

Influenza

Weekly Surveillance Bulletin

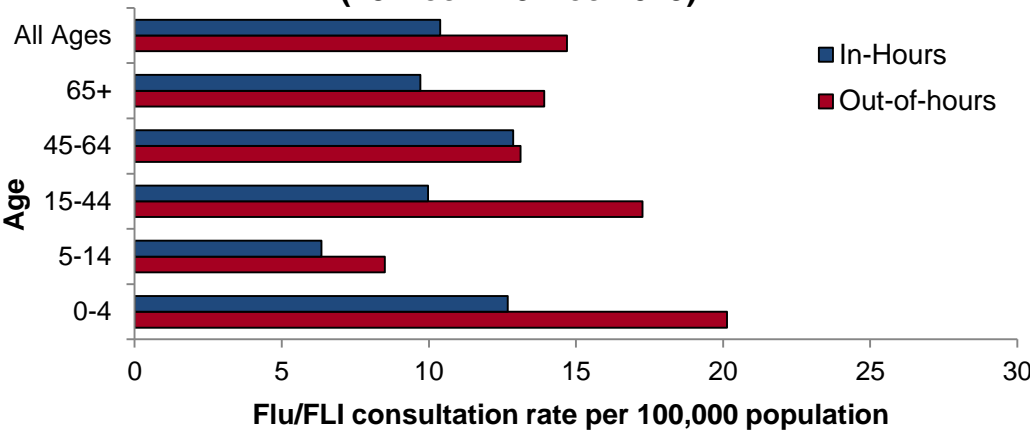
Week 52 (23 December – 29 December 2019)

Community Activity

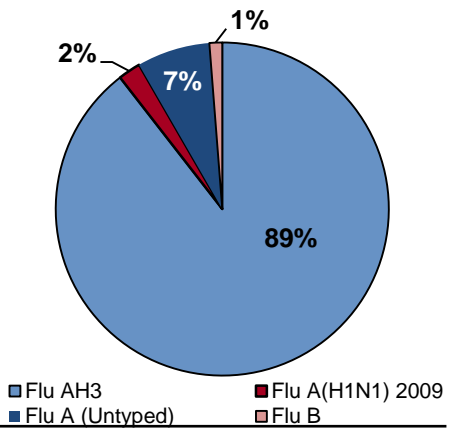
Flu Intensity:	Baseline	Low	Medium	High	Very High
----------------	----------	-----	--------	------	-----------

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	Low	Low	Low	Low	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	

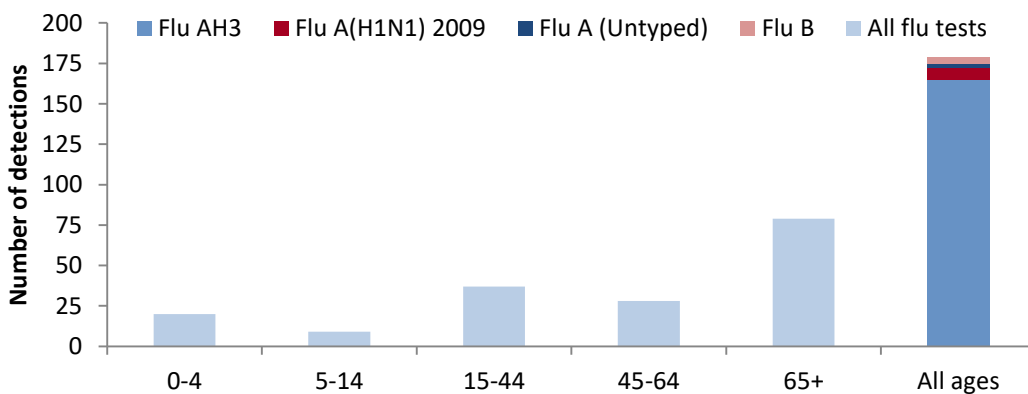
GP consultation rates for 'flu/flu-like-illness' ('flu/FLI') (23 Dec – 29 Dec 2019)



Circulating strains this season to date



Number of hospital cases with confirmed flu (23 Dec – 29 Dec 2019)



