

Influenza

Weekly Surveillance Bulletin

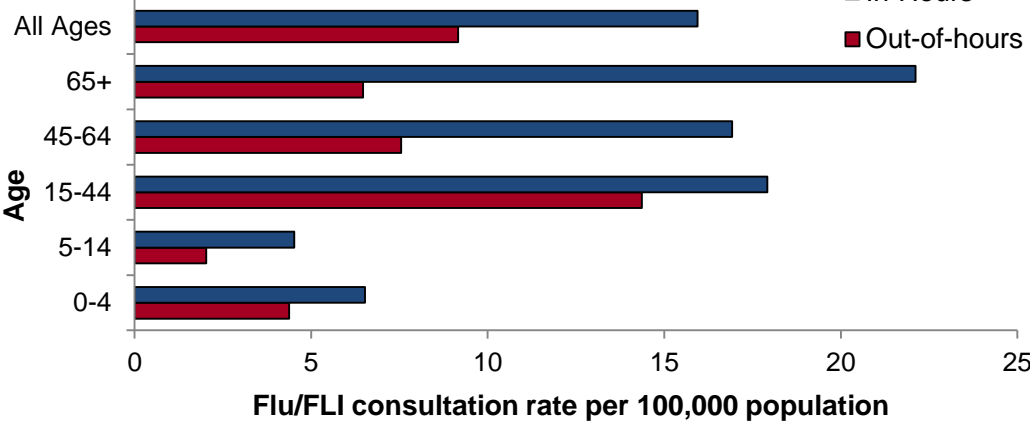
Week 1 (30 December 2019 – 5 January 2020)

Community Activity

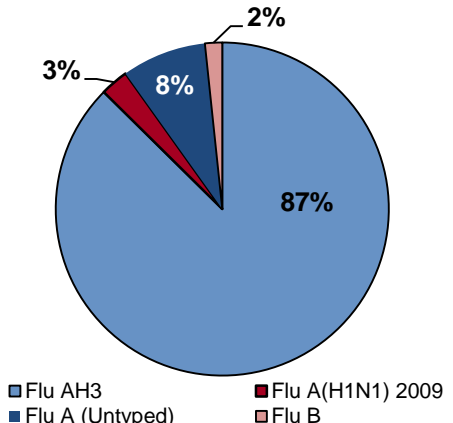
Flu Intensity:	Baseline	Low	Medium	High	Very High
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	October					November				December				January					February				March				April				May			
Week	40	41	42	43	44	45	46	47	48	49	50	51	52	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
2019/20	Baseline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

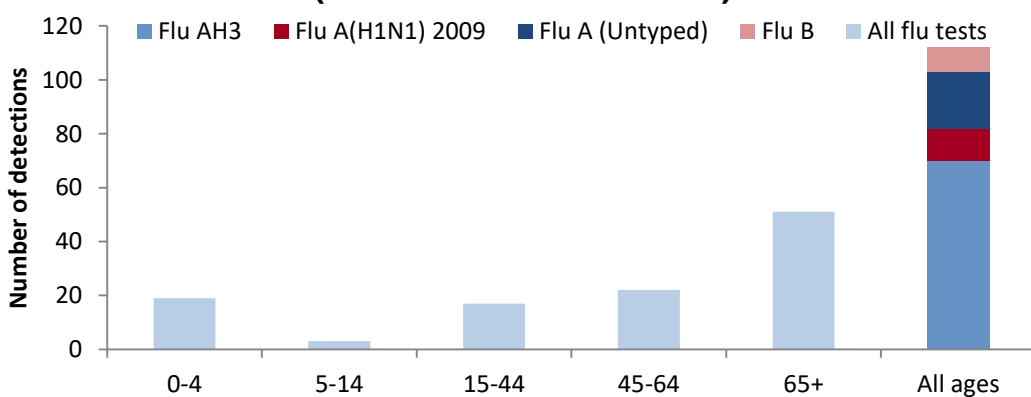
GP consultation rates for 'flu/flu-like-illness' ('flu/FLI') (30 Dec 2019 – 5 Jan 2020)



Circulating strains this season to date



Number of hospital cases with confirmed flu (30 Dec 2019 – 5 Jan 2020)



