Public Health England

Protecting and improving the nation's health

Weekly national Influenza and COVID-19 surveillance report

Week 22 report (up to week 21 data)
3 June 2021

Executive summary

This report summarises the information from the surveillance systems which are used to monitor Coronavirus Disease 2019 (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 21 (between 24 and 30 May 2021) and for some indicators daily data up to 01 June 2021.

Please note that due to the end of the 2020 to 2021 influenza season, some influenza indicators will not be included from this week's report onwards. Reporting of these indicators will recommence at the beginning of the 2021 to 2022 season.

Data in this week's report may be subject to delays due to the Spring Bank Holiday and should be interpreted with caution.

Surveillance indicators suggest that at a national level COVID-19 activity increased in week 21 of 2021. There is currently limited testing for other respiratory viruses, however, laboratory indicators suggest that influenza activity is low.

Overall case rates increased in week 21. Case rates increased in most ethnic groups, and in all age groups and regions. Overall Pillar 1 positivity remained stable while Pillar 2 positivity increased compared to the previous week, most notably in children aged 5 to 9 years.

The number of reported acute respiratory incidents in the past week increased compared to the previous week, with the most notable increase in educational settings incidents. SARS-CoV-2 was identified in the majority of these.

COVID-19 hospitalisations increased slightly in week 21. Deaths with COVID-19 decreased further in week 21 and have been decreasing since week 3. This continued decrease is likely to reflect the impact of both social and physical distancing measures and the vaccination programme.

COVID-19 vaccine coverage was 53.1% for dose 1 at the end of week 21, reaching over 90% in all cohorts over the age of 65 years and over 80% in all cohorts over 50 years. COVID-19 vaccine coverage was 35.0% for dose 2 at the end of week 21.

The impact of the vaccination programme is particularly notable in the seroprevalence data which indicates that approximately 75.4% of blood donors aged 17 and over have antibodies to SARS-CoV-2 from either infection or vaccination, compared to 15.6% from infection alone. High levels of seropositivity for vaccination or infection continue to be observed in older age groups, as well as sharp increases in those aged 50 to 59 and 40 to 49, following vaccination rollout.

Through Respiratory Datamart, there were no influenza positive samples detected in week 21. Other indicators for influenza such as hospital admissions and GP influenza-like illness consultation rates remain low. Increases in parainfluenza activity were noted this week.

Contents

Laboratory surveillance

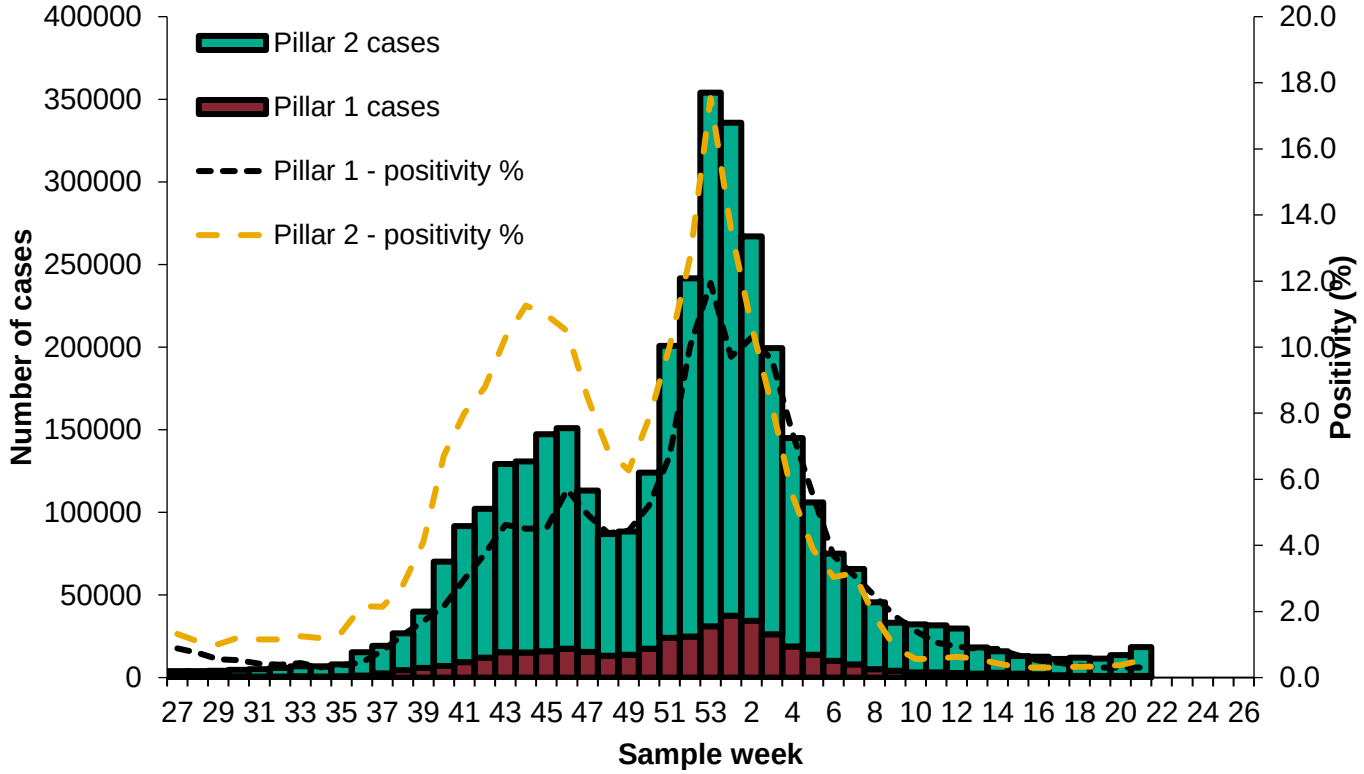
Confirmed COVID-19 cases (England)

As of 09:00 on 01 June 2021, a total of 3,918,522 have been confirmed positive for COVID-19 in England under Pillars 1 and 2.

Overall case rates increased in week 21. Case rates increased in most ethnic groups, and in all age groups and regions. Overall Pillar 1 positivity remained stable while Pillar 2 positivity increased compared to the previous week.

Data on variants of concern or under investigation are available here and here.

Figure 1: Confirmed COVID-19 cases tested under Pillar 1 and Pillar 2, based on sample week with overall weekly positivity for Pillars 1 and 2 (%)

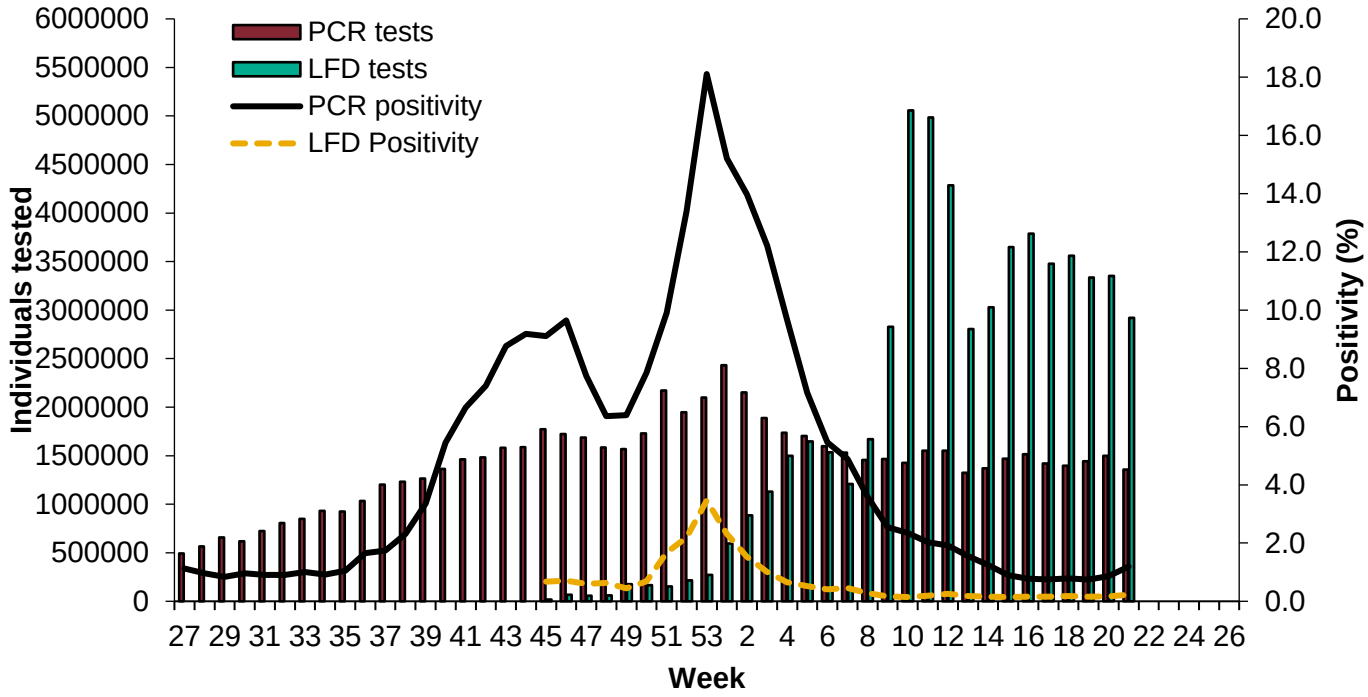


*The data are shown by the week the specimen was taken from the person being tested. This gives the most accurate analysis of this time progression, however, for the most recent week results for more samples are expected therefore this should be interpreted with caution.

* Positivity (excluding Figure 2) is calculated as the number of individuals testing positive during the week divided by the number of individuals tested during the week. Both PCR and lateral flow device (LFD) testing are included.

*Cases who test positive through a rapid LFD test and subsequently receive a negative PCR test within 3 days of the positive LFD are removed from the overall case counts

Figure 2: Weekly positivity (%) of confirmed COVID-19 and number of individuals tested by type of test, under Pillar 1 and 2 (SGSS and Respiratory DataMart)

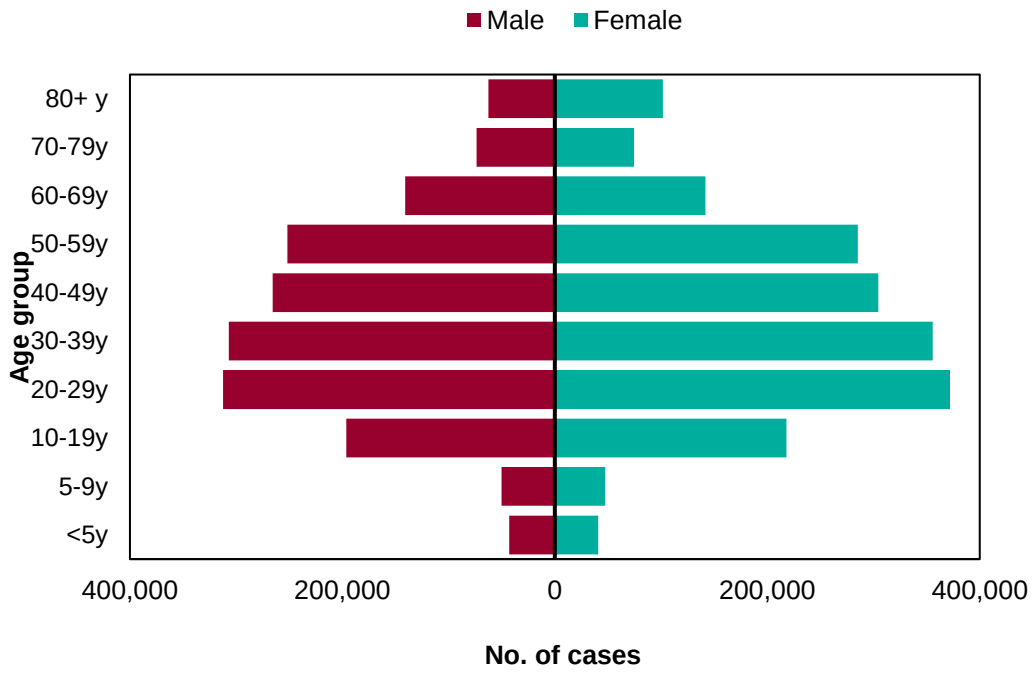


*For Figure 2 positivity is calculated as the number of individuals testing positive using a specific test type during the week, divided by the number of individuals tested using that specific test type during the week.
*Please note that an individual may appear under both PCR and LFD tests if they have been tested using both test types in a given week.

Age and sex

Figure 3: Age/sex pyramids for confirmed COVID-19 cases tested under Pillars 1 and 2 (a) cumulative number since week 27 (n=3,645,407), and (b) in weeks 20 and 21 (n=31,897)

(a)



(b)

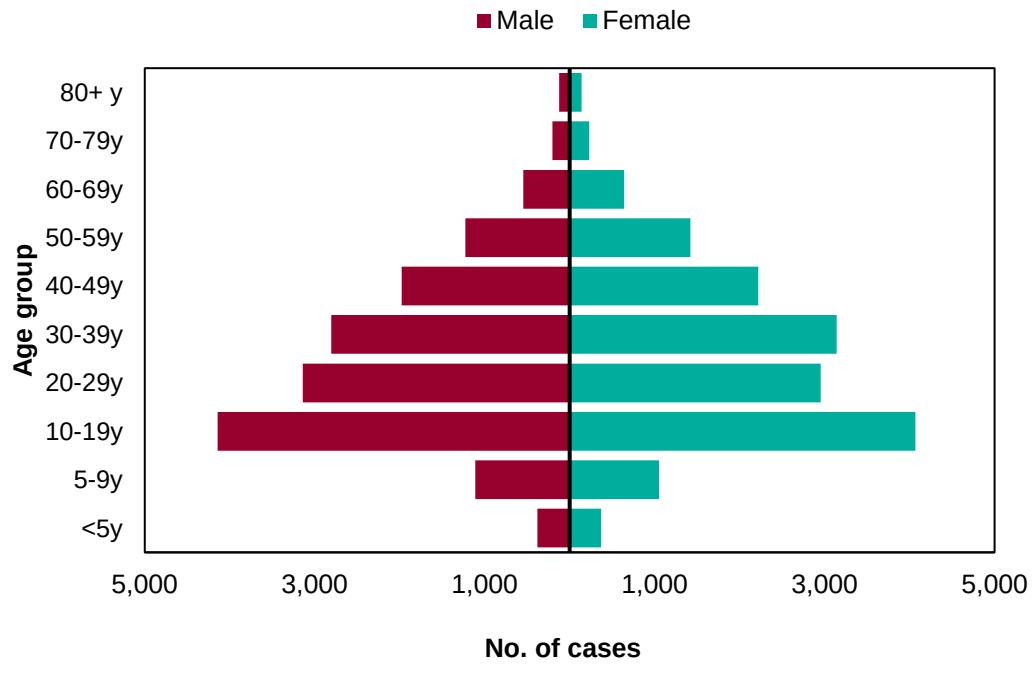


Figure 4: Weekly confirmed COVID-19 case rates per 100,000, tested under Pillar 1 and Pillar 2, by sex

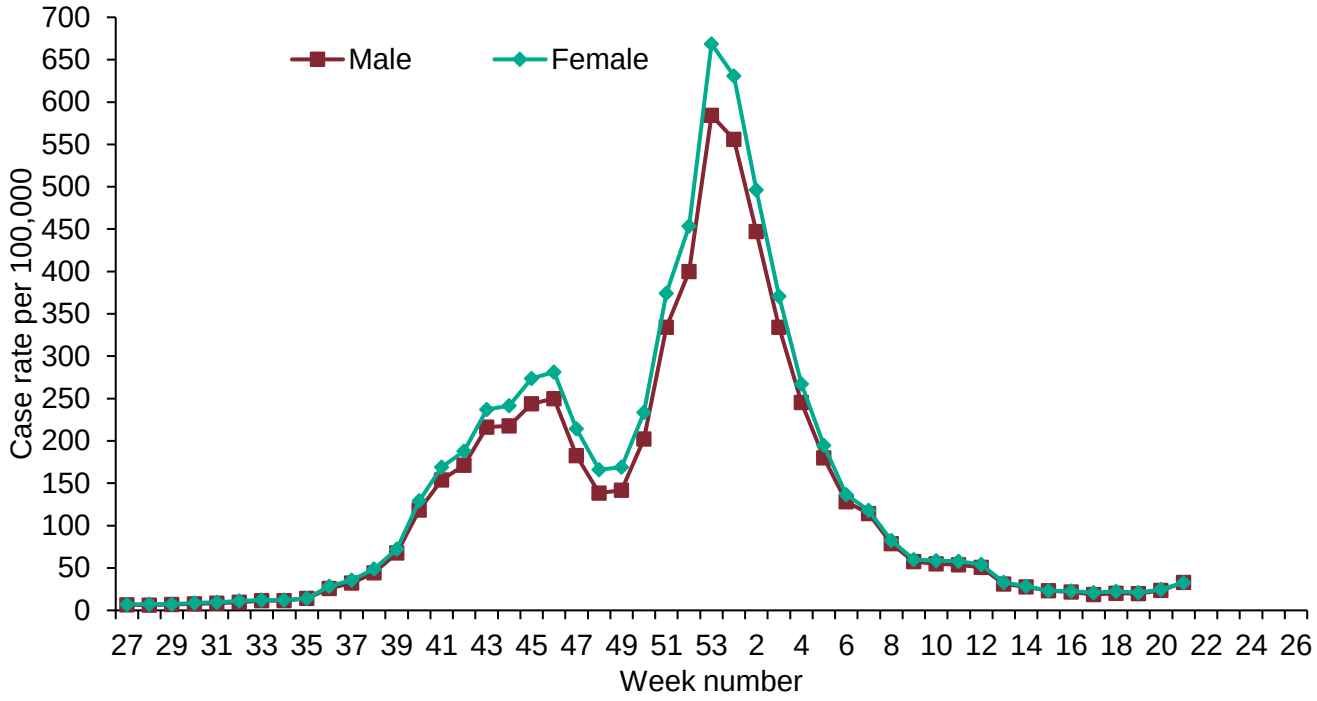


Figure 5: Weekly confirmed COVID-19 case rates per 100,000, tested under Pillar 1 and Pillar 2, by age group

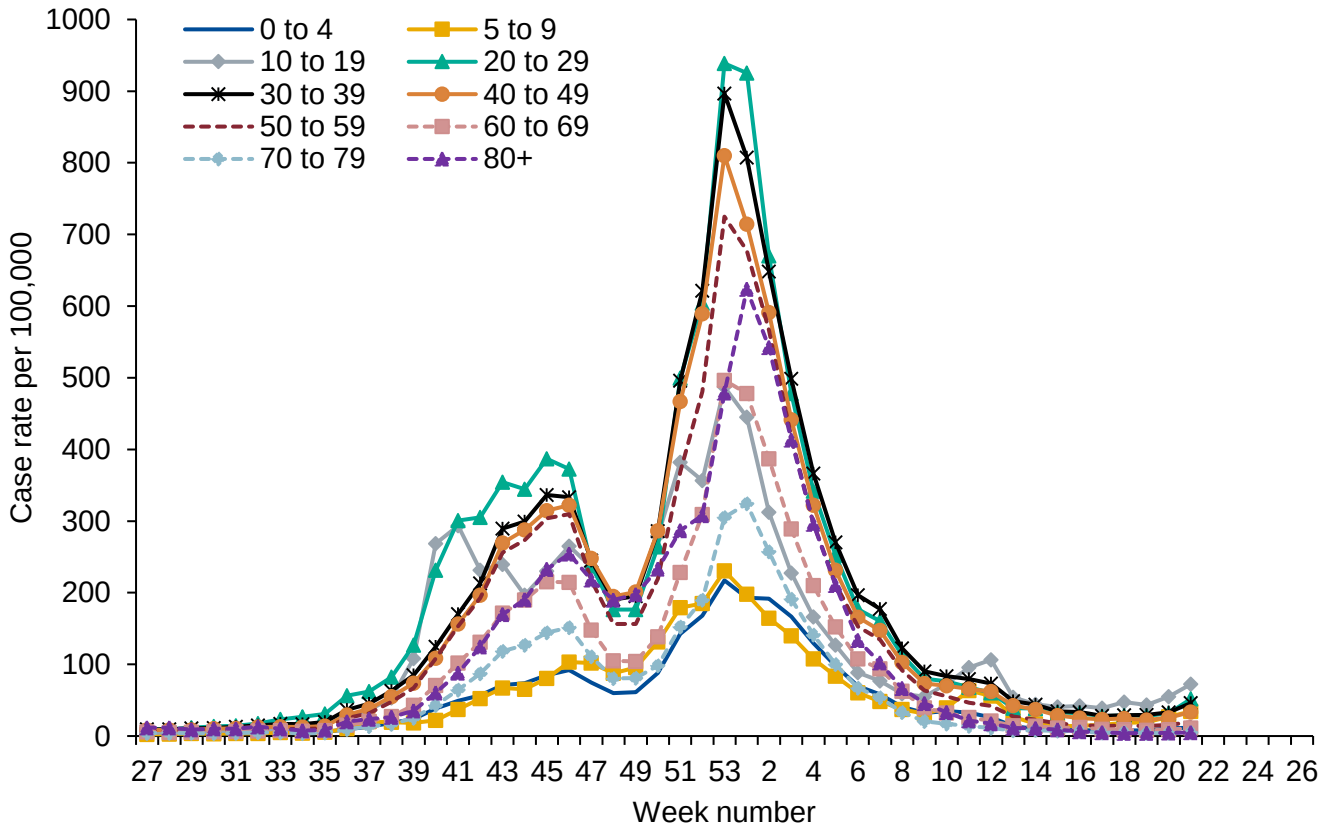
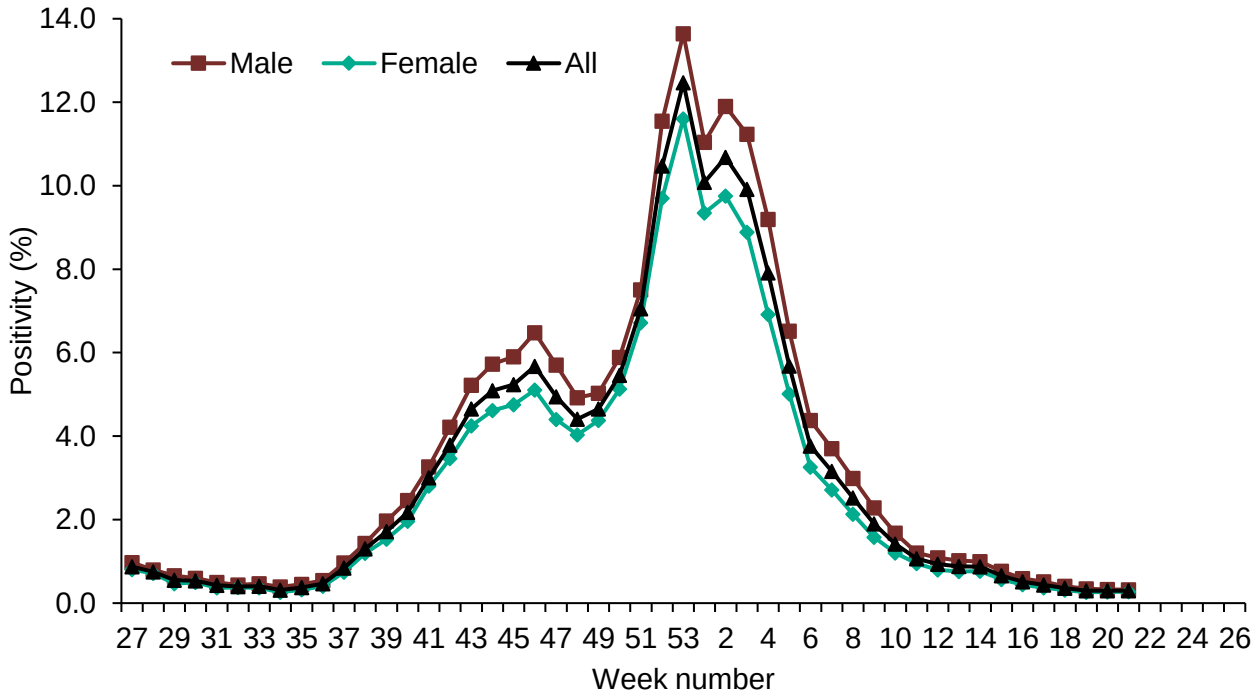


Figure 6: Weekly positivity (%) of confirmed COVID-19 cases tested overall and by sex under (a) Pillar 1 and (b) Pillar 2, (SGSS and Respiratory DataMart)

(a)



(b)

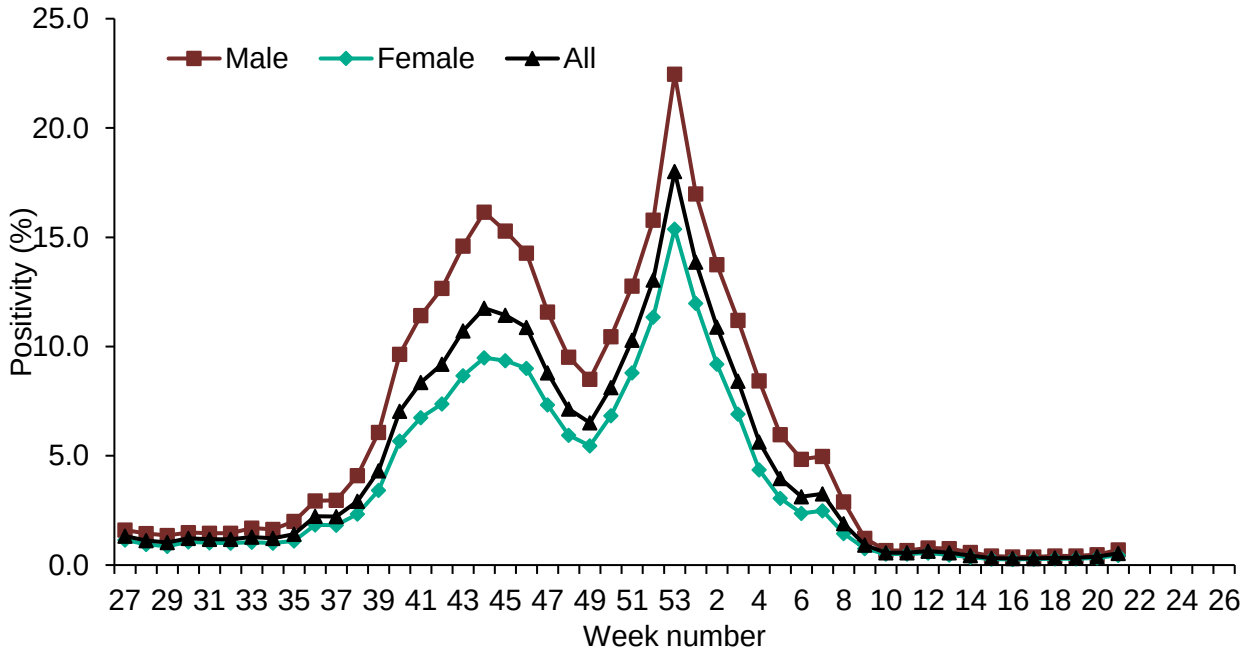
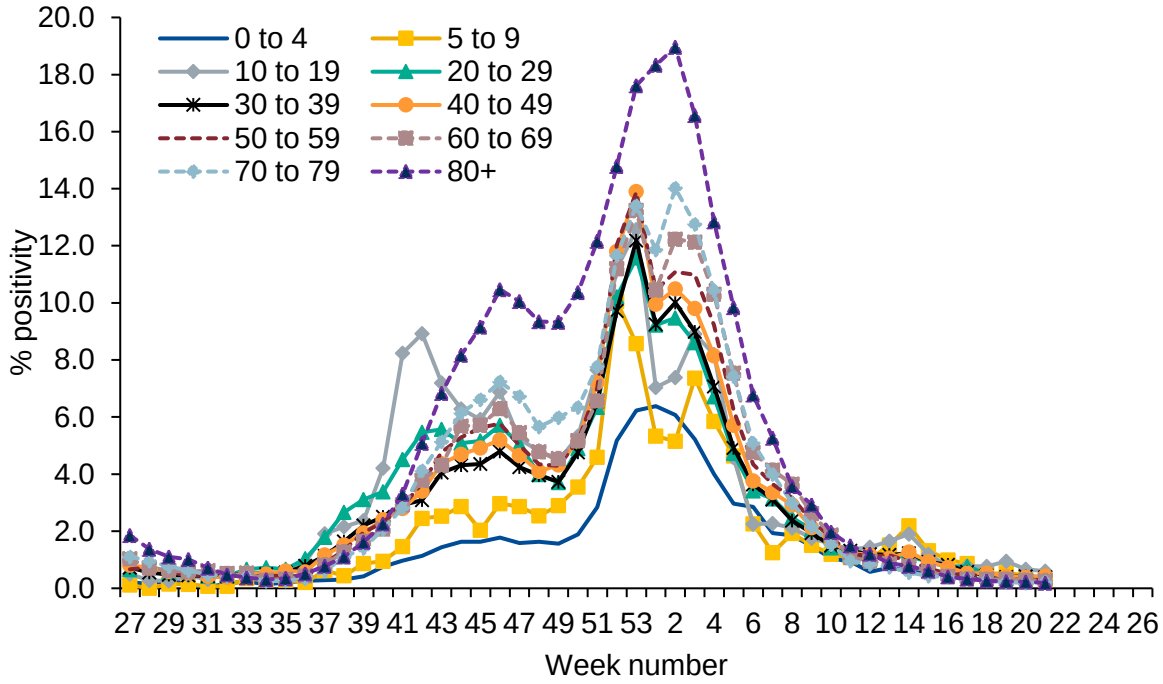
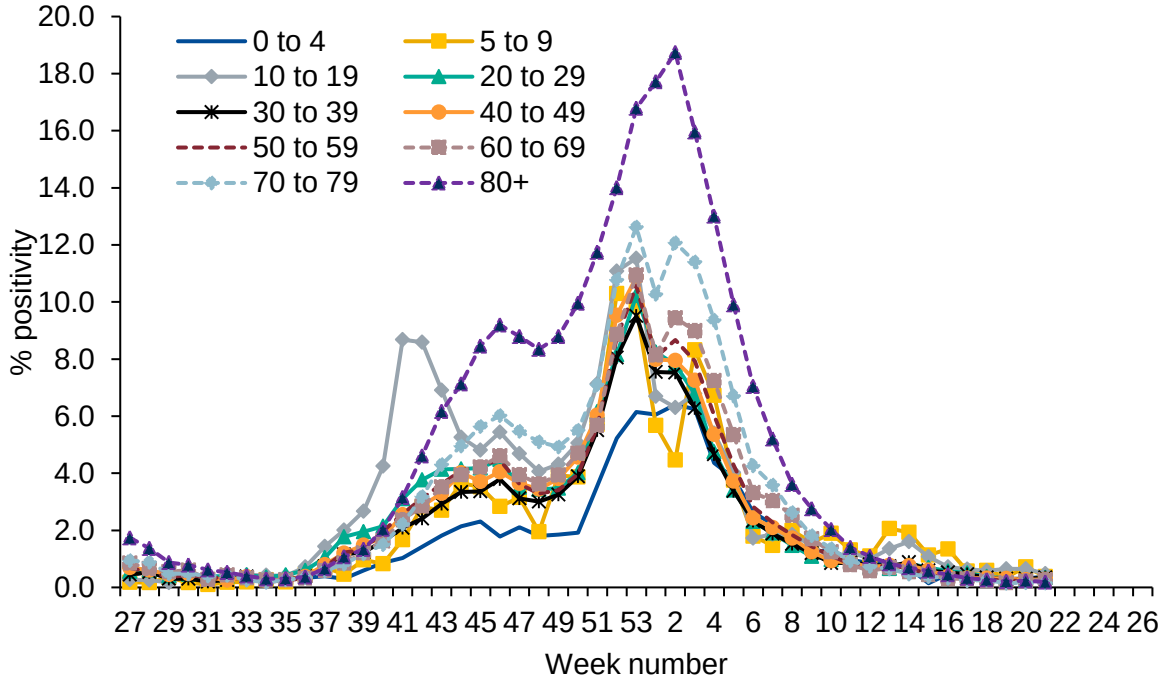


Figure 7: Weekly positivity (%) of confirmed COVID-19 cases tested under Pillar 1, (a) by male and age group and (b) by female and age group and; under Pillar 2, (c) by male and age group and (d) by female and age group, (SGSS and Respiratory DataMart)

