UK Health Security Agency

Weekly national Influenza and COVID-19 surveillance report

Week 35 report (up to week 34 data)

1 September 2022

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.

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 34 (between 22 August 2022 and 28 August 2022) and for some indicators daily data up to 30 August 2022.

Please note that due to the Summer Bank Holiday, data in this week's report may be subject to delays and should therefore be interpreted with caution.

At a national level COVID-19 activity decreased in most indicators in week 34 of 2022. Surveillance indicators suggest influenza activity remains very low.

Overall COVID-19 case rates through Pillar 1 continued to decrease in week 34, in all age groups, regions and ethnic groups. Overall Pillar 1 positivity decreased compared to the previous week. Routine asymptomatic testing through NHS settings will be paused from 31 August, this will have an impact on Pillar 1 case rates and positivity rates in future reports.

The overall number of reported acute respiratory incidents decreased compared to the previous week, with the highest number of incidents continuing to be in care homes. SARS-CoV-2 was identified in the majority of these.

COVID-19 hospitalisations decreased and ICU or HDU admissions with COVID-19 remained stable in week 34. Deaths with COVID-19 continued to decrease in week 34.

COVID-19 vaccine coverage for all ages was 70.1% for dose 1 and 66.4% for dose 2 at the end of week 34. COVID-19 vaccine coverage for all ages for dose 3 was at 52.2% at the end of week 34, reaching over 80% in all cohorts over the age of 60 years old.

Through Respiratory Datamart influenza positivity remains very low at 0.3% in week 34. Other indicators for influenza such as hospital admissions and GP influenza-like illness consultation rates remain low. Respiratory syncytial virus positivity decreased to 2.2% in week 34, with the highest positivity in the under 5 year olds at 8.0%. Adenovirus positivity decreased to 4.4% and rhinovirus positivity decreased to 4.5% overall. Parainfluenza positivity remained stable at 1.5%, while hMPV positivity remained very low at 0.0% in week 34.

Laboratory surveillance

Confirmed COVID-19 cases (England)

From 1 April 2022, the government ended provision of widespread community testing in England, as outlined in the plan for living with COVID-19. From week 15 2022, confirmed COVID-19 episodes and positivity through Pillar 1 are presented in this report, with Pillar 2 data available in the accompanying graph pack.

As of 9am on 30 August 2022, a total of 1,826,512 episodes have been confirmed for COVID-19 in England under Pillar 1, and 18,002,427 episodes have been confirmed for COVID-19 in England under Pillar 2, since the beginning of the pandemic.

Overall COVID-19 case rates through Pillar 1 continued to decrease in week 34, in all age groups, regions and ethnic groups. Overall Pillar 1 positivity decreased compared to the previous week. Routine asymptomatic testing through NHS settings will be paused from 31 August, this will have an impact on Pillar 1 case rates and positivity rates in future reports.

* Changes to testing policies over time may affect positivity rates and incidence rates and should be interpreted accordingly.

* From 31 January 2022, UK Health Security Agency (UKHSA) moved all COVID-19 case reporting in England to use a new 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. Further information can be found on the UK COVID-19 dashboard.

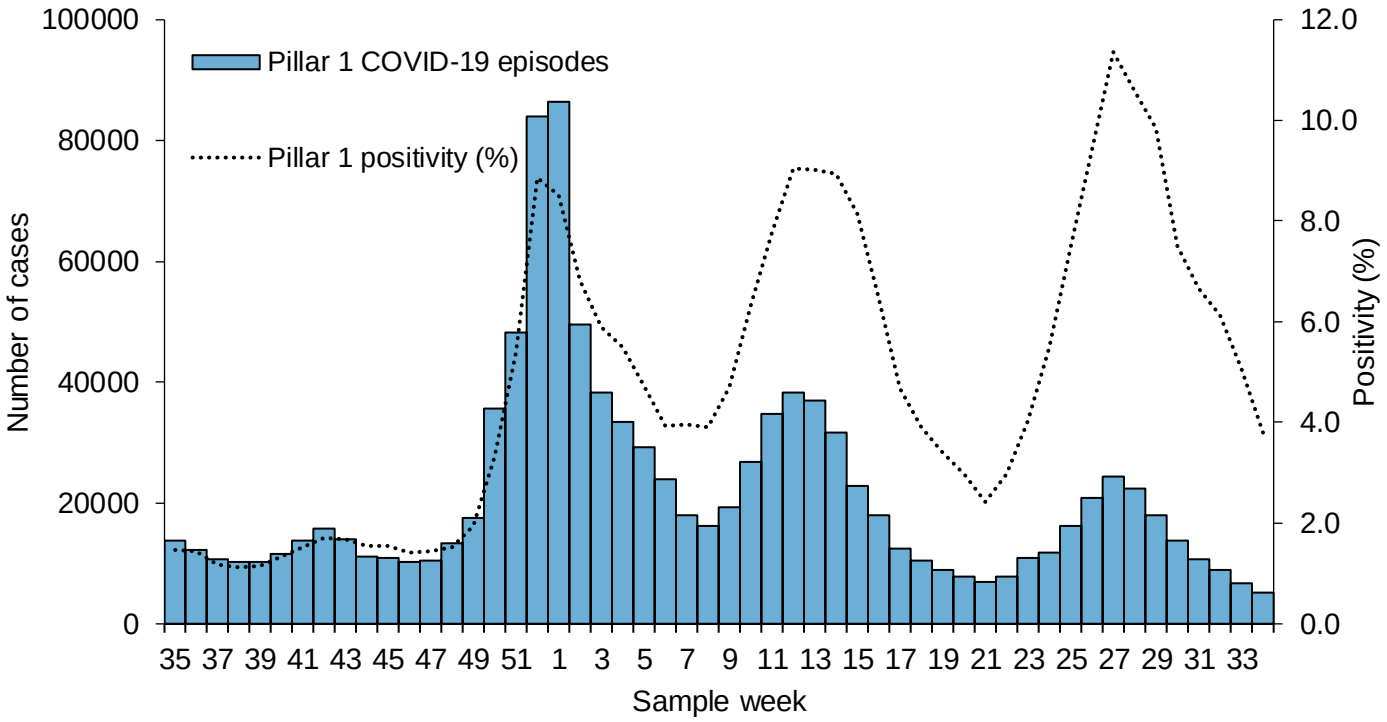
* From the week 32 2021 report onwards, case rates have been updated to use the latest Office for National Statistics (ONS) population estimates for mid-2020. Previously case rates were calculated using the mid-2019 population estimates. Rates by ethnicity and Indices of Multiple Deprivation (IMD) quantile will continue to be presented using the mid-2019 estimates, until the mid-2020 estimates become available.

* Please note that positivity is presented as positivity by PCR testing only. Positivity is calculated as the number of individuals testing positive during the week divided by the number of individuals tested during the week through PCR testing

* Data is shown by the week the specimen was taken from the person being tested. This gives the most accurate analysis of this time progression, however, for the most recent week results for more samples are expected therefore this should be interpreted with caution

* Data source: Second Generation Surveillance System (SGSS)

Figure 1: Confirmed COVID-19 episodes tested under Pillar 1, based on sample week with overall weekly PCR positivity for Pillar 1 (%)



Age and sex

Figure 2: Weekly confirmed COVID-19 case rates per 100,000, by episode, tested under Pillar 1, by sex

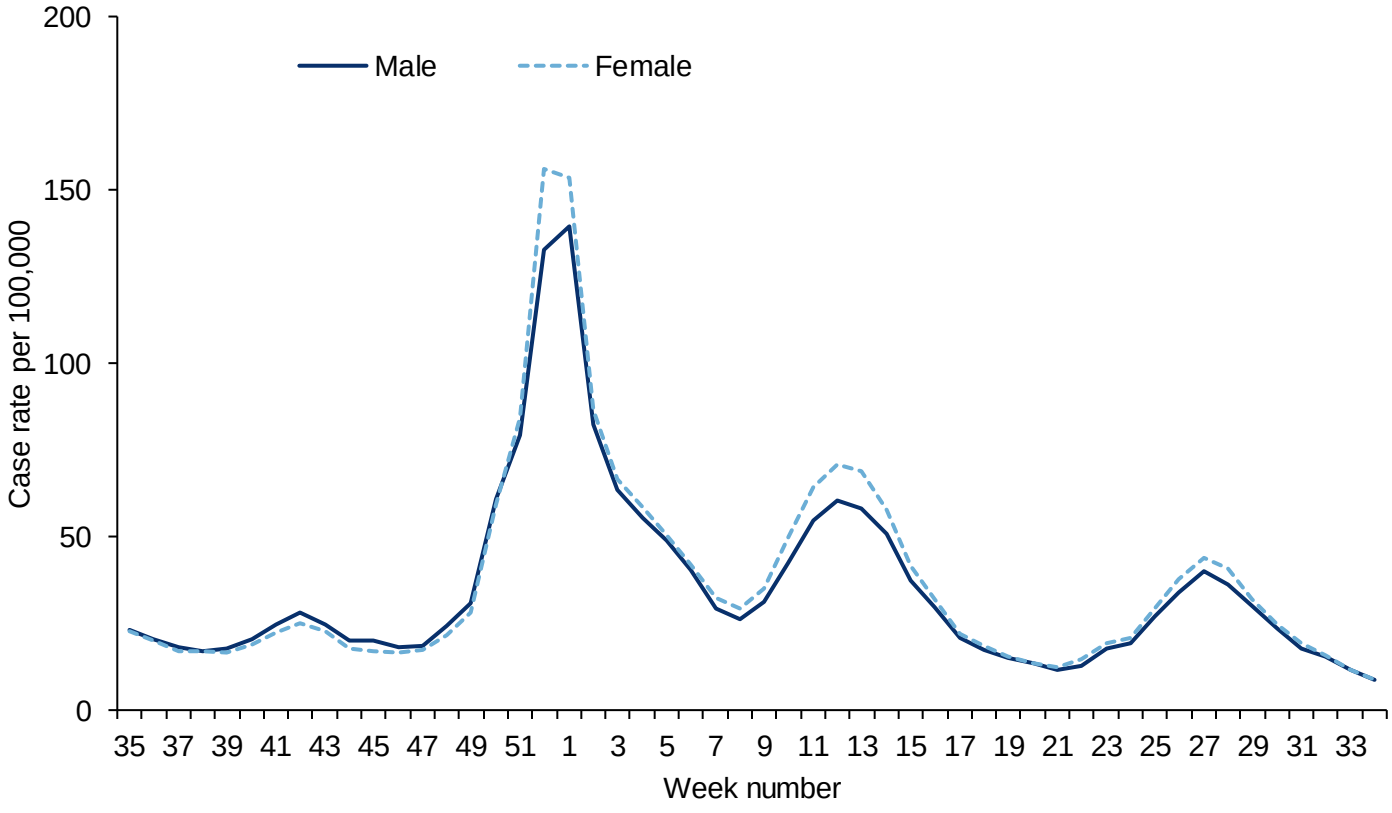


Figure 3: Weekly confirmed COVID-19 case rates per 100,000, by episode, tested under Pillar 1, by age group

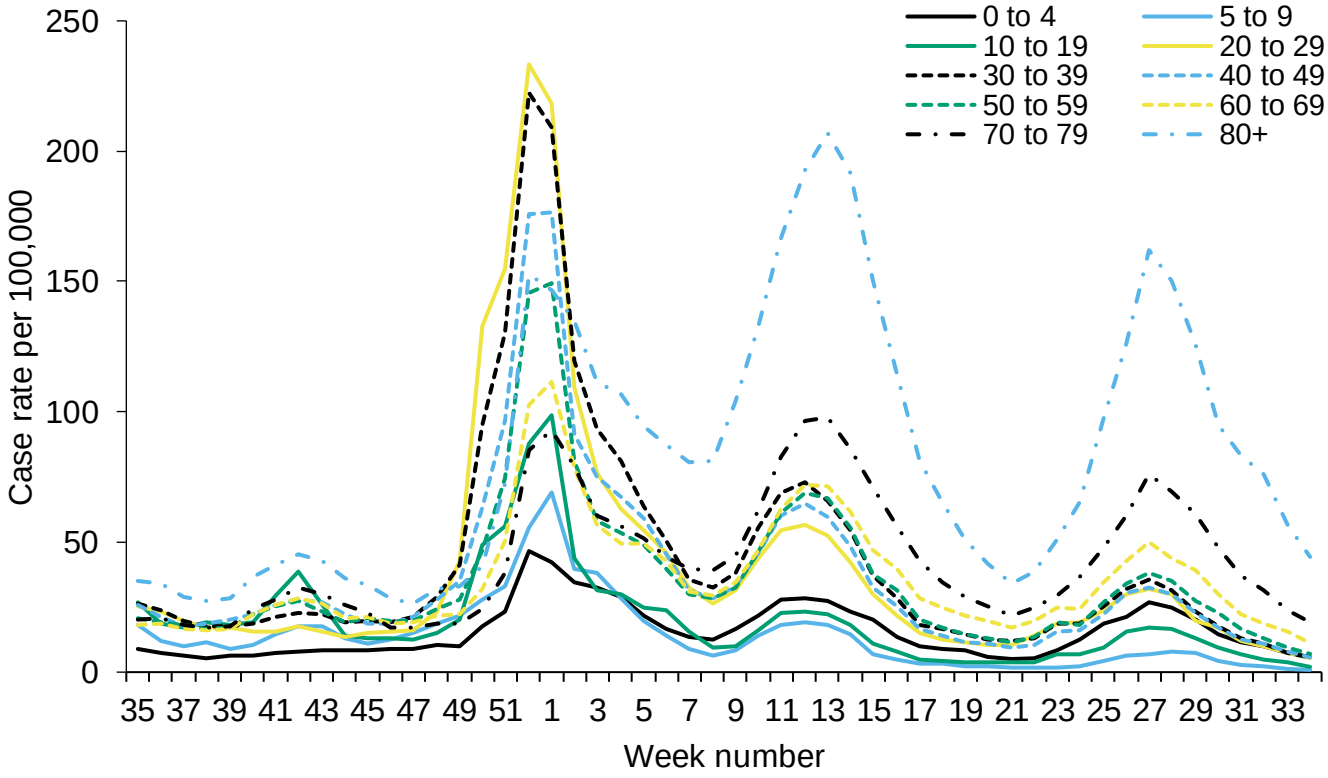


Figure 4: Weekly PCR positivity (%) of confirmed COVID-19 cases tested overall and by sex under Pillar 1

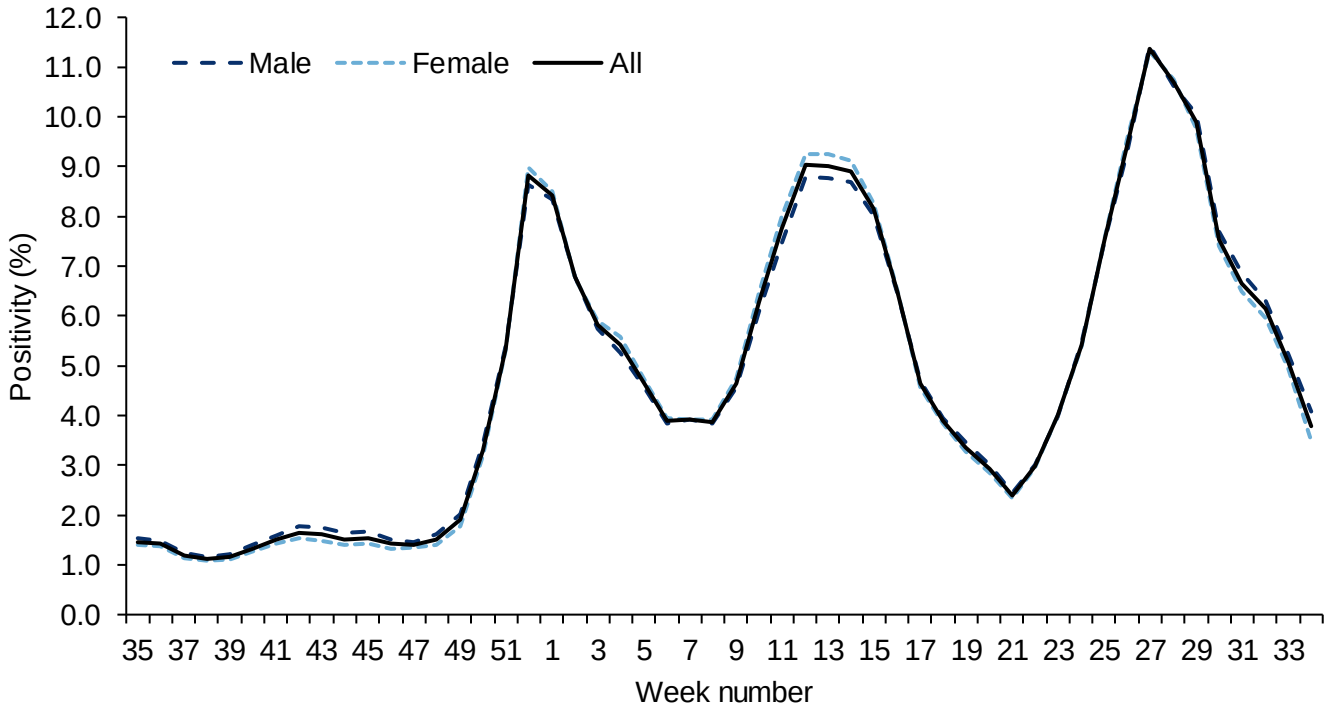
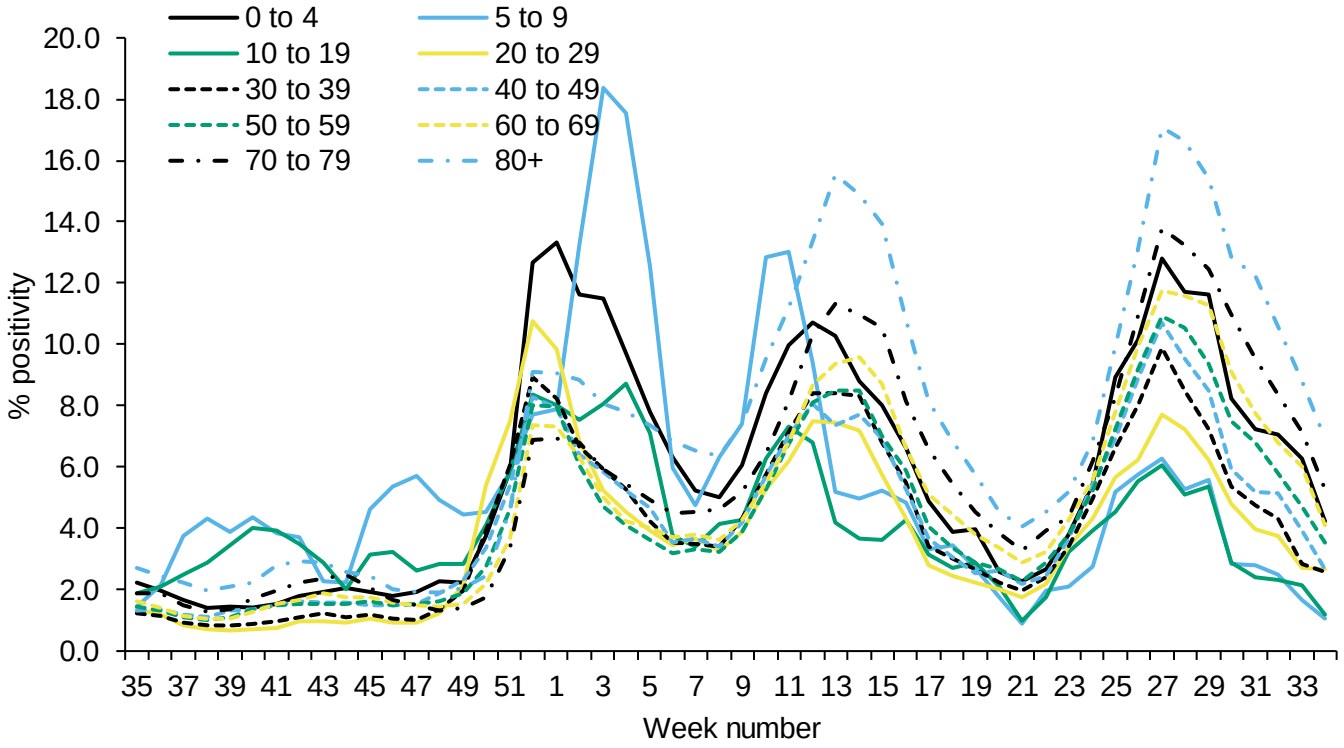
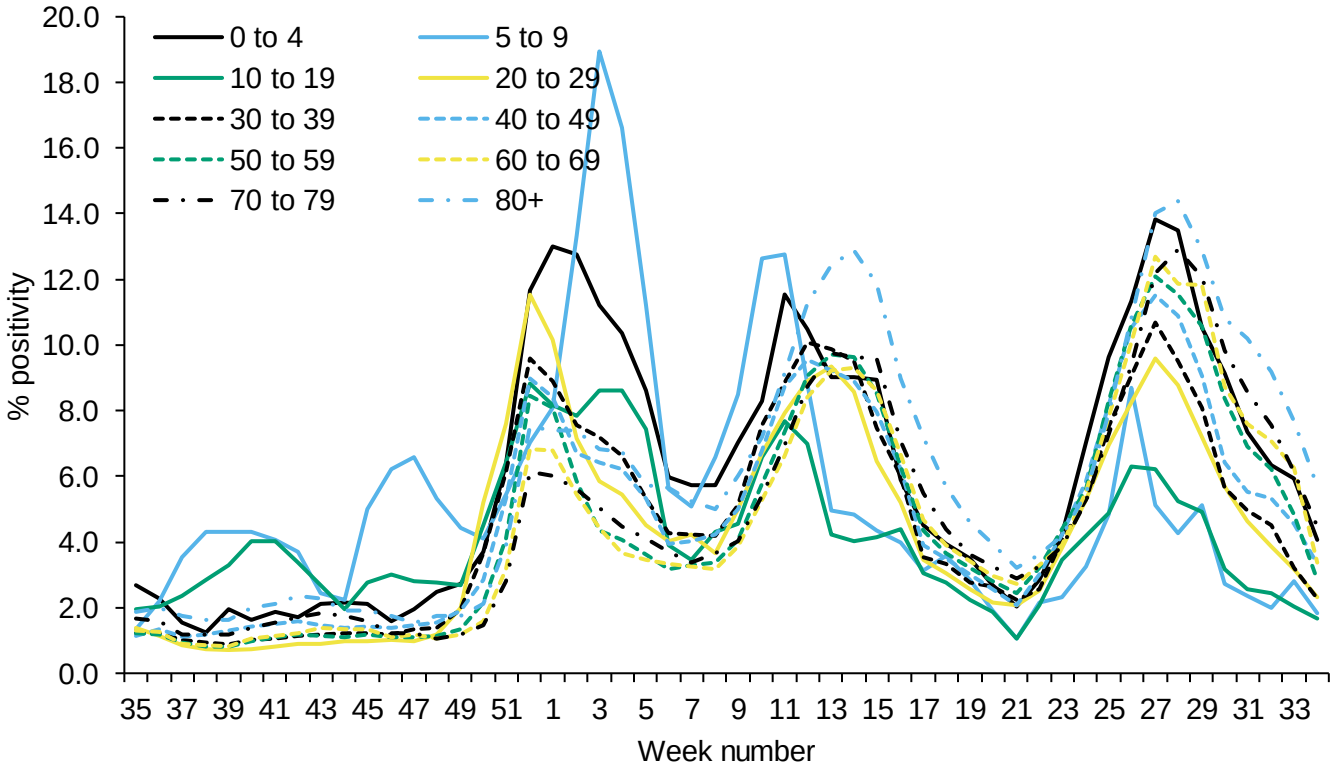


Figure 5: Weekly PCR positivity (%) of confirmed COVID-19 cases tested under Pillar 1, (a) by male and age group and (b) by female and age group

(a) Pillar 1 - Male



(b) Pillar 1 - Female



Geography

Figure 6: Weekly confirmed COVID-19 case rates by episode, per 100,000 population (Pillar 1), by UKHSA centres and sample week

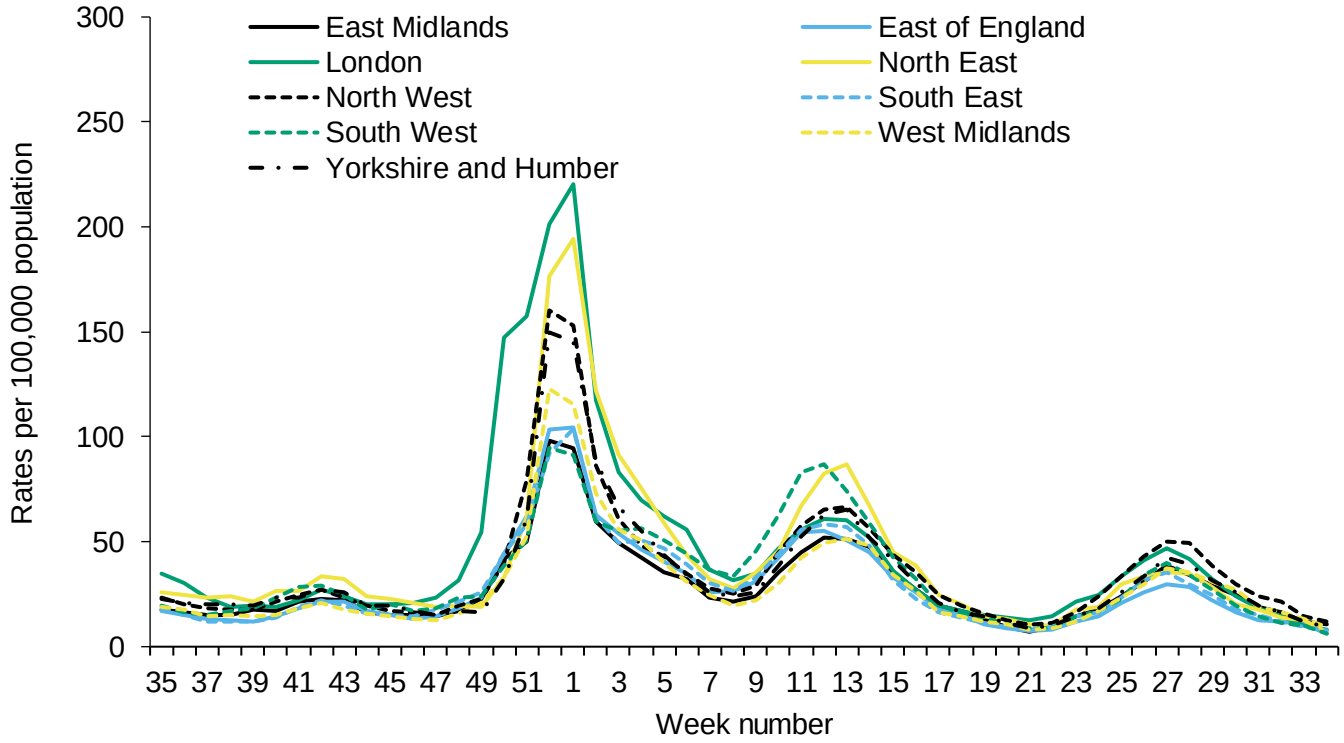


Figure 7: Weekly PCR positivity of confirmed COVID-19 cases tested under Pillar 1 (%) by UKHSA centres and sample week

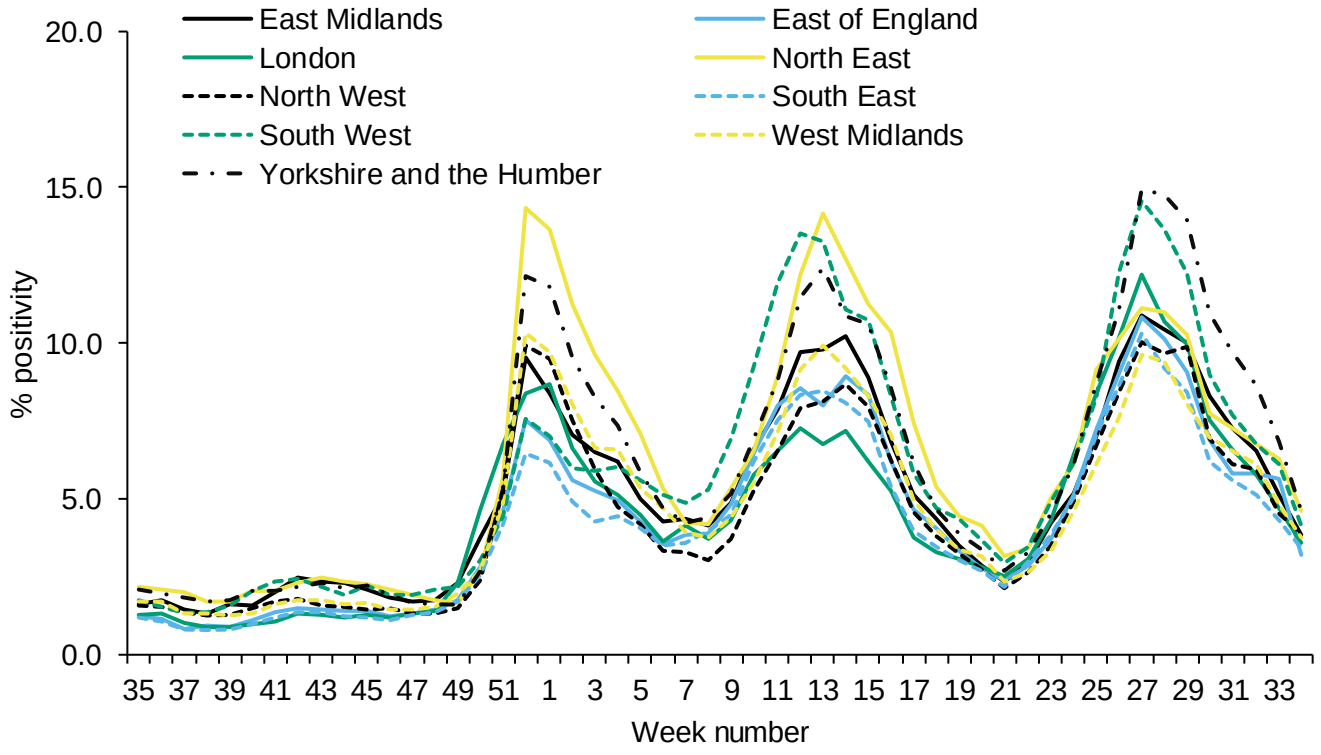
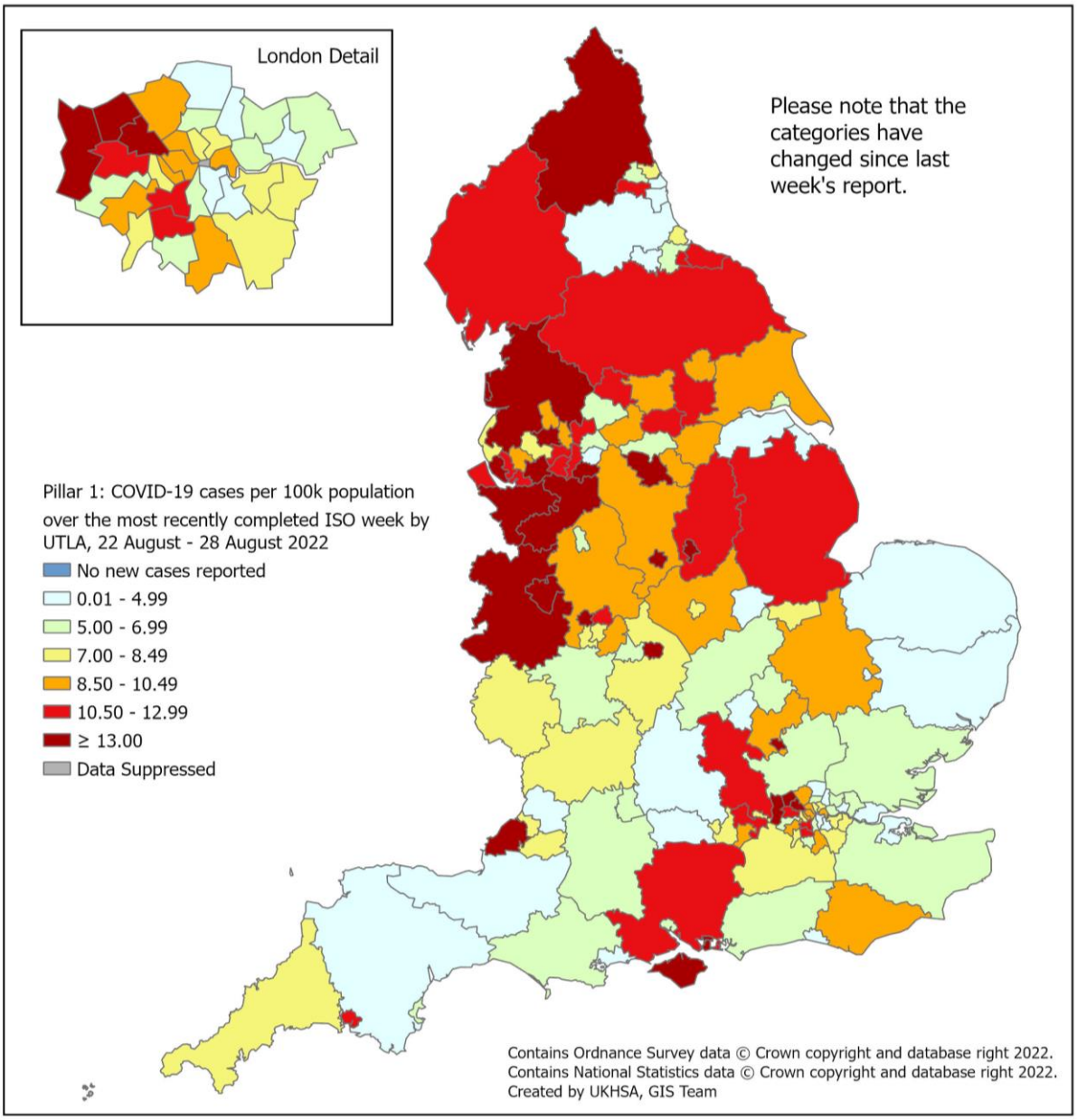
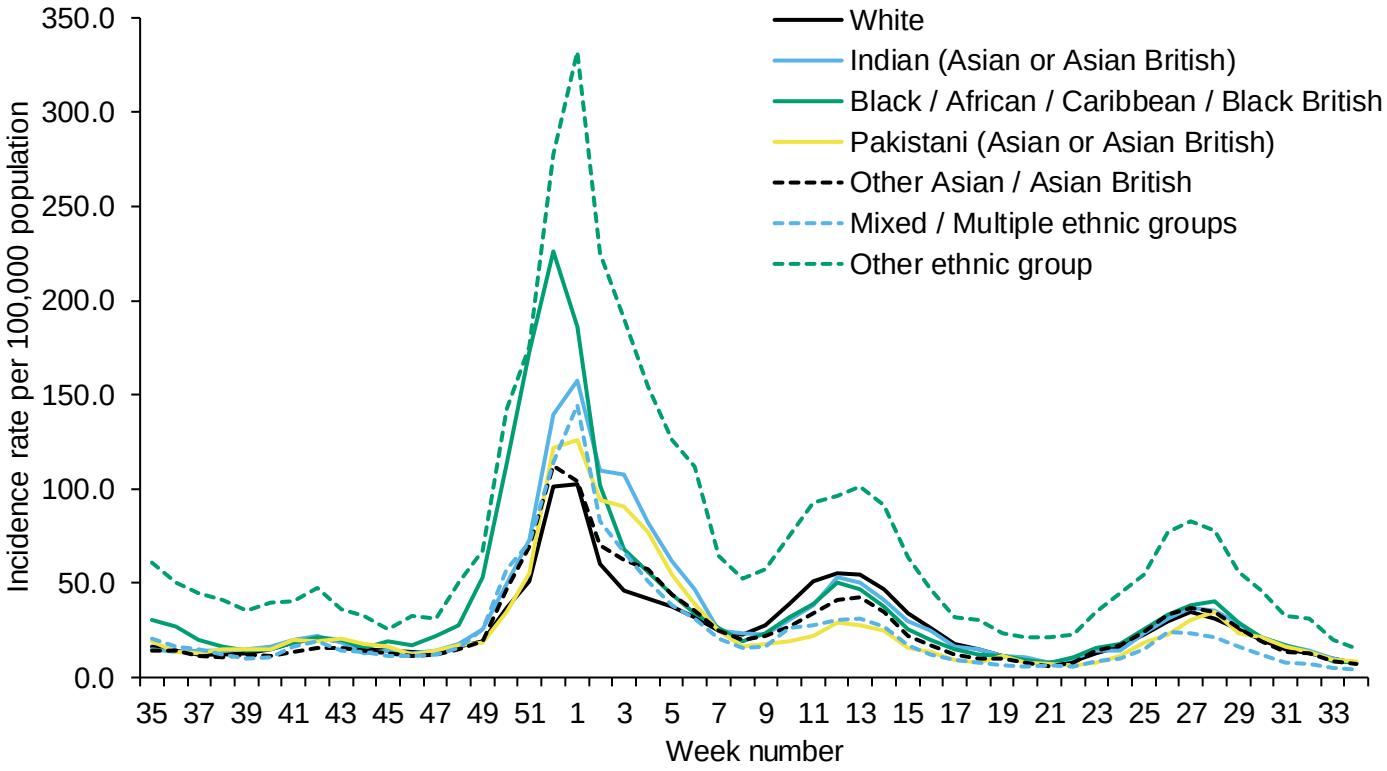


Figure 8: Weekly rate of COVID-19 episodes per 100,000 population (Pillar 1), by upper-tier local authority (UTLA), England (box shows enlarged map of London area)



Ethnicity

Figure 9: Weekly incidence per 100,000 population by ethnicity (Pillar 1), England



*the incidence rates on Figure 9 have been calculated using the mid-2019 ONS population estimates

Possible SARS-CoV-2 reinfection in England

SARS-CoV-2 reinfections data is not currently being published. For previous updates please see previous editions of this report.