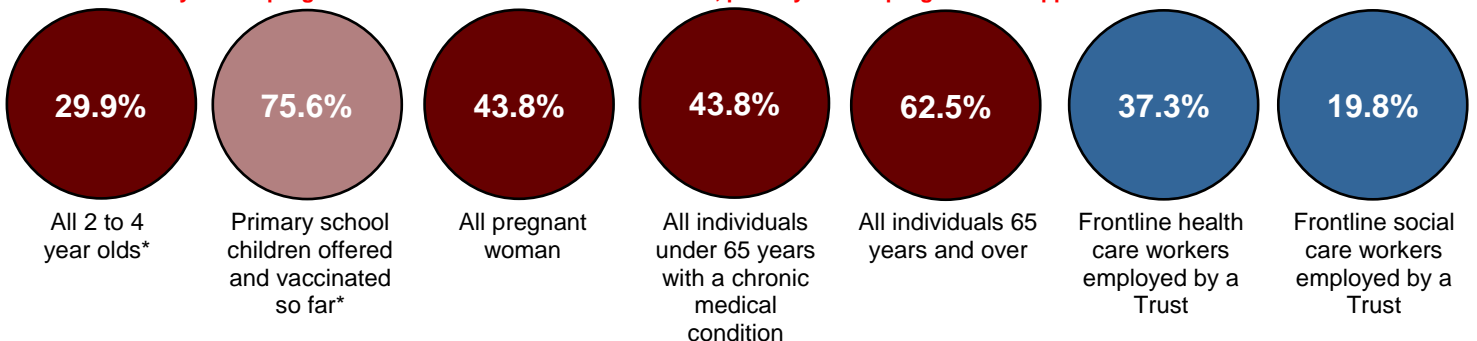
Respiratory Outbreaks this Week (30 Dec 2019 – 5 Jan 2020)

1

To date there have been seven flu outbreaks; five in a Care Home setting and two in a Hospital setting

Vaccine Uptake (1 October - 30 November 2019)

* 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’)

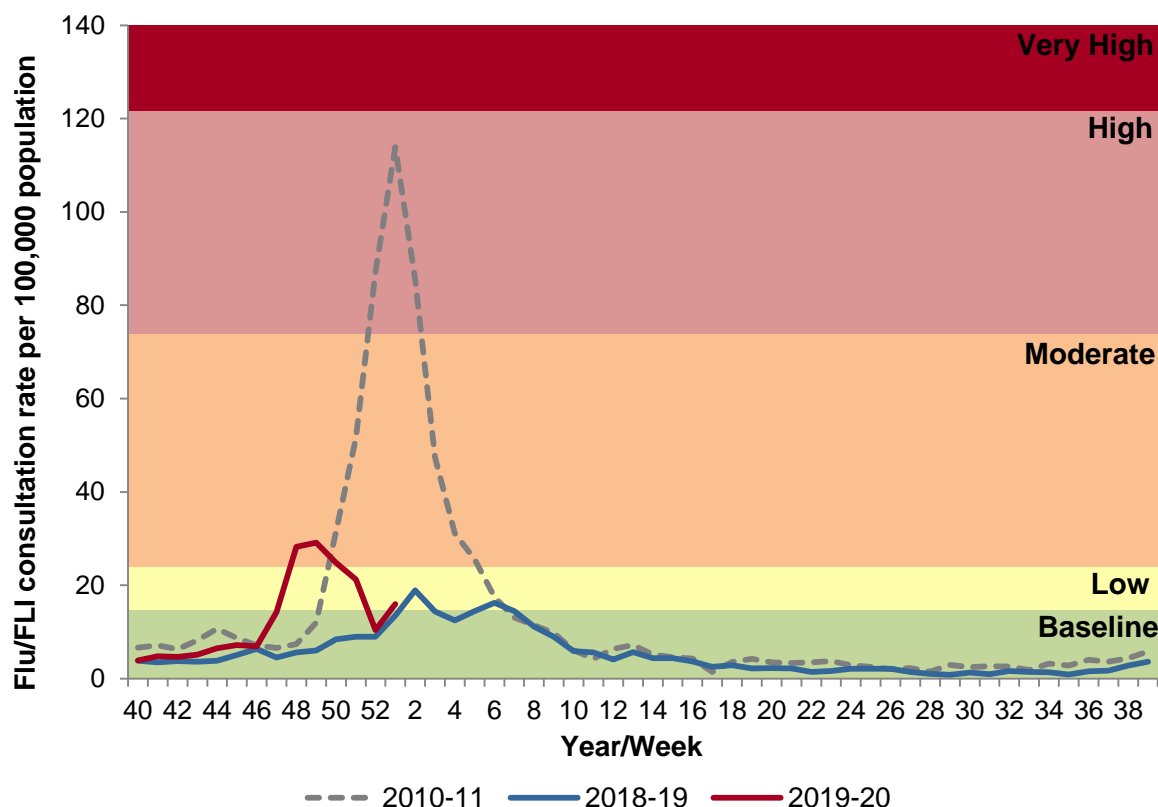


Figure 1. Northern Ireland GP consultation rates for ‘flu/FLI’ 2018/19 – 2019/20, 2010/11 for comparison

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 1, 2020 was 15.9 per 100,000 population, an increase from week 52, 2019 (10.4 per 100,000). This is slightly higher than the same time last year (13.5 per 100,000). Activity has returned to the low threshold for Northern Ireland (14.7 to <23.9 per 100,000) (Figure 1).

