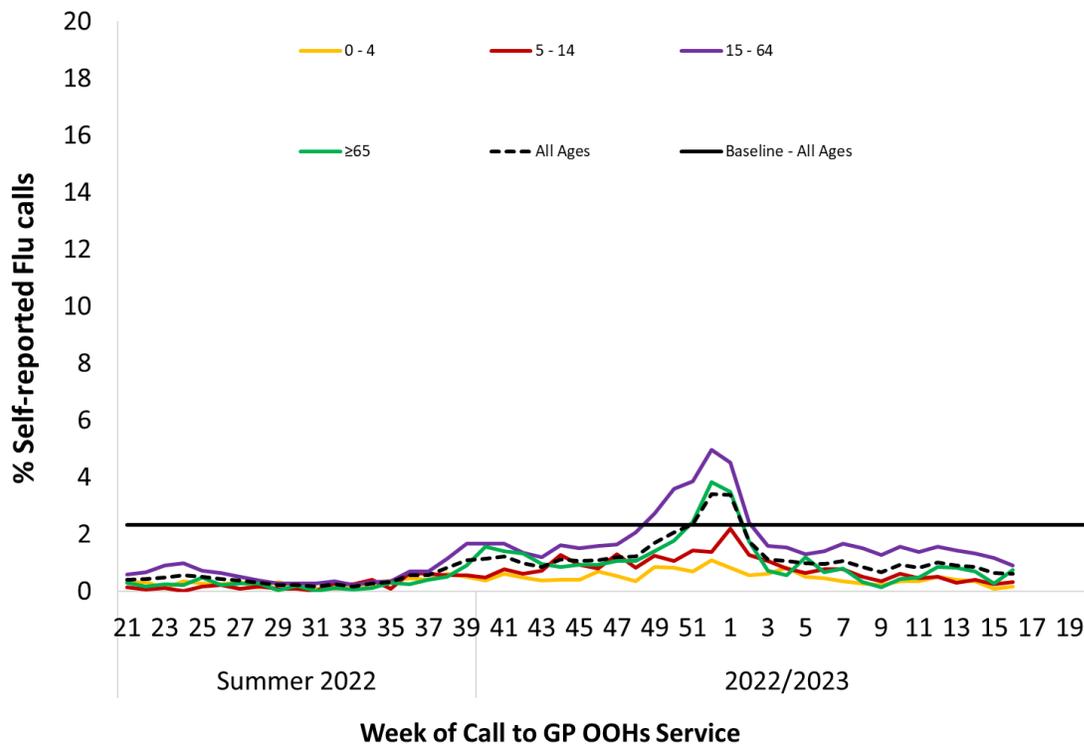
- 1,260 (10.5% of total calls; N=12,018) self-reported 'cough' calls were reported by a network of GP OOHs services during week 16 2023, which was just below baseline levels (10.8%) for the first time since the 2022/2023 influenza season started (Figure 5).
- 75 (0.6% of total calls; N=12,018) self-reported 'flu' calls were reported by a network of GP OOHs services during week 16 2023, which is below baseline levels. The baseline threshold level for self-reported 'flu' calls is 2.3% (Figure 7).
- Five GP OOH services provided data for week 16 2023.



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



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



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

## 4. Influenza & RSV notifications

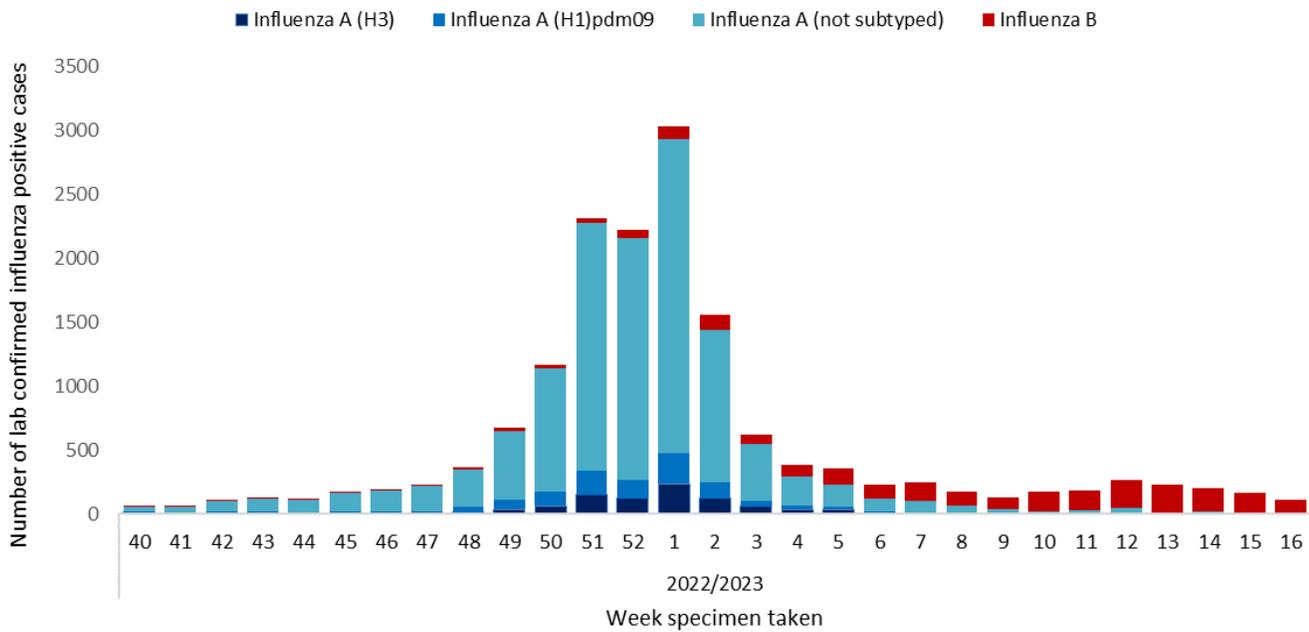
Influenza and RSV case notifications are reported on Ireland's Computerised Infectious Disease Reporting System (CIDR), including all positive influenza/RSV specimens reported from all laboratories testing for influenza/RSV and reporting to CIDR.

