

Influenza

Weekly Surveillance Bulletin

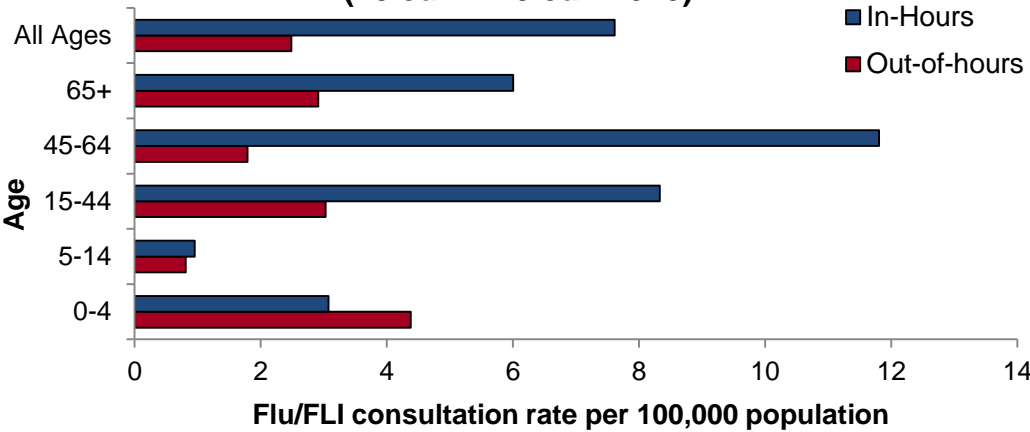
Week 3 (13 January- 19 January 2020)

Community Activity

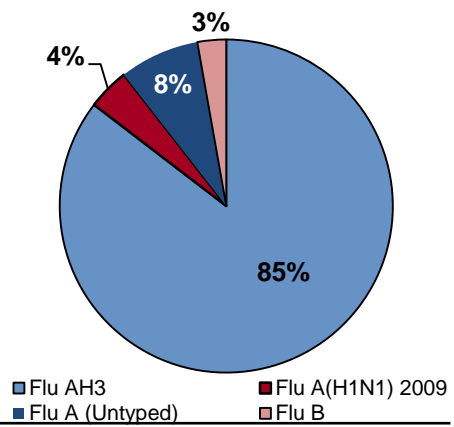
| | | | | | |
|----------------|----------|-----|--------|------|-----------|
| Flu Intensity: | Baseline | Low | Medium | High | Very High |
|----------------|----------|-----|--------|------|-----------|

| Week | October | | | | | November | | | | December | | | | January | | | | | February | | | | March | | | | April | | | | May | | | |
|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|--|
| | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | |
| 2019/20 | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline | |
| 2018/19 | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline | Baseline | |

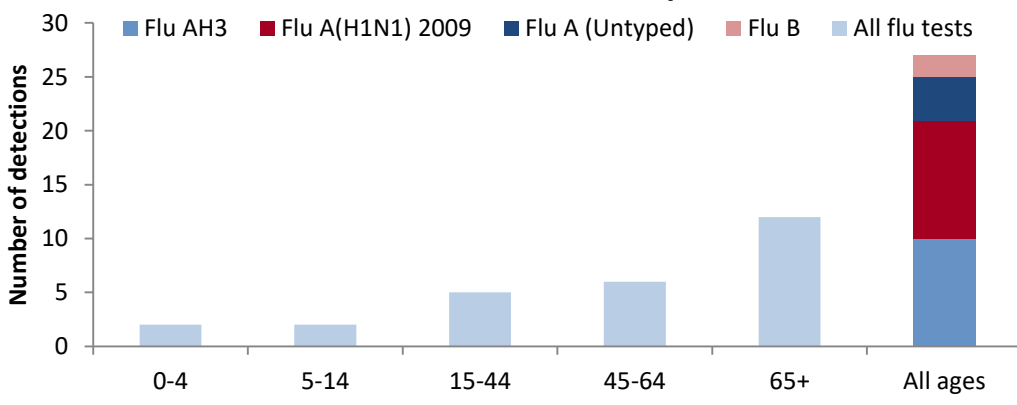
GP consultation rates for 'flu/flu-like-illness' ('flu/FLI') (13 Jan – 19 Jan 2020)



Circulating strains this season to date



Number of hospital cases with confirmed flu (13 Jan – 19 Jan 2020)



To date there have been 61 admissions to ICU with confirmed influenza

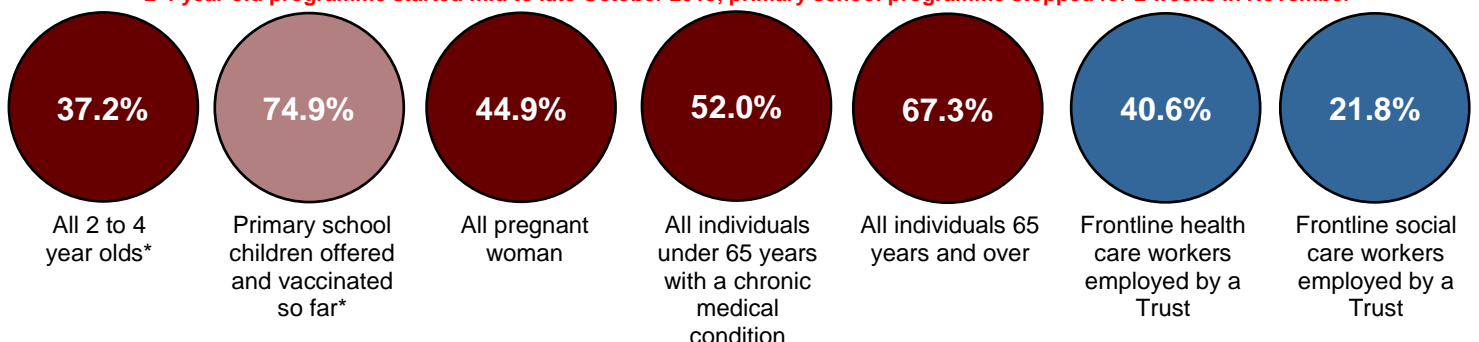
Respiratory Outbreaks this Week (13 Jan – 19 Jan 2020)

