Public Health England

Protecting and improving the nation's health

Weekly national Influenza and COVID-19 surveillance report

Week 42 report (up to week 41 data)
15 October 2020

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 41 (between 5 and 11 October 2020) and for some indicators daily data up to 13 October 2020.

Several surveillance indicators suggest that COVID-19 activity at a national level has continued to increase during week 41. There is currently limited testing for other respiratory viruses, however, laboratory indicators suggest that influenza activity is low and rhinovirus activity remains high, in particular in children, but has decreased in the last week.

Detections of COVID-19 cases in England continued to increase in week 41. Incidence and positivity rates remain highest in the North West, North East and Yorkshire and Humber. There have also been notable increases in incidence and positivity in the East Midlands over the last two weeks. By age group, cases rates remain highest in the 10 to 19 and 20 to 29 year olds. Positivity rates have increased further across most age groups and were highest in the 10-19 year olds tested through both Pillar 1 (NHS and PHE testing) and Pillar 2 (community testing).

Through Respiratory Datamart, there were no influenza detections in week 41. Rhinovirus activity remains high but has decreased.

The overall number of acute respiratory infection incidents reported to PHE Health Protection Teams increased from 885 in the previous week to 1140 in week 41 in England. In the majority of these incidents SARS-CoV-2 has been detected. Educational settings still account for the highest proportion of reported incidents. Increases were seen in incidents reported in care homes, hospitals, educational settings, workplace settings, food outlet/restaurants and other settings.

The majority of community and syndromic indicators decreased or remained stable during week 41. General practice (GP) influenza-like illness (ILI) consultations remained low in all UK schemes.

Through the UK GP swabbing scheme, there was little change in SARS-CoV-2 positivity: 5.7% in week 40, 5.0% in week 41.

The overall COVID-19 confirmed hospital and ICU/HDU admission rates continued to increase whilst the influenza confirmed hospital and ICU/HDU admission rates remained low. Emergency department attendances for COVID-19 like diagnosis increased in week 41 whilst those for acute respiratory infections remained stable.

The number of COVID-19 confirmed deaths increased further but no excess all-cause mortality was observed.

Overall estimated national seroprevalence based on blood donor samples was 5.9% with the highest seroprevalence by region seen in London and by age group in young adults.

Influenza vaccine uptake is higher in those aged 65+ and 2 and 3 year olds compared to last year, and slightly higher compared to last year for those in at risk groups and pregnant women.

Contents

Laboratory surveillance

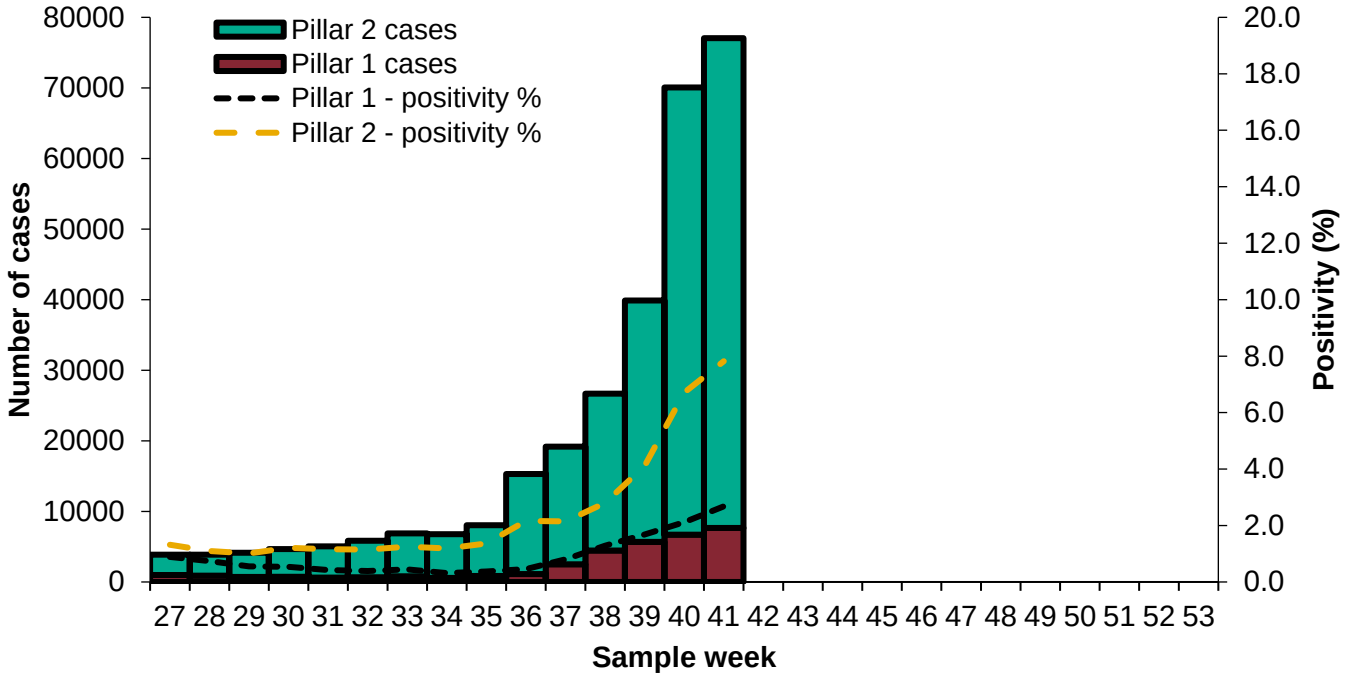
Confirmed COVID-19 cases (England)

As of 09:00 on 13 October 2020, a total of 540,396 have been confirmed positive for COVID-19 in England under Pillar 1 and 2.

Overall case numbers and positivity continued to increase in both Pillar 1 and 2, in week 41, with the majority of cases reported from Pillar 2. The highest case rates and positivity were seen in the 10 to 19 and 20 to 29 year olds in both Pillar 1 and 2. Cases rates and positivity continue to be highest in the North of England.

From this report onwards, case rates in Figures 3,4,7 and 9 have been calculated using mid-2019 ONS population estimates

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



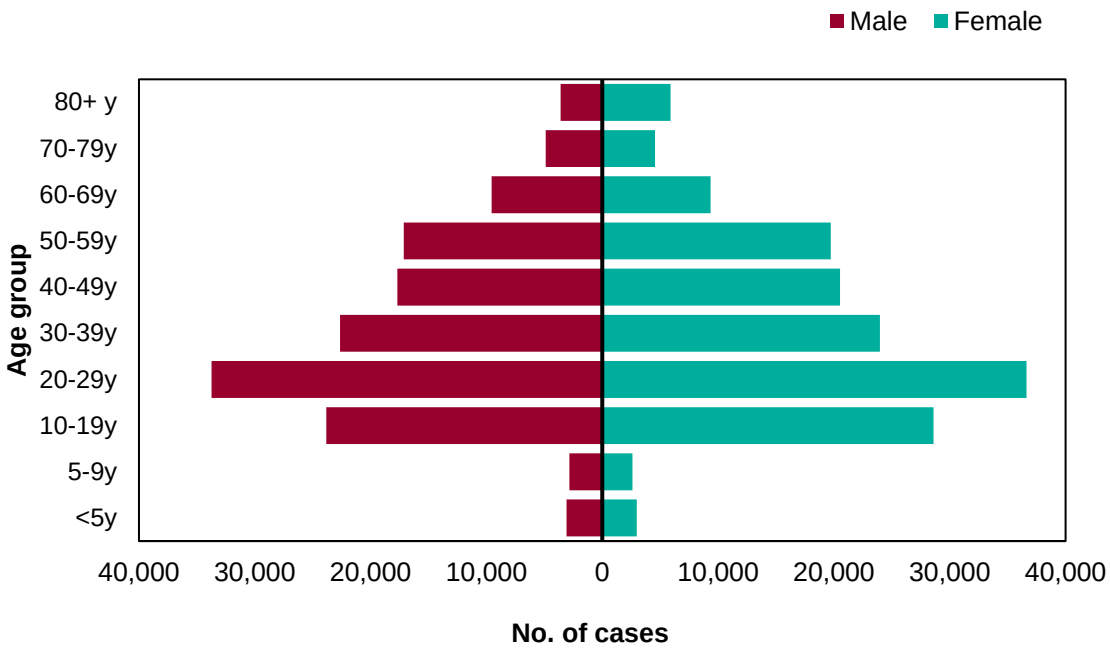
*The data are shown by the week the specimen was taken from the person being tested. This gives the most accurateanalysis of this time progression, however, for the most recent week results for more samples are expected therefore this should be interpreted with caution.

*Positivity data was previously deduplicated across the course of the pandemic to prevent persistent infections being counted as new cases. Since week 40, positivity is calculated as the number of individuals testing positive during the week divided by the number of individuals tested during the week. This approach accounts for the increasing number of individuals who will have been tested multiple times as the pandemic progresses.

Age and sex

Figure 2: Age/sex pyramids for laboratory confirmed COVID-19 cases tested under Pillar 1 and 2 (a) cumulative number since week 27 (n=293,797), and (b) in weeks 40 and 41 (n=145,723)

(a)



(b)

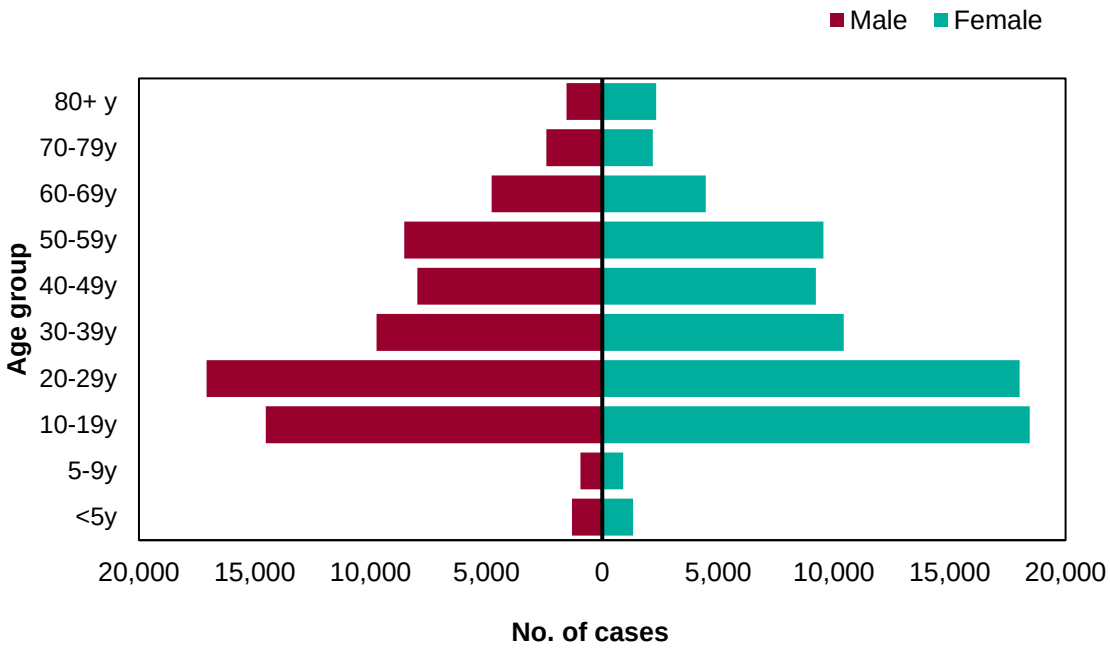


Figure 3: Weekly laboratory confirmed COVID-19 case rates per 100,000, tested under Pillar 1 and Pillar 2, by sex

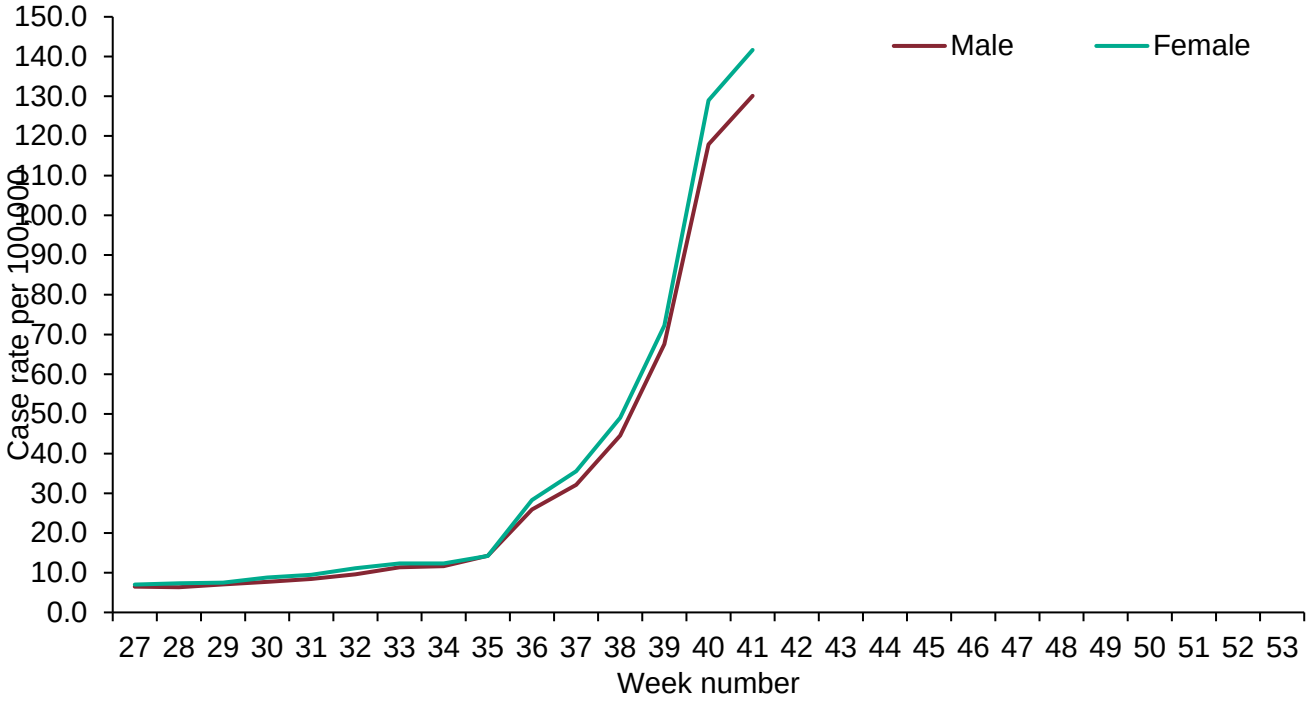


Figure 4: Weekly laboratory confirmed COVID-19 case rates per 100,000, tested under Pillar 1 and Pillar 2 , by age group

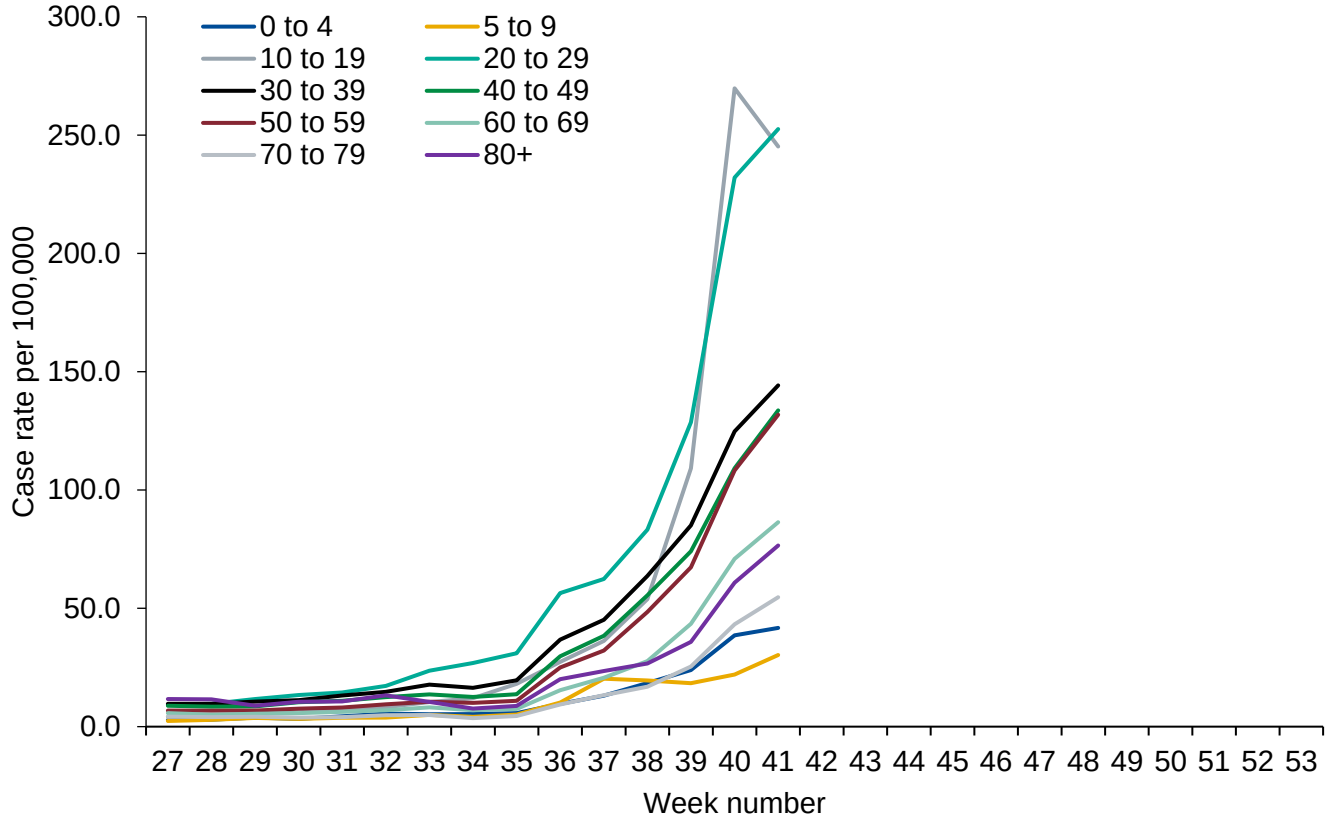
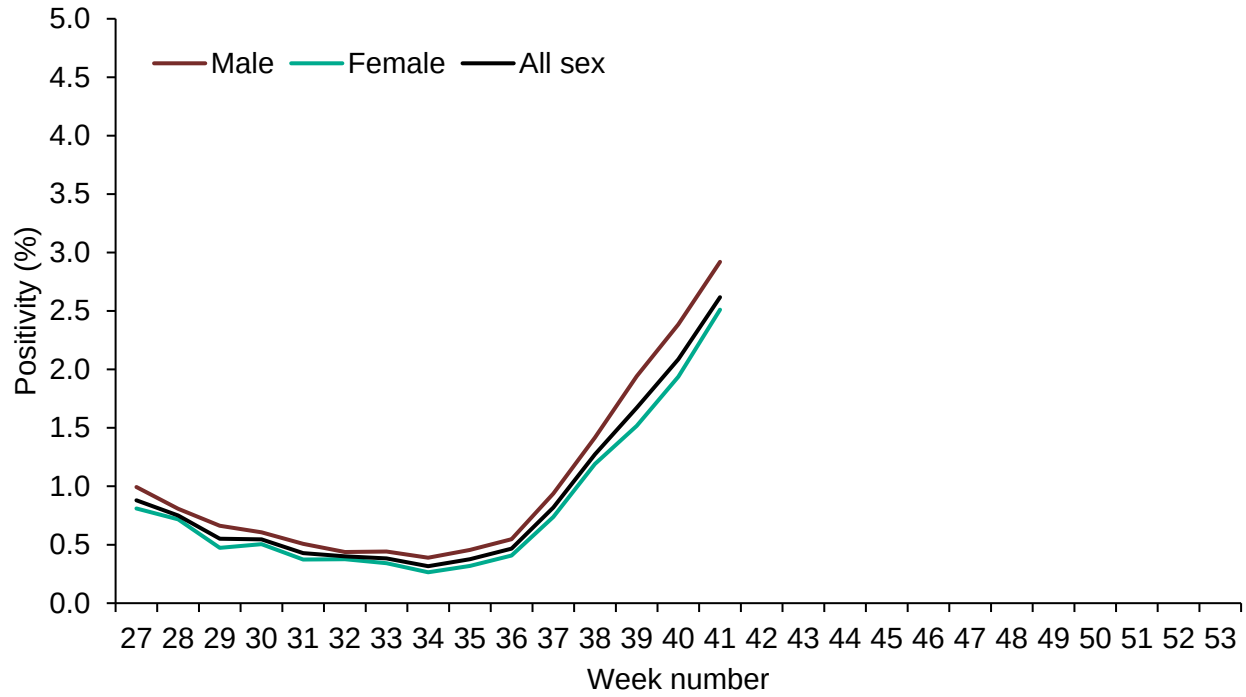


Figure 5: Weekly positivity (%) of laboratory confirmed COVID-19 cases tested overall and by sex under (a) Pillar 1 and (b) Pillar 2, (SGSS and Respiratory DataMart)

(a)



(b)

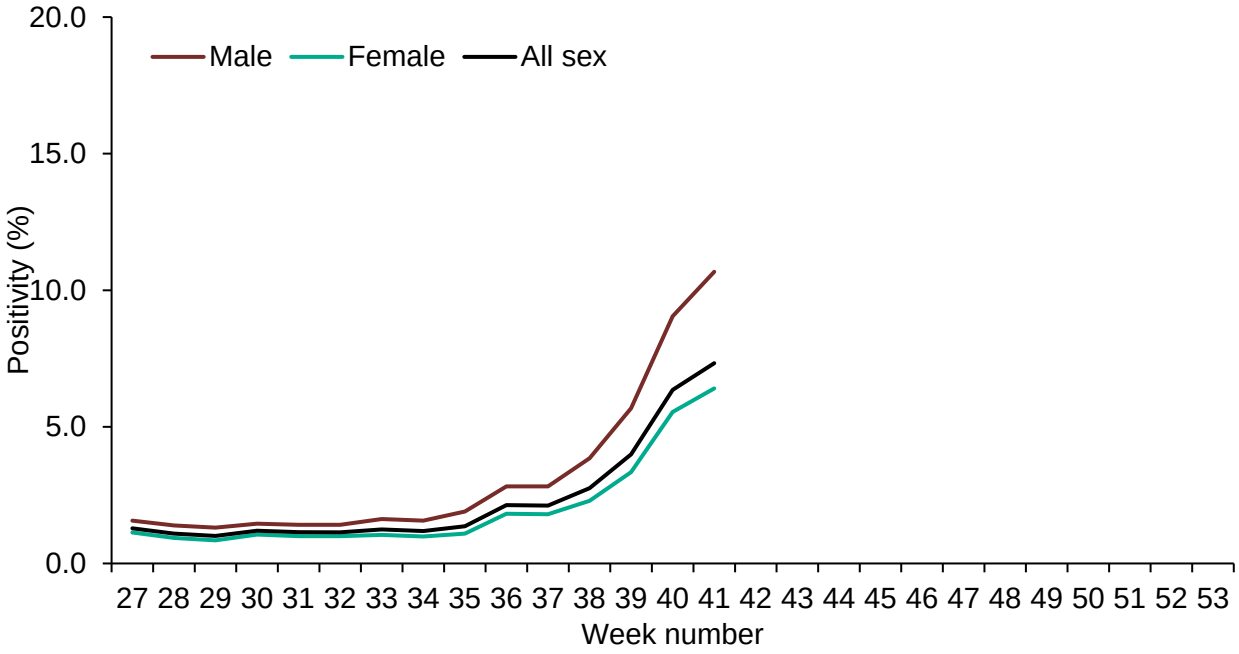
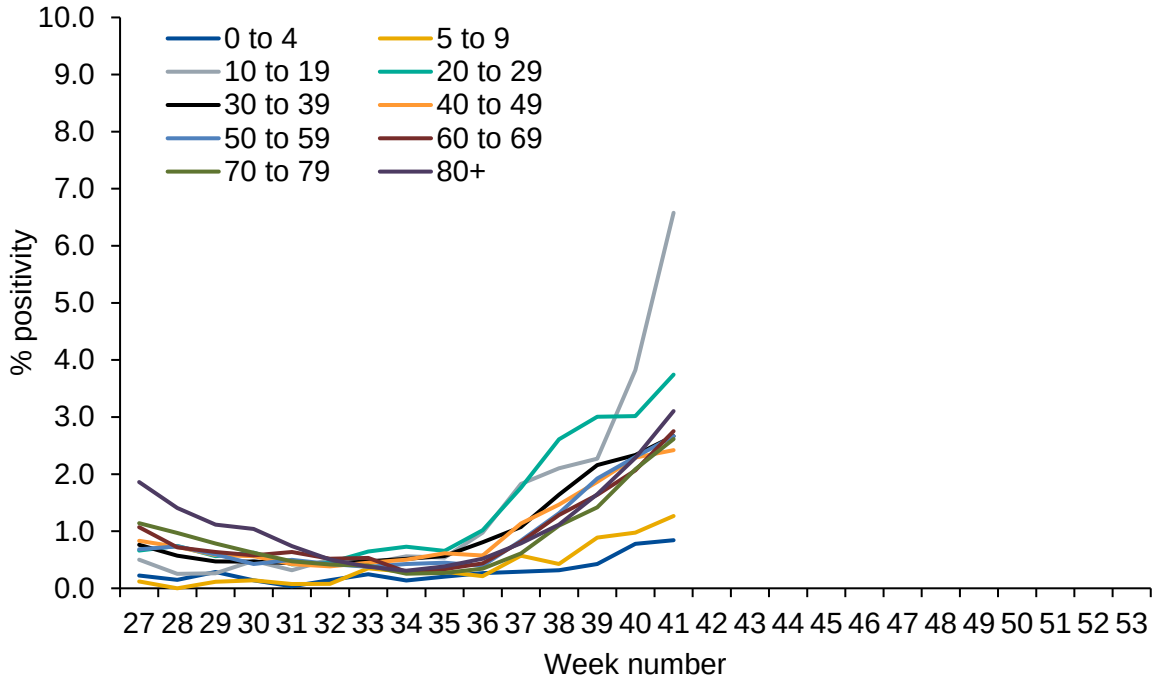
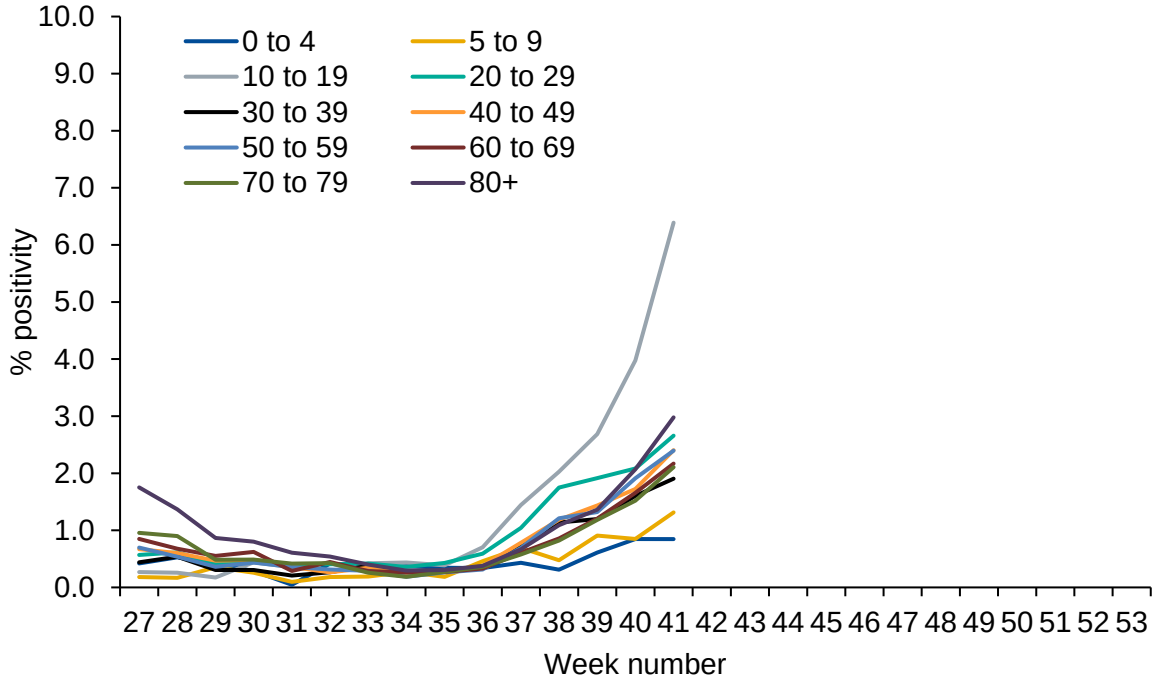


Figure 6: Weekly positivity (%) of laboratory confirmed COVID-19 cases tested under Pillar 1, (a) by male and age group and (b) by female and age group and; under Pillar 2, (c) by male and age group and (d) by female and age group, (SGSS and Respiratory DataMart)