Influenza and RSV notifications are reported in the [Weekly Infectious Disease Report for Ireland](#).

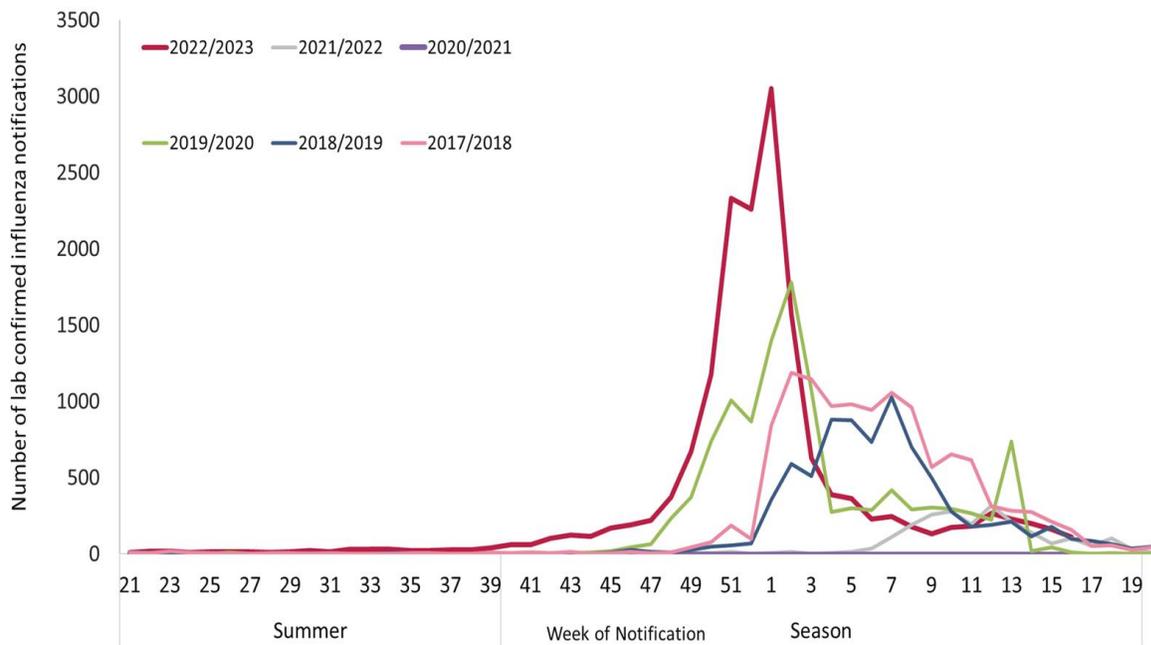
- 110 laboratory confirmed influenza cases were notified during week 16 2023: 14 influenza A (not subtyped), one influenza A(H1)pdm09 and 95 influenza B. This is a decrease compared to 163 cases notified during week 15 2023 (Figures 8 & 9).
- During the 2022/2023 season to date (weeks 40 2022 -16 2023), 15,916 laboratory confirmed influenza cases have been notified to HPSC – 1,207 A(H1)pdm09, 1007 A(H3), 11,276 influenza A (not subtyped), 2,356 influenza B, 48 influenza A and B coinfections, 16 influenza A(H1)pdm09 & A(H3) coinfections and six influenza (type not reported) (Figure 8).
- Laboratory confirmed influenza notified cases by HSE Area, are outlined in Table 6.
- Age specific rates in notified laboratory confirmed influenza cases were low in all age groups during week 16 2023 (Figure 10).
- Eight RSV cases were notified during week 16 2023, compared to 15 RSV cases notified during week 15 2023 (Figure 11).
- During week 16 2023, age specific rates in notified laboratory confirmed RSV cases were low in all age groups (Figure 12).

**Table 6:** Number of laboratory confirmed influenza notifications by HSE Area during the 2022/2023 season (weeks 40 2022-16 2023) and week 16 2023 *Source: CIDR*

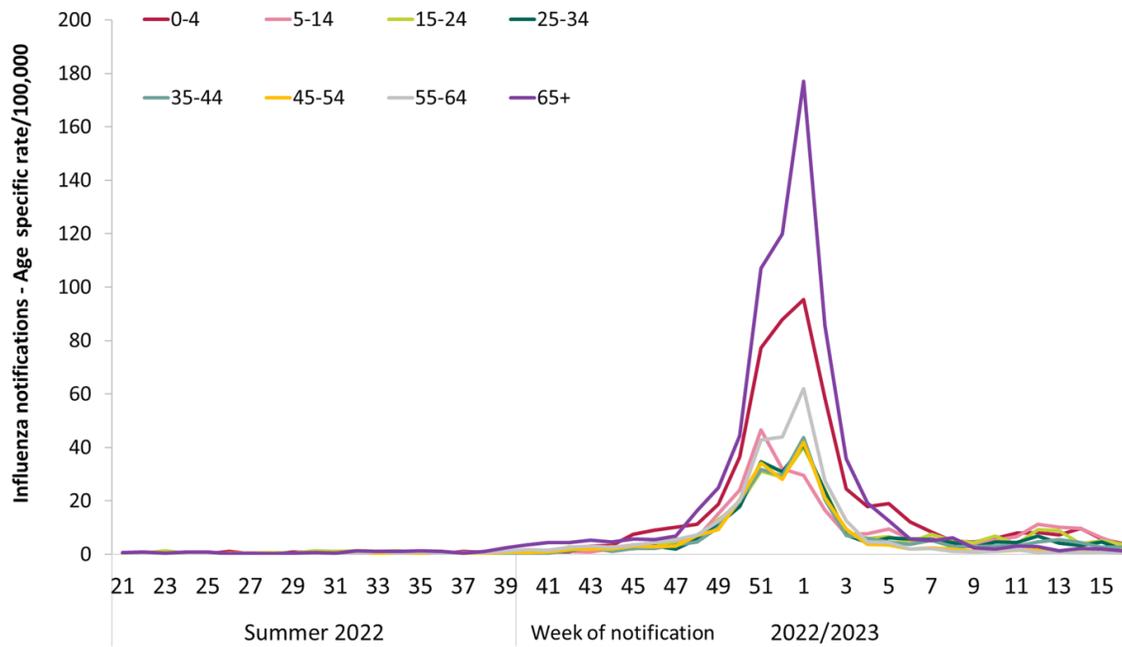
HSE area	Week 16 2023	2022/2023 season (Weeks 40 2022 - 16 2023)
HSE-East	35	5210
HSE-Midlands	12	1423
HSE-Mid-West	3	1478
HSE-North-East	7	1527
HSE-North-West	20	1592
HSE-South-East	7	1426
HSE-South	18	1696
HSE-West	8	1564
<b>Total</b>	<b>110</b>	<b>15916</b>



