

National influenza and COVID-19 surveillance report

Week 17 report (up to week 16 2024 data) 25 April 2024

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For additional information including regional data on COVID-19 and other respiratory viruses, COVID-19 in educational settings, co- and secondary infections with COVID-19 and other data supplementary to this report, please refer to the accompanying graph pack.

For additional information regarding data source please refer to <u>sources of surveillance data for influenza</u>, COVID-19 and other respiratory viruses.

Executive summary

This report summarises the information from the surveillance systems which are used to monitor COVID-19 (caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)), influenza, and diseases caused by seasonal respiratory viruses in England. References to COVID-19 represent the disease name and SARS-CoV-2 represent the virus name. The report is based on data from week 16 of 2024 (between 15 April and 21 April 2024).

Overall

In week 16, influenza activity continued to decrease across most indicators, and COVID-19 activity remained at low levels with small increases in some indicators. Respiratory syncytial virus (RSV) activity remained at low levels across all indicators.

Influenza

Through Respiratory DataMart, influenza positivity decreased slightly to 2.2% in week 16 compared with 2.7% in the previous week.

Through primary care surveillance, the influenza-like-illness (ILI) consultations indicator remained stable at 3.0 per 100,000 in week 16 compared with 3.3 per 100,000 in the previous week and remained within the baseline activity level range. The influenza positivity in GP sentinel swabbing increased slightly in week 16 compared with week 15.

There was 1 confirmed influenza acute respiratory incident (ARI) reported in week 16. This number decreased compared with the previous week.

Overall, the hospitalisation rate for influenza decreased further to 0.42 per 100,000 compared with 0.66 per 100,000 in the previous week. The latest rate was within the baseline range (less than 1.57 per 100,000). The overall ICU or HDU rate for influenza was low at 0.03 per 100,000, the same as the previous week, and was within the baseline impact range.

Emergency department (ED) attendances for ILI decreased nationally.

This season we have seen a combination of influenza A(H1N1) and A(H3N2). There has also been a small amount of influenza B activity later in the season.

COVID-19

Through Respiratory DataMart, SARS-CoV-2 increased to 4.7% compared with 4.0% in the previous week.

COVID-19 case rates decreased slightly overall. Positivity in Pillar 1 increased slightly overall, within most age and ethnic groups, and some regions in week 16.

The overall number of reported SARS-CoV-2 confirmed ARI in week 16 decreased compared with the previous week. There were 6 SARS-CoV-2 confirmed ARI reported in week 16 in England.

Overall, COVID-19 hospitalisations increased slightly to 2.01 per 100,000 compared with 1.76 per 100,000 in the previous week. Hospitalisations were highest in those aged 85 years and above. COVID-19 ICU admissions remained low and stable at 0.06 per 100,000 in week 16.

Respiratory Syncytial Virus (RSV)

Through Respiratory DataMart, RSV positivity remained low at 0.4%, with the highest positivity in those aged under 5 years at 1.6%. ED attendances for acute bronchiolitis decreased nationally. In week 16, the overall hospital admission rate for RSV remained low and stable at 0.11 per 100,000, compared with 0.12 per 100,000 in the previous week.

Other viruses

Adenovirus positivity remained low at 2.3%, with the highest positivity in those aged under 5 years at 5.0%. Human metapneumovirus (hMPV) positivity remained stable at 3.0%, with the highest positivity in those aged under 5 years at 3.8%. Parainfluenza positivity increased slightly to 6.5%, with the highest positivity in those aged over 65 years at 8.0%. Rhinovirus positivity increased to 10.0%, with the highest positivity in those aged under 5 years at 24.3%.

User feedback

As part of our ongoing commitment to continuous improvement, we are asking for feedback on the National weekly influenza and COVID-19 surveillance report through the <u>survey accessible below</u>. The purpose of this survey is to deepen our understanding of how readers engage with the report, highlighting areas readers find valuable and pinpointing areas for enhancement. The insights obtained from this survey will play a pivotal role in shaping the direction of future report development. The survey will be open until the end of the weekly reporting season.

Scan this QR code using a mobile device:

National weekly influenza and COVID-19 surveillance report 2023/24 Feedback Survey



Laboratory surveillance

Respiratory DataMart system (England)

In week 16, data is based on reporting from 10 out of the 16 sentinel laboratories.

In week 16, 5,236 respiratory specimens reported through the Respiratory DataMart System were tested for influenza. There were 117 positive samples for influenza; 44 influenza A(not subtyped), 33 influenza A(H3N2), 12 influenza A(H1N1)pdm09, and 28 influenza B (Figure 3). Overall, influenza positivity decreased slightly to 2.2% in week 16 compared with 2.7% in the previous week.

In week 16, 4,932 respiratory specimens reported through the Respiratory DataMart System were tested for SARS-CoV-2. There were 231 positive samples for SARS-CoV-2 with an overall positivity of 4.7%, which increased compared with 4.0% in the previous week. The highest positivity was seen in adults aged over 65 years at 6.9%.

RSV positivity remained low at 0.4%, with the highest positivity in those aged under 5 years at 1.6%.

Adenovirus positivity remained low at 2.3%, with the highest positivity in those aged under 5 years at 5.0%.

Human metapneumovirus (hMPV) positivity remained stable at 3.0%, with the highest positivity in those aged under 5 years at 3.8%.

Parainfluenza positivity increased slightly to 6.5%, with the highest positivity in those aged 65 years and above at 8.0%.

Rhinovirus positivity increased to 10.0%, with the highest positivity in those aged under 5 years at 24.3%.

DataMart data is provisional and subject to retrospective updates.

Figure 1a. Respiratory DataMart weekly positivity (%) for influenza, SARS-CoV-2, RSV and rhinovirus, England

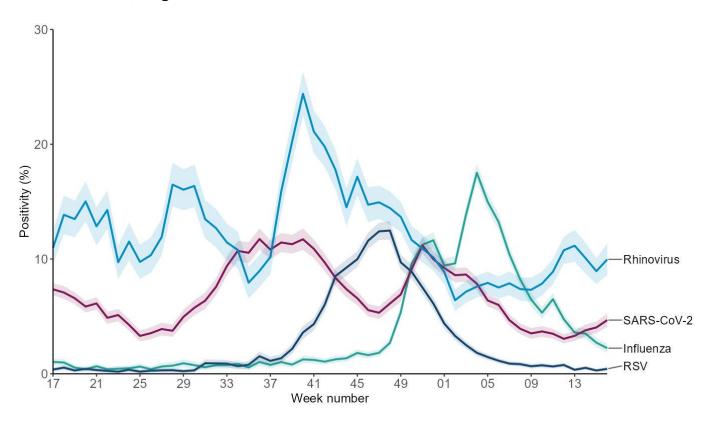
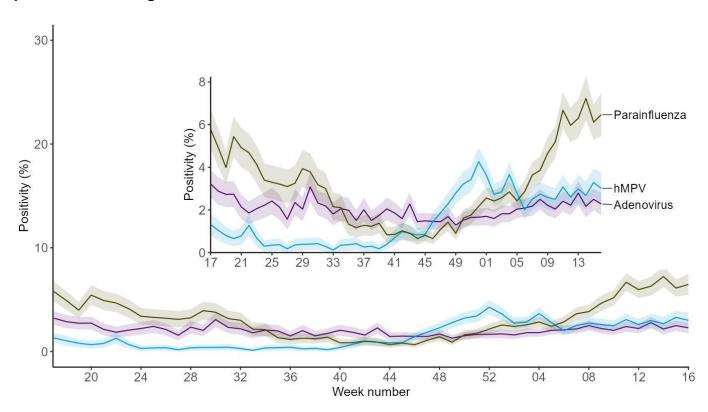


Figure 1b. Respiratory DataMart weekly positivity (%) for adenovirus, hMPV and parainfluenza, England



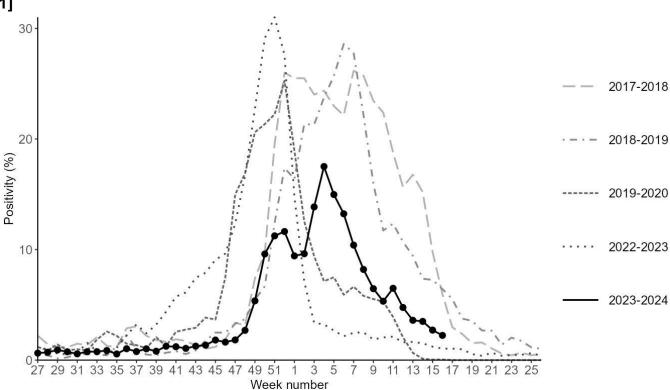


Figure 2. Respiratory DataMart weekly positivity (%) for influenza by year, England [note 1]

[note 1] Data from seasons 2020 to 2021 and 2021 to 2022 has been removed as there was low activity throughout these seasons.

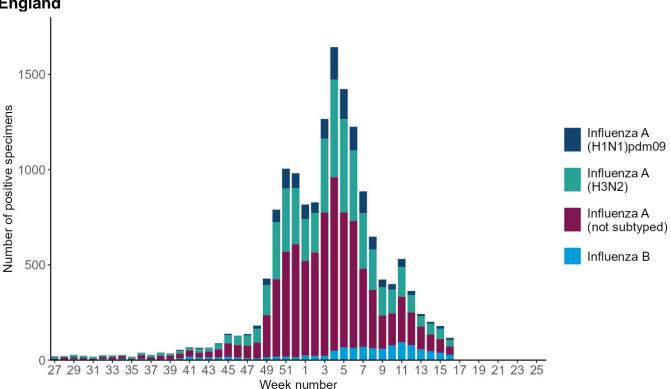


Figure 3. Respiratory DataMart samples positive for influenza by type and subtype, England

Figure 4. Respiratory DataMart weekly positivity (%) for influenza by age, England

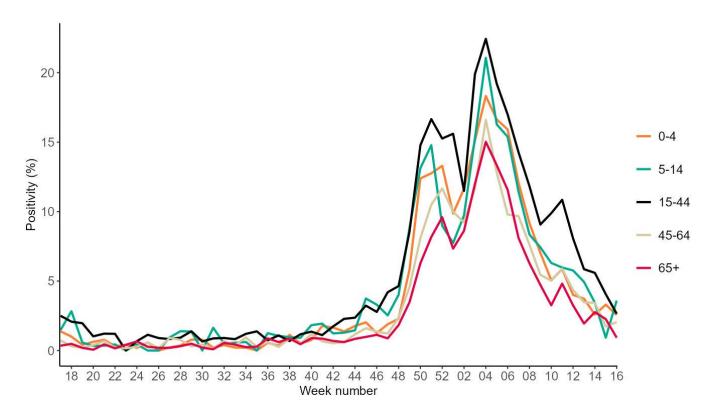


Figure 5. Respiratory DataMart weekly positivity (%) for SARS-CoV-2 by year, England