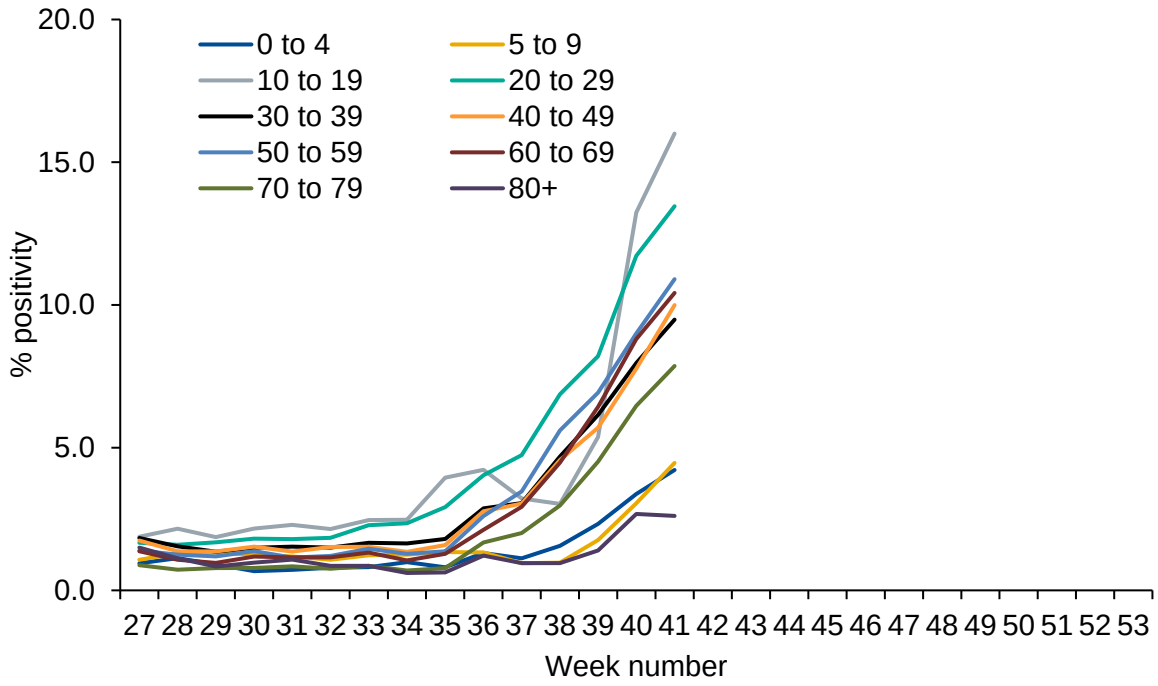
(a) Pillar 1 - Male



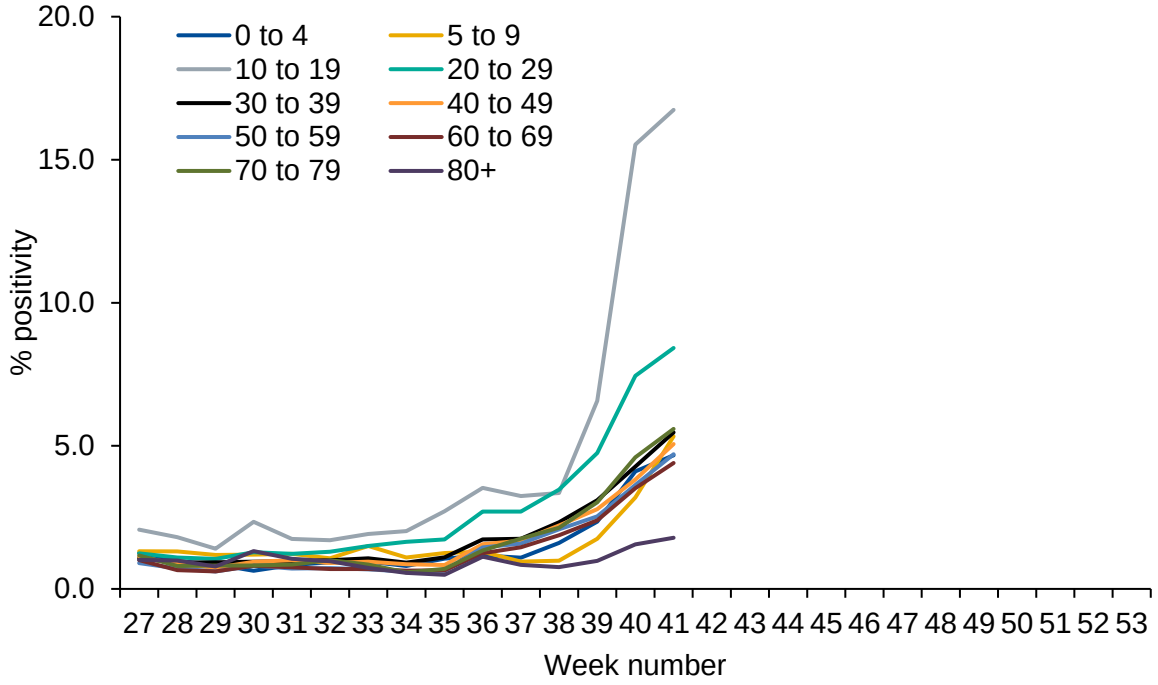
(b) Pillar 1 - Female



(c) Pillar 2 - Male



(d) Pillar 2 - Female



Geography

Table 1: Cumulative number of cases under Pillar 1 and 2 (n=528,288) and cumulative number of cases since week 27 under Pillar 1 and 2 (n=293,421)

PHE Centres	Cumulative Pillar 1 + 2 cases	Cumulative since week 27, Pillar 1 + 2 cases
North East	40,086	25,043
North West	132,328	90,130
Yorkshire and Humber	75,305	46,604
West Midlands	55,197	30,064
East Midlands	47,523	26,884
East of England	39,046	14,929
London	63,781	30,130
South East	50,860	18,146
South West	24,162	11,491

Figure 7: Weekly laboratory confirmed COVID-19 case rates per 100,000 population tested under Pillar 1 and Pillar 2, by PHE Centres and sample week

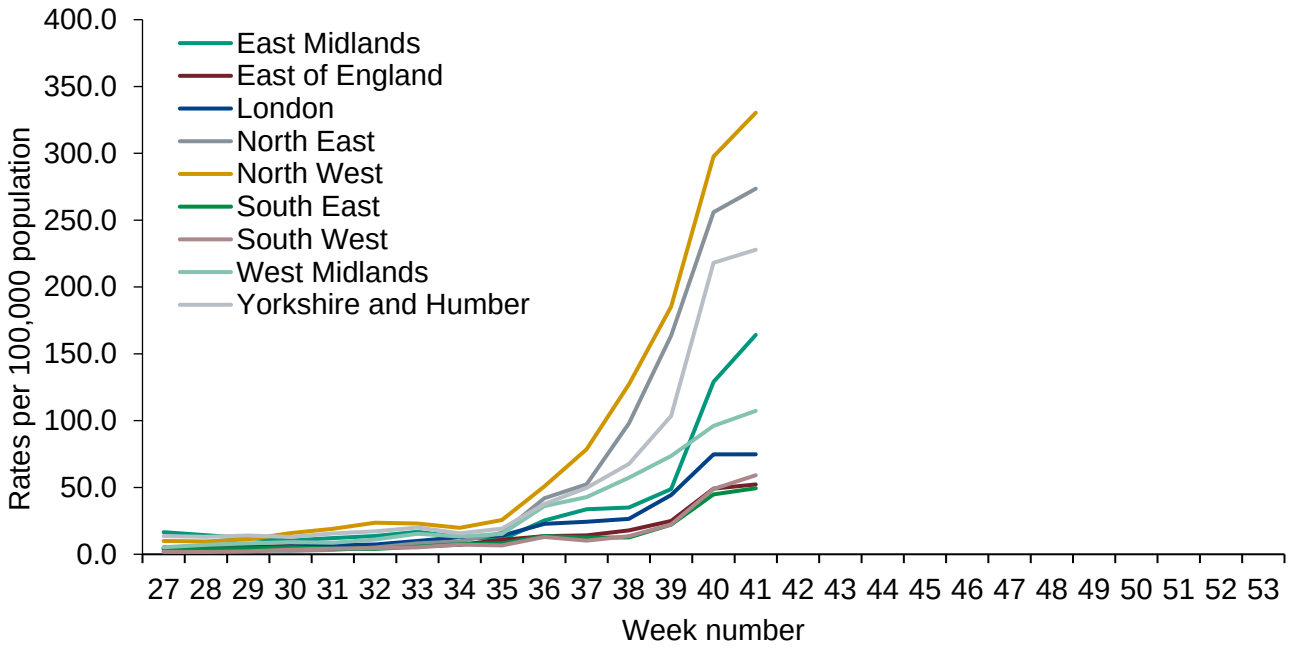
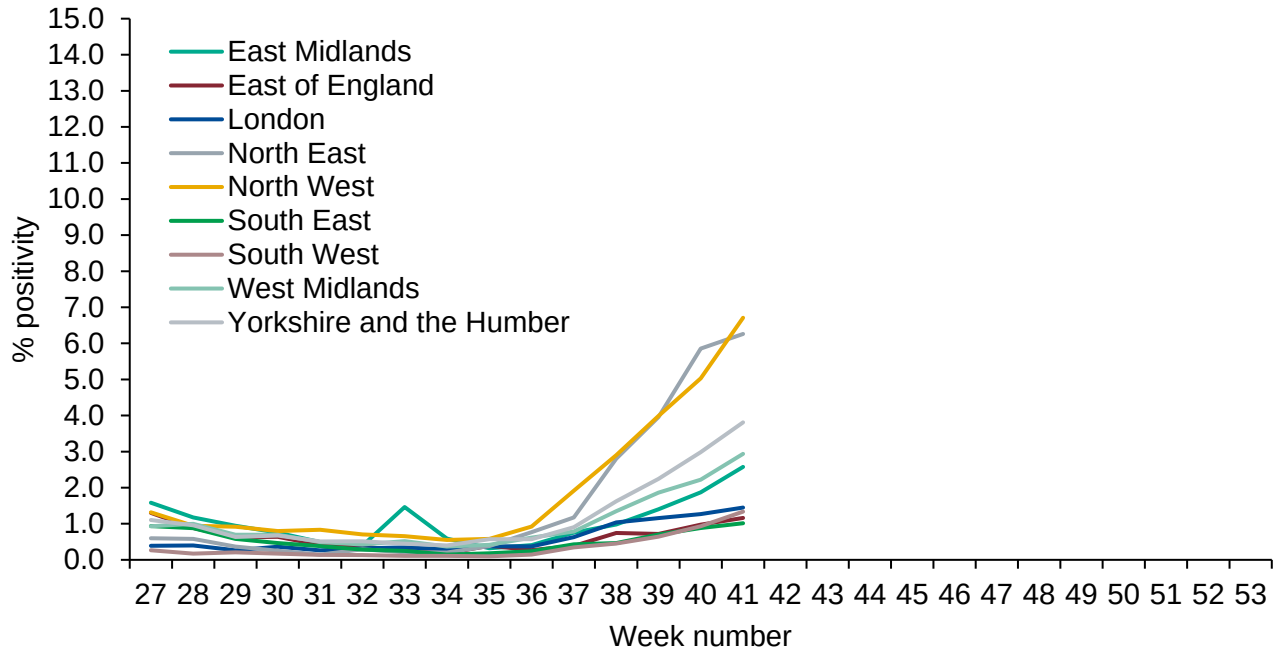


Figure 8: Weekly positivity of laboratory confirmed COVID-19 cases tested under (a) Pillar 1 (%) and (b) Pillar 2 (%), by PHE Centres and sample week, (SGSS and Respiratory DataMart)

(a)



(b)

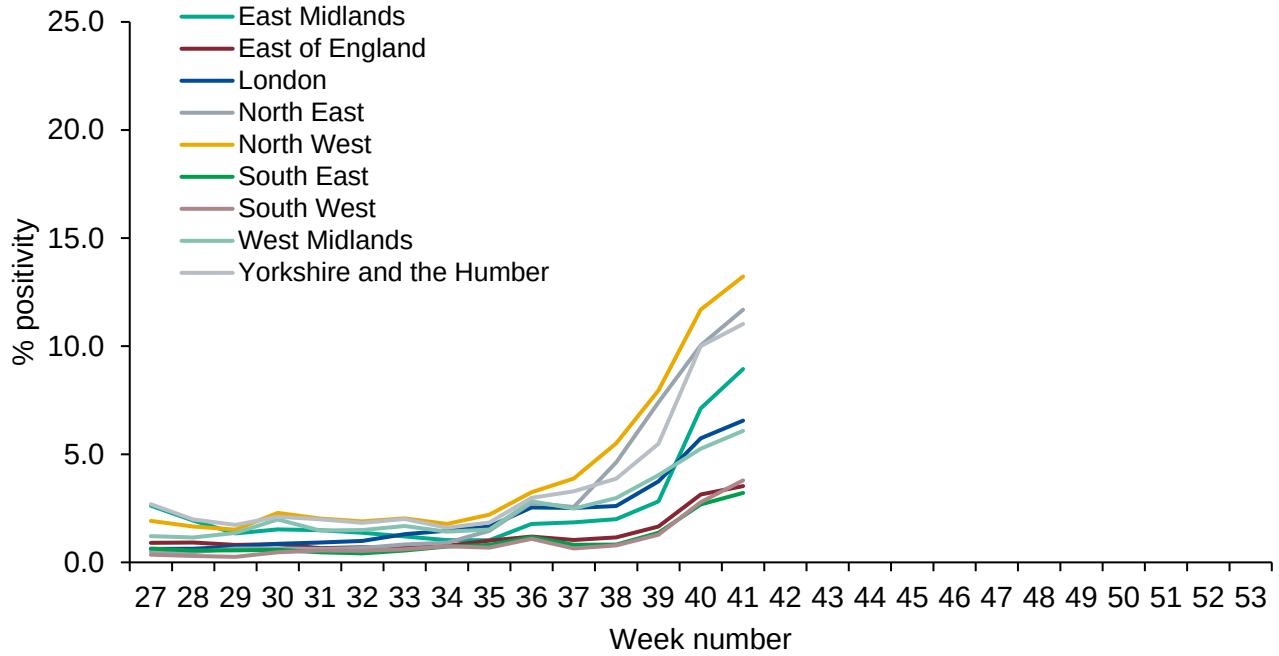
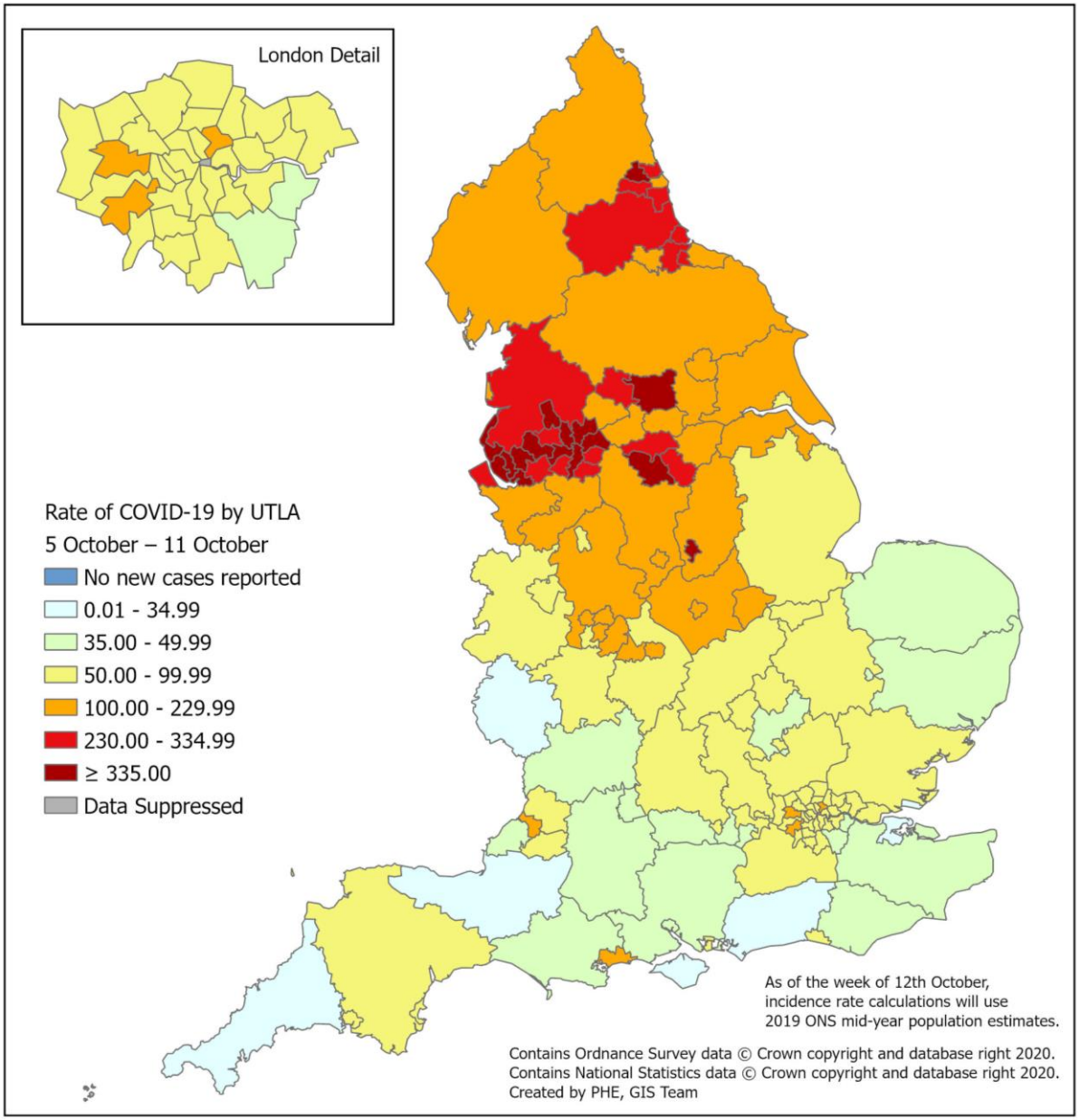
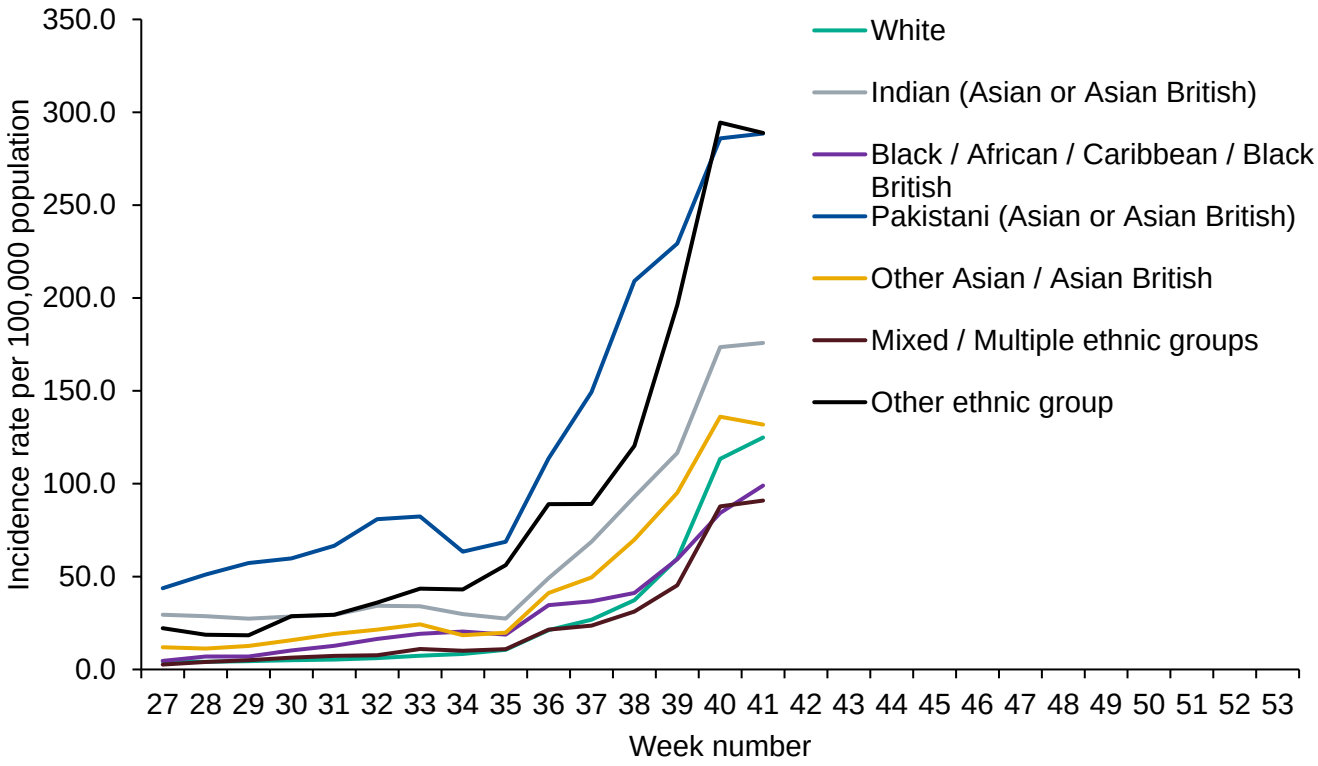


Figure 9: Weekly rate of COVID-19 cases per 100,000 population tested under Pillar 1 and 2, by upper-tier local authority, England (box shows enlarged map of London area)



Ethnicity

Figure 10: Weekly incidence per 100,000 population by ethnicity, England



*the incidence rates on Figure 10 have been calculated using the mid-2018 ONS population estimates

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 41 2020, out of the 76,398 respiratory specimens reported through the Respiratory DataMart System (based on data received from 11 out of 16 laboratories), 3,068 samples were positive for SARS-CoV-2 with an overall positivity of 4.0%. The highest positivity was noted in the 15 to 44 year olds at 5.8% in week 41. The overall influenza positivity was low at 0.0% in week 41, with no samples testing positive (out of 507 tested) (Figure 11).

Rhinovirus positivity decreased slightly at 20.1% in week 41 compared to 26.8% in the previous week (Figure 12). The highest positivity by age group for rhinovirus was noted in the less than 5 year olds in week 41 (Figure 13). Respiratory syncytial virus (RSV), adenovirus, parainfluenza and human metapneumovirus (hMPV) positivity all remained low at 0.0%, 1.9%, 0.0% and 0.2% respectively in week 41 (Figure 12).

Figure 11: DataMart samples positive for influenza and weekly positivity (%) for influenza and SARS-CoV-2, England

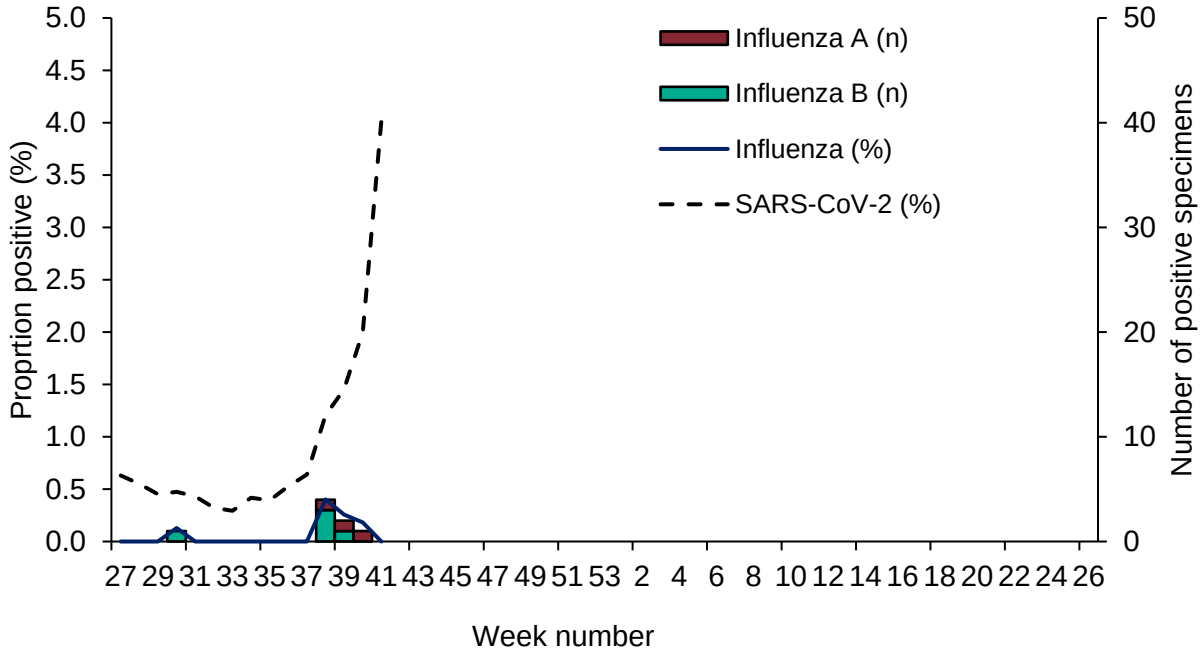


Figure 12: DataMart weekly positivity (%) for other respiratory viruses, England

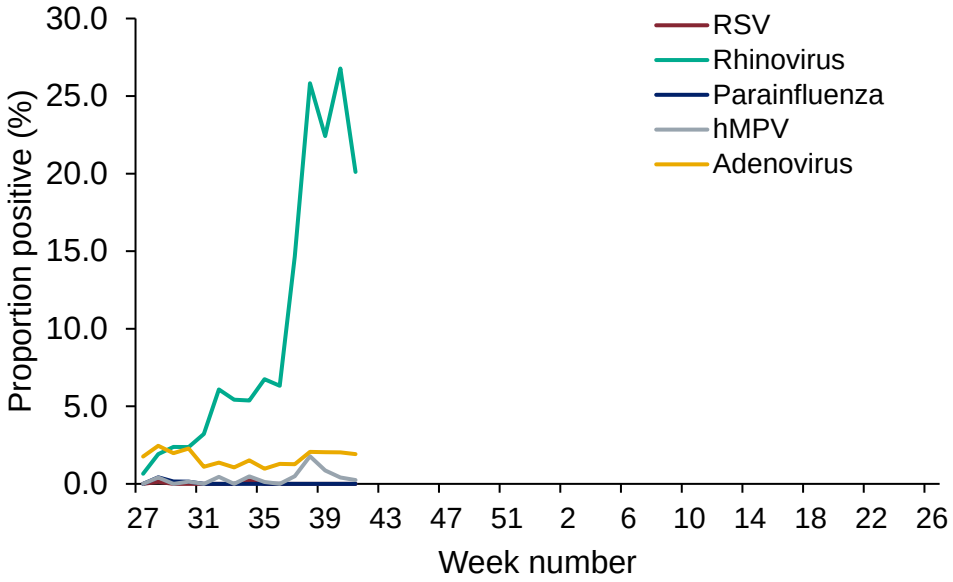
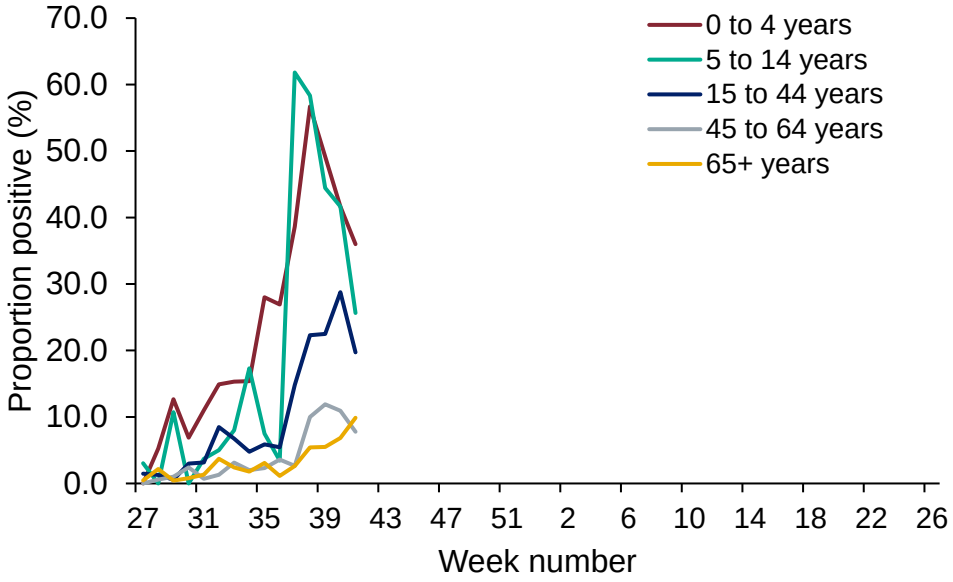


Figure 13: DataMart weekly positivity (%) for rhinovirus by age, England



Community surveillance

Acute respiratory infection incidents

Information on acute respiratory infection (ARI) incidents is based on situations reported to PHE Health Protection Teams (HPTs). These include:

- confirmed outbreaks of acute respiratory infections ie two or more laboratory confirmed cases (SARS-CoV-2, influenza or other respiratory pathogens) linked to a particular setting
- setting situations where an outbreak is suspected

All suspected outbreaks are further investigated by the HPT in liaison with local partners and a significant proportion do not meet the criteria of a confirmed outbreak. For example if suspected cases test negative for COVID19 or other respiratory pathogens, or cases are subsequently found not to have direct links to the setting. Since Pillar 2 testing became open to everyone during week 21 more incidents of mild disease have been detected in settings with healthy young populations.

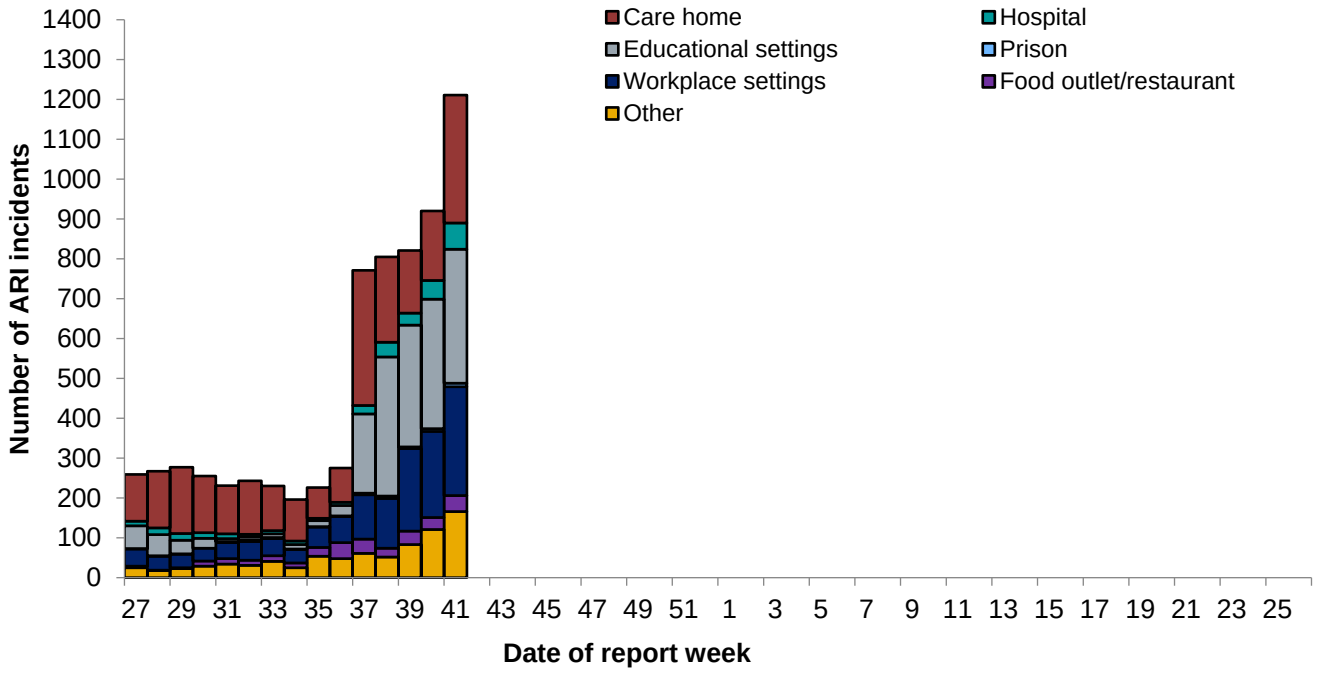
Processes for reporting ARI incidents vary between PHE Centres.