1

To date there have been eight flu outbreaks; five in a Care Home setting, two in a Hospital setting and one other

Vaccine Uptake (1 October - 31 December 2020)

* 2-4 year old programme started mid to late October 2019, primary school programme stopped for 2 weeks in November



GP consultation rates for ‘flu/flu-like-illness’ (‘flu/FLI’)

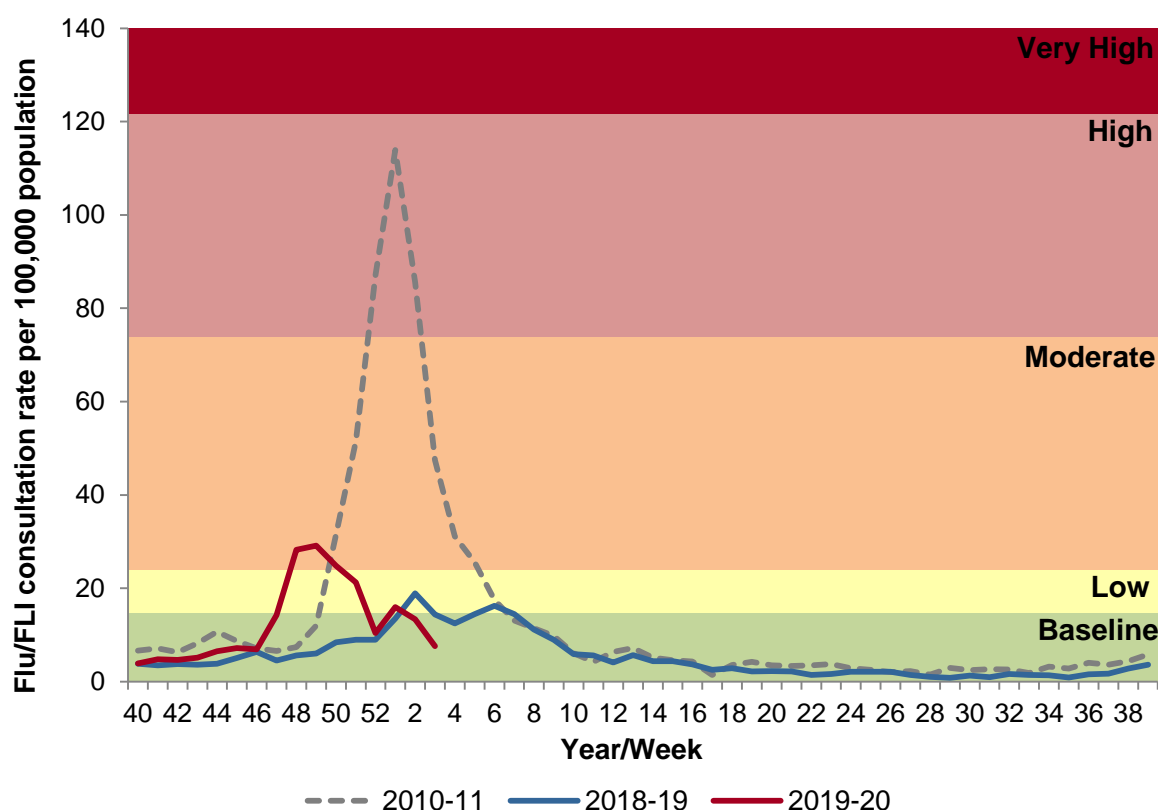


Figure 1. Northern Ireland GP consultation rates for ‘flu/FLI’ 2018/19 – 2019/20, 2010/11 for comparison

The baseline MEM threshold for Northern Ireland is 14.7 per 100,000 population for 2019-20. Low activity is 14.7 to <23.9, moderate activity 23.9 to <73.9, high activity 73.9 to <121.7 and very high activity is >121.7

Comment

The GP flu/FLI consultation rate during week 3, 2020 was 7.6 per 100,000 population, a decrease from week 2 (13.4 per 100,000). This is lower than the same time last year (14.4 per 100,000). Activity remains below the baseline threshold for Northern Ireland (<14.7 per 100,000) (Figure 1).

Flu/FLI consultation rates decreased in week 3 compared to week 2 in all age groups, except in those aged 0-4 years, which increased (1.1 to 3.1 per 100,000 population). Flu/FLI consultation rate was highest in those aged 45-64 years in week 3 (11.8 per 100,000). Rates are lower in all age groups, except those aged 0-4 years, compared to the same period last year (week 3, 2018-19).

