



Public Health  
England

Protecting and improving the nation's health

# **Weekly national Influenza and COVID-19 surveillance report**

**Week 49 report (up to week 48 data)  
3 December 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 48 (between 23 and 29 November 2020) and for some indicators daily data up to 1 December 2020.

Surveillance indicators suggest that COVID-19 activity at a national level has decreased during week 48. There is currently limited testing for other respiratory viruses, however, laboratory indicators suggest that influenza activity is low.

Week 44 was school half-term in many parts of the country. During week 45, several social and physical distancing measures were re-introduced across England and mass testing was introduced in parts of the North-West. Further asymptomatic testing is being rolled out in other parts of the country (<https://www.gov.uk/government/news/more-rapid-covid-19-tests-to-be-rolled-out-across-england>). All of these factors are likely to impact on surveillance indicators.

Detections of COVID-19 cases in England decreased significantly during week 47 and continued to decrease in week 48. Overall positivity rates also decreased in both Pillar 1 and 2. Case rates were highest in the West Midlands, North East and Yorkshire and Humber in week 48. Pillar 2 positivity rates has decreased in all regions, in particular the North and Central regions of England. Cases rates have decreased in all age groups in week 48. Positivity rates were highest in the 80+ year olds tested through Pillar 1 (NHS and PHE testing) and in the 10 to 19 year olds tested through Pillar 2 (community testing).

Through Respiratory Datamart, there was one influenza (1 influenza A(not subtyped)) positive sample detected in week 48. Rhinovirus activity remains high in week 48.

The overall number of acute respiratory infection incidents reported to PHE Health Protection Teams have decreased from 1173 in the previous week to 855 in week 48 across all settings in England. In the majority of reported incidents SARS-CoV-2 has been detected. It is important to note that an increasing number of outbreaks are being managed through other routes outside of Health Protection Teams.

The majority of community and syndromic indicators have decreased or remained stable during week 48. General practice (GP) influenza-like illness (ILI) consultations remained low in all UK schemes.

Through the UK GP swabbing scheme, SARS-CoV-2 positivity among patients contacting their GP with influenza like illness or lower respiratory tract infection symptoms decreased from 22.4% in week 47 to 15.0% in week 48.

The overall COVID-19 confirmed hospital and ICU/HDU admission rates decreased whilst the influenza confirmed hospital and ICU/HDU admission rates remained low.

Emergency department attendances for COVID-19 like diagnosis and acute respiratory infections have decreased in week 48.

The number of deaths among confirmed COVID-19 cases continued to increase in week 47. Overall excess all-cause mortality was observed in week 47; by age group in the 85 plus year olds and subnationally in the North West, Yorkshire and Humber and the West Midlands.

Overall estimated national seroprevalence based on blood donor samples was 6.5% with the highest seroprevalence by region seen in the North West and by age group in young adults. There have been notable increases in seroprevalence in the North-West in recent weeks which is likely to reflect the high levels of COVID-19 activity in this region in recent months.

Influenza vaccine uptake is 77% in people aged 65 years + which is the highest uptake ever achieved. Uptake in 2 and 3 year children is the highest ever recorded. For those in at-risk groups uptake is higher than last season and comparable to seasons before that. For pregnant women uptake is lower than in previous seasons. The denominator for pregnant women is undergoing validation checks and reported coverage may be under estimated. Weekly vaccine coverage data are provisional.

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# Laboratory surveillance

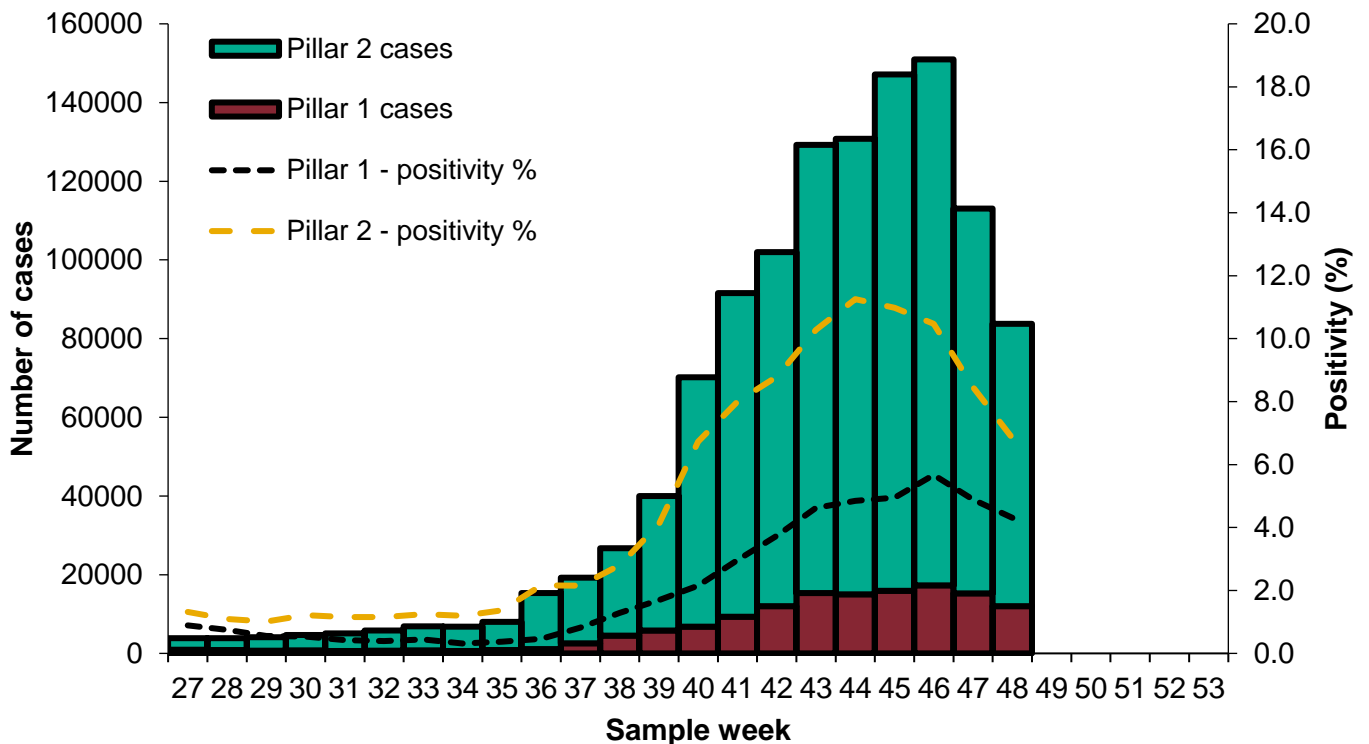
## Confirmed COVID-19 cases (England)

As of 09:00 on 1 December 2020, a total of 1,413,410 have been confirmed positive for COVID-19 in England under Pillars 1 and 2.

Overall case numbers decreased in week 48. Overall positivity decreased in both Pillar 1 and Pillar 2. The highest case rates were seen in the 40 to 49 year olds in Pillars 1 and 2, although decreases were noted in all age groups. The highest positivity rates were noted in the 80+ year olds in Pillar 1 and in the 10 to 19 year olds in Pillar 2, although decreases were noted across all age groups. Cases rates were highest in the West Midlands, North East and Yorkshire and Humber.

From the week 42 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 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.

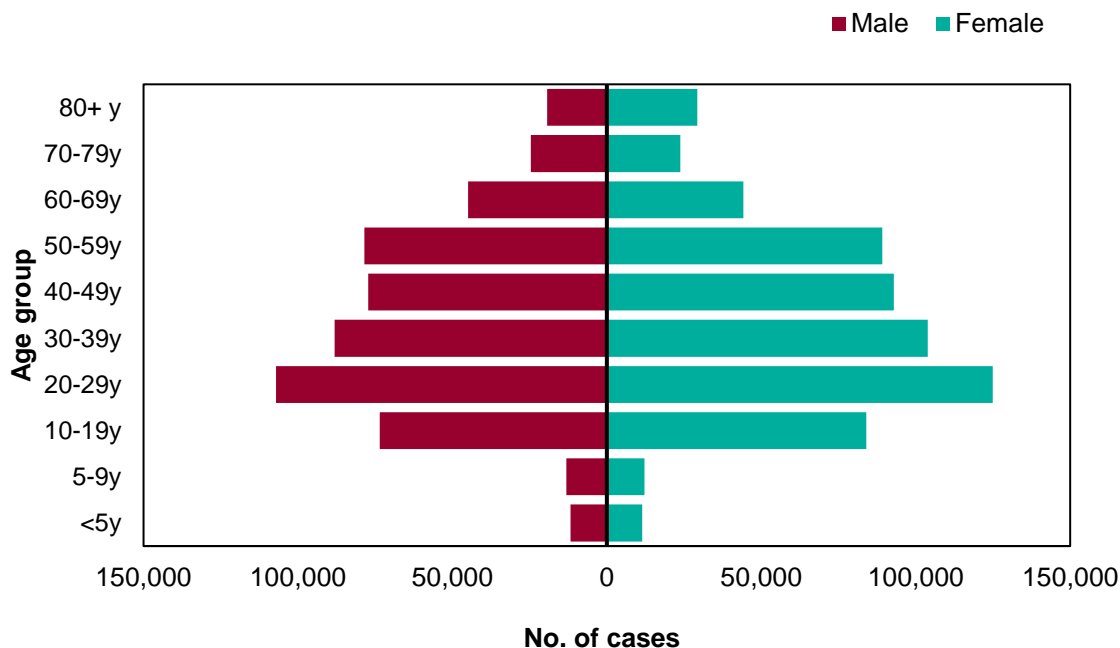
\* Positivity is calculated as the number of individuals testing positive during the week divided by the number of individuals tested during the week based on PCR testing.

\* As of 16 November 2020, the methodology for allocating geographies for cases has been updated to include alternate postcodes where applicable. This change has been applied for cases reported since 1 September 2020. Cases reported prior to 1 September 2020 will not be allocated alternate postcode geographies.

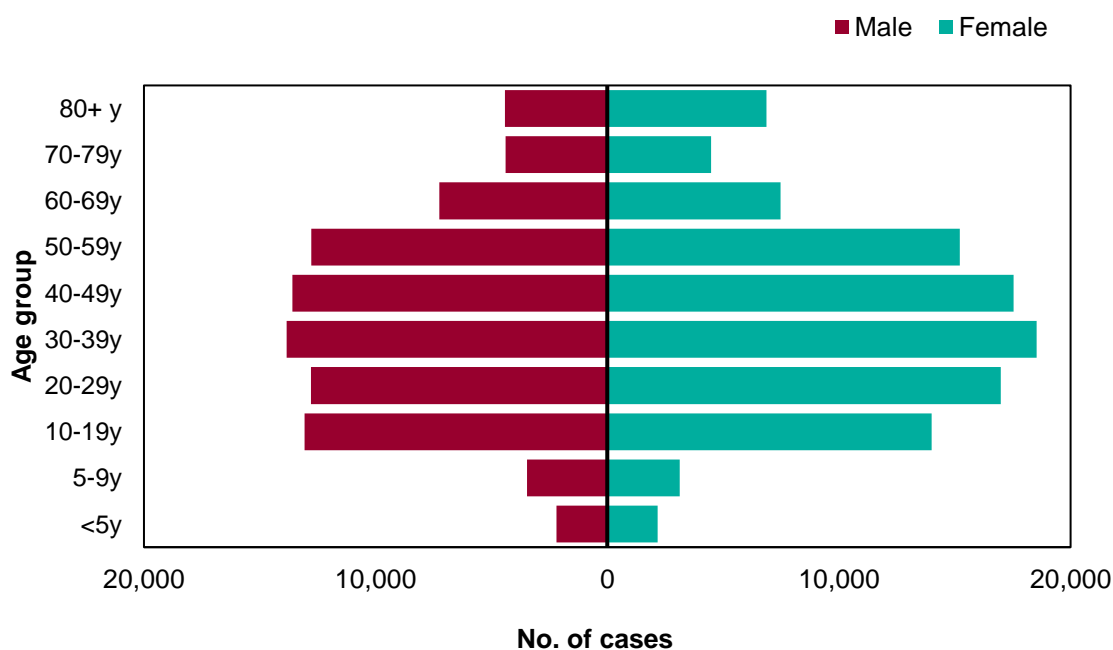
## Age and sex

**Figure 2: Age/sex pyramids for laboratory confirmed COVID-19 cases tested under Pillars 1 and 2 (a) cumulative number since week 27 (n=1,154,176), and (b) in weeks 47 and 48 (n=194,197)**

(a)

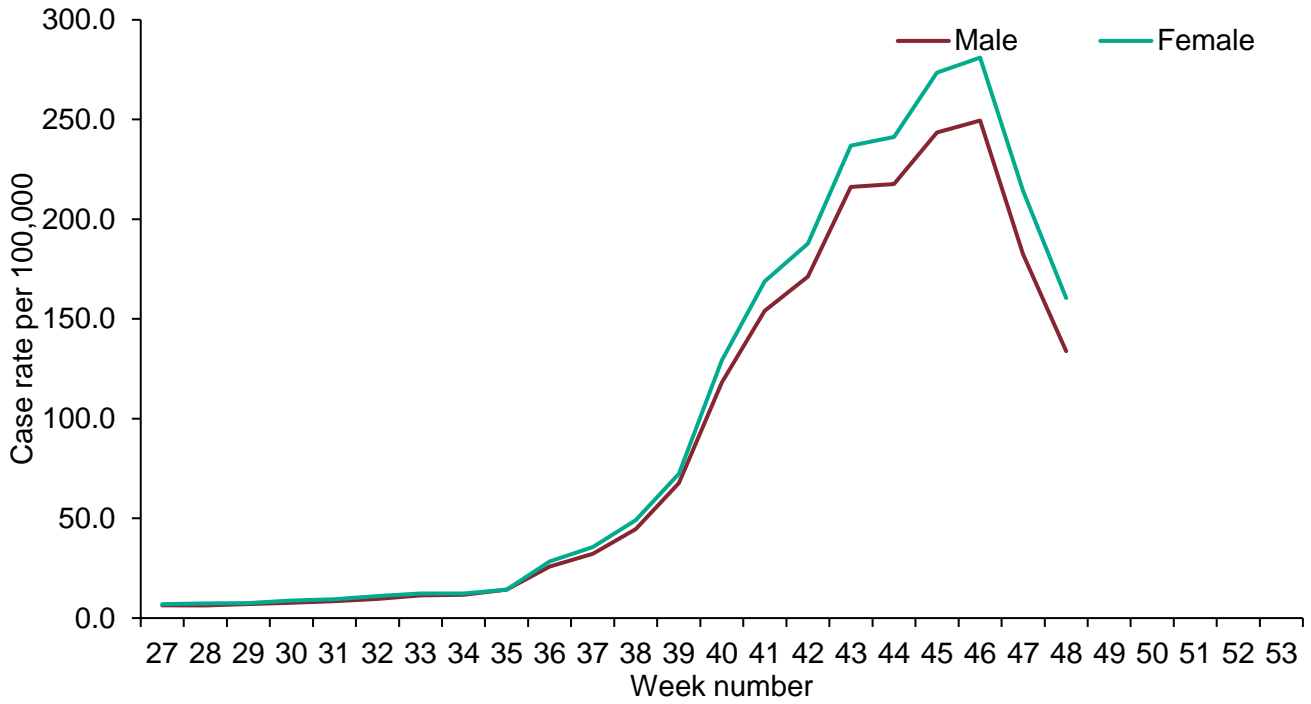


(b)

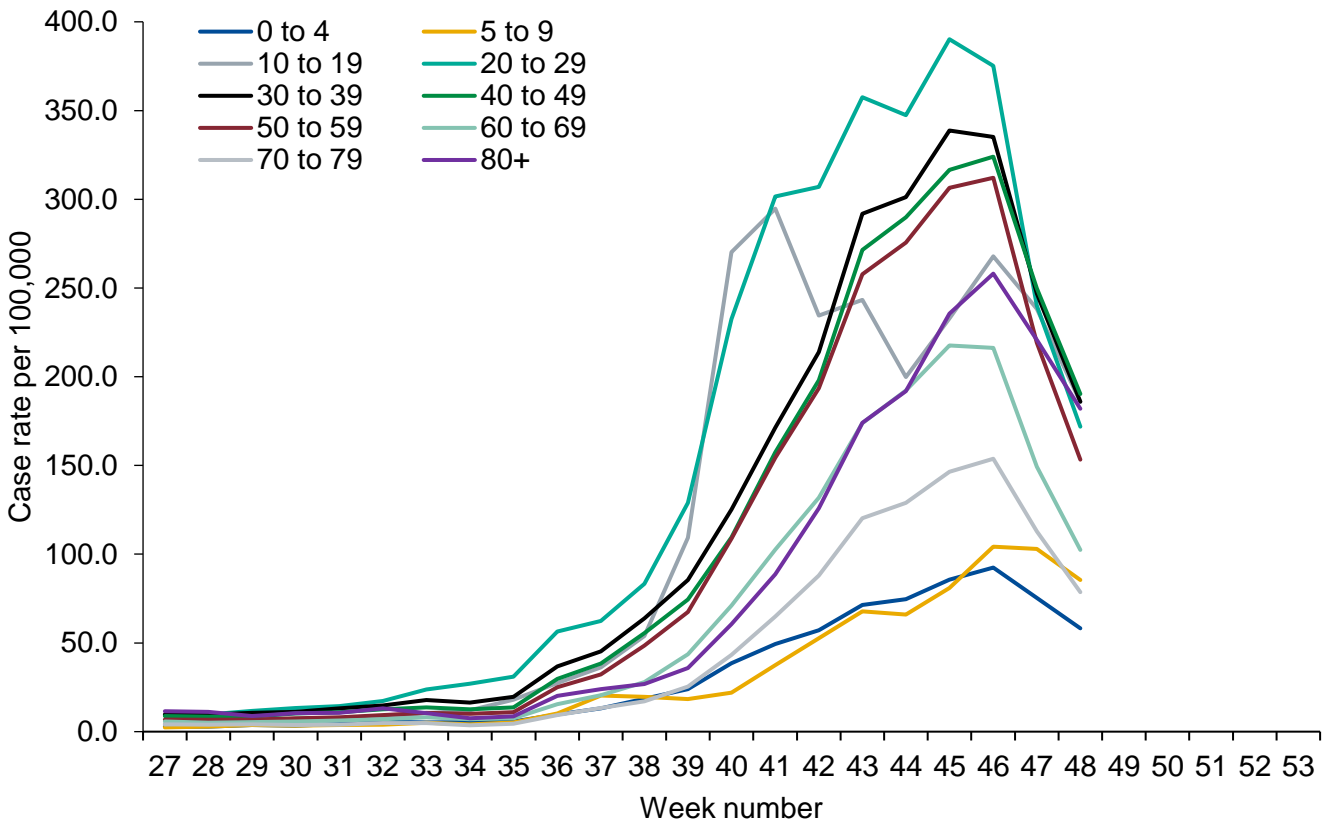




**Figure 3: Weekly laboratory confirmed COVID-19 case rates per 100,000, tested under Pillar 1 and Pillar 2, by sex**

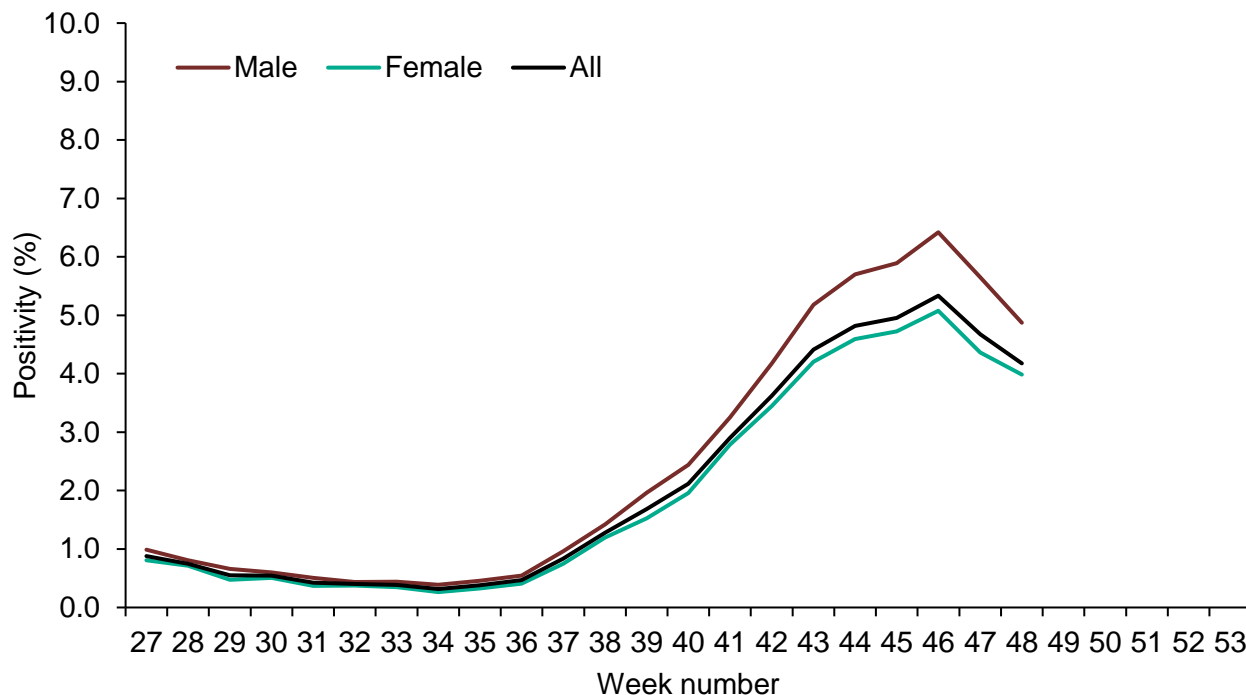


**Figure 4: Weekly laboratory confirmed COVID-19 case rates per 100,000, tested under Pillar 1 and Pillar 2, by age group**

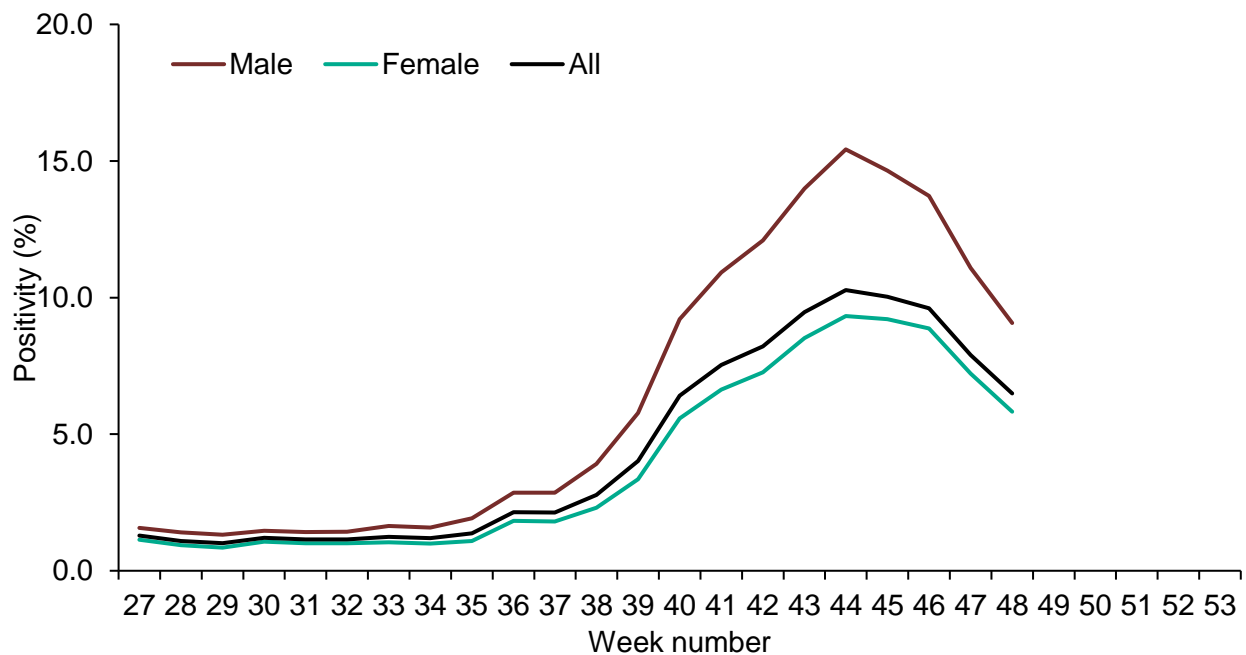


**Figure 5: Weekly positivity (%) of laboratory confirmed COVID-19 cases tested overall and by sex under (a) Pillar 1 and (b) Pillar 2, (SGSS and Respiratory DataMart)**

