UK Health Security Agency

National Influenza and COVID-19 surveillance report

Week 39 report (up to week 38 data)

28 September 2023

Contents

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

Executive summary

This report summarises the information from the surveillance systems which are used to monitor coronavirus (COVID-19), influenza, and other 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 38 (between 18 September and 24 September 2023) and for some indicators daily data up to 27 September 2023.

Overall

In week 38, from most indicators, influenza activity remained low and stable. COVID-19 activity remained stable across most indicators, although an increase was observed in emergency department (ED) attendances.

COVID-19

COVID-19 case rates through Pillar 1 remained stable in most regions and age groups in week 38.

Through Respiratory DataMart, SARS-CoV-2 positivity remained stable at 10.4% in week 38 compared to 10.0% in the previous week.

The overall number of reported SARS-CoV-2 confirmed outbreaks remained stable compared to the previous week. 17 SARS-CoV-2 confirmed outbreaks were reported in week 38 in England.

Primary care sentinel swabbing positivity decreased in week 37 at 8.5% compared to week 36 (12.7%).

Overall, COVID-19 hospitalisations remained stable in week 38 compared to the previous week. Hospitalisations were highest in the 85 years and over age group. COVID-19 intensive care unit (ICU) admissions remained low and stable in week 38 compared to the previous week.

Through syndromic surveillance indicators, ED attendances for covid-like illness increased nationally.

Influenza

Through Respiratory DataMart, influenza positivity remained low and stable at 1.1% in week 38.

Through primary care surveillance, the influenza-like-illness consultations indicator remained stable in week 38 compared to the previous week and was within the baseline activity level range.

There was one influenza confirmed outbreak reported in England in week 38.

There were four influenza ICU admissions in week 38.

ED attendances for influenza-like illness remained stable nationally.

RSV

The overall positivity for respiratory syncytial virus (RSV) remained low at 1.3%, with the highest positivity in those aged under 5 years old at 6.5%. ED attendances for acute bronchiolitis increased nationally in line with seasonal trends.

Other viruses

Adenovirus positivity remained low at 1.7%, with the highest positivity in children under 5 years old at 4.3%. Human metapneumovirus (hMPV) positivity remained low at 0.4%, with the highest positivity in children under 5 years old at 1.3%. Parainfluenza positivity remained low at 1.3%, with the highest positivity in children under 5 years old at 1.6%. Rhinovirus positivity increased to 13.1% overall, with the highest positivity in children aged between 5 and 14 years at 37.4%.

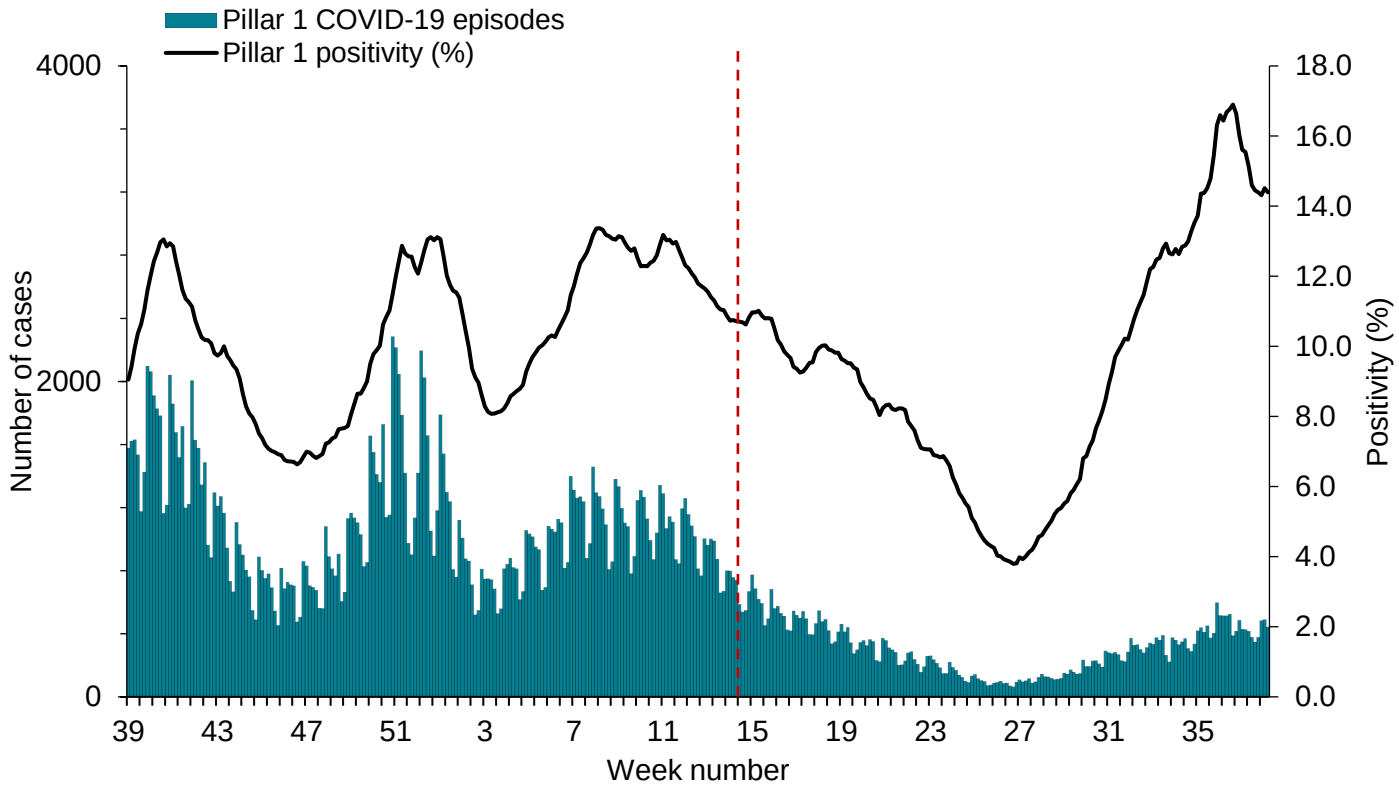
Laboratory surveillance

Confirmed COVID-19 cases (England)

As of 9am on 25 September 2023, a total of 2,129,346 episodes have been confirmed for COVID-19 in England under Pillar 1, and 18,805,531 episodes under Pillar 2, since the beginning of the pandemic. COVID-19 case rates through Pillar 1 was stable in most regions, age groups and ethnic groups in week 38.

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 (polymerase chain reaction (PCR) or rapid lateral flow device). Each infection episode begins with the earliest positive specimen date. Additionally, further changes in testing policy are in effect since 1 April 2023, which may affect case rates and positivity rates.

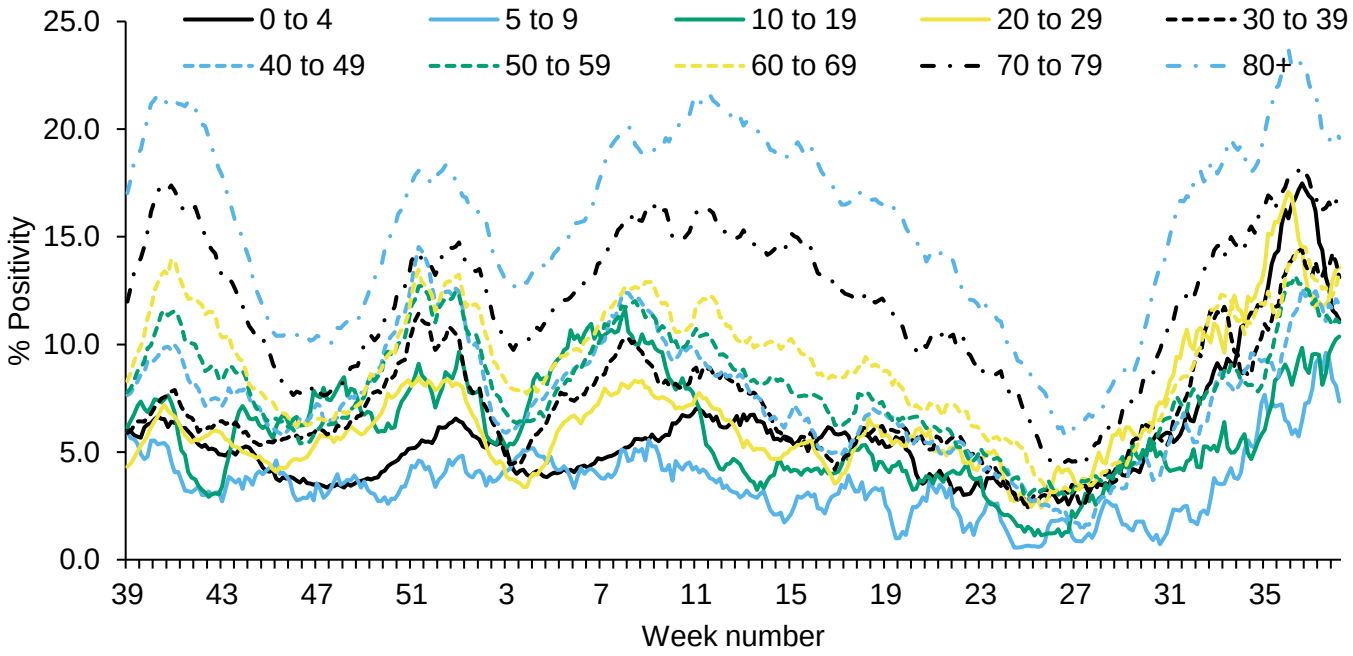
Figure 1: Confirmed COVID-19 episodes tested under Pillar 1, based on sample day with overall seven-day rolling average PCR positivity for Pillar 1 (%)



The vertical dashed line (red) denote changes in testing policies.

