Please note this web page is no longer being updated as the 2022/23 Winter season has ended. Please see below for the latest report (published 05 May 2023).

Surveillance of seasonal respiratory illnesses
Updated on Friday 05 May 2023

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Introduction

The purpose of this report is to provide an overview of surveillance information concerning respiratory viruses on the Isle of Man.

The European Centre for Disease Prevention and Control (ECDC), the World Health Organization (WHO), and the European surveillance networks for COVID-19 and influenza state the need to develop and sustain resilient population-based surveillance systems for respiratory illnesses; with a continued focus on influenza, COVID-19 and RSV.

Influenza virus types A and B are both common causes of acute respiratory illnesses. Each year, seasonal influenza occurs all over the world. Occurring mainly in winter, influenza is an infectious respiratory disease with symptoms ranging from those similar to a common cold, through to very severe disease.

Respiratory syncytial virus (RSV) is a common respiratory virus that for most people causes mild, cold-like symptoms. For a small number of people RSV can be serious, especially for some infants and older adults. RSV is the most common cause of bronchiolitis in infants.

Coronavirus disease (COVID-19) is an infectious disease caused by the SARS-CoV-2 virus. Most people will experience mild to moderate symptoms. Older people and those with certain underlying medical conditions are at a high risk of developing serious illness.

During the winter months, respiratory illnesses have variable effects and can strain the health and social care services as well as lead to significant absences from work and school. Data collected by this integrated respiratory surveillance system will help inform control measures by monitoring the spread and intensity of respiratory viruses and vaccination progress.

Background and future developments

It is intended that the data collected in this report be used to provide a comprehensive reporting system to healthcare officials, provide early warnings of potential health and social care pressures, and have an adaptive approach to monitoring potential future threats from other viruses that may pose a risk to public health.

Following the pandemic, social mixing and contact have returned to similar levels to pre-pandemic, and therefore seasonal influenza virus and other respiratory viruses will co-circulate alongside COVID-19 this winter. The World Health Organization, European Centre for Disease Prevention and Control (ECDC), and other global bodies emphases the importance of expanding respiratory reporting to enhance the winter planning process.

Global respiratory surveillance focuses on the six domains of community, primary care, secondary care, vaccination, mortality and global monitoring surveillance. Public Health have worked across government to expand local surveillance in each of these domains.

Summary

- GP in-hours surveillance and respiratory attendances in the ED show respiratory levels are now back to normal seasonal levels, but remaining vigilant is crucial. Guidance on staying is available on the COVID-19 website

- The Spring COVID-19 booster programme commenced on 3 April 2023.

- Global surveillance indicators suggest low and stable levels of influenza and RSV, and decreasing COVID-19 activity.

GP in Hours, Acute Respiratory Infections Surveillance

GP in Hours (GPIH) surveillance monitors the number of GP visits during regular hours. Data for surveillance is obtained from the EMIS Primary Care system by using a selection of READ codes. The codes selected form part of a pilot project and will remain under continuous development during the next few months.
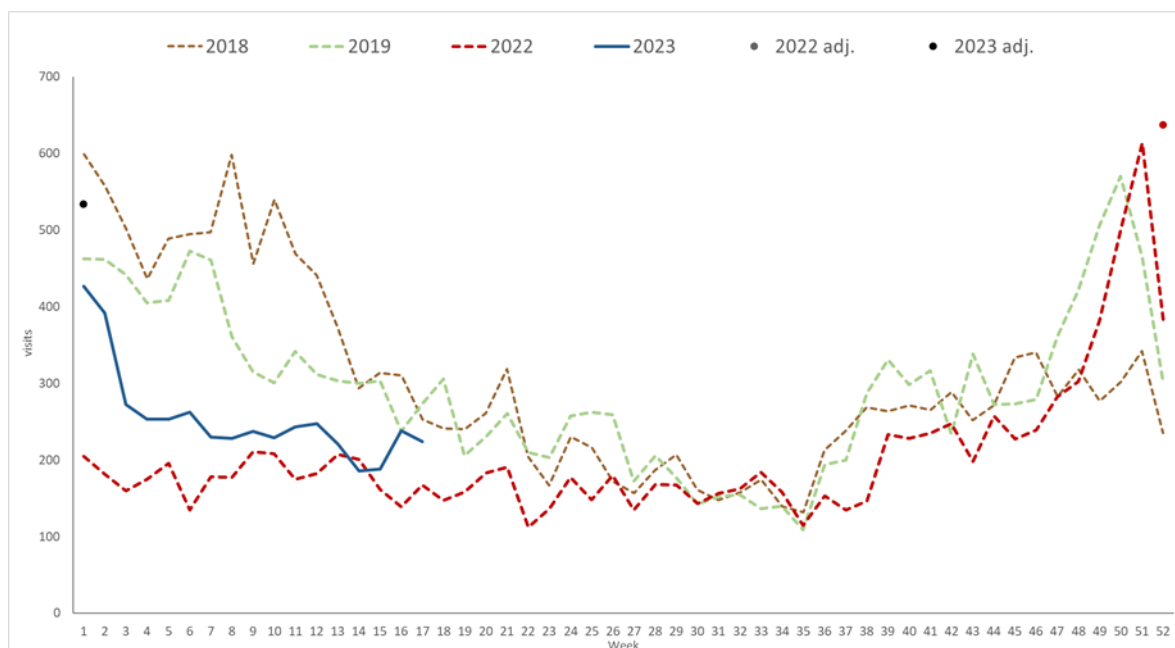

Figure 1 – Weekly all age Acute Respiratory Infections, GP in-hours appointments (Provisional data).

GP consultations for respiratory infections decreased in week 17 compared to the previous week. Rates remain below normal winter pressure levels.

The weekly ILI consultation rate through the RCGP surveillance remained stable at 1.7 per 100,000 registered population in participating GP practices in week 17 compared to 1.8 per 100,000 in the previous week and remained within baseline activity levels (less than 11.47 per 100,000). Flu Detector also reflects the stability seen in community surveillance.
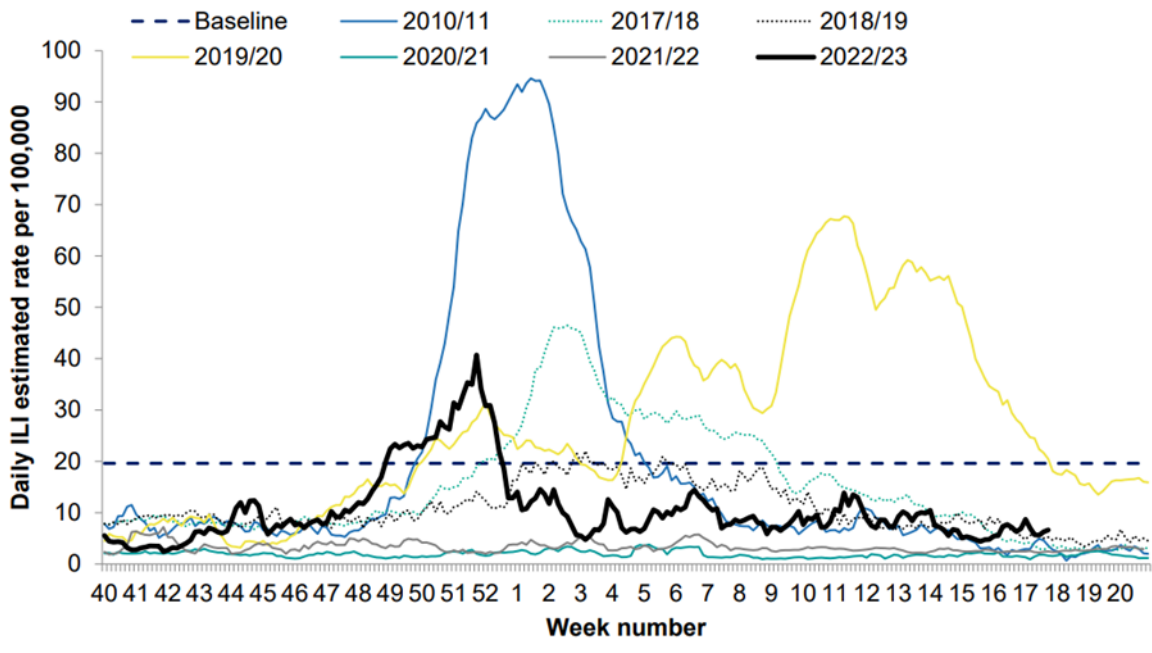
Figure 2 – Daily estimated ILI Google search query rates per 100,000 population. UKHSA Model.

