Influenza

Weekly Surveillance Bulletin

Weeks 19 - 20 (09 May 2022 — 22 May 2022)

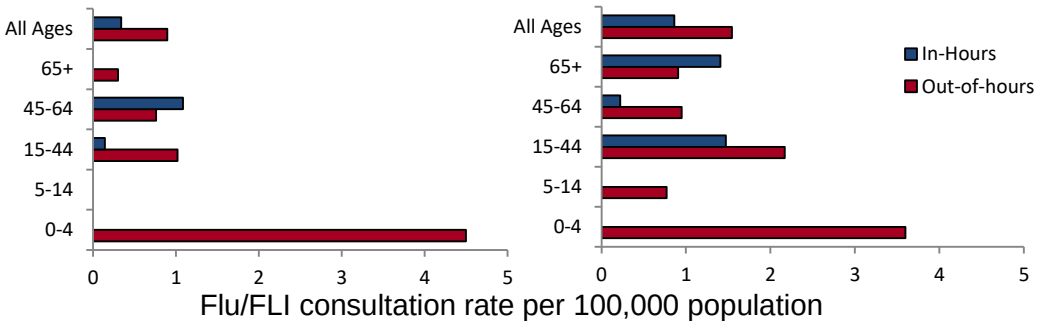
Community Activity

Flu Intensity:	Baseline	Low	Medium	High	Very High

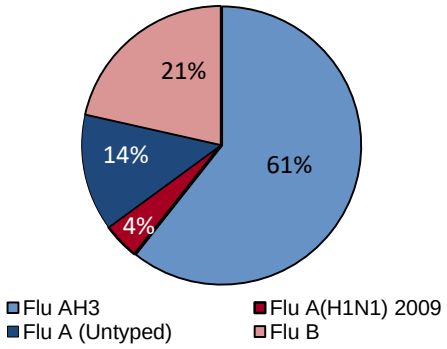
	October					November				December					January					February				March				April				May		
Week	40	41	42	43	44	45	46	47	48	49	50	51	52	53	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
2021/22																																		
2020/21																																		
2019/20																																		

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

(Wk 19: 09 May - 15 May 2022) **(Wk 20: 16 May - 22 May 2022)**

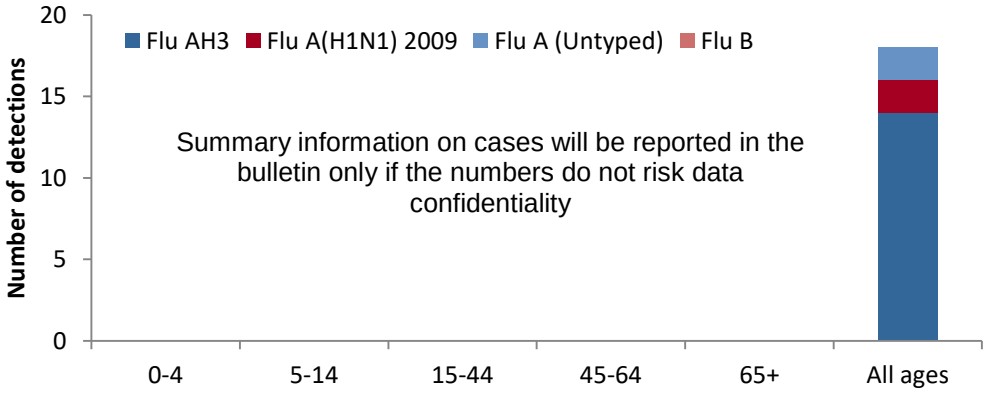


Circulating strains this season to date



Number of hospital cases with confirmed flu

(09 May 2022 - 22 May 2022)



Influenza Outbreaks

(09 May 2022 - 22 May 2022)

0

To date there have been seven flu outbreaks reported in total to date this season

Influenza vaccine uptake 2021/22

Vaccine uptake rates for 2021/22 have been included in this bulletin

Annual Influenza Surveillance Report 2019-20

The end of season report, Surveillance of Influenza in Northern Ireland 2019-20 is available to download here.

This is the final influenza weekly surveillance bulletin for 2021/22 season.

Note

Surveillance systems should be interpreted with caution due to the impact of the COVID-19 pandemic.

Surveillance data from the 2019/20 flu season has been included to allow comparison with the last influenza season with “normal activity” (2020/21 had extremely low influenza activity as a result of the COVID-19 prevention measures).

Differences observed between previous seasons may also be due the ongoing impact of COVID-19 pandemic, for example changes in health-seeking behaviour, GP consultations and testing practices.