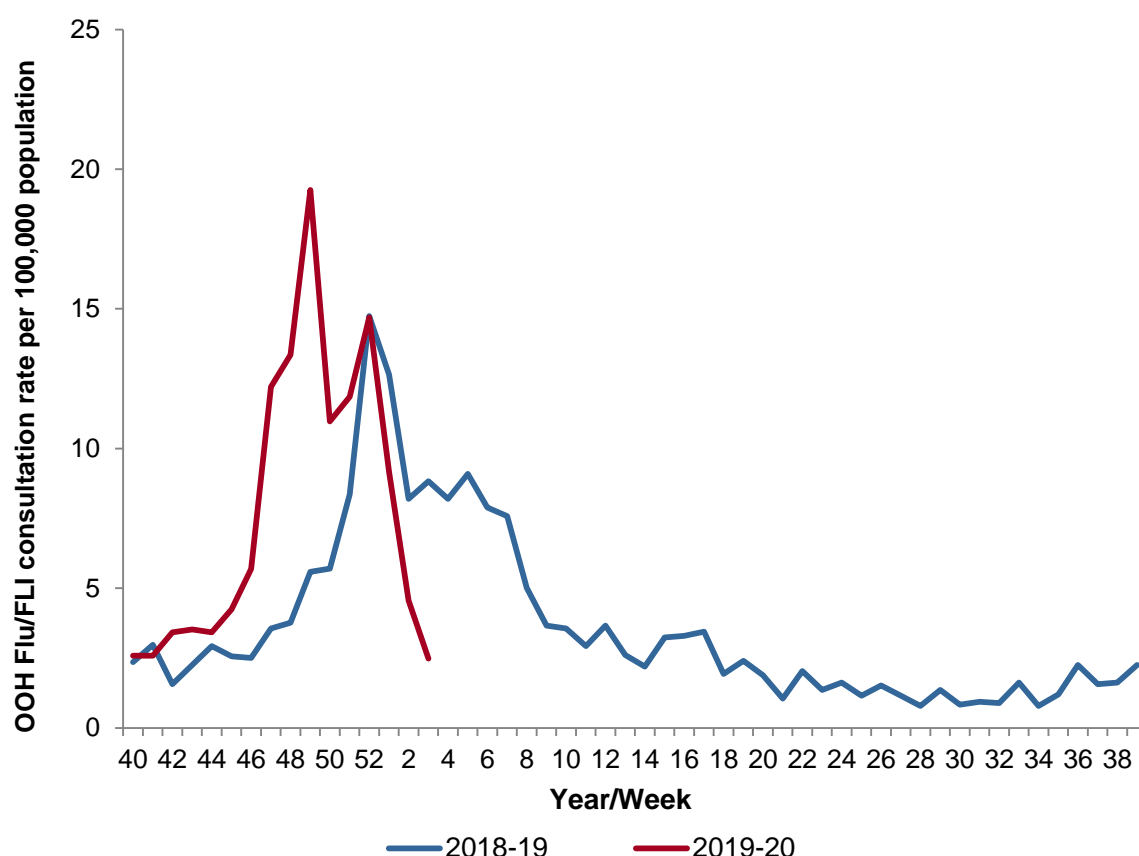


Figure 2. Northern Ireland Out of Hours (OOH) consultation rates for 'flu/FLI' 2018/19 – 2019/20

Comment

The flu/FLI consultation rate in Primary Care Out-of-Hours (OOH) Centres during week 3, 2020 was 2.5 per 100,000 population, a decrease from week 2 (4.6 per 100,000). This is lower than the same time last year (8.8 per 100,000).

In week 3 the percentage of calls to an OOH Centre due to flu/FLI was 0.5%. This is a decrease from week 2 (0.9%) and is lower than the same period last year (1.6%).

Consultation rates decreased in week 3 compared to week 2 in the 15-44 and 45-64 year age groups, while increasing in those aged 0-4 and 65+ years. Rates remained constant in those aged 5-14 years. Consultation rates were highest in those aged 0-4 years in week 3 (4.4 per 100,000). Rates are lower in all age groups compared to the same period last year (week 3, 2018-19).

