

# Influenza Week 47 2022 (21<sup>st</sup> – 27<sup>th</sup> November 2022)



 **Intensive Care Society of Ireland**

## Summary

Influenza activity increased in Ireland during week 47 2022 (week ending 27/11/2022). Detections of influenza A(H3), A(H1)pdm09 and B have been reported this season to date. Respiratory syncytial virus (RSV) activity decreased during week 47 2022 but still remains at very high levels in Ireland. Given the increase in most influenza surveillance indicators, HPSC considers that influenza viruses are now circulating in Ireland. **It is now 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):

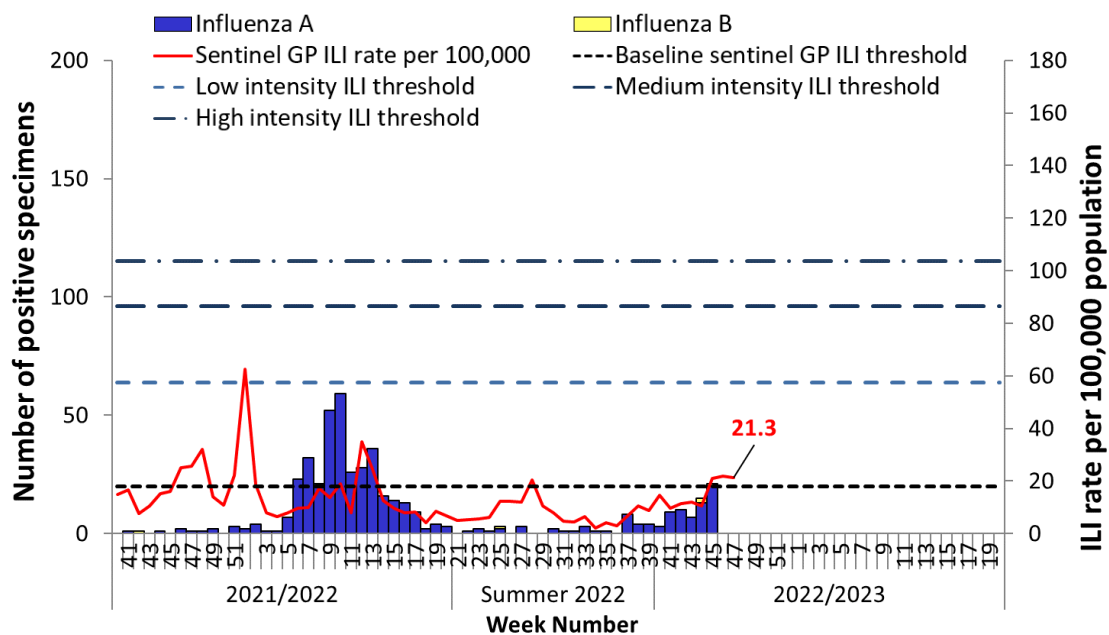
- The sentinel GP influenza-like illness (ILI) ILI consultation rate was 21.3 per 100,000 population during week 47 2022 and above the Irish baseline threshold (18.1/100,000 population), this is stable compared to the updated rate of 22 per 100,000 during week 46 2022.
- Sentinel GP ILI age specific consultation rates were above baseline thresholds in the 0-14 year age group and below baseline in the 15-64 and ≥65 year age groups.

### National Virus Reference Laboratory (NVRL):

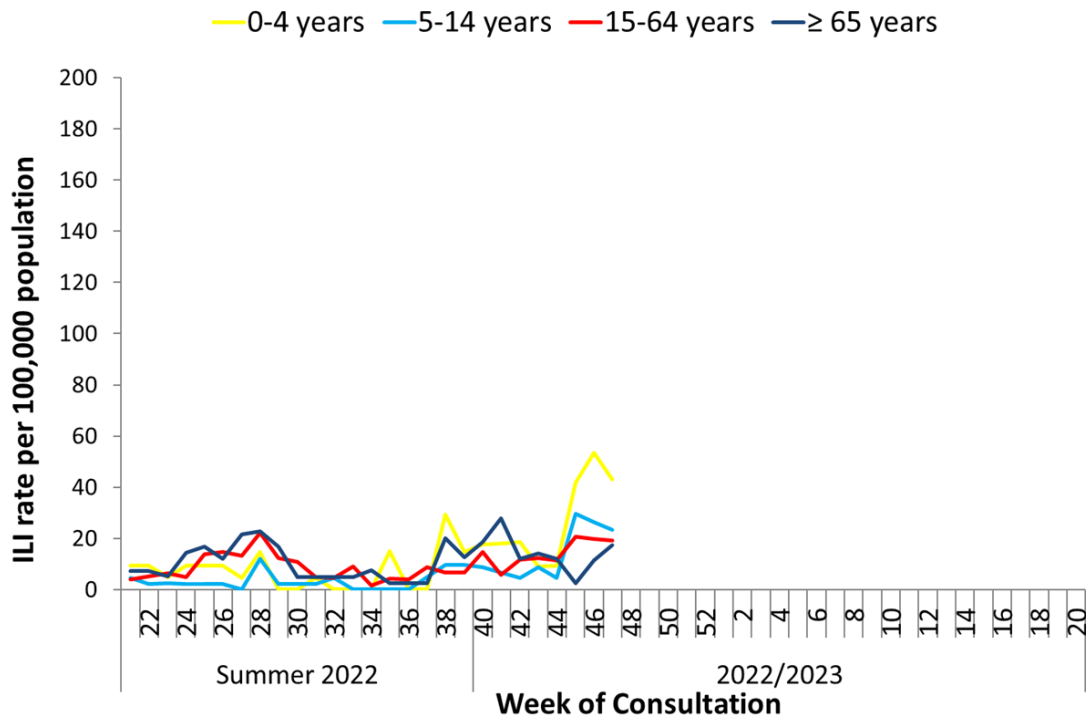
- Of 116 sentinel GP ARI specimens tested and reported by the NVRL during weeks 46 and 47 2022, eight (6.9%) were positive for influenza. As of 9<sup>th</sup> of November 2022, the acute respiratory infection (ARI) case definition is being used by sentinel GPs to identify cases for referral of specimens for respiratory virus testing to NVRL.
- Of 452 non-sentinel respiratory specimens tested and reported by the NVRL during weeks 46 and 47 2022, 26 (5.8%) were positive for influenza: seven A(H3), 14 A(H1)pdm09, two A (not subtyped) and three influenza B.
- Respiratory syncytial virus (RSV) positivity (non-sentinel respiratory specimens) remained very high in recent weeks, at 20.4% (42/206) during week 46 2022 and 13.4% (33/246) during week 47 2022.
- Influenza notifications: 223 laboratory confirmed influenza cases were notified during week 47 2022 – five A(H3), seven A(H1)pdm09, 206 influenza A (not subtyped) and five influenza B. The number of influenza notifications increased during week 47 to 223, compared to 192 during week 46 2022.
- RSV notifications: 611 RSV cases including 224 hospitalised cases were notified during week 47 2022. During week 47 2022, 53% of notified RSV cases were in the 0-4 year age group.
- Hospitalisations and Critical care admissions: During week 47 2022, 68 laboratory confirmed influenza cases were reported as hospital inpatients: one influenza A(H1)pdm09, one A(H3), 64 influenza A (not subtyped) and two influenza B. This is stable compared to 65 laboratory confirmed influenza notifications reported as hospital inpatients during week 46 2022. One laboratory confirmed influenza A (not subtyped) case was admitted to critical care and notified to HPSC during week 47 2022. During weeks 40-47, 12 laboratory confirmed influenza cases – one influenza A(H3), one A(H1)pdm09 and 10 influenza A (not subtyped) have been admitted to critical care and notified to HPSC.
- Mortality: No deaths in notified influenza cases were reported to HPSC during week 47 2022. During the 2022/2023 season to date, four deaths in notified influenza cases were reported to HPSC – one influenza AH3 and three influenza A (not subtyped).
- Outbreaks: Two influenza outbreaks (one influenza A(H1)pdm09 in a residential institution and one influenza A outbreak in a hospital) were notified to HPSC during week 47 2022. One RSV outbreak in a nursing home was notified to HPSC during week 47 2022.
- International: In Europe, influenza activity was stable this week, the sentinel ILI or ARI rate is at 12% which is above the ECDC influenza positivity threshold set at 10%. Scotland and Germany reported widespread activity. WHO is advising countries to remain vigilant for the likelihood of influenza circulating and to be prepared for co-circulation of SARS-CoV-2 and influenza.