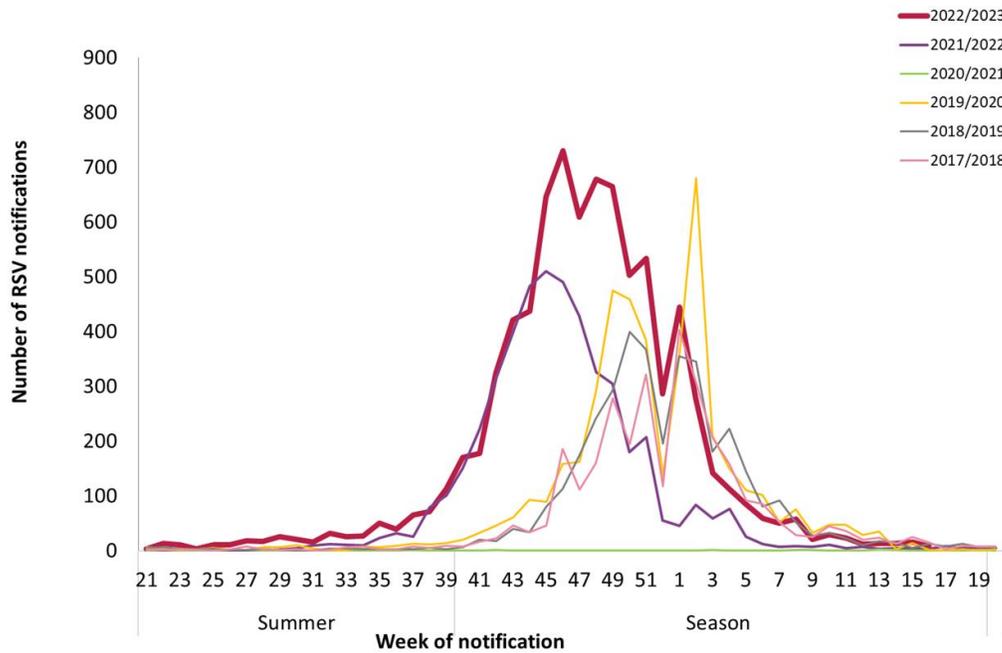
**Figure 8:** Number of laboratory confirmed influenza notifications by influenza type/subtype to HPSC by week 2022-2023 season. Source: Ireland’s Computerised Infectious Disease Reporting System.



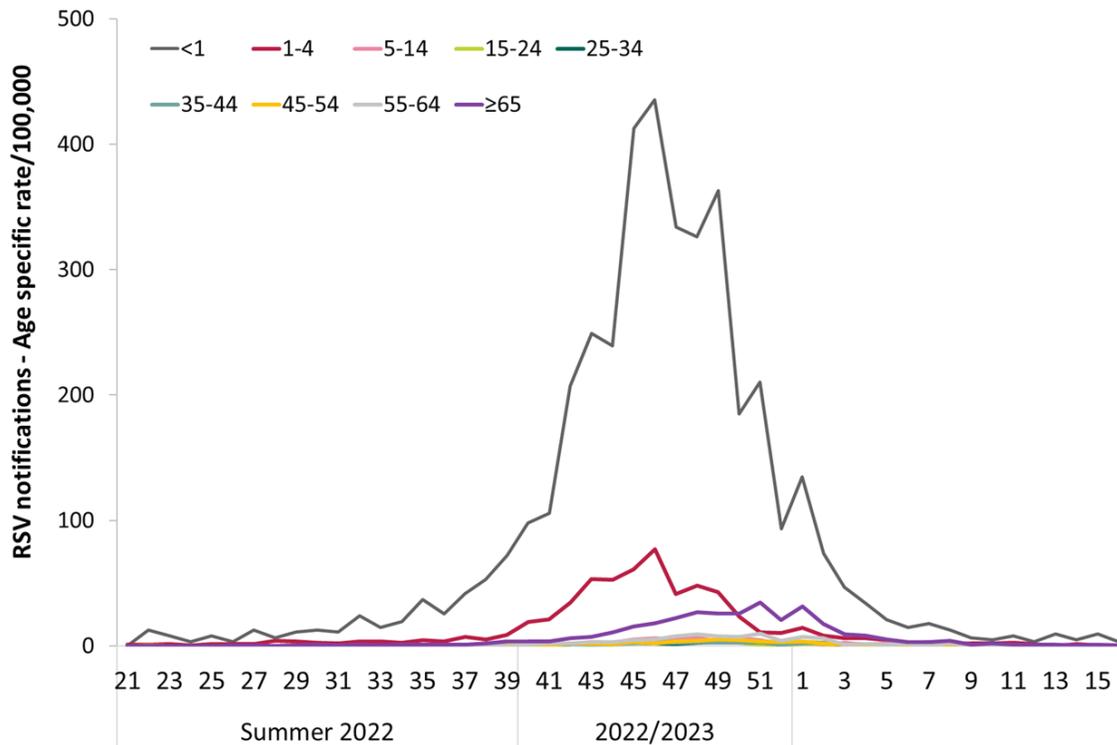
**Figure 9:** Number of laboratory confirmed influenza notifications to HPSC by week and season, 2017/2018 to 2022/2023 influenza seasons. Source: Ireland’s Computerised Infectious Disease Reporting System.