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

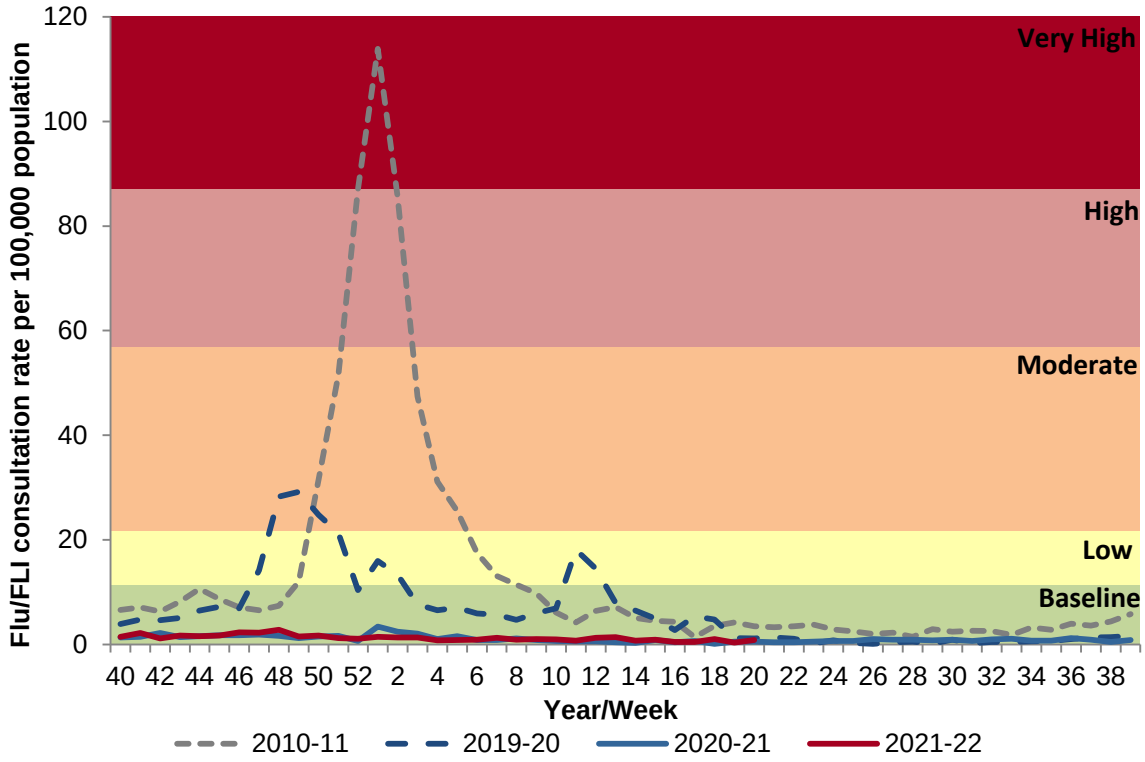


Figure 1. Northern Ireland GP consultation rates for 'flu/FLI' 2019/20 – 2021/22, 2010/11 for comparison

The baseline MEM threshold for Northern Ireland is 11.3 per 100,000 population for 2021-22. Low activity is 11.3 to <21.8, moderate activity 21.8 to <57.0, high activity 57.0 to <87.1 and very high activity is >87.1

Comment

GP flu/FLI consultation rates were 0.3 per 100,000 population in week 19 and 0.9 per 100,000 population in week 20, which is lower than the same time in 2019-20 (1.2 per 100,000 in week 20). Activity remains below the baseline threshold for Northern Ireland (<11.3 per 100,000) (Figure 1).

Flu/FLI consultation rates were highest in those aged 45-64 in week 19 and in 15-44 year olds in week 20 (1.1 and 1.5 per 100,000, respectively). Rates are lower (or the same) in all age groups compared to the same time in 2019-20, except for those aged 15-44 which is higher than the same time in 2019-20 (week 20).

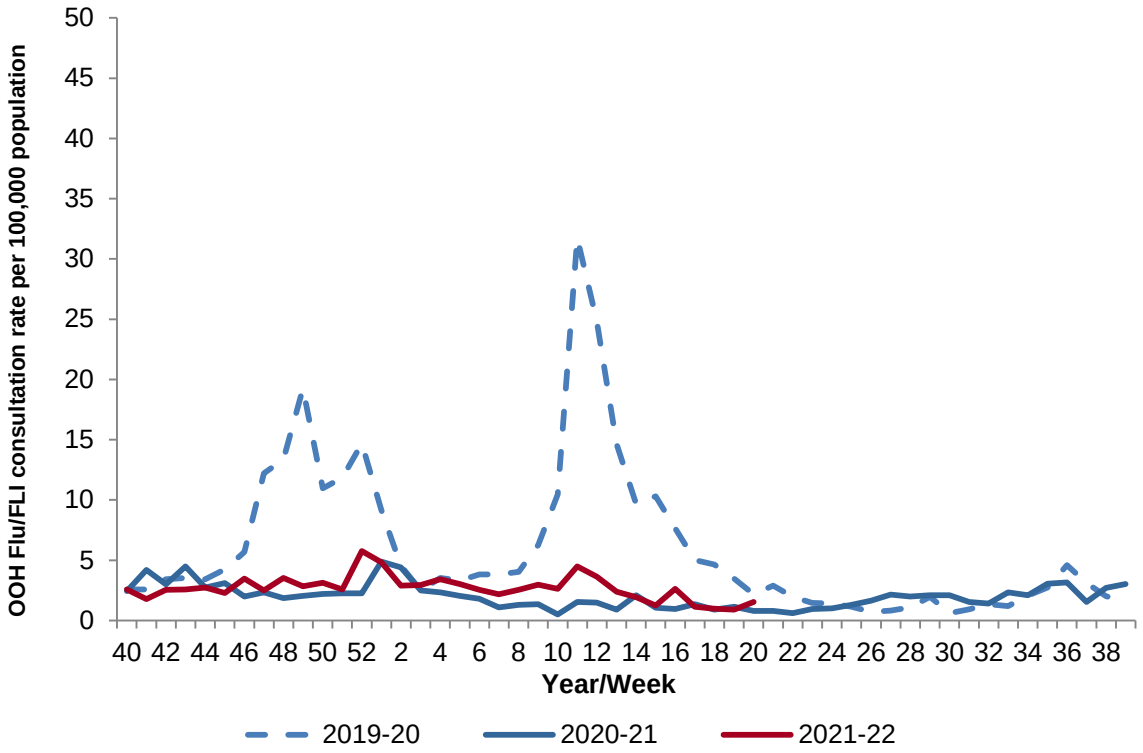


Figure 2. Northern Ireland Out of Hours (OOH) consultation rates for 'flu/FLI' 2019/20 – 2021/22

Flu/FLI consultation rates in Primary Care Out-of-Hours (OOH) Centres were 0.9 per 100,000 population in week 19 and 1.5 per 100,000 in week 20. This is lower than the same time in 2019-20 (2.2 per 100,000 in week 20) (Figure 2).

In weeks 19 and 20 the percentage of calls to an OOH Centre due to flu/FLI was 0.2% and 0.3%, respectively. This is lower than week 20 in 2019-20 (0.5%).

Rates were highest in the 0-4 age group in both weeks 19 and 20 (4.5 and 3.6 per 100,000 population, respectively). In comparison to week 20, 2019-20, consultation rates in 2021-22 were lower (or the same) in all age groups with the exception of those aged 0-4 years.