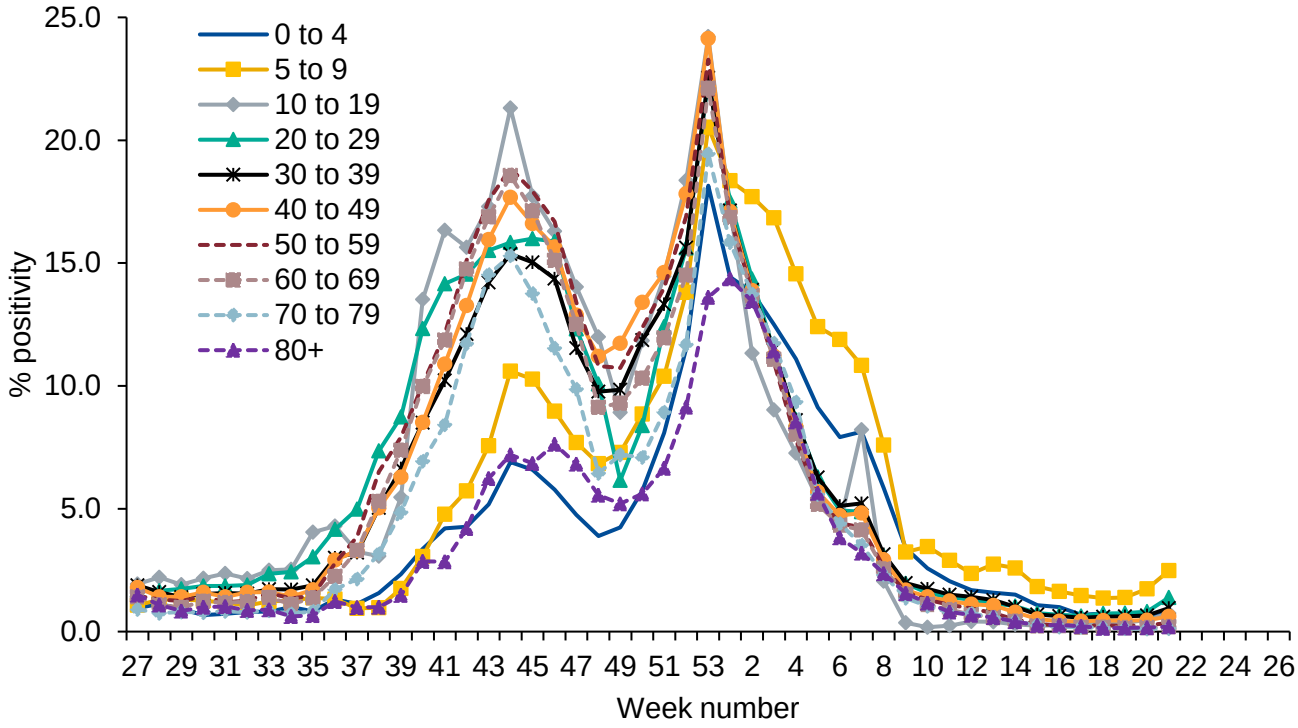
(a) Pillar 1 - Male



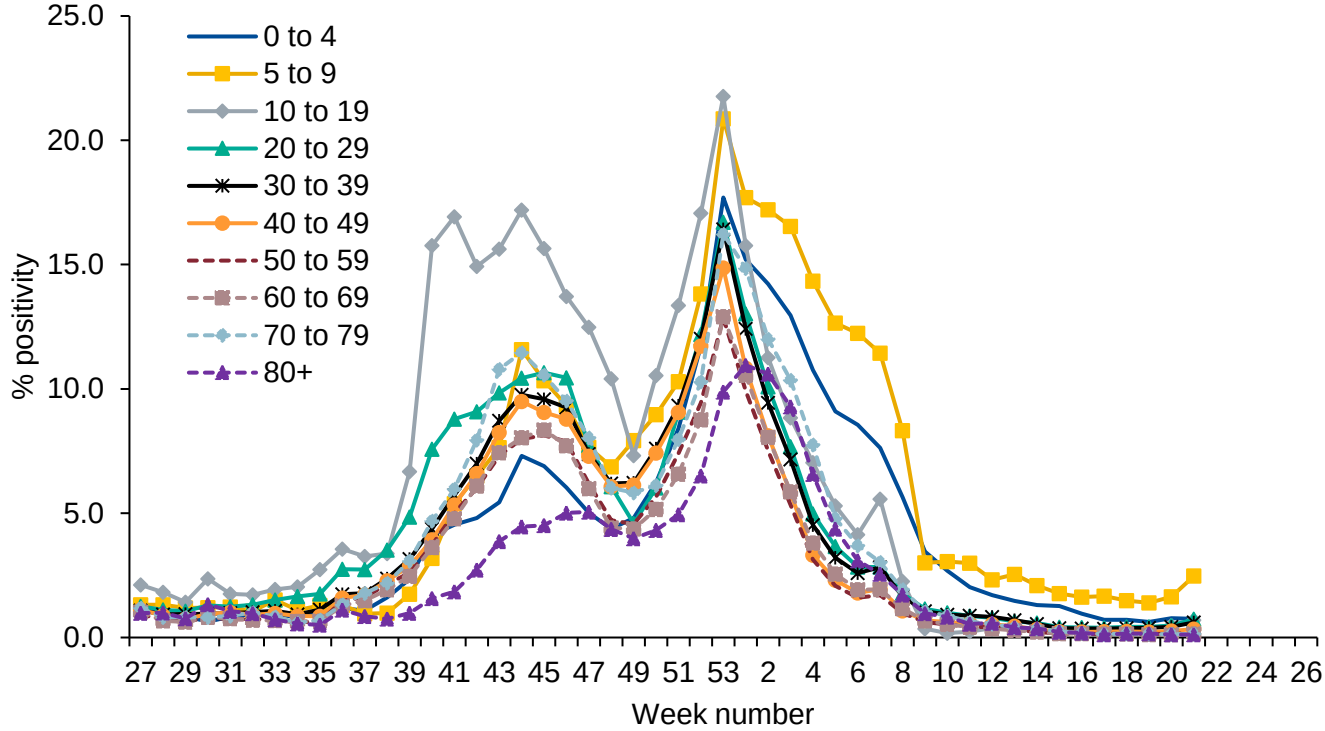
(b) Pillar 1 - Female



(c) Pillar 2 - Male



(d) Pillar 2 - Female



Geography

Table 1: Cumulative number of cases under Pillars 1 and 2 (n=3,881,292) and cumulative number of cases since week 27 under Pillar 1 and 2 (3,646,481)

PHE Centres	Cumulative Pillar 1 + 2 cases	Cumulative since week 27, Pillar 1 + 2 cases
North East	195,565	180,563
North West	623,377	581,125
Yorkshire and Humber	402,805	374,131
West Midlands	434,246	409,097
East Midlands	333,859	313,214
East of England	414,128	390,003
London	728,546	694,949
South East	525,478	492,789
South West	223,288	210,610

Figure 8: Weekly confirmed COVID-19 case rates per 100,000 population (Pillar 1 and Pillar 2), by PHE Centres and sample week

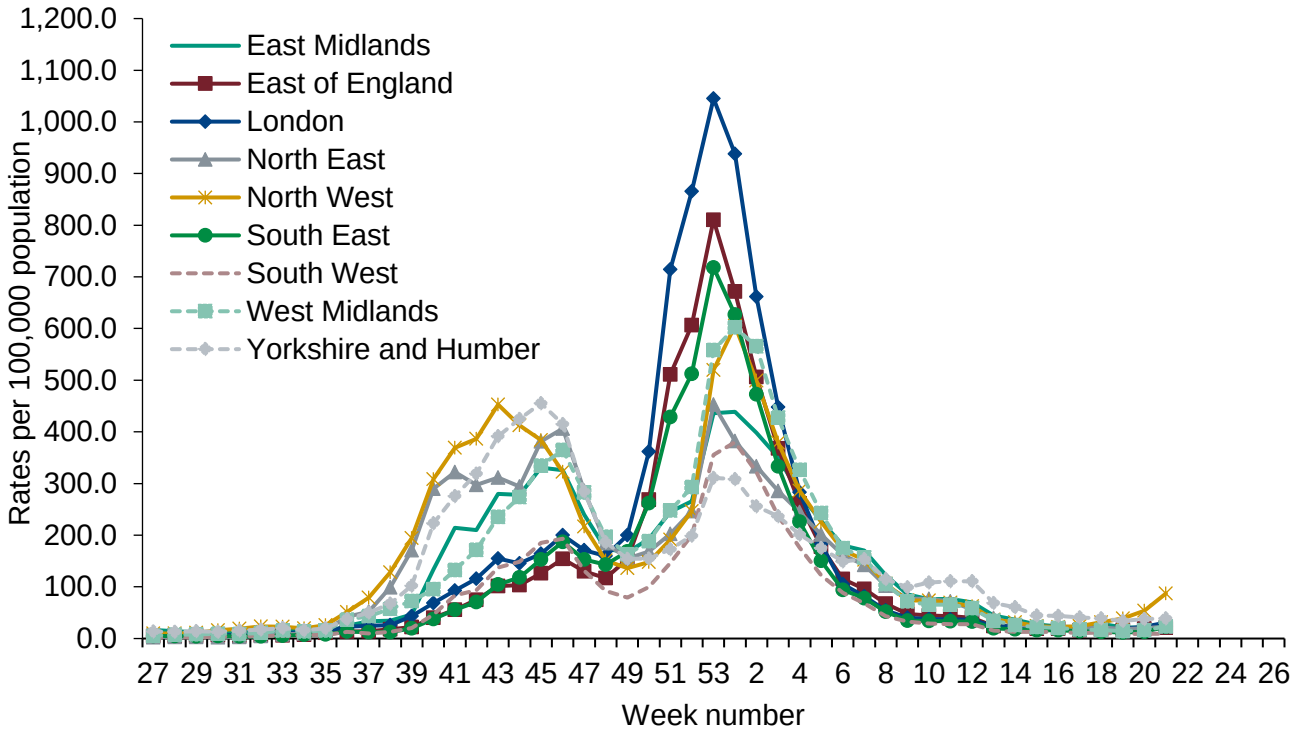
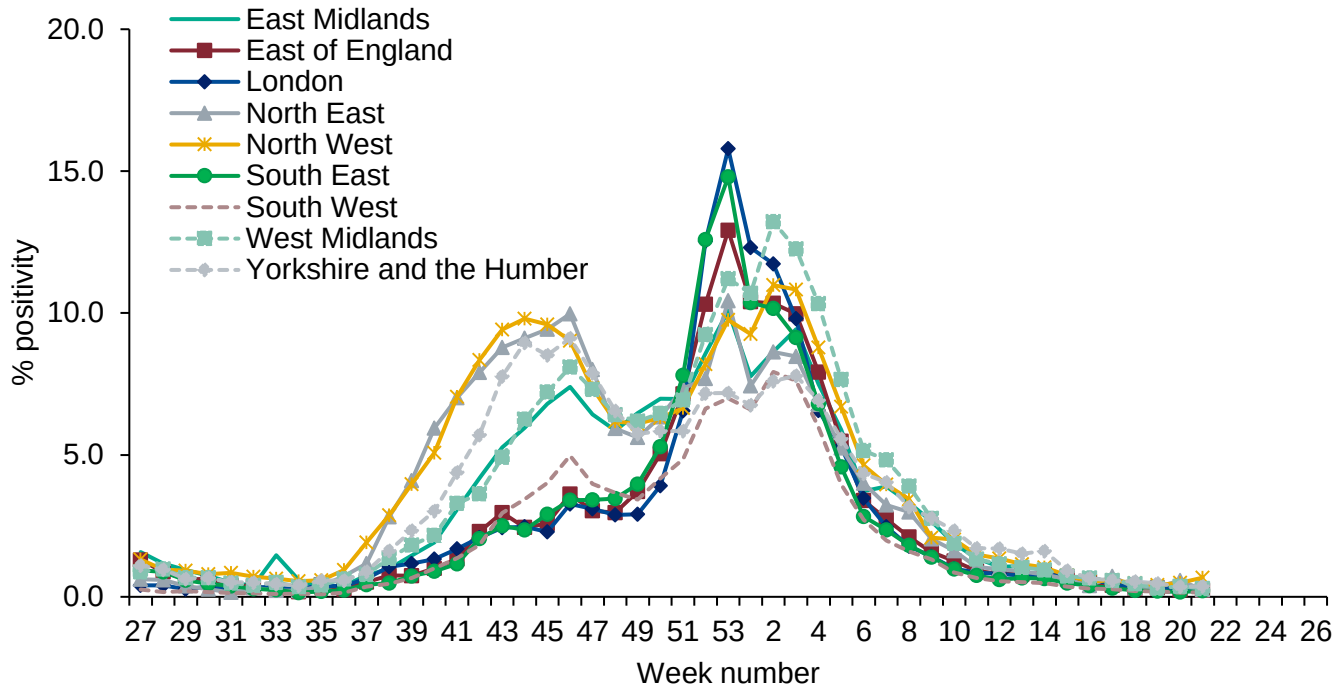


Figure 9: Weekly positivity of confirmed COVID-19 cases tested under (a) Pillar 1 (%) and (b) Pillar 2 (%), by PHE Centres and sample week, (SGSS and Respiratory DataMart)

(a)



(b)

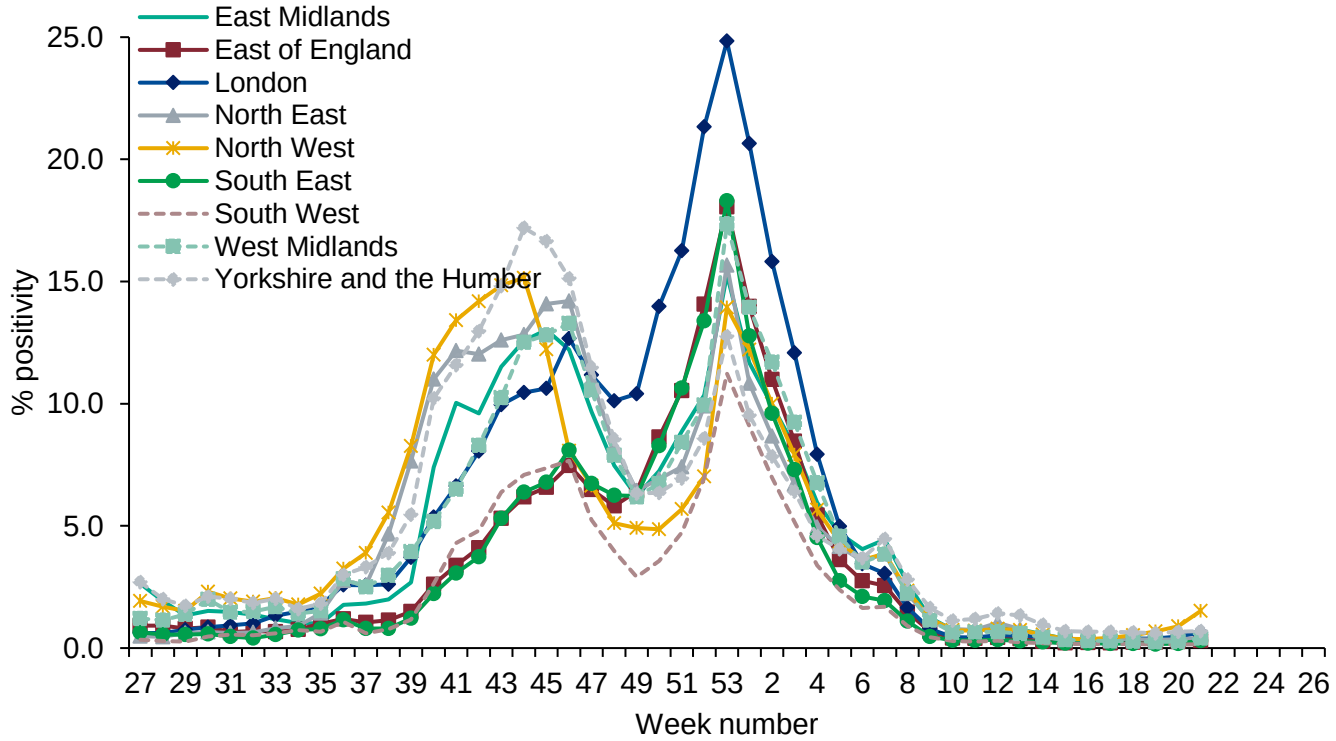
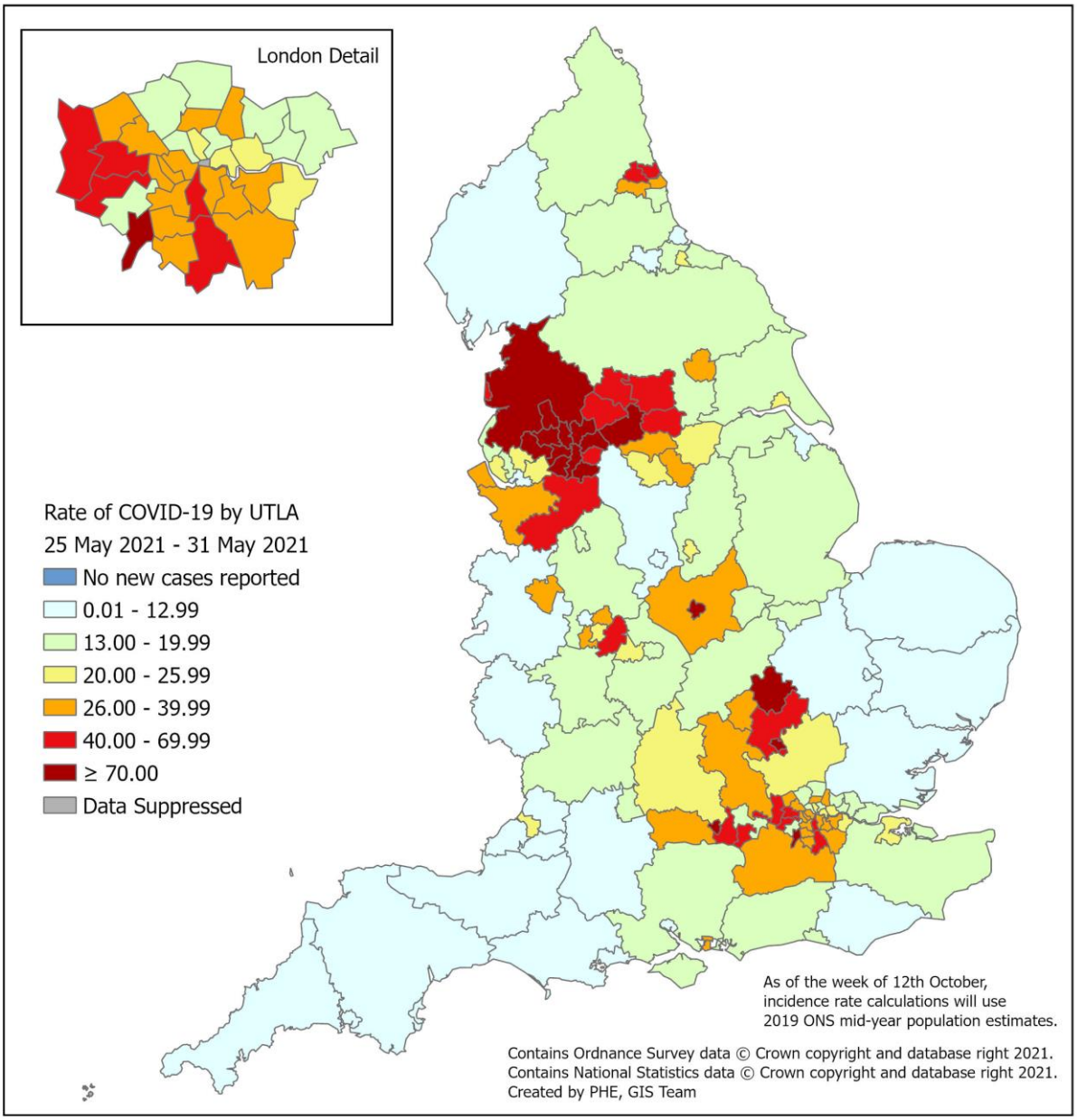
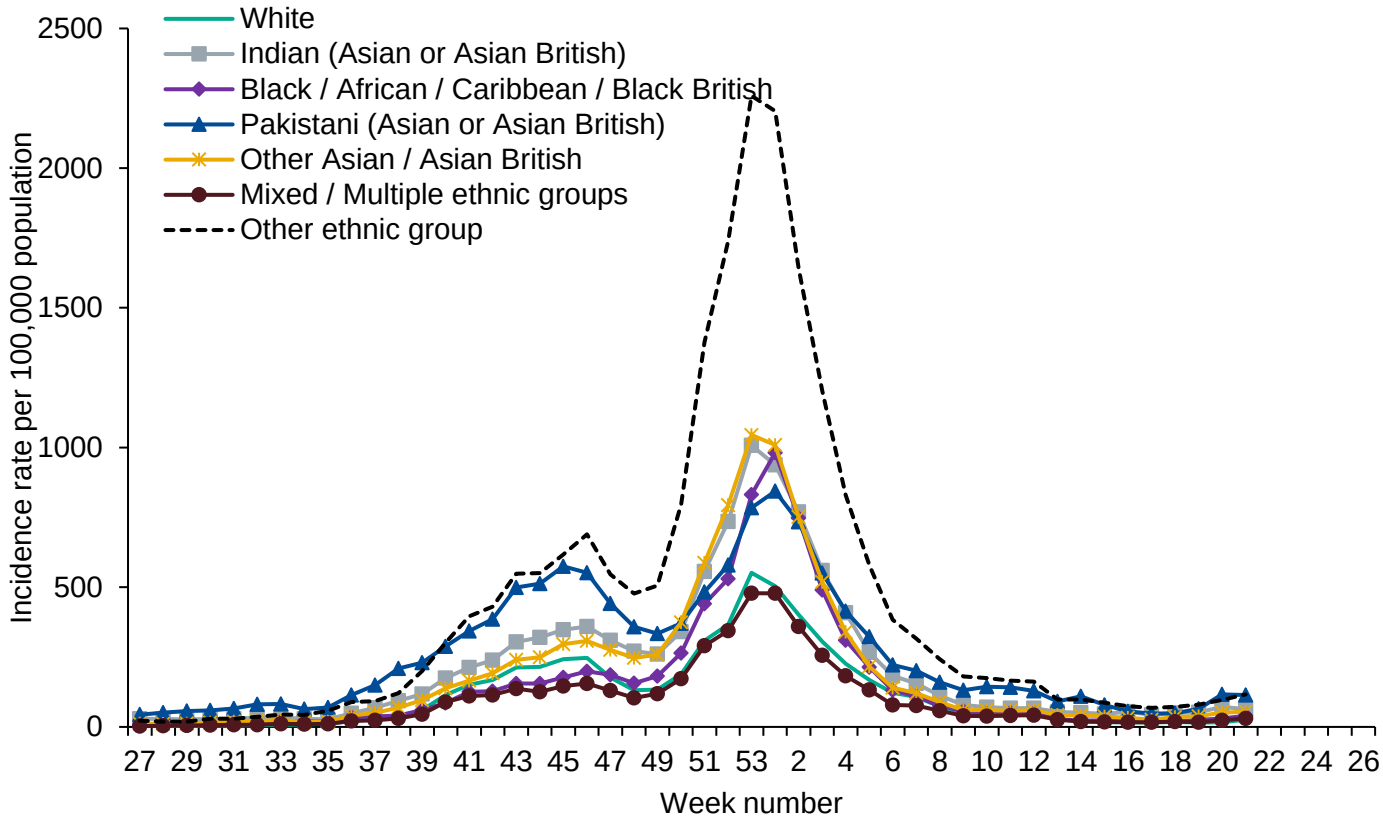


Figure 10: Weekly rate of COVID-19 cases per 100,000 population (Pillar 1 and 2), by upper-tier local authority, England (box shows enlarged map of London area)



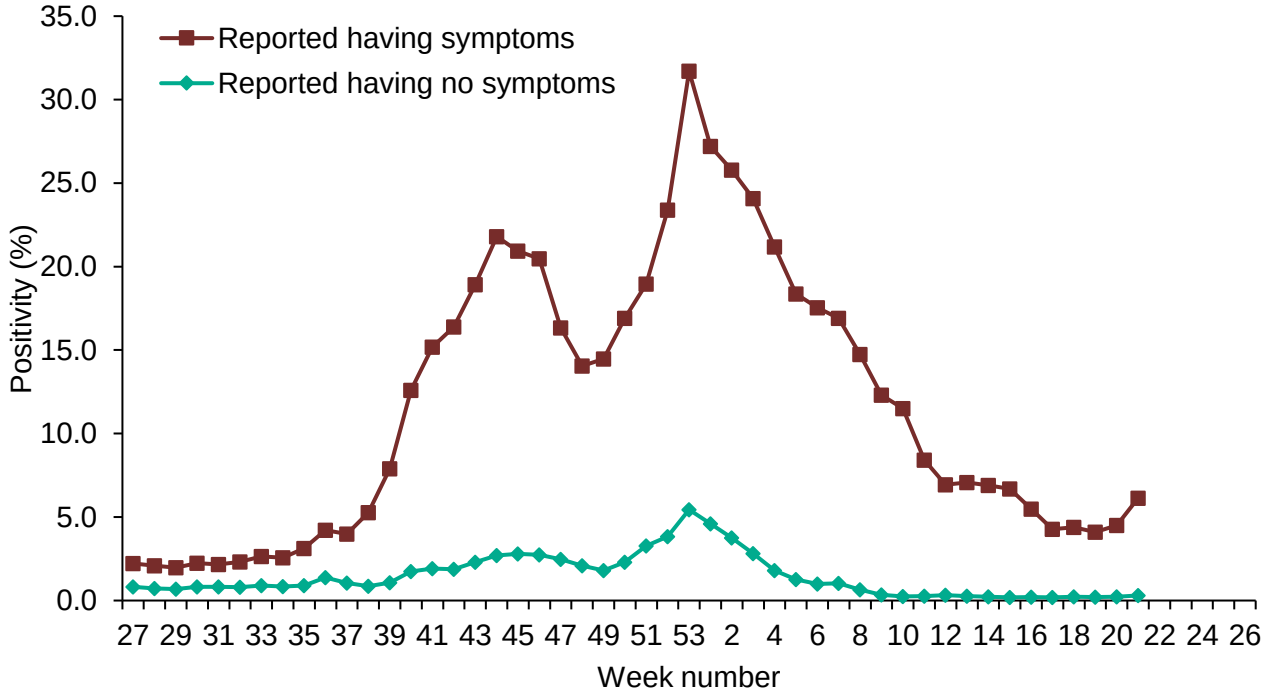
Ethnicity

Figure 11: Weekly incidence per 100,000 population by ethnicity, England



Positivity by symptoms

Figure 12: Weekly positivity of confirmed COVID-19 cases by symptoms reported on Pillar 2 test request, (SGSS and Respiratory DataMart)



Respiratory DataMart system (England)

The Respiratory Datamart system was initiated 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.16 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 facilitate comparison with data on other respiratory viruses.

In week 21 2021, out of the 103,870 respiratory specimens reported through the Respiratory DataMart System (based on data received from 16 out of 16 laboratories), 409 samples were positive for SARS-CoV-2 with an overall positivity of 0.4%. The highest positivity was noted in the 15 to 44-year olds at 0.6% in week 21. The overall influenza positivity remained very low at 0.0% in week 21, with none of the 2,195 samples testing positive.

Rhinovirus positivity decreased from 11.4% in week 20 to 8.0% in week 21. Parainfluenza positivity increased from 7.0% in week 20 to 10.1% in week 21. Respiratory syncytial virus (RSV), adenovirus and human metapneumovirus (hMPV) positivity all remained low at 0.8%, 2.2% and 0.3% respectively in week 21 (Figure 14).

Figure 13: DataMart samples positive for influenza and weekly positivity (%) for influenza and SARS-CoV-2, England

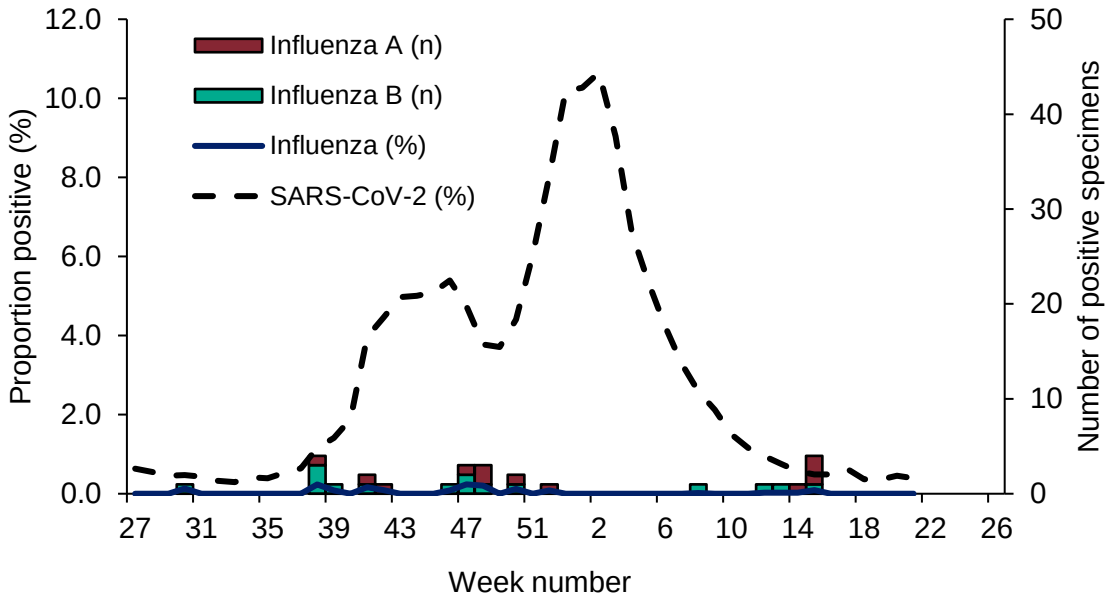


Figure 14: DataMart weekly positivity (%) for other respiratory viruses, England

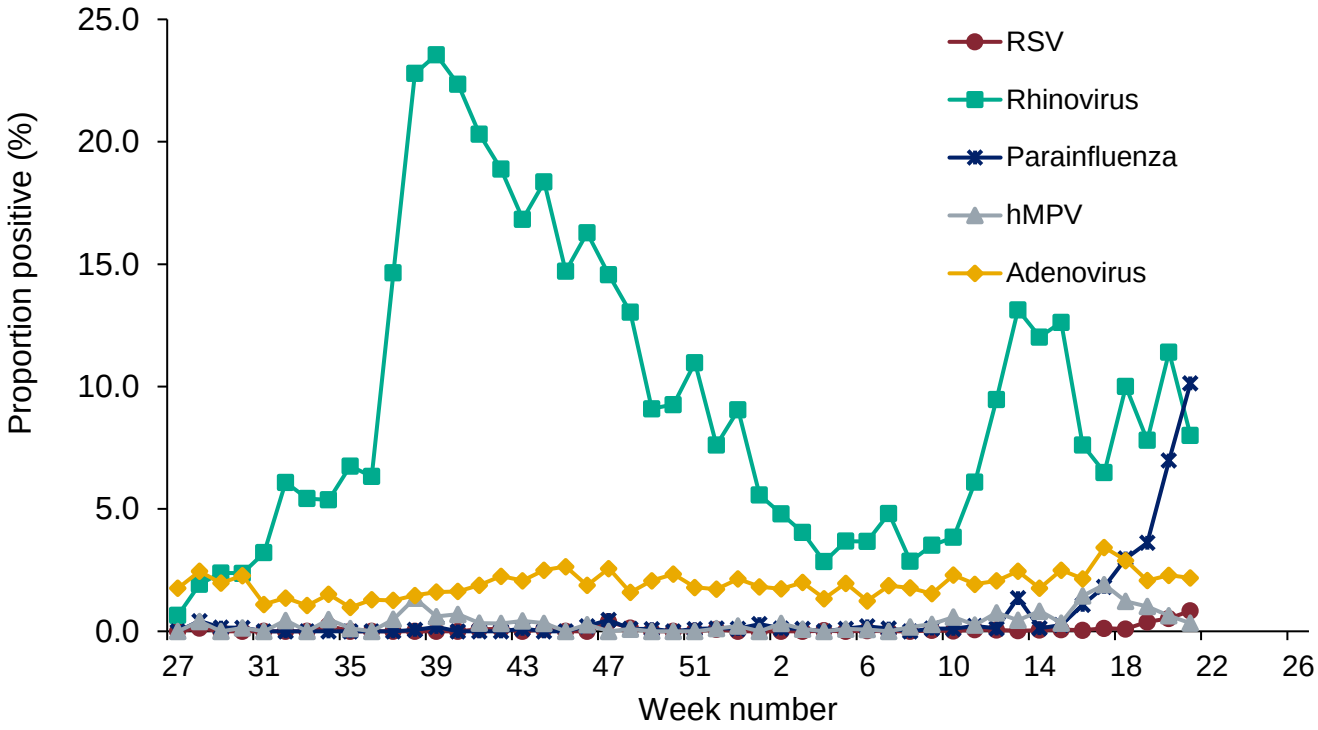
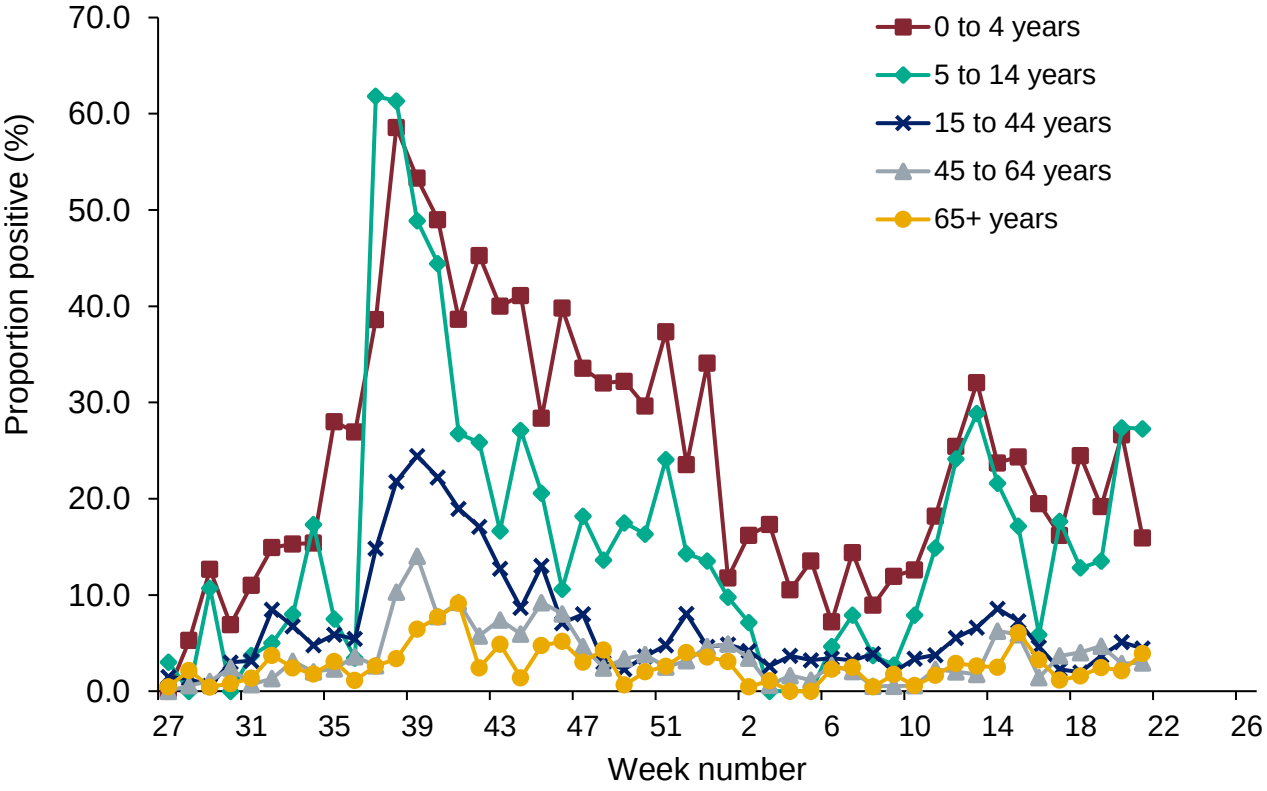


Figure 15: DataMart weekly positivity (%) for rhinovirus by age, England



Community surveillance

Acute respiratory infection incidents

Here we present data on acute respiratory infection (ARI) incidents in different settings that are reported to PHE 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. A subset of these will meet the criteria of a confirmed outbreak i.e. where two or more laboratory confirmed cases (SARS-CoV-2, influenza or other respiratory pathogens) are linked to a particular setting. Incidents where suspected cases test negative for COVID-19 or other respiratory pathogens, or cases are subsequently found not to have direct links to the setting are discarded.