## 1. GP sentinel surveillance system - Clinical Data

- During week 47 2022, 64 sentinel GP influenza-like illness (ILI) consultations were reported from the Irish sentinel GP network, corresponding to an ILI consultation rate of 21.3 per 100,000 population, stable compared to the updated rate of 22 per 100,000 during week 46 2022 (Figure 1).
- The sentinel GP ILI consultation rate during the 2022/2023 was below baseline during weeks 40-44 2022 and above the Irish sentinel GP ILI baseline threshold (18.1/100,000 population) during weeks 45-47 2022.
- Sentinel GP ILI age specific consultation rates were above age specific baseline thresholds in those aged 0-14 (29.9/100,000) and below baseline in those aged 15-64 (19.9/100,000) and  $\geq 65$  years (17.4/100,000) during week 47 2022 (Figure 2, Table 1).
- HPSC has reviewed the Irish sentinel baseline ILI threshold for the 2022/2023 influenza season, which will remain at 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), medium (57.5/100,000 population) and high (86.5/100,000 population) intensity ILI thresholds are shown in Figure 1. Age specific MEM threshold levels are shown in Table 1.



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



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

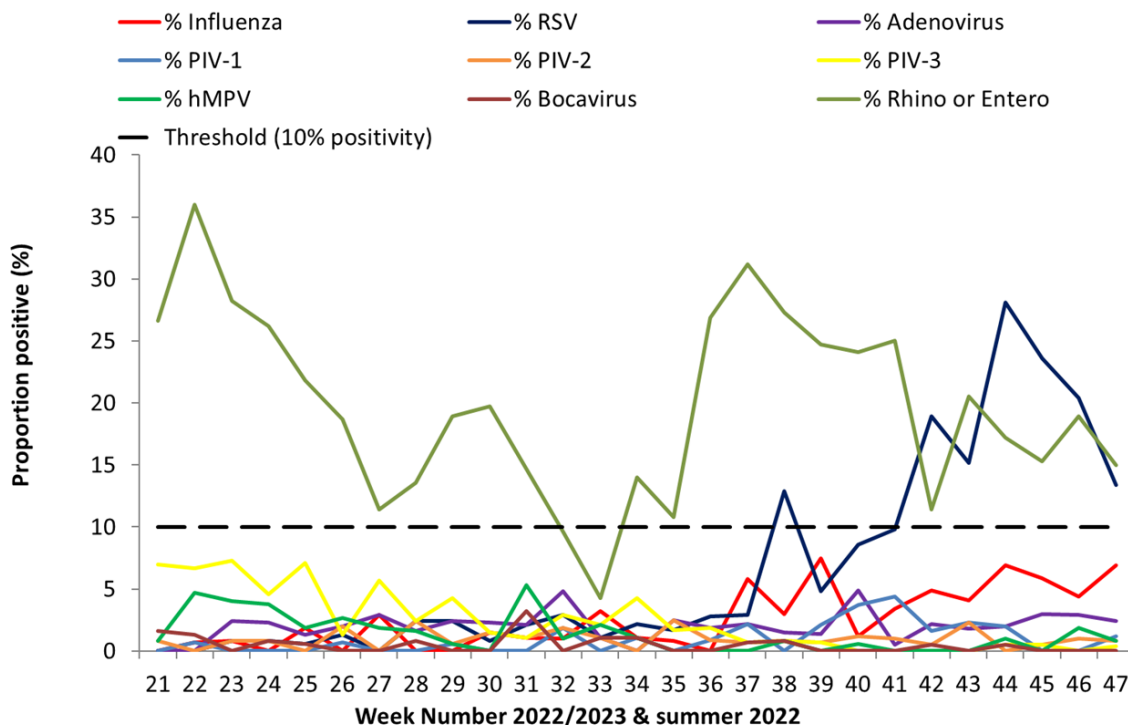
**Table 1:** Age specific sentinel GP ILI consultation rate per 100,000 population by week (weeks 40-47 2022), colour coded by sentinel GP ILI age specific Moving Epidemic Method (MEM) threshold levels. *Source: ICGP.*

MEM Threshold Levels	Below Baseline	Low	Moderate	High	Extraordinary			
<b>Age group (years)</b>	<b>40</b>	<b>41</b>	<b>42</b>	<b>43</b>	<b>44</b>	<b>45</b>	<b>46</b>	<b>47</b>
<b>All Ages</b>	14.6	9.7	11.3	11.9	10.4	21.0	22.0	21.3
<b>&lt;15 yrs</b>	11.7	10.3	9.1	8.9	6.1	33.6	35.2	29.9
<b>15-64 yrs</b>	14.7	5.7	11.8	12.5	11.4	20.7	19.9	19.3
<b>≥65 yrs</b>	18.5	27.9	12.0	14.1	12.1	2.4	11.6	17.4
<b>Reporting practices (N=61)</b>	60	59	58	59	57	57	60	56

## 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 3). 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. Please note: As of 9<sup>th</sup> of November 2022, the acute respiratory (ARI) case definition is being used by sentinel GPs to identify cases for referral of specimens for respiratory virus testing to NVRL. Case definitions are available in Section 12. Sentinel GPs commenced in surgery swabbing of ARI patients on November 16<sup>th</sup> 2022.

- Of 116 sentinel GP ARI specimens tested and reported by the NVRL during weeks 46 and 47 2022, eight (6.9%) were positive for influenza.
- Of 116 sentinel GP ARI specimens tested and reported by the NVRL during weeks 46 and 47 2022, five (4.3%) were positive for COVID-19 (4.3%).
- Of 452 non-sentinel respiratory specimens tested and reported by the NVRL during weeks 46 and 47 2022, 26 (5.8%) were positive for influenza: seven A(H3), 14 A(H1)pdm09, two A (not subtyped) and three influenza B, a lag time with testing and reporting is noted.
- Respiratory syncytial virus (RSV) positivity (non-sentinel respiratory specimens) remained very high in recent weeks, at 20.4% (42/206) during week 46 2022 and 13.4% (33/246) during week 47 2022. During weeks 46 and 47 2022, 19 sentinel GP ARI specimens were RSV positive.
- Rhinovirus/enterovirus positive detections from non-sentinel respiratory specimens were detected at a positivity rate of 15% (37/246) during week 47 2022, a decrease from 18.9% (39/206) during week 46 2022 (Figure 3).
- Other respiratory viruses (ORVs) are being detected at lower levels (Figure 3).



**Figure 3:** Percentage positive results for non-sentinel respiratory specimens tested by the NVRL for influenza, RSV and other respiratory viruses, weeks 21-47 2022. *Source: NVRL.*

**Table 2:** Number of sentinel GP ILI/ARI and non-sentinel respiratory specimens tested by the NVRL and positive influenza results, for weeks 46 and 47 2022 and the 2022/2023 season (weeks 40-47 2022). *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
47 2022	Sentinel GP ARI referral	89	4	4.5	1	3	0	4	0	0	0	0
	Non-sentinel	246	17	6.9	11	3	2	16	1	0	0	1
	<b>Total</b>	<b>335</b>	<b>21</b>	<b>6.3</b>	<b>12</b>	<b>6</b>	<b>2</b>	<b>20</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>
46 2022	Sentinel GP ARI referral	27	4	14.8	2	1	0	3	1	0	0	1
	Non-sentinel	206	9	4.4	3	4	0	7	1	1	0	2
	<b>Total</b>	<b>233</b>	<b>13</b>	<b>5.6</b>	<b>5</b>	<b>5</b>	<b>0</b>	<b>10</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>3</b>
2022/2023	Sentinel GP ILI/ARI referral	153	13	8.5	6	6	0	12	1	0	0	1
	Non-sentinel	1580	77	4.9	38	25	7	70	5	1	1	7
	<b>Total</b>	<b>1733</b>	<b>90</b>	<b>5.2</b>	<b>44</b>	<b>31</b>	<b>7</b>	<b>82</b>	<b>6</b>	<b>1</b>	<b>1</b>	<b>8</b>