Virology

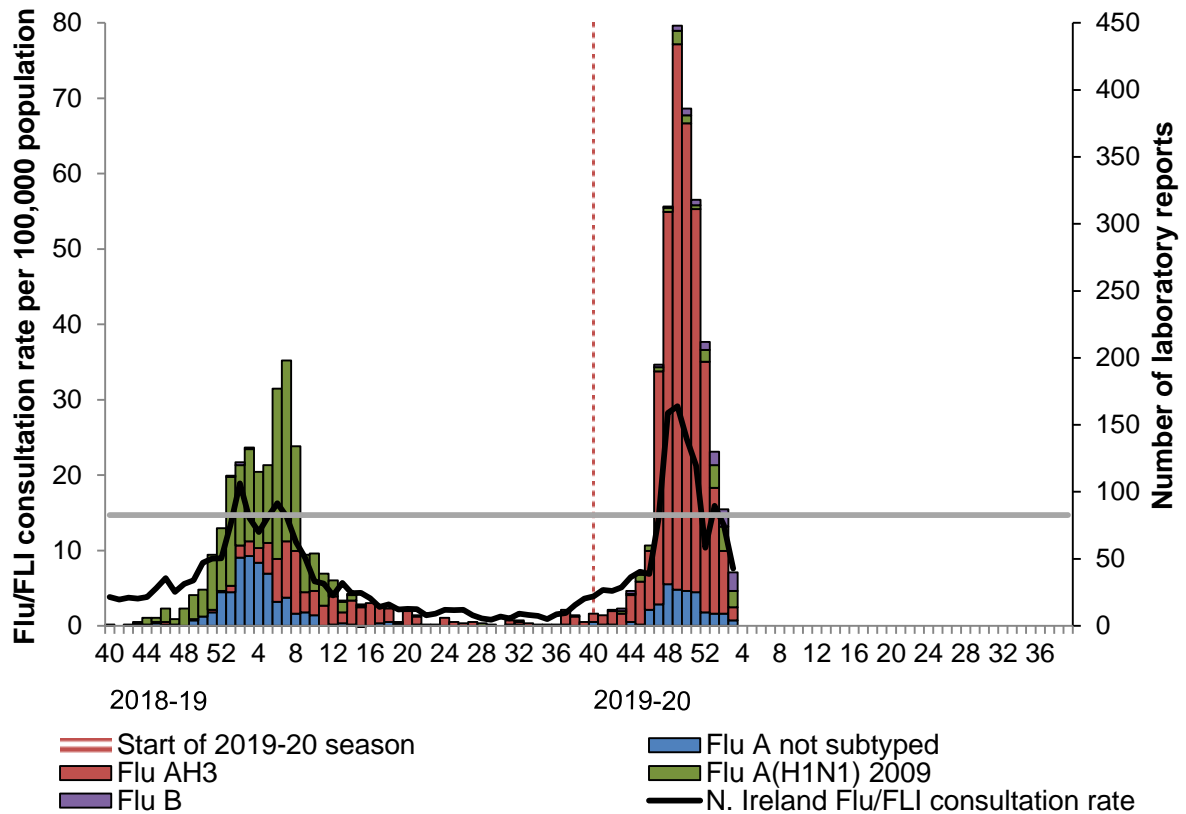


Figure 3. Weekly number of flu laboratory reports from week 40, 2018 with weekly GP consultation rates for ‘flu/FLI’

Table 1. Virus activity in Northern Ireland by source, Week 3, 2019-20

| Source | Specimens tested | Flu AH3 | Flu A(H1N1) 2009 | Flu A (Untyped) | Flu B | RSV | Total Influenza Positive | % Influenza Positive |
|--------------|------------------|-----------|------------------|-----------------|-----------|-----------|--------------------------|----------------------|
| Sentinel | 7 | 0 | 1 | 0 | 1 | 0 | 2 | 29% |
| Non-sentinel | 421 | 10 | 11 | 4 | 13 | 18 | 38 | 9% |
| Total | 428 | 10 | 12 | 4 | 14 | 18 | 40 | 9% |

Table 2. Cumulative virus activity from all sources by age group, Week 40 - 3, 2019-20

| Age Group | Flu AH3 | Flu A(H1N1) 2009 | Flu A (Untyped) | Flu B | Total Influenza | RSV |
|-----------------|-------------|------------------|-----------------|-----------|-----------------|------------|
| 0-4 | 295 | 21 | 26 | 10 | 352 | 551 |
| 5-14 | 239 | 8 | 27 | 8 | 282 | 32 |
| 15-64 | 765 | 57 | 55 | 43 | 920 | 150 |
| 65+ | 661 | 7 | 70 | 3 | 741 | 190 |
| Unknown | 0 | 0 | 0 | 0 | 0 | 1 |
| All ages | 1960 | 93 | 178 | 64 | 2295 | 924 |

Table 3. Cumulative virus activity by age group and source, Week 40 - Week 3, 2019-20

| Age Group | Sentinel | | | | | | Non-sentinel | | | | | |
|-----------------|------------|------------------|-----------------|----------|-----------------|-----------|--------------|------------------|-----------------|-----------|-----------------|------------|
| | Flu AH3 | Flu A(H1N1) 2009 | Flu A (Untyped) | Flu B | Total Influenza | RSV | Flu AH3 | Flu A(H1N1) 2009 | Flu A (Untyped) | Flu B | Total Influenza | RSV |
| 0-4 | 11 | 0 | 0 | 0 | 11 | 0 | 284 | 21 | 26 | 10 | 341 | 551 |
| 5-14 | 32 | 0 | 0 | 1 | 33 | 0 | 207 | 8 | 27 | 7 | 249 | 32 |
| 15-64 | 66 | 6 | 0 | 4 | 76 | 15 | 699 | 51 | 55 | 39 | 844 | 135 |
| 65+ | 12 | 0 | 0 | 0 | 12 | 2 | 649 | 7 | 72 | 3 | 731 | 188 |
| Unknown | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| All ages | 121 | 6 | 0 | 5 | 132 | 17 | 1839 | 87 | 180 | 59 | 2165 | 907 |

Note

Additional virology testing has been undertaken at local laboratories. This bulletin includes this data along with the data from the Regional Virology Laboratory.

All virology data are provisional. The virology figures for previous weeks included in this or future bulletins are updated with data from laboratory returns received after the production of the last bulletin. The current bulletin reflects the most up-to-date information available. Sentinel and non-sentinel samples are tested for influenza and for RSV. Cumulative reports of influenza A (untyped) may vary from week to week as these may be subsequently typed in later reports.