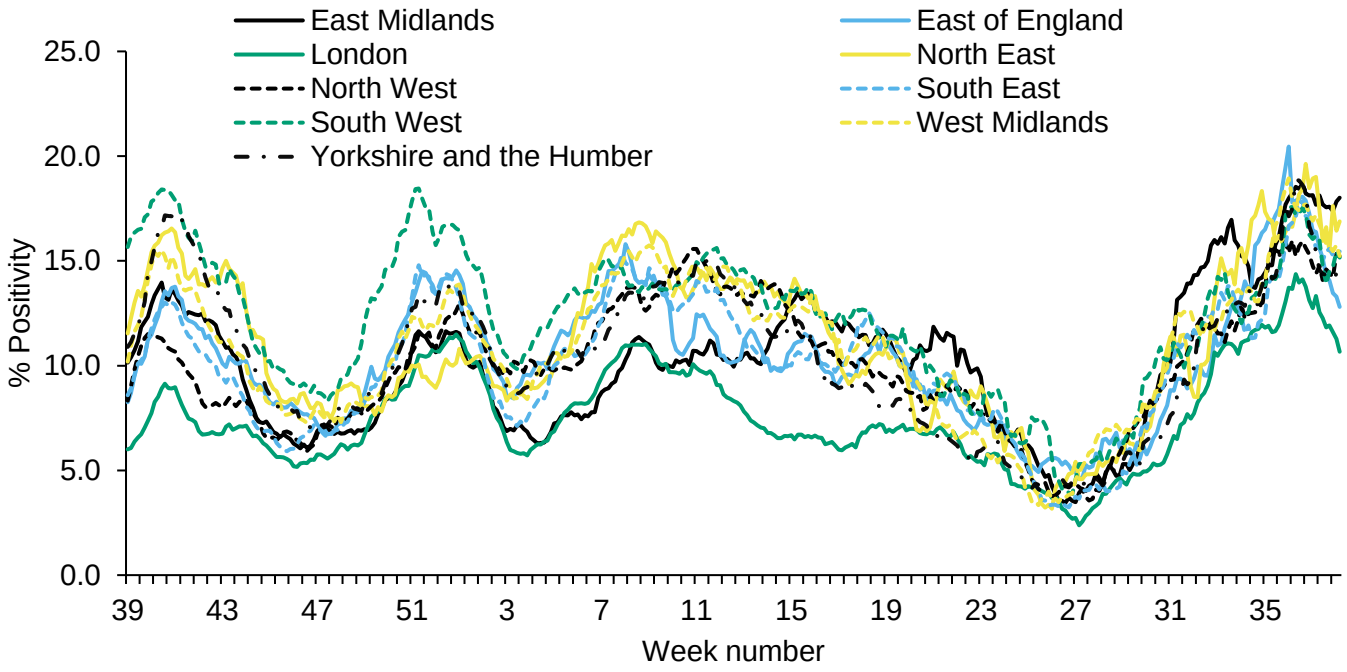
Age

Figure 2: Seven-day rolling average PCR positivity (%) of confirmed COVID-19 cases tested under Pillar 1 by age group



Geography

Figure 3: Seven-day rolling average PCR positivity (%) of confirmed COVID-19 cases tested under Pillar 1 by UKHSA centres



Respiratory DataMart system (England)

In week 38, data is based on reporting from 13 out of the 16 sentinel laboratories.

In week 38, 4,898 respiratory specimens reported through the Respiratory DataMart System were tested for SARS-CoV-2. 507 samples were positive for SARS-CoV-2 with an overall positivity of 10.4%, which is stable compared to the previous week. The highest positivity was seen in adults older than 65 years of age at 12.5%.

In week 38, 3,310 respiratory specimens reported through the Respiratory DataMart System were tested for influenza. 38 samples tested positive for influenza; 24 influenza A(not subtyped), 10 influenza A(H3N2) and four were influenza B (Figure 4). Overall, influenza positivity remained low and stable at 1.1% in week 38 compared to 0.8% in the previous week.

Adenovirus positivity remained low at 1.7%, with the highest positivity in children under 5 years old at 4.3%.

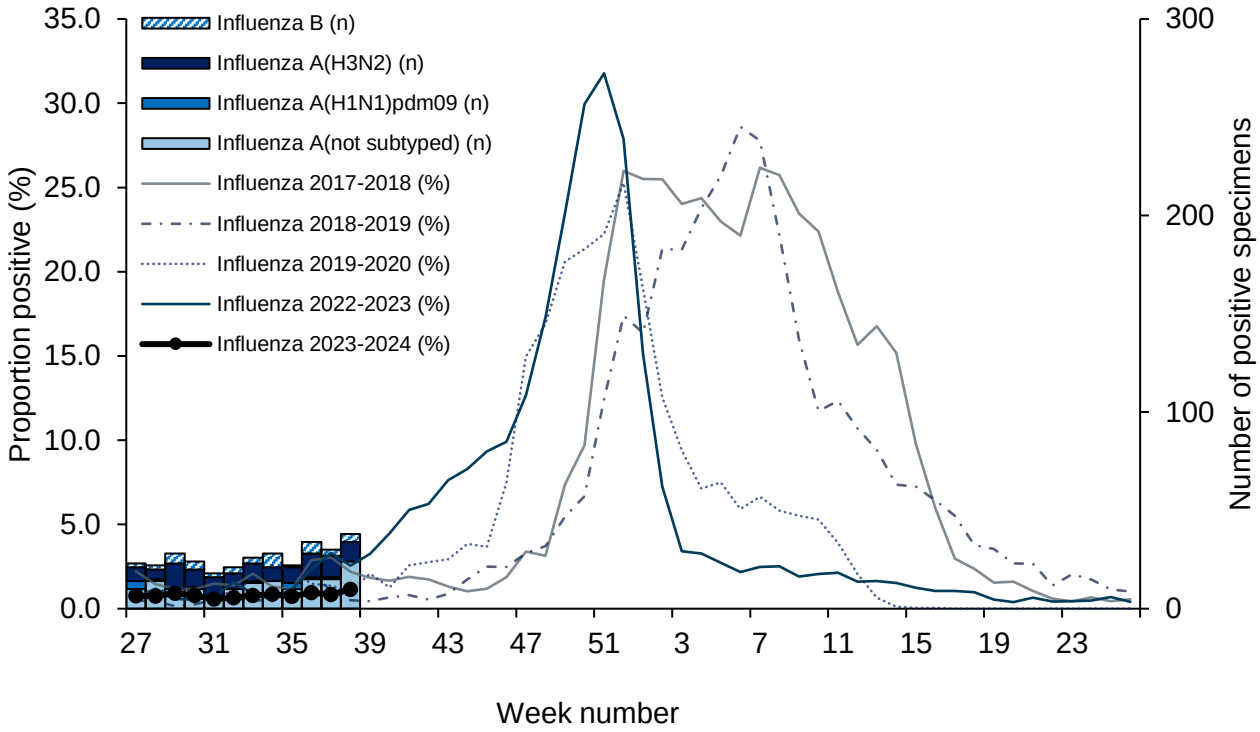
Human metapneumovirus (hMPV) positivity remained low at 0.4%, with the highest positivity in children under 5 years old at 1.3%.

Parainfluenza positivity remained low at 1.3%, with the highest positivity in children under 5 years old at 1.6%.

Rhinovirus positivity increased to 13.1% overall, with the highest positivity in children aged between 5 and 14 years at 37.4%.

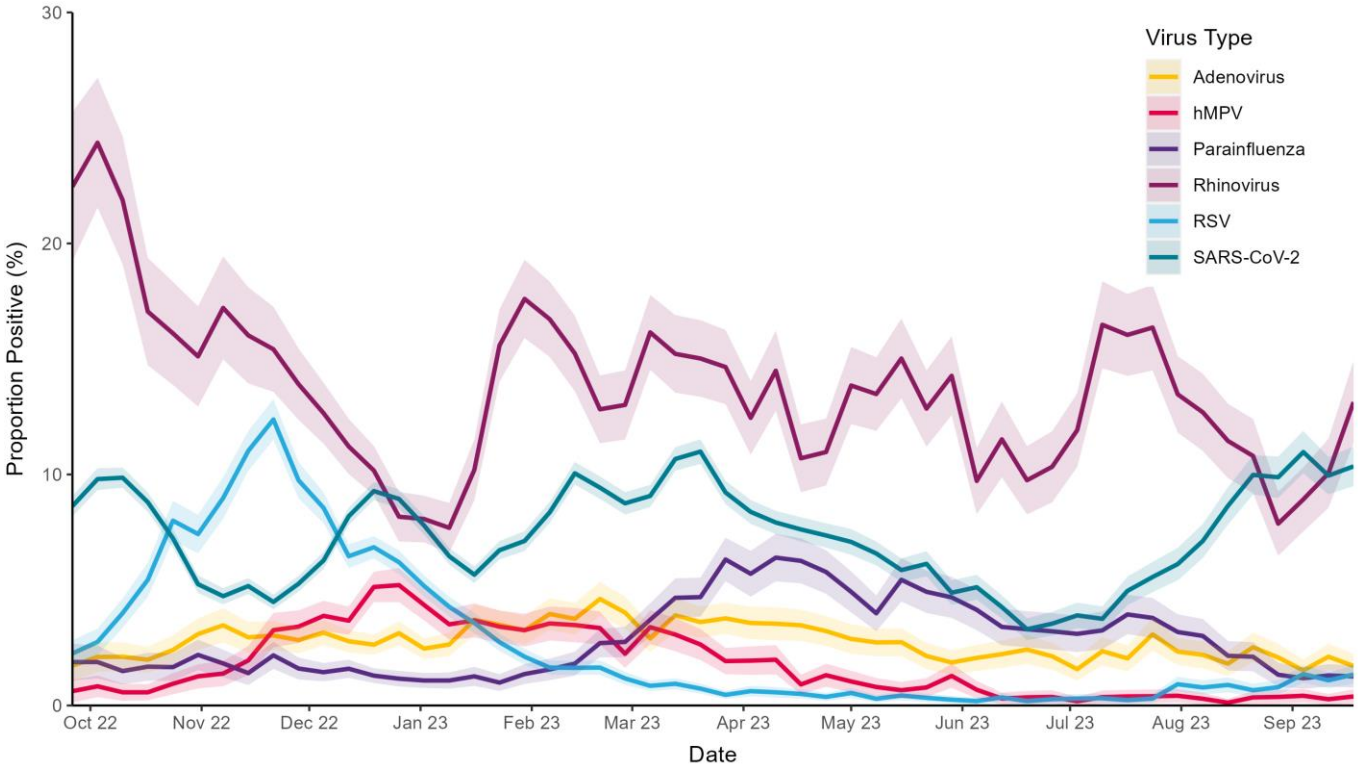
The overall positivity for RSV remained low at 1.3%, with the highest positivity in those aged under 5 years old at 6.5%.