GP Out of Hours Surveillance

GP Out-of-Hours (GPOH) surveillance monitors the total number of telephone triage calls during the opening hours of the Manx Emergency Doctor Service (MEDS). Data for surveillance is obtained from the EMIS Electronic Patient Record system for all codes. Figure 3 reports total triage calls for all symptoms codes.
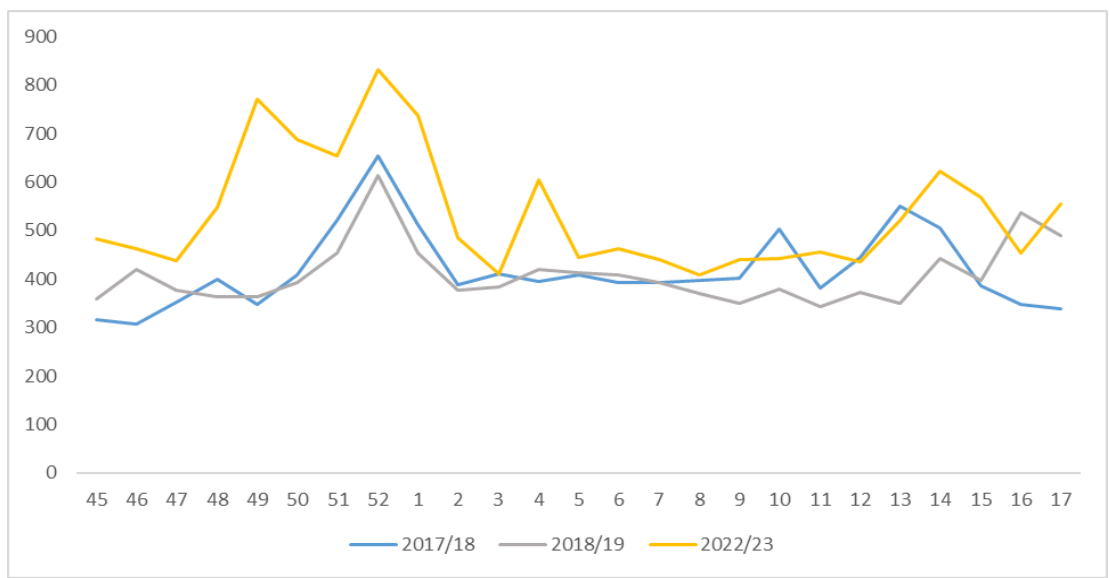

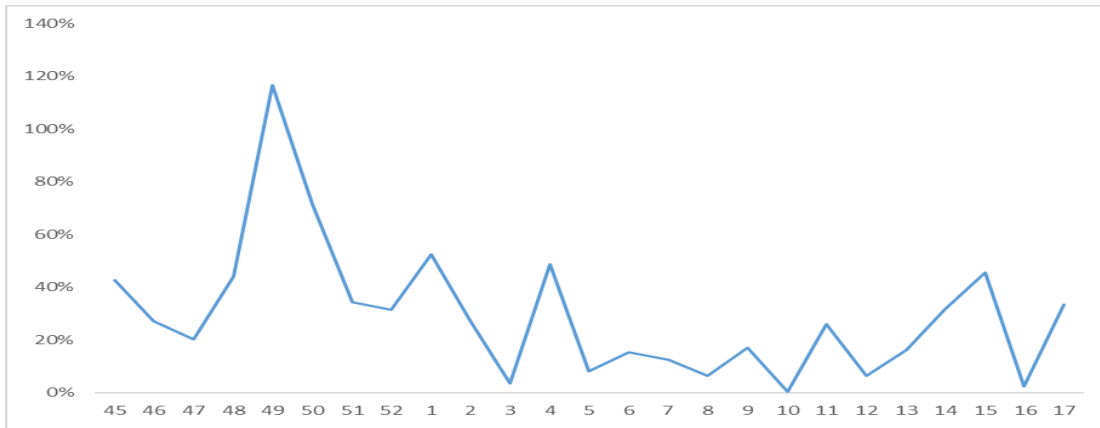Figure 3 – MEDS weekly triage telephone calls pre and post pandemic years.

Figure 4 – weekly additional volume seen in MEDs calls in 2022/23 compared to the average weekly volume in 2017/18 and 2018/19.

As with GP in-hours and ED attendances, the MEDs service also experienced significant increases in volumes during December. In week 49 2022, MEDs received 117% more calls than before the pandemic averages for the same period. As with other services, there has since been a decrease in volumes. Although volumes still remain higher than previous years, the difference is less pronounced than in December (34% at the end of April).

Emergency Department attendances

The emergency department (ED) surveillance monitors daily visits to the ED for respiratory illness. The data for surveillance is gathered from the Medway hospital patient administration system using a selection of SNOMED codes. The code selection forms part of a pilot project and will remain under continuous development during the next few months.
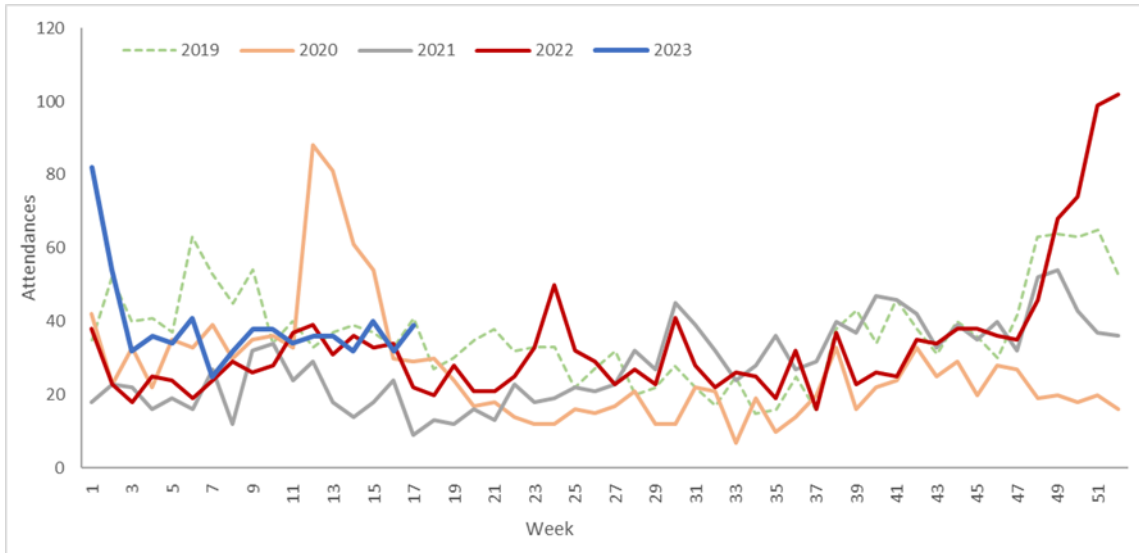