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



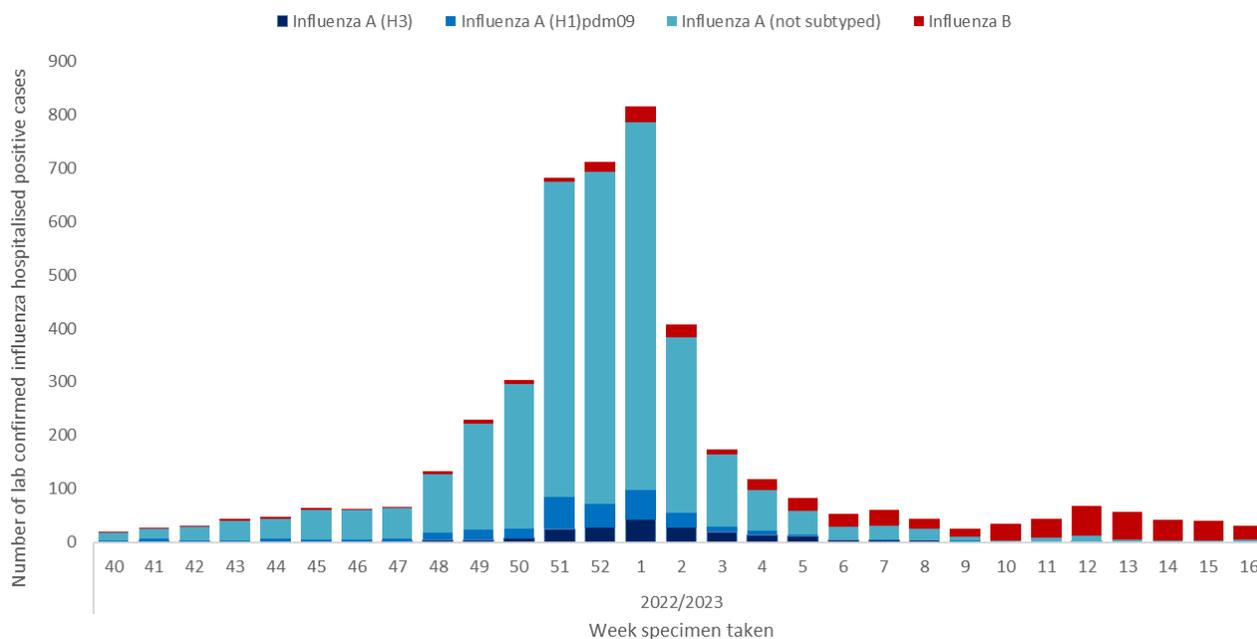
**Figure 11:** Number of laboratory confirmed **RSV** notifications to HPSC by week of notification, 2017/2018 to 2022/2023 seasons. *Source: Ireland’s Computerised Infectious Disease Reporting System.*



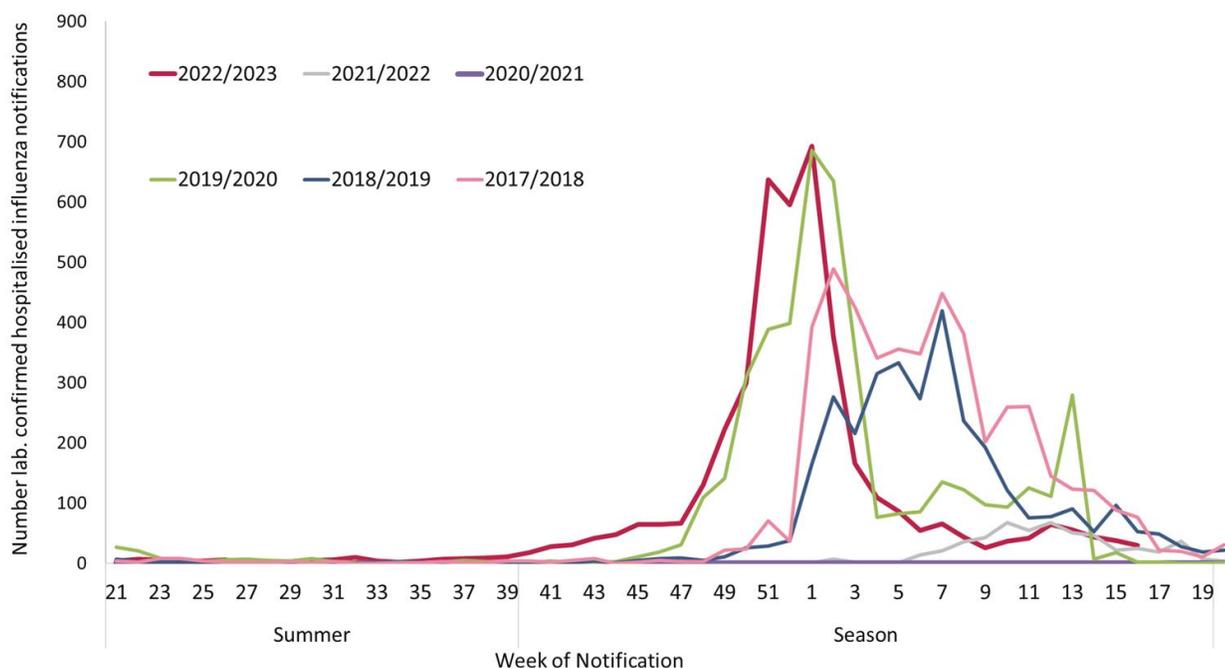
**Figure 12:** Age specific rates per 100,000 population for laboratory confirmed RSV notifications to HPSC by week of notification. *Source: Ireland's Computerised Infectious Disease Reporting System.*