The number of ARI incidents in each setting with at least one laboratory confirmed case of COVID-19 (or other respiratory pathogen) are reported below. As outlined above, only a subset of these will go on to be confirmed as outbreaks.

Data for England, Scotland and Northern Ireland are included in the UK figures.

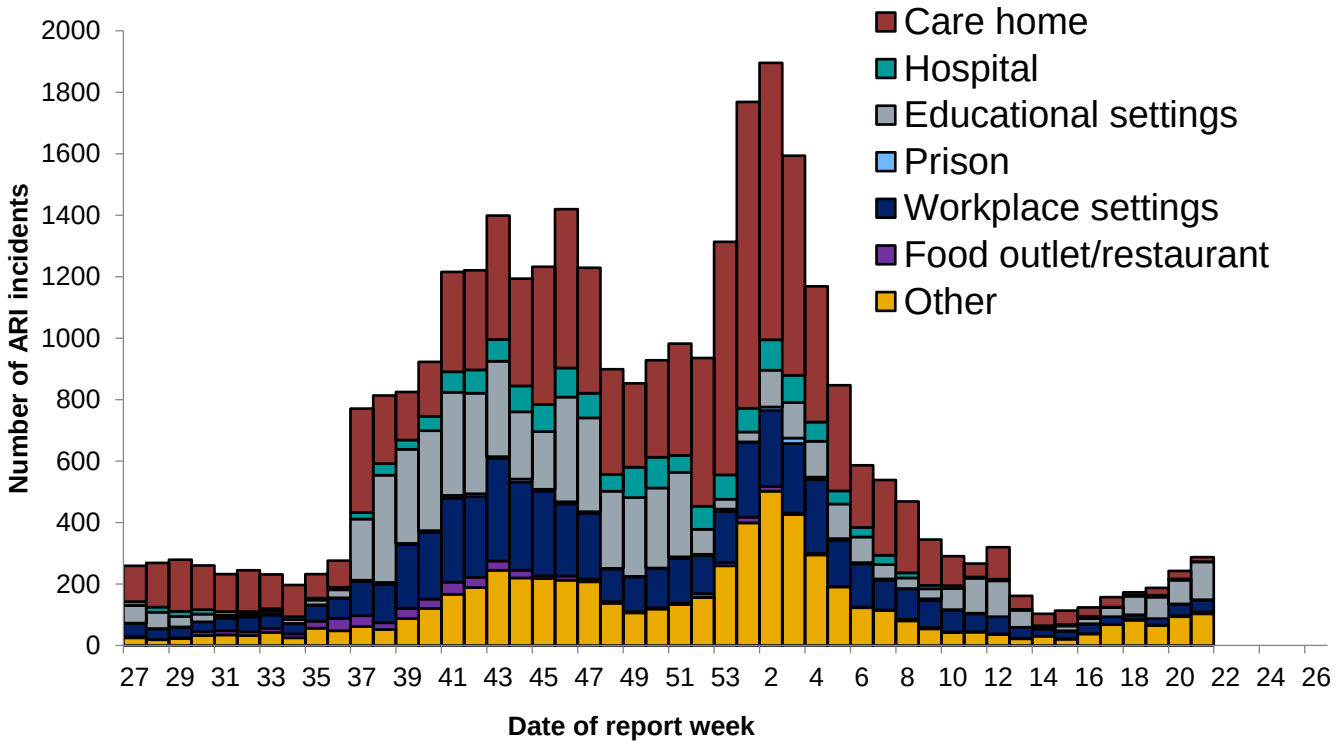
Data caveats:

- 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 PHE 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.
- A national school helpline started operating on 17 September 2020 and a Universities helpline started operating on 7 October. This is likely to have had an impact on the number of situations/outbreaks being reported to HPTs in these settings.
- 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 PHE also varies significantly by setting. This needs to be taken into account when interpreting the weekly number of reported incidents by setting and caution should be used when making comparisons between settings.
- In light of the above, comparisons between Regions and settings are not advised as they may be misleading.

287 new ARI incidents have been reported in week 21 in the UK (Figure 16):

- 14 incidents were from care homes where 11 had at least one linked case that tested positive for SARS-CoV-2 where test results were available
- 123 incidents were from educational settings where 91 had at least one linked case that tested positive for SARS-CoV-2
- 1 incident was from a hospital, which tested positive for SARS-CoV-2
- 1 incident was from a prison, with no test results available
- 39 incidents were from workplace settings where 22 had at least one linked case that tested positive for SARS-CoV-2
- 6 incidents were from food outlets/restaurants where 5 had at least one linked case testing positive for SARS-CoV-2
- 103 incidents were from other settings where 68 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

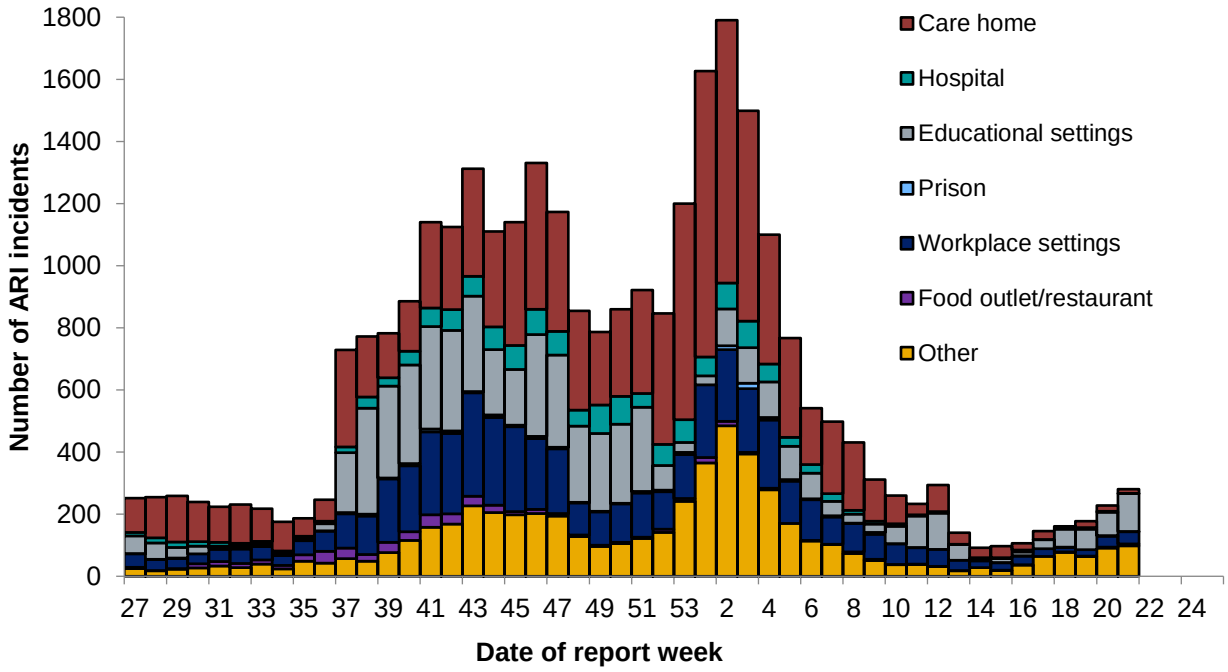


Figure 18: Number of acute respiratory infection (ARI) incidents in care homes by virus type from week 27, England

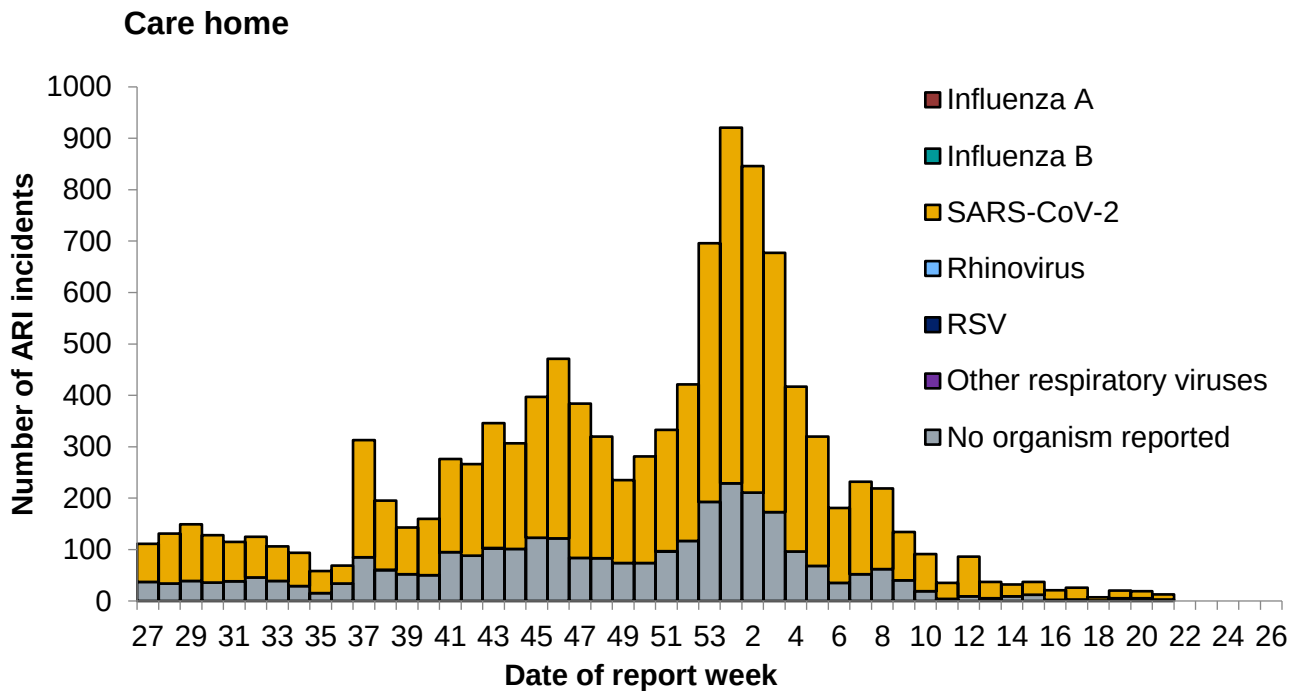


Figure 19: Number of acute respiratory infection (ARI) incidents in hospitals by virus type from week 27, England

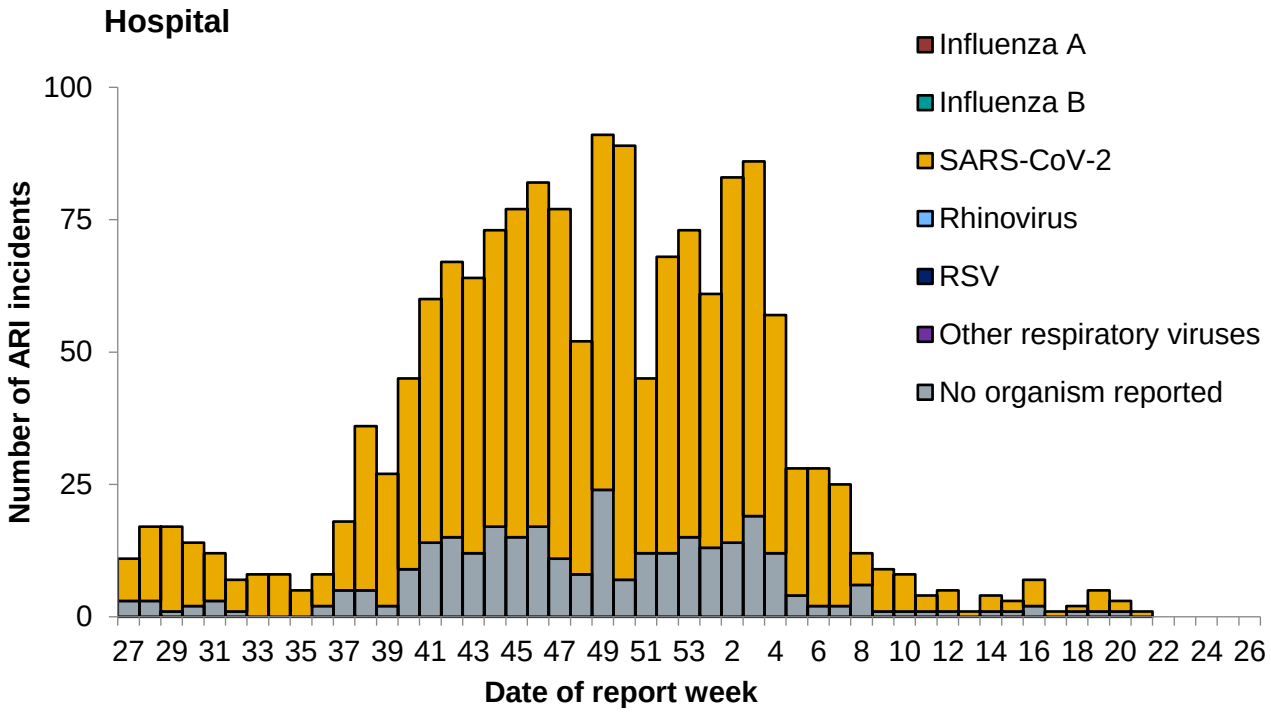


Figure 20: Number of acute respiratory infection (ARI) incidents in educational settings by virus type from week 27, England

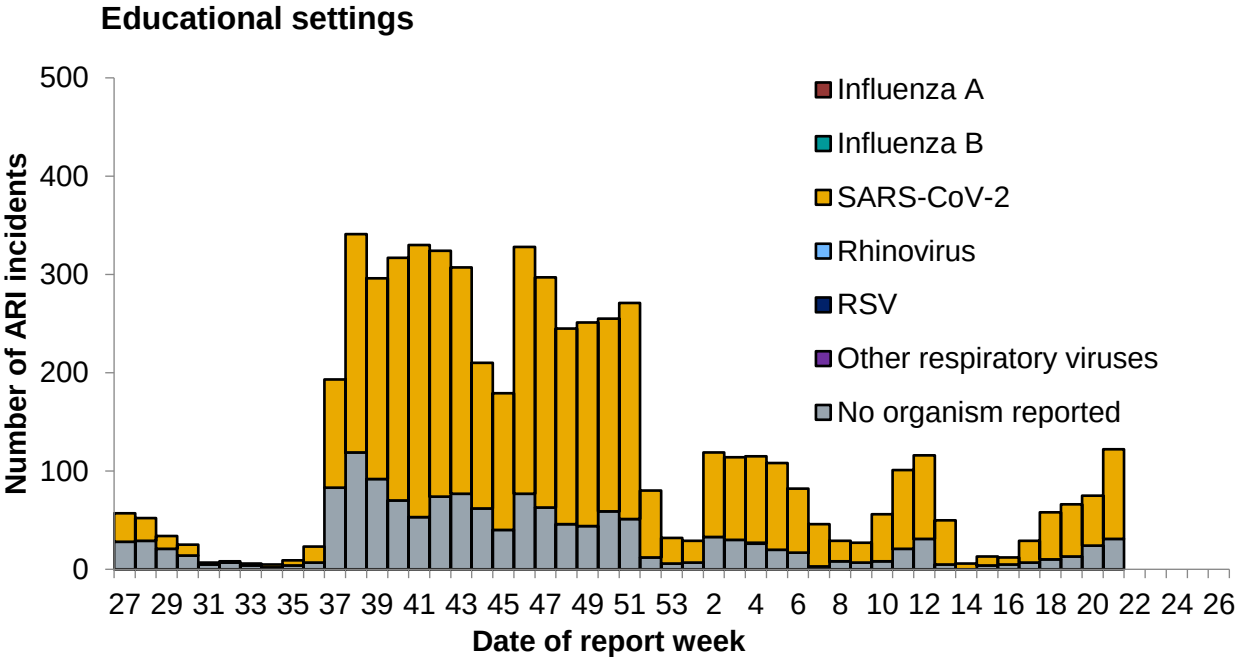


Figure 21: Number of acute respiratory infection (ARI) incidents in prisons by virus type from week 27, England

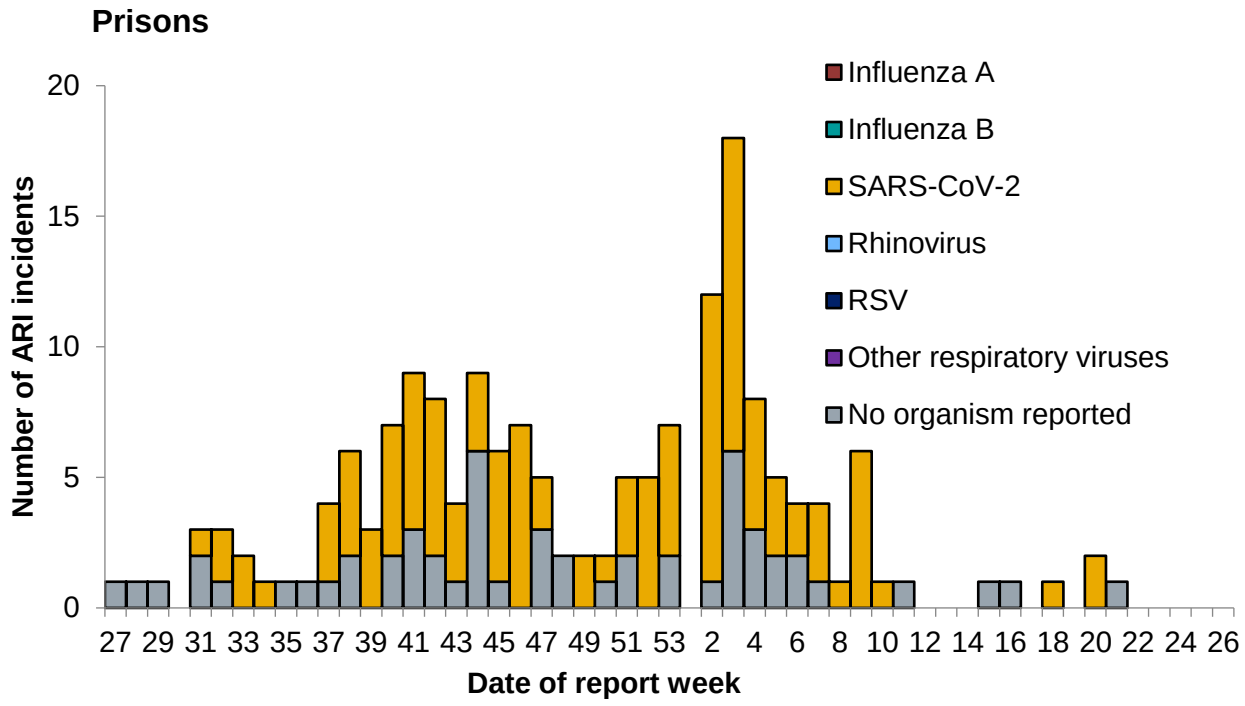


Figure 22: Number of acute respiratory infection (ARI) incidents in workplace settings by virus type from week 27, England

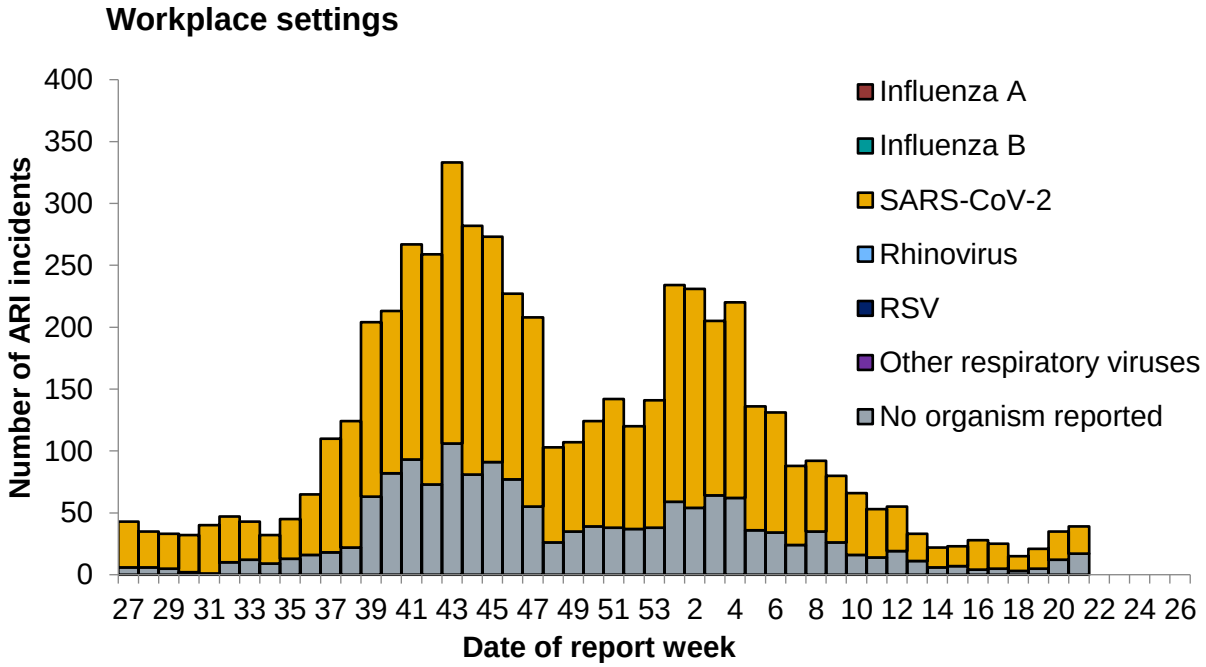


Figure 23: Number of acute respiratory infection (ARI) incidents in food outlet/restaurants settings by virus type from week 27, England

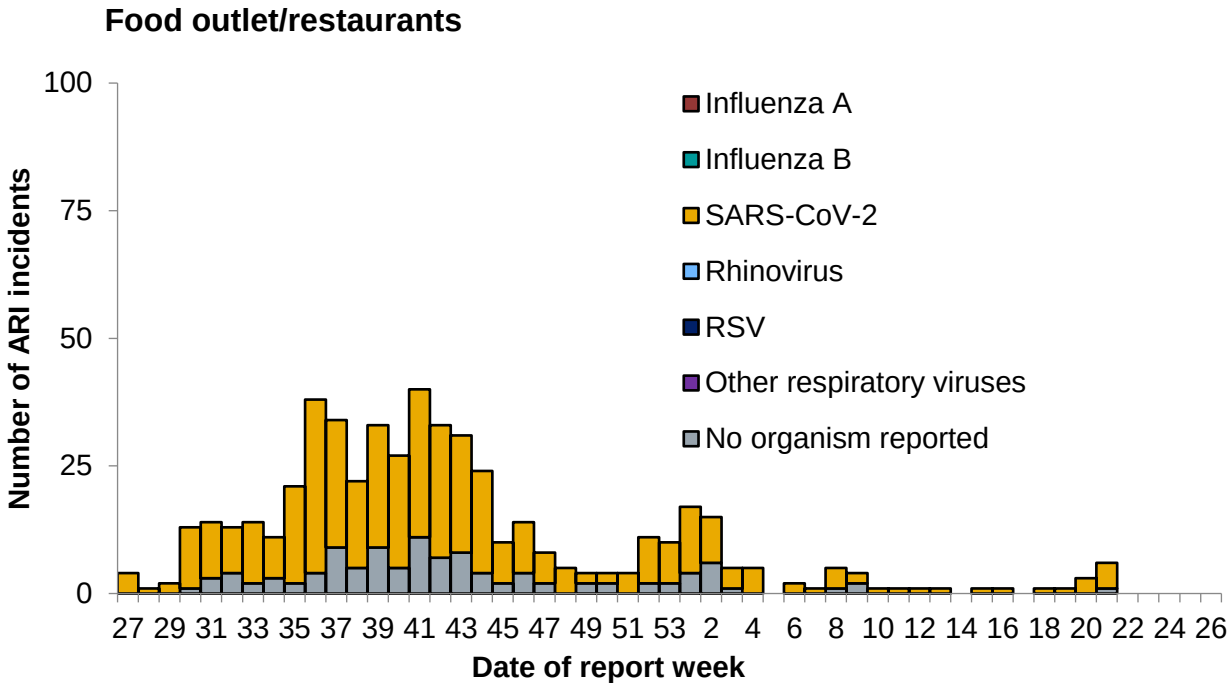


Figure 24: Number of acute respiratory infection (ARI) incidents in other settings by virus type from week 27, England

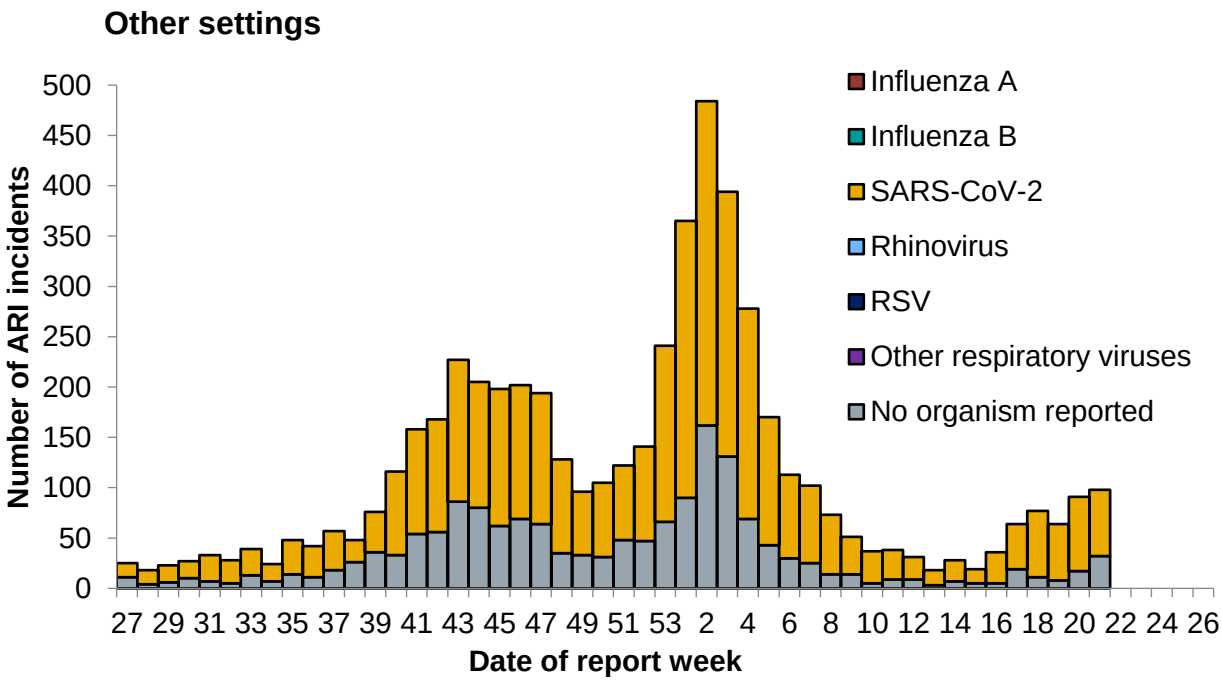


Table 2: Total number of situations/incidents by institution and PHE Centres over the past four weeks with the total number in the last week in brackets

PHE Centres	Care home	Hospital	Educational settings	Prisons	Workplace settings	Food outlet/restaurant settings	Other settings	Total
East of England	5(0)	1(0)	15(7)	1(0)	8(2)	1(0)	22(5)	53(14)
East Midlands	5(2)	0(0)	33(3)	2(0)	8(2)	1(0)	19(1)	68(8)
London	5(1)	3(0)	63(28)	0(0)	6(2)	1(1)	58(10)	136(42)
North East	3(1)	0(0)	3(0)	0(0)	3(2)	0(0)	15(8)	24(11)
North West	7(2)	1(0)	56(24)	0(0)	43(13)	6(3)	31(12)	144(54)
South East	8(3)	4(0)	43(27)	1(1)	10(7)	1(1)	97(40)	164(79)
South West	9(3)	0(0)	17(6)	0(0)	7(3)	0(0)	33(12)	66(24)
West Midlands	11(1)	2(1)	56(17)	0(0)	12(2)	1(1)	21(4)	103(26)
Yorkshire and Humber	6(0)	0(0)	35(10)	0(0)	13(6)	0(0)	34(6)	88(22)
Total	59(13)	11(1)	321(122)	4(1)	110(39)	11(6)	330(98)	846(280)

COVID-19 cases by type of residence

Table 3 shows the proportion of confirmed COVID-19 cases according to their type of residence. Property classifications are derived from Ordnance Survey AddressBase and are matched to address details within the laboratory data. Properties are identified by unique property reference number (UPRN) and basic land property unit (BLPU). Cases with poor or no address data which failed the address matching and are classed as 'undetermined'. No fixed abode and overseas addresses identified by recording in the laboratory data.

In week 21, the highest percentage of confirmed COVID-19 cases by type of residence was seen in residential dwelling (Table 3).

Table 3: Type of residence of confirmed COVID-19 cases by percentage of total weekly cases

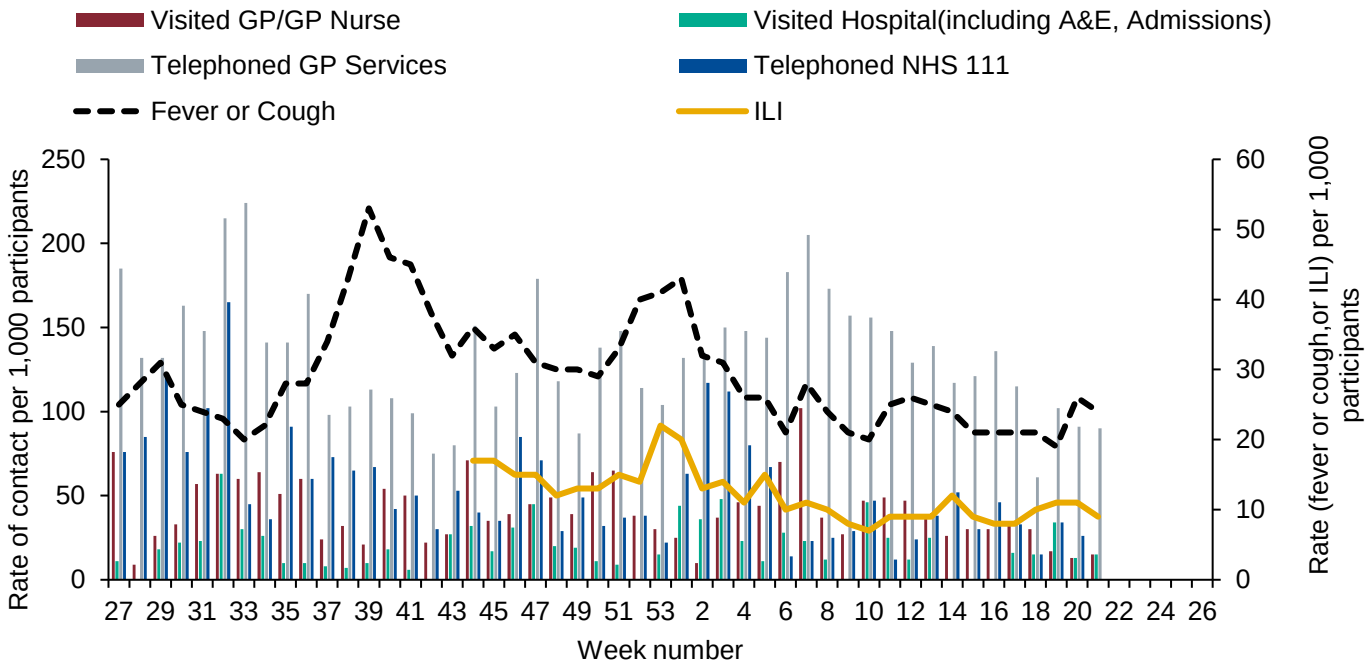
Type of residence	Week 16	Week 17	Week 18	Week 19	Week 20	Week 21
Residential dwelling (including houses, flats, sheltered accommodation)	91.7	92.0	92.8	93.4	93.8	94.3
Undetermined	4.3	3.9	3.2	3.2	2.9	2.6
Care/Nursing home	0.6	0.6	0.6	0.5	0.4	0.4
Residential institution (including residential education)	0.5	0.5	0.5	0.6	0.6	0.4
Other property classifications	1.4	1.2	1.2	0.9	0.9	0.7
House in multiple occupancy (HMO)	0.5	0.7	0.7	0.6	0.6	0.6
Medical facilities (including hospitals and hospices, and mental health)	0.8	0.7	0.8	0.7	0.8	1.1
Prisons, detention centres, secure units	0.2	0.3	0.3	0.1	0.1	0.0
Overseas address	0.0	0.0	0.0	0.0	0.0	0.0
No fixed abode	0.0	0.0	0.0	0.0	0.0	0.0

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.
Note: 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 2,856 participants completed the weekly surveillance survey in week 21, of which 67 (2.4%) reported fever or cough and 25 (0.9%) reported influenza like illness (ILI). The most commonly used healthcare services reported by respondents remains telephoning a GP practice (Figure 25).