Virology

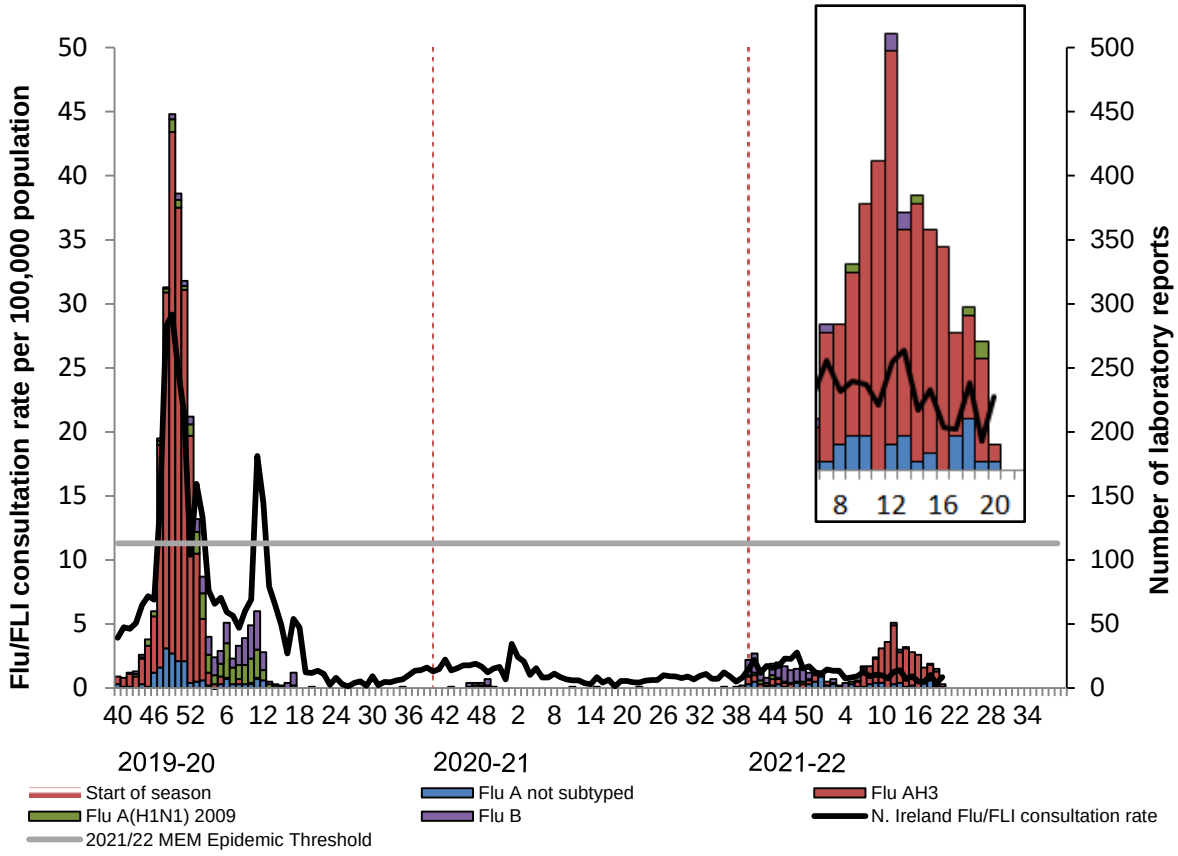


Figure 3. Weekly number of flu laboratory reports from week 40, 2019 with weekly GP consultation rates for 'flu/FLI'

Table 1. Virus activity in Northern Ireland by source, Weeks 19-20, 2021-22								
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	0	0	0	0.0%
Non-sentinel	5285	14	2	2	0	10	18	0.3%
Total	**5293**	**14**	**2**	**2**	**0**	**10**	**18**	**0.3%**

Table 2. Cumulative virus activity from all sources by age group, Week 40 - 20, 2021-22						
Age Group	Flu AH3	Flu A(H1N1) 2009	Flu A (Untyped)	Flu B	Total Influenza	RSV
0-4	27	9	2	38	76	536
5-14	21	8	14	61	104	52
15-64	202	5	48	19	274	161
65+	103	3	15	7	128	115
Unknown	0	0	0	0	0	0
All ages	**353**	**25**	**79**	**125**	**582**	**864**

Table 3. Cumulative virus activity by age group and source, Week 40 - 20, 2021-22												
	Sentinel						Non-sentinel					
Age Group	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	0	0	0	0	0	0	27	9	2	38	76	536
5-14	0	0	0	0	0	1	21	8	14	61	104	51
15-64	2	0	0	0	2	0	200	5	48	19	272	161
65+	0	0	0	0	0	0	103	3	15	7	128	115
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
All ages	**2**	**0**	**0**	**0**	**2**	**1**	**351**	**25**	**79**	**125**	**580**	**863**

Note

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 respiratory syncytial virus. Cumulative reports of influenza A (untyped) may vary from week to week as these may be subsequently typed in later reports.

The GP based sentinel programme is being redeveloped due to the impact of the COVID-19 pandemic. Therefore, preliminary sentinel testing needs to be interpreted with caution