The number of incidents in each setting with at least one laboratory confirmed case of COVID19 are reported below.

1211 new ARI incidents have been reported in week 41 in the UK (Figure 14):

- 321 incidents were from care homes where 214 had at least one linked case that tested positive for SARS-CoV-2
- 66 incidents were from hospitals where 52 had at least one linked case that tested positive for SARS-CoV-2
- 336 incidents were from educational settings where 279 had at least one linked case that tested positive for SARS-CoV-2
- 9 incidents were from prisons where 6 had at least one linked case that tested positive for SARS-CoV-2
- 273 incidents were from workplace settings where 178 had at least one linked case that tested positive for SARS-CoV-2
- 40 incidents were from food outlet/restaurant settings where 29 had at least one linked case that tested positive for SARS-CoV-2
- 166 incidents were from the other settings category where 111 had at least one linked case that tested positive for SARS-CoV-2

Figure 14: Number of acute respiratory infection (ARI) incidents by institution, UK



*excludes data from Wales

Figure 15: Number of acute respiratory infection (ARI) incidents by institution, England

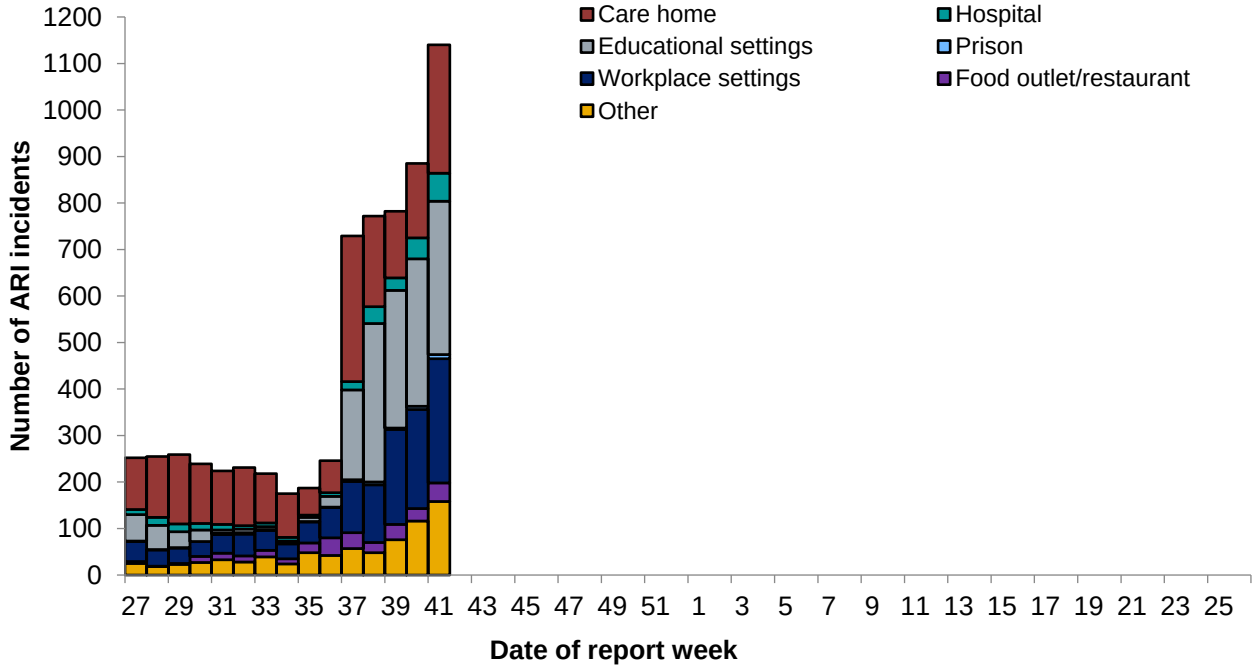


Figure 16: Number of acute respiratory infection (ARI) incidents in care homes by virus type from week 27, England

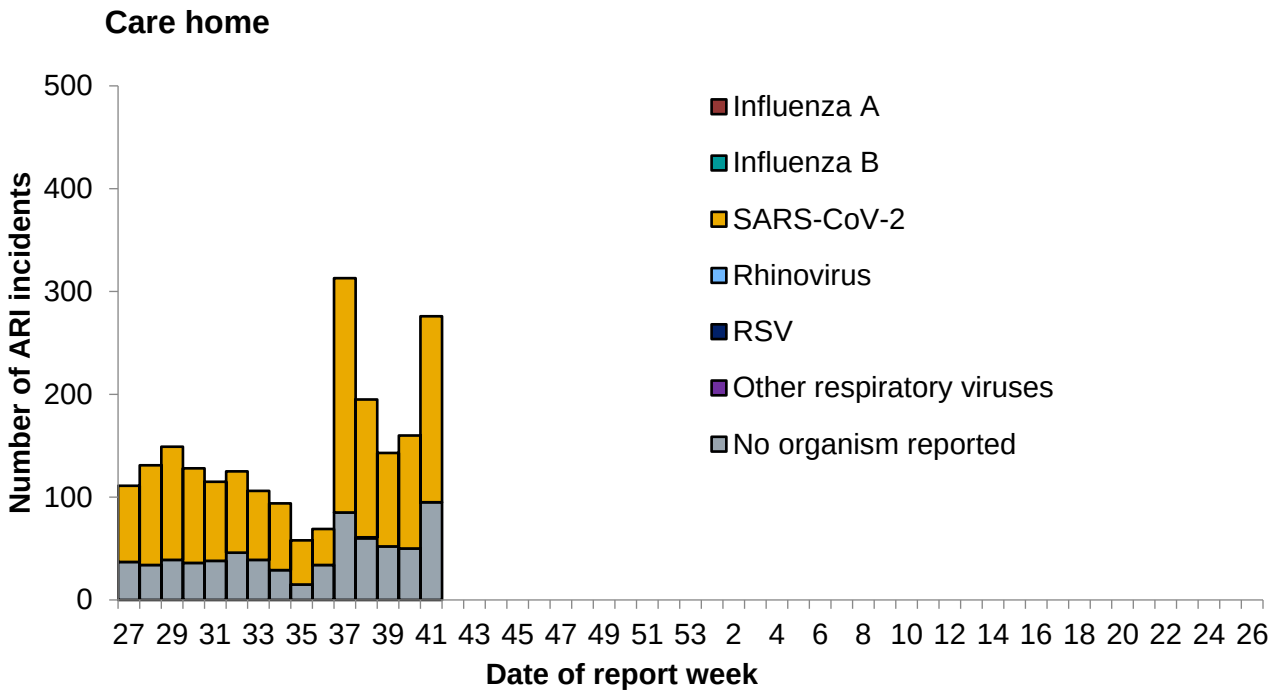


Figure 17: Number of acute respiratory infection (ARI) incidents in hospitals by virus type from week 27, England

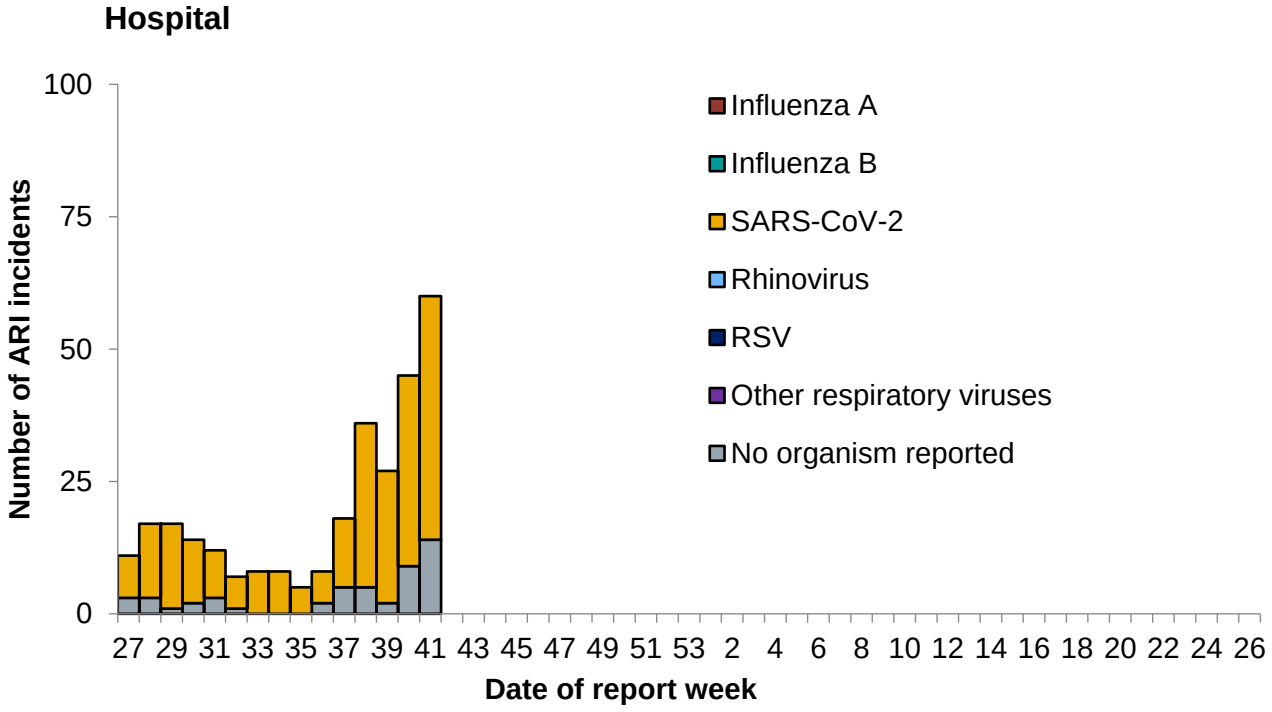


Figure 18: Number of acute respiratory infection (ARI) incidents in educational settings by virus type from week 27, England

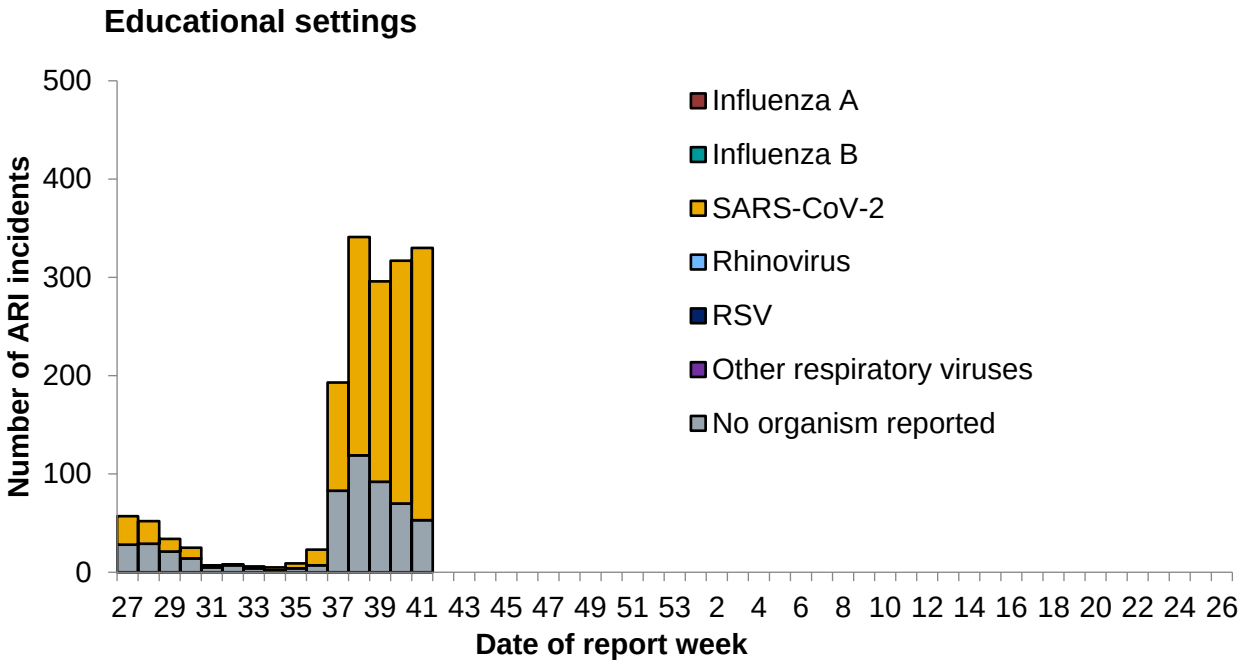


Figure 19: Number of acute respiratory infection (ARI) incidents in prisons by virus type from week 27, England

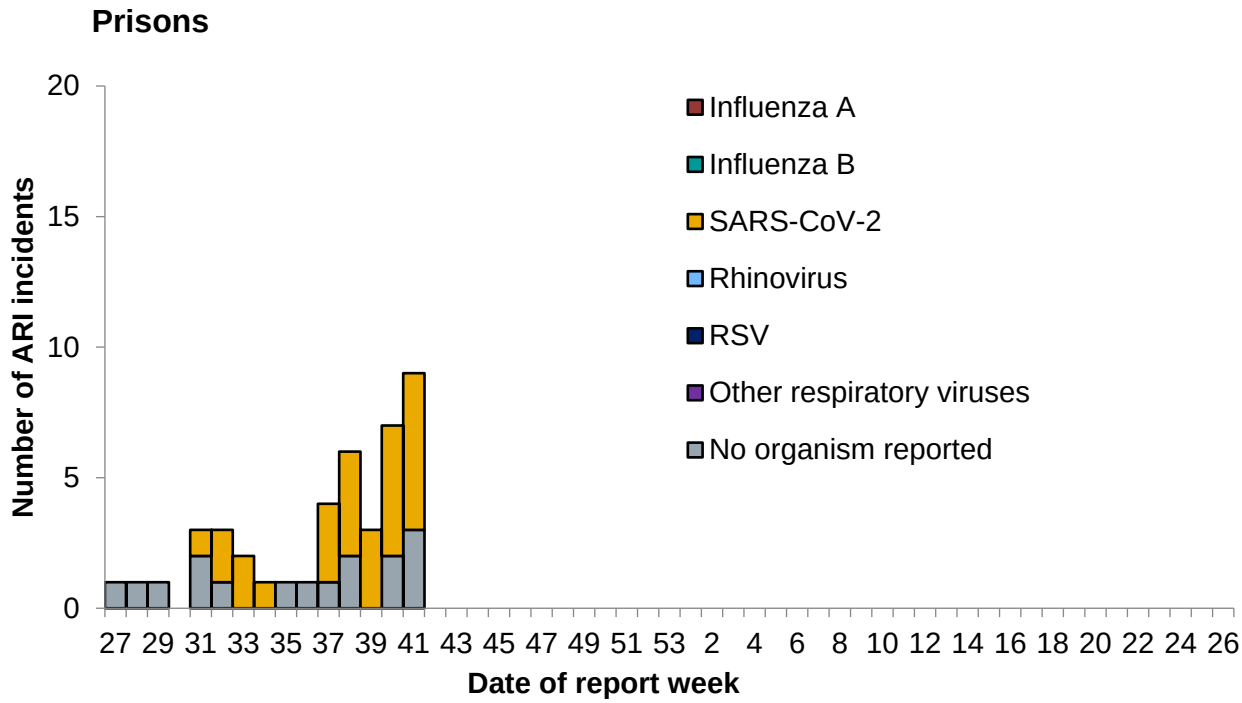


Figure 20: Number of acute respiratory infection (ARI) incidents in workplace settings by virus type from week 27, England

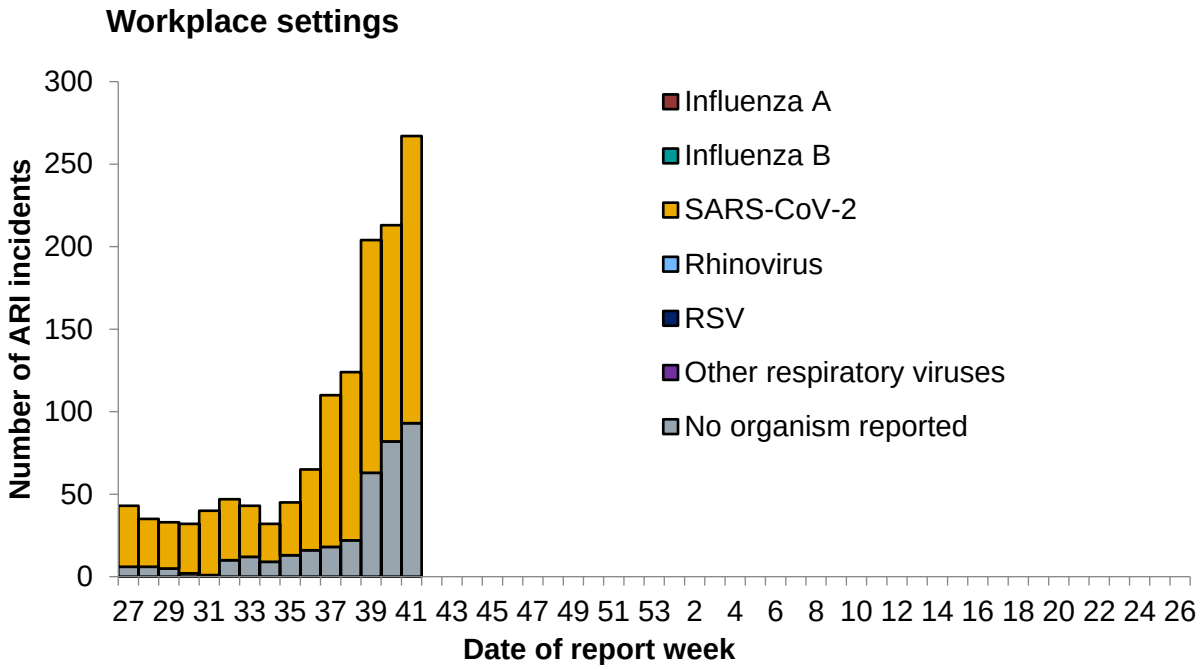


Figure 21: Number of acute respiratory infection (ARI) incidents in food outlet/restaurants settings by virus type from week 27, England

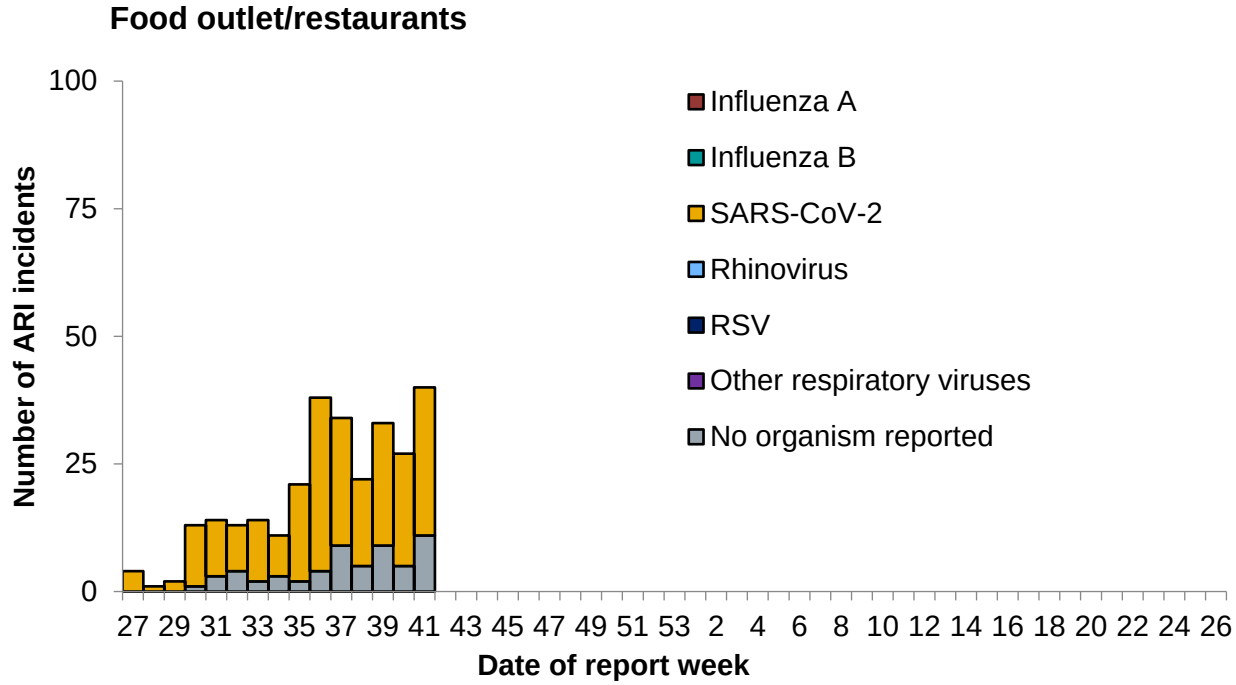


Figure 22: Number of acute respiratory infection (ARI) incidents in other settings settings by virus type from week 27, England

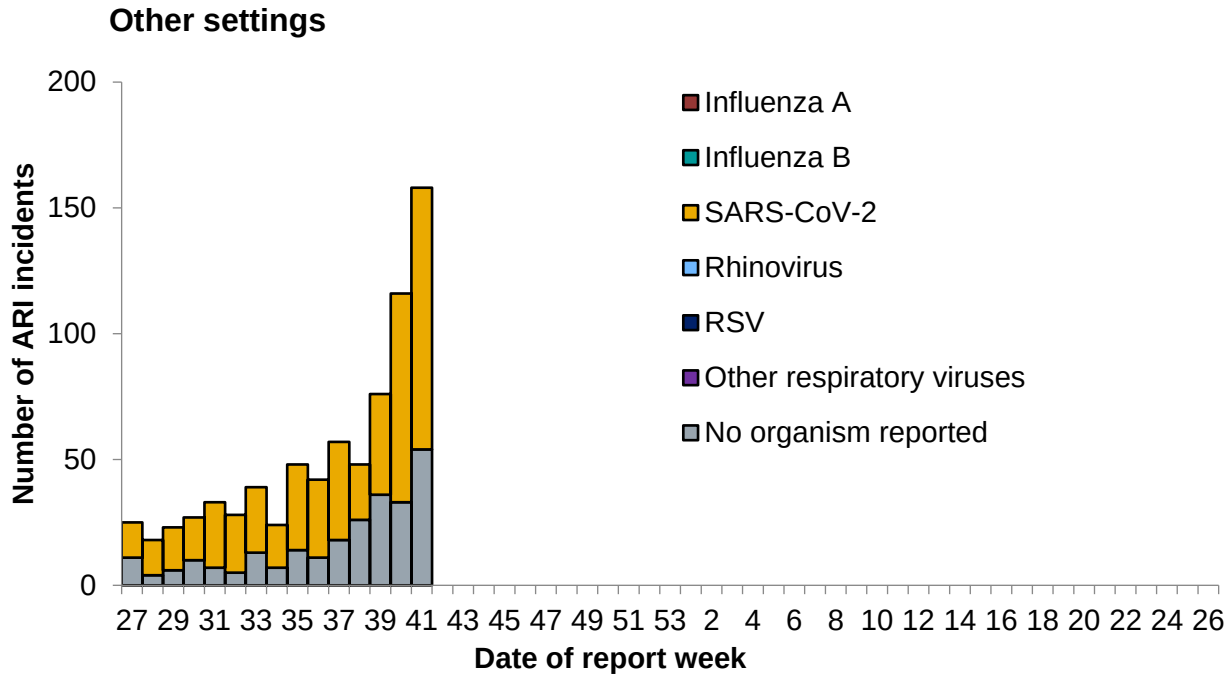


Table 2: Total number of situations/incidents by institution and PHE Centres over the past four weeks with the total number in the last week in brackets

PHE Centres	Care home	Hospital	Educational settings	Prisons	Workplace settings	Food outlet/restaurant settings	Other settings	Total
East of England	79(39)	10(1)	40(6)	0(0)	40(11)	5(1)	11(4)	185(62)
East Midlands	82(16)	18(4)	112(47)	3(1)	74(28)	16(8)	24(14)	329(118)
London	54(23)	27(5)	311(93)	3(1)	103(36)	18(6)	33(10)	549(174)
North East	83(27)	1(0)	48(10)	2(1)	19(7)	2(1)	24(9)	179(55)
North West	102(60)	30(16)	211(39)	2(0)	228(55)	26(6)	140(55)	739(231)
South East	97(36)	24(8)	93(33)	5(3)	42(25)	6(2)	20(7)	287(114)
South West	88(24)	8(6)	102(33)	1(0)	46(19)	12(4)	23(7)	280(93)
West Midlands	99(29)	40(16)	220(37)	4(1)	143(50)	21(7)	34(10)	561(150)
Yorkshire and Humber	90(22)	10(4)	147(32)	5(2)	113(36)	16(5)	89(42)	470(143)
Total	774(276)	168(60)	1284(330)	25(9)	808(267)	122(40)	398(158)	3579(1140)

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 41, 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 37	week 38	week 39	week 40	week 41
Residential dwelling (including houses, flats, sheltered accommodation)	80.6	80.9	79.3	78.0	78.2
Undetermined	15.2	15.5	16.3	15.4	16.4
Care/Nursing home	2.6	1.8	1.4	1.5	1.4
Residential institution (including residential education)	0.5	0.4	1.1	2.4	2.0
House in multiple occupancy (HMO)	0.4	0.6	1.0	1.6	0.9
Medical facilities (including hospitals and hospices, and mental health)	0.4	0.5	0.3	0.3	0.3
Other property classifications	0.3	0.2	0.3	0.5	0.5
Prisons, detention centres, secure units	0.0	0.0	0.2	0.2	0.1
No fixed abode	0.0	0.0	0.0	0.0	0.0
Overseas address	0.0	0.0	0.0	0.0	0.0

Medical Officers of Schools Association (MOSA) & PHE surveillance scheme

Boarding schools in England within the MOSA network are recruited each season to report various respiratory related illnesses including influenza like illnesses (ILI).

Data will be reported from week 45.

If you are a MOSA school and would like to participate in this scheme, please email mosa@phe.gov.uk for more information.

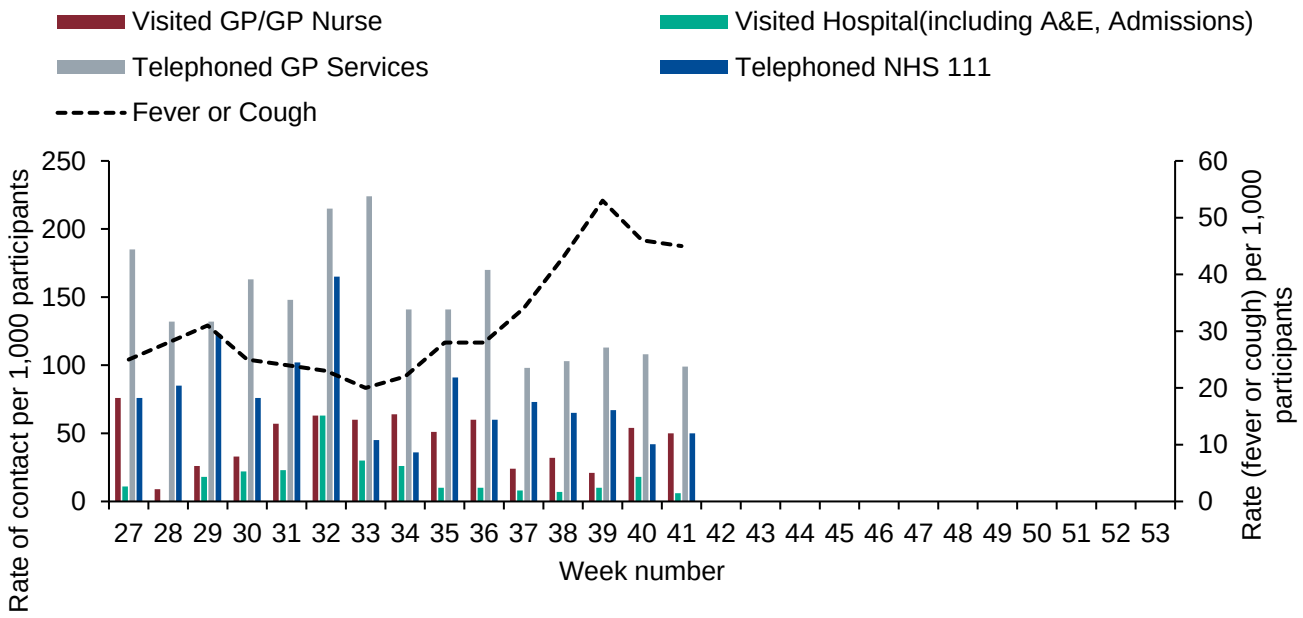
FluSurvey

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.

A total of 3,616 participants completed the weekly COVID-19 surveillance survey in week 41, of which 161 (4.5%) reported fever or cough. The most commonly reported method of access to healthcare services continue to be through telephoning a GP practice in week 41 (Figure 23).

ILI data will be reported from week 45.

Figure 23: Rate of contact with different healthcare services among FluSurvey participants reporting fever or cough symptoms, England

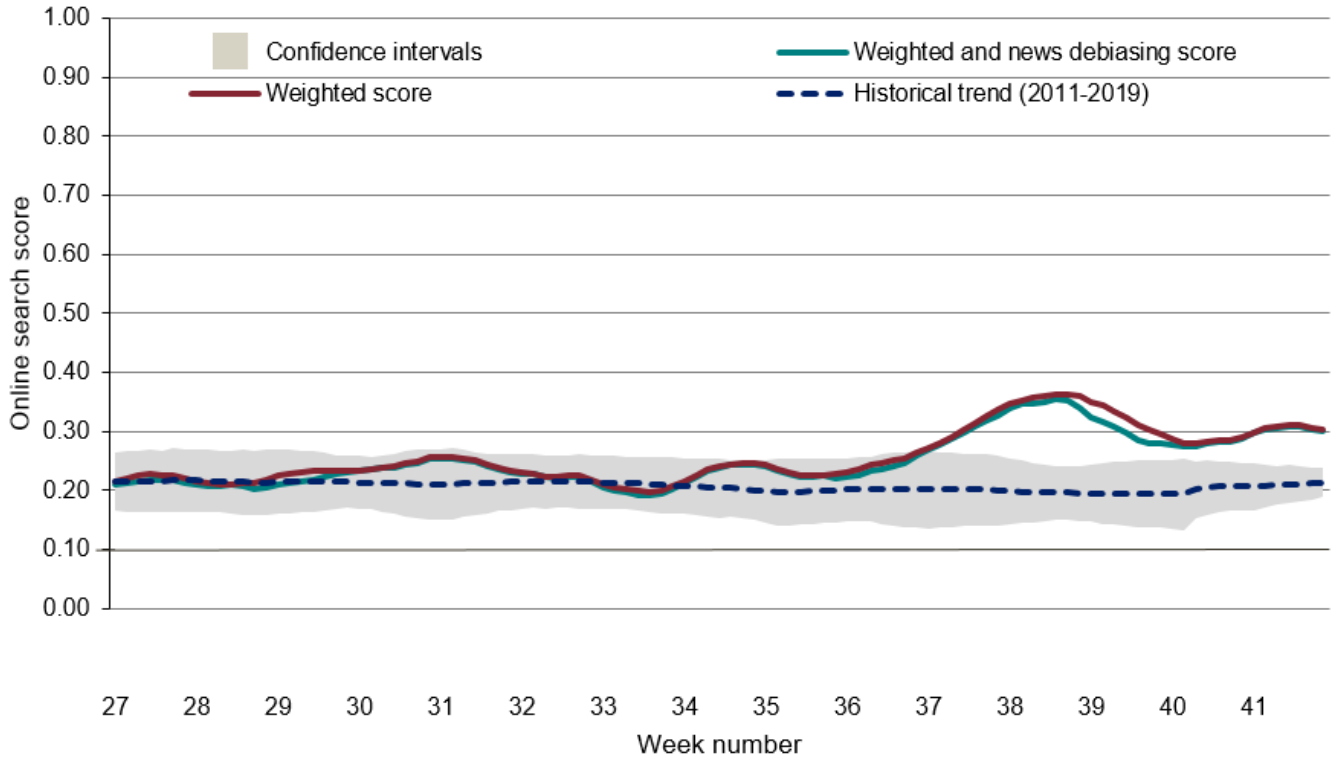


Google search queries

This is a web-based syndromic surveillance system which uses daily search query frequency statistics obtained from the Google Health Trends API [1]. 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.