Figure 4: Respiratory DataMart samples positive for influenza and weekly positivity (%) for influenza, England



Please note data from seasons 2020 to 2021 and 2021 to 2022 has been removed as there was low activity throughout.

Figure 5: Respiratory DataMart weekly positivity (%) for other viruses, England



Community surveillance

Acute respiratory infection incidents

Here we present data on acute respiratory infection (ARI) incidents in different settings that are reported to UK Health Security Agency (UKHSA) Health Protection Teams (HPTs).

96 new ARI incidents have been reported in week 38 in the UK:

- 58 incidents were from care homes, where 22 had at least one linked case that tested positive for SARS-CoV-2 and one was due to influenza A (not subtyped).
- 24 incidents were from hospitals, where 17 had at least one linked case that tested positive for SARS-CoV-2
- four incidents were from educational settings, where no test results were available
- one incident was from a prison, where no test result was available
- nine incidents were from other settings, where six had at least one linked case that tested positive for SARS-CoV-2

Figure 6: Number of acute respiratory infection (ARI) incidents by setting, England

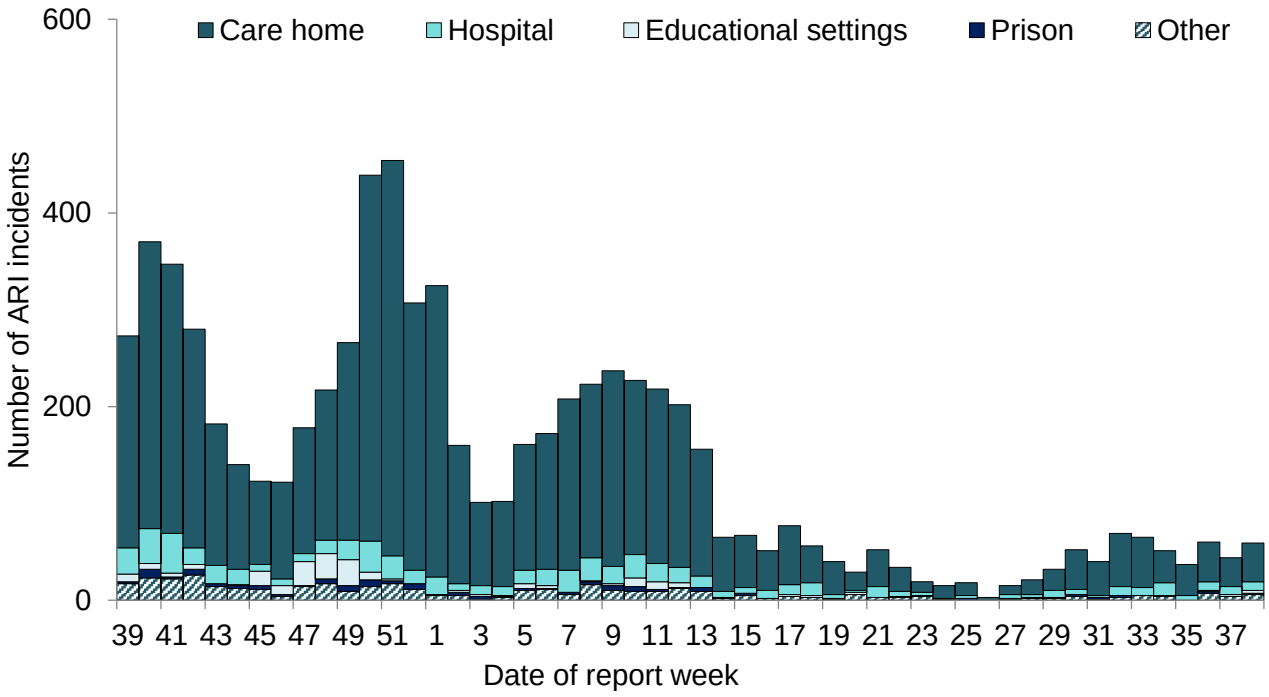
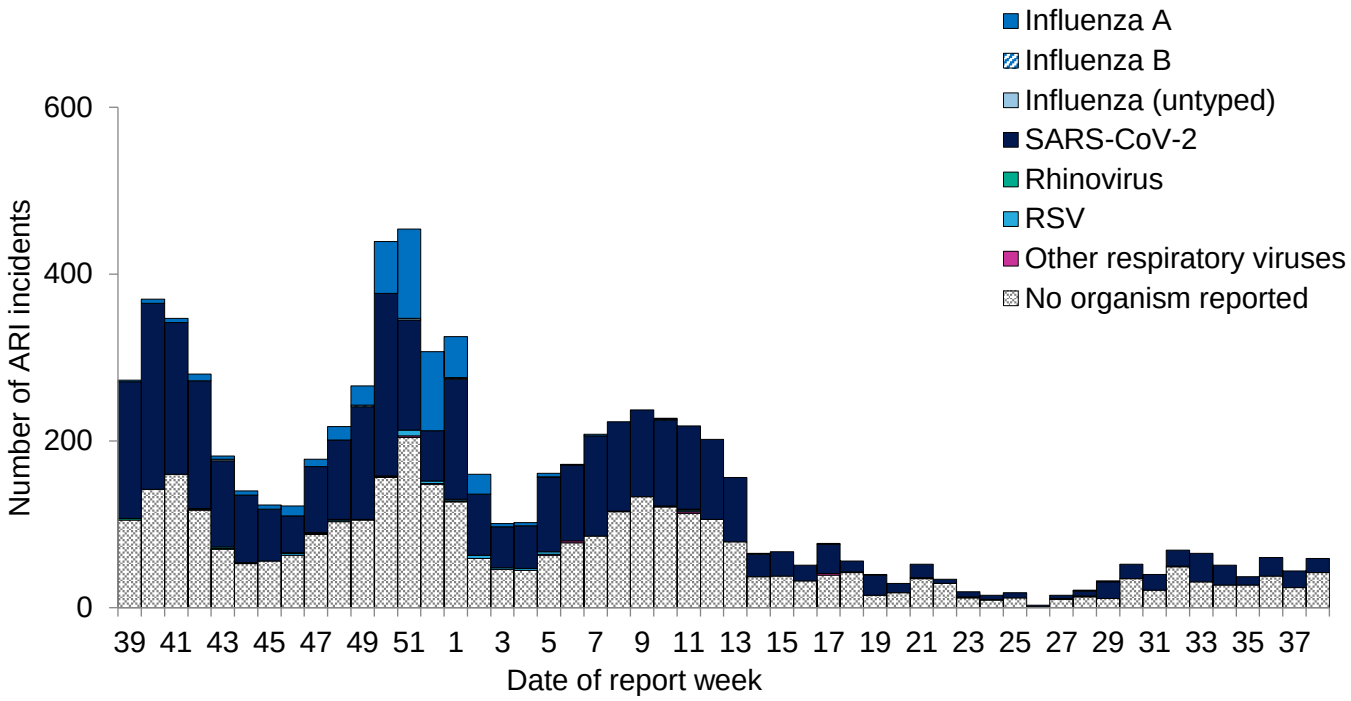


Figure 7: Number of acute respiratory infection (ARI) incidents in all settings by virus type, England



Syndromic surveillance

During week 38, NHS 111 calls for cold or flu increased in line with seasonally expected levels and NHS 111 calls for cough also increased nationally but were similar to expected levels. GP in hours consultation rates for influenza-like illness remained stable and similar to expected levels. ED attendances for influenza-like illness remained stable nationally and similar to expected levels. ED attendances for acute respiratory infection increased and remained similar to expected levels. ED attendances for acute bronchiolitis increased but were below baseline levels. ED attendances for covid-19-like illness increased nationally.

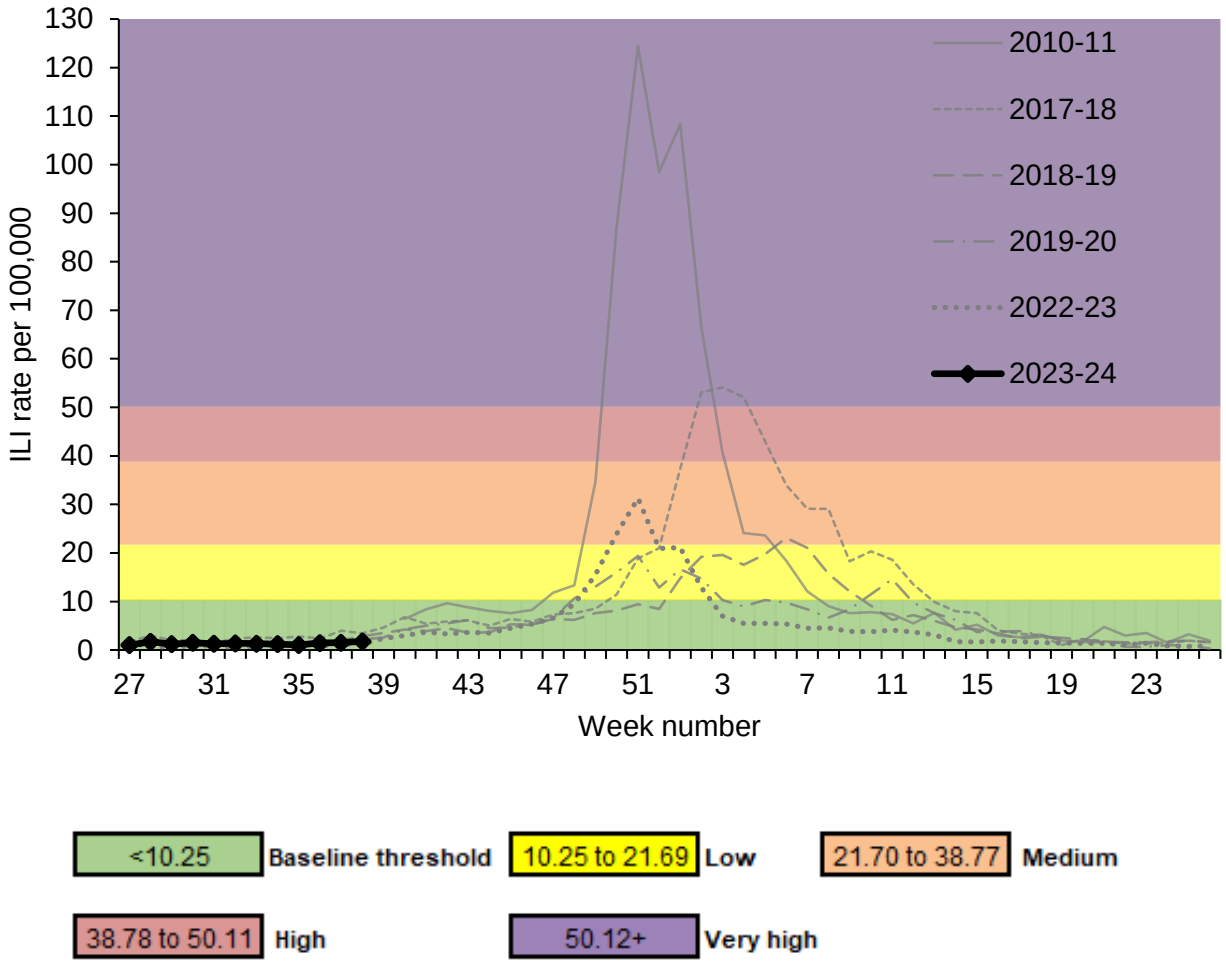
For further information on syndromic surveillance please see the Syndromic Surveillance: weekly summaries.

