

# Influenza

## Weekly Surveillance Bulletin

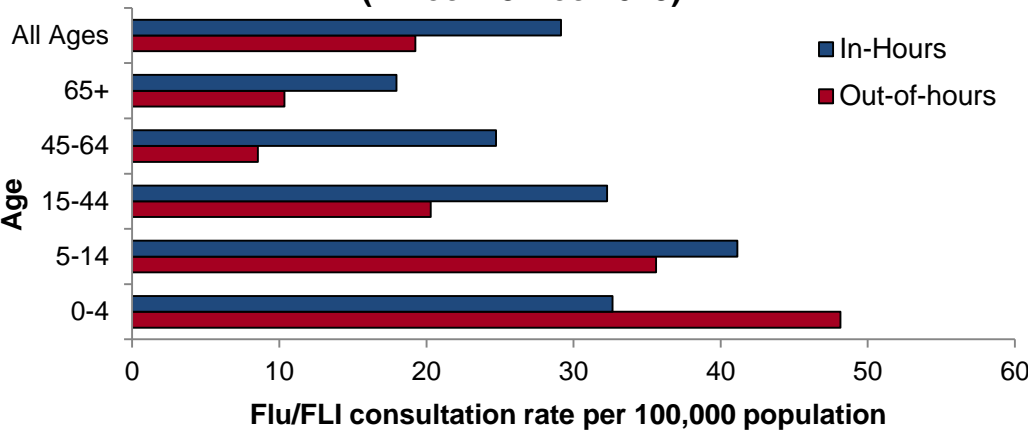
Week 49 (2 December – 8 December 2019)

### Community Activity

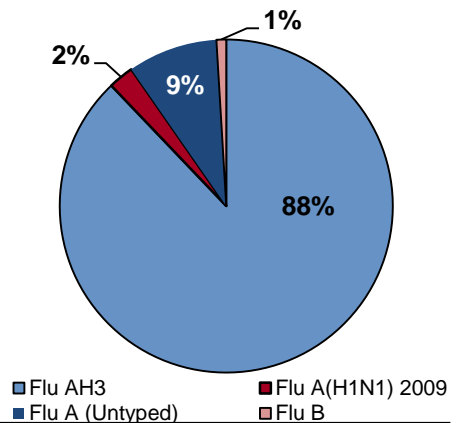
Flu Intensity:	Baseline	Low	Medium	High	Very High
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Week	October					November				December				January					February				March				April				May			
	40	41	42	43	44	45	46	47	48	49	50	51	52	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
2019/20	[Color-coded cells representing flu intensity]																																	
2018/19	[Color-coded cells representing flu intensity]																																	

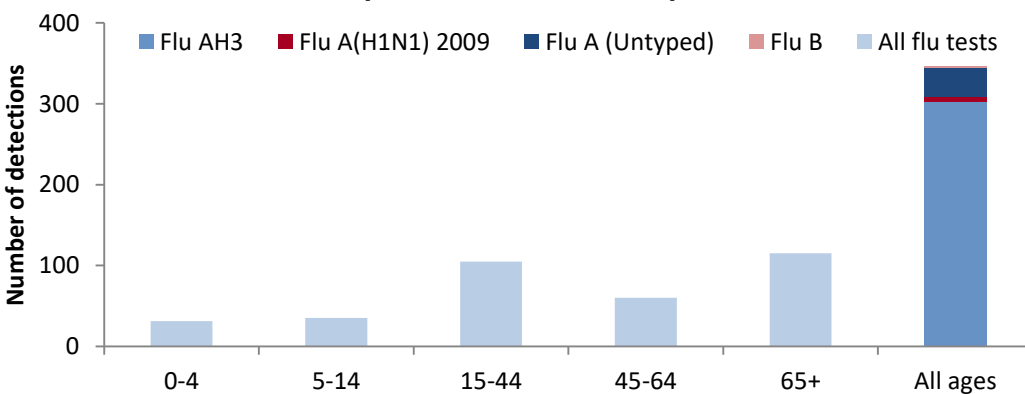
### GP consultation rates for 'flu/flu-like-illness' ('flu/FLI') (2 Dec – 8 Dec 2019)



### Circulating strains this season to date



### Number of hospital cases with confirmed flu (2 Dec – 8 Dec 2019)



To date there have been 32 admissions to ICU with confirmed influenza

### Respiratory Outbreaks this Week (2 Dec – 8 Dec 2019)

2

To date there have been four flu outbreaks; three in a Care Home setting and one in a Hospital setting