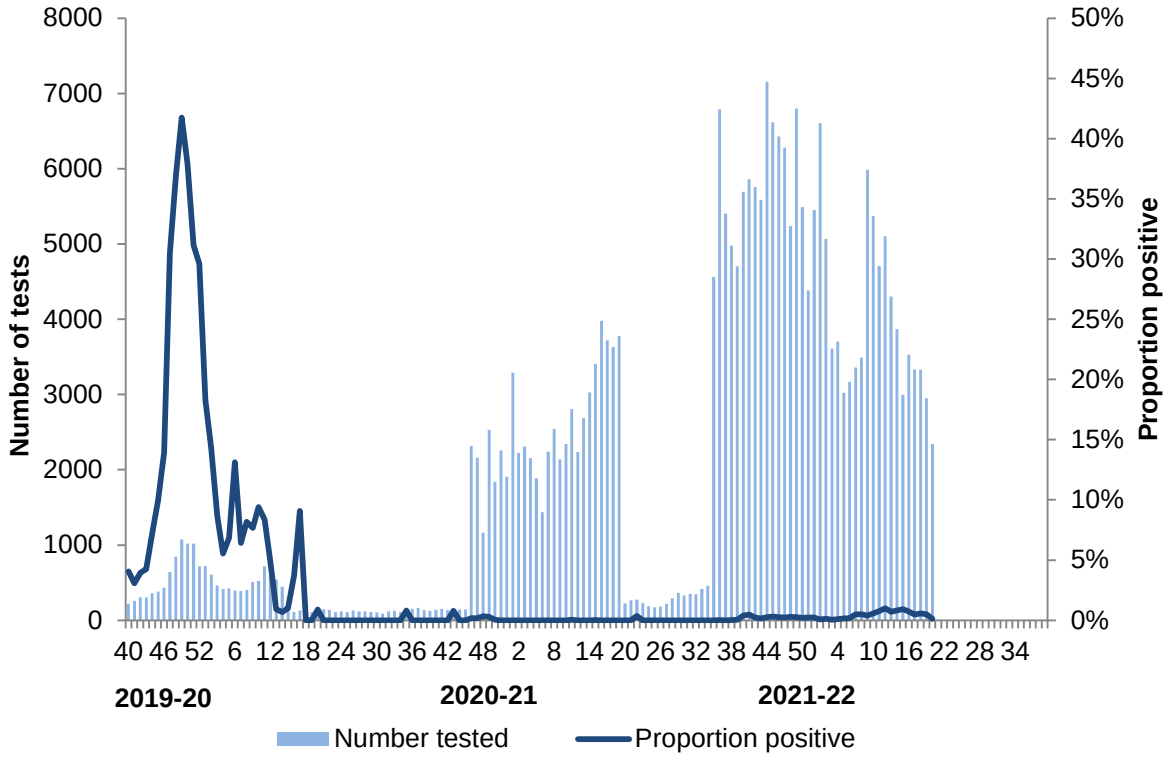


Figure 4. Number of samples tested for influenza and proportion positive, 2019/20 and 2021/22, all sources*

Comment

Prior to the beginning of the 2021-22 flu season (week 40, 2021) four samples tested positive for flu in weeks 36 to 39, 2021 (two Flu A(H3) and two Flu B). In weeks 19 and 20, 18 samples were positive for flu (14 Flu A(H3), 2 Flu A(H1N1) and 2 Flu A(untyped) from 5293 samples submitted for testing in laboratories across Northern Ireland. Positivity for weeks 19 and 20 combined (0.3%) is lower than this time in 2019-20 (0.5% combined positivity for weeks 19 and 20). Since week 40, 47% of total influenza positive samples occurred in 15-64 year olds.

The number of positive flu results should be interpreted with caution as this total could be inflated by a number of possible vaccine contaminated specimens. Possible vaccine contamination leading to a positive flu result (dual positive Flu A and Flu B) can occur when vaccine virus is detected in a specimen taken from a person (e.g. a child under 16 years) who recently received intranasal administration of live attenuated influenza virus vaccine (LAIV). Unfortunately we are unable to definitively determine the number of vaccine contaminated positive flu results, as at present we are unable to

confirm vaccination history of persons tested. (Figures 3 and 4; Tables 1, 2 and 3).

Please note that multiplex testing for SARS-CoV-2/Flu/RSV was introduced at the Regional Virology Laboratory from Week 34, 2021, and local HSCT laboratories (SHSCT in August 2021, SEHSCT week 40, 2021 and WHSCT in October 2021) therefore an increase in flu and RSV testing (and reporting) should be expected. At present, only positive flu and RSV results are available from WHSCT laboratory. Multiplex testing was commenced at remaining local HSCT laboratories as the season progressed.

Respiratory Syncytial Virus (RSV)

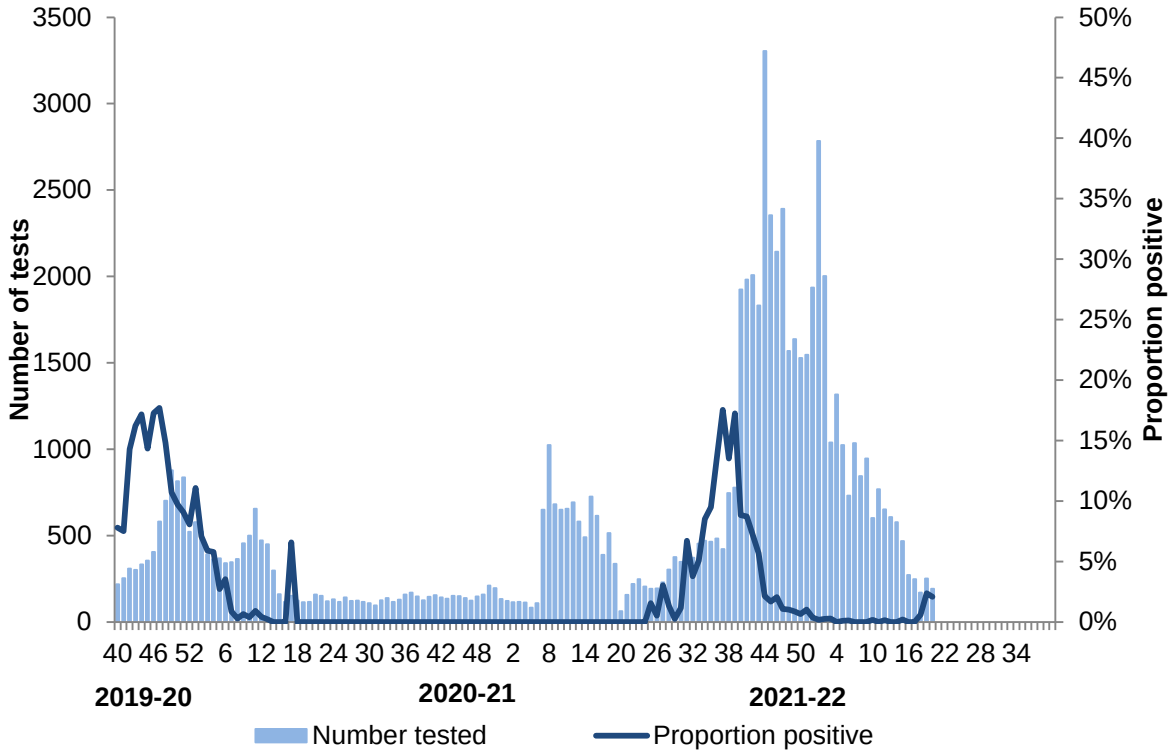


Figure 5. Number of samples tested for RSV and proportion positive, 2019/20 – 2021/22, all sources**

