
Subject: Jersey Seasonal Influenza-like Illness Statistics 2021-2022
Date of report: 29 September 2022

Introduction

This report presents two indicators of the relative weekly number of cases of influenza (flu) seen in Jersey:

- number of patients with confirmed flu (confirmed by laboratory test)
- number of resident patients presenting to their GP with flu-like illness

Clinicians can use the numbers presenting with 'flu-like' symptoms, alongside cases of influenza confirmed amongst patients to assess the extent of influenza on the Island.

The report also shows to what extent the previous year's flu vaccines were delivered in advance of the winter flu season.

Also presented are data regarding deaths from influenza and pneumonia for the period 2016-2021.

Background

Flu is caused by the influenza virus, and for some groups of people can be serious (e.g. they can develop a serious complication such as pneumonia). However, there are other viruses (i.e. not the influenza virus) that can cause similar symptoms. These other 'flu-like' viruses are often mistaken for influenza and could be referred to as "the flu" but are in fact a different illness. The only way to confirm that a 'flu-like' illness is caused by the influenza virus is to conduct a laboratory test, which in many cases is not necessary.

It is important to note that due to the COVID-19 epidemic in Jersey, data reported from the various influenza surveillance systems may not represent an accurate reflection of influenza activity. Results should only be used as a guide, especially when compared to earlier influenza seasons.

Interpretation of influenza surveillance data should consider the impact of public health messaging, social and physical distancing measures, lockdowns, a lack of travel on and off Island and the wearing of face coverings, as well as potential changes in health seeking behaviours due to the ongoing COVID-19 pandemic.

What is the data telling us?

The severity of Influenza activity levels was low globally in the 2021-2022 season. This was reflected in Jersey, where influenza activity reached levels above those observed in the 2020-2021 season, but remained much lower than those in pre-pandemic years. Influenza activity also peaked later and remained at higher levels than had been reported in previous seasons (in May and June 2022).

The Government of Jersey works each year to increase the number of people who receive a flu vaccine and to eliminate barriers to vaccination. While the 2021-2022 season's immunisation programme saw increases in coverage for those aged 50 and over, with the highest levels of vaccine uptake recorded, there had been a slight decrease in coverage from 2020-2021 for those in nursery and school aged children.

Patients with confirmed influenza

Hospital patients are tested for the influenza virus according to a schedule devised by the Hospital's Consultant Microbiologist. During the 'surveillance' stage of flu-season (i.e. before the declaration of circulating influenza has been made), hospital patients (whether admitted or not) are tested for influenza if they display 'flu-like' symptoms, or are in another 'at risk' group. Once circulating influenza has been declared, only admitted patients are considered for testing (based on the same symptom or risk criteria). Note that unusual patterns of influenza circulation globally during the COVID-19 pandemic mean that the typical testing procedures for influenza have varied on-Island. For example, testing extended into May/June 2022 when a late peak of influenza activity was seen.

Circulating influenza is declared by the Hospital's Consultant Microbiologist based on the influenza situation in the UK and Europe, as well as the local laboratory tests.

'Flu-like' illness

The number of resident patients presenting to their GP with 'flu-like' illness is taken from the Primary Care database (EMIS). These people are not tested for influenza, so it is not known what proportion of them have actual influenza, and what proportion have a 'flu-like' illness.

It is worth noting that not everyone with 'flu-like' illness will attend their GP.

Numbers of 'flu-like' illnesses presenting to GPs in last 5 flu seasons

Figure 1 shows the numbers recorded per week as presenting to their GP with 'flu-like' symptoms over each flu season, 2017-18, 2018-19, 2019-20, 2020-21 and 2021-22.