Figure 25: Rate of contact with different healthcare services among FluSurvey participants reporting fever or cough symptoms, England

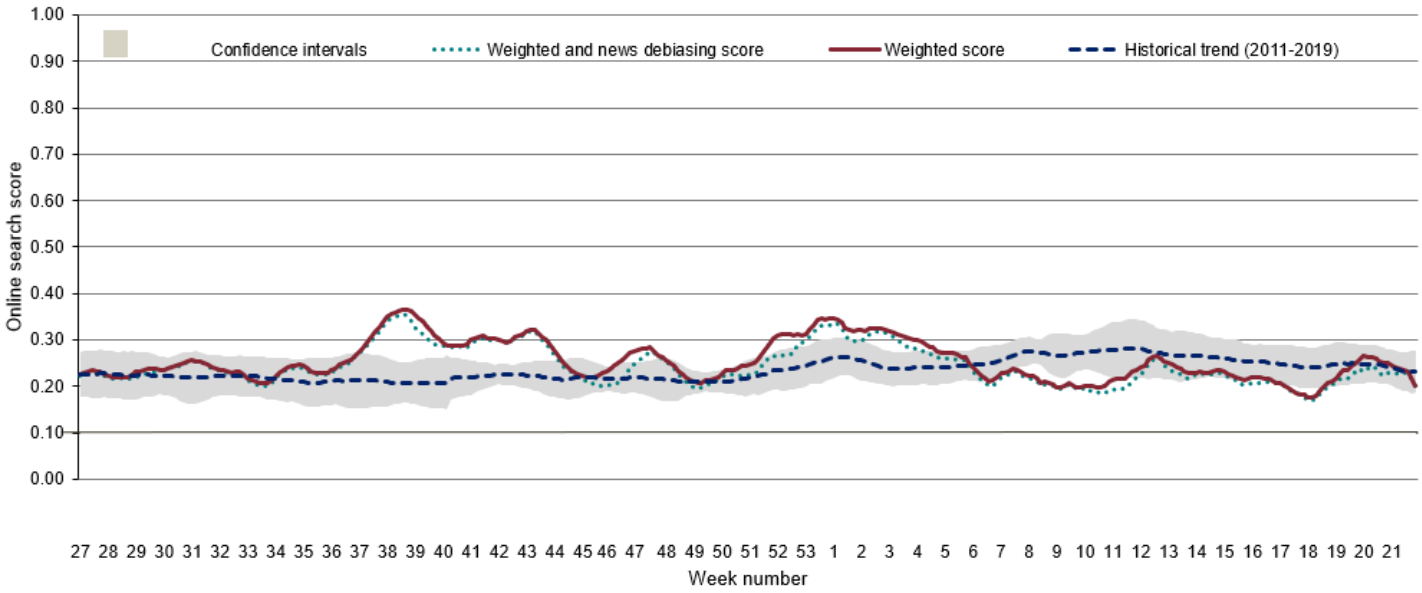


Google search queries

This is a web-based syndromic surveillance system which uses daily search query frequency statistics obtained from the Google Health Trends API. This model focuses on search queries about COVID-19 symptoms as well as generic queries about "coronavirus" (e.g. "covid-19"). The search query frequency time series has been 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 here.

During week 21, the overall and media-debiasing weighted Google search scores decreased slightly (Figure 26).

Figure 26: Normalised Google search score for COVID-19 symptoms, with weighted score for media-debiasing and historical trend, England



NHS 111

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.

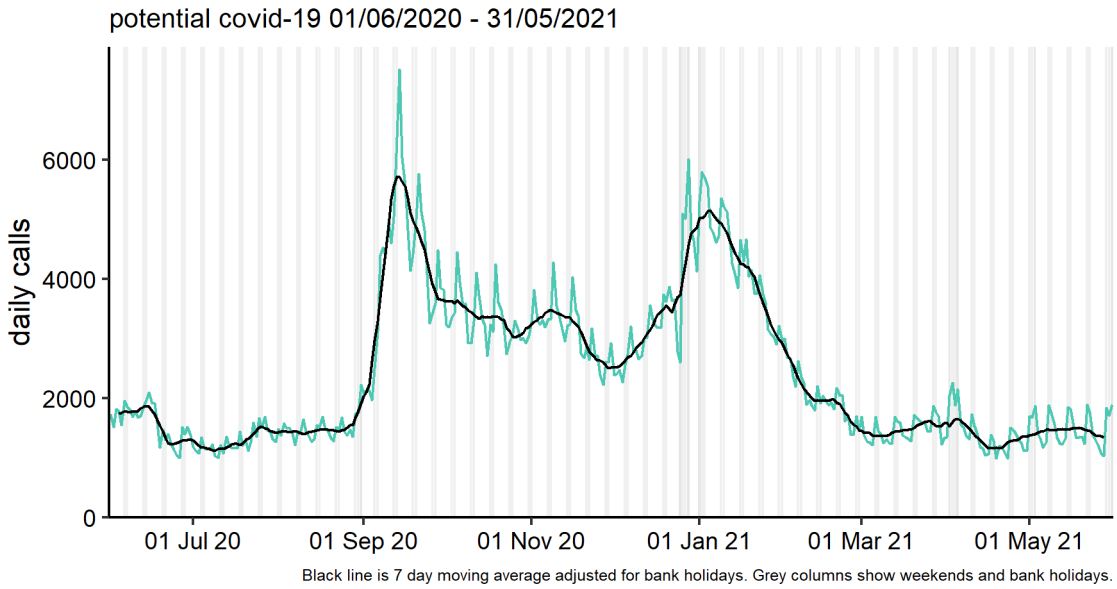
Up to 30 May, NHS 111 calls for cold/flu increased, while calls for potential COVID-19 and loss of taste or smell remained stable. Online assessments for cold/flu, potential COVID-19 and loss of taste or smell remained stable (Figure 27 and 28).

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

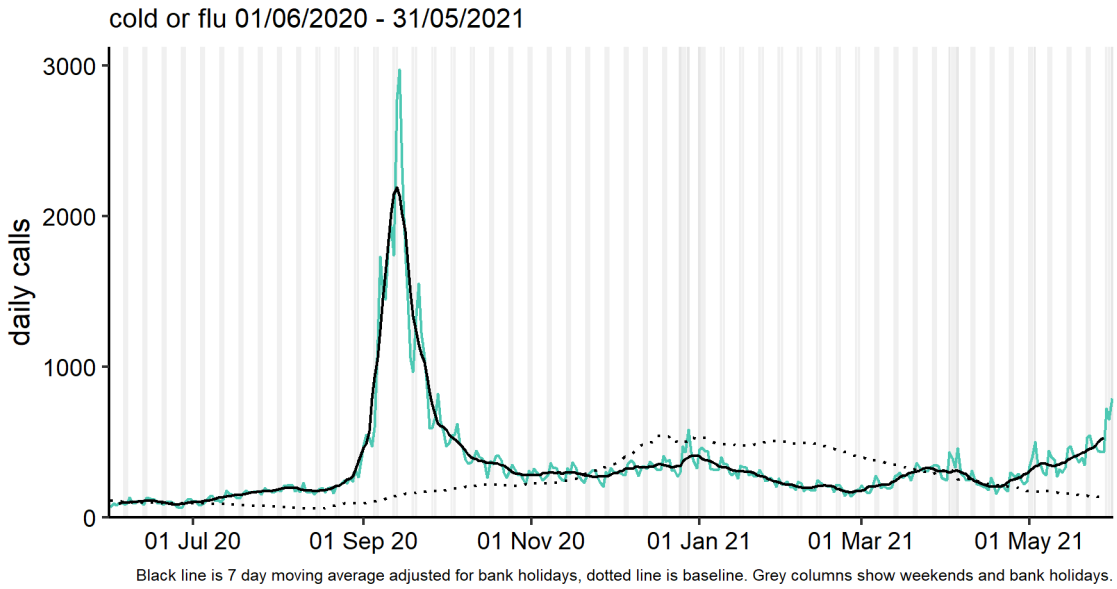
Further information about these caveats is available from the PHE Remote Health Advice Syndromic Surveillance bulletin.

Figure 27: NHS 111 telephony indicators (and 7-day moving average) for (a) daily potential COVID-19 calls, (b) daily cold/flu calls and (c) daily loss of taste or smell calls, as a percentage of total calls for all ages, England

(a)



(b)


cold or flu 01/06/2020 - 31/05/2021
daily calls
3000
2000
1000
0
01 Jul 20
01 Sep 20
01 Nov 20
01 Jan 21
01 Mar 21
01 May 21
Black line is 7 day moving average adjusted for bank holidays, dotted line is baseline. Grey columns show weekends and bank holidays.

(c)

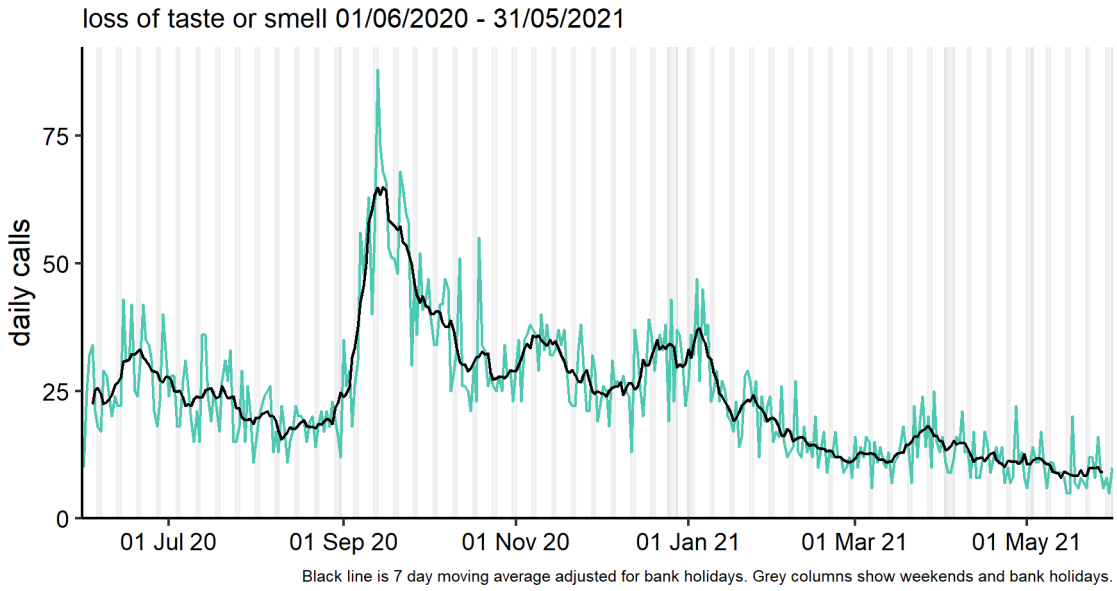
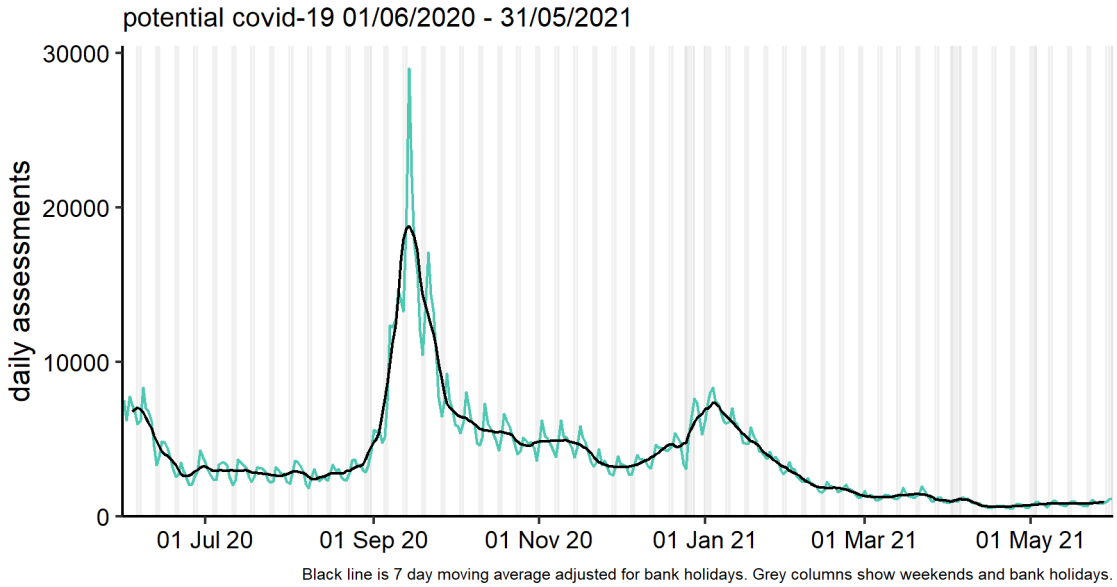
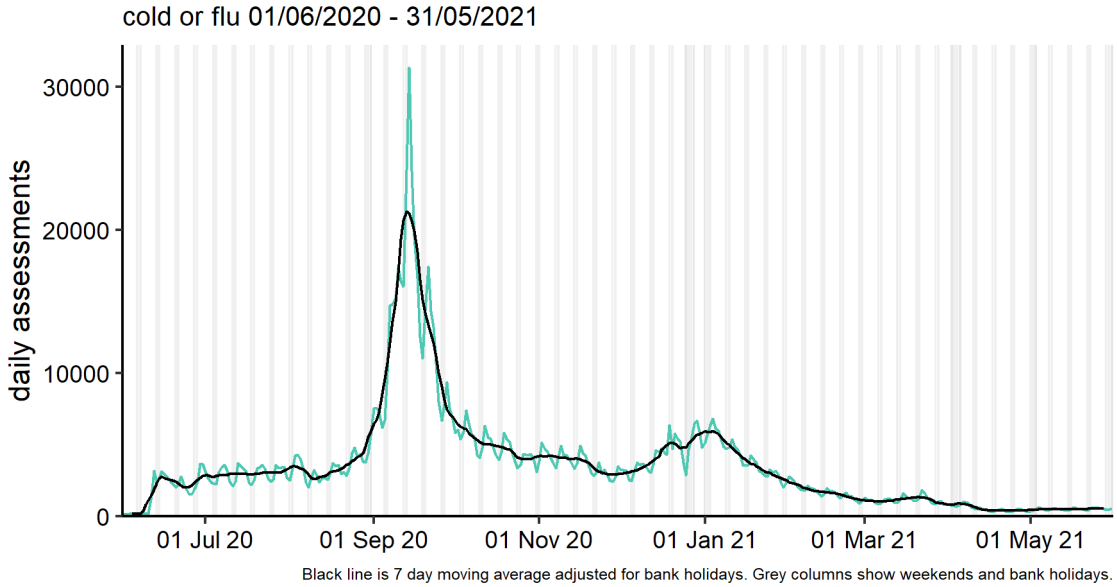

loss of taste or smell 01/06/2020 - 31/05/2021
daily calls
75
50
25
0
01 Jul 20
01 Sep 20
01 Nov 20
01 Jan 21
01 Mar 21
01 May 21
Black line is 7 day moving average adjusted for bank holidays. Grey columns show weekends and bank holidays.

Figure 28: NHS 111 completed online assessments (and 7-day moving average) for (a) daily potential COVID-19 online assessments, (b) daily cold/flu online assessments and (c) daily loss of taste or smell online assessments, as the number of completed online assessments for all ages, England

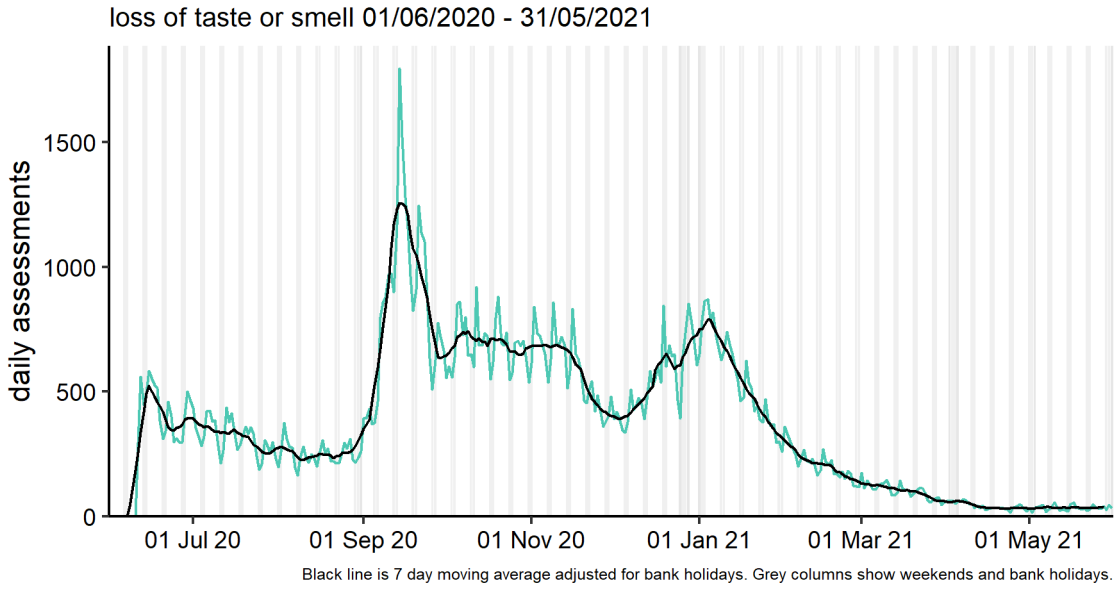
(a)



(b)



(c)


loss of taste or smell 01/06/2020 - 31/05/2021
daily assessments
1500
1000
500
0
01 Jul 20
01 Sep 20
01 Nov 20
01 Jan 21
01 Mar 21
01 May 21
Black line is 7 day moving average adjusted for bank holidays. Grey columns show weekends and bank holidays.

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 21 compared to 0.9 per 100,000 in the previous week. This is below the baseline threshold (12.2 per 100,000) (Figure 29). By age group, the highest rates were seen in the 1 to 4-year olds (3.1 per 100,000). The Lower Respiratory Tract Infections (LRTI) consultation rate was at 29.4 per 100,000 in week 21, compared to the rate of 29.6 per 100,000 in the previous week. The COVID-19-like indicator consultation rate was at 3.4 per 100,000 in week 21 compared to a rate of 3.6 per 100,000 in the previous week (Figure 30).

Figure 29: RCGP ILI consultation rates, all ages, England

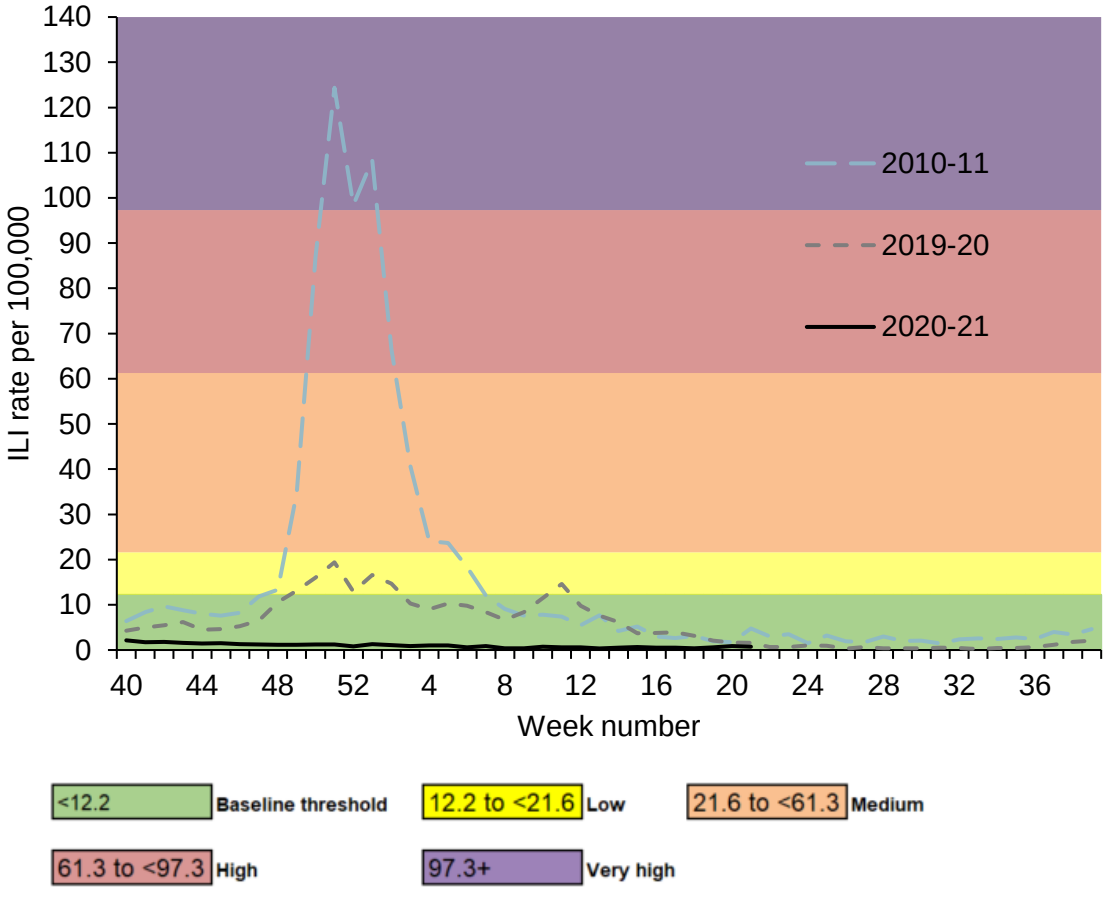
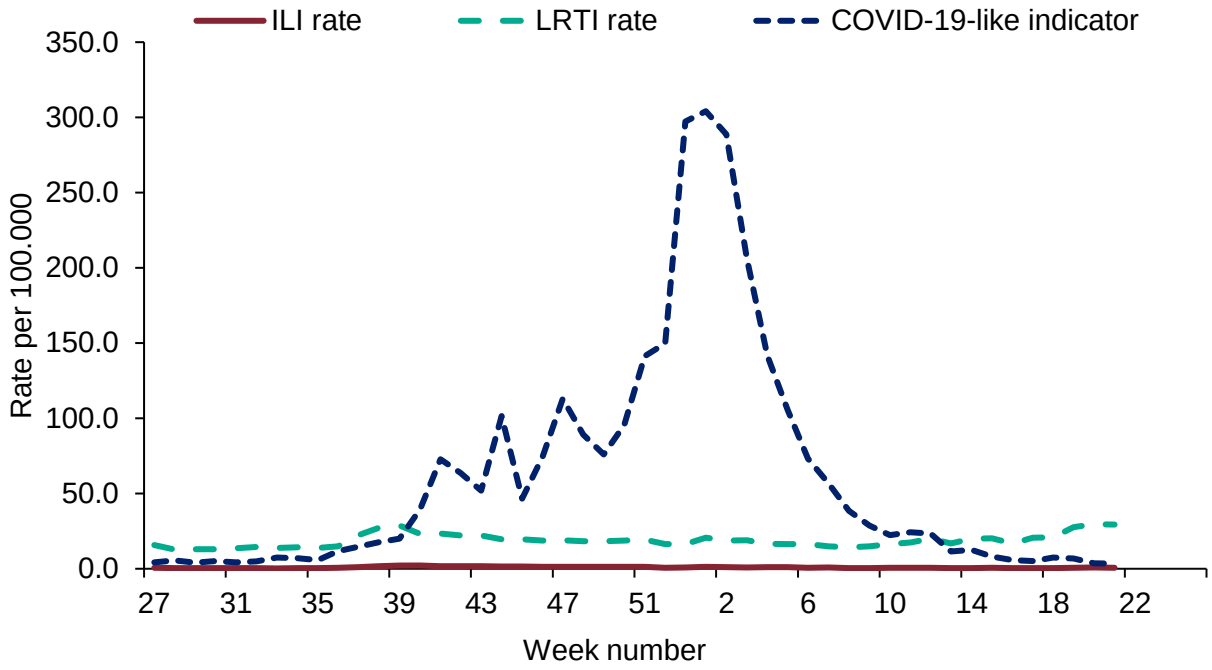


Figure 30: RCGP ILI, LRTI and COVID-19-like indicator consultation rates, England



UK

Overall, weekly ILI consultations rates were below baseline levels in all UK schemes (Table 4).

By age group, the highest rates were seen in the 45-64-year olds in Scotland (0.5 per 100,000) and the over 75-year olds in Northern Ireland (0.9 per 100,000).

Table 4: GP ILI consultations in the UK for all ages with MEM thresholds applied

GP ILI consultation rates (all ages)	Week number																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
England (RCGP)	1.3	1.1	0.9	1.0	1.0	0.6	0.9	0.4	0.4	0.7	0.6	0.6	0.3	0.5	0.6	0.5	0.5	0.4	0.6	0.9	0.7
Wales	0.5	1.0	0.8	0.7	0.5	0.3	0.8	0.3	1.0	0.5	0.0	1.0	0.5	0.5	0.5	0.0	0.0	0.3	0.8		
Scotland	0.5	0.6	0.5	0.4	0.5	0.4	0.5	0.5	0.3	0.2	0.3	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.3	0.2	0.2
Northern Ireland	3.4	2.4	2.1	1.0	1.6	0.8	0.8	1.1	0.8	0.7	0.6	0.6	0.4	0.3	0.8	0.4	0.7	0.1	0.5	0.5	0.4

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 2009/10), in a standardised approach across Europe. For MEM threshold values for each country, please visit: https://www.gov.uk/guidance/sources-of-uk-flu-data-influenza-surveillance-in-the-uk#clinical-surveillance-through-primary-care

GP In Hours, Syndromic Surveillance

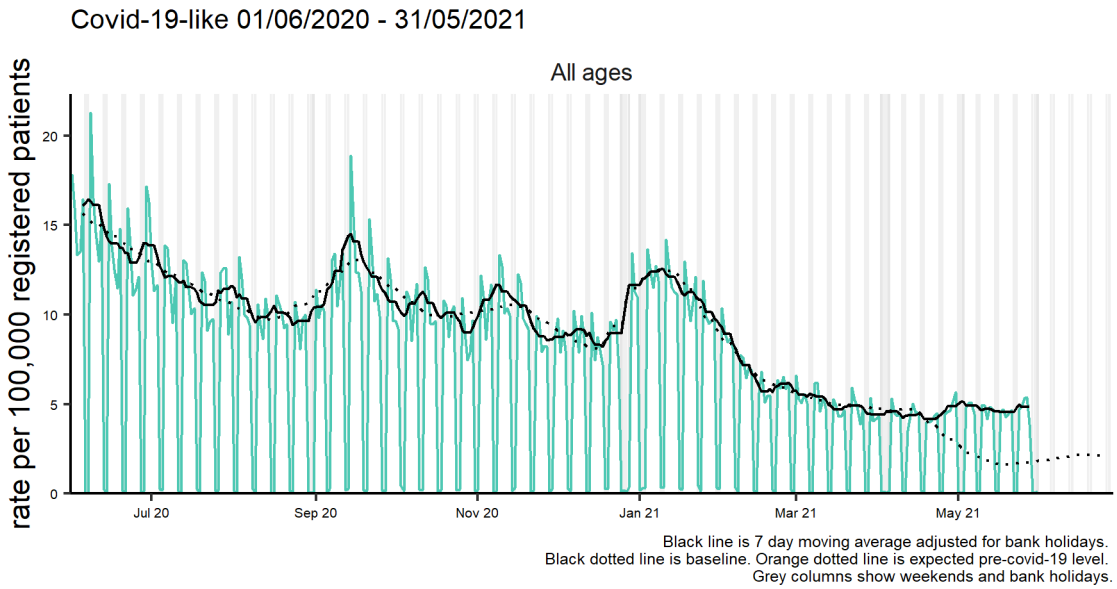
The GP In Hours (GPIH) syndromic surveillance system monitors the number of GP visits during regular hours of known clinical indicators.

Up to 30 May GP in-hours consultations for potential COVID-19 remained stable, while consultations for influenza-like illness remained similar to baseline levels (Figure 31).

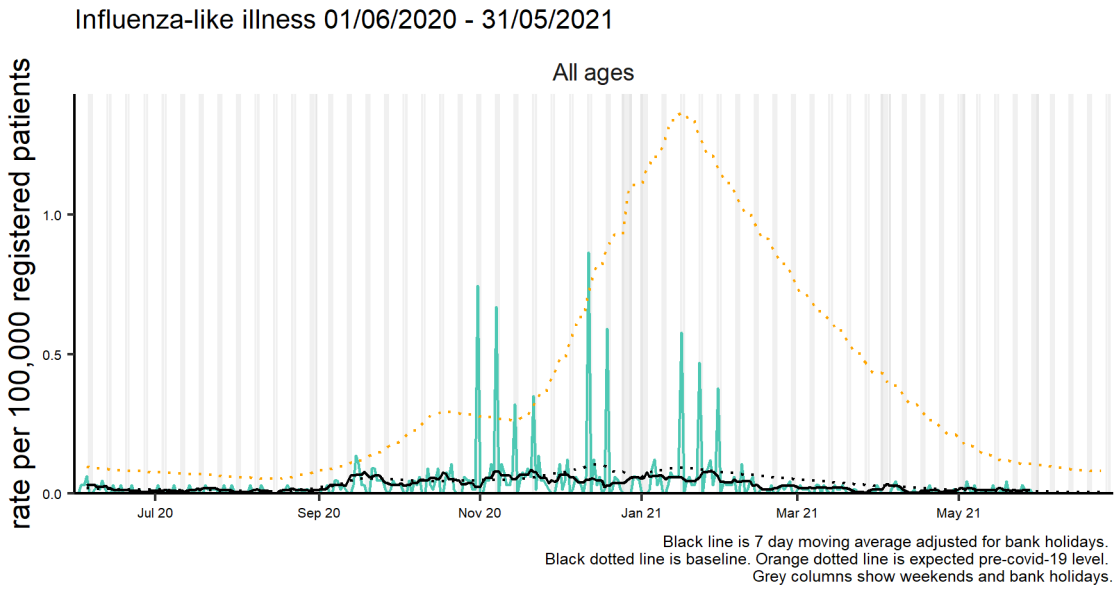
Further information about caveats is available from the PHE GP In Hours Syndromic Surveillance bulletin.

Figure 31: GPIH clinical indicators for (a) potential COVID-19 GP consultations and (b) influenza-like illness GP consultations, England

(a)



(b)



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.

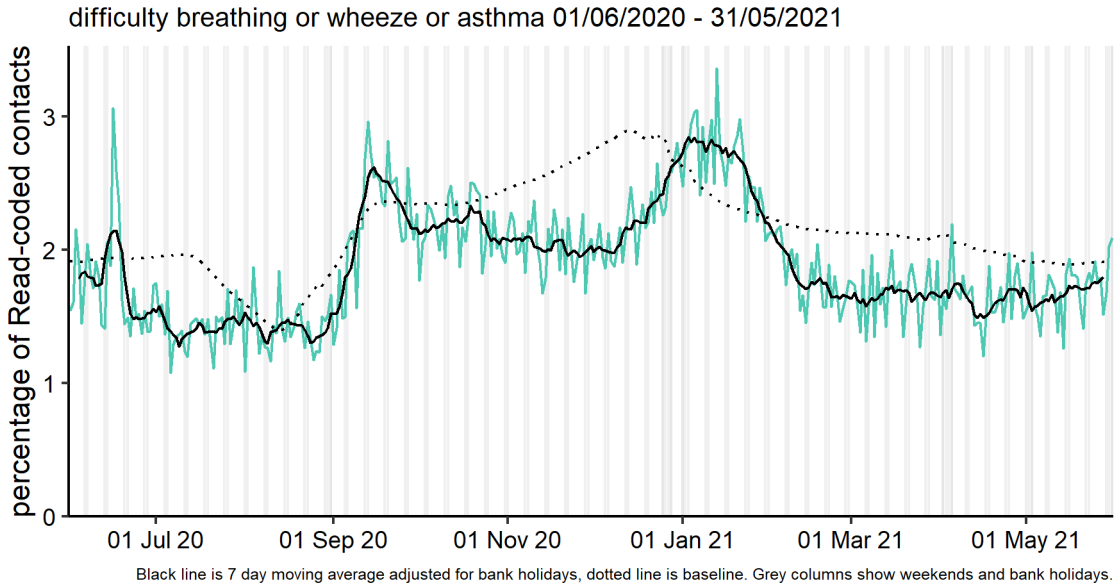
GP Out of Hours, Syndromic Surveillance

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.