To date there have been 52 admissions to ICU with confirmed influenza

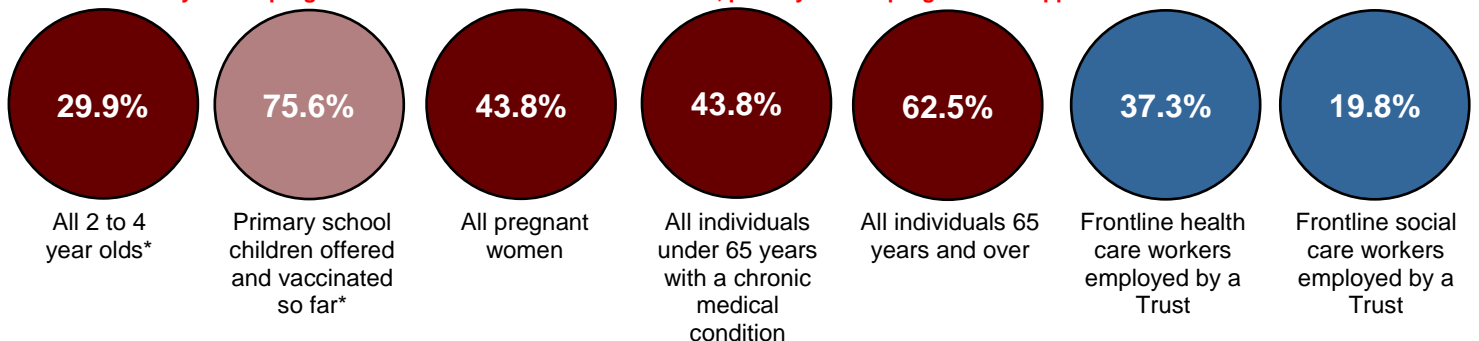
Respiratory Outbreaks this week (23 Dec – 29 Dec 2019)

0

To date there have been six flu outbreaks; five in a Care Home setting and one 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’)

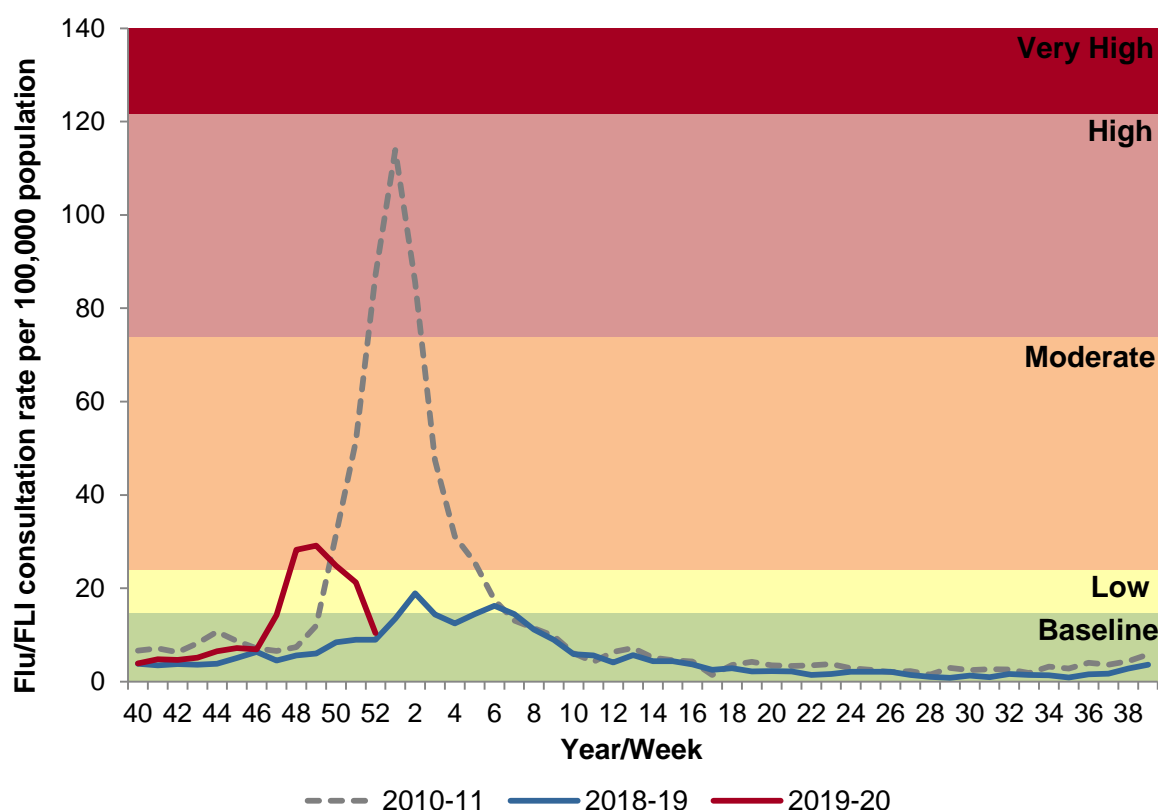


Figure 1. Northern Ireland GP consultation rates for ‘flu/FLI’ 2018/19 – 2019/20, 2010/11 for comparison

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 52, 2019 was 10.4 per 100,000 population, a decrease from week 51, 2019 (21.3 per 100,000). This is slightly higher than the same time last year (9.0 per 100,000). Activity is now in the baseline threshold for Northern Ireland (<14.7 per 100,000) (Figure 1).