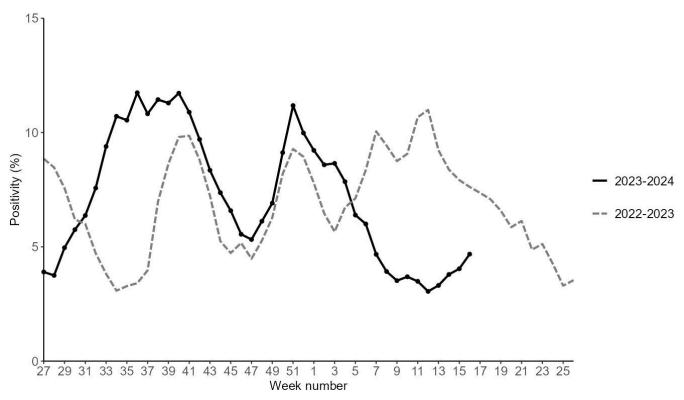


Figure 6. Respiratory DataMart weekly positivity (%) for SARS-CoV-2 by age, England

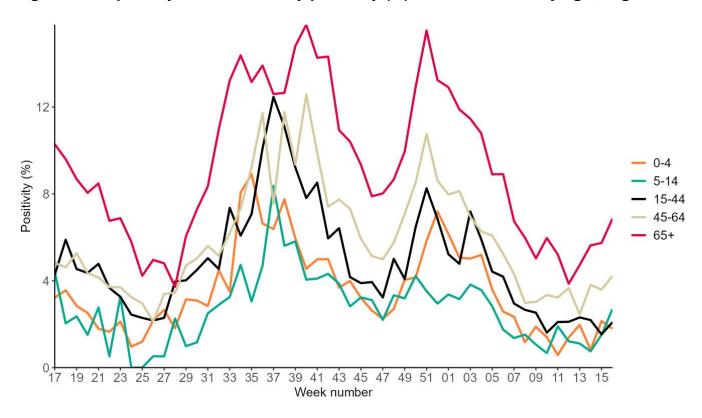


Figure 7. Respiratory DataMart weekly positivity (%) for RSV by year, England

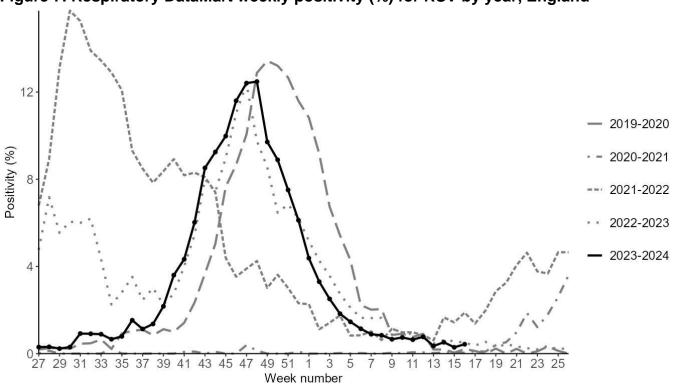
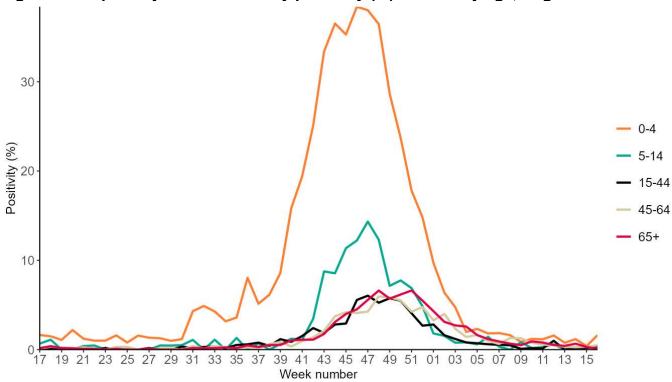


Figure 8. Respiratory DataMart weekly positivity (%) for RSV by age, England



Confirmed COVID-19 cases (England)

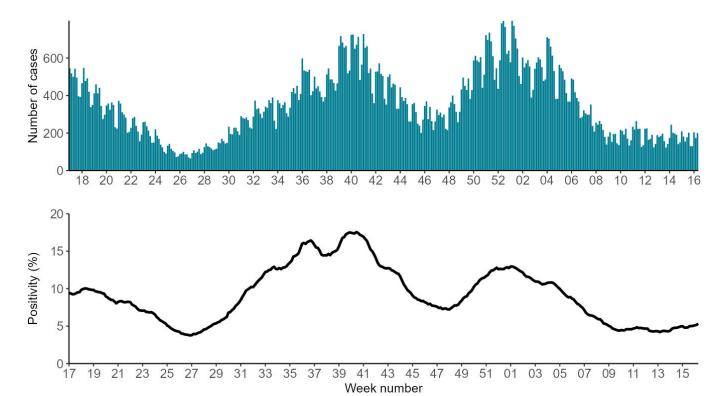
As of 9am on 23 April 2024, there were a total of 1,164 Pillar 1 cases in week 16, a 1.8% decrease from the previous week.

COVID-19 PCR positivity for Pillar 1 increased slightly in week 16, with a weekly mean positivity rate of 5.2% compared with 4.9% in the previous week.

Pillar 1 positivity rates were highest in the aged 85 years and over age group at a weekly mean positivity rate of 9.3% (a slight increase from 8.9% among those aged 85 and above in week 15). They were also highest in the North West at a weekly mean positivity rate of 6.9% (a slight increase from 6.2% in the North West in week 15).

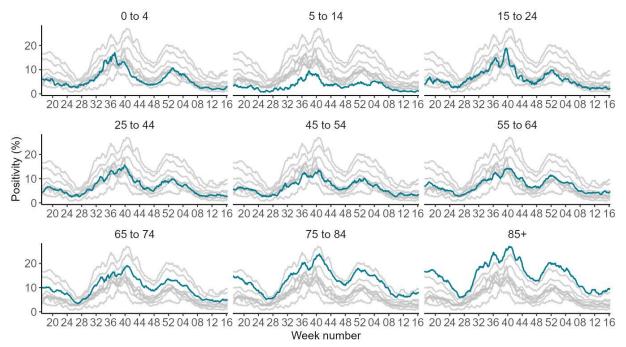
Data notes: Changes to testing policies over time may affect positivity rates and incidence rates and should be interpreted accordingly. COVID-19 case reporting in England uses an episode-based definition which includes possible reinfections, each infection episode is counted separately if there are at least 91 days between positive test results (PCR or rapid lateral flow device). Each infection episode begins with the earliest positive specimen date.

Figure 9. Confirmed COVID-19 episodes tested under Pillar 1, based on sample date with overall 7-day rolling average PCR positivity for Pillar 1 (%)



Age

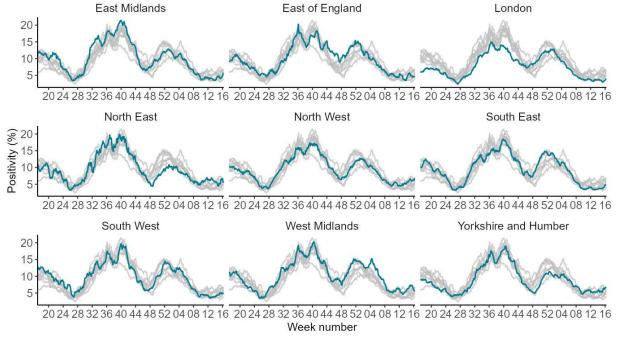
Figure 10. 7-day rolling average PCR positivity (%) of confirmed COVID-19 cases tested under Pillar 1 by age group [note 2]



[note 2] The highlighted line corresponds to the age group in the subplot title, grey lines correspond to all other age groups.

Geography

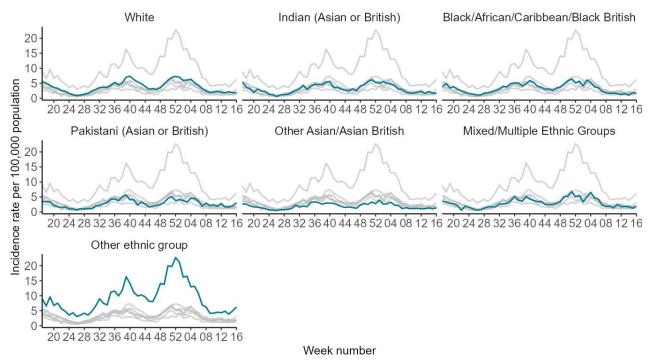
Figure 11. 7-day rolling average PCR positivity (%) of confirmed COVID-19 cases tested under Pillar 1 by UKHSA region [note 3]



[note 3] The highlighted line corresponds to the UKHSA region in the subplot title, grey lines correspond to all other regions.

Ethnicity

Figure 12. Weekly incidence of confirmed COVID-19 cases per 100,000 population by ethnicity (Pillar 1), England [note 4]



[note 4] The highlighted line corresponds to the ethnicity in the subplot title, grey lines correspond to all other ethnicities.

Microbiological surveillance

SARS-CoV-2 variants

Due to processing changes for this dataset, updates to this section of the report are currently temporarily paused from 8 April 2024. Further information on future publication will be provided when available.

Influenza virus characterisation

UKHSA characterises the properties of influenza viruses through one or more tests, including genome sequencing (genetic analysis) and haemagglutination inhibition (HI) assays (antigenic analysis). This data is used to compare how similar the currently circulating influenza viruses are to the strains included in seasonal influenza vaccines, and to monitor for changes in circulating influenza viruses. The interpretation of genetic and antigenic data sources is complex due to a number of factors, for example, not all viruses can be cultivated in sufficient quantity for antigenic characterisation, so that viruses with sequence information may not be able to be antigenically characterised as well. Occasionally, this can lead to a biased view of the properties of circulating viruses, as the viruses which can be recovered and analysed antigenically, may not be fully representative of majority variants, and genetic characterisation data does not always predict the antigenic characterisation.