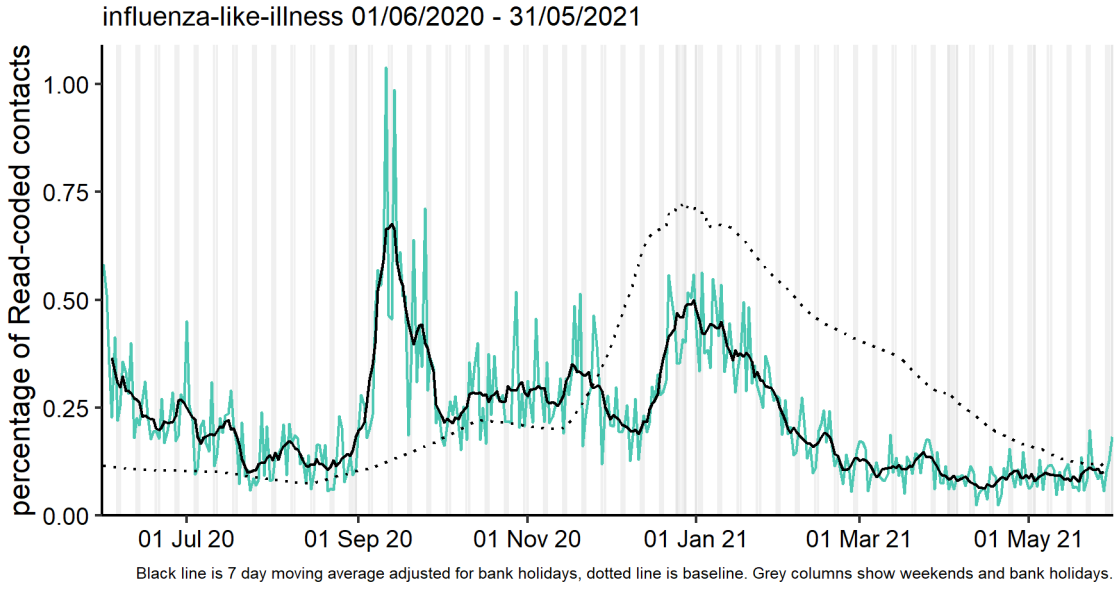
Up to 30 May, GP out-of-hours and unscheduled care consultations for influenza-like illness remained stable, while consultations for acute respiratory infections and difficulty breathing/asthma/wheeze increased (Figure 32).

Figure 32: GPOOH daily contacts (%) for (a) difficulty breathing/wheeze/asthma, (b) influenza-like illness and (c) acute respiratory infections, England

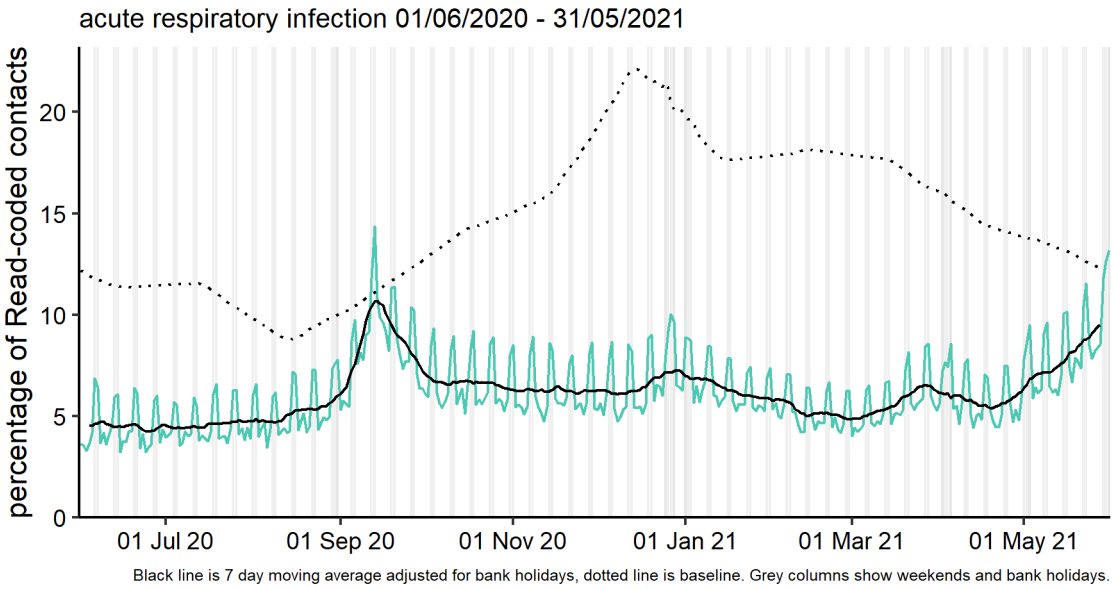
(a)



(b)



(c)

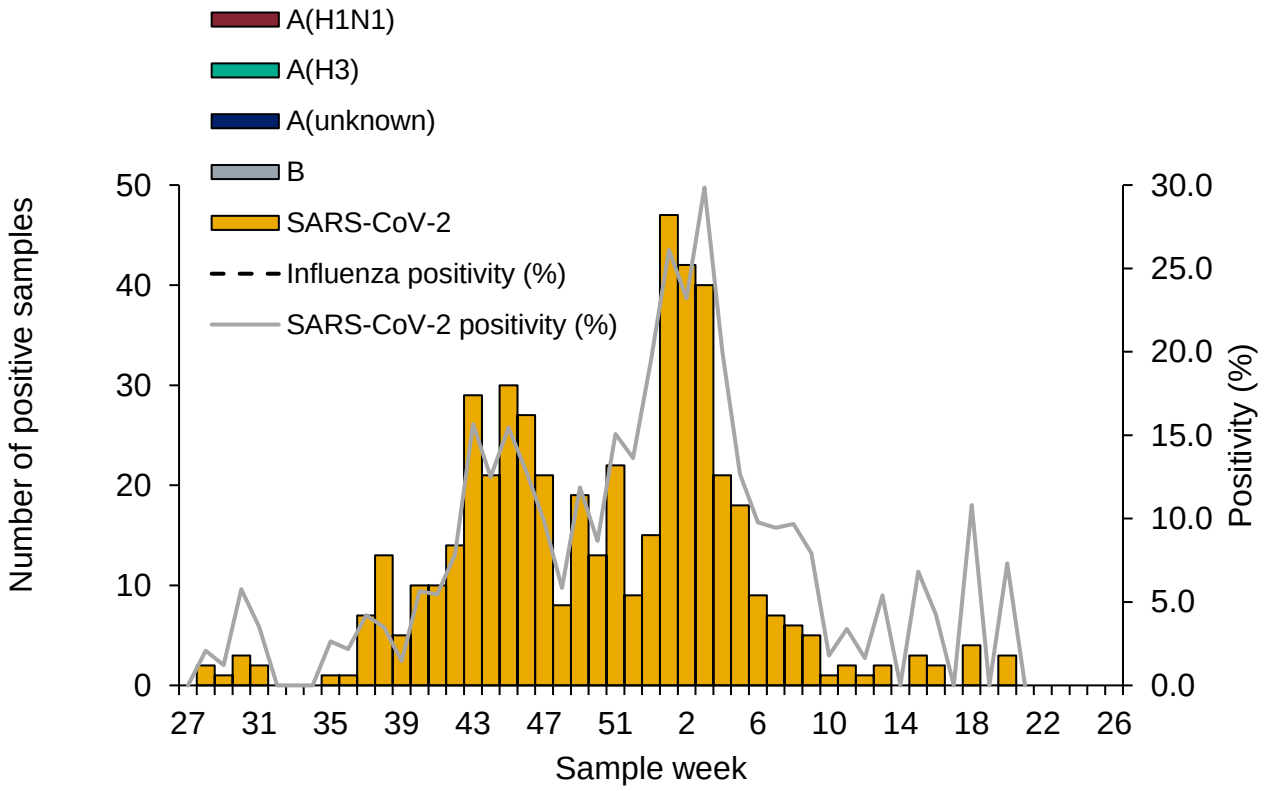

acute respiratory infection 01/06/2020 - 31/05/2021
percentage of Read-coded contacts
0
5
10
15
20
01 Jul 20
01 Sep 20
01 Nov 20
01 Jan 21
01 Mar 21
01 May 21
Black line is 7 day moving average adjusted for bank holidays, dotted line is baseline. Grey columns show weekends and bank holidays.

Sentinel swabbing scheme in the UK

In week 21 2021, no samples tested positive for SARS-CoV-2 with an overall positivity of 0.0% (0/33) compared to 7.3% (3/41) in the previous week, through the UK GP sentinel swabbing schemes (Figure 33).

Samples up to week 41 were only tested for SARS-CoV-2.

Figure 33: Number of influenza and COVID-19 positive samples and weekly positivity (%), UK GP sentinel swabbing scheme



*For the most recent week, more samples are expected to be tested therefore the graph in Figure 34 should be interpreted with caution
*Positivity (%) is not calculated when the total number tested is less than 10

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/HDU) in NHS acute trusts across England. This has replaced the 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 and influenza 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.

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

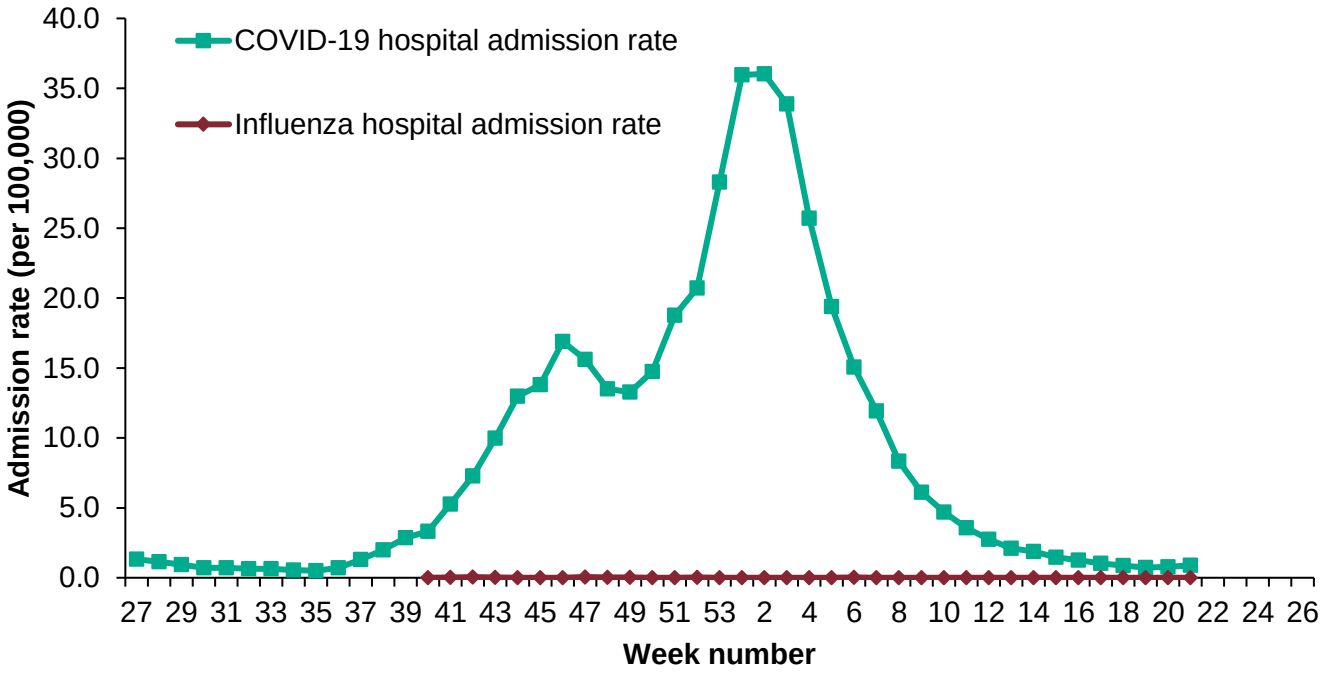
Hospitalisations, SARI Watch

In week 21, the overall weekly hospital admission rate for COVID-19 increased slightly. There were no new hospital admissions for influenza in week 21.

The hospitalisation rate for COVID-19 was at 0.89 per 100,000 in week 21 compared to 0.79 per 100,000 in the previous week.

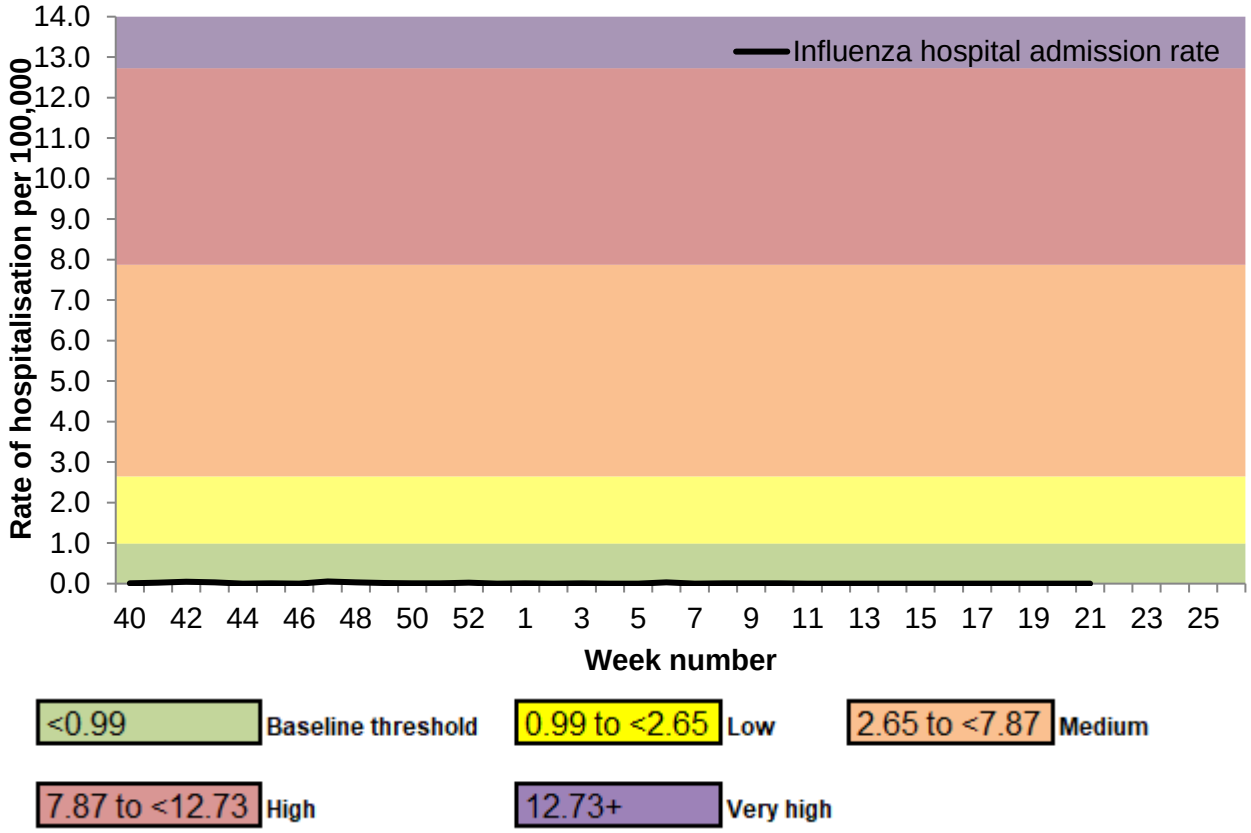
By PHE centre, the highest hospital admission rate for COVID-19 was observed in the West Midlands. By age groups, the highest hospital admission rate for confirmed COVID-19 was in the 85+ year olds.

Figure 34: Weekly overall hospital admission rates per 100,000 of new COVID-19 and influenza positive cases reported through SARI Watch, England



* influenza hospital admission rate is reported from week 40 2020 onwards
* influenza hospital admission rate based on 19 sentinel NHS trusts for week 21
* COVID-19 hospital admission rate based on 112 NHS trusts for week 21
* SARI Watch data are provisional.

Figure 35: Weekly overall influenza hospital admission rates per 100,000 trust catchment population with MEM thresholds, SARI Watch, England



* the MEM thresholds used are those from the 2019/20 season due to the pandemic

Figure 36: Weekly influenza hospital admissions by influenza type, SARI Watch, England

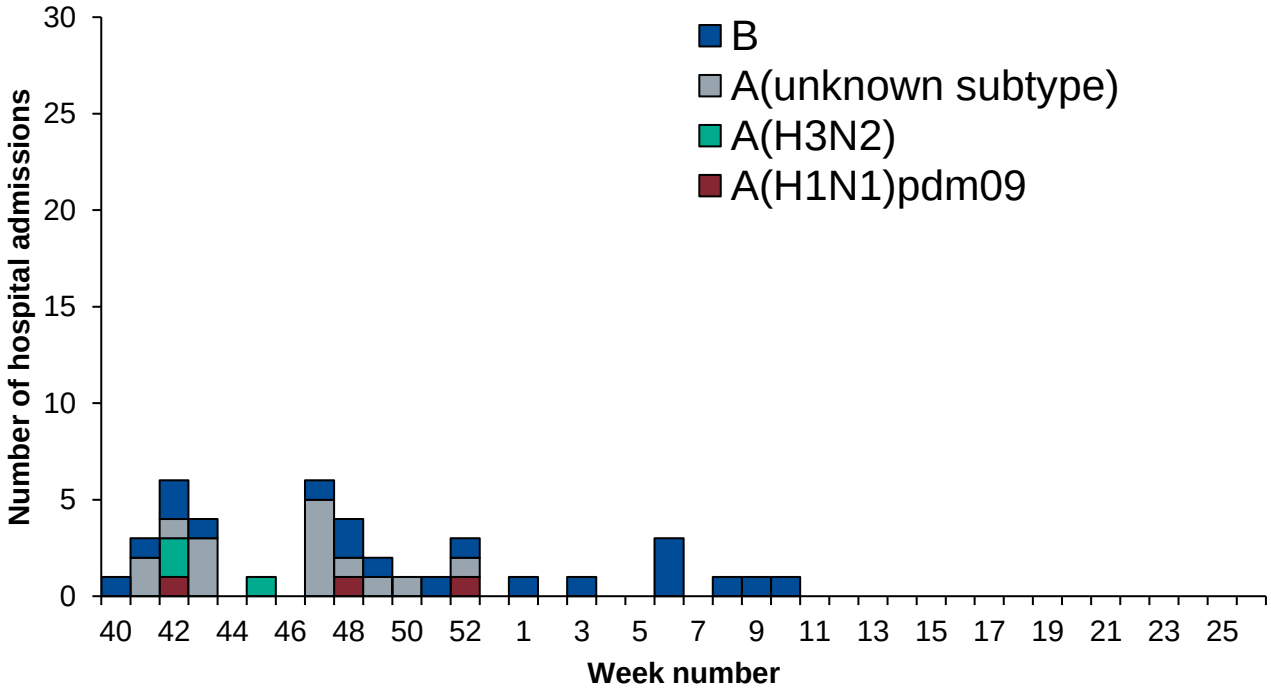
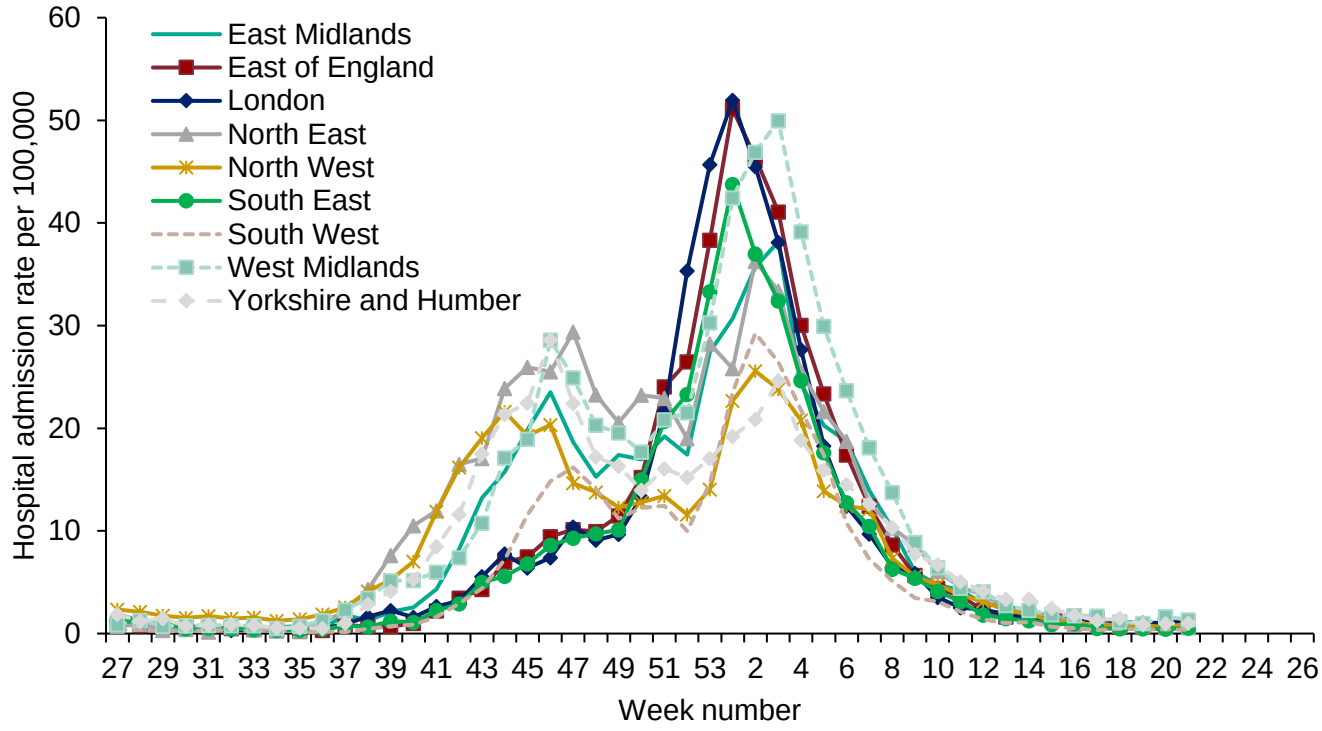


Figure 37: Weekly hospital admission rate by PHE Centre for new (a) COVID-19 positive cases and (b) influenza reported through SARI Watch

(a)



(b)

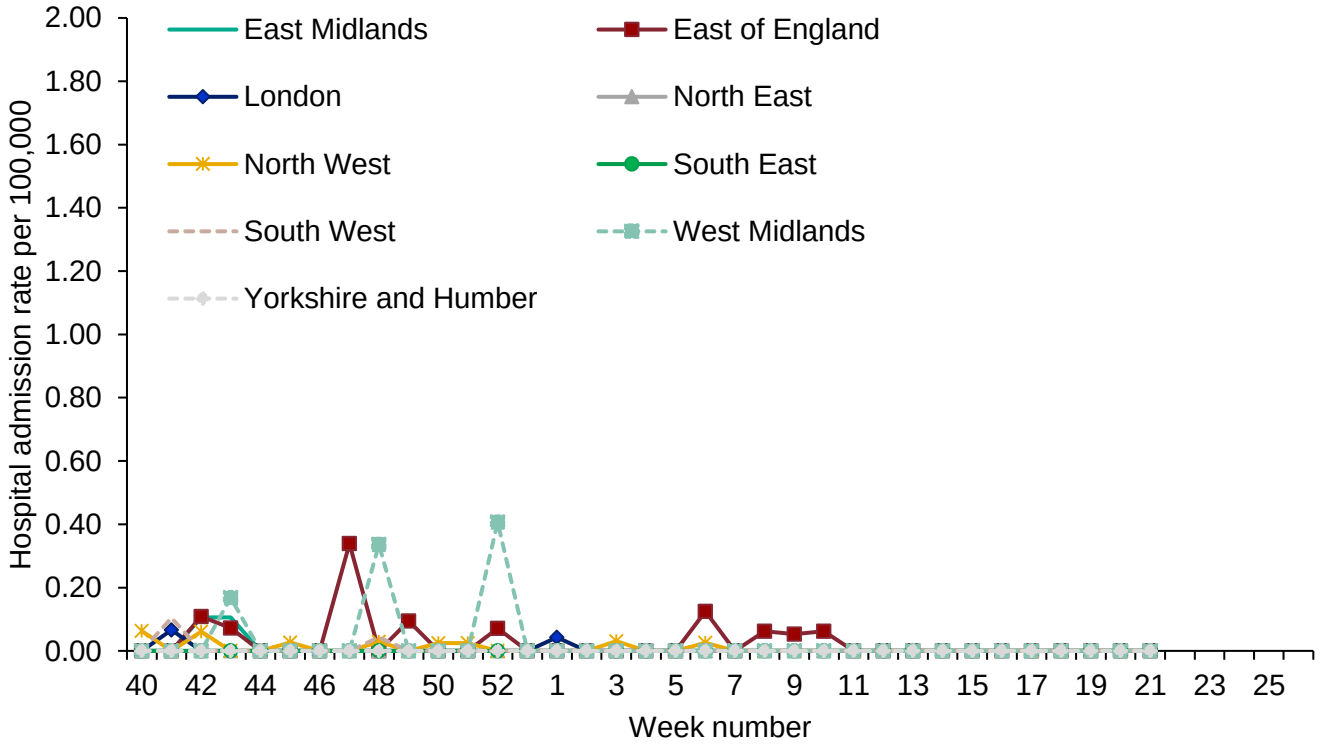
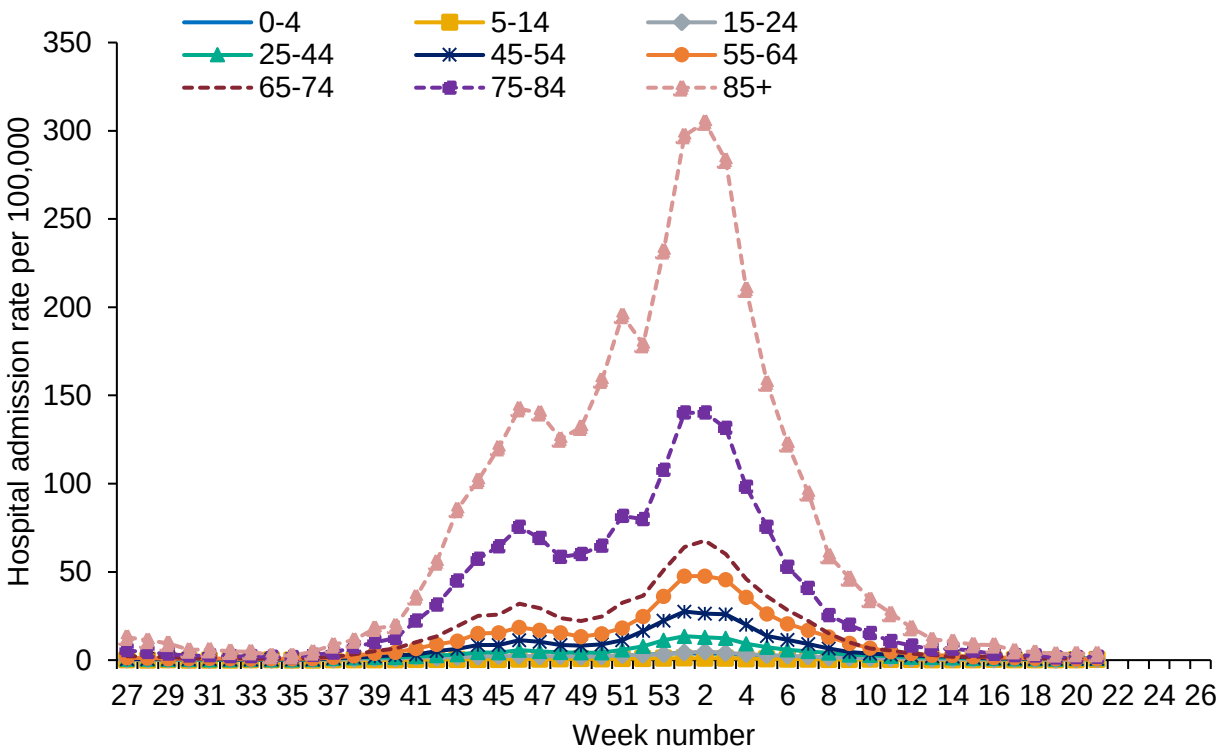
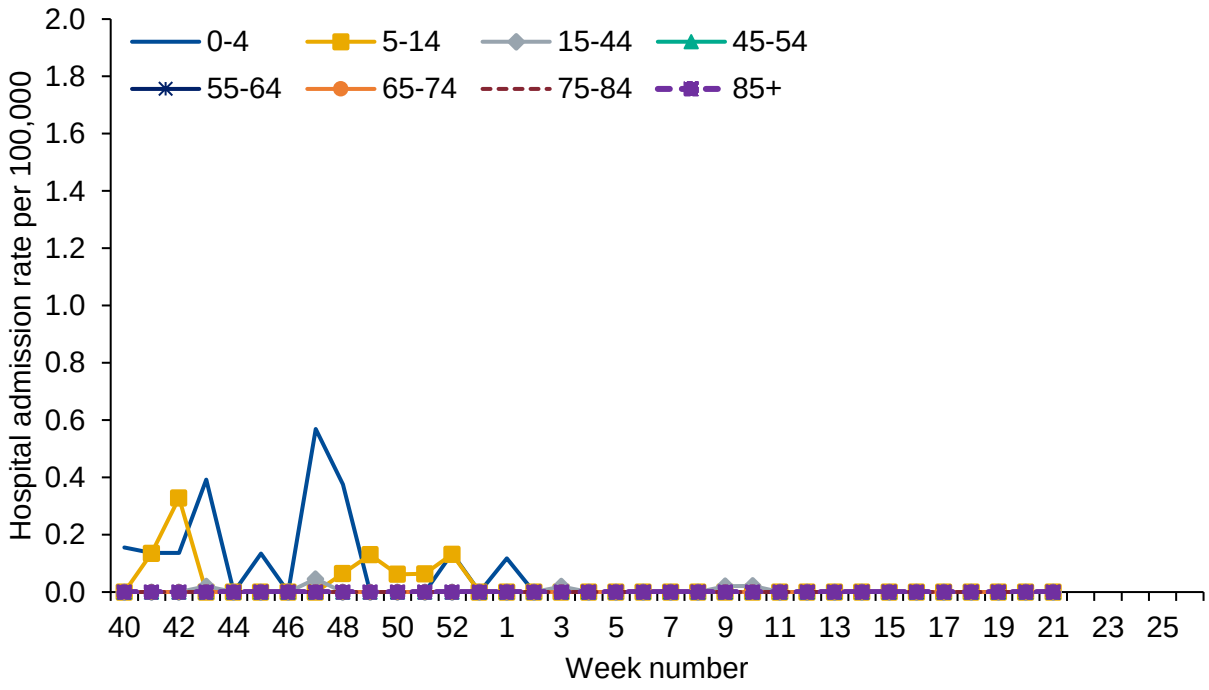


Figure 38: Weekly hospital admission rate by age group for new (a) COVID-19 positive cases and (b) influenza reported through SARI Watch

(a)



(b)



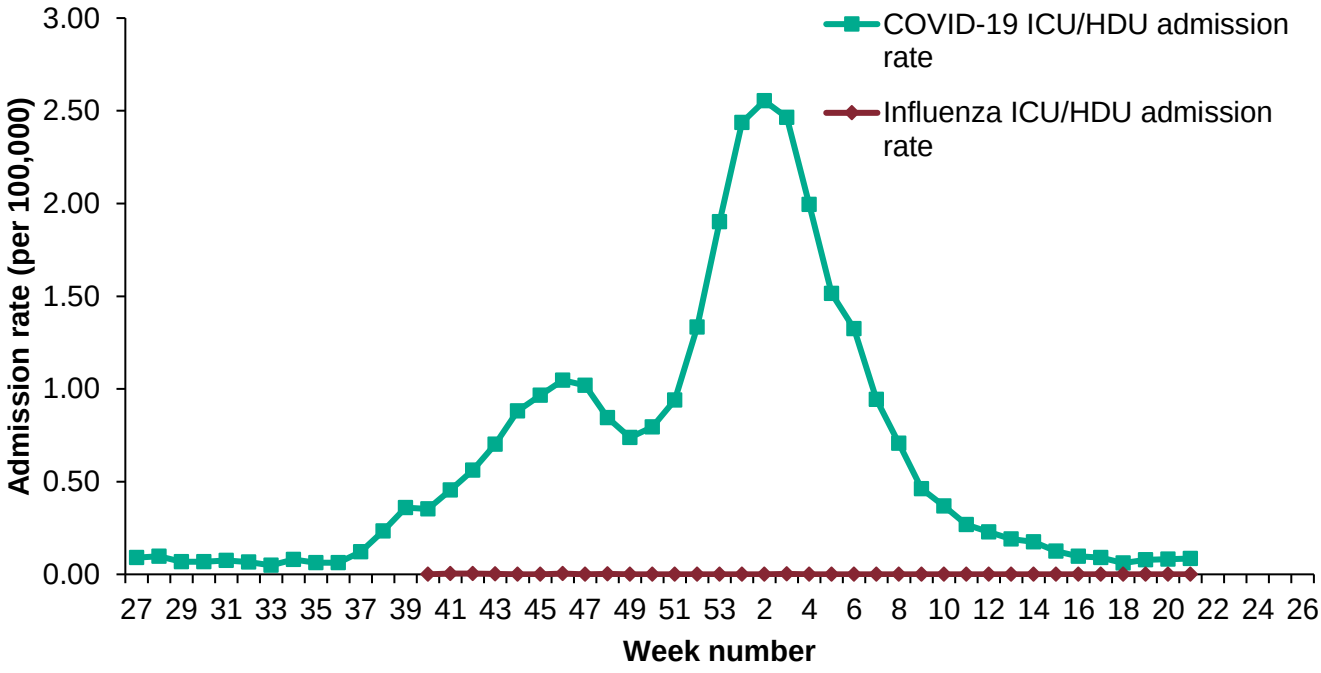
ICU/HDU admissions, SARI Watch

In week 21, the overall weekly ICU/HDU admission rates for COVID-19 remained stable. There were no new ICU/HDU admissions for influenza in week 21.

