Influenza Week 8 2023 (20th - 26th February 2023)









Summary

Overall influenza activity decreased in Ireland during week 8 2023, compared to previous weeks. Influenza viruses are circulating at low levels in the community. Influenza B viruses are currently the dominant circulating viruses.

- Influenza-like illness (ILI): The sentinel GP influenza-like illness (ILI) consultation rate was 13.5 per 100,000 population during week 8 2023. This is a slight decrease from the updated rate of 15.2/100,000 during week 7 2023. ILI consultation rates have returned to below the Irish baseline threshold (18.1/100,000 population) for the last three weeks (since week 6 2023). Sentinel GP ILI age specific rates were below the age specific baseline thresholds in all age groups during week 8 2023.
- <u>National Virus Reference Laboratory (NVRL)</u>: During week 8 2023, of 81 sentinel GP Acute Respiratory Infection (ARI) specimens tested and reported by the NVRL, 4 (4.9%) were positive for influenza all of which were influenza B. There were three specimens (3.7%) positive for SARS-CoV-2 and no specimens positive for RSV.
- Of 163 non-sentinel respiratory specimens tested and reported by the NVRL during week 8 2023, 7 (4.3%) were
 positive for influenza: one A(H1)pdm09, one A(H3) and five influenza B. RSV positivity (non-sentinel respiratory
 specimens) is at low levels in recent weeks, at 1.8% (3/163) during week 8 2023 and 4.3% (9/209) during week 7
 2023.
- Of 1,812 sentinel GP ARI specimens and non-sentinel respiratory specimens positive for influenza and reported by the NVRL during the 2022/2023 season, 463 (25.6%) were coinfected with other respiratory viruses.
- <u>Influenza notifications</u>: 178 laboratory confirmed influenza cases were notified during week 8 2023 seven A(H1)pdm09, seven A(H3), 51 influenza A (not subtyped) and 113 influenza B. This is a decrease compared to 245 cases reported during week 7 2023. Age specific rates were highest in those aged 65 years and older.
- **RSV notifications:** 58 RSV cases were notified during week 8 2023, a decrease compared to 50 RSV cases notified during week 7 2023. Age specific rates for hospitalised cases were highest in those aged <1 year.
- <u>Hospitalisations</u>: During week 8 2023, 44 laboratory confirmed influenza cases were reported as hospital inpatients: 25 influenza A (not subtyped) and 19 influenza B cases. Influenza hospitalised cases during week 8 2023 decreased to 44, compared to 65 in week 7 2023.
- <u>Critical care admissions</u>: No laboratory confirmed influenza cases were admitted to critical care units and notified to HPSC during week 8 2023. During weeks 40 2022-8 2023, 167 laboratory confirmed influenza cases 29 A(H1)pdm09, 31 A(H3), 98 A (not subtyped) and nine 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 2022-8 2023, of 142 laboratory confirmed influenza ICU cases with known influenza vaccination status, 98 (69%) were reported as NOT having received the 2022/2023 influenza vaccine.
- <u>Mortality:</u> One death in a notified influenza case was reported to HPSC during week 8 2023. During weeks 40 2022-8 2023, 170 deaths in notified influenza cases were reported—29 influenza A(H3), 20 influenza A(H1)pdm09, 118 influenza A (not subtyped), two influenza B and one influenza A and B coinfection. During the 2022/2023 season, excess all-cause mortality was reported for four consecutive weeks (weeks 51 2022- week 2 2023). Excess pneumonia and influenza mortality was reported during the same period.
- **Outbreaks:** One laboratory confirmed influenza A and one RSV outbreak were notified to HPSC during week 8 2023. During weeks 40 2022-8 2023, 152 influenza outbreaks were notified.
- <u>International</u>: In Europe during week 7 2023, 23 countries reported widespread influenza activity indicating substantial influenza virus circulation across the European Region. Both influenza A and B viruses were detected, with influenza B viruses being dominant across all monitoring systems.

1. GP sentinel surveillance system - Clinical Data

- During week 8 2023, 39 sentinel GP influenza-like illness (ILI) consultations were reported from the Irish sentinel GP network, corresponding to an ILI consultation rate of 13.5 per 100,000 population, compared to 15.2 per 100,000 population during week 7 (Figure 1).
- Sentinel GP ILI consultation rates were below the baseline threshold during week 8.
- The sentinel GP ILI consultation rates have returned to below the Irish sentinel GP ILI baseline threshold (18.1/100,000 population) for three consecutive weeks, since week 6 2023.
- Age specific rates were below the baseline threshold in all age groups during week 8 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.

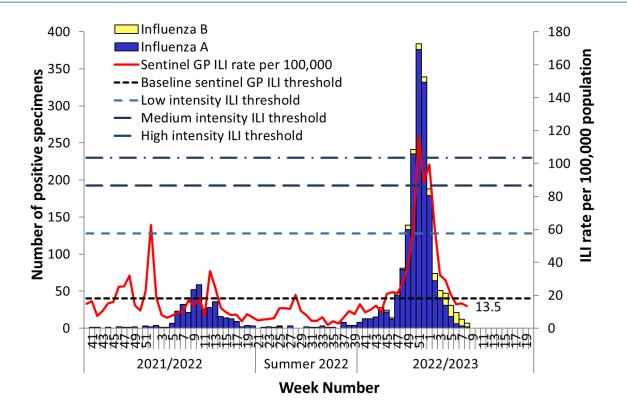


Figure 1: Sentinel GP Influenza-like illness (ILI) consultation rates per 100,000 population, baseline ILI threshold, medium and high intensity ILI thresholds and number of positive influenza A and B specimens tested by the NVRL, by influenza week and season. *Source: ICGP and NVRL*

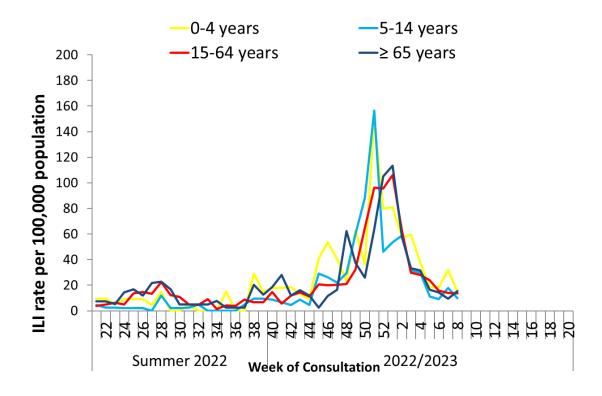


Figure 2: Age specific sentinel GP ILI consultation rate per 100,000 population by week during the summer of 2022 and the 2022/2023 influenza season to date. *Source: ICGP*.