Figure 5 – ED attendance for respiratory illness 2019 to 2023.

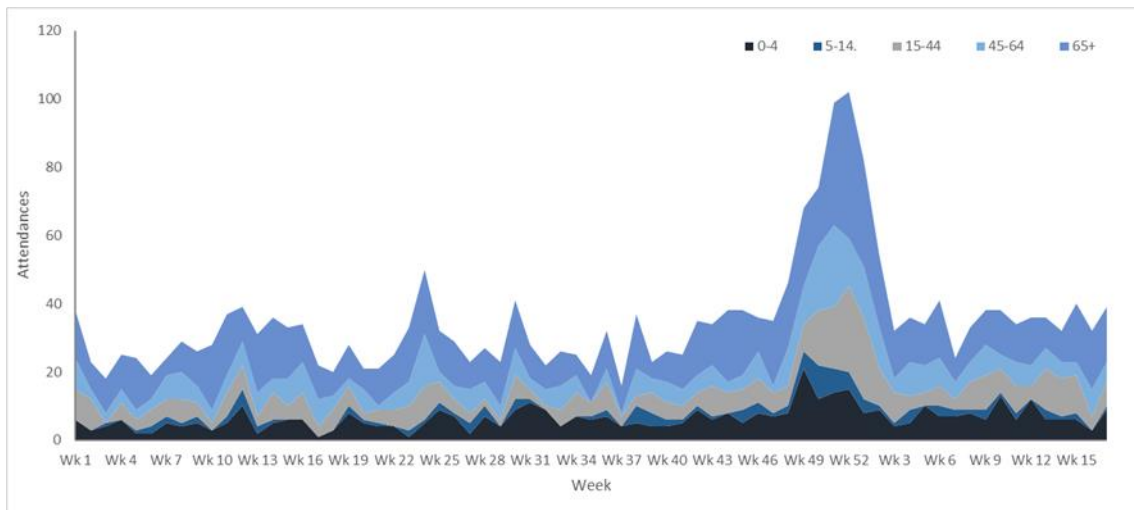Figure 6 – 2022/23 ED attendance for respiratory illness by age groups.

The number of respiratory illness patients attending the ED at week 17 increased slightly compared to the previous week. An increase is seen within all age groups except 45-64 and the 65+ age group, which both decreased slightly. The majority of the cases in week 16 were recorded with a diagnosis code of lower respiratory infection.
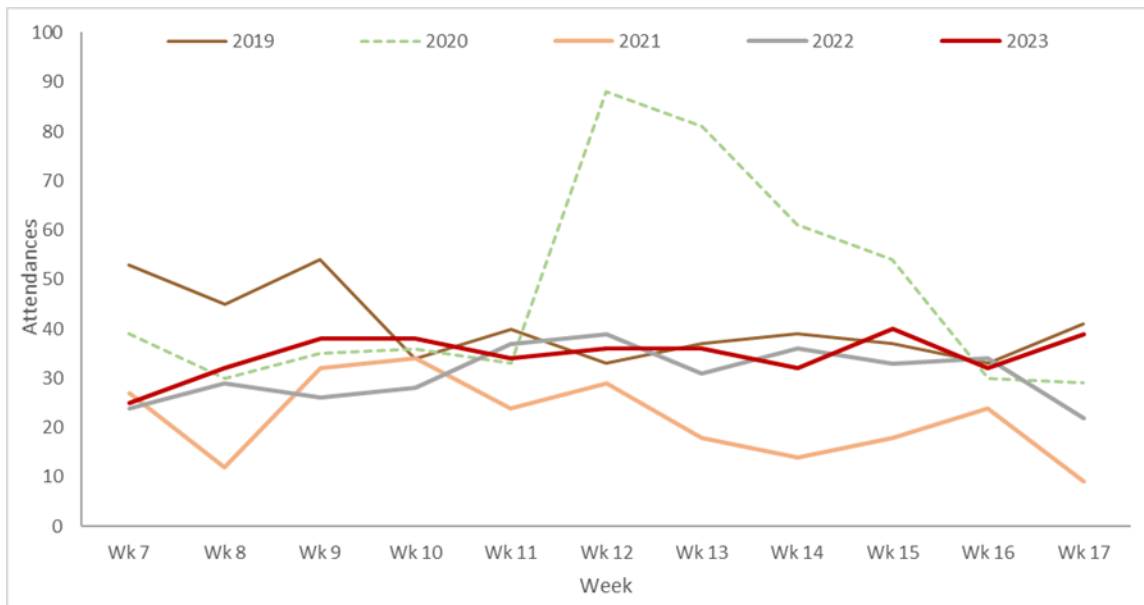
Figure 7 – ED attendance for respiratory illness week 3 – week 17 2019-2023.

