

# Influenza

## Weekly Surveillance Bulletin

Weeks 11 - 12 (9 March - 22 March 2020)

### Community Activity

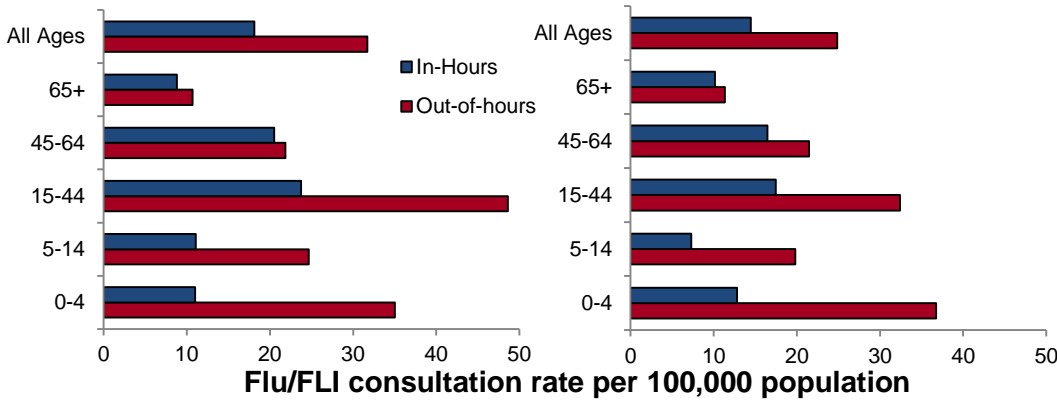
Flu Intensity: Baseline Low Medium High Very High

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
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
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

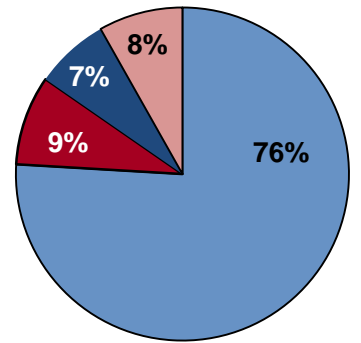
### GP consultation rates for 'flu/flu-like-illness' ('flu/FLI')

(Wk 11: 9 Mar — 15 Mar 2020)

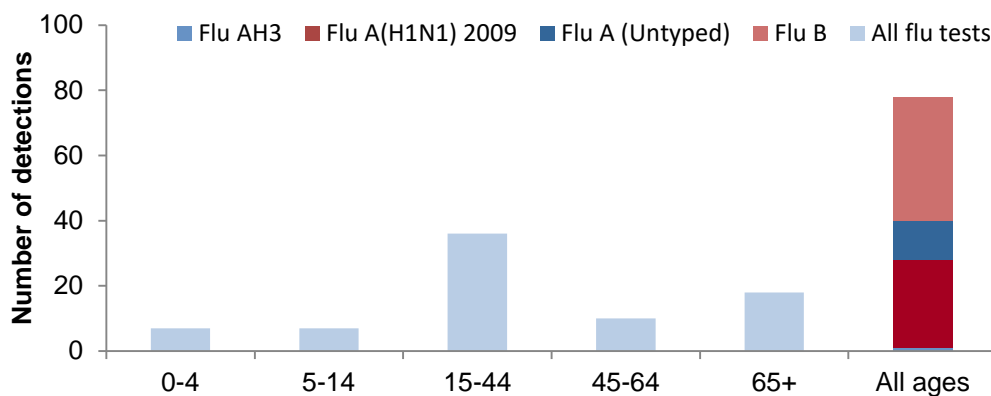
(Wk 12: 16 Mar — 22 Mar 2020)