Table 1: Age specific sentinel GP ILI consultation rate per 100,000 population by week (weeks 40 2022-8 2023),colour coded by sentinel GP ILI age specific Moving Epidemic Method (MEM) threshold levels. *Source: ICGP.*

| Age group (years) | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-------------------------------|------|------|------|------------------|------|------|------|------|------|------|------|-------|-------|-------|------|------|------|------|------|------|------|
| All Ages | 14.6 | 9.7 | 11.3 | 13.7 | 10.1 | 20.8 | 22.0 | 21.4 | 27.9 | 38.9 | 63.0 | 116.2 | 88.6 | 99.4 | 60.7 | 32.4 | 29.3 | 20.6 | 14.7 | 15.2 | 13.5 |
| <15 yrs | 11.7 | 10.3 | 9.1 | 10.3 | 6.0 | 32.8 | 35.2 | 28.2 | 27.3 | 60.9 | 71.1 | 154.3 | 57.2 | 62.5 | 58.4 | 40.6 | 32.3 | 13.5 | 12.1 | 22.5 | 11.5 |
| 15-64 yrs | 14.7 | 5.7 | 11.8 | 14.2 | 11.1 | 20.7 | 19.9 | 20.1 | 21.1 | 32.1 | 64.6 | 96.2 | 95.4 | 106.0 | 62.2 | 29.6 | 27.8 | 23.8 | 15.6 | 14.1 | 13.7 |
| ≥65 yrs | 18.5 | 27.9 | 12.0 | 16.2 | 11.8 | 2.4 | 11.6 | 16.4 | 62.3 | 37.5 | 25.7 | 63.8 | 105.0 | 113.5 | 57.3 | 33.2 | 31.6 | 16.6 | 14.3 | 9.5 | 15.5 |
| Reporting practices (N=61) | 60 | 59 | 58 | <mark>6</mark> 0 | 58 | 58 | 60 | 59 | 58 | 59 | 59 | 58 | 58 | 59 | 57 | 59 | 58 | 59 | 58 | 59 | 55 |

| MEM Threshold Levels | Below Baseline | Low | Moderate | High | Extraordinary | |
|----------------------|----------------|-----|----------|------|---------------|--|
|----------------------|----------------|-----|----------|------|---------------|--|

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 9th 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 16th 2022.

- A lag time with testing and reporting is noted for the most recent surveillance week.
- During week 8 2023, of 81 sentinel GP Acute Respiratory Infection (ARI) specimens tested and reported by the NVRL, 4 (4.9%) were positive for influenza and all were influenza B. There were three specimens (3.7%) positive for SARS-CoV-2 and no specimens positive for RSV.
- During week 7 2023, of 84 sentinel GP ARI specimens tested and reported by the NVRL, 17 (20.2%) were positive for influenza: three A(H3), two A(H1)pdm09 and 12 influenza B. There were two specimens (2.4%) positive for SARS-CoV-2 and no specimens positive for RSV
- Of 163 non-sentinel respiratory specimens tested and reported by the NVRL during week 8 2023, seven (4.3%) were positive for influenza: one A(H1)pdm09, one A(H3) and five influenza B.
- During week 7 2023, of 209 non-sentinel respiratory specimens tested, 8 (3.8%) were positive for influenza: one A(H3), one A(H1)pdm09, one A (not subtyped), and five influenza B.
- RSV positivity (non-sentinel respiratory specimens) was at low levels in recent weeks, at 4.3% (9/209) during week 7 2023 and 1.8% (3/163) during week 8 2023.
- Rhinovirus/enterovirus positive detections from non-sentinel respiratory specimens were detected at a positivity rate of 19.6% (32/163) during week 8 2023 and 23% (48/209) during week 7 2023 (Figure 3b).
- Other respiratory viruses (ORVs) are being detected at lower levels in recent weeks (Figure 3a and 3b).
- Of 1,812 sentinel GP ARI specimens and non-sentinel respiratory specimens positive for influenza and reported by the NVRL during the 2022/2023 season, 463 (25.6%) were coinfected with other respiratory viruses.

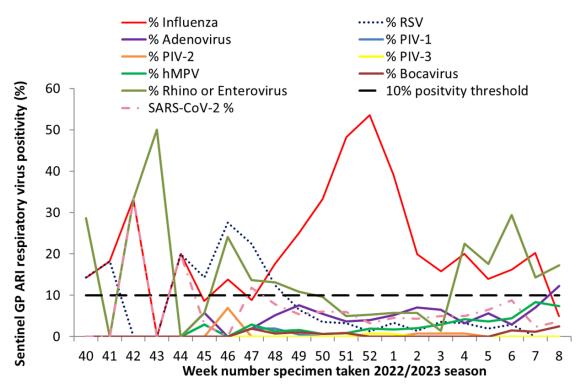


Figure 3a: Percentage positive results for **sentinel GP ARI** specimens tested by the NVRL for influenza, RSV and other respiratory viruses by week specimen was taken, weeks 40 2022-8 2023. *Source: NVRL*

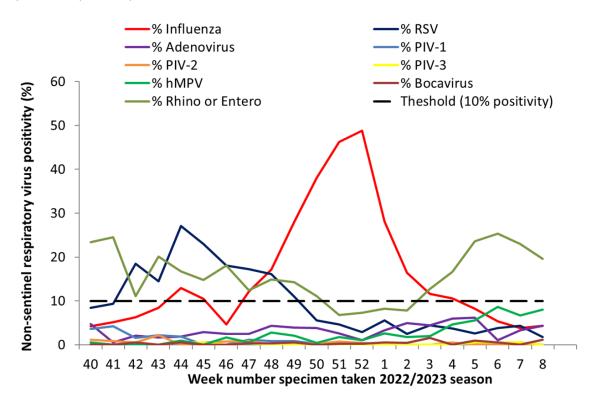


Figure 3b: Percentage positive results for **non-sentinel respiratory** specimens tested by the NVRL for influenza, RSV and other respiratory viruses by week specimen was taken, weeks 40 2022-8 2023. *Source: NVRL*