**Table 3:** Number of sentinel GP ILI/ARI and non-sentinel respiratory specimens tested by the NVRL and positive RSV results, for weeks 46 and 47 2022 and the 2022/2023 season (weeks 40-47 2022). *Source: NVRL*

Surveillance period	Specimen type	Total tested	Number RSV positive	% RSV positive	RSV A	RSV B	RSV (unspecified)
Week 47 2022	Sentinel GP ARI	89	12	13.5	0	12	0
	Non-sentinel	246	33	13.4	0	33	0
	<b>Total</b>	<b>335</b>	<b>45</b>	<b>13.4</b>	<b>0</b>	<b>45</b>	<b>0</b>
Week 46 2022	Sentinel GP ARI	27	7	25.9	0	7	0
	Non-sentinel	206	42	20.4	3	39	0
	<b>Total</b>	<b>233</b>	<b>49</b>	<b>21.0</b>	<b>3</b>	<b>46</b>	<b>0</b>
2022/2023	Sentinel GP ILI/ARI	153	27	17.6	0	27	0
	Non-sentinel	1580	275	17.4	43	232	0
	<b>Total</b>	<b>1733</b>	<b>302</b>	<b>17.4</b>	<b>43</b>	<b>259</b>	<b>0</b>

**Table 4:** Number of non-sentinel respiratory specimens tested by the NVRL for respiratory viruses and positive results, for weeks 46 and 47 2022 and 2022/2023 season (weeks 40-47 2022). *Source: NVRL*

Virus	Week 47 2022 (N=246)		Week 46 2022 (N=206)		2022/2023 (N=1580)	
	Total positive	% positive	Total positive	% positive	Total positive	% positive
Influenza virus	17	6.9	9	4.4	77	4.9
Respiratory Syncytial Virus (RSV)	33	13.4	42	20.4	275	17.4
Rhino/enterovirus	37	15.0	39	18.9	288	18.2
Adenovirus	6	2.4	6	2.9	38	2.4
Bocavirus	0	0.0	0	0.0	2	0.1
Human metapneumovirus (hMPV)	2	0.8	4	1.9	9	0.6
Parainfluenza virus type 1 (PIV-1)	3	1.2	0	0.0	29	0.6
Parainfluenza virus type 2 (PIV-2)	2	0.8	2	1.0	14	0.9
Parainfluenza virus type 3 (PIV-3)	1	0.4	0	0.0	3	0.2
Parainfluenza virus type 4 (PIV-4)	1	0.4	3	1.5	12	0.8

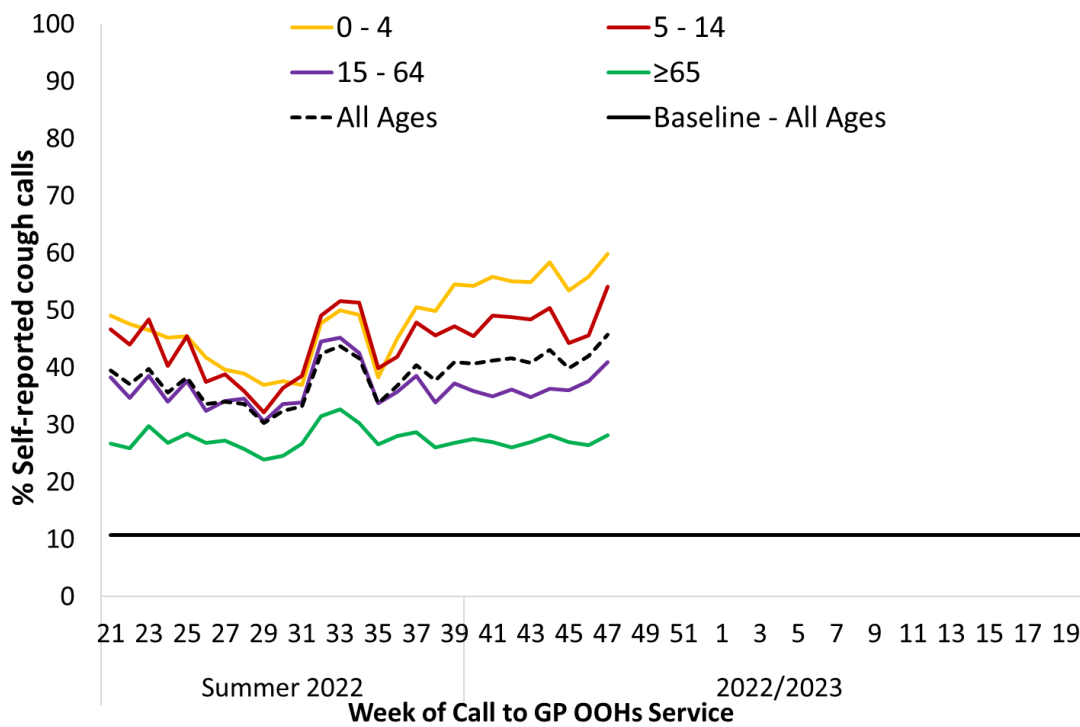
**Table 5:** Number of sentinel GP ILI/ARI specimens tested by the NVRL for respiratory viruses and positive results, for weeks 46 and 47 2022 and 2022/2023 season (weeks 40-47 2022). *Source: NVRL*

Virus	Week 47 2022 (N=89)		Week 46 2022 (N=27)		2022/2023 (N=153)	
	Total positive	% positive	Total positive	% positive	Total positive	% positive
Influenza virus	4	4.5	4	14.8	13	8.5
Respiratory Syncytial Virus (RSV)	12	13.5	7	25.9	27	17.6
Rhino/enterovirus	9	10.1	7	25.9	21	13.7
Adenovirus	1	1.1	0	0.0	1	0.7
Bocavirus	0	0.0	0	0.0	0	0.0
Human metapneumovirus (hMPV)	2	2.2	0	0.0	2	1.3
Parainfluenza virus type 1 (PIV-1)	2	2.2	0	0.0	2	1.3
Parainfluenza virus type 2 (PIV-2)	0	0.0	1	3.7	1	0.7
Parainfluenza virus type 3 (PIV-3)	0	0.0	0	0.0	0	0.0
Parainfluenza virus type 4 (PIV-4)	0	0.0	0	0.0	2	1.3
SARS-CoV-2	5	5.6	0	0.0	7	4.6

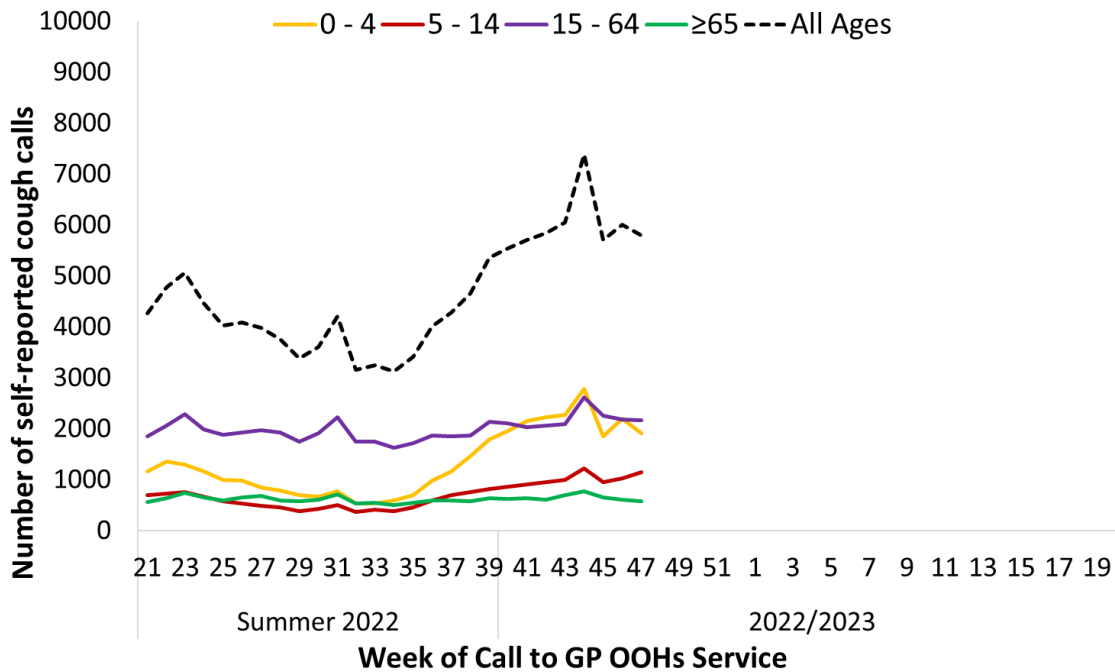
#### 4. GP Out-Of-Hours services surveillance