During week 41, the overall and media-debiasing weighted Google search scores increased and stabilised in the latter part of the week (Figure 24).

Figure 24: 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.

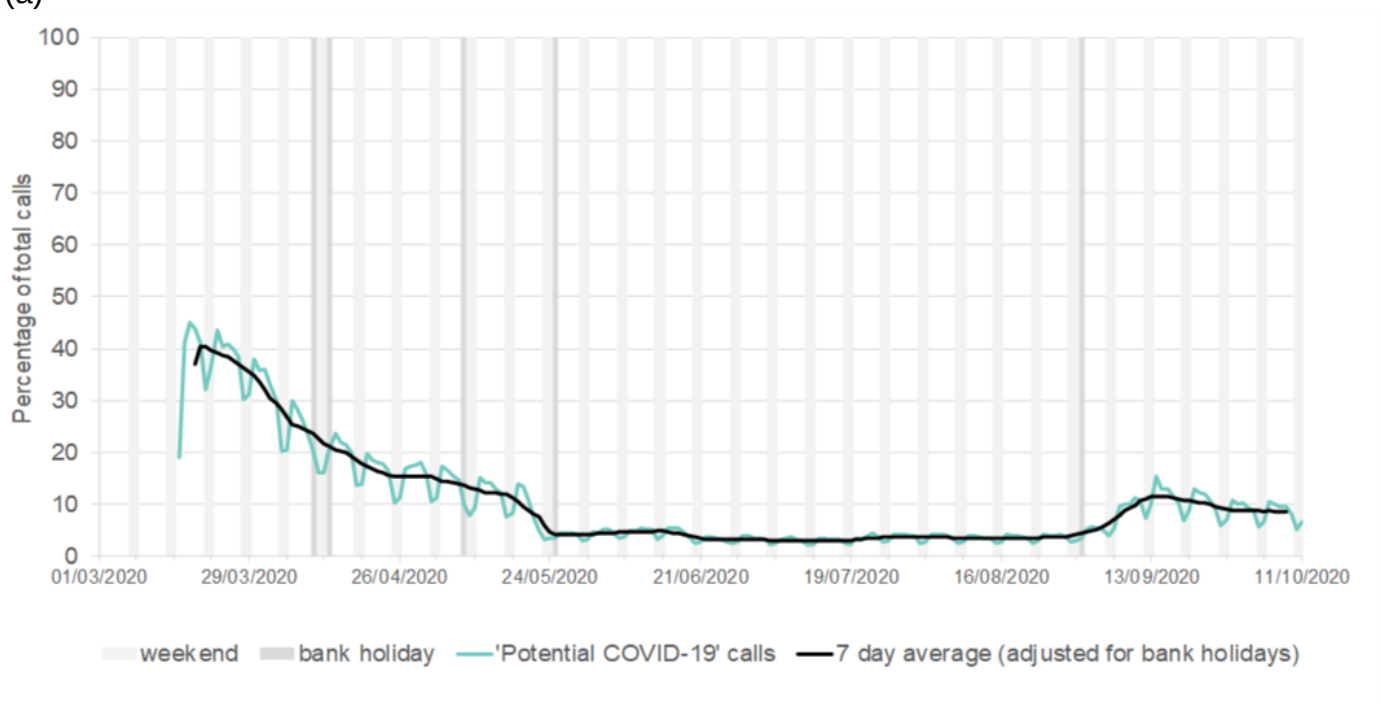
Up to 11 October 2020, the daily percentage of NHS 111 'potential COVID-19-like' calls (as a percentage of total NHS 111 calls) and number of online assessments are decreasing. The daily percentage of cold/flu calls (as a percentage of total NHS 111 calls) and cold/flu completed online assessments are decreasing (Figure 25 and 26). The daily percentage of loss of taste or smell calls are decreasing while online assessments for loss of taste or smell are increasing.

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.

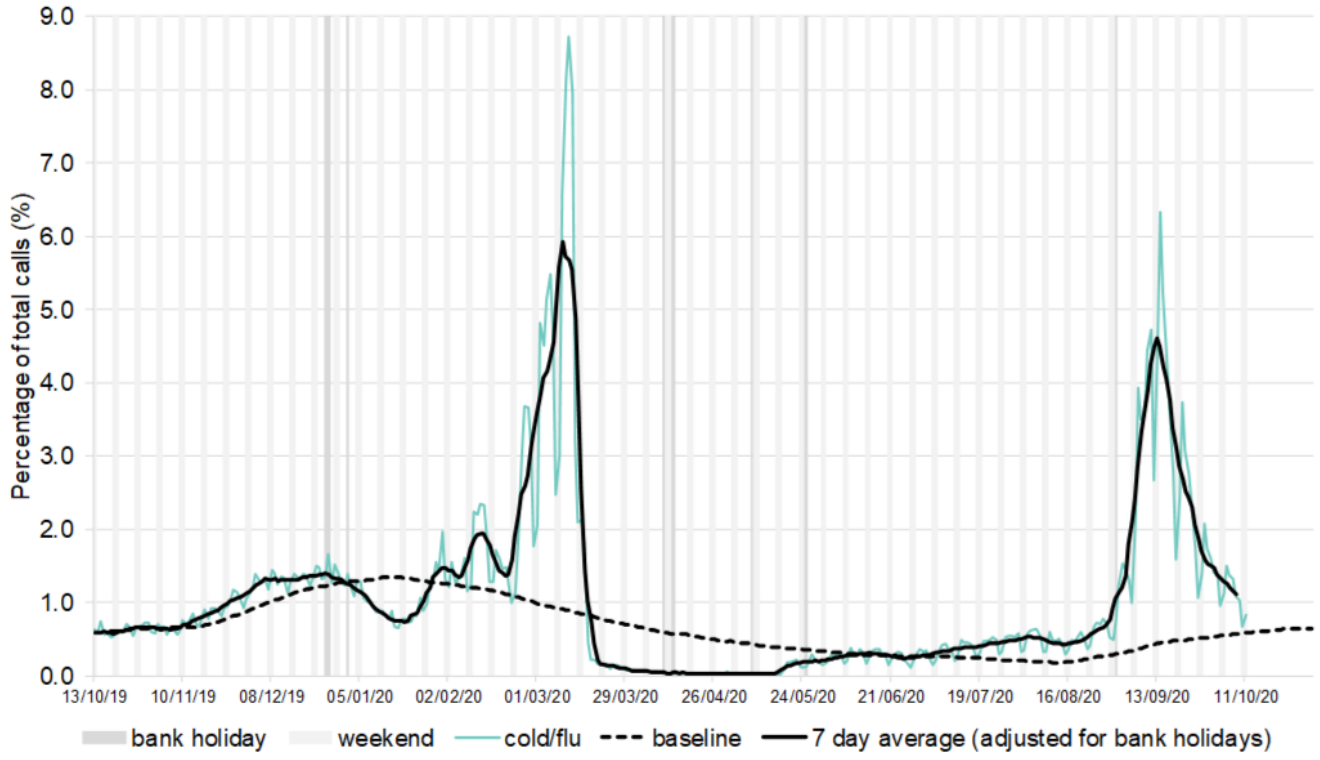
Further information about these caveats is available from the PHE Remote Health Advice Syndromic Surveillance bulletin.

Figure 25: 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)


Percentage of total calls (%)
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
13/10/19
10/11/19
08/12/19
05/01/20
02/02/20
01/03/20
29/03/20
26/04/20
24/05/20
21/06/20
19/07/20
16/08/20
13/09/20
11/10/20
bank holiday
weekend
cold/flu
baseline
7 day average (adjusted for bank holidays)

(c)

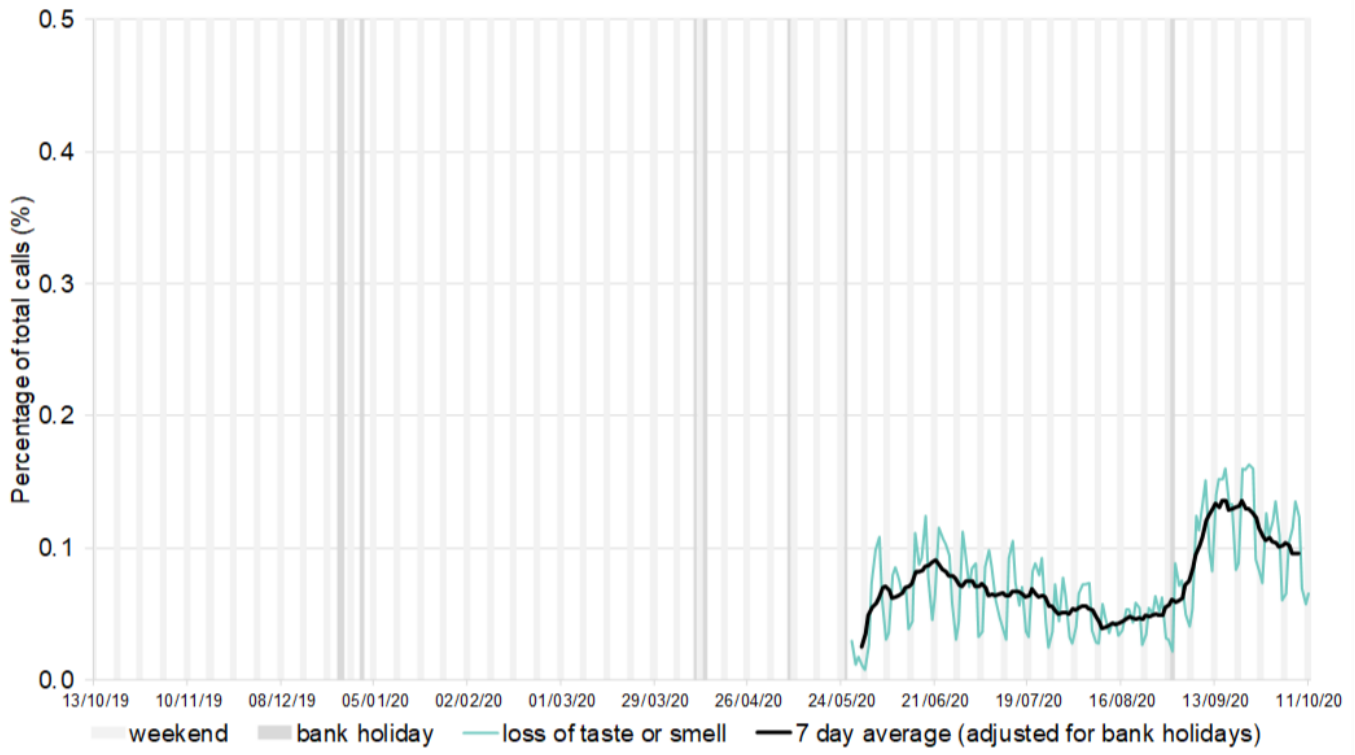
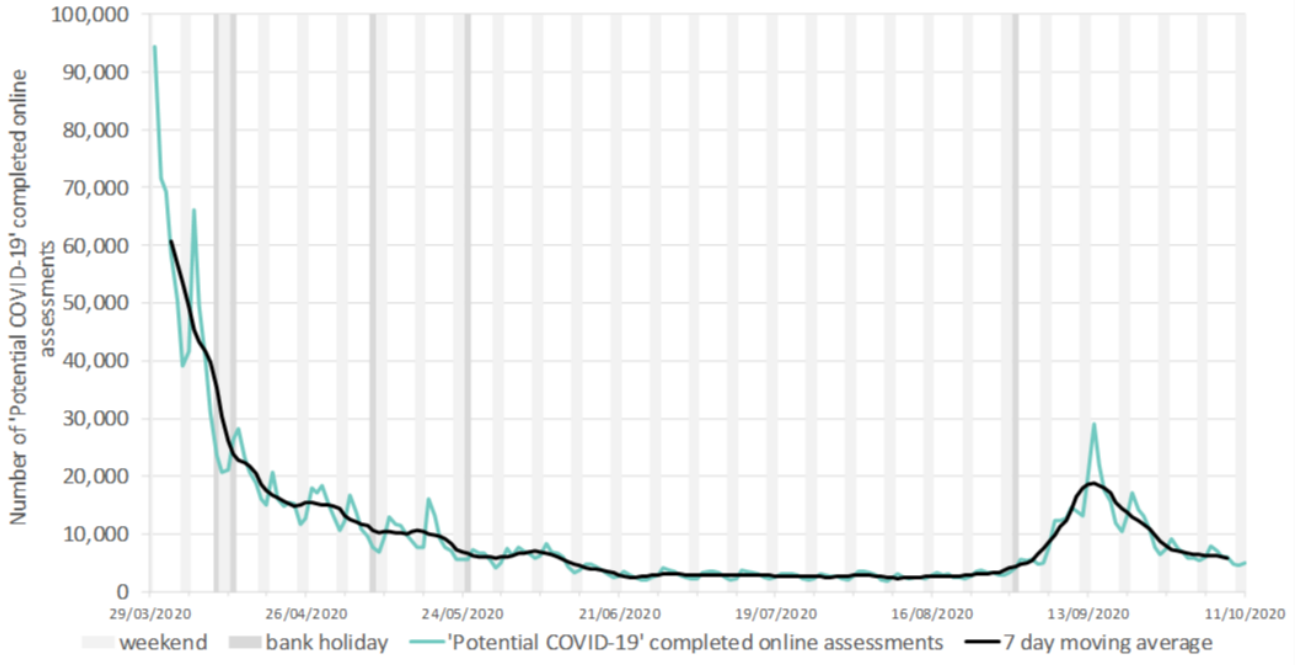
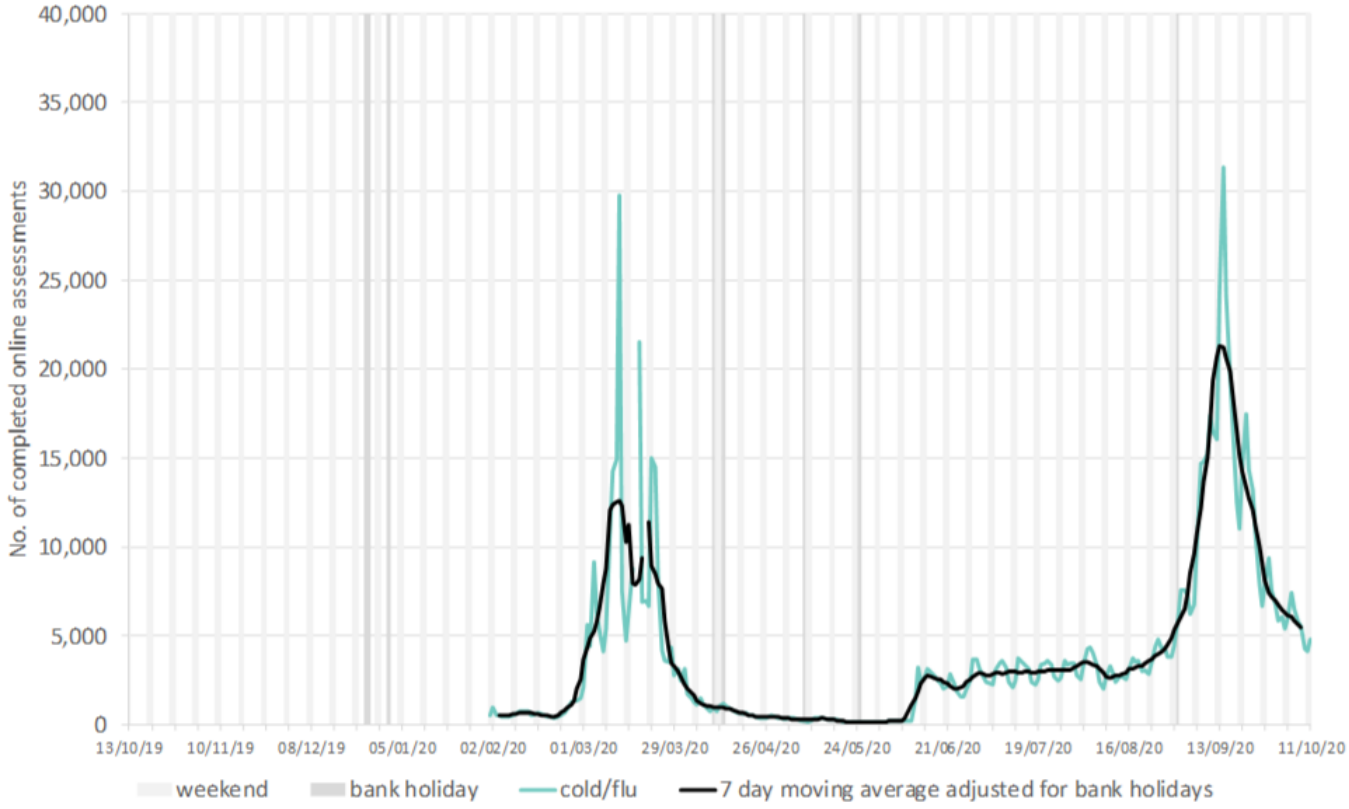

Percentage of total calls (%)
0.5
0.4
0.3
0.2
0.1
0.0
13/10/19
10/11/19
08/12/19
05/01/20
02/02/20
01/03/20
29/03/20
26/04/20
24/05/20
21/06/20
19/07/20
16/08/20
13/09/20
11/10/20
weekend
bank holiday
loss of taste or smell
7 day average (adjusted for bank holidays)

Figure 26: 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

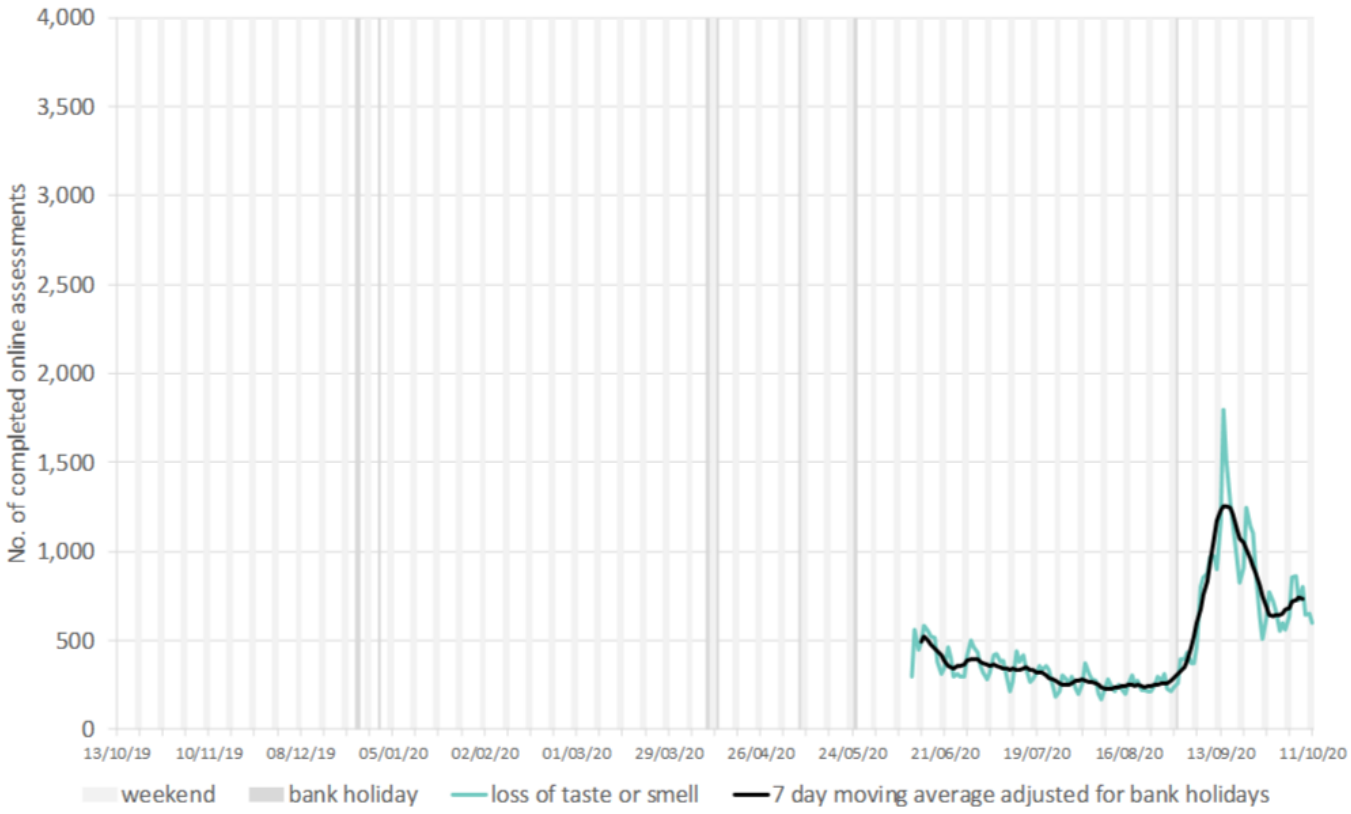
(a)



(b)



(c)


4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
No. of completed online assessments
13/10/19
10/11/19
08/12/19
05/01/20
02/02/20
01/03/20
29/03/20
26/04/20
24/05/20
21/06/20
19/07/20
16/08/20
13/09/20
11/10/20
weekend
bank holiday
loss of taste or smell
7 day moving average adjusted for bank holidays

Primary care surveillance

RCGP (England)

The weekly ILI consultation rate through the RCGP surveillance was 1.7 per 100,000 registered population in participating GP practices in week 41 compared to the 2.1 per 100,000 in the previous week. This is below the baseline threshold (12.2 per 100,000) (Figure 27). By age group, the highest rates were seen in the less than 1 year olds (3.1 per 100,000) and in the 45 to 64 year olds (2.8 per 100,000). The Lower Respiratory Tract Infections (LRTI) consultation rate was at 23.4 per 100,000 in week 41, which was similar to the rate of 23.4 per 100,000 from the previous week. The COVID-19-like indicator consultation rate increased at 72.7 per 100,000 in week 41 compared to 39.3 per 100,000 in the previous week (Figure 28).

Figure 27: RCGP ILI consultation rates, all ages, England

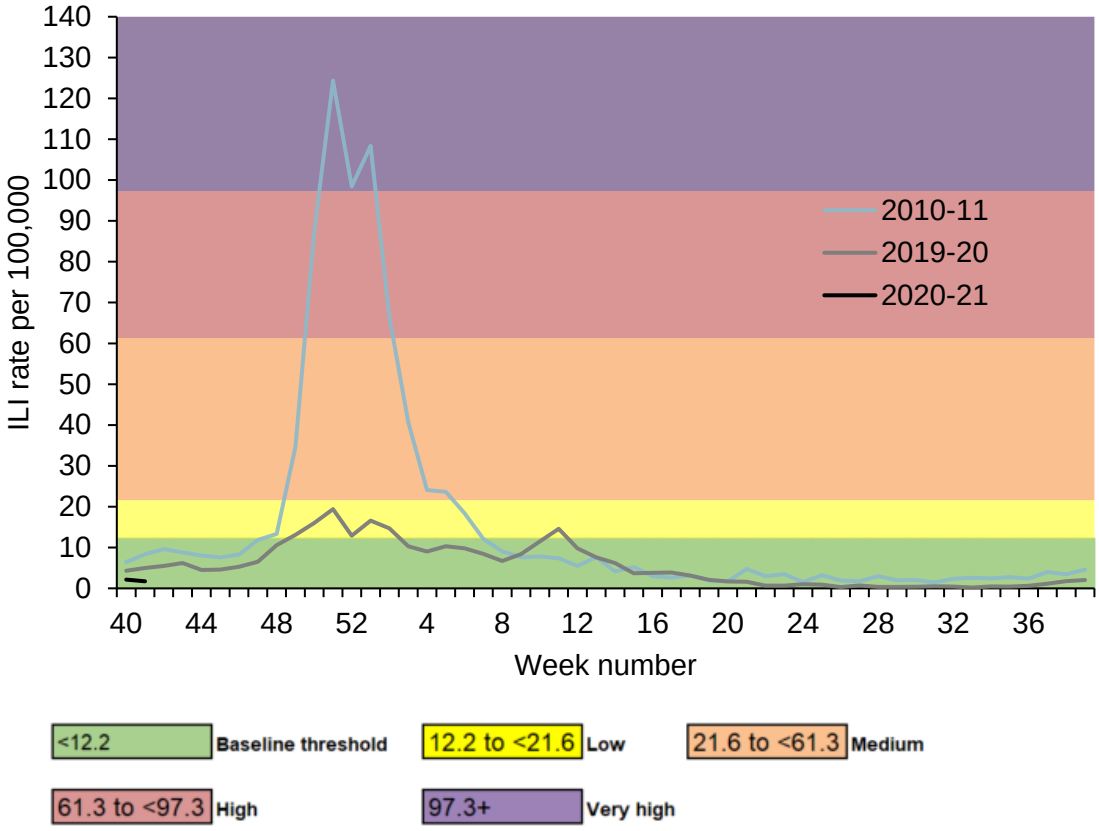
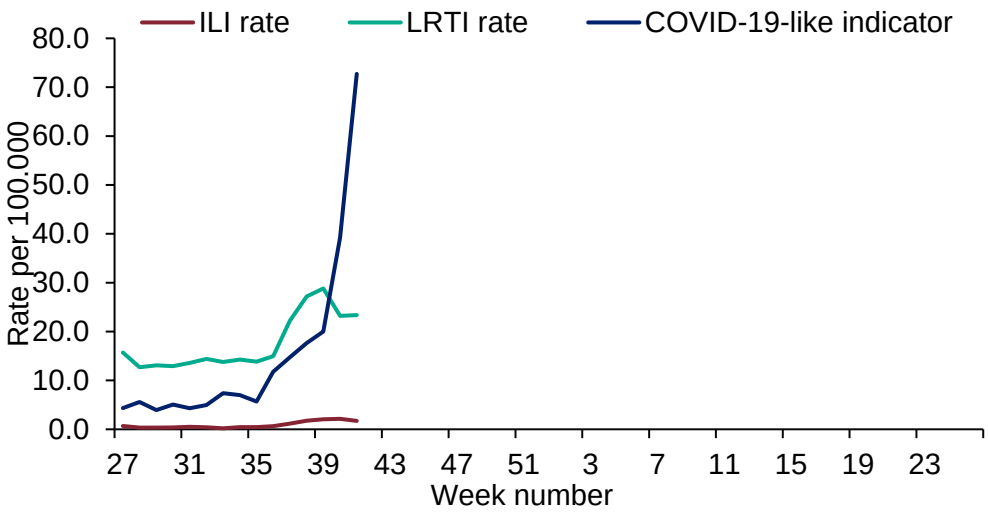


Figure 28: RCGP ILI, LRTI and COVID-19-like indicator consultation rates, England



UK

Overall, weekly ILI consultations rates were below baseline levels in Scotland, Northern Ireland and Wales in week 41 (Table 4).

By age group, the highest rates were seen in the 65 to 74 year olds in Scotland (1.5 per 100,000), in the 75 plus year olds in Wales (2.5 per 100,000) and in the 75 plus year olds in Northern Ireland (2.3 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																
	40	41	42	43	44	45	46	47	48	49	50	51	52	1	2	3	4
England (RCGP)	2.1	1.7															
Wales	1.0	1.0															
Scotland	0.5	0.7															
Northern Ireland	1.3	1.5															

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

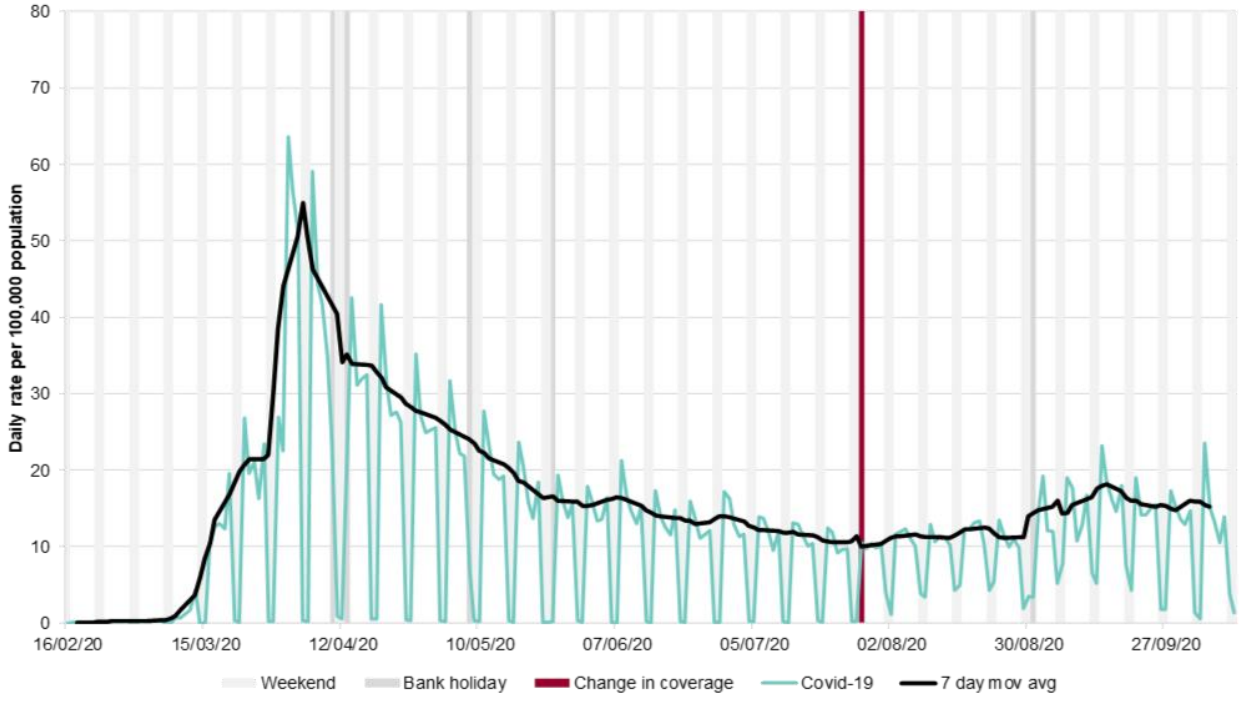
The GP In Hours (GPIH) syndromic surveillance system monitors the number of GP visits during regular hours of known clinical indicators.