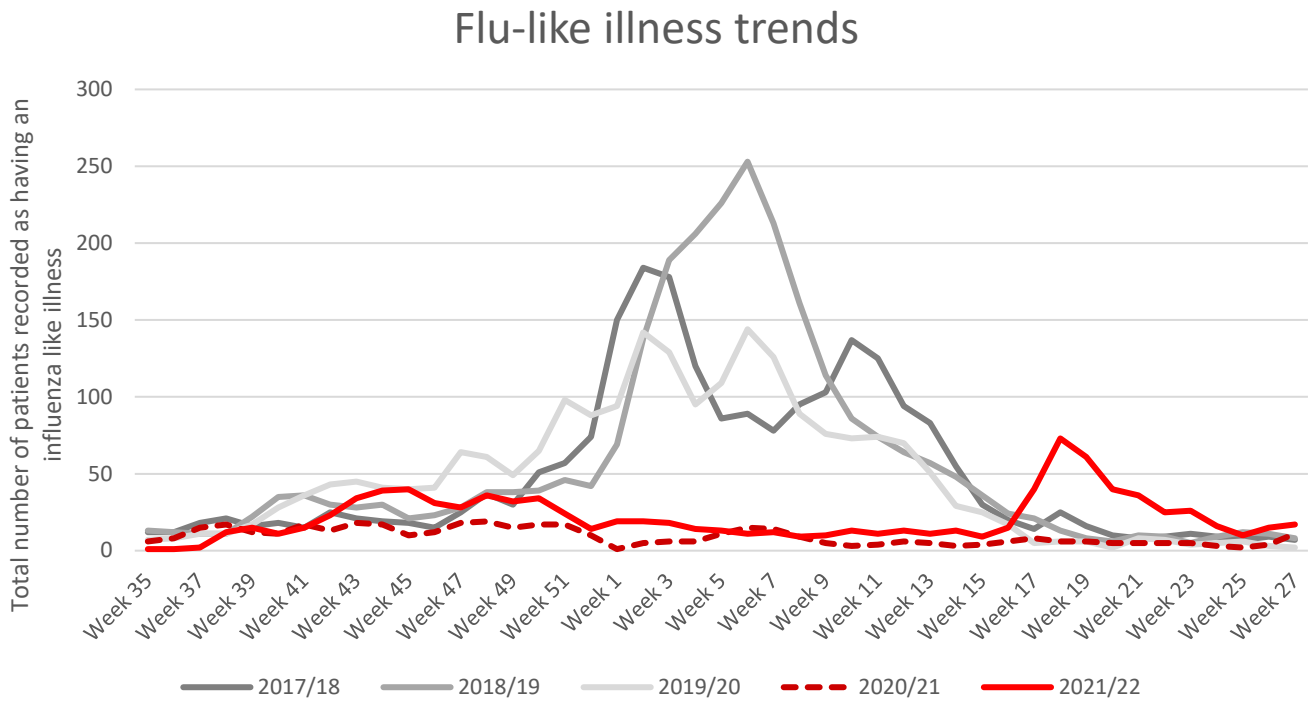
The chart shows that the individual flu-season profiles vary, in terms of the peak number of cases seen, the timing of the increase and decrease in the number of cases, and shape of profile. After recognition of widespread community transmission of COVID-19, indicators of influenza activity began to decline in Jersey¹. These changes may be attributed to both changes related to declines in routine health seeking for respiratory illness as well as real changes in influenza virus circulation because of widespread implementation of measures to mitigate transmission of Covid-19².

While there was an increase in influenza-like-illness (ILI) activity in the community in 2021/2022, the numbers of individuals having consultations was still considerably lower than seen pre-pandemic (Figure 1).

¹ [Annual epidemiological reports on seasonal influenza \(europa.eu\)](https://ecdc.europa.eu/en/annual-epidemiological-reports-on-seasonal-influenza)