### Influenza vaccine uptake 2019-20

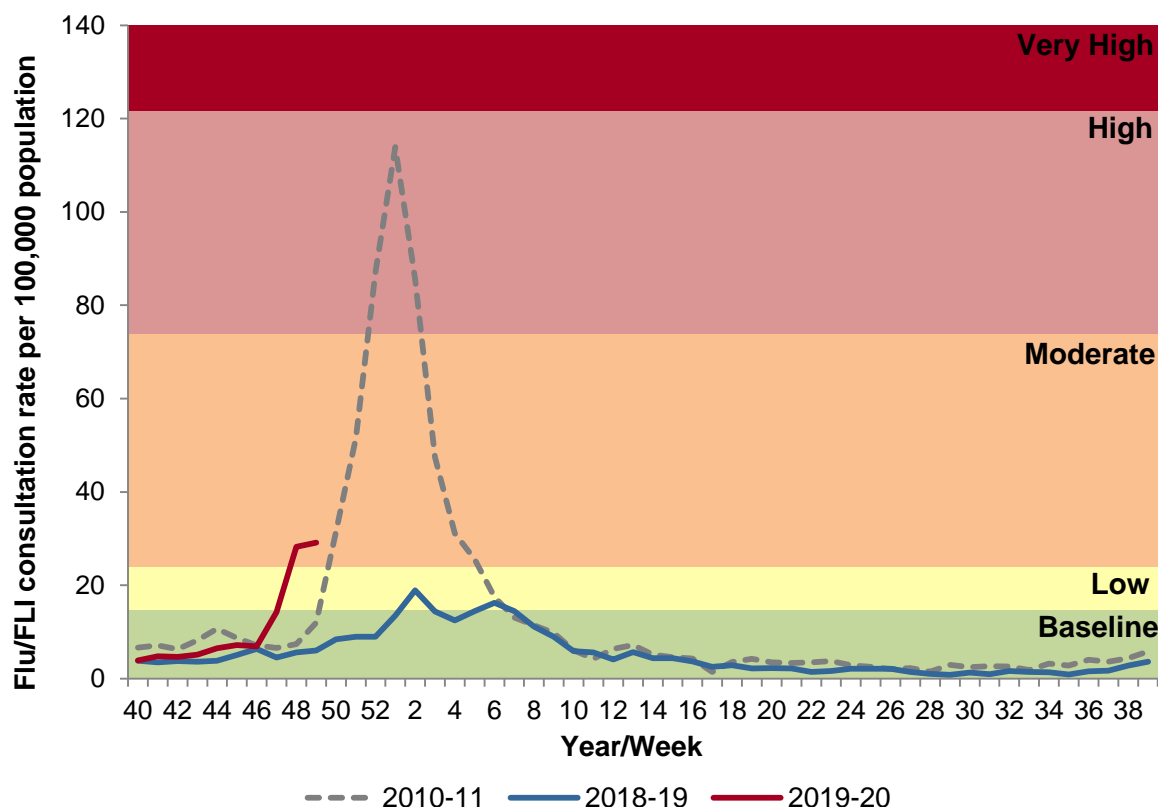
Vaccine uptake rates up to 30<sup>th</sup> November 2019 will appear here in next week's bulletin.

### Annual Influenza Surveillance Report 2018-19

The end of season report, Surveillance of Influenza in Northern Ireland 2018-19 is now available to download [here](#)