In comparison, UK HSA tracks emergency department attendance in England by a breakdown of COVID-19, influenza-like illness, and acute respiratory illness; they report that attendances for acute respiratory infection, influenza-like-illness, covid-like illness, and acute bronchiolitis remained stable nationally. In week 17 (ending 30 April 2023), the overall weekly hospital admission rate for COVID-19 decreased slightly to 4.59 per 100,000 compared to 5.40 per 100,000 in the previous week. The overall weekly hospital admission rate for influenza decreased to 0.19 per 100,000 compared to 0.33 per 100,000 in the previous week. The rate in the latest week remained within baseline activity levels.
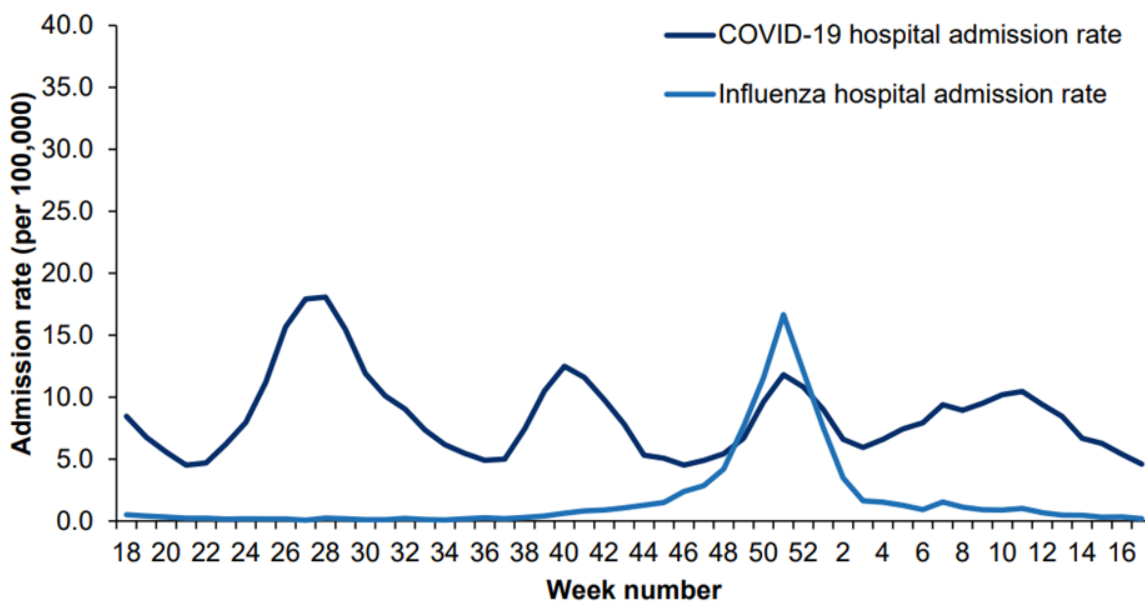

Figure 8 – Weekly overall hospital admission rates of new COVID-19 and influenza positive cases per 100,000 population reported through SARI Watch, England.
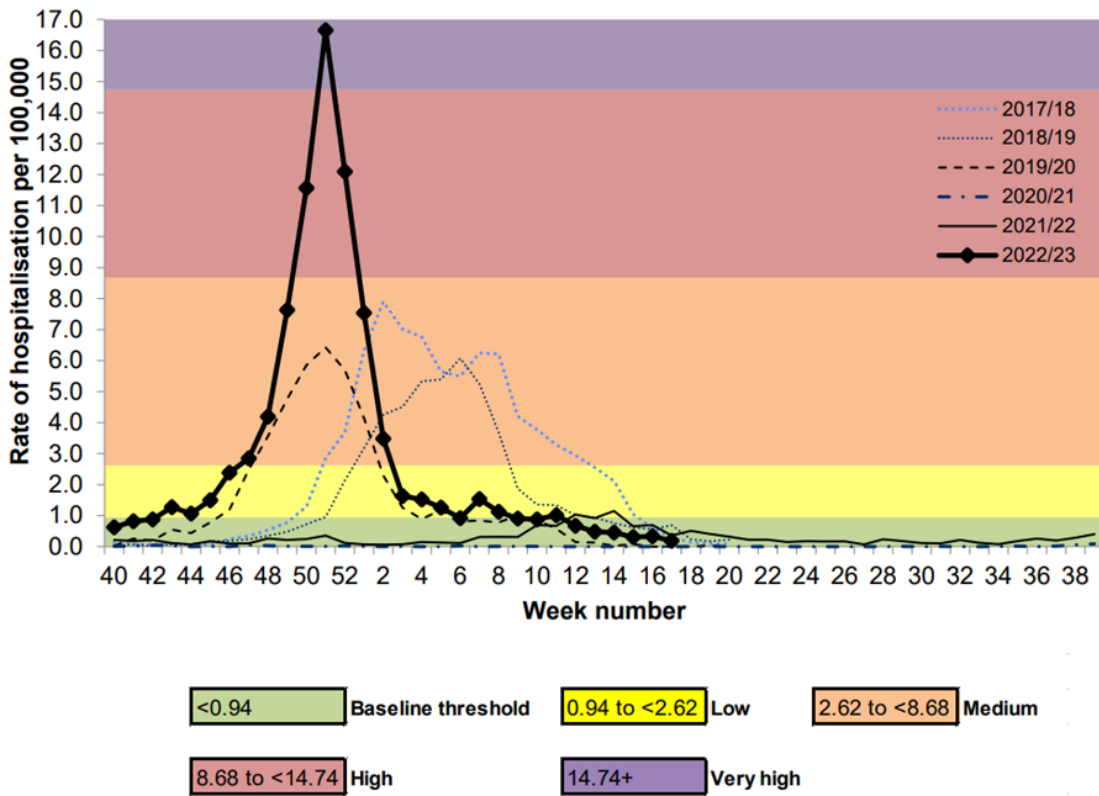
Figure 9 – Weekly overall influenza hospital admission rates per 100,000 trust catchment population with MEM thresholds, SARI Watch, England. UKHSA.

Read the National flu and COVID-19 surveillance reports: 2022 to 2023 season.

Respiratory mortality surveillance

A mortality dataset can be presented based on the underlying/ultimate cause of death codes from the International Statistical Classification of Diseases and Related Health Problems (ICD-10) or a condition appearing on a death certificate. The ICD-10 approach considers all factors affecting the death; however, the external coding results in a significant delay in reporting. A real-time picture of the death rate can be obtained from raw death certificate data that is available weekly however, variation between the two methods will exist. To understand this further, a death certificate includes four sections:

Part I:

(a) Disease or condition leading to death,

(b) Other disease or condition, if any, leading to I(a),

(c) Other disease or condition, if any, leading to I(b), and;

Part II: other significant conditions contributing to death but not related to the disease or condition causing it.

The Office for National Statistics imports all four sections of the death certificate data twice a year to assign an underlying cause code to the death certificate. The results from this process are reported in the [Public Health Mortality Report](#).

Additionally, mortality data can be presented by date of death or by date of registration. The registration process may be delayed, for instance during an inquest. In this report, the charts are based on the date of death rather than the date of registration.

During the period when the COVID-19 Weekly Surveillance Report was issued, the weekly COVID-19 related deaths were those where COVID-19 was mentioned anywhere on the death certificate. Between March 2020 and December 2022, 124 deaths had COVID-19 mentioned anywhere on the death certificate; in the same period, there were 98 deaths marked to a COVID-19 ICD-10 underlying/ultimate cause of death. As at 17 April 2023, 134 deaths had COVID-19 mentioned anywhere on the death certificate.

