National Influenza and COVID-19 surveillance report
Week 37 report (up to week 36 data)
14 September 2023
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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 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 36 (between 4 September and 10 September 2023) and for some indicators daily data up to 13 September 2023.

Overall
In week 36, from most indicators, influenza activity remained low and stable. COVID-19 activity showed a mixed picture with stabilisation of ICU admissions and emergency department attendances but an increase in laboratory surveillance testing positivity rates, outbreaks, primary care positivity and hospital admissions.

COVID-19
COVID-19 case rates through Pillar 1 increased in most regions and age groups in week 36. Through Respiratory DataMart, SARS-CoV-2 positivity increased slightly to 10.2% in week 36 compared to 9.9% in the previous week.

The overall number of reported SARS-CoV-2 confirmed outbreaks increased compared to the previous week. 22 SARS-CoV-2 confirmed outbreaks were reported in week 36 in England. Primary care sentinel swabbing positivity continued to increase.

Overall, COVID-19 hospitalisations increased in week 36 compared to the previous week. Hospitalisations were highest in the 85 years and over age group. COVID-19 ICU admissions remained low and stable in week 36 compared to the previous week.

Through syndromic surveillance indicators, emergency department attendances for COVID-like illness were stable nationally.

Influenza
Through Respiratory DataMart, influenza positivity remained low and stable at 0.8% in week 36.

Through primary care surveillance, the influenza-like-illness consultations indicator remained stable in week 36 compared to the previous week and was within the baseline activity level range.

No influenza confirmed outbreaks were reported in England in week 36.

There were 3 influenza ICU admissions in week 36.

Emergency department attendances for influenza-like illness remained stable nationally.
RSV
The overall positivity for RSV remained low at 1.4%, with the highest positivity in those aged under 5 years old at 7.9%. Emergency department attendances for acute bronchiolitis increased nationally but were below expected levels.

Other viruses
Adenovirus positivity remained low at 1.9%, with the highest positivity in children between 5 and 14 years old at 6.0%. Human metapneumovirus (hMPV) positivity remained low at 0.3%, with the highest positivity in children under 5 years old at 0.6%. Parainfluenza positivity remained low at 1.2%, with the highest positivity in adults between 45 and 64 years old at 2.8%. Rhinovirus positivity remained stable at 8.0% overall, with the highest positivity in children under 5 years old at 18.7%.
Laboratory surveillance

Confirmed COVID-19 cases (England)

As of 9am on 10 September 2023, a total of 2,122,979 episodes have been confirmed for COVID-19 in England under Pillar 1, and 18,787,709 episodes under Pillar 2, since the beginning of the pandemic. COVID-19 case rates through Pillar 1 increased in most regions, age groups, and in some ethnic groups in week 36.

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

In week 36, 3,297 respiratory specimens reported through the Respiratory DataMart System were tested for SARS-CoV-2. 337 samples were positive for SARS-CoV-2 with an overall positivity of 10.2%, which increased slightly compared to the previous week. The highest positivity was seen in adults older than 65 years of age at 13.7%.

In week 36, 2,390 respiratory specimens reported through the Respiratory DataMart System were tested for influenza. 20 samples tested positive for influenza; 12 influenza A(not subtyped), 2 influenza A(H3N2), one influenza A(H1N1)pdm09 and 5 were influenza B (Figure 4). Overall, influenza positivity remained low and stable at 0.8% in week 36 compared to 0.7% in the previous week.

Adenovirus positivity remained low at 1.9%, with the highest positivity in children between 5 and 14 years old at 6.0%.

Human metapneumovirus (hMPV) positivity remained low at 0.3%, with the highest positivity in children under 5 years old at 0.6%.

Parainfluenza positivity remained low at 1.2%, with the highest positivity in adults between 45 and 64 years old at 2.8%.

Rhinovirus positivity remained stable at 8.0% overall, with the highest positivity in children under 5 years old at 18.7%.

The overall positivity for RSV remained low at 1.4%, with the highest positivity in those aged under 5 years old at 7.9%.
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 UKHSA Health Protection Teams (HPTs).

97 new ARI incidents have been reported in week 36 in the UK:

- 64 incidents were from care homes, where 29 had at least one linked case that tested positive for SARS-CoV-2
- 19 incidents were from hospitals, where 11 had at least one linked case that tested positive for SARS-CoV-2
- One incident was from an educational setting, where no test result was available
- Three incidents were from prisons, where no test results were available
- Ten incidents were from other settings, where 6 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**

![Graph showing the number of ARI incidents by virus type from week 37 to 35. The graph includes peaks for Influenza A and SARS-CoV-2 in different weeks.]
Syndromic surveillance

During week 36, NHS 111 calls for cold or flu increased in line with seasonally expected levels and NHS 111 calls for cough remained stable nationally and similar to expected levels. GP in hours consultation rates for influenza-like illness remained stable and similar to expected levels. Emergency department (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 expected levels. ED attendances for COVID-19-like illness were generally stable following previous weeks’ increases.