Flu/FLI consultation rates decreased in week 52 compared to week 51 in all age groups. Flu/FLI consultation rate was highest in those aged 45-64 years in week 52 (12.9 per 100,000 population). Rates are higher in all age groups compared to the same period last year (week 52, 2018-19).

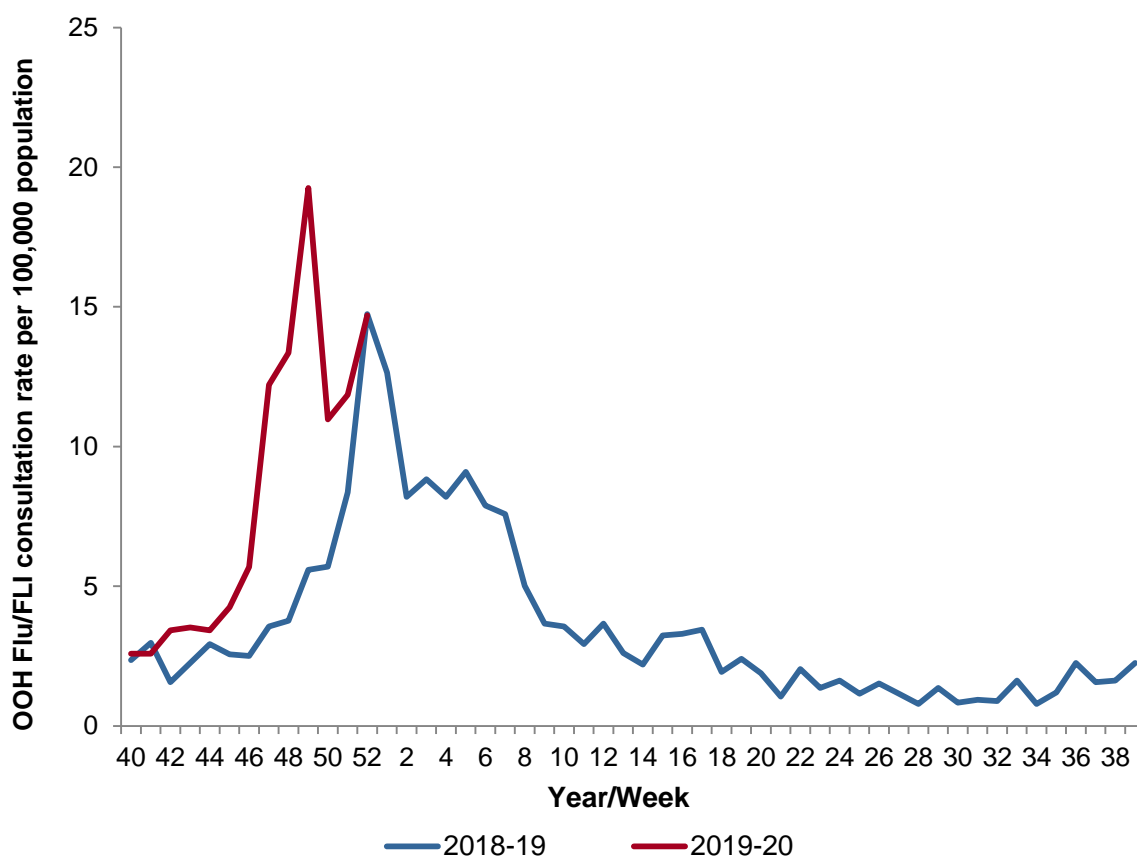


Figure 2. Northern Ireland Out of Hours (OOH) consultation rates for 'flu/FLI' 2018/19 – 2019/20

Comment

The flu/FLI consultation rate in Primary Care Out-of-Hours (OOH) Centres during week 52 was 14.7 per 100,000 population, an increase from week 51, 2019 (11.9 per 100,000). This is the same as week 52 last year (14.7 per 100,000).

In week 52 the percentage of calls to an OOH Centre due to flu/FLI was 1.9%. This is similar to week 51 (2.0%) but is slightly higher than the same period last year (1.6%).

Consultation rates increased in week 52 compared to week 51 in all age groups, except in those aged 5-14 years which decreased (9.3 to 8.5 per 100,000). Consultation rates were highest in those aged 0-4 years in week 52 (20.1 per 100,000). Rates are higher in all age groups compared to the same period last year (week 52, 2018-19), except in those groups aged 0-4 and 15-44 years which are lower.