Respiratory mortality goes beyond reporting just COVID-19 to include all respiratory related deaths; it uses ICD-10 codes assigned to diseases of the respiratory system (J00-J99) and COVID-19 (U07.1 or U07.2). See Figure 10.
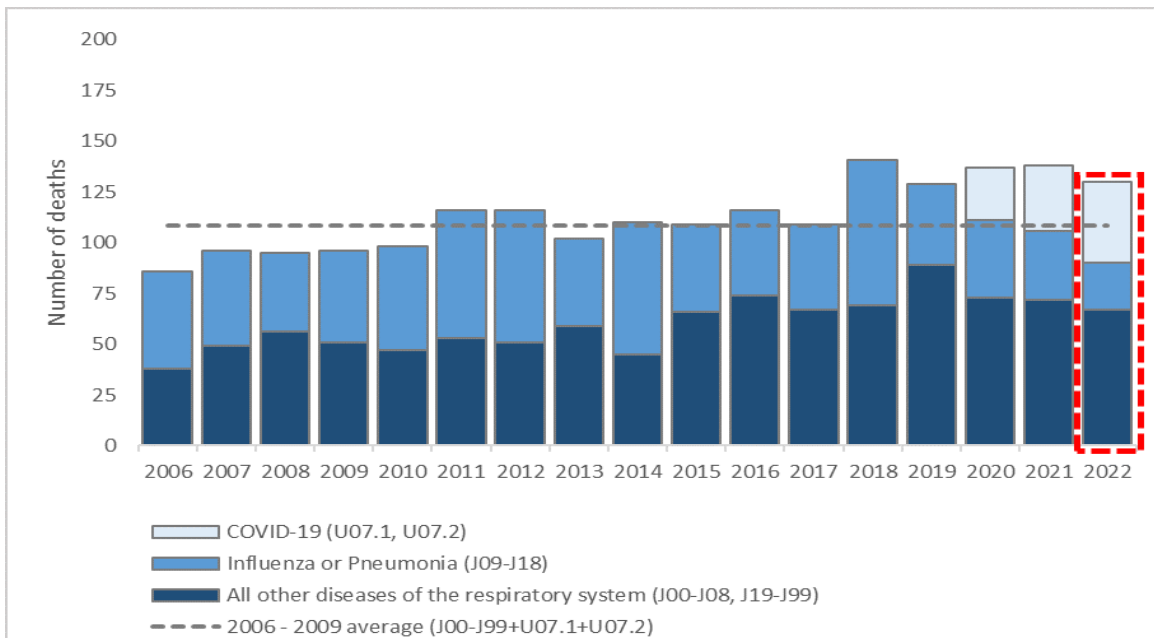
Figure 10 - Number of respiratory deaths, by ICD-10 underlying cause code, 2006 - 2022.

In Figure 10, the number of deaths where ICD-10 classifies the underlying causes of death as respiratory is displayed. The 2022 value represents the number up to December 2022 when the latest batch of codes was received from the Office for National Statistics. Over the last five years, respiratory deaths have been above the baseline average.

Based on ICD-10 underlying causes of death codes, deaths from respiratory illness accounted for 12% of total deaths in 2021 and 10% in 2022. In comparison, respiratory infections mentioned anywhere on the death certificate were 19% in 2021 and 21% in 2022.

Total mortality (all cause) in 2023 remains below the two and three standard deviation thresholds, as presented in Figure 11 against a five-year baseline. Standard deviation is the measure of the dispersion of statistical data. It shows how much variation there is from the mean. The Empirical Rule states 95% of the data falls within two standard deviations and 99.7% within three standard deviations from the mean.
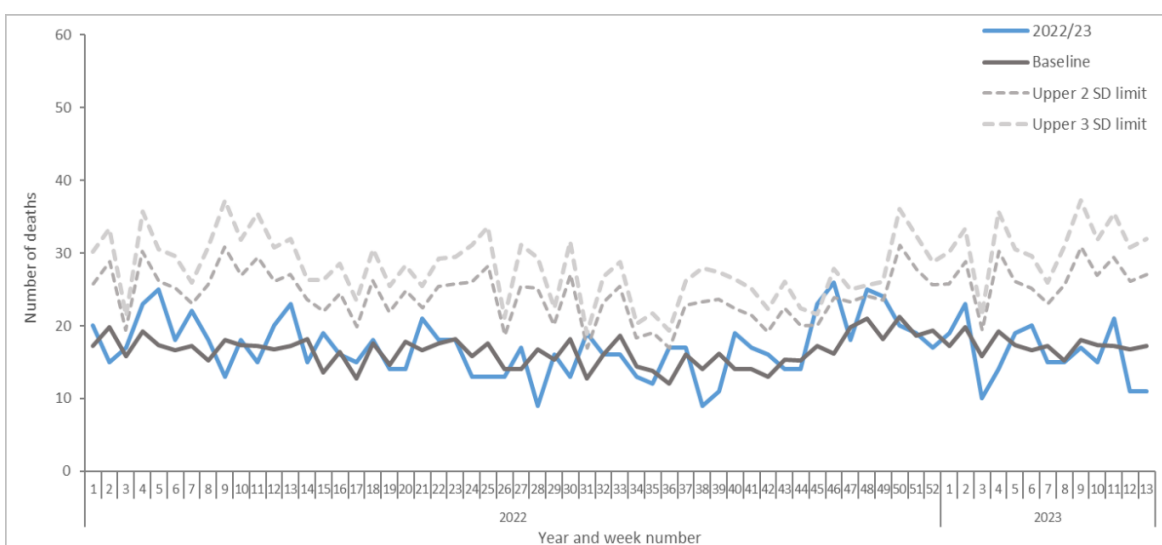

Figure 11 – All cause weekly deaths compared to baseline (with 2 and 3 standard deviation), 2022/2023. Note: Baseline is calculated as the 5-year average of the corresponding week (non-COVID-19 years only, 2015-2019).

Seasonal influenza vaccine statistics

Seasonal influenza (Flu) is a contagious acute respiratory infection caused by influenza viruses. Typically most people recover from the symptoms within a week; however, some people may be more susceptible to developing serious illness or worsening of existing conditions. Getting the flu can also increase the risk of invasive Group A Strep infection in the weeks following. The flu vaccination is available to those at higher risk of complications.

This dashboard is intended for sharing vaccine programme progress. During the winter, the dashboard will update monthly.
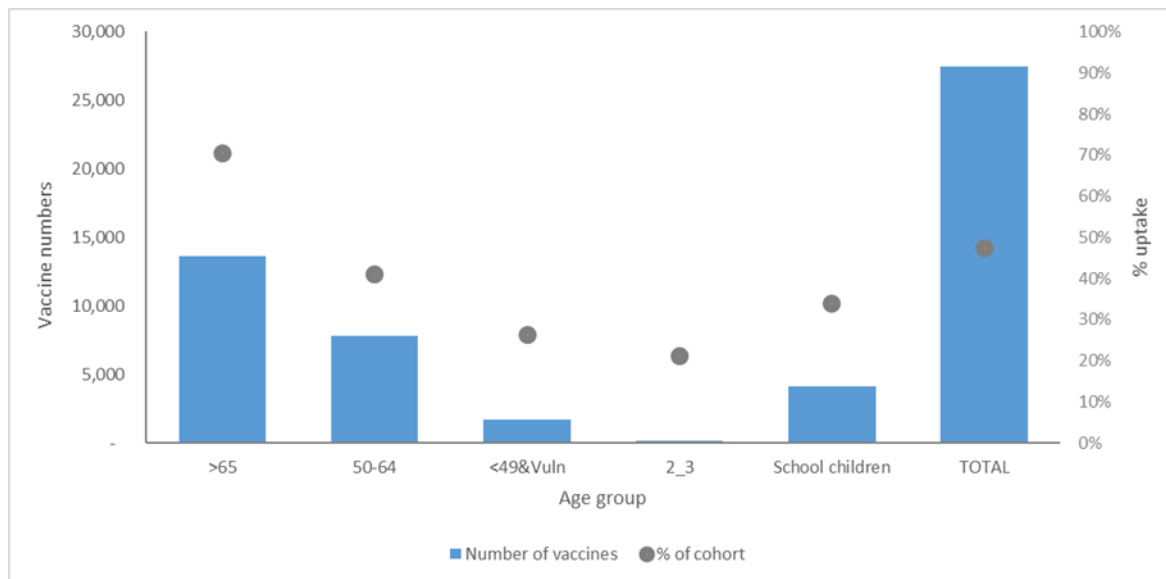
Figure 12 – Monthly influenza vaccines administered within the health service at March 2023.