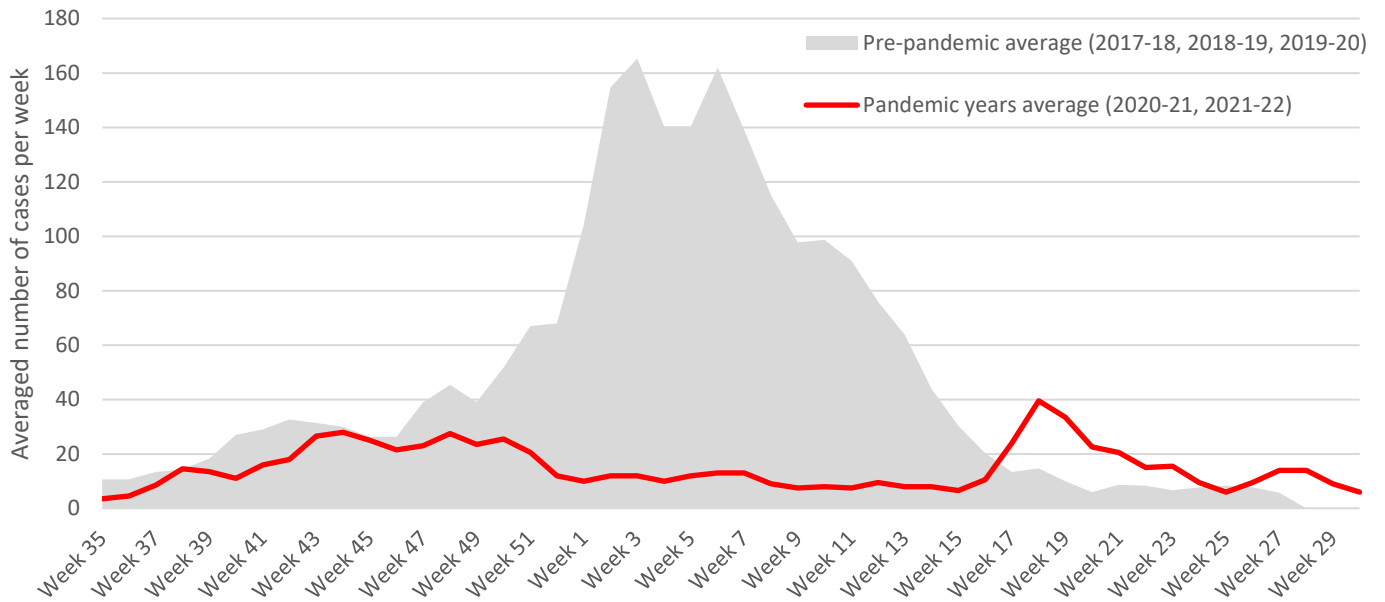
² [Flu News Europe | Season overview](https://www.ecdc.europa.eu/en/flu/news-europe/season-overview) Joint ECDC-WHO/Europe weekly influenza update

Figure 1: 'Flu-like' illness profiles from 2017-18, 2018-19, 2019-20 (in grey), 2020-21 and 2021-22 (in red)



The curves from these individual seasons can be combined to produce an 'average' (calculated as a mean average) profile (see Figure 2). The average profile tends to be more spread out, reflecting the earliest increase and latest decrease from each of the individual profiles while flattening the maximum, or peak, number of cases. As flu was unusually low in the 2020-2021 and 2021-2022 winters³, an average of the three years prior to the onset of the COVID-19 pandemic is shown in grey in Figure 2, to show the typical seasonal pattern of flu. An average of the two most recent years (2020-2021 and 2021-2022 winters) is shown in red and demonstrates the unusual flu-like illness patterns observed since the onset of the COVID-19 pandemic.

Figure 2: 'Flu-like' illness average profiles: Pre-pandemic average in grey (2017-18, 2018-19, 2019-20), and 2020-21 and 2021-22 average in red.



³ [Surveillance of influenza and other seasonal respiratory viruses in winter 2021 to 2022 - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/statistics/surveillance-of-influenza-and-other-seasonal-respiratory-viruses-in-winter-2021-to-2022)