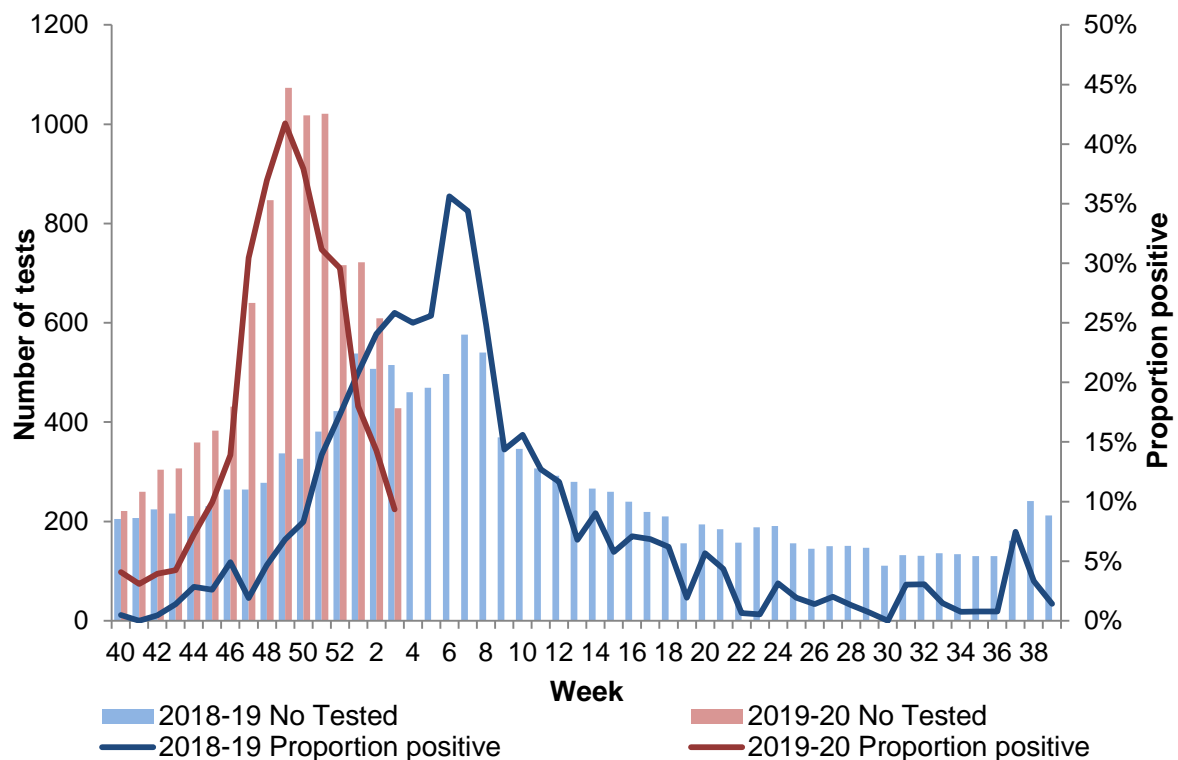


Figure 4. Number of samples tested for influenza and proportion positive, 2018/19 – 2019/20, all sources

Comment

In week 3, 2020, 40 samples were positive for flu (10 Flu A(H3), 12 Flu A(H1N1), four Flu A(untyped) and 14 Flu B) from 428 submitted for testing in laboratories across Northern Ireland.

Positivity decreased in week 3 (9%) compared to week 2 (14%). Positivity is lower than this time last year (26%).

Two of the seven samples submitted by the GP based sentinel scheme were positive for flu (one Flu A(H1N1) and one Flu B, 29% positivity) (Figures 3 and 4; Tables 1, 2 and 3).

Respiratory Syncytial Virus (RSV)

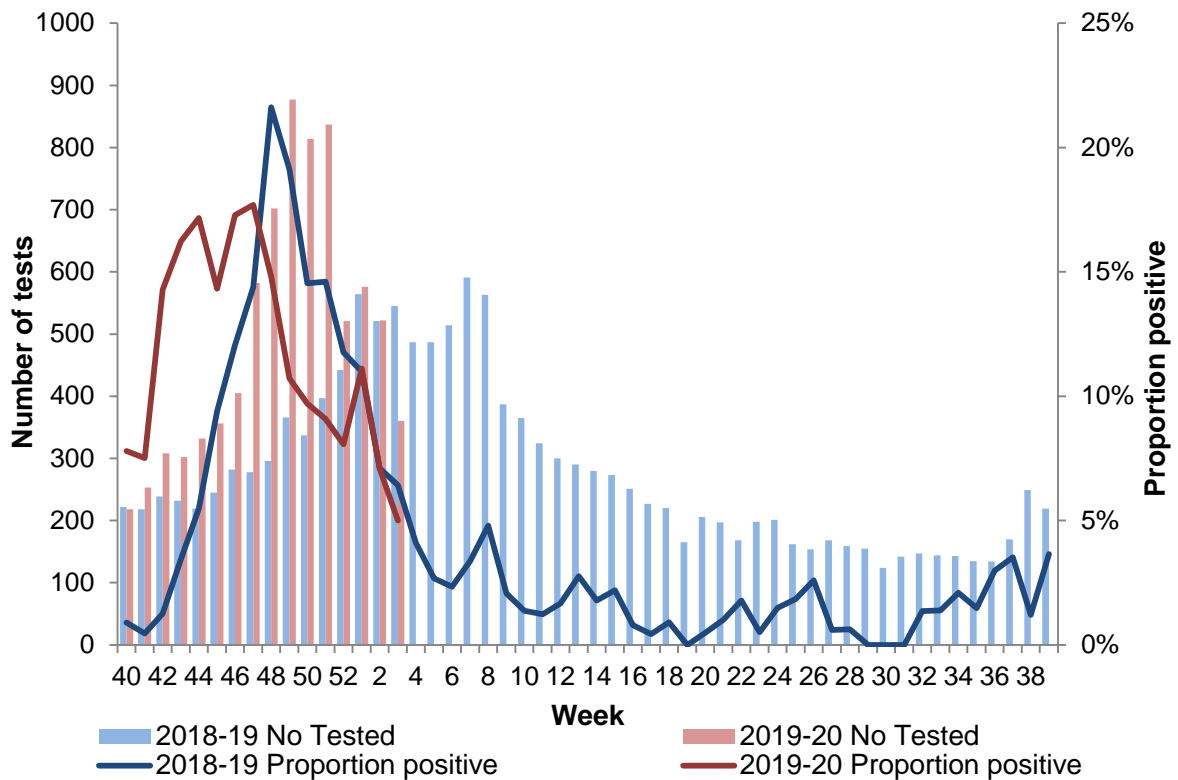


Figure 5. Number of samples tested for RSV and proportion positive, 2018/19 – 2019/20, all sources

Comment

In week 3, 18 samples were positive for RSV, with positivity (5%) similar to the same period last season (6%).