### Circulating strains this season to date



### Number of hospital cases with confirmed flu (9 Mar — 22 Mar 2020)



To date there have been 64 admissions to ICU with confirmed influenza

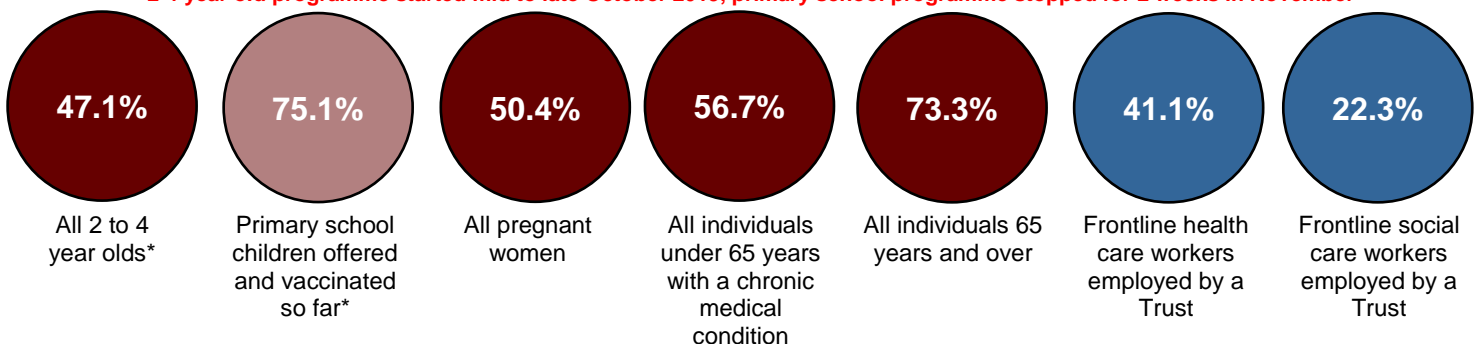
### Respiratory Outbreaks (9 Mar — 22 Mar 2020)

0

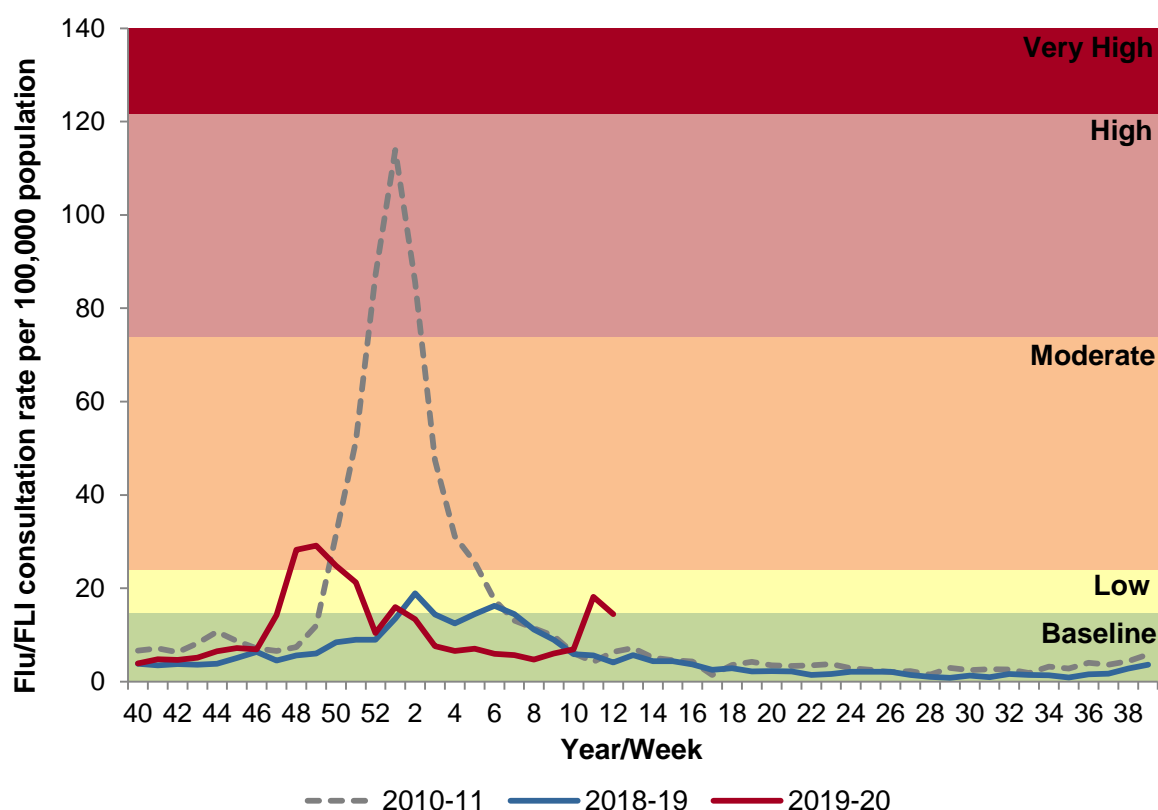
To date there have been ten flu outbreaks; five in a Care Home setting, four in a Hospital setting and one other