## 5. Hospitalisations

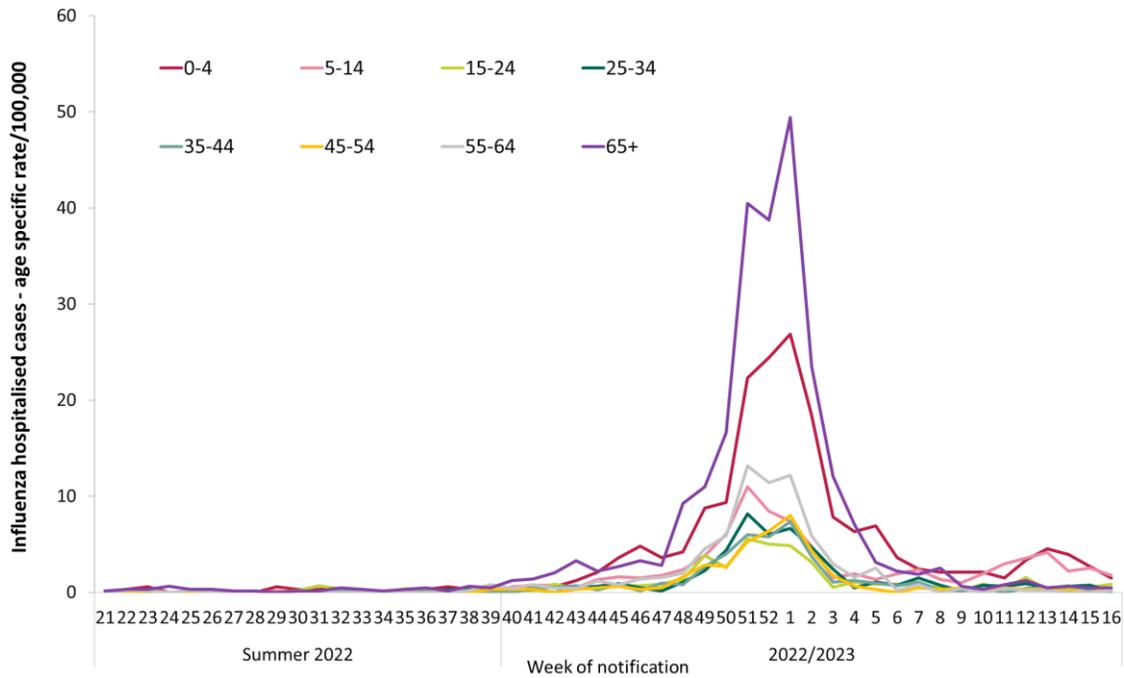
- During week 16 2023, 30 laboratory confirmed influenza cases were reported as hospital inpatients: four influenza A (not subtyped) and 26 influenza B (Figure 13 & 14). Influenza hospitalised cases during week 16 2023 decreased to 30, compared to 40 in week 15 2023.
- During the 2022/2023 season to date (weeks 40 2022 to week 16 2023), 4,556 laboratory confirmed influenza cases have been notified as hospital inpatients: 319 influenza A(H1)pdm09, 206 A(H3), 3,482 influenza A (not subtyped), 532 influenza B, 14 influenza co-infections and three influenza (type not reported) (Figure 13).
- During week 16 2023, age specific rates in notified laboratory confirmed hospitalised influenza cases were low in all age groups (Figure 15).
- The number and age specific rate per 100,000 population of laboratory confirmed notified influenza hospitalised and critical care cases for the 2022/2023 season are detailed in Table 9.
- During week 16 2023, three RSV cases were reported as hospital inpatients (Figures 16 and 17).
- Patient type of laboratory confirmed influenza and RSV notifications by week for the 2022/2023 season are reported in Tables 7 and 8.



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



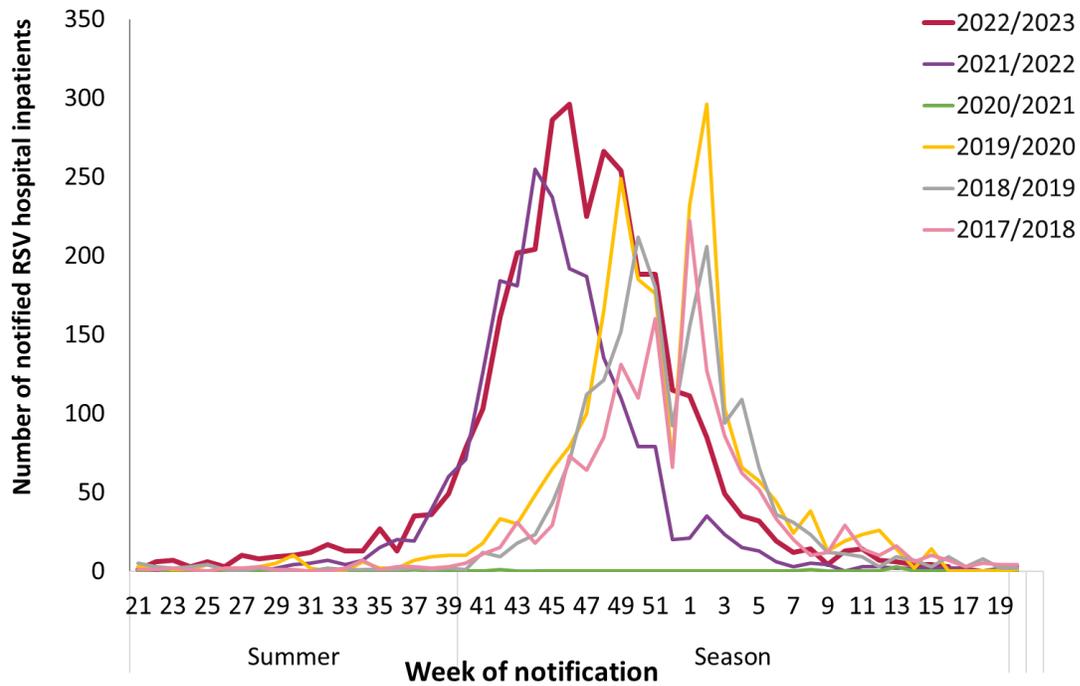
**Figure 14:** Number of notified laboratory confirmed **influenza** cases reported as **hospital inpatients**, for the 2017/2018 to 2022/2023 seasons. *Source: Ireland’s Computerised Infectious Disease Reporting System*