Virology

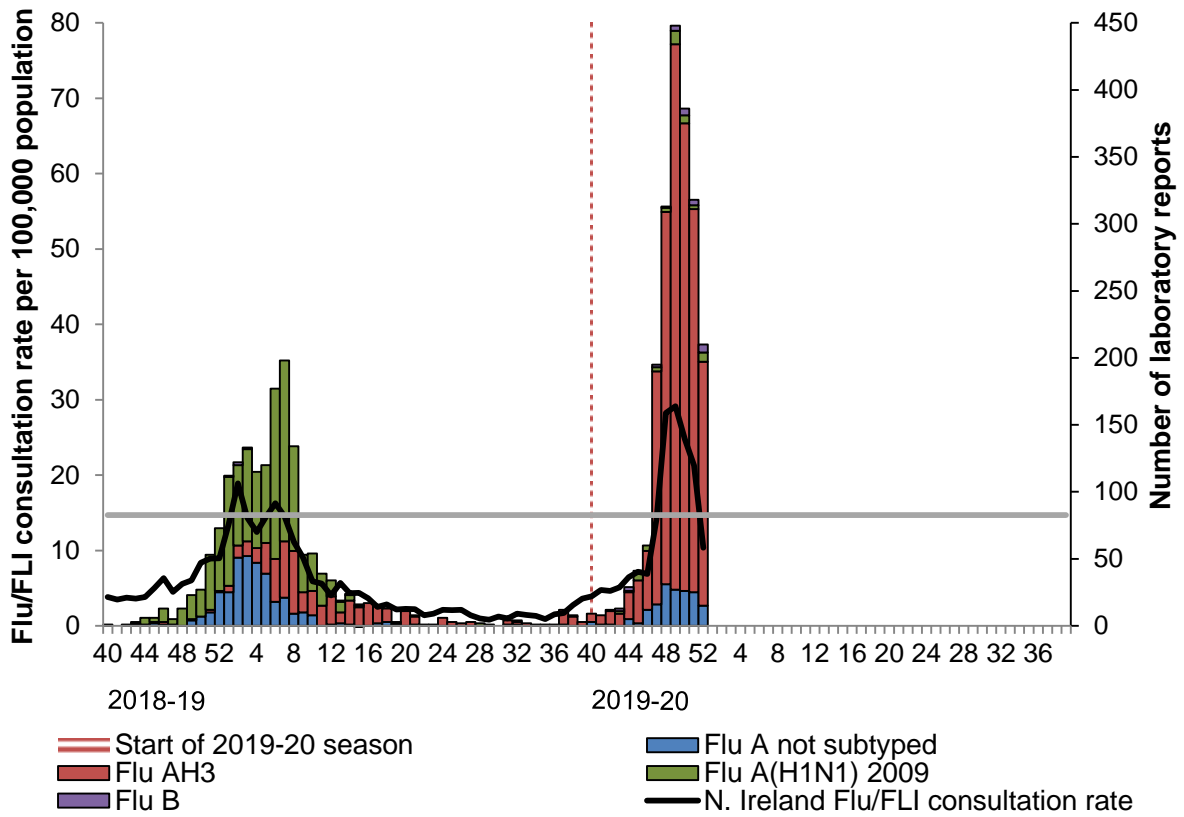


Figure 3. Weekly number of flu laboratory reports from week 40, 2018 with weekly GP consultation rates for ‘flu/FLI’

Table 1. Virus activity in Northern Ireland by source, Week 52, 2019-20

Source	Specimens tested	Flu AH3	Flu A(H1N1) 2009	Flu A (Untyped)	Flu B	RSV	Total Influenza Positive	% Influenza Positive
Sentinel	13	8	0	0	0	0	8	62%
Non-sentinel	638	174	7	0	4	40	185	29%
Total	651	182	7	0	4	40	193	30%

Table 2. Cumulative virus activity from all sources by age group, Week 40 - 52, 2019-20

Age Group	Flu AH3	Flu A(H1N1) 2009	Flu A (Untyped)	Flu B	Total Influenza	RSV
0-4	270	11	23	5	309	496
5-14	235	2	28	7	272	29
15-64	715	28	44	11	798	127
65+	584	3	48	2	637	150
Unknown	0	0	0	0	0	1
All ages	1804	44	143	25	2016	803

Table 3. Cumulative virus activity by age group and source, Week 40 - Week 52, 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	259	11	23	5	298	496
5-14	32	0	0	1	33	0	203	2	28	6	239	29
15-64	59	4	0	1	64	13	656	24	44	10	734	114
65+	9	0	0	0	9	2	575	3	50	2	630	148
Unknown	0	0	0	0	0	0	0	0	0	0	0	1
All ages	111	4	0	2	117	15	1693	40	145	23	1901	788

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.