### Vaccine Uptake (1 October – 31 January 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’)



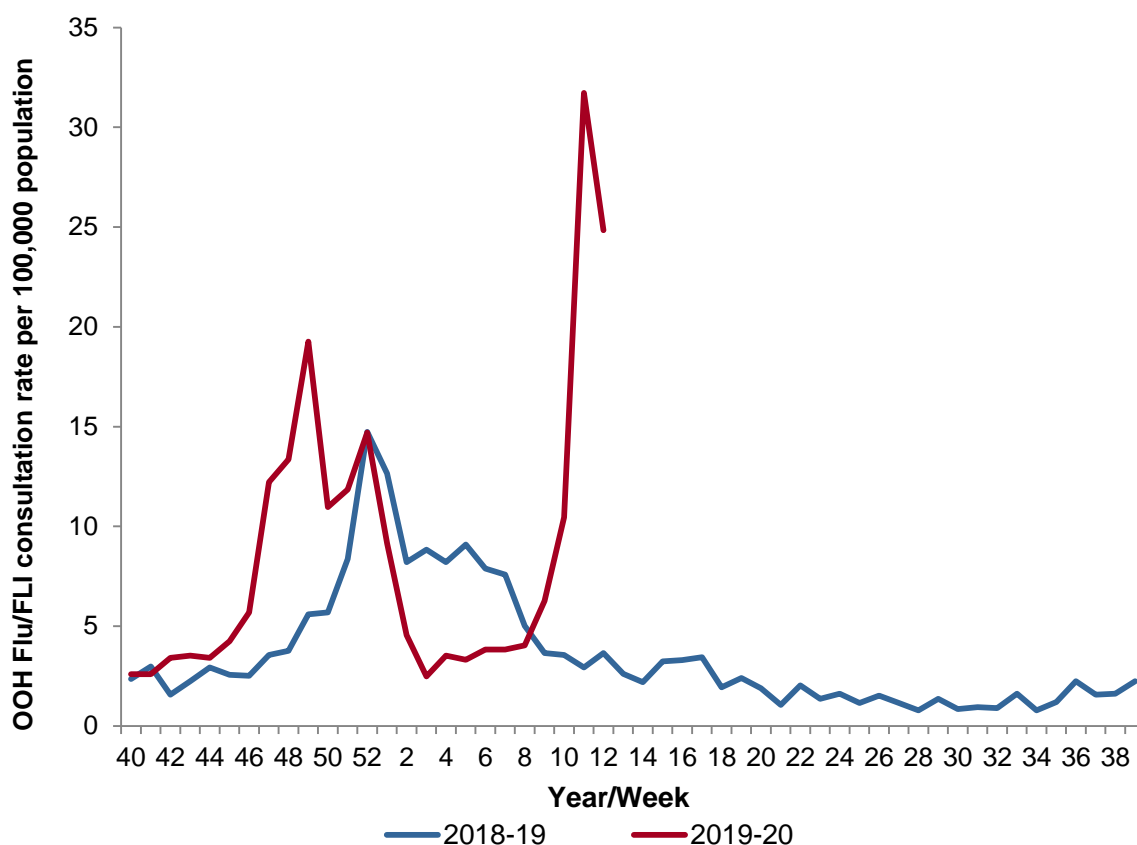
**Figure 1. Northern Ireland GP consultation rates for ‘flu/FLI’ 2018/19 – 2019/20, 2010/11 for comparison**

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

GP flu/FLI consultation rates were 18.1 per 100,000 population in week 11 and 14.5 per 100,000 in week 12. GP flu/FLI consultation rates for weeks 11 and 12 were higher compared to the same time last year (5.6 per 100,000 and 4.1 per 100,000, respectively). Activity returned to just below the baseline threshold for Northern Ireland in week 12 (<14.7 per 100,000) (Figure 1).

Flu/FLI consultation rates were highest in 15-44 year olds in weeks 11 and 12 (23.7 and 17.5 per 100,000 population, respectively). Rates are higher in all age groups compared to the same period last year (week 12, 2018-19).