The uptake of influenza vaccine in England for the 2022/2023 influenza season is comparable to the uptake in the previous 2021/2022 season for those 65 and over, for those in clinical risk groups, and for pregnant women. However, it is lower for those ages two and three years.
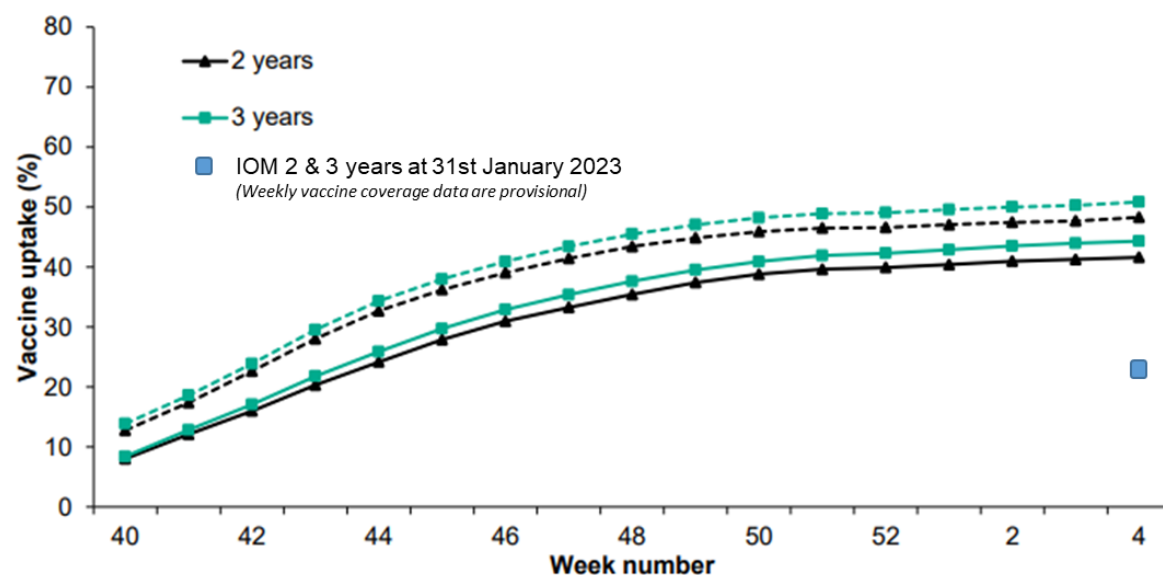

Figure 13 - Cumulative weekly influenza vaccine uptake in 2 and 3 year olds, in England.

Compared to England, the Isle of Man currently has lower influenza vaccine rates for those who are over 50 years of age and two and three-year-olds. The under 50 and vulnerable category is not comparable due to different groupings.

Age	Isle of Man (End of March 2023)	England (Week 4)
65 year olds and over	70.4%	79.4%
50 to 64 year olds who are not in a clinical risk group	41.0%	40.2%
2 year olds	21.0%	41.6%
3 year olds		44.3%

Figure 14 (table 1) - Isle of Man and England vaccine rates at March 2023.

COVID-19 vaccine statistics

COVID-19 and influenza (flu) are both contagious respiratory illnesses, but different viruses transmit them. COVID-19 is caused by infection with a coronavirus. Flu is caused by infection with an influenza virus. Both viruses can cause similar symptoms.

The likelihood of serious illness from COVID-19 depends on the level of natural or vaccination induced immunity, age and the presence of certain underlying conditions. Older age is the strongest contributing factor.

Immunity derived from vaccination declines over time. The objective for the Autumn 2022 booster programme is to enhance immunity in those at higher risk from COVID-19 and hereby optimise protection against severe COVID-19, specifically hospitalisation and death, over winter 2022 to 2023.

Priority groups for COVID-19 vaccines opened in September 2022. From 17 October, those aged 50 and over and those who meet the eligibility criteria can book their vaccinations via Online Services.

During the winter months, a monthly update will be provided on the following dashboard regarding the vaccination program progress. The report below covers booster doses administered from 1 September 2022.
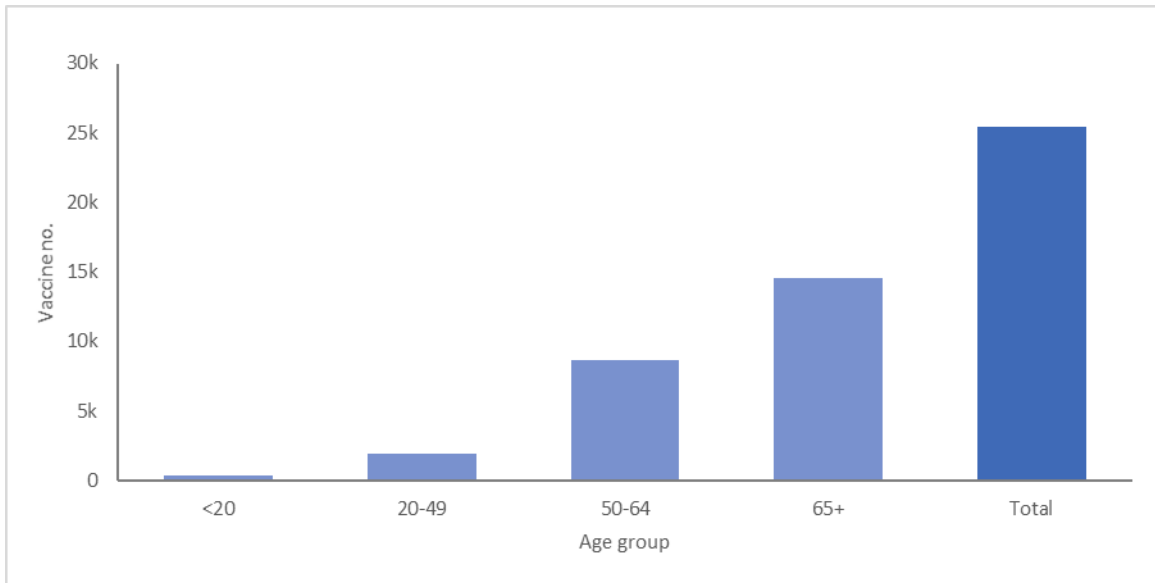
Figure 15 - COVID-19 Autumn booster vaccines administered to 05 April 2023.

By the end of week 13 2023, 65.7% of all people over 50 who are living and resident in England had received the COVID-19 Autumn booster vaccine. Based on Isle of Man Census data, the local rate is 61% for those over fifty.