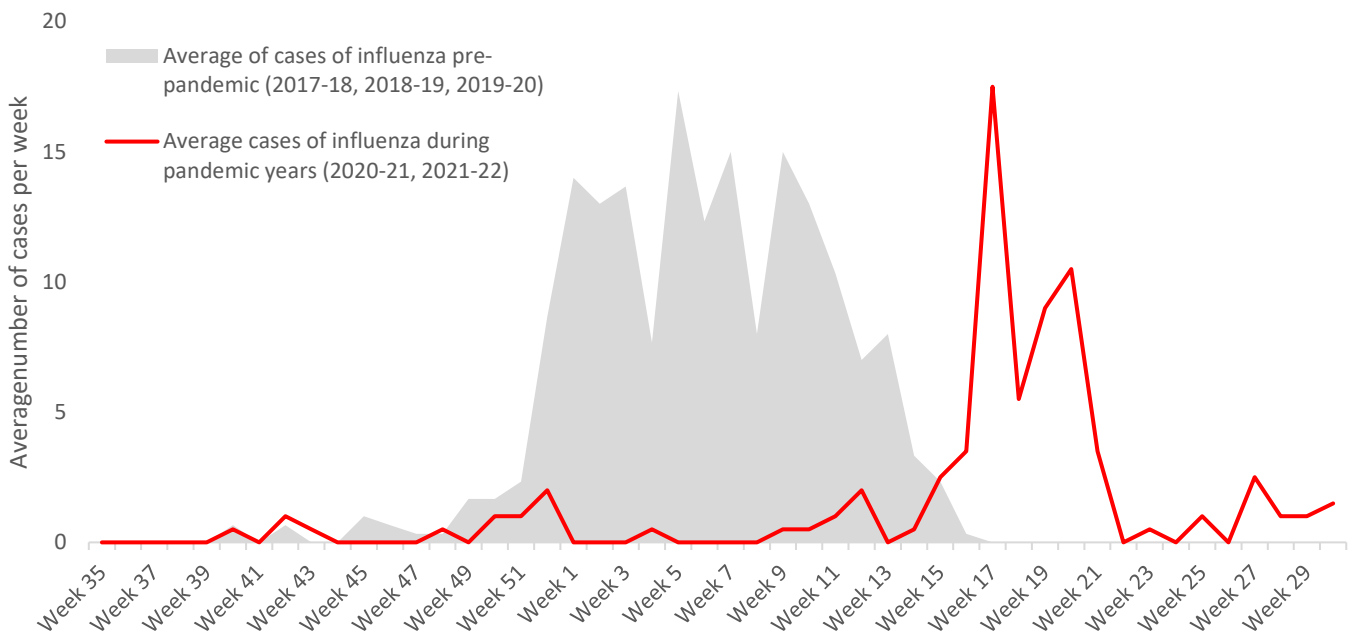
Numbers of patients with confirmed influenza over the last three flu seasons

Jersey only carries out flu tests on a relatively small number of people to confirm influenza. Similar to flu-like illness, confirmed influenza has been unusually low since the onset of the COVID-19 pandemic (Figure 3). An average of the three years prior to the onset of the COVID-19 pandemic is shown in grey in Figure 3, to show the typical seasonal pattern of confirmed influenza and an average of the two most recent years (2019-2020 to 2021-2022) is shown in red.

There were an average of 166 confirmed cases per season between week 35 and week 17 in pre-pandemic years (2017-2018 to 2019-2020). This compares to 0 laboratory-confirmed cases reported during a similar period in 2020-2021, and 70 in 2021-2022.

In the 2021-2022 season, 97% of the notifications of laboratory-confirmed influenza reported were Influenza A

Figure 3: Confirmed influenza average profiles: Pre-pandemic average in grey (2017-18, 2018-19, 2019-20), and 2020-21 and 2021-22 average in red



Combined profiles of 'Flu-like' illness and patients with confirmed influenza

Combining the charts of average 'flu-like' illness and average number of patients with confirmed influenza (see Figure 4) shows their relationship over a flu season. Figure 4a shows the pattern of flu-like illness and confirmed influenza in the three years prior to the COVID-19 pandemic, to illustrate the usual seasonal pattern. Figure 4b shows the pattern in the two seasons since the onset of the COVID-19 pandemic

Figure 4a: Pre-pandemic average 'flu-like' illness and average patients with confirmed influenza profiles for pre-pandemic years (2017-18, 2018-19 and 2019-20)