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

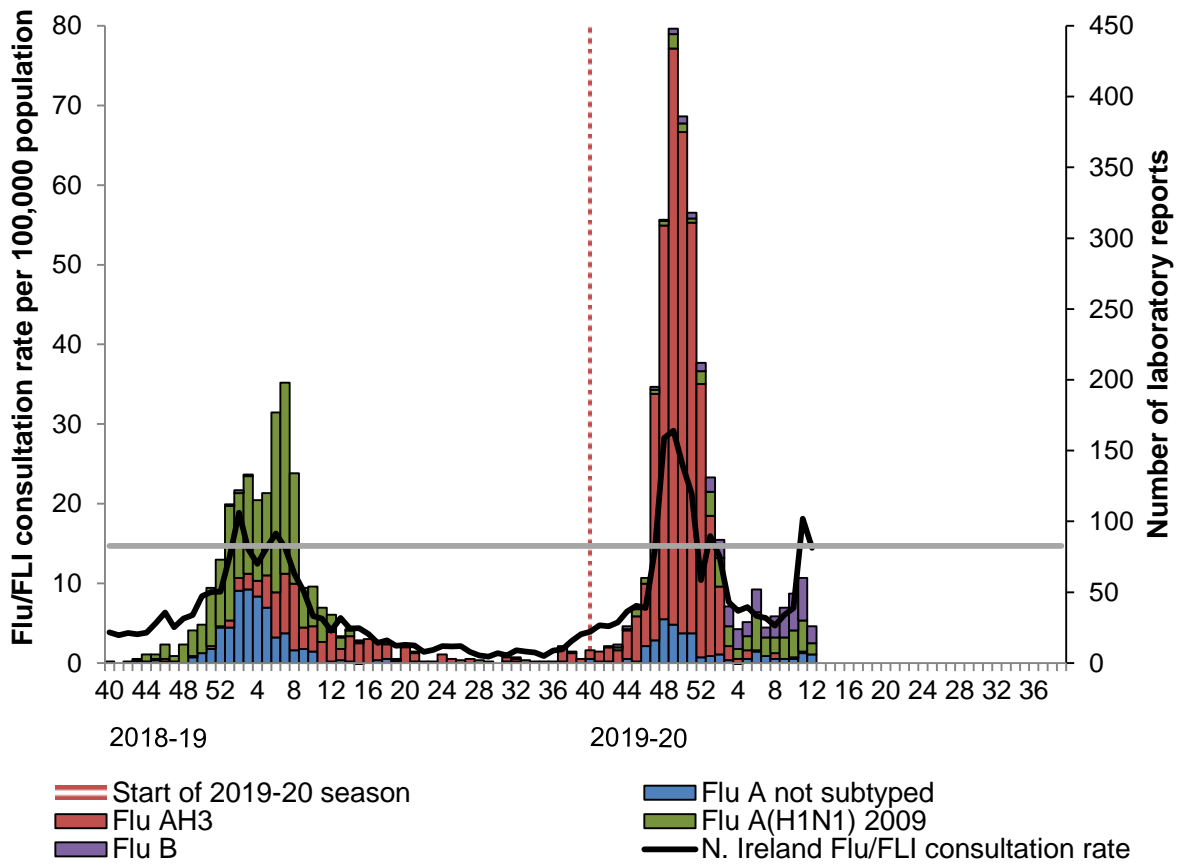
### Comment

Flu/FLI consultation rates in Primary Care Out-of-Hours (OOH) Centres were 31.7 per 100,000 population in week 11 and 24.8 per 100,000 in week 12. This is higher than the same time last year (2.9 and 3.7 per 100,000, respectively) (Figure 2).

In weeks 11 and 12 the percentage of calls to an OOH Centre due to flu/FLI was 4.5% and 3.3%, respectively. This is an increase from the same period last year (0.5%).

Rates were highest in those aged 15-44 years in week 11 (48.6 per 100,000 population) and 0-4 years in week 12 (36.8 per 100,000 population). In comparison to week 12, 2018-19, consultation rates were higher in all age groups.

## 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, Weeks 11-12, 2019-20

Source	Specimens tested	Flu AH3	Flu A(H1N1) 2009	Flu A (Untyped)	Flu B	RSV	Total Influenza Positive	% Influenza Positive
Sentinel	8	0	0	0	2	0	2	25%
Non-sentinel	1234	1	30	13	40	8	84	7%
<b>Total</b>	<b>1242</b>	<b>1</b>	<b>30</b>	<b>13</b>	<b>42</b>	<b>8</b>	<b>86</b>	<b>7%</b>

Table 2. Cumulative virus activity from all sources by age group, Week 40 - 12, 2019-20

Age Group	Flu AH3	Flu A(H1N1) 2009	Flu A (Untyped)	Flu B	Total Influenza	RSV
0-4	298	34	27	29	388	580
5-14	240	8	29	34	311	35
15-64	776	132	74	138	1120	165
65+	683	55	59	14	811	207
Unknown	0	0	0	0	0	1
<b>All ages</b>	<b>1997</b>	<b>229</b>	<b>189</b>	<b>215</b>	<b>2630</b>	<b>988</b>