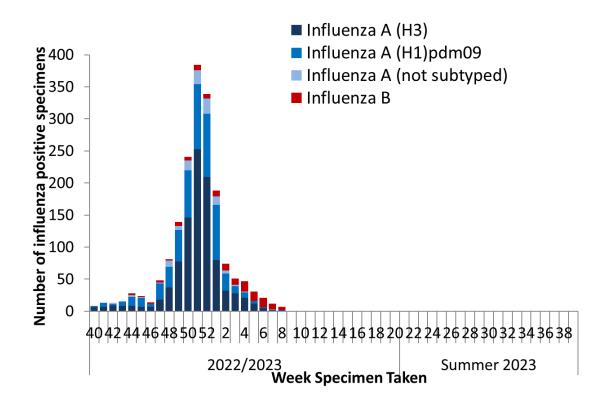


Figure 4: Number of positive influenza specimens (from sentinel GP ARI and non-sentinel respiratory sources) tested by the NVRL by influenza type/subtype and by week specimen was taken for the 2022/2023 influenza season. *Source: NVRL*

Table 2: Number of sentinel GP ARI and non-sentinel respiratory specimens tested by the NVRL and positive influenza results, for weeks 7 and 8 2023 and the 2022/2023 season (weeks 40 2022-8 2023). *Source: NVRL*

| Surveillance | Specimen type | Total | Number | % Influenza | | Int | fluenza A | Influenza B | | | | |
|--------------|--------------------------|--------|-----------|-------------|------------|-------|------------------|-------------|-----|------------|------------|-------|
| period | specimen type | tested | influenza | positive | A(H1)pdm09 | A(H3) | A (not subtyped) | Total | В | B Victoria | B Yamagata | Total |
| | Sentinel GP ARI | 81 | 4 | 4.9 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 |
| Week 8 2023 | Non-sentinel respiratory | 163 | 7 | 4.3 | 1 | 1 | 0 | 2 | 5 | 0 | 0 | 5 |
| | Total | 244 | 11 | 4.5 | 1 | 1 | 0 | 2 | 9 | 0 | 0 | 9 |
| | Sentinel GP ARI | 84 | 17 | 20.2 | 2 | 3 | 0 | 5 | 12 | 0 | 0 | 12 |
| Week 7 2023 | Non-sentinel respiratory | 209 | 8 | 3.8 | 1 | 1 | 1 | 3 | 5 | 0 | 0 | 5 |
| | Total | 293 | 25 | 8.5 | 3 | 4 | 1 | 8 | 17 | 0 | 0 | 17 |
| | Sentinel GP ARI | 1982 | 524 | 26.4 | 206 | 218 | 22 | 446 | 78 | 0 | 0 | 78 |
| 2022/2023 | Non-sentinel respiratory | 5964 | 1288 | 21.6 | 365 | 758 | 86 | 1209 | 62 | 16 | 1 | 79 |
| | Total | 7946 | 1812 | 22.8 | 571 | 976 | 108 | 1655 | 140 | 16 | 1 | 157 |

Table 3: Number of sentinel GP ARI and non-sentinel respiratory specimens tested by the NVRL and positive RSV results, for weeks 7 and 8 2023 and the 2022/2023 season (weeks 40 2022-8 2023). *Source: NVRL*

| Surveillance period | Specimen type | Total tested | Number RSV positive | % RSV positive | RSV A | RSV B | RSV (unspecified) |
|---------------------|---------------------|--------------|---------------------|----------------|-------|-------|-------------------|
| | Sentinel GP ARI | 81 | 0 | 0.0 | 0 | 0 | 0 |
| Week 8 2023 | Non-sentinel | 163 | 3 | 1.8 | 0 | 3 | 0 |
| | Total | 244 | 3 | 1.2 | 0 | 3 | 0 |
| | Sentinel GP ARI | 84 | 0 | 0.0 | 0 | 0 | 0 |
| Week 7 2023 | Non-sentinel | 209 | 9 | 4.3 | 1 | 8 | 0 |
| | Total | 293 | 9 | 3.1 | 1 | 8 | 0 |
| | Sentinel GP ILI/ARI | 1982 | 107 | 5.4 | 3 | 104 | 0 |
| 2022/2023 | Non-sentinel | 5964 | 534 | 9.0 | 60 | 474 | 0 |
| | Total | 7946 | 641 | 8.1 | 63 | 578 | 0 |

Table 4: Number of sentinel GP ILI/ARI specimens tested by the NVRL for respiratory viruses and positive results, for weeks 7 and 8 2023 and 2022/2023 season (weeks 40 2022-8 2023). *Source: NVRL*

| | Week 8 202 | 23 (N=81) | Week 7 202 | 3 (N=84) | 2022/2023 | (N=1982) |
|------------------------------------|-------------------|------------|----------------|------------|----------------|------------|
| Virus | Total positive | % positive | Total positive | % positive | Total positive | % positive |
| Influenza virus | 4 | 4.9 | 17 | 20.2 | 524 | 26.4 |
| Respiratory Synctial Virus (RSV) | 0 | 0.0 | 0 | 0.0 | 107 | 5.4 |
| Rhino/enterovirus | 14 | 17.3 | 12 | 14.3 | 215 | 10.8 |
| Adenovirus | 10 | 12.3 | 6 | 7.1 | 105 | 5.3 |
| Bocavirus | 2 | 2.5 | 1 | 1.2 | 12 | 0.6 |
| Human metapneumovirus (hMPV) | 6 | 7.4 | 7 | 8.3 | 50 | 2.5 |
| Parainfluenza virus type 1 (PIV-1) | 0 | 0.0 | 0 | 0.0 | 7 | 0.4 |
| Parainfluenza virus type 2 (PIV-2) | 0 | 0.0 | 0 | 0.0 | 5 | 0.3 |
| Parainfluenza virus type 3 (PIV-3) | 0 | 0.0 | 0 | 0.0 | 2 | 0.1 |
| Parainfluenza virus type 4 (PIV-4) | 0 | 0.0 | 0 | 0.0 | 4 | 0.2 |
| SARS-CoV-2 | 3 | 3.7 | 2 | 2.4 | 110 | 5.5 |