Up to 11 October 2020, GPIH consultations for potential COVID-19-like consultations and ILI consultations remained stable (Figure 29). Please note that the GPIH COVID-19-like indicator presented in this report is derived from a reduced denominator population, compared to ILI.

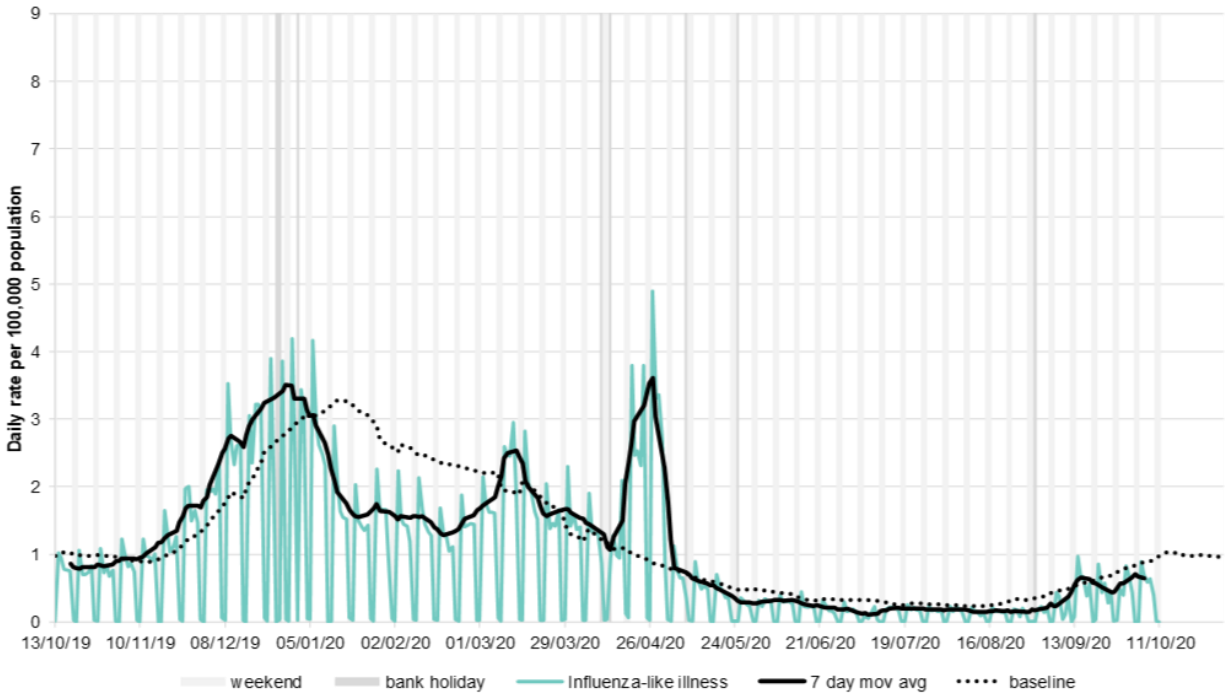
Please note GP data should be interpreted with caution due to changes in advice regarding accessing GP surgeries due to COVID-19. Further information about these caveats is available from the PHE GP In Hours Syndromic Surveillance bulletin.

Figure 29: GPIH clinical indicators for (a) potential COVID-19 GP consultations and (b) influenza-like illness GP consultations, England

(a)



(b)


Daily rate per 100,000 population
9
8
7
6
5
4
3
2
1
0
13/10/19
10/11/19
08/12/19
05/01/20
02/02/20
01/03/20
29/03/20
26/04/20
24/05/20
21/06/20
19/07/20
16/08/20
13/09/20
11/10/20
weekend
bank holiday
Influenza-like illness
7 day mov avg
baseline

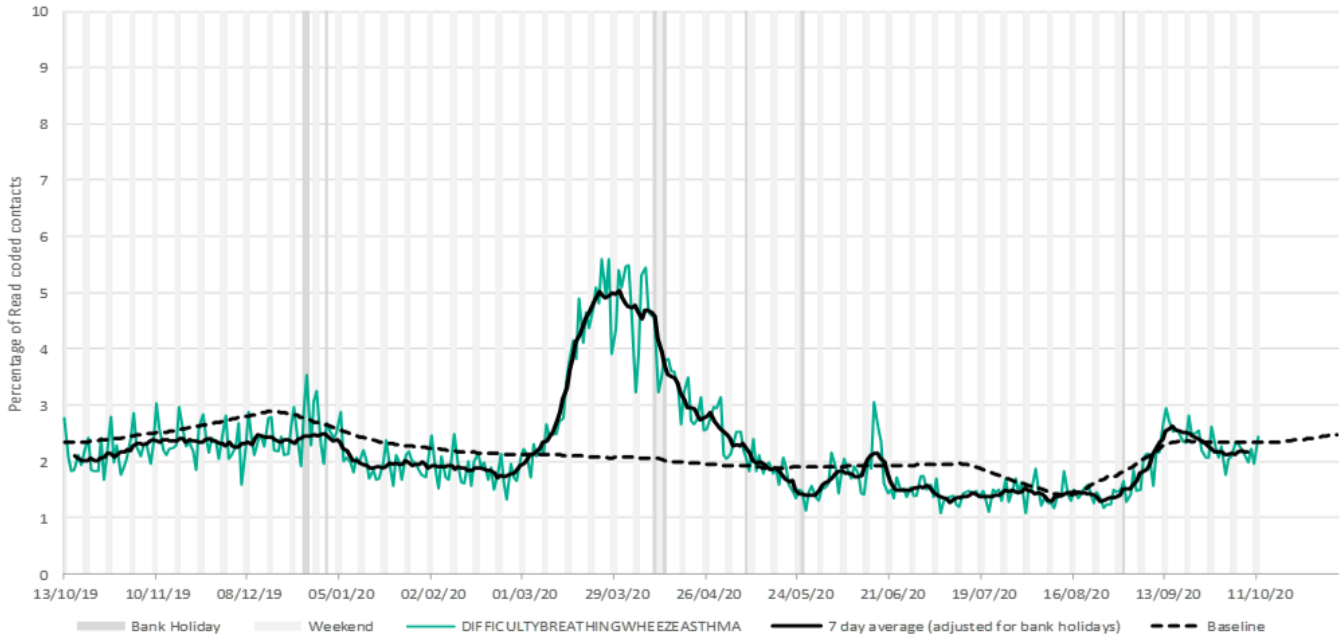
GP Out of Hours, Syndromic Surveillance

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. Both systems cover around 55% of England's population.

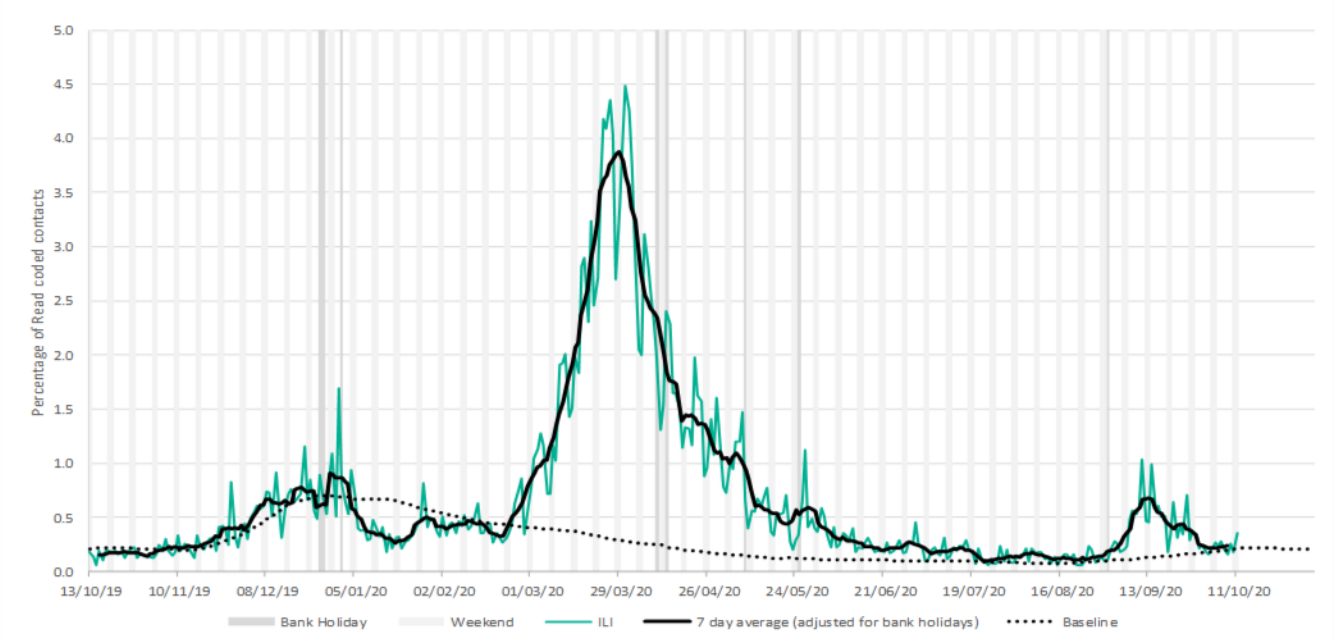
Up to 11 October 2020, there has been a decrease in GP out-of-hours and unscheduled care consultations for acute respiratory infections, influenza-like illness and difficulty breathing/asthma/wheeze (Figure 30).

Figure 30: GPOOH daily contacts (%) for (a) difficulty breathing/wheeze/asthma, (b) influenza-like illness and (c) acute respiratory infections, England

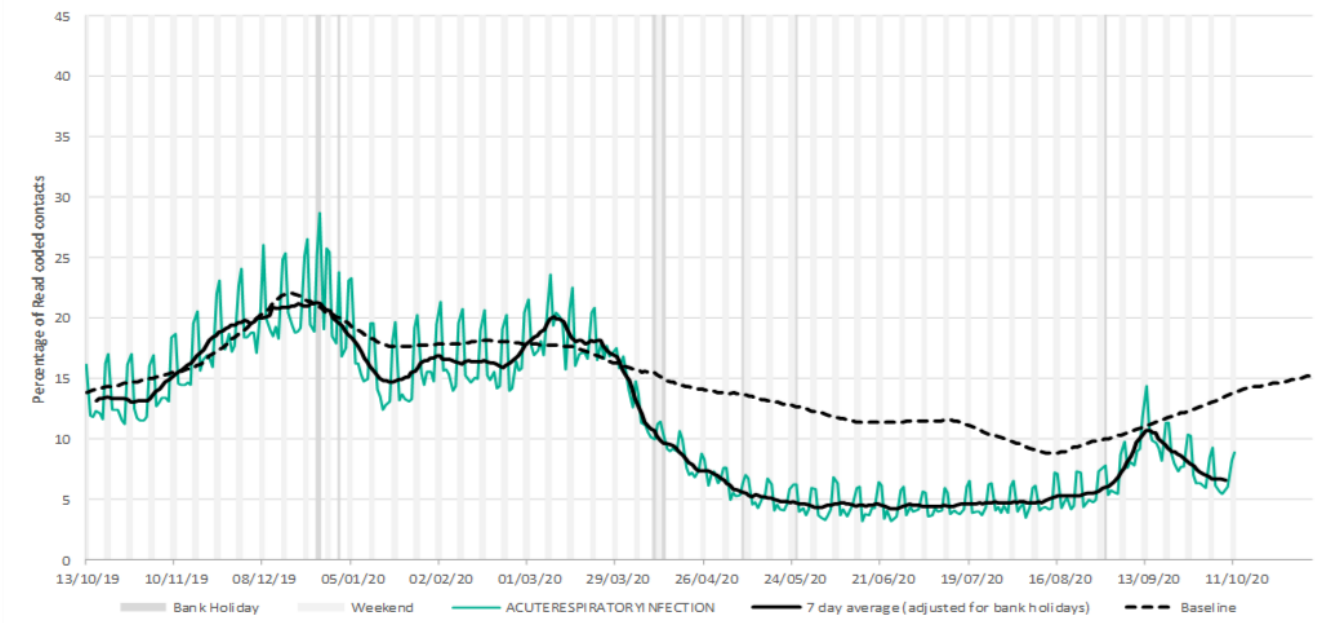
(a)



(b)


Percentage of Read coded contacts
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
13/10/19
10/11/19
08/12/19
05/01/20
02/02/20
01/03/20
29/03/20
26/04/20
24/05/20
21/06/20
19/07/20
16/08/20
13/09/20
11/10/20
Bank Holiday
Weekend
ILI
7 day average (adjusted for bank holidays)
Baseline

(c)

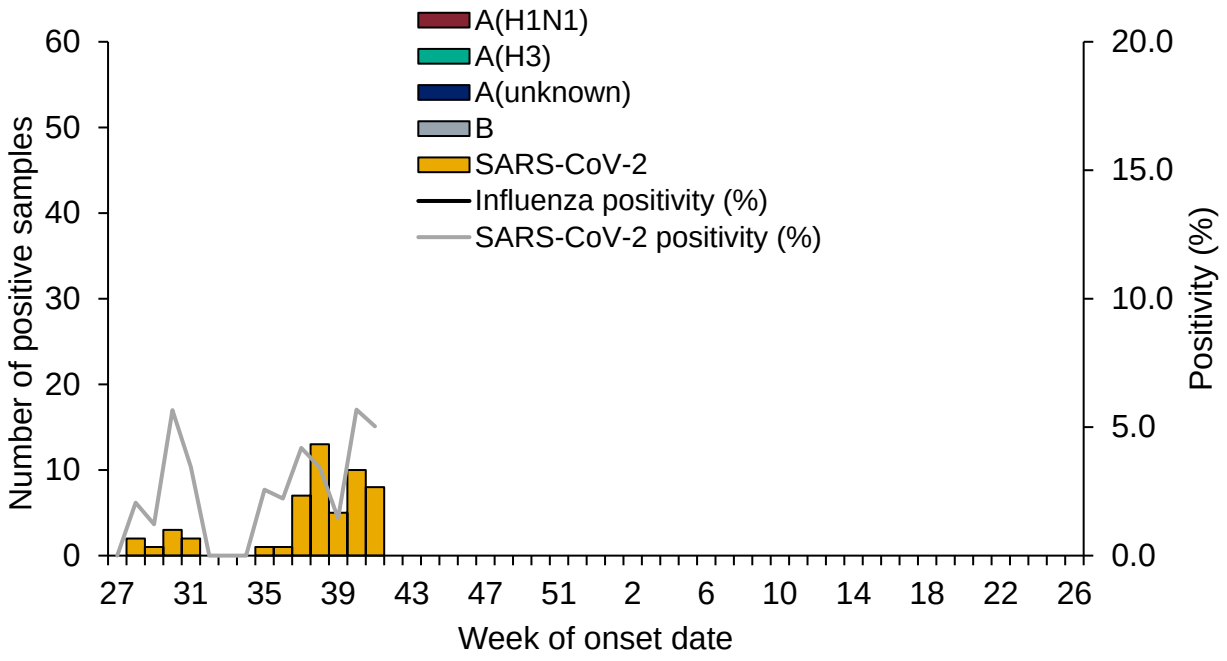

Percentage of Read coded contacts
45
40
35
30
25
20
15
10
5
0
13/10/19
10/11/19
08/12/19
05/01/20
02/02/20
01/03/20
29/03/20
26/04/20
24/05/20
21/06/20
19/07/20
16/08/20
13/09/20
11/10/20
Bank Holiday
Weekend
ACUTERESPIRATORYINFECTION
7 day average (adjusted for bank holidays)
Baseline

Sentinel swabbing scheme in England and the Devolved Administrations

In week 41 2020, eight samples tested positive for SARS-CoV-2 with an overall positivity of 5.0% (8/159) compared to 5.7% (10/176) in the previous week, through the UK GP sentinel swabbing schemes (Figure 31).

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

Figure 31: 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 31 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.

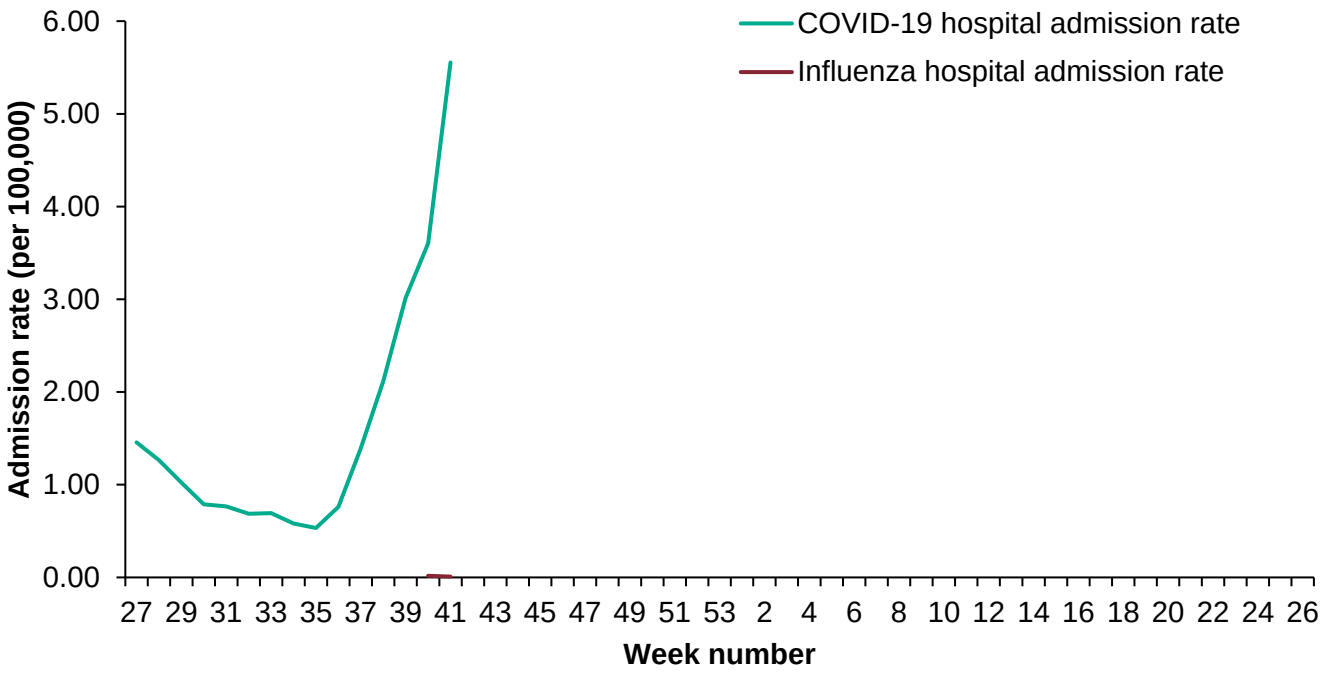
Hospitalisations, SARI Watch

In week 41, the weekly hospital admission rate for COVID-19 increased whilst the hospital admission rate for influenza was low.

The hospitalisation rate for COVID-19 was at 5.55 per 100,000 in week 41 compared to 3.60 per 100,000 in the previous week. The hospitalisation rate for influenza was at 0.01 per 100,000 in week 41 compared to 0.02 per 100,000 in the previous week; and there was one new confirmed influenza (one influenza A(unknown subtype)) hospital admissions reported.

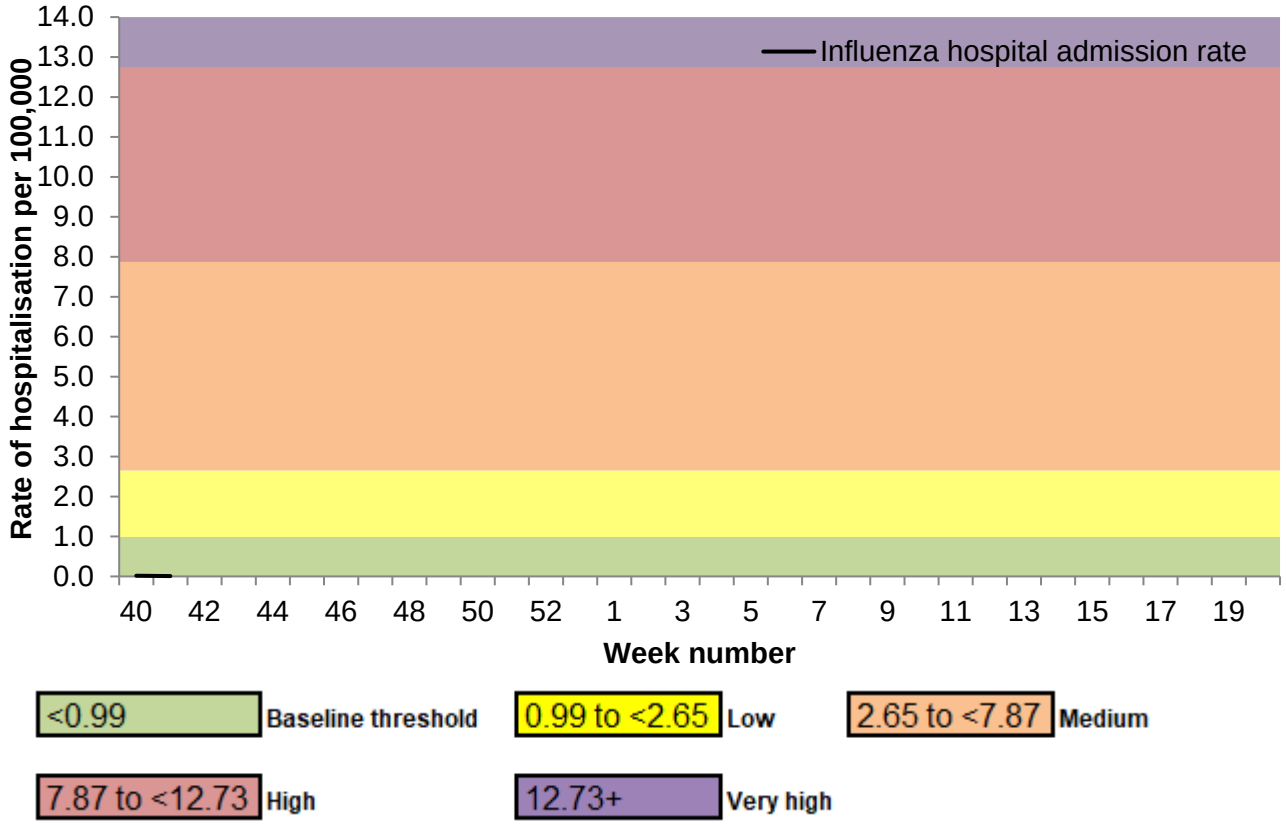
By NHS regions, the highest hospital admission rate for COVID-19 and influenza were observed in the North West and London respectively. By age groups, the highest hospital admission rate for confirmed COVID-19 and influenza were in the 85+ year olds and in the 0 to 4 year olds respectively.

Figure 32: 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 28 sentinel NHS trusts for week 41
* COVID-19 hospital admission rate based on 113 sentinel NHS trusts for week 41

Figure 33: 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 34: Weekly influenza hospital admissions by influenza type, SARI Watch, England

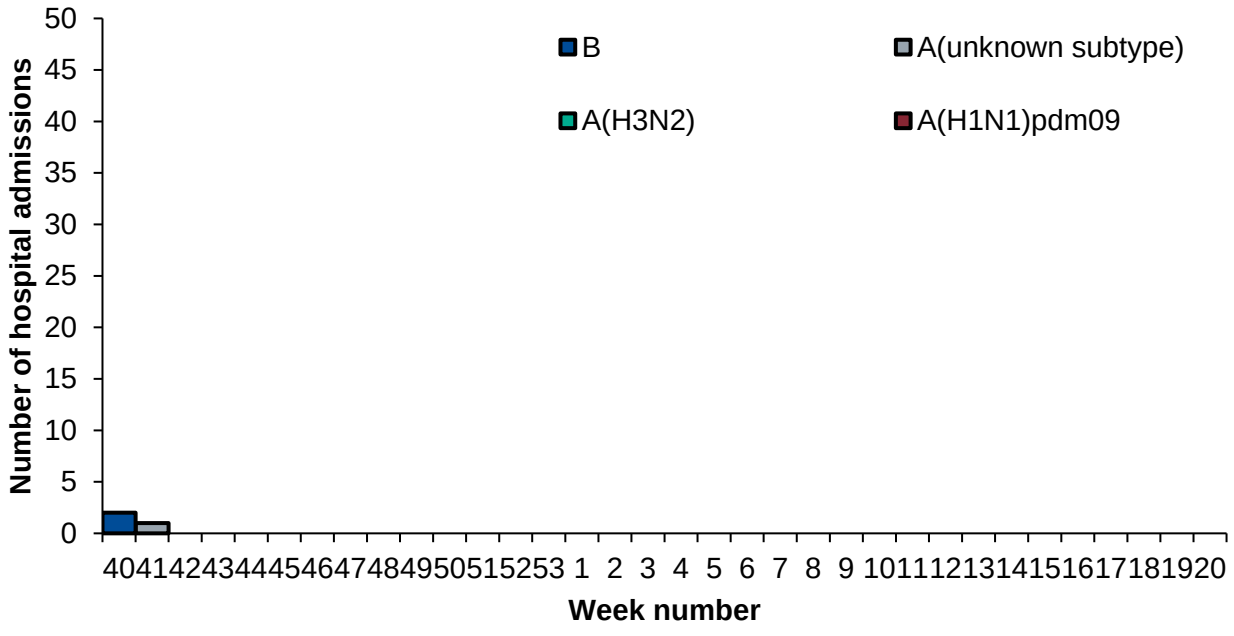
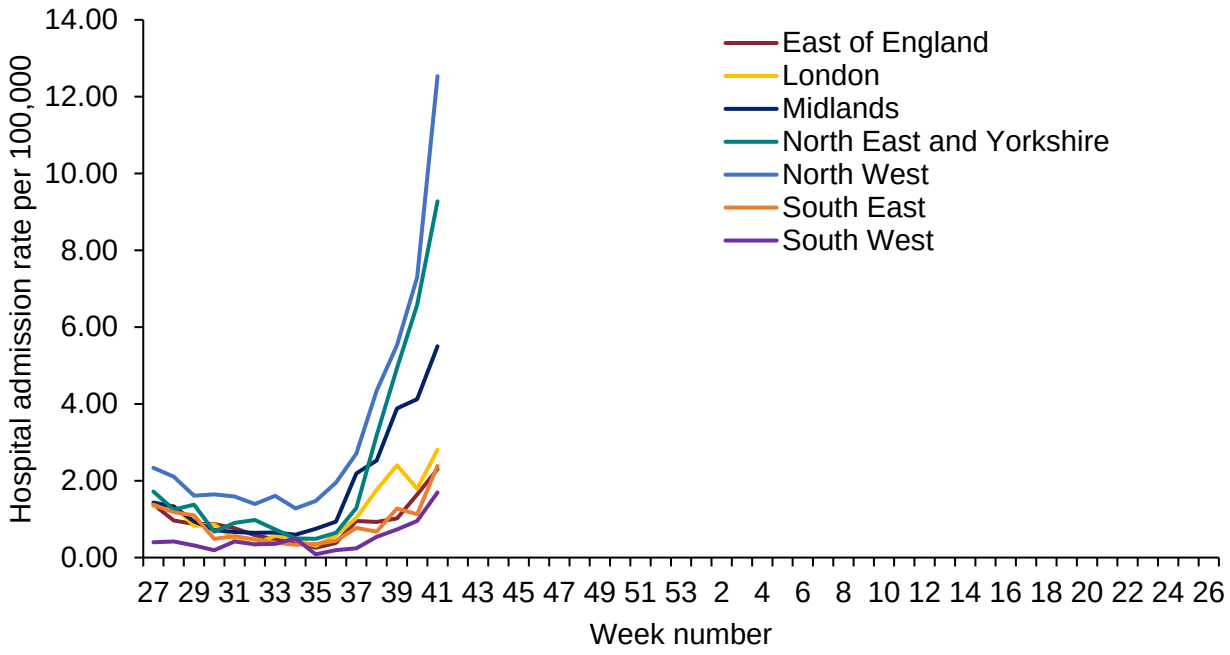


Figure 35: Weekly hospital admission rate by NHS region for new (a) COVID-19 positive cases and (b) influenza reported through SARI Watch

(a)



(b)