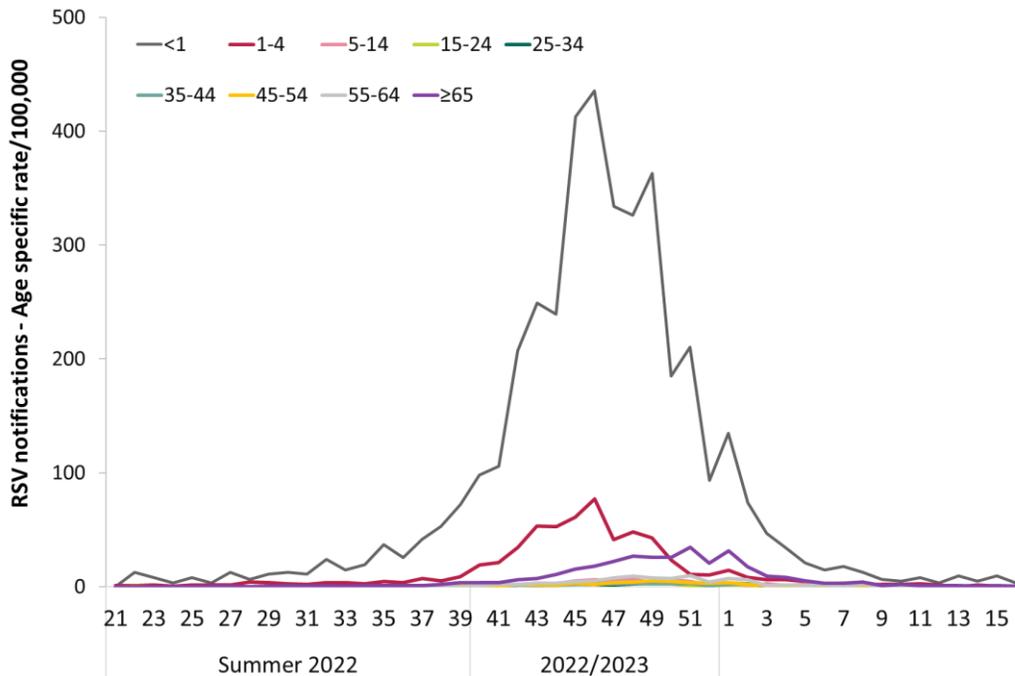
**Figure 15:** Age specific rates per 100,000 population for laboratory confirmed **influenza** cases reported as **hospital inpatients** by week of notification. *Source: Ireland’s Computerised Infectious Disease Reporting System.*

**Table 7:** Number of notified **influenza** cases reported by patient type and week of notification, 2022/2023 season (weeks 40 2022-16 2023). *Source: Ireland's Computerised infectious Disease Reporting System*

	Patient Type							Total
	GP Patient	ED patient	Hospital Inpatient	Hospital Day Patient	Hospital Outpatient	Other	Unknown	
Week 40	2	11	18	3	9	7	12	62
Week 41	4	20	28	1	3	2	2	60
Week 42	0	45	31	1	16	3	5	101
Week 43	7	34	44	6	20	7	6	124
Week 44	2	38	48	6	16	2	5	117
Week 45	2	66	65	7	12	12	8	172
Week 46	5	80	65	11	15	12	5	193
Week 47	3	92	66	18	19	7	16	221
Week 48	18	122	131	8	31	20	40	370
Week 49	17	261	230	31	56	19	61	675
Week 50	45	450	298	22	105	46	204	1170
Week 51	100	806	691	30	220	134	347	2328
Week 52	49	1013	710	17	162	143	141	2235
Week 1	145	1368	833	48	201	129	323	3047
Week 2	60	606	413	31	146	132	172	1560
Week 3	35	244	172	8	51	15	99	624
Week 4	24	161	114	5	26	11	45	386
Week 5	35	146	90	7	34	8	39	359
Week 6	12	113	56	4	17	10	16	228
Week 7	16	110	62	4	28	6	19	245
Week 8	11	72	48	1	21	7	18	178
Week 9	5	74	26	0	14	3	11	133
Week 10	8	87	37	1	18	3	20	174
Week 11	17	99	44	3	8	4	8	183
Week 12	11	141	67	6	13	4	24	266
Week 13	14	109	56	8	6	19	19	231
Week 14	4	100	43	7	11	13	23	201
Week 15	3	81	40	5	7	10	17	163
Week 16	2	45	30	1	7	8	17	110
<b>Total</b>	<b>656</b>	<b>6594</b>	<b>4556</b>	<b>300</b>	<b>1292</b>	<b>796</b>	<b>1722</b>	<b>15916</b>