(a)

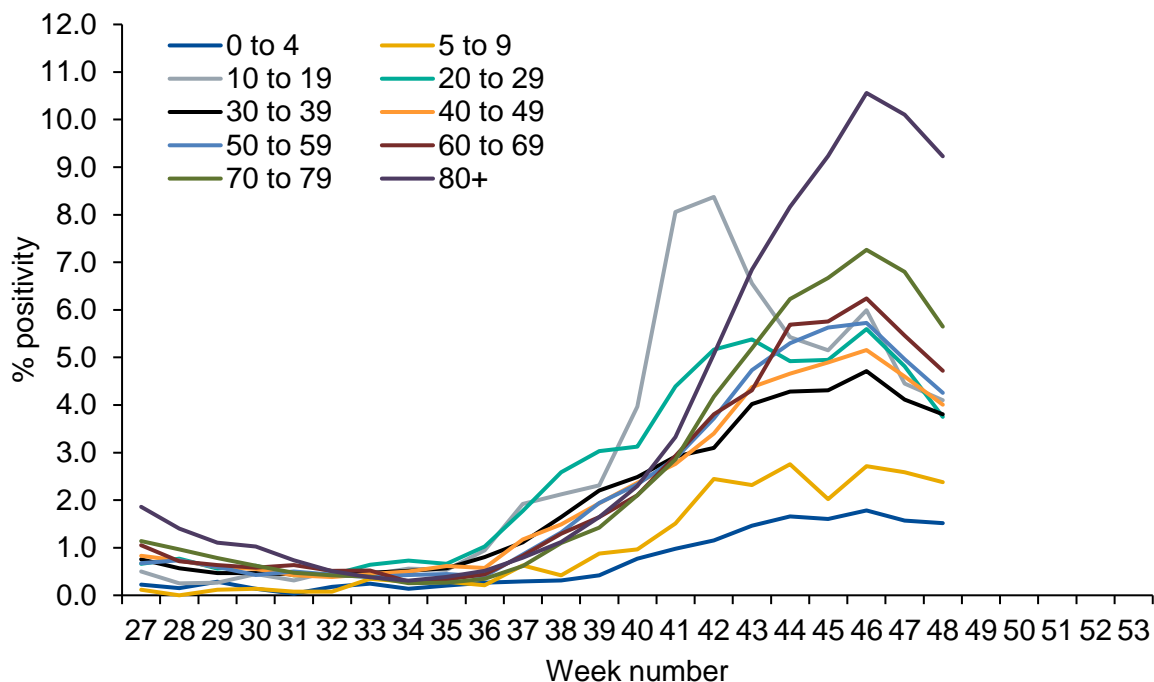


(b)

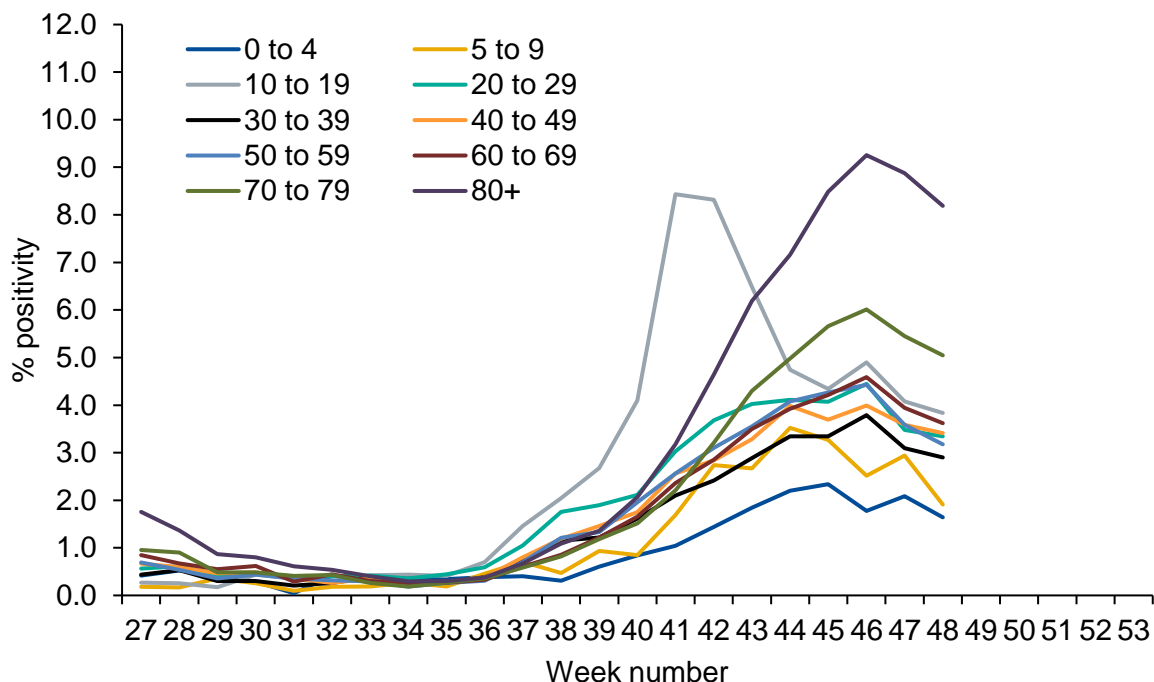


**Figure 6: Weekly positivity (%) of laboratory confirmed COVID-19 cases tested under Pillar 1, (a) by male and age group and (b) by female and age group and; under Pillar 2, (c) by male and age group and (d) by female and age group, (SGSS and Respiratory DataMart)**

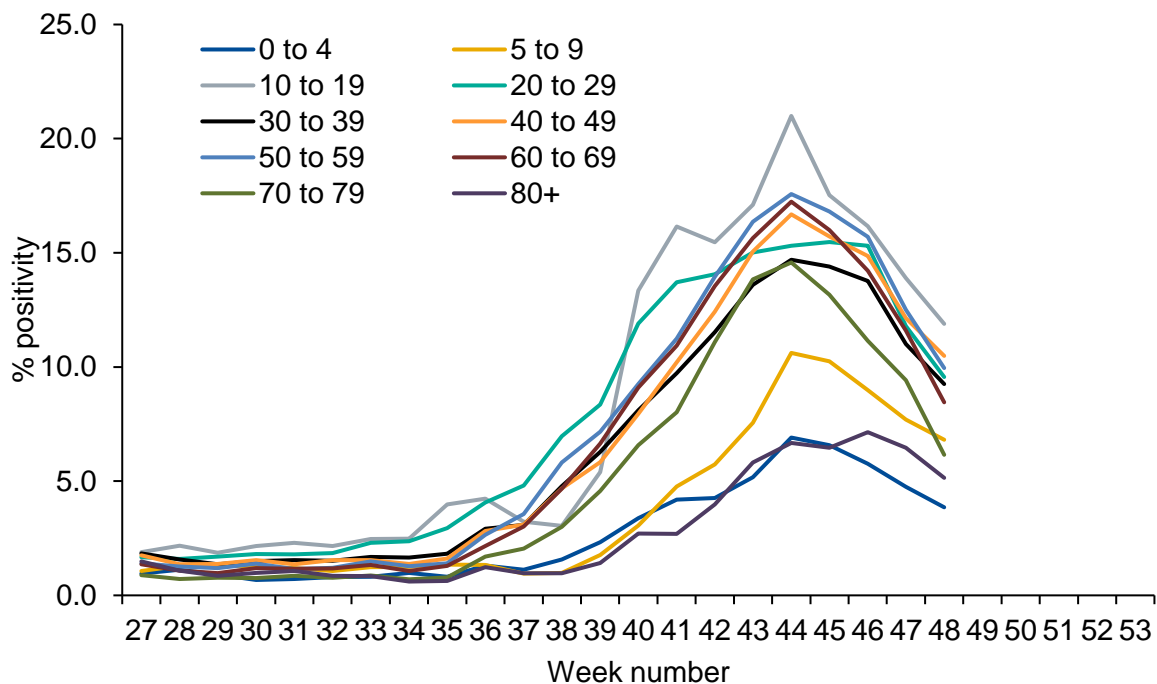
(a) Pillar 1 - Male



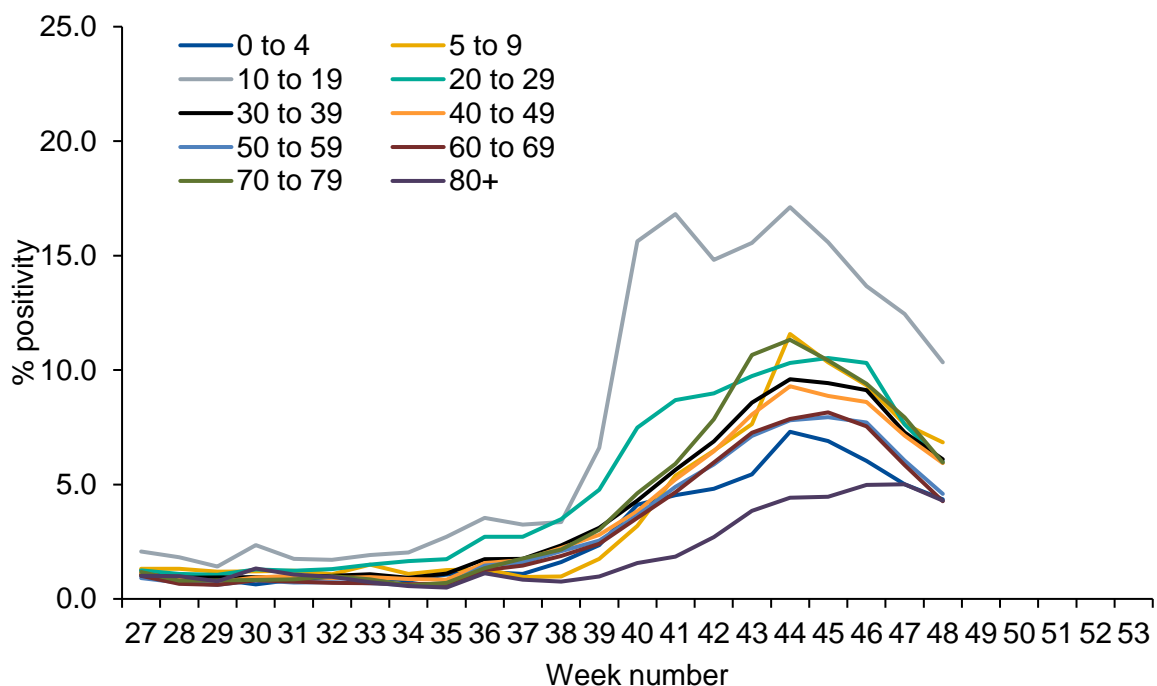
(b) Pillar 1 - Female



(c) Pillar 2 - Male



(d) Pillar 2 - Female

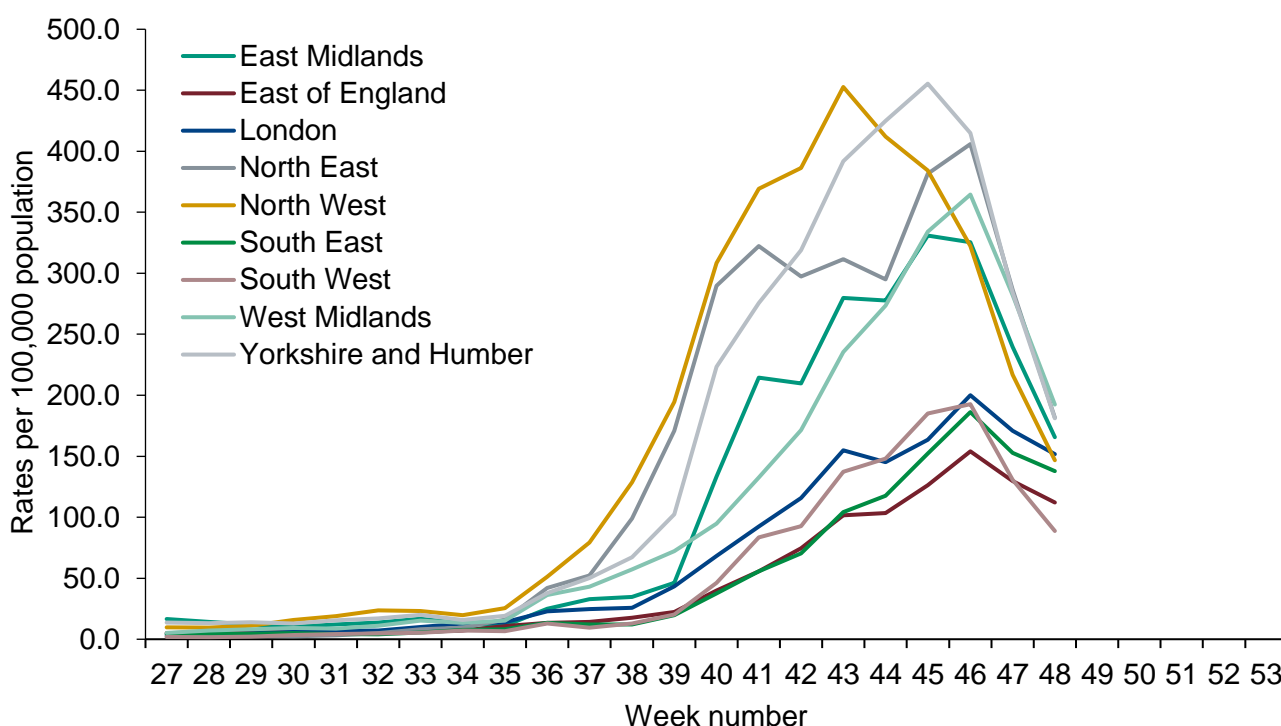


## Geography

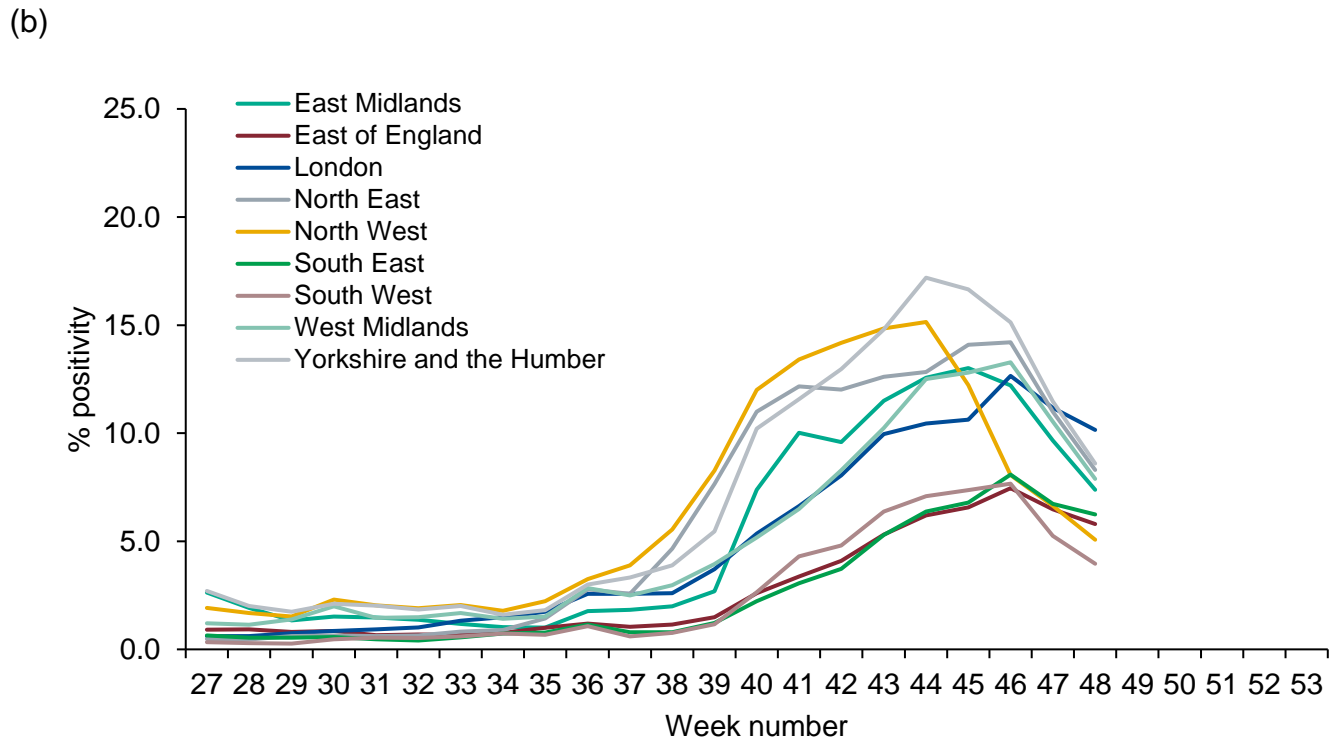
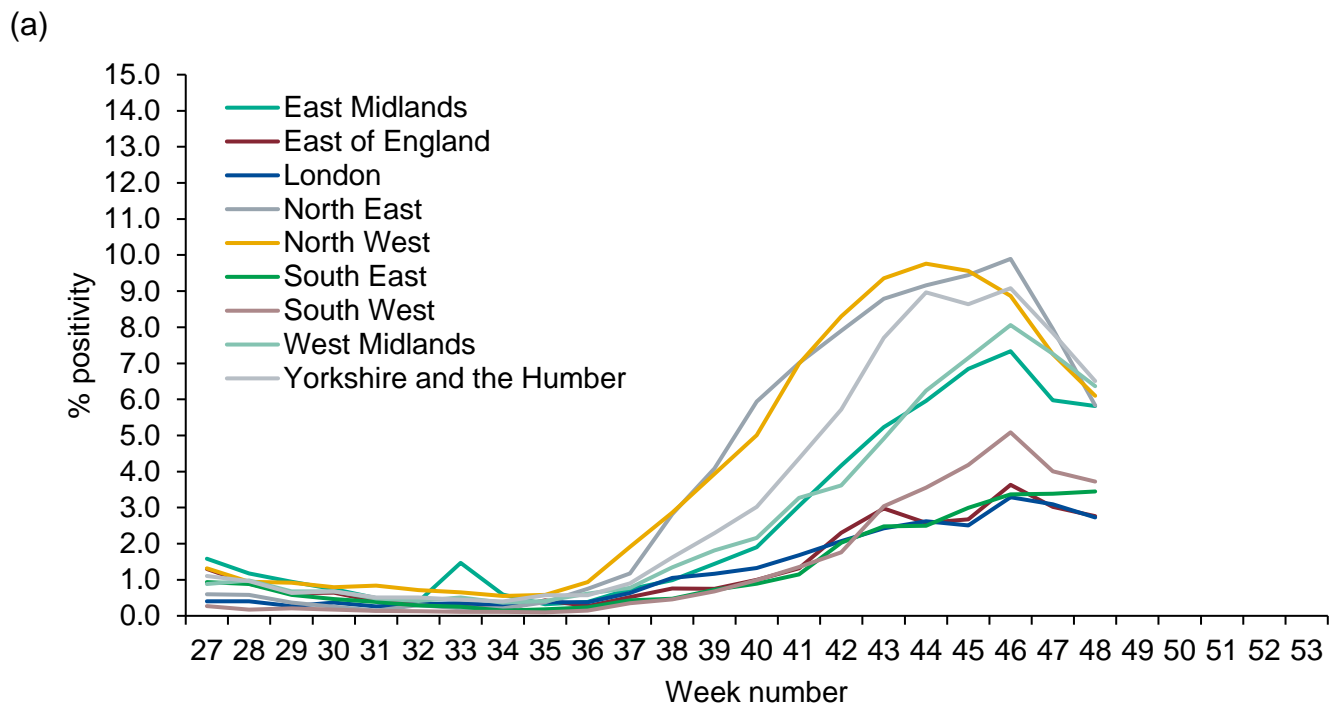
**Table 1: Cumulative number of cases under Pillars 1 and 2 (n=1,394,601) and cumulative number of cases since week 27 under Pillar 1 and 2 (n=1,159,699)**

PHE Centres	Cumulative Pillar 1 + 2 cases	Cumulative since week 27, Pillar 1 + 2 cases
North East	100,272	85,233
North West	307,366	265,125
Yorkshire and Humber	214,280	185,592
West Midlands	166,823	141,672
East Midlands	138,556	117,914
East of England	90,847	66,716
London	163,590	129,969
South East	132,756	100,056
South West	80,111	67,422

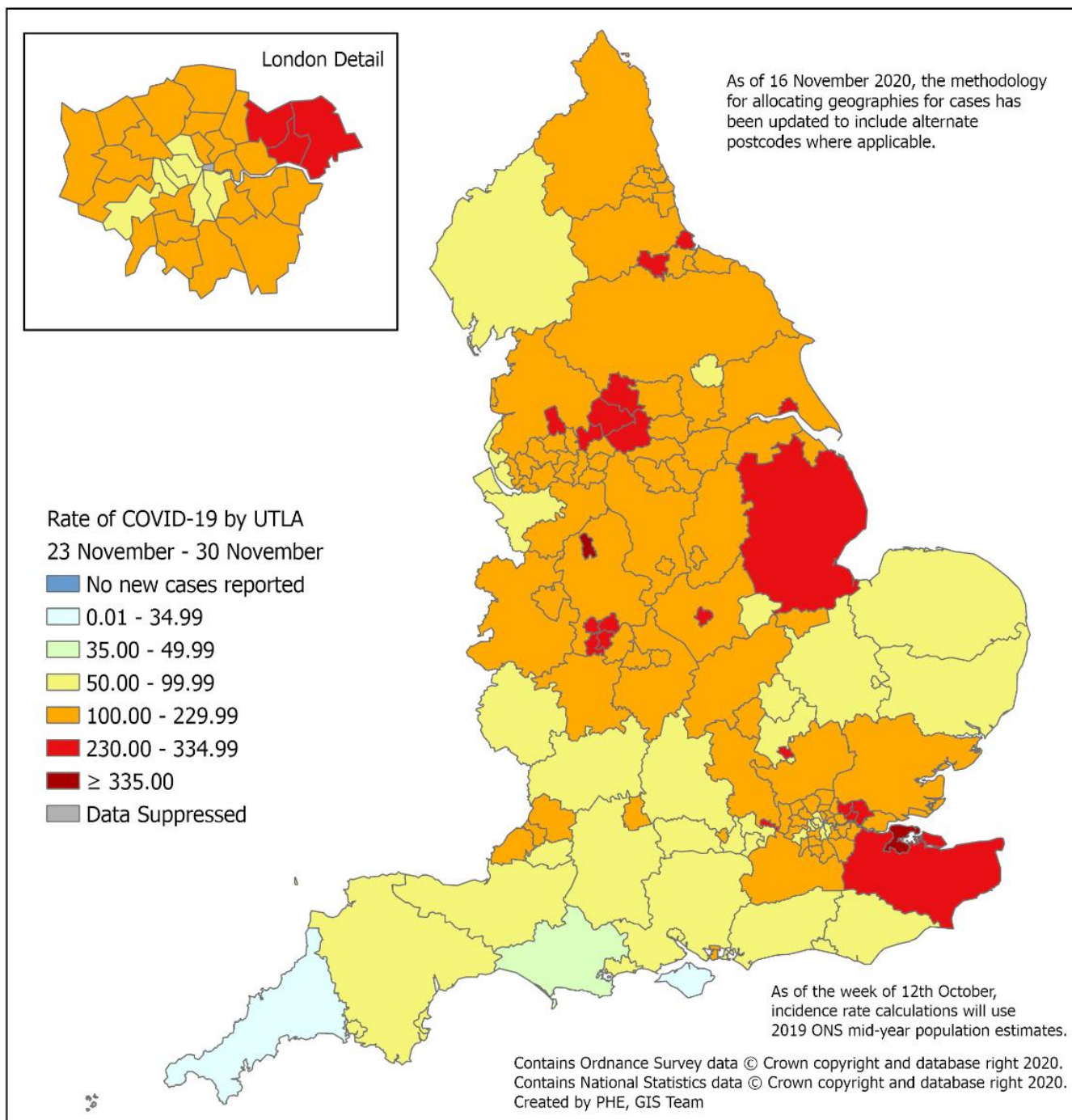
**Figure 7: Weekly laboratory confirmed COVID-19 case rates per 100,000 population (Pillar 1 and Pillar 2), by PHE Centres and sample week**