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



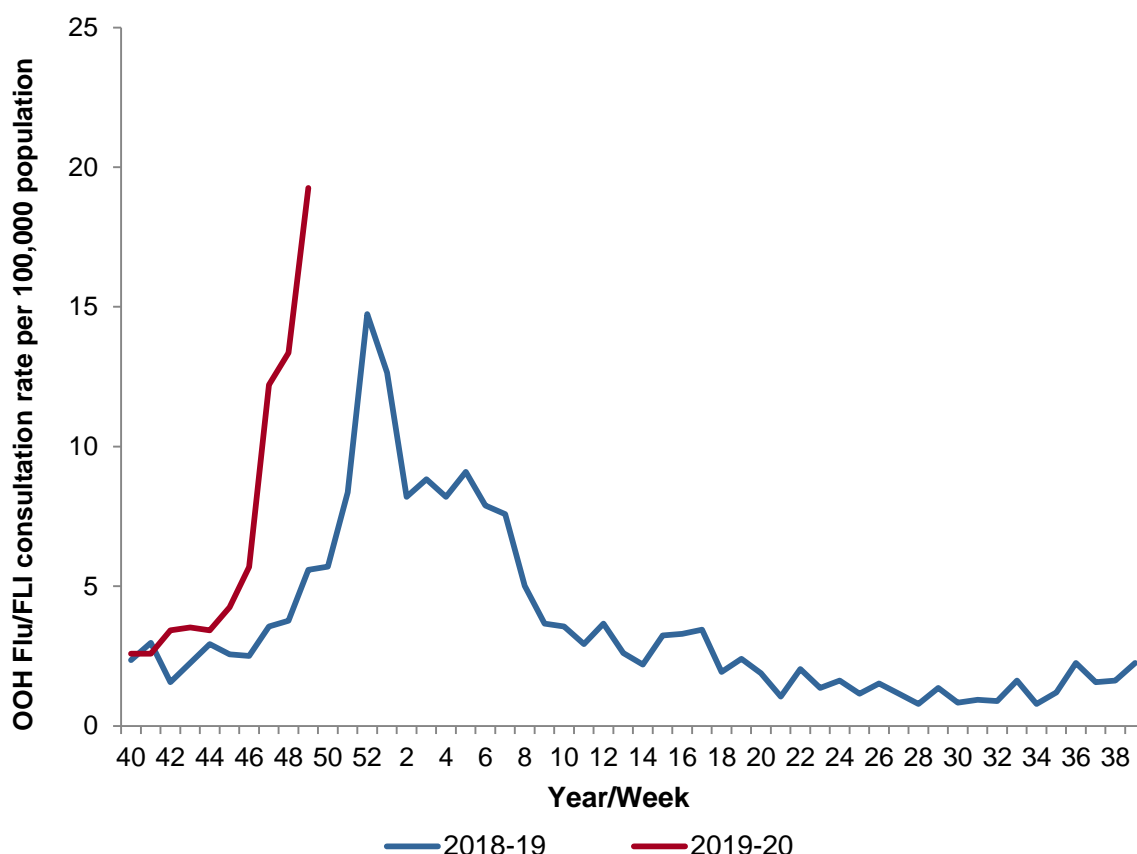
**Figure 1. Northern Ireland GP consultation rates for ‘flu/FLI’ 2018/19 – 2019/20, 2010/11 for comparison**

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 49, 2019 was 29.2 per 100,000 population, a slight increase from week 48, 2019 (28.2 per 100,000). This is higher than the same time last year (6.0 per 100,000). Activity remains in the moderate threshold for Northern Ireland (23.9 to <73.9 per 100,000) (Figure 1).

Flu/FLI consultation rate was highest in those aged 5-14 years in week 49 (41.1 per 100,000 population). Consultation rates increased in all age groups, with the exception of those aged 0-4 and 5-14 years, which decreased from week 48. Rates are higher in all age groups compared to the same period last year (week 49, 2018-19).