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



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

**Table 8:** Number of notified RSV cases reported by patient type and week of notification (weeks 40 2022-16 2023), 2022/2023 season. Source: Ireland's Computerised Infectious Disease Reporting System

	Patient Type							Total
	GP Patient	ED patient	Hospital Inpatient	Hospital Day Patient	Hospital Outpatient	Other	Unknown	
Week 40	5	51	78	6	12	7	11	170
Week 41	3	45	103	3	12	5	4	177
Week 42	5	121	161	2	14	7	15	325
Week 43	6	149	201	9	20	19	16	421
Week 44	6	172	204	3	22	15	15	437
Week 45	8	239	286	12	37	28	27	646
Week 46	10	319	295	5	32	34	32	729
Week 47	6	273	225	8	24	36	33	609
Week 48	34	246	267	3	35	36	44	678
Week 49	19	254	255	13	17	24	81	665
Week 50	20	175	187	2	28	23	64	502
Week 51	14	172	191	5	32	30	80	532
Week 52	8	82	119	0	12	29	24	286
Week 1	26	165	125	5	21	31	66	444
Week 2	7	92	88	3	20	23	41	277
Week 3	4	44	52	2	13	5	21	142
Week 4	6	39	35	5	6	11	8	111
Week 5	4	27	32	0	9	2	11	85
Week 6	4	23	19	0	3	4	6	59
Week 7	1	23	11	2	3	3	7	50
Week 8	0	19	14	1	7	4	11	58
Week 9	0	13	4	0	2	1	0	20
Week 10	0	8	13	1	2	1	3	29
Week 11	0	5	14	0	3	1	0	23
Week 12	0	2	7	0	0	0	3	12
Week 13	0	3	6	0	1	2	1	13
Week 14	0	5	4	0	0	2	2	13
Week 15	0	10	4	0	0	0	1	15
Week 16	1	2	3	1	0	0	1	8
<b>Total</b>	<b>197</b>	<b>2778</b>	<b>3003</b>	<b>91</b>	<b>387</b>	<b>383</b>	<b>628</b>	<b>7536</b>

## 6. Critical Care Surveillance

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

- One laboratory confirmed influenza case was admitted to critical care and notified to HPSC during week 16 2023.
- During the 2022/2023 season to date (weeks 40 2022-16 2023), 183 laboratory confirmed influenza cases – 32 A(H1)pdm09, 31 influenza A(H3), 107 influenza A (not subtyped) and 13 influenza B have been admitted to critical care units and notified to HPSC. Age specific rates for the season to date were highest in those aged 65 years and older.
- During the 2022/2023 season (weeks 40 2022-16 2023), of 160 laboratory confirmed influenza ICU cases with known influenza vaccination status, 107 (67%) were reported as NOT having received the 2022/2023 influenza vaccine.
- The number and age specific rate per 100,000 population of laboratory confirmed notified influenza hospitalised and critical care cases for the 2022/2023 season are detailed in Table 9.

**Table 9:** Cumulative number and age specific rate per 100,000 population of laboratory confirmed notified influenza hospitalised and critical care cases, weeks 40 2022-16 2023. *Source: Ireland's Computerised infectious Disease Reporting System.*

Age (years)	Hospitalised		Admitted to ICU	
	Number	Age specific rate per 100,000 pop.	Number	Age specific rate per 100,000 pop.
<1	141	226.5	2	3.2
1-4	467	173.4	13	4.8
5-14	579	85.8	14	2.1
15-24	251	43.5	8	1.4
25-34	342	51.9	5	0.8
35-44	332	50.3	19	2.5
45-54	278	44.4	25	4.0
55-64	393	77.2	27	5.3
≥65	1773	278.1	70	11.0
Unknown	0	-	0	-
<b>Total</b>	<b>4556</b>	<b>95.7</b>	<b>183</b>	<b>3.8</b>

## 7. Mortality Surveillance

Influenza-associated deaths include all deaths where influenza is reported as the primary/main cause of death by the physician or if influenza is listed anywhere on the death certificate as the cause of death. HPSC receives daily mortality data from the General Register Office (GRO) on all deaths from all causes registered in Ireland. These data have been used to monitor excess all-cause and influenza and pneumonia deaths as part of the influenza surveillance system and the European Mortality Monitoring Project. These data are provisional due to the time delay in deaths' registration in Ireland. <http://www.euromomo.eu/>

- There were no deaths in notified influenza cases reported to HPSC during week 16 2023.
- During the 2022/2023 season (weeks 40 2022-16 2023), 196 deaths in notified influenza cases were reported to HPSC – 32 influenza A(H3), 26 influenza A(H1)pdm09, 131 influenza A (not subtyped), six influenza B and one influenza A and B coinfection.
- During the 2022/2023 season, excess all-cause mortality was reported over five consecutive weeks (weeks 51 2022 - 3 2023). Excess pneumonia and influenza mortality was also reported over four consecutive weeks (weeks 51 2022 – 2 2023). 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.

## 8. Outbreak Surveillance

COVID-19 outbreaks are not included in this report; surveillance data on COVID-19 outbreaks are detailed on the HPSC website. <https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/casesinireland/>

- During week 16 2023, there was one RSV outbreak in a community long stay unit notified to HPSC.
- During the 2022/2023 season (weeks 40 2022-16 2023), 156 laboratory confirmed influenza outbreaks were notified to HPSC. For an overview of outbreaks for the season to date (weeks 40 2022-16 2023), see Tables 10 and 11.