Primary care surveillance

RCGP Clinical Indicators (England)

The weekly influenza-like-illness (ILI) consultation rate through the Royal College of General Practitioners (RCGP) surveillance remained stable at 1.8 per 100,000 registered population in participating GP practices in week 38 compared to 1.5 per 100,000 in the previous week. This is within baseline activity levels (less than 11.47 per 100,000) (Figure 8).

Figure 8: RCGP influenza-like illness (ILI) consultation rates, all ages, England



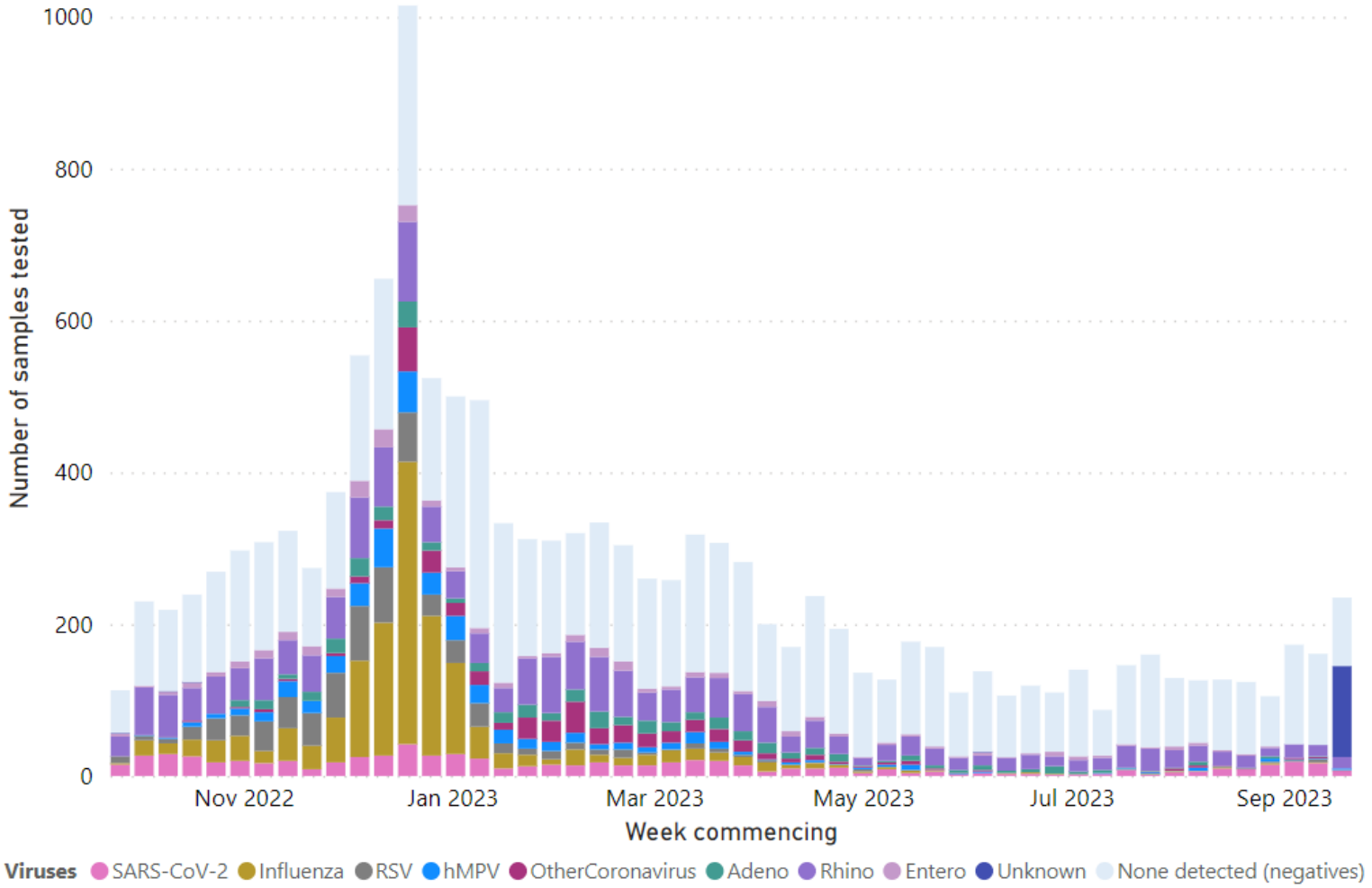
Please note data from seasons 2020 to 2021 and 2021 to 2022 has been removed as there was low activity throughout.

RCGP sentinel swabbing scheme in England

Based on the date samples were received in the reference laboratory, in week 38 2023 (week commencing 18 September 2023) 235 samples were tested through the GP sentinel swabbing scheme in England, of which 25 samples tested positive (Figure 9). Among all positive samples, 60.0% were positive for rhinovirus, 28.0% for SARS-CoV-2, 8.0% for hMPV and 4.0% for RSV (Figure 10).

Based on the date samples were taken, positivity for SARS-CoV-2 was 8.5% in week 37 compared to 12.7% in the week before, positivity for RSV was 1.2% and positivity for influenza was 0.6% in week 37 (Figure 11). Data for the most recent week will be updated retrospectively. Positivity (%) for week 38 is not calculated because the total number tested based on sample date is less than 20 (Figure 11).

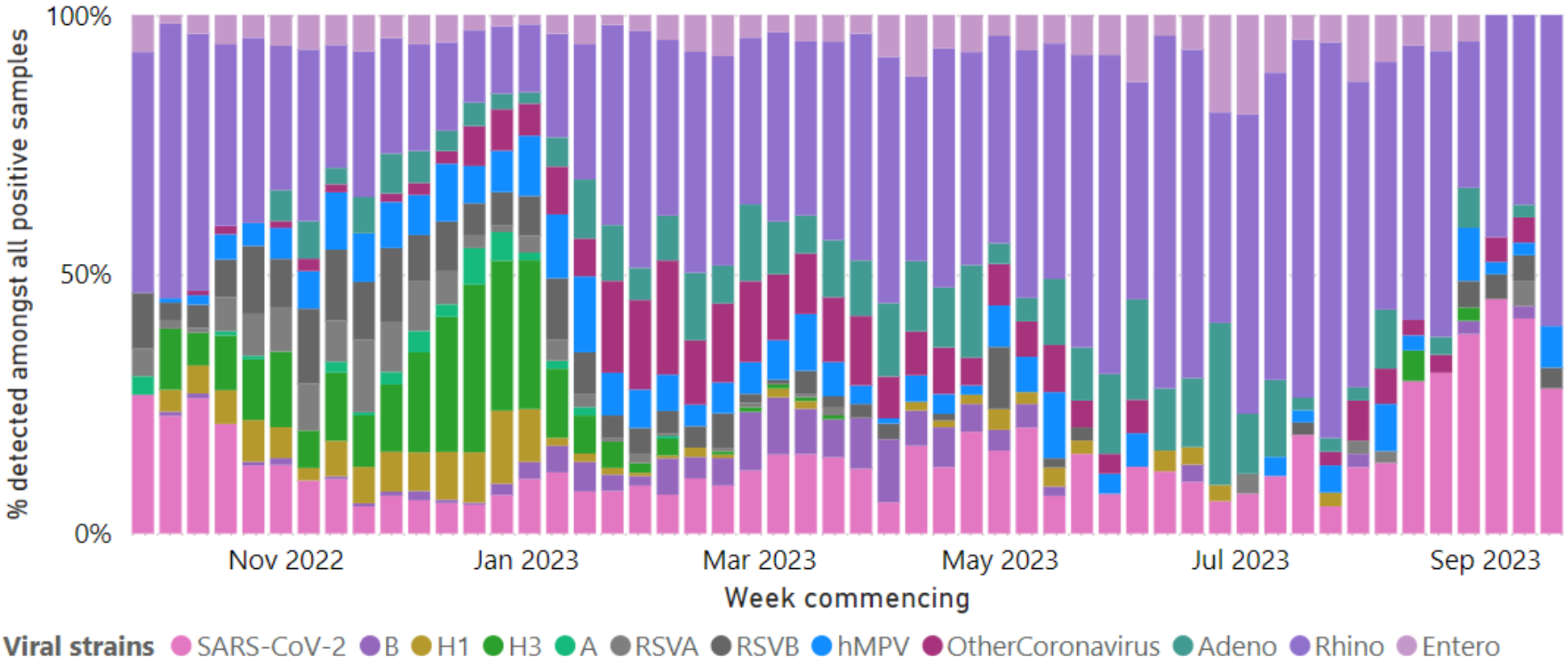
Figure 9: Number of samples tested for SARS-CoV-2, influenza, and other respiratory viruses in England by week, GP sentinel swabbing



Unknown category corresponds to samples with no result yet.