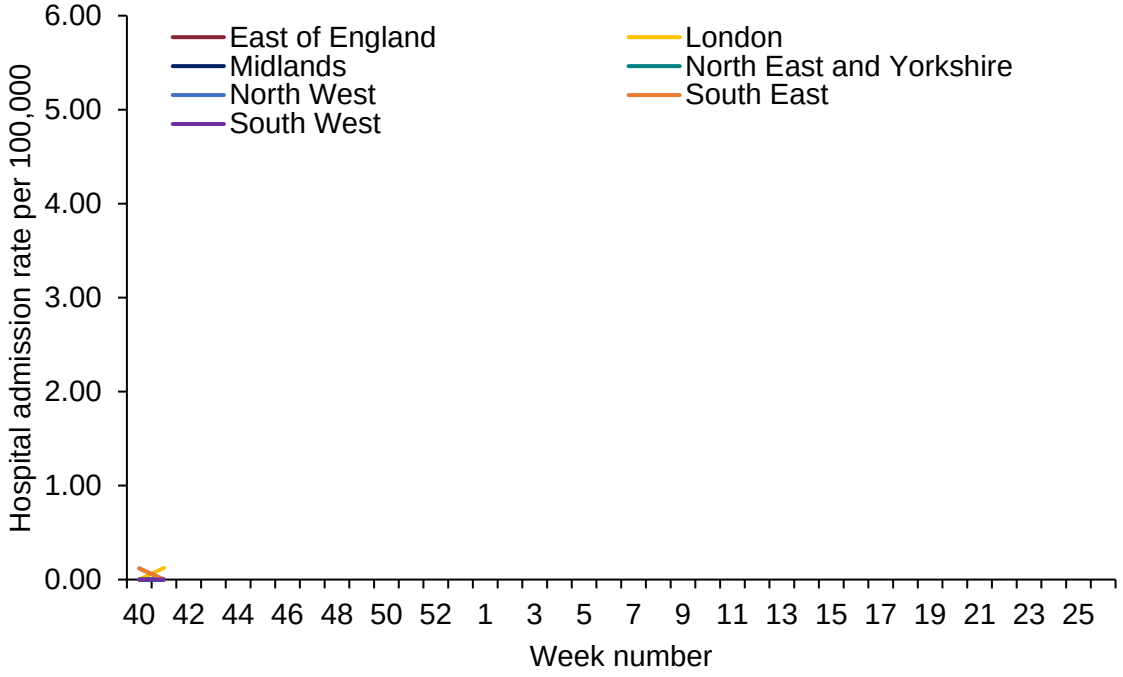
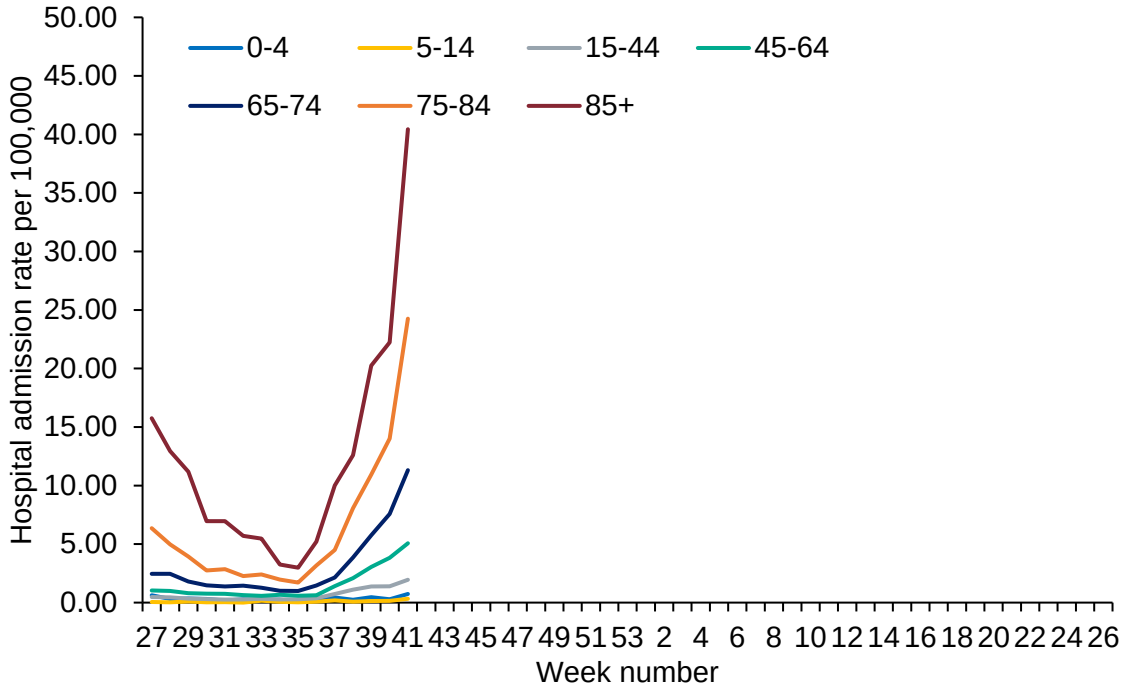
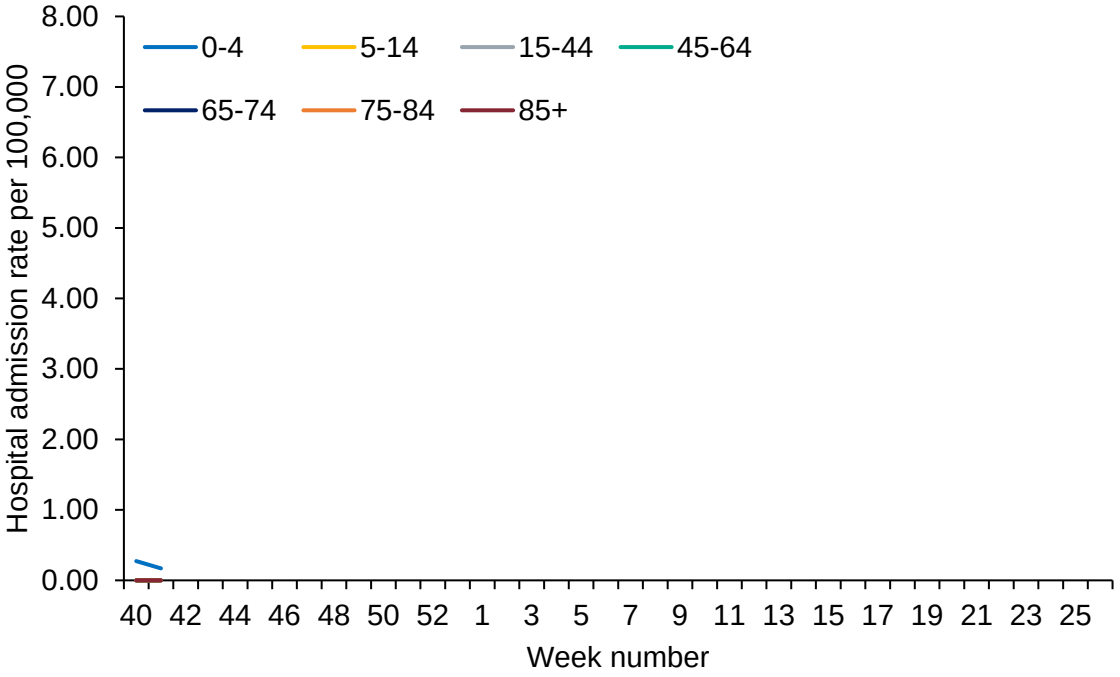


Figure 36: Weekly hospital admission rate by age group for new (a) COVID-19 positive cases and (b) influenza reported through SARI Watch

(a)



(b)



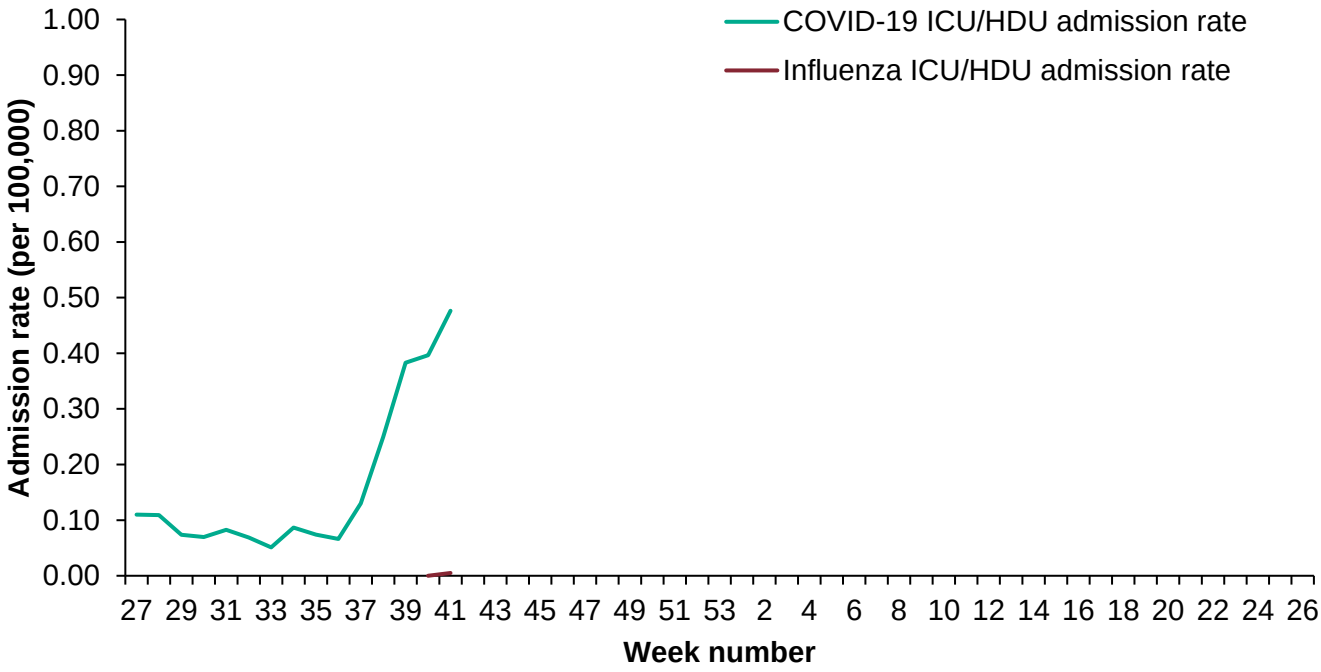
ICU/HDU admissions, SARI Watch

In week 41, the weekly ICU/HDU admission rates for COVID-19 increased whilst the ICU/HDU admission rate for influenza was low.

The ICU/HDU rate for COVID-19 was at 0.48 per 100,000 in week 41 (based on data reported from 109 NHS Trusts) compared to 0.40 per 100,000 in the previous week. The ICU/HDU rate for influenza was at 0.01 per 100,000 in week 41 (based on data reported from 101 NHS Trusts) and there were two influenza (2 influenza A(unknown subtype)) confirmed ICU/HDU admissions.

By NHS regions, the highest ICU/HDU admission rates for COVID-19 and influenza were observed in the North West and in the Midlands and North East and Yorkshire respectively. By age groups, the highest ICU/HDU admission rates for COVID-19 and influenza were observed in the 75 to 84 year olds and in the 0 to 4 year olds respectively.

Figure 37: 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 101 NHS trusts for week 41
* COVID-19 ICU/HDU admission rate based on 109 NHS trusts for week 41

Figure 38: Weekly overall influenza ICU/HDU admission rates per 100,000 trust catchment population with MEM thresholds, SARI Watch, England

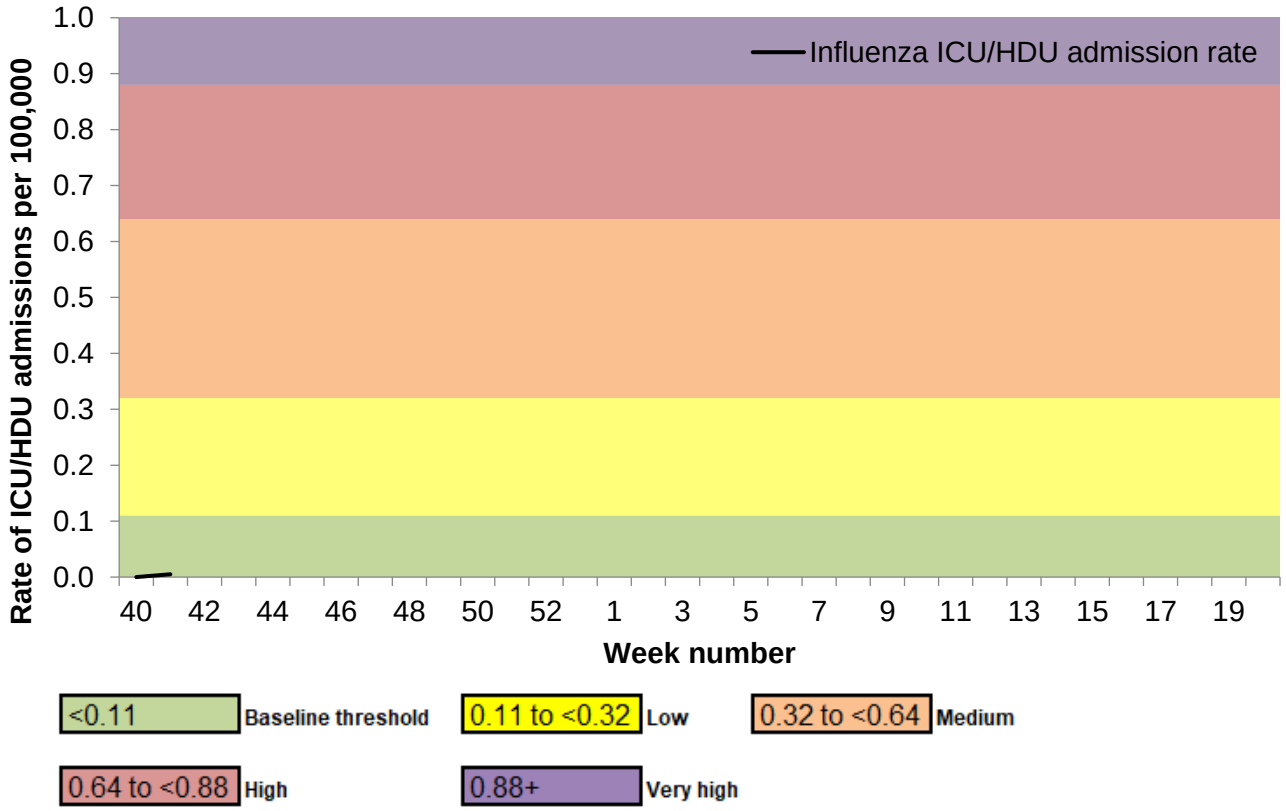


Figure 39: Weekly influenza ICU/HDU admissions by influenza type, SARI Watch, England

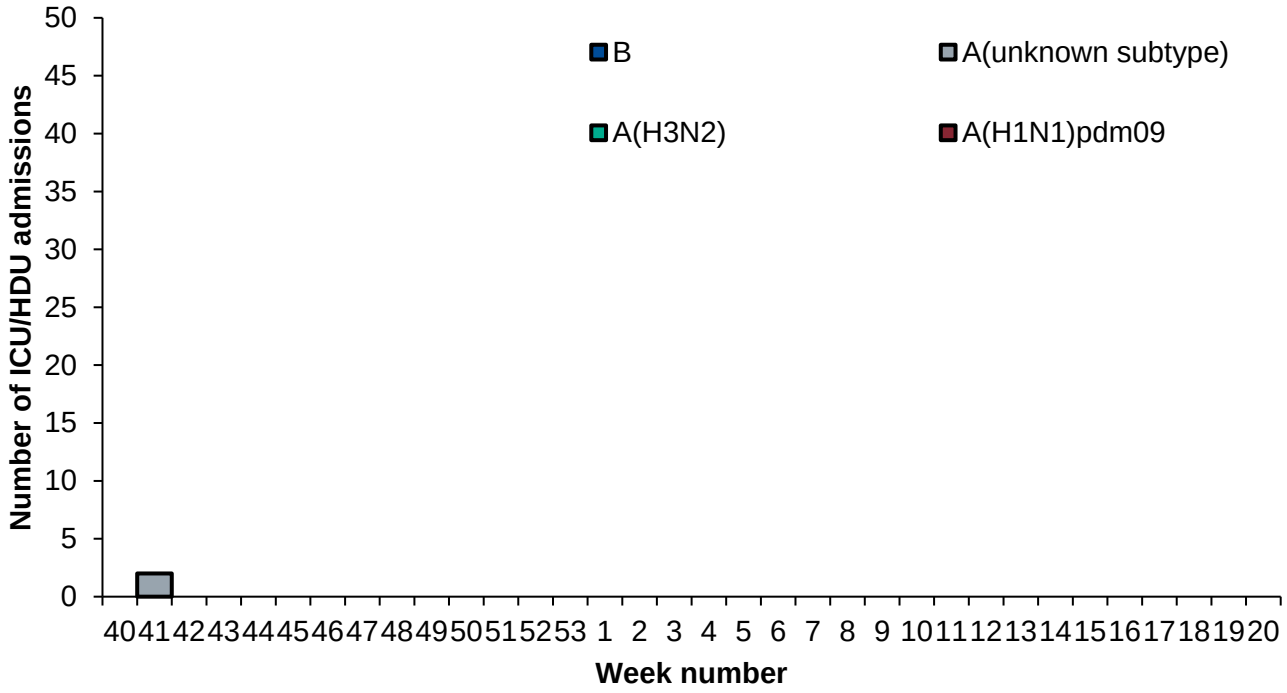
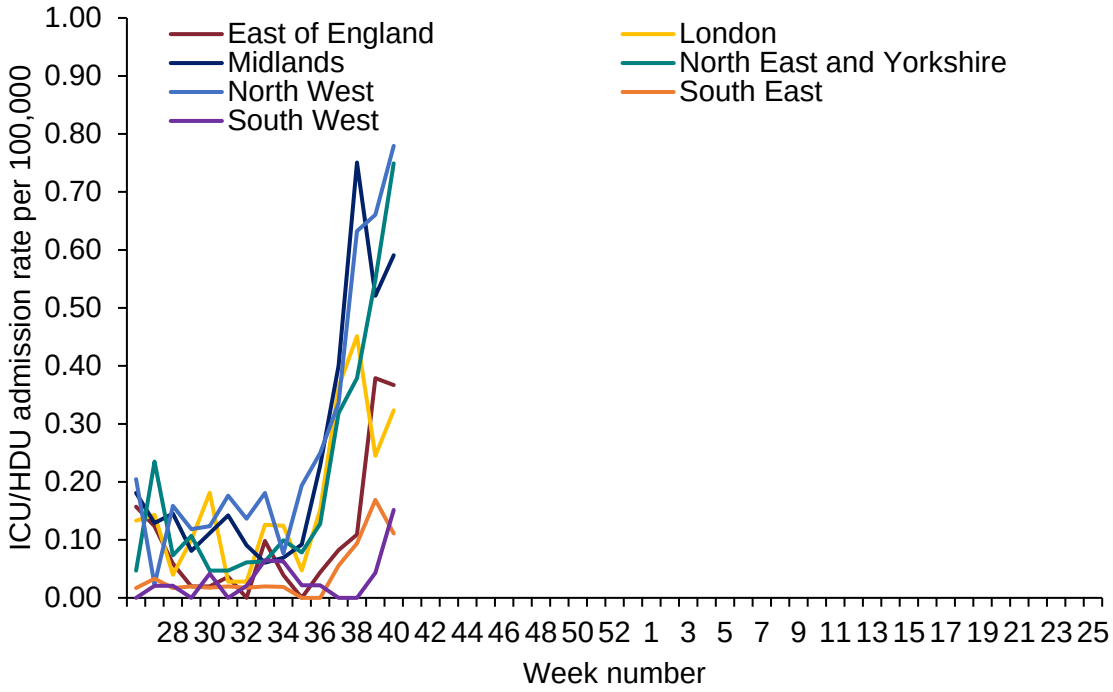


Figure 40: Weekly ICU/HDU admission rate by NHS region for new (a) COVID-19 positive cases and (b) influenza reported through SARI Watch

(a)



(b)

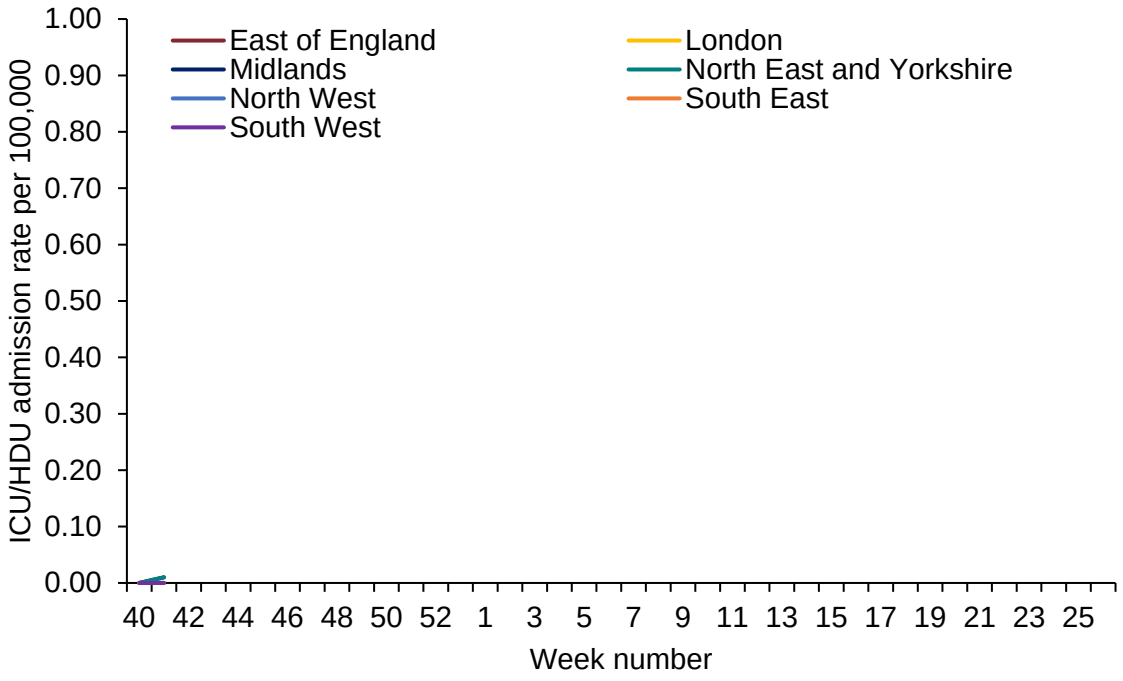
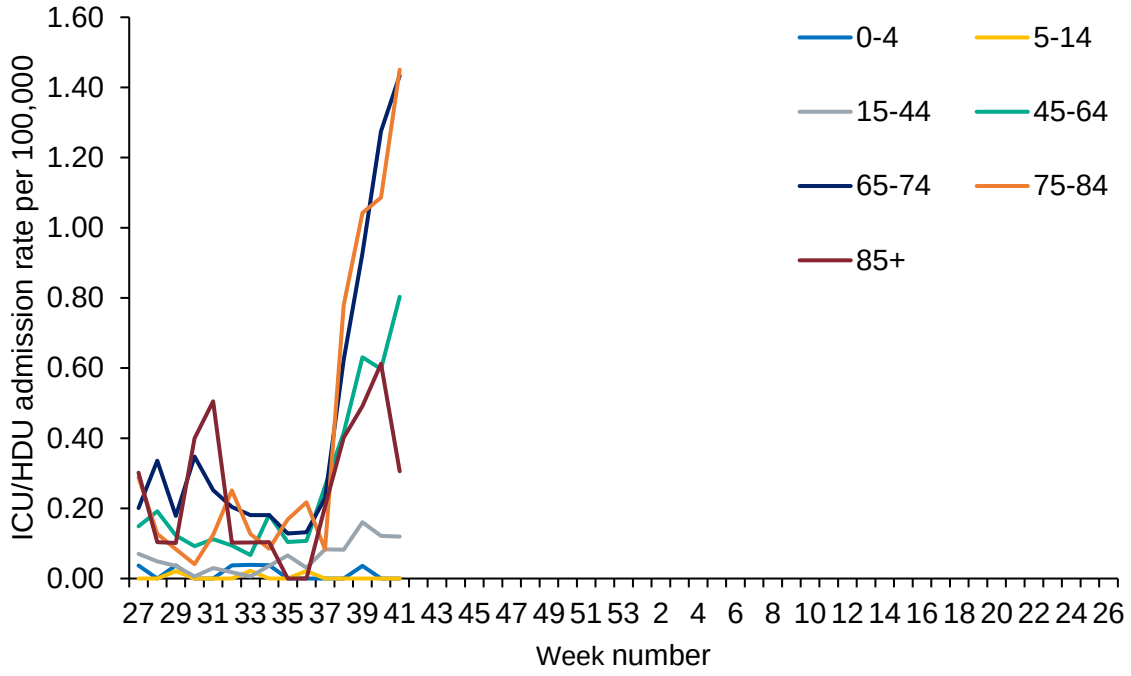
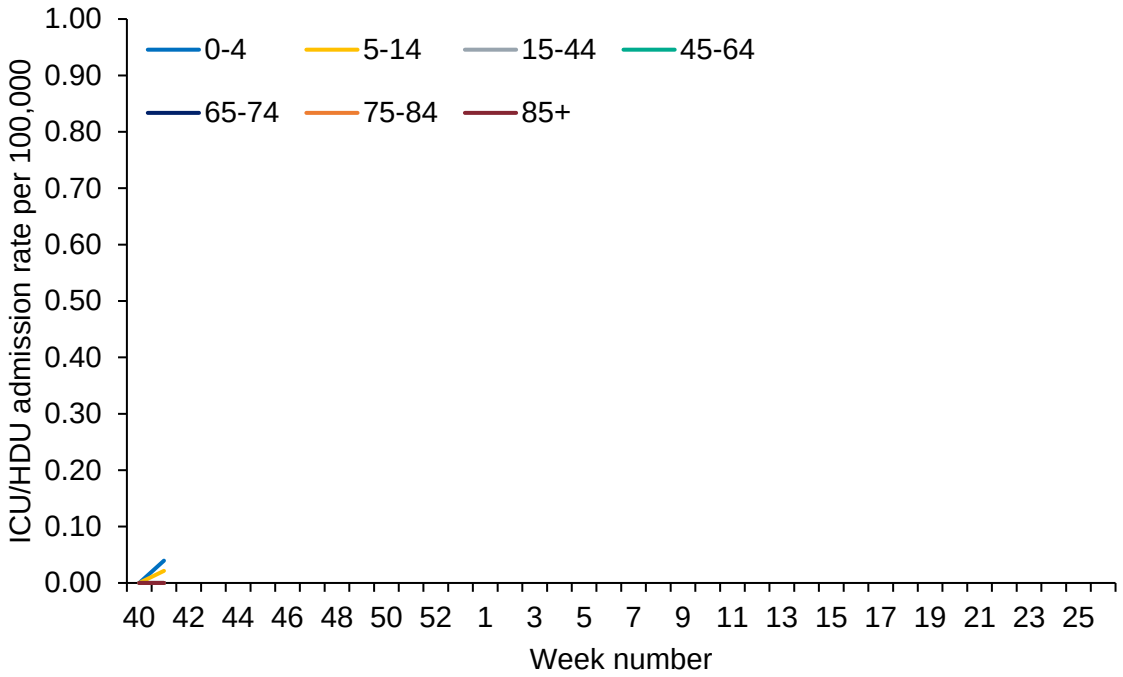


Figure 41: Weekly ICU/HDU admission rate by age group for new (a) COVID-19 positive cases and (b) influenza reported through SARI Watch

(a)



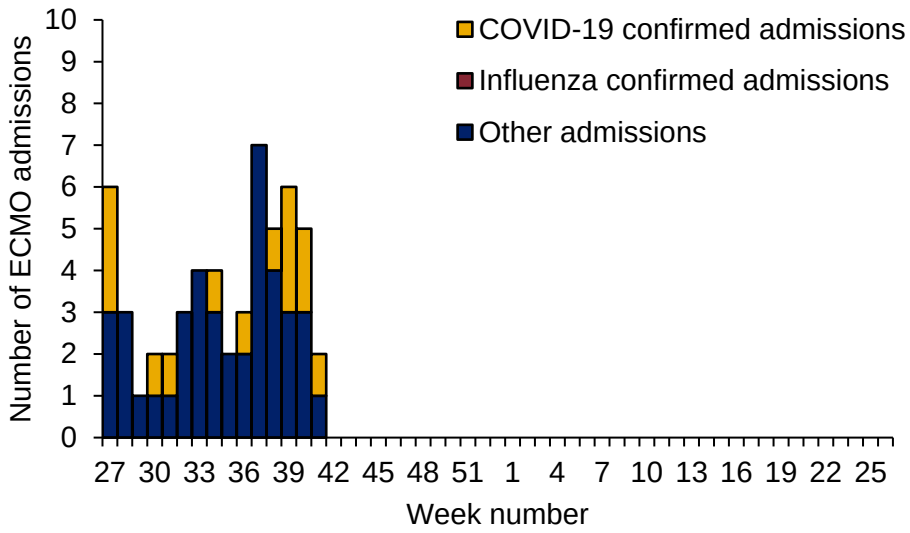
(b)



ECMO, SARI Watch

Between 3 March and 13 October 2020, a total of 232 laboratory confirmed COVID-19 admissions have been reported from the 5 SRFs in England. There was one new laboratory confirmed COVID-19 admission reported in week 41 (Figure 42).

Figure 42: Laboratory confirmed ECMO admissions (COVID-19, influenza and non-COVID-19 confirmed) to Severe Respiratory Failure centres in England



Emergency Department attendances, Syndromic surveillance

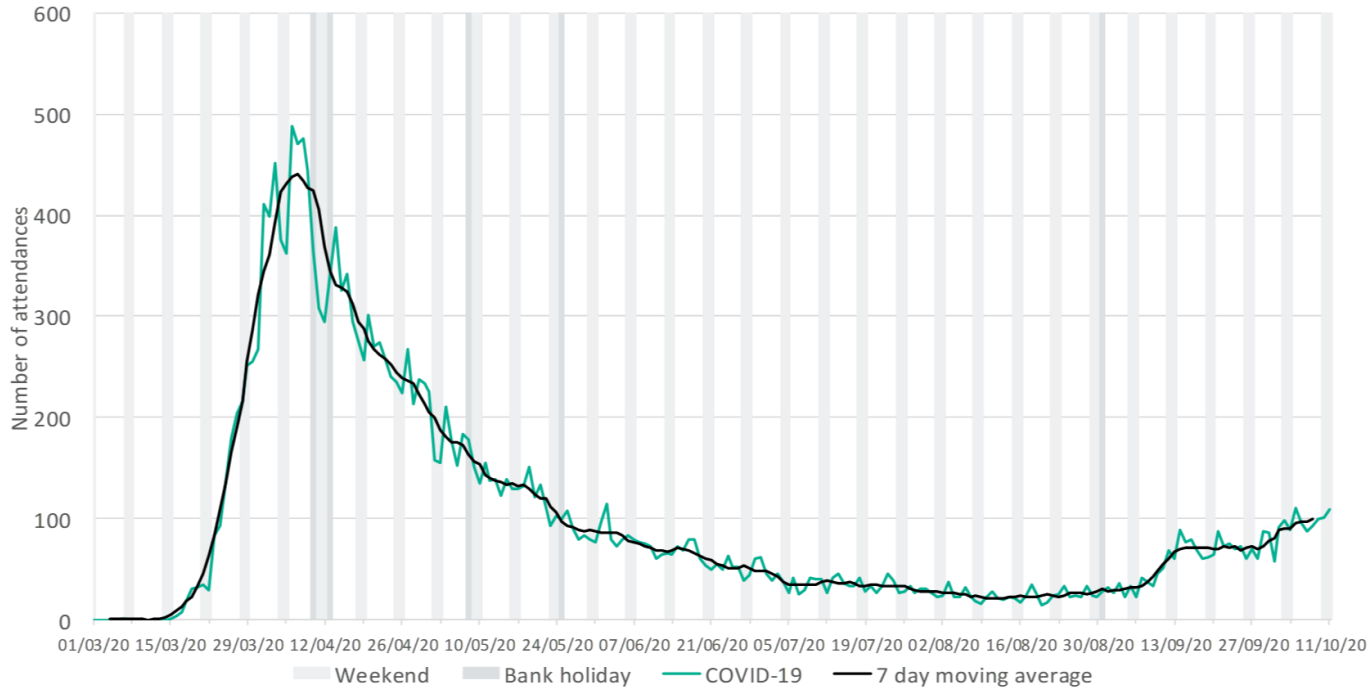
The Emergency Department Syndromic Surveillance System (EDSSS) monitors the daily visits in a network of emergency departments across England.