**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)**

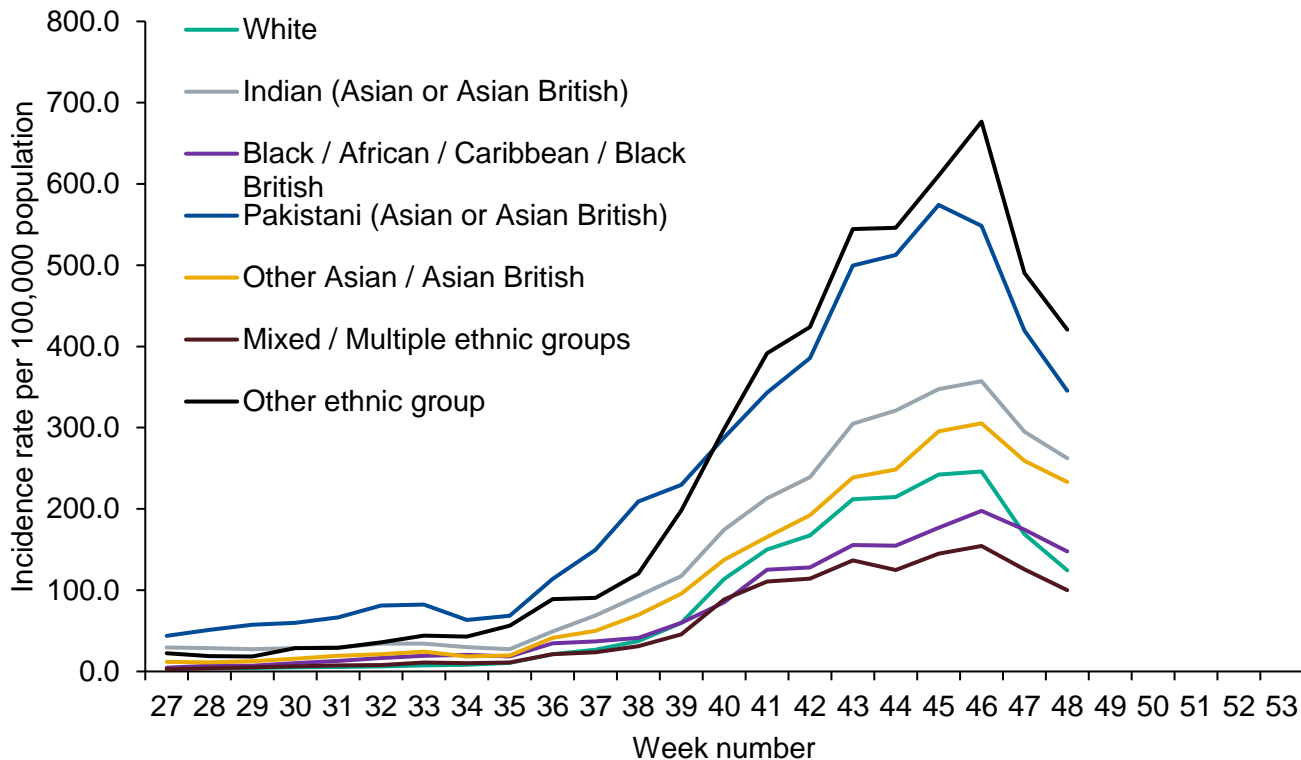


**Figure 9: Weekly rate of COVID-19 cases per 100,000 population (Pillar 1 and 2), by upper-tier local authority, England (box shows enlarged map of London area)<sup>4</sup>**



## 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



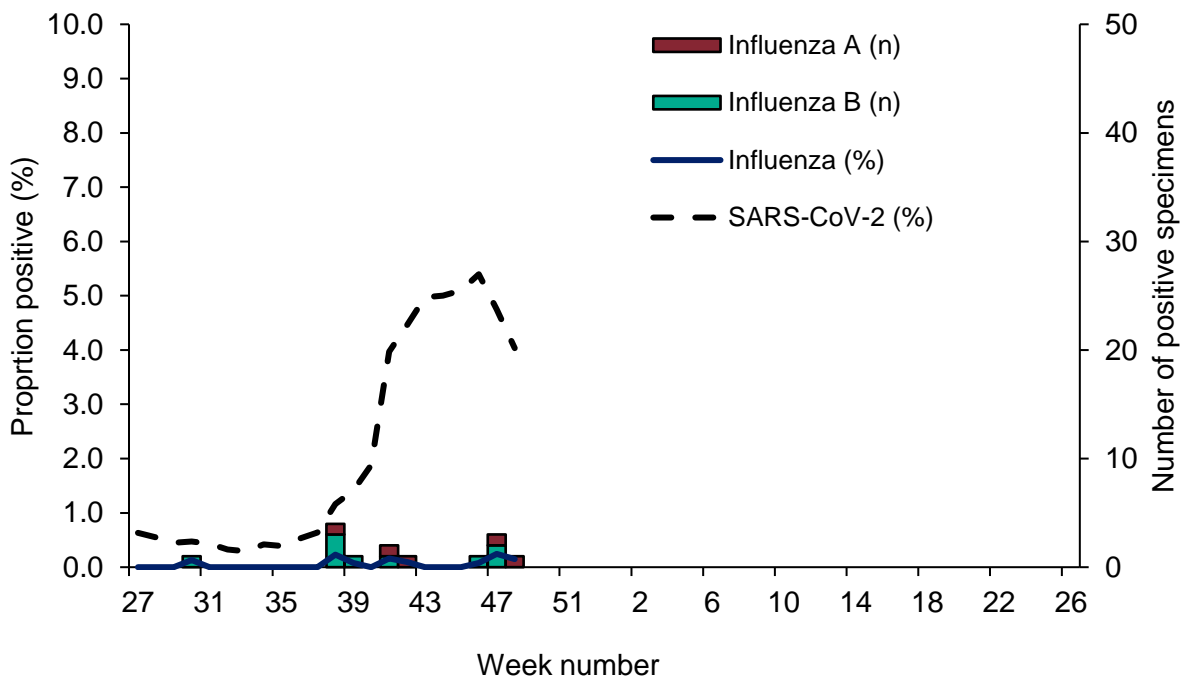
## Respiratory DataMart system (England)

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.

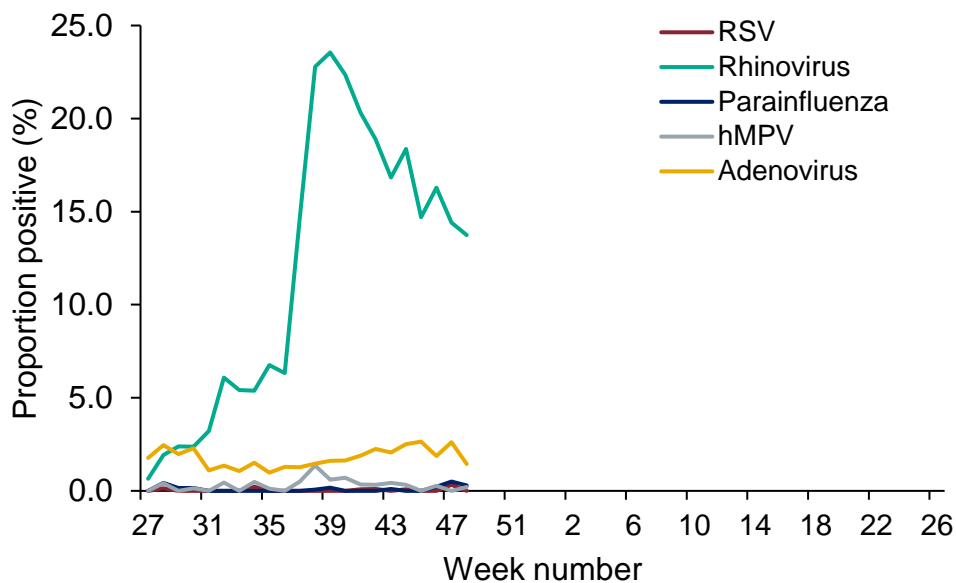
In week 48 2020, out of the 74,197 respiratory specimens reported through the Respiratory DataMart System (based on data received from 15 out of 16 laboratories), 2,994 samples were positive for SARS-CoV-2 with an overall positivity of 4.0%. The highest positivity was noted in the 65+ year olds at 5.9% in week 48. The overall influenza positivity was low at 0.1% in week 48, with 1 sample (1 influenza A(not subtyped)) testing positive for influenza (out of 672 tested) (Figure 11).

Rhinovirus positivity decreased at 13.7% in week 47 compared to 14.4% 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 48 (Figure 13). Respiratory syncytial virus (RSV), adenovirus, parainfluenza and human metapneumovirus (hMPV) positivity all remained low at 0.0%, 1.4%, 0.3% and 0.2% respectively in week 48 (Figure 12).

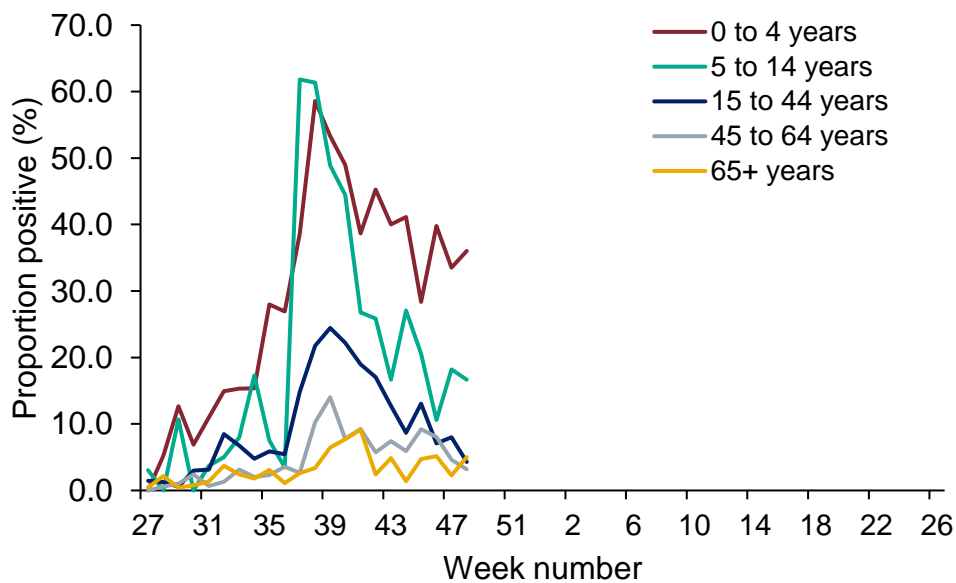
**Figure 11: DataMart samples positive for influenza and weekly positivity (%) for influenza and SARS-CoV-2, England**



**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 situations captured on HPZone represent a subset of all ongoing clusters and outbreaks in England rather than an exhaustive listing. A variety of arrangements are in place with local authorities and other stakeholders supporting HPTs, however data are not routinely documented on HPZone. As a result, the number of outbreaks reported for some of the regions are underestimates.

The denominator (the overall number of settings in each category) will differ by the setting category, for example there are fewer hospitals than workplaces, as will the propensity to report incidents to PHE. Therefore these data are more useful for monitoring trends over time than making comparisons across setting categories.

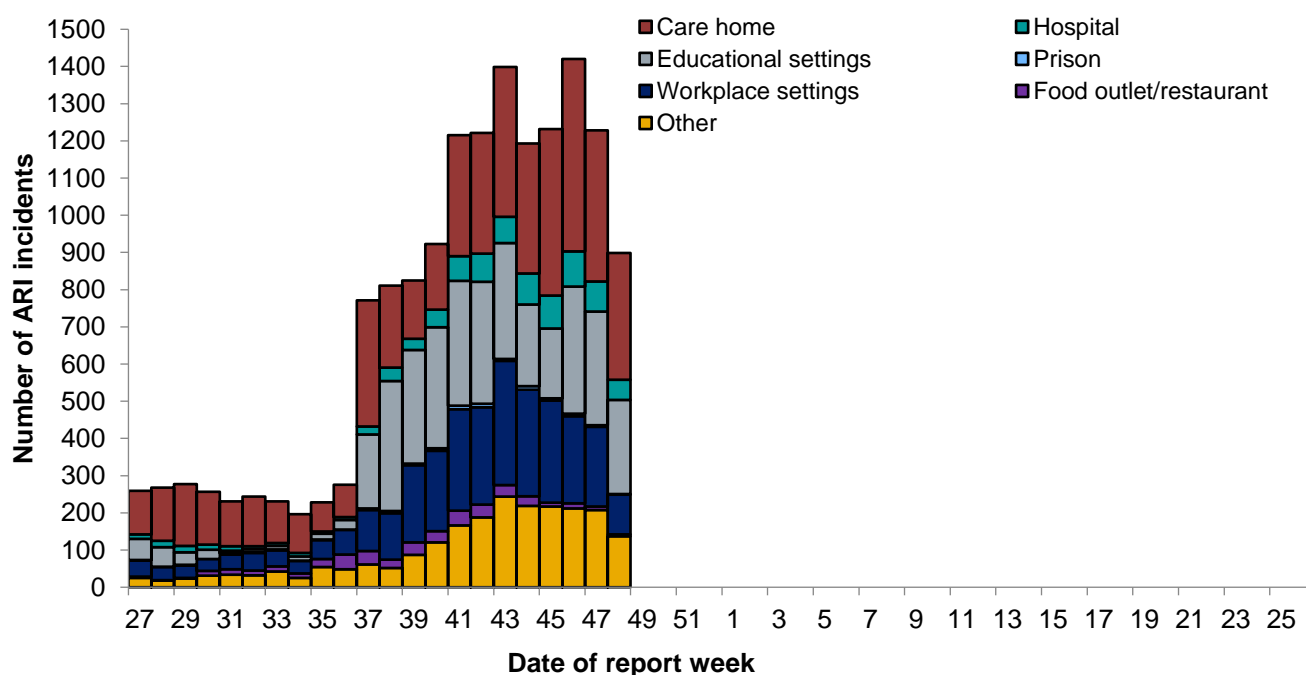
The number of incidents in each setting with at least one laboratory confirmed case of COVID19 are reported below. A national school helpline started operating on 17 September 2020 and a Universities helpline started operating on 7 October. This is likely to have had an impact on the number of situations/outbreaks being reported to HPTs in these settings

899 new ARI incidents have been reported in week 48 in the UK (Figure 14):

- 341 incidents were from care homes where 253 had at least one linked case that tested positive for SARS-CoV-2

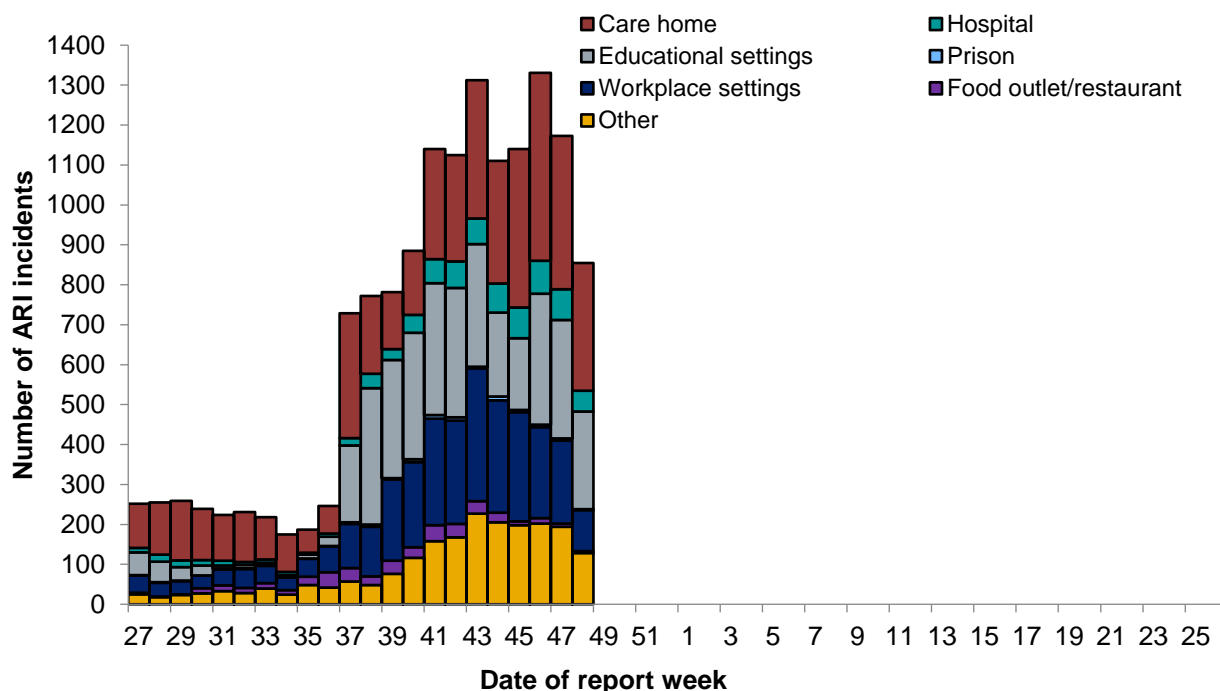
- 54 incidents were from hospitals where 46 had at least one linked case that tested positive for SARS-CoV-2
- 253 incidents were from educational settings where 203 had at least one linked case that tested positive for SARS-CoV-2
- 2 incidents were from prisons where no test results were available
- 107 incidents were from workplace settings where 78 had at least one linked case that tested positive for SARS-CoV-2
- 5 incidents were from food outlet/restaurant settings where all 5 had at least one linked case that tested positive for SARS-CoV-2
- 137 incidents were from the other settings category where 98 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**

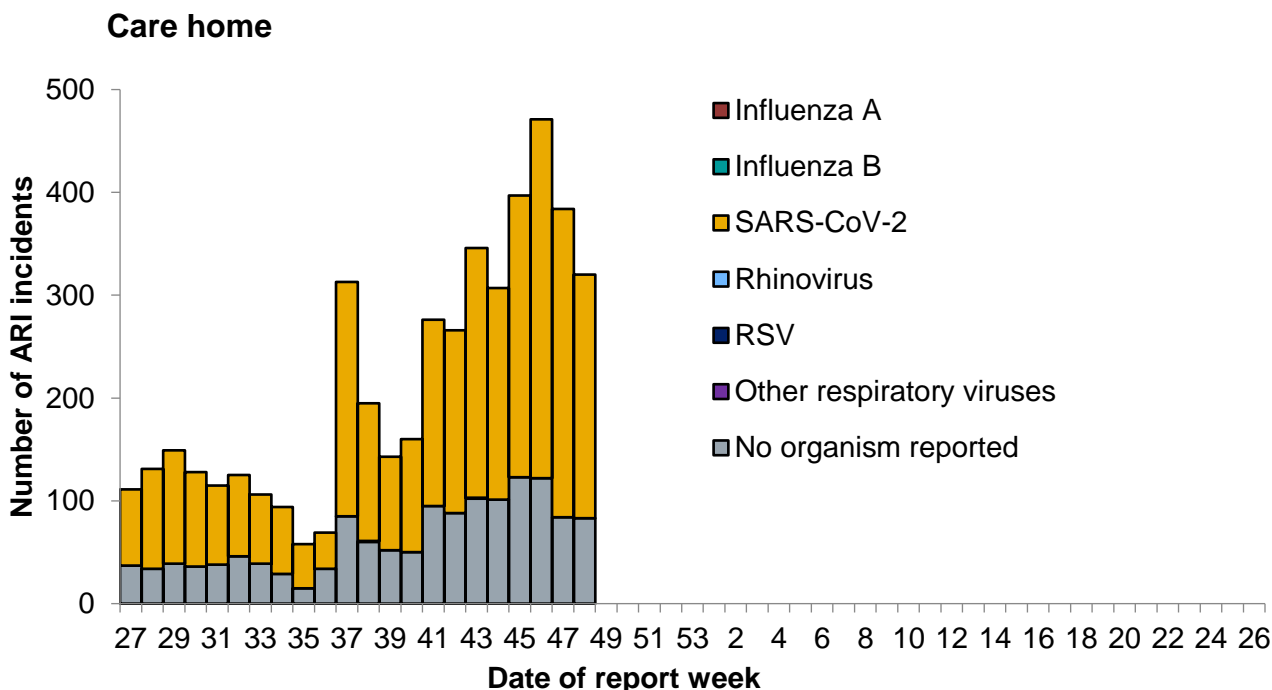


\*excludes data from Wales

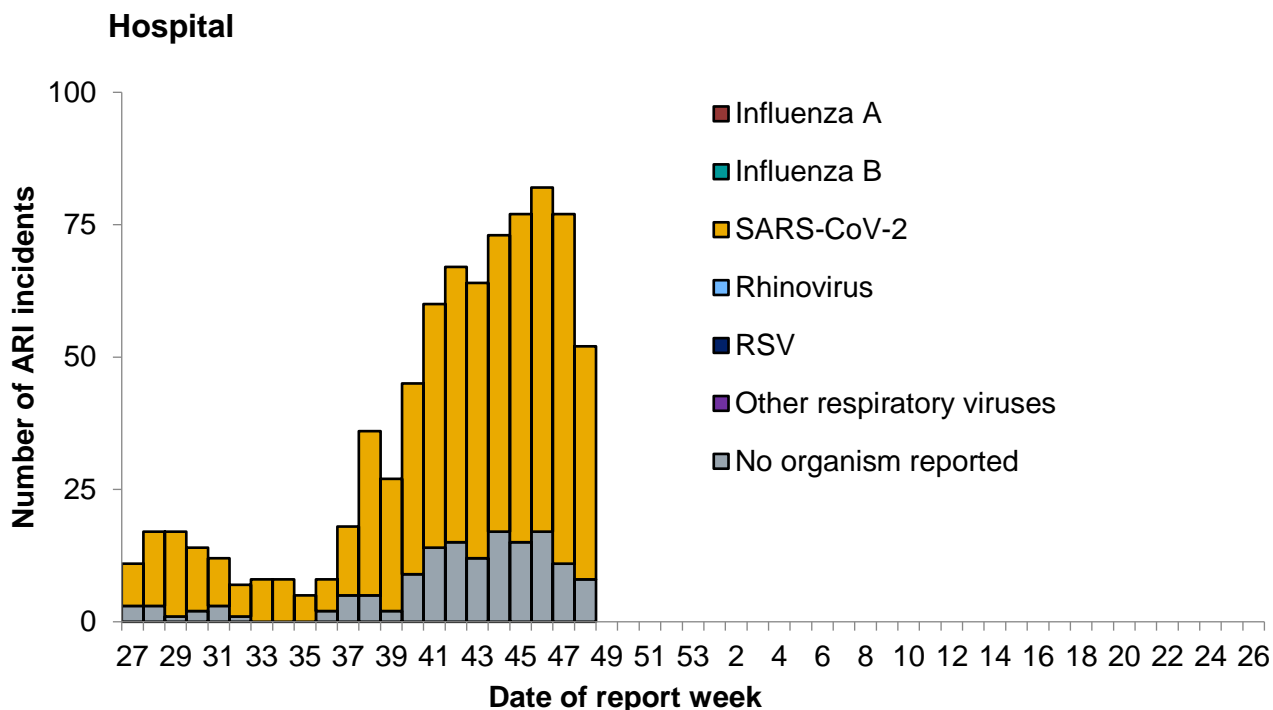
**Figure 15: Number of acute respiratory infection (ARI) incidents by institution, England**