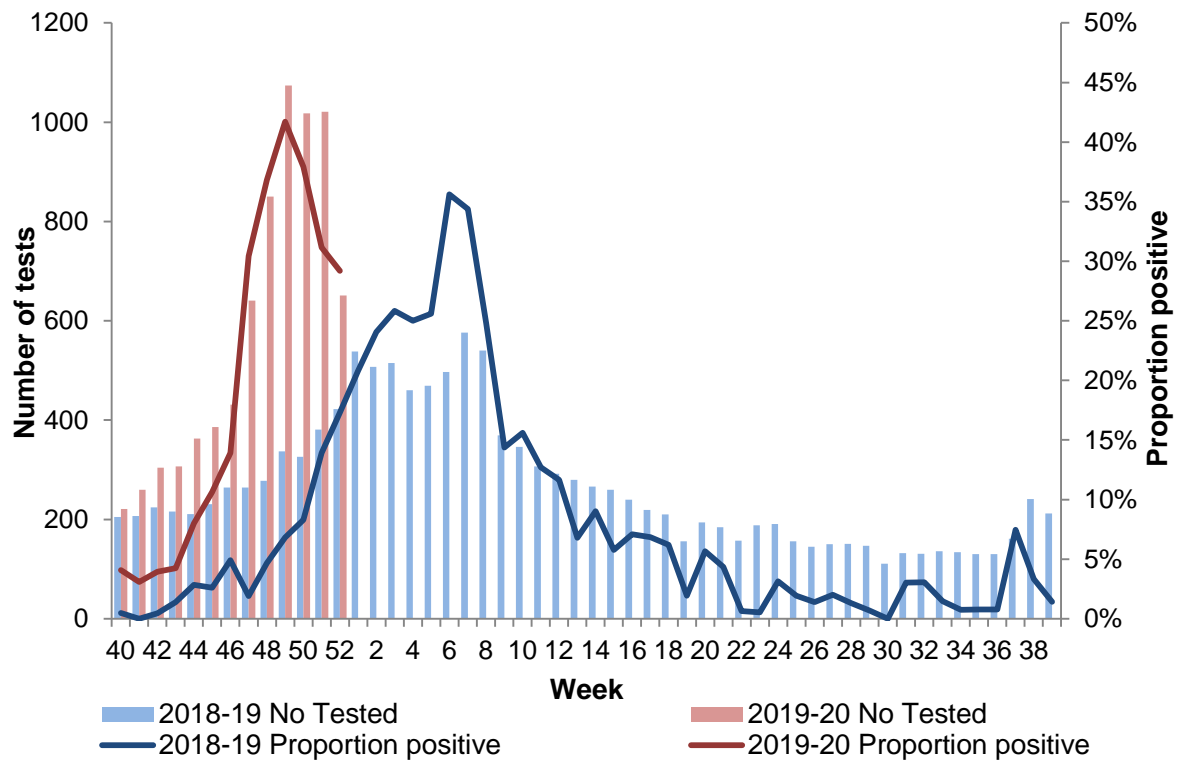


Figure 4. Number of samples tested for influenza and proportion positive, 2018/19 – 2019/20, all sources

Comment

In week 52, 193 samples were positive for flu (182 Flu A(H3), seven Flu A(H1N1) and four Flu B) from 651 submitted for testing in laboratories across Northern Ireland.

Positivity decreased in week 52 (30%) compared to week 51 (32%). Positivity is higher than this time last year (17%).

Eight of the 13 samples submitted by the GP based sentinel scheme were positive for flu (all Flu A(H3), 62% positivity) (Figures 3 and 4; Tables 1, 2 and 3).