Up to 11 October 2020, the daily number of ED attendances for all ages as reported by 62 EDs, for COVID-19-like attendances increased while attendances for acute respiratory infections remained stable (Figure 43).

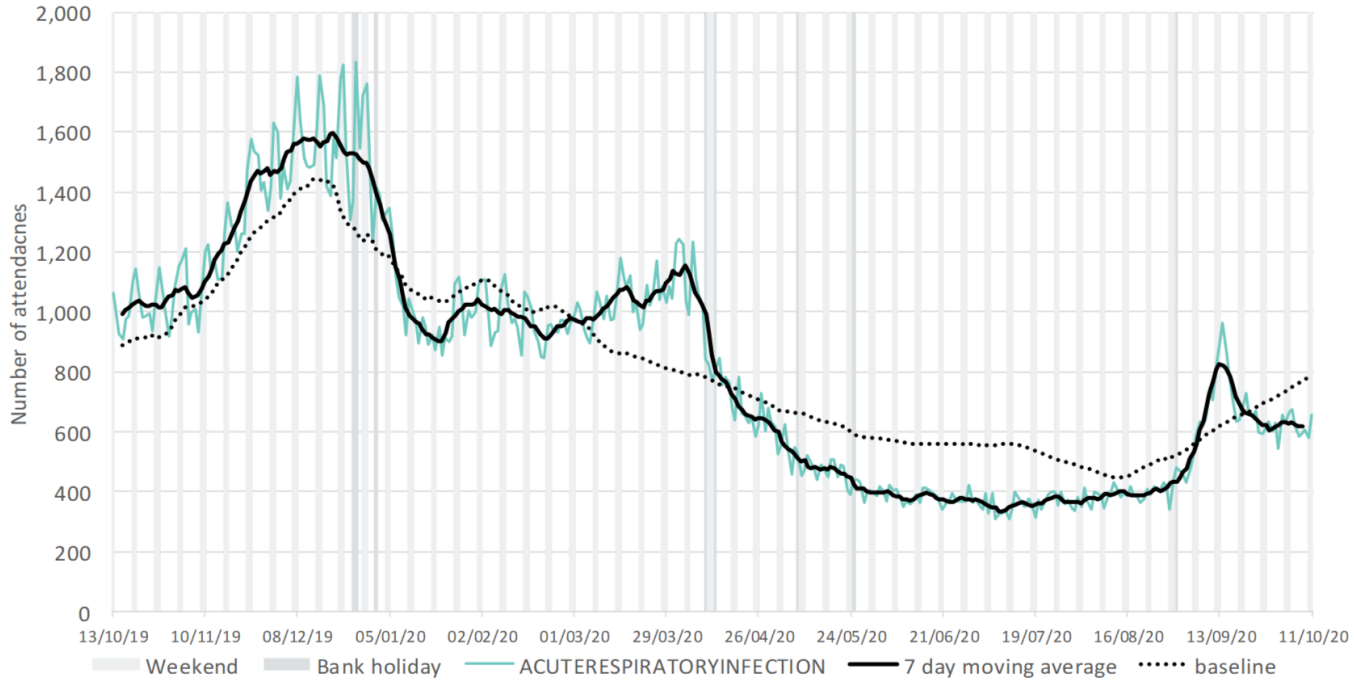
Please note: the COVID-19-like ED indicator is an underestimation of the number of COVID-19 attendances as it only includes attendances with a COVID-19-like diagnosis as their primary diagnosis. The EDSSS COVID-19-like indicator should therefore be used to monitor trends in ED attendances and not to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

Figure 43: Daily ED attendances for (a) COVID-19-like and (b) acute respiratory infections, all ages, England

(a)



(b)


2,000
1,800
1,600
1,400
1,200
1,000
800
600
400
200
0
Number of attendacnes
13/10/19
10/11/19
08/12/19
05/01/20
02/02/20
01/03/20
29/03/20
26/04/20
24/05/20
21/06/20
19/07/20
16/08/20
13/09/20
11/10/20
Weekend
Bank holiday
ACUTERESPIRATORYINFECTION
7 day moving average
baseline

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 44 represents these differences by definition.

Figure 44: Number of deaths since week 27 by week of death and time since laboratory confirmation of COVID-19, England

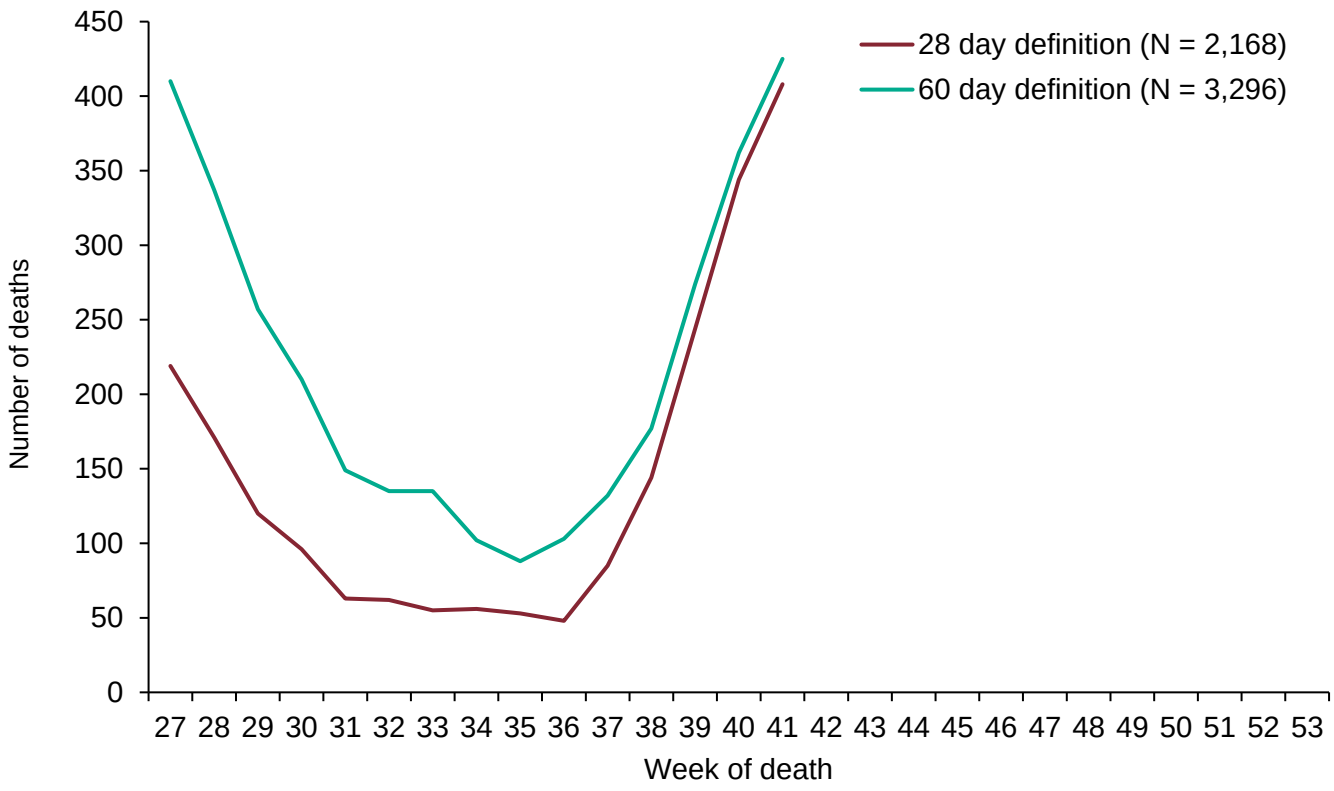


Figure 45: Age/sex pyramid of laboratory confirmed COVID-19 deaths, since week 27

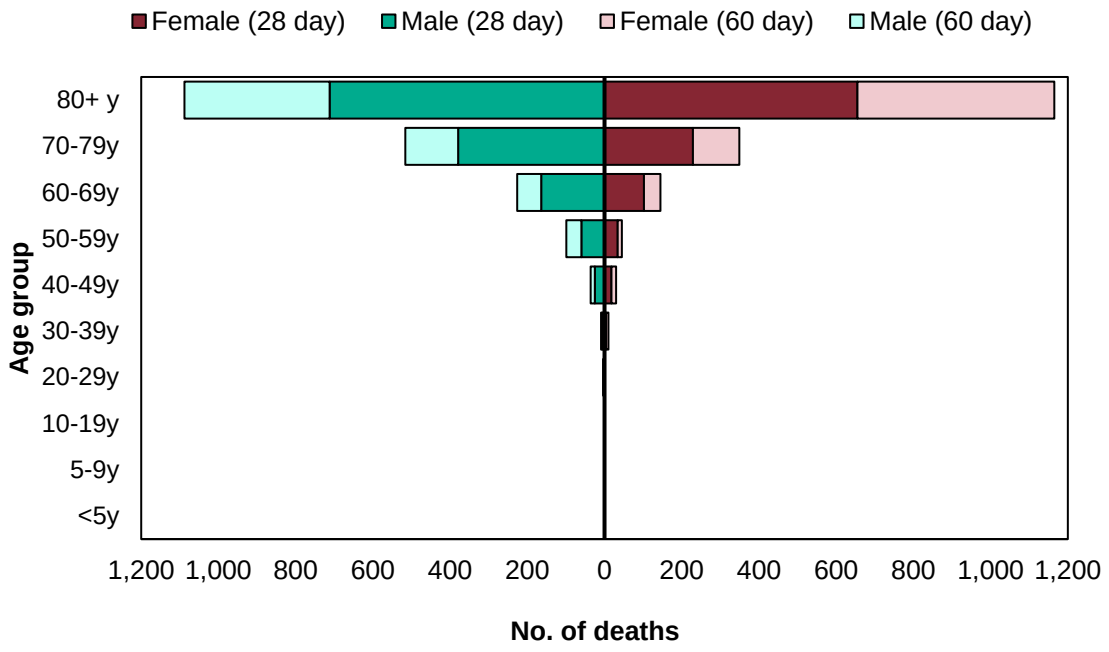


Table 5: Ethnic group (%) of COVID-19 deaths and time since laboratory confirmation of COVID-19, England

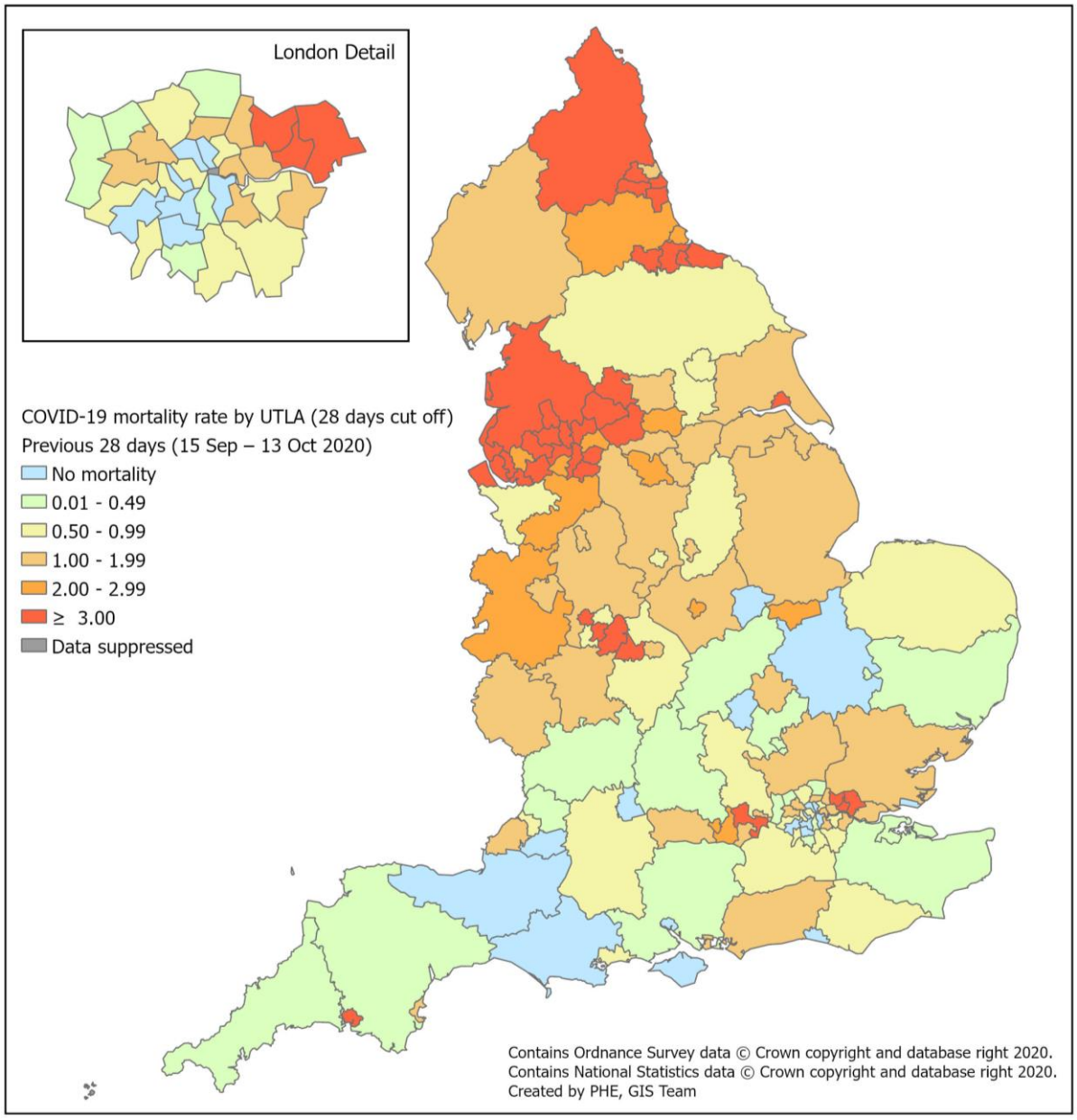
Ethnicity	28 day definition	60 day definition
White	83.6	87.0
Asian / Asian British	12.3	9.1
Black / African / Caribbean / Black British	2.1	2.1
Mixed / Multiple ethnic groups	0.5	0.4
Other ethnic group	1.5	1.5

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

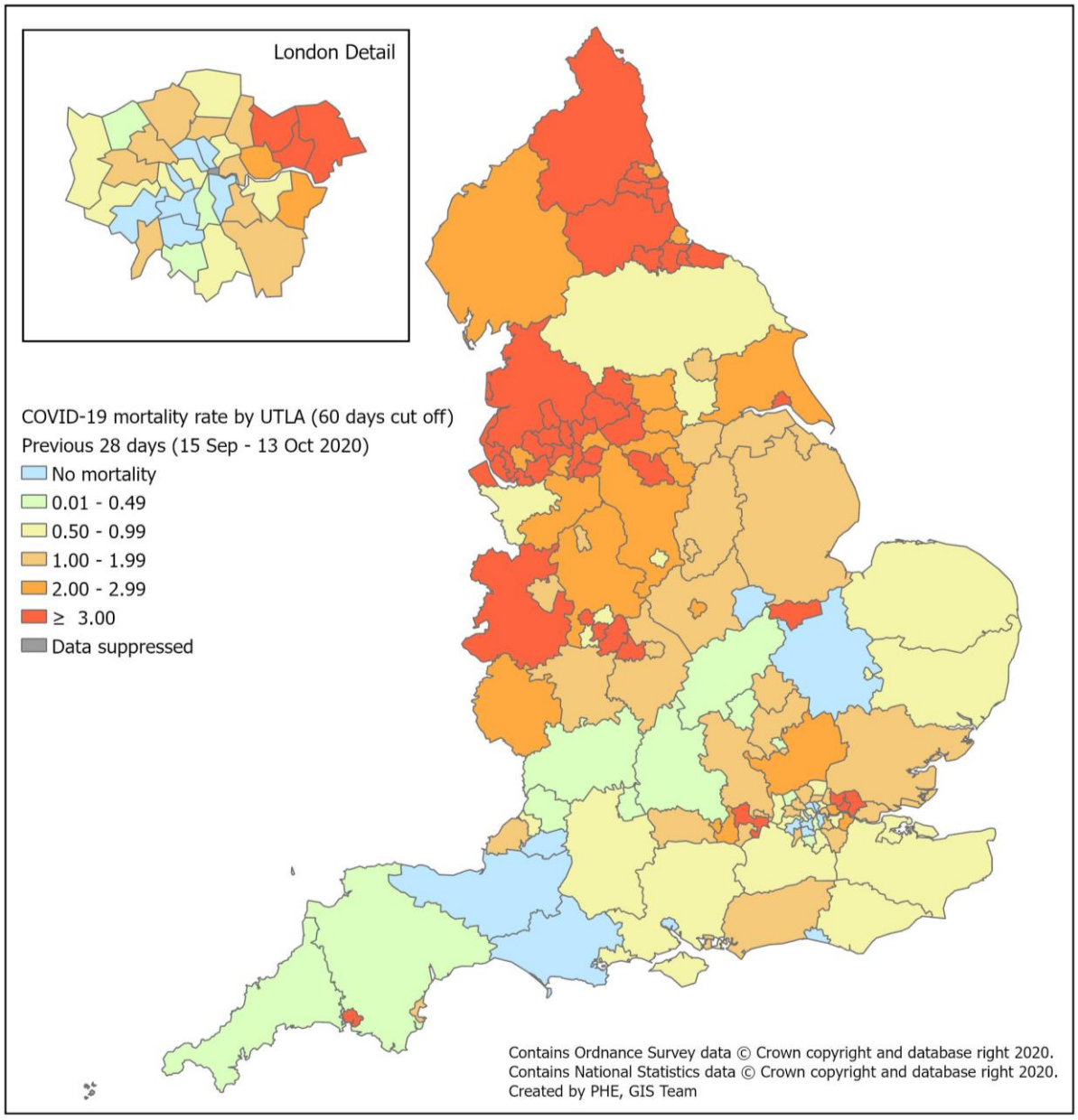
PHE Centres	28 day definition	60 day definition
North East	195	264
North West	716	980
Yorkshire & Humber	294	462
West Midlands	242	387
East Midlands	193	323
East of England	205	374
London	169	270
South East	279	510
South West	56	110

Figure 46: Cumulative mortality rate of COVID-19 cases per 100,000 population tested under Pillar 1 and 2 for the past four weeks by (a) 28 day definition and (b) 60 day definition

(a)



(b)



* Figure 46 has been calculated using mid-2019 ONS population estimates

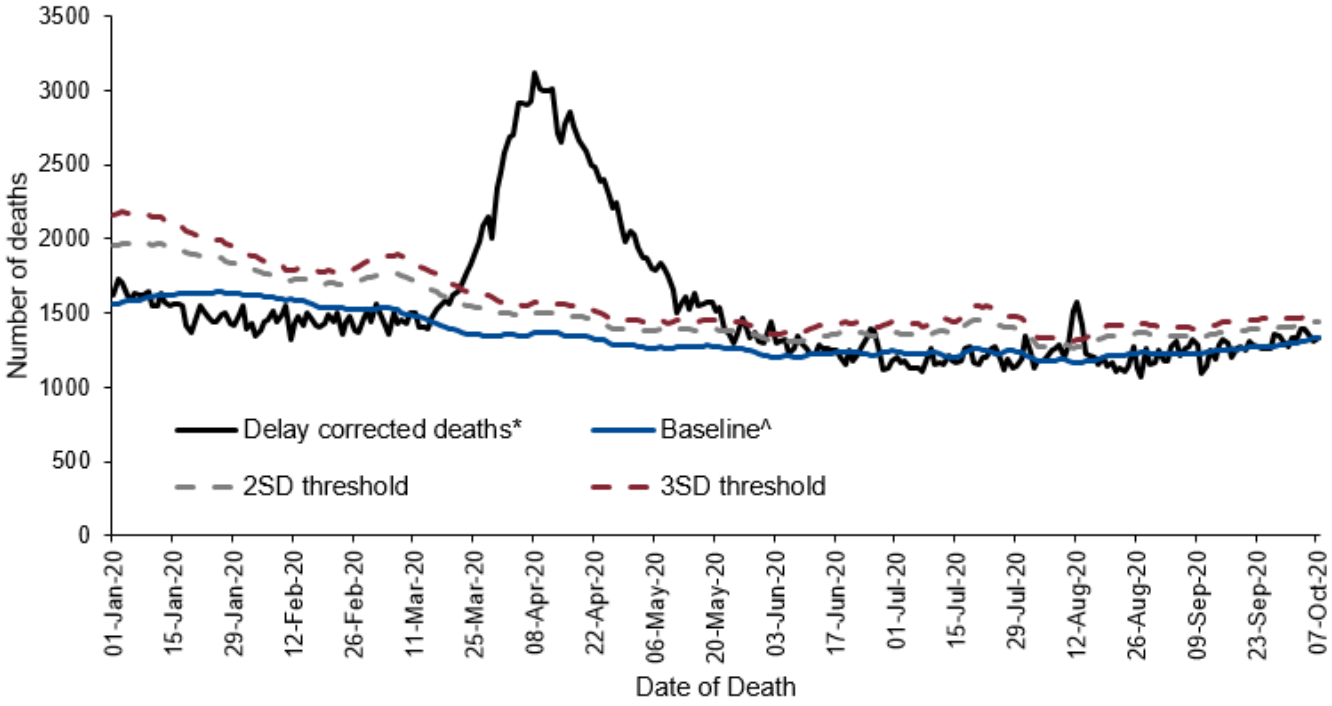
Daily excess all-cause mortality (England)

Deaths occurring from 1 January to 07 October 2020 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 47).

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 47. 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.

No significant excess all-cause mortality was observed in week 40 overall, by age group or subnationally. The excess noted in week 33 coincides with a heat wave (Figure 47, 48 and Table 7).

Figure 47: Daily excess all-cause deaths in all ages, England, 1 January 2020 to 7 October 2020



^ based on same day in previous 5 years +/- 1 week with a linear trend projected
* corrected for delay to registration from death

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

(a)

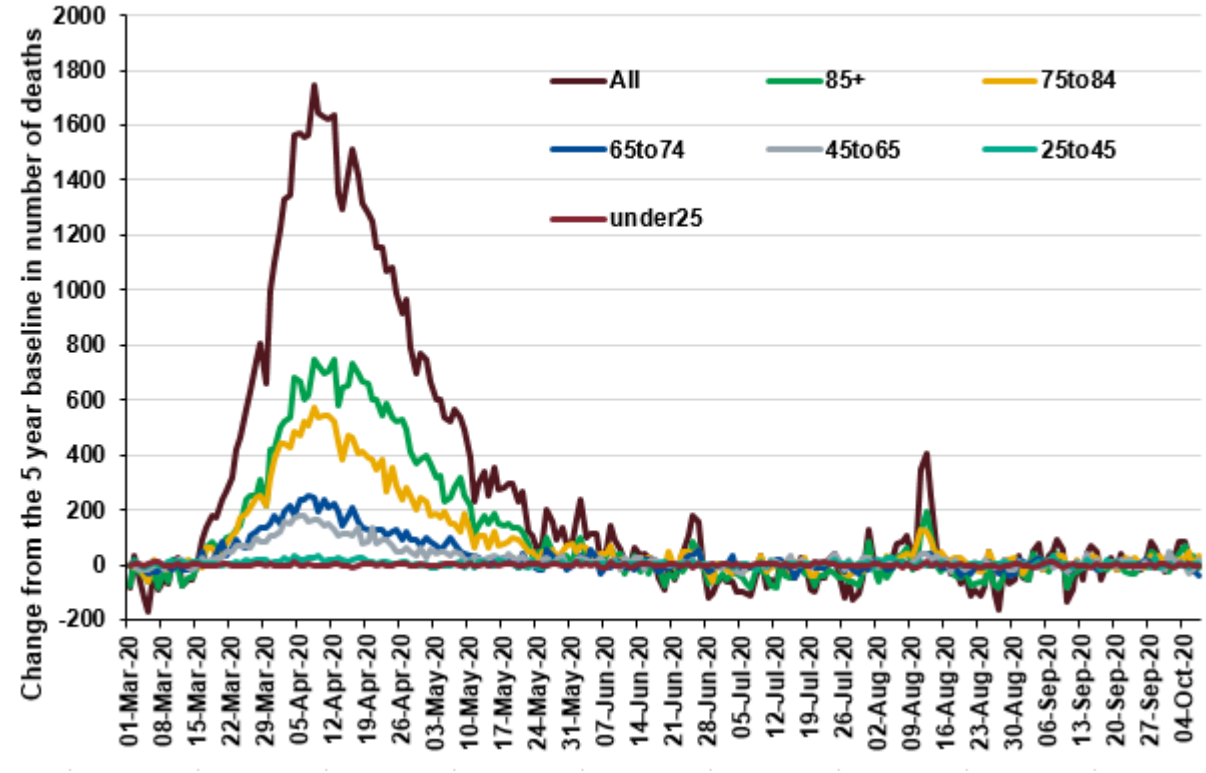
Age Group	Excess detected in week 40 2020?	Weeks in excess since week 10 2020
All	x	13 to 21, 33
under25	x	None
25 to 44	x	13 to 16, 32
45 to 64	x	12 to 19
65 to 74	x	13 to 19
75 to 84	x	13 to 21, 33
85+	x	13 to 21, 33

(b)

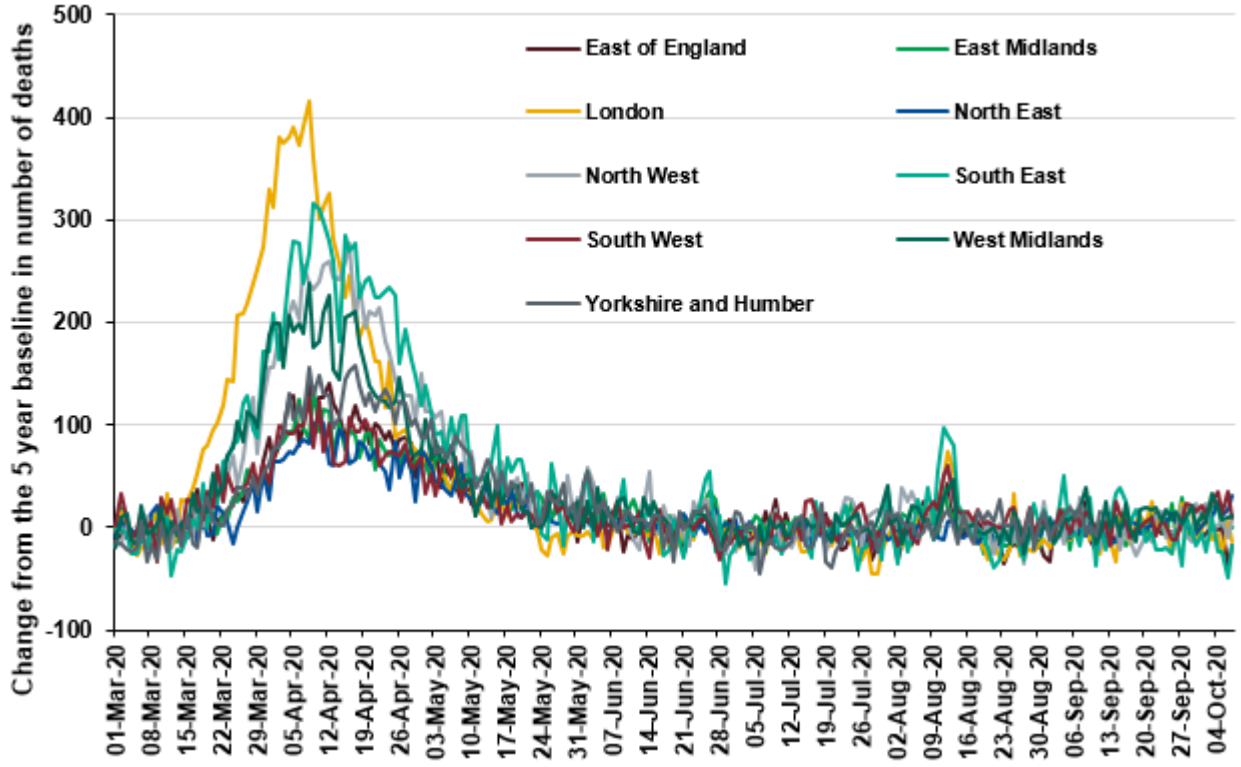
PHE Centres	Excess detected in week 40 2020?	Weeks in excess since week 10 2020
East of England	x	14 to 19
East Midlands	x	13 to 19
London	x	12 to 19,33
North East	x	14 to 21
North West	x	13 to 20, 33
South East	x	13 to 21, 33
South West	x	14 to 19, 33
West Midlands	x	13 to 20
Yorkshire and Humber	x	14 to 21, 23

Figure 48: Daily excess all-cause deaths by (a) age group and (b) PHE centres , England, 1 March 2020 to 7 October 2020

(a)



(b)



Microbiological surveillance

Virus characterisation

PHE 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

In week 41, no influenza viruses were characterised by PHE Respiratory Virus Unit (RVU).

Antiviral susceptibility

Influenza positive samples are screened for mutations in the virus neuraminidase gene known to confer oseltamivir and/or zanamivir resistance. Additionally, testing of influenza A(H1N1)pdm09, A(H3N2), and influenza B virus isolates for neuraminidase inhibitor susceptibility (oseltamivir and zanamivir) is performed at PHE-RVU using a functional assay. The data summarized below combine the results of both testing methods. The samples tested are routinely obtained for surveillance purposes, but diagnostic testing of patients suspected to be infected with neuraminidase inhibitor-resistant virus is also performed.

In week 41, no influenza viruses were tested for antiviral susceptibility.