Flu/FLI consultation rates increased in week 1 compared to week 52 in all age groups, except in those groups aged 0-4 and 5-14 years, which decreased. Flu/FLI consultation rate was highest in those aged 65+ years in week 1 (22.1 per 100,000 population). Rates are higher in all age groups, except 45-64 year olds, compared to the same period last year (week 1, 2018-19).

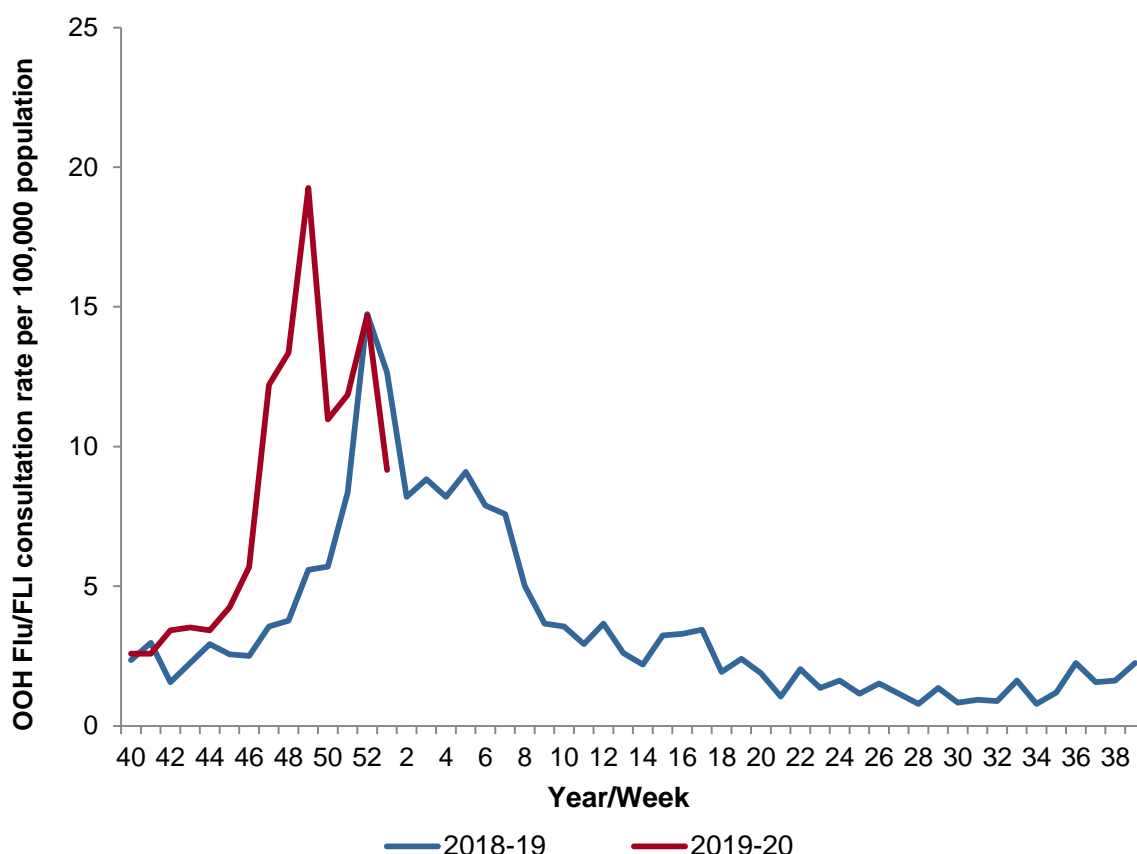


Figure 2. Northern Ireland Out of Hours (OOH) consultation rates for 'flu/FLI' 2018/19 – 2019/20

Comment

The flu/FLI consultation rate in Primary Care Out-of-Hours (OOH) Centres during week 1 was 9.2 per 100,000 population, a decrease from week 52, 2019 (14.7 per 100,000). This is also a decrease compared to week 1 last year (12.6 per 100,000).

In week 1 the percentage of calls to an OOH Centre due to flu/FLI was 1.5%. This is a decrease from week 52 (1.9%) and is slightly lower than the same period last year (1.7%).

Consultation rates decreased in week 1 compared to week 52 in all age groups. Consultation rates were highest in those aged 15-44 years in week 1 (14.4 per 100,000). Rates are lower in all age groups compared to the same period last year (week 1, 2018-19).