Respiratory Syncytial Virus (RSV)

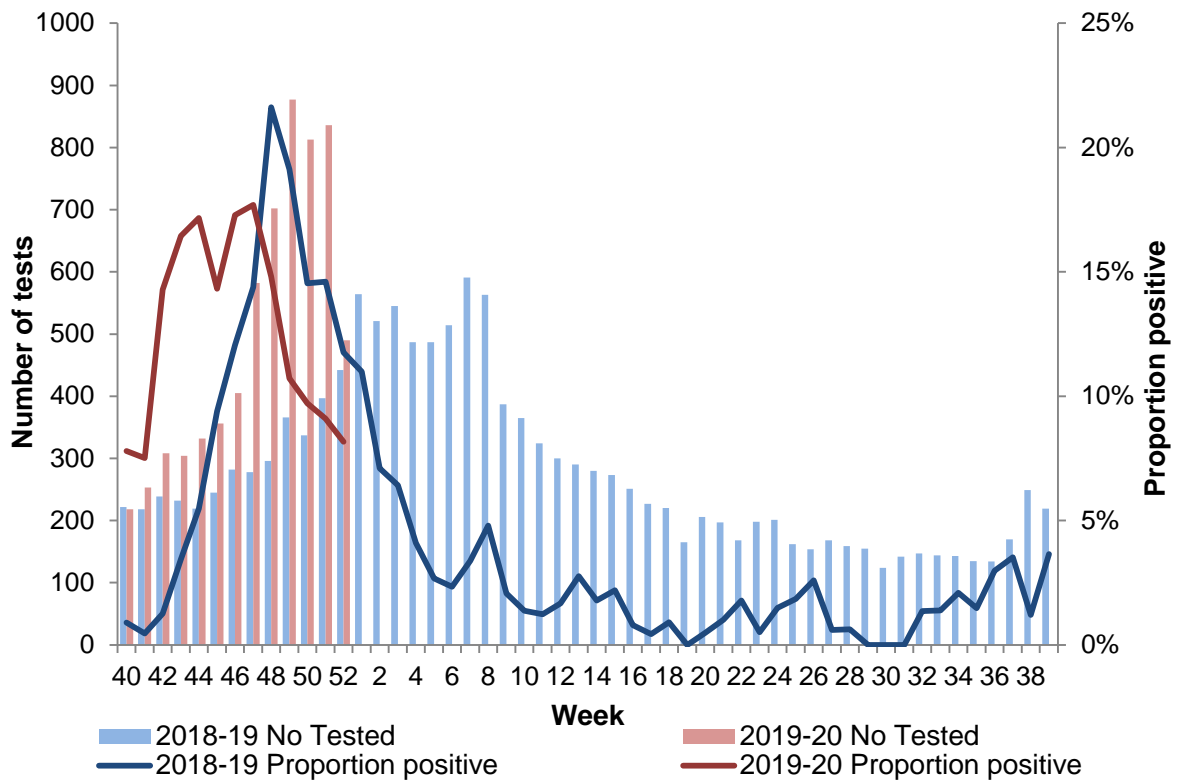


Figure 5. Number of samples tested for RSV and proportion positive, 2018/19 – 2019/20, all sources

Comment

In week 52, 40 samples were positive for RSV, with positivity (8%) lower than the same period last season (12%).

The majority (62%) of cases since week 40 have occurred in children aged 0-4 years (Table 2 and Figure 5).

Hospital Surveillance (Non-ICU/HDU)