Antimicrobial susceptibility

Table 8 shows in the 12 weeks up to week 40 2020, 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 isolates, 12 weeks up to week 41 2020, England and Wales

Organism	Antibiotic	Specimens tested (N)	Specimens susceptible (%)
S. pneumoniae	Penicillin	620	85
	Macrolides	674	77
	Tetracycline	672	77
H. influenzae	Amoxicillin/ampicillin	3,755	62
	Co-amoxiclav	4,055	73
	Macrolides	762	6
	Tetracycline	4,185	97
S. aureus	Methicillin	2,681	93
	Macrolides	2,910	69
MRSA	Clindamycin	115	40
	Tetracycline	145	74
MSSA	Clindamycin	1,778	75
	Tetracycline	2,421	93

* Macrolides = erythromycin, azithromycin and clarithromycin

Data source: PHE's SGSS CDR module. Please note that this is different to the data source used during the 2019/20 influenza season when the SGSS AMR module was used, and so the results are not directly comparable.
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

In this week's report 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 17 -40 are summarised. Donor samples from two different geographic regions (approximately 1000 samples per region) in England are tested each week. Since week 26, an exclusion of donors aged 70 years and older donating throughout lockdown was lifted, and therefore data since then include donors in this older age group.

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

The results presented here are based on testing using the Euroimmun assay for blood donor samples collected between weeks 17-40. This week's report includes the results of testing the 8th set of samples from the Midlands (week 40) and the 7th set of samples from the North East and Yorkshire (week 40)
This report presents seropositivity estimates using a 4-week rolling prevalence for national and regional estimates. Seroprevalence is also based on seropositivity unadjusted for the sensitivity and specificity of the assays used. This is because waning of antibodies means assay sensitivity will be changing according to time since infection in these cohorts. Estimates are therefore generally slightly lower than previously reported but trends will be unaffected.

National Prevalence

Overall population weighted (by age group, sex and NHS region) antibody prevalence using the EuroImmun assay among blood donors aged 17 years and older in England was 5.9% (95% CI 5.4% - 6.5%) for the period 9th September– 4th October (weeks 37-40). Estimates are based on 7963 samples, of which 497 were positive. This compares with 5.3% (95% CI 4.8%-5.9%) for the period of 2nd – 27th September (weeks 36-39). Differences in prevalence can partially be explained by demographic changes in the donor population, such as later data including donors aged 70 years and older who were previously excluded from donating during lockdown. Waning immunity also is also likely to be a contributing factor.

Regional Prevalence over Time

Seropositivity (weighted by age group and sex) vary across the country and over time. In London where estimates are highest, the four weekly rolling seropositivity increased from 11.9% (week 16-19) to 13.7% (weeks 20-23). From week 24 seropositivity was lower and plateaued with estimates at 7.8% in weeks 30-33. Figure 49 shows the overall 4-weekly rolling proportion seropositive in each region over time. Seropositivity estimates are plotted on the mid-point of the four weekly period.

More recently London data shows increases in seropositivity to 10.4% (95% CI 9.1% - 12%) in weeks 34-37 and 9.0% (95% CI 7.8% - 10.3%) in weeks 37-40. This increase is likely to be in part be due to increases in recent infection, although variability in the precise locations of sampling within London and potential changes in exposure of donors and likelihood of being part of the of the donor pool in earlier parts of the epidemic could also be contributory factors.
In the North East and Yorkshire NHS region the seropositivity has increased to 5.6% (95% CI 4.3%-7.3%) in weeks 37-40 compared with 3.7% (95% CI 2.7%-5.0%) in week 36-39.
Data from the Midlands also show a higher proportion seropositive at 6.5% (95% CI 5.0%-8.4%) in weeks 37-40. This compares to 5.5% (95% CI 4.3%-7.0%) in weeks 36-39.
Data from the North West show that seropositivity was 5.9% (95% Cl 4.4% - 7.9%) in weeks 34-37 and more recently 5.3% in weeks 37-40 (95% CI 4.1-6.9%) showing a continued plateauing.
In the East of England seropositivity was 6.1% (95% CI 4.5% - 8.2%) in the most recent data (weeks 37-40) fluctuating between 4.1% (95% Cl 3.0% - 5.7%) in weeks 32-35 and 5.9% (95% CI 4.6% - 7.6%) in weeks 35-38.
Seropositivity in the South East region was 3.9% (95% CI 2.7% - 5.5%) in the latest data (weeks 37-40) lower than the 5.1% (95% CI 3.3% - 7.7%) observed in weeks 33-36.
Seropositivity in the South West region was 4.1% (95% CI 2.9 - 5.8%) in (weeks 37-40) similar to 2.9% (95% CI 2.0% - 4.1%) observed in the previous survey in weeks 33-36.
The change in proportion seropositive observed in some regions is likely to be largely driven by changes in the precise locations of sample collection. However, the most recent increases observed in the Midlands and North East regions cannot be fully explained by this and are likely to reflect increased transmission, consistent with other surveillance data. Increases in seropositivity reflect transmission occurring at least two to three weeks previously given the time taken to generate an antibody response following infection. Declines in prevalence observed during the summer months can be partially explained by demographic differences in the donor population as lockdown measures were relaxed. Examples include a reduction in attendance of regular donors in August and that donors aged 70 years and above were not allowed to donate during lockdown, but this exclusion was lifted from week 26. Waning immunity may also be a contributing factor to the lower prevalence.

Prevalence by age group

Population weighted antibody prevalence (unadjusted) estimates have generally remained highest in donors aged 17-29 and decline with age, with lowest prevalence in donors aged 70-84. Donors aged 70-84 years are only included from week 26 onward as this age group, who were advised to shield during lockdown, have been able to return to donor clinics since then (Figure 50).

The largest variation over time are observed in those aged 17-29, prevalence has decreased from 10.8% (95% CI 9.0%-12.9%) in weeks 19-22 to 8.6% (95% CI 7.1%-10.5%) in weeks 37-40. Recently there has been an increase in prevalence in 70-84 year olds from 2.9% (95% CI 1.8%-4.5%) in week 36-39 to 3.8% (95% CI 2.3%-6.1%) in week 37-40.

Figure 49: 4-weekly rolling SARS-CoV-2 antibody seroprevalence (% seropositive) in blood donors by region, using Euroimmun test; error bars show 95% confidence intervals

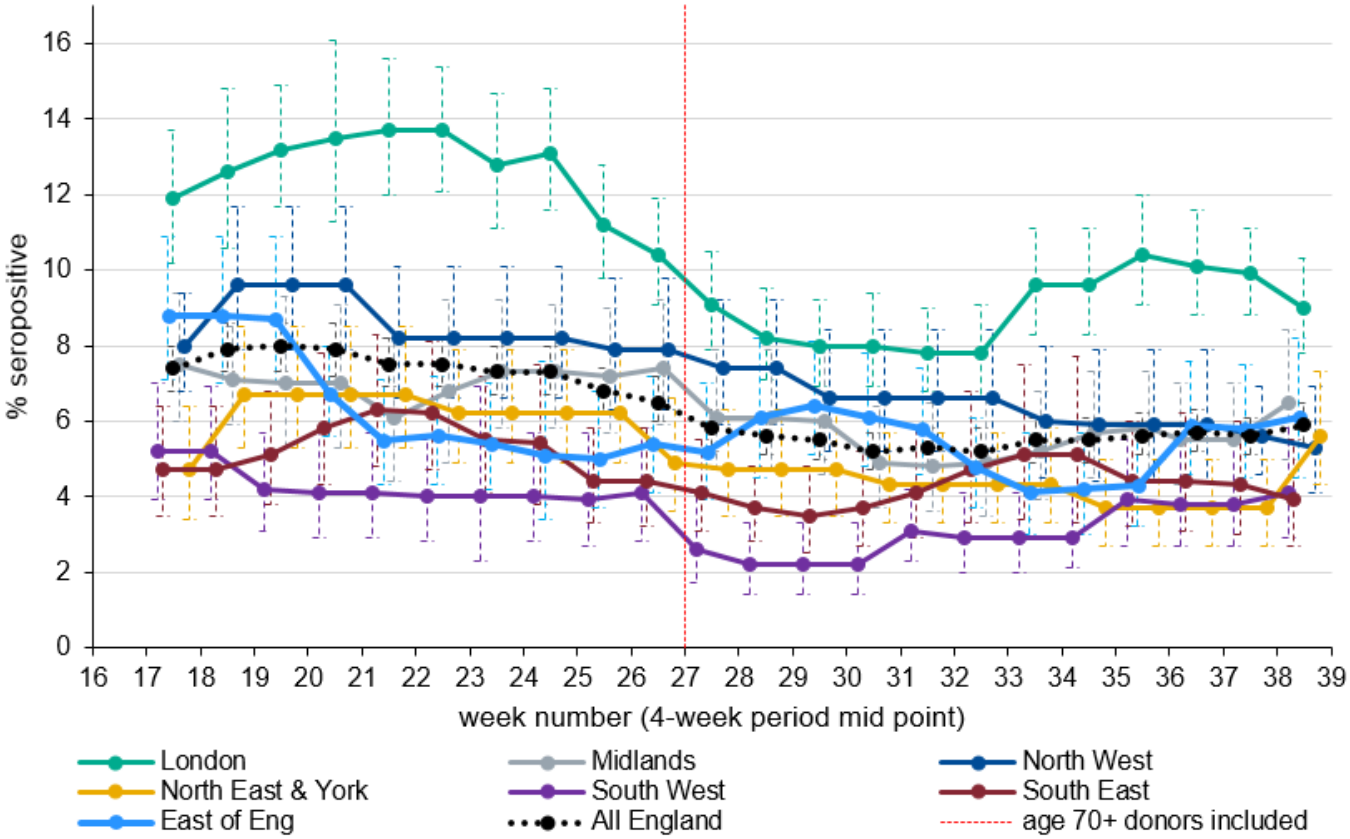
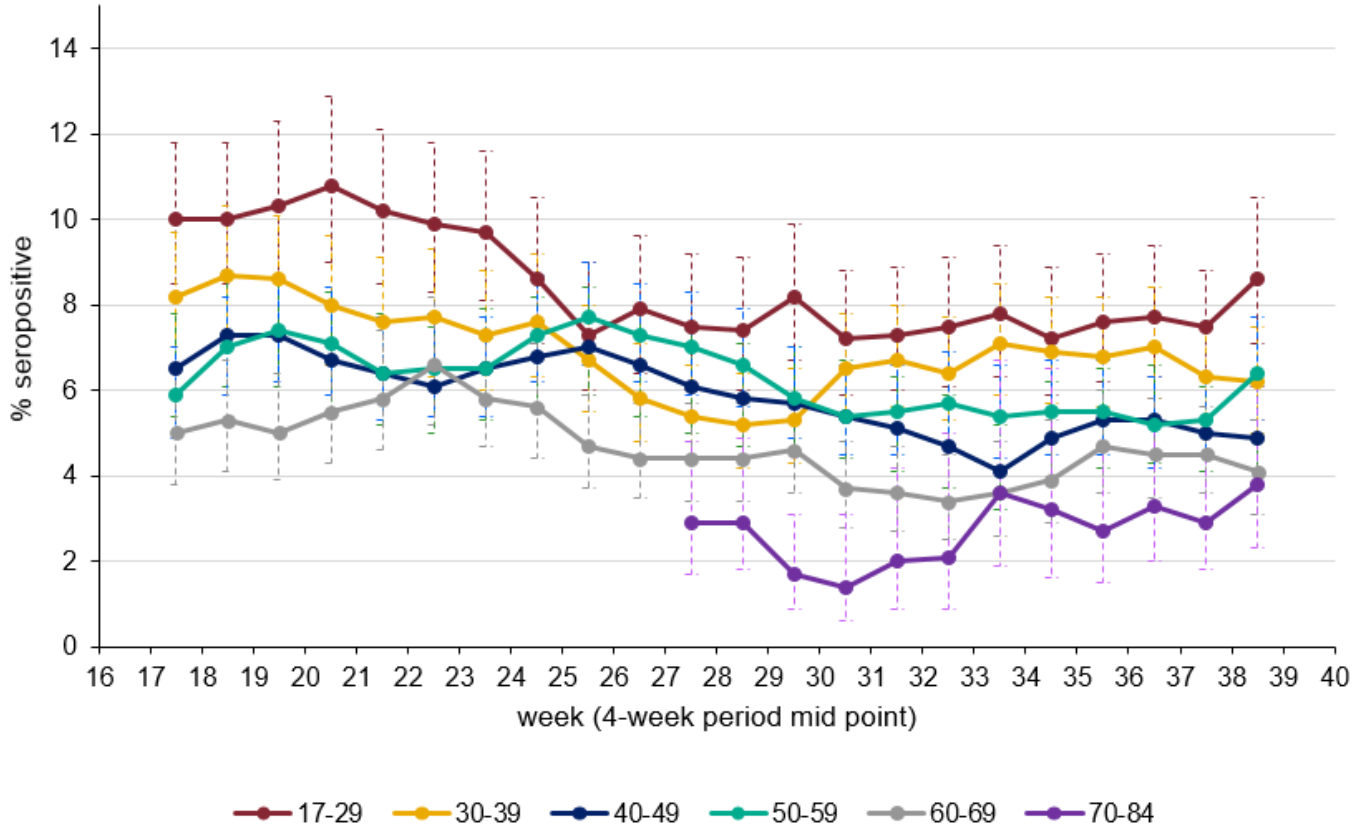


Figure 50: Population weighted 4-weekly rolling SARS-CoV-2 antibody seroprevalence (% seropositive) in blood donors by age group, using Euroimmun test; error bars show 95% confidence intervals.



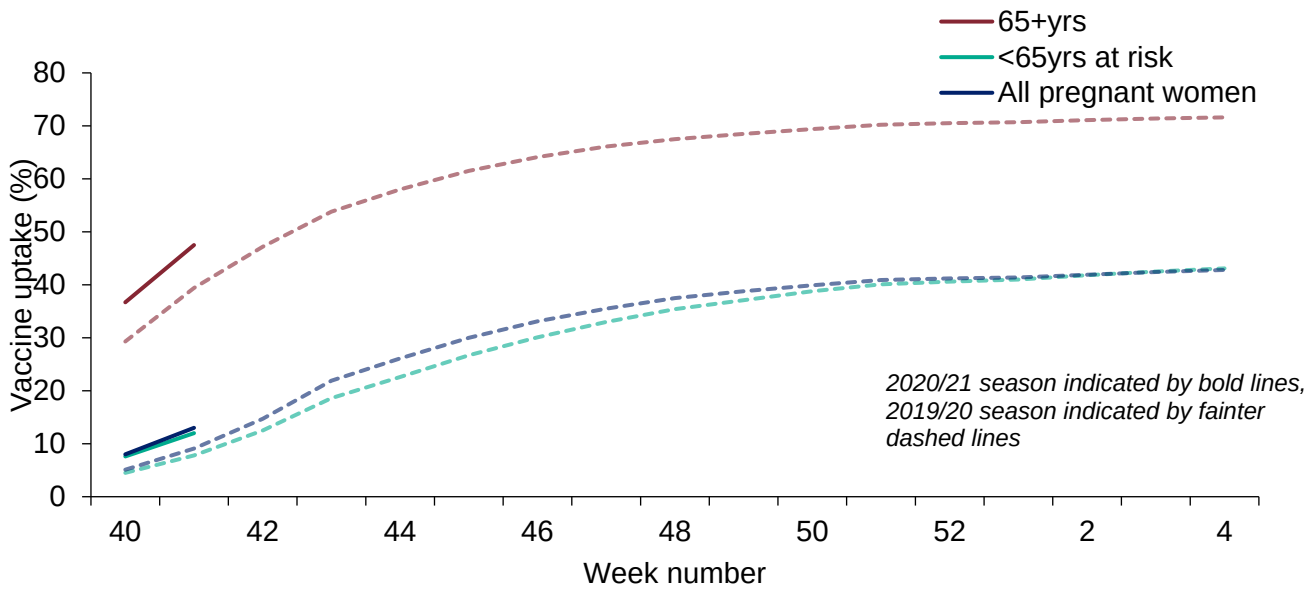
Influenza vaccination

Influenza vaccine uptake in GP patients

Up to week 41 2020 in 89.7% of GP practices reporting weekly to Immform for the main collection, the provisional proportion of people in England who had received the 2020/21 influenza vaccine in targeted groups was as follows (Figure 51):

- 12.0% in under 65 years in a clinical risk group
- 13.0% in pregnant women
- 47.5% in 65+ year olds

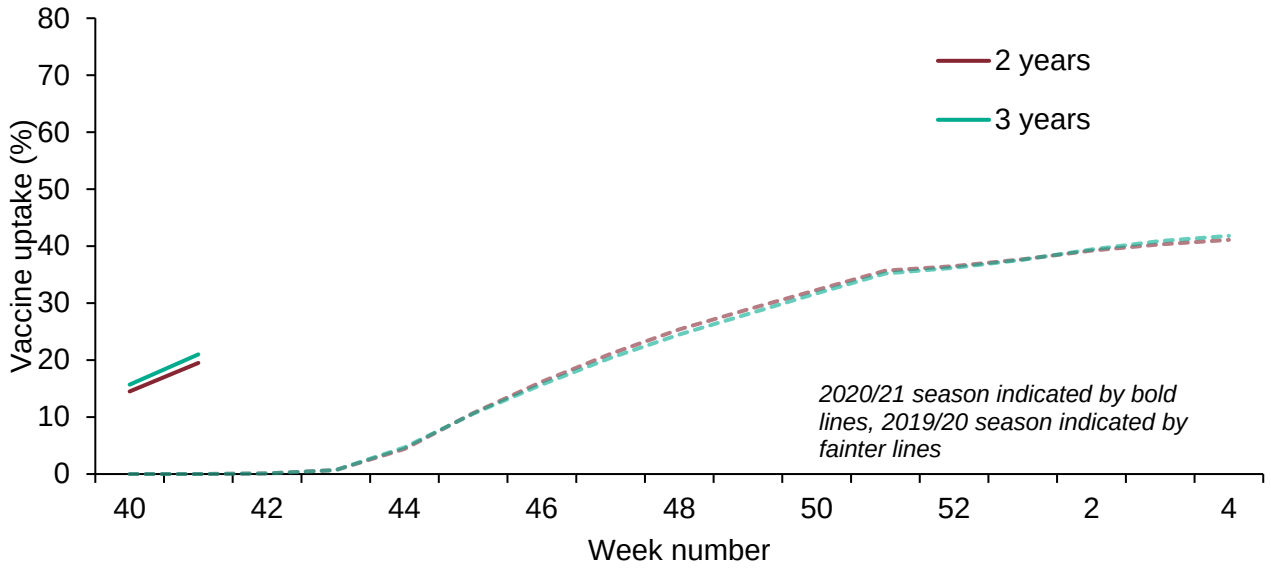
Figure 51: Cumulative weekly influenza vaccine uptake by target group in England



In 2020/21, all 2 and 3 year olds continue to be eligible for influenza vaccination through their GPs. Up to week 40 2020, in 92.1% of GP practices reporting weekly to Immform for the childhood collection, the provisional proportion of children in England who had received the 2020/21 influenza vaccine in targeted groups was as follows (Figure 52):

- 19.5% in 2 year olds
- 21.0% in 3 year olds

Figure 52: Cumulative weekly influenza vaccine uptake in 2 and 3 year olds, in England



Influenza vaccine uptake in school age children

The first report on influenza vaccine uptake in school age children (Year Reception to Year 7) will be published in November 2020.

Influenza vaccine uptake in healthcare workers

The first report on influenza vaccine uptake in healthcare workers will be published in November 2020.

International update

Global COVID-19 update

Globally, up to 13 October 2020, a total of 37,960,283 cases of COVID-19 infection have been reported worldwide, including 1,082,949 COVID-19 related deaths.

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

Figure 53: Global map of cumulative COVID-19 cases

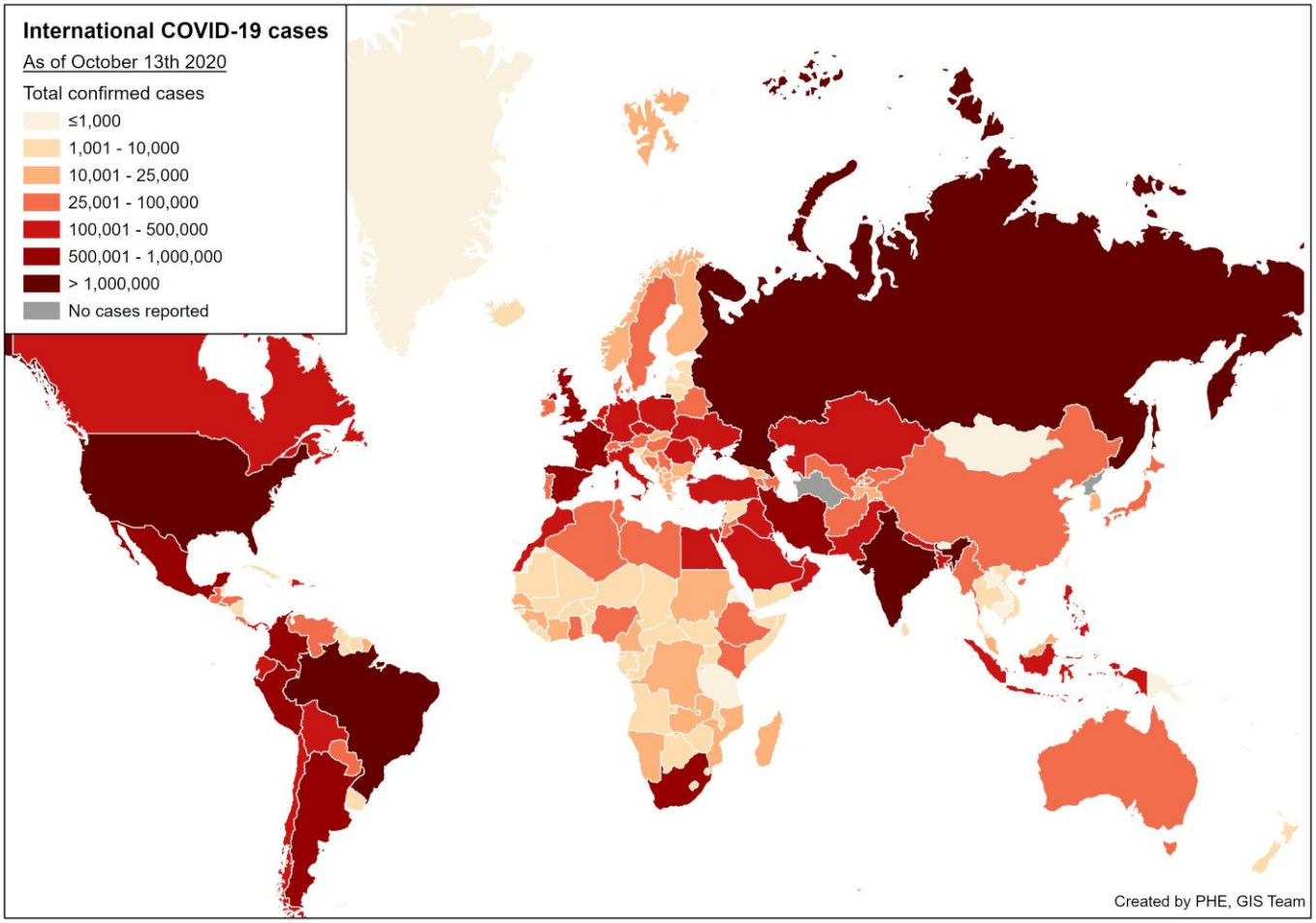
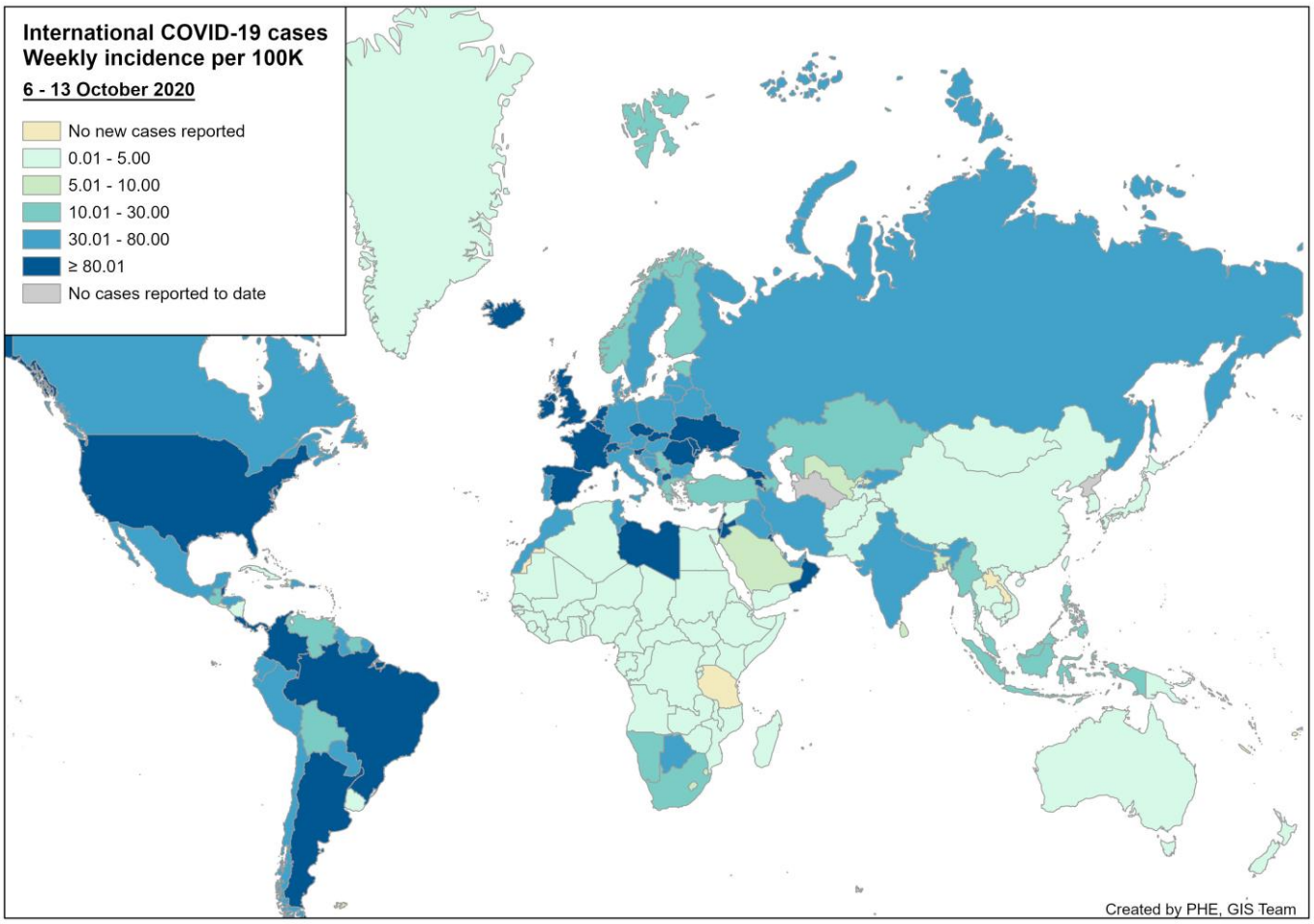


Figure 54: Global map of weekly COVID-19 case incidence rate per 100,000, week 41 2020



Global influenza update

Updated on 13 October 2020 (based on data up to 29 September 2020) (WHO website)

In the temperate zone of the northern hemisphere, influenza activity remained below inter-seasonal levels. In the temperate zones of the southern hemisphere, the influenza season remained low or below baseline. Worldwide, of the very low numbers of detections reported, seasonal influenza A(H3N2) viruses accounted for the majority of detections.

In the countries of North America, influenza activity indicators, including the percent of tests positive for influenza, were at very low levels.

In Europe, influenza activity remained at inter-seasonal levels though sporadic detections were reported across reporting countries.

In Central Asia and Northern Africa, there were no influenza updates for this reporting period.

In Western Asia, there were no influenza detections and ILI levels were low across reporting countries.

In East Asia, influenza illness indicators and influenza activity remained at inter-seasonal levels in most reporting countries

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

In tropical South America, tropical Africa and Southern Asia there were sporadic or no influenza detections across reporting countries.

In South East Asia, increased influenza detections were reported in Cambodia and Lao People's Democratic Republic (PDR).

In Oceania, influenza like illness (ILI) and other influenza activity indicators remained below usual levels for this time of year in general.

The WHO GISRS laboratories tested more than 50521 specimens between 14 September 2020 and 27 September 2020. 99 were positive for influenza viruses, of which 60 (60.6%) were typed as influenza A and 39 (39.4%) as influenza B. Of the sub-typed influenza A viruses, 50 (100%) were influenza A (H3N2). Of the characterized B viruses, 5 (22.7%) belonged to the B-Yamagata lineage and 17 (77.3%) to the B-Victoria lineage.

Influenza in Europe

Updated on 13 October 2020 (Joint ECDC-WHO Europe Influenza weekly update)

This is the first Joint ECDC-WHO Europe influenza weekly update for the 2020-2021 influenza season.

For the Region as a whole, influenza activity remains at baseline levels.

Of 27 countries and areas that reported on the intensity indicator, 24 reported activity at baseline levels, 2 reported low intensity (Azerbaijan and Slovakia), 1 reported medium intensity (Denmark) for week 40/2020. Of 26 countries and areas that reported on geographic spread, 22 reported no activity and 4 reported sporadic spread (Denmark, United Kingdom (Northern Ireland and Scotland) and Slovakia) for week 40/2020.

For week 40/2020, of 163 sentinel specimens tested for influenza viruses, none were positive.

There were no hospitalized laboratory-confirmed influenza cases in ICUs for week 40/2020.

There were no laboratory-confirmed influenza cases in wards outside ICUs for week 40/2020.

Influenza in the Northern Hemisphere

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

For information on influenza in Canada please see the Public Health Agency weekly influenza report.

Other respiratory viruses

Avian influenza

Latest update on 22 July 2020 (WHO website)

Influenza A(H5) viruses:
According to reports received by the World Organisation for Animal Health (OIE), various influenza A(H5) subtypes continue to be detected in birds in Africa, Europe and Asia.

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 9 May and 10 July 2020 two new laboratory-confirmed human cases of influenza A(H9N2) virus infections were reported from China.

Middle East respiratory syndrome coronavirus (MERS-CoV)

Latest update on 29 September 2020 (WHO website)

Up to 29 September 2020, 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. On-going surveillance has identified 1,816 suspected cases in the UK since September 2012 that have been investigated for MERS-CoV and tested negative.

From 1 April to 31 May 2020, the National IHR Focal Point of Saudi Arabia reported 9 new cases of MERS-CoV infection, including five deaths.

Globally, since September 2012, WHO has been notified of 2,562 laboratory-confirmed cases of infection with MERS-CoV, including 881 related deaths. 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.

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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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