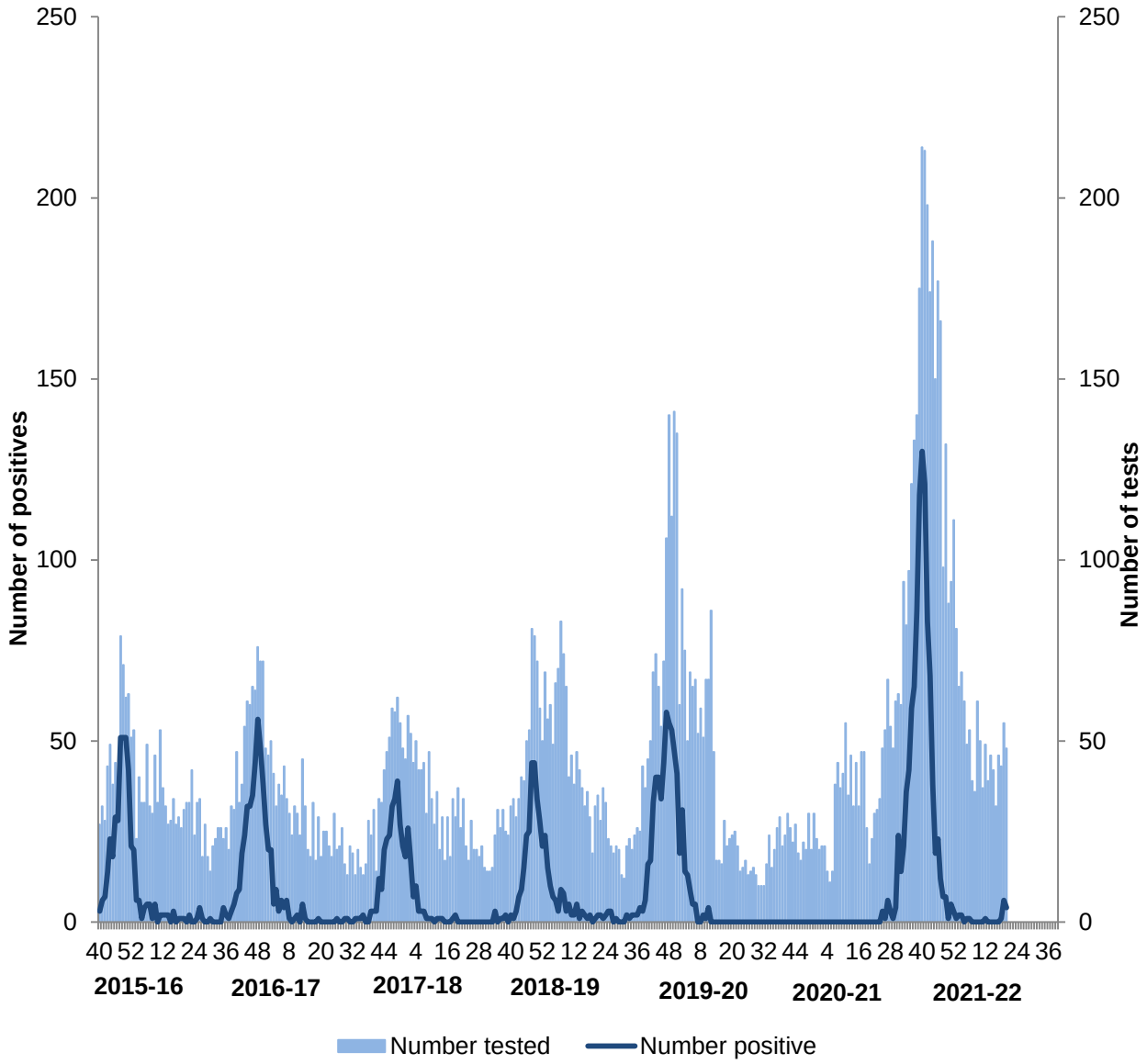


Figure 6. Number of samples tested for RSV and number of positive samples in children under 5 years, 2015/16 – 2021/22, all sources**