Virology

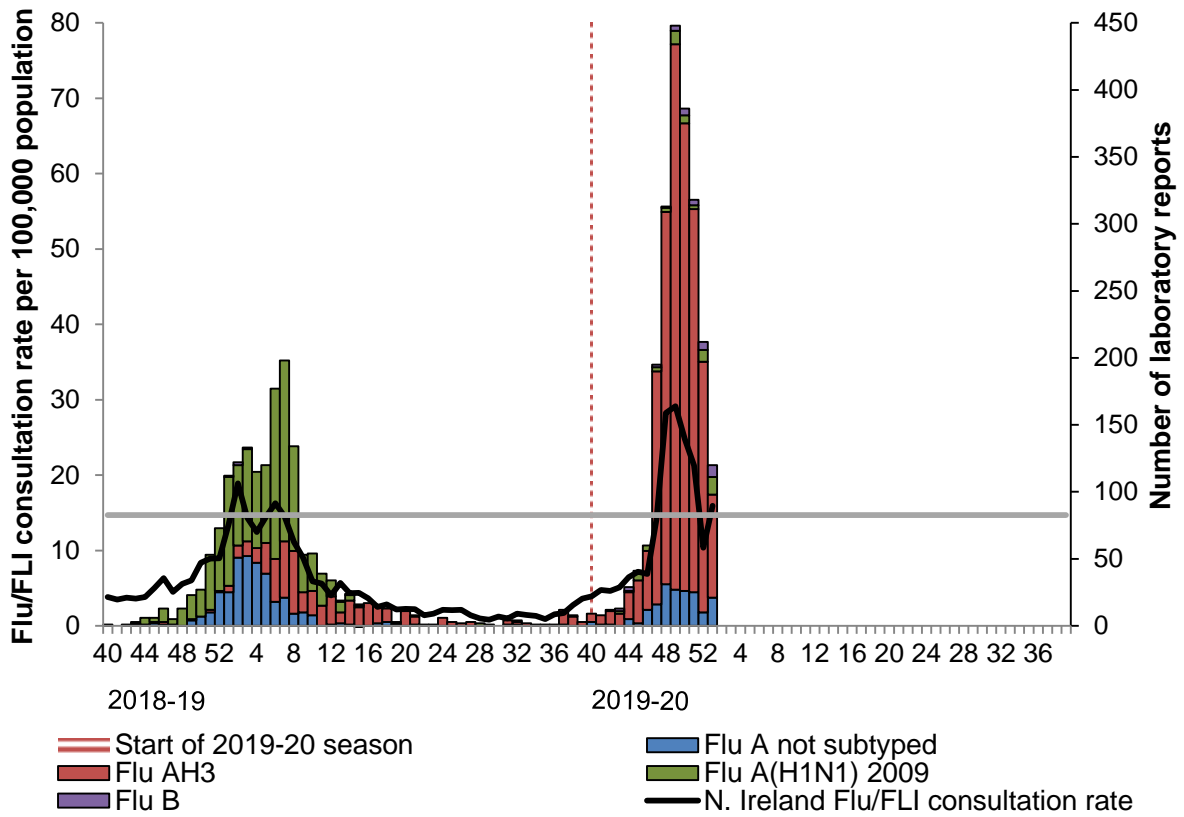


Figure 3. Weekly number of flu laboratory reports from week 40, 2018 with weekly GP consultation rates for ‘flu/FLI’

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

Source	Specimens tested	Flu AH3	Flu A(H1N1) 2009	Flu A (Untyped)	Flu B	RSV	Total Influenza Positive	% Influenza Positive
Sentinel	16	3	0	0	0	1	3	19%
Non-sentinel	650	74	13	21	9	61	117	18%
Total	666	77	13	21	9	62	120	18%

Table 2. Cumulative virus activity from all sources by age group, Week 40 - 1, 2019-20

Age Group	Flu AH3	Flu A(H1N1) 2009	Flu A (Untyped)	Flu B	Total Influenza	RSV
0-4	280	16	27	7	330	527
5-14	236	4	28	7	275	31
15-64	740	35	56	19	850	138
65+	630	4	66	3	703	170
Unknown	0	0	0	0	0	1
All ages	1886	59	177	36	2158	867

Table 3. Cumulative virus activity by age group and source, Week 40 - Week 1, 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	269	16	27	7	319	527
5-14	32	0	0	1	33	0	204	4	28	6	242	31
15-64	62	4	0	1	67	14	678	31	56	18	783	124
65+	11	0	0	0	11	2	619	4	68	3	694	168
Unknown	0	0	0	0	0	0	0	0	0	0	0	1
All ages	116	4	0	2	122	16	1770	55	179	34	2038	851

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.