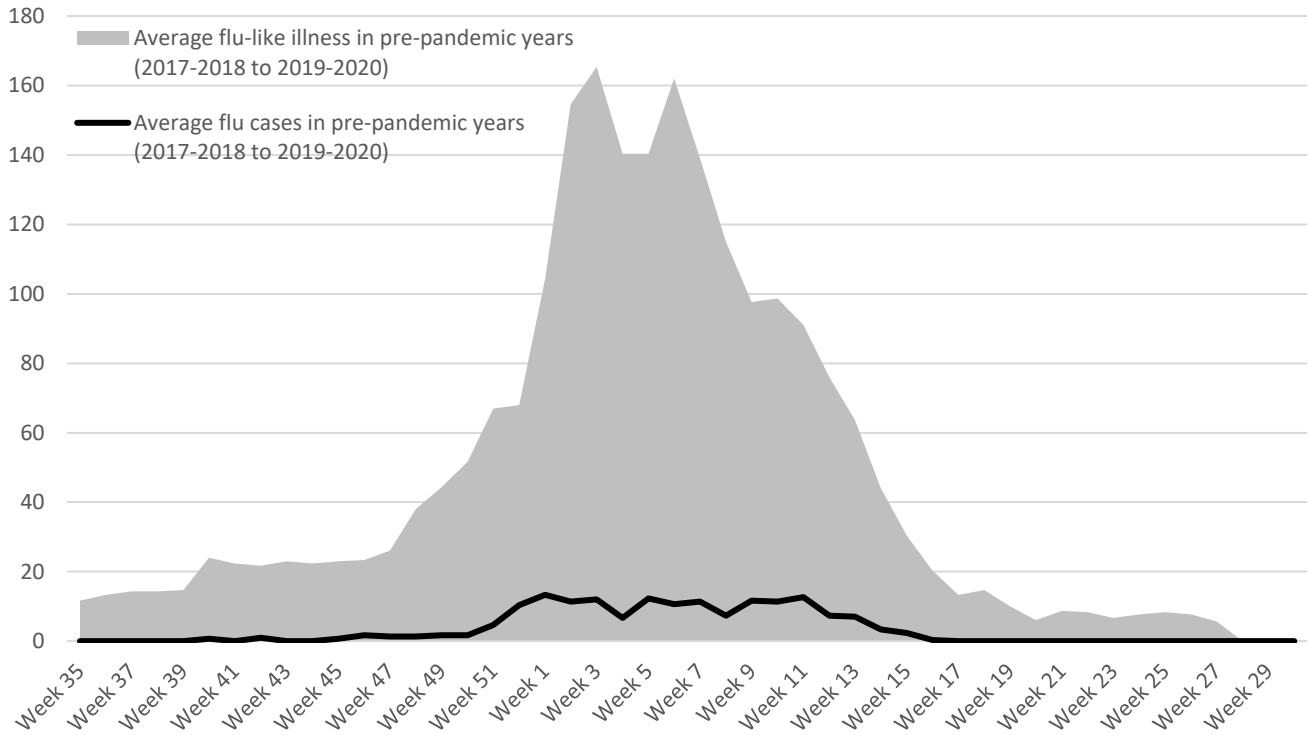


Figure 4b: Pandemic years: Average 'flu-like' illness and average patients with confirmed influenza 2020-21 and 2021-22