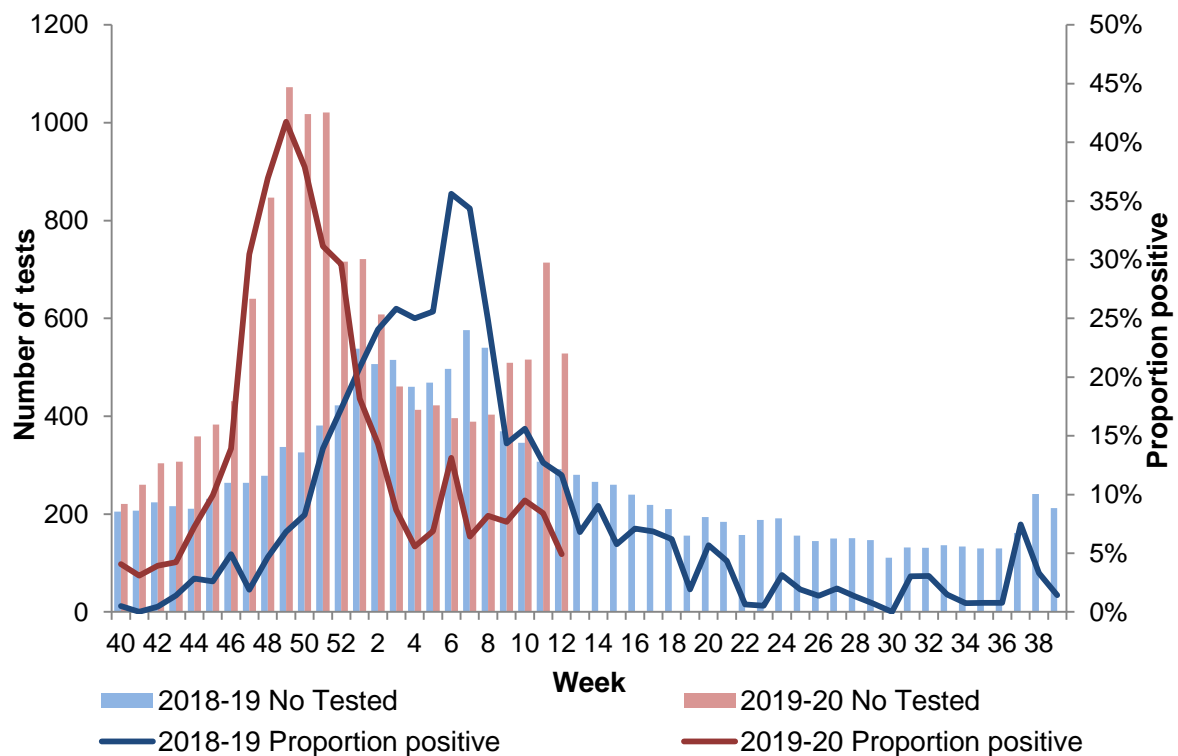
Table 3. Cumulative virus activity by age group and source, Week 40 - Week 12, 2019-20

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	287	34	27	29	377	580
5-14	32	0	0	2	34	0	208	8	29	32	277	35
15-64	66	12	0	9	87	15	710	120	74	129	1033	150
65+	13	1	0	0	14	2	670	54	61	14	799	205
Unknown	0	0	0	0	0	0	0	0	0	0	0	1
<b>All ages</b>	<b>122</b>	<b>13</b>	<b>0</b>	<b>11</b>	<b>146</b>	<b>17</b>	<b>1875</b>	<b>216</b>	<b>191</b>	<b>204</b>	<b>2486</b>	<b>971</b>