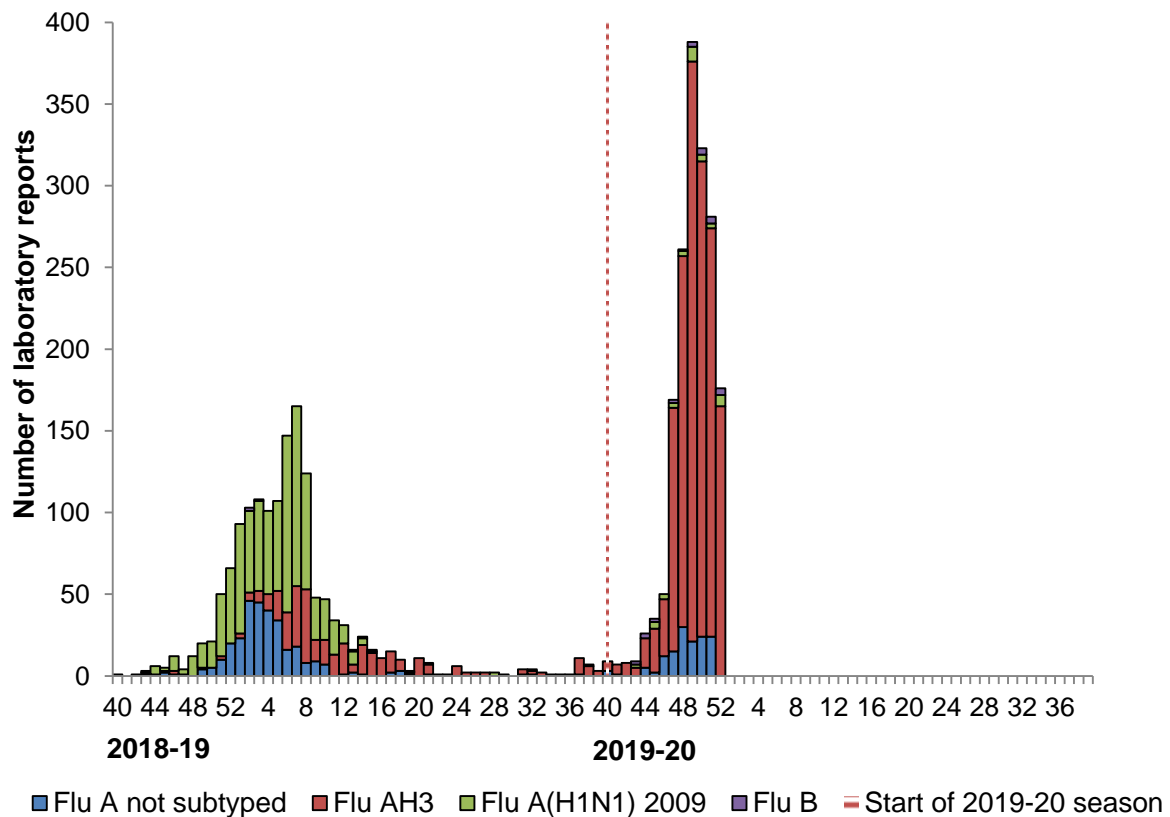


Figure 6. Weekly number of hospitalisations testing positive for influenza by week of specimen, 2018/19 – 2019/20

Comment

In week 52, 176 hospitalisations tested positive for flu (165 Flu A(H3), seven Flu A(H1N1) and four Flu B). This is a decrease from week 51, 2019 but 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

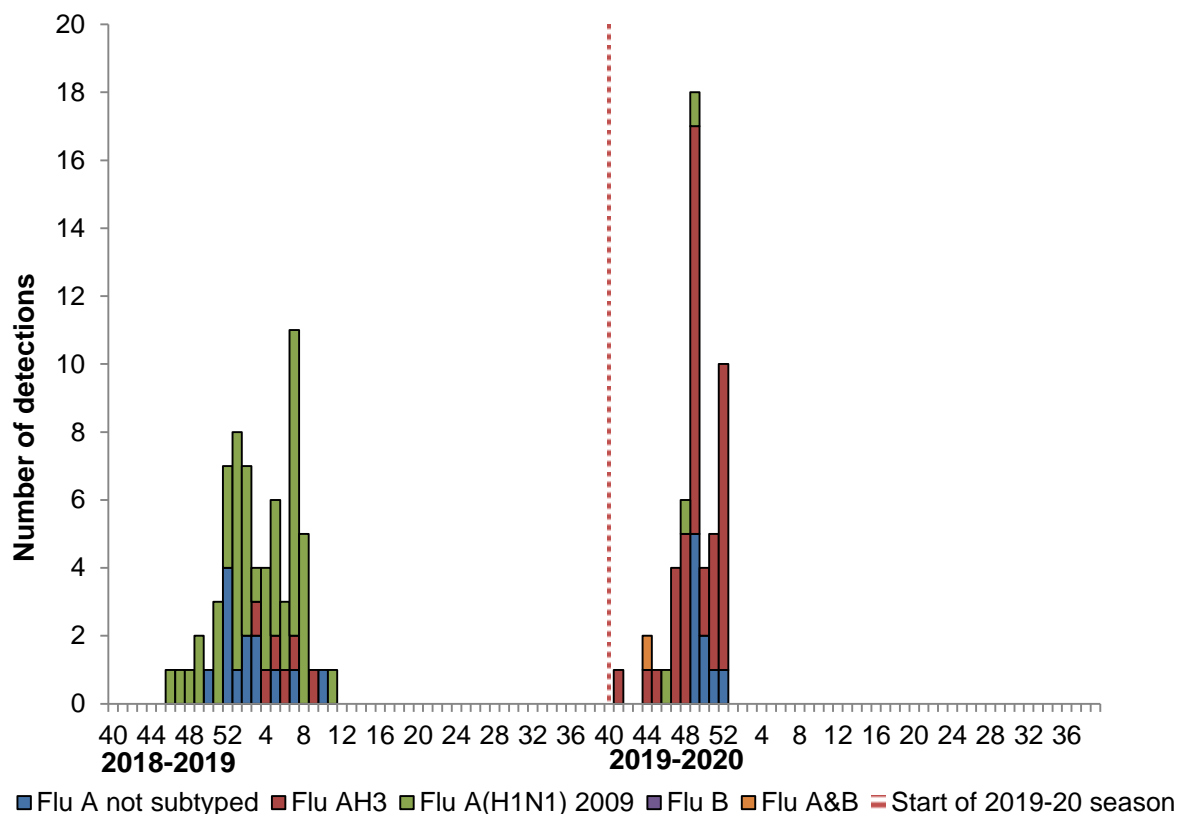


Figure 7. Confirmed ICU/HDU influenza cases by week of specimen, 2018/19 – 2019/20