Respiratory DataMart system (England)

The Respiratory Datamart system began during the 2009 influenza pandemic to collate all laboratory testing information in England. It is now used as a sentinel laboratory surveillance tool, monitoring all major respiratory viruses in England. Seventeen laboratories in England will be reporting data for this season. As this is based on a sample of labs, SARS-CoV-2 positivity figures quoted here will differ from those quoted in the Confirmed COVID-19 cases section, however, they are included to allow comparison with data on other respiratory viruses.

In week 34 of 2022, out of the 31,418 respiratory specimens reported through the Respiratory DataMart System (based on data received from 14 out of 17 laboratories), 947 samples were positive for SARS-CoV-2 with an overall positivity of 3.0%, a decrease compared to the previous week. The highest positivity was noted in the 65 year olds and over at 3.7%.

The overall influenza positivity remained very low and decreased to 0.3% in week 34, with 14 samples testing positive for influenza (including 2 influenza A(H1N1)pdm09, 11 influenza A(not subtyped) and 1 influenza B).

Respiratory syncytial virus (RSV) positivity decreased to 2.2% in week 34, with the highest positivity in the under 5 year olds at 8.0%.

Adenovirus positivity decreased to 4.4% and rhinovirus positivity decreased to 4.5% overall. Parainfluenza positivity remained stable at 1.5%, while human metapneumovirus (hMPV) positivity remained very low with no cases reported (0.0%) in week 34 (Figure 12).

Figure 10: Respiratory DataMart samples positive for influenza and weekly positivity (%) for influenza, England

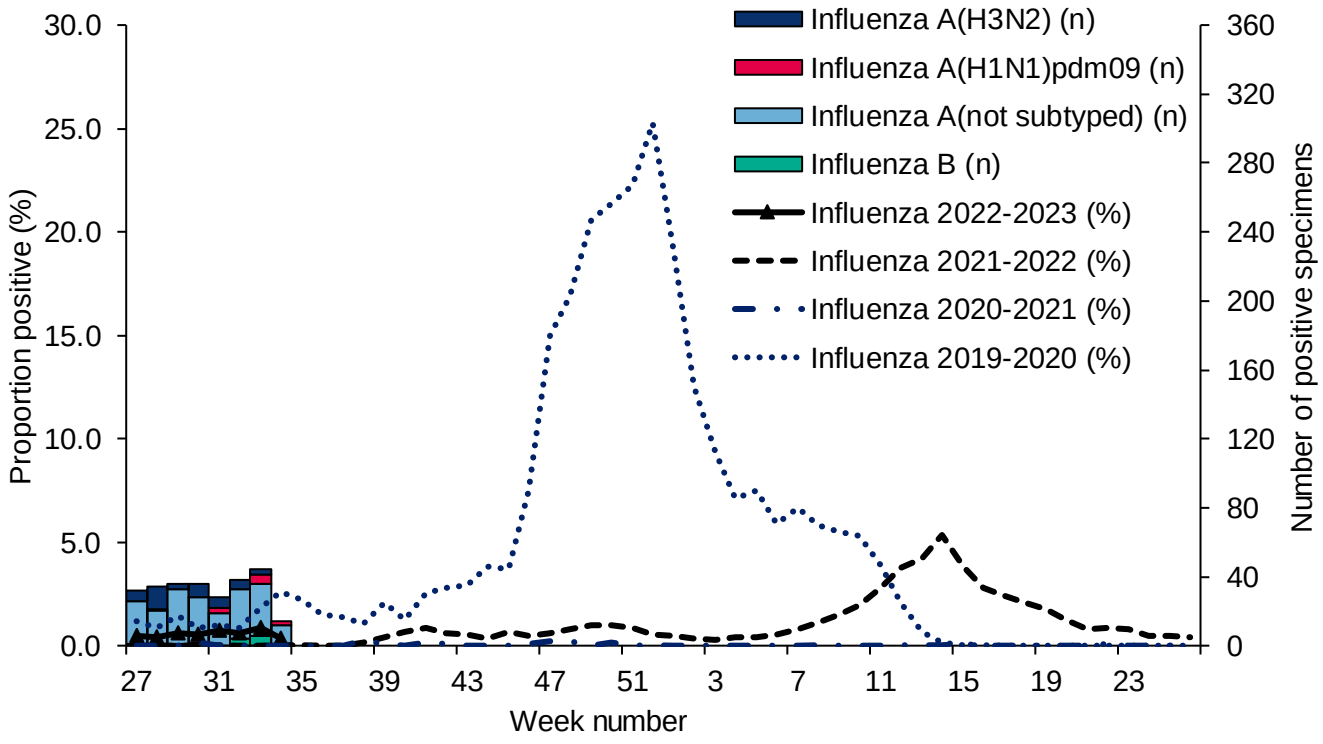


Figure 11: Respiratory DataMart weekly positivity (%) for SARS-CoV-2, England

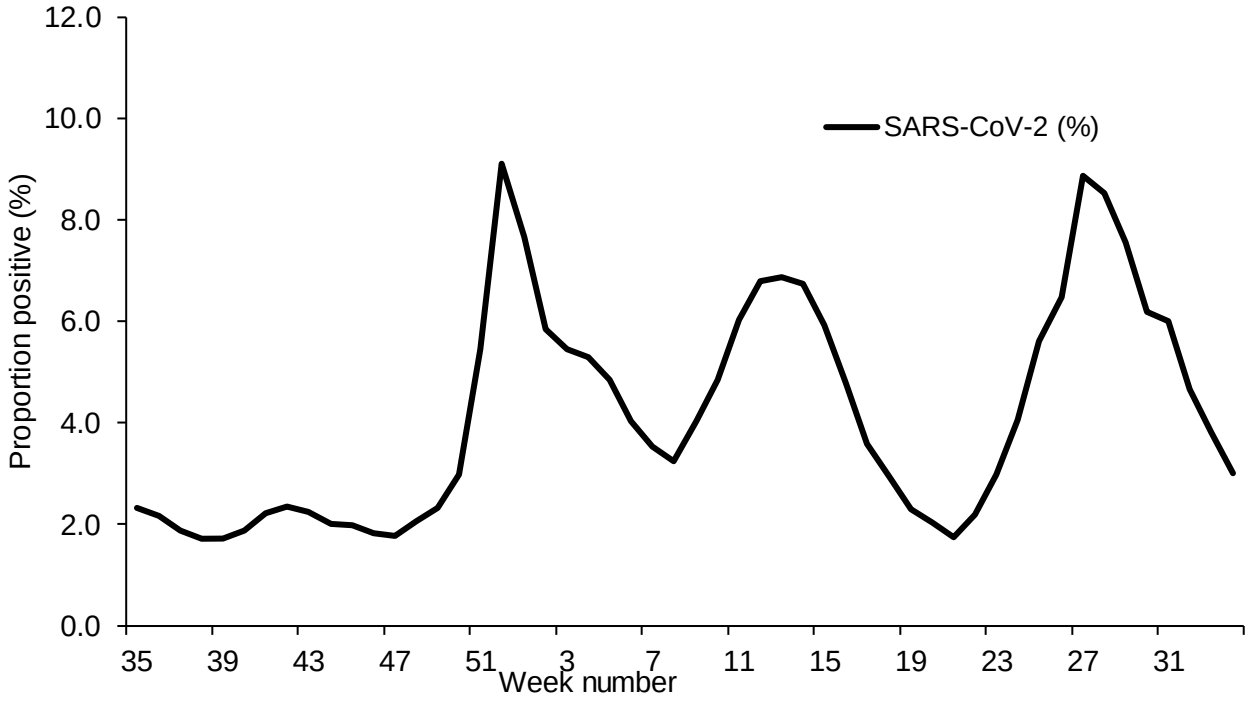


Figure 12: Respiratory DataMart weekly positivity (%) for other respiratory viruses, England

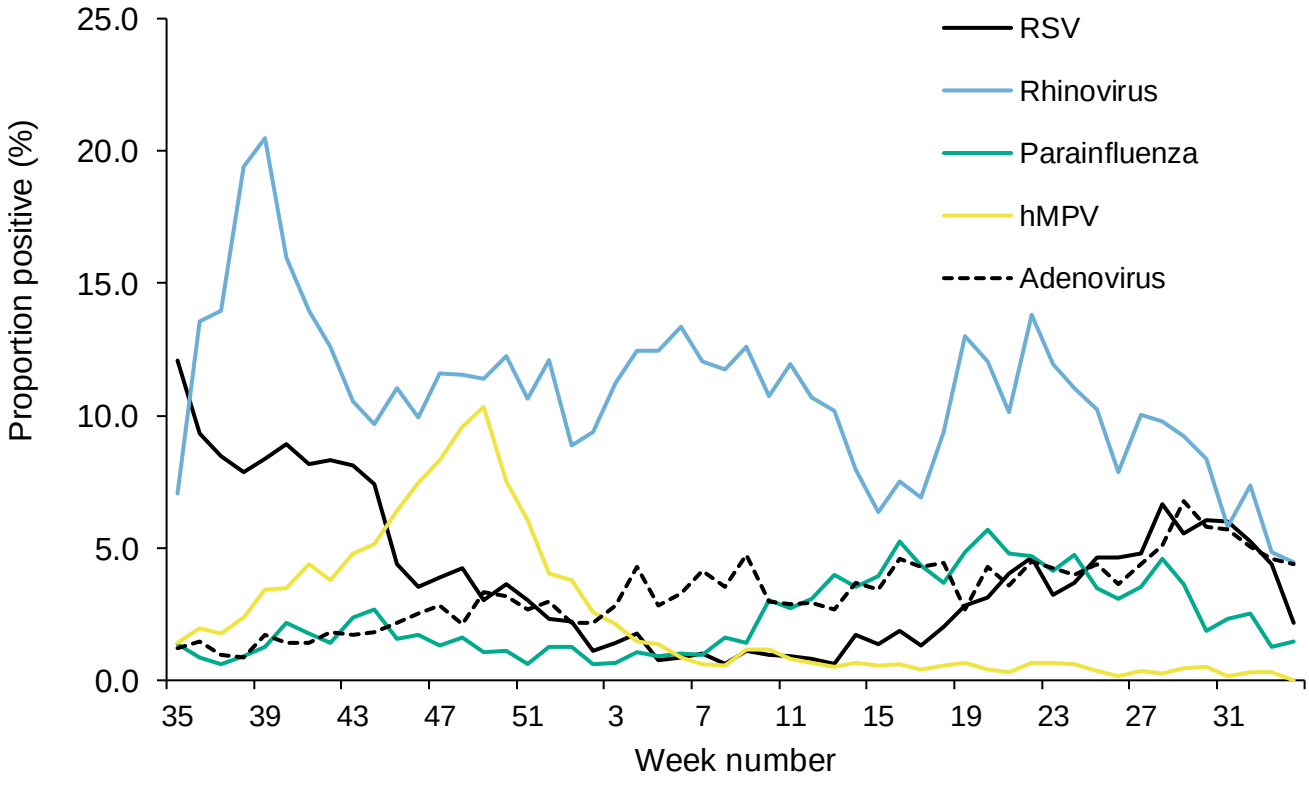


Figure 13: Respiratory DataMart weekly positivity (%) for adenovirus by age, England

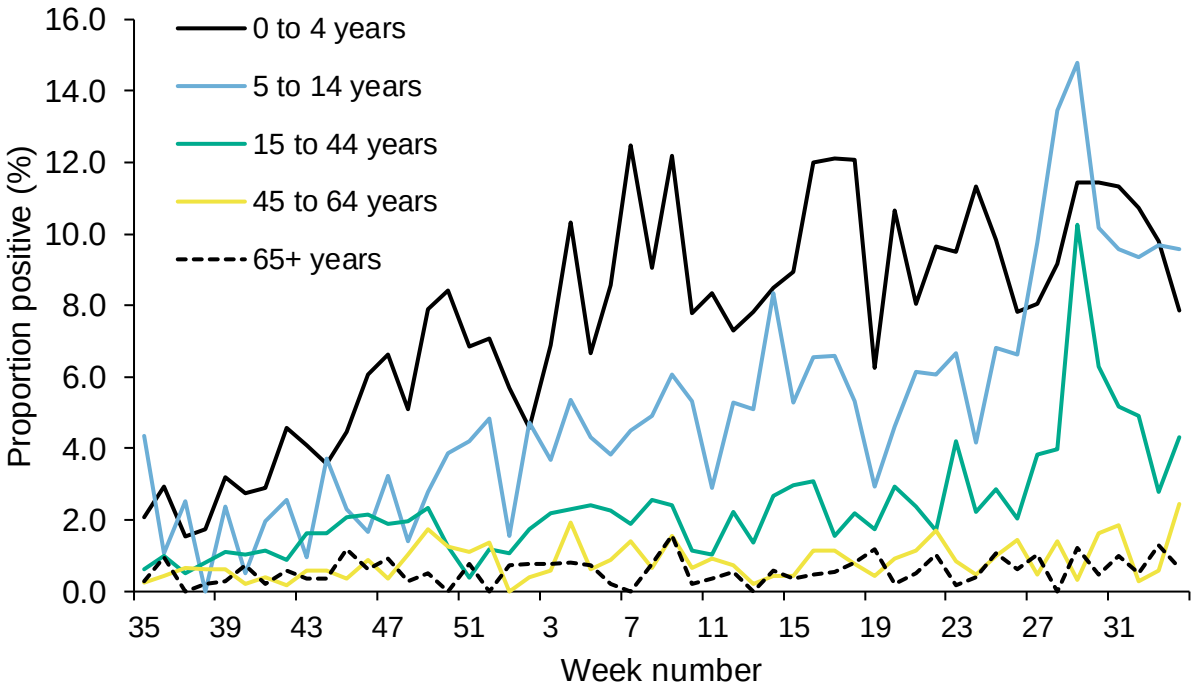


Figure 14: Respiratory DataMart weekly positivity (%) for rhinovirus by age, England

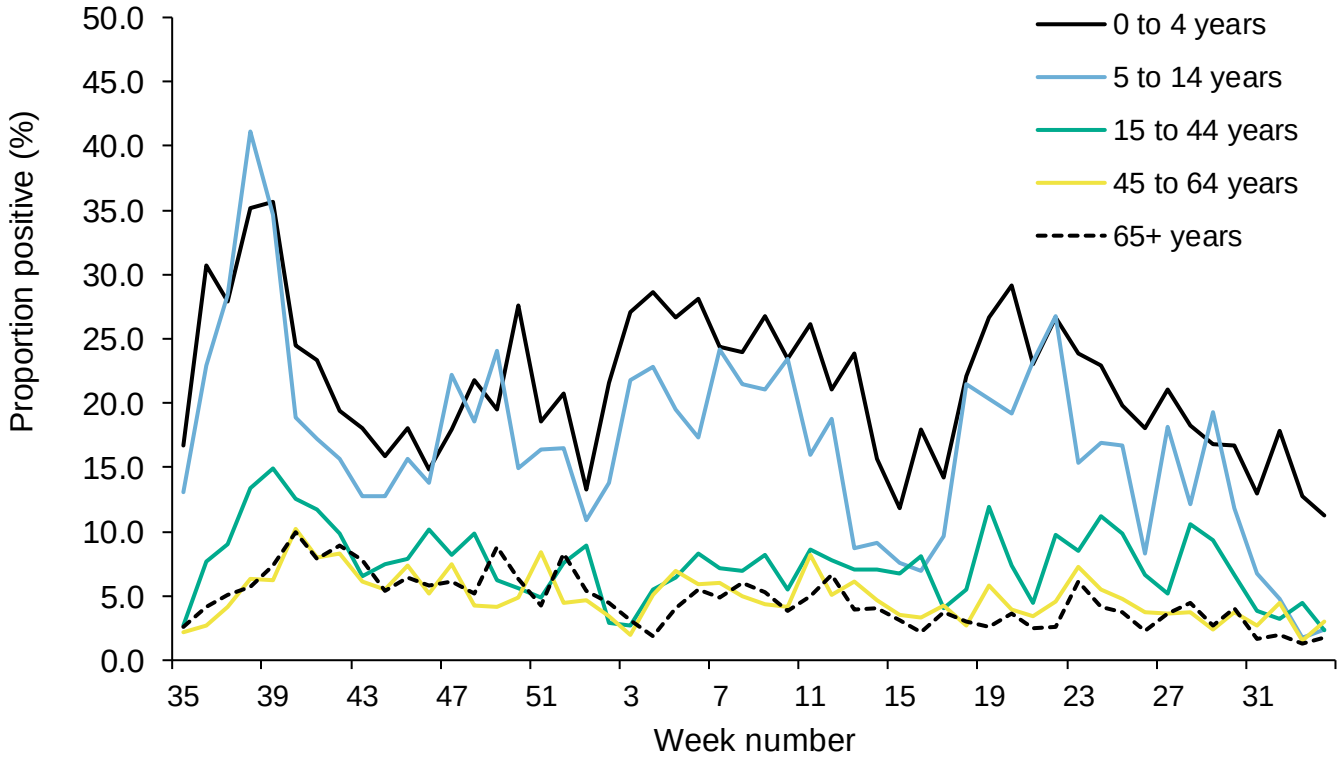
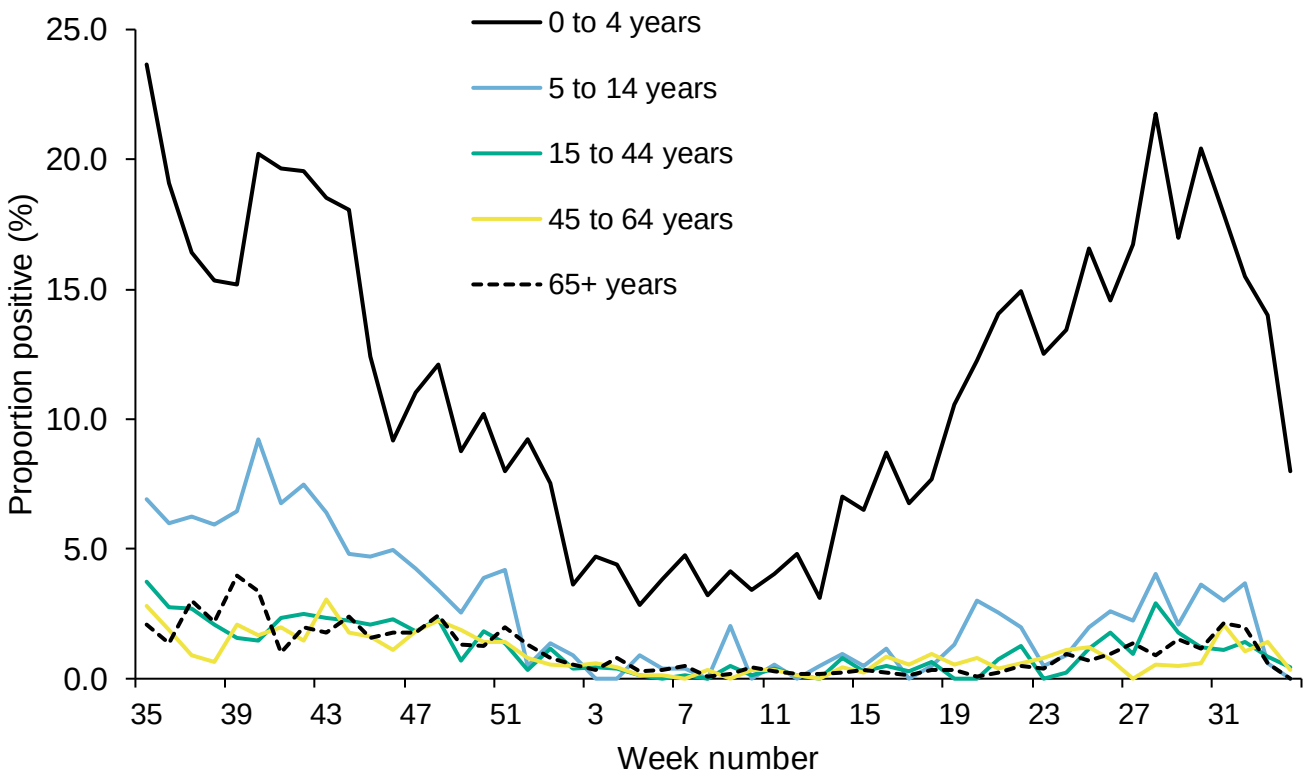


Figure 15: Respiratory DataMart weekly positivity (%) for RSV by age, England



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) and entered onto an online web-based platform called HPZone. Incidents are suspected outbreaks of acute respiratory infections linked to a particular setting. All suspected outbreaks are further investigated by the HPT in liaison with local partners.
Data for England, Scotland and Northern Ireland are included in the UK figures.

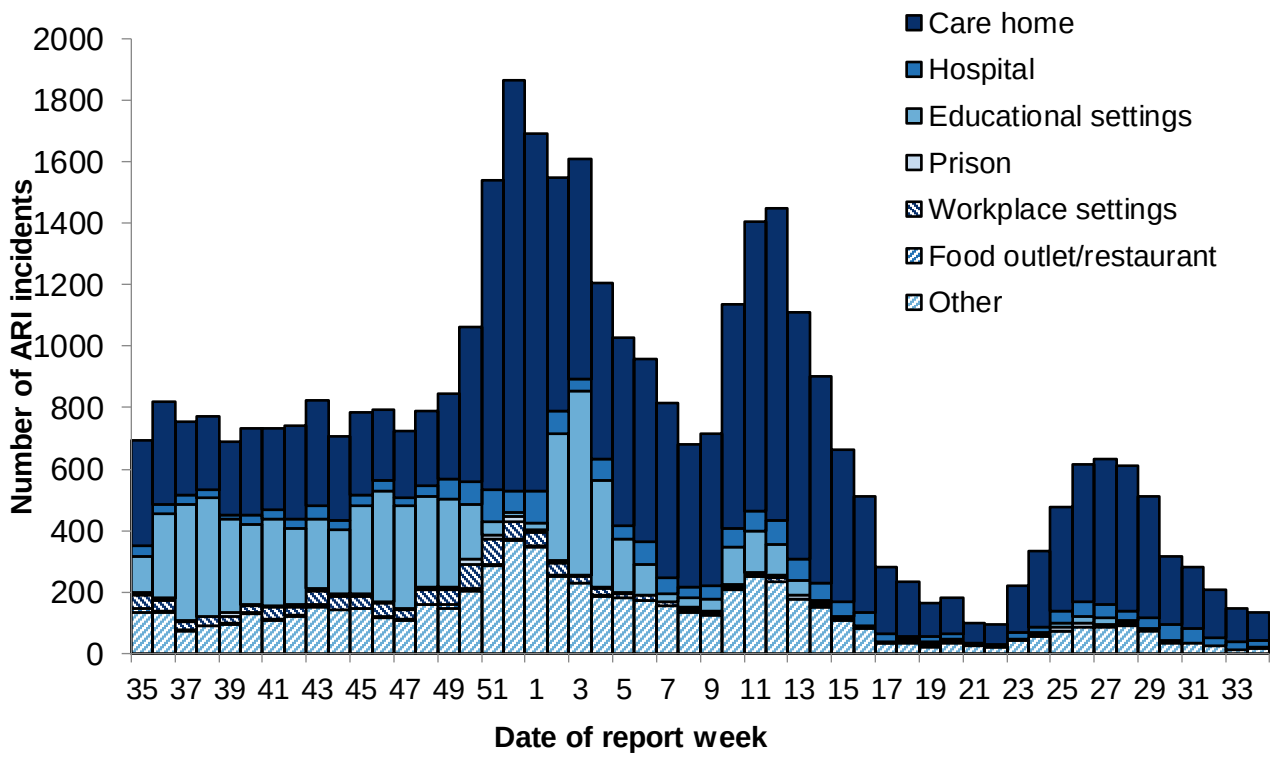
Data caveats:

1. The incidents captured on HPZone represent a subset of all ongoing ARI clusters and outbreaks in England rather than an exhaustive listing. A variety of arrangements are in place across UKHSA centres, with local authorities and other stakeholders supporting HPTs in outbreak investigation in some areas without HPZone reporting. As a result, the number of outbreaks reported for some of the regions are underestimates.
2. It should be noted that the denominator for the different settings will vary significantly. For example, there are fewer hospitals than workplaces. In addition, the propensity to report incidents to UKHSA also varies significantly by setting. This needs to be considered when interpreting the weekly number of reported incidents by setting and caution should be used when making comparisons between settings.
3. Considering the above, comparisons between regions and settings are not advised as they may be misleading.

136 new ARI incidents have been reported in week 34 in the UK (Figure 16):

- 95 incidents were from care homes where 65 had at least one linked case that tested positive for SARS-CoV-2
- 20 incidents were from hospitals, where 11 had at least one linked case that tested positive for SARS-CoV-2
- 1 incident was from an educational setting and tested positive for RSV
- 2 incidents were from prisons and both tested positive for SARS-CoV-2
- No incidents were from workplace settings
- No incidents were from a food outlet or restaurant setting
- 18 incidents were from other settings where 10 had at least one linked case that tested positive for SARS-CoV-2

Figure 16: Number of acute respiratory infection (ARI) incidents by setting, UK



*Excludes data from Wales

Figure 17: Number of acute respiratory infection (ARI) incidents by setting, England

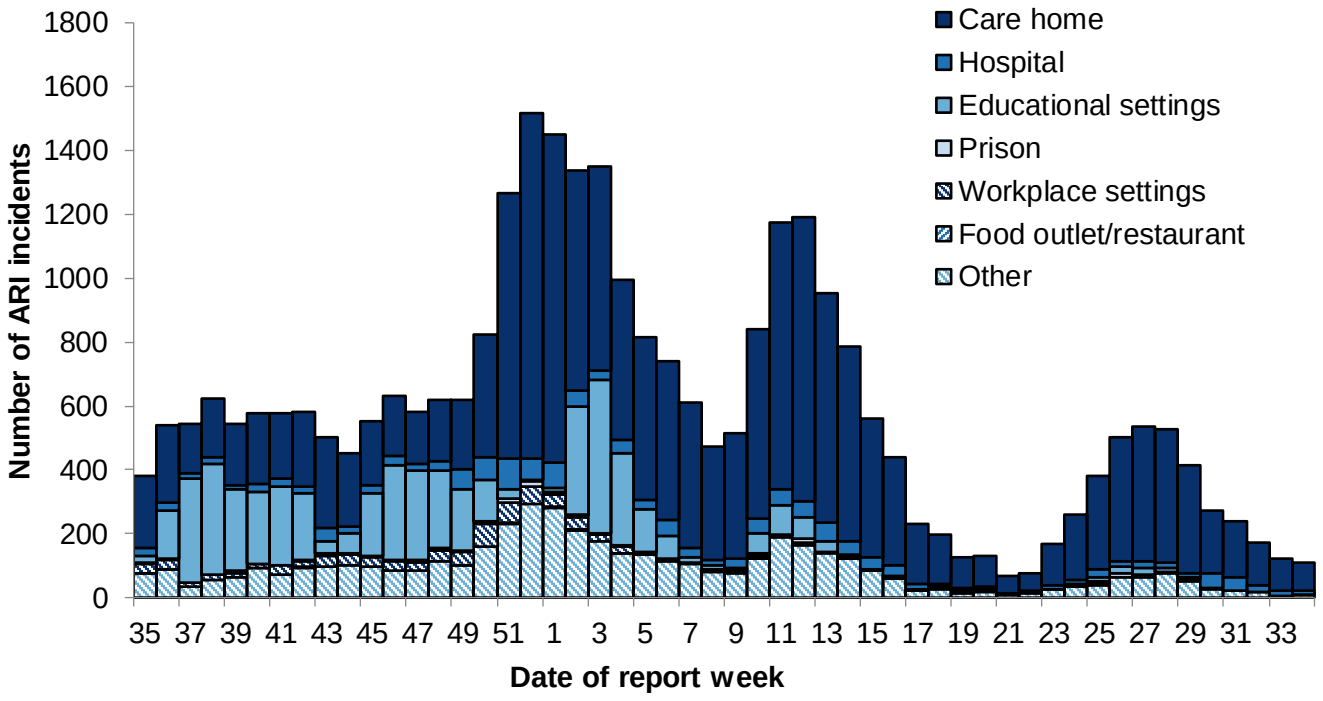


Figure 18: Number of acute respiratory infection (ARI) incidents in care homes by virus type, England

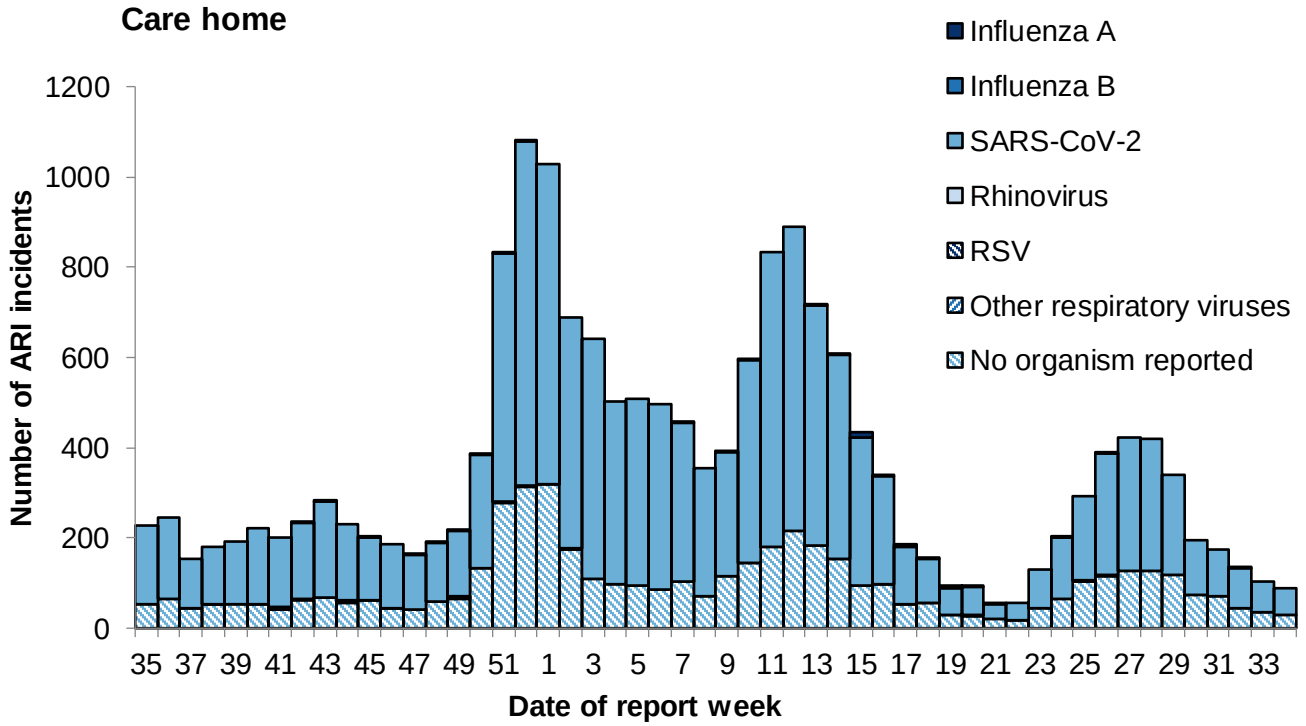


Figure 19: Number of acute respiratory infection (ARI) incidents in hospitals by virus type, England

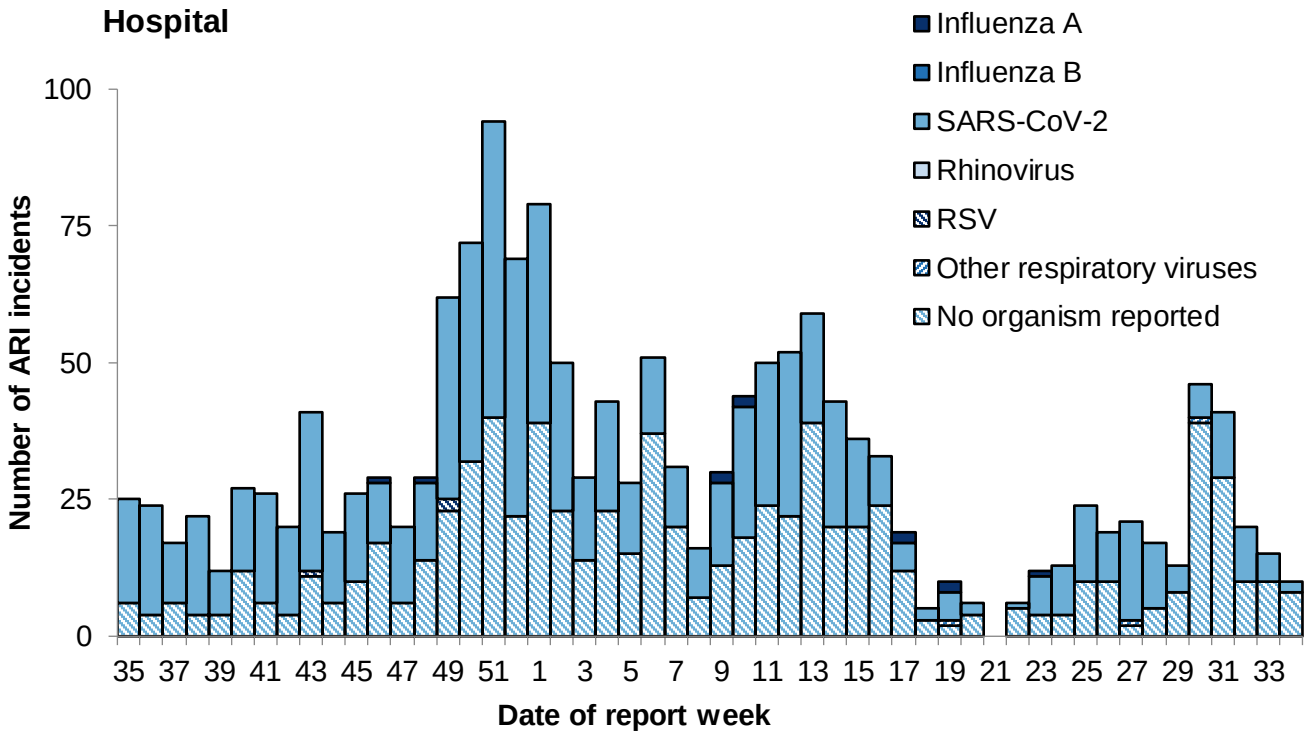


Figure 20: Number of acute respiratory infection (ARI) incidents in educational settings by virus type, England

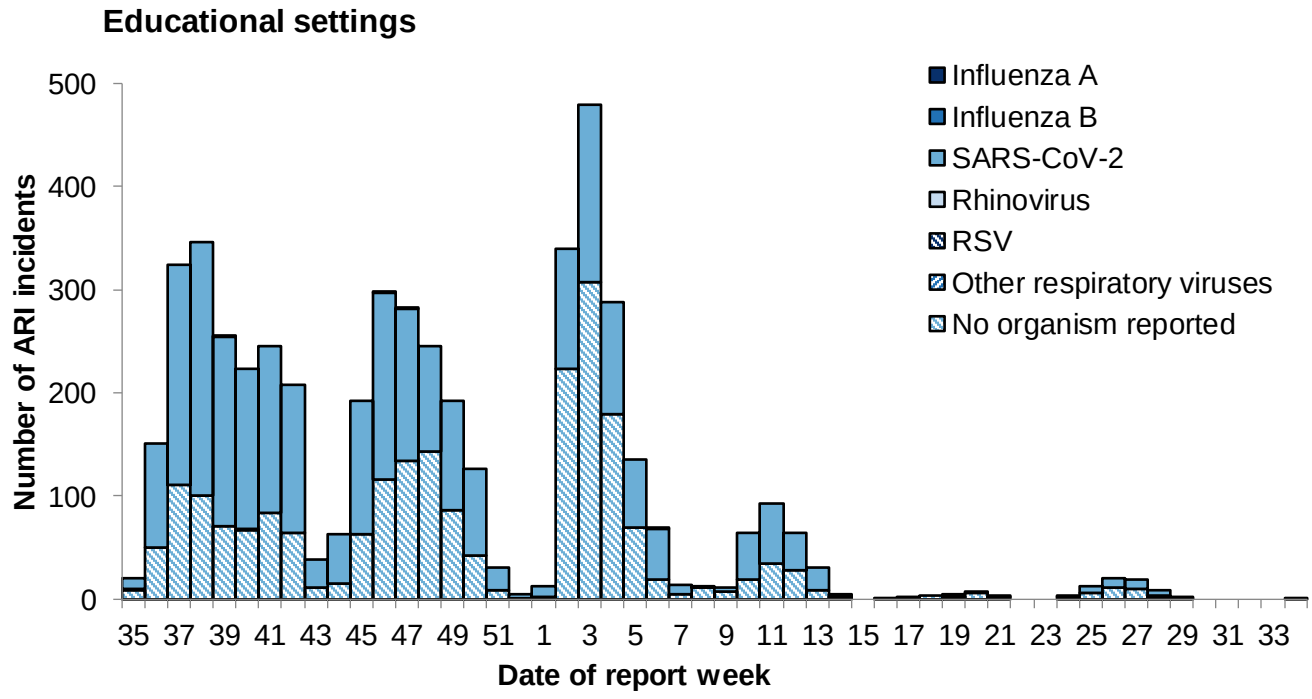


Figure 21: Number of acute respiratory infection (ARI) incidents in prisons by virus type, England