The Department of Public Health in HSE-NE is collating national data on calls to nine of thirteen GP Out-of-Hours services in Ireland. Records with clinical symptoms reported as flu/influenza or cough are extracted for analysis. This information may act as an early indicator of circulation of influenza, SARS-CoV-2 or other respiratory viruses. Data are self-reported by callers and are not based on coded diagnoses.

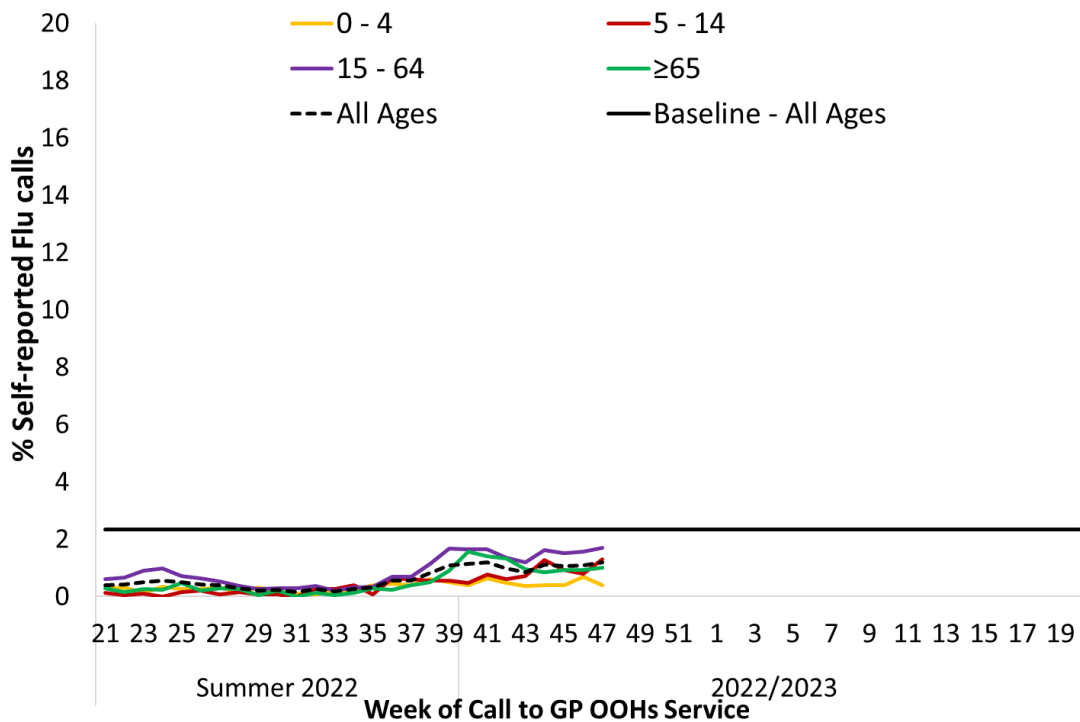
- 5,786 (45.7% of total calls; N=12,649) self-reported cough calls were reported by a network of GP OOHs services during week 47 2022, which was above baseline levels (10.7%) (Figure 4). An increase in the number and percentage of cough calls in the 0 – 4 year age group in recent weeks is evident.
- 151 (1.2% of total calls; N=12,649) self-reported ‘flu’ calls were reported by a network of GP OOHs services during week 47 2022. The baseline threshold level for self-reported ‘flu’ calls is 2.3% (Figure 6).
- Four GP OOH services provided data for week 47 2022.



**Figure 4:** Percentage of self-reported COUGH calls for all ages and by age group as a proportion of total calls to GP Out-of-Hours services by week of call, summer 2022 and the 2022/2023 season. The % cough calls baseline for all ages calculated using the MEM method on historic data is shown. *Source: GP Out-Of-Hours services in Ireland (collated by HSE-NE & ICGP).*



**Figure 5:** Number of self-reported COUGH calls for all ages and by age group to GP Out-of-Hours services by week of call, Summer 2022 and 2022/2023. *Source: GP Out-Of-Hours services in Ireland (collated by HSE-NE & ICGP).*



**Figure 6:** Percentage of self-reported FLU calls for all ages and by age group as a proportion of total calls to GP Out-of-Hours services by week of call, Summer 2022 and 2022/2023. The % flu calls baseline for all ages calculated using the MEM method on historic data is shown. *Source: GP Out-Of-Hours services in Ireland (collated by HSE-NE& ICGP)*



## 5. Influenza & RSV notifications

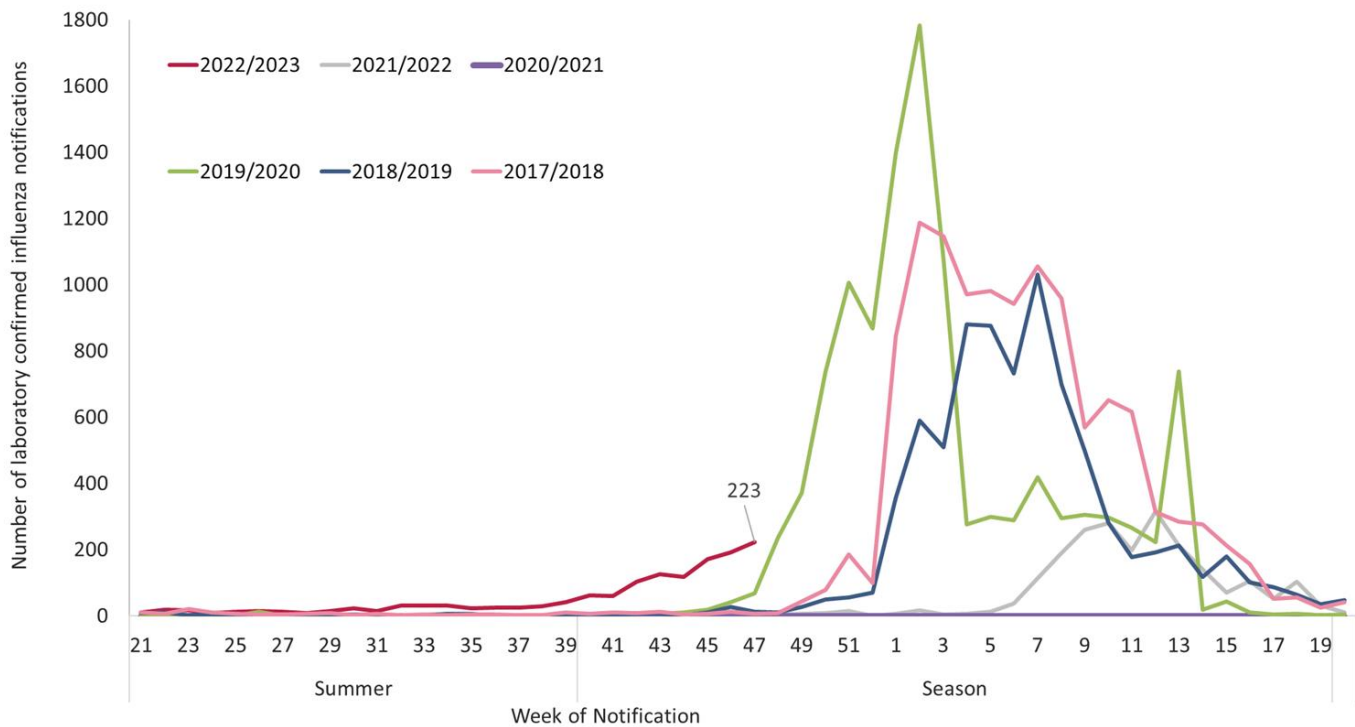
Influenza and RSV cases notifications are reported on Ireland's Computerised Infectious Disease Reporting System (CIDR), including all positive influenza/RSV specimens reported from all laboratories testing for influenza/RSV and reporting to CIDR.