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

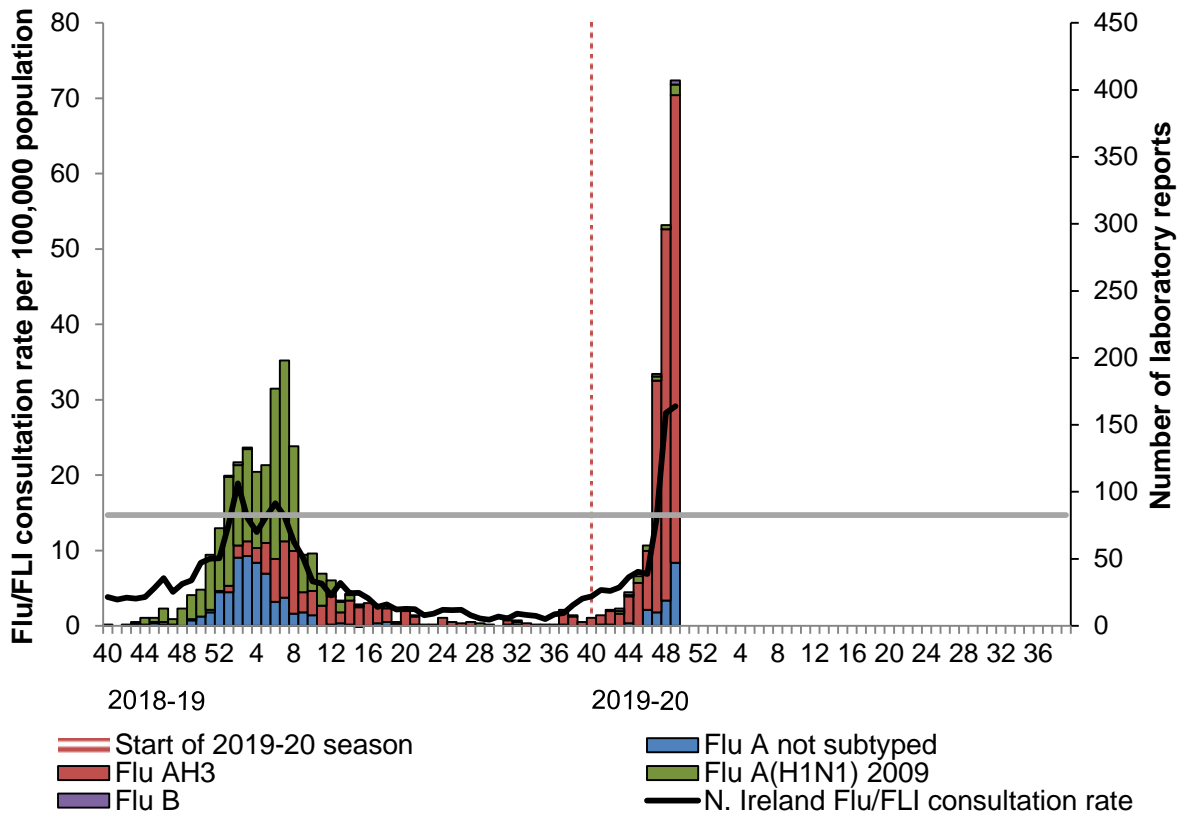
### Comment

The flu/FLI consultation rate in Primary Care Out-of-Hours (OOH) Centres during week 49 was 19.3 per 100,000 population, an increase from week 48, 2019 (13.4 per 100,000). This is higher than the same time last year (5.6 per 100,000).

In week 49 the percentage of calls to an OOH Centre due to flu/FLI was 3.1%. This is an increase from week 48 (2.1%) and the same period last year (1%).

Rates were highest in those aged 0-4 years in week 49 (48.1 per 100,000 population). Rates are higher in all age groups compared to the same period

## 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 49, 2019-20

Source	Specimens tested	Flu AH3	Flu A(H1N1) 2009	Flu A (Untyped)	Flu B	RSV	Total Influenza Positive	% Influenza Positive