Table 5: Number of non-sentinel respiratory specimens tested by the NVRL for respiratory viruses and positive results, for weeks 7 and 8 2023 and 2022/2023

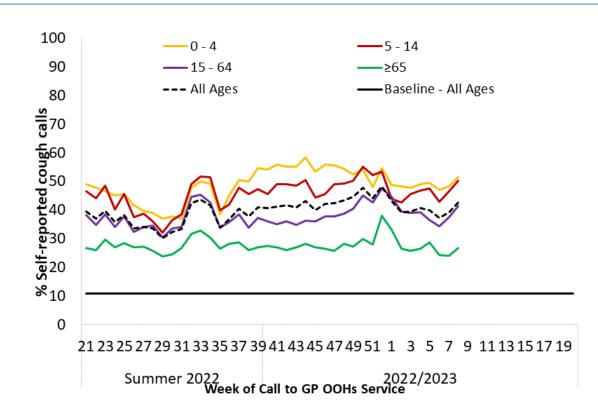
 season (weeks 40 2022-8 2023). Source: NVRL

| Virus | Week 8 20 | 23 (N=163) | Week 7 20 | 23 (N=209) | 2022/2023 (N=5964) | | |
|------------------------------------|----------------|------------|----------------|------------|--------------------|------------|--|
| Virus | Total positive | % positive | Total positive | % positive | Total positive | % positive | |
| Influenza virus | 7 | 4.3 | 8 | 3.8 | 1288 | 21.6 | |
| Respiratory Synctial Virus (RSV) | 3 | 1.8 | 9 | 4.3 | 534 | 9.0 | |
| Rhino/enterovirus | 32 | 19.6 | 48 | 23.0 | 827 | 13.9 | |
| Adenovirus | 7 | 4.3 | 7 | 3.3 | 188 | 3.2 | |
| Bocavirus | 2 | 1.2 | 0 | 0.0 | 20 | 0.3 | |
| Human metapneumovirus (hMPV) | 13 | 8.0 | 14 | 6.7 | 129 | 2.2 | |
| Parainfluenza virus type 1 (PIV-1) | 0 | 0.0 | 1 | 0.5 | 40 | 0.7 | |
| Parainfluenza virus type 2 (PIV-2) | 0 | 0.0 | 0 | 0.0 | 26 | 0.4 | |
| Parainfluenza virus type 3 (PIV-3) | 0 | 0.0 | 1 | 0.5 | 7 | 0.1 | |
| Parainfluenza virus type 4 (PIV-4) | 0 | 0.0 | 0 | 0.0 | 21 | 0.4 | |

3. 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.

- 4,711 (42.5% of total calls; N=11,065) self-reported cough calls were reported by a network of GP OOHs services during week 82023, which was above baseline levels (10.7%) (Figure 5).
- 101 (1% of total calls; N=11,065) self-reported 'flu' calls were reported by a network of GP OOHs services during week 8 2023, which is below baseline levels. The baseline threshold level for self-reported 'flu' calls is 2.3% (Figure 7).



• Four GP OOH services provided data for week 782023.

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-NE & ICGP).*

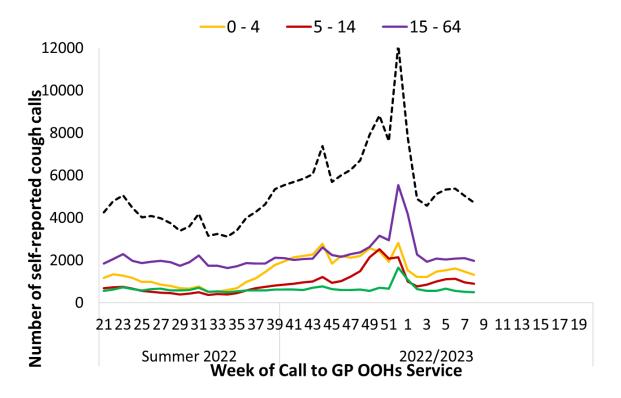


Figure 6: Number of self-reported COUGH calls for all ages and by age group to GP Out-of-Hours services by week of call, Summer 2022 and 2022/2023. *Source: GP Out-Of-Hours services in Ireland (collated by HSE-NE & ICGP).*

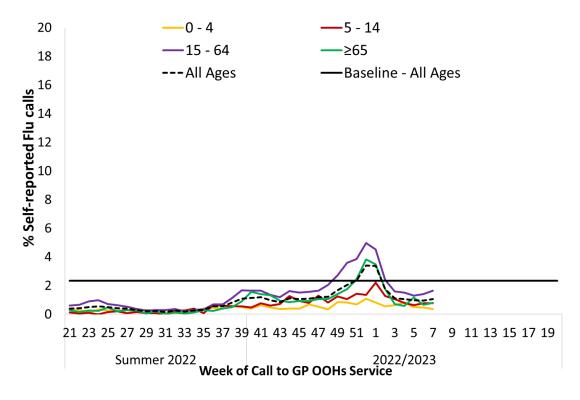


Figure 7: Percentage of self-reported FLU calls for all ages and by age group as a proportion of total calls to GP Outof-Hours services by week of call, Summer 2022 and 2022/2023. The % flu calls baseline for all ages calculated using the MEM method on historic data is shown. *Source: GP Out-Of-Hours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

4. Influenza & RSV notifications

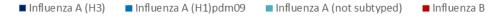
Influenza and RSV case notifications are reported on Ireland's Computerised Infectious Disease Reporting System (CIDR), including all positive influenza/RSV specimens reported from all laboratories testing for influenza/RSV and reporting to CIDR.

Influenza and RSV notifications are reported in the <u>Weekly Infectious Disease Report for Ireland</u>.

- 178 laboratory confirmed influenza cases were notified during week 8 2023 seven A(H1)pdm09, seven A(H3), 51 influenza A (not subtyped) and 113 influenza B. This is a decrease compared to 245 cases reported during week 7 2023 (Figure 8 & 9). Of note, as a proportion of the overall cases, influenza B cases increased to 63% of all cases in week 8 2023 (113/178), compared to 58% in week 7 2023 (139/245).
- During the 2022/2023 season to date (weeks 40 2022 8 2023), 14,457 laboratory confirmed influenza cases have been notified to HPSC – 1,139 A(H1)pdm09, 949 A(H3), 11,211 influenza A (not subtyped), 1,091 influenza B, 45 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 highest in those aged 65 years and older. (Figure 10).
- 58 RSV cases were notified during week 8 2023, a stable trend compared to 50 RSV cases notified during week 7 2023 (Figure 11).
- During week 8 2023, age specific rates in notified laboratory confirmed RSV cases were highest in those aged less than one year (Figure 12).