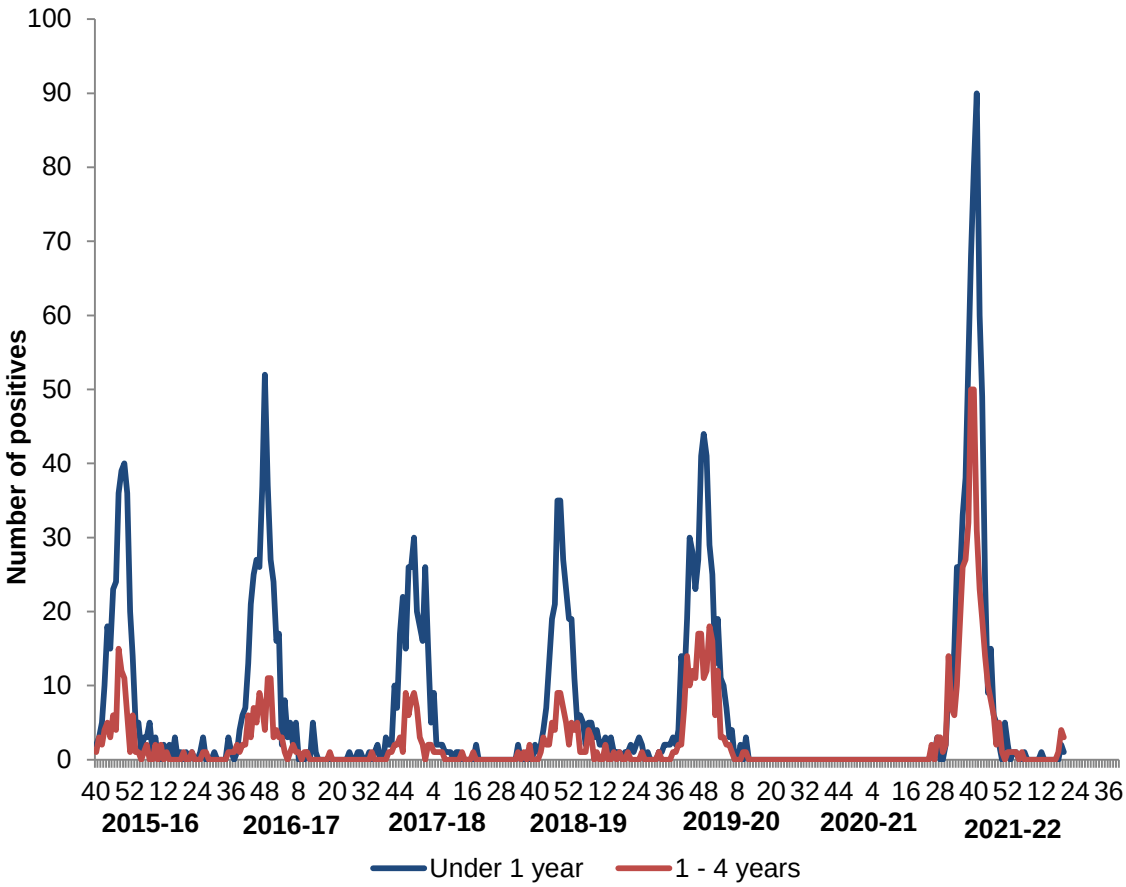


Figure 7. Number of positive tests for RSV in children under 1 year and 1-4 years, 2015/16 – 2021/22, all sources**

Comment

An earlier start to the typical RSV season was observed, with positivity beginning to increase from week 25, 2021 (2%) and peaking in week 37 at 18%. In weeks 19 and 20, 10 samples tested positive for RSV with combined positivity 2%. At the same period in 2019-20, positivity was 0%. The increase in testing in local HSCT laboratories this season should also be noted.**

The majority (62%) of RSV positive samples since week 40 occurred in children aged 0-4 years.

The number of positive samples in children under 1 year peaked in week 41, 2021 (90 positive samples) whilst the peak in children 1-4 years was observed in week 39 and 40, 2021 (50 positive samples) (Table 2, Figures 5, 6 and 7).

Please note that multiplex testing for SARS-CoV-2/Flu/RSV was introduced at the Regional Virology Laboratory from Week 34, 2021, and local HSCT laboratories (SHSCT in August 2021, SEHSCT week 40, 2021 and WHSCT in October 2021) therefore an increase in flu and RSV testing (and reporting) should be expected. At present, only positive flu and RSV results are available

from WHSCT laboratory. Multiplex testing was commenced at remaining local HSCT laboratories as the season progressed.
The virology data does not currently include data on Point of Care RSV tests conducted in RBHSC. The virology data in future bulletins will be updated with this information once available to the PHA respiratory surveillance team.

Hospital Surveillance (Non-ICU/HDU)

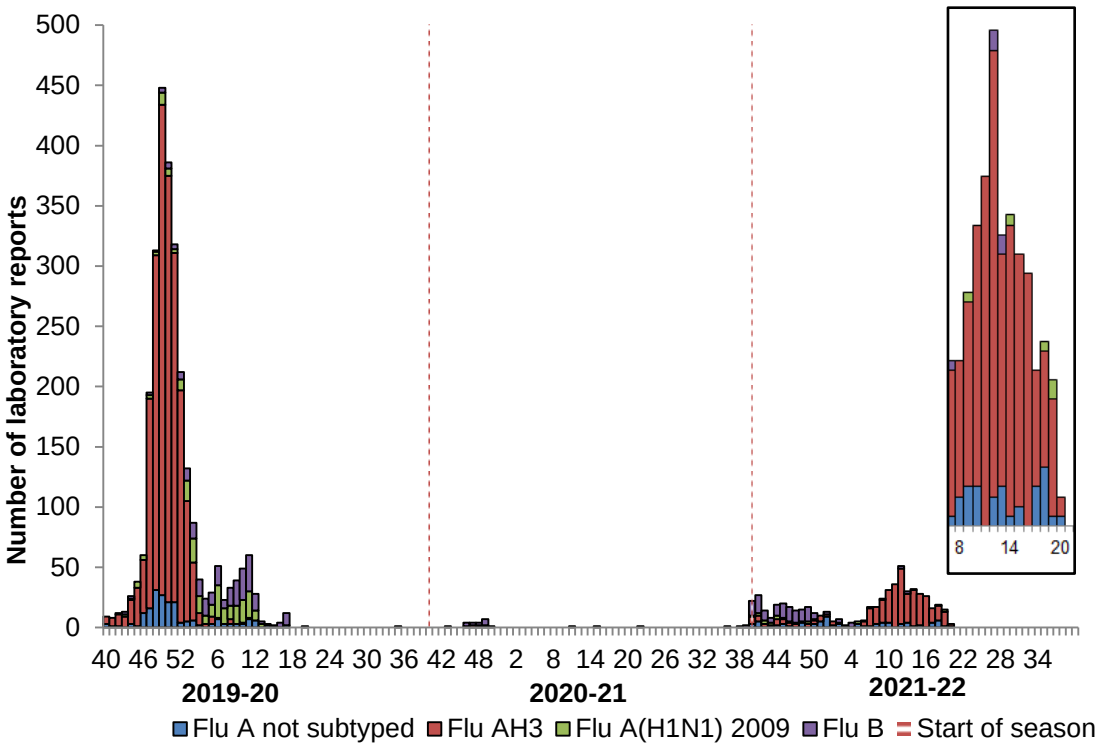


Figure 8. Weekly number of hospitalisations testing positive for influenza by week of specimen, 2019/20 – 2021/22***

Comment

Prior to the beginning of the 2021-22 flu season (week 40, 2021) four samples tested positive for flu in weeks 36 to 39, 2021 (two Flu A(H3) and two Flu B). In weeks 19 and 20, 18 samples were positive for flu (14 Flu A(H3), 2 Flu A(H1N1) and 2 Flu A(untyped) from 5293 samples submitted for testing in laboratories across Northern Ireland. This is higher than the number of hospitalisations which tested positive for flu at the same time in 2019-20 (one in weeks 19 and 20) (Figure 8).