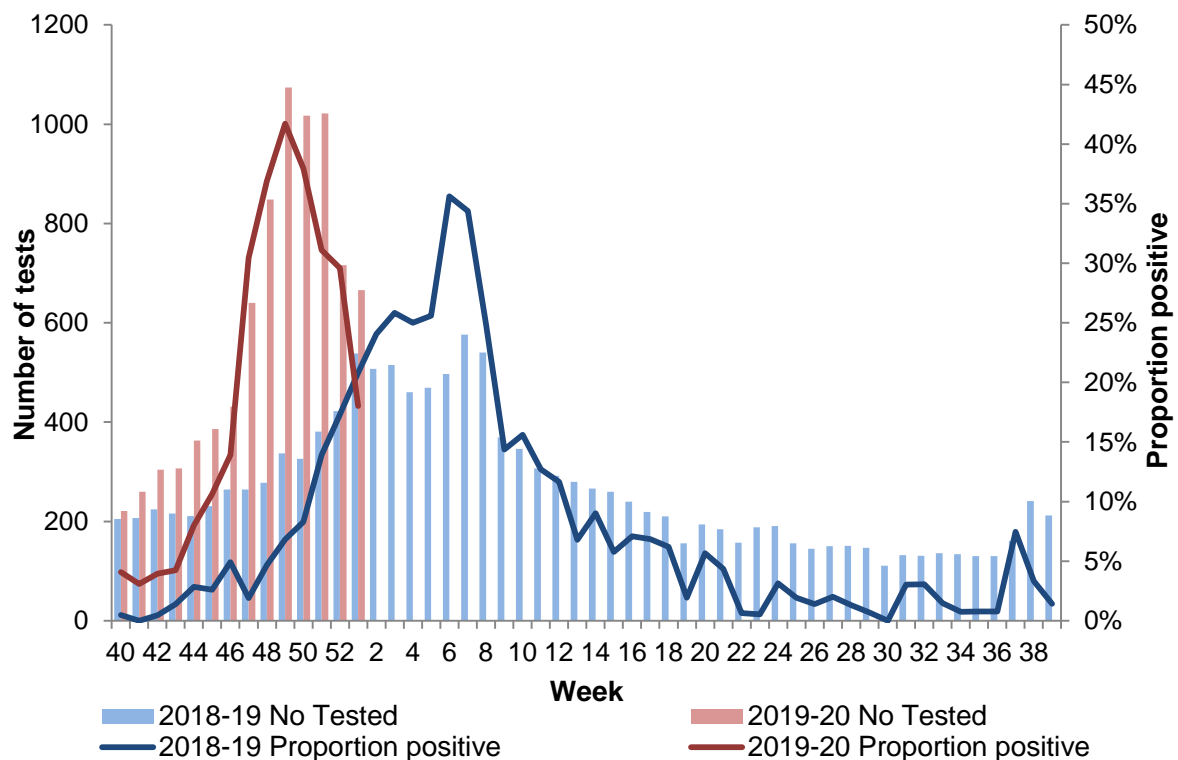


Figure 4. Number of samples tested for influenza and proportion positive, 2018/19 – 2019/20, all sources

Comment

In week 1, 120 samples were positive for flu (77 Flu A(H3), 13 Flu A(H1N1), 21 Flu A(untyped) and nine Flu B) from 666 submitted for testing in laboratories across Northern Ireland.

Positivity decreased in week 1 (18%) compared to week 52 (30%). Positivity is lower than this time last year (21%).

Three of the 16 samples submitted by the GP based sentinel scheme were positive for flu (all Flu A(H3), 19% positivity) (Figures 3 and 4; Tables 1, 2 and 3).

Respiratory Syncytial Virus (RSV)