The majority (60%) of cases since week 40 have occurred in children aged 0-4 years (Table 2 and Figure 5).

Hospital Surveillance (Non-ICU/HDU)

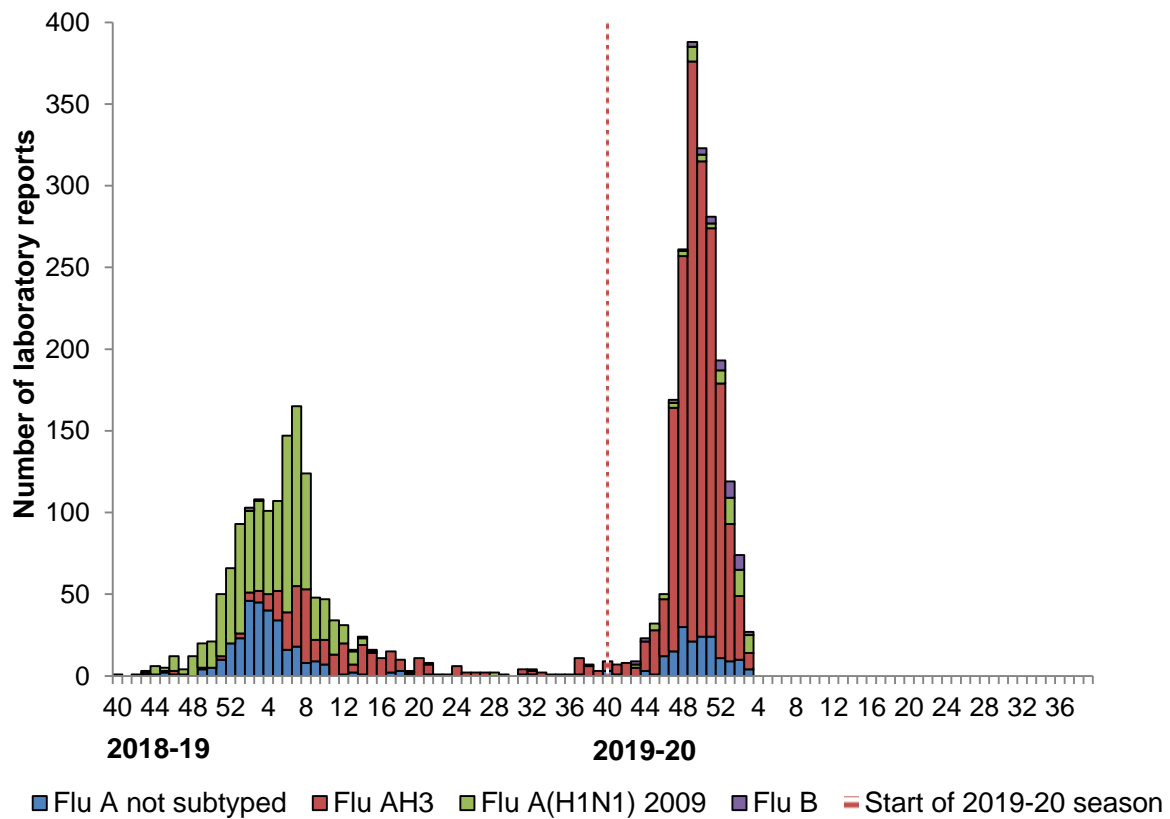


Figure 6. Weekly number of hospitalisations testing positive for influenza by week of specimen, 2018/19 – 2019/20

Comment

In week 3, 2020, 27 hospitalisations tested positive for flu (10 Flu A(H3), 11 Flu A(H1N1), four Flu A(untyped) and two Flu B). This is a decrease from week 2 and the same time last year (Figure 6).

Of note, not all positive specimens may have been reported as this point.