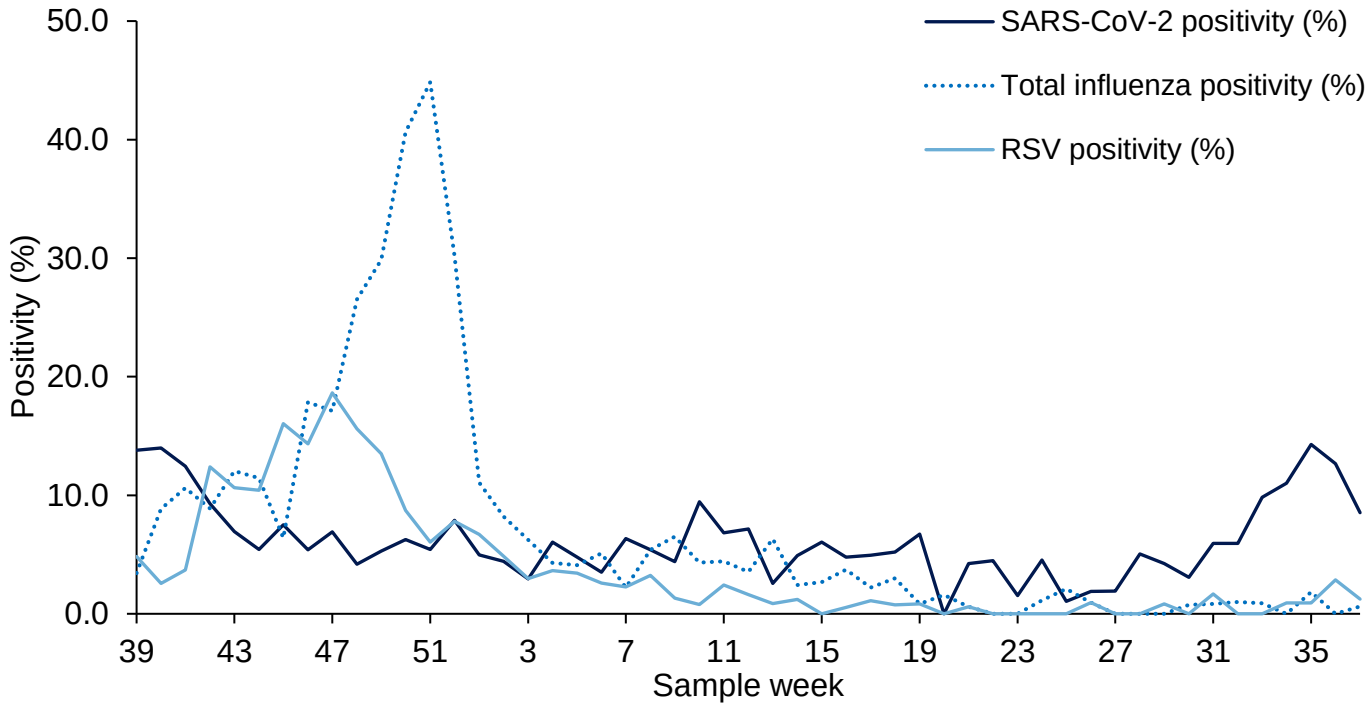
Source: RCGP Research and Surveillance Centre sentinel primary care practices (RCGP Virology Dashboard)

Figure 10: Proportion of detections of SARS-CoV-2, influenza, and other respiratory viral strains amongst virologically positive respiratory surveillance samples in England by week, GP sentinel swabbing scheme



Source: RCGP Research and Surveillance Centre sentinel primary care practices (RCGP Virology Dashboard)

Figure 11: Weekly positivity (%) for COVID-19, influenza and RSV in England by week, GP sentinel swabbing



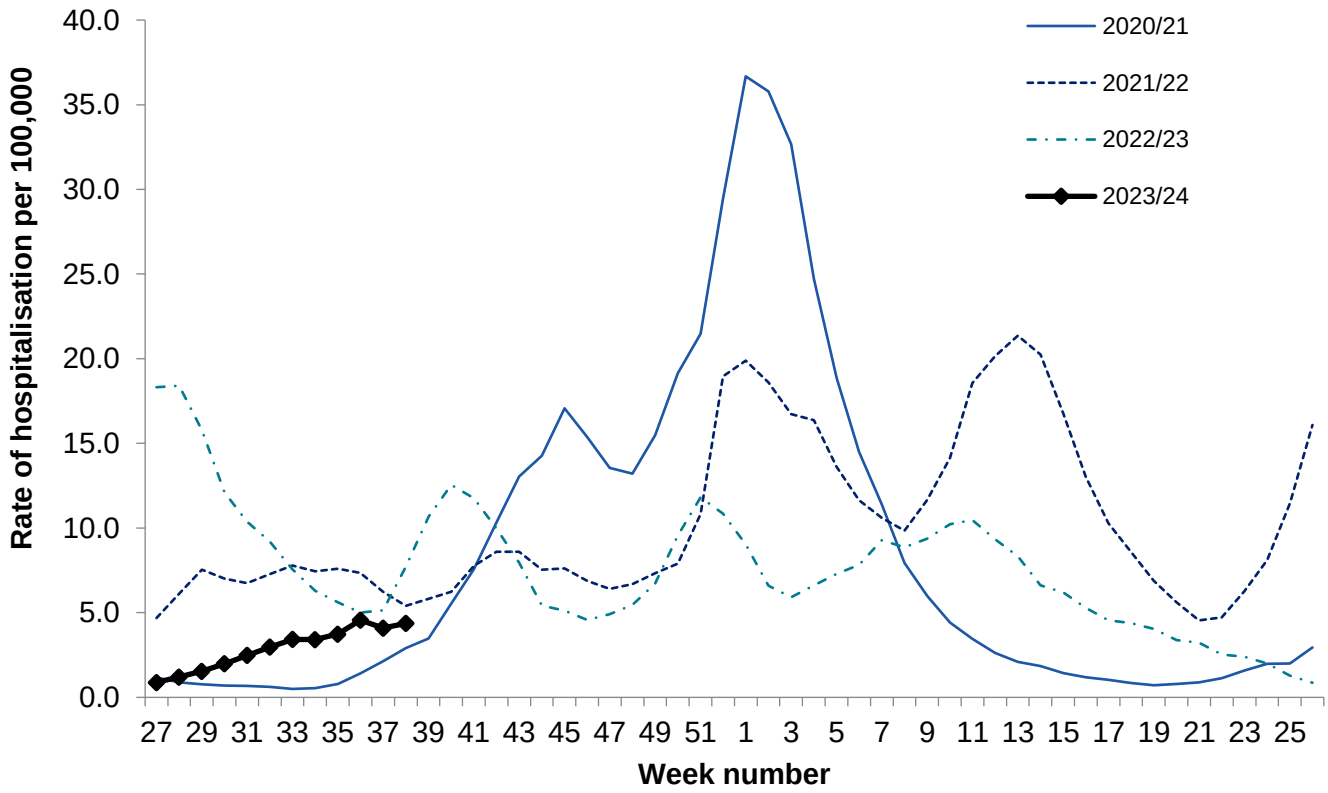
Secondary care surveillance

Hospitalisations, SARI Watch

In week 38 (ending 24 September 2023), the overall weekly hospital admission rate for COVID-19 remained stable at 4.36 per 100,000 compared to 4.09 per 100,000 in the previous week.

By UKHSA centre, the highest hospital admission rate for COVID-19 was observed in the North East. By age group, the highest hospital admission rate for confirmed COVID-19 continues to be in those aged 85 years and over.

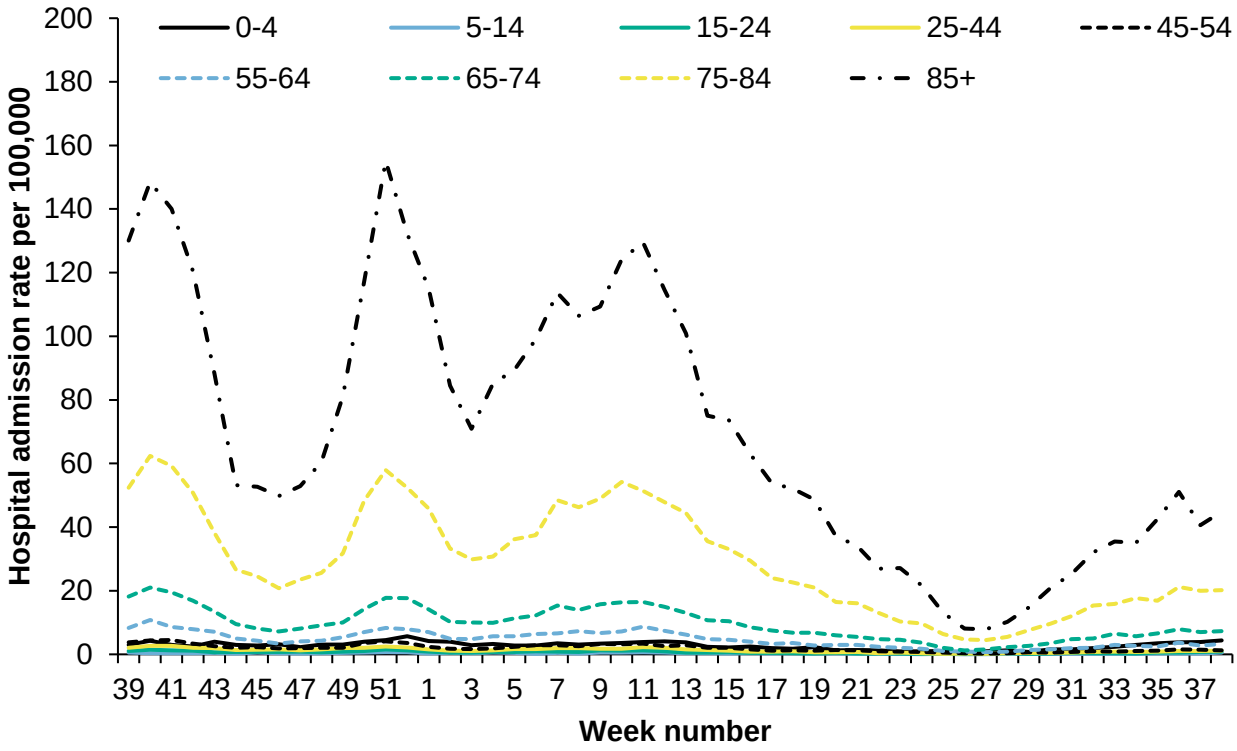
Figure 12: Weekly overall COVID-19 hospital admission rates per 100,000 trust catchment population, SARI Watch, England