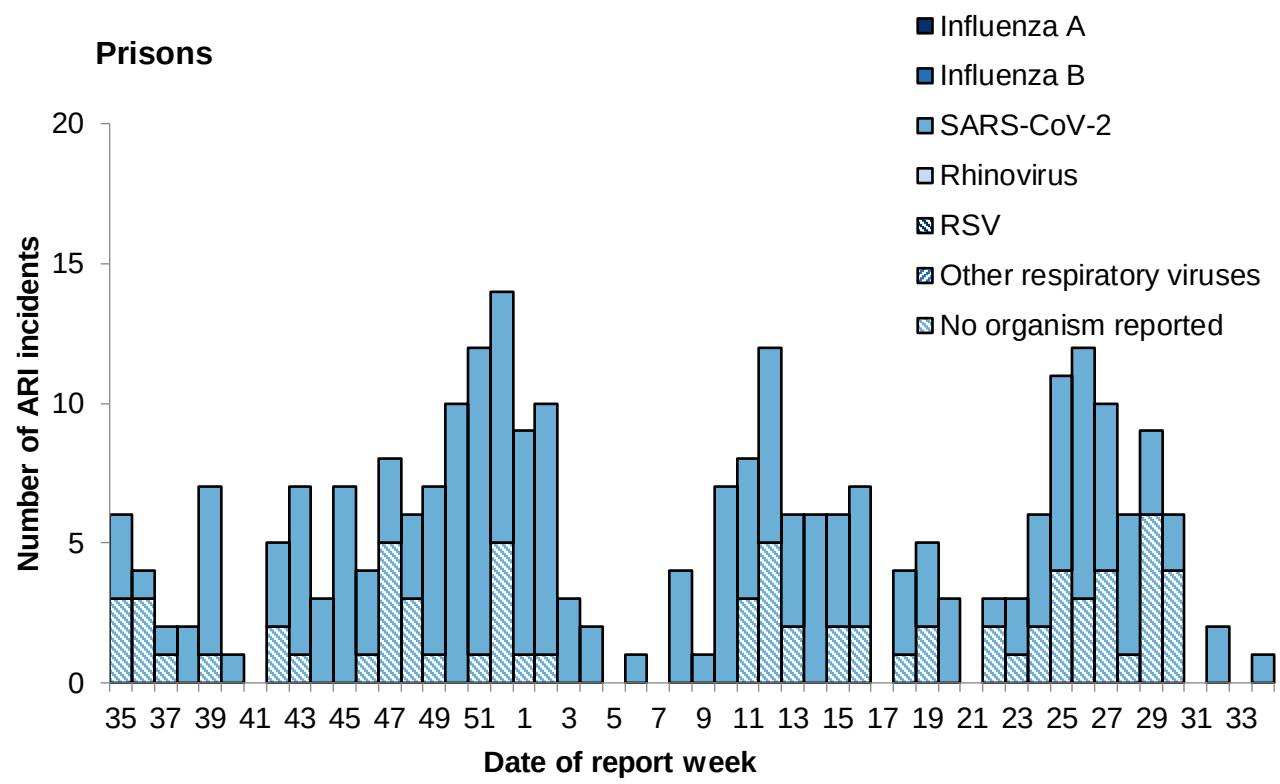


Figure 22: Number of acute respiratory infection (ARI) incidents in workplace settings by virus type, England

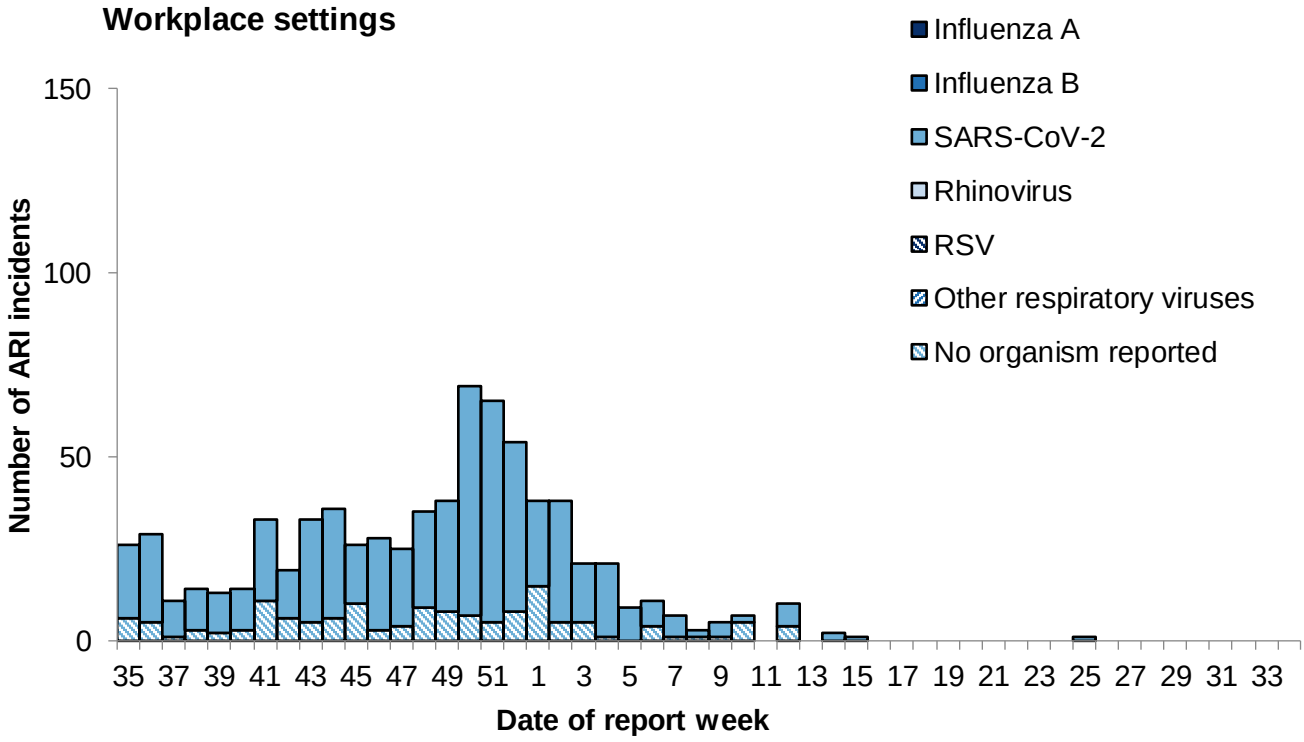


Figure 23: Number of acute respiratory infection (ARI) incidents in food outlet or restaurant settings by virus type, England

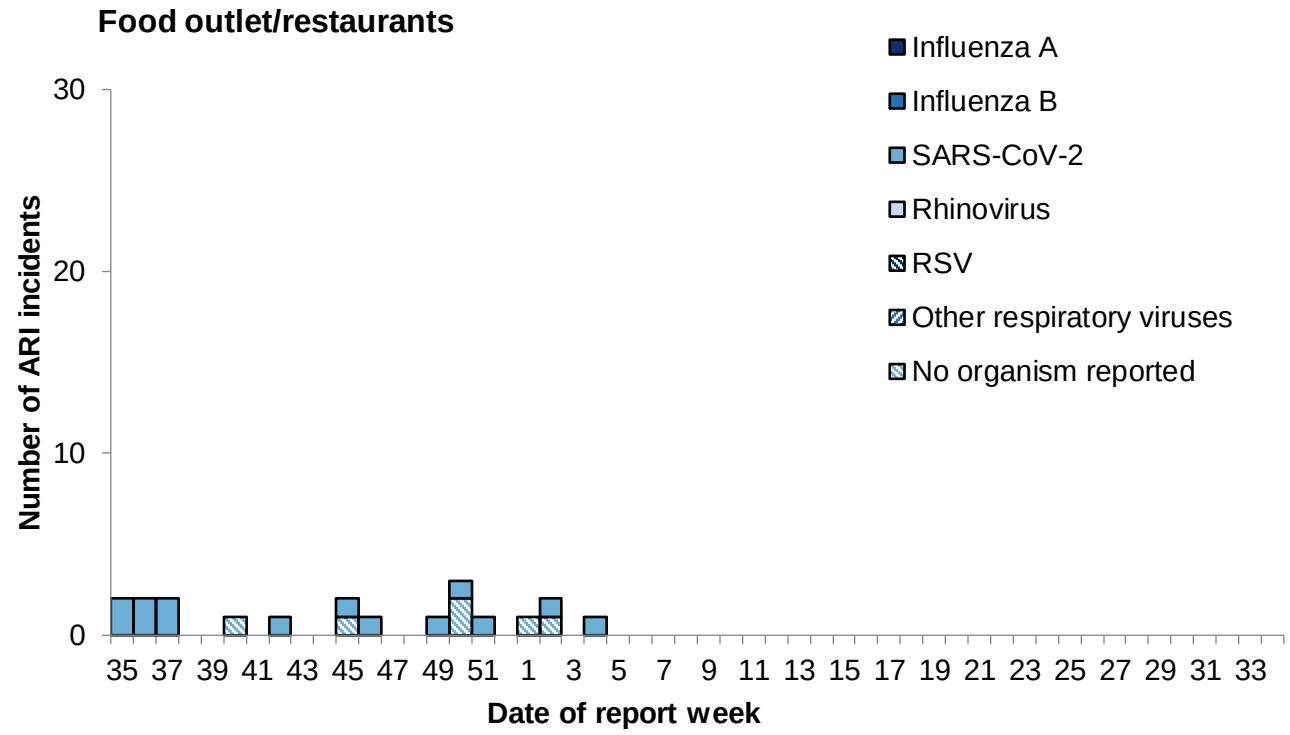


Figure 24: Number of acute respiratory infection (ARI) incidents in other settings by virus type from, England

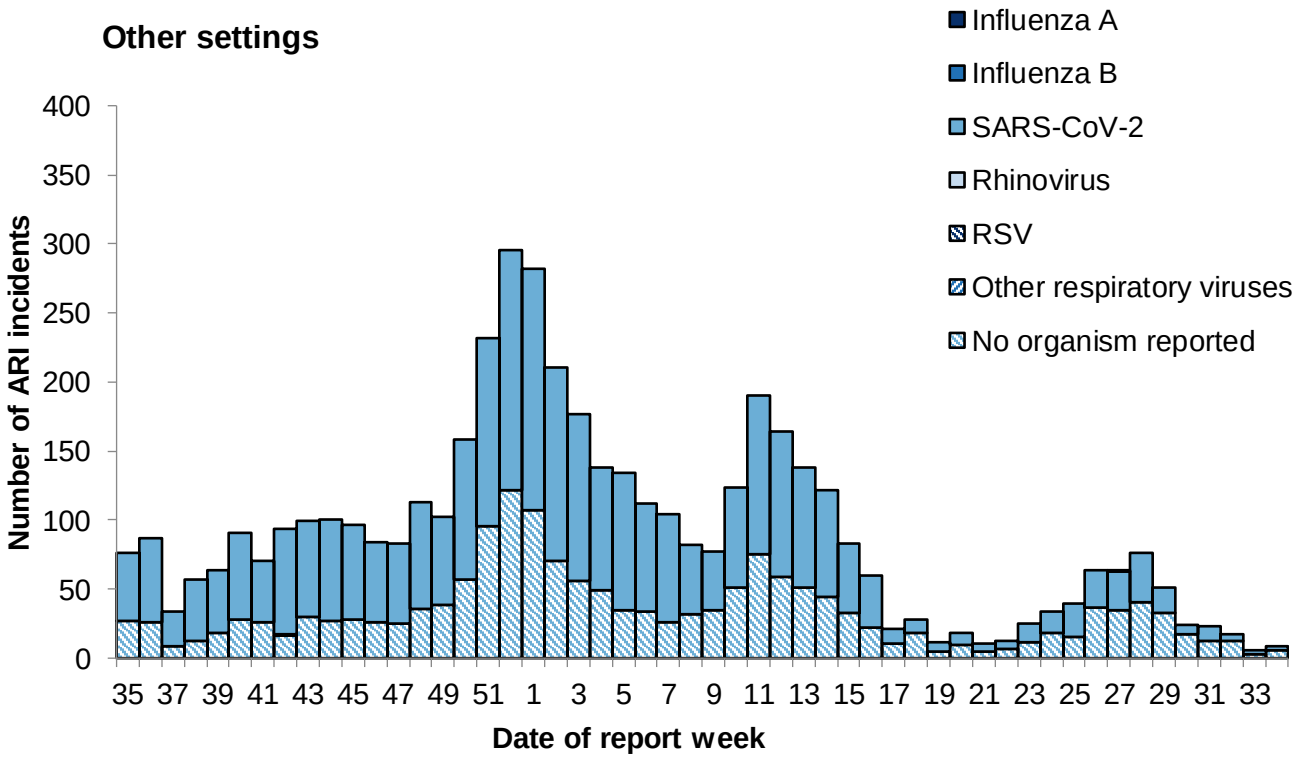


Table 1: Total number of situations and incidents by institution and UKHSA centres over the past 4 weeks with the total number in the last week in brackets

UKHSA Centres	Care home	Hospital	Educational settings	Prisons	Workplace settings	Food outlet/ restaurant settings	Other settings	Total
East of England	65(7)	0(0)	1(1)	0(0)	0(0)	0(0)	9(2)	75(10)
East Midlands	106(22)	8(2)	0(0)	2(0)	0(0)	0(0)	12(2)	128(26)
London	72(14)	63(7)	0(0)	1(1)	0(0)	0(0)	10(1)	146(23)
North East	46(8)	3(0)	0(0)	0(0)	0(0)	0(0)	1(0)	50(8)
North West	26(4)	1(1)	0(0)	0(0)	0(0)	0(0)	14(2)	41(7)
South East	7(1)	7(0)	0(0)	0(0)	0(0)	0(0)	0(0)	14(1)
South West	133(25)	0(0)	0(0)	0(0)	0(0)	0(0)	5(2)	138(27)
West Midlands	11(2)	1(0)	0(0)	0(0)	0(0)	0(0)	1(0)	13(2)
Yorkshire and Humber	35(7)	3(0)	0(0)	0(0)	0(0)	0(0)	3(0)	41(7)
Total	501(90)	86(10)	1(1)	3(1)	0(0)	0(0)	55(9)	646(111)

FluSurvey

An internet-based surveillance system has been developed based on FluSurvey. FluSurvey is a web tool survey designed to 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 2020.

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.

A total of 2,178 participants completed the weekly surveillance survey in week 32, of which 86 (4.0%) reported fever or cough and 25 (1.2%) reported ILI. COVID-19 related symptoms continued to decrease since week 27 while ILI remained stable among respondents completing the survey during the reporting period. The most commonly used healthcare services reported by respondents remains telephoning a GP practice (Figure 25).

Self-reported daily social contact patterns are also reported. A contact is defined as a person outside the household who is approached at a distance of less than one metre, on the day prior to survey completion.

FluSurvey data was not updated for the week 35 report.

Figure 25: FluSurvey participants self-reporting fever or cough and ILI symptoms, and trends in healthcare seeking behaviour among these participants, England

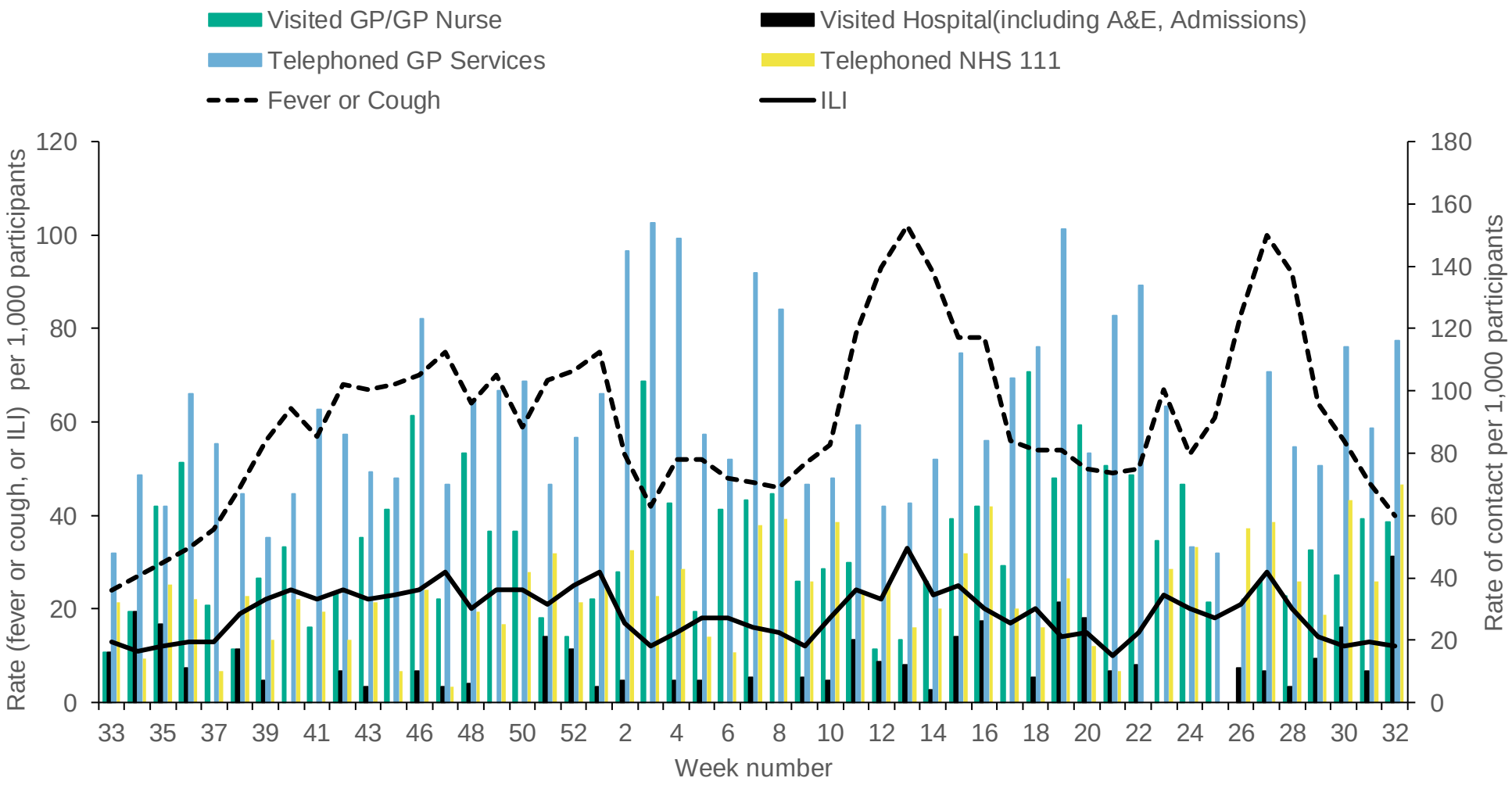
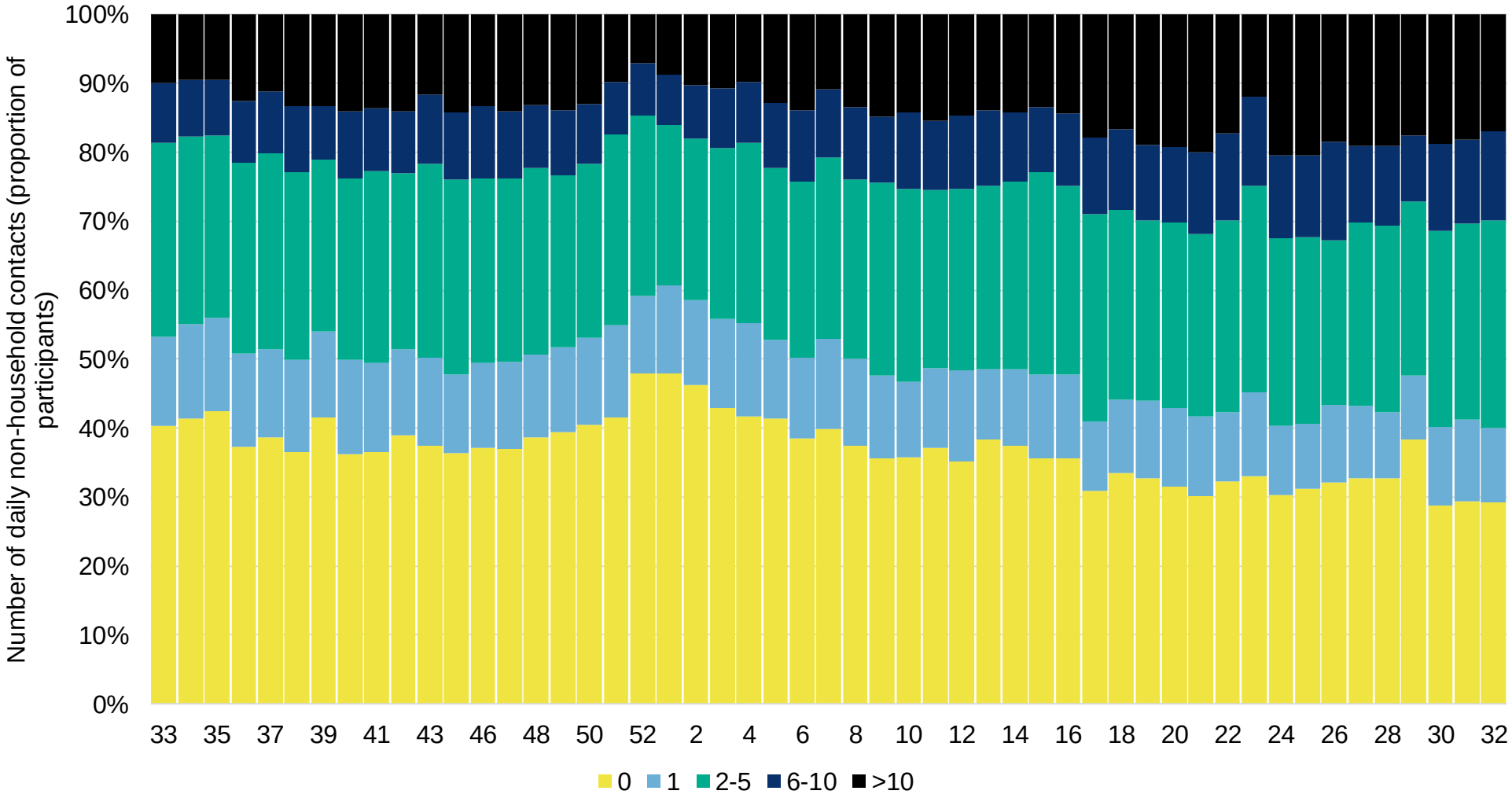


Figure 26: FluSurvey participants' self-reported number of social contacts outside the household

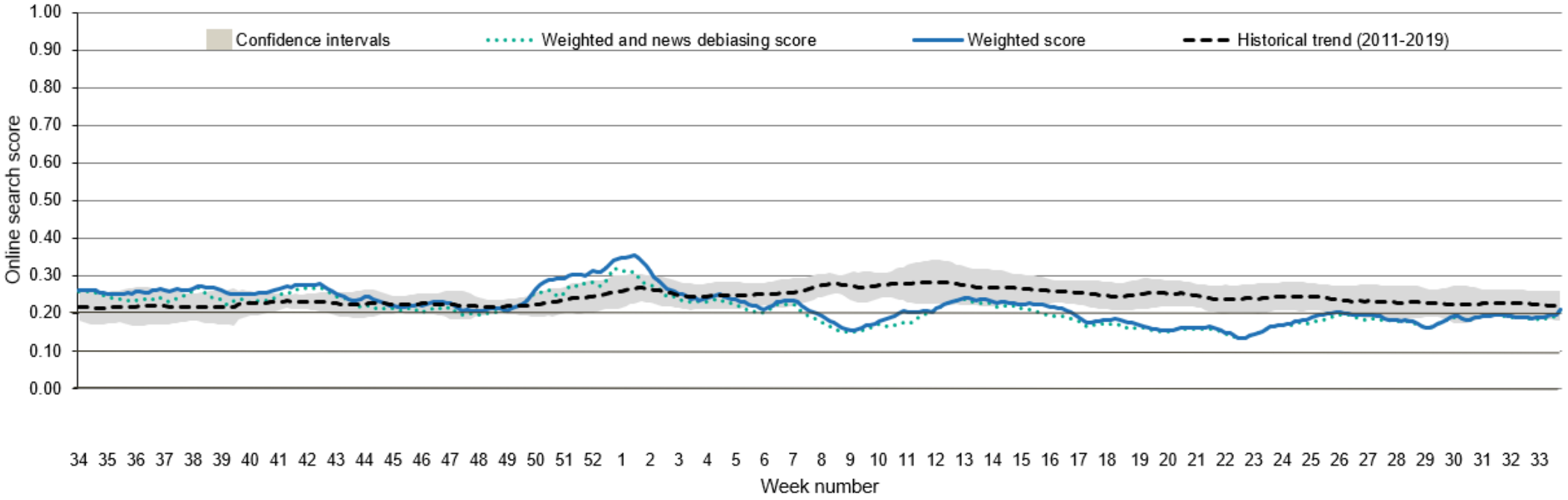


Google search queries

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.

Data was not updated for the week 35 report. During week 33, the overall and media-debiasing weighted Google search scores increased slightly compared to the previous week (Figure 27).

Figure 27: Normalised Google search score for COVID-19 symptoms, with weighted score for media-debiasing and historical trend, England



NHS 111

Please note that different syndromic surveillance indictors (NHS 111, GP in hours, GP out of hours and emergency department attendances) are presented here than have been included in previous versions of this report. All indictors previously presented will continue to be published in the Syndromic Surveillance bulletins.

The NHS 111 service monitors daily trends in phone calls made to the service in England, to capture trends in infectious diseases such as influenza and norovirus.

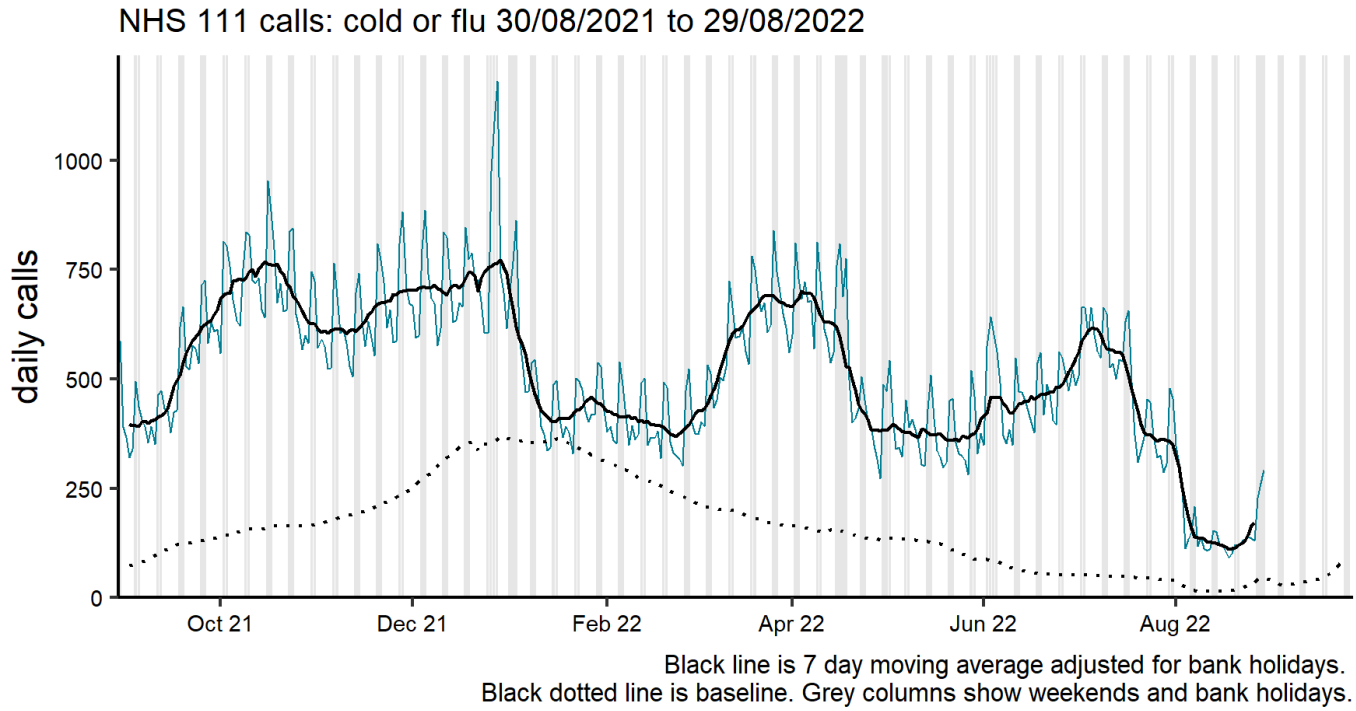
Please note that the number of NHS 111 calls continue to be lower than usual due to widely publicised disruption faced by a clinical software system. The NHS 111 call data presented in this week's report should therefore be interpreted with some caution (Figure 28 and 29).

Please note that NHS 111 callers (from 11 May 2020) who are assessed as having probable COVID-19 symptoms are now triaged using symptom specific pathways such as cold or flu, which are included in routine syndromic indicators.

Further information about these caveats is available from the Remote Health Advice Syndromic Surveillance bulletin.

Figure 28: NHS 111 telephony indicators (and 7-day moving average) for number of daily cold or flu calls, England (a) nationally and (b) by age group

(a)



(b)

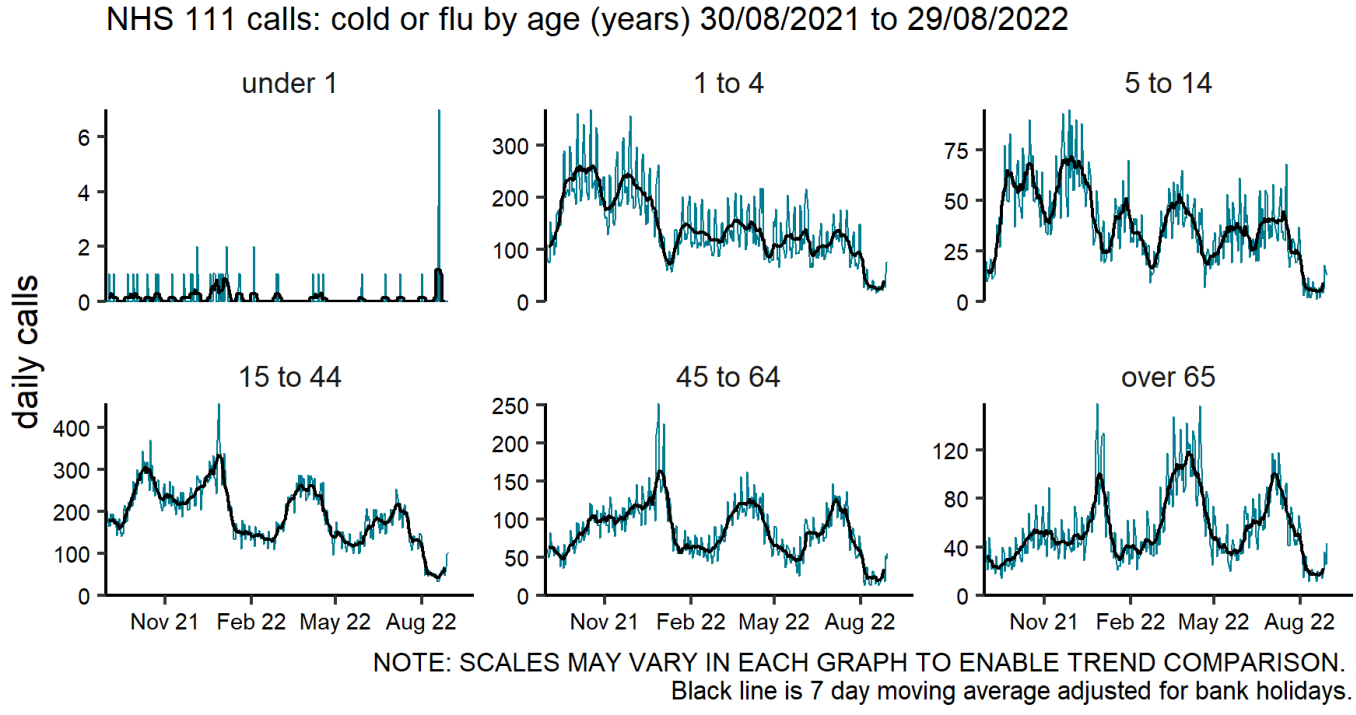
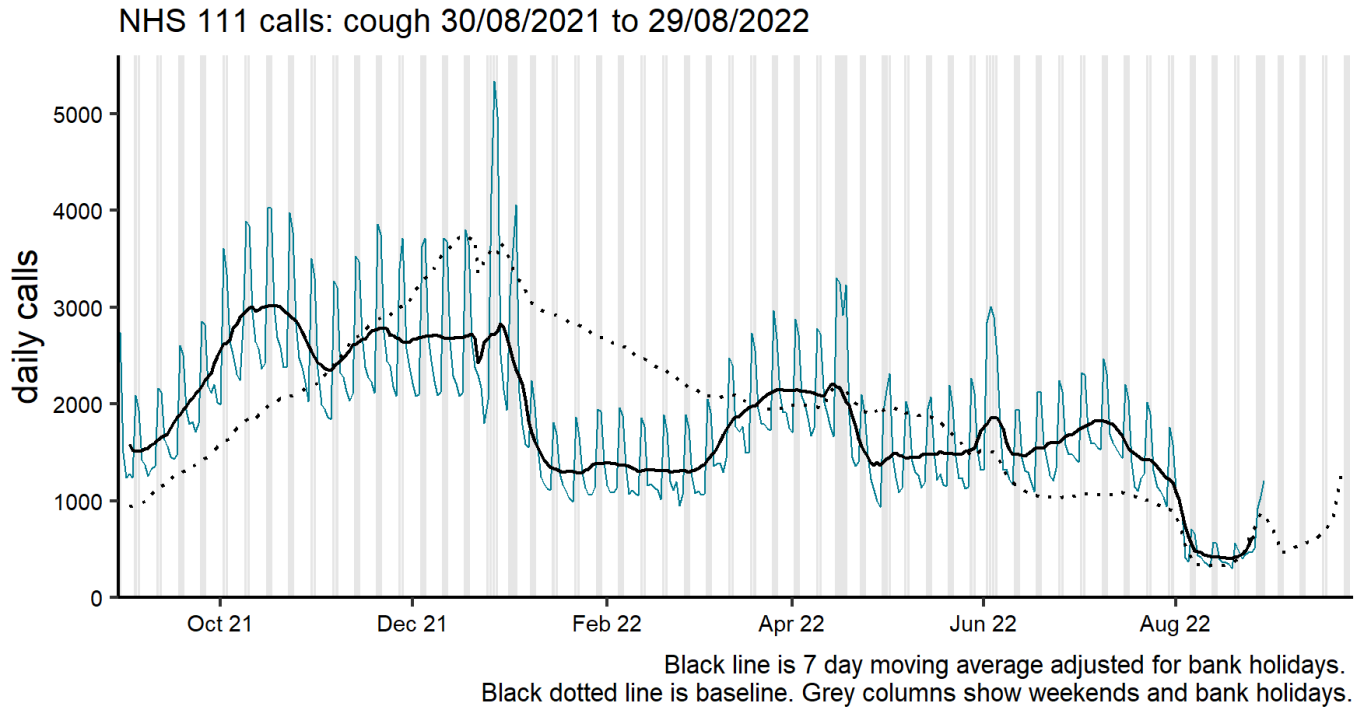


Figure 29: NHS 111 telephony indicators (and 7-day moving average) for number of daily cough calls, England (a) nationally and (b) by age group

(a)



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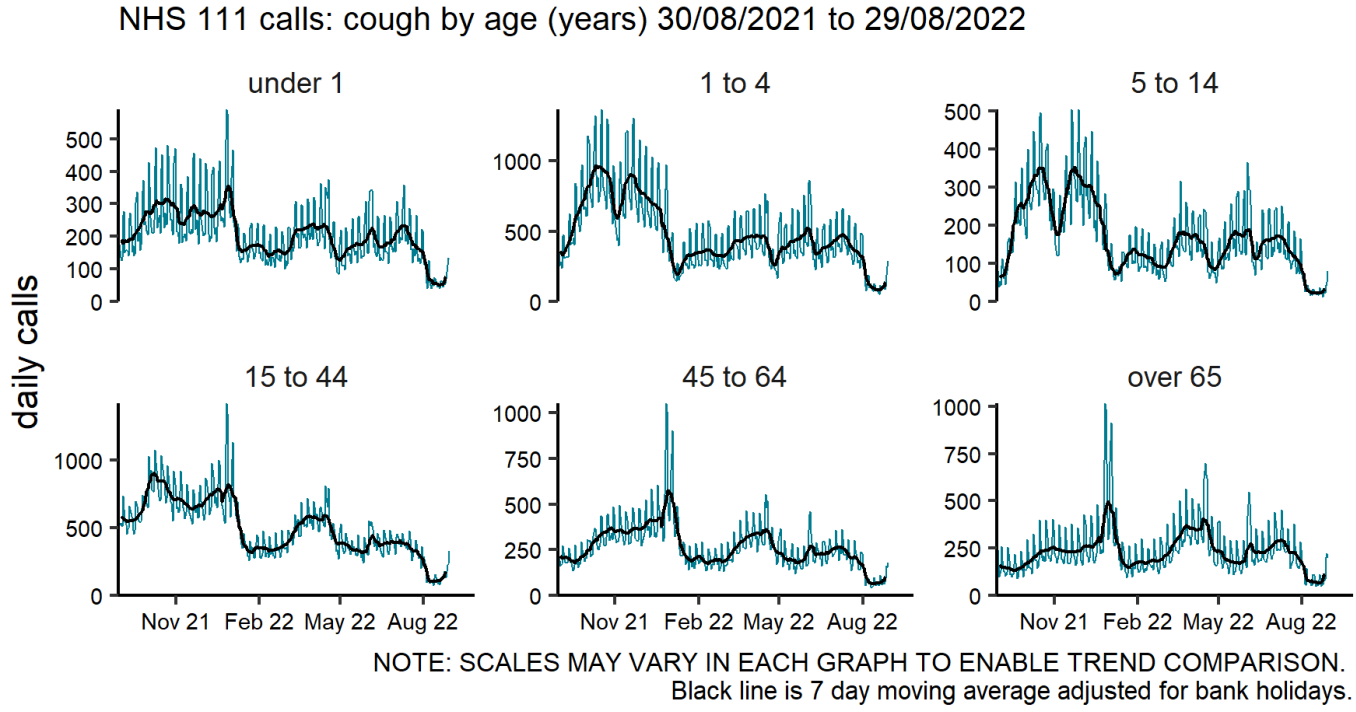


Primary care surveillance

RCGP (England)

The weekly ILI consultation rate through the RCGP surveillance was 0.7 per 100,000 registered population in participating GP practices in week 34 compared to 0.7 per 100,000 in the previous week. This is below the baseline threshold (12.2 per 100,000) (Figure 30). By age group, the highest rates were seen in the under 1 year olds (2.1 per 100,000). The lower respiratory tract infections (LRTI) consultation rate was at 28.1 per 100,000 in week 34, compared to the rate of 30.6 per 100,000 in the previous week. The COVID-19 indicator rate was at 28.1 per 100,000 in week 34 compared to a rate of 45.6 per 100,000 in the previous week (Figure 31).