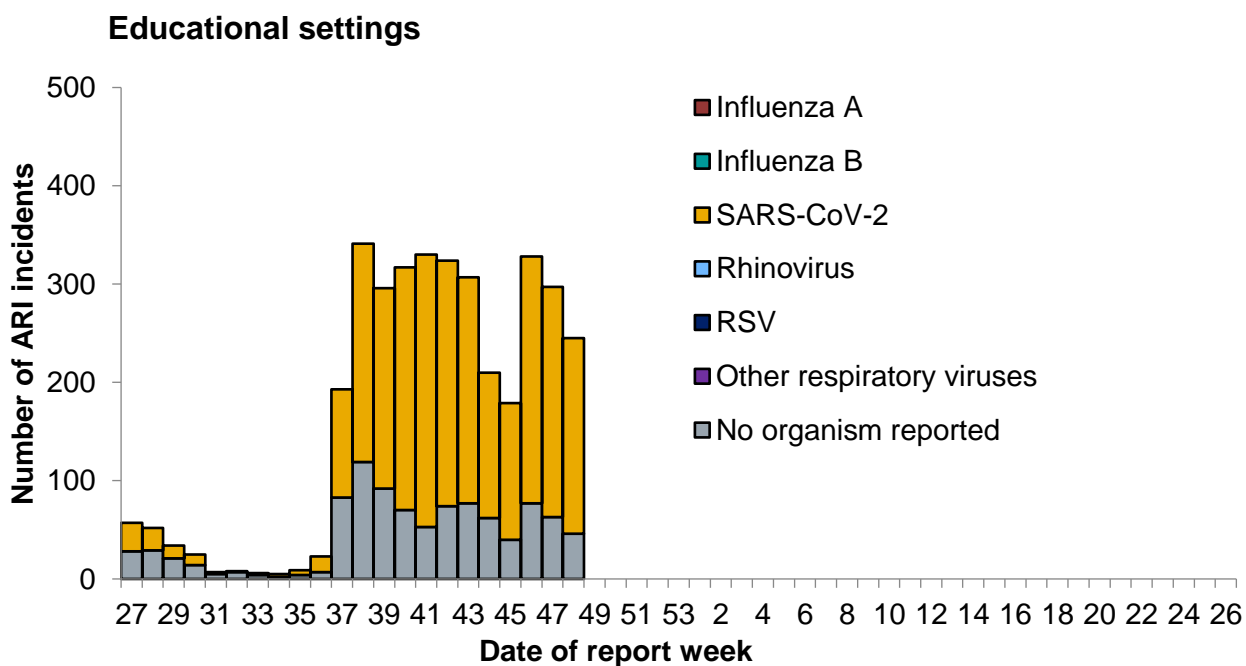
**Figure 16: Number of acute respiratory infection (ARI) incidents in care homes by virus type from week 27, England**



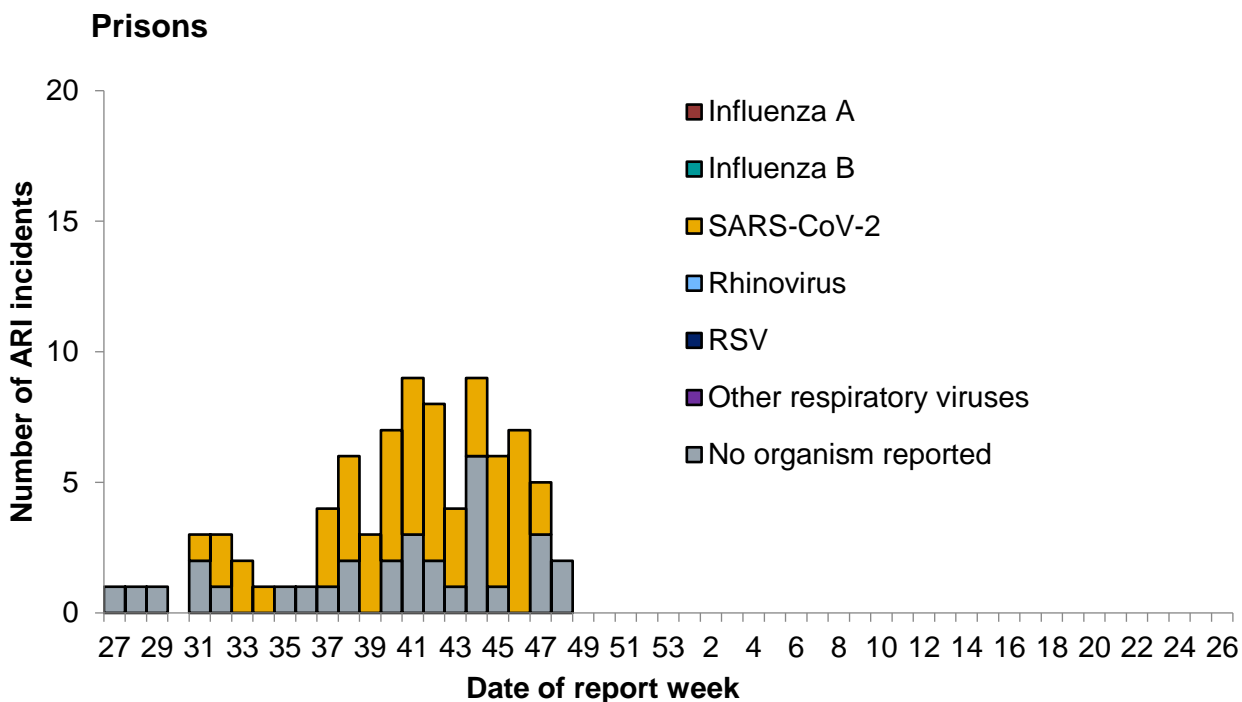
**Figure 17: Number of acute respiratory infection (ARI) incidents in hospitals by virus type from week 27, England**



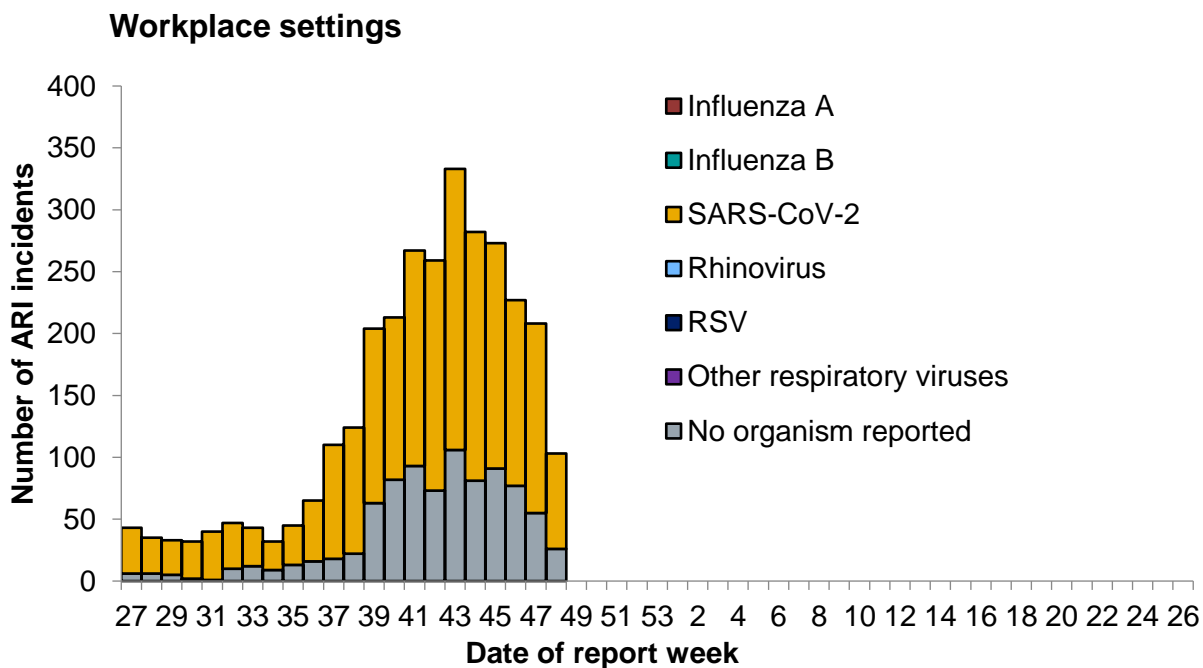
**Figure 18: Number of acute respiratory infection (ARI) incidents in educational settings by virus type from week 27, England**



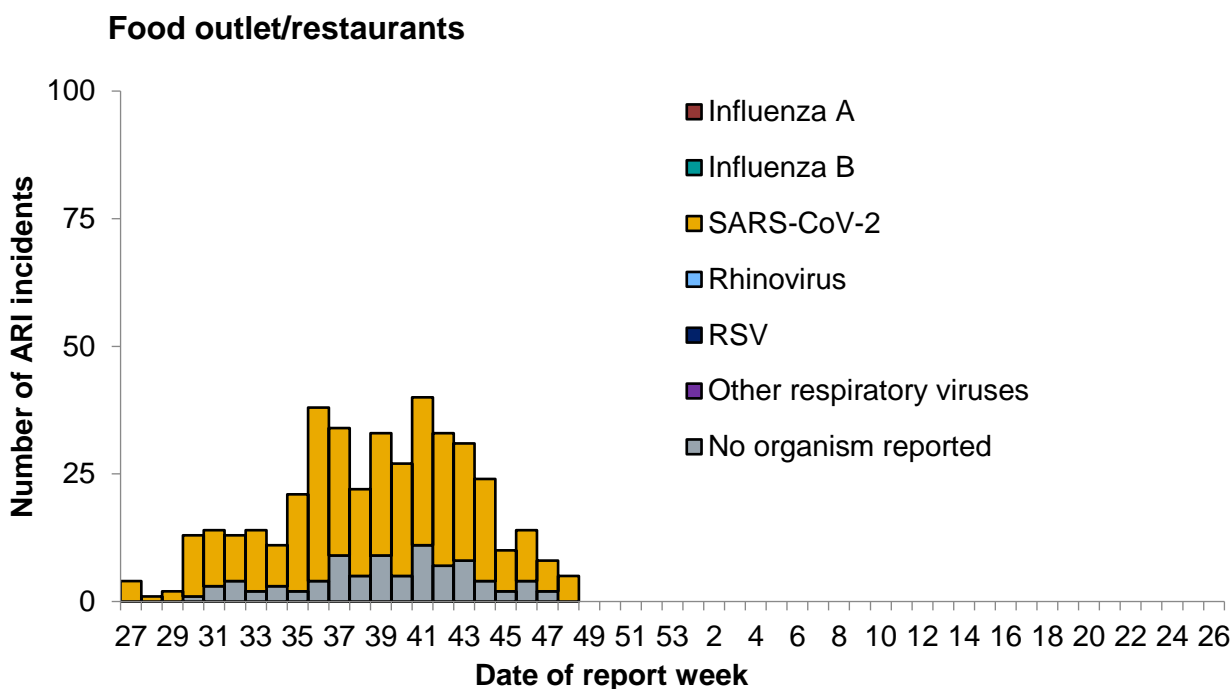
**Figure 19: Number of acute respiratory infection (ARI) incidents in prisons by virus type from week 27, England**



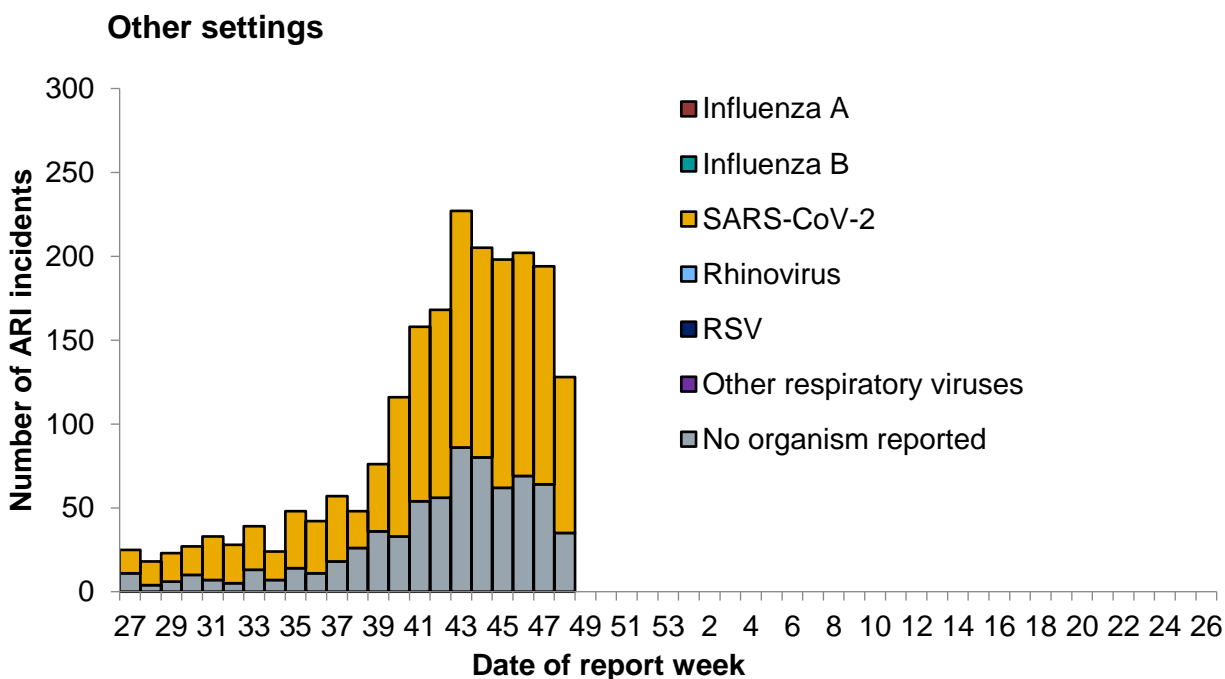
**Figure 20: Number of acute respiratory infection (ARI) incidents in workplace settings by virus type from week 27, England**



**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	125(22)	11(2)	17(3)	2(0)	31(4)	2(0)	47(10)	235(41)
East Midlands	163(42)	33(5)	139(17)	5(0)	105(18)	3(2)	57(8)	505(92)
London	92(21)	76(16)	231(73)	1(0)	109(15)	12(2)	50(15)	571(142)
North East	128(22)	1(1)	5(3)	0(0)	13(1)	0(0)	53(12)	200(39)
North West	202(22)	13(1)	25(5)	1(0)	59(9)	1(0)	100(12)	401(49)
South East	246(55)	33(6)	305(67)	4(2)	133(15)	12(1)	117(24)	850(170)
South West	196(40)	8(1)	94(31)	0(0)	73(7)	3(0)	57(13)	431(92)
West Midlands	213(55)	99(16)	121(26)	6(0)	182(22)	3(0)	119(20)	743(139)
Yorkshire and Humber	207(41)	14(4)	112(20)	1(0)	106(12)	1(0)	122(14)	563(91)
<b>Total</b>	1572(320)	288(52)	1049(245)	20(2)	811(103)	37(5)	722(128)	4499(855)

## 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 48, 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 43	week 44	week 45	week 46	week 47	week 48
Residential dwelling (including houses, flats, sheltered accommodation)	81.4	86.0	91.6	91.0	90.1	90.3
Undetermined	14.0	9.8	3.3	3.3	4.5	3.9
Care/Nursing home	1.8	2.0	2.6	3.1	3.5	3.9
Other property classifications	0.8	0.7	0.9	1.0	0.7	0.7
Residential institution (including residential education)	0.9	0.6	0.5	0.5	0.3	0.2
House in multiple occupancy (HMO)	0.6	0.6	0.6	0.6	0.4	0.4
Medical facilities (including hospitals and hospices, and mental health)	0.3	0.2	0.2	0.3	0.2	0.2
Prisons, detention centres, secure units	0.2	0.2	0.2	0.2	0.3	0.4
No fixed abode	0.0	0.0	0.0	0.0	0.0	0.0
Overseas address	0.0	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). For the 2020 to 21 season, 6 MOSA schools have agreed to participate in the scheme, including a total of 4,138 pupils.

The overall ILI rate (all school years) for week 48 was 0.97 per 1,000 students compared to 1.45 per 1,000 students in the previous week. The overall ILI rate (all staff) for week 48 was 1.61 per 1,000 staff compared to 0.54 per 1,000 staff in the previous week.

The overall laboratory confirmed COVID-19 rate (all school years) for week 48 was 1.21 per 1,000 students compared to 6.77 per 1,000 students in the previous week.

The overall laboratory confirmed COVID-19 (all staff) for week 48 was 1.61 per 1,000 staff compared to 0.0 per 1,000 staff in the previous week.

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

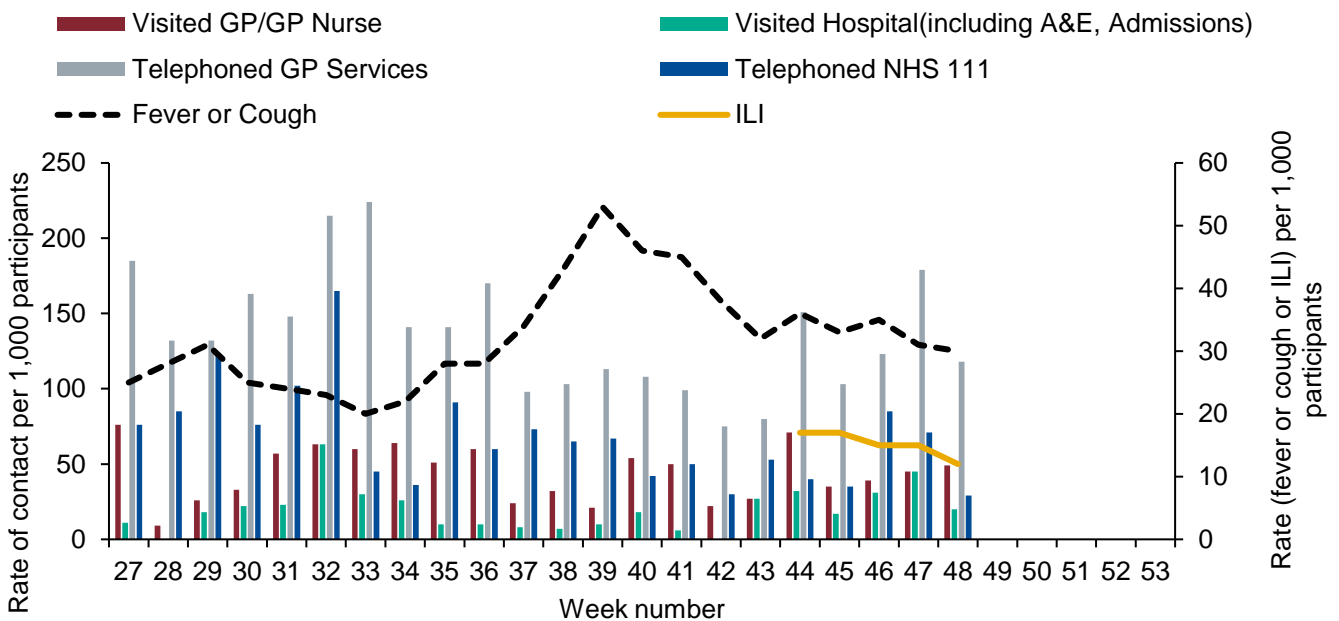
# FluSurvey

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 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 3,405 participants completed the weekly COVID-19 surveillance survey in week 48, of which 102 (3.0%) reported fever or cough and 40 (1.2%) reporting ILI. The most commonly reported method of access to healthcare services continue to be through telephoning a GP practice in week 48 (Figure 23).

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



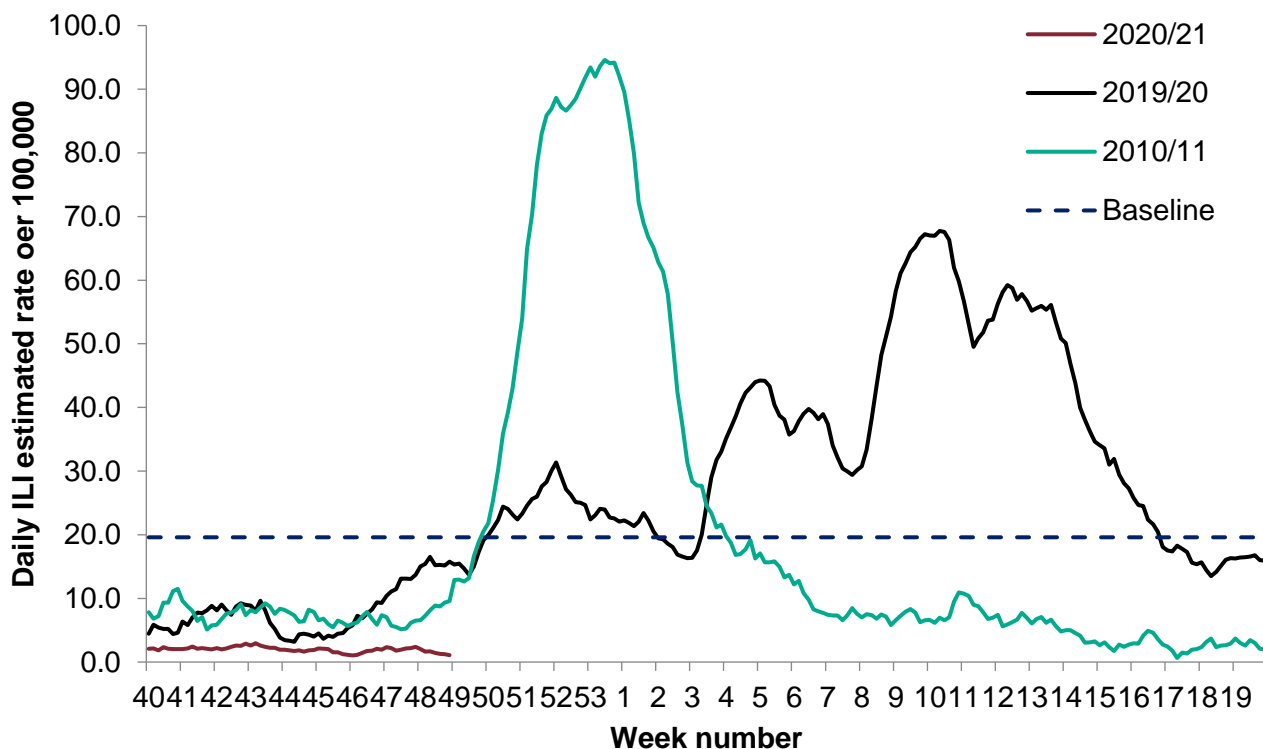
## FluDetector

FluDetector is a web-based model which assesses internet-based search queries for influenza-like illness (ILI) in the general population.

Daily ILI rate estimates are based on uniformly averaged search query frequencies for a week-long period (including the current day and the six days before it).