Sentinel	25	9	1	1	0	4	11	44%
Non-sentinel	853	340	7	46	3	84	396	46%
<b>Total</b>	<b>878</b>	<b>349</b>	<b>8</b>	<b>47</b>	<b>3</b>	<b>88</b>	<b>407</b>	<b>46%</b>

Table 2. Cumulative virus activity from all sources by age group, Week 40 - 49, 2019-20

Age Group	Flu AH3	Flu A(H1N1) 2009	Flu A (Untyped)	Flu B	Total Influenza	RSV
0-4	126	7	5	2	140	380
5-14	141	1	18	2	162	20
15-64	393	15	43	4	455	90
65+	267	3	26	2	298	107
Unknown	0	0	0	0	0	0
<b>All ages</b>	<b>927</b>	<b>26</b>	<b>92</b>	<b>10</b>	<b>1055</b>	<b>597</b>

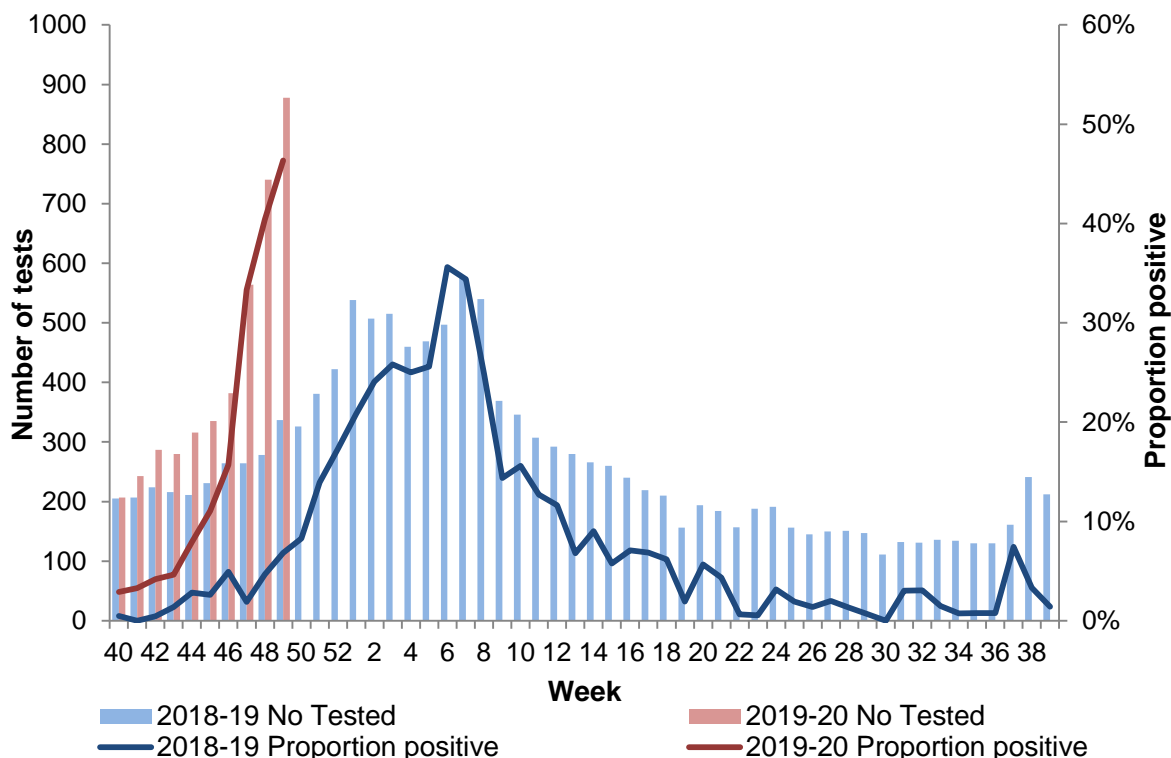
Table 3. Cumulative virus activity by age group and source, Week 40 - Week 49, 2019-20