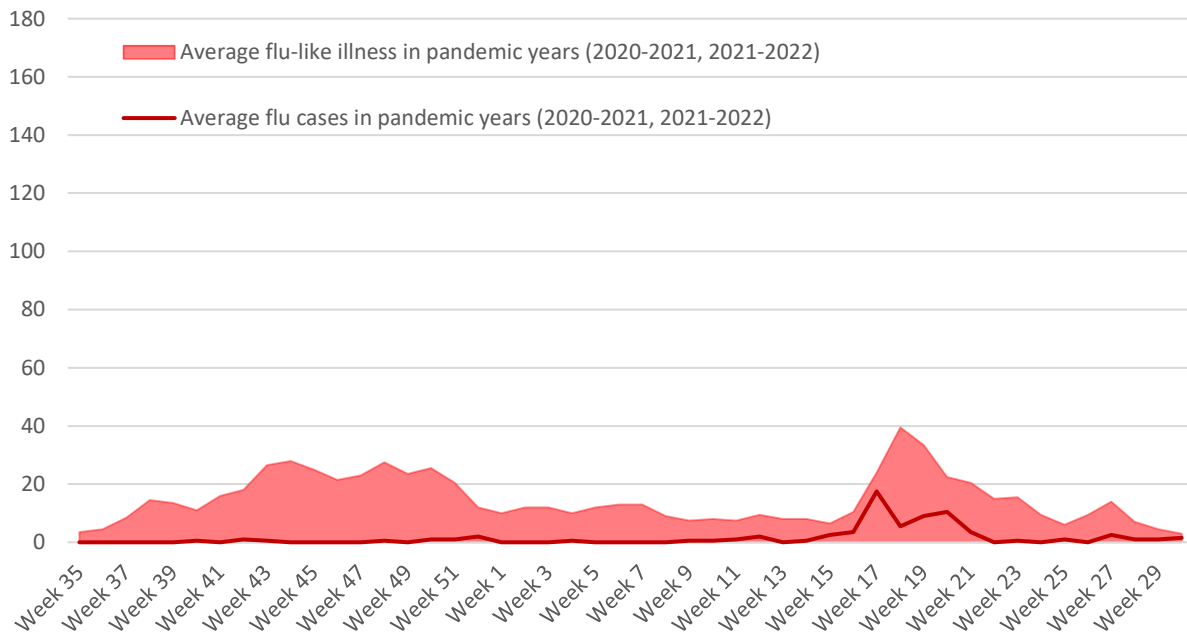


Figure 4b demonstrates that cases of influenza confirmed by the pathology lab at Jersey General Hospital started to rise as in week 16 of 2022 (mid-April). Throughout the pandemic, including the winter of 2021–2022, the incidence of influenza-like illnesses has been quite low. Particularly when compared to the years prior to the pandemic, the number of individual influenza cases has also been low, and the typical seasonal pattern has not been seen.

Influenza vaccination

The Health and Community Services (HCS) Department co-ordinates a seasonal flu vaccine plan every year to prevent flu amongst those who are at a higher risk of flu-associated illness and mortality. This includes older people, pregnant women, and those with certain underlying medical conditions (known clinically as being 'at-risk'). In addition, children are offered the flu vaccine to provide both individual protection to the children themselves and reduce transmission across all age groups to protect vulnerable members of the population.

For full statistics on the influenza vaccination programme for 2020-21, please see associated report "Jersey Seasonal Influenza Vaccine Statistics 2020-21" produced by the Jersey Public Health Directorate.

Flu vaccination programme

In the 2021-2022 season, Health and Community Services (HCS) nurses offered the flu vaccine to schoolchildren, and GP practices and pharmacies offered the flu vaccine to people who fell into the higher risk categories. Additionally, there was an offer for the flu and COVID booster vaccines to be administered together, to those who were eligible by Jersey's vaccination team at the vaccination centre at Fort Regent.

The seasonal flu vaccine plan aims to protect and prevent as many people as possible within the following groups from catching flu during the winter season.

During the 2020-2021 and 2021-2022 flu seasons, an expanded offer was made which enabled those aged 50 to 64 years not in clinical risk groups to receive the flu vaccine as part of the funded programme where the flu vaccine is offered free of charge to people considered at risk:

- infants 6 months to 2 years of age in a clinical risk group⁴
- children aged 2, 3 and 4 years
- school-aged children aged 4 to 16 years
- at-risk 16-to-64-year-olds
- people aged 50 to 64 years
- people aged 65 and over
- pregnant women
- households of those on the shielded patient list or of immunocompromised individuals
- home carers
- care home and domiciliary staff
- frontline health and community services staff

Key to the vaccination programme being successful is having a high proportion of the targeted populations vaccinated before influenza starts circulating. The vaccine takes approximately **two weeks** to become fully effective after being administered. Therefore, to achieve the best protection for the at-risk population, most of those eligible for flu vaccination should be vaccinated at least two weeks prior to the expected onset of influenza.

The ideal time for immunisation is between late September and end of November. However, as peak influenza activity occurred later in the 2021-2022 season (week 15, April 2022), Vaccinators continued administering doses to patients throughout the influenza season.

Figure 5 shows the actual vaccination profiles over flu season 2021-2022 compared to the average 'flu-like' illness and average confirmed influenza profiles.