For week 48, the daily ILI rate remained low and below the baseline threshold of 19.6 per 100,000 for the 2020 to 2021 season (Figure 24).

**Figure 24: Daily estimated ILI Google search query rates per 100,000 population, England**

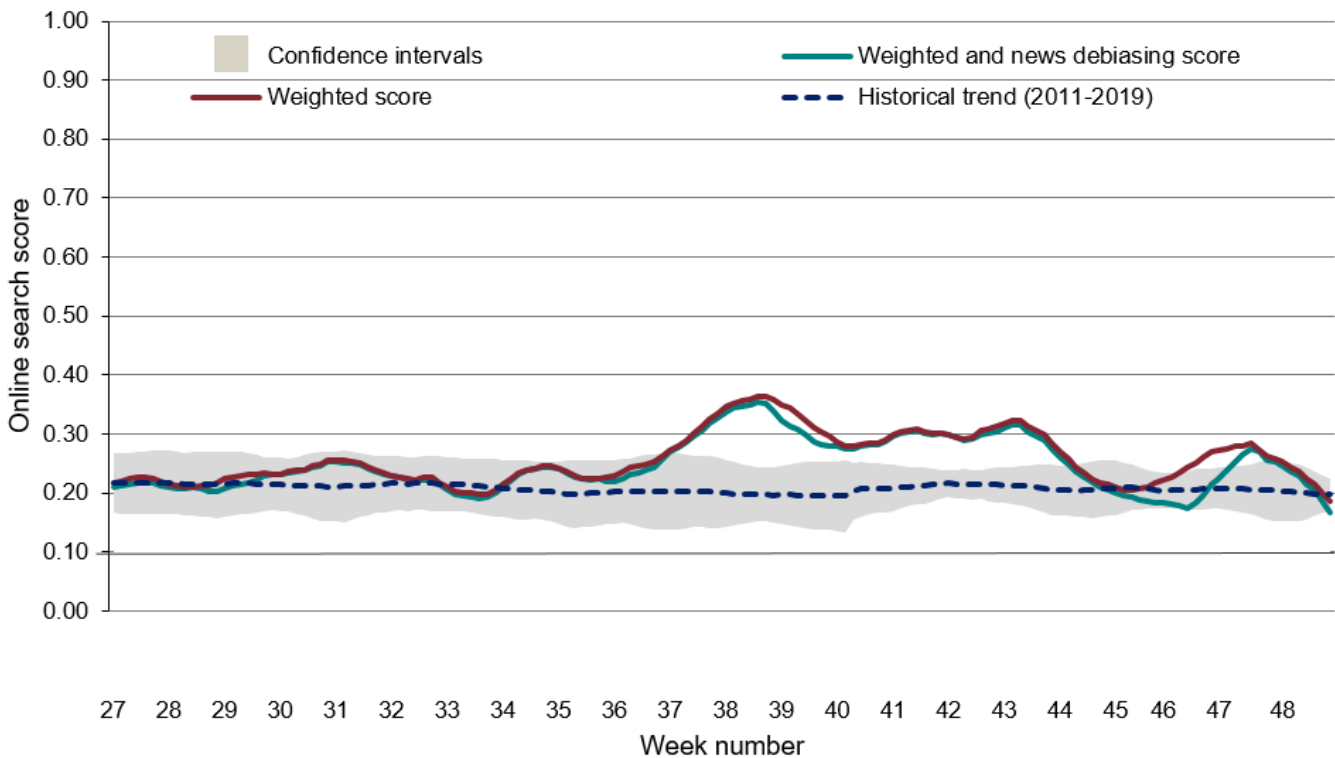


## Google search queries

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 48, the overall and media-debiasing weighted Google search scores decreased (Figure 25).

**Figure 25: Normalised Google search score for COVID-19 symptoms, with weighted score for media-debiasing and historical trend, England**



## NHS 111

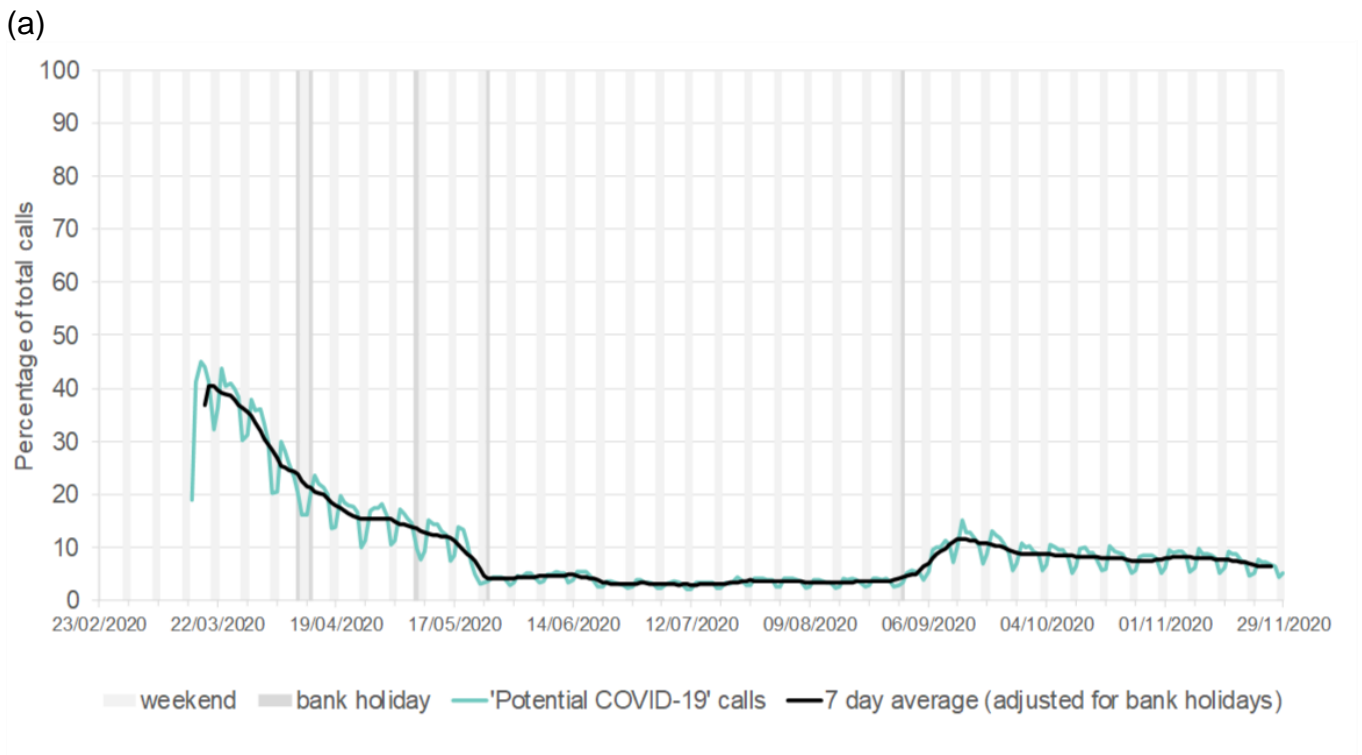
The NHS 111 service monitors daily trends in phone calls made to the service in England, to capture trends in infectious diseases such as influenza and norovirus.

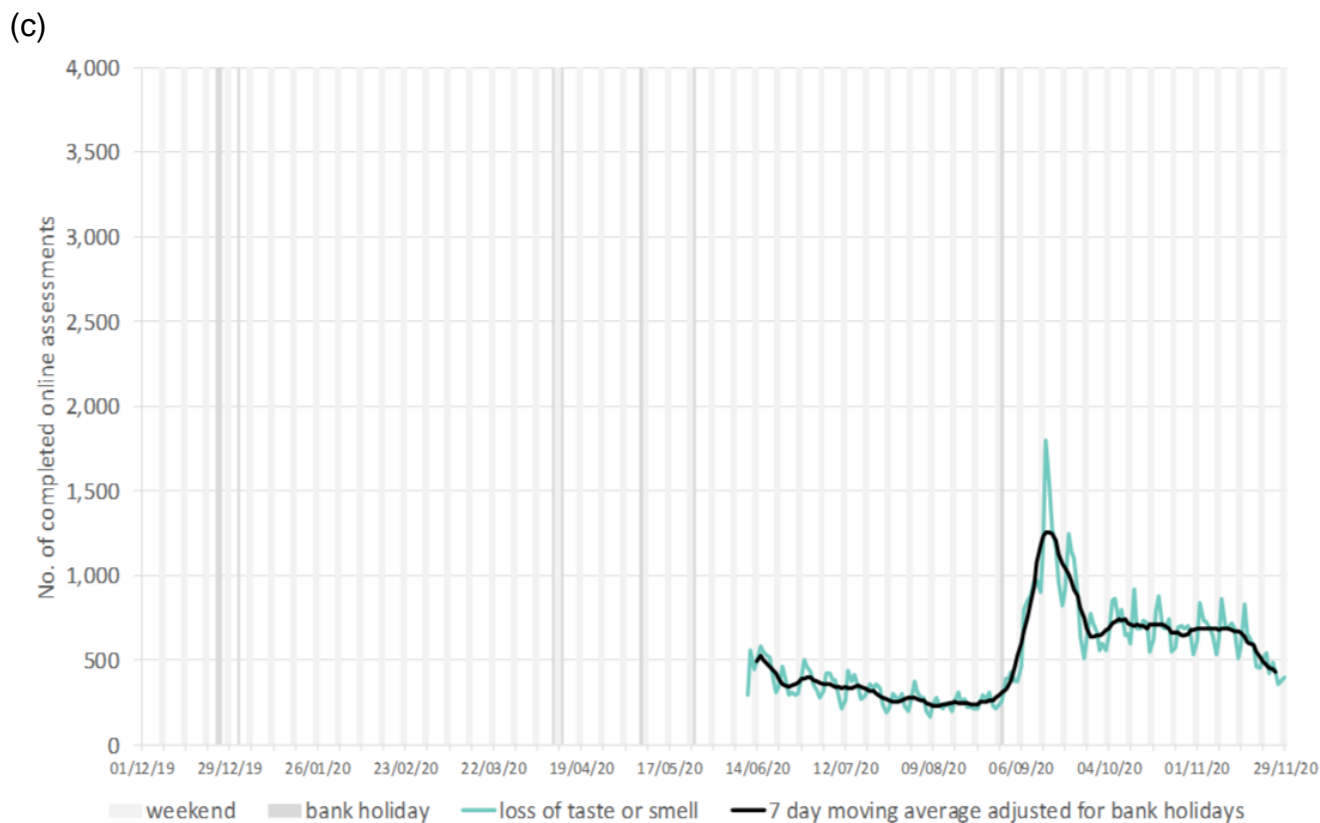
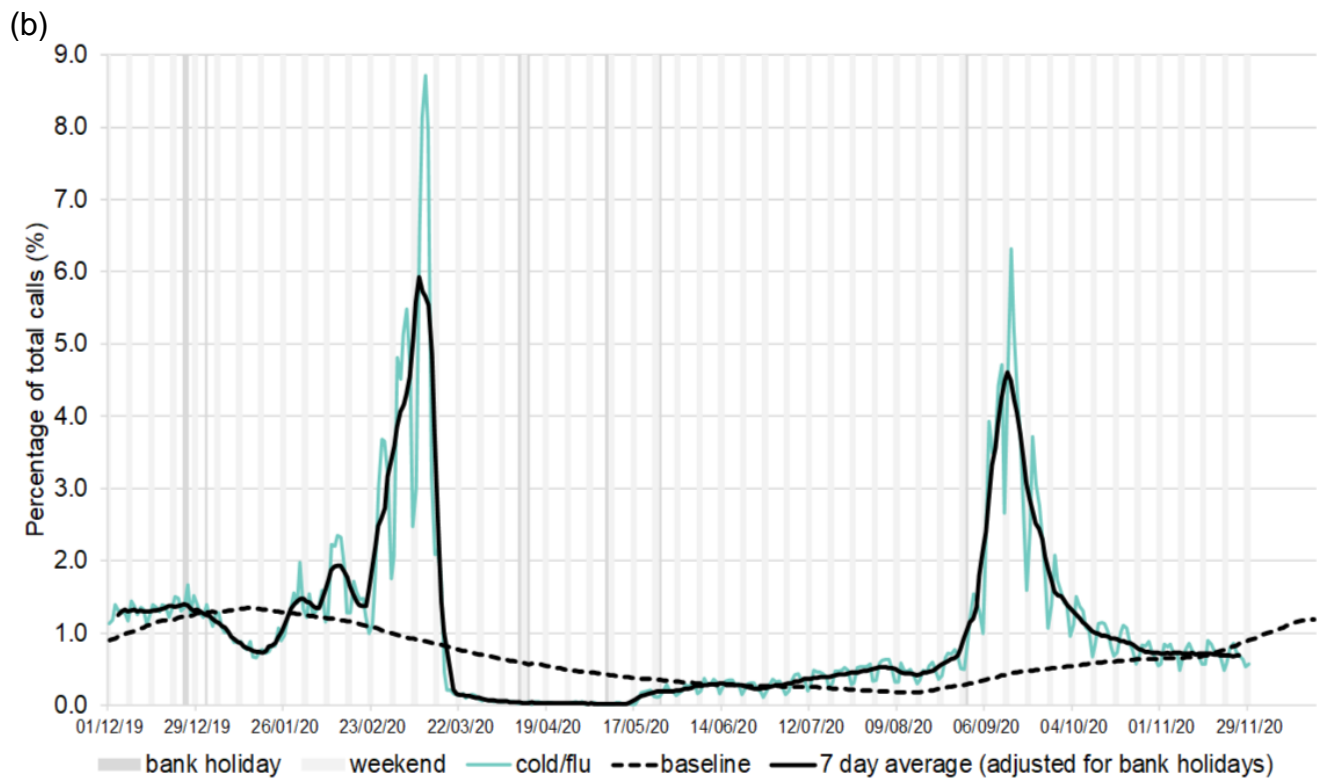
Up to 29 November 2020, the daily percentage of NHS 111 'potential COVID-19-like' calls (as a percentage of total NHS 111 calls) and the number of online assessments decreased slightly. The daily percentage of cold/flu calls (as a percentage of total NHS 111 calls) and cold/flu completed online assessments decreased (Figure 26 and 27). The daily percentage of loss of taste or smell calls and online assessments also decreased.

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 26: 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**

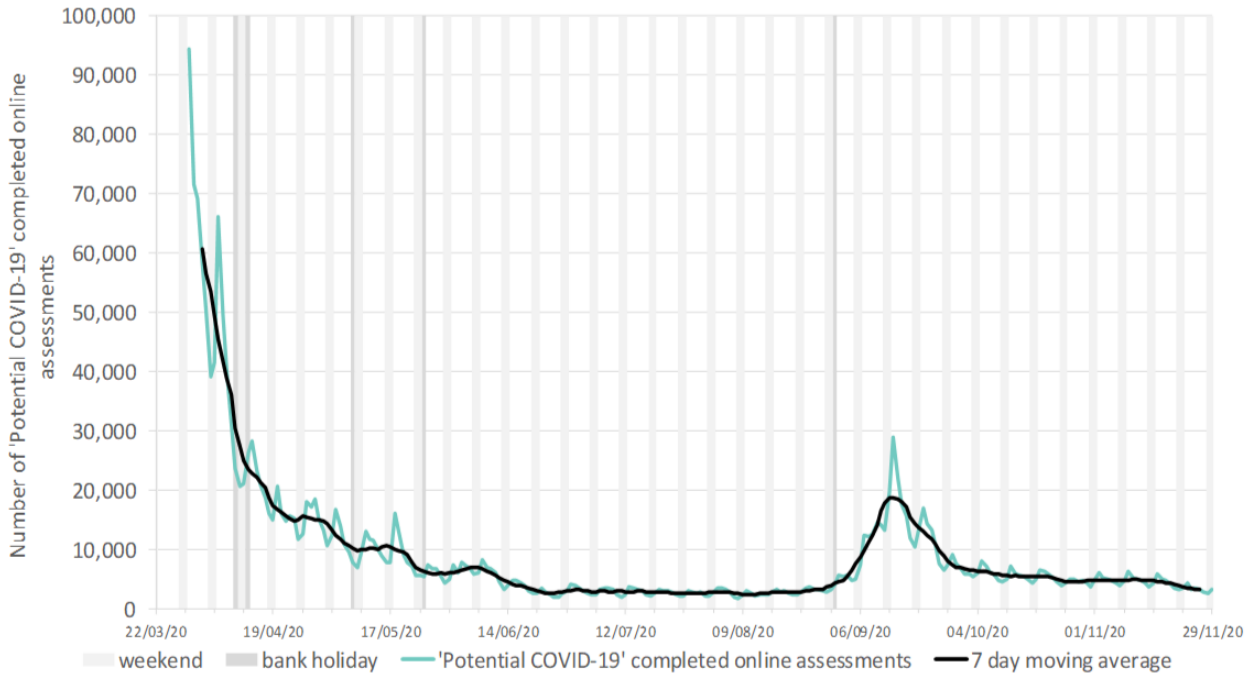




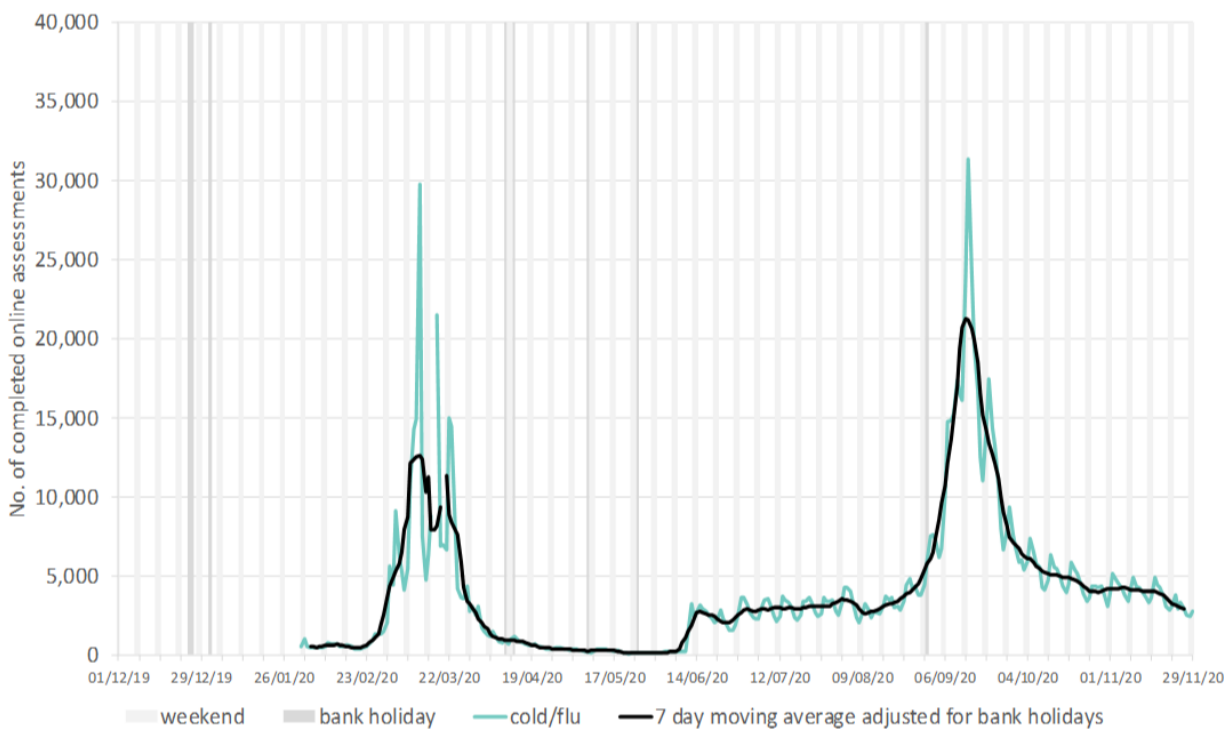


**Figure 27: NHS 111 completed online assessments (and 7-day moving average) for (a) daily potential COVID-19 online assessments, (b) daily cold/flu online assessments and (c) daily loss of taste or smell online assessments, as the number of completed online assessments for all ages, England**

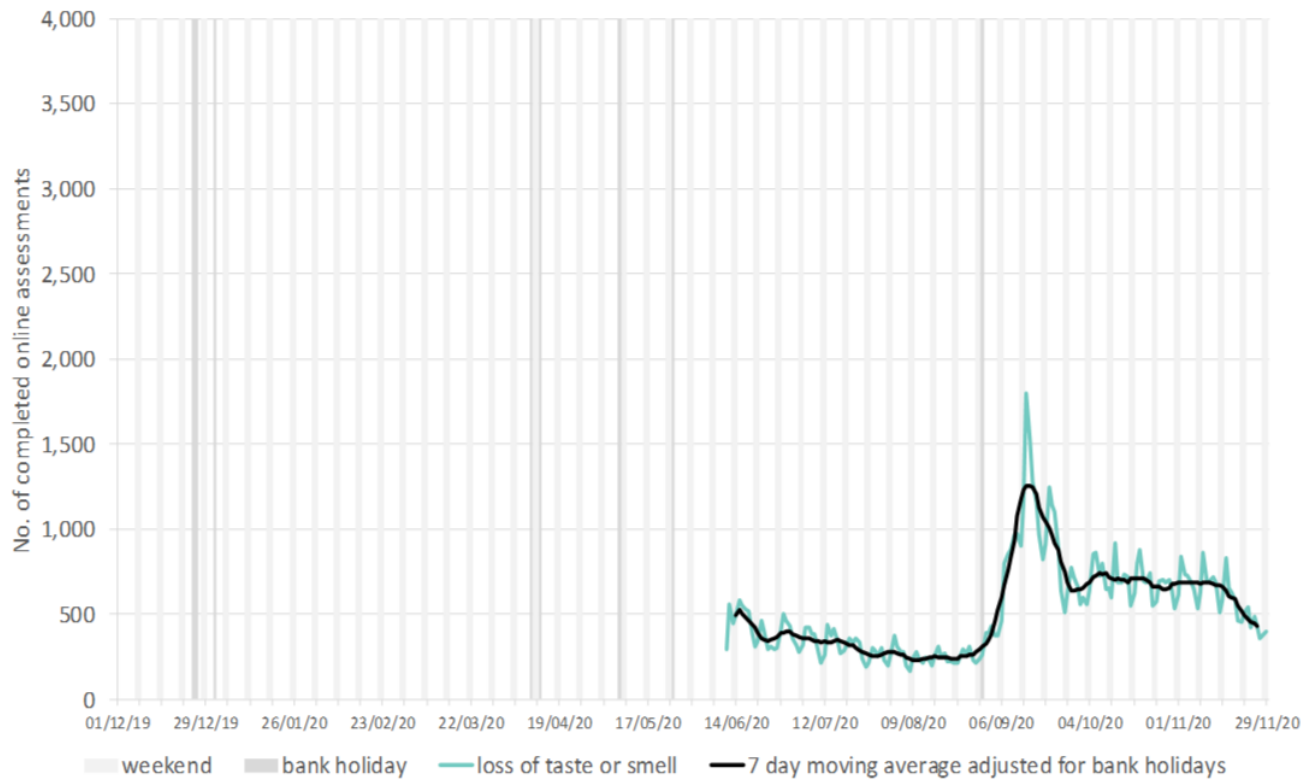
(a)



(b)



(c)