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

******Please note that multiplex testing for SARS-CoV-2/Flu/RSV was introduced at the Regional Virology Laboratory from Week 34, 2021, and local HSCT laboratories (SHSCT in August 2021, SEHSCT week 40, 2021 and WHSCT in October 2021) therefore an increase in flu and RSV testing (and reporting) should be expected. At present, only positive flu and RSV results are available from WHSCT laboratory. Multiplex testing was commenced at remaining local HSCT laboratories as the season progressed.***

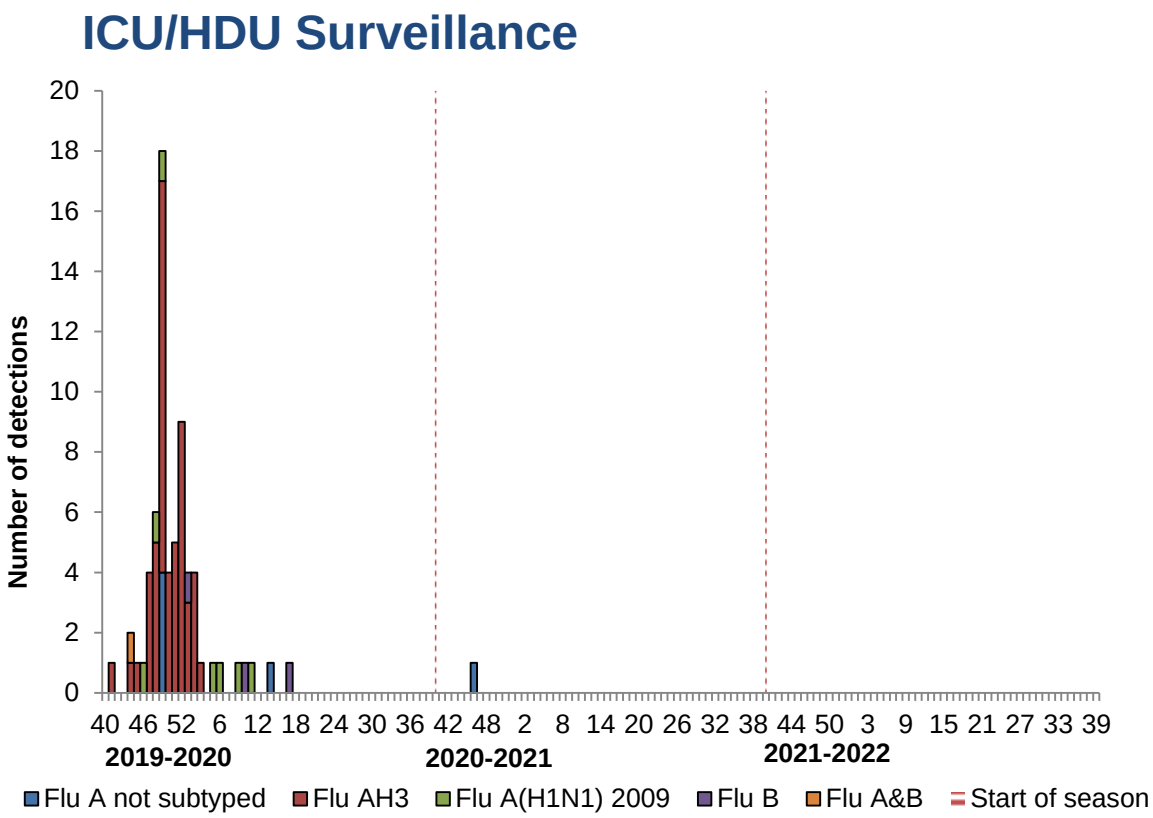


Figure 9. Confirmed ICU/HDU influenza cases by week of specimen, 2019/20 – 2021/22*

Comment

Data are collected on laboratory confirmed influenza patients and deaths in critical care (level 2 and level 3).

There were no new admissions to ICU with confirmed influenza reported to the Public Health Agency (PHA) up to week 48 (Figure 9).

<u>Please note</u> there is no critical care data available for week 49 to date.

Summary information on cases will be reported in the bulletin only if the numbers do not risk data confidentiality.

Outbreaks

Comment

During weeks 19 and 20 there were no confirmed influenza outbreaks reported to PHA Health Protection acute response duty room.

To date, there have been seven confirmed influenza outbreaks reported; three in a care home setting and four in a hospital setting (four Flu A (untyped) and three Flu type unknown).

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.

Please note, NISRA mortality data is not the same as the actual number of deaths during the reporting period.