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

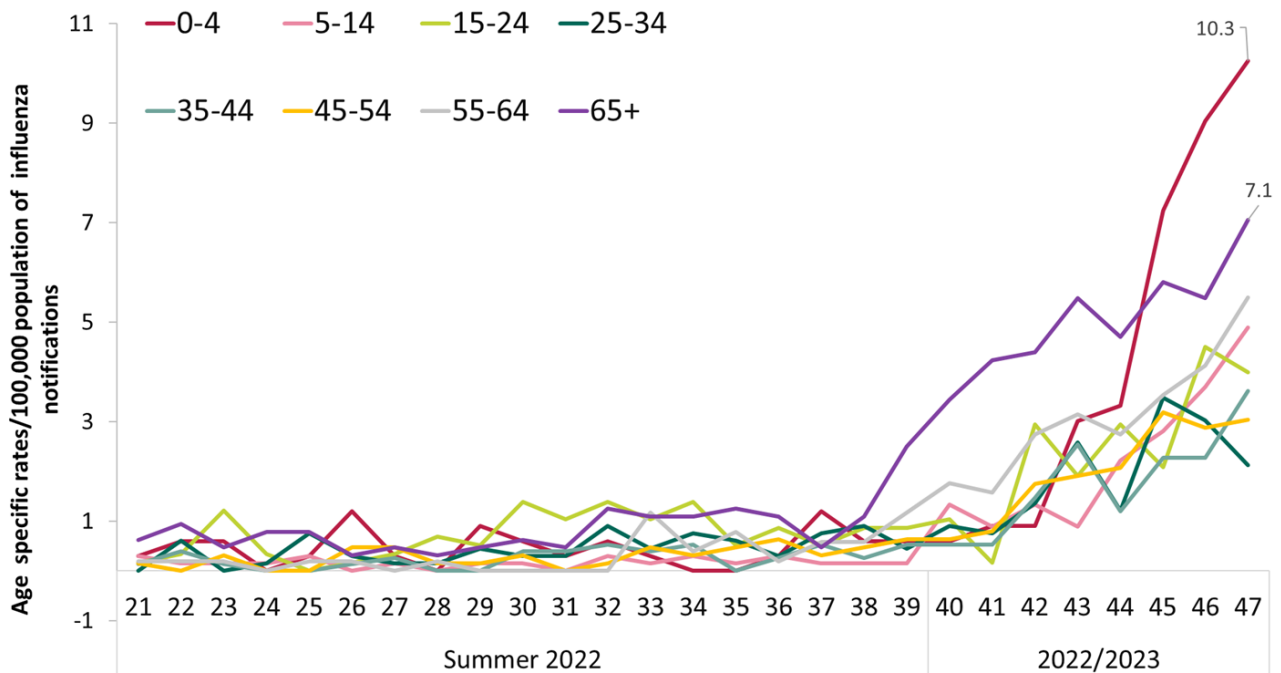
- 223 laboratory confirmed influenza cases were notified during week 47 2022 – five A(H3), seven A(H1)pdm09, 206 influenza A (not subtyped) and five influenza B. The number of influenza notifications increased during week 47 to 223, compared to 192 during week 46 2022. During the 2022/2023 season to date (weeks 40-47 2022) 1,051 laboratory confirmed influenza cases have been notified to HPSC.
- Confirmed influenza cases for week 47 2022 were notified in different HSE areas as outlined in Table 6.
- Age specific rates in notified laboratory confirmed influenza cases were highest in those aged 0-4 years (Figure 8).
- 611 RSV cases were notified during week 47 2022, a decrease compared to 731 cases notified during week 46 2022 (Figure 9).
- During week 47 2022, age specific rates in notified laboratory confirmed RSV cases were highest in those aged 0-4 years (Figure 10).

**Table 6:** Summary of confirmed influenza notifications by HSE area during the 2022/2023 season (weeks 40-47 2022) and week 47 2022 *Source: CIDR*

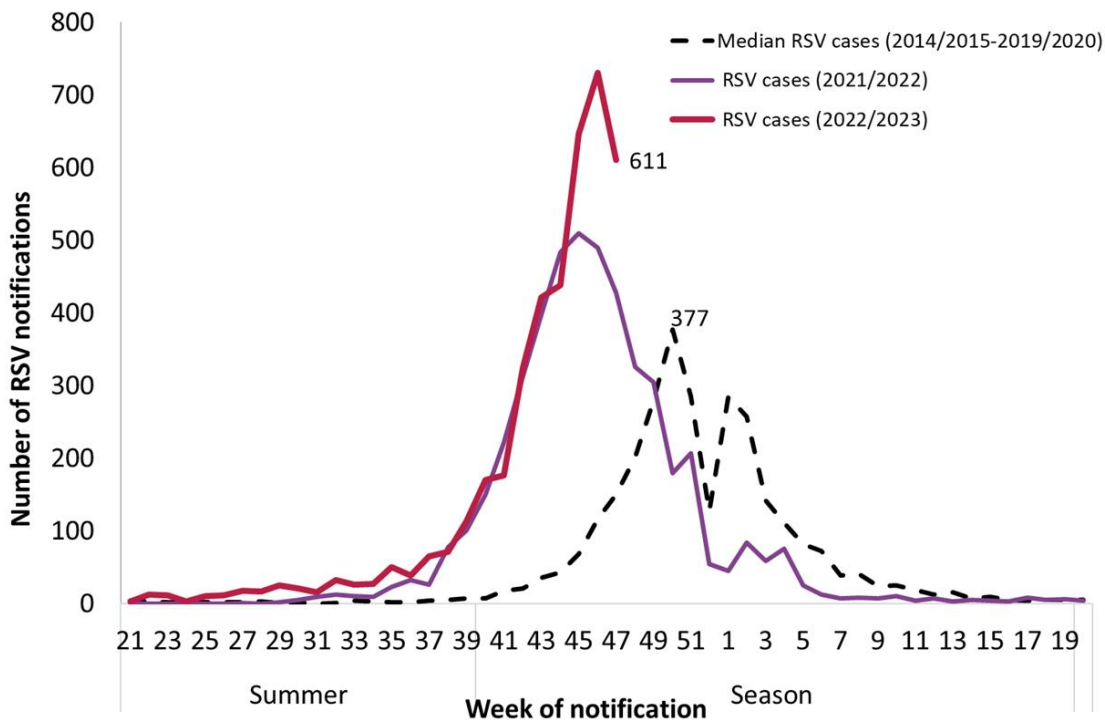
HSE area	Confirmed cases week 47 2022	Influenza confirmed cases- season to date
HSE-E	75	380
HSE-M	22	55
HSE-MW	14	76
HSE-NE	18	115
HSE-NW	61	207
HSE-SE	1	54
HSE-S	15	82
HSE-W	17	82
<b>Total</b>	<b>223</b>	<b>1051</b>