Figure 30: RCGP ILI consultation rates, all ages, England

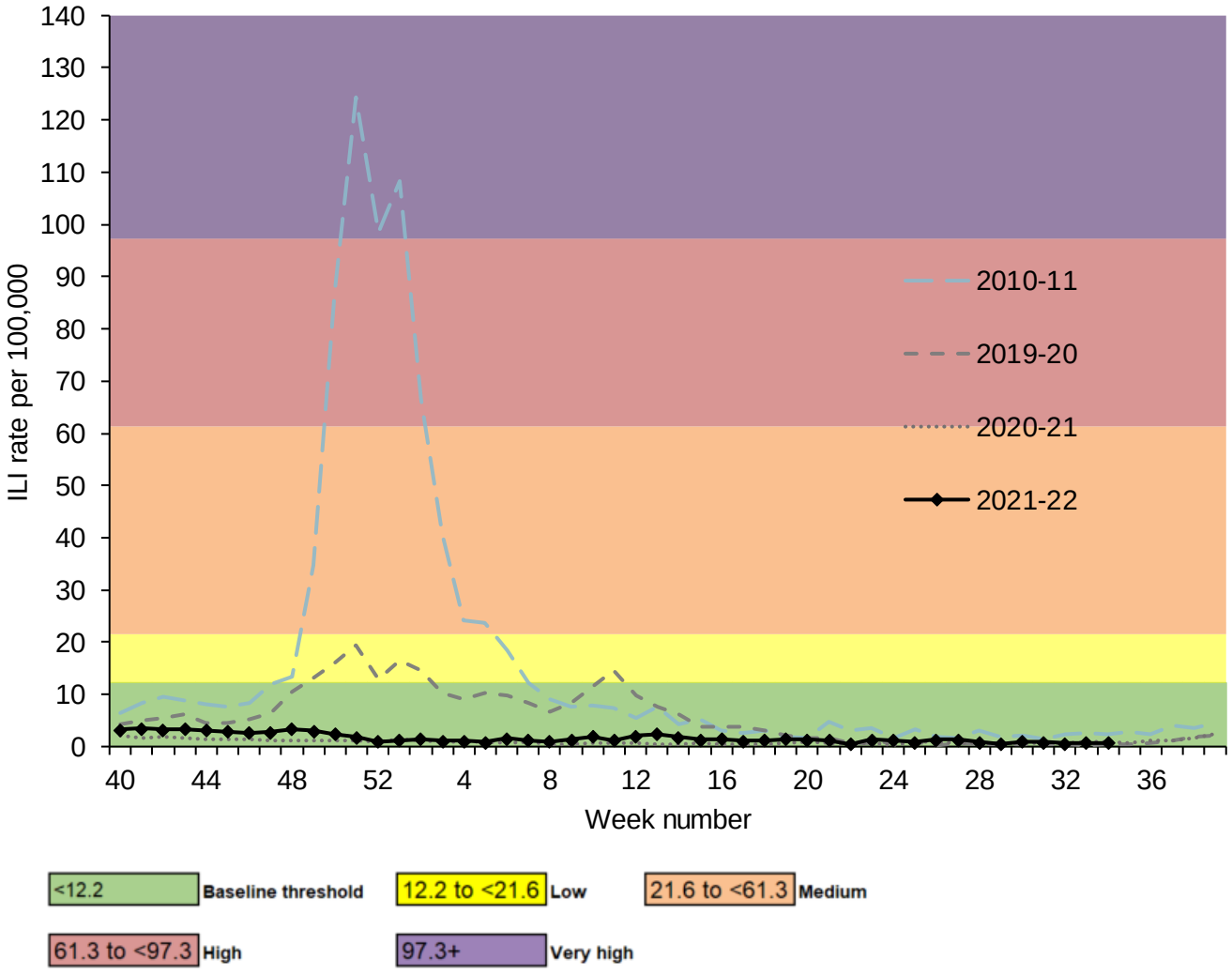
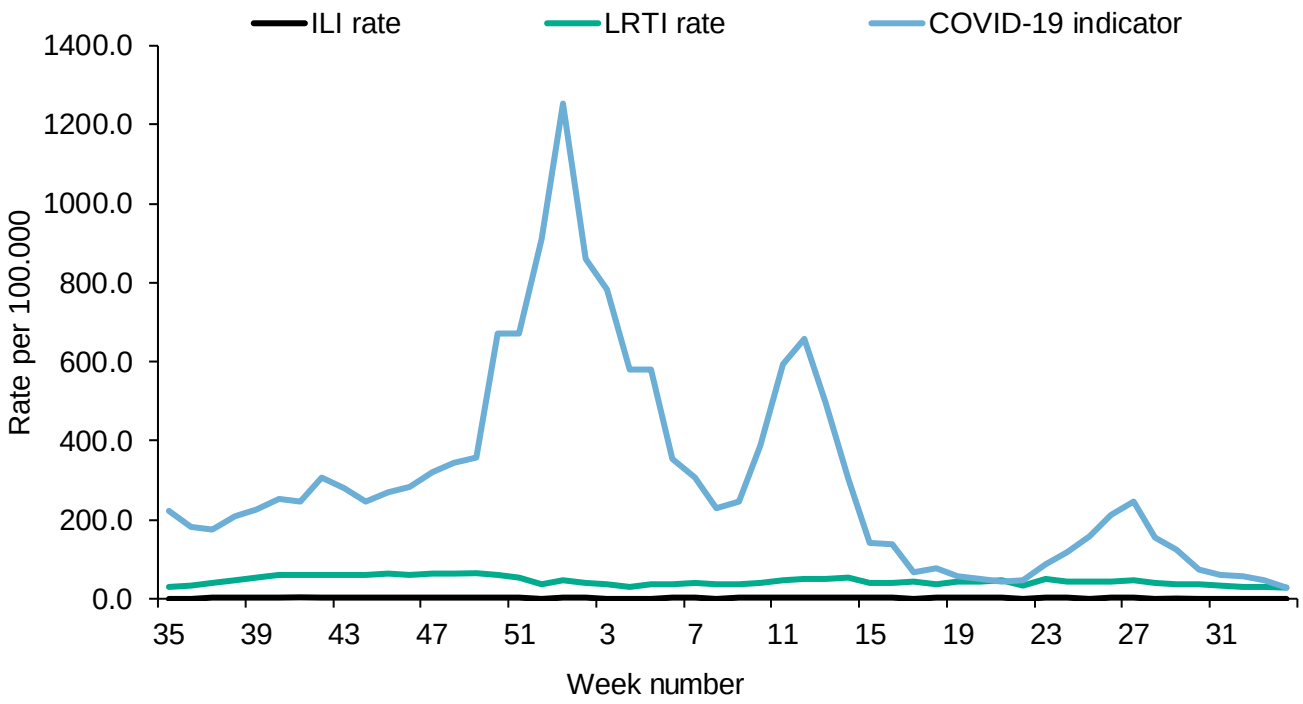


Figure 31: RCGP ILI, LRTI and COVID-19 indicator rates, England



UK

Overall, weekly ILI consultations rates were below baseline levels in all UK schemes (Table 2).

By age group, the highest incidence age groups were in the 1 to 4 year olds in Scotland (1.0 per 100,000) and the 5 to 14 year olds in Wales (2.5 per 100,000).

Table 2: GP ILI consultations in the UK for all ages with MEM (Moving Epidemic Method) thresholds applied

GP ILI consultation rates (all ages)	Week number														
	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
England (RCGP)	1.4	1.2	0.6	1.3	1.2	0.9	1.3	1.4	0.9	0.5	0.9	0.8	0.6	0.7	0.7
Wales	2.3	1.4	0.5	0.7	1.5	1.5	2.0	1.0	1.0	0.0	0.5	0.3	0.3	1.5	1.3
Scotland	0.5	0.7	0.5	2.8	0.8	0.8	0.7	0.6	0.7	0.6	0.6	0.4	0.5	0.5	0.6
Northern Ireland	0.9	1.0	0.2	1.1	1.0	0.8	1.0	1.3	0.4	0.2	0.8	0.3	0.2	0.2	

Baseline threshold | Low | Medium | High | Very high

The Moving Epidemic Method (MEM) has been adopted by the European Centre for Disease Prevention and Control to calculate thresholds for GP ILI consultations for the start of influenza activity (based on 10 seasons excluding 2009 to 2010), in a standardised approach across Europe. For MEM threshold values for each country, please visit the webpage Sources of UK flu data: influenza surveillance in the UK.

Sentinel swabbing scheme in England

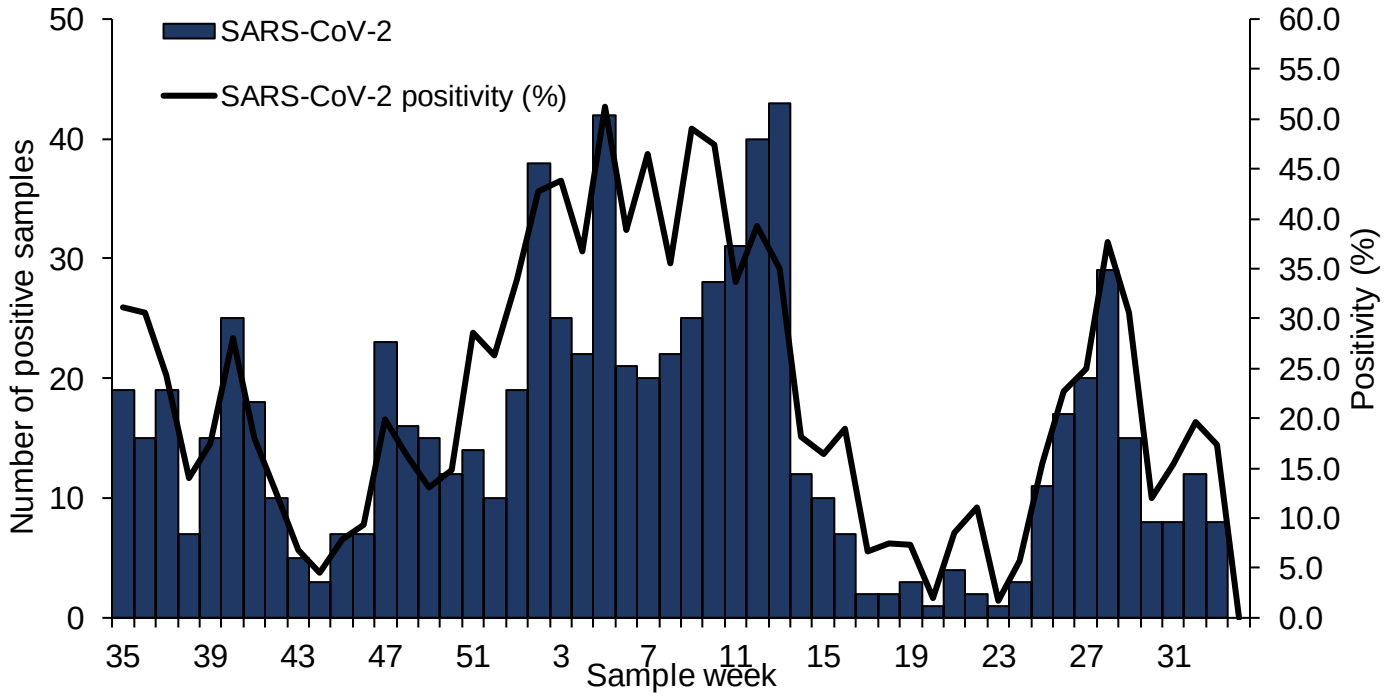
In week 34 2022, no samples tested positive for SARS-CoV-2 through the GP sentinel swabbing scheme in England (Figure 32).

In week 34, 1 sample tested positive for RSV and no samples tested positive for influenza in England through the GP sentinel swabbing scheme.

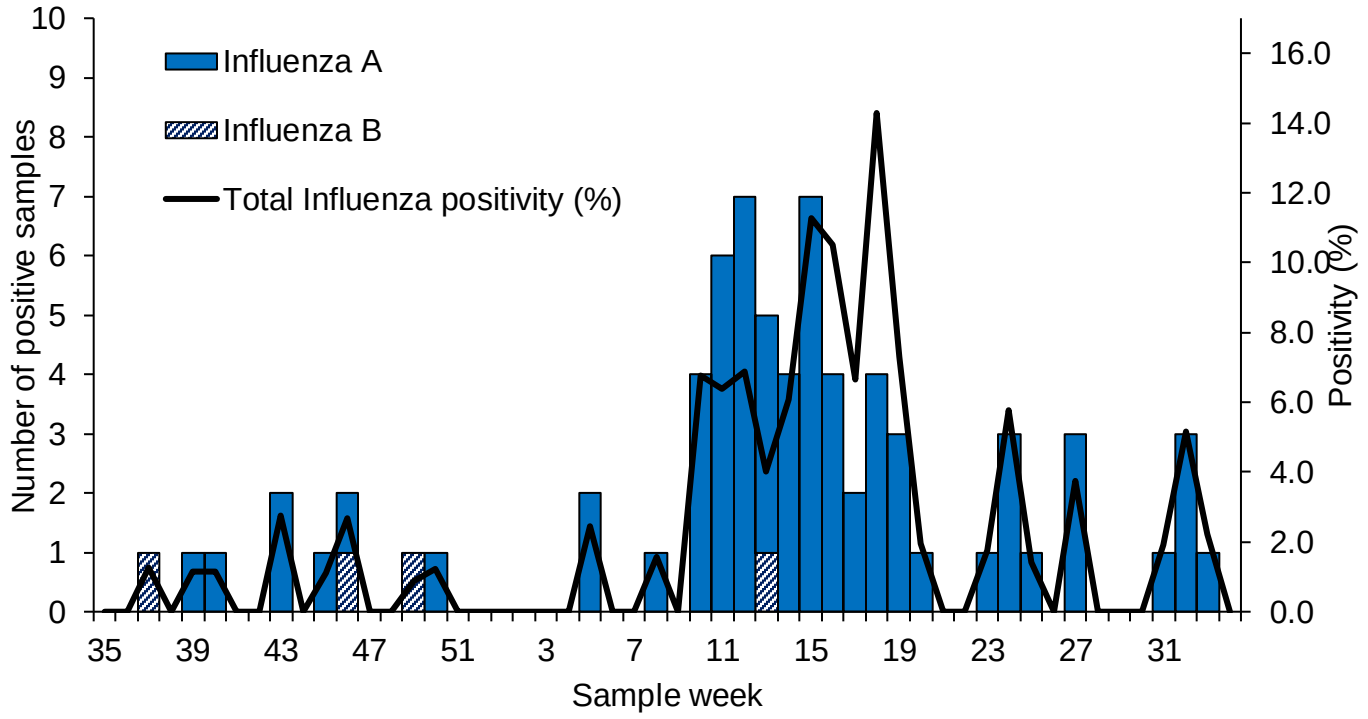
* Please note that due to lower sample numbers data from week 14 of 2022 onwards should be interpreted with caution.

Figure 32: Number of positive samples and weekly positivity (%) for (a) COVID-19 and (b) Influenza and (c) RSV, GP sentinel swabbing scheme

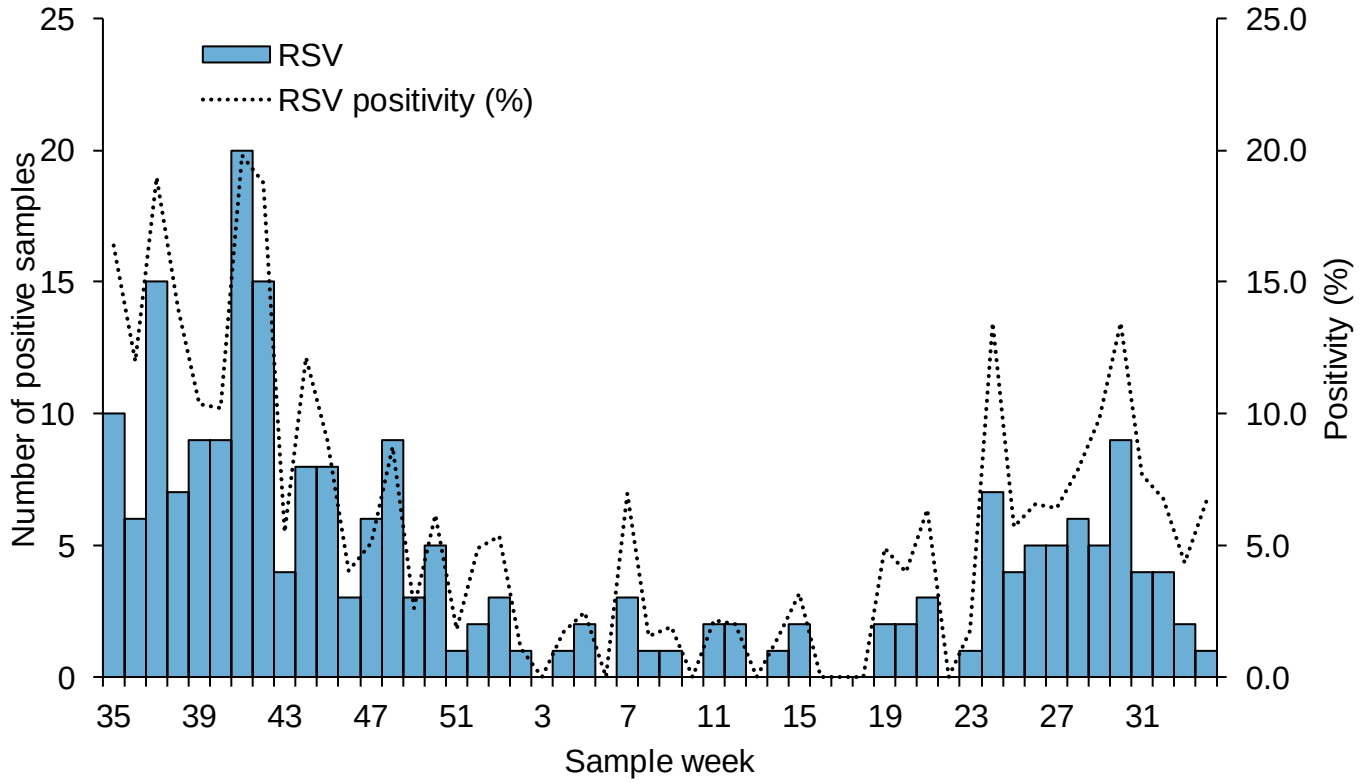
(a)



(b)



(c)



*For the most recent week, more samples are expected to be tested therefore the graphs in Figure 32 should be interpreted with caution

*Positivity (%) is not calculated when the total number tested is less than 10

GP In Hours, Syndromic Surveillance

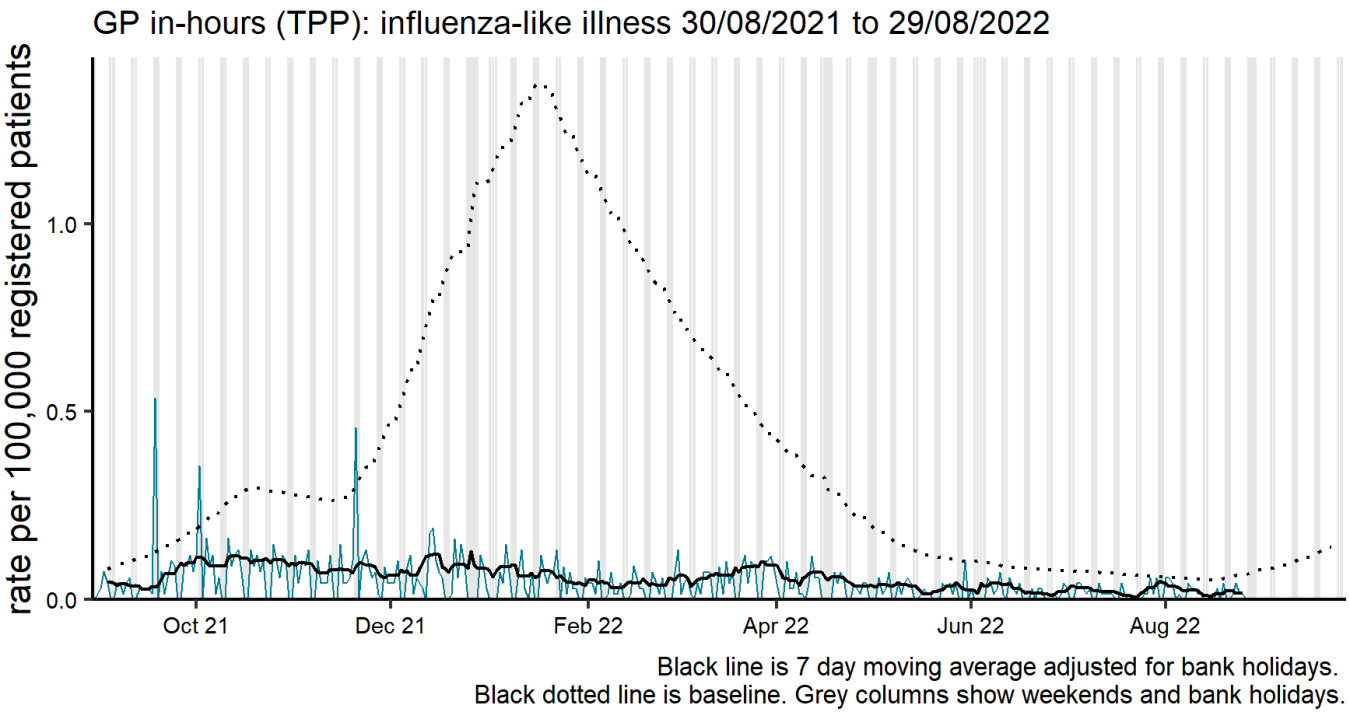
The GP In Hours (GPIH) syndromic surveillance system monitors the number of GP visits during regular hours of known clinical indicators.

Up to 29 August GP in-hours consultations for influenza-like illness (ILI) remained stable (Figure 33).

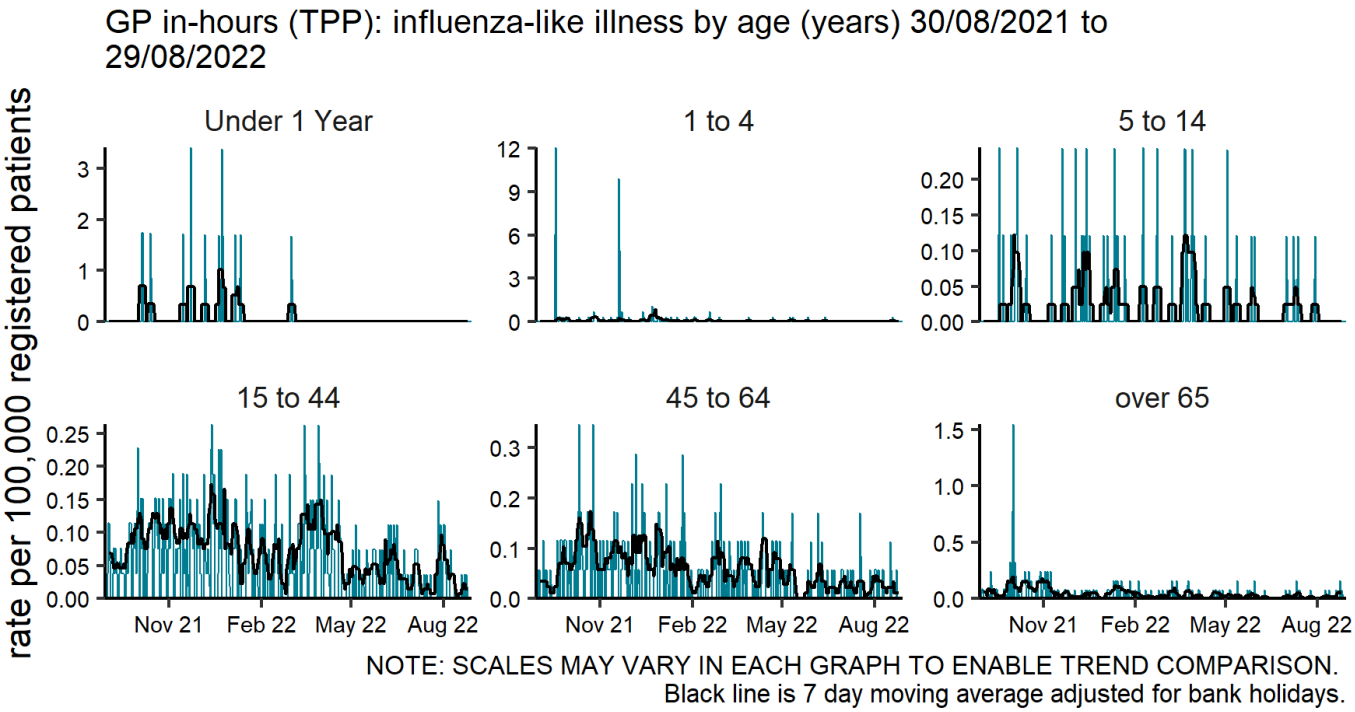
Further indicators and information about caveats are available from the GP In Hours Syndromic Surveillance bulletin.

Figure 33: GPIH clinical indicators for influenza-like illness GP consultations, England (a) nationally, (b) by age group and (c) by UKHSA centre

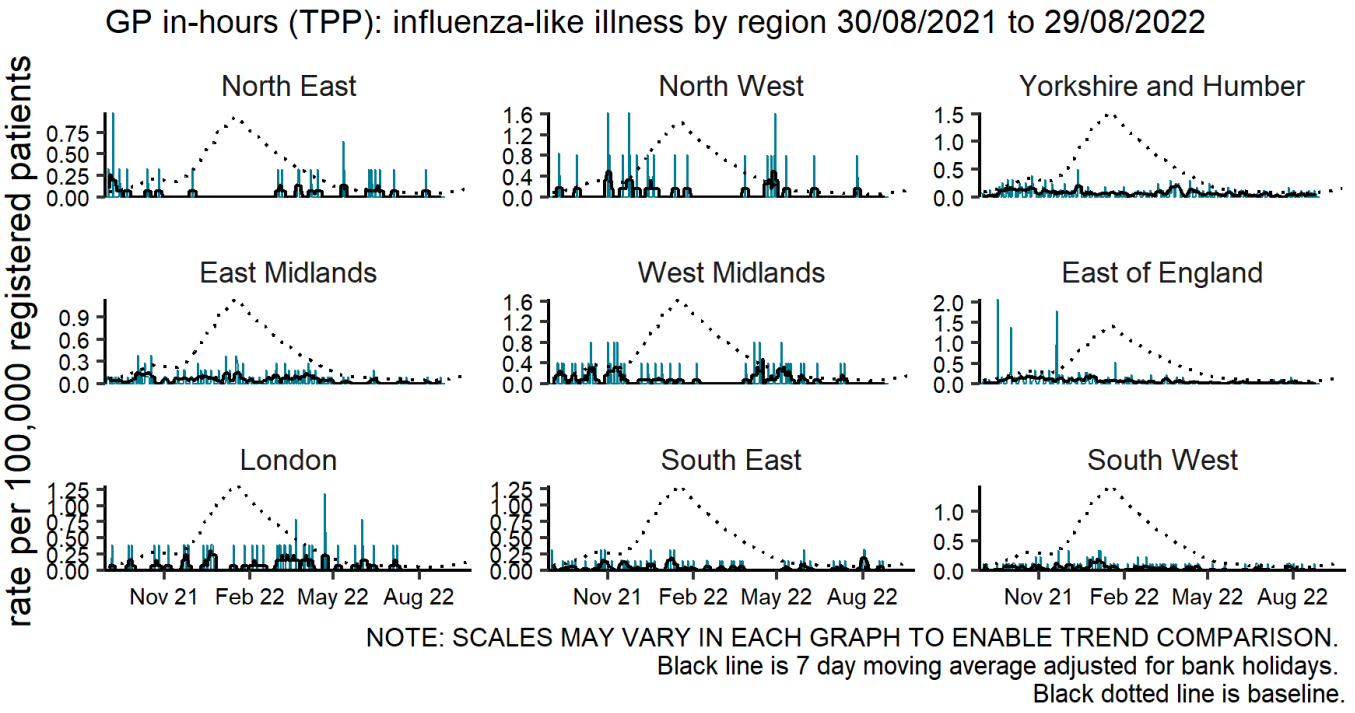
(a)



(b)



(c)



GPIH Baselines are modelled from historical data to give current seasonally expected levels. GP consultations rates decreased during 2020 due to changes in guidance on accessing health care, therefore separate modelled estimates are provided to show seasonally expected levels pre-COVID-19.

GP Out of Hours, Syndromic Surveillance

The GP Out of Hours (GPOOH) syndromic surveillance system monitors the numbers of daily unscheduled visits and calls to GPs during evenings, overnight, on weekends and on public holidays. This system covers around 55% of England's out of hour activity.

Please note that due to a disruption with a GPOOH clinical software system provider, GPOOH data from 4 August onwards is not currently available (Figures 34 and 35).

Figure 34: GPOOH number of daily contacts for all ages for influenza-like illness, England

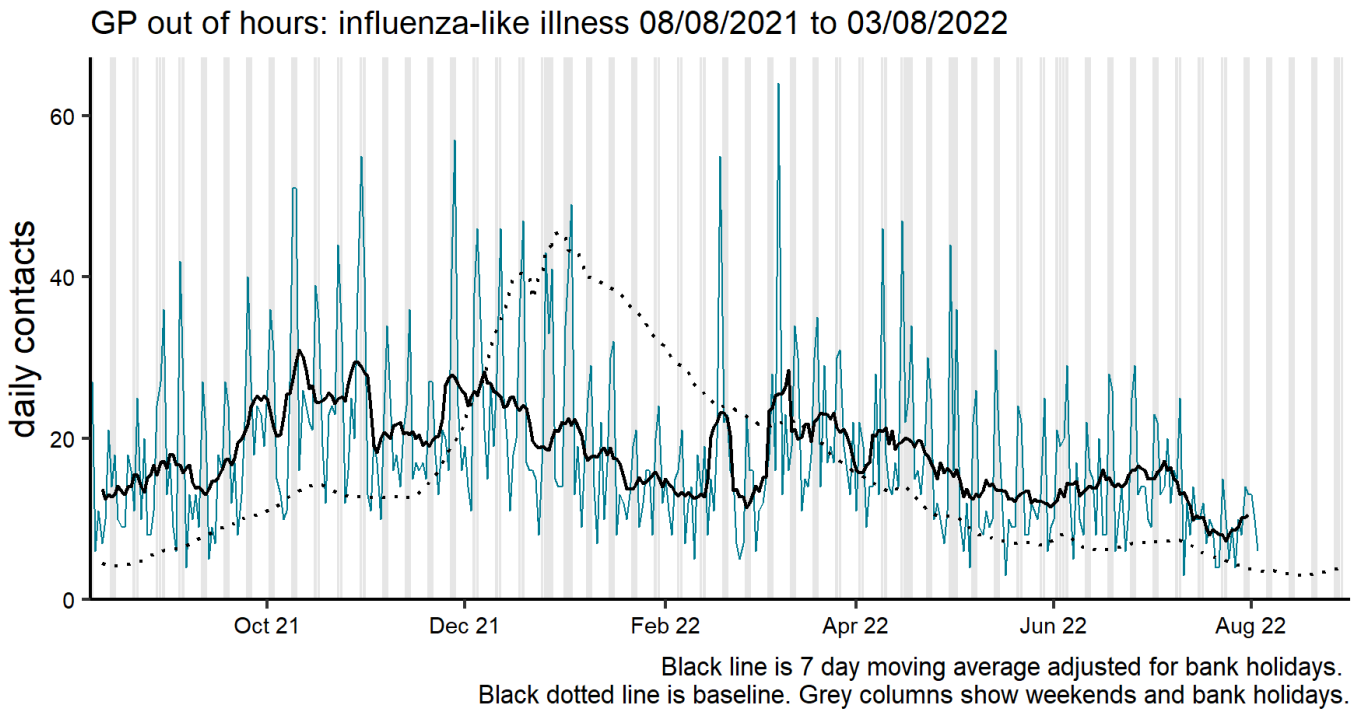
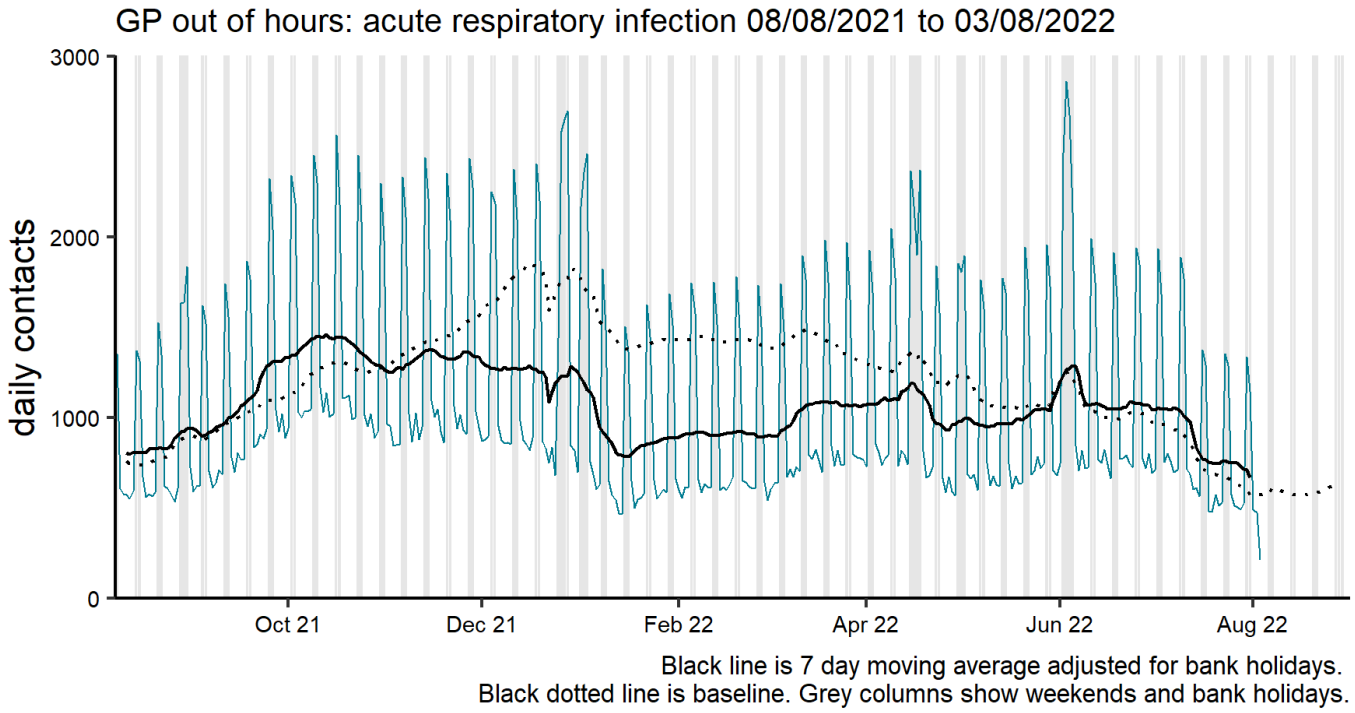
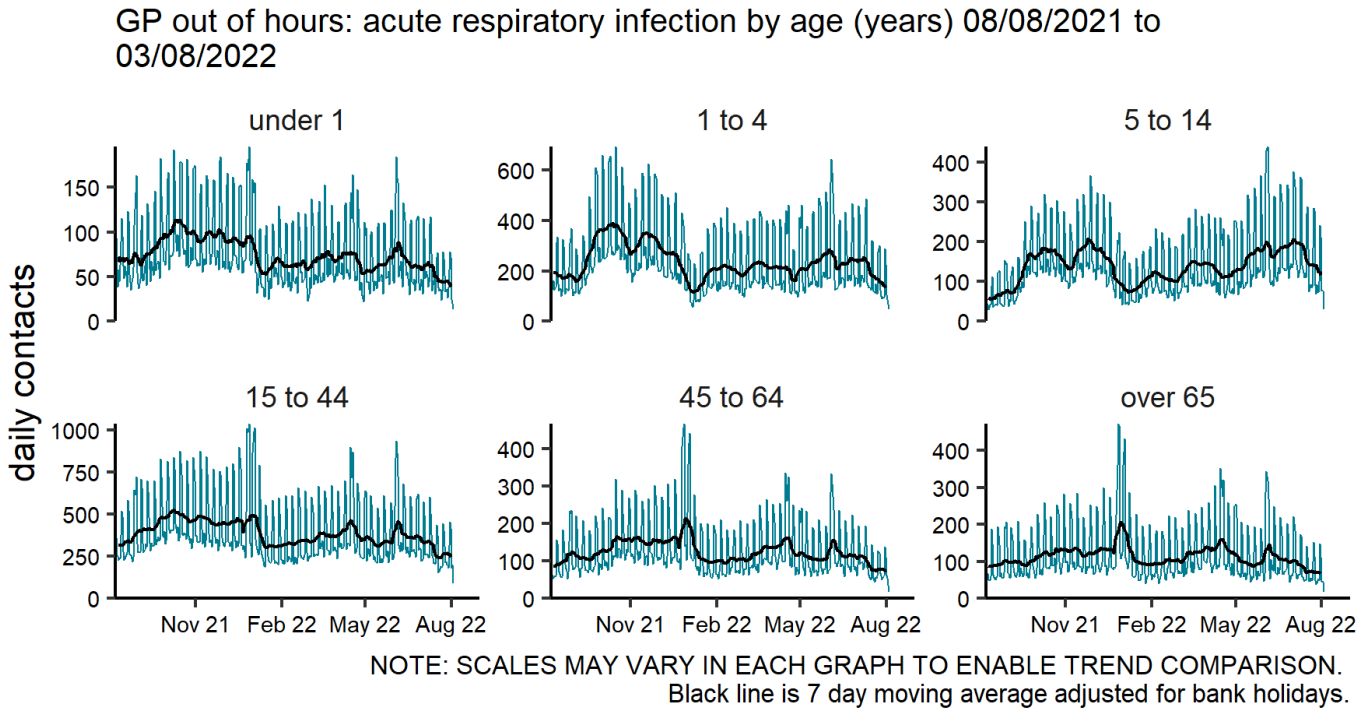


Figure 35: GPOOH number of daily contacts for acute respiratory infections, England (a) nationally and (b) by age group

(a)



(b)



Secondary care surveillance

SARI Watch

The Severe Acute Respiratory Infection (SARI) Watch surveillance system was established in 2020 to report the number of laboratory-confirmed influenza and COVID-19 cases admitted to hospital and critical care units (ICU and HDU) in NHS acute trusts across England. This has replaced the UK Severe Influenza Surveillance Schemes (USISS) Mandatory and Sentinel data collections for influenza surveillance used in previous seasons, and the COVID-19 hospitalisations in England surveillance system (CHESS) collections for COVID-19 surveillance.