Comment

Data are collected on laboratory confirmed influenza patients and deaths in critical care (level 2 and level 3). There were 10 new admissions to ICU with confirmed influenza reported to the Public Health Agency (PHA) during week 52. So far this season there has been 52 admissions to ICU with confirmed influenza (39 Flu A(H3), three Flu A(H1N1), nine 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 date there have been five deaths reported among ICU admissions.

Outbreaks

During week 52 there were no confirmed respiratory outbreaks reported to the PHA Health Protection acute response Duty Room. To date, there has been a total of six confirmed respiratory outbreaks reported, five in a Care Home setting and one 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.

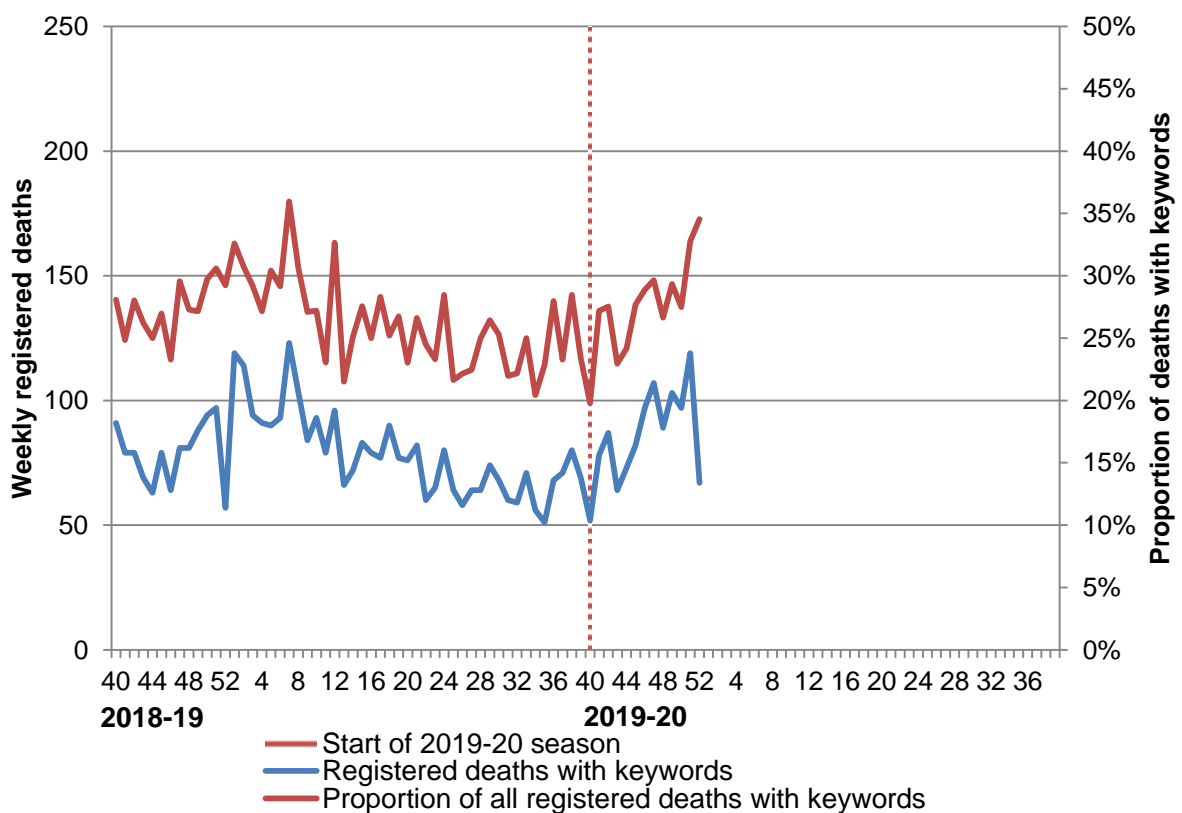


Figure 8. Weekly registered deaths and proportion of all deaths with keywords, by week of registration from week 40, 2018

Comment

In week 52, 67 respiratory associated deaths out of 194 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 52. Excess all-cause mortality was reported for three weeks in Northern Ireland to date this season (week 48, 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.

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 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