As can be seen in Figure 16, the percentage of individuals who are eligible and do not opt out is shown for the priority group categories. In the oldest age groups, uptake levels are high, but rates decline down the adult age brackets to a low of 36.8% in those 50-54. Uptake levels among children are high.

Priority group name	Percentage of eligible and not opted out who have had the Autumn booster
Care Home residents	96.8%
Over 80's	92.1%
75-79	92.1%
70-74 or Clinically Extremely Vulnerable	73.3%
65-69	67.8%
60-64	57.7%
55-59	47.1%
50-54	36.8%
Age 16-64 (Underlying Health Conditions)	38.8%
Living with Immunocompromised, pregnant or is a carer	69.6%
Care Home Staff	32.9%
Front Line Staff	39.4%
12-15 (Severe Neuro Disabilities)	73.0%
12-17 (Living with Immunosuppressed Adult)	80.4%
5-11 (Clinical Risk Group)	100.0%
5-11 (Living with Immunosuppressed Adult)	100.0%

Figure 16 – COVID-19 Autumn booster uptake by priority group at 05 April 2023 on the Isle of Man.

You can get more information on COVID-19 vaccines, along with information about how to book a slot for the vaccine, at the COVID website.

Clinical surveillance

Sentinel surveillance through primary care is internationally considered a key surveillance method for acute respiratory infections. Sentinel swabbing of patients presenting to primary care with ILI is a longstanding surveillance scheme for influenza.

A number of GP practices on the island have agreed to swab a sample of people who have symptoms of respiratory infection for influenza, SARS CoV-2 and respiratory syncytial virus (RSV). Public Health has provided an agreed number of swabs to the practices and the non-identifiable results have been collected. The dataset also includes swabs taken from patients admitted to the hospital with respiratory symptoms. Figures 17 and 18 present the results by age split. Please note that GP swabbing ceased on 02 April so any values reported beyond week 13 are from patients admitted to hospital with respiratory symptoms only.

Under 18								
Week	COVID-19	Flu A	Flu B	RSV	CV19 & RSV	Flu A & Flu B	Neg	Total no. of swabs
45	7.1%	0.0%	0.0%	21.5%	0.0%	0.0%	71.4%	14
46	0.0%	7.1%	0.0%	14.3%	0.0%	0.0%	78.6%	14
47	0.0%	10.5%	0.0%	15.8%	0.0%	0.0%	73.7%	19
48	5.5%	5.6%	0.0%	0.0%	0.0%	0.0%	88.9%	18
49	0.0%	6.9%	0.0%	6.9%	0.0%	0.0%	86.2%	29
50	8.7%	21.7%	4.3%	0.0%	0.0%	0.0%	65.3%	23
51	0.0%	38.5%	0.0%	3.8%	3.8%	0.0%	53.9%	26
52	3.0%	27.3%	3.0%	9.1%	3.0%	0.0%	54.6%	33
1	13.6%	31.8%	0.0%	0.0%	0.0%	0.0%	54.6%	22
2	0.0%	11.8%	0.0%	5.9%	0.0%	5.9%	76.4%	17
3	0.0%	20.0%	0.0%	10.0%	0.0%	0.0%	70.0%	10
4	0.0%	5.3%	0.0%	0.0%	0.0%	0.0%	94.7%	19
5	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	11
6	0.0%	0.0%	0.0%	6.7%	0.0%	0.0%	93.3%	15

Week	COVID-19	Flu A	Flu B	RSV	CV19 & RSV	Flu A & CV19	Neg	Total no. of swabs
7	11.0%	0.0%	0.0%	5.0%	0.0%	0.0%	84.0%	19
8	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%	7
9	9.0%	0.0%	0.0%	18.0%	0.0%	0.0%	73%	11
10	0.0%	0.0%	0.0%	0.0%	6.0%	0.0%	94.0%	16
11	7.0%	0.0%	0.0%	20.0%	0.0%	0.0%	73.0%	15
12	20.0%	0.0%	0.0%	0.0%	0.0%	0.0%	80.0%	10
13	16.0%	0.0%	0.0%	11.0%	0.0%	0.0%	74.0%	19
14	0.0%	0.0%	0.0%	0.0%	8.0%	0.0%	92.0%	11
15	7.0%	0.0%	0.0%	7.0%	0.0%	0.0%	86.0%	14
16	0.0%	0.0%	0.0%	11.0%	0.0%	0.0%	89.0%	9
17	0.0%	0.0%	13.0%	19.0%	0.0%	0.0%	69.0%	16

Figure 17 (table 2) – clinical surveillance swab results for those ages under 18 years.

The prevalence of RSV was high between weeks 45 and 47 of 2022; however, it has since decreased, with the exception of weeks 9 and 11 of 2023, in children under 18 years. Swabs taken in the 50th week of 2022 to the 1st week of 2023 revealed an increase in influenza A with a 31.8% positivity rate.

In week 17, there was an increase in both Flu B and RSV positive swabs. All other positive swabs remained at 0%. Negativity is at 69% which is reflective of the low levels of respiratory illness seen across the other surveillance systems.

Over 18								
Week	COVID-19	Flu A	Flu B	RSV	CV19 & RSV	Flu A & CV19	Neg	Total no. of swabs
45	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	8
46	7.1%	7.1%	0.0%	0.0%	0.0%	0.0%	85.8%	14
47	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	22
48	9.1%	27.3%	0.0%	0.0%	0.0%	0.0%	63.6%	22

49	0.0%	36.8%	0.0%	0.0%	0.0%	0.0%	63.2%	19
50	6.3%	17.2%	0.0%	4.7%	0.0%	0.0%	71.8%	64
51	4.7%	22.4%	0.0%	2.4%	1.2%	0.0%	69.3%	85
52	1.1%	33.3%	0.0%	3.4%	0.0%	0.0%	62.2%	87
1	15.1%	10.8%	0.0%	3.2%	0.0%	1.1%	69.8%	93
2	1.8%	4.4%	0.9%	6.1%	0.0%	0.9%	85.9%	114
3	2.9%	0.0%	0.0%	2.9%	0.0%	0.0%	94.2%	103
4	4.8%	3.2%	0.0%	1.6%	0.0%	0.0%	90.4%	63
5	14.9%	1.4%	0.0%	4.1%	0.0%	0.0%	79.6%	74
6	4.4%	0.0%	0.0%	2.9%	0.0%	0.0%	92.7%	68
7	5.0%	0.0%	0.0%	7.0%	0.0%	0.0%	88.0%	61
8	15.0%	0.0%	2.0%	6.0%	0.0%	0.0%	77.0%	53
9	5.9%	1.5%	0.0%	1.5%	0.0%	0.0%	91.1%	68
10	20.0%	0.0%	0.0%	0.0%	0.0%	0.0%	80.0%	70
11	11.3%	0.0%	0.0%	0.5%	0.0%	0.0%	88.2%	204
12	8.7%	0.0%	0.0%	0.0%	0.0%	0.0%	91.3%	126
13	13.7%	0.0%	0.0%	0.7%	0.0%	0.0%	85.6%	139
14	5.6%	0.0%	0.0%	0.0%	0.0%	0.0%	94.4%	59
15	16.0%	0.0%	0.0%	2.0%	0.0%	0.0%	82.0%	50
16	16.7%	0.0%	2.4%	2.4%	0.0%	0.0%	78.6%	42
17	7.7%	0.0%	0.0%	0.0%	0.0%	0.0%	92.3%	39

Figure 18 (table 3) – clinical surveillance swab results for those age 18 years and over.