The weekly rate of new admissions of COVID-19, influenza and RSV cases is based on the trust catchment population of those NHS Trusts who made a new return. This may differ from other published figures such as the total number of people currently in hospital with COVID-19.

The Moving Epidemic Method (MEM) thresholds for influenza hospital and ICU or HDU admissions are calculated based on the 2014 to 2015 to the 2018 to 2019 seasons (data from 2019 to 2020 was excluded due to the COVID-19 pandemic). These thresholds have been applied to data from the 2019 to 2020 season onwards.

Trends in hospital and critical care admission rates need to be interpreted in the context of testing recommendations.

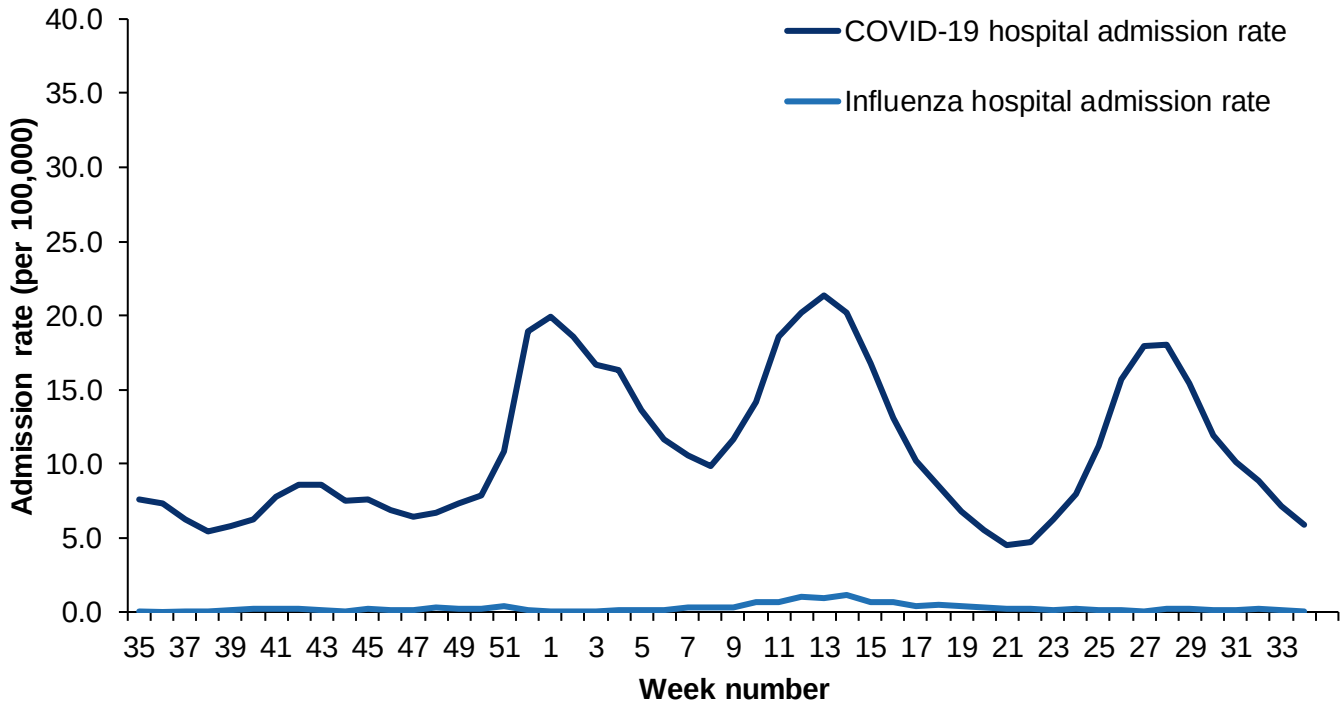
Hospitalisations, SARI Watch

In week 34, the overall weekly hospital admission rate for COVID-19 decreased. The hospitalisation rate for COVID-19 was at 5.88 per 100,000 in week 34 compared to 7.17 per 100,000 in the previous week.

By UKHSA centre, the highest hospital admission rate for COVID-19 was observed in the West Midlands. By age group, the highest hospital admission rate for confirmed COVID-19 was in the 85 year olds and over.

The hospitalisation rate for influenza was at 0.05 per 100,000 in week 34 compared to 0.12 per 100,000 in the previous week. There were 4 new hospital admissions to sentinel Trusts for influenza (4 influenza A(not subtyped)) in week 34.

Figure 36: Weekly overall hospital admission rates of new COVID-19 and influenza positive cases per 100,000 population reported through SARI Watch, England



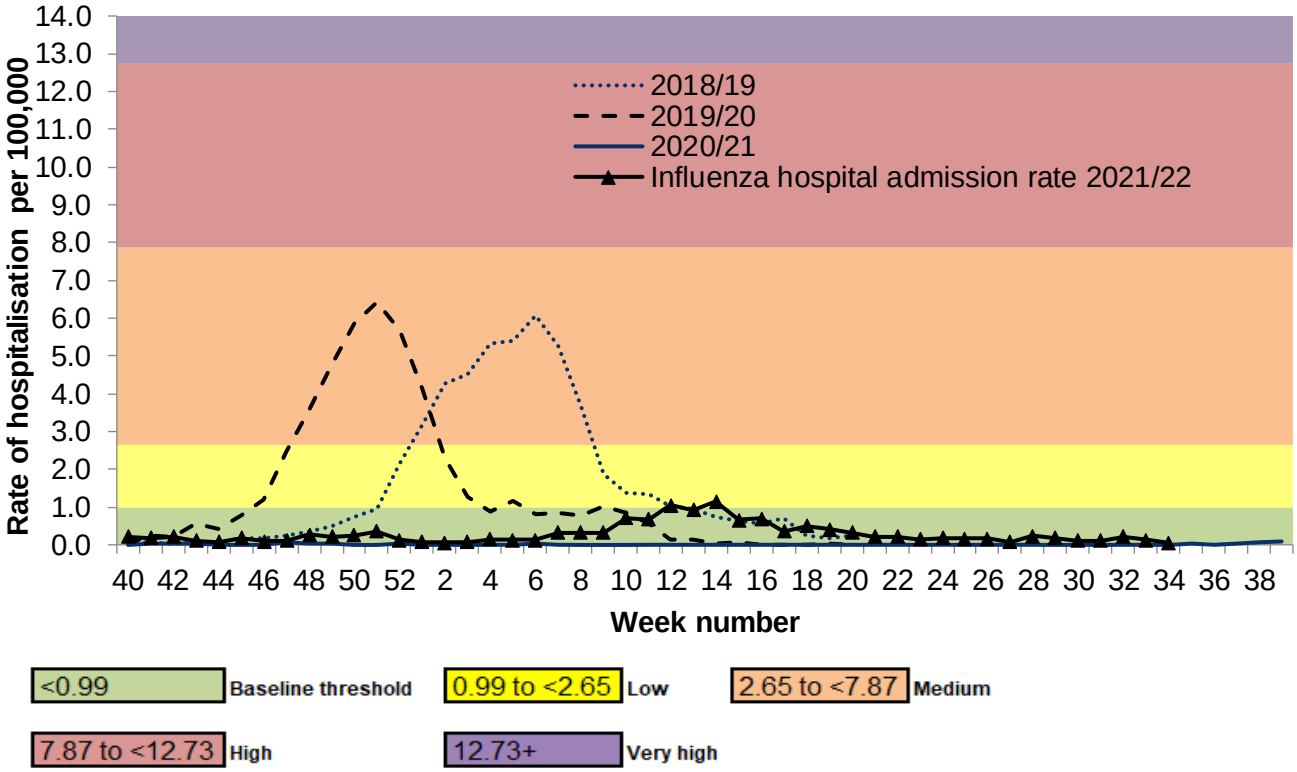
* hospital admission rate is reported from week 35 2021 onwards

* influenza hospital admission rate based on 19 sentinel NHS trusts for week 34

* COVID-19 hospital admission rate based on 86 NHS trusts for week 34

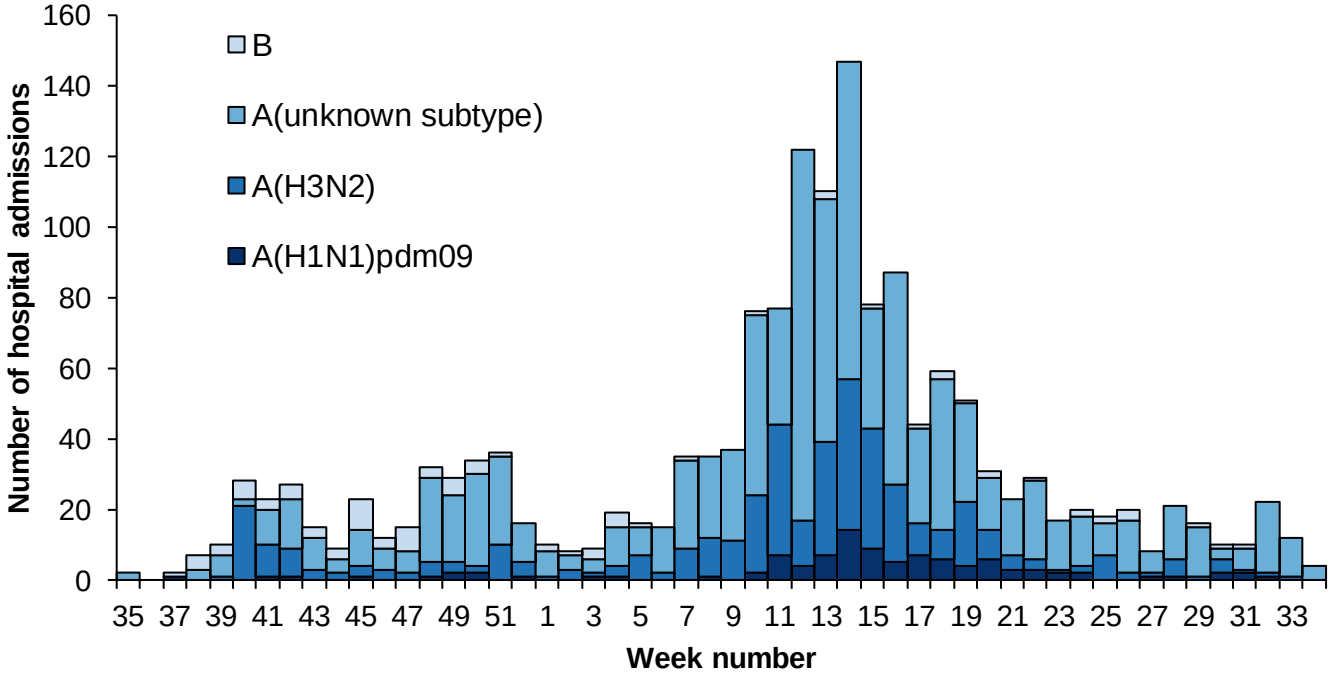
* SARI Watch data is provisional

Figure 37: Weekly overall influenza hospital admission rates per 100,000 trust catchment population with MEM thresholds, SARI Watch, England



* MEM thresholds are based on data from the 2014 to 2015 to the 2018 to 2019 seasons (data from 2019 to 2020 was excluded due to the COVID-19 pandemic).

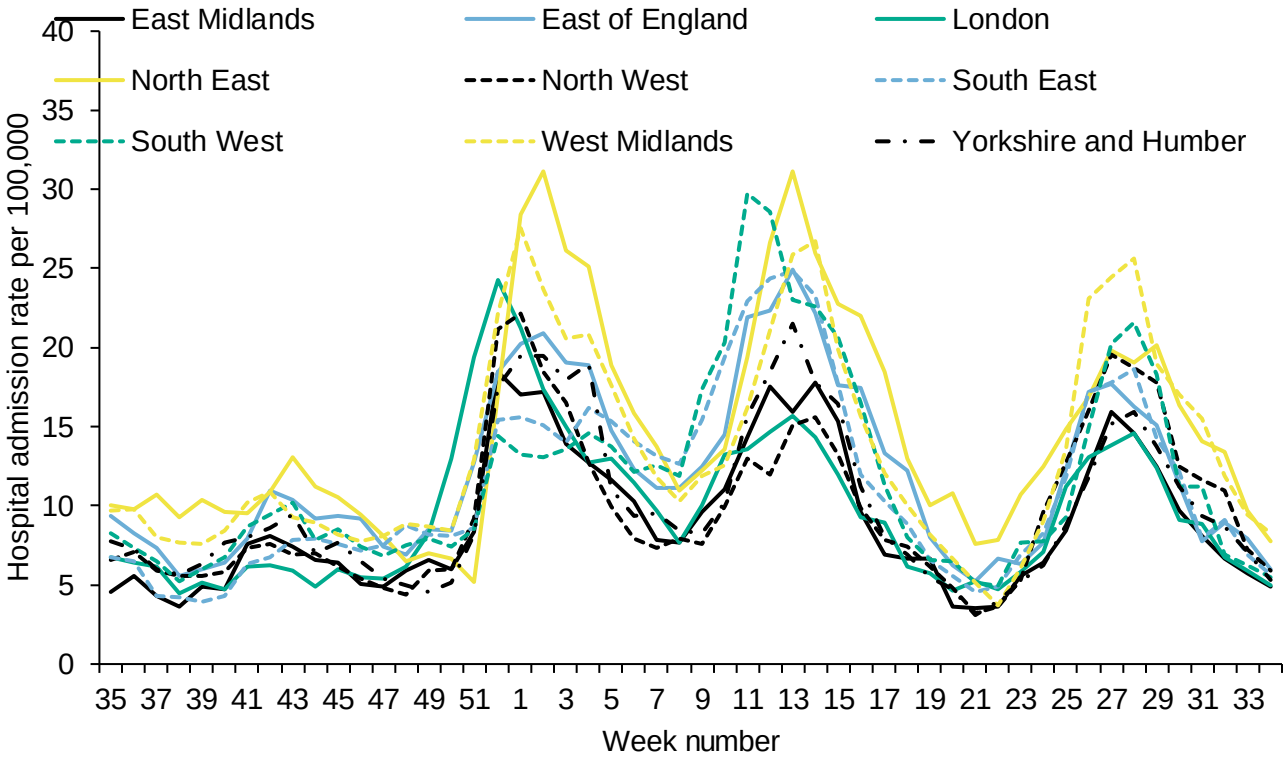
Figure 38: Weekly influenza hospital admissions by influenza type, SARI Watch, England



*number of influenza hospital admissions based on sentinel NHS trusts

Figure 39: Weekly hospital admission rate by UKHSA centre for new (a) COVID-19 positive cases and (b) influenza reported through SARI Watch

(a)



(b)

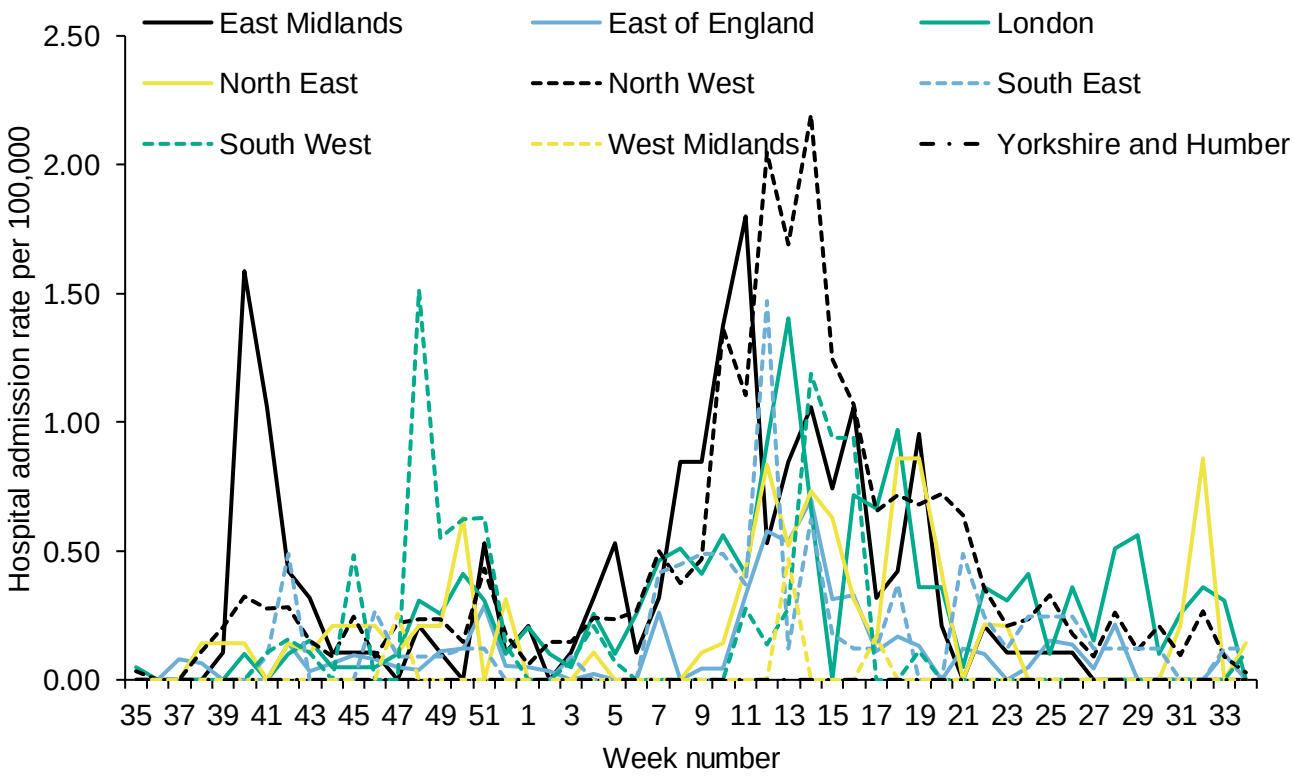
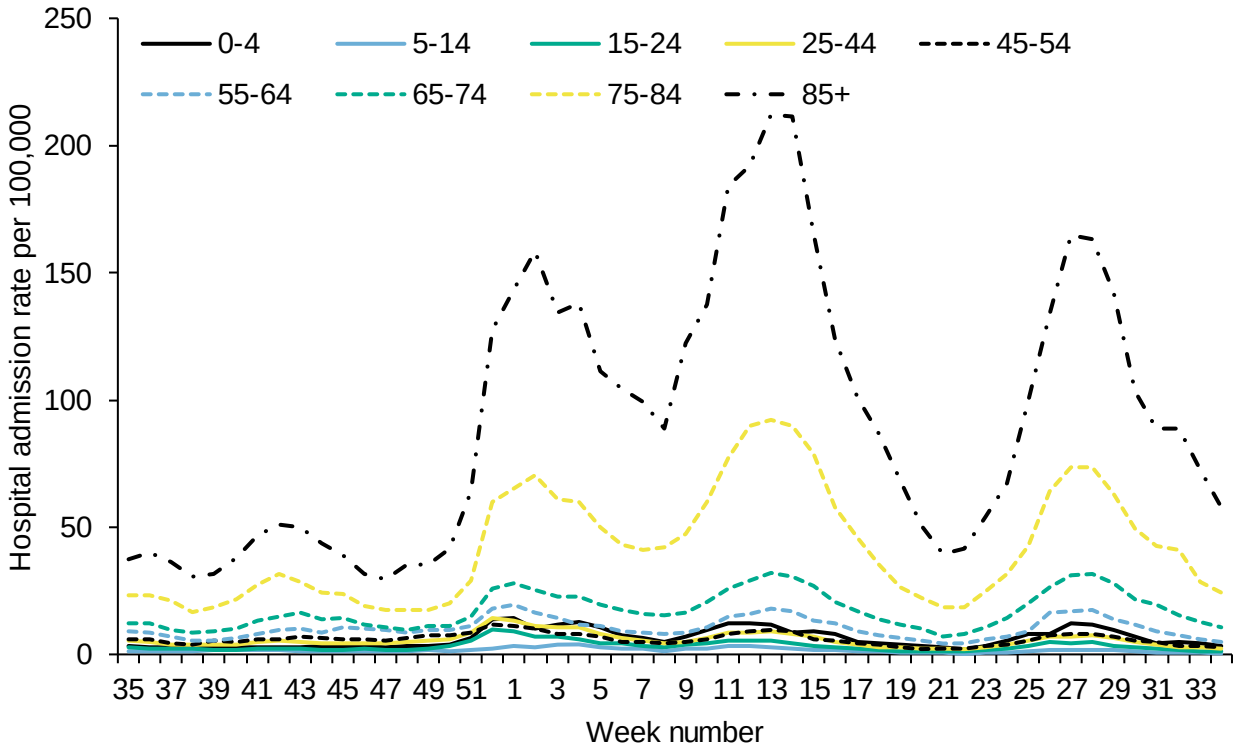
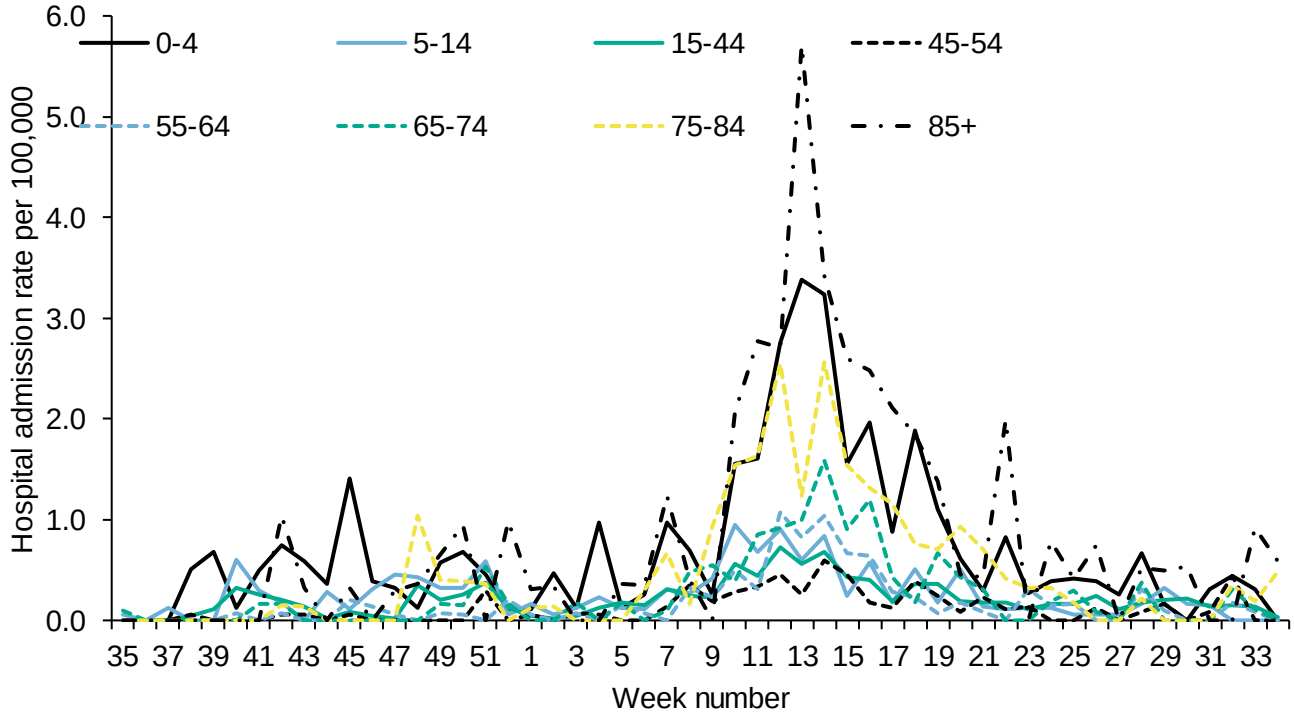


Figure 40: Weekly hospital admission rate by age group for new (a) COVID-19 positive cases and (b) influenza reported through SARI Watch

(a)



(b)



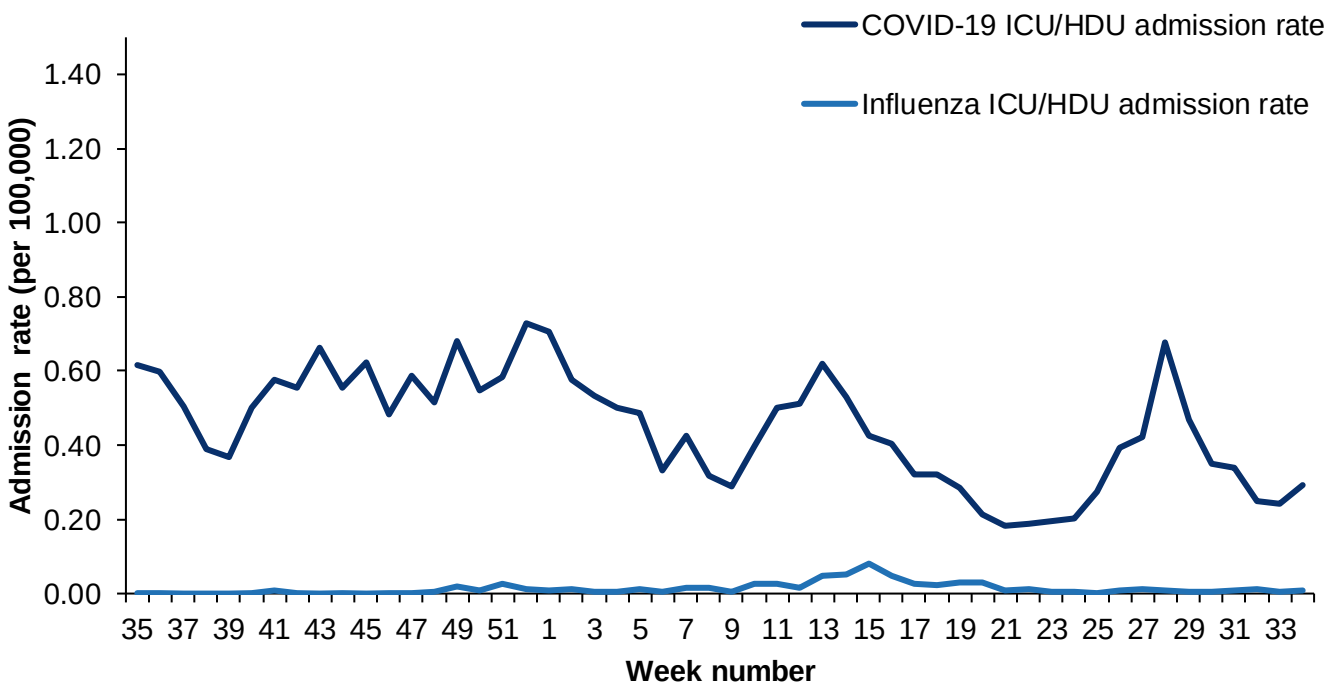
ICU or HDU admissions, SARI Watch

In week 34, the overall weekly ICU or HDU admission rates for COVID-19 remained low. The ICU or HDU rate for COVID-19 was at 0.29 per 100,000 in week 34 compared to 0.24 per 100,000 in the previous week. Note that ICU or HDU admissions rates may represent a lag from admission to hospital to an ICU or HDU ward.

By UKHSA centre, the highest ICU or HDU admission rates for COVID-19 were observed in the South West. By age groups, the highest ICU or HDU admission rates for COVID-19 were observed in the 75 to 84 year olds.

The ICU or HDU rate for influenza was at 0.01 per 100,000 in week 34 compared to 0.00 per 100,000 in the previous week. There were 3 new case report of an ICU or HDU admission for influenza in week 34 (3 influenza A(not subtyped)).

Figure 41: Weekly overall ICU or HDU admission rates of new COVID-19 and influenza positive cases per 100,000 population reported through SARI Watch, England



* ICU or HDU admission rate is reported from week 35 2021 onwards

* influenza ICU or HDU admission rate based on 88 NHS trusts for week 34

* COVID-19 ICU or HDU admission rate based on 77 NHS trusts for week 34

* SARI Watch data is provisional

Figure 42: Weekly overall influenza ICU or HDU admission rates per 100,000 trust catchment population with MEM thresholds, SARI Watch, England

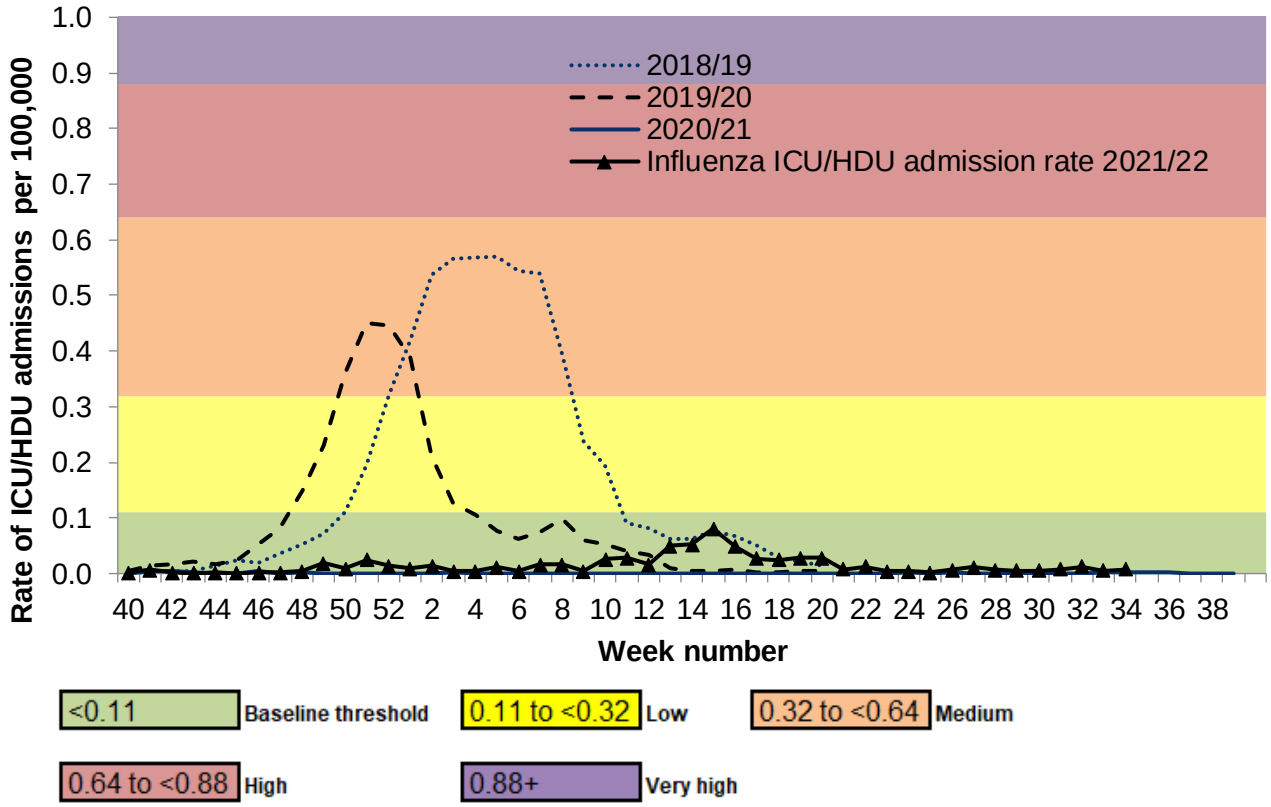


Figure 43: Weekly influenza ICU or HDU admissions by influenza type, SARI Watch, England

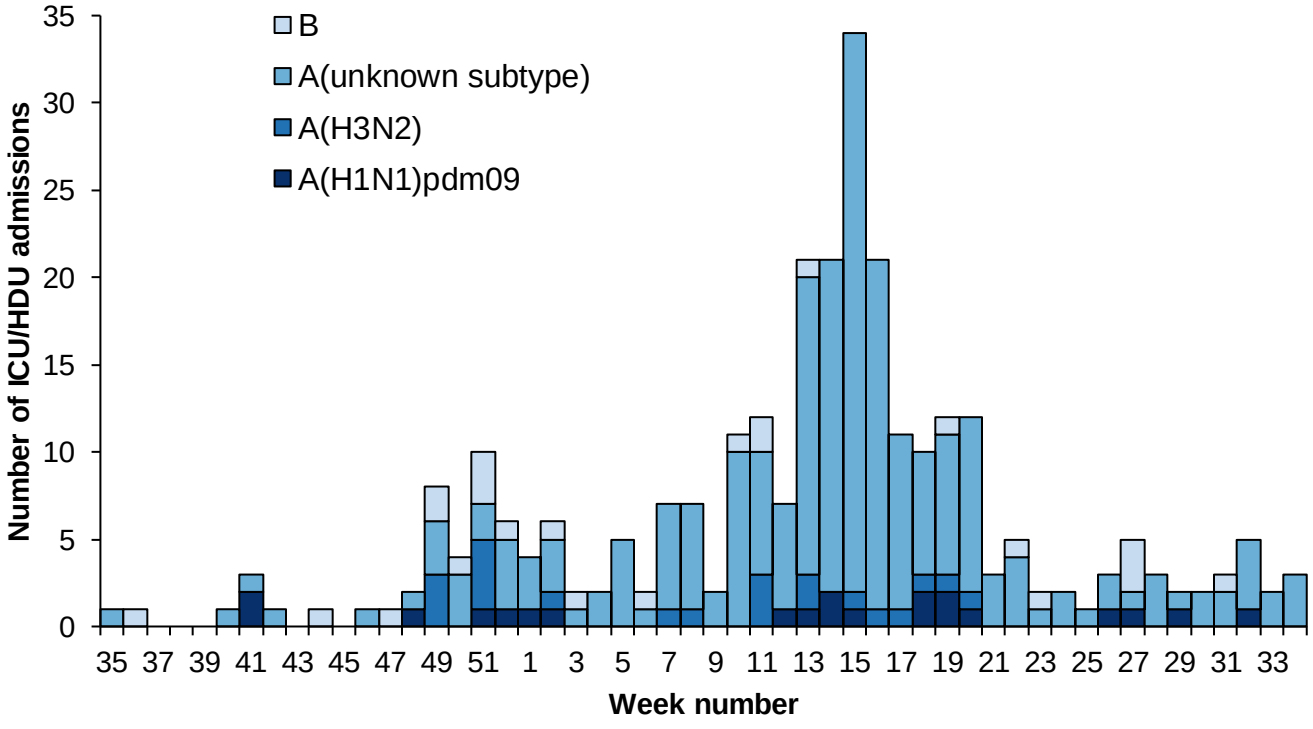
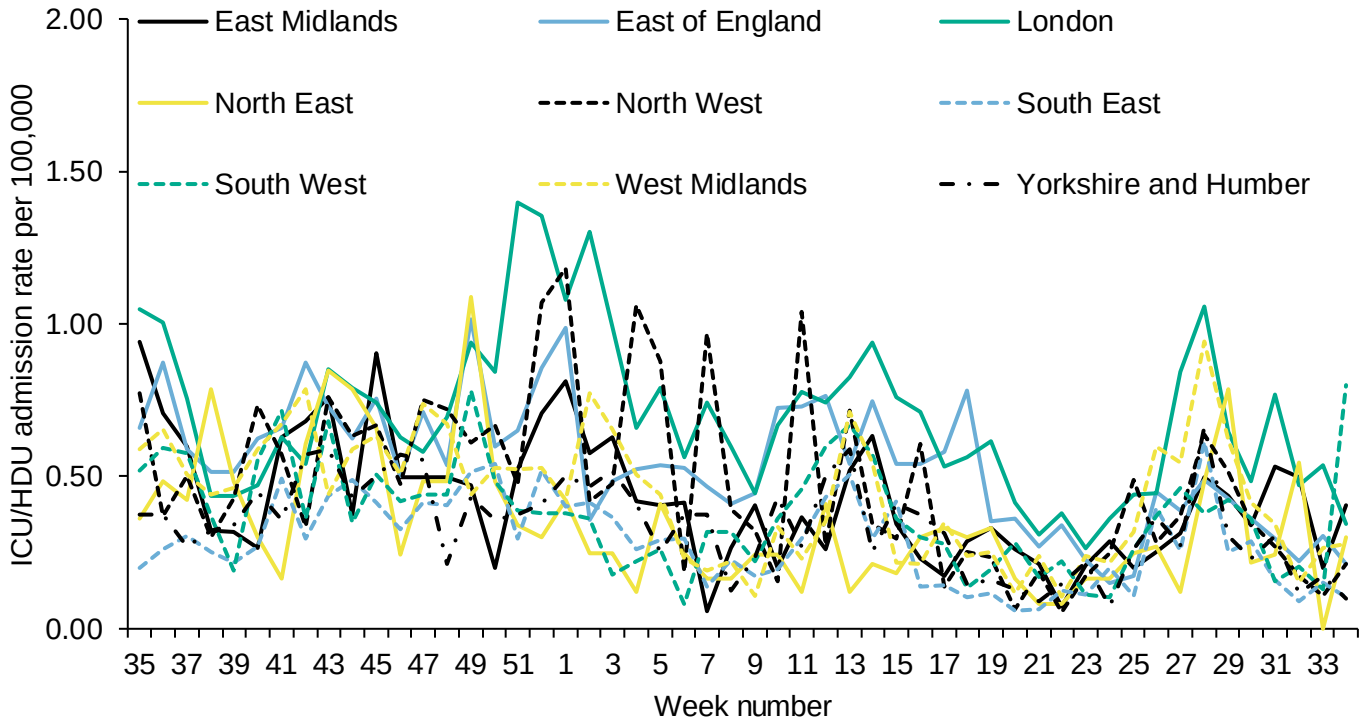