## 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**

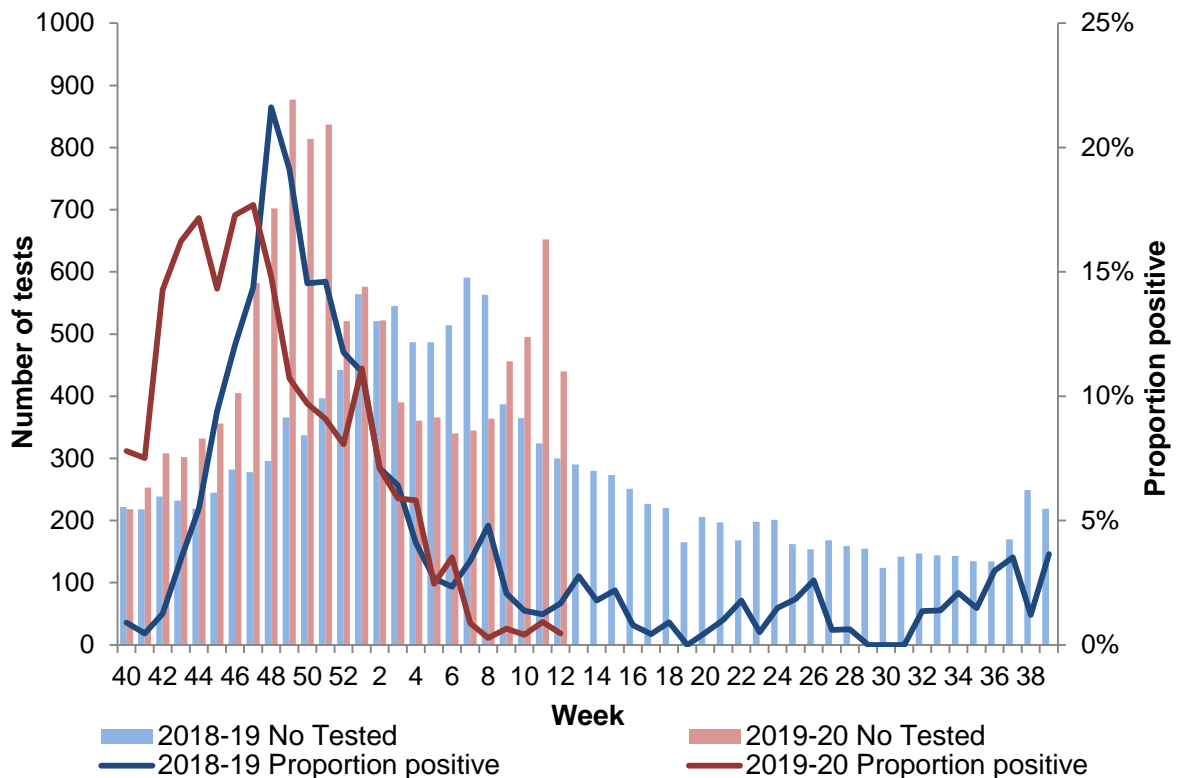
**Comment**

In weeks 11 and 12, 86 samples were positive for flu (one Flu A(H3), 30 Flu A(H1N1), 13 Flu A(untyped) and 42 Flu B) from 1242 submitted for testing in laboratories across Northern Ireland.

Positivity for weeks 11 and 12 combined (7%) is lower than this time last year (12%).

Two of the eight samples submitted by the GP based sentinel scheme were positive for flu (two Flu B) (Figures 3 and 4; Tables 1, 2 and 3).

## Respiratory Syncytial Virus (RSV)



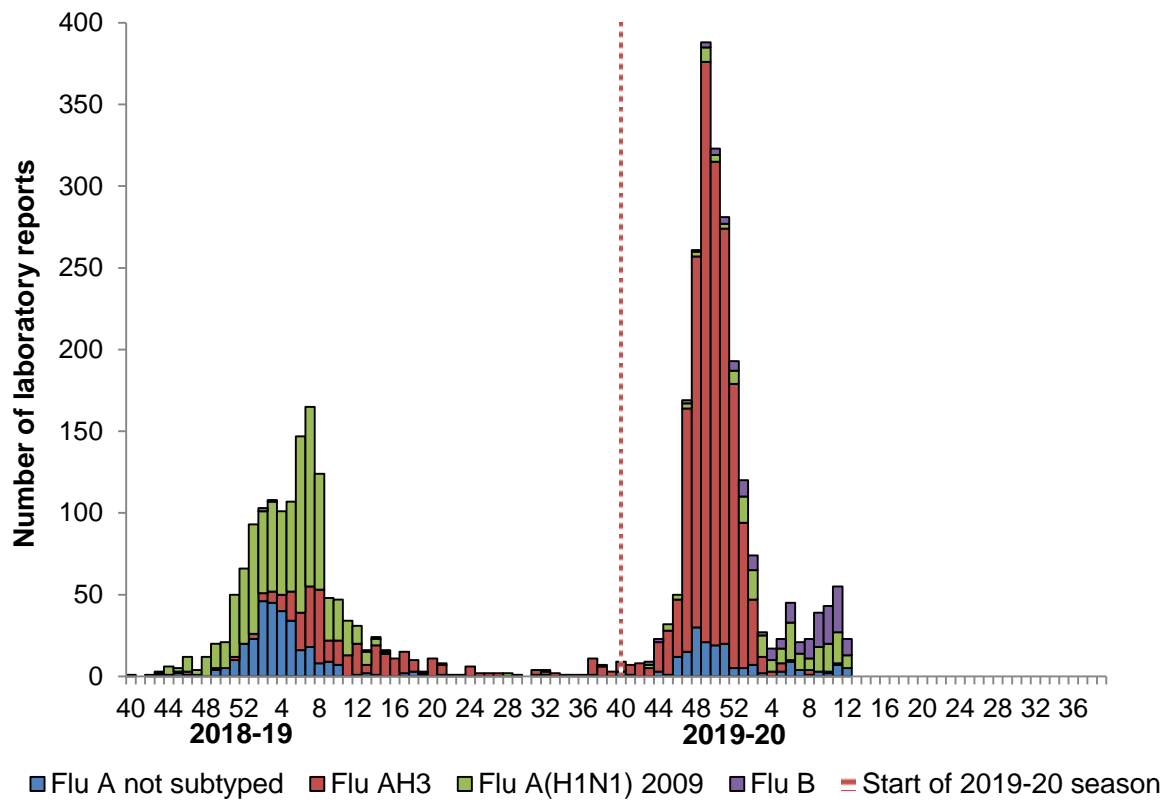
**Figure 5. Number of samples tested for RSV and proportion positive, 2018/19 – 2019/20, all sources**

### Comment

In weeks 11 and 12, eight samples were positive for RSV, with positivity in week 12 (0%) lower than the same period last season (2%).