Table 6: Number of laboratory confirmed influenza notifications by HSE Area during the 2022/2023 season (weeks 402022-82023) and week 82022-82023) and week 8

| HSE area | Influenza confirmed cases week 8 2023 | Influenza confirmed cases- season to date |
|----------------|--|--|
| HSE-East | 50 | 4741 |
| HSE-Midlands | 21 | 1328 |
| HSE-Mid-West | 18 | 1429 |
| HSE-North-East | 7 | 1396 |
| HSE-North-West | 22 | 1293 |
| HSE-South-East | 18 | 1349 |
| HSE-South | 18 | 1506 |
| HSE-West | 24 | 1415 |
| Total | 178 | 14457 |



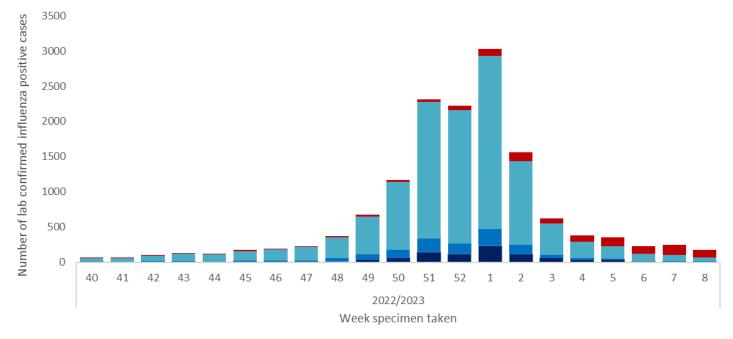


Figure 8: Number of laboratory confirmed **influenza** notifications by influenza type/subtype to HPSC by week and season. *Source: Ireland's Computerised Infectious Disease Reporting System.*

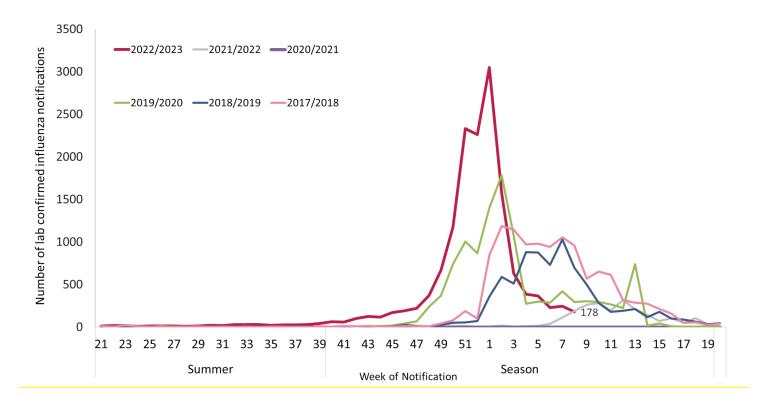


Figure 9: Number of laboratory confirmed **influenza** notifications to HPSC by week and season of notification, 2017/2018 to 2022/2023 influenza seasons. *Source: Ireland's Computerised Infectious Disease Reporting System*.

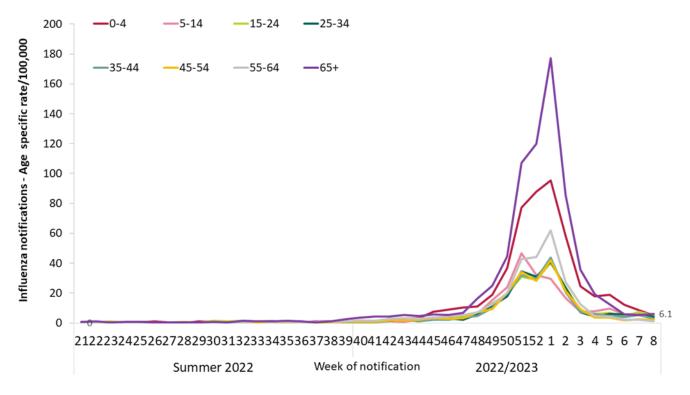


Figure 10: Age specific rates per 100,000 population for laboratory confirmed **influenza** notifications to HPSC by week of notification. *Source: Ireland's Computerised Infectious Disease Reporting System.*

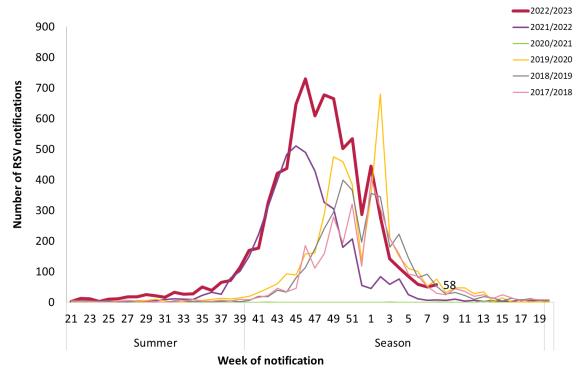


Figure 11: Number of laboratory confirmed **RSV** notifications to HPSC by week of notification, 2017/2018 to 2022/2023 season. *Source: Ireland's Computerised Infectious Disease Reporting System.*

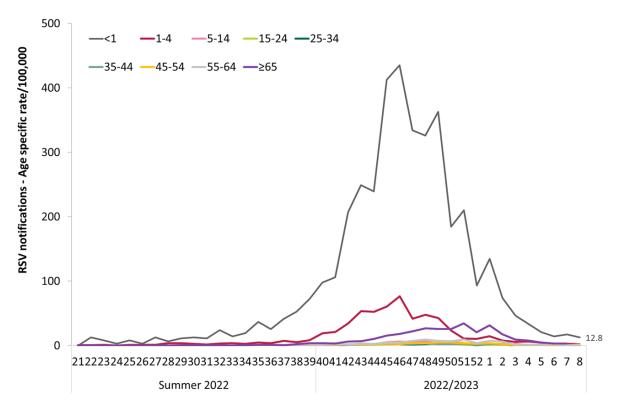


Figure 12: Age specific rates per 100,000 population for laboratory confirmed **RSV** notifications to HPSC by week of notification. *Source: Ireland's Computerised Infectious Disease Reporting System.*