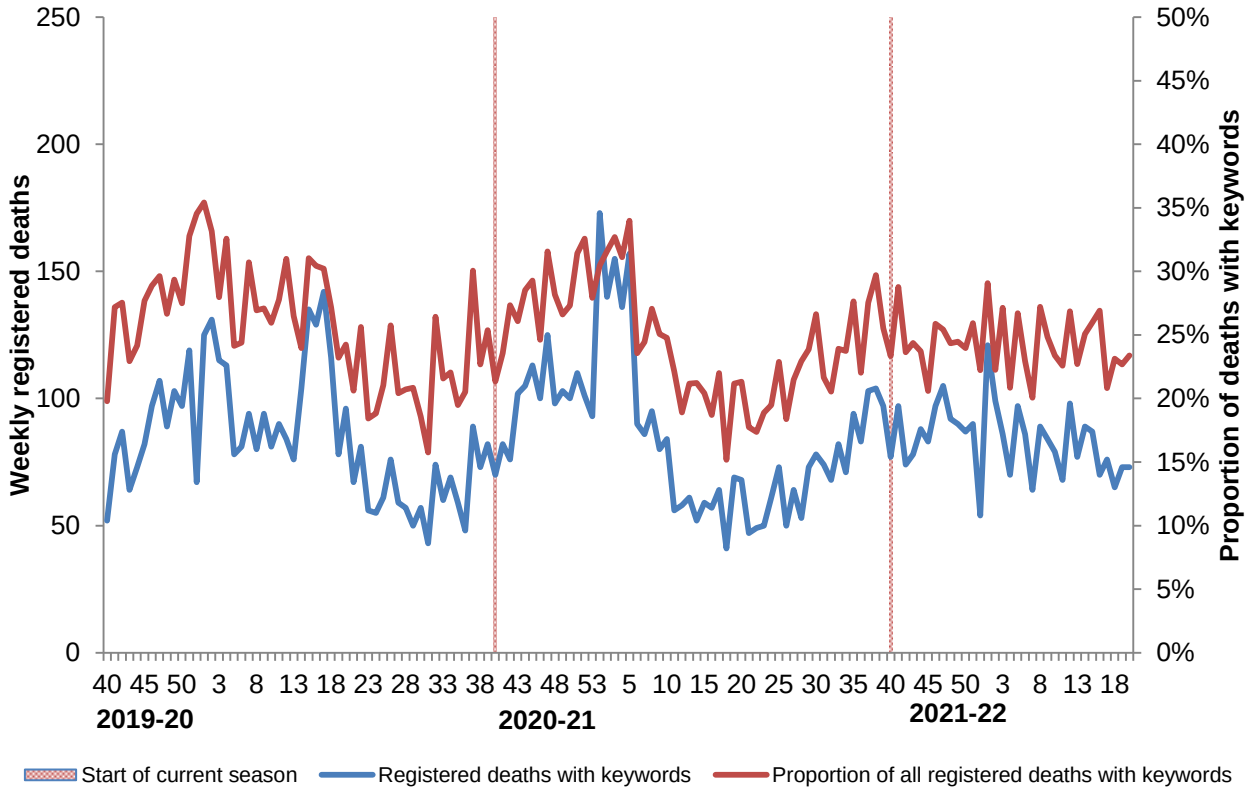


Figure 10. Weekly registered deaths and proportion of all deaths with keywords, by week of registration from week 40, 2019*

Comment

In week 19, 73 respiratory associated deaths out of 322 all-cause deaths were reported (23%), with 23% also reported in week 20. This is similar to that observed in the same period in 2019/20 (24% in week 20) (Figure 10).

EuroMOMO

There was no excess all-cause mortality reported in Northern Ireland in weeks 19 and 20. Excess all-cause mortality was reported for eight weeks in Northern Ireland to date this season (weeks 46-50, week 52 and weeks 13 and 14). 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. Methodology was updated in week 13, 2022 in consideration of the pandemic years.

Information on mortality from all causes is provided for management purpose from the United Kingdom Health Security Agency. 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 season influenza vaccine uptake has been determined using data extracted from regional Immunisation Information System developed by the Department of Health (DoH) Digital team; known as the Vaccine Management System (VMS). Influenza vaccination was introduced into the VMS in August 2021.

Caution should be used when considering the 2021/22 influenza vaccination uptake rates in comparison to previous seasons, due to the introduction of the new VMS involving new methods of recording and extracting influenza vaccine data. Uptake rates for the previous seasons are also shown below.

Public Programme

Table 4. Influenza vaccine uptake rates (Public Programme), 2021-22 and 2020-21

	Delivered by	**2021/22** (to 31 Mar)	**2020/21** (to 31 Mar)
All 2 to 4 year olds	GP	24.4%	55.2%
All pregnant women	GP	45.9%	42.1%
All individuals under 50 years with a chronic medical conditions[1,2]	GP	51.7%	-
All individuals under 65 years with a chronic medical condition[1]	GP	-	67.8%
All individuals 50-64 years[3]	GP	37.5%	-
All individuals 65 years and over	GP	54.5%	79.1%
% of all primary school children (years 1-7) vaccinated	Trust School Nurse Service[4]	72.7%	73.1%
% of all year 8 school children vaccinated	Trust School Nurse Service	68.7%	66.6%
% of all secondary school children (years 8-12) vaccinated[5]	Trust School Nurse Service[4]	64.2%	-

(1) Eligible groups amended in 2021/22 to individuals aged 50-64 years and under 50 years with a chronic medical condition.
(2) Using number vaccinated aged under 50 years as proxy for those aged under 50 years 'at risk'. Clinical risk group options recorded in VMS are applicable to COVID-19 vaccination and not transferrable to influenza vaccination risk groups.
(3) Introduced as an eligible group for vaccination in January 2021, denominator not available for 2020/21.
(4) This figure includes vaccines delivered by the school, as well as a small number of vaccines delivered by their GP.
(5) Introduced as an eligible group for vaccination in 2021/22.

Health and Social Care Worker Programme

Table 5. Influenza vaccine uptake rates (Frontline HSCWs), 2020-21		
	% of all frontline health care workers employed by a Trust	% of all frontline social care workers employed by a Trust
	2020/21 (to 31 Mar)	**2020/21** (to 31 Mar)
Belfast HSCT	50.0%	41.8%
South Eastern HSCT	59.1%	48.5%
Northern HSCT	54.8%	40.1%
Southern HSCT	50.9%	36.4%
Western HSCT	46.2%	38.8%
NIAS	77.3%	n/a
Northern Ireland	52.4%	40.8%

Table 6. Influenza vaccine uptake rates (all HSCWs), 2021-22	
	% of all health and social care workers employed by a Trust(1)
	2021/22 (to 31 Mar)
Belfast HSCT	46.4%
South Eastern HSCT	47.6%
Northern HSCT	35.1%
Southern HSCT	38.0%
Western HSCT	37.6%
NIAS	44.4%
Northern Ireland	41.8%

(1) Uptake is for all Trust-employed staff. The broad staff groups cannot be broken down into frontline and non-frontline roles with the VMS data currently available to the PHA flu surveillance team. This is not comparable to previous seasons in which frontline HSCW uptake was reported.

Further Information and International/National Updates

Further information

Further information on influenza is available at the following websites:

PHA Seasonal Influenza

nidirect Flu Vaccination

UKHSA 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 UKHSA Weekly National Flu and Covid-19 Surveillance Report

Scotland HPS Weekly National Seasonal Respiratory Report

Wales PHW Weekly Influenza and Acute Respiratory Infection Report

Republic of Ireland HPSC Influenza Surveillance Report

International updates

Europe (ECDC and WHO) Flu News Europe

Worldwide (WHO) WHO Influenza Surveillance and Monitoring

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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