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	6	0	0	0	6	0	120	7	5	2	134	380
5-14	19	0	0	0	19	0	122	1	18	2	143	20
15-64	31	3	2	1	37	9	362	12	41	3	418	81
65+	4	0	0	0	4	2	263	3	26	2	294	105
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
<b>All ages</b>	<b>60</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>66</b>	<b>11</b>	<b>867</b>	<b>23</b>	<b>90</b>	<b>9</b>	<b>989</b>	<b>586</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**

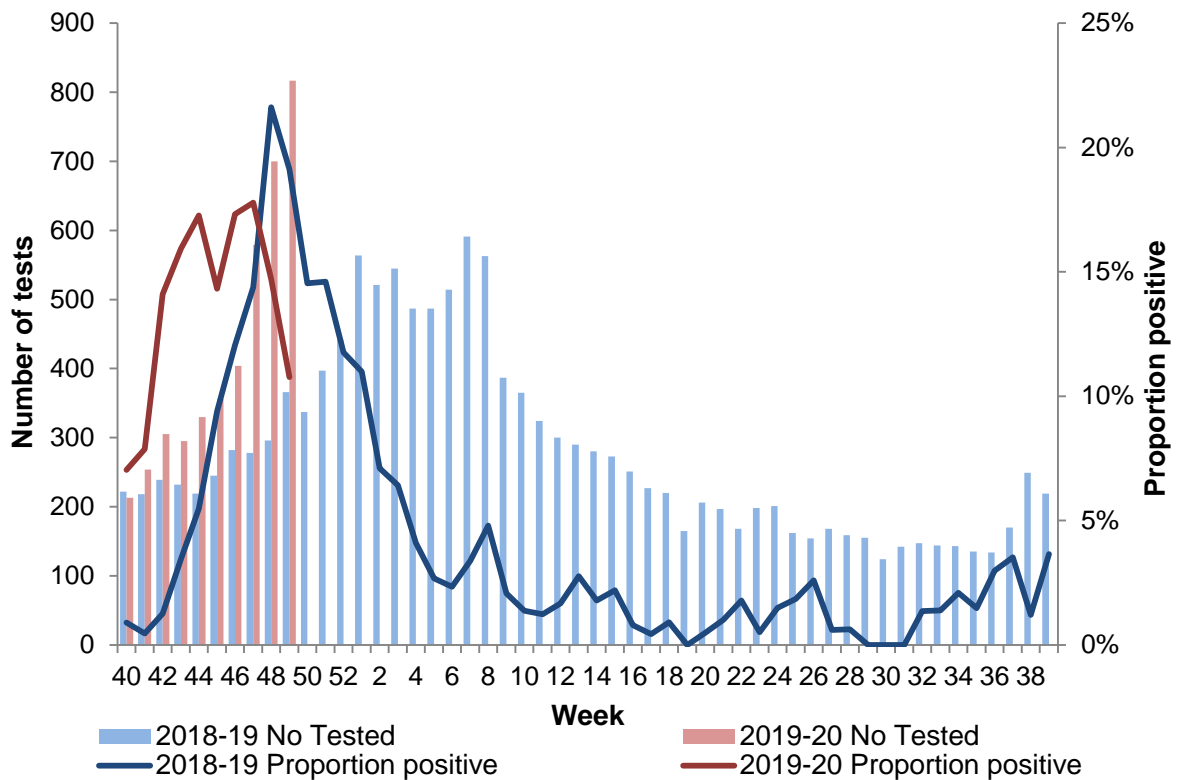
**Comment**

In week 49, 407 samples were positive for flu (349 Flu A(H3), eight Flu A(H1N1), 47 Flu A(untyped), three Flu B) from 878 submitted for testing in laboratories across Northern Ireland.

Positivity for week 49 (46%) is higher than this time last year (7%).

11 of the 25 samples submitted by the GP based sentinel scheme were positive for flu (nine Flu A(H3), one Flu A(H1N1), one Flu A(untyped)); 44% positivity) (Figures 3 and 4; Tables 1, 2 and 3).

## Respiratory Syncytial Virus (RSV)



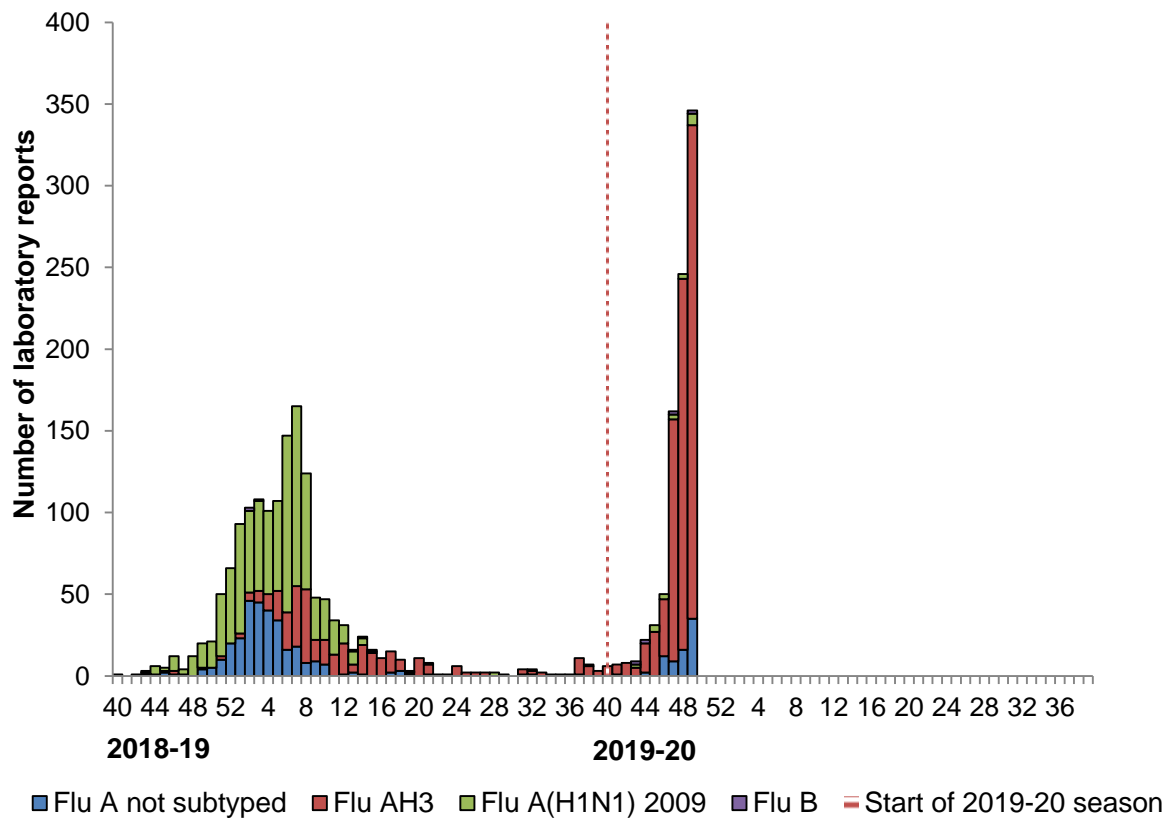
**Figure 5. Number of samples tested for RSV and proportion positive, 2018/19 – 2019/20, all sources**

### Comment

In week 49, 88 samples were positive for RSV, with positivity (11%) lower than the same period last season (19%).