5. Hospitalisations

- During week 8 2023, 44 laboratory confirmed influenza cases were reported as hospital inpatients: 25 influenza A (not subtyped) and 19 influenza B (Figure 13 & 14). Influenza hospitalised cases during week 8 2023 decreased to 44, compared to 65 in week 7 2023.
- During the 2022/2023 season to date (weeks 40 2022 to week 8 2023), 4,176 laboratory confirmed influenza cases have been notified as hospital inpatients: 284 influenza A(H1)pdm09, 167 A(H3), 3,464 influenza A (not subtyped), 247 influenza B, 11 influenza coinfections and three influenza (type not reported) (Figure 13).
- During week 8 2023, age specific rates in notified laboratory confirmed hospitalised influenza cases were highest in those aged 65 years and older (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 8 2023, 13 RSV cases were reported as hospital inpatients (Figure 16).
- During week 8 2023, age specific rates in notified laboratory confirmed hospitalised RSV cases were highest in those aged less than one year (Figure 17).
- Patient type of laboratory confirmed influenza and RSV notifications by week for the 2022/2023 season are reported in Tables 7 and 8.

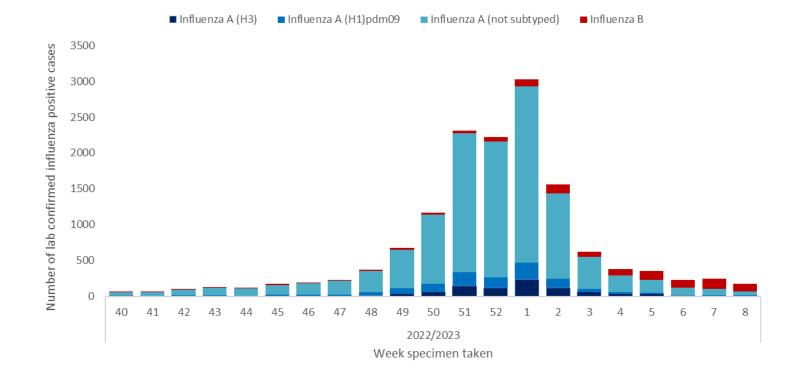


Figure 13: Number of laboratory confirmed influenza notifications reported as hospital inpatients by influenza type/subtype to HPSC by week and season. *Source: Ireland's Computerised Infectious Disease Reporting System.*

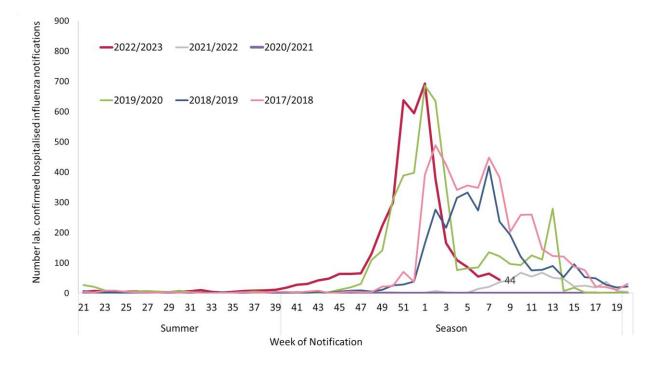


Figure 14: Number of notified laboratory confirmed **influenza** cases reported as hospital inpatients, for the 2017/2018 to 2022/2023 season. *Source: Ireland's Computerised Infectious Disease Reporting System*

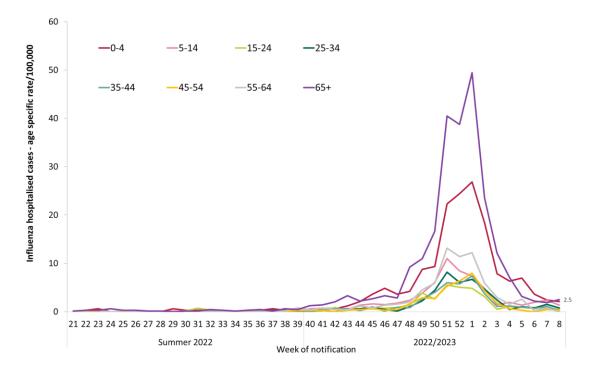


Figure 15: Age specific rates per 100,000 population for laboratory confirmed **influenza** cases reported as hospital inpatients by week of notification. *Source: Ireland's Computerised Infectious Disease Reporting System*.

| | | | | Patient Typ | be | | | |
|---------|------------|------------|-----------------------|-------------------------|------------------------|-------|---------|-------|
| | GP Patient | ED patient | Hospital Inpatient | Hospital Day Patient | Hospital Outpatient | Other | Unknown | Total |
| 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 | 35 | 42 | 6 | 20 | 8 | 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 | 81 | 64 | 11 | 15 | 12 | 5 | 193 |
| Week 47 | 3 | 92 | 66 | 18 | 19 | 7 | 16 | 221 |
| Week 48 | 18 | 121 | 133 | 8 | 31 | 19 | 40 | 370 |
| Week 49 | 17 | 262 | 228 | 31 | 57 | 19 | 61 | 675 |
| Week 50 | 43 | 445 | 303 | 22 | 105 | 46 | 206 | 1170 |
| Week 51 | 100 | 806 | 687 | 29 | 226 | 134 | 346 | 2328 |
| Week 52 | 49 | 1008 | 714 | 16 | 163 | 144 | 141 | 2235 |
| Week 1 | 120 | 1316 | 815 | 47 | 200 | 199 | 350 | 3047 |
| Week 2 | 42 | 587 | 400 | 26 | 146 | 167 | 193 | 1561 |
| Week 3 | 31 | 237 | 170 | 8 | 51 | 25 | 102 | 624 |
| Week 4 | 20 | 149 | 110 | 5 | 27 | 24 | 51 | 386 |
| Week 5 | 31 | 138 | 89 | 7 | 33 | 17 | 44 | 359 |
| Week 6 | 9 | 107 | 56 | 4 | 18 | 15 | 20 | 229 |
| Week 7 | 15 | 105 | 65 | 3 | 28 | 9 | 20 | 245 |
| Week 8 | 7 | 67 | 44 | 1 | 20 | 15 | 24 | 178 |
| Total | 527 | 5736 | 4176 | 260 | 1215 | 886 | 1657 | 14457 |