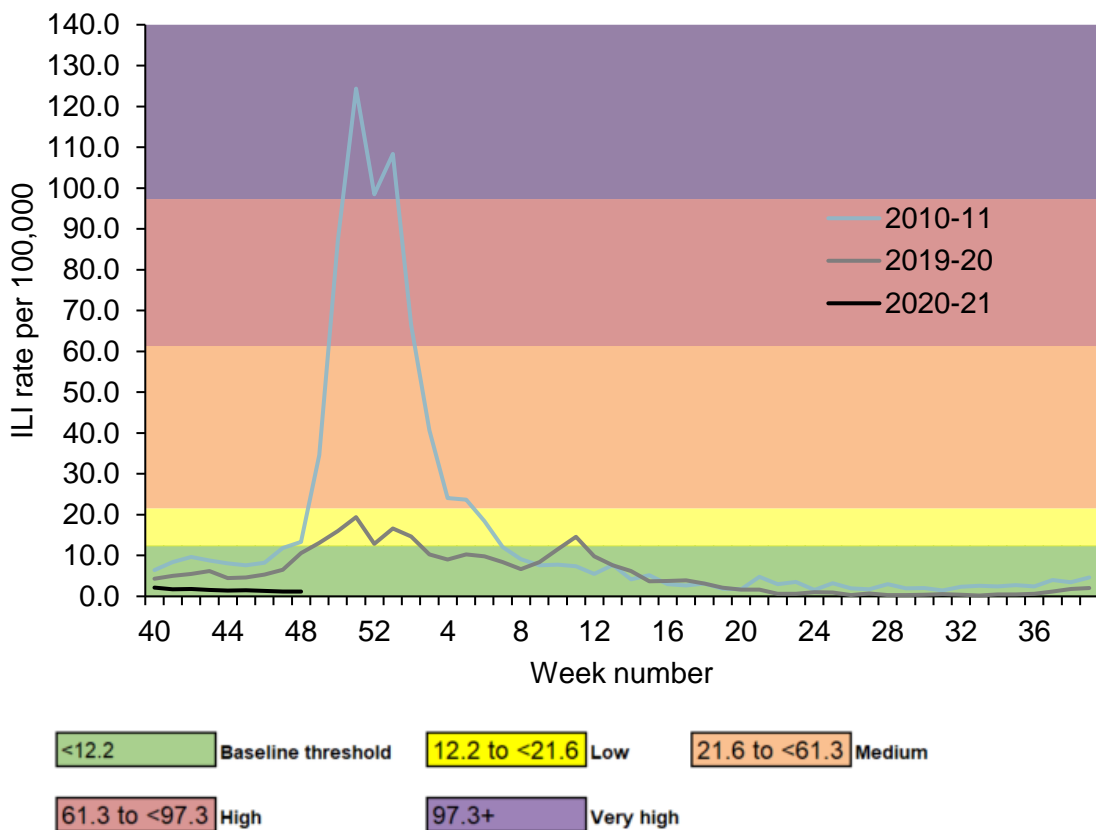


# Primary care surveillance

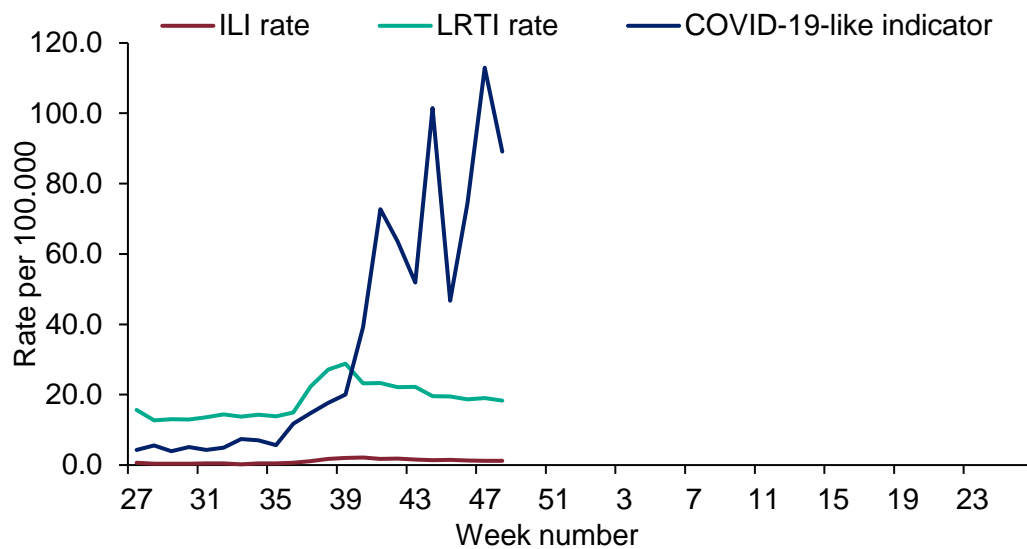
## RCGP (England)

The weekly ILI consultation rate through the RCGP surveillance was 1.2 per 100,000 registered population in participating GP practices in week 48 compared to the 1.2 per 100,000 in the previous week. This is below the baseline threshold (12.2 per 100,000) (Figure 28). By age group, the highest rates were seen in the under 1 year olds (2.8 per 100,000) and in the 1 to 4 year olds (1.7 per 100,000). The Lower Respiratory Tract Infections (LRTI) consultation rate was at 18.3 per 100,000 in week 48, which was similar to the rate of 19.0 per 100,000 from the previous week. The COVID-19-like indicator consultation rate increased at 89.1 per 100,000 in week 48 compared to 113.0 per 100,000 in the previous week (Figure 29).

**Figure 28: RCGP ILI consultation rates, all ages, England**



**Figure 29: 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 under 1 year olds in Scotland (3.0 per 100,000), the 45 to 64 year olds in Wales (1.0 per 100,000) and the 75 plus year olds in Northern Ireland (3.9 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																
	40	41	42	43	44	45	46	47	48	49	50	51	52	1	2	3	4
England (RCGP)	2.1	1.7	1.8	1.6	1.4	1.5	1.3	1.2	1.2								
Wales	1.0	1.0	1.0	0.8	0.5	0.5	0.5	0.5	0.5								
Scotland	0.5	0.7	0.5	0.5	0.7	0.8	0.9	0.7	0.6								
Northern Ireland	1.3	1.5	2.2	1.4	1.6	1.8	1.8	1.9	1.7								

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

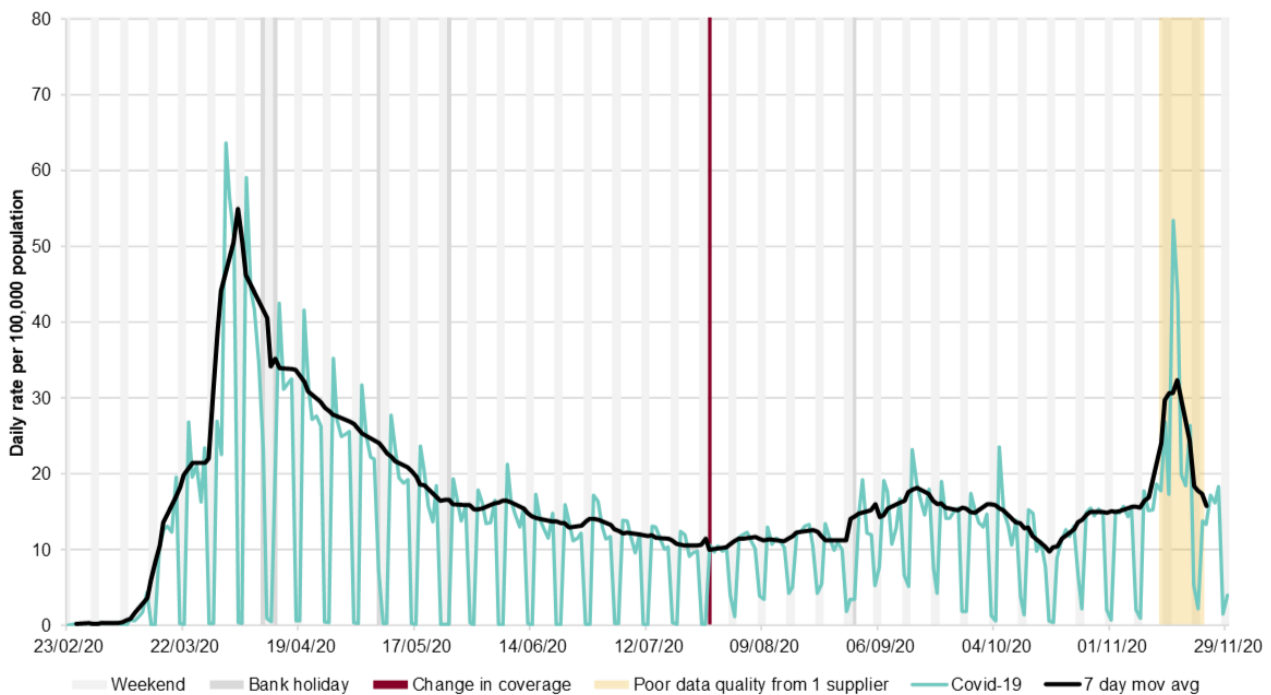
The GP In Hours (GPIH) syndromic surveillance system monitors the number of GP visits during regular hours of known clinical indicators.

Up to 29 November 2020, GPIH ILI and COVID-19 consultations remained stable (Figure 30). Data quality issues in the reporting of GP consultations for COVID-19 from one syndromic GP data supplier during week 47 caused artificially high rates of COVID-19 attendances as indicated in the Figure 30.

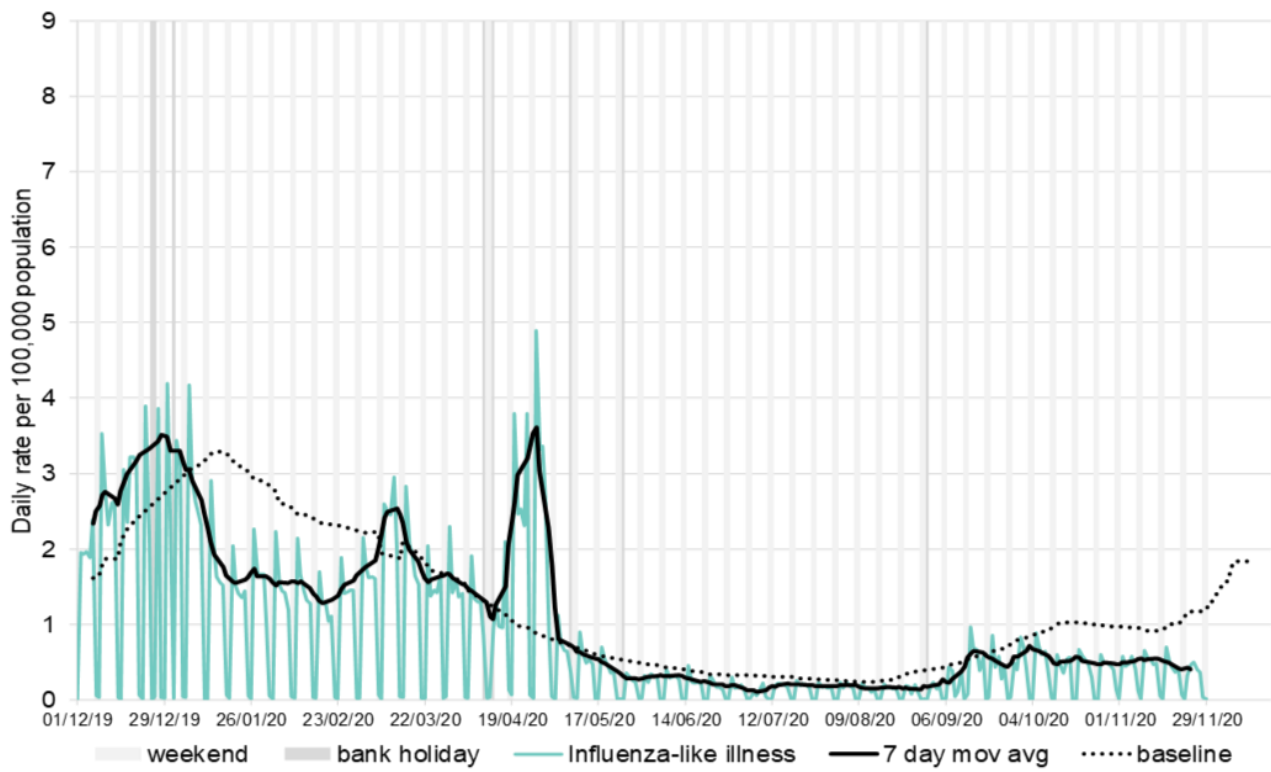
Please note GP data should be interpreted with caution due to changes in advice regarding accessing GP surgeries due to COVID-19. Further information about these caveats is available from the [PHE GP In Hours Syndromic Surveillance bulletin](#).

**Figure 30: GPIH clinical indicators for (a) potential COVID-19 GP consultations and (b) influenza-like illness GP consultations, England**

(a)



(b)

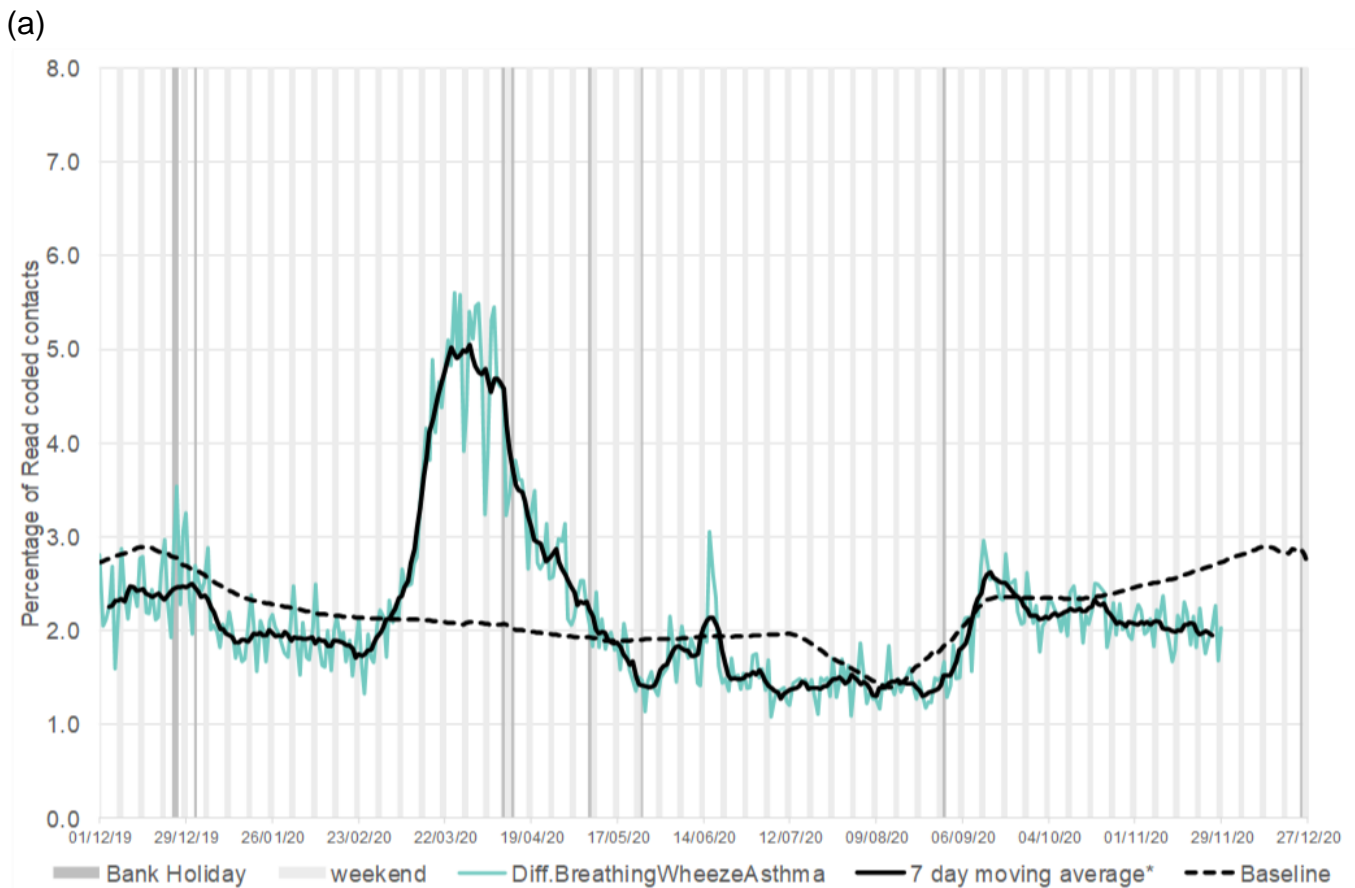


## GP Out of Hours, Syndromic Surveillance

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.

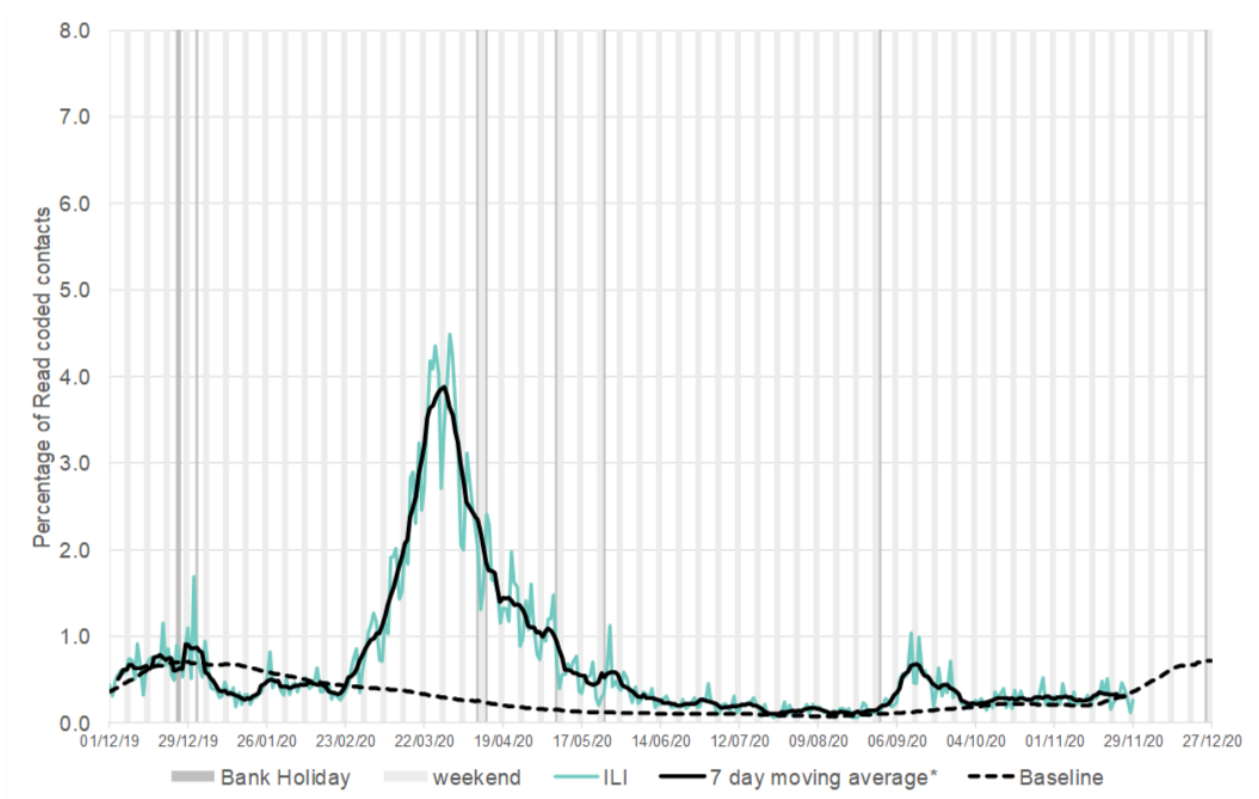
Up to 29 November 2020, GP out-of-hours and unscheduled care consultations for acute respiratory infections and influenza-like illness, difficulty breathing/asthma/wheeze remained stable (Figure 31).

**Figure 31: GPOOH daily contacts (%) for (a) difficulty breathing/wheeze/asthma, (b) influenza-like illness and (c) acute respiratory infections, England**

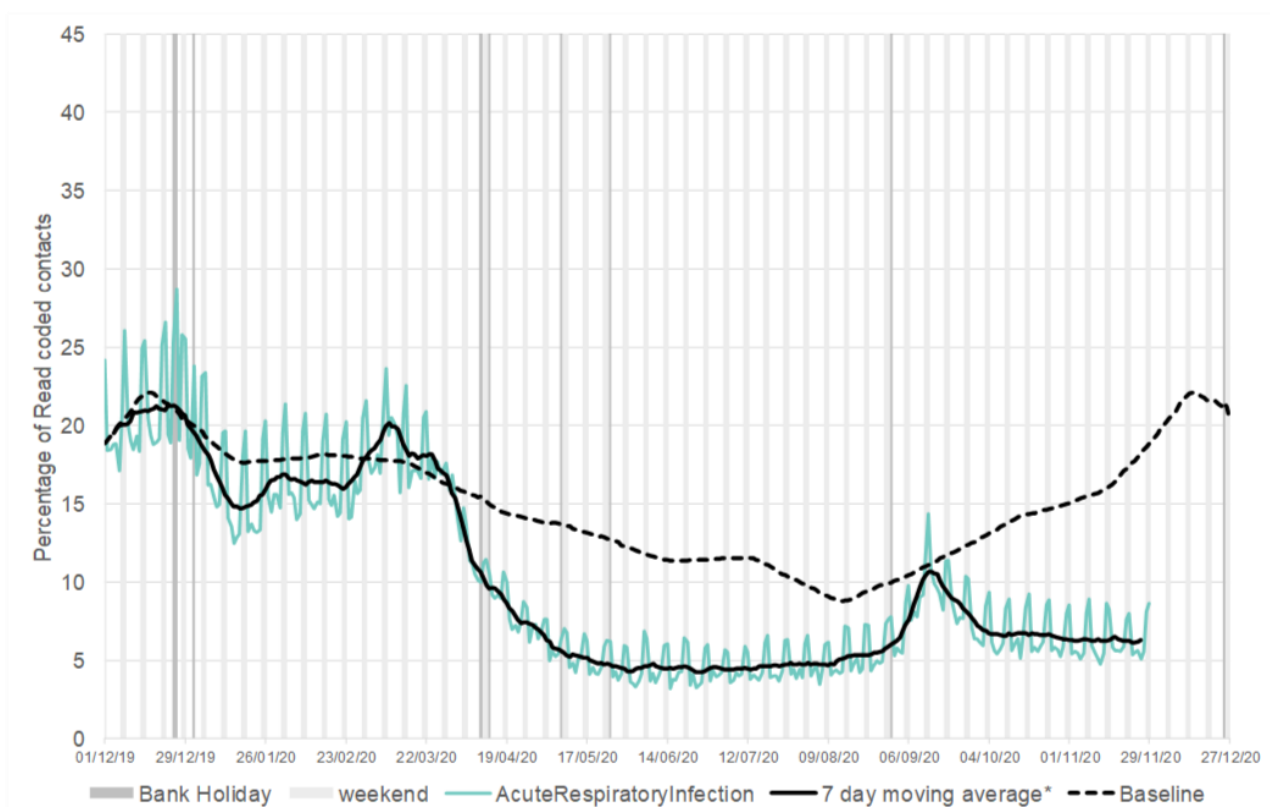




(b)



(c)

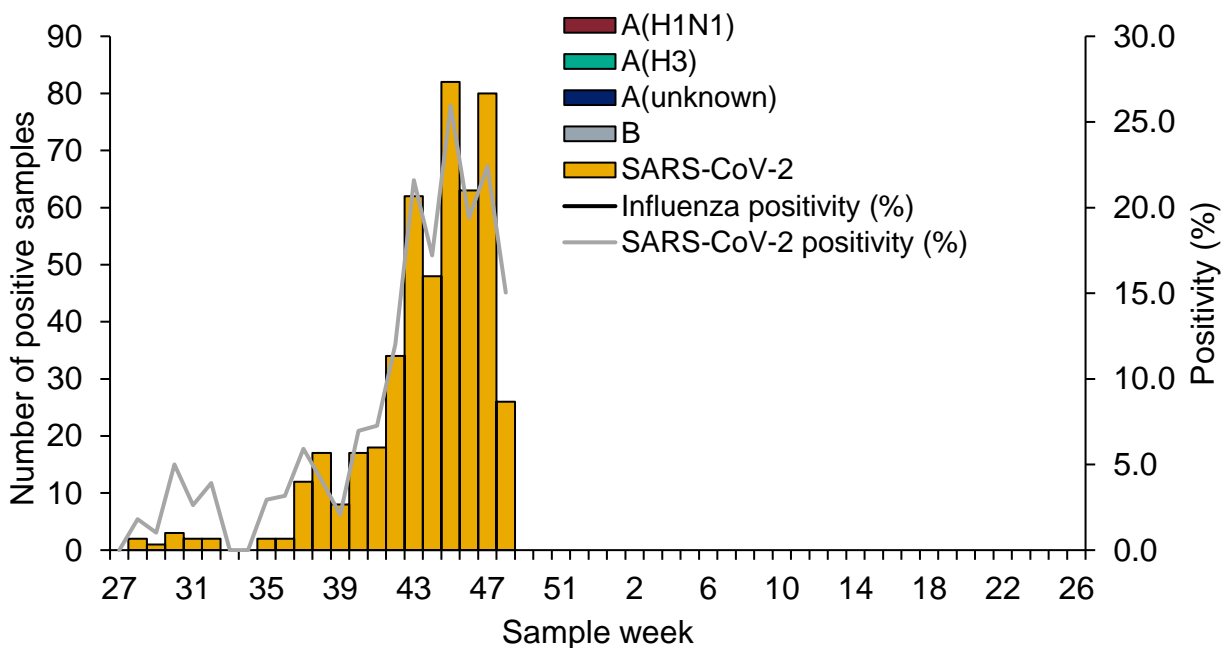


## Sentinel swabbing scheme in the UK

In week 48 2020, 26 samples tested positive for SARS-CoV-2 with an overall positivity of 15.0% (26/173) compared to 22.4% (80/357) in the previous week, through the UK GP sentinel swabbing schemes (Figure 32).