Figure 44: Weekly ICU or HDU admission rate by UKHSA centre for new (a) COVID-19 positive cases and (b) influenza, reported through SARI Watch

(a)



(b)

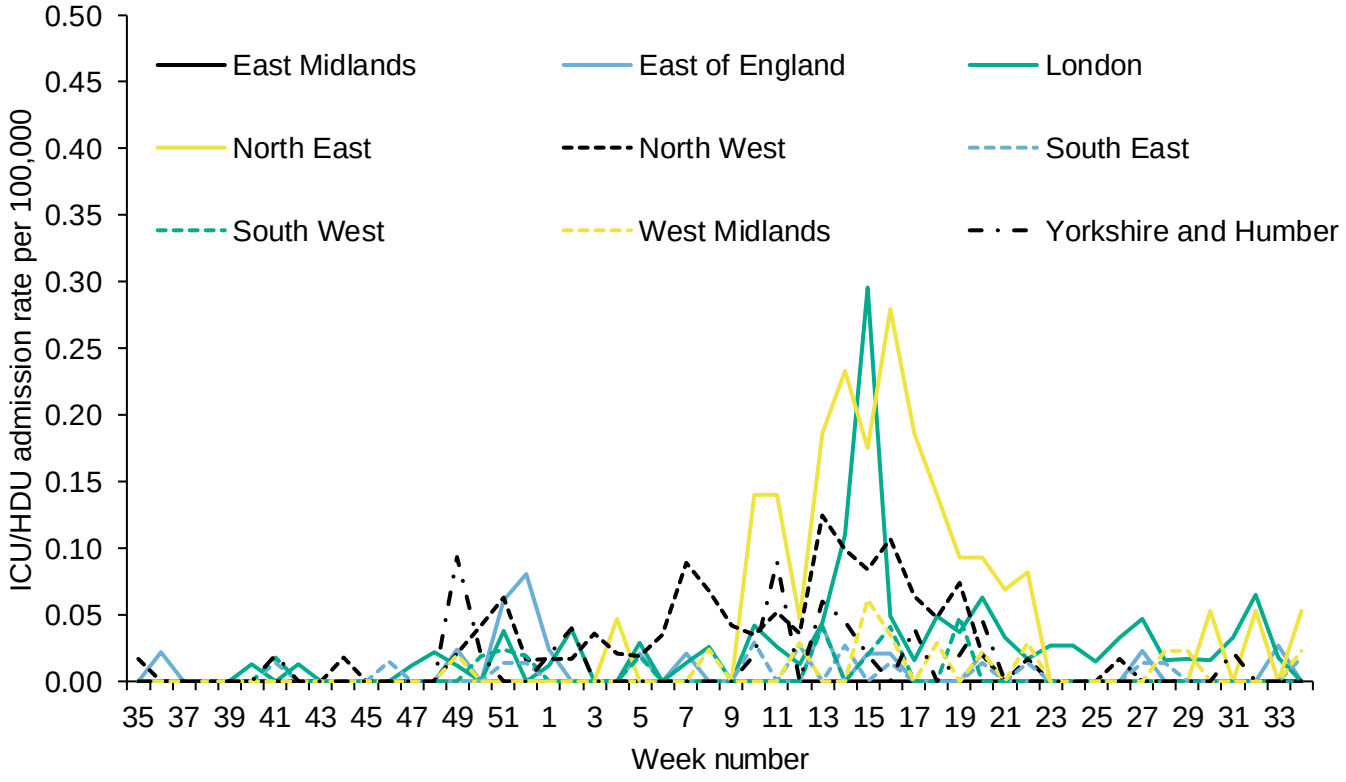
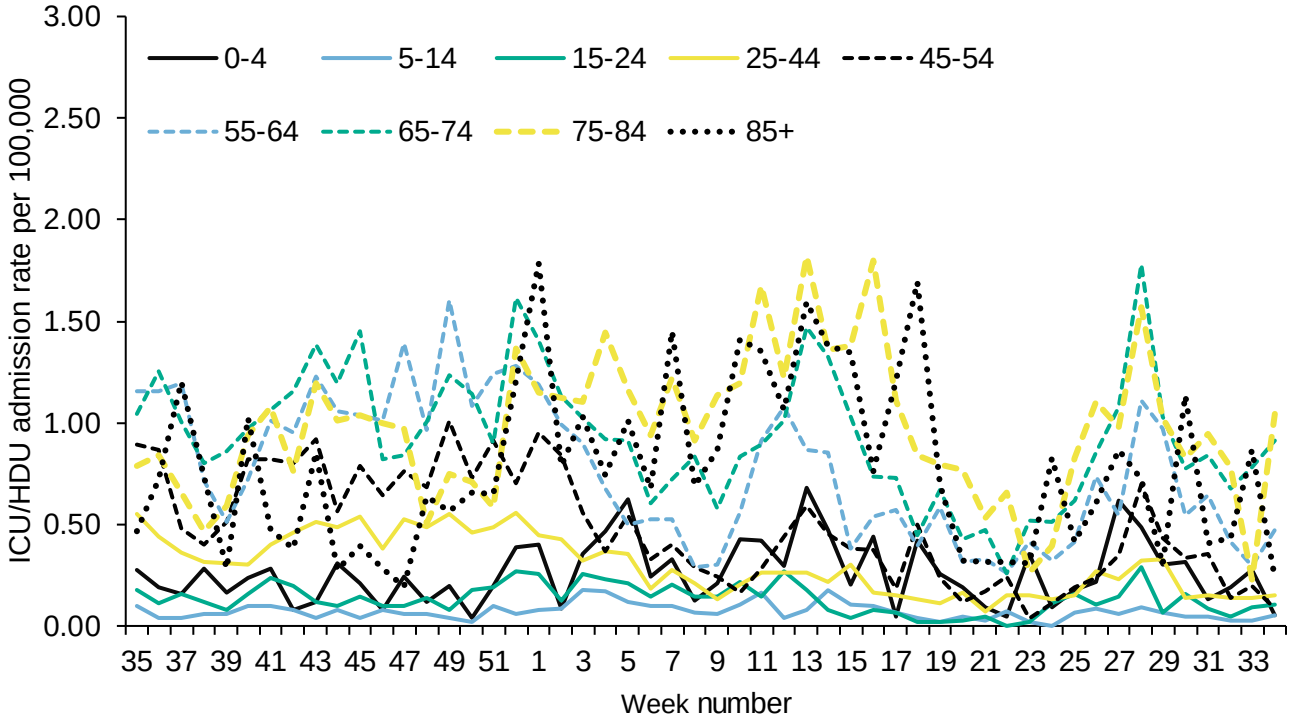
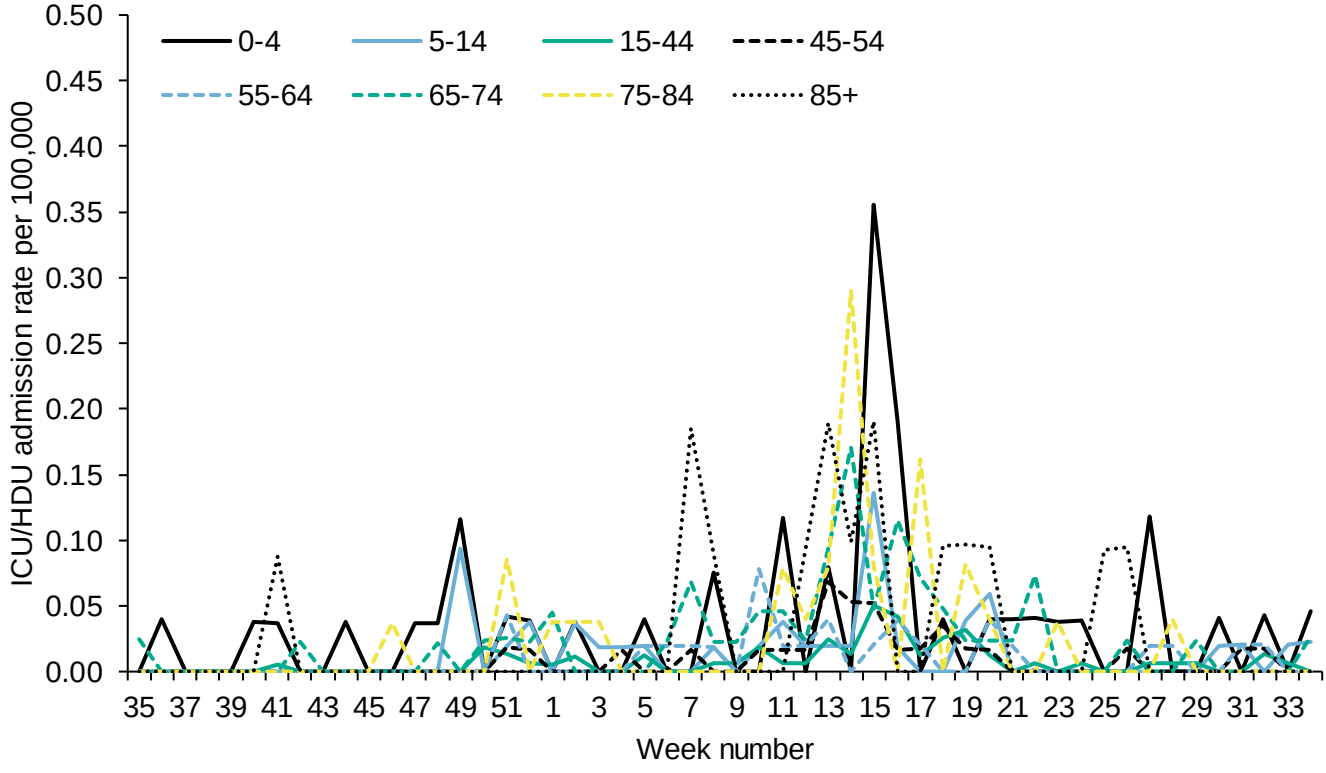


Figure 45: Weekly ICU or HDU admission rate by age group for new (a) COVID-19 positive cases and (b) influenza, reported through SARI Watch

(a)



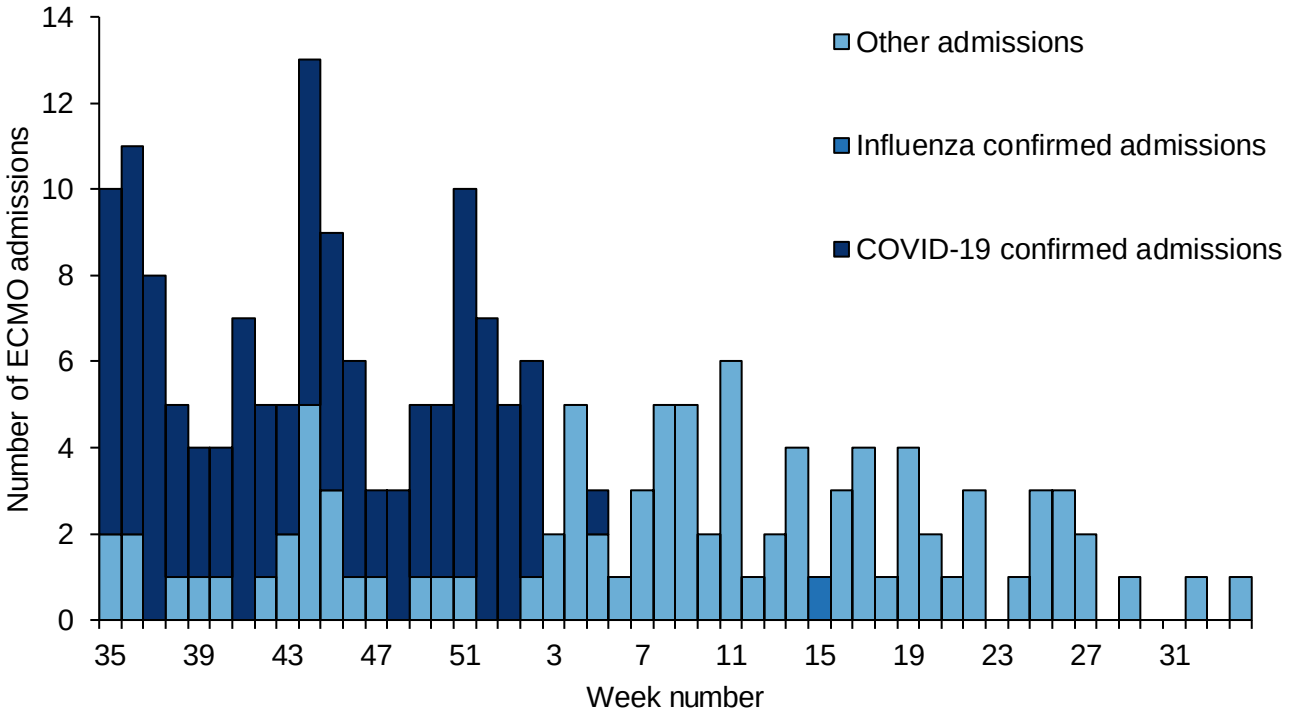
(b)



ECMO, SARI Watch

There were no new laboratory confirmed COVID-19 or influenza admissions reported in week 34 from the 6 Severe Respiratory Failure (SRF) centres in the UK (Figure 46).

Figure 46: Laboratory confirmed ECMO admissions (COVID-19, influenza and non-COVID-19 confirmed) to Severe Respiratory Failure centres in the UK

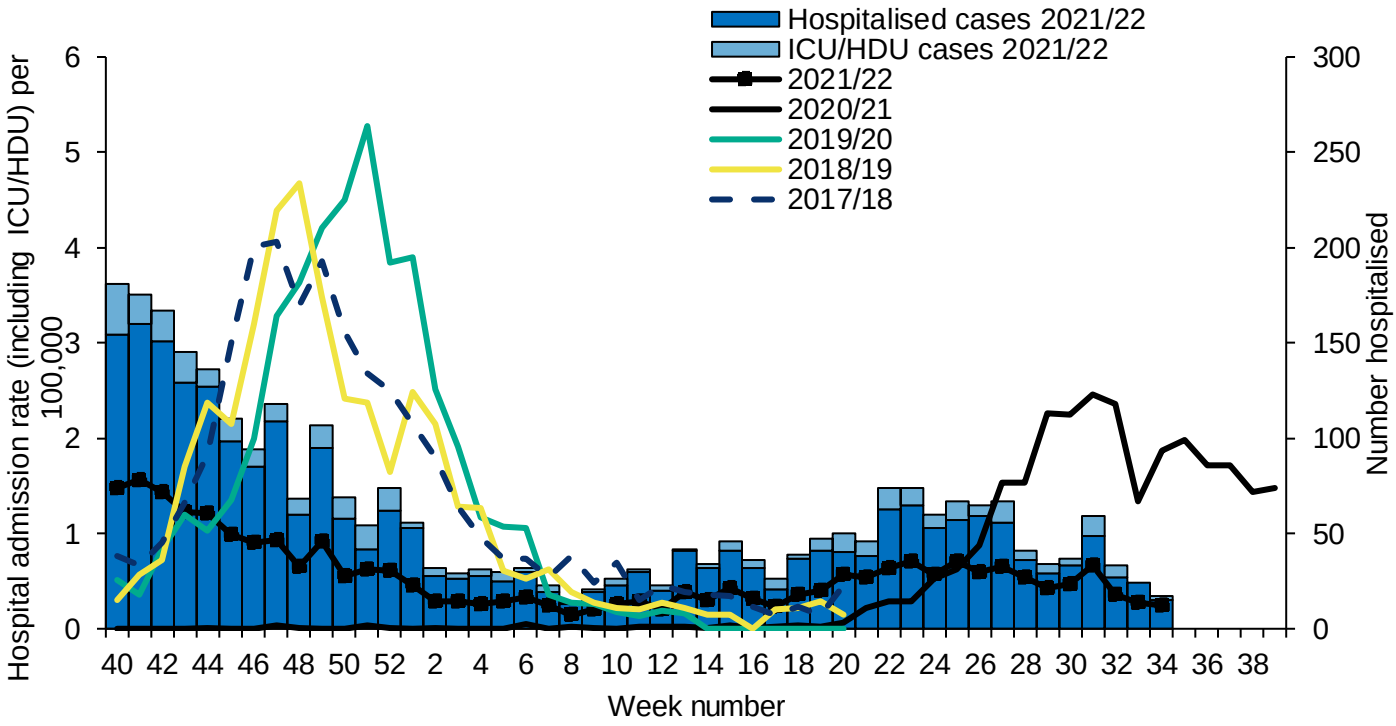


* SARI Watch data is provisional

RSV admissions, SARI Watch

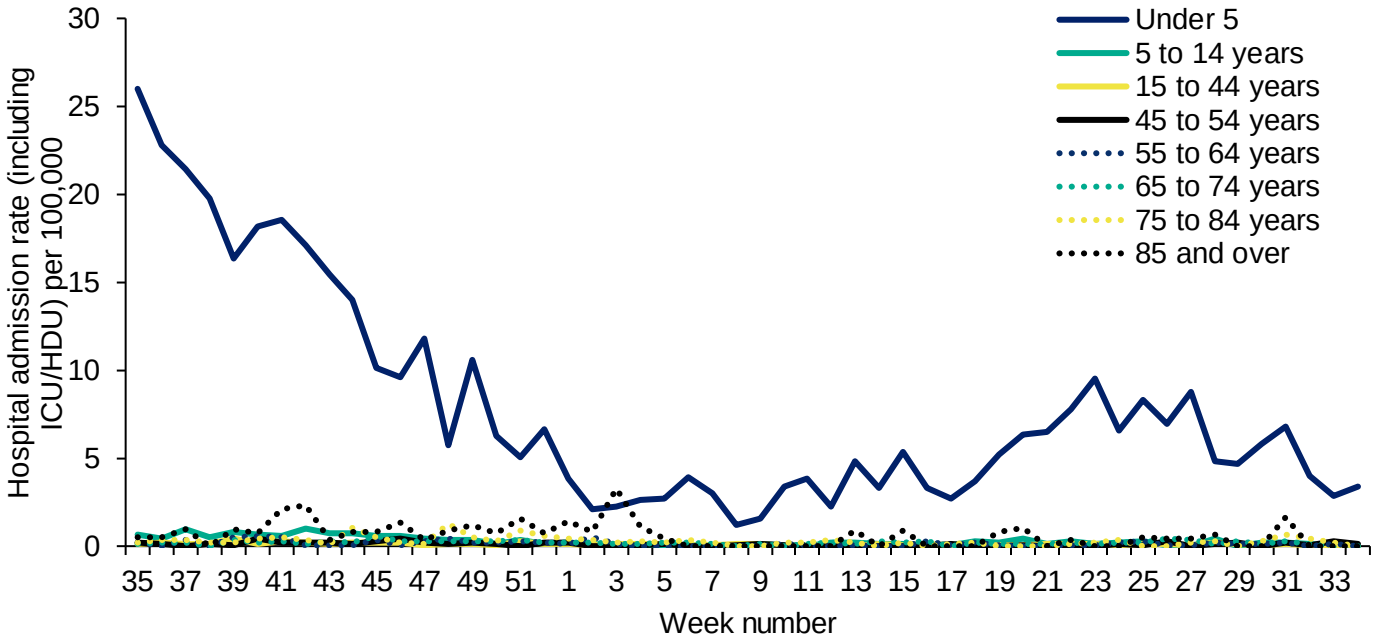
Data on hospitalisations, including ICU or HDU admissions, with respiratory syncytial virus (RSV) are shown below. RSV SARI Watch surveillance is sentinel.

Figure 47: Weekly overall hospital admission rates (including ICU or HDU) of RSV positive cases per 100,000 population reported through SARI Watch, England



* Please note that in previous seasons, RSV SARI Watch surveillance has run from week 40 to week 20. In the 2020 to 2021 season this was extended to run throughout the year, to allow for surveillance of out-of-season trends

Figure 48: Weekly hospitalisation (including ICU or HDU) admission rates by age group for new RSV cases reported through SARI Watch in 2021 to 2022, England



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

* SARI Watch data is provisional

Emergency Department attendances, Syndromic surveillance

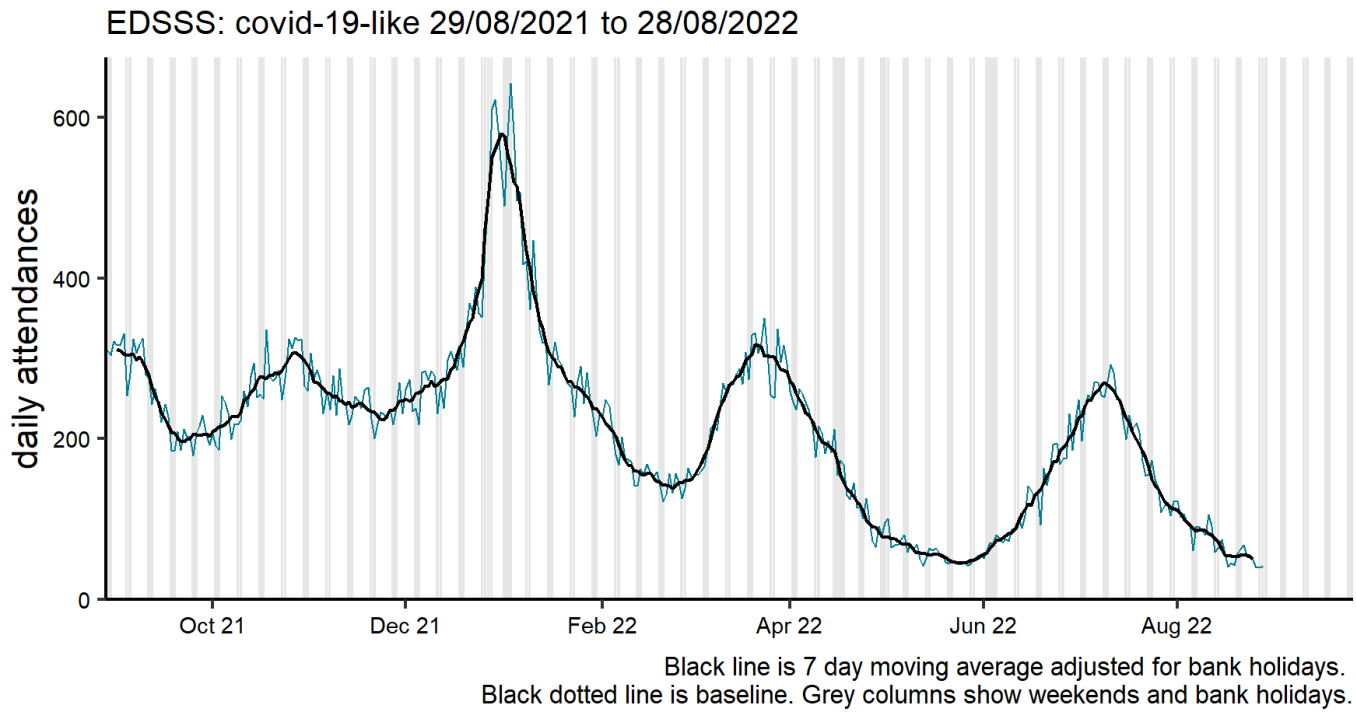
The Emergency Department Syndromic Surveillance System (EDSSS) monitors the daily visits in a network of emergency departments across England.

Up to 28 August ED attendances as reported by 135 EDs for COVID-19 and acute respiratory infection decreased (Figures 49 and 50).

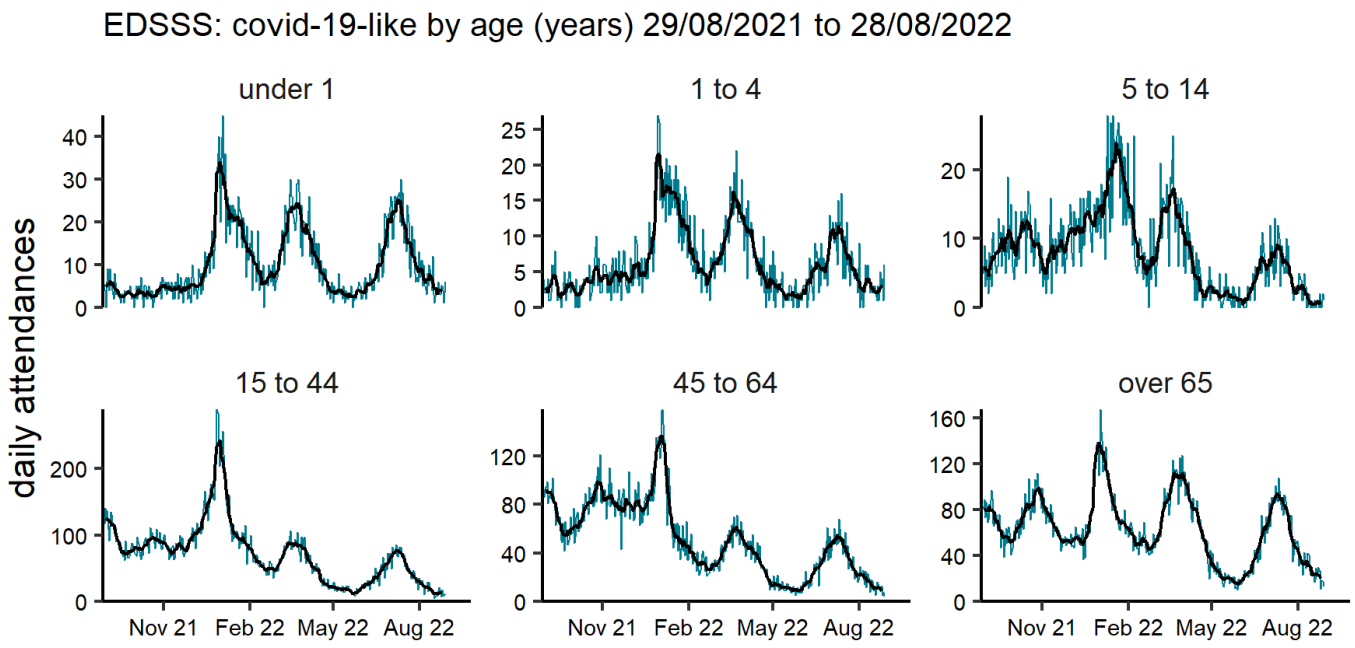
Please note: the COVID-19-like ED indicator is an underestimation of the number of COVID-19 attendances as it only includes attendances with a COVID-19-like diagnosis as their primary diagnosis. The EDSSS COVID-19-like indicator should therefore be used to monitor trends in ED attendances and not to estimate actual numbers of COVID-19 ED attendances. Further information about these caveats is available from the Emergency Department Syndromic Surveillance bulletin.

Figure 49: Daily ED attendances for COVID-19-like infections, England (a) nationally, (b) by age group and (c) by UKHSA centre

(a)

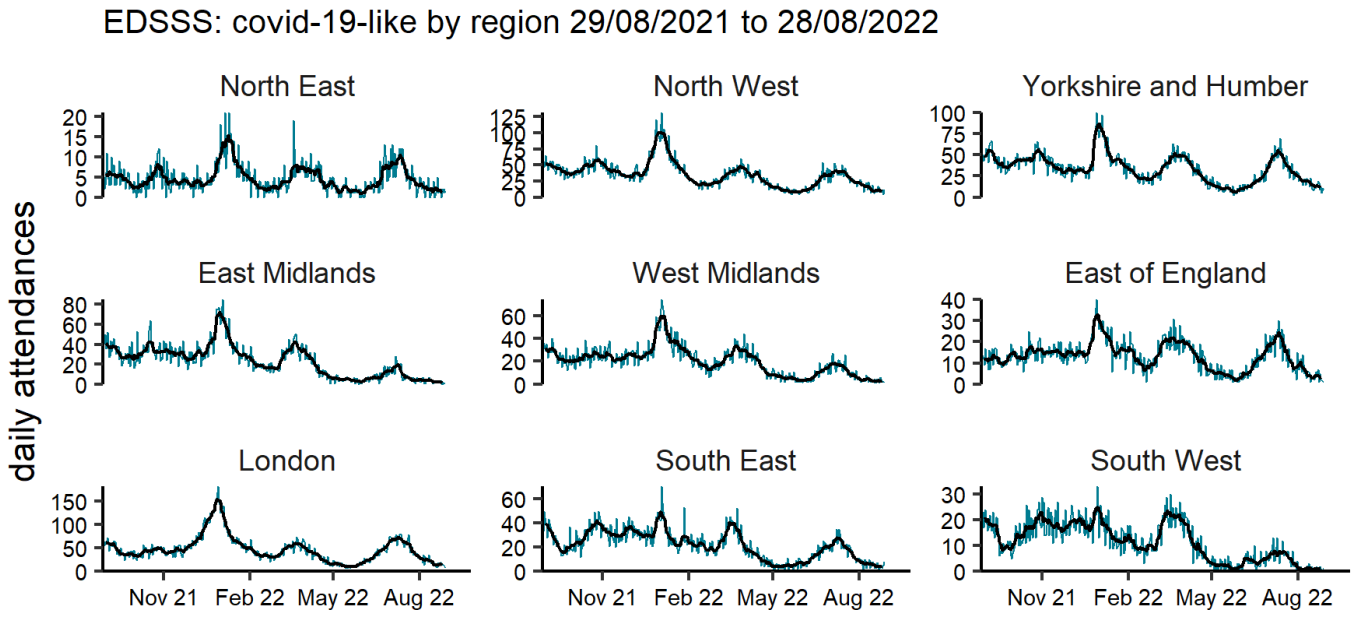


(b)



NOTE: SCALES MAY VARY IN EACH GRAPH TO ENABLE TREND COMPARISON.
Black line is 7 day moving average adjusted for bank holidays.

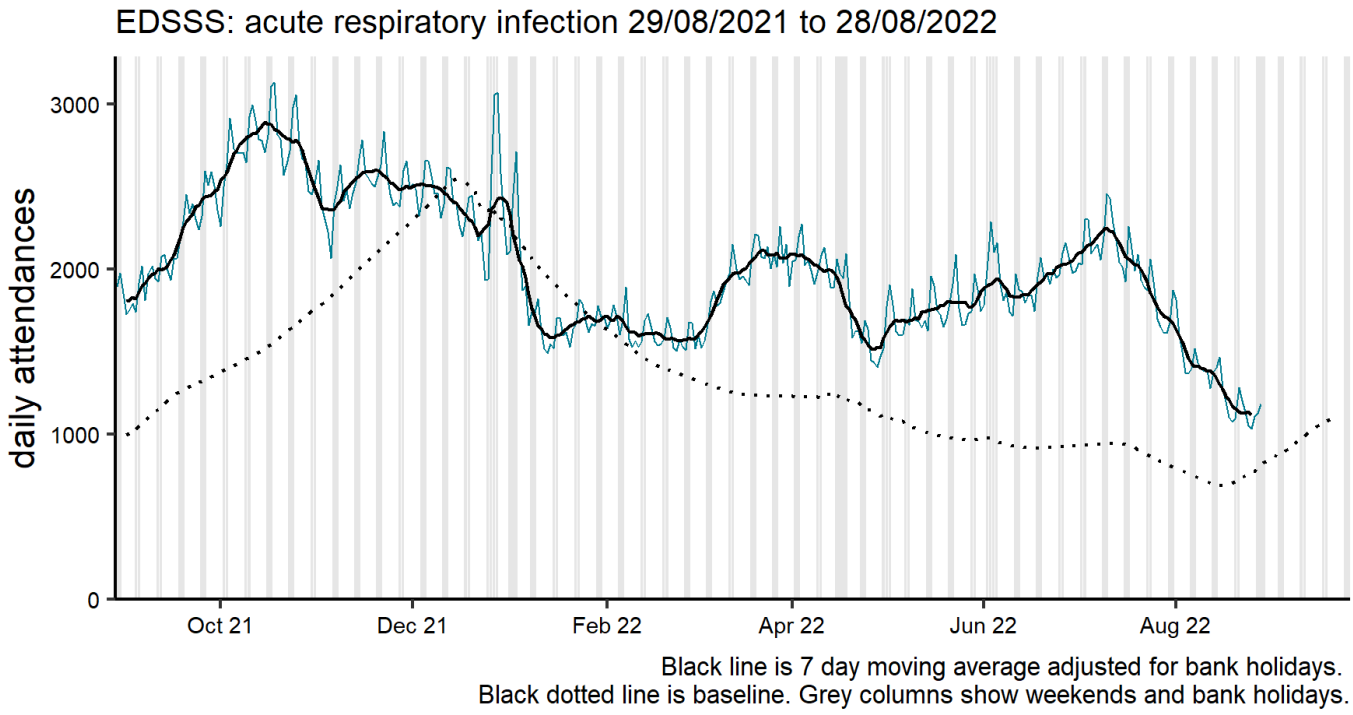
(c)



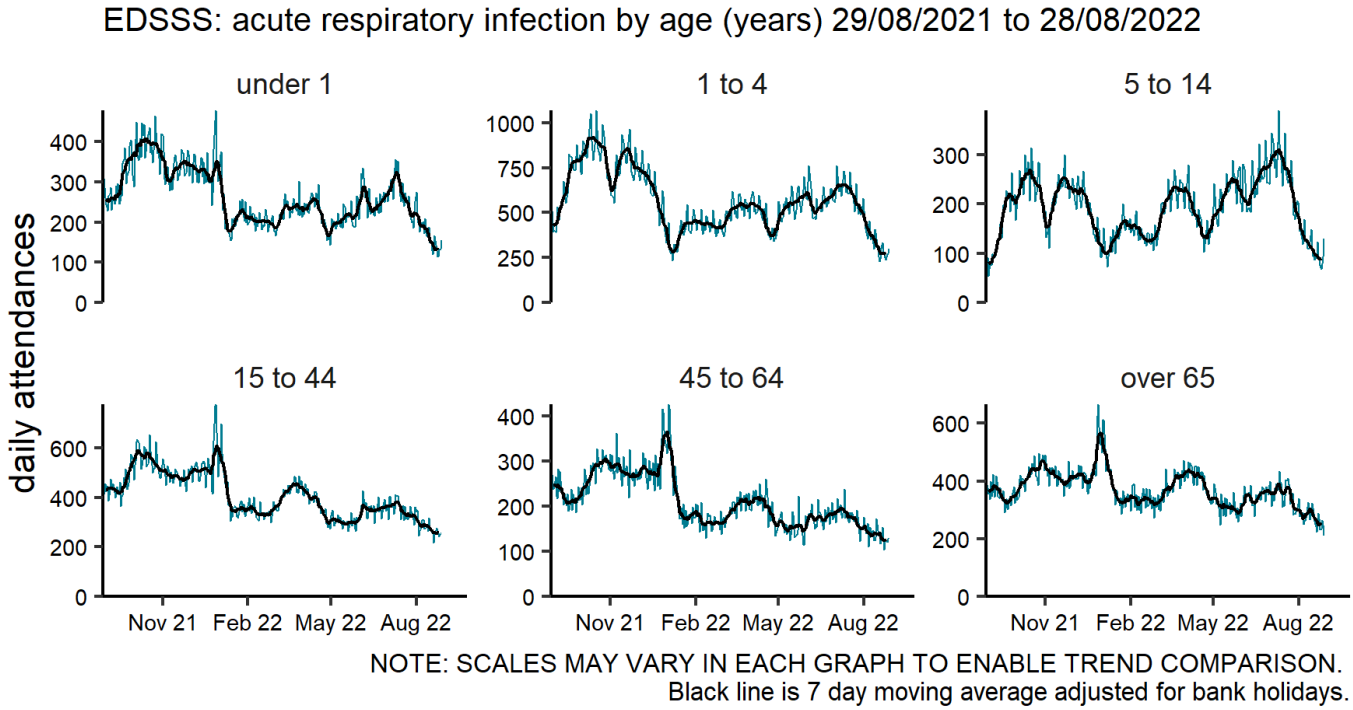
NOTE: SCALES MAY VARY IN EACH GRAPH TO ENABLE TREND COMPARISON.
Black line is 7 day moving average adjusted for bank holidays.
Black dotted line is baseline.