 Table 7: Number of notified influenza cases reported by patient type and week of notification and 2022/2023 season (weeks 40 2022-8 2023). Source: Ireland's Computerised infectious Disease Reporting System

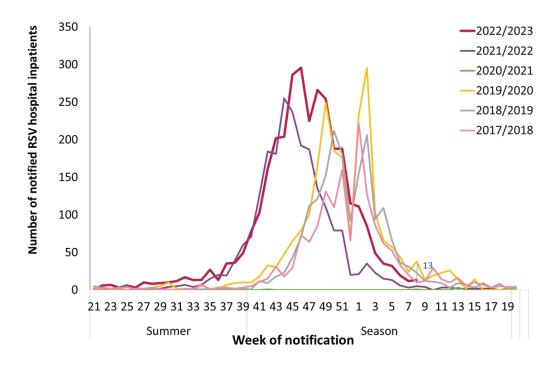


Figure 16: Number of notified **RSV** cases reported as hospital inpatients, by week of notification and season, for the 2017/2018 to 2022/2023 season. *Source: Ireland's Computerised Infectious Disease Reporting System.*

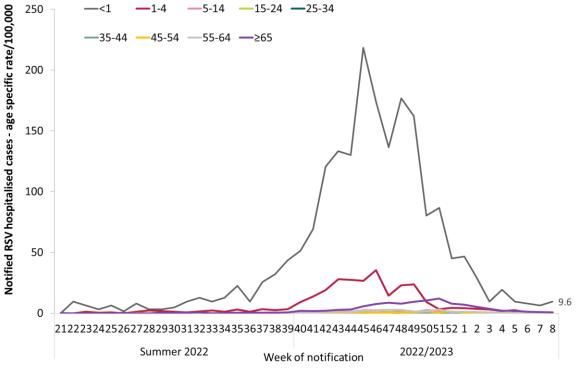


Figure 17: Age specific rates per 100,000 population for laboratory confirmed **RSV** cases reported as hospital inpatients by week of notification and season, Summer 2022 and 2022/2023. *Source: Ireland's Computerised Infectious Disease Reporting System*

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

| | | | | Patient | Гуре | | | |
|---------|------------|------------|-----------------------|-------------------------|------------------------|-------|---------|-------|
| | GP Patient | ED patient | Hospital Inpatient | Hospital Day Patient | Hospital Outpatient | Other | Unknown | Total |
| Week 40 | 5 | 51 | 78 | 6 | 12 | 7 | 11 | 170 |
| Week 41 | 3 | 45 | 103 | 3 | 12 | 5 | 6 | 177 |
| Week 42 | 5 | 121 | 161 | 2 | 14 | 7 | 15 | 325 |
| Week 43 | 6 | 149 | 201 | 9 | 20 | 19 | 17 | 421 |
| Week 44 | 6 | 172 | 204 | 3 | 22 | 15 | 15 | 437 |
| Week 45 | 8 | 239 | 286 | 12 | 37 | 28 | 36 | 646 |
| Week 46 | 10 | 319 | 295 | 5 | 32 | 34 | 34 | 729 |
| Week 47 | 6 | 273 | 225 | 8 | 24 | 36 | 37 | 609 |
| Week 48 | 34 | 246 | 267 | 3 | 35 | 36 | 57 | 678 |
| Week 49 | 19 | 254 | 255 | 13 | 17 | 24 | 83 | 665 |
| Week 50 | 20 | 175 | 187 | 2 | 28 | 23 | 67 | 502 |
| Week 51 | 14 | 172 | 191 | 5 | 32 | 30 | 88 | 532 |
| Week 52 | 8 | 82 | 119 | 0 | 12 | 29 | 36 | 286 |
| Week 1 | 26 | 165 | 125 | 5 | 21 | 31 | 71 | 444 |
| Week 2 | 7 | 92 | 88 | 3 | 20 | 23 | 44 | 277 |
| Week 3 | 4 | 44 | 52 | 2 | 13 | 5 | 22 | 142 |
| Week 4 | 6 | 40 | 35 | 5 | 6 | 11 | 9 | 112 |
| 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 | 13 | 1 | 7 | 4 | 14 | 58 |
| Total | 196 | 2731 | 2934 | 86 | 372 | 372 | 686 | 7404 |

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.

- No laboratory confirmed influenza case was admitted to critical care and notified to HPSC during week 8 2023.
- During the 2022/2023 season to date (weeks 40 2022-8 2023), 167 laboratory confirmed influenza cases 29 A(H1)pdm09, 31 influenza A(H3), 98 influenza A (not subtyped) and nine 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 2022-8 2023), of 142 laboratory confirmed influenza ICU cases with known influenza vaccination status, 98 (69%) 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 influenzahospitalised and critical care cases, weeks 40 2022-8 2023. Source: Ireland's Computerised infectious DiseaseReporting System.

| | | Hospitalised | A | dmitted to ICU |
|-------------|--------|-----------------------|--------|-----------------------|
| Age (years) | | Age specific rate per | | Age specific rate per |
| | Number | 100,000 pop. | Number | 100,000 pop. |
| <1 | 122 | 196.0 | 2 | 3.2 |
| 1-4 | 414 | 153.8 | 13 | 4.8 |
| 5-14 | 443 | 65.6 | 11 | 1.6 |
| 15-24 | 217 | 37.6 | 8 | 1.4 |
| 25-34 | 311 | 47.2 | 4 | 0.6 |
| 35-44 | 314 | 47.6 | 18 | 2.4 |
| 45-54 | 262 | 41.9 | 22 | 3.5 |
| 55-64 | 380 | 74.7 | 24 | 4.7 |
| ≥65 | 1713 | 268.7 | 65 | 10.2 |
| Unknown | | - | | - |
| Total | 4176 | 87.7 | 167 | 3.5 |

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.euromon.eu/

- One death in a notified influenza case was reported to HPSC during week 8 2023.
- During the 2022/2023 season (weeks 40 2022-8 2023), 170 deaths in notified influenza cases were reported to HPSC – 29 influenza A(H3), 20 influenza A(H1)pdm09, 118 influenza A (not subtyped), two influenza B and

one influenza A and B coinfection.