⁴ *At-risk group – includes patients with a long-term medical condition including chronic respiratory disease or asthma; chronic heart disease; chronic kidney disease; chronic liver disease; chronic neurological disease; diabetes type 1 or type 2; a suppressed immune system; asplenia or spleen dysfunction or a BMI of more than 40*

Figure 5: Percentage of target groups vaccinated with pre-pandemic average profiles (2017-18, 2018-19, 2019-20) 'flu-like' illness and influenza profiles plotted for context.

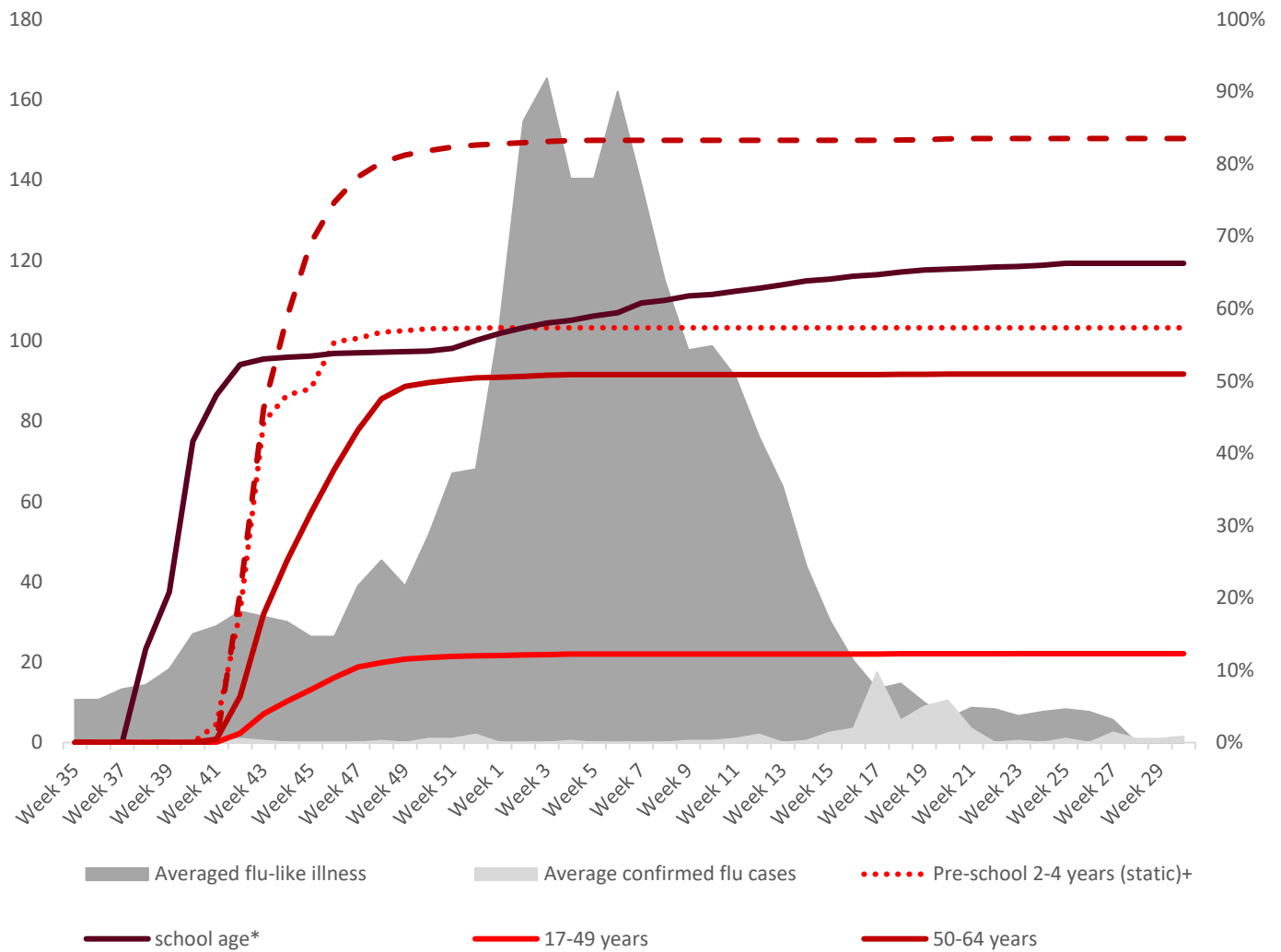


Table 1: Percentage of priority groups given the influenza vaccine by the end of the 2021-22 flu season, by week 48, and percentage of the total number of those vaccinated that were vaccinated by week 48 (i.e. % of vaccinations that were administered at least two weeks before the expected arrival of flu season)