The ICU/HDU rate for COVID-19 was at 0.09 per 100,000 in week 21 compared to 0.08 per 100,000 in the previous week.

By PHE Centre, the highest ICU/HDU admission rates for COVID-19 were observed in London. By age groups, the highest ICU/HDU admission rates for COVID-19 were observed in the 65 to 74-year olds.

Figure 39: Weekly overall ICU/HDU admission rates per 100,000 of new COVID-19 and influenza positive cases reported through SARI Watch, England



* influenza ICU/HDU admission rate is reported from week 40 2020 onwards
* influenza ICU/HDU admission rate based on 81 NHS trusts for week 21
* COVID-19 ICU/HDU admission rate based on 109 NHS trusts for week 21
* SARI Watch data are provisional.

Figure 40: Weekly overall influenza ICU/HDU admission rates per 100,000 trust catchment population with MEM thresholds, SARI Watch, England

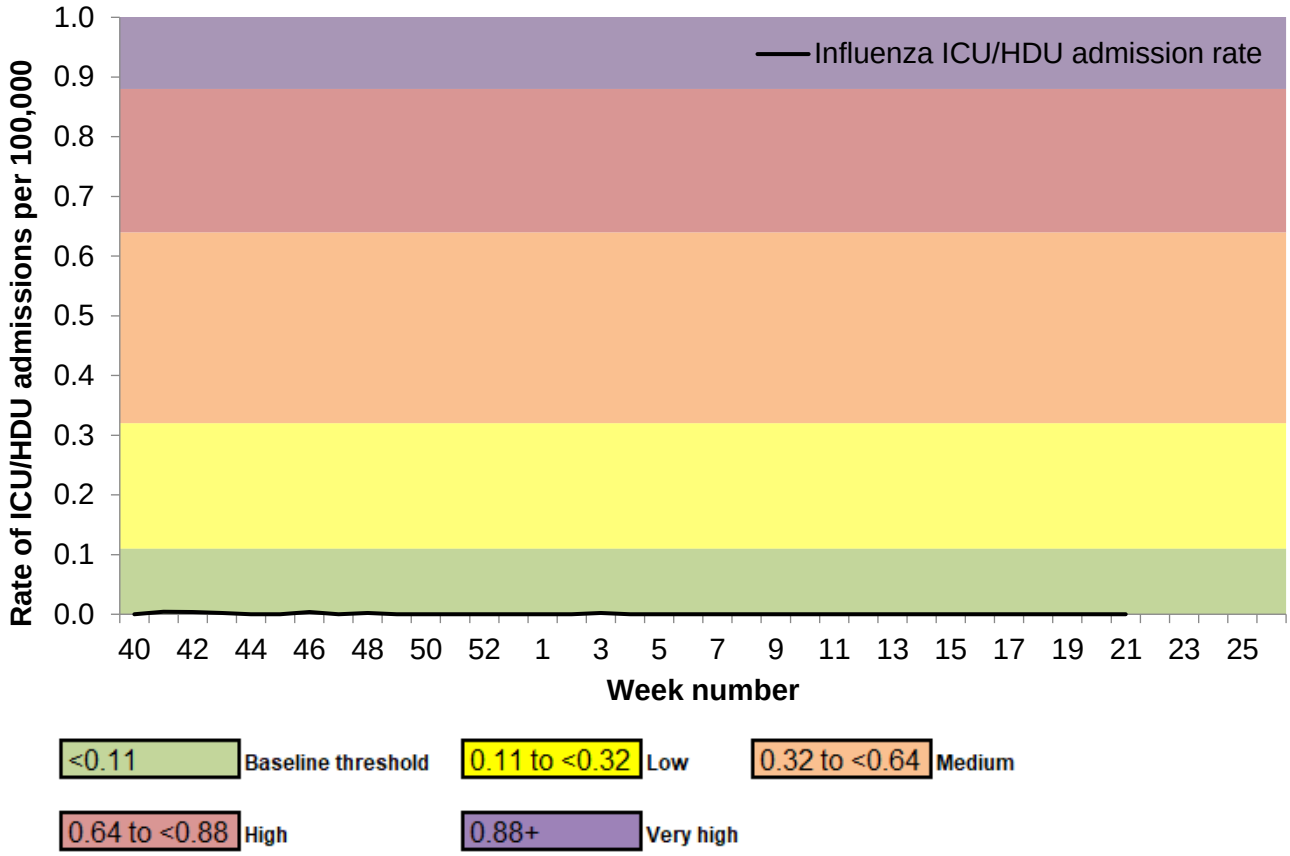


Figure 41: Weekly influenza ICU/HDU admissions by influenza type, SARI Watch, England

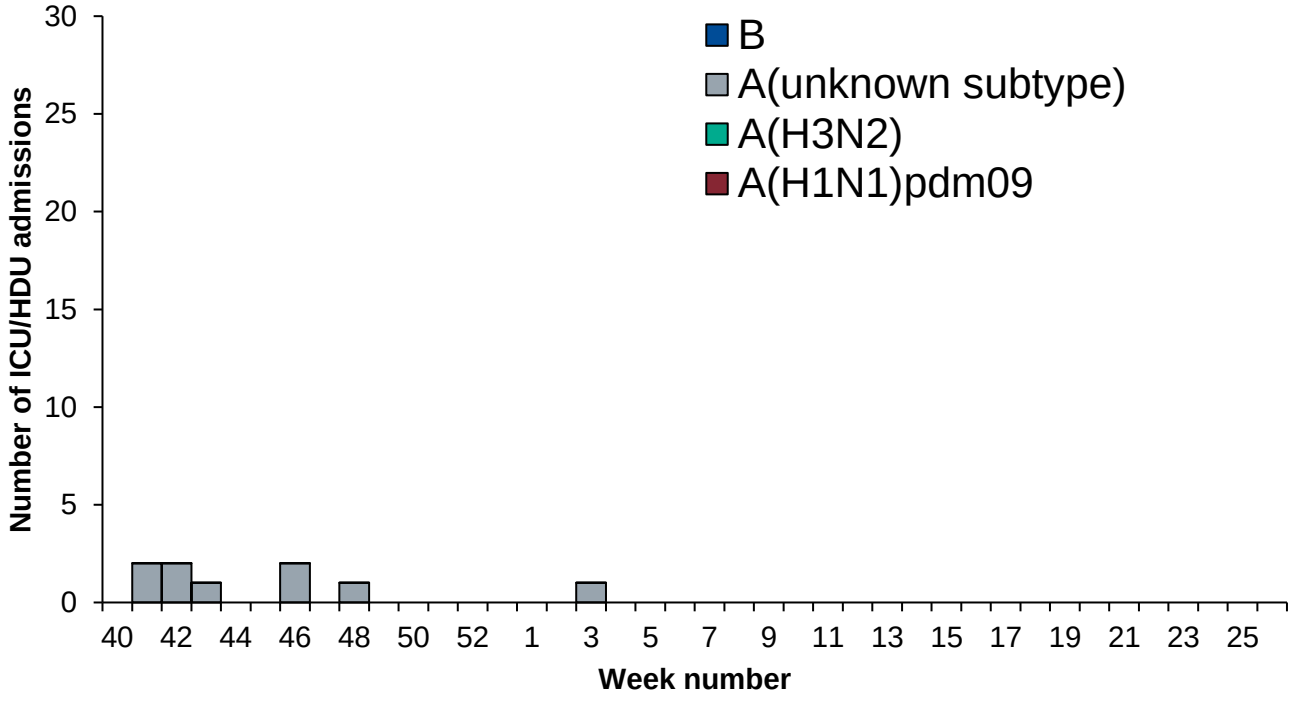
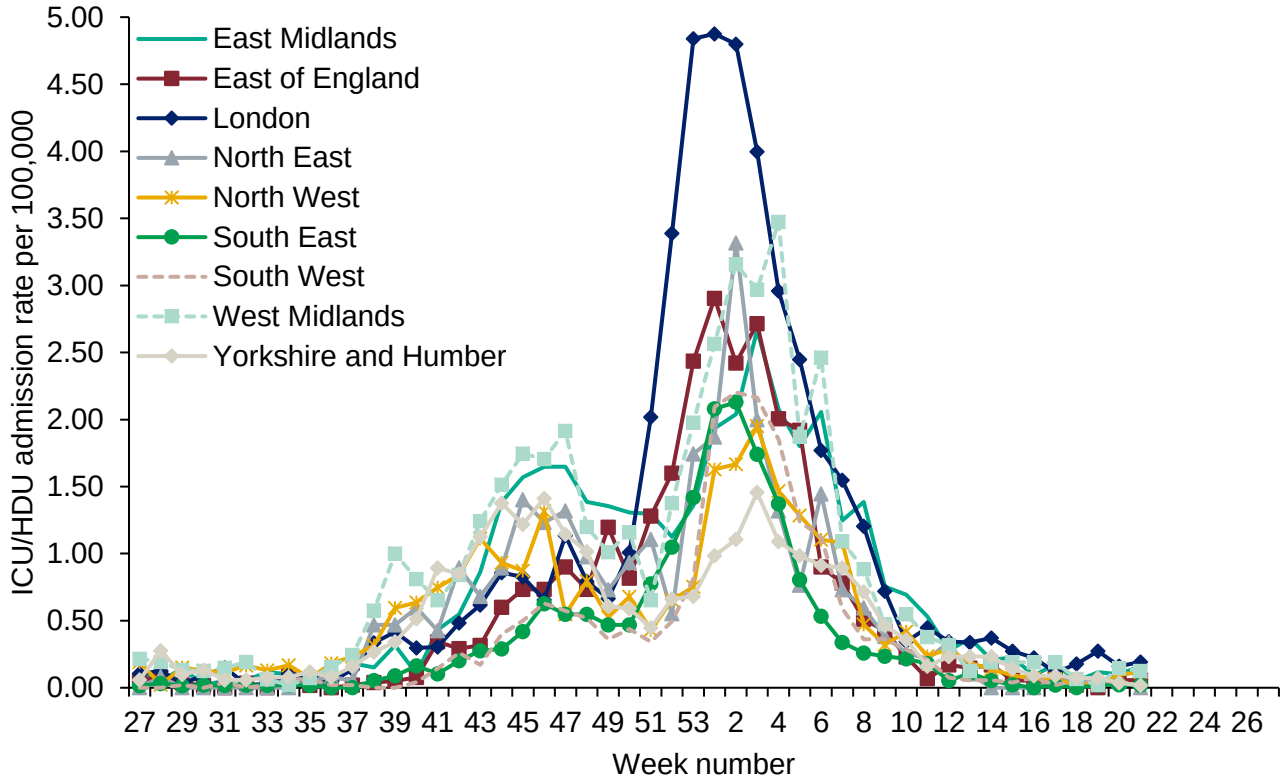


Figure 42: Weekly ICU/HDU admission rate by PHE Centre for new (a) COVID-19 positive cases and (b) influenza reported through SARI Watch

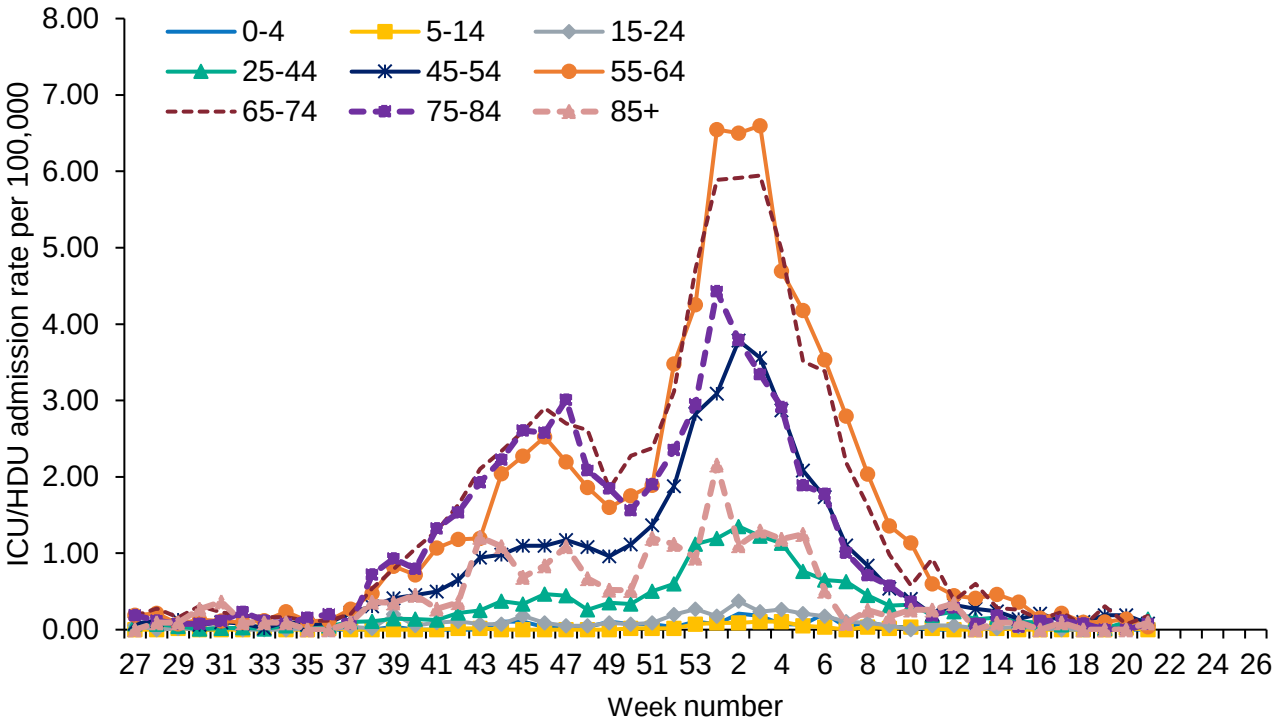
(a)



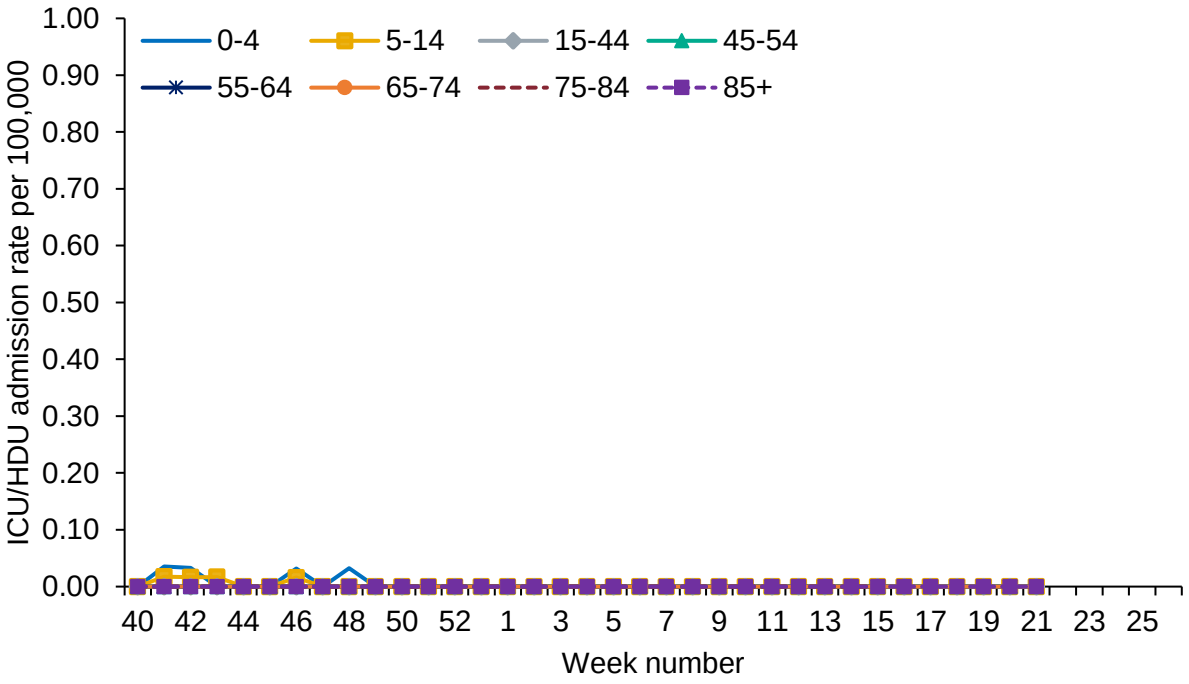
(b)

Figure 43: Weekly ICU/HDU admission rate by age group for new (a) COVID-19 positive cases and (b) influenza reported through SARI Watch

(a)



(b)

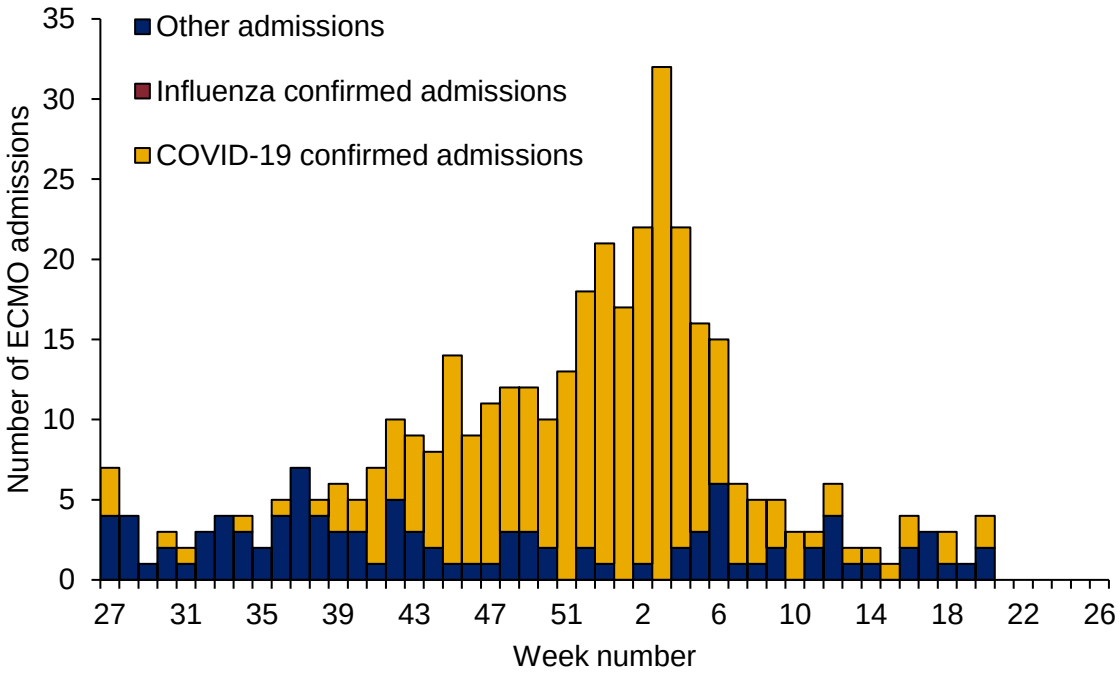


ECMO, SARI Watch

From week 27 2020, a total of 281 laboratory confirmed COVID-19 admissions have been reported from the 6 Severe Respiratory Failure (SRF) centres in the UK.

There were no new laboratory confirmed COVID-19 admissions reported in week 21 (Figure 44).

Figure 44: Laboratory confirmed ECMO admissions (COVID-19, influenza and non-COVID-19 confirmed) to Severe Respiratory Failure centres in the UK



Emergency Department attendances, Syndromic surveillance

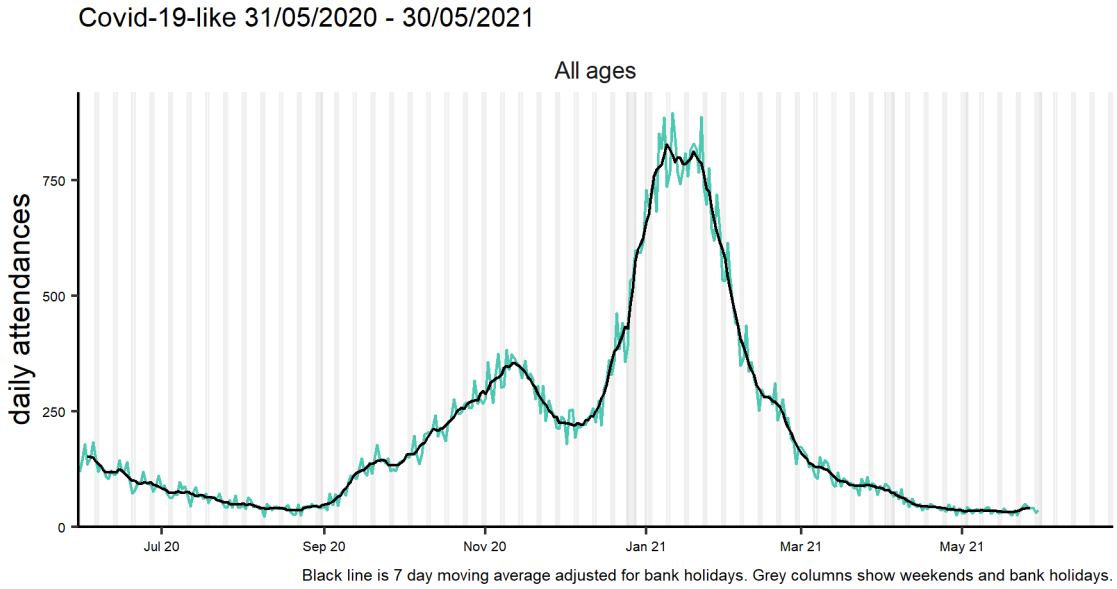
The Emergency Department Syndromic Surveillance System (EDSSS) monitors the daily visits in a network of emergency departments across England.

Up to 29 May 2021, the daily number of ED attendances for all ages as reported by 108 EDs for COVID-19-like infection remained stable, while attendances for acute respiratory infections increased (Figure 45).

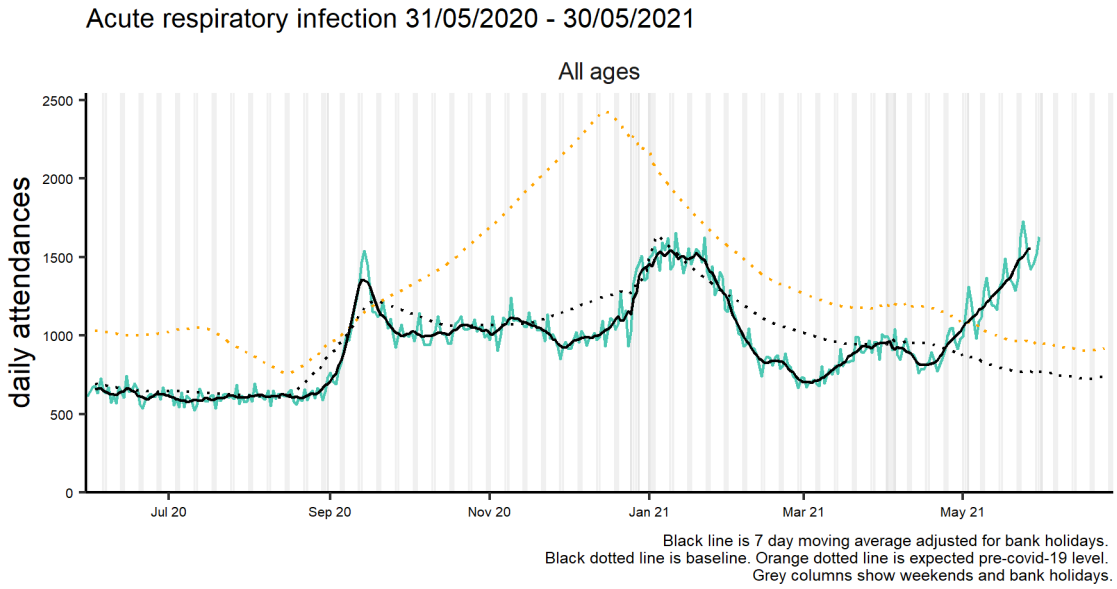
Please note: the COVID-19-like ED indicator is an underestimation of the number of COVID-19 attendances as it only includes attendances with a COVID-19-like diagnosis as their primary diagnosis. The EDSSS COVID-19-like indicator should therefore be used to monitor trends in ED attendances and not to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

Figure 45: Daily ED attendances for (a) COVID-19-like and (b) acute respiratory infections, all ages, England

(a)



(b)


Acute respiratory infection 31/05/2020 - 30/05/2021
All ages
daily attendances
2500
2000
1500
1000
500
0
Jul 20
Sep 20
Nov 20
Jan 21
Mar 21
May 21
Black line is 7 day moving average adjusted for bank holidays.
Black dotted line is baseline. Orange dotted line is expected pre-covid-19 level.
Grey columns show weekends and bank holidays.

Mortality surveillance

Cumulative COVID-19 deaths

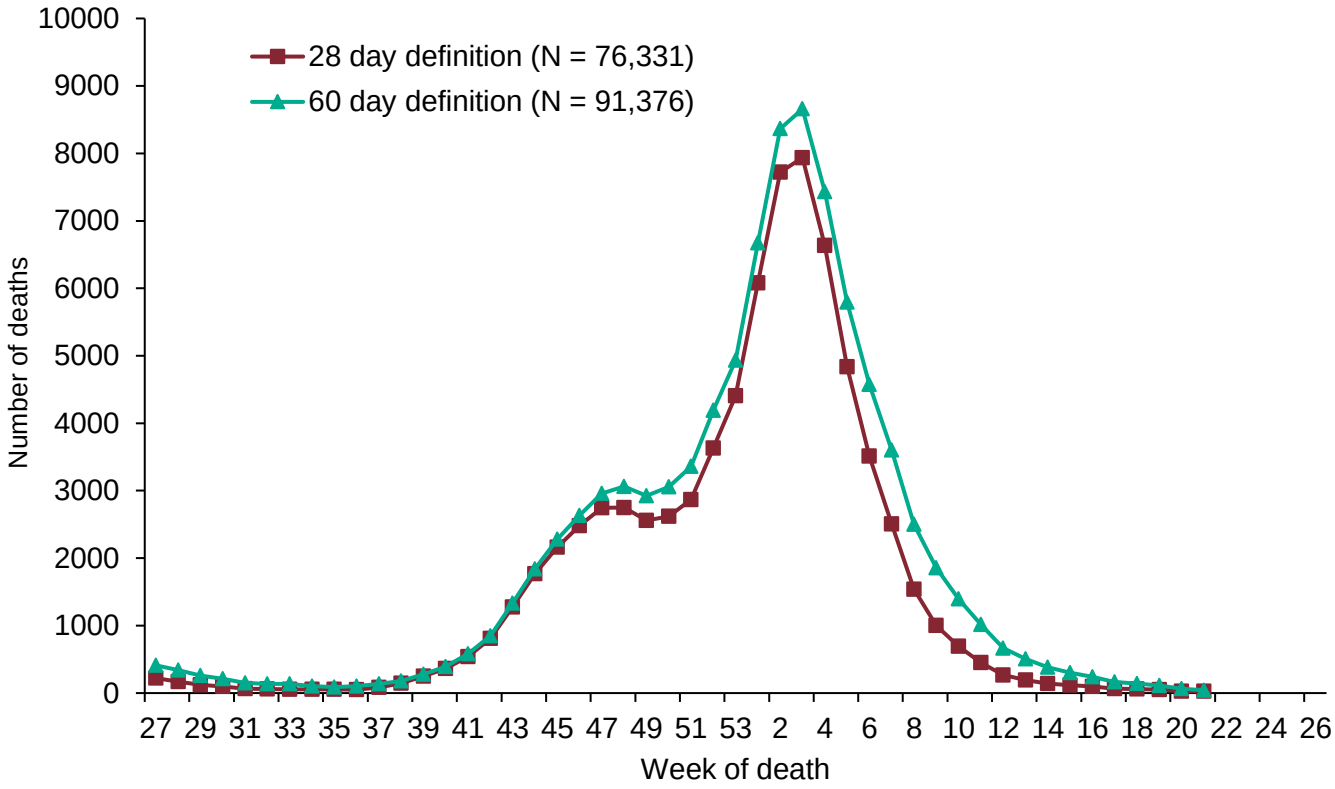
Changes to the definitions of COVID-19 related deaths in England are described in more detail in an accompanying PHE technical summary.

The current definitions used for mortality surveillance of COVID-19 in England are:

(a) 28 day definition: A death in a person with a laboratory-confirmed positive COVID-19 test and died within (equal to or less than) 28 days of the first positive specimen date
(b) 60 day definition: A death in a person with a laboratory-confirmed positive COVID-19 test and either: died within 60 days of the first specimen date OR died more than 60 days after the first specimen date only if COVID-19 is mentioned on the death certificate

The introduction of these definitions will affect the numbers which have been presented in past reports and therefore Figure 46 represents these differences by definition.