During the 2022/2023 season, excess all-cause mortality was reported over four consecutive weeks (weeks 51 2022-2 2023). Excess pneumonia and influenza mortality was also reported over four consecutive weeks (weeks 51 2022 – 2 2023). Excess mortality analysis is 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. <u>https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/casesinireland/</u>

- One laboratory confirmed influenza A and one RSV outbreak were notified to HPSC during week 8 2023. During the 2022/2023 season (weeks 40 2022-8 2023), 152 influenza outbreaks have been notified to HPSC.
- For an overview of outbreaks for the season to date (weeks 40 2022-8 2023), please 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 8 2023 and the 2022/2023 season (weeks 40 2022-8 2023) *Source: CIDR*

| HSE area | Influenza | | Respiratory syncytial virus infection | | | espiratory ection | COVID-19 8 | & Influenza | Total | |
|----------------|-----------|-----------|--|-----------|--------|----------------------|------------|-------------|--------|-----------|
| HSL al Ca | Week 8 | 2022/2023 | Week 8 | 2022/2023 | Week 8 | 2022/2023 | Week 8 | 2022/2023 | Week 8 | 2022/2023 |
| HSE-East | 1 | 55 | 1 | 15 | 0 | 0 | 0 | 0 | 0 | 70 |
| 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 | 20 | 0 | 6 | 0 | 4 | 0 | 3 | 0 | 33 |
| HSE-South-East | 0 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 |
| HSE-South | 0 | 8 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 16 |
| HSE-West | 0 | 15 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 18 |
| Total | 1 | 152 | 1 | 55 | 0 | 8 | 0 | 5 | 0 | 220 |

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 8 2023 and the 2022/2023 season (weeks 40 2022-8 2023). *Source: CIDR*

| Cotting | Influenza | | Respiratory | Respiratory syncytial virus | | Acute respiratory | | COVID-19 & Influenza | | Total | |
|-----------------------------------|-----------|-----------|-------------|-----------------------------|--------|-------------------|--------|----------------------|--------|-----------|--|
| Setting | Week 8 | 2022/2023 | Week 8 | 2022/2023 | Week 8 | 2022/2023 | Week 8 | 2022/2023 | Week 8 | 2022/2023 | |
| Community hospital/Long-stay unit | 0 | 8 | 0 | 8 | 0 | 2 | 0 | 1 | 0 | 19 | |
| Nursing Home | 1 | 55 | 1 | 21 | 0 | 4 | 0 | 2 | 0 | 82 | |
| Hospital | 0 | 67 | 0 | 8 | 0 | 0 | 0 | 2 | 0 | 77 | |
| Residential Institution | 0 | 10 | 0 | 4 | 0 | 2 | 0 | 0 | 0 | 16 | |
| Childcare facility | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | |
| Family Outbreaks | 0 | 8 | 0 | 12 | 0 | 0 | 0 | 0 | 0 | 20 | |
| Other settings | 0 | 4 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 5 | |
| Total | 1 | 152 | 1 | 55 | 0 | 8 | 0 | 5 | 0 | 220 | |

9. International Summary

In the European region, during week 7 2023 (week ending 19/02/2023), influenza virus positivity in sentinel primary care specimens was 30%, compared to 27% in the previous week, which is above the ECDC influenza positivity threshold of 10%. For week 7 2023, 957 (30%) of 3,224 sentinel GP specimens tested positive for an influenza virus; 45% were type A and 55% were type B. Of 313 subtyped A viruses, 20% were A(H3) and 80% were A(H1)pdm09. Of 128 influenza B viruses ascribed to a lineage, all were B/Victoria.

For week 7 2023, 10,553 of 66,749 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; 5,208 (49%) were influenza A and 5,345 (51%) were influenza B. Of 754 subtyped A viruses, 564 (75%) were A(H1)pdm09 and 190 (25%) were A(H3). Of 126 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, three reported sporadic spread, three reported local spread, 10 reported regional spread and 23 reported widespread influenza activity.

As of 20th February 2023, globally, influenza activity decreased compared to 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.

In the countries of North America, most indicators of influenza activity decreased to levels similar or below levels typically observed this time of year. Influenza A(H3N2) was the predominant virus detected. In Westem Asia, influenza activity decreased overall with all seasonal influenza subtypes detected, though increased activity was reported in some countries. In East Asia, influenza activity of predominantly influenza A(H3N2) viruses remained low overall among reporting countries but with increases reported in Mongolia. In the Caribbean and Central American countries, influenza activity of predominantly influenza A(H3N2) viruses continued to decrease due to decreases detections reported in Mexico.

See <u>ECDC</u> and <u>WHO</u> influenza surveillance reports for further information.

- Further information on influenza is available on the following websites:
 - Europe ECDChttp://ecdc.europa.eu/Public Health Englandhttps://www.gov.uk/government/collections/weekly-national-flu-reportsUnited States CDChttp://www.gov.uk/government/collections/weekly-national-flu-reportsPublic Health Agency of Ca nada 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 <u>https://www.hpsc.ie/a-</u> z/respiratory/coronavirus/novelcoronavirus/casedefinitions/
 - Avian influenza overview May August 2020 <u>https://www.ecdc.europa.eu/en/publications-data/avian-</u>influenza-overview-may-august-2020
 - Avian influenza: EU on alert for new outbreaks <u>https://www.ecdc.europa.eu/en/news-events/avian-</u> 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/
 - The WHO categorised COVID-19 as a pandemic on 11 March 2020. For more information about the situation in the WHO European Region visit:
 - o WHO website: https://www.who.int/emergencies/diseases/novel-coronavirus-2019
 - ECDC website: <u>https://www.ecdc.europa.eu/en/novel-coronavirus-china</u>

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/Victorialineage)-likevirus; and
- a B/Phuket/3073/2013 (B/Yamagata lineage)-like virus

https://www.who.int/teams/global-influenza-programme/vaccines/who-recommendations

Further information on influenza in Ireland is available at www.hpsc.ie

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