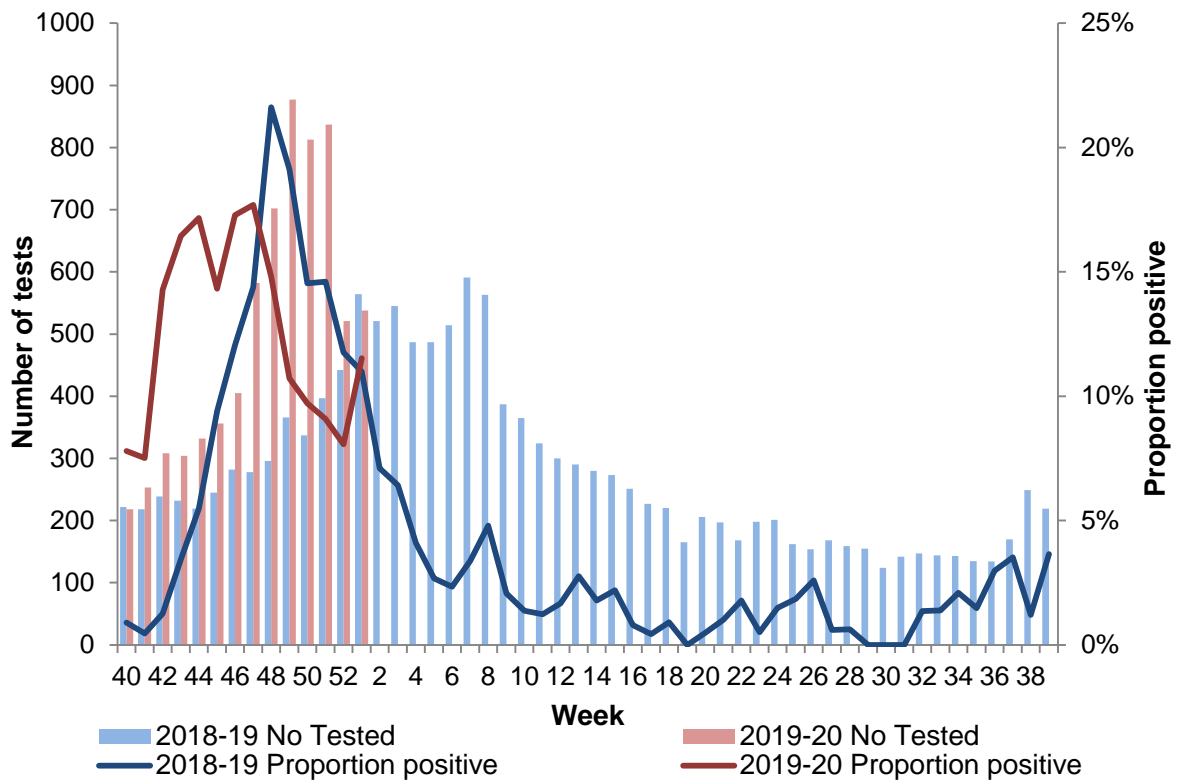


Figure 5. Number of samples tested for RSV and proportion positive, 2018/19 – 2019/20, all sources

Comment

In week 1, 62 samples were positive for RSV, with positivity (12%) slightly higher than the same period last season (11%).

The majority (61%) of cases since week 40 have occurred in children aged 0-4 years (Table 2 and Figure 5).

Hospital Surveillance (Non-ICU/HDU)

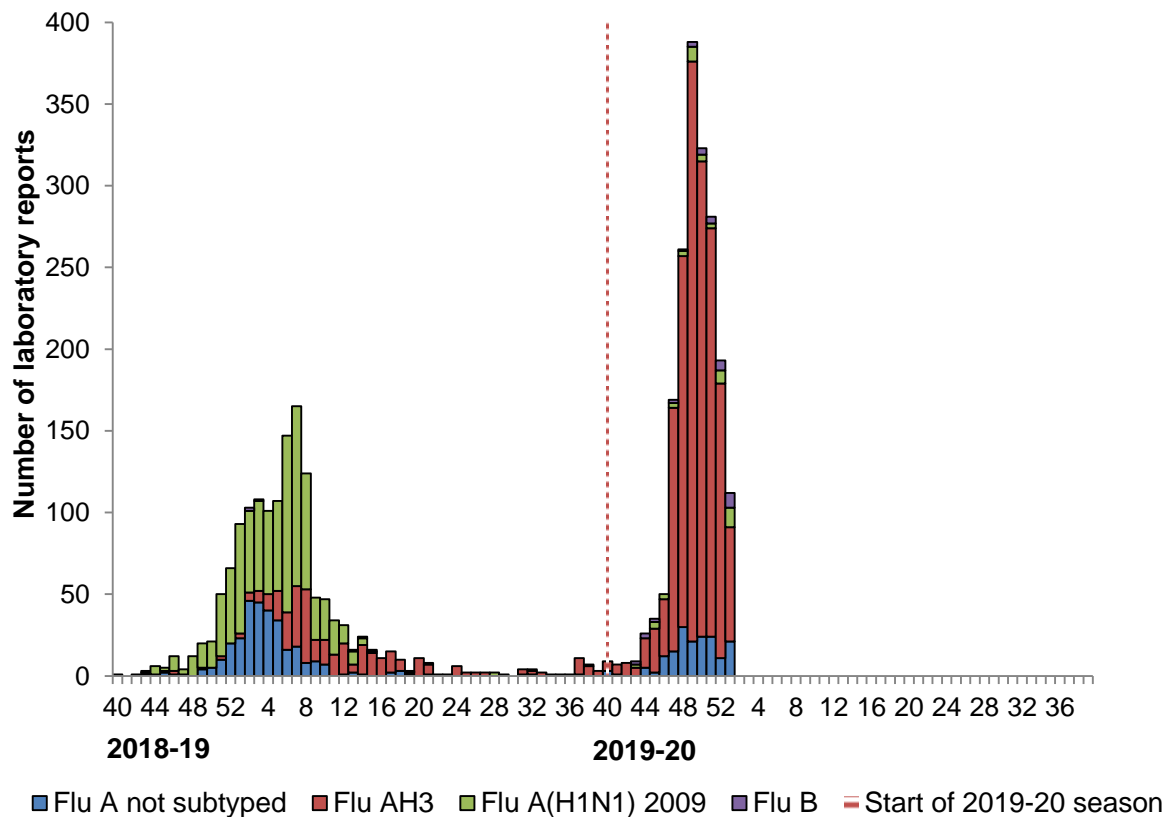


Figure 6. Weekly number of hospitalisations testing positive for influenza by week of specimen, 2018/19 – 2019/20

Comment

In week 1, 112 hospitalisations tested positive for flu (70 Flu A(H3), 12 Flu A(H1N1), 21 Flu A(untyped) and nine Flu B). This is a decrease from week 52, 2019 and the same time last year (Figure 6).