**Table 10:** Summary of influenza, RSV, COVID-19 & influenza mixed outbreaks and ARI (influenza/RSV/SARS-CoV-2 negative) outbreaks by HSE Area during week 16 2023 and the 2022/2023 season (weeks 40 2022-16 2023) *Source: CIDR*

HSE area	Influenza		RSV		ARI		COVID-19 & Influenza		Total	
	Week 16	2022/2023	Week 16	2022/2023	Week 16	2022/2023	Week 16	2022/2023	Week 16	2022/2023
HSE-East	0	55	0	15	0	1	0	1	0	72
HSE-Midlands	0	6	0	0	0	1	0	0	0	7
HSE-Mid-West	0	13	0	4	0	0	0	0	0	17
HSE-North-East	0	22	0	19	0	3	0	2	0	46
HSE-North-West	0	22	0	6	0	8	0	3	0	39
HSE-South-East	0	13	0	0	0	0	0	0	0	13
HSE-South	0	8	1	9	0	0	0	0	1	17
HSE-West	0	17	0	4	0	1	0	0	0	22
<b>Total</b>	<b>0</b>	<b>156</b>	<b>1</b>	<b>57</b>	<b>0</b>	<b>14</b>	<b>0</b>	<b>6</b>	<b>1</b>	<b>233</b>

**Table 11:** Summary of influenza, RSV, COVID-19 & influenza mixed outbreaks and ARI (influenza/RSV/SARS-CoV-2 negative) outbreaks by outbreak setting during week 16 2023 and the 2022/2023 season (weeks 40 2022-16 2023).

Source: CIDR

Setting	Influenza		RSV		ARI		COVID-19 & Influenza		Total	
	Week 16	2022/2023	Week 16	2022/2023	Week 16	2022/2023	Week 16	2022/2023	Week 16	2022/2023
Community hospital/Long-stay unit	0	8	1	10	0	4	0	1	1	23
Nursing Home	0	56	0	21	0	6	0	3	0	86
Hospital	0	67	0	8	0	0	0	2	0	77
Residential Institution	0	14	0	4	0	4	0	0	0	22
Childcare facility	0	0	0	1	0	0	0	0	0	1
Family Outbreaks	0	7	0	12	0	0	0	0	0	19
Other settings	0	4	0	1	0	0	0	0	0	5
<b>Total</b>	<b>0</b>	<b>156</b>	<b>1</b>	<b>57</b>	<b>0</b>	<b>14</b>	<b>0</b>	<b>6</b>	<b>1</b>	<b>233</b>

## 9. International Summary

In the European region, during week 15 2023 (week ending 16/04/2023), influenza virus positivity in sentinel primary care specimens decreased to 10%, from 15% in the previous week, resuming to the ECDC influenza positivity threshold of 10%. For week 15 2023, 176 (10%) of 1,782 sentinel GP specimens tested positive for an influenza virus; 78% were type B and 22% were type A. Of 18 subtyped A viruses, all were A(H1)pdm09. Of 43 influenza B viruses ascribed to a lineage, all were B/Victoria.

For week 15 2023, 1,732 of 36,184 specimens from non-sentinel sources (such as hospitals, schools, primary care facilities not involved in sentinel surveillance, or nursing homes and other institutions) tested positive for an influenza virus; 1,246 (72%) were influenza B and 486 (28%) were influenza A. Of 64 subtyped A viruses, 49 (77%) were A(H1)pdm09 and 15 (23%) were A(H3). Of 64 influenza B viruses ascribed to a lineage, all were B/Victoria. Of 37 countries and areas reporting on geographic spread of influenza viruses, two reported no activity, 11 reported sporadic spread, six reported local spread, five reported regional spread and 13 reported widespread influenza activity.

As of 2<sup>nd</sup> April 2023, globally, influenza activity decreased compared to the peak in late 2022. Influenza A viruses predominated with a slightly larger proportion of A(H1N1)pdm09 viruses detected among the subtyped influenza A viruses during the reporting period. The detections of influenza B increased during this reporting period.

See [ECDC](#) and [WHO](#) influenza surveillance reports for further information.

- Further information on influenza is available on the following websites:
  - Europe – ECDC <http://ecdc.europa.eu/>
  - Public Health England <https://www.gov.uk/government/collections/weekly-national-flu-reports>
  - United States CDC <http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>
  - Public Health Agency of Canada <http://www.phac-aspc.gc.ca/fluwatch/index-eng.php>
- Influenza case definition in Ireland <https://www.hpsc.ie/a-z/respiratory/influenza/casedefinitions/>
- COVID-19 case definition in Ireland <https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/casedefinitions/>
- Avian influenza overview May – August 2020 <https://www.ecdc.europa.eu/en/publications-data/avian-influenza-overview-may-august-2020>
- Avian influenza: EU on alert for new outbreaks <https://www.ecdc.europa.eu/en/news-events/avian-influenza-eu-alert-new-outbreaks>
- Information on COVID-19 in Ireland is available on the HPSC website <https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/>
- The WHO categorised COVID-19 as a pandemic on 11 March 2020. For more information about the situation in the WHO European Region visit:
  - WHO website: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019>
  - ECDC website: <https://www.ecdc.europa.eu/en/novel-coronavirus-china>

## 11. WHO recommendations on the composition of influenza virus vaccines

The WHO vaccine strain selection committee recommends that quadrivalent egg-based vaccines for use in the 2022/2023 northern hemisphere influenza season contain the following:

- an A/Victoria/2570/2019 (H1N1)pdm09-like virus;
  - an A/Darwin/9/2021 (H3N2)-like virus;
  - a B/Austria/1359417/2021 (B/Victoria lineage)-like virus; and
  - a B/Phuket/3073/2013 (B/Yamagata lineage)-like virus
- <https://www.who.int/teams/global-influenza-programme/vaccines/who-recommendations>

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

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

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

Further information on influenza in Ireland is available at [www.hpsc.ie](http://www.hpsc.ie)

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