As of week 16 of 2024, the UKHSA Respiratory Virus Unit (RVU) has genetically characterised 905 influenza A(H3N2) viruses, which had been detected this season (since week 40), with 903 of these belonging in genetic subclade 3C.2a1b.2a.2 in the 2a.3a.1 subgroup. 2 A(H3N2) viruses belonging to subgroup 2a.3 were characterised. The Northern Hemisphere 2023/24 influenza A(H3N2) vaccine strain (an A/Darwin/9/2021-like virus) also belongs in genetic subclade 3C.2a1b.2a.2.

In the same period, 1,128 influenza A(H1N1)pdm09 viruses have been characterised. Sequencing of the haemagglutinin (HA) gene shows that 970 belong in genetic subgroup 6B.1A.5a.2a and 158 in subgroup 6B.1A.5a.2a.1. The Northern Hemisphere 2023/24 influenza A(H1N1)pdm09 vaccine strain (an A/Victoria/4897/2022 (H1N1)pdm09-like virus) also belongs in genetic subclade 6B.1A.5a, within the 6B.1A.5a.2a.1 cluster.

Since week 40, 341 influenza B/Victoria lineage viruses have been genetically characterised belonging in clade V1A.3a.2. Of these, 340 viruses belonged in genetic subclade C.5 and one in C.2. The Northern Hemisphere 2023/24 influenza B/Victoria lineage vaccine strain (a B/Austria/1359417/2021-like virus) also belongs in this V1A.3a.2 clade.

Different lineages may dominate during the season, and a close watch will be kept on the proportion of different viruses circulating to assist with the evaluation of vaccine effectiveness.

The RVU has confirmed by genome sequencing the detection of live attenuated influenza vaccine (LAIV) viruses in 5 influenza A positive samples and in 8 influenza B positive samples. These have been collected since week 40, from children aged 2 to 16 years.

One influenza A(H1N2)v virus has been genetically characterised belonging in clade 1B 1.1. This is an unusual detection of a variant H1N2 (H1N2v) virus in a human clinical sample. The HA and NA genes as well as internal gene segments from the A(H1N2)v detection show a very close relationship to contemporary 1B.1.1 swine influenza A viruses from the UK.

Table 1. Number of influenza viruses characterised by genetic and antigenic analysis at the UKHSA Respiratory Virus Unit since week 40 of 2023

(Sub)type	Genetic group	Number sequenced	
A(H3N2)	3C.2a1b.2a.2a.3a.1		
	3C.2a1b.2a.2a.3		
	Total	905	
A(H1N1)pdm09	6B.1A.5a.2a		
	6B.1A.5a.2a.1		
	Total	1,128	
B/Victoria-lineage	V1A3a.2 / C.5	/ C.5 340	
	V1A3a.2 / C.2	1	
	Total	341	
A(H1N2)v	1B.1.1	1	
	Total	1	

Influenza antiviral susceptibility

Influenza positive samples are genome sequenced and screened for mutations in the virus neuraminidase (NA) and the cap-dependent endonuclease (PA) genes known to confer neuraminidase inhibitor or baloxavir resistance, respectively. The samples tested are routinely obtained for surveillance purposes, but diagnostic testing of patients suspected to be infected with antiviral-resistant virus is also performed.

Influenza virus sequences from samples collected between week 40 of 2023 and week 16 of 2024 have been analysed.

Analysis of 878 A(H3N2) viruses found no viruses with known markers of resistance to neuraminidase inhibitors. Analysis of 1,125 A(H1N1)pdm09 by sequencing found 6 oseltamivir resistant viruses taken from 5 patients:

- Patient 1: 2 samples with a H275Y amino acid substitution. Immune compromised adult patient known to have received oseltamivir treatment
- Patient 2: 1 sample with a H275Y amino acid substitution. Adult patient with a COPD exacerbation known to have received oseltamivir treatment
- Patient 3: 1 sample with a H275Y amino acid substitution. Immune compromised adult patient known to have received oseltamivir treatment
- Patient 4: 1 sample with a D199E amino acid substitution. Immune compromised adult patient known to have received oseltamivir treatment
- Patient 5: 1 sample with a H275Y amino acid substitution. Adult patient referred for resistance testing and clinical details are pending

Analysis of 337 influenza B NA sequences found no evidence of known markers of resistance to neuraminidase inhibitors.

No viruses with known markers of resistance to baloxavir marboxil were detected in 780 A(H3N2), 924 A(H1N1)pdm09 and 290 influenza B PA sequences analysed.

Table 2. Antiviral susceptibility of influenza positive samples tested at UKHSA-RVU

(Sub)type	Neuraminidase inhibitors: susceptible	Neuraminidase inhibitors: reduced susceptibility	Baloxavir: susceptible	Baloxavir: reduced susceptibility
A(H3N2)	878	0	780	0
A(H1N1)pdm09	1,119	6	924	0
B/Victoria-lineage	337	0	290	0

Community surveillance

SIREN healthcare cohort study

Testing in SIREN has paused from 7 April 2024.

Winter COVID-19 Infection study

The Winter COVID-19 Infection Survey has now ended, with a final publication on 14 March 2024. Published reports can be accessed through the Office for National Statistics (ONS) webpage and UKHSA webpage.

Acute respiratory infection incidents (ARI)

Here we present data on ARI incidents in different settings that are reported to UKHSA Health Protection Teams (HPTs).

There were 25 new ARI incidents reported in week 16 in England. In the latest week, these included:

- 24 incidents reported from care homes, of which 4 were laboratory confirmed for SARS-CoV-2, 2 for parainfluenza, 1 for influenza A(not subtyped), and 1 mixed infection with rhinovirus, hMPV and SARS-CoV-2
- 1 incident reported from hospitals, which was laboratory confirmed for SARS-CoV-2
- no incidents were reported from prisons
- no incidents were reported from educational settings
- no incidents were reported from other settings

Please note that data back to week 40 was retrospectively updated following an improvement in the method to assign incidents to an identified pathogen using reports from health protection teams.

Figure 13. Number of ARI incidents by setting, England

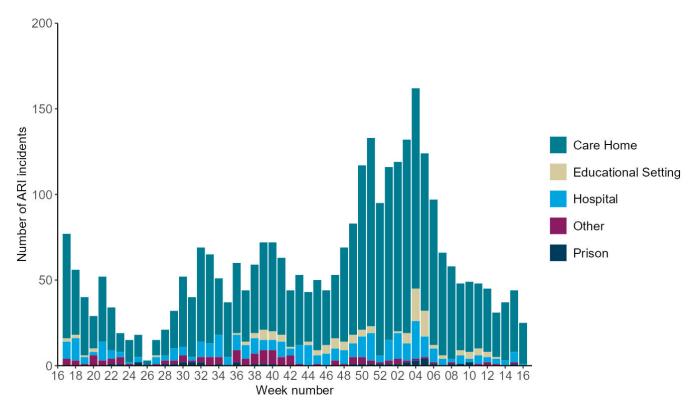


Figure 14. Number of ARI incidents in all settings by virus type, England

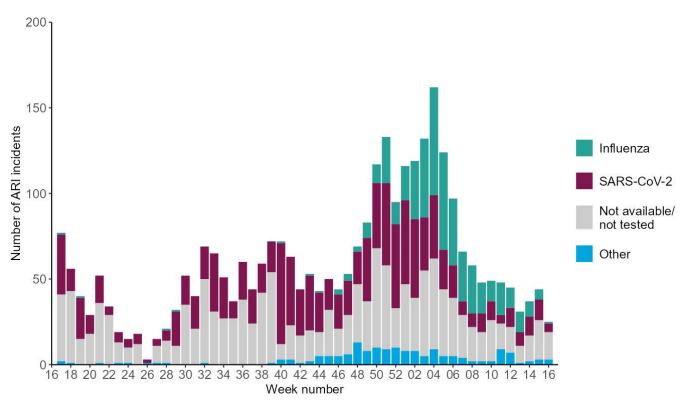


Figure 15. Number of ARI incidents in care homes by virus type, England

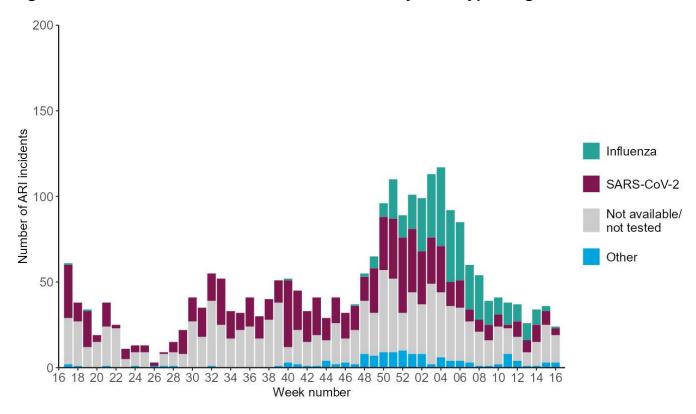
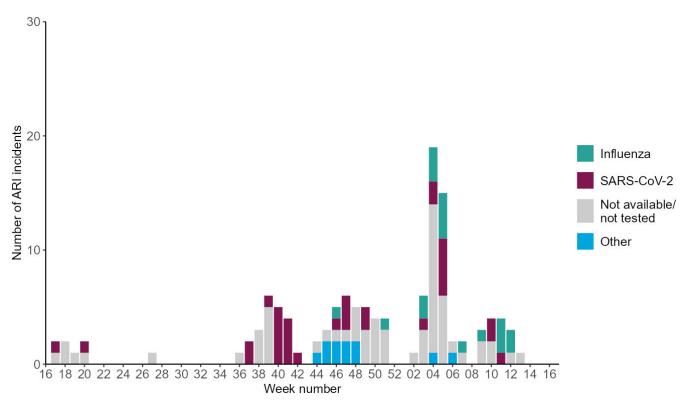


Figure 16. Number of ARI incidents in educational settings by virus type, England



FluSurvey

As of week 17 of 2024, community surveillance using FluSurvey will be paused and will resume during the 2024 to 2025 season. No further data for the 2023 to 2024 season will be included in this report.

<u>FluSurvey</u> is an internet-based participatory surveillance system based on the InfluenzaNet platform. FluSurvey monitor trends of influenza-like illness (ILI) in the community using self-reported respiratory symptoms from registered participants. The platform has been adapted to capture respiratory symptoms, exposure risk and healthcare seeking behaviours among registered participants to contribute to national surveillance of COVID-19 activity as well as influenza activity since week 44 of 2020.

The survey had a planned pause in summer 2023 (as was the norm prior to COVID-19 emergence) and restarted in autumn 2023 on the FluSurvey 2.0 web platform with a mixture of previous participants and new participants. Therefore, the baseline demographics and level of symptoms may have changed compared with last season, including the possibility that new registrations and re-registrations may have been initiated by recent onset of illness.