The majority (64%) 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**

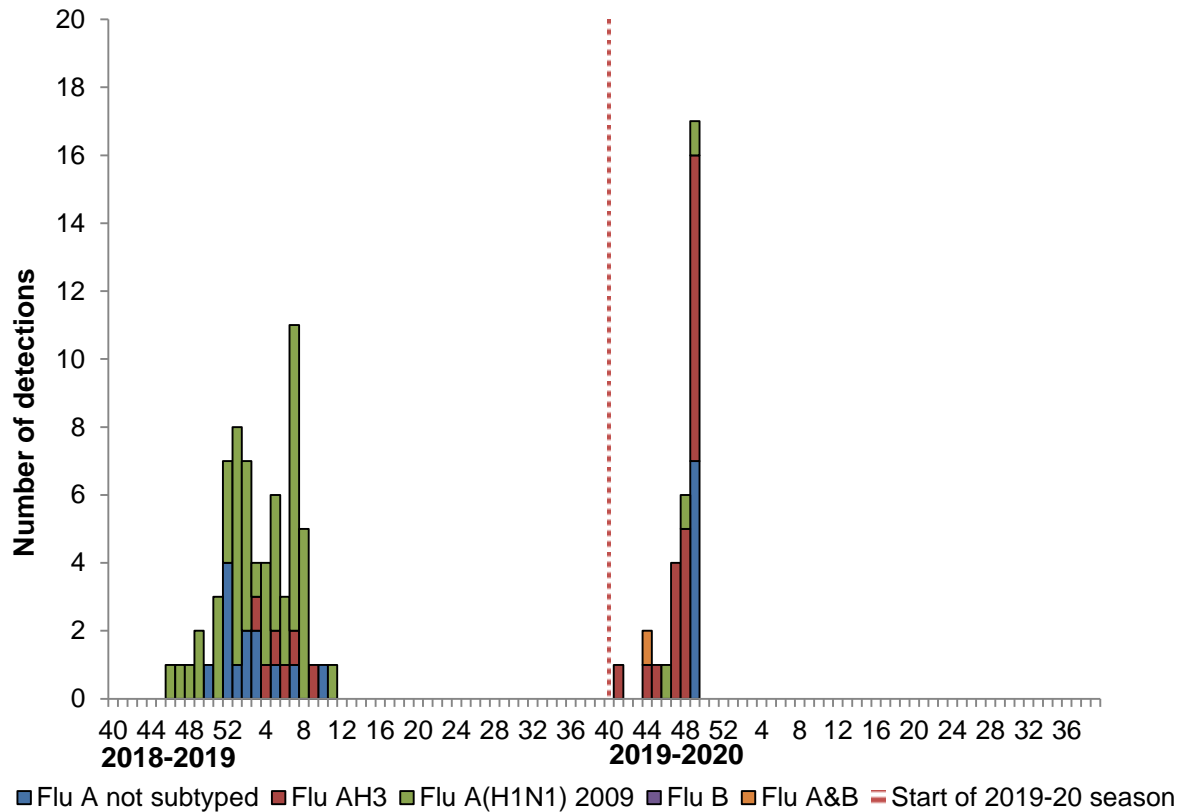
### Comment

In week 49, 346 hospitalisations tested positive for flu (302 Flu A(H3), seven Flu A(H1N1), 35 Flu A(untyped) and two 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 were 17 new admissions to ICU with confirmed influenza reported to the Public Health Agency (PHA) during week 49. So far this season there has been 32 admissions to ICU with confirmed influenza (21 Flu A(H3), three Flu A(H1N1), seven Flu A(untyped) and one Flu A&B) reported to the PHA (Figure 7).

Of the 32 admissions to ICU, 50% (n=16) were male. The ages ranged from <1 year to 86 years, with a median age of 56 years and a mean age of 49 years. 72% (n=23) were classed as being in a vaccine risk group, of which vaccination status was known for 43% (n=10), <5 were vaccinated this season.