* COVID-19 hospital admission rate based on 92 NHS trusts for week 38

* SARI Watch data is provisional and subject to retrospective updates

Figure 13: Weekly hospital admission rate by age group for new COVID-19 positive cases

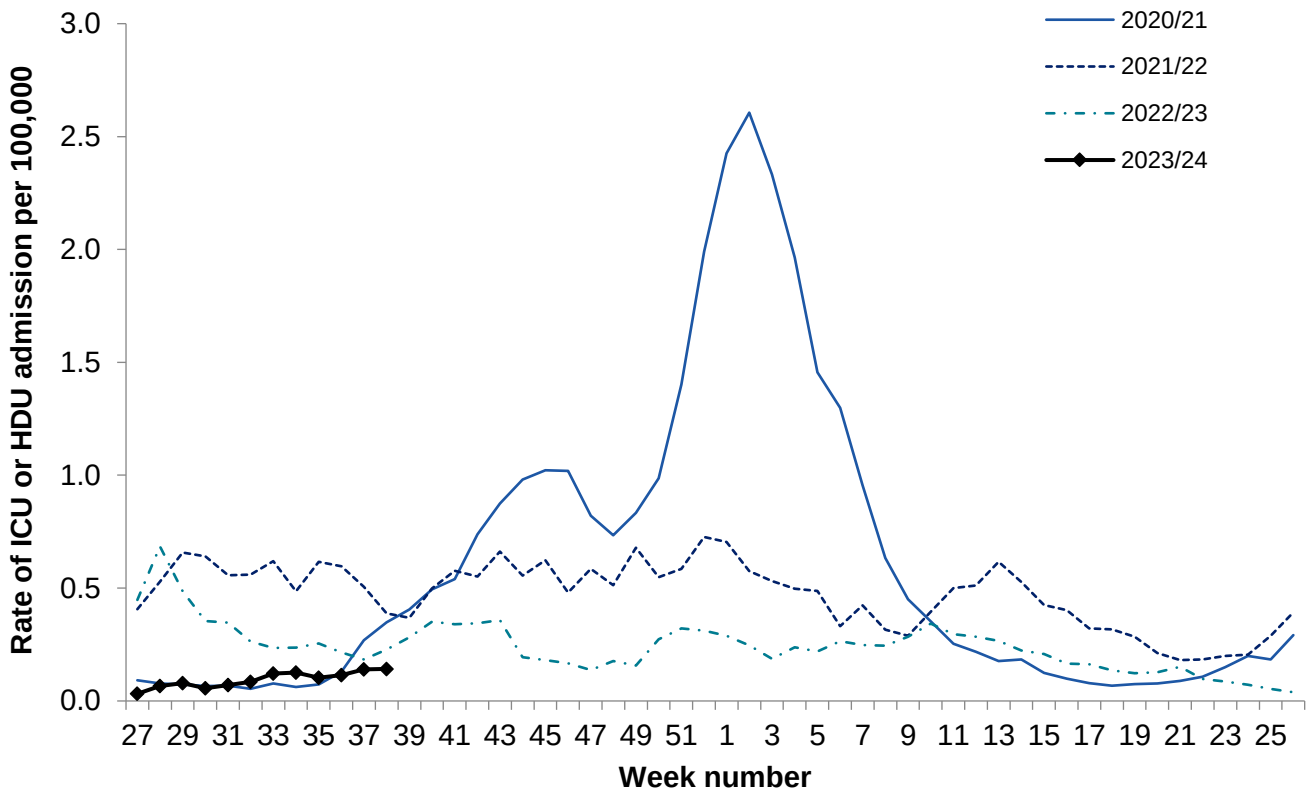


ICU or HDU admissions, SARI Watch

In week 38 (ending 24 September 2023), the overall weekly ICU or high dependency unit (HDU) admission rate for COVID-19 remained stable at low levels at 0.14 per 100,000, compared to 0.14 per 100,000 in the previous week. Note that ICU or HDU admission rates may represent a lag from admission to hospital to an ICU or HDU ward.

In week 38, the overall ICU or HDU rate for influenza remained stable at low levels at 0.01 per 100,000 compared to 0.01 per 100,000 in the previous week. The rate in the latest week remained at baseline activity levels. There were four new case reports of an ICU or HDU admission for influenza in week 38 (one influenza A(H1N1)pdm09, two influenza A(not subtyped) and one influenza B).

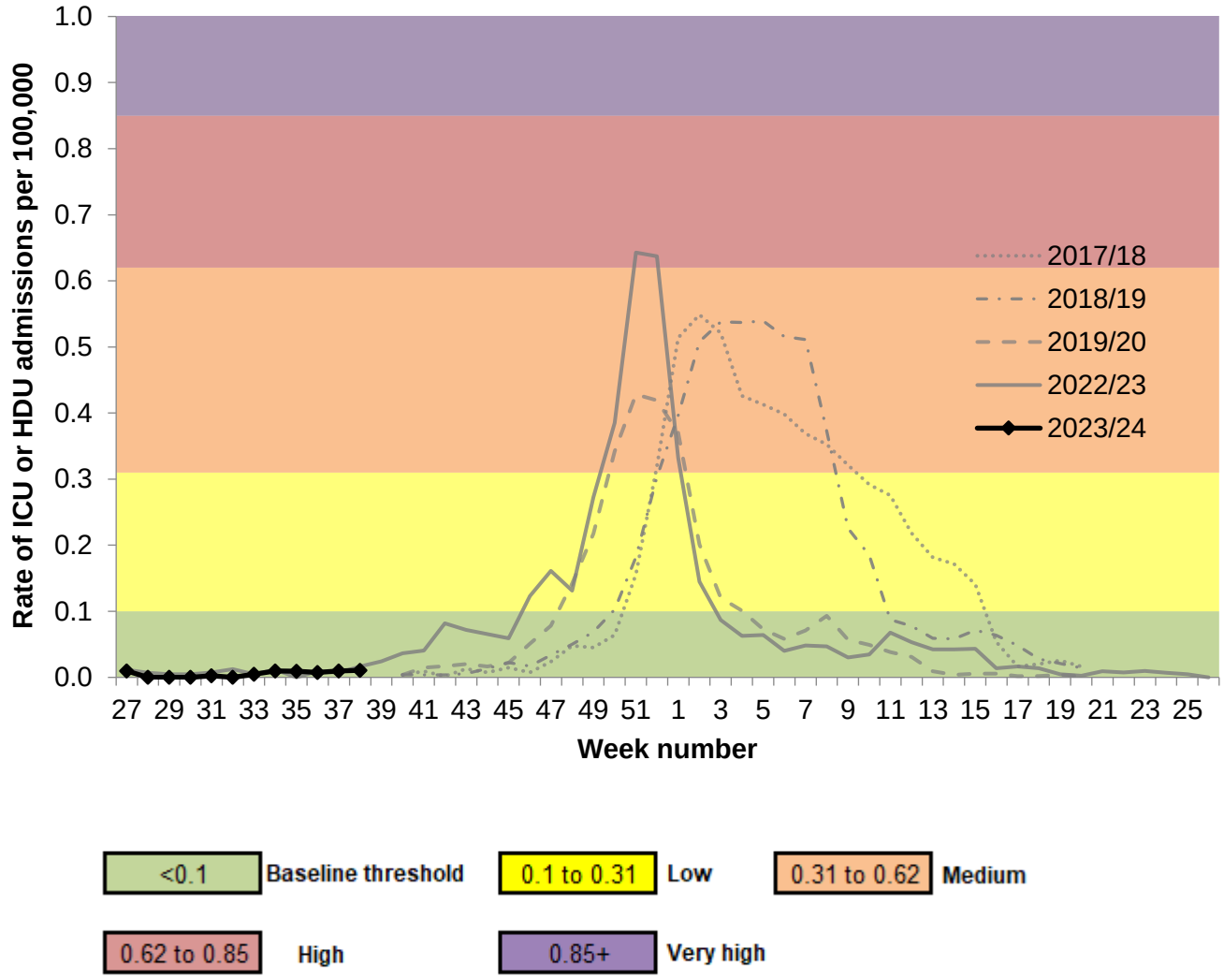
Figure 14: Weekly overall COVID-19 ICU or HDU admission rates per 100,000 trust catchment population, SARI Watch, England