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 RCGP surveillance remained stable at 1.4 per 100,000 registered population in participating GP practices in week 36 compared to 1.1 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 36 2023 (week commencing 4 September 2023) 170 samples were tested through the GP sentinel swabbing scheme in England, of which 31 samples tested positive (Figure 9). Among all positive samples, 54.8% were positive for SARS-CoV-2, 38.8% for rhinovirus, 3.2% for other coronavirus and 3.2% for hMPV (Figure 10).

Based on the date samples were taken, positivity for SARS-CoV-2 was 15.2%, positivity for RSV was 0.0% and positivity for influenza was 0.0% in week 36 (Figure 11). Data for the most recent week will be updated retrospectively. Positivity (%) is not calculated when 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

Viral strains: SARS-CoV-2, B, H1, H3, A, RSVA, RSVB, hMPV, Other Coronavirus, Adeno, Rhino, Entero

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

- SARS-CoV-2 positivity (%)
- Total influenza positivity (%)
- RSV positivity (%)

Sample week

Positivity (%)
Secondary care surveillance

Hospitalisations, SARI Watch

In week 36 (ending 10 September 2023), the overall weekly hospital admission rate for COVID-19 increased to 4.56 per 100,000 compared to 3.73 per 100,000 in the previous week. The rate has been increasing since week 28 2023 with stabilisation in week 34 although the current rate is still low.

By UKHSA centre, the highest hospital admission rate for COVID-19 was observed in the South West. By age group, the highest hospital admission rate for confirmed COVID-19 continues to be in those aged 85 years old 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 85 NHS trusts for week 36
* 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 36 (ending 10 September 2023), the overall weekly ICU or HDU admission rate for COVID-19 remained stable at low levels at 0.11 per 100,000, compared to 0.10 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 36, 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 3 new case reports of an ICU or HDU admission for influenza in week 36 (one influenza A(H3N2) and 2 influenza A(not subtyped)).

**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 76 NHS trusts for week 36
* 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 36 from the 7 Severe Respiratory Failure (SRF) centres in the UK. The admission was 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 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 28 August 2023 and 03 September 2023. Of those sequenced in this period, 34.6% were classified as EG.5.1 (V-23JUL-01), 29.4% as XBB.1.16 (V-23APR-01), 24.8% as XBB (V-22OCT-02), 7.2% as XBB.1.5 (V-23JAN-01), 2.2% as CH.1.1 (V-22DEC-01), and 1.3% as BA.2.86 (V-23AUG-01).
Figure 18: Prevalence of SARS-CoV-2 variants amongst available sequences episodes for England from 18 September 2022 to 10 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.

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 4 September 2023 (based on data up to 20 August 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 of predominately influenza A(H3N2) viruses remained below the seasonal threshold after peaking in early June.

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 Chile, 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 tropical Africa, influenza detections remained low overall and in most reporting countries, with influenza A(H1N1)pdm09 and A(H3N2) viruses predominantly detected.

In Southern Asia, influenza activity remained low overall with increased detections reported in Bangladesh, Bhutan 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(H1N1)pdm09 followed by influenza B and influenza A(H3N2) viruses.
The WHO GISRS laboratories tested more than 230,916 specimens during that time period. 5,040 were positive for influenza viruses, of which 3,558 (70.6%) were typed as influenza A and 1,482 (29.4%) as influenza B. Of the sub-typed influenza A viruses, 991 (38.0%) were influenza A(H1N1)pdm09 and 1,617 (62.0%) were influenza A(H3N2). Of the type B viruses for which lineage was determined, all (560) belonged to the B/Victoria lineage.
Influenza in Australia

Updated 8 September 2023 (based on data up to fortnight ending 3 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, while ILI presentations to ASPREN sentinel general practitioners (GPs) have decreased. In the year-to-date (1 January to 3 September 2023), there have been 224,873 notifications reported to the National Notifiable Diseases Surveillance System (NNDSS) in Australia, of which 12,082 notifications had a diagnosis date this fortnight.

In the year-to-date, of the 224,873 notifications of laboratory-confirmed influenza, 239 influenza-associated deaths have been notified to the NNDSS. Since seasonal surveillance commenced in April 2023, there have been 3,011 sentinel hospital admissions, of which 209 (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 0.58% 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 2,974 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, 2 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 2 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, 4 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

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Published: 14 September 2023

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