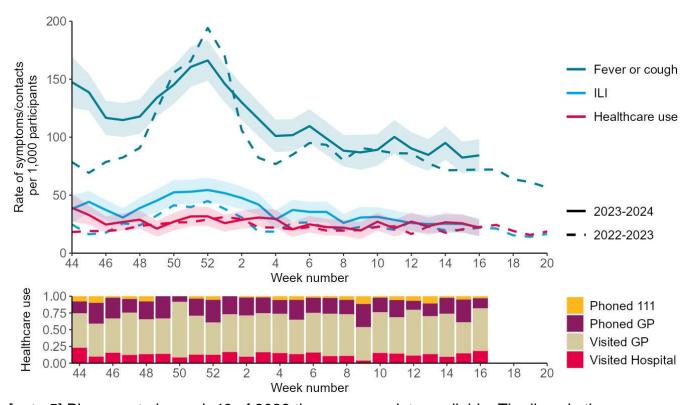
Note that ILI is defined as sudden onset of symptoms with at least one of fever (chills), malaise, headache, muscle pain and at least one of cough, sore throat, shortness of breath.

There were 1,581 participants completing the weekly symptoms questionnaire of which 128 (8.1%) reported fever or cough and 34 (2.2%) reported influenza like illness (ILI). COVID-19 like symptoms remained stable and ILI decreased among participants reporting symptoms in week 16.

Healthcare use is presented as total use due to reported related symptoms and is classified by the most resource intensive use of health care resource if any is used (hospital being more intensive than physically visiting the general practitioner). Among people reporting at least one respiratory symptom, the most reported contact with healthcare services was a visit to their GP surgery.

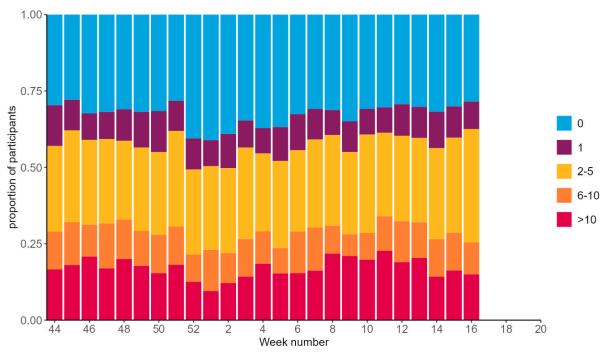
Self-reported daily social contact patterns by participants reporting symptoms are also reported. A contact is defined as a person outside the household who is approached at less than one metre, on the day prior to survey completion (Figure 18). There remains variation on social mixing patterns among participants during week 16.

Figure 17. FluSurvey participants self-reporting fever or cough and ILI symptoms, and trends in healthcare seeking behaviour among these participants, England [note 5]



[note 5] Please note in week 49 of 2022 there was no data available. The lines in the upper panel have been continued using interpolation.

Figure 18. FluSurvey participants' self-reported number of social contacts outside the household

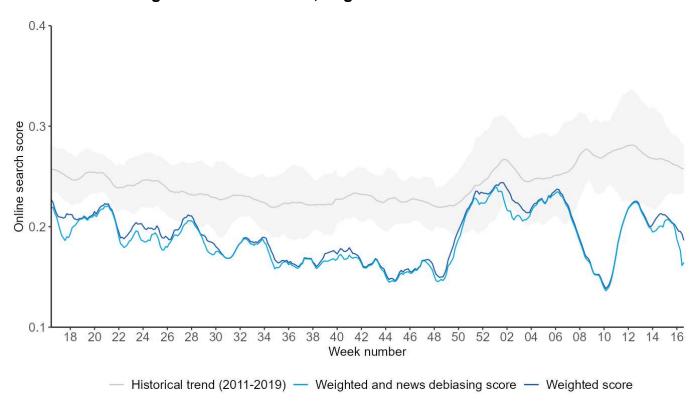


Google search queries

This is a web-based syndromic surveillance system which uses daily search query frequency statistics obtained from the Google Health Trends API (Application Programming Interface). This model focuses on search queries about COVID-19 symptoms as well as generic queries about 'coronavirus' (for example 'COVID-19'). The search query frequency time series is weighted based on symptom frequency as reported in other data sources. Frequency of searches for symptoms is compared with a baseline calculated from historical daily data. Further information on this model is available online.

During week 16, the overall and media-debiasing weighted Google search scores decreased compared with the previous week (Figure 19).

Figure 19. Normalised Google search score for COVID-19 symptoms, with weighted score for media-debiasing and historical trend, England



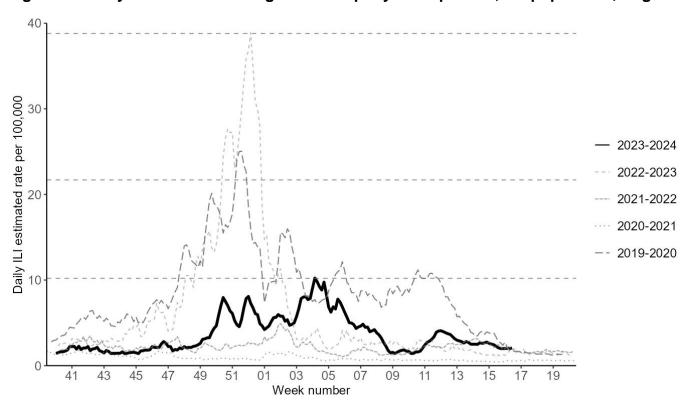
Flu Detector

Flu Detector is a web-based model which assesses internet-based search queries for influenzalike illness (ILI) in the general population.

Daily ILI rate estimates are based on uniformly averaged search query frequencies for a week-long period (including the current day and the 6 days before it).

For week 16, the daily ILI query rate decreased slightly and was below baseline activity (Figure 20).

Figure 20. Daily estimated ILI Google search query rates per 100,000 population, England



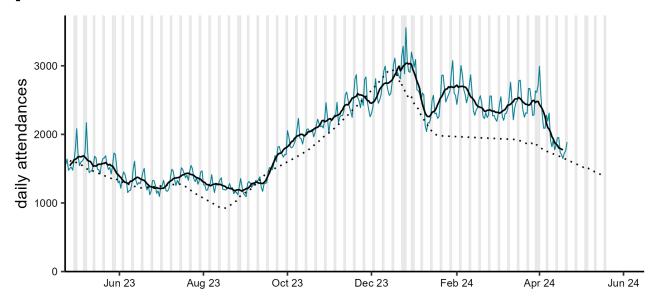
Syndromic surveillance

During week 16, GP in-hours consultations for GP in-hours consultations for influenza-like illness decreased. GP out-of-hours daily contacts for acute respiratory infections and influenza like illness decreased nationally. ED attendances for acute respiratory infections, influenza like illness and acute bronchiolitis decreased nationally. COVID-19-like ED attendances remained stable.

Please note that recent updates to the NHS Pathways clinical tool used by NHS 111 have affected levels of certain syndromic indicators. As a result of these changes a selection of existing NHS 111 syndromic respiratory indicators have been removed from this report.

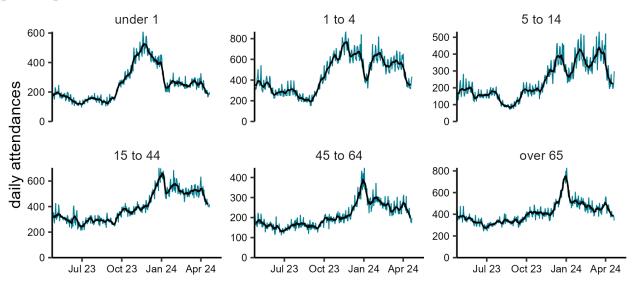
For further information on syndromic surveillance please see the <u>Syndromic surveillance</u>: weekly summaries.

Figure 21a. Daily ED attendances for acute respiratory infection nationally, England [note 6]



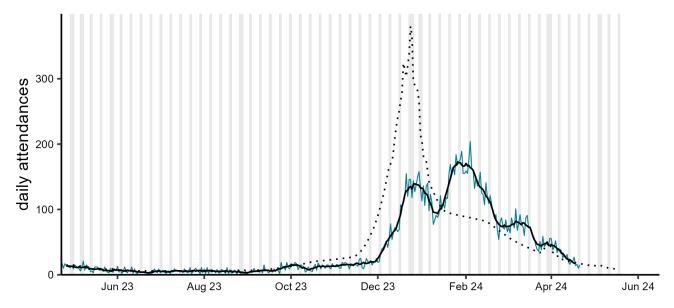
[note 6] The solid black line is a 7-day moving average adjusted for holidays. The solid green line is the daily attendances. The black dotted line is the baseline. The grey columns show weekends and bank holidays.

Figure 21b. Daily ED attendances for acute respiratory infection by age group, England [note 7]



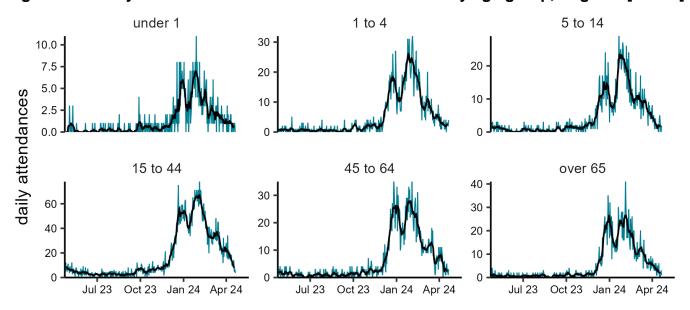
[note 7] The scales may vary in each graph to enable trend comparison. The black line is the 7-day moving average adjusted for bank holidays.

Figure 22a. Daily ED attendances for influenza-like illness nationally, England [note 6]



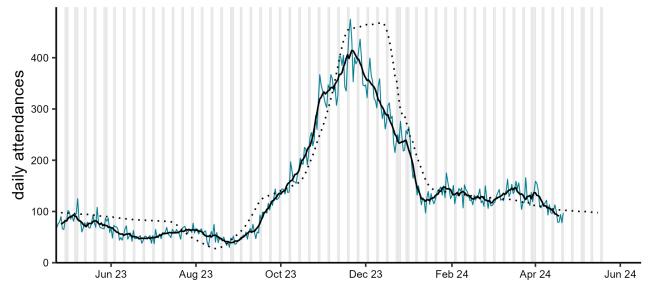
See [note 6] as above.