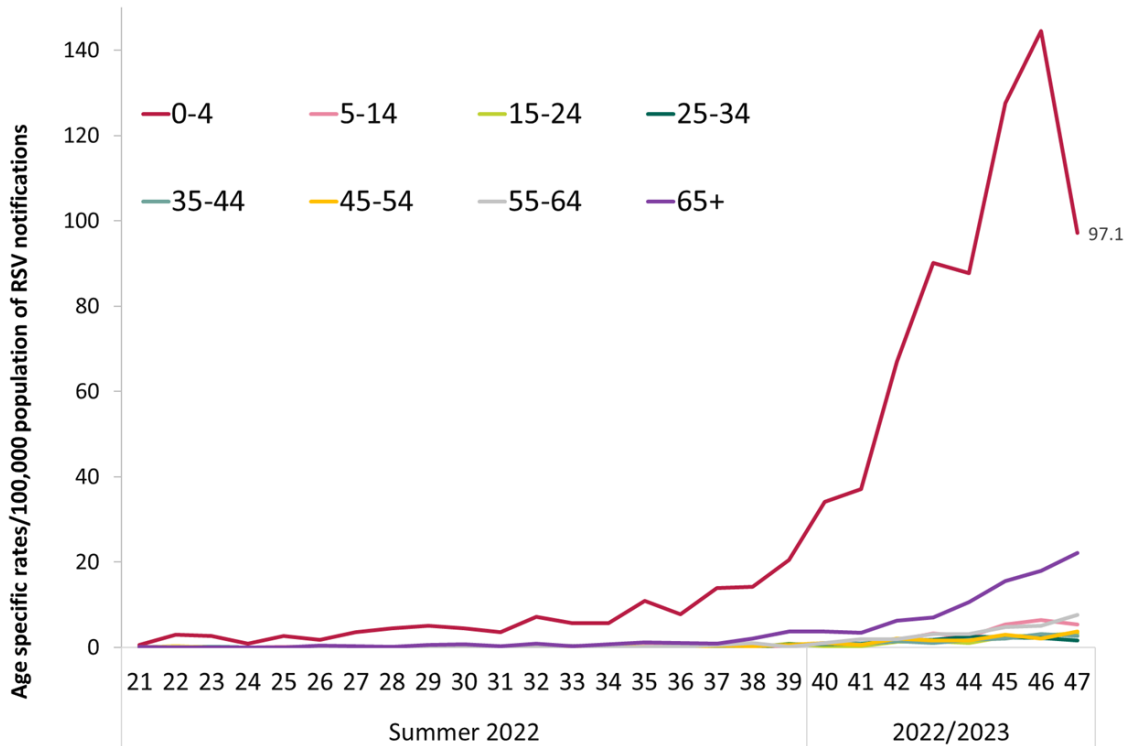
**Figure 7:** Laboratory confirmed influenza notifications to HPSC by week and season of notification, 2017/2018 to 2022/2023 influenza seasons. *Source: Ireland's Computerised Infectious Disease Reporting System.*



**Figure 8:** 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.*



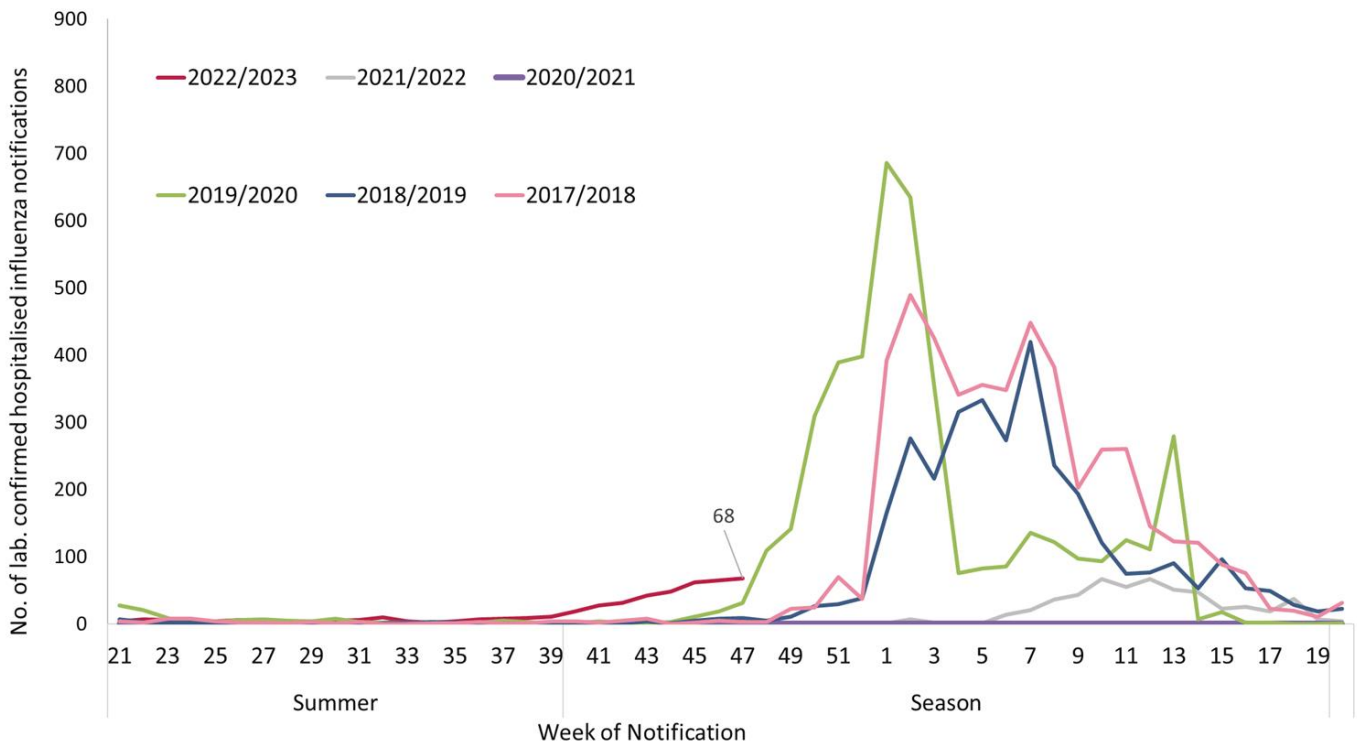
**Figure 9:** Number of laboratory confirmed RSV notifications to HPSC by week of notification 2022/2023 season 2021/2022 season and median number of RSV notifications by week (2014/2015-2019/2020). *Source: Ireland's Computerised Infectious Disease Reporting System.*



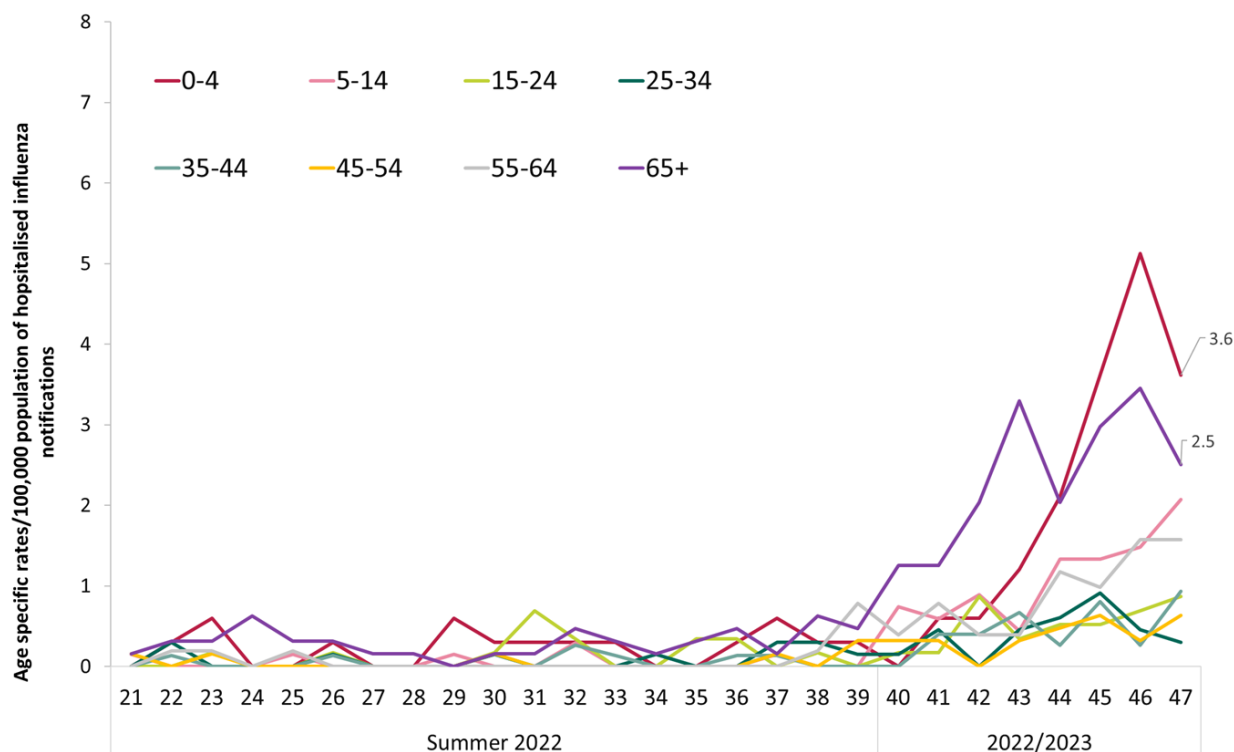
**Figure 10:** Age specific rates per 100,000 population for laboratory confirmed RSV notifications to HPSC by week of notification. *Source: Ireland's Computerised Infectious Disease Reporting System.*