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

ICU/HDU Surveillance

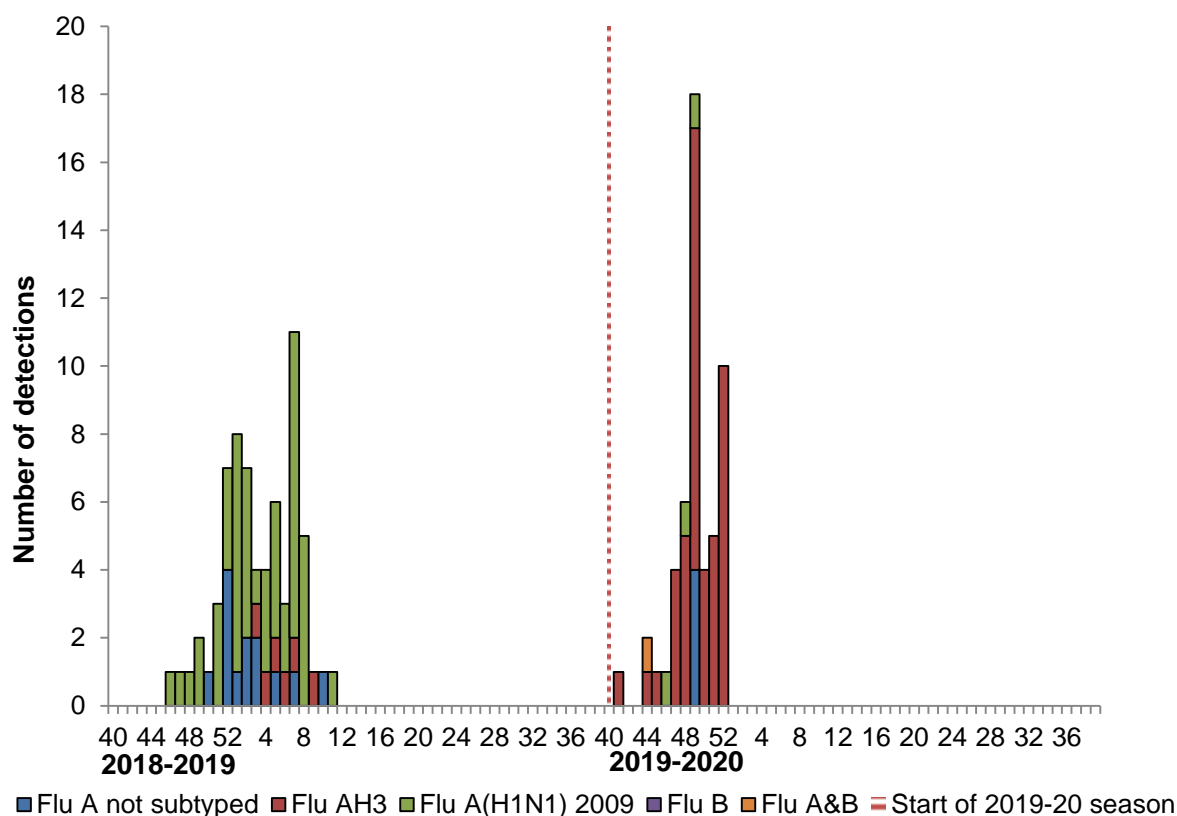


Figure 7. Confirmed ICU/HDU influenza cases by week of specimen, 2018/19 – 2019/20

Comment

Data are collected on laboratory confirmed influenza patients and deaths in critical care (level 2 and level 3). Data on new admissions to ICU with confirmed influenza reported to the Public Health Agency (PHA) during week 1 was unavailable at the time of publication. To week 52 this season, there has been 52 admissions to ICU with confirmed influenza (44 Flu A(H3), 3 Flu A(H1N1), 4 Flu A(untyped) and one Flu A&B) reported to the PHA (Figure 7).

Of the 52 admissions to ICU, 46% (n=24) were male. The ages ranged from <1 year to 86 years, with a median age of 60 years and a mean age of 52 years. 77% (n=40) were classed as being in a vaccine risk group. Vaccination status was known for 65% (n=34); eight were vaccinated this season. To week 52 this season there have been five deaths reported among ICU admissions.

Outbreaks

During week 1 there was one confirmed respiratory outbreak reported to the PHA Health Protection acute response duty room; this occurred in a Hospital setting (Flu A(untyped)). To date, there has been a total of seven confirmed respiratory outbreaks reported, five in a Care Home setting and two in a Hospital setting (all 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.