Figure 22b. Daily ED attendances for influenza-like illness by age group, England [note 7]



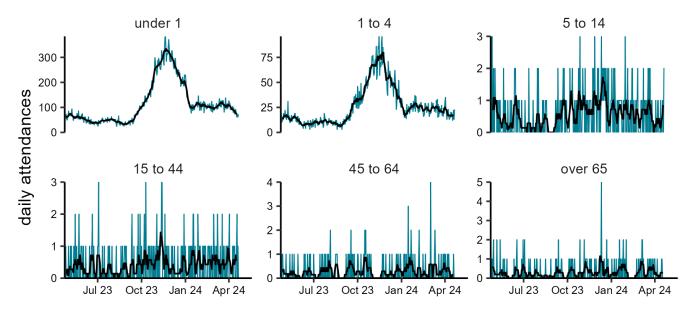
See [note 7] as above.

Figure 23a. Daily ED attendances for acute bronchiolitis nationally, England [note 6]



See [note 6] as above.

Figure 23b. Daily ED attendances for acute bronchiolitis by age group, England [note 7]



See [note 7] as above.

Primary care surveillance

RCGP Clinical Indicators (England)

The weekly ILI consultation rate through the Royal College of General Practitioners (RCGP) surveillance remained stable at 3.0 per 100,000 registered population in participating GP practices in week 16 compared with 3.3 per 100,000 in the previous week. This was within baseline activity levels (less than 10.25 per 100,000) (Figure 24). By age group, the highest rates were seen in those aged between 15 and 44 years (3.9 per 100,000), followed by those aged between 45 and 64 years (3.3 per 100,000). The lower respiratory tract infections (LRTI) consultation rate decreased to 100.2 per 100,000 in week 16 compared with 110.7 per 100,000 in the previous week.

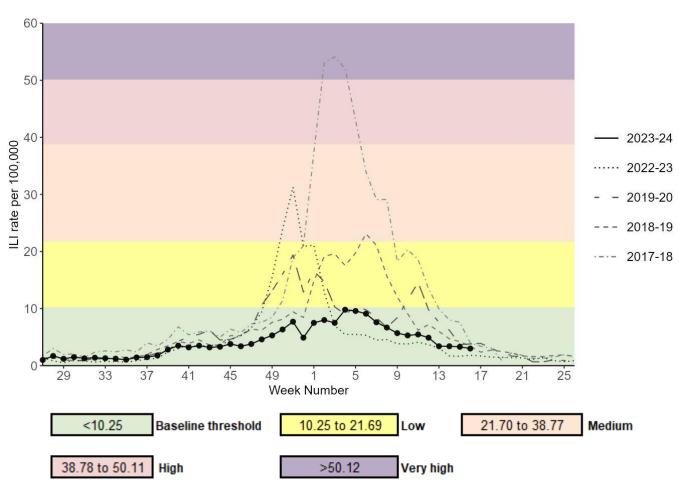


Figure 24. RCGP ILI consultation rates, all ages, England

Moving Epidemic Method (MEM) thresholds are based on data from the 2015 to 2016 season to the 2022 to 2023 season. Please note the 2020 to 2021 and 2021 to 2022 seasons have been removed due to low activity throughout these seasons.

RCGP sentinel swabbing scheme in England

Starting in week 51, testing for enterovirus and rhinovirus have been delayed. Starting in week 14, testing for seasonal coronaviruses has been paused due to unavailability of a key reagent.

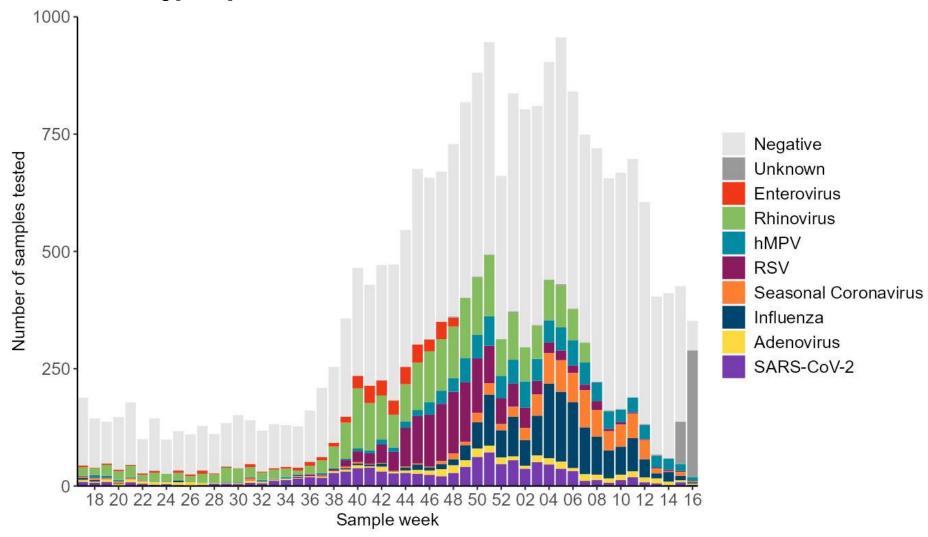
Based on the date samples were taken, in week 16 of 2024 (week commencing 15 April 2024) 352 samples were tested through the GP sentinel swabbing scheme in England of which 19 samples tested positive (Figure 25). Among all positive samples, 15.8% were positive for influenza, 42.1% were positive for hMPV, 10.5% were positive for adenovirus, 10.5% were positive for seasonal coronavirus, 5.3% were positive for RSV and 15.8% were positive for SARS-CoV-2 (Figure 26). Note there is a very small number of samples with an untyped influenza A result; this result occurs when subtyping fails due to a low viral load from the specimen. Due to the number of samples which have not yet been categorised, data should be interpreted with caution when compared with previous weeks.

Among all samples which had a known test result, in week 16, positivity for SARS-CoV-2 was 3.7%, positivity for influenza was 3.7% and positivity for RSV was 1.2% (Figure 27). Due to the number of samples which have not yet been categorised, data should be interpreted with caution when compared with previous weeks.

In previous reports, Figure 25 and Figure 26 were produced based on the date samples were received in the reference laboratory. From 23 November 2023 (week 47 report) these figures have been updated to be based on the date samples were taken.

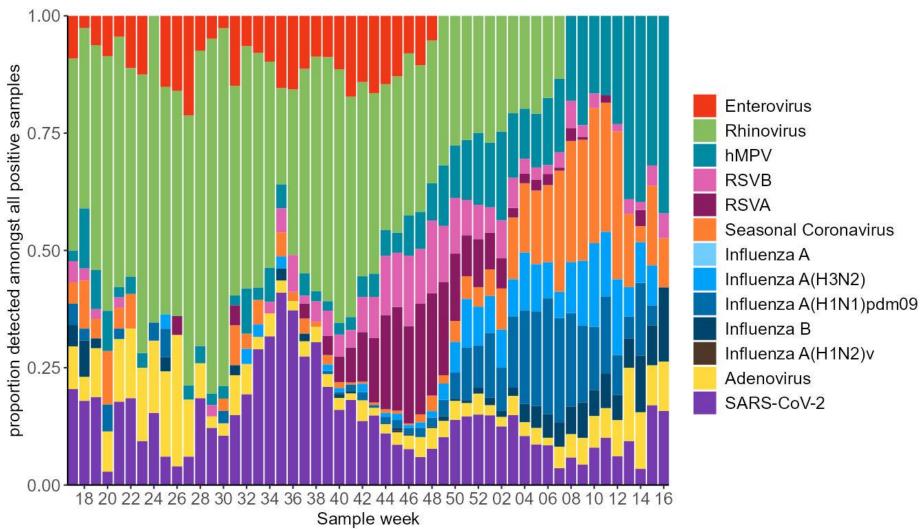
From 27 November 2023, swabbing was temporarily increased in the Yorkshire and Humber region in response to the <u>identification of a case of influenza A(H1N2)v</u>. This may lead to an over-representation of the Yorkshire and Humber region.

Figure 25. Number of samples tested for SARS-CoV-2, influenza, and other respiratory viruses in England by week, GP sentinel swabbing [note 8]



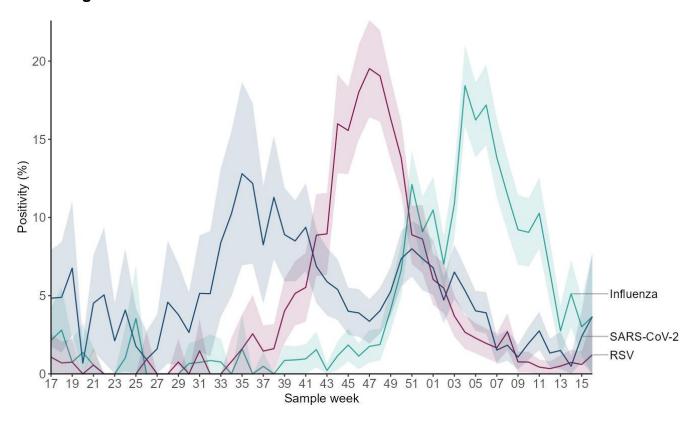
[note 8] Unknown category corresponds to samples with no result yet.

Figure 26. Proportion of detections of SARS-CoV-2, influenza, and other respiratory viral strains among virologically positive respiratory surveillance samples in England by week, GP sentinel swabbing scheme [note 9]



[note 9] From week 51 data contains a substantial reduction of test results for enterovirus and rhinovirus due to a delay in testing for these pathogens.

Figure 27. Weekly positivity (%) for COVID-19, influenza and RSV in England, GP sentinel swabbing



Secondary care surveillance

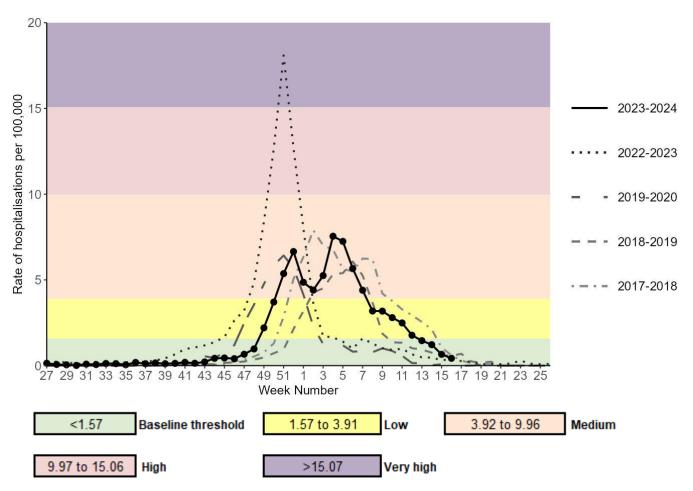
Influenza, SARI Watch

Surveillance of influenza hospitalisations to all levels of care is based on data from a small sentinel network of acute NHS trusts in England. Surveillance of admissions to ICU or HDU for influenza is mandatory with data required from all acute NHS trusts in England. Please note that the SARI Watch rates for 2023 to 2024 use the latest trust catchment population. For consistency the rates have been updated back to October 2020. The population denominator reflects changes in trust reconfiguration, hospital admission activity and population estimates.