## 6. Hospitalisations

- During week 47 2022, 68 laboratory confirmed influenza cases were reported as hospital inpatients: one influenza A(H1)pdm09, one A(H3), 64 influenza A (not subtyped) and two influenza B (Figure 11). This is stable compared to 65 laboratory confirmed influenza notifications reported as hospital inpatients during week 46 2022. During the 2022/2023 season to date (weeks 40-47 2022), 361 laboratory confirmed influenza cases have been reported as being hospital inpatients.
- In week 47 2022, age specific rates in notified laboratory confirmed hospitalised influenza cases were highest in those aged 0-4 years (Figure 12).
- 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 8.
- During week 47 2022, 224 RSV cases out of 611 (37%) were reported as hospital inpatients (Figure 13). Patient type of laboratory confirmed influenza and RSV notifications by week for the 2022/2023 season are reported in Tables 6 and 7. It should be noted that patient type is not always reported/updated for notified RSV cases.
- In week 47 2022, age specific rates in notified laboratory confirmed hospitalised RSV cases were highest in those aged 0-4 years (Figure 14).



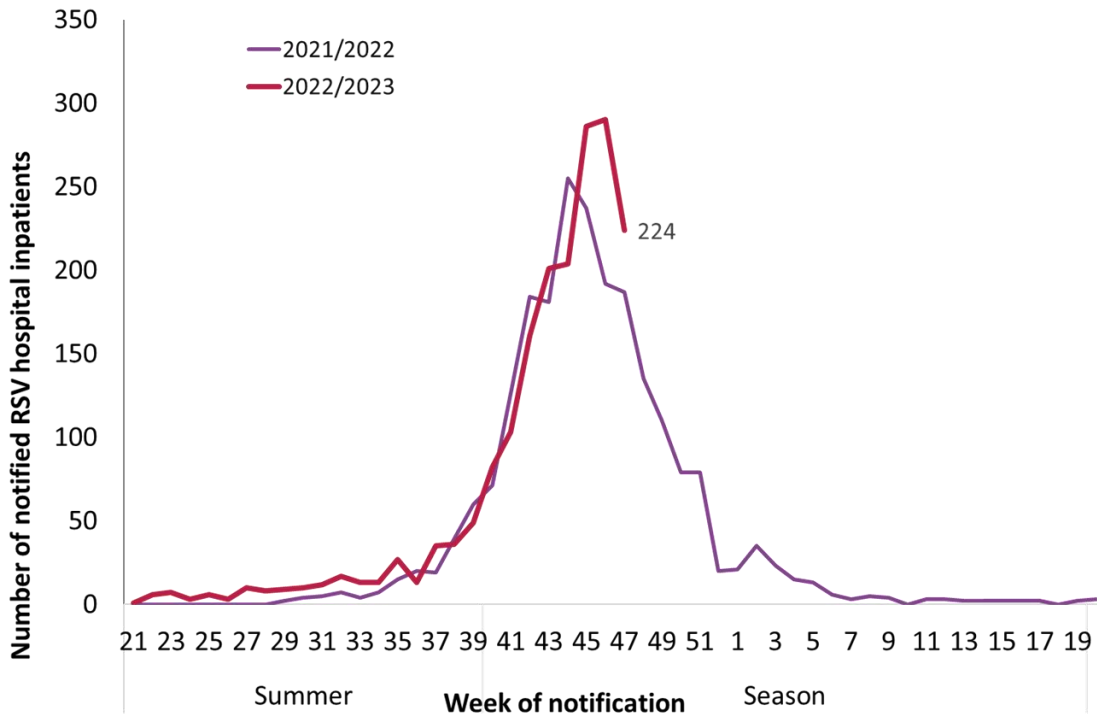
**Figure 11:** Number of notified laboratory confirmed influenza cases reported as hospital inpatients, for the 2017/2018 to 2022/2023 season. Source: Ireland's Computerised Infectious Disease Reporting System



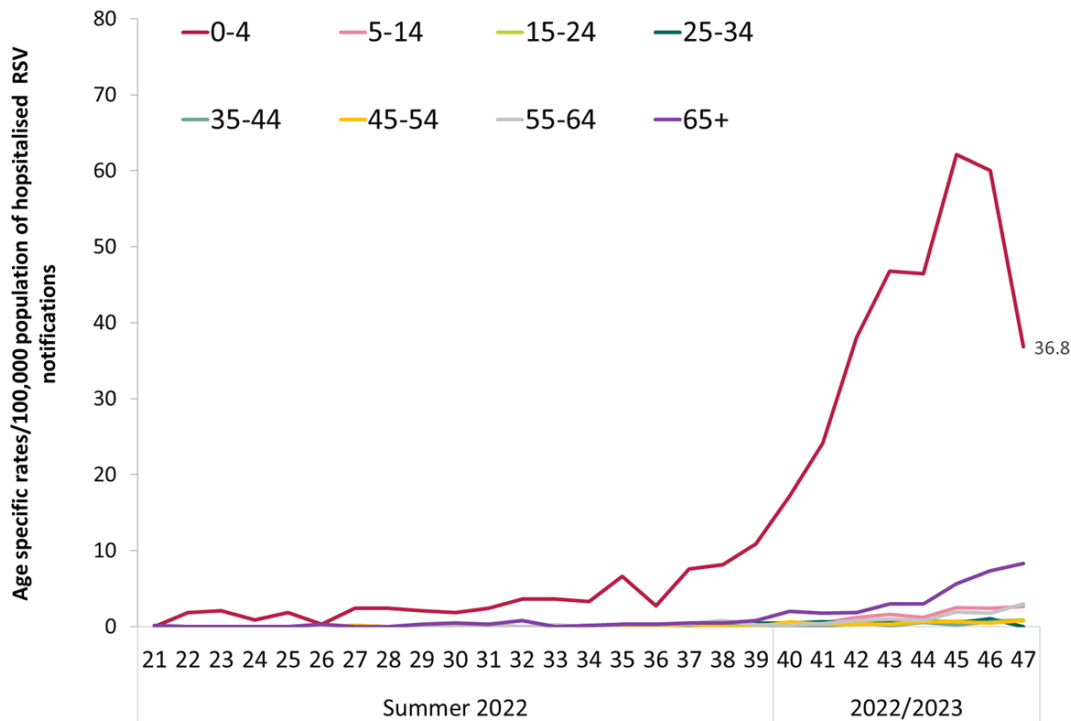
**Figure 12:** Age specific rates per 100,000 population for laboratory confirmed influenza cases reported as hospital inpatients by week of notification. *Source: Ireland’s Computerised Infectious Disease Reporting System.*