The majority (59%) 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**

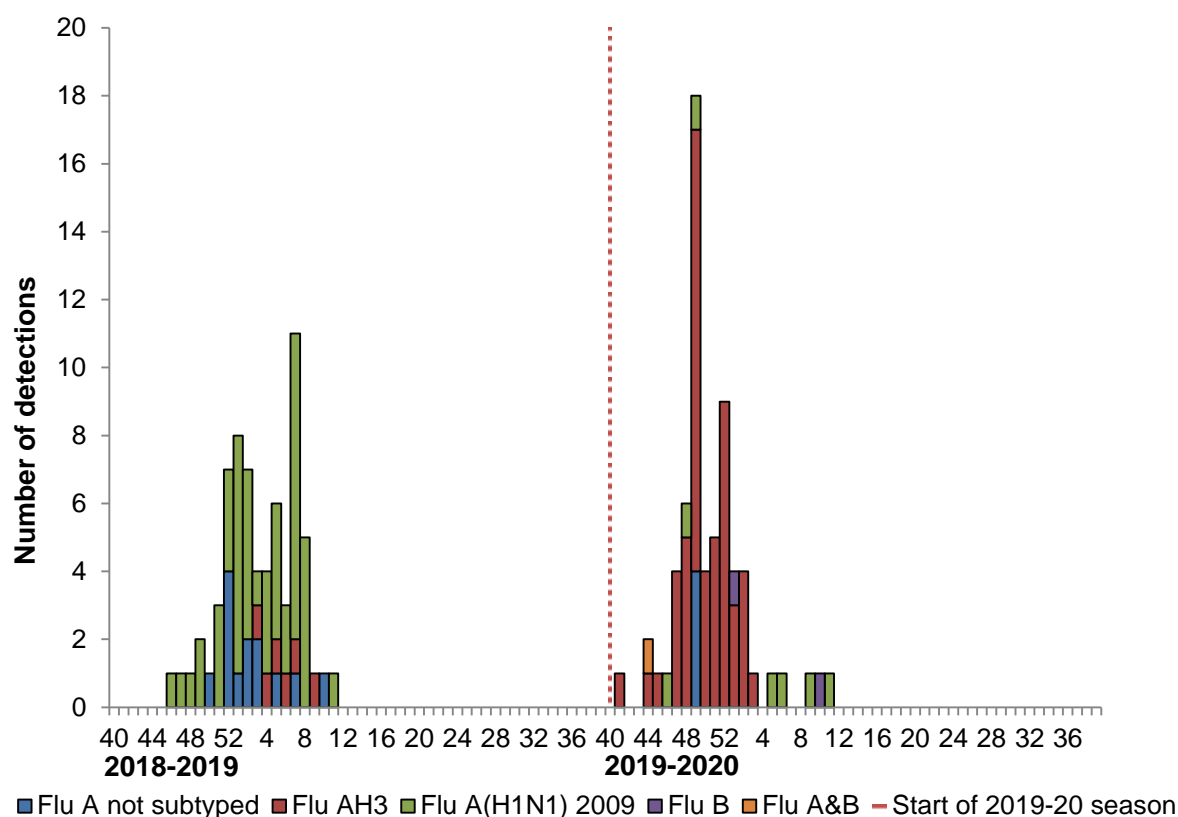
### Comment

In weeks 11 and 12, 78 hospitalisations tested positive for flu (one Flu A(H3), 27 Flu A(H1N1), 12 Flu A(untyped) and 38 Flu B). This is an increase compared to 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 weeks 11 and 12. So far this season there has been 65 admissions to ICU with confirmed influenza (51 Flu A(H3), seven Flu A(H1N1), four Flu A(untyped), two Flu B and one Flu A&B) reported to the PHA (Figure 7).

Of the 65 admissions to ICU, 52% (n=34) were male. The ages ranged from <1 year to 86 years, with a median age of 59 years and a mean age of 49 years old. 74% (n=48) were classed as being in a vaccine risk group. Vaccination status was known for 97% (n=63); 21 were vaccinated this season. To date there have been 11 deaths reported among ICU admissions; seven of whom were in a flu vaccine eligible group and <5 had been vaccinated this season.