* COVID-19 ICU or HDU admission rate based on 82 NHS trusts for week 38

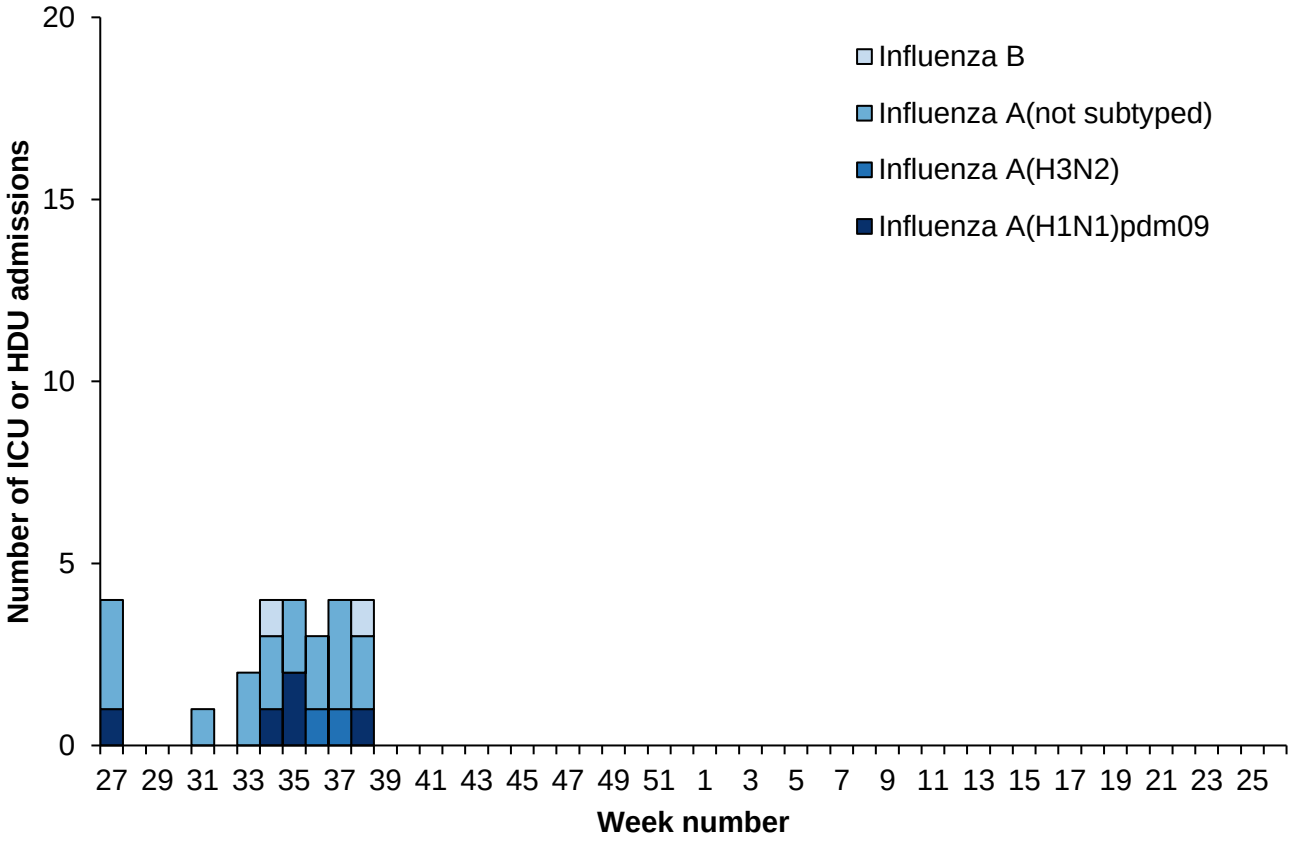
* SARI Watch data is provisional and subject to retrospective updates

Figure 15: Weekly overall influenza ICU or HDU admission rates per 100,000 trust catchment population with MEM thresholds, SARI Watch, England



Please note data from seasons 2020 to 2021 and 2021 to 2022 has been removed as there was low activity throughout.

Figure 16: Weekly influenza ICU or HDU admissions by influenza type, SARI Watch, England



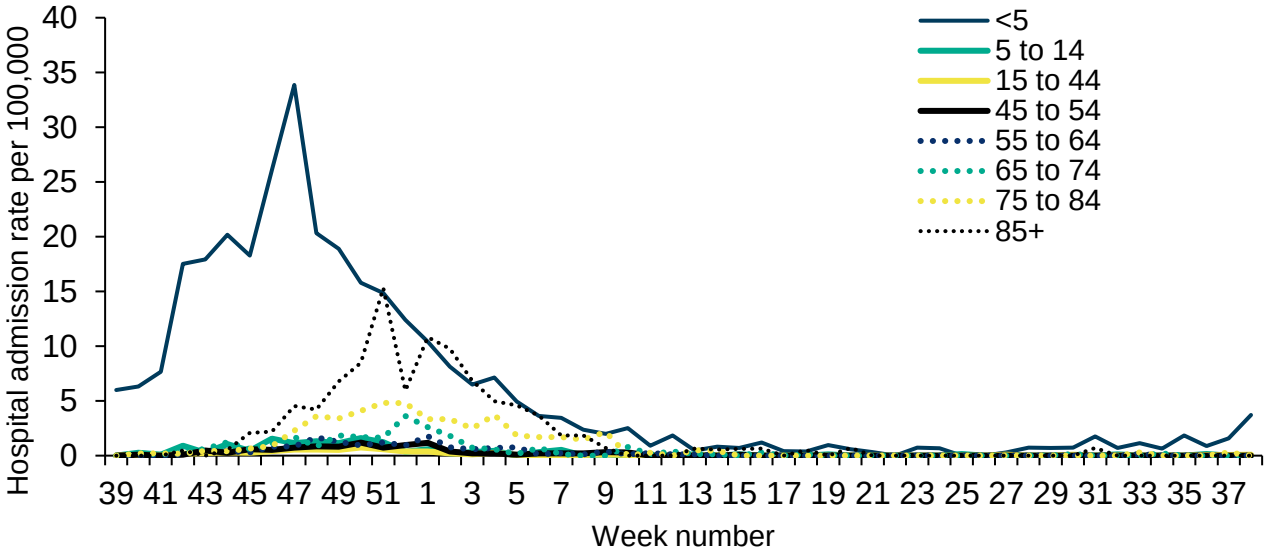
ECMO, SARI Watch

There was one new ECMO admission reported in week 38 from the 7 Severe Respiratory Failure (SRF) centres in the UK. The admission was not due to a suspected acute respiratory infection.

RSV admissions, SARI Watch

Data on hospitalisations, including ICU or HDU admissions, with respiratory syncytial virus (RSV) are shown below. RSV SARI Watch surveillance is sentinel.

Figure 17: Weekly hospitalisation (including ICU or HDU) admission rates by age group for new RSV cases reported through SARI Watch, England



* SARI Watch data is provisional

* Please note that rates are based on the number of hospitalised cases divided by the Trust catchment population, multiplied by 100,000

Mortality surveillance

COVID-19 deaths

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

Daily excess all-cause mortality (England)

For further information on excess all-cause mortality in England please see the Fingertips excess mortality in England report, which uses ONS death registration data and the all-cause mortality surveillance report, which uses the European Mortality Monitoring (EuroMOMO) model to measure excess deaths.

Microbiological surveillance

SARS-CoV-2 variants

UKHSA conducts genomic surveillance of SARS-CoV-2 variants.

This section provides an overview of circulating variants in England.

Detailed surveillance of particular variants of concerns can be found in recent technical briefings.

Information on whole genome sequencing coverage can be found in the accompanying slide set.

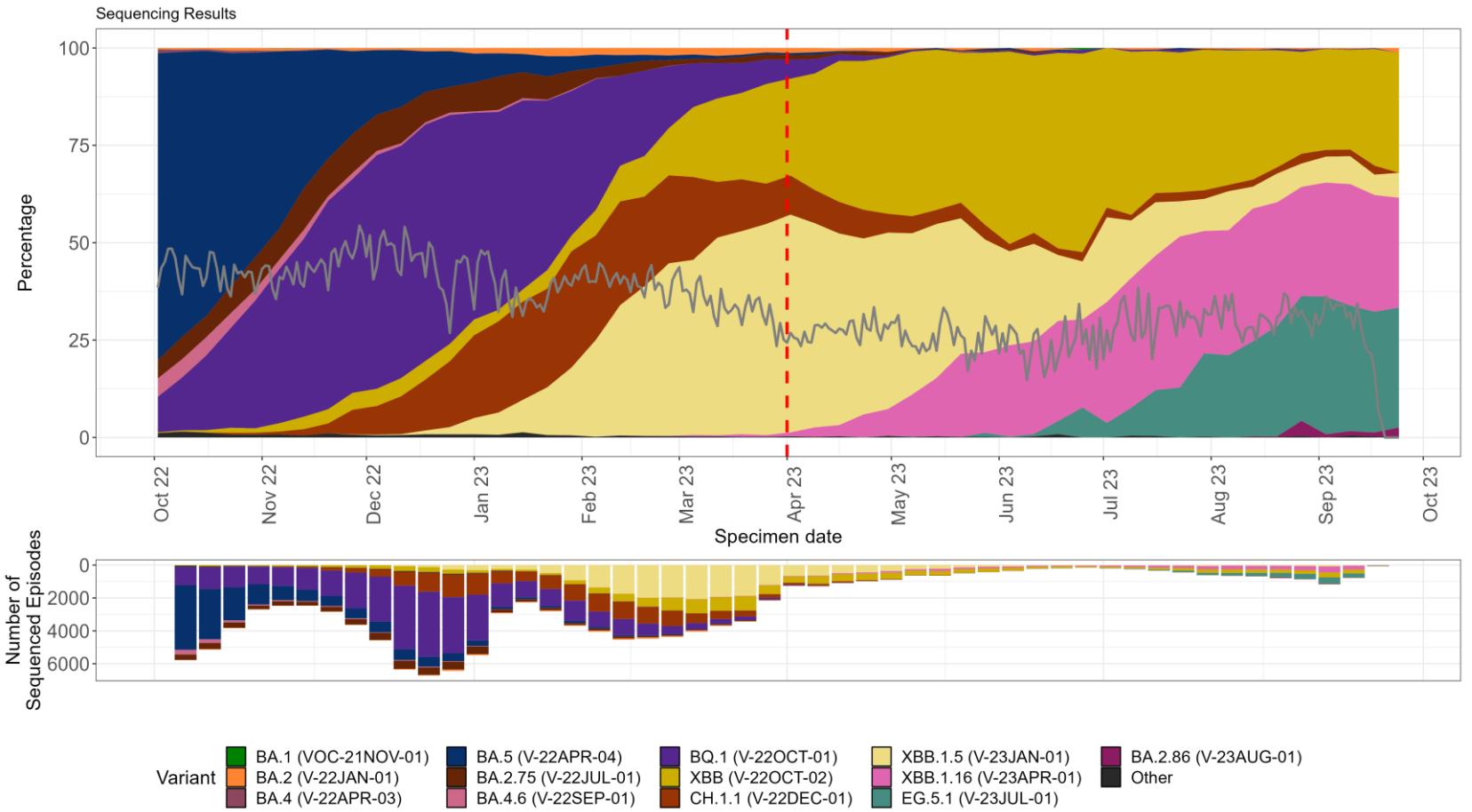
Since 19 June 2023, there has been an average 356 confirmed sequenced cases per week. Due to the small absolute numbers of confirmed sequenced cases, changes in variant proportions appear more pronounced in Figure 18.