**Table 6:** Number of notified influenza cases reported by patient type and week of notification and 2022/2023 season (weeks 40-47 2022). *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	<b>62</b>
Week 41	4	21	26	1	3	2	2	<b>59</b>
Week 42	0	45	32	1	16	3	5	<b>102</b>
Week 43	7	35	42	6	20	8	7	<b>125</b>
Week 44	2	38	48	6	16	2	5	<b>117</b>
Week 45	2	66	62	7	12	11	10	<b>170</b>
Week 46	5	81	65	10	15	12	5	<b>193</b>
Week 47	3	95	68	14	19	8	16	<b>223</b>
<b>Total</b>	<b>25</b>	<b>392</b>	<b>361</b>	<b>48</b>	<b>110</b>	<b>53</b>	<b>62</b>	<b>1051</b>



**Figure 13:** Number of notified RSV cases reported as hospital inpatients, by week of notification and season, 2021/2022 and 2022/2023. *Source: Ireland’s Computerised Infectious Disease Reporting System.*



**Figure 14:** 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 7:** Number of notified RSV cases reported by patient type and week of notification (weeks 40-47 2022). *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	83	1	12	7	11	170
Week 41	3	45	103	2	13	5	6	177
Week 42	5	121	161	2	14	7	15	325
Week 43	5	148	202	9	21	19	17	421
Week 44	6	172	204	3	22	16	15	438
Week 45	8	238	287	12	37	28	36	646
Week 46	9	322	294	5	33	34	34	731
Week 47	7	274	224	7	24	37	38	611
<b>Total</b>	<b>48</b>	<b>1371</b>	<b>1558</b>	<b>41</b>	<b>176</b>	<b>153</b>	<b>172</b>	<b>3519</b>

## 7. 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 A (not subtyped) case was admitted to critical care and notified to HPSC during week 47 2022.
- During the 2022/2023 season to date (weeks 40-47), 12 laboratory confirmed influenza cases– one influenza A(H3), one A(H1)pdm09 and 10 influenza A (not subtyped) have been admitted to critical care and notified to HPSC.
- 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 8.

**Table 8:** Cumulative number and age specific rate per 100,000 population of laboratory confirmed notified influenza hospitalised and critical care cases, weeks 40-47 2022. *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	7	11.2	0	0.0
1-4	48	17.8	0	0.0
5-14	60	8.9	0	0.0
15-24	25	4.3	2	0.3
25-34	21	3.2	1	0.2
35-44	28	4.2	1	0.1
45-54	19	3.0	0	0.0
55-64	35	6.9	2	0.4
≥65	118	18.5	6	0.9
Unknown		–		–
<b>Total</b>	<b>361</b>	<b>7.6</b>	<b>12</b>	<b>0.3</b>

## 8. 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/>

- No deaths in notified influenza cases were reported to HPSC during week 47 2022.
- During the 2022/2023 season (weeks 40 - 47 2022), four deaths in notified influenza cases were reported to HPSC – one influenza AH3 and three influenza A (not subtyped).
- No excess all-cause mortality was reported during week 46 2022 or for weeks 40-46 2022, after correcting data 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.

## 9. 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/>

- Two influenza outbreaks were notified to HPSC during week 47 2022, one influenza A(H1N1)pdm09 in a residential institution in HSE-North West and one influenza A in a hospital in HSE-East. 11 influenza outbreaks have been reported for the 2022/2023 season to date.
- One RSV outbreak in a nursing home in HSE-North East was notified to HPSC during week 47 2022.
- No ARI outbreaks were notified to HPSC during week 47 2022
- For an overview of outbreaks for the season to date (weeks 40-47 2022) please see Tables 9 and 10.

**Table 9:** Summary of respiratory virus and ARI outbreaks by HSE area and infection during the 2022/2023 season  
Source: CIDR

HSE area	Influenza		Respiratory syncytial virus infection		Acute respiratory infection		Total	
	Week 47	2022/2023	Week 47	2022/2023	Week 47	2022/2023	Week 47	2022/2023
HSE-E	1	4	0	5	0	0	3	9
HSE-M	0	0	0	0	0	0	0	0
HSE-MW	0	0	0	0	0	0	0	0
HSE-NE	0	2	0	11	0	0	0	13
HSE-NW	1	3	1	3	0	1	2	7
HSE-SE	0	0	0	0	0	0	0	0
HSE-S	0	1	0	3	0	0	0	4
HSE-W	0	1	0	0	0	0	0	1
<b>Total</b>	<b>2</b>	<b>11</b>	<b>1</b>	<b>22</b>	<b>0</b>	<b>1</b>	<b>5</b>	<b>34</b>



**Table 10:** Summary of respiratory virus and ARI outbreaks by outbreak location & pathogen during 2022/2023 season: *Source: CIDR*

HSE area	Influenza		Respiratory syncytial virus		Acute respiratory infection		Total	
	Week 47	2022/2023	Week 47	2022/2023	Week 47	2022/2023	Week 47	2022/2023
Community hospital/Long-stay unit	0	0	0	1	0	1	0	2
Nursing Home	0	3	1	7	0	0	1	10
Hospital	1	5	0	3	0	0	1	8
Residential Institution	1	3	0	1	0	0	1	4
Childcare facility	0	0	0	1	0	0	0	1
Family Outbreaks	0	0	0	9	0	0	0	9
<b>Total</b>	<b>2</b>	<b>11</b>	<b>1</b>	<b>22</b>	<b>0</b>	<b>1</b>	<b>3</b>	<b>34</b>

## 10. International Summary

Globally, influenza activity increased and where subtyped, influenza A(H3N2) viruses predominated overall. In North America, Europe, East Asia and Southern Asia influenza activity increased with Influenza A(H3N2) the predominant virus detected. In central Asia, however, Kazakhstan reported high influenza activity with B/Victoria-lineage viruses predominating. In tropical Africa, influenza activity remained low with detections of influenza A(H1N1)pdm09, A(H3N2) and B/Victoria reported. Other regions remained stable or decreased in activity.

In the European region, during week 46 2022 (week ending 20/11/2022), influenza virus positivity in sentinel primary care specimens remained stable at 12%, which is above the ECDC influenza positivity threshold of 10%. For week 46 2022, 331 (12%) of 2,777 sentinel GP specimens tested positive for an influenza virus; 92% were type A and 8% were type B. Of 261 subtyped A viruses, 88% were A(H3) and 12% were A(H1)pdm09. Of 3 type B viruses ascribed to a lineage, all were B/Victoria.

For week 46 2022, 2,436 of 42,698 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; 2,339 (96%) were type A and 97 (4%) were type B. Of 568 subtyped A viruses, 361 (64%) were A(H3) and 207 (36%) were A(H1)pdm09. Of 23 influenza B viruses ascribed to a lineage, all were of B/Victoria lineage. Of 39 countries and areas reporting on geographic spread of influenza viruses, eight reported no activity, 19 reported sporadic spread, three reported local spread, seven reported regional spread (Albania, Finland, France, Kazakhstan, Republic of Moldova, Russian Federation and Ukraine) and two reported widespread influenza activity (Germany and Scotland).

WHO is advising countries to remain vigilant for the likelihood of influenza circulating and to be prepared for co-circulation of SARS-CoV-2 and influenza. 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 recommend 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>

## 12. Case Definitions

<p><i>Influenza-like illness (ILI)</i></p> <ul style="list-style-type: none"> <li>• Sudden onset of symptoms</li> </ul> <p>AND</p> <p>at least one of the following four systemic symptoms:</p> <ul style="list-style-type: none"> <li>• Fever or feverishness, malaise, headache, myalgia</li> </ul> <p>AND</p> <p>at least one of the following three respiratory symptoms:</p> <ul style="list-style-type: none"> <li>• Cough, sore throat, shortness of breath</li> </ul>	<p><i>Acute respiratory infection (ARI)</i></p> <ul style="list-style-type: none"> <li>• Sudden onset of symptoms</li> </ul> <p>AND</p> <p>at least one of the following four respiratory symptoms:</p> <ul style="list-style-type: none"> <li>• Cough, sore throat, shortness of breath, coryza</li> </ul> <p>AND</p> <ul style="list-style-type: none"> <li>• A clinician’s judgement that the illness is due to an infection</li> </ul>
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Further information on influenza in Ireland is available at [www.hpsc.ie](http://www.hpsc.ie)

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