Figure 50: Daily ED attendances for acute respiratory infections, England (a) nationally, (b) by age group and (c) by UKHSA centre

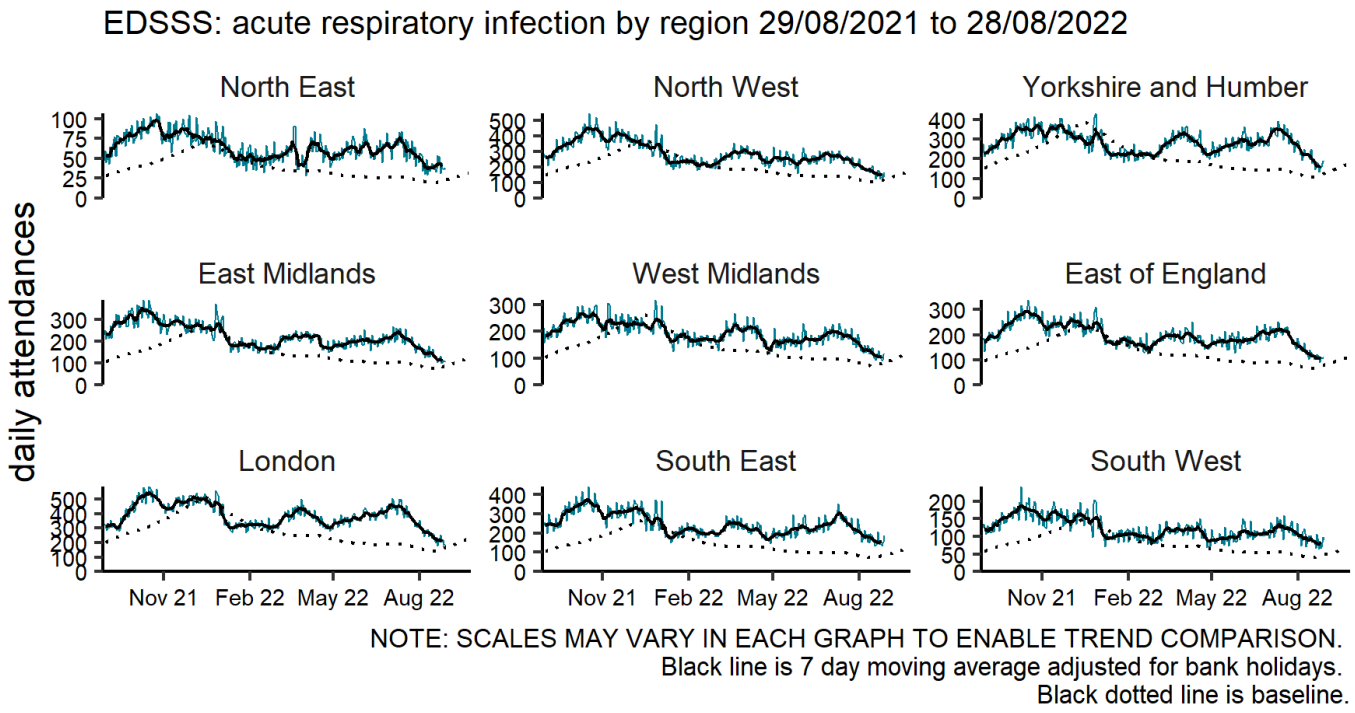
(a)



(b)



(c)

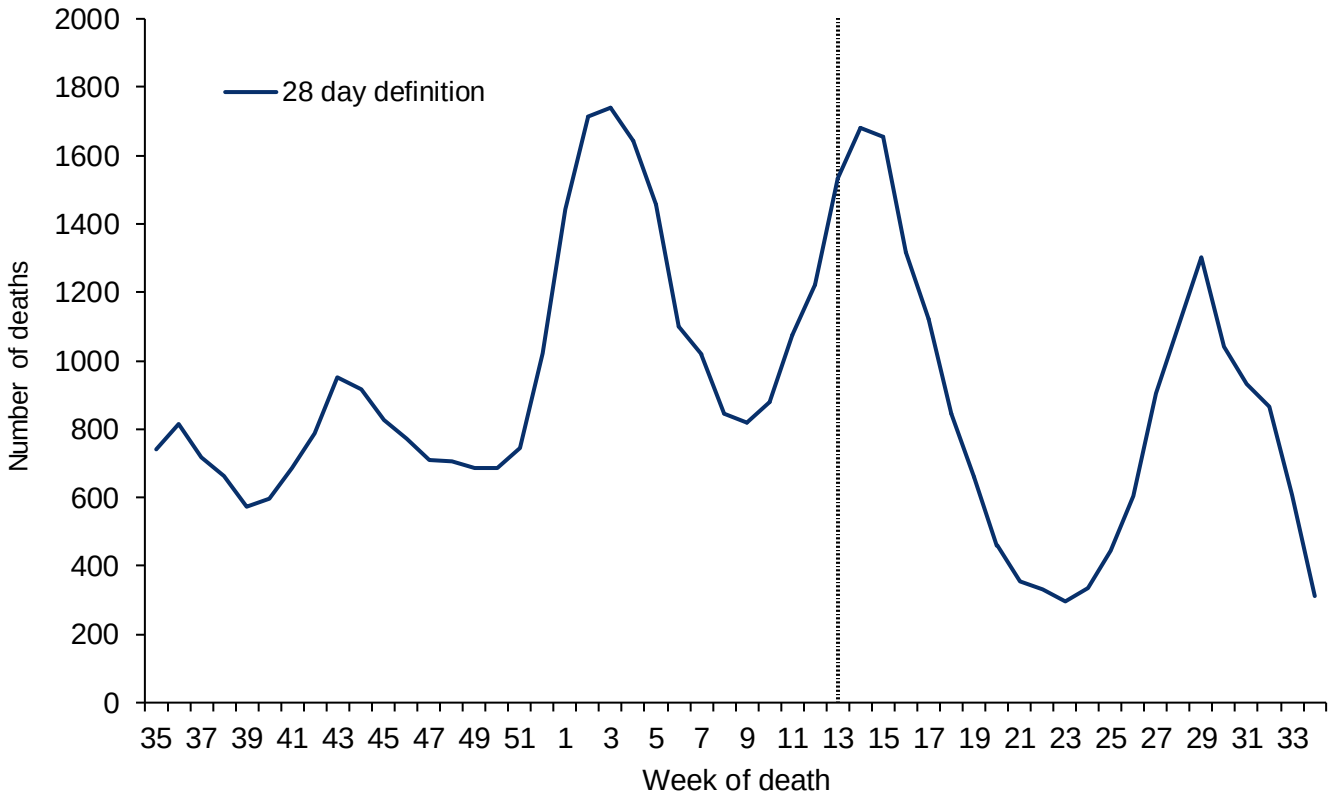

EDSSS: acute respiratory infection by region 29/08/2021 to 28/08/2022
North East
North West
Yorkshire and Humber
East Midlands
West Midlands
East of England
London
South East
South West
daily attendances
Nov 21
Feb 22
May 22
Aug 22
NOTE: SCALES MAY VARY IN EACH GRAPH TO ENABLE TREND COMPARISON.
Black line is 7 day moving average adjusted for bank holidays.
Black dotted line is baseline.

Mortality surveillance

COVID-19 deaths

COVID-19 related deaths by the 28 day definition are reported below. This metric includes a death in a person with a positive COVID-19 test who died within (equal to or less than) 28 days of the first positive specimen date in the most recent episode of infection.

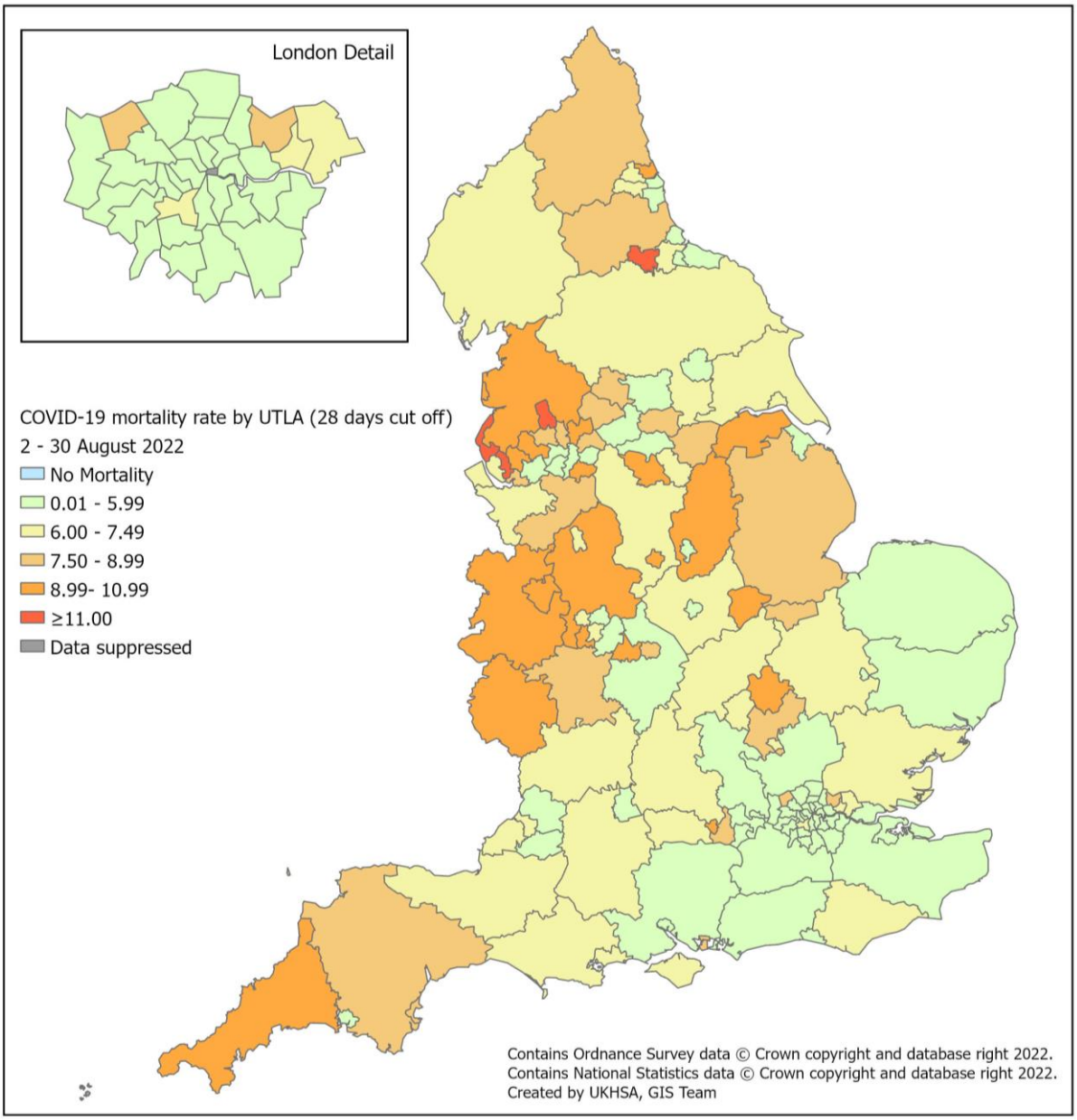
Figure 51: Number of deaths by week of death and time since a positive COVID-19 test (28 day definition), England



* Vertical dotted line indicates the end of provision of free universal testing for the general public in England, as outlined in the plan for living with COVID-19.

* Data is shown by the week of death. This gives the most accurate analysis of this time progression, however, for the most recent weeks' numbers more deaths are expected to be registered therefore this should be interpreted with caution

Figure 52: Cumulative mortality rate of COVID-19 cases per 100,000 population tested under Pillars 1 and 2 for the past 4 weeks by 28 day definition



Daily excess all-cause mortality (England)

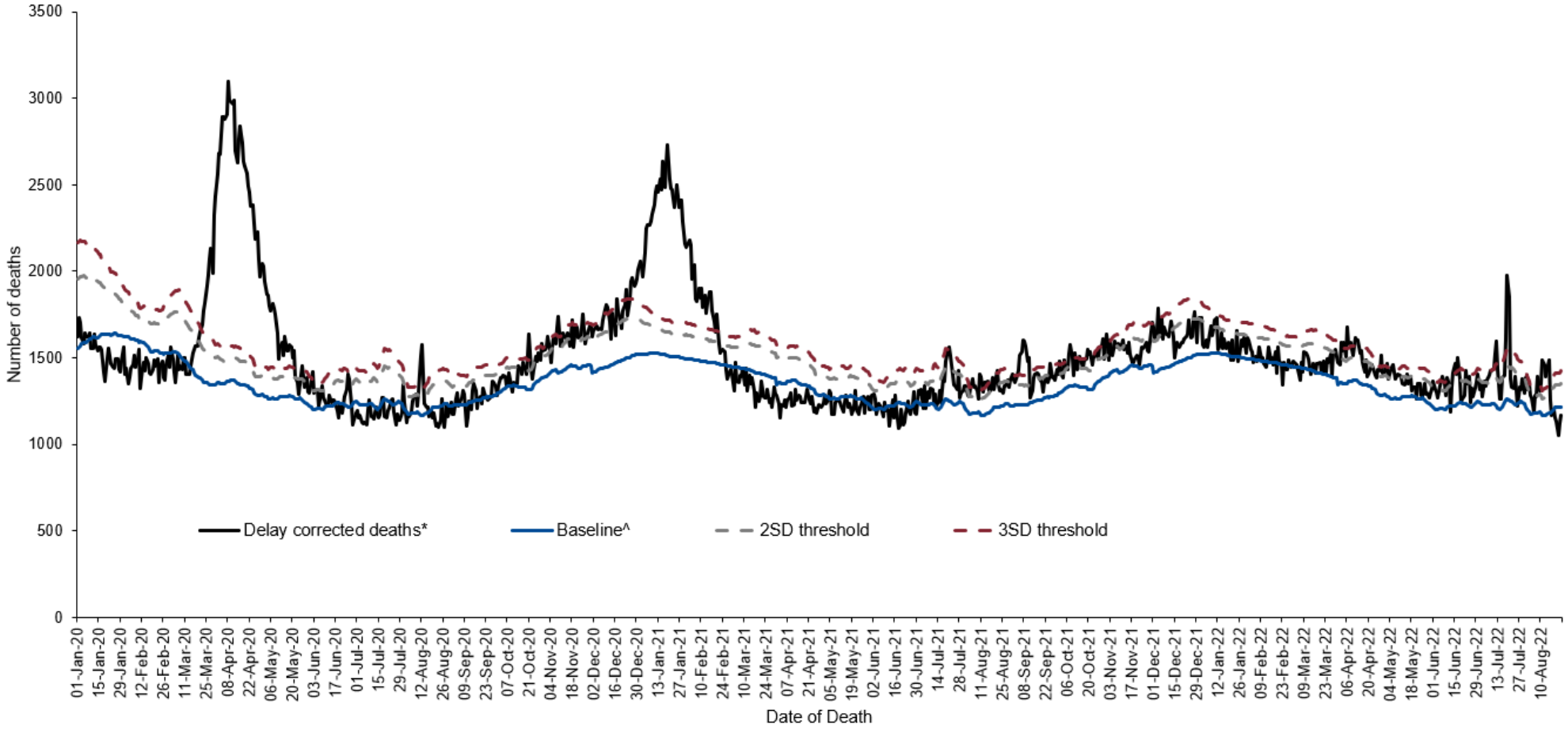
Deaths occurring from 1 January 2020 to 23 August 2022 were assessed to calculate the daily excess above a baseline using age-group and region specific all cause deaths as provided daily by the General Register Office (GRO). The deaths were corrected to allow for delay to registration based on past data on these delays and the baseline was from the same day of the year in the previous 5 years plus or minus 7 days with an extrapolated time trend, and with 2 and 3 standard deviation (SD) limits shown (Figure 53).

Weeks in which at least 2 days exceeded the 3SD threshold are shown in Table 3 and the daily difference from the baseline by age and region is given in Figure 54.

Note that as this data is by date of death with delay corrections, numbers are subject to change each week, particularly for more recent days. The current week's model supersedes models presented in previous week.

No excess all-cause mortality was observed in week 33 overall. Note that level 3 heat-health alerts were issued for June 17 to 18, July 11 to 21, and August 9 to 16 2022, and a level 4 heat-health alert issued for July 18 to 19 2022.

Figure 53: Daily excess all-cause deaths in all ages, England, 1 January 2020 to 23 August 2022



^Baseline calculation:

January to November 2020: same day in previous 5 years plus or minus 1 week with a linear trend.

December 2020 to March 2021: past 3 low flu years plus or minus 2 weeks, no trend.

March 2021 onwards: same baseline as 2020

* corrected for delay to registration from death

Other measures of excess mortality published by UKHSA are 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.

Table 3: Excess all-cause deaths by (a) age group and (b) UKHSA centres, England

(a)

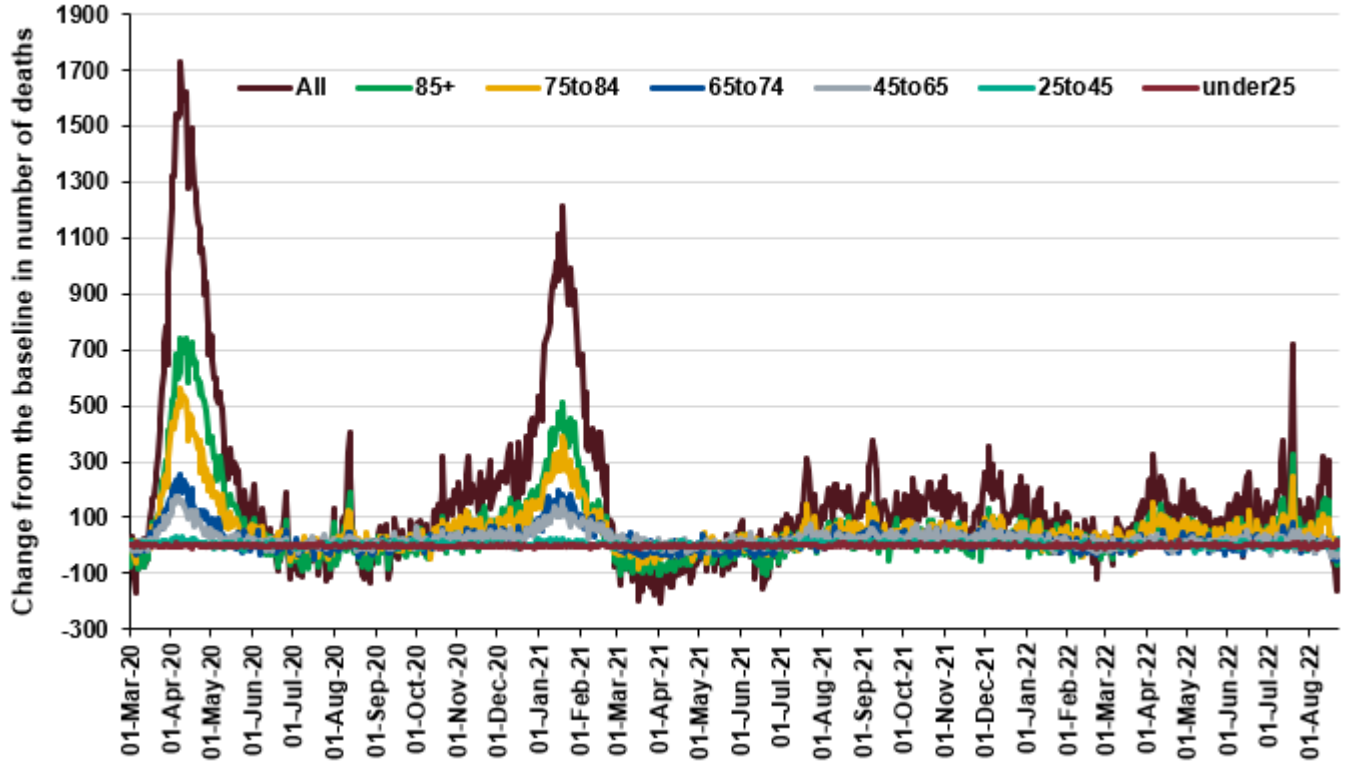
Age Group	Excess detected in week 33 2022?	Weeks in excess from week 10 to 53 2020	Weeks in excess from week 1 to 52 2021	Weeks in excess from week 1 2022
All	x	13 to 21, 33, 43, 45, 50, 52 to 53	01 to 07, 29, 31 to 32, 35 to 36, 40 to 44, 48	14 to 15, 18, 23 to 24, 27 to 29, 32
under 25	x	None	None	None
25 to 44	x	14 to 16	None	None
45 to 64	x	12 to 19, 49 to 50, 52 to 53	01 to 08, 23, 29 to 30, 36, 40 to 44, 48 to 49	29
65 to 74	x	13 to 19, 46, 48, 52 to 53	01 to 07, 36, 43, 48	None
75 to 84	x	13 to 21, 33, 45, 49, 52 to 53	01 to 07, 32, 36, 40	14 to 19, 22 to 24, 27 to 29, 32
85+	x	13 to 21, 33, 53	01 to 07, 31, 36	28 to 29, 32

(b)

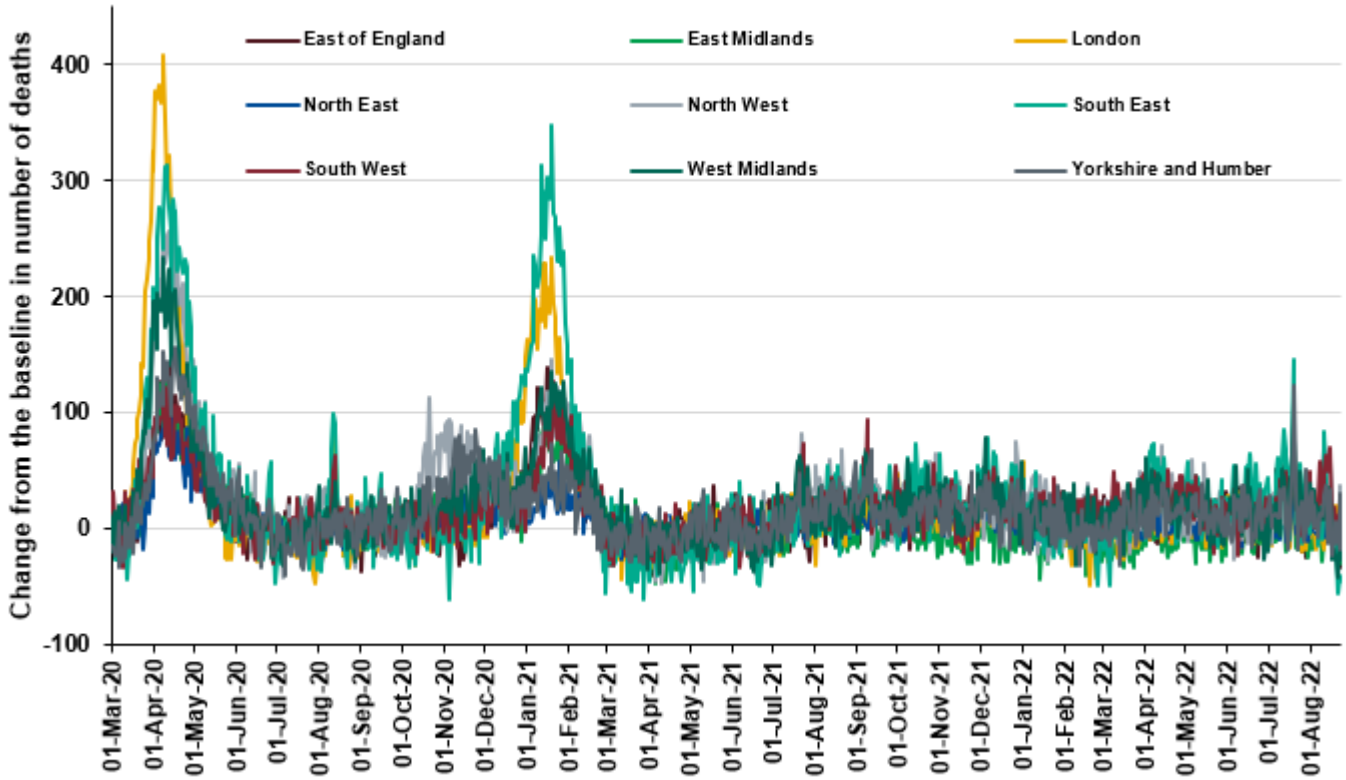
UKHSA Centres	Excess detected in week 33 2022?	Weeks in excess from week 10 to 53 2020	Weeks in excess from week 1 to 52 2021	Weeks in excess from week 1 2022
East of England	x	14 to 19, 52 to 53	01 to 07	23, 27, 29
East Midlands	x	13 to 19, 48	01 to 07	29
London	x	12 to 19, 33, 52 to 53	01 to 06, 36	None
North East	x	14 to 21	02 to 04	None
North West	x	13 to 19, 33, 42 to 47	01 to 07, 31 to 32, 36, 43	14 to 15, 29 to 30, 32
South East	x	13 to 21, 33, 50 to 53	01 to 07, 36, 41, 49	14
South West	x	13 to 19, 33	02 to 07, 29, 36	29, 32
West Midlands	x	13 to 20, 45, 48	01 to 07, 29, 36, 40, 48	13 to 14, 28 to 29
Yorkshire and Humber	x	14 to 21, 23, 43 to 50	02 to 04, 32, 35 to 36	29

Figure 54: Daily excess all-cause deaths by (a) age group and (b) UKHSA centres, England, 1 March 2020 to 23 August 2022

(a)



(b)



Microbiological surveillance

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). These data are 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.

Information on virus characterisation for the 2021 to 2022 season is available in previous reports.

Antiviral susceptibility

Influenza positive samples are 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.

Information on antiviral susceptibility for the 2021 to 2022 season is available in previous reports.

SARS-CoV-2 variants

UKHSA conducts surveillance of SARS-CoV-2 variants. Further information including an overview of variants, information on new variants and detailed surveillance of particular variants of concern can be found on GOV.UK and in the latest technical briefing.

Antimicrobial susceptibility

Table 4 shows in the 12 weeks up to week 34 2022, the proportion of all lower respiratory tract isolates of *Streptococcus pneumoniae*, *Haemophilus influenzae*, *Staphylococcus aureus*, MRSA (Methicillin-resistant *Staphylococcus aureus*) and MSSA (methicillin-susceptible *Staphylococcus aureus*) tested and susceptible to antibiotics. These organisms are the important causes of community-acquired pneumonia (CAP) and the choice of antibiotics reflects the British Thoracic Society empirical guidelines for management of CAP in adults.

Table 4: Antimicrobial susceptibility surveillance in lower respiratory tract

Organism	Antibiotic	Specimens tested (N)	Specimens susceptible (%)
S. pneumoniae	Penicillin	1,845	86
	Macrolides	2,095	82
	Tetracycline	2,061	82
H. influenzae	Amoxicillin/ampicillin	8,832	47
	Co-amoxiclav	10,375	50
	Macrolides	2,466	7
	Tetracycline	10,592	98
S. aureus	Methicillin	4,576	92
	Macrolides	5,491	69
MRSA	Clindamycin	248	48
	Tetracycline	307	71
MSSA	Clindamycin	3,141	76
	Tetracycline	3,964	92

* Macrolides = erythromycin, azithromycin and clarithromycin

Data source: UKHSA's SGSS Antimicrobial Resistance (AMR) module, please note that this is different to the data source used in the reports published between weeks 41, 2020 to 5, 2021 inclusive of the 2020 to 2021 influenza season when the SGSS Communicable Disease Report (CDR) module was used instead due to a UKHSA SGSS AMR data infrastructure issue which has now been resolved. Therefore, the above results are not directly comparable to the results reported between weeks 41, 2020 and 5, 2021. The AMR module of SGSS was used during the 2019 to 2020 influenza season. There has been a reduction in the total number of bacterial positive lower respiratory tract clinical samples reported to UKHSA since mid-March 2020.

COVID-19 sero-prevalence surveillance

Since week 42 2021, updates on COVID-19 sero-prevalence estimates have been published in the weekly COVID-19 vaccine surveillance report.

COVID-19 vaccination

COVID-19 vaccine uptake in England

COVID-19 vaccinations began in England on 8 December 2020 during week 50 2020 (week ending 13 December 2020). Cumulative data up to week 34 2022 (week ending 28 August 2022) was extracted from the National Immunisation Management Service (NIMS). The data presented this week is the provisional proportion of living people in England who had received at least one dose, 2 doses and 3 doses of a COVID-19 vaccination by age group. The overall vaccine uptake in the population for those with at least dose 1 was 70.1%, 66.4% for dose 2 and 52.2% for dose 3. The breakdown by sex showed vaccine uptake in males was 67.7% and 72.4% in females for dose 1. For dose 2 vaccine uptake by sex was 64.0% in males and 68.9% in females. For dose 3 vaccine uptake by sex was 49.5% in males and 55.1% in females. The vaccine uptake rate in adults aged 18 and over was 81.4% (41,549,273 out of 51,019,863) for dose 1; 78.6% (40,111,523 out of 51,019,863) for dose 2 and 64.6% (32,944,184 out of 51,019,863) for dose 3.

Table 5: Provisional cumulative COVID-19 vaccine uptake by age in England

NATIONAL	People in NIMS cohort	Vaccinated with at least 1 dose		Vaccinated with at least 2 doses		Vaccinated with at least 3 doses	
		Number vaccinated	% vaccine uptake	Number vaccinated	% vaccine uptake	Number vaccinated	% vaccine uptake
Over 80	2,959,981	2,830,860	95.6	2,814,238	95.1	2,744,073	92.7
75 to under 80	2,380,131	2,279,026	95.8	2,264,311	95.1	2,210,813	92.9
70 to under 75	2,751,712	2,591,263	94.2	2,568,707	93.3	2,482,153	90.2
65 to under 70	3,004,429	2,770,517	92.2	2,738,624	91.2	2,594,924	86.4
60 to under 65	3,650,314	3,307,742	90.6	3,261,921	89.4	3,002,953	82.3
55 to under 60	4,182,598	3,718,923	88.9	3,657,175	87.4	3,283,532	78.5
50 to under 55	4,249,935	3,672,003	86.4	3,596,721	84.6	3,126,528	73.6
45 to under 50	3,957,005	3,230,929	81.7	3,142,308	79.4	2,581,059	65.2
40 to under 45	4,380,731	3,366,150	76.8	3,244,318	74.1	2,512,372	57.4
35 to under 40	4,716,256	3,413,333	72.4	3,253,981	69.0	2,346,057	49.7
30 to under 35	4,913,960	3,414,372	69.5	3,212,497	65.4	2,165,495	44.1
25 to under 30	4,574,784	3,117,431	68.1	2,895,113	63.3	1,844,184	40.3
20 to under 25	3,904,663	2,820,910	72.2	2,564,168	65.7	1,574,045	40.3
18 to under 20	1,393,364	1,015,814	72.9	897,441	64.4	475,996	34.2
16 to under 18	1,400,475	907,114	64.8	717,093	51.2	200,927	14.3
12 to under 16	2,957,876	1,543,971	52.2	1,136,235	38.4	24,364	0.8
5 to under 12	5,093,518	553,487	10.9	245,323	4.8	229	0.0
Total*	**63,559,787**	**44,554,788**	**70.1**	**42,210,576**	**66.4**	**33,169,916**	**52.2**

*Caution should be exercised when summing the regional or age figures as the sum of these will not equal the England total. This is due to individuals vaccinated in England who have a registered address in Scotland or Wales or where their address is unknown. There were also vaccinations where the individual had an unknown region and age group or where age is less than 5 years old.

From 18 November 2021 (week 46 2021) UKHSA started to report on those in the population with at least 3 doses of COVID-19 vaccine. These figures count the number of doses a person has had in chronological order and includes vaccinations given before the start of the programme where data is available to provide a more complete record of the population coverage estimates.

Age was previously calculated as age on the 31 August 2021 (academic cohort for all ages). Please note that from 14 April 2022 (week 15 2022), age is calculated on the date data is extracted. The weekly vaccine coverage data is extracted on a Tuesday with data capped to the previous Sunday and all backing data is updated each week going back to the start of the programme.

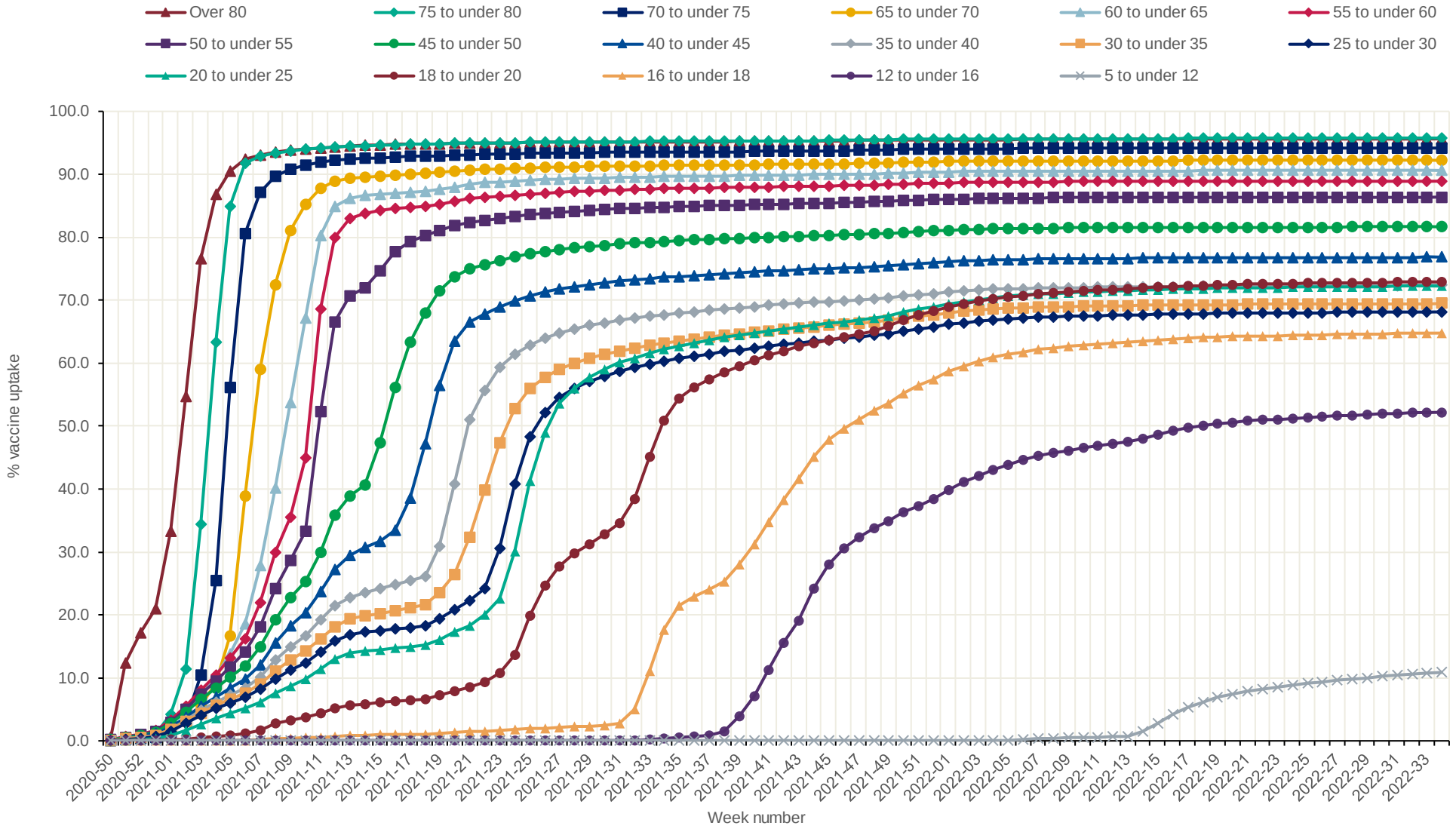
In the tables where vaccinations are presented as vaccinated within the last 3 months, 3 to 6 months and over 6 months, this calculated using the number of days since vaccination from the Tuesday rather than the Sunday cut off prior to 30 June 2022 (week 26 2022). The impact is the inclusion of 2 additional days of vaccinations given, this has now been corrected to align with the Sunday cut off in the rest of the section.

From 1 September 2022 (week 35 2022), the definition used in the table looking at eligibility by month for the spring booster campaign was changed from ‘6 months since the last dose’ to ‘3 months since the last dose’ to account for the earliest time a person can become eligible for the campaign.