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

**Figure 32: 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 32 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.

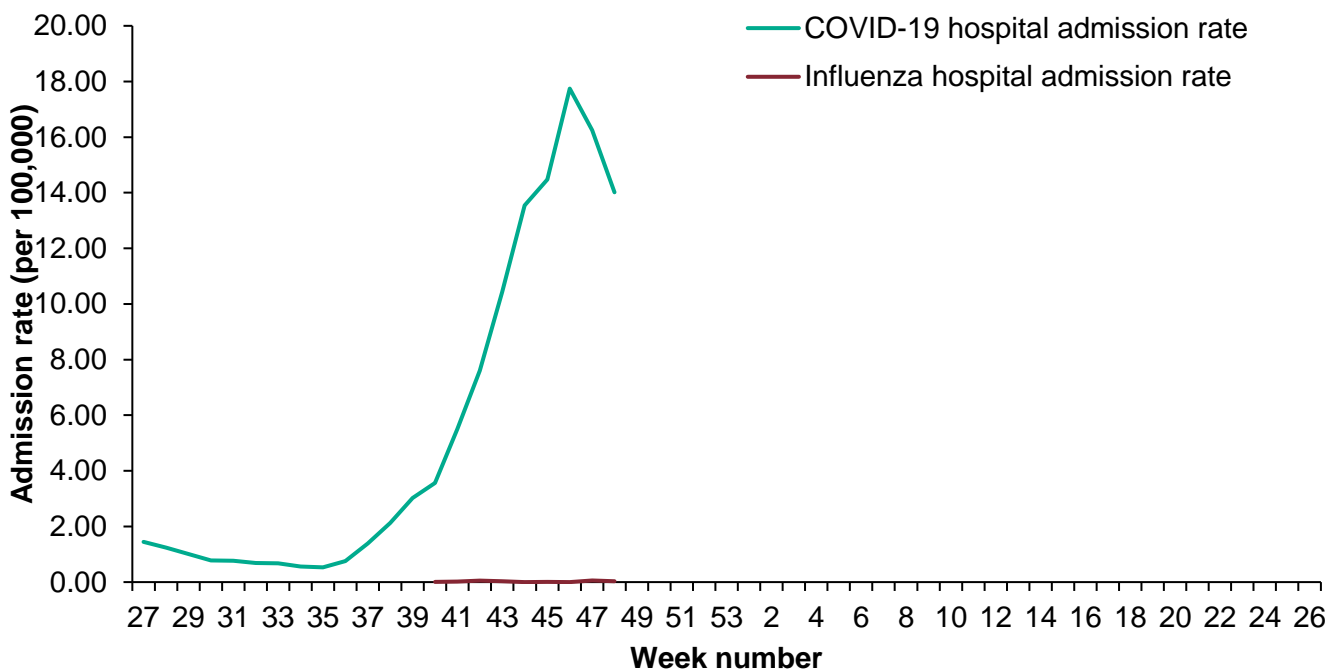
## Hospitalisations, SARI Watch

In week 48, the weekly hospital admission rate for COVID-19 decreased whilst the hospital admission rate remained low for influenza.

The hospitalisation rate for COVID-19 was at 14.01 per 100,000 in week 48 compared to 16.25 per 100,000 in the previous week. The hospitalisation rate for influenza was at 0.03 per 100,000 in week 47 compared to 0.00 per 100,000 in the previous week; and there were 3 new confirmed influenza (1 influenza A(unknown subtype) and 2 influenza B) hospital admissions reported.

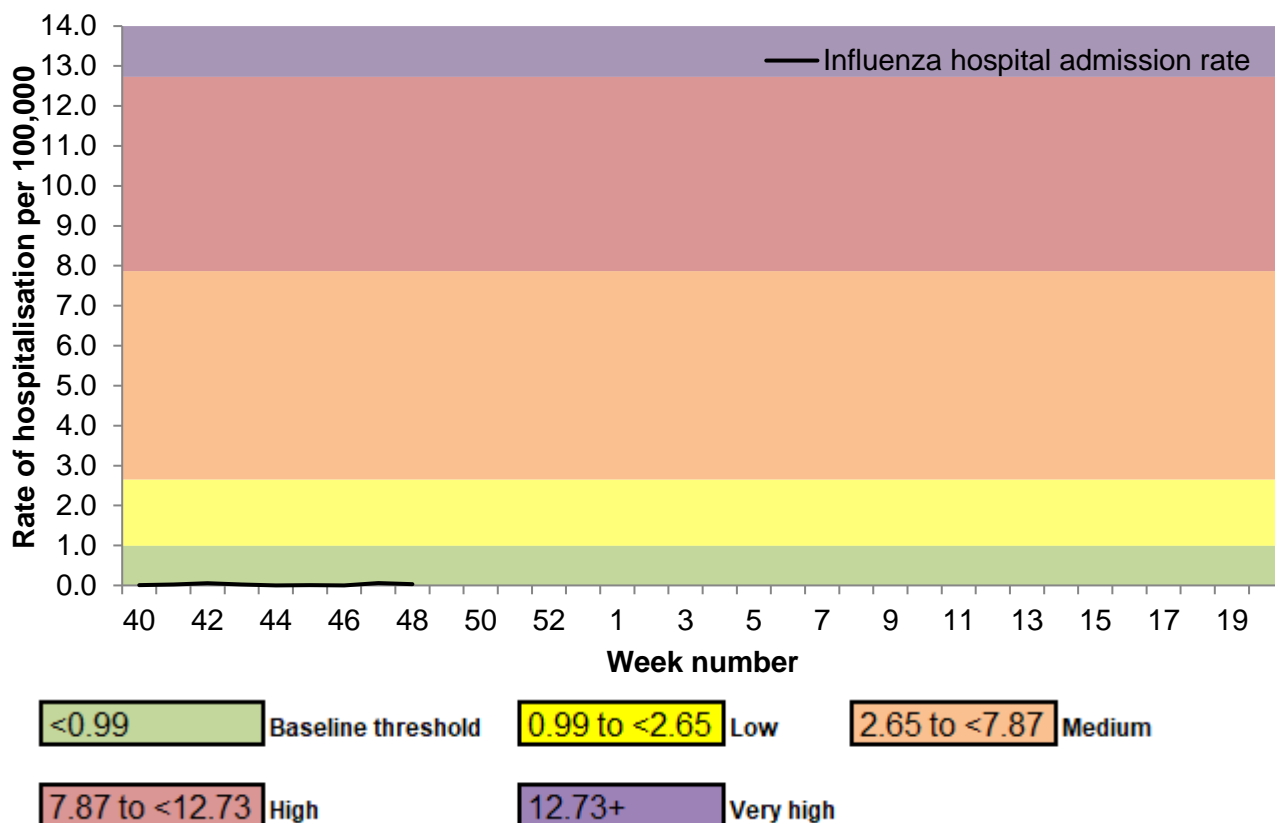
From the week 48 report, regional observations for SARI Watch will be by PHE Centres. By PHE centre, the highest hospital admission rate for COVID-19 was observed in the North East and in the West Midlands for influenza. By age groups, the highest hospital admission rate for confirmed COVID-19 was in the 85+ year olds and for influenza in the 0 to 4 year olds.

**Figure 33: Weekly overall hospital admission rates per 100,000 of new COVID-19 and influenza positive cases reported through SARI Watch, England**



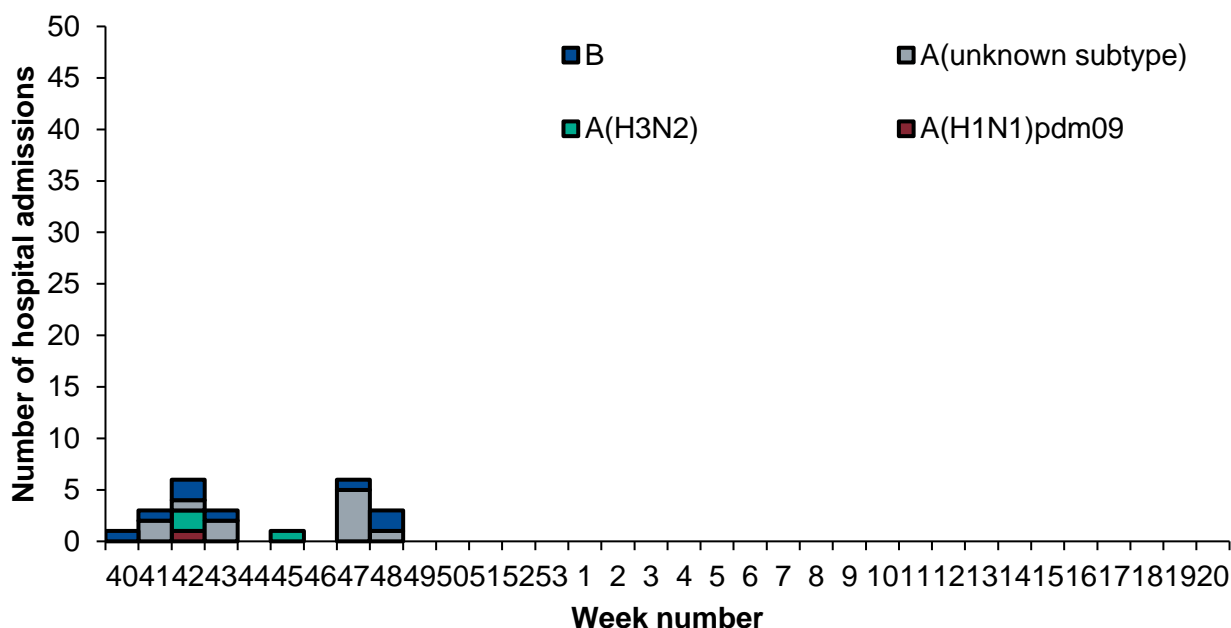
- \* influenza hospital admission rate is reported from week 40 2020 onwards
- \* influenza hospital admission rate based on 26 sentinel NHS trusts for week 48
- \* COVID-19 hospital admission rate based on 118 NHS trusts for week 48

**Figure 34: Weekly overall influenza hospital admission rates per 100,000 trust catchment population with MEM thresholds, SARI Watch, England**

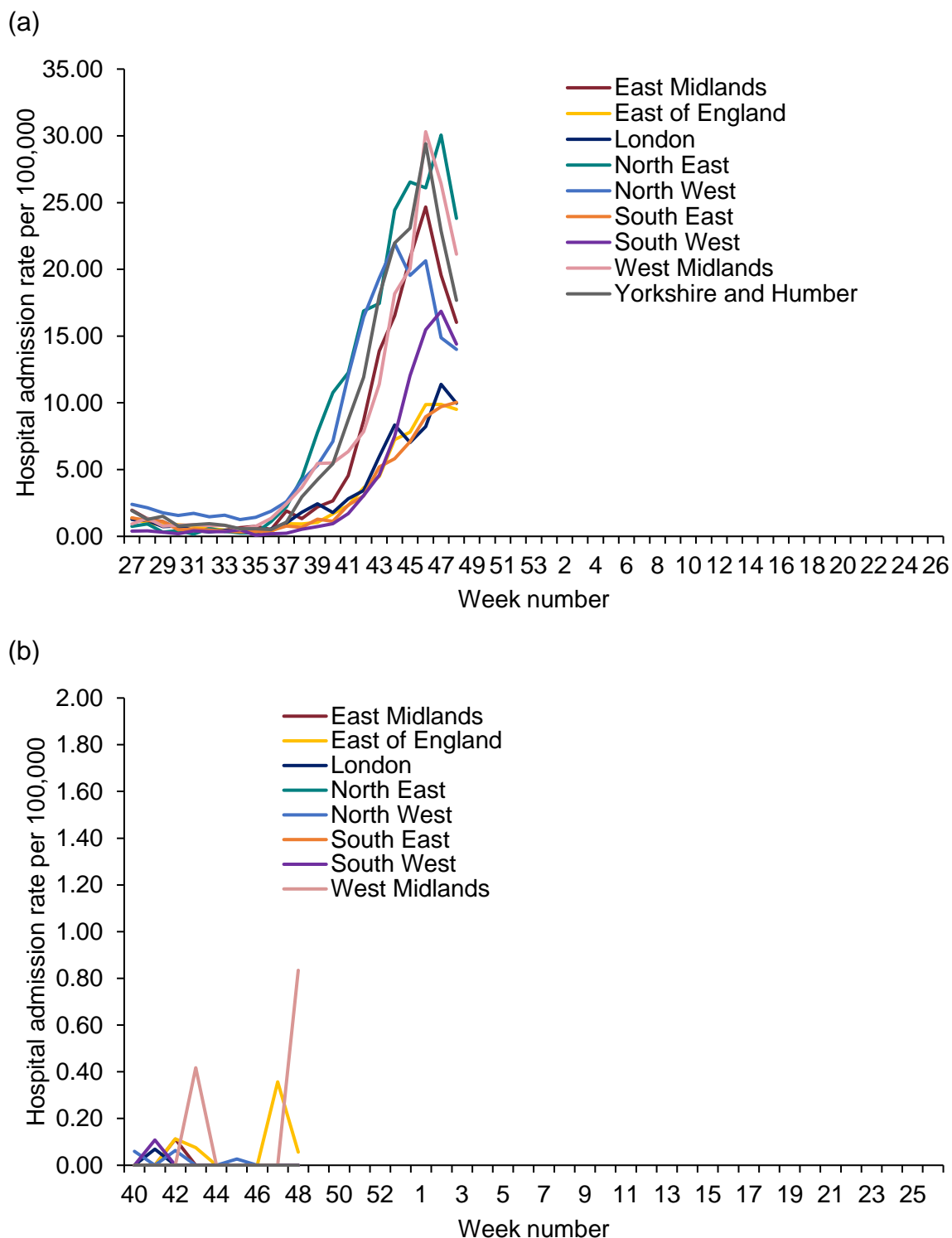


\* the MEM thresholds used are those from the 2019/20 season due to the pandemic

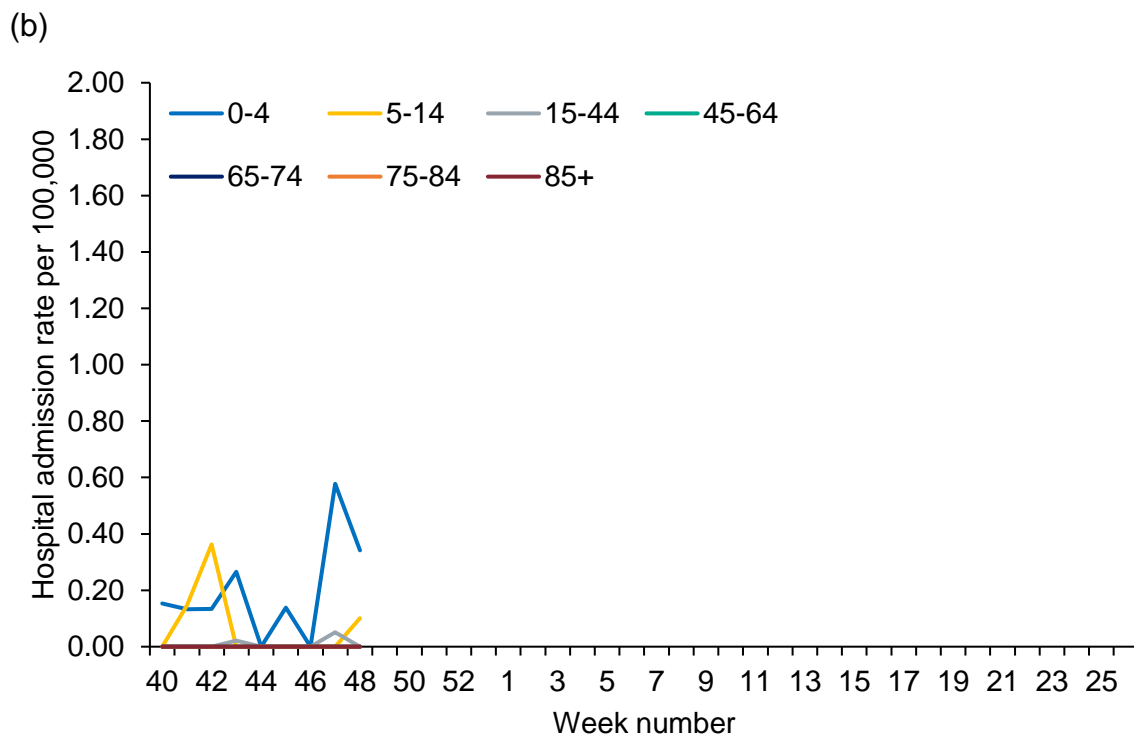
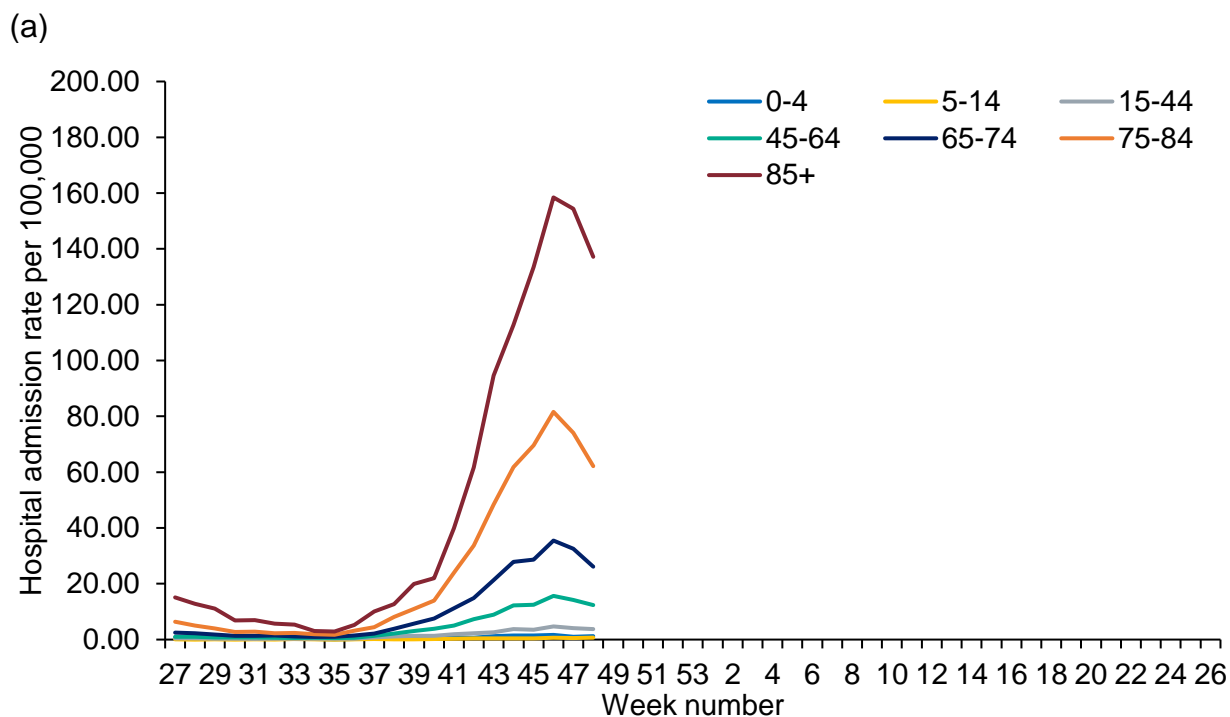
**Figure 35: Weekly influenza hospital admissions by influenza type, SARI Watch, England**



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



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



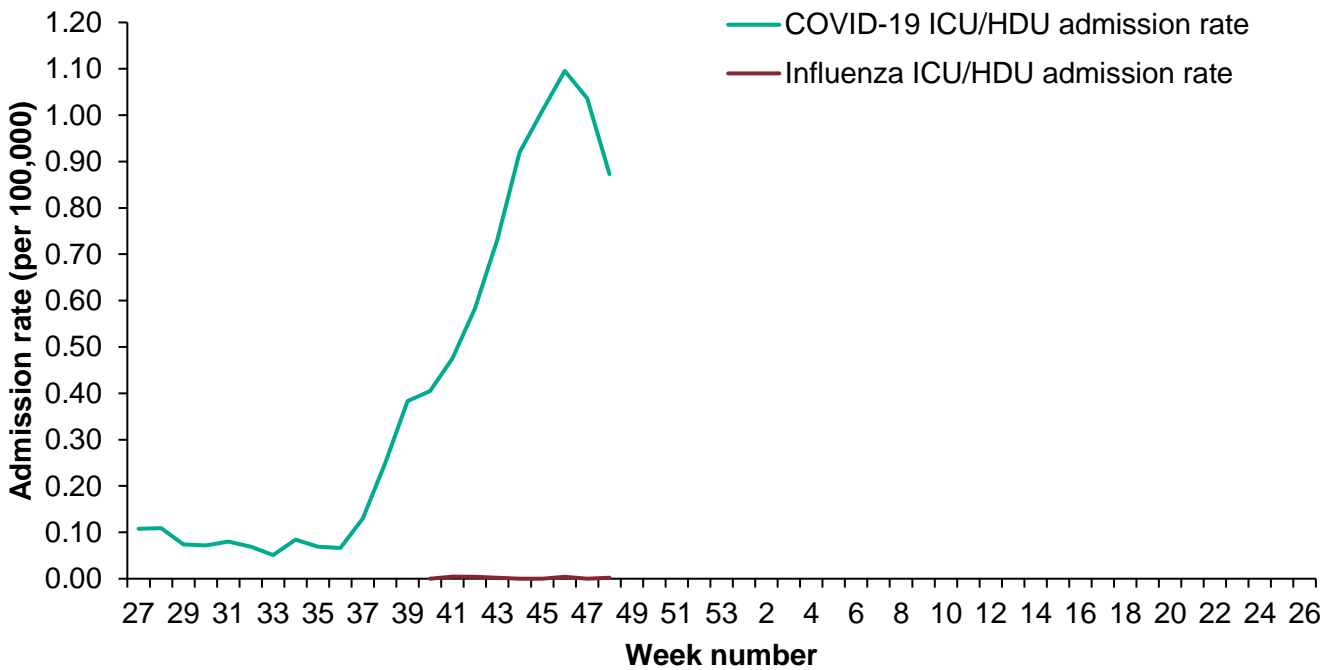
## ICU/HDU admissions, SARI Watch

In week 48, the weekly ICU/HDU admission rates for COVID-19 decreased whilst the ICU/HDU admission rate remained low for influenza.