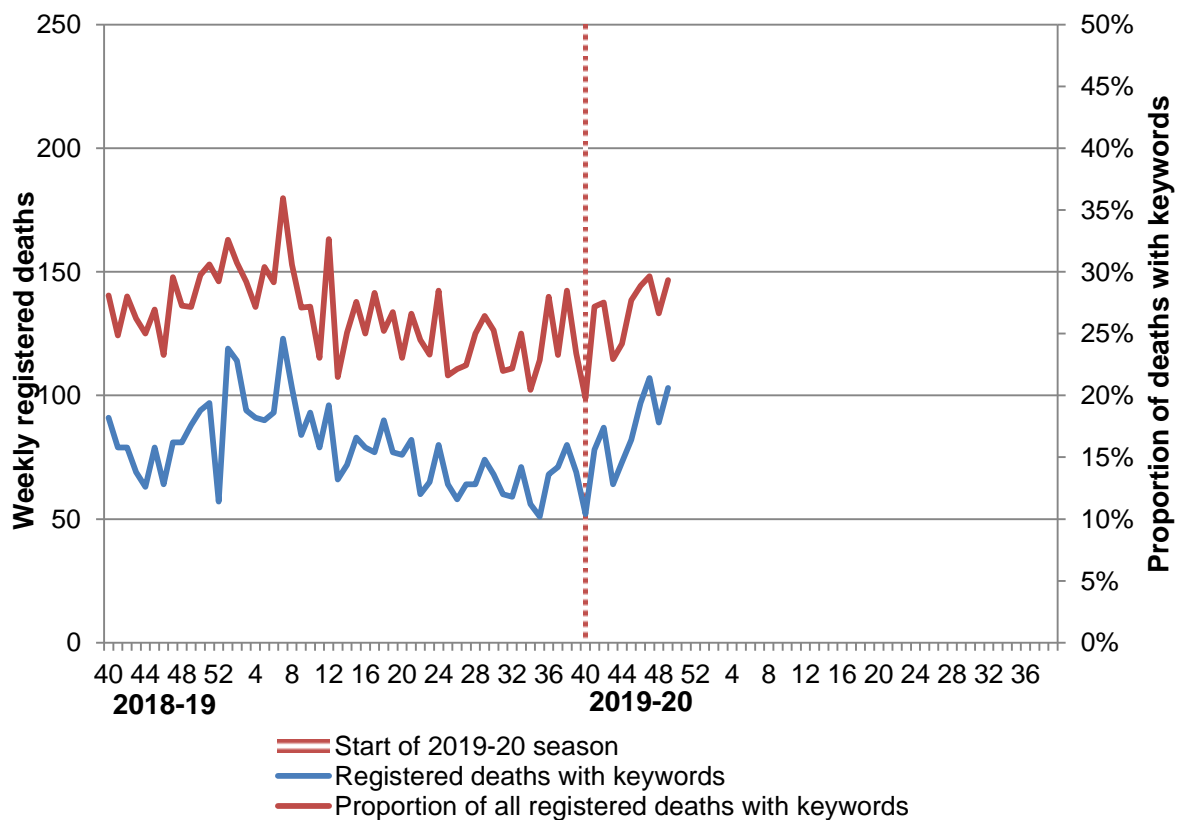
## Outbreaks

During week 49 there were two confirmed respiratory outbreaks reported to the PHA Health Protection acute response duty room; one in a Care Home setting and one in a Hospital setting (both Flu A(untyped)). To date, there has been a total of four confirmed respiratory outbreaks reported, three in a Care Home setting and one in a Hospital setting (four Flu A(untyped)).

## 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 49, 103 respiratory associated deaths out of 351 all-cause deaths were reported (29%). 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 week 49. There was no excess all-cause mortality reported in Northern Ireland to date this season.

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

The 2019-20 seasonal flu vaccine programme officially commenced on 1<sup>st</sup> October 2019.

This year the children's flu vaccine programme delivered in primary care started in mid to late October.

Figures overleaf represent the first figures collected up to 31<sup>st</sup> October and so only reflect one month or less of data depending on the eligible group.

**Table 4. Influenza vaccine uptake rates, 2019-20 and 2018-19\***

	<b>2019/20 (to 31 Oct)</b>	<b>2018/19 (to 31 Oct)</b>
All 2 to 4 year olds	8.3%	32.9%
All pregnant women	23.6%	35.2%
All individuals under 65 years with a chronic medical condition	22.7%	29.6%
All individuals 65 years and over	41.0%	28.3%
Primary school children (4 to 11 year olds)**	76.0%	75.5%
Frontline health care workers employed by a Trust***	31.7%	31.6%
Frontline social care workers employed by a Trust	16.3%	16.5%

\* Public vaccination figures are based on GP practice returns which are lower for the reporting period but will be more representative of the public uptake figures in the next update later in the season.

\*\* Proportion of primary school children who were offered the vaccine and were vaccinated (up to 31 October 2019).

\*\*\* Uptake data was not available for NIAS therefore figures for Northern Ireland (up to 31 October 2019) are based on the five HSC Trusts only.

## Guidance on Use of Antivirals

The Department of Health have published a letter from the Chief Medical Officer on the [use of antiviral agents for the treatment and prophylaxis of seasonal influenza](#) (4th December 2019).

## 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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