In week 16 (ending 21 April 2024), the overall weekly hospital admission rate for influenza decreased to 0.42 per 100,000 compared with 0.66 per 100,000 in the previous week. The rate in the latest rate was within baseline range (less than 1.57 per 100,000). There were 35 new hospital admissions for influenza (23 influenza A(not subtyped), 4 influenza A(H1N1)pdm09, 3 influenza A(H3N2), and 5 influenza B).

In week 16, the overall ICU or HDU rate for influenza was very low at 0.03 per 100,000, the same as the previous week. The rate in the latest week remained within the baseline impact range (less than 0.11 per 100,000). There were 11 new case reports of an ICU or HDU admission for influenza in week 16 (10 influenza A(not subtyped) and 1 influenza A(H1N1)pdm09).

Figure 28. Weekly overall influenza hospital admission rates per 100,000 trust catchment population with MEM thresholds, reported through SARI Watch sentinel surveillance, England

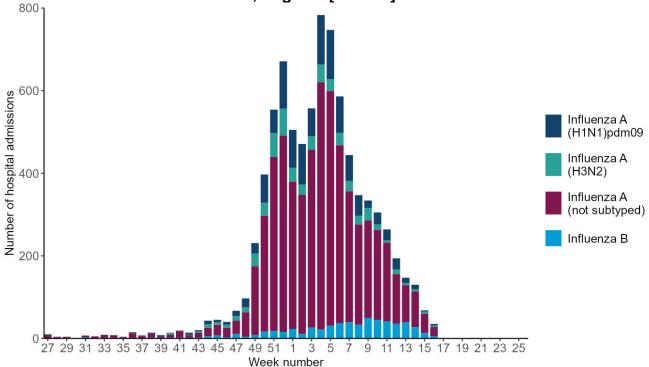


MEM thresholds are based on data from the 2015 to 2016 season to the 2022 to 2023 season. Please note the 2020 to 2021 and 2021 to 2022 seasons have been removed due to low activity throughout these seasons.

Influenza hospital admission rate is based on 20 sentinel NHS trusts for week 16.

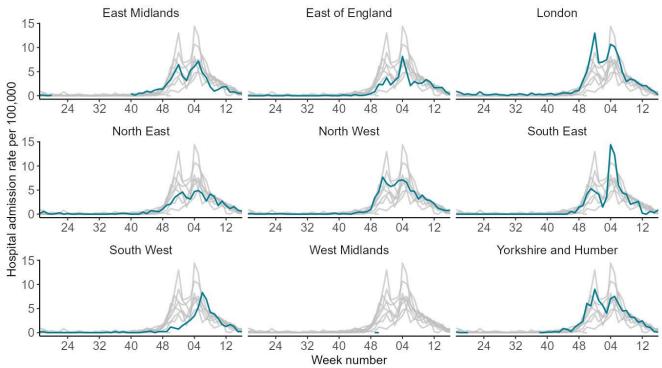
SARI Watch data is provisional and subject to retrospective updates.

Figure 29. Weekly influenza hospital admissions by influenza type, reported through SARI Watch sentinel surveillance, England [note 10]



[note 10] Number of influenza hospital admissions based on sentinel NHS trusts.

Figure 30. Weekly hospital admission rate by UKHSA region for new influenza reported through SARI Watch sentinel surveillance [note 3] [note 11]



[note 11] Rates in some regions may not include all influenza surveillance sentinel trust sites from week to week. This may lead to variation in regional representation hence caution is required in interpreting the weekly data by region. See [note 3] as above.

Figure 31a. Weekly hospital admission rate by age group for new influenza reported through SARI Watch sentinel surveillance - fixed y-axis [note 2]

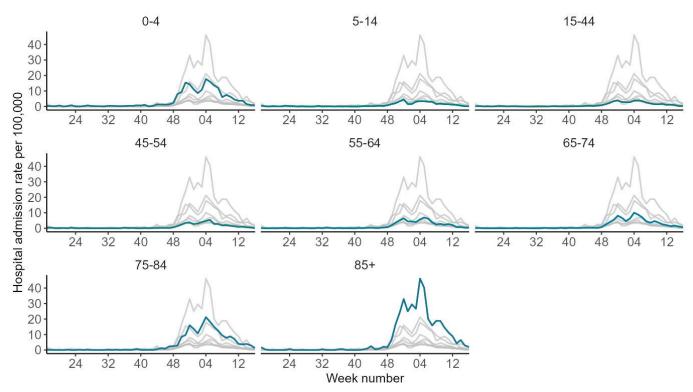


Figure 31b. Weekly hospital admission rate by age group for new influenza reported through SARI Watch sentinel surveillance - adjusted y-axis

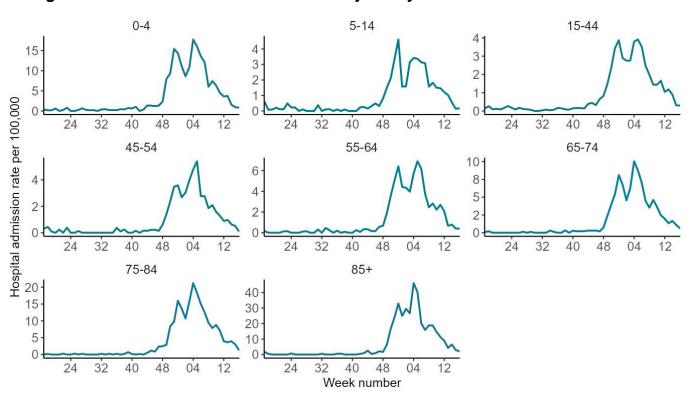
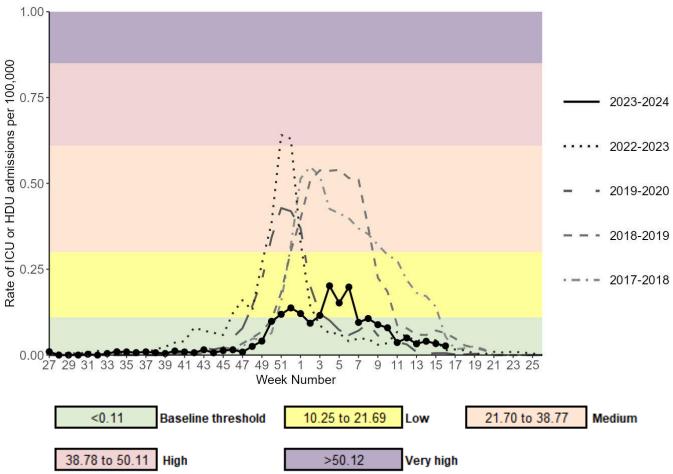


Figure 32. Weekly overall influenza ICU or HDU admission rates per 100,000 trust catchment population with MEM thresholds, reported through SARI Watch mandatory surveillance, England



MEM thresholds are based on data from the 2015 to 2016 to the 2022 to 2023 seasons. Please note the 2020 to 2021 and 2021 to 2022 seasons have been removed due to low activity throughout these seasons.

Influenza ICU or HDU admission rate is based on 93 NHS trusts for week 16. SARI Watch data is provisional and subject to retrospective updates.

Figure 33. Weekly influenza ICU or HDU admissions by influenza type, reported through SARI Watch mandatory surveillance, England

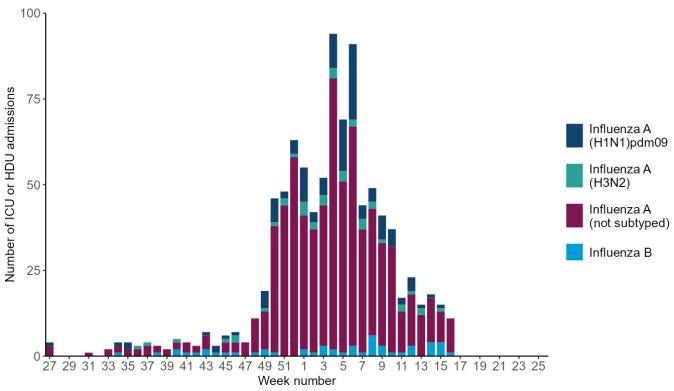


Figure 34. Weekly ICU or HDU admission rate by UKHSA region for new influenza, reported through SARI Watch mandatory surveillance [note 3]

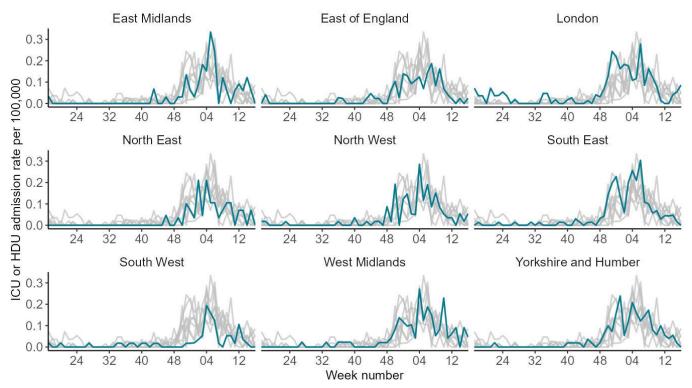


Figure 35a. Weekly ICU or HDU admission rate by age group for new influenza cases, reported through SARI Watch mandatory surveillance - fixed y-axis [note 2]