ICU/HDU Surveillance

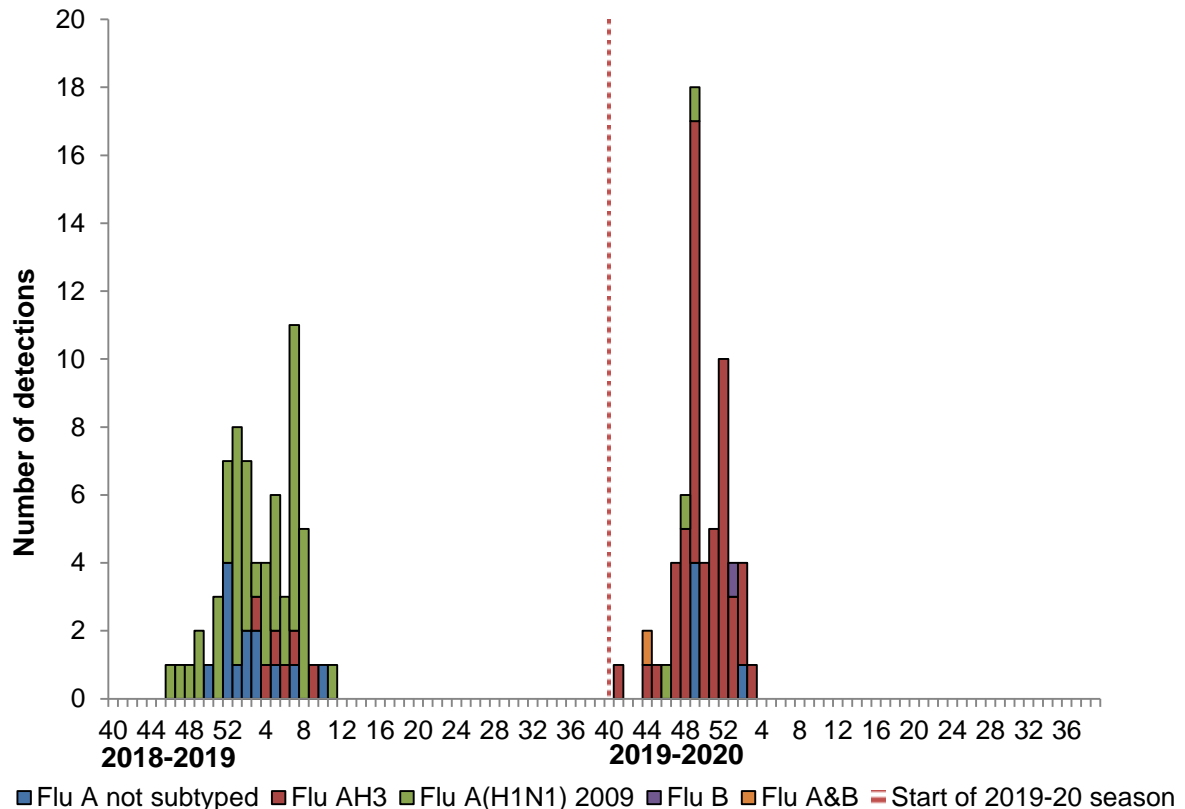


Figure 7. Confirmed ICU/HDU influenza cases by week of specimen, 2018/19 – 2019/20

Comment

Data are collected on laboratory confirmed influenza patients and deaths in critical care (level 2 and level 3). There was one new admission to ICU with confirmed influenza reported to the Public Health Agency (PHA) during week 3. So far this season there has been 61 admissions to ICU with confirmed influenza (51 Flu A(H3), three Flu A(H1N1), five Flu A(untyped), one Flu B and one Flu A&B) reported to the PHA (Figure 7).

Of the 61 admissions to ICU, 48% (n=29) were male. The ages ranged from <1 year to 86 years, with a median age of 58 years and a mean age of 49 years. 75% (n=46) were classed as being in a vaccine risk group. Vaccination status was known for 75% (n=46); 13 were vaccinated this season. To date there have been six deaths reported among ICU admissions.

Outbreaks

During week 3, 2020 there was one confirmed respiratory outbreak reported to the PHA Health Protection acute response duty room (Flu B). To date, there has been a total of eight confirmed respiratory outbreaks reported, five in a Care Home setting, two in a Hospital setting and one other (seven Flu A(untyped) and one Flu B).

Mortality

The Northern Ireland Statistics and Research Agency (NISRA) provide the weekly number of **respiratory associated deaths** and its proportion of all-cause registered deaths.

Respiratory associated deaths include those that are attributable to influenza, other respiratory infections or their complications. This includes “*bronchiolitis, bronchitis, influenza or pneumonia*” keywords recorded on the death certificate.