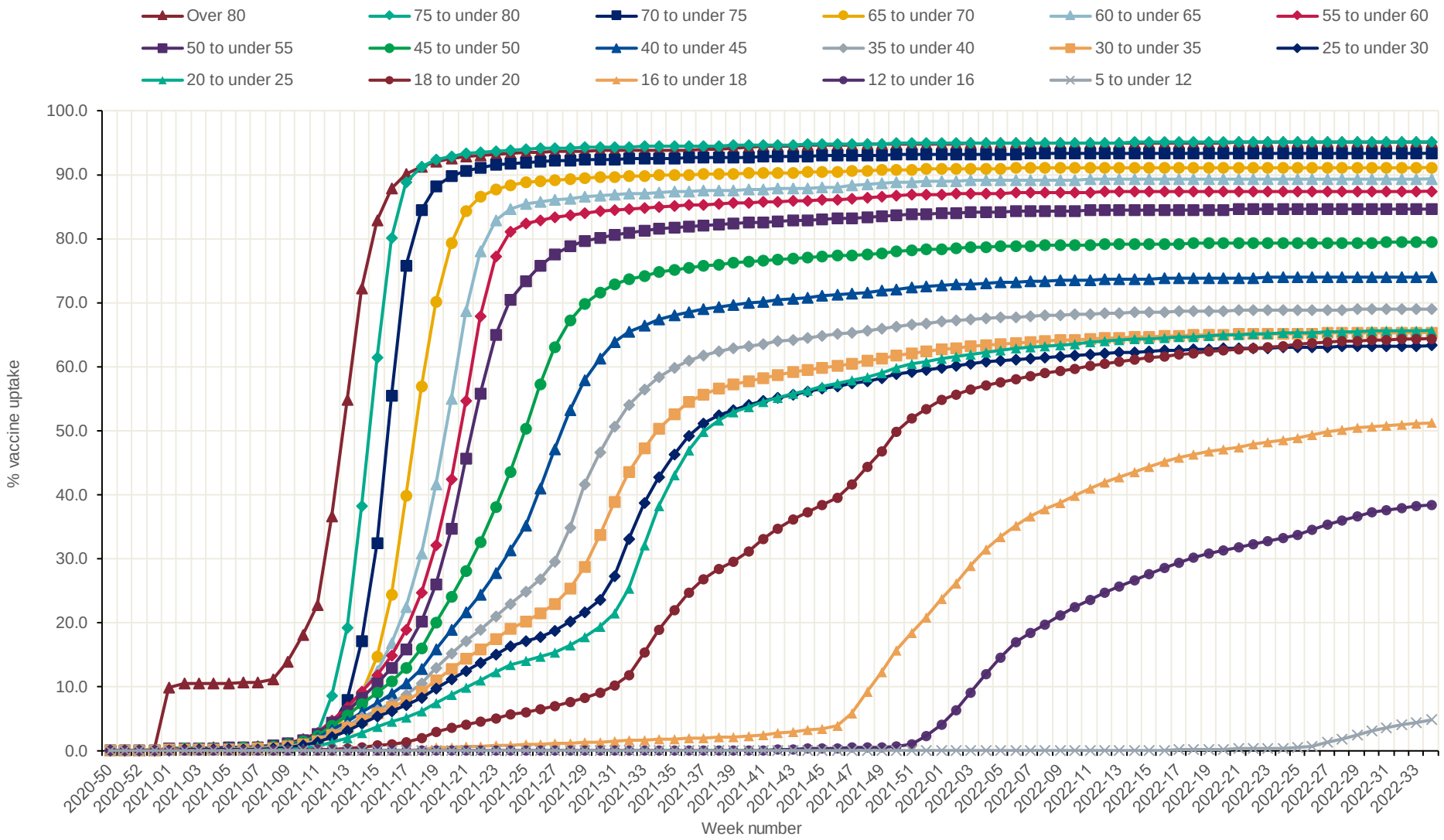
Data is provisional and subject to change following further validation checks. Any changes to historic figures will be reflected in the most recent publication. Please note that numbers published by UKHSA are for public health surveillance purposes only.

Figure 55: Cumulative weekly COVID-19 vaccine uptake by age in England for (a) Dose 1, (b) Dose 2 and (c) Dose 3 (please note the data for this graph is shown from week 35 (week ending 5 September 2021))

(a)

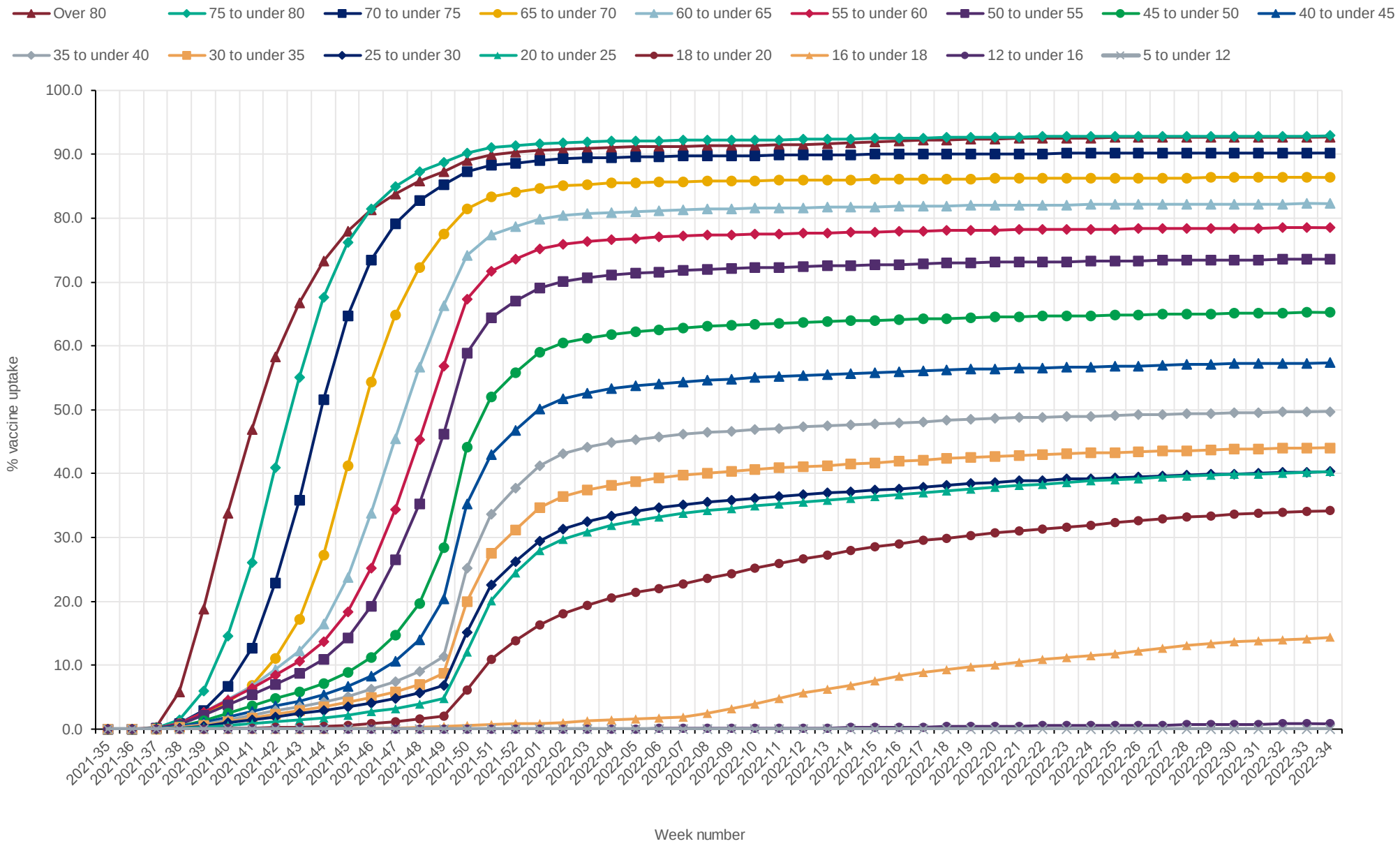


(b)



From the 6 January 2021 (week 1 of 2021), the Joint Committee on Vaccination and Immunisation (JCVI) advised initially prioritising delivery of the first vaccine dose to maximise the effect on public health in the short term and reduce the number of preventable deaths from COVID-19.

(c)


Over 80
75 to under 80
70 to under 75
65 to under 70
60 to under 65
55 to under 60
50 to under 55
45 to under 50
40 to under 45
35 to under 40
30 to under 35
25 to under 30
20 to under 25
18 to under 20
16 to under 18
12 to under 16
5 to under 12
% vaccine uptake
100.0
90.0
80.0
70.0
60.0
50.0
40.0
30.0
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2022-32
2022-33
2022-34
Week number

Table 6: Provisional cumulative people vaccinated with any dose of COVID-19 vaccine in the last 3 months, 3 to 6 months and vaccinated more than 6 months ago

National	People in NIMS cohort	Vaccinated in the last 3 months (84 days)		Vaccinated 3 to 6 months ago (85 to 168 days)		Vaccinated 6 months ago (169 or more days)	
		Numbers vaccinated	Percentage vaccinated	Numbers vaccinated	Percentage vaccinated	Numbers vaccinated	Percentage vaccinated
Over 80	2,959,980	242,792	8.2	2,140,647	72.3	447,421	15.1
75 to under 80	2,380,131	244,694	10.3	1,616,755	67.9	417,577	17.5
70 to under 75	2,751,712	76,440	2.8	122,763	4.5	2,392,060	86.9
65 to under 70	3,004,429	61,007	2.0	82,747	2.8	2,626,763	87.4
60 to under 65	3,650,314	56,385	1.5	83,451	2.3	3,167,906	86.8
55 to under 60	4,182,598	53,330	1.3	88,264	2.1	3,577,329	85.5
50 to under 55	4,249,935	50,226	1.2	89,388	2.1	3,532,389	83.1
45 to under 50	3,957,005	48,895	1.2	88,939	2.2	3,093,095	78.2
40 to under 45	4,380,731	56,984	1.3	107,500	2.5	3,201,666	73.1
35 to under 40	4,716,256	68,817	1.5	137,226	2.9	3,207,290	68.0
30 to under 35	4,913,960	81,248	1.7	175,096	3.6	3,158,028	64.3
25 to under 30	4,574,784	93,380	2.0	194,405	4.2	2,829,646	61.9
20 to under 25	3,904,663	112,387	2.9	211,545	5.4	2,496,978	63.9
18 to under 20	1,393,364	67,462	4.8	138,942	10.0	809,410	58.1
16 to under 18	1,400,475	111,875	8.0	211,206	15.1	584,033	41.7
12 to under 16	2,957,876	229,412	7.8	355,850	12.0	958,709	32.4
5 to under 12	5,093,518	364,451	7.2	181,174	3.6	7,862	0.2

Table 6 is presented to provide an overview of how recently a person has been vaccinated either through the primary vaccination campaign or the spring booster campaign. This helps us understand the data in the context of vaccine waning across the whole COVID-19 programme.

Figure 56: Provisional cumulative people vaccinated with any dose of COVID-19 vaccine in the last 3 months, 3 to 6 months and vaccinated more than 6 months ago

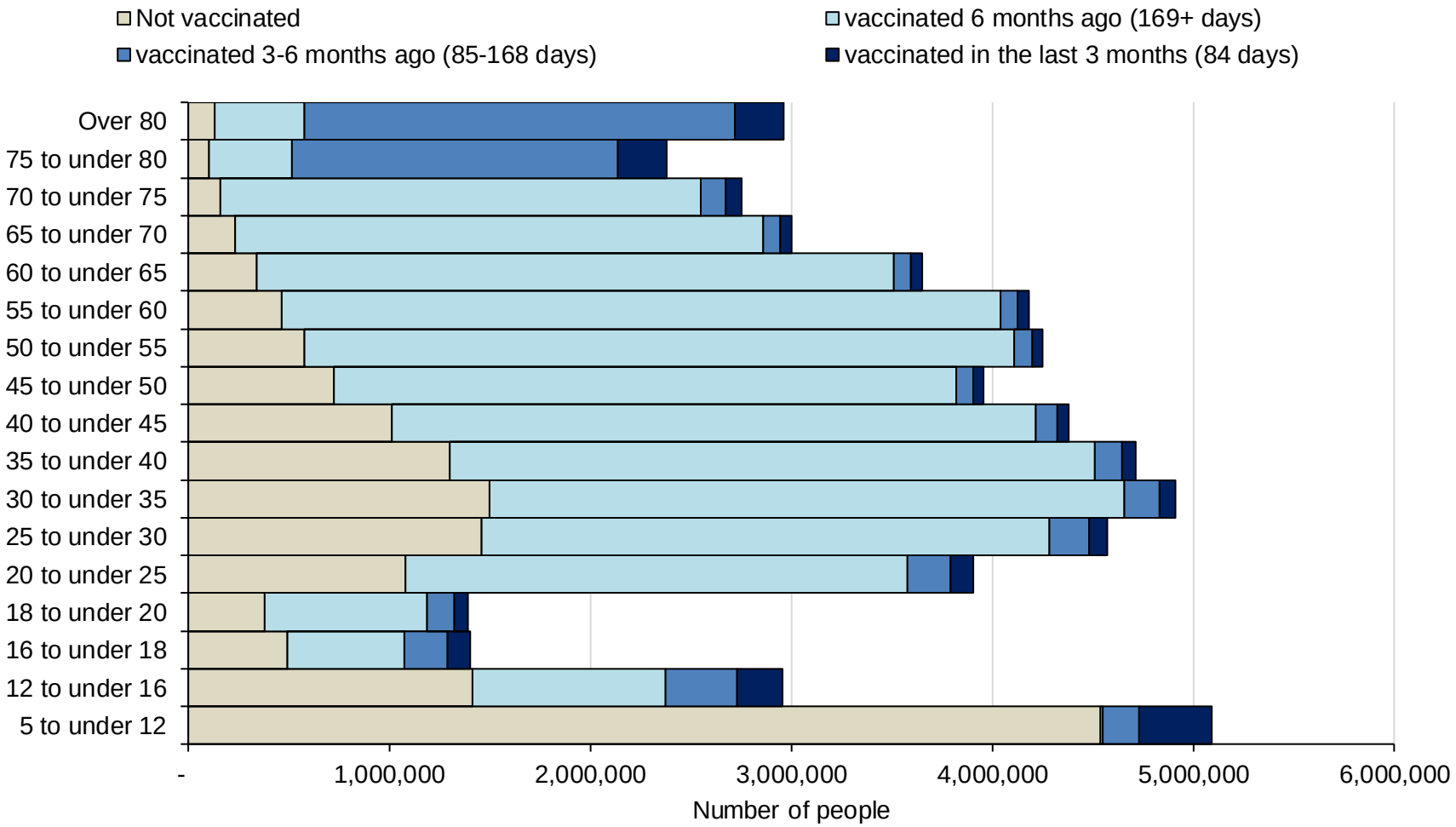


Figure 57: Age-Sex pyramid for COVID-19 vaccine uptake by age in England for dose 1

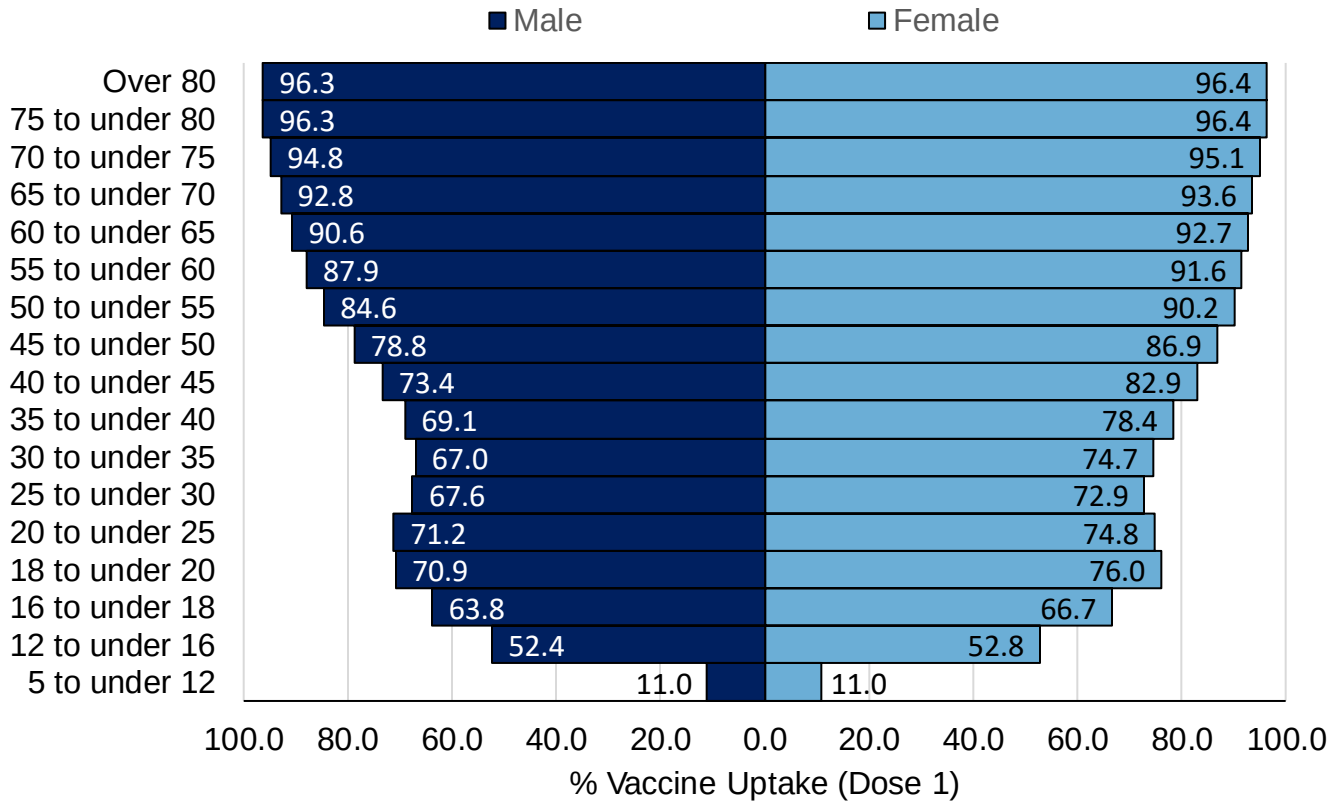


Figure 58: Age-Sex pyramid for COVID-19 vaccine uptake by age in England for dose 2

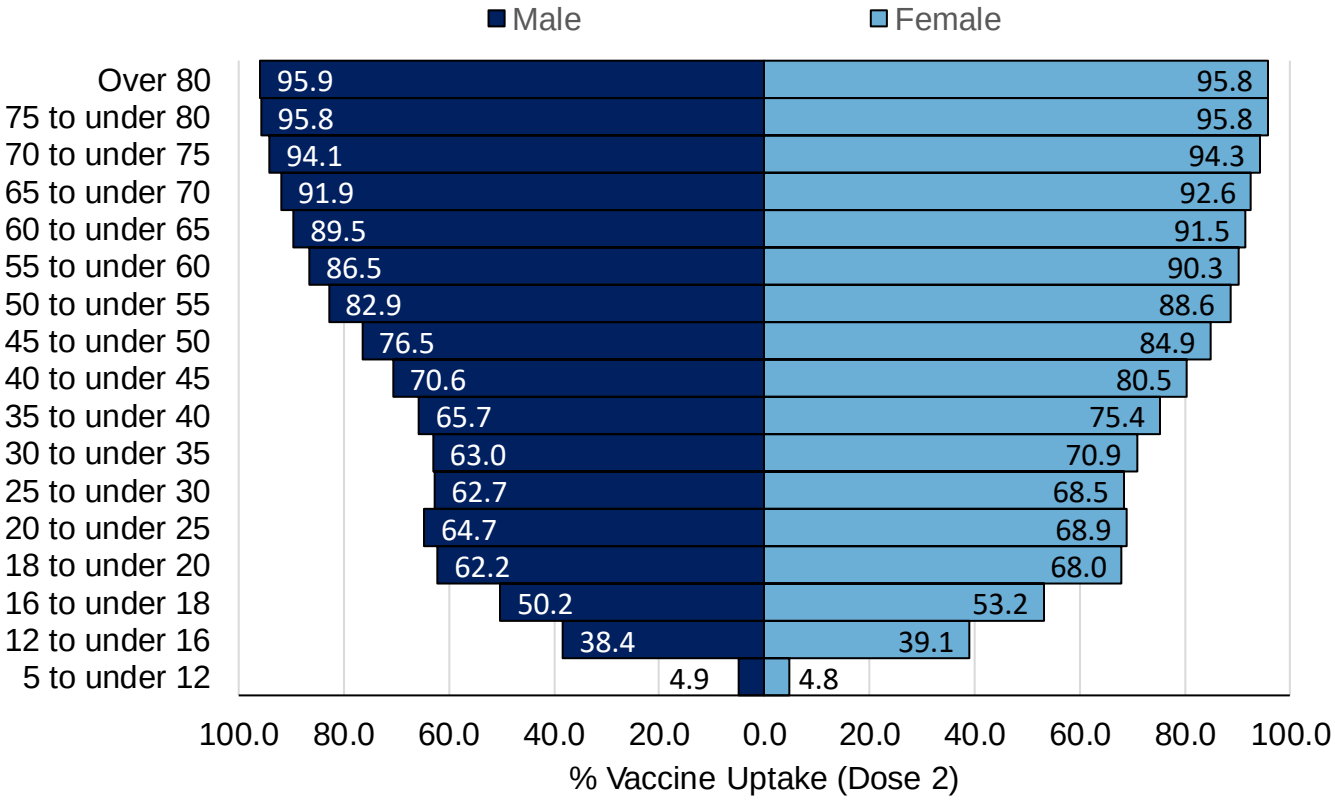
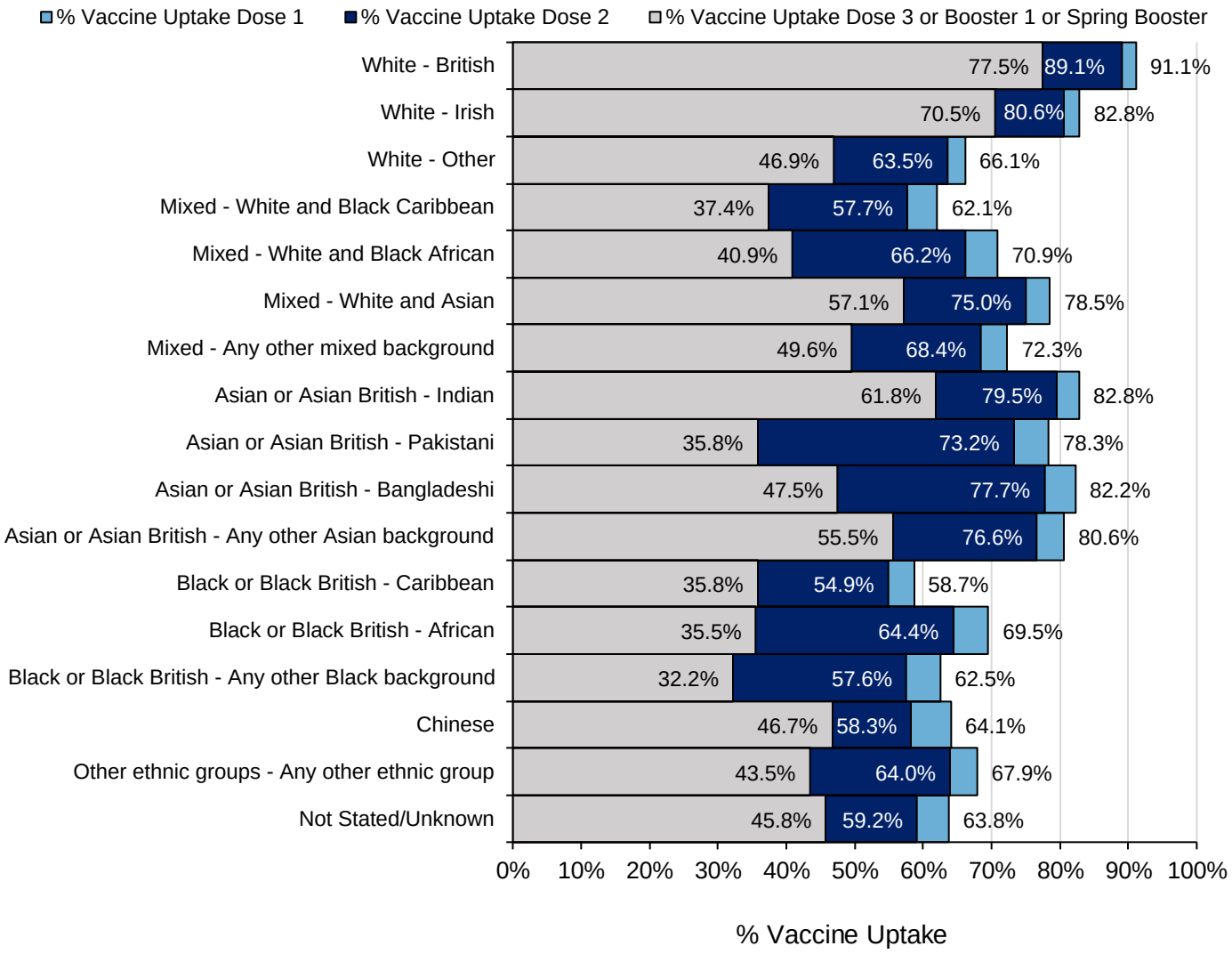


Figure 59: Cumulative weekly COVID-19 vaccine uptake by ethnicity in those living and resident in England, aged 18 and over



For a regional breakdown of the ethnicity data, please see the data file that accompanies this report.

Spring Booster Campaign

Immunity derived from vaccination declines over time and many of the oldest adults who are at much higher risk of severe coronavirus (COVID-19) received their booster vaccine dose in autumn 2021. Therefore, as a precautionary strategy to maintain high levels of immunity, an extra spring dose is advised around 6 months and provided there is at least 3 months from the previous dose for adults aged 75 years and over, residents in a care home for older adults, and individuals aged 12 years and over who are immunosuppressed, as defined in the COVID-19 healthcare guidance Green Book.

Tables 7 and 8 present coverage as measured against the total population of people aged 75 and over (so includes people who are not yet due to have their spring booster). It is important that unvaccinated individuals, especially vulnerable adults, receive a primary course of vaccination, irrespective of whether individuals have had previous infection. Table 8 is presented to provide an overview of how recently a person has been vaccinated either through the primary vaccination campaign or the spring booster campaign. This helps us understand the data in the context of vaccine waning across the whole COVID-19 programme. Please note that Table 8 is a subset of Table 6.

By the end of week 34 (week ending 28 August 2022), 79.1% (4,222,057 out of 5,340,111) of all people aged 75 and over had been vaccinated with a spring booster dose since 21 March 2022, Table 7.

Table 7: Provisional cumulative people vaccinated with a spring booster of COVID-19 vaccine since the start of the spring booster campaign that began on the 21 March 2022 by age in England

National	People in NIMS cohort	Vaccinated with a spring booster since 21 March 2022*	Percentage vaccine uptake
Over 80	2,959,980	2,369,966	80.1
75 to under 80	2,380,131	1,852,091	77.8
75 and over	5,340,111	4,222,057	79.1

*spring booster defined as an additional dose of vaccine after a 2 dose primary course since the 21 March 2022

By the end of last week, 9.1% (487,486 out of 5,340,111) of people aged 75 and over have now been vaccinated within the last three months, a further 70.4% (3,757,402 out of 5,340,111) last vaccinated between 3 and 6 months ago and 16.2% (864,998 out of 5,340,111) vaccinated 6 or more months ago, Table 8.

Table 8: Provisional cumulative people aged 75 and over vaccinated with any dose of COVID-19 vaccine in the last 3 months, 3 to 6 months and vaccinated more than 6 months ago

National	People in NIMS cohort	Vaccinated in the last 3 months (84 days)		Vaccinated 3 to 6 months ago (85 to 168 days)		Vaccinated 6 months ago (169 or more days)	
		Numbers vaccinated	Percentage vaccinated	Numbers vaccinated	Percentage vaccinated	Numbers vaccinated	Percentage vaccinated
Over 80	2,959,980	242,792	8.2	2,140,647	72.3	447,421	15.1
75 to under 80	2,380,131	244,694	10.3	1,616,755	67.9	417,577	17.5
75 and over	5,340,111	487,486	9.1	3,757,402	70.4	864,998	16.2

For a regional breakdown of the 75 and over data, please see the data file that accompanies this report.

Table 9: Provisional cumulative people vaccinated with a spring booster COVID-19 vaccine against those eligible by the end of each month

Age at end of March	Eligible by the end of March	Of those eligible by the end of March, numbers vaccinated	Percentage vaccine uptake eligible end of March
Over 80	2,561,712	2,243,845	87.6
75 to 79	2,078,940	1,836,047	88.3
75 and over	4,640,652	4,079,892	87.9
Age at end of April	**Eligible by the end of April**	**Of those eligible by the end of April, numbers vaccinated**	**Percentage vaccine uptake eligible end of April**
Over 80	2,634,257	2,268,491	86.1
75 to 79	2,137,383	1,854,013	86.7
75 and over	4,771,640	4,122,504	86.4
Age at end of May	**Eligible by the end of May**	**Of those eligible by the end of May, numbers vaccinated**	**Percentage vaccine uptake eligible end of May**
Over 80	2,709,785	2,294,139	84.7
75 to 79	2,198,237	1,871,061	85.1
75 and over	4,908,022	4,165,200	84.9
Age at end of June	**Eligible by the end of June**	**Of those eligible by the end of June, numbers vaccinated**	**Percentage vaccine uptake eligible end of June**
Over 80	2,750,568	2,319,584	84.3
75 to 79	2,225,979	1,884,185	84.6
75 and over	4,976,547	4,203,769	84.5

Table 9 looks at people aged 75 and over at the end of each month who are eligible for a spring booster if they have completed a primary course of 2 doses and are at least 3 months from their previous dose. Eligible population figures help to show that people who become eligible first are vaccinated earlier in the spring booster campaign.

Please note that this uses a different age cut off definition to the rest of the report and is therefore not a subset of other tables. Eligible population figures in this table do not include those who are aged 75 and over and have not been vaccinated; unvaccinated people are taken into consideration in the coverage tables above.

Immunosuppression

Provisional vaccine uptake data in living and resident people identified as immunosuppressed in England to the end of week 34 (week ending 28 August 2022) can be found in Table 10. This shows that vaccine uptake in the 505,081 identified as immunosuppressed was 95.7% for at least dose 1, 94.6% for at least 2 doses and 89.0% for at least 3 doses.

Table 10: Vaccine uptake in people identified as immunosuppressed in England

Immuno-suppression	People in NIMs Cohort	Numbers vaccinated with at least 1 dose	Percentage vaccine uptake with at least 1 dose	Numbers vaccinated with at least 2 doses	Percentage vaccine uptake with at least 2 doses	Numbers vaccinated with at least 3 doses	Percentage vaccine uptake with at least 3 doses
England	505,081	483,362	95.7	477,991	94.6	449,393	89.0

Table 11: Vaccine uptake in people identified as immunosuppressed in England with a spring booster of COVID-19 vaccine since the start of the spring booster campaign that began on the 21 March 2022 by age in England*

Immuno-suppression	People in NIMS cohort	Vaccinated with a spring booster since 21 March 2022*	Percentage vaccine uptake
England	505,081	246,966	48.9

*spring booster defined as an additional dose of vaccine after a 2 dose primary course since the 21 March 2022

Tables 10 and 11 present coverage as measured against the total population of people identified as immunosuppressed. The current uptake of the spring booster in people identified as Immunosuppressed is 48.9%. Many people in this group have been vaccinated more recently and are still becoming eligible for their spring booster. This can be seen in Table 12, in which 51.0% of people identified as immunosuppressed are covered by a vaccine given in the last 6 months.

Table 12: People identified as immunosuppressed in England vaccinated with any dose of COVID-19 vaccine in the last 3 months, 3 to 6 months and vaccinated more than 6 months ago

Immuno-suppression	People in NIMS cohort	Vaccinated in the last 3 months (84 days)		Vaccinated 3 to 6 months ago (85 to 168 days)		Vaccinated 6 months ago (169 or more days)	
		Numbers vaccinated	Percentage vaccinated	Numbers vaccinated	Percentage vaccinated	Numbers vaccinated	Percentage vaccinated
England	505,081	123,715	24.5	134,043	26.5	225,604	44.7

Table 12 is presented to provide an overview of how recently a person identified as immunosuppressed has been vaccinated either through the primary vaccination campaign or the spring booster campaign. This helps us understand the data in the context of vaccine waning across the whole COVID-19 programme and shows that most people identified as immunosuppressed have been recently vaccinated.

Detailed information on the NHS Digital characterisation of the immunosuppressed group can be found on the NHS Digital website.

For COVID-19 data on the real-world effectiveness of the COVID-19 vaccines, and on COVID-19 vaccination in pregnancy, please see the COVID-19 vaccine surveillance reports.

For COVID-19 management information on the number of COVID-19 vaccinations provided by the NHS in England, please see the COVID-19 vaccinations webpage.

For UK COVID-19 daily counts of vaccinations, please see the Vaccinations' section of the UK COVID-19 dashboard.

International update

Global COVID-19 update

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

Global influenza update

Updated on 22 August 2022 (based on data up to 7 August 2022) (WHO website).

Global influenza activity has steadily decreased from a peak in March 2022, except in Southeast Asia where influenza activity increased.

In the temperate zones of the southern hemisphere, overall influenza activity appeared to further decrease this reporting period.

In Oceania, detections of primarily influenza A(H3N2) decreased overall and influenza-like activity (ILI) activity returned to low levels in most Pacific Island countries.

In Southern Africa, influenza activity decreased overall with continued detections of influenza A(H1N1)pdm09 and influenza A(H3N2) and a few influenza B viruses.

In temperate South America, influenza activity decreased overall. Influenza A(H3N2) viruses predominated among subtyped detections.

In the Caribbean and Central American countries, low influenza activity was reported with influenza A(H3N2) most frequently detected.

In the tropical countries of South America, influenza detections were low and A(H3N2) detections predominated.

In tropical Africa, influenza activity continued to decrease with influenza A(H3N2) viruses predominant among the reported detections.

In Southern Asia, influenza detections of predominantly A(H3N2) viruses decreased while detections of influenza A(H1N1)pdm09 increased in recent weeks, especially in India.

In South-East Asia, influenza activity increased overall with influenza A(H3N2) viruses predominantly detected.

In the countries of North America, influenza activity remained at inter-seasonal levels as typically observed at this time of year. Influenza A(H3N2) was predominant among the subtyped viruses.

In Europe, overall influenza activity remained at inter-seasonal levels with influenza A(H3N2) predominant among the subtyped viruses.

In Central Asia, no influenza detections were reported.

In Northern Africa, no influenza detections were reported.

In East Asia, influenza activity of predominantly influenza A(H3N2) seemed to have peaked in the southern provinces of China. Elsewhere, influenza illness indicators and activity remained low.

In Western Asia, low numbers of detections of influenza A(H1N1)pdm09, A(H3N2) and B viruses were reported.

The WHO Global Influenza Surveillance and Response System (GISRS) laboratories tested more than 263,527 specimens during the period 25 July 2022 to 7 August 2022. A total of 6,193 were positive for influenza viruses, of which 5,960 (96.2%) were typed as influenza A and 233 (3.8%) as influenza B. Of the sub-typed influenza A viruses, 292 (6.2%) were influenza A(H1N1)pdm09 and 4,423 (93.8%) were influenza A(H3N2). Of the characterized B viruses, 48 (100%) belonged to the BVictoria lineage.

Influenza in Europe

Updated for data between week 26 to week 30, 2022 (Joint ECDC-WHO Europe Influenza weekly update).

For the region as a whole during 2021 to 2022, influenza activity reached well above that observed in the 2020 to 2021 season.

Influenza activity, based on sentinel primary care specimens from patients presenting with ILI or ARI symptoms, first peaked in week 52 of 2021 (when it reached 19% positivity), declining thereafter until week 4 of 2022, when it increased again reaching a plateau phase (25 to 30% positivity) between weeks 10 and 15 of 2022 (this represents late activity compared to most previous seasons) followed by a subsequent 8 week decline to 10% in week 20 of 2022.

Between weeks 26 to 30 of 2022, influenza activity remained at inter-seasonal levels.

In the 2021 to 2022 influenza season up to week 30, of 73,863 sentinel specimens tested for influenza viruses, 7,821 were positive with the most dominant strain being A(H3).

Influenza in North America

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

Australian Influenza Surveillance Report and Activity Updates

Australia monitors influenza through a number of complimentary systems. The Australian government advises caution is required in interpretation of these due to the effects of COVID-19, particularly inter-year 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 2022 southern hemisphere influenza season or the implications for the following 2022 to 2023 northern hemisphere season, such as the timing, activity and impact of the 2022 to 2023 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 A comprises the majority of influenza viruses typed, with influenza A(H3N2) the predominant subtype detected. The latest published data indicates that of A(H3N2) characterised antigenically, 93.3% are antigenically similar to the 2022 southern hemisphere vaccine component (and therefore similar to the strains detected in Europe in Q2 2022, and similar to the 2022 to 2023 northern hemisphere vaccine component).

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 27 June 2022

Since the previous WHO update on 13 May 2022, 2 human cases of infection with avian influenza A(H5N6), one human case of infection with avian influenza A(H3N8) and 3 human cases of infection with avian influenza A(H9N2) have been reported officially, from China.

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.

Middle East respiratory syndrome coronavirus (MERS-CoV)

From September 2012 to 15 May 2022, a total of 2,591 laboratory-confirmed cases of MERS-CoV and 894 associated deaths were reported globally to WHO under the International Health Regulations (IHR 2005).

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).

Up to 17 August 2021, 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

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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