For those over the age of 18, influenza A was the highest positivity rate at the end of 2022, this has decreased as respiratory levels have declined over January 2023. However, in week 5, 8, and 10, an increase in Covid-19 positivity rate occurred. The majority of these cases were in those over the age of 75.

In week 17, there was a decrease in Covid-19, Flu B and RSV positive swabs. Other swabs remained at 0%. Negative swabs remain high at 92.3%.

In the weeks 45 to 17 2165 swabs were taken in total; 6.2% (n=134) were positive for influenza A, 3.2% (n=69) were positive for RSV, 7.9% (n=170) were positive for COVID-19, 0.3% (n=7) were positive for influenza B, 0.2% (n=5) were dual COVID-19 & RSV swabs, 0.1% (n=2) were dual Flu A and COVID-19, <0.1% (n=1) were Flu A & B, and 82.1% (n=1776) were negative.

Global update

UK Health Security Agency (UKHSA)

UK Health Security Agency (UKHSA) produce a weekly national influenza and COVID-19 surveillance report. This report summarises the information from the surveillance systems used to monitor coronavirus (COVID-19), influenza, and other seasonal respiratory viruses in England. The surveillance covers laboratory, community, primary care, secondary care, mortality, microbiological, vaccination, and international updates.

In week 17, from most indicators, influenza activity remained low and stable compared with week 16. COVID-19 activity decreased across most indicators compared with the previous week. The overall positivity for RSV remained low at 0.3%.

Other virus tracking shows: Adenovirus positivity remained stable at 3.7%. Rhinovirus positivity remained stable at 10.4%. Parainfluenza positivity decreased to 5.5%. Metapneumovirus (hmpv) increased to 1.4%.

Data in this week's report may be subject to changes in COVID-19 testing policy.

Here is a summary of the UKHSA's week 17 activities and international updates.

European Centre for Disease Prevention and Control (ECDC)

European Centre for Disease Prevention and Control (ECDC) release a weekly communicable disease threats report. The latest ECDC bulletin covers a variety of public health topics, including COVID-19 and seasonal influenza. For reference, the report can be viewed here. Key points are included below:

COVID-19

By the end of week 16, 2023 (ending 23 April 2023), decreasing or stable trends were observed in all EU/EEA indicators based on pooled country data. The pooled COVID-19 death rate remained stable compared to the previous week, with 691 deaths reported from 22 countries.

Since the last update on 20 April 2023, and as of 27 April 2023, no changes have been made to ECDC variant classifications for variants of concern (VOC), variants of interest (VOI), variants under monitoring or deescalated variants.

For the latest information about variants, please see ECDC's webpage on variants.

COVID-19 PCR and LFD Testing

In the interest of transparency, the number of positive COVID-19 PCR and Lateral Flow Device (LFD) are provided below. This data should be viewed with caution due to changes in the testing system, pathways, and containment measures over the period included.
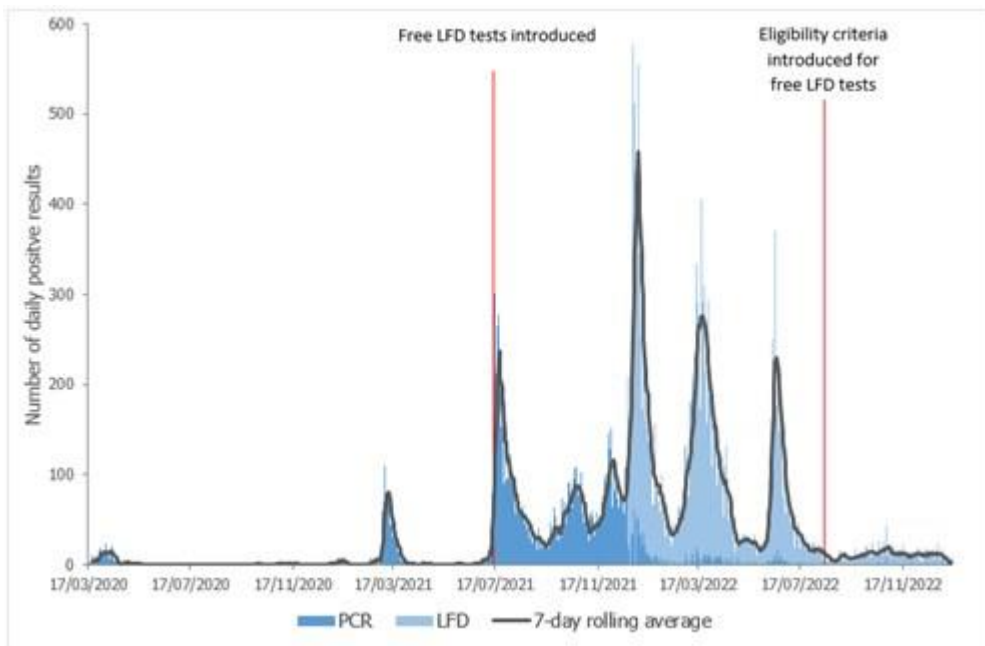

Figure 20 shows the number of daily positive notifications from 17 March 2020, the first positive notification on the Isle of Man, to date (15 January 2023). This data is split by result type, to show the trends in different testing pathways over the course of the pandemic.

As Figure 20 shows, at the start of 2022 LFD tests became the overwhelming majority of positive notifications. This followed a change in testing measures on 22 December 2021 that meant that those who test positive for COVID-19 using an LFD test would no longer be required to book in for a PCR test, and instead should report the positive LFD result online. Since this change in testing measures, positive notifications from LFD tests have remained the overwhelming majority of daily results. This majority indicates the use of LFD tests for community testing, and the reserved use of PCR tests for other pathways, such as hospital admission.

The mechanisms for the receipt of positive notifications by Public Health have varied throughout the course of the pandemic, as new systems, measures, and testing pathways were introduced and evolved. This data represent the collation of these data sources to provide a full picture of daily positive notification trends throughout the COVID-19 pandemic and the continued disclosures being made by the community.

Data disclaimer

While we have used reasonable efforts to ensure the accuracy of the data used within this report, the data is still provisional and may be subject to change and historical amendment as new systems become established.

The quality of data provided to Public Health by other organisations is the responsibility of the originating organisation.

Individuals may appear in multiple datasets since data is based on presentations rather than individuals.

This report will include additional surveillance information as it becomes available.

For any questions regarding this report, please contact publichealth@gov.im

Glossary of terms

READ Codes - Diagnosis codes used by GP's.

SNOMED codes – Diagnosis codes used by the Hospital and Emergency Department.

ILI – Influenza-like-illness.

MEM threshold - The Moving Epidemic Method is widely used to calculate epidemic thresholds.

FluDetector - is a web-based model that assesses internet-based search queries for ILI in the general population. Daily ILI rate estimates are based on uniformly averaged search query frequencies for a weeklong period.

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