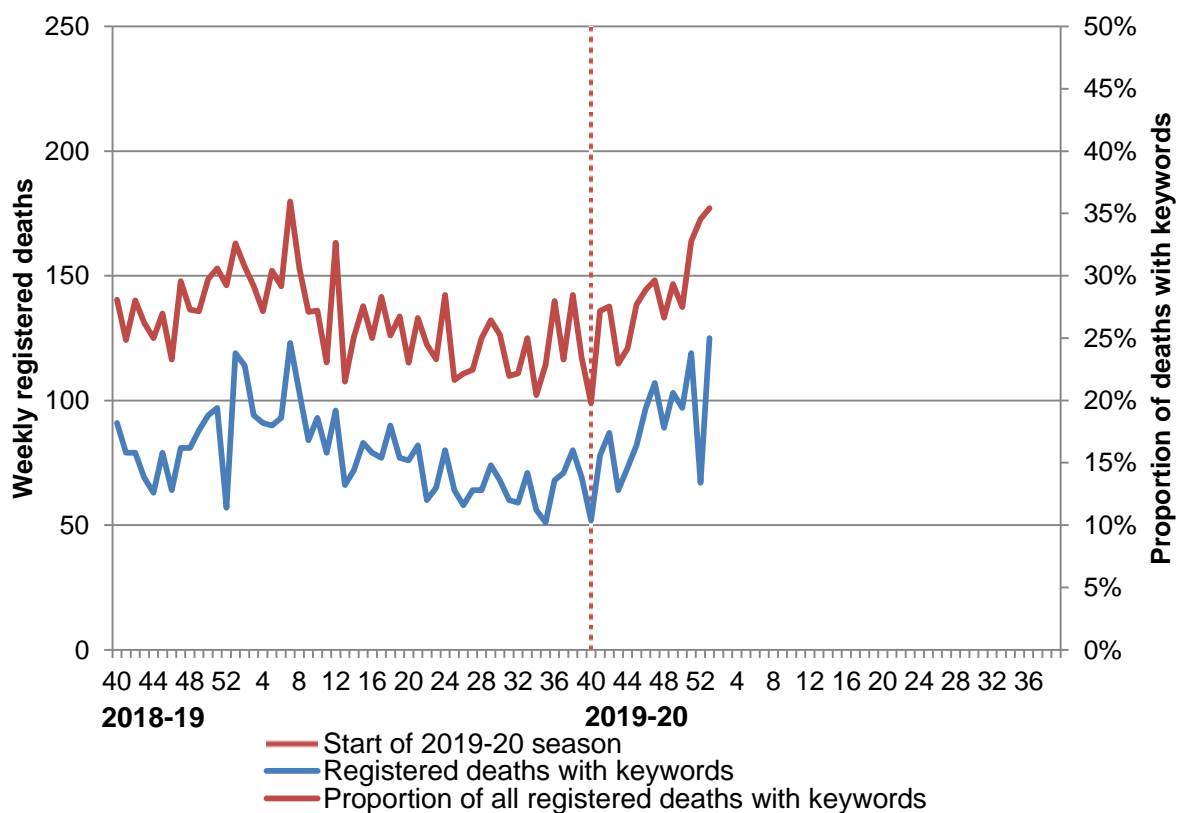


Figure 8. Weekly registered deaths and proportion of all deaths with keywords, by week of registration from week 40, 2018

Comment

In week 1, 125 respiratory associated deaths out of 353 all-cause deaths were reported (35%). 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 1. Excess all-cause mortality was reported for two weeks in Northern Ireland to date this season (weeks 49 and 50). 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.

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 30th November and also received it.

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

	Delivered by	Start date	2019/20 (to 30 Nov)	2018/19 (to 30 Nov)
All 2 to 4 year olds	GP	Mid - late Oct 2019	29.9%	41.8%
All pregnant women	GP	1 st Oct 2019	43.8%	43.5%
All individuals under 65 years with a chronic medical condition	GP	1 st Oct 2019	43.8%	41.7%
All individuals 65 years and over	GP	1 st Oct 2019	62.5%	52.0%
% of primary school children offered and vaccinated the vaccine to date	Trust School Nurse Service*	1 st Oct 2019 2 week pause in Nov	75.6%	75.1%
% of all Frontline health care workers employed by a Trust	Trust HSCW Campaign	1 st Sept 2019	37.3%	37.2%
% of all Frontline social care workers employed by a Trust	Trust HSCW Campaign	1 st Sept 2019	19.8%	20.1%

*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.

For further information on the Enhanced Surveillance of Influenza in Northern Ireland scheme or to be added to the circulation list for this bulletin please contact:

Dr Mark O'Doherty
Senior Epidemiological Scientist
Public Health Agency

Ms Emma Dickson
Epidemiological Scientist
Public Health Agency

Mr Jeffrey Doogan
Surveillance Information Officer
Public Health Agency

Dr Jillian Johnston
Consultant in Health Protection
Public Health Agency

Email: flusurveillance@hscni.net