Figure 46: Number of deaths since week 27 by week of death and time since laboratory confirmation of COVID-19, England



*The data are 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 47: Age/sex pyramid of laboratory confirmed COVID-19 deaths, since week 27

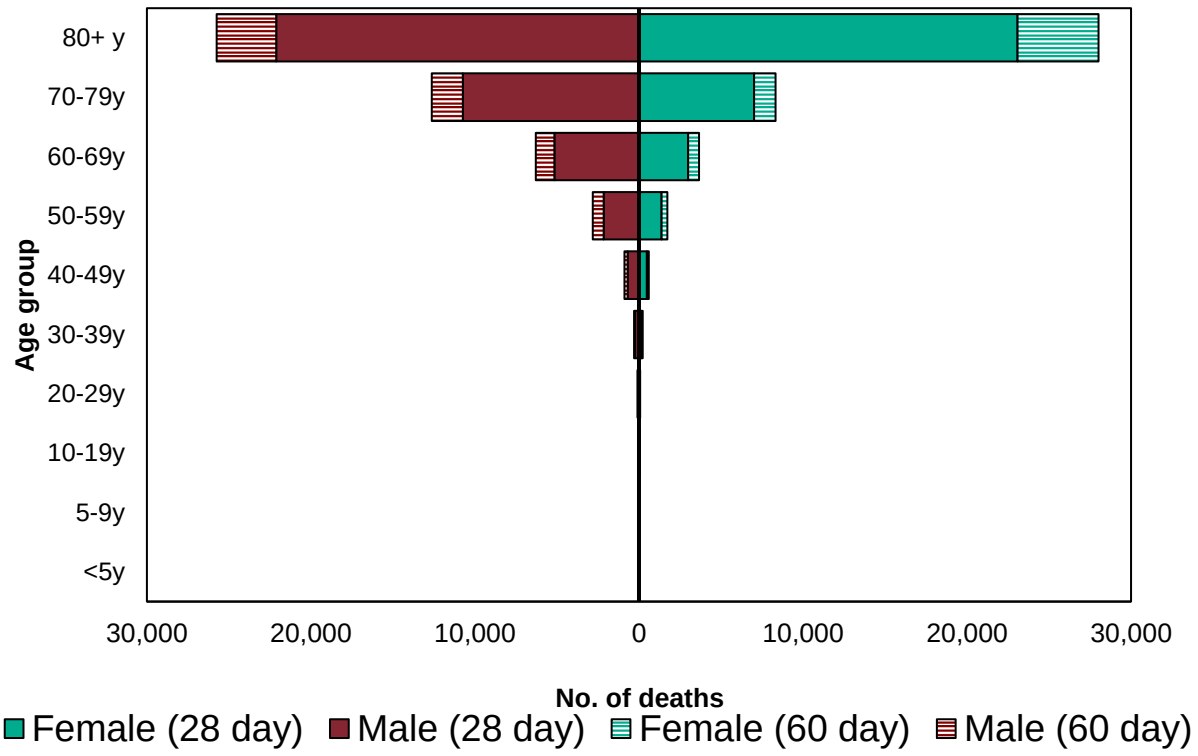


Table 5: Ethnic group (%) of COVID-19 deaths and time since laboratory confirmation of COVID-19, England

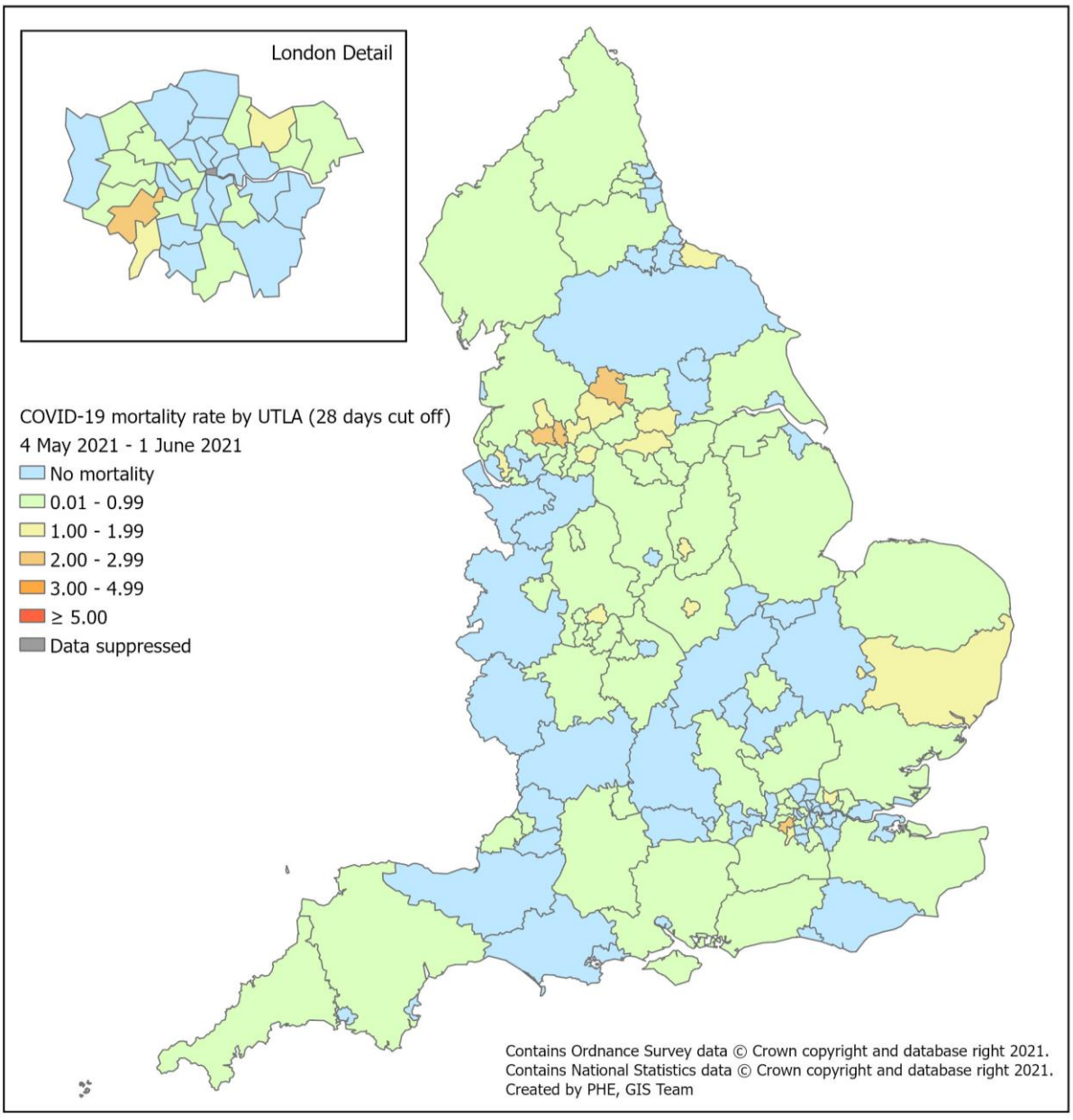
Ethnicity	28 day definition	60 day definition
White	88.5	88.6
Asian / Asian British	6.9	6.8
Black / African / Caribbean / Black British	2.5	2.5
Mixed / Multiple ethnic groups	0.5	0.5
Other ethnic group	1.6	1.6

Table 6: Cumulative number of COVID-19 deaths since week 27 and time since laboratory confirmation of COVID-19 by PHE Centres

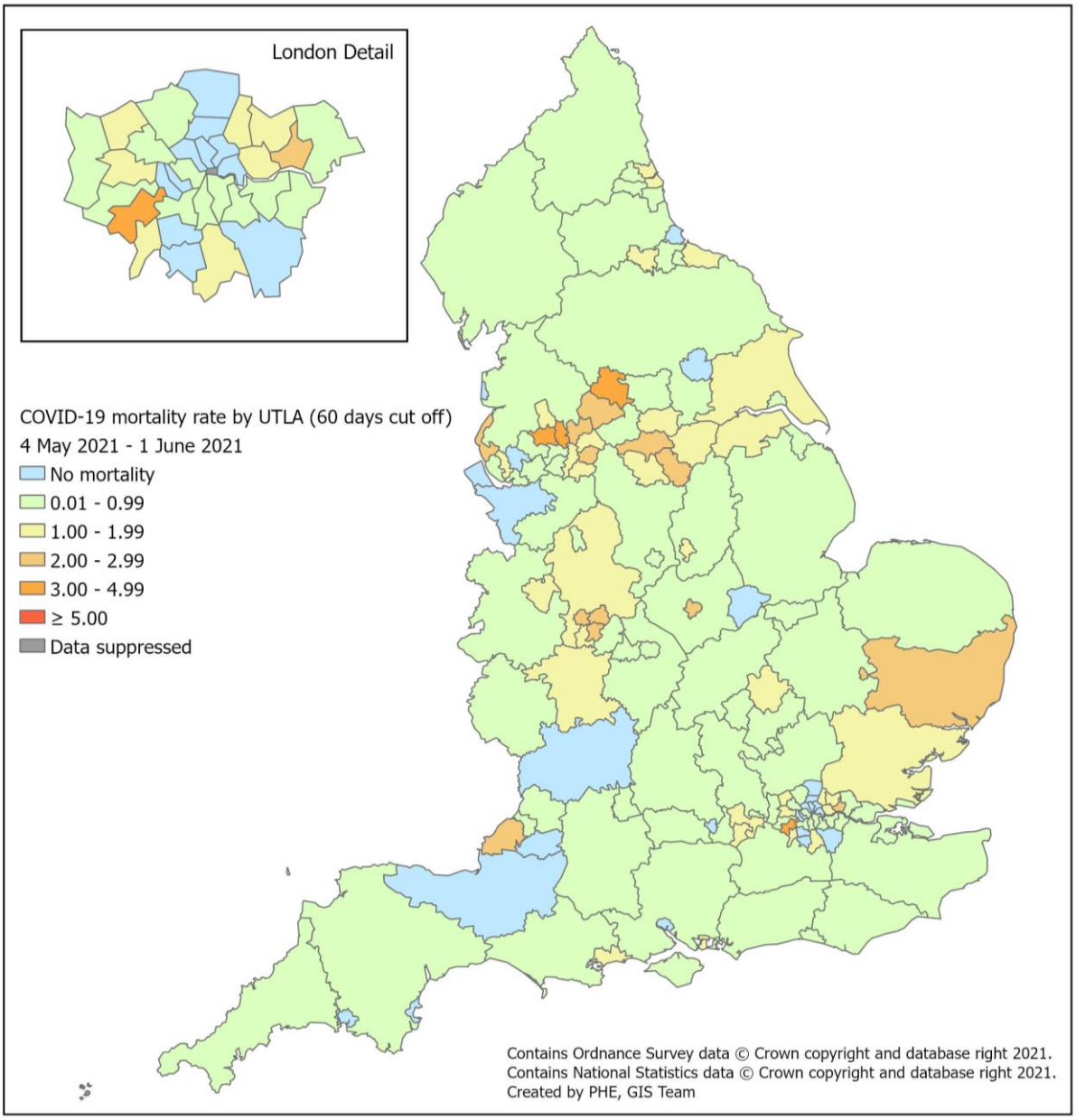
PHE Centres	28 day definition	60 day definition
North East	3,858	4,635
North West	11,963	14,375
Yorkshire & Humber	7,503	8,994
West Midlands	9,031	10,890
East Midlands	7,281	8,708
East of England	9,771	11,641
London	9,384	11,341
South East	12,174	14,550
South West	4,958	5,822

Figure 48: Cumulative mortality rate of COVID-19 cases per 100,000 population tested under Pillars 1 and 2 for the past four weeks by (a) 28 day definition and (b) 60 day definition

(a)



(b)


London Detail
COVID-19 mortality rate by UTLA (60 days cut off)
4 May 2021 - 1 June 2021
No mortality
0.01 - 0.99
1.00 - 1.99
2.00 - 2.99
3.00 - 4.99
≥ 5.00
Data suppressed
Contains Ordnance Survey data © Crown copyright and database right 2021.
Contains National Statistics data © Crown copyright and database right 2021.
Created by PHE, GIS Team

Daily excess all-cause mortality (England)

Deaths occurring from 1 January 2020 to 25 May 2021 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 +/- 7 days with an extrapolated time trend, and with 2 and 3 standard deviation (SD) limits shown (Figure 49).

Weeks in which at least 2 days exceeded the 3SD threshold are shown in Table 7 and the daily difference from the baseline by age and region is given in Figure 49.

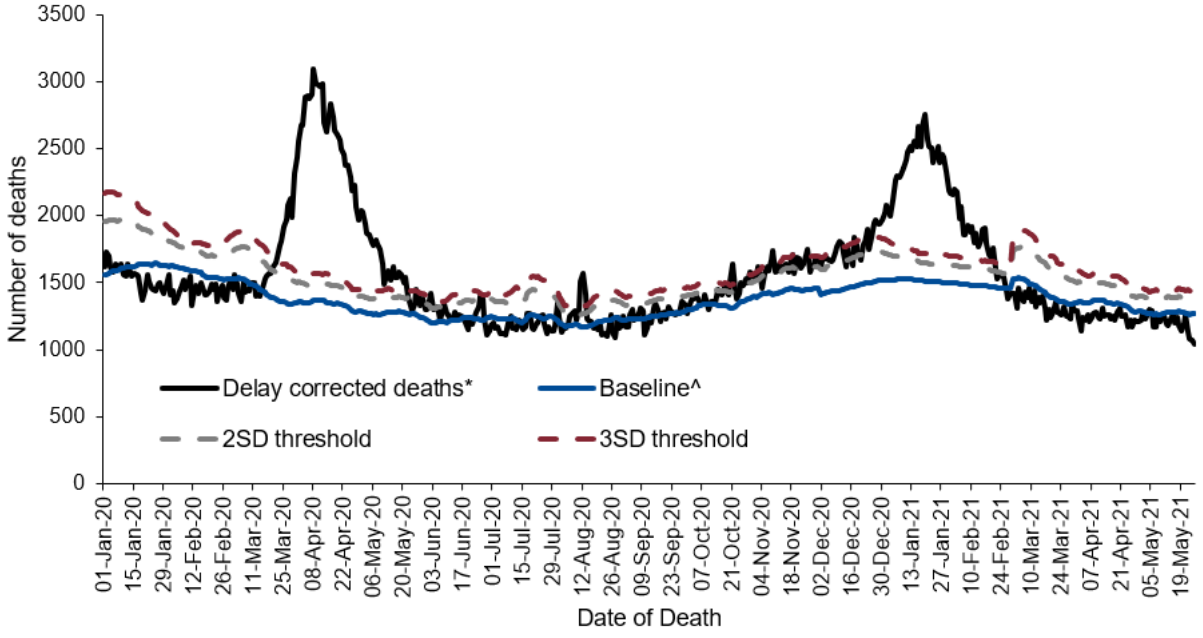
Note that as these data are by date of death with delay corrections, numbers are subject to change each week, particularly for more recent days.

Please note that due to longer delay to registration over the Spring Bank Holiday, the corrected observed deaths are likely to be low for the most recent 2 weeks shown. Estimates next week should be less affected by these longer delays.

The current week's model supersedes models presented in previous week.

No significant excess all-cause mortality was observed in week 20 overall, by age or sub-nationally. The excess noted in week 33 coincides with a heat wave (Figure 49, 50 and Table 7).

Figure 49: Daily excess all-cause deaths in all ages, England, 1 January 2020 to 25 May 2021



^Baseline calculation:
January to November 2020: same day in previous 5 years +/- 1 week with a linear trend.
December 2020 to February 2021: past 3 low flu years +/- 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 PHE are the Fingertips excess mortality in England report, which uses ONS death registration data; and the PHE all-cause mortality surveillance report, which uses the EuroMOMO model to measure excess deaths.

Table 7: Excess all-cause deaths by (a) age group and (b) PHE centres, England

(a)

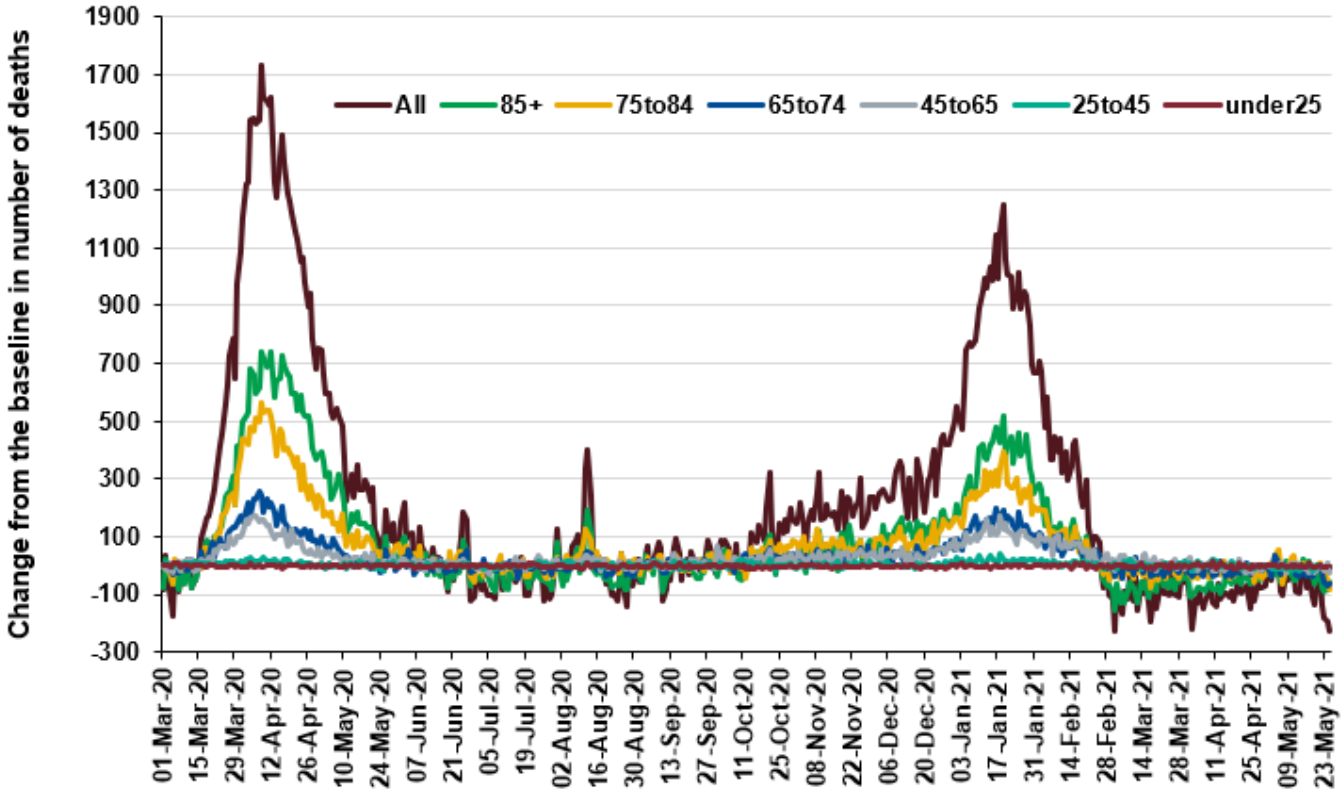
Age Group	Excess detected in week 20 2021?	Weeks in excess from week 10 to 53 2020	Weeks in excess from week 01 to 20 2021
All	x	13 to 21, 33, 43, 45, 50, 52 to 53	01 to 07
under 25	x	None	None
25 to 44	x	14 to 16	03 to 04
45 to 64	x	12 to 19, 49 to 50, 52 to 53	01 to 08
65 to 74	x	13 to 19, 48, 52 to 53	01 to 07
75 to 84	x	13 to 21, 33, 45, 52 to 53	01 to 07
85+	x	13 to 21, 33, 53	01 to 07

(b)

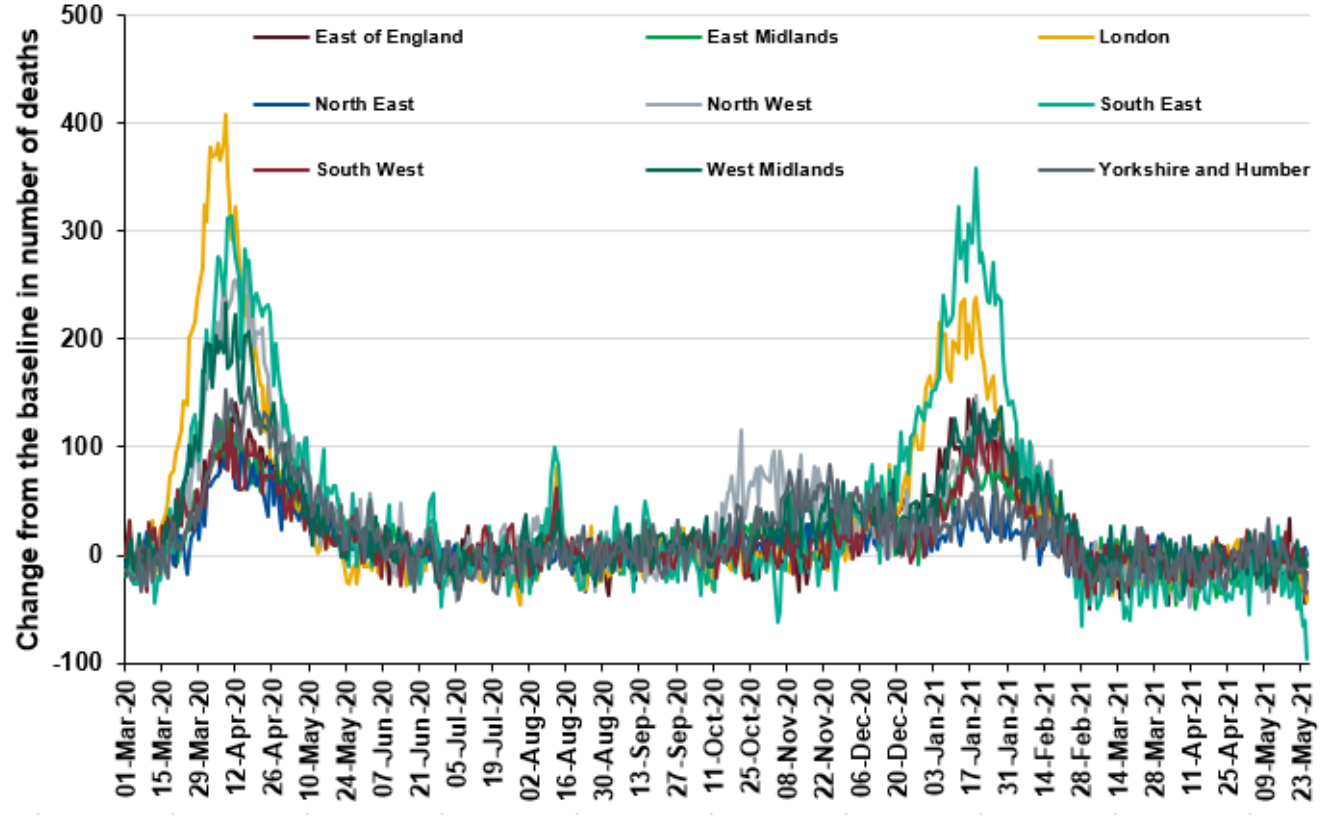
PHE Centres	Excess detected in week 20 2021?	Weeks in excess from week 10 to 53 2020	Weeks in excess from week 01 to 20 2021
East of England	x	14 to 19, 52 to 53	01 to 07
East Midlands	x	13 to 19, 48	01 to 07
London	x	12 to 19, 33, 51 to 53	01 to 07
North East	x	14 to 21	02 to 04
North West	x	13 to 19, 33, 42 to 47	01 to 07
South East	x	13 to 21, 33, 50 to 53	01 to 07
South West	x	13 to 19, 33	01 to 07
West Midlands	x	13 to 20, 45, 48, 53	01 to 07
Yorkshire and Humber	x	14 to 21, 23, 43 to 50	02 to 05

Figure 50: Daily excess all-cause deaths by (a) age group and (b) PHE centres, England, 1 March 2020 to 25 May 2021

(a)



(b)



Microbiological surveillance

SARS-CoV-2 variants

PHE 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 here, and in the latest technical briefing here

Antimicrobial susceptibility

Table 8 shows in the 12 weeks up to week 21 2021, the proportion of all lower respiratory tract isolates of Streptococcus pneumoniae, Haemophilus influenza, Staphylococcus aureus, MRSA and MSSA tested and susceptible to antibiotics. These organisms are the key 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 8: Antimicrobial susceptibility surveillance in lower respiratory tract

Organism	Antibiotic	Specimens tested (N)	Specimens susceptible (%)
S. pneumoniae	Penicillin	1,190	84
	Macrolides	1,309	78
	Tetracycline	1,283	81
H. influenzae	Amoxicillin/ampicillin	4,801	59
	Co-amoxiclav	5,153	67
	Macrolides	1,499	8
	Tetracycline	5,203	98
S. aureus	Methicillin	4,947	93
	Macrolides	5,671	71
MRSA	Clindamycin	243	48
	Tetracycline	308	77
MSSA	Clindamycin	3,476	78
	Tetracycline	4,361	93

* Macrolides = erythromycin, azithromycin and clarithromycin

Data source: PHE's SGSS AMR module, please note that this is different to the data source used in the reports published between weeks 41 2020 to 05 2021 inclusive of the 2020/21 influenza season when the SGSS CDR module was used instead due to a PHE 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 05 2021. The AMR module of SGSS was used during the 2019/20 influenza

season. There has been a reduction in the total number of bacterial positive lower respiratory tract clinical samples reported to PHE since mid-March 2020

COVID-19 sero-prevalence surveillance

The results from testing samples provided by healthy adult blood donors aged 17 years and older, supplied by the NHS Blood and Transplant (NHS BT collection) between weeks 35 2020 and week 20 2021 are summarised. This programme has previously involved testing approximately 1000 donor samples from two different NHS regions each week. As of week 44 2020, approximately 250 samples from each geographic NHS region are tested each week. The COVID-19 vaccination campaign began on the 8th December 2020 (week 50) with a phased roll out by age and risk group.

Seroprevalence in Adults aged 17 years and older (Blood Donors)

The results presented here are based on testing blood donor samples with Roche nucleoprotein (N) and Roche spike (S) antibody assays.

Nucleoprotein (Roche N) assays only detect post-infection antibodies, whereas spike (Roche S) assays will detect both post-infection antibodies and vaccine-induced antibodies. Thus, changes in seropositivity for the Roche N assay will reflect the effect of natural infection. Increases in seropositivity as measured by S antibody will reflect both infection and vaccination. Antibody responses to both targets will reflect infection/vaccination occurring at least two to three weeks previously given the time taken to generate a COVID-19 antibody response. Donors have been asked to defer donations for 7 days post vaccination.

This report presents Roche N and Roche S seropositivity estimates on the same set of samples, using a 4-week rolling prevalence for national and regional estimates. Seroprevalence estimates reported are based on seropositivity which are unadjusted for the sensitivity and specificity of the assays used.

National prevalence

Overall population weighted (by age group, sex and NHS region) antibody prevalence among blood donors aged 17 years and older in England was 15.6% (95% CI 14.6% - 16.5%) using the Roche N assay and 75.4% (95% CI 74.5% - 76.3%) using the Roche S assay for the period 26 April – 23 May (weeks 17-20 2021). 1136/7431 were Roche N positive and 5710/7387 samples were Roche S positive. This compares with 16.6% (95% CI 15.7% - 17.6%) Roche N seropositivity and 67.4% (95% CI 66.4% - 68.3%) Roche S seropositivity for the period of 29 March 2021 – 25 April 2021 (weeks 13-16 2021).

Seropositivity (weighted by region, age group and sex) varies over time. Figure 51 shows the overall 4-weekly rolling proportion seropositive over time for the Roche N and Roche S assays. Seropositivity estimates are plotted weekly using the mid-point of a rolling 4-weekly period.

Regional prevalence of infection over time

Seropositivity (weighted by age group and sex) using the Roche N assay which detects infection only, varies by region (Figure 52). Seropositivity estimates are plotted weekly using the mid-point of a rolling 4-weekly period.

In London, the 4-weekly rolling seropositivity decreased from 25.6% (95% CI 22.9% - 28.4%) in weeks 13-16 2021 to 22.0% (95% CI 18.9% - 25.5%) in weeks 17-20 2021.

Data from the North West show that seropositivity has increased from 16.4% (95% CI 14.0% - 19.0%) in weeks 13-16 2021 to 19.3% (95% CI 16.8% - 21.9%) in weeks 17-20 2021.

In the East of England seropositivity increased from 12.7% (95% CI 10.4% - 15.5%) in weeks 13-16 2021 to 15.7% (95% CI 13.4% - 18.3%) in weeks 17-20 2021.

Seropositivity has decreased in the South East region from 13.9% (95% CI 12.1% - 16.0%) in weeks 13-16 2021 to 9.4% (95% CI 7.8% - 11.4%) in weeks 17-20 2021.

In the South West region, seropositivity has shown a very modest increase from 8.9% (95% CI 7.2% - 10.9%) in weeks 13-16 2021 to 9.4% (95% CI 7.6% - 11.5%) in weeks 17-20 2021.

Seropositivity in the North East and Yorkshire region increased from 15.5% (95% CI 13.2% - 18.1%) in weeks 13-16 2021 to 16.4% (95% CI 13.9% - 19.2%) in weeks 17-20 2021.

Data from the Midlands show the proportion seropositive decreased from 18.9% (95% CI 16.6% - 21.5%) in weeks 13-16 2021 to 15.4% (95% CI 13.4% - 17.6%) in weeks 17-20 2021.

The recent fluctuations observed across some regions based on testing using the Roche N assay are likely to reflect ongoing transmission occurring 2-3 weeks before sampling or variation in precise locations of sampling within a region. This is particularly evident in the South East region where seropositivity initially increased then decreased as fewer samples were received from hotspot areas in more recent weeks. The recent decline in seropositivity in London may reflect donors returning with the easing of lockdown restrictions once they have been vaccinated and these regional trends will continue to be closely monitored.

Prevalence by age group

Seropositivity estimates by age group using the Roche N and Roche S assays are presented below. Prevalence for all age groups for weeks 41-44 has been excluded due to a change in sampling strategy from week 44 which resulted in a small number of

samples from older age groups in some regions which makes interpretation of trends for this period difficult.

Based on testing samples using the Roche N assay (Figure 53) as a marker of infection, the highest seropositivity has consistently been observed in those aged 17-29 and the lowest in those aged 70-84. Prevalence in individuals aged 17-29 has decreased in recent weeks from 23.4% (95% CI 20.9% - 26.0%) in weeks 13-16 2021 to 20.9% (95% CI 18.5% - 23.6%) in weeks 17-20 2021.

Roche N seropositivity has continued to plateau across most age groups and this was first observed in the 70-84 age group. However, seropositivity in those aged 70-84 showed a small increase from 6.7% (95% CI 4.5% - 9.9%) in weeks 13-16 to 8.4% (95% CI 5.6% - 12.5%) in weeks 17-20 2021. The earlier plateauing of Roche N seropositivity in the older age groups likely reflects the additional role vaccination is having in reducing viral infection ahead of reduction seen from national restrictions alone in younger age groups.

The increase in vaccination especially in the older age groups is seen by the sharp increase in seropositivity using the Roche S assay (Figure 53). Whilst prevalence in those aged 17-29 has remained stagnant at 45.2% (95% CI 42.2% - 48.2%) in weeks 13-16 2021 compared to 46.2% (95% CI 43.2% - 49.2%) in weeks 17-20 2021, this compares with larger increases in older age groups.

Roche S seropositivity increased earliest in those aged 70-84 and since week 13 plateaued, reaching 98.7% (95% CI 96.8% - 99.5%) in weeks 17-20 2021. Seropositivity in those aged 60-69 has also plateaued reaching 98.6% (95% CI 97.7% - 99.2%) in weeks 17-20 2021. An increase in Roche S seropositivity has been observed in those aged 50-59 increasing from 86.5% (95% CI 84.8% - 88.0%) in weeks 13-16 2021 to 97.6% (95% CI 96.8% - 98.3%) in weeks 17-20 2021. A notable increase is also seen in the 40-49-year olds from 50.2% (95% CI 47.5% – 52.8%) in weeks 13-16 to 78.9% (95% CI 76.7%-81.0%) in weeks 17-20. A small increase has now been observed in the 30-39-year olds increasing from 41.9% (95% CI 39.3% - 44.6%) in weeks 13-16 to 47.8% (95% CI 45.2%- 50.4%) in weeks 17-20.

Vaccination is making an important contribution to the overall Roche S increases observed since the roll out of the vaccination programme, particularly individuals aged 50 years and above who have been prioritised for vaccination as part of the phase 1 programme and since week 15 in those aged 40-49 years as part of phase 2 of the vaccination programme. The plateauing of seropositivity, using the Roche N assay, in these groups is likely to reflect vaccine impact. Rises in Roche S above Roche N seropositivity in younger age groups suggest that health and social care workers are likely to be over-represented among donors.

Figure 51: Overall 4-weekly rolling SARS-CoV-2 antibody seroprevalence (% seropositive) in blood donors

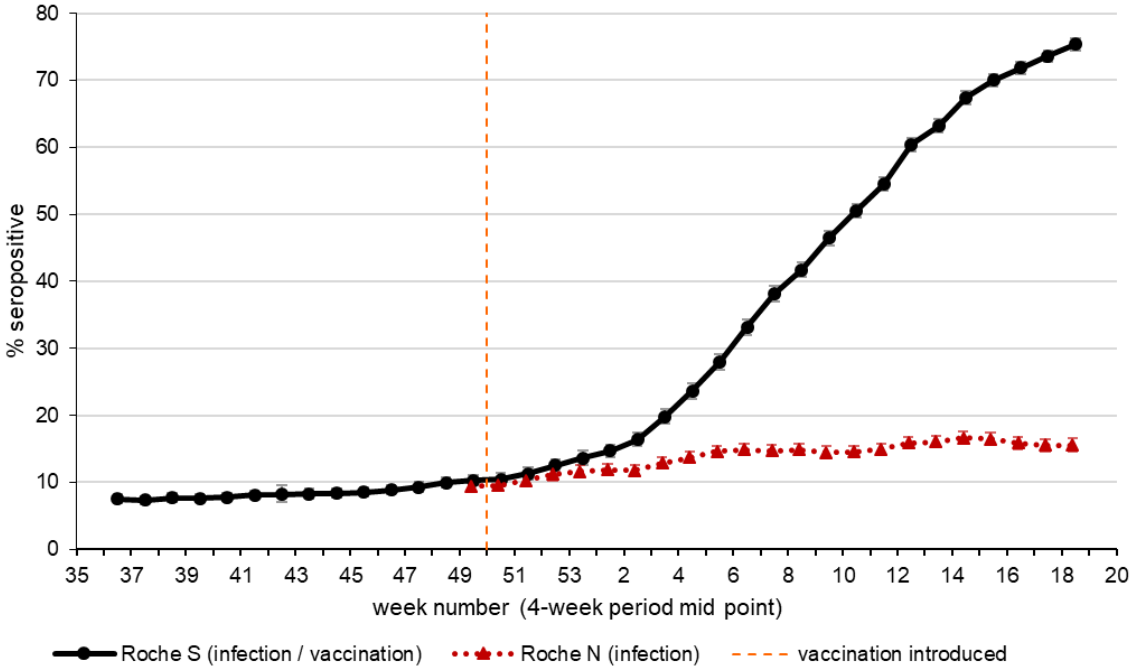


Figure 52: 4-weekly rolling SARS-CoV-2 antibody seroprevalence (% seropositive) in blood donors by region, using Roche N test; error bars show 95% confidence intervals