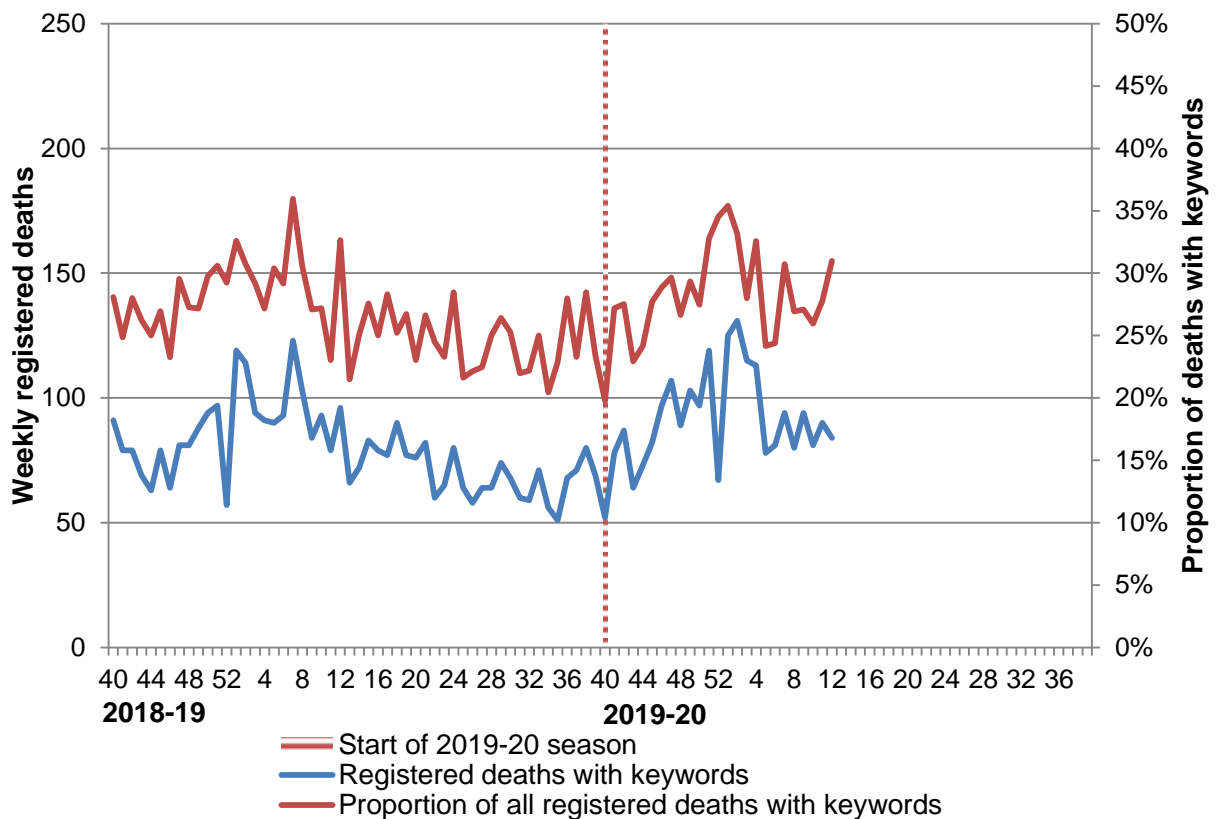
## Outbreaks

During weeks 11 and 12 there were no confirmed respiratory outbreaks reported to the PHA Health Protection acute response duty room. To date, there has been a total of ten confirmed respiratory outbreaks reported, five in a Care Home setting, four in a Hospital setting and one other (nine 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 12, 2020, 84 respiratory associated deaths out of 271 all-cause deaths were reported (31%), with 28% in week 11. These trends are broadly the same as the same period in 2018/19 (Figure 8).

## EuroMOMO

There was no excess all-cause mortality reported in Northern Ireland in weeks 11 and 12. Excess all-cause mortality was reported for two weeks in Northern Ireland to date this season (weeks 50 and 51). This excess mortality was mostly reported in those aged 65+ years.

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 1<sup>st</sup> 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 31<sup>st</sup> January and also received it.

	<b>Delivered by</b>	<b>Start date</b>	<b>2019/20 (to 31 Jan)</b>	<b>2018/19 (to 31 Jan)</b>
All 2 to 4 year olds	GP	Mid - late Oct 2019	47.1%	47.2%
All pregnant women	GP	1 <sup>st</sup> Oct 2019	50.4%	47.0%
All individuals under 65 years with a chronic medical condition	GP	1 <sup>st</sup> Oct 2019	56.7%	50.7%
All individuals 65 years and over	GP	1 <sup>st</sup> Oct 2019	73.3%	68.7%
% of primary school children offered the vaccine and vaccinated to date	Trust School Nurse Service*	1 <sup>st</sup> Oct 2019 2 week pause in Nov	75.1%	75.7%
% of all Frontline health care workers employed by a Trust	Trust HSCW Campaign	1 <sup>st</sup> Sept 2019	41.1%	38.8%
% of all Frontline social care workers employed by a Trust	Trust HSCW Campaign	1 <sup>st</sup> Sept 2019	22.3%	22.0%

\*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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