Age Group	% of group vaccinated by end of flu season	% of group vaccinated by week 48	Of those vaccinated by the end of flu season, % vaccinated by week 48
children aged 2, 3 and 4 years*	57	57	99
child-aged children aged 4 to 16 years*	66	54	83
people aged 17-49-years-old^	12	11	90
people aged 50-64-year-old^	51	48	93
people aged 65 and over^	84	80	96

* Denominator from 2021 Education Census

^Denominator from 2021 Jersey Census

Influenza and pneumonia deaths

It is possible to provide an estimate of deaths by reporting on the underlying cause of death (see Background notes). The underlying cause of death is defined by the WHO as "the disease or injury which initiated the train of morbid events leading directly to death, or the circumstances of the accident or violence which produced the fatal injury"⁵.

The number of deaths for Jersey with an underlying cause of Influenza and Pneumonia (ICD-10 code J09-J18) which is used as a proxy for flu deaths, for the most recent calendar years (2015-2021) where data is available are:

Table 2: Annual Influenza and Pneumonia deaths *(ICD-10 code J09-J18, 2015-2021)

<i>Year</i>	<i>Number, rounded to nearest 5</i>
2015	30
2016	30
2017	30
2018	20
2019	20
2020	15
2021	25

* Counts are rounded to the nearest multiple of 5

Please note that it still may not be possible to know exactly how many people die from seasonal flu each year, as Influenza may not always be listed on death certificates of people who die from flu-related complications. There are several reasons for this:

- serious complications can be triggered by flu; flu can make chronic medical problems worse
- many flu-related deaths can also occur one or two weeks after a person's initial infection, either because the person may develop a secondary bacterial co-infection or because influenza can aggravate an existing chronic illness
- most people who die from flu-related complications are not tested for flu or may not have sought medical care until later in their illness when influenza can no longer be detected from respiratory samples

⁵ WHO Medical Certification Cause of Death - [Medical certification of cause of death: instructions for physicians on use of international form of medical certificate of cause of death \(who.int\)](https://www.who.int/publications/m/item/medical-certification-of-cause-of-death-instructions-for-physicians-on-use-of-international-form-of-medical-certificate-of-cause-of-death)

Notes

Methodology

Flu-like Illness

- clinical data is gathered from the general practitioner's central server (EMIS web). Weekly consultations for influenza-like illness (ILI) are monitored by Public Health Intelligence

Flu Vaccination Programme

- uptake in each of the priority groups were calculated using denominators (total in group) from the following sources:
 - percentage uptake in pre-school aged children, and compulsory school aged children: Data from Health and Community Services, Child Health system (CarePlus), and Children, Young People, Education and Skills (CYPES) School audit 2022
 - percentage uptake in adults aged 17 and over: Data from Statistics Jersey census results⁶
- the uptake data for this report are derived from GP Central Server (EMIS web) and the Community Pharmacy server (PharmOutcomes)

Influenza and Pneumonia deaths

- the registration of deaths occurring in Jersey is carried out by the office of the Superintendent Registrar
- Information collected at death registration is recorded on the Registration Online (RON) system by registrars
- cause of death data comes from the information collected at death registration. All the conditions mentioned on the death certificate are coded using the International Classification of Diseases, Tenth Revision (ICD-10). From all of these causes an underlying cause of death is selected using ICD-10 coding rules. The underlying cause of death is defined by WHO as:
 - a) the disease or injury that initiated the train of events directly leading to death, or
 - b) the circumstances of the accident or violence that produced the fatal injury
- In the ICD-10 revision, Influenza is coded J09-J11; Pneumonia is coded J12-J18

⁶ [2021 census results \(gov.je\)](https://www.gov.je)