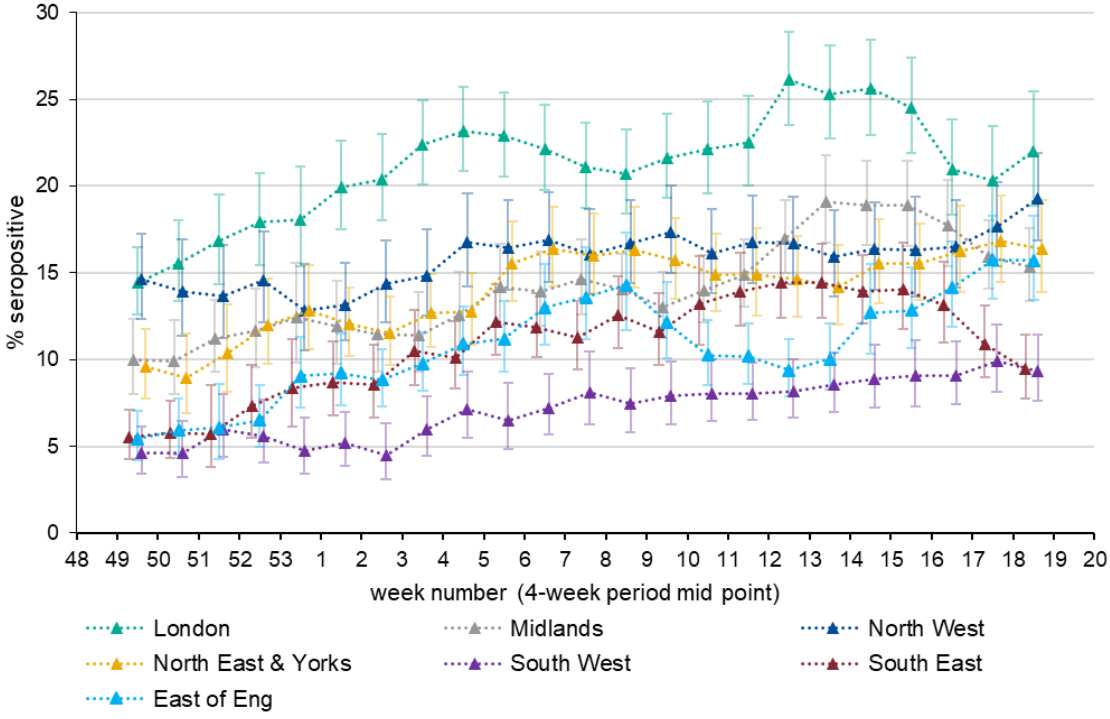
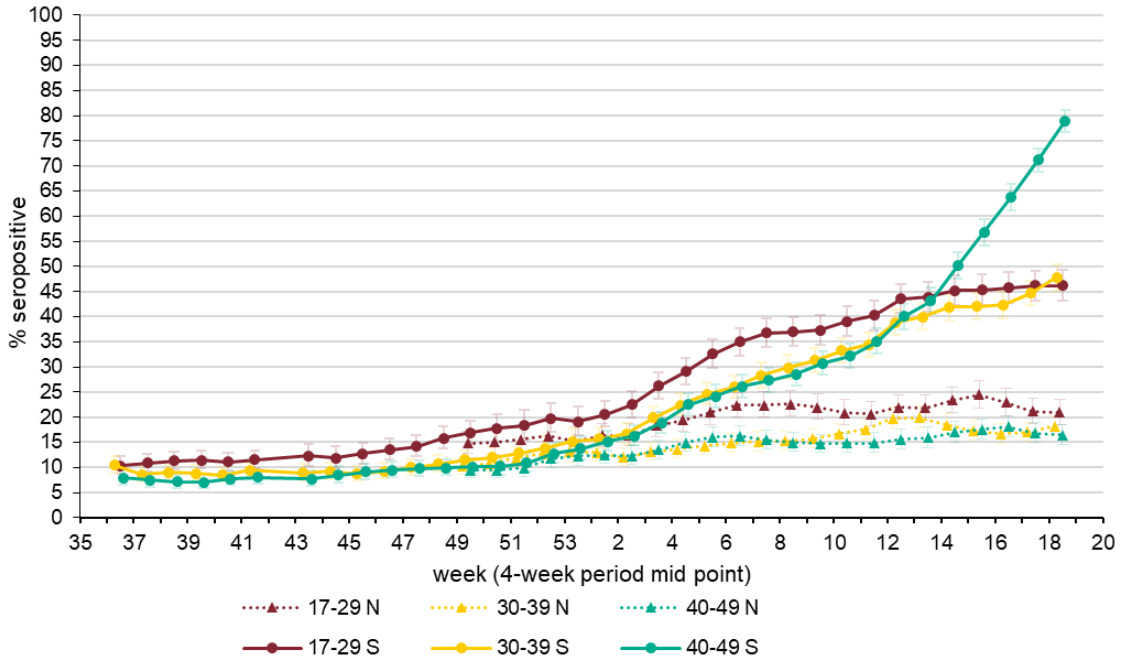
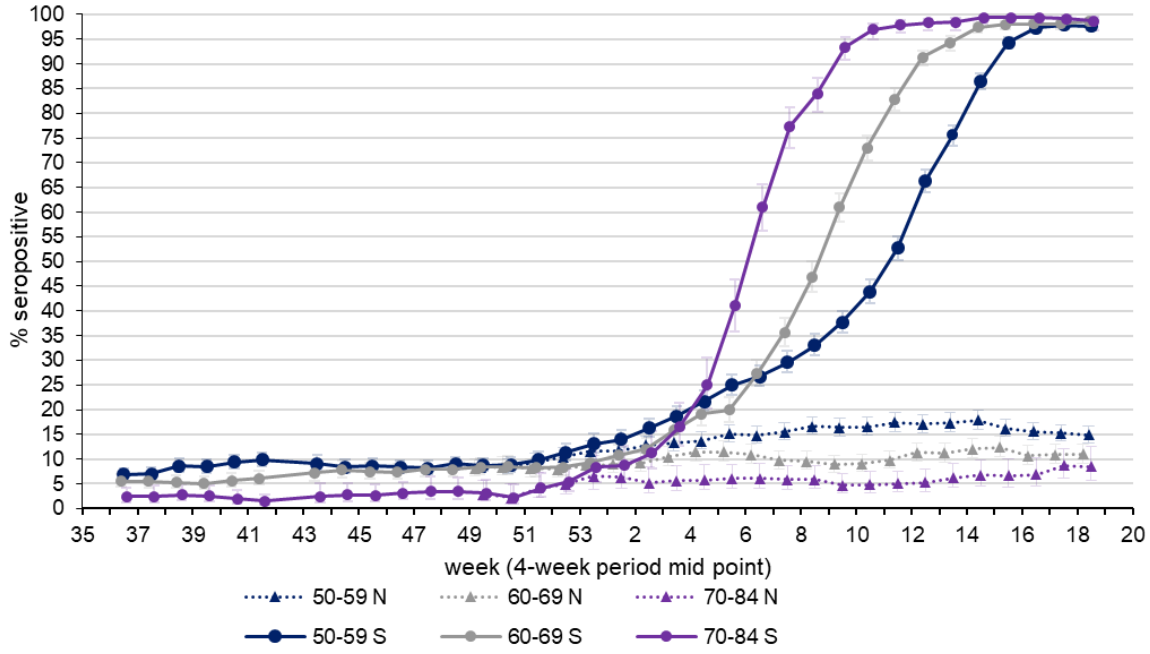


Figure 53: Population weighted 4-weekly rolling SARS-CoV-2 antibody seroprevalence (% seropositive) in blood donors from the Roche S and Roche N assays by a) age groups 17-29, 30-39 and 40-49, b) age group 50-59, 60-69 70-84

(a)



(b)



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 21 2021 (week ending 30 May 2021) was extracted from the National Immunisation Management Service (NIMS). The data presented this week is the provisional proportion of people in England who had received one dose and two doses of a COVID-19 vaccination by age group. The overall vaccine uptake in the population for dose 1 was 53.1% and 35.0% for dose 2. The breakdown by sex showed vaccine uptake in males was 49.9% and 56.2% in females for dose 1. For dose 2 total uptake was 31.0% in males and 39.1% in females. The vaccine uptake rate in adults aged 18 and over was 66.3% (32,671,862/49,264,910) for dose 1 and 43.8% (21,567,448/49,264,910) for dose 2.

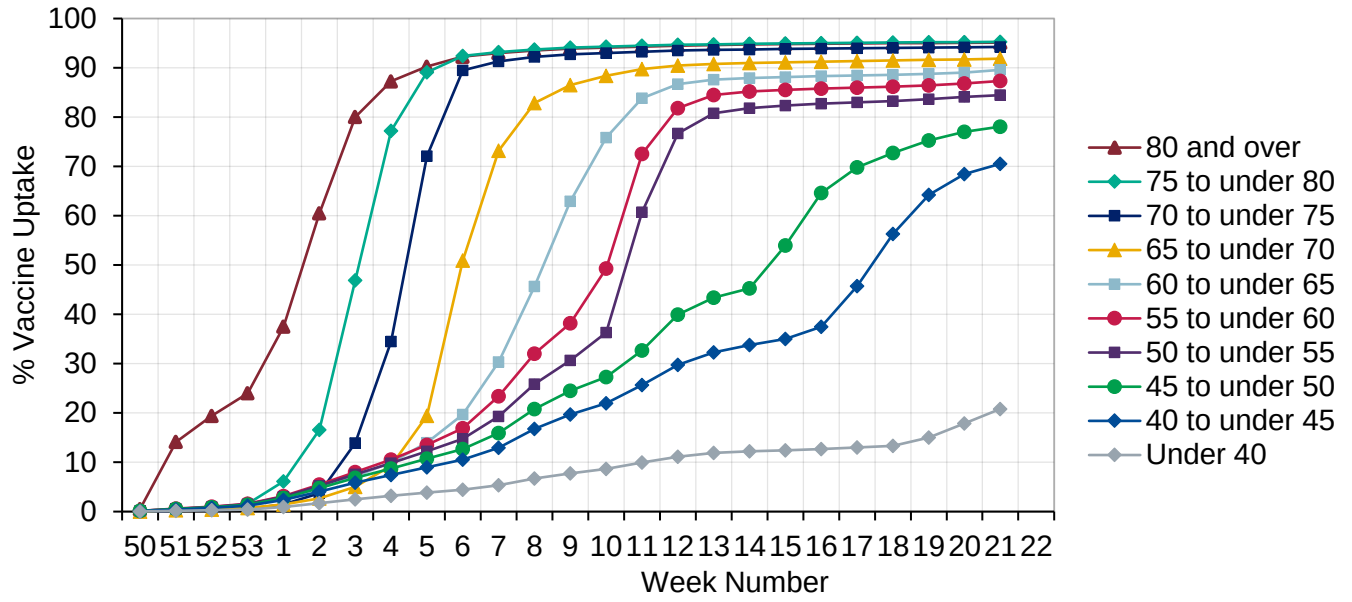
Table 9: Provisional cumulative COVID-19 vaccine uptake by age in England

Age group	Vaccinated with at least 1 dose			Vaccinated with 2 doses		
	People in NIMS cohort	Number vaccinated	% vaccine uptake	People in NIMS cohort	Number vaccinated	% vaccine uptake
80 years and over	2,821,619	2,683,700	95.1	2,821,619	2,599,357	92.1
75 to under 80 years	2,084,180	1,985,751	95.3	2,084,180	1,941,664	93.2
70 to under 75 years	2,876,075	2,710,237	94.2	2,876,075	2,642,764	91.9
65 to under 70 years	2,890,961	2,655,653	91.9	2,890,961	2,515,675	87.0
60 to under 65 years	3,448,404	3,089,410	89.6	3,448,404	2,582,904	74.9
55 to under 60 years	4,071,889	3,556,203	87.3	4,071,889	2,272,922	55.8
50 to under 55 years	4,217,500	3,562,105	84.5	4,217,500	2,150,733	51.0
45 to under 50 years	3,986,687	3,112,638	78.1	3,986,687	1,225,535	30.7
40 to under 45 years	4,107,447	2,897,519	70.5	4,107,447	958,666	23.3
Under 40 years	31,221,184	6,503,122	20.8	31,221,184	2,719,041	8.7
Total	**61,725,946**	**32,756,725**	**53.1**	**61,725,946**	**21,609,441**	**35.0**

Data are 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 PHE are for public health surveillance purposes only.

Figure 54: Cumulative weekly COVID-19 vaccine uptake by age in England for (a) Dose 1 and (b) Dose 2

(a)



(b)

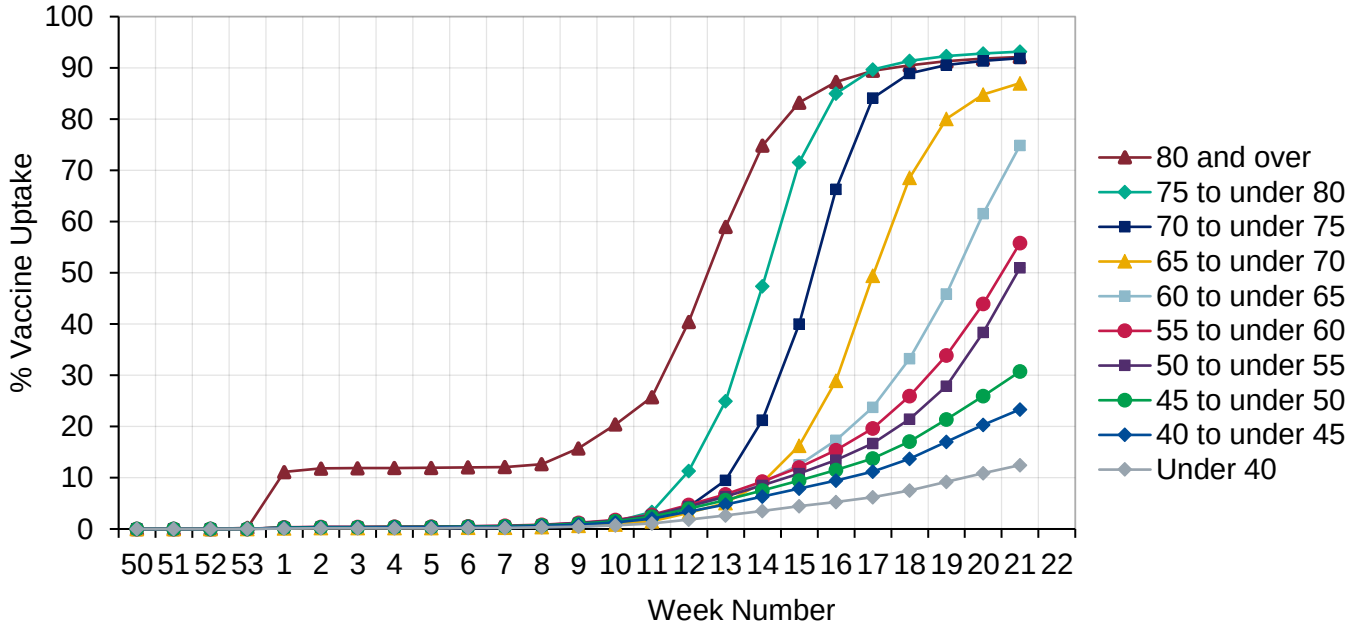


Figure 55: Age/Sex pyramid for COVID-19 vaccine uptake by age in England for Dose 1

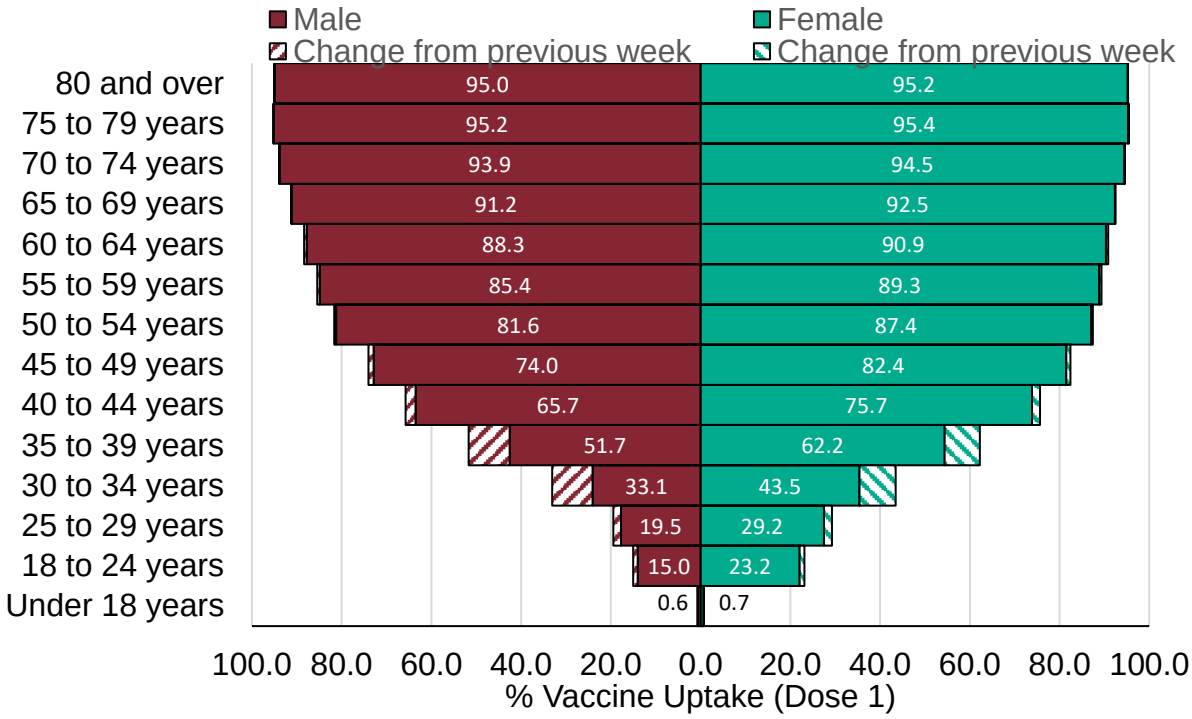


Figure 56: Age/Sex pyramid for COVID-19 vaccine uptake by age in England for Dose 2

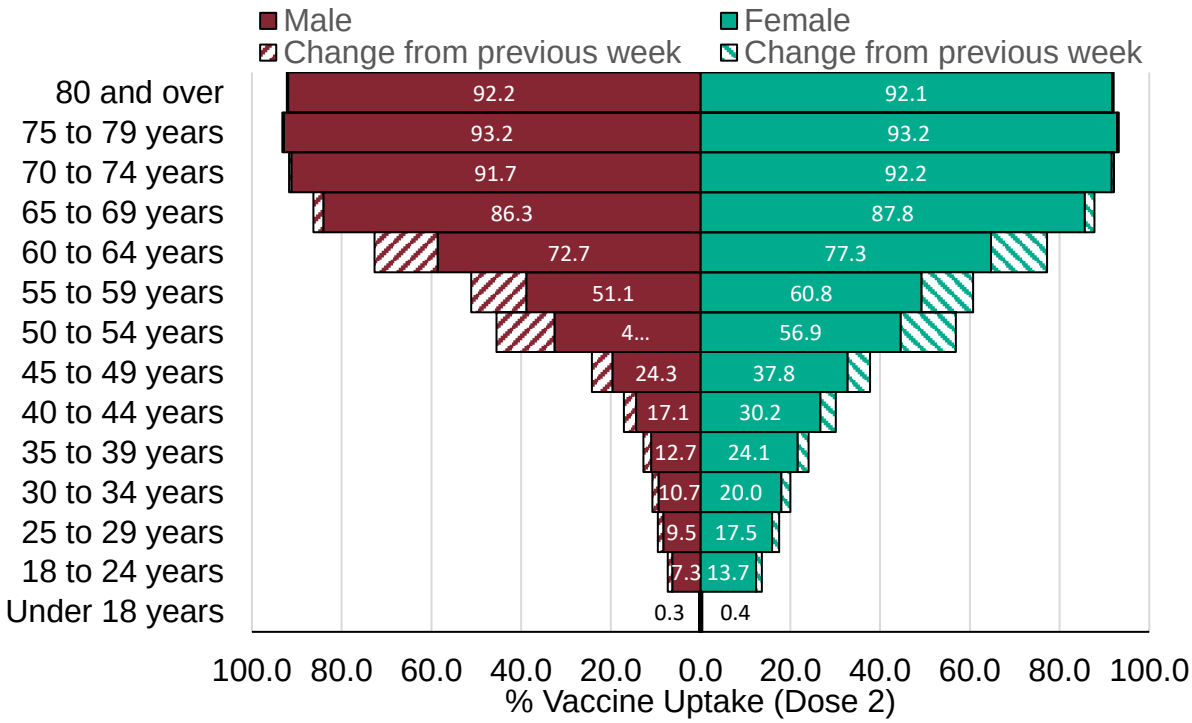
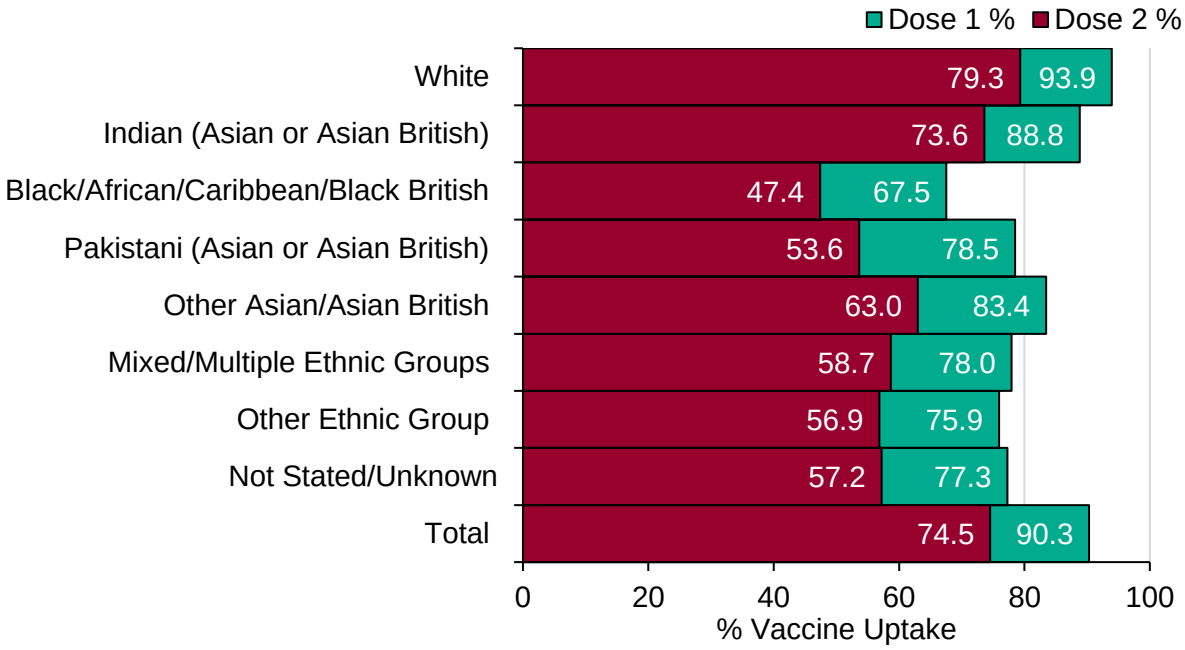


Figure 57: Cumulative weekly COVID-19 vaccine uptake by ethnicity in England in those aged 50 and over



From the 6 January 2021 (week 1 2021), the JCVI advises initially prioritising delivery of the first vaccine dose to maximise the public health impact in the short term and reduce the number of preventable deaths from COVID-19. The statement can be accessed here

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

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

International update

Global COVID-19 update

Globally, up to 01 June 2021, 170,514,865 cases of COVID-19 infection have been reported worldwide, including 3,551,665 COVID-19 related deaths.

For further information on the global COVID-19 situation please see the WHO COVID-19 situation reports.

Figure 58: Global map of cumulative COVID-19 cases

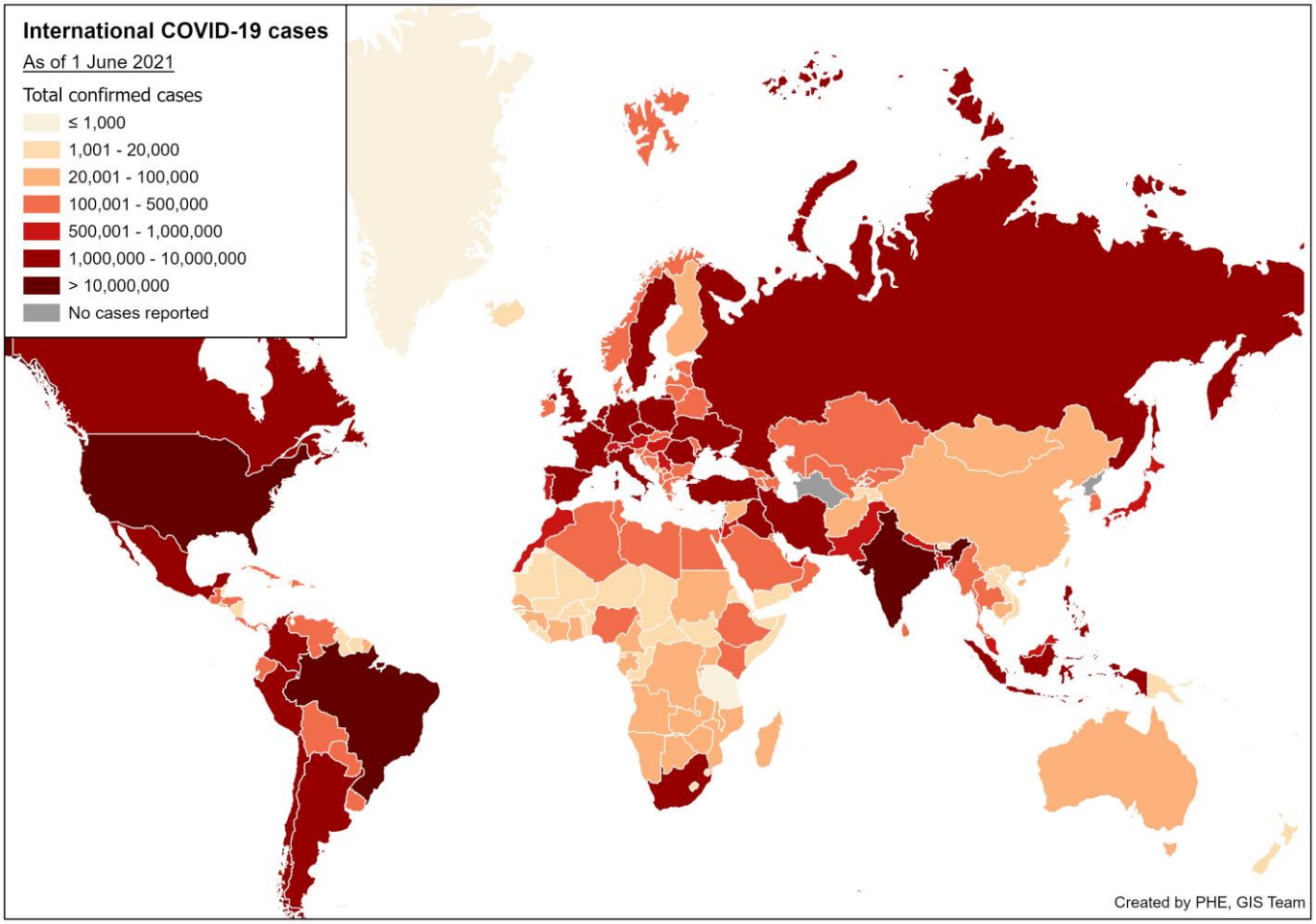
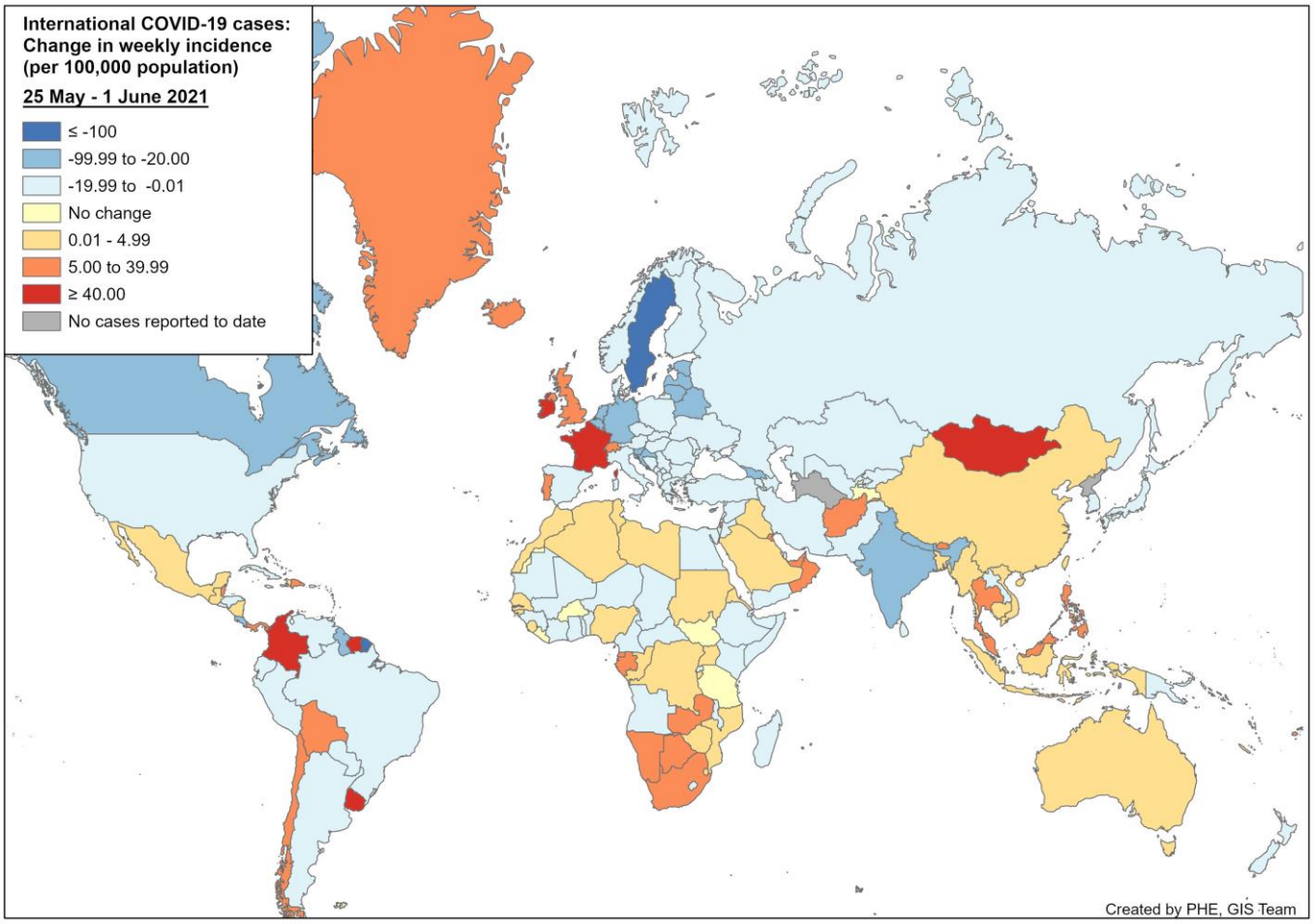


Figure 59: Global map of change in weekly COVID-19 case incidence rate per 100,000 population compared to the previous week



Global influenza update

Updated on 24 May 2021 (based on data up to 09 May 2021) (WHO website).

In the temperate zone of the northern hemisphere, influenza activity remained below baseline, though sporadic detections of influenza A and B viruses continued to be reported in some countries. In the temperate zone of the southern hemisphere, influenza activity was reported at inter-seasonal level. Worldwide, influenza B detections accounted for the majority of the very low numbers of detections reported.

In the Caribbean and Central American countries, there were no influenza detections reported.

In tropical South America, no influenza detections were reported.

In tropical Africa, influenza detections were reported in some countries in Western and Eastern Africa.

In Southern Asia, influenza activity continued to be reported at low levels in Bangladesh and India.

In South East Asia, influenza A(H3N2) detections continued to be reported in Lao People's Democratic Republic (PDR).

In the countries of North America, influenza activity indicators, including the percent of tests positive for influenza and influenza like illness (ILI) activity, were at very low levels, despite testing at usual or increased levels.

In Europe, influenza activity remained at very low levels with sporadic detections of influenza A and B viruses reported in some countries.

In Central Asia, no influenza detections were reported across reporting countries.

In Northern Africa, there were no influenza detections reported for this period.

In Western Asia, influenza and ILI activity remained low overall.

In East Asia, influenza illness indicators and influenza activity remained low.

The WHO GISRS laboratories tested more than 269303 specimens between 26 April 2021 to 09 May 2021. A total of 484 specimens were positive for influenza viruses, of which 80 (16.5%) were typed as influenza A and 404 (83.5%) as influenza B. Of the sub-typed influenza A viruses, 20 (55.6%) were influenza A(H1N1)pdm09 and 16

(44.4%) were influenza A(H3N2). Of the characterized B viruses, 358 (100%) belonged to the B-Victoria lineage.

Influenza in Europe

Updated on 01 June 2021 (Joint ECDC-WHO Europe Influenza weekly update)

For week 20 2021, influenza activity remained at inter-seasonal levels throughout Europe.

For week 20 2021, of 444 sentinel specimens tested for influenza viruses, none were positive. Since the start of the season, of 43,474 sentinel-source specimens tested for influenza viruses, 46 were positive.

Influenza in the Northern Hemisphere

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.

Other respiratory viruses

Avian influenza

Latest update on 27 April 2021 (WHO website)

Since the previous update on 29 January 2021, two human infections with avian influenza A(H5N6) viruses, seven human infections with avian influenza A(H5N8) viruses, three human infections with avian influenza A(H5) viruses, 10 human infections with avian influenza A(H9N2) viruses and one human infection with an influenza A(H3N2) variant virus were reported officially.

Influenza A(H5) viruses:
Between 30 January 2021 and 15 April 2020, two new laboratory-confirmed human cases of influenza A(H5N6) virus infection were reported to WHO; one from China and one from Lao People's Democratic Republic (LPDR). On 18 February 2021, the Russian Federation notified WHO of the detection of avian influenza A(H5N8) virus in seven human clinical specimens in December 2020.

Influenza A(H7N9) viruses:
There have been no publicly available reports from animal health authorities in China or other countries on influenza A(H7N9) virus detections in animals in recent months.

Influenza A(H9N2) viruses:
Between 3 February and 15 April 2021, China notified WHO of the detection of nine human cases of infection with influenza A(H9N2).

Middle East respiratory syndrome coronavirus (MERS-CoV)

Latest update on 20 April 2021 (WHO website)

Up to 20 April 2021, a total of five cases of Middle East respiratory syndrome coronavirus, MERS-CoV, (three imported and two linked cases) have been confirmed in the UK through the on-going surveillance since September 2012.

On 2 February 2021, the National IHR Focal Point of the United Arab Emirates (UAE) notified WHO of one laboratory-confirmed case of MERS-CoV (WHO website).

Between 1 January 2021 and 11 March 2021, the National IHR Focal Point of Saudi Arabia reported seven additional cases of Middle East respiratory syndrome (MERS-CoV) infection, including three associated deaths (WHO website).

From 2012 through 11 March 2021, a total of 2,574 laboratory-confirmed cases of MERS-CoV and 886 associated deaths were reported globally to WHO under the International Health regulations (IHR 2005).

Further information on management and guidance of possible cases is available online. The latest ECDC MERS-CoV risk assessment can be found here, where it is highlighted 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

Sources of influenza surveillance data

Sources of COVID-19 surveillance data

PHE 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 http://www.legislation.gov.uk/uksi/2002/1438/regulation/3/made. 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 Public Health England

Public Health England exists to protect and improve the nation's health and wellbeing, and reduce health inequalities. We do this through world-leading science, research, knowledge and intelligence, advocacy, partnerships and the delivery of specialist public health services. We are an executive agency of the Department of Health and Social Care, and a distinct delivery organisation with operational autonomy. We provide government, local government, the NHS, Parliament, industry and the public with evidence-based professional, scientific and delivery expertise and support.

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