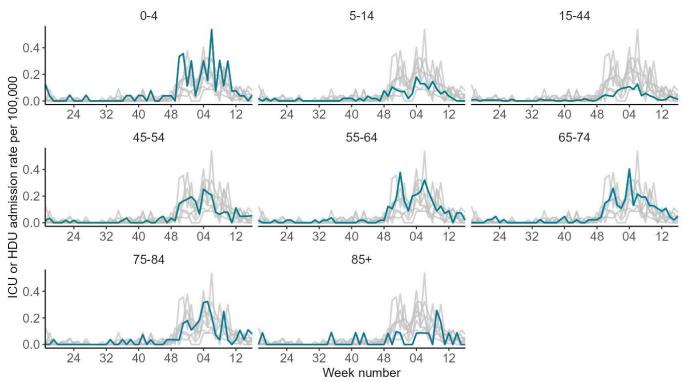
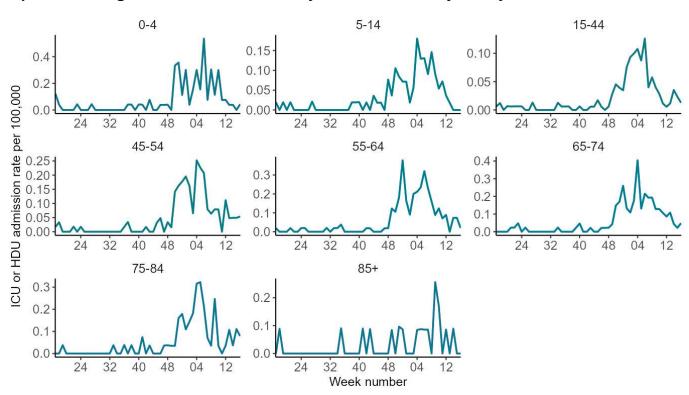


Figure 35b. Weekly ICU or HDU admission rate by age group for new influenza cases, reported through SARI Watch mandatory surveillance - adjusted y-axis



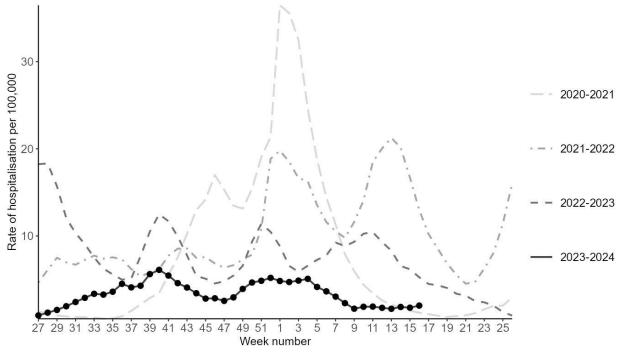
COVID-19, SARI Watch

Surveillance of COVID-19 hospitalisations to all levels of care and surveillance of admissions to ICU or HDU for COVID-19 are both mandatory with data required from all acute NHS trusts in England. Please note that the SARI Watch rates for 2023 to 2024 use the latest trust catchment population. For consistency the rates have been updated back to October 2020.

In week 16 (ending 21 April 2024), the overall weekly hospital admission rate for COVID-19 increased slightly to 2.01 per 100,000 compared with 1.76 per 100,000 in the previous week. By UKHSA region, the highest hospital admission rate for COVID-19 was observed in the South West (increased to 2.91 per 100,000 from 1.57 per 100,000 in the previous week, with small increases in most of the remaining regions). By age group, the highest hospital admission rate for confirmed COVID-19 continued to be in the 85 years and over group. This remained stable at 20.54 per 100,000, with small increases across the remaining age groups including those aged between 65 and 84.

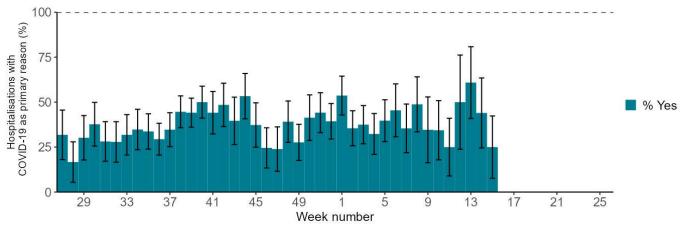
In week 16 (ending 21 April 2024), the overall weekly ICU or HDU admission rate for COVID-19 was very low and remained stable at 0.06 per 100,000, similar to the previous week. Note that with very low rates in critical care, small random fluctuations may occur. Note that ICU or HDU admission rates may represent a lag from admission to hospital to an ICU or HDU ward. The ICU or HDU admission rate for COVID-19 by UKHSA centre or by age group is currently fluctuating at low levels due to low underlying numbers.

Figure 36a. Weekly overall COVID-19 hospital admission rates per 100,000 trust catchment population, reported through SARI Watch mandatory surveillance, England



COVID-19 hospital admission rate is based on 88 NHS trusts for week 16. SARI Watch data is provisional and subject to retrospective updates.

Figure 36b. Weekly percentage of hospitalisations with COVID-19 as primary reason, reported through SARI Watch sentinel surveillance, England



Data on proportions of hospitalisations primarily due to COVID-19 is based on returns from a smaller number of participating trusts in sentinel surveillance and may not be representative of all acute NHS trusts.

Figure 37. Weekly hospital admission rate by UKHSA region for new COVID-19 positive cases, reported through SARI Watch mandatory surveillance [note 3]

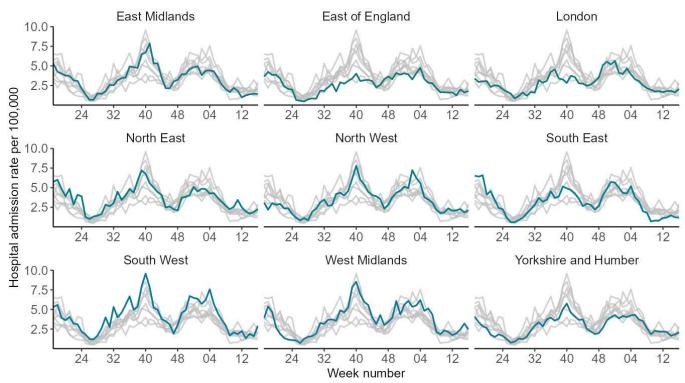


Figure 38a. Weekly hospital admission rate by age group for new COVID-19 positive cases reported through SARI Watch mandatory surveillance - fixed y-axis [note 2]

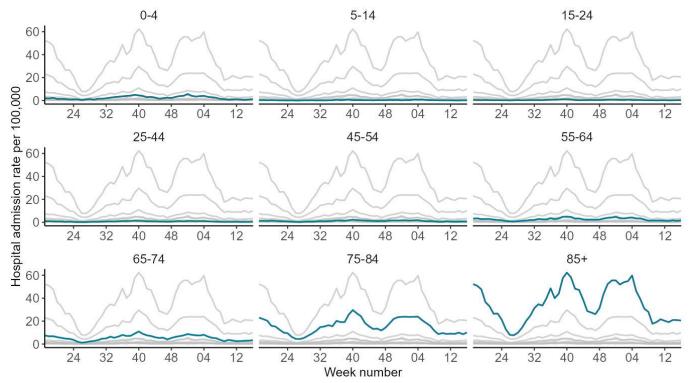


Figure 38b. Weekly hospital admission rate by age group for new COVID-19 positive cases reported through SARI Watch mandatory surveillance - adjusted y-axis

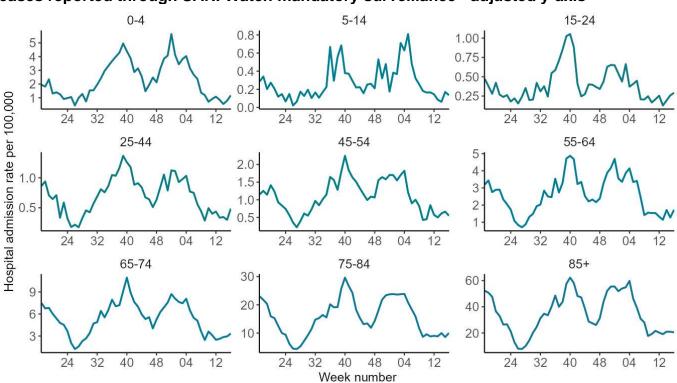
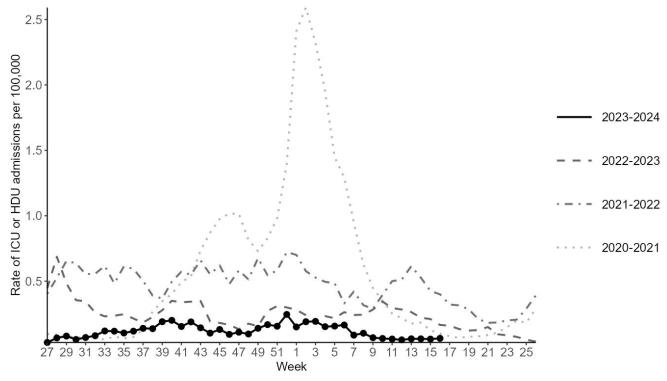


Figure 39. Weekly overall COVID-19 ICU or HDU admission rates per 100,000 trust catchment population, reported through SARI Watch mandatory surveillance, England



COVID-19 ICU or HDU admission rate is based on 76 NHS trusts for week 16. SARI Watch data is provisional and subject to retrospective updates.

Figure 40. Weekly ICU or HDU admission rate by UKHSA region for new COVID-19 positive cases reported through SARI Watch mandatory surveillance [note 3]

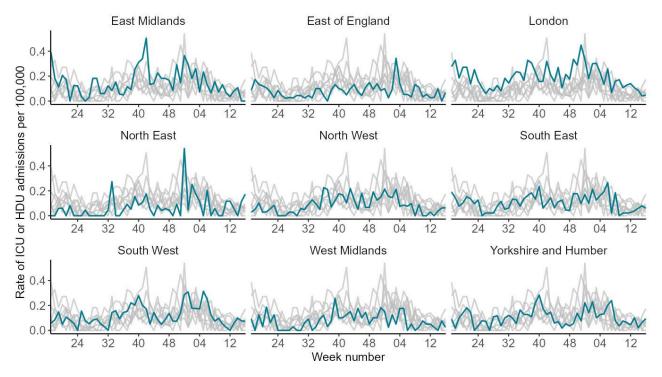


Figure 41a. Weekly ICU or HDU admission rate by age group for new COVID-19 positive cases reported through SARI Watch mandatory surveillance - fixed y-axis [note 2]