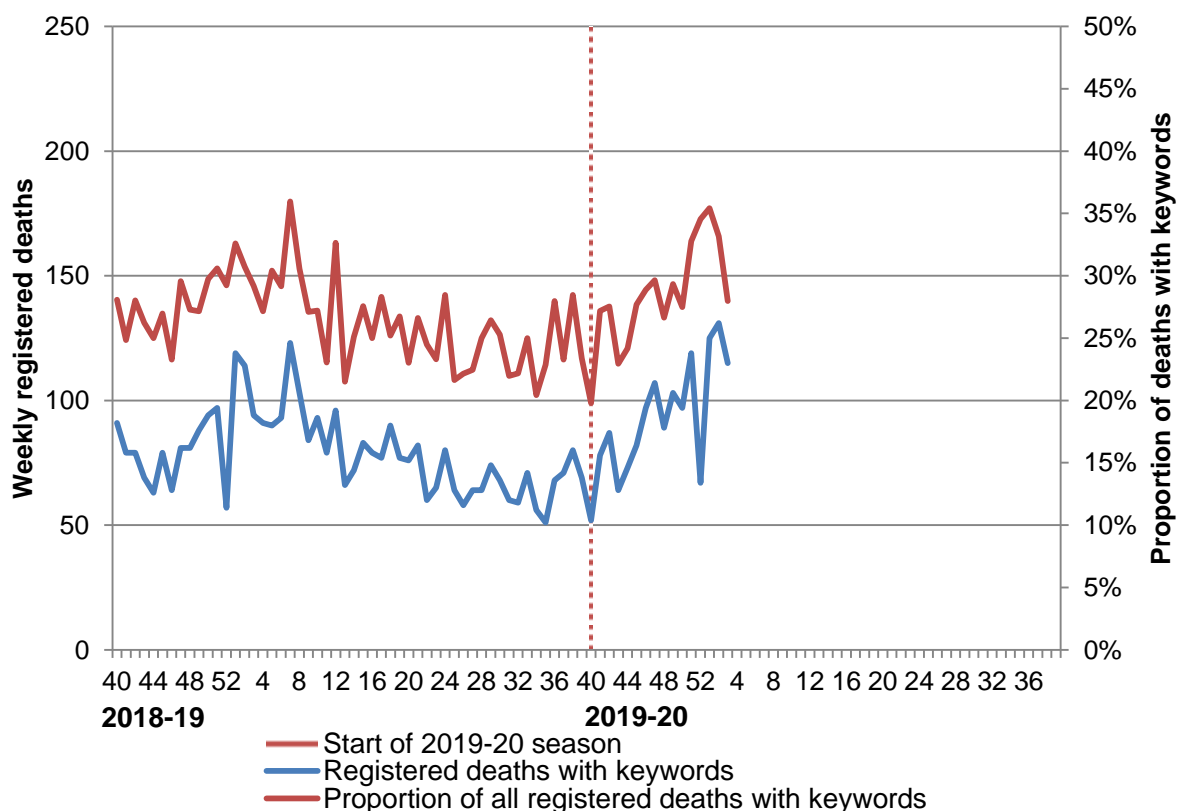


Figure 8. Weekly registered deaths and proportion of all deaths with keywords, by week of registration from week 40, 2018

Comment

In week 3, 2020, 115 respiratory associated deaths out of 411 all-cause deaths were reported (28%). These trends are broadly the same as the same period last year (Figure 8).

EuroMOMO

There was no excess all-cause mortality reported in Northern Ireland in week 3, 2020. Excess all-cause mortality was reported for three weeks in Northern Ireland to date this season (weeks 49, 50 and 51). This excess mortality was seen in those aged 65+ years of age.

Please note this data is provisional due to the time delay in registration; numbers may vary from week to week.

Information on mortality from all causes is provided for management purpose from Public Health England. Excess mortality is defined as a statistically significant increase in the number of deaths reported over the expected number for a given point in time. This calculation allows for a weekly variation in the number of deaths registered and takes account of deaths registered retrospectively. Information is used to provide an early warning to the health service of any seasonal increases in mortality to allow further investigation of excess detections.

There is no single cause of 'additional' deaths in the winter months but they are often attributed in part to cold weather (e.g. directly from falls, fractures, road traffic accidents), through worsening of chronic medical conditions e.g. heart and respiratory complaints and through respiratory infections including influenza.

For more information on EuroMOMO and interactive maps of reporting across the season please see <http://www.euromomo.eu/index.html>

Influenza Vaccine Uptake

Every year the seasonal flu vaccine programme officially commences on 1st October and is delivered by primary care, the Trust school nursing service (in school) and the Trust health and social care worker (HSCW) flu campaign. This year, the children's programme has been impacted on by temporary delays in the manufacturing of the flu vaccine given to children (see table 4 for details).

Uptake for primary school children is presented differently and is the proportion of children offered the vaccine between the start of the programme and 31st December and also received it.

| | Delivered by | Start date | 2019/20 (to 31 Dec) | 2018/19 (to 31 Dec) |
|---|-----------------------------|---|--------------------------------|--------------------------------|
| All 2 to 4 year olds | GP | Mid - late Oct 2019 | 37.2% | 45.7% |
| All pregnant women | GP | 1 st Oct 2019 | 44.9% | 46.5% |
| All individuals under 65 years with a chronic medical condition | GP | 1 st Oct 2019 | 52.0% | 47.9% |
| All individuals 65 years and over | GP | 1 st Oct 2019 | 67.3% | 64.1% |
| % of primary school children offered and vaccinated the vaccine to date | Trust School Nurse Service* | 1 st Oct 2019 2 week pause in Nov | 74.9% | 75.5% |
| % of all Frontline health care workers employed by a Trust | Trust HSCW Campaign | 1 st Sept 2019 | 40.6% | 38.4% |
| % of all Frontline social care workers employed by a Trust | Trust HSCW Campaign | 1 st Sept 2019 | 21.8% | 21.6% |

*This figure also includes a small number vaccinated by their GP.

Further Information and International/National Updates

Further information

Further information on influenza is available at the following websites:

[PHA Seasonal Influenza](#)

[nidirect Flu Vaccination](#)

[PHE Seasonal Influenza Guidance - Data and Analysis](#)

[WHO Influenza](#)

[ECDC Seasonal Influenza](#)

National updates

Detailed influenza weekly reports can be found at the following websites:

England [PHE Weekly National Flu Report](#)

Scotland [HPS Weekly National Seasonal Respiratory Report](#)

Wales [Public Health Wales Influenza Surveillance Report](#)

Republic of Ireland [HPSC Seasonal Influenza Surveillance Reports](#)

International updates

Europe (ECDC and WHO) [Flu News Europe](#)

Worldwide (WHO) [WHO Influenza Surveillance Monitoring](#)

USA (CDC) [Weekly U.S. Influenza Surveillance Report](#)

Acknowledgements

We would like to extend our thanks to all those who assist us in the surveillance of influenza in particular the sentinel GPs, Out-of-Hours Centres, Apollo Medical, Regional Virus Laboratory, Critical Care Network for Northern Ireland and Public Health England. Their work is greatly appreciated and their support vital in the production of this bulletin.

The author also acknowledges the Northern Ireland Statistics and Research Agency (NISRA) and the General Register Office Northern Ireland (GRONI) for the supply of data used in this publication. NISRA and GRONI do not accept responsibility for any alteration or manipulation of data once it has been provided.

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