The prevalence of different UKHSA-designated variants amongst sequenced episodes is presented in Figure 18.

Variants may include many sub-lineages that have not been individually designated for example XBB.1.9.2 within XBB (V-22OCT-02). As a result, prevalence of that variant may appear to increase as a whole, masking the effect of one or more growing sublineages. Once a sublineage meets required thresholds to be declared a variant, it will be designated as a variant and prevalence of this sublineage in positive cases will then be identifiable in the data.

To account for sequencing delays, we report the proportion of variants from sequenced episodes between 11 September 2023 and 17 September 2023. Of those sequenced in this period, 31.0% were classified as EG.5.1 (V-23JUL-01), 30.0% as XBB.1.16 (V-23APR-01), 30.0% as XBB (V-22OCT-02), 5.2% as XBB.1.5 (V-23JAN-01), 2.3% as CH.1.1 (V-22DEC-01), and 1.0% as BA.2.86 (V-23AUG-01).

Figure 18: Prevalence of SARS-CoV-2 variants amongst available sequences episodes for England from 2 October 2022 to 24 September 2023



The grey line indicates proportion of cases sequenced.
The vertical dashed lines (red) denote changes in policies:

- April 2023 denotes changes in PCR testing in social care and hospital settings

Note: Recombinants such as XD are not specified but are largely within the 'Other' group currently as numbers are too small.

COVID-19 vaccination

COVID-19 vaccine uptake in England

The 2023 spring booster campaign has been completed and there will be no further updates to this section from week 28 until initiation of the 2023 autumn booster campaign. Data on uptake from the booster campaign will be included in the next report (week 41, published on 12 October 2023). Additionally, data on seasonal flu vaccine uptake in GP patients from 1 September 2023 will be also included in the next report.

By the end of week 26 2023 (week ending 2 July 2023), 71.1% (3,856,204 out of 5,423,074) of all people aged over 75 years old who are living and resident in England had been vaccinated with a Spring 2023 booster dose since 3 April 2023.

By the end of week 26 2023 (week ending 2 July 2023), 41.2% (915,421 out of 2,223,120) of all people aged 5 years and over who are immunosuppressed and living and resident in England had been vaccinated with a Spring 2023 booster dose since 3 April 2023.

International update

Global COVID-19 update

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

Global influenza update

Updated 18 September 2023 (based on data up to 3 September 2023) (WHO website).

Globally, influenza detections remained low.

In Oceania, influenza activity decreased with influenza A(H1N1)pdm09 and influenza B viruses predominant.

In South Africa, influenza activity remained below the seasonal threshold after peaking in early June, although detections of influenza B/Victoria lineage increased in recent weeks.

In temperate South America, influenza detections remained low overall with A and B viruses co-circulating. Severe acute respiratory infections (SARI) activity remained above seasonal baselines in Paraguay and Uruguay.

In the Caribbean countries, influenza activity remained low overall.

In the Central American countries, influenza activity decreased overall with influenza B viruses most frequently detected followed by A(H1N1)pdm09 viruses.

In the tropical countries of South America, overall influenza activity was low with detections of predominantly A(H1N1)pdm09 and B viruses.

In tropical Africa, influenza detections remained low overall and in most reporting countries, with all seasonal influenza subtypes co-circulating.

In Southern Asia, influenza activity remained low overall with increased detections reported in Bangladesh, Bhutan, Maldives and Nepal.

In South-East Asia, influenza activity remained elevated overall, with continued reporting of predominantly influenza A(H1N1)pdm09 and A(H3N2) virus detections.

In the temperate zones of the northern hemisphere, indicators of influenza activity were reported at low levels or below seasonal threshold in most reporting countries. Detections were predominantly influenza A(H3N2) followed by influenza A(H1N1)pdm09 and B viruses.

The WHO GISRS laboratories tested more than 252,496 specimens during that time period. 5,934 were positive for influenza viruses, of which 4,591 (77.4%) were typed as influenza A and 1,343 (22.6%) as influenza B. Of the sub-typed influenza A viruses, 1,231 (34.9%) were influenza A(H1N1)pdm09 and 2,295 (65.1%) were influenza A(H3N2). Of the type B for which lineage was determined, all (467) belonged to the B/Victoria lineage.

Influenza in Australia

Updated 22 September 2023 (based on data up to fortnight ending 17 September 2023) (Australian Government website).

Australia monitors influenza through a number of complementary systems. The Australian government advises caution in the interpretation of data reported from various influenza surveillance systems due to the effects of COVID-19, particularly when making inter-season comparisons. Caution should also be applied in assessing the implications of influenza activity in Australia to the UK. It is not possible to reliably predict the course of the 2023 southern hemisphere influenza season or the implications for the following 2023 to 2024 northern hemisphere season, such as the timing, activity and impact of the 2023 to 2024 influenza season in the UK. Australia is one of many countries from which flu may arrive in the UK, including other countries which are more populous and or have more frequent inbound travel. Australia's influenza activity reflects its specific epidemiological circumstance and has no bearing on the local persistence of influenza in the UK in our inter-seasonal period.

Influenza-like-illness (ILI) activity in the community reported to FluTracking has continued to be stable in the last fortnight. Data on ILI presentations to ASPREN sentinel GPs are unfortunately unavailable this fortnight due to an unforeseen data transmission issue. In the year-to-date (1 January to 17 September 2023), there have been 235,018 notifications reported to the National Notifiable Diseases Surveillance System (NNDSS) in Australia, of which 9,141 notifications had a diagnosis date this fortnight.

In the year-to-date, of the 235,018 notifications of laboratory-confirmed influenza, 249 influenza-associated deaths have been notified to the NNDSS. Since seasonal surveillance commenced in April 2023, there have been 3,224 sentinel hospital admissions, of which 232 (7%) were admitted directly to ICU.

In the year-to-date, 58% of notifications of laboratory-confirmed influenza reported to the NNDSS were influenza A, of which 95% were influenza A(unsubtyped); 5% were influenza A(H1N1); and 0.63% were influenza A(H3N2). Influenza B accounted for 40% of notifications; influenza A&B accounted for 0.32% of notifications; and 2% of influenza notifications were untyped.

Of the 3,247 samples referred to the WHOCC in the year-to-date, 98% of influenza A(H1N1) isolates, 83% of influenza A(H3N2) isolates, and 99% of influenza B/Victoria isolates characterised were antigenically similar to the corresponding vaccine components.

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

Other respiratory viruses

Avian influenza and other zoonotic influenza

Latest WHO update on 14 July 2023

From 1 June to 14 July 2023, one human case of infection with an influenza A(H1N1) variant virus, two human cases with positive influenza A(H5N1) detections, one human case of infection with an influenza A(H5N6) virus, and one human case of infection with an influenza A(H9N2) virus were reported officially.

The overall public health risk from currently known influenza viruses at the human-animal interface has not changed, and the likelihood of sustained human-to-human transmission of these viruses remains low. Human infections with viruses of animal origin are expected at the human-animal interface wherever these viruses circulate in animals.

UKHSA has detected influenza A(H5) virus in two poultry workers, following the introduction of an asymptomatic testing programme for people who have been in contact with infected birds. See the UKHSA press release 16 May 2023 for more information.

Latest UKHSA avian influenza technical briefing 14 July 2023

Since the last technical briefing, 2 cases of influenza A(H5N1) clade 2.3.4.4b have been reported from England.

See also the WHO Disease Outbreak News Reports for more information.

Middle East respiratory syndrome coronavirus (MERS-CoV)

On 10 July 2023, the United Arab Emirates (UAE), notified WHO of a case of Middle East Respiratory Syndrome Coronavirus (MERS-CoV) in a 28-year-old male from Al Ain city in Abu Dhabi. Since July 2013, when the UAE reported the first case of MERS-CoV, 94 confirmed cases (including this new case) and 12 deaths have been reported.

From April 2012 to August 2023, a total of 2,605 laboratory-confirmed cases of MERS-CoV and 937 associated deaths were reported globally to WHO under the International Health Regulations (IHR 2005). WHO publishes monthly updates.

Between 29 December 2021 and 31 October 2022, four laboratory-confirmed cases of MERS-CoV were reported to WHO by the Ministry of Health of the Kingdom of Saudi Arabia. No deaths were reported (WHO website).

On 28 April 2022, the National IHR Focal point of Oman notified WHO of one case of MERS-CoV in Oman (WHO website).

Between 22 March and 3 April 2022, the National IHR Focal Point of Qatar reported 2 laboratory-confirmed cases of Middle East respiratory syndrome coronavirus (MERS-CoV) infection to the WHO (WHO website).

A total of 5 cases of Middle East respiratory syndrome coronavirus, MERS-CoV, (3 imported and 2 linked cases) have been confirmed in the UK through ongoing surveillance since September 2012.

Further information on management and guidance of possible cases is available online. The latest ECDC MERS-CoV risk assessment 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

UKHSA has delegated authority, on behalf of the Secretary of State, to process Patient Confidential Data under Regulation 3 The Health Service (Control of Patient Information) Regulations 2002

Regulation 3 makes provision for the processing of patient information for the recognition, control and prevention of communicable disease and other risks to public health.

About the UK Health Security Agency

The UK Health Security Agency is an executive agency, sponsored by the Department of Health and Social Care.

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Prepared by: Immunisation and Vaccine Preventable Diseases Division
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Published: 28 September 2023

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