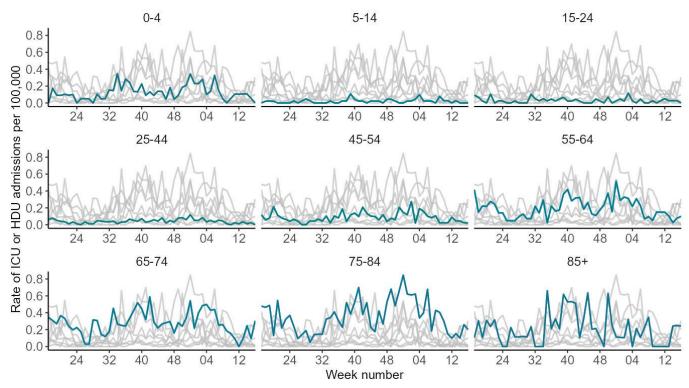
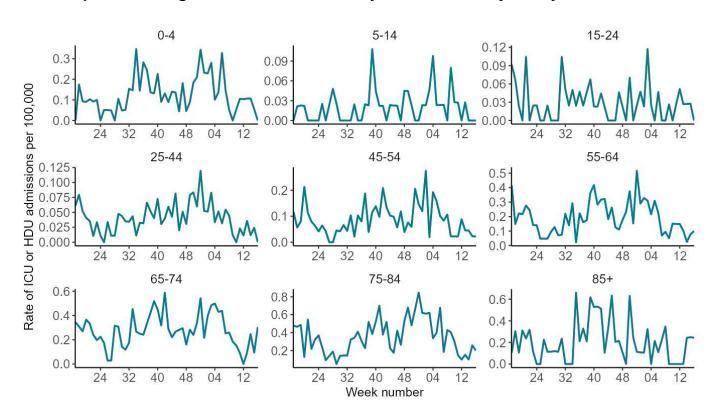


Figure 41b. Weekly ICU or HDU admission rate by age group for new COVID-19 positive cases reported through SARI Watch mandatory surveillance adjusted y-axis

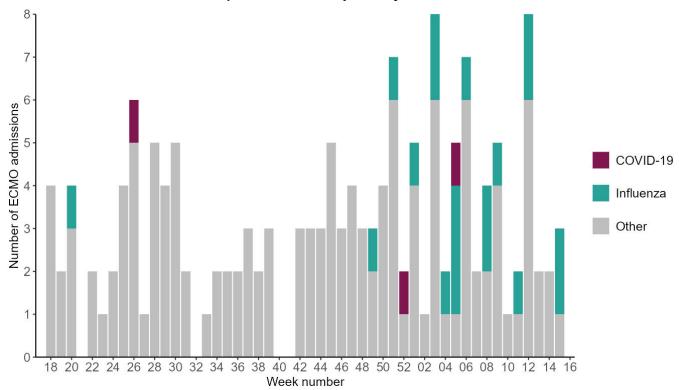


ECMO, SARI Watch

There were no new extra corporeal membrane oxygenation (ECMO) admissions reported in week 16 from the 7 Severe Respiratory Failure (SRF) centres in the UK.

Please note that the other group includes other viral, bacterial or fungal ARI, suspected ARI, non-infection (such as asthma, primary cardiac and trauma) and sepsis of non-respiratory origin.

Figure 42. Laboratory confirmed ECMO admissions in adults (COVID-19, influenza and non-COVID-19 confirmed) to Severe Respiratory Failure centres in the UK



SARI Watch data is provisional and subject to retrospective updates.

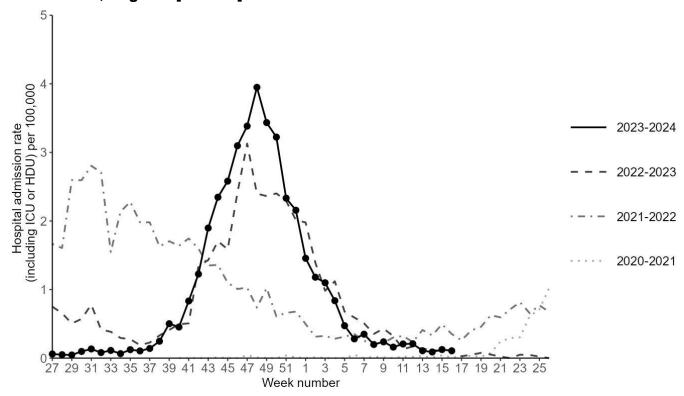
RSV admissions, SARI Watch

Week 16 of 2024 is the last week of RSV SARI Watch surveillance for the season. Retrospective updates for data up to week 16 will be included in the supplementary datafile in the coming weeks.

Data on hospitalisations, including ICU or HDU admissions, with respiratory syncytial virus (RSV) are shown below. RSV SARI Watch surveillance is sentinel. Please note that the SARI Watch rates for 2023 to 2024 use the latest trust catchment population. For consistency the rates have been updated back to October 2020. The population denominator reflects changes in trust reconfiguration, hospital admission activity and population estimates.

In week 16, the overall hospital admission rate for RSV remained low and stable at 0.11 per 100,000, compared with 0.12 per 100,000 in the previous week. In children aged under 5 years the hospitalisation rate was 1.27 per 100,000 compared with 1.05 per 100,000 in the previous week. Please note due to small underlying numbers across all age groups rates are currently fluctuating at low levels.

Figure 43. Weekly overall hospital admission rates (including ICU or HDU) of RSV positive cases per 100,000 population reported through SARI Watch sentinel surveillance, England [note 12]

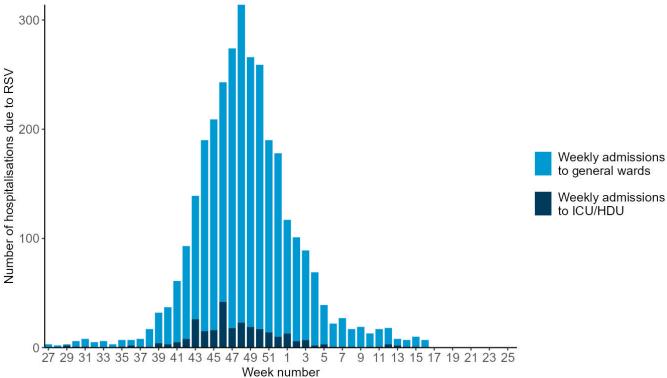


[note 12] Rates are based on the number of hospitalised cases divided by the NHS trust catchment population.

RSV admission rate is based on 15 NHS trusts for week 16.

SARI Watch data is provisional.

Figure 44. Weekly count hospital admissions of RSV positive cases reported through SARI Watch sentinel surveillance by level of care, England [note 13]



[note 13] Weekly admissions to general wards do not exclude subsequent admissions for the same person to ICU or HDU in the same week. The weekly ICU or HDU data may also include direct emergency admissions to ICU or HDU.

Figure 45a. Weekly hospitalisation (including ICU or HDU) admission rates by age group for RSV cases reported through SARI Watch sentinel surveillance, England - fixed y-axis [note 2]

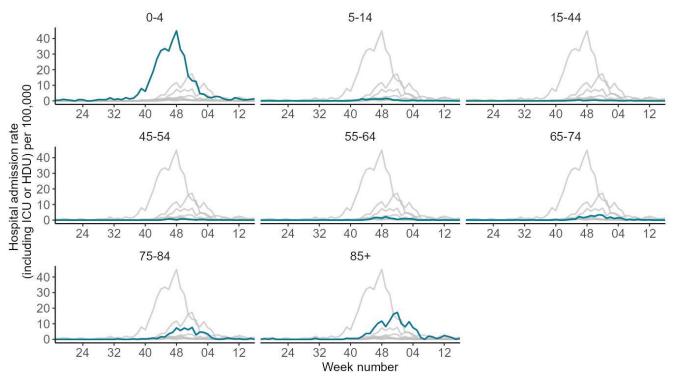
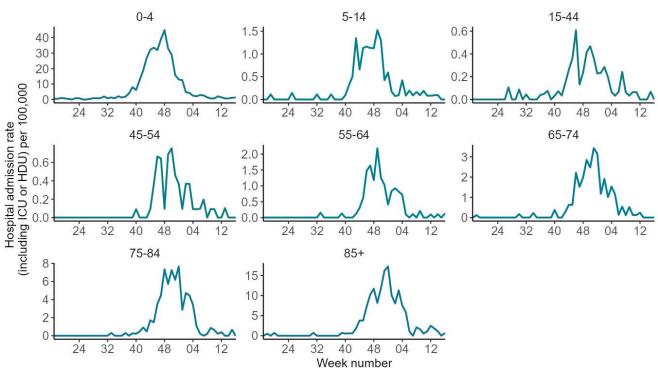


Figure 45b. Weekly hospitalisation (including ICU or HDU) admission rates by age group for RSV cases reported through SARI Watch sentinel surveillance, England adjusted yaxis



Mortality surveillance

COVID-19 deaths

For further information on COVID-19 related deaths in England please see the COVID-19 dashboard for death.

All-cause mortality assessment (England)

For further information on all-cause mortality in England please see the England: post-pandemic method report, which uses ONS death registration data, the all-cause mortality surveillance report, which uses the European mortality monitoring (EuroMOMO) model to identify weeks with higher than expected mortality and the ONS all-cause excess mortality report.

International update

Global COVID-19 update

For further information on the global COVID-19 situation please see the <u>World Health Organization (WHO) COVID-19 situation reports</u>.

Global influenza update

For further information on the global influenza situation please see the World Health Organization (WHO) Influenza update.

Influenza in Europe

For further information on influenza in Europe please see the <u>European Respiratory Virus</u> Surveillance Summary weekly update.

Influenza in North America

For further information on influenza in the United States of America please see the <u>Centre for Disease Control weekly influenza surveillance report</u>. For further information on influenza in Canada please see the <u>Public Health Agency weekly influenza report</u>.

Influenza in Australia

For further information on influenza in Australia, please see the <u>Australian Influenza Surveillance Report and Activity Updates</u>.

Other respiratory viruses

Avian influenza and other zoonotic influenza

For further information, please see the <u>Latest WHO update on 26 February 2024</u> and the <u>Latest UKHSA avian influenza technical briefing 14 July 2023.</u>

Middle East respiratory syndrome coronavirus (MERS-CoV)

For further information please see the <u>WHO Disease Outbreak News Reports</u> and the <u>WHO publishes monthly updates.</u>

<u>Further information on management and guidance of possible cases</u> is available online. The latest highlights that risk of widespread transmission of MERS-CoV remains very low.

Related links

Previous national COVID-19 reports

Previous weekly influenza reports

Annual influenza reports

COVID-19 vaccine surveillance reports

Previous COVID-19 vaccine surveillance reports

Public Health England (PHE) monitoring of the effectiveness of COVID-19 vaccination

Investigation of SARS-CoV-2 variants of concern: technical briefings

Sources of surveillance data for influenza, COVID-19 and other respiratory viruses

RCGP Virology Dashboard

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