The ICU/HDU rate for COVID-19 was at 0.87 per 100,000 in week 48 (based on data reported from 117 NHS Trusts) compared to at 1.04 per 100,000 in the previous week. There was one new influenza (A(unknown subtype) admission to ICU/HDU in week 48.

From the week 46 report, regional observations for SARI Watch will be by PHE Centres. By PHE Centre, the highest ICU/HDU admission rates for COVID-19 were observed in the East Midlands and for influenza in the North West. By age groups, the highest ICU/HDU admission rates for COVID-19 were observed in the 65 to 74 year olds.

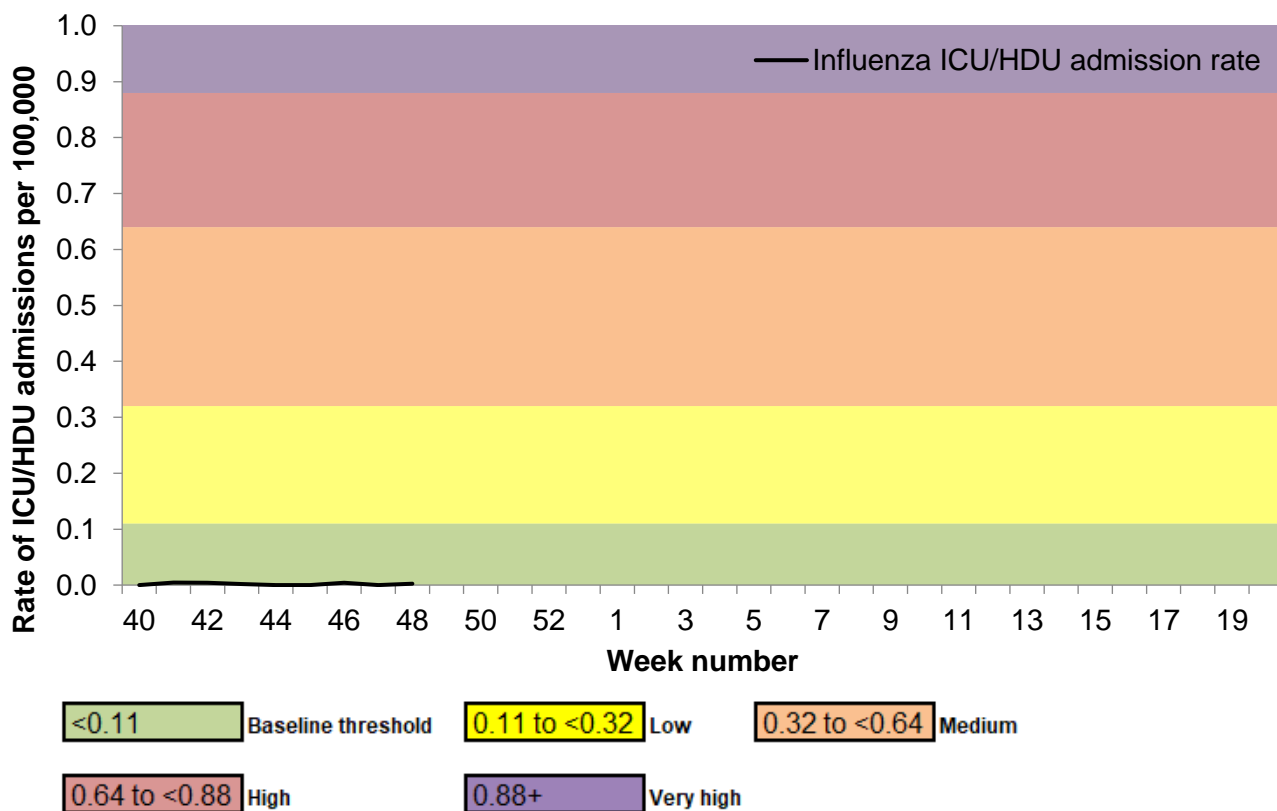
**Figure 38: Weekly overall ICU/HDU admission rates per 100,000 of new COVID-19 and influenza positive cases reported through SARI Watch, England**



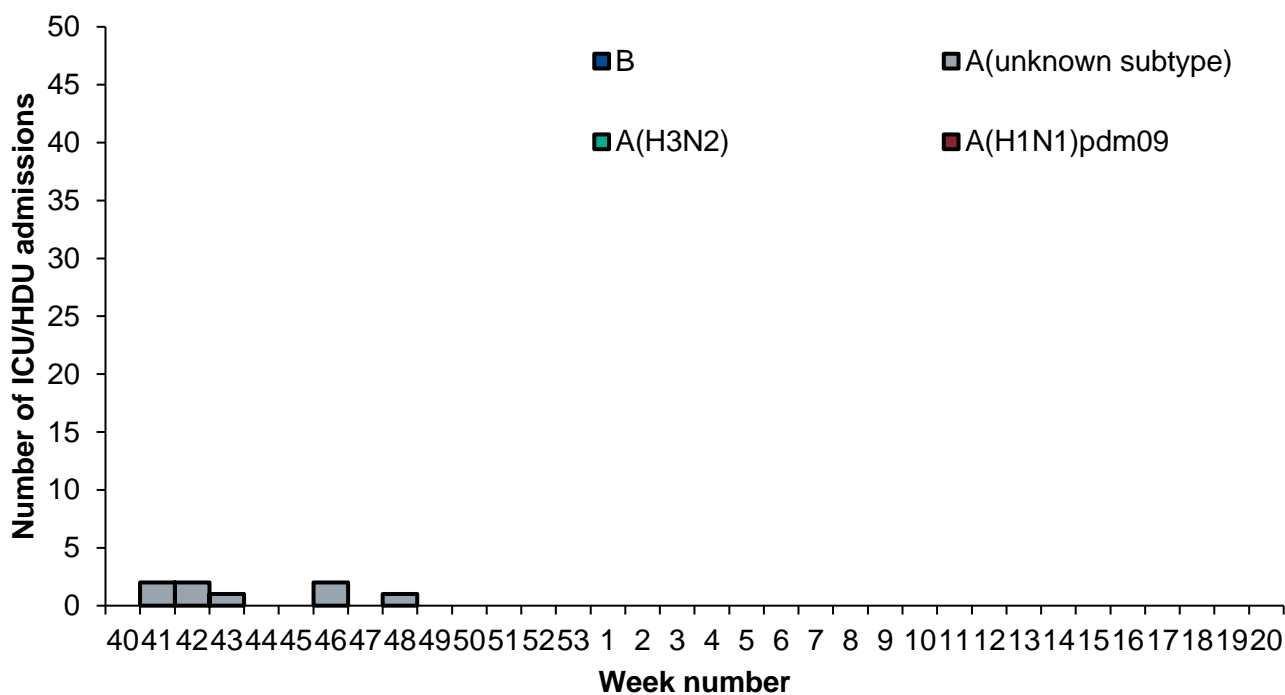
- \* influenza ICU/HDU admission rate is reported from week 40 2020 onwards
- \* influenza ICU/HDU admission rate based on 113 NHS trusts for week 48
- \* COVID-19 ICU/HDU admission rate based on 117 NHS trusts for week 48



**Figure 39: Weekly overall influenza ICU/HDU admission rates per 100,000 trust catchment population with MEM thresholds, SARI Watch, England**

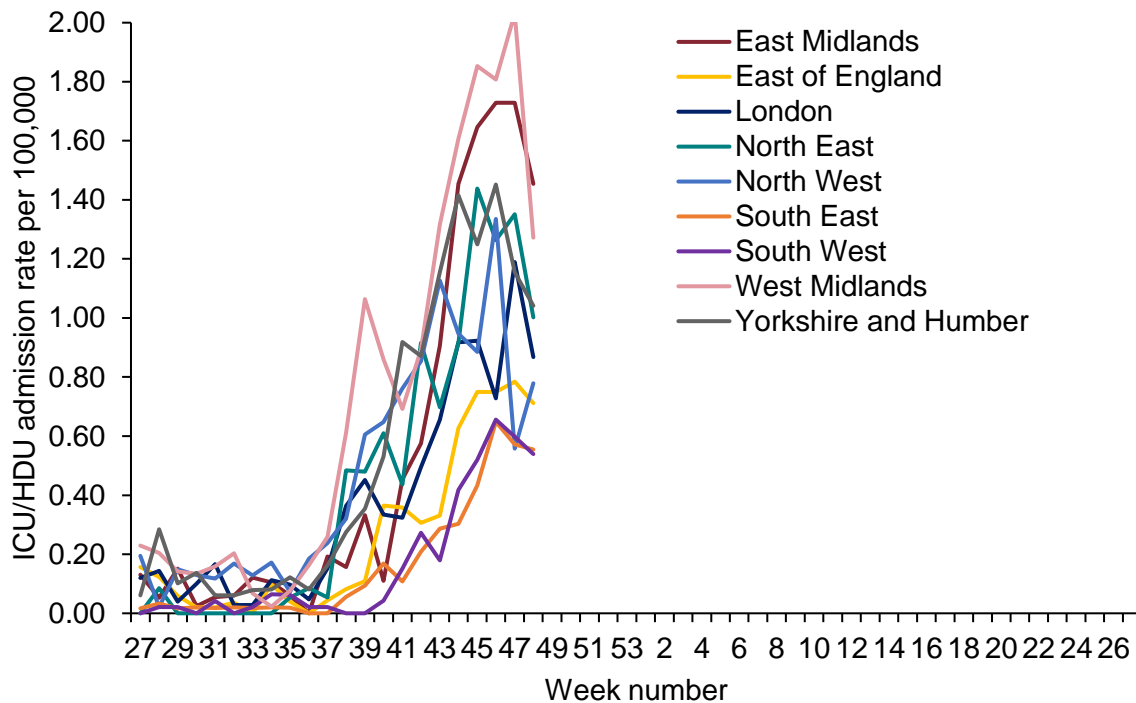


**Figure 40: Weekly influenza ICU/HDU admissions by influenza type, SARI Watch, England**

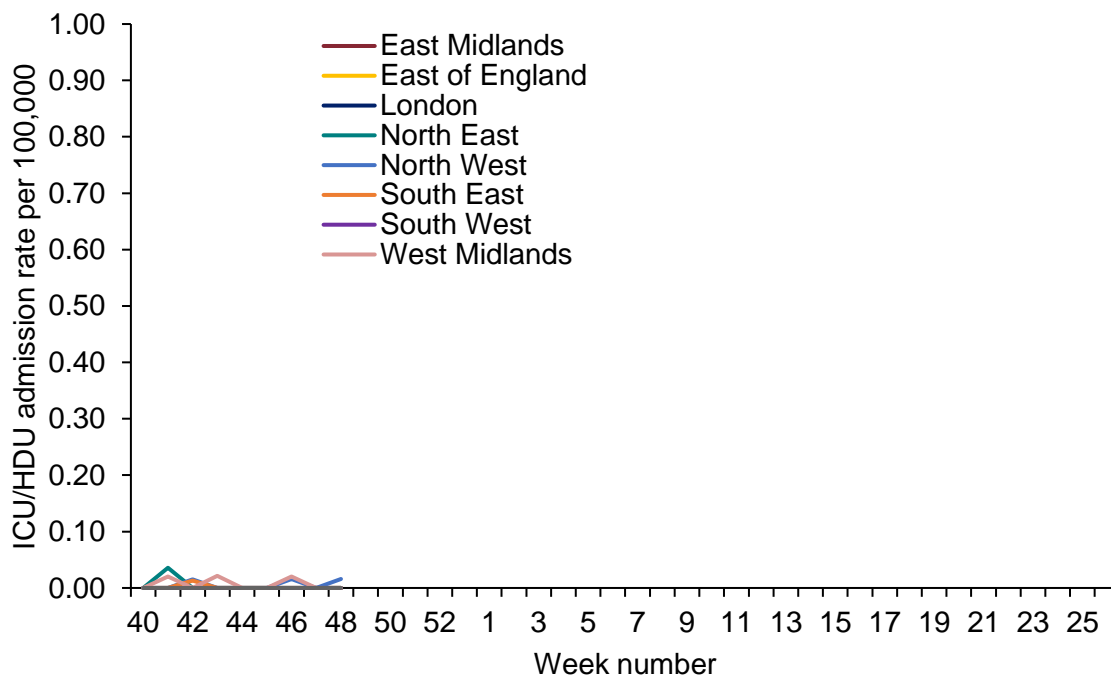


**Figure 41: Weekly ICU/HDU admission rate by PHE Centre for new (a) COVID-19 positive cases and (b) influenza reported through SARI Watch**

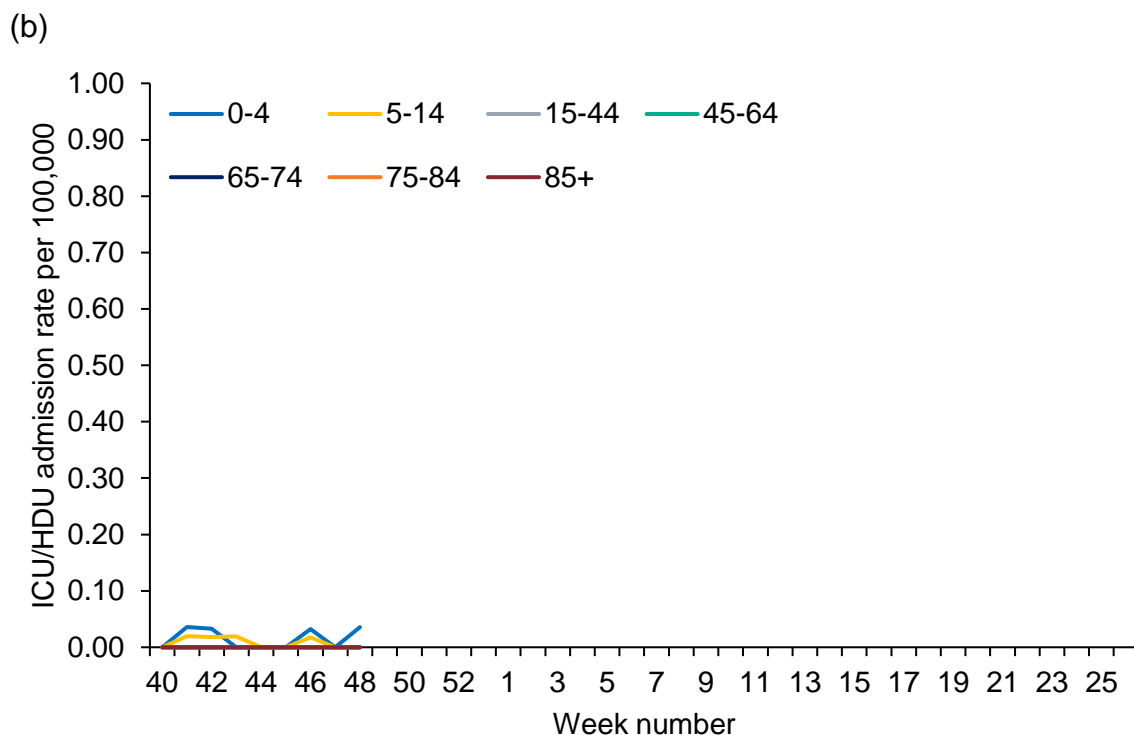
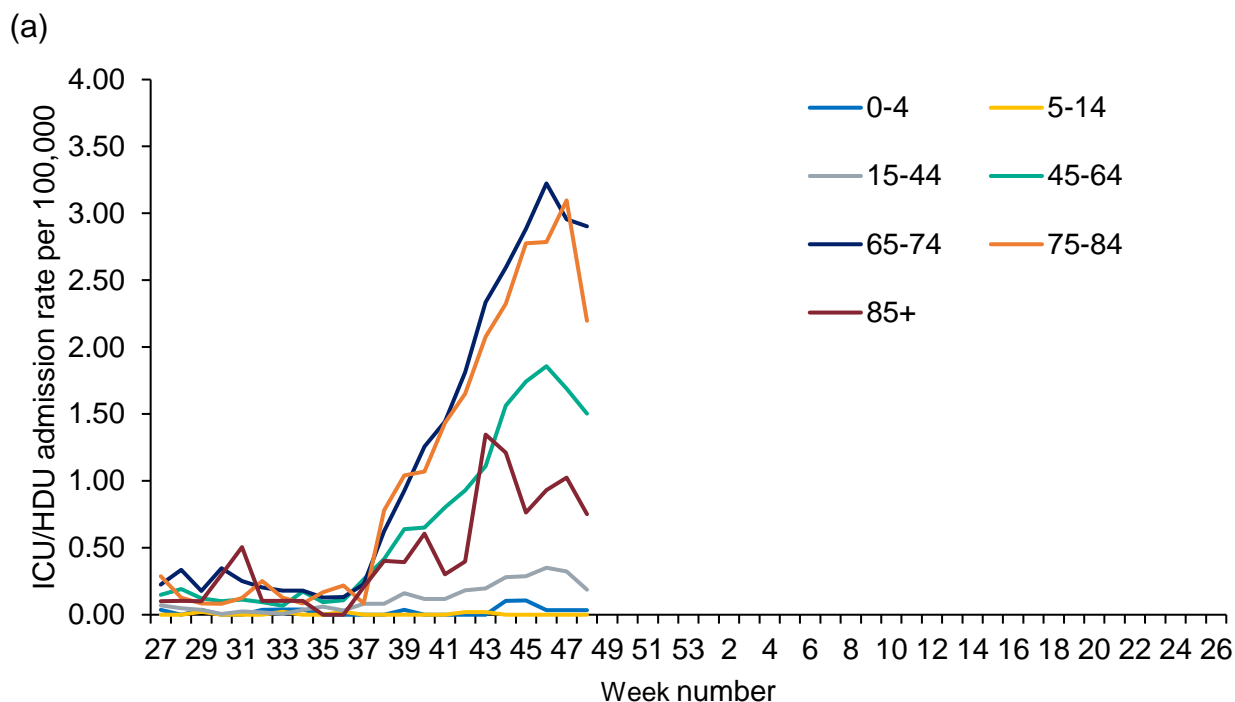
(a)



(b)



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

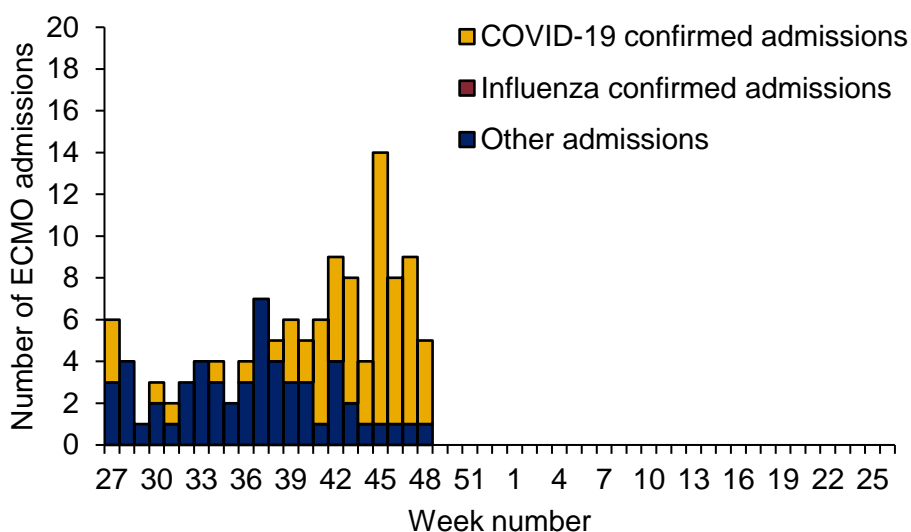


## ECMO, SARI Watch

From week 27 2020, a total of 65 laboratory confirmed COVID-19 admissions have been reported from the 6 Severe Respiratory Failure (SRF) centres in the UK.

There were 4 new laboratory confirmed COVID-19 admissions reported in week 48 (Figure 43).

**Figure 43: Laboratory confirmed ECMO admissions (COVID-19, influenza and non-COVID-19 confirmed) to Severe Respiratory Failure centres in the UK**



\*From the week 45 report (this report), data on ECMO admissions is being presented for the UK (including retrospective data from week 27 onwards).

## Emergency Department attendances, Syndromic surveillance

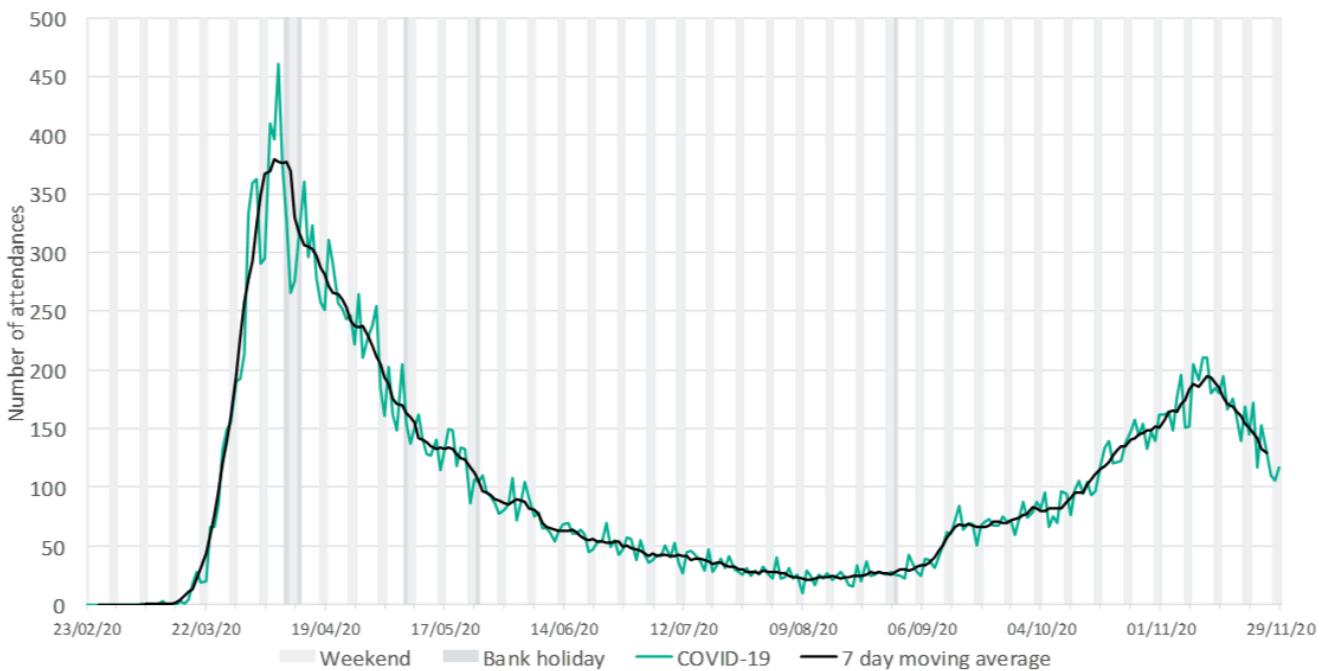
The Emergency Department Syndromic Surveillance System (EDSSS) monitors the daily visits in a network of emergency departments across England.

Up to 29 November 2020, the daily number of ED attendances for all ages as reported by 72 EDs, for COVID-19-like attendances decreased and attendances for acute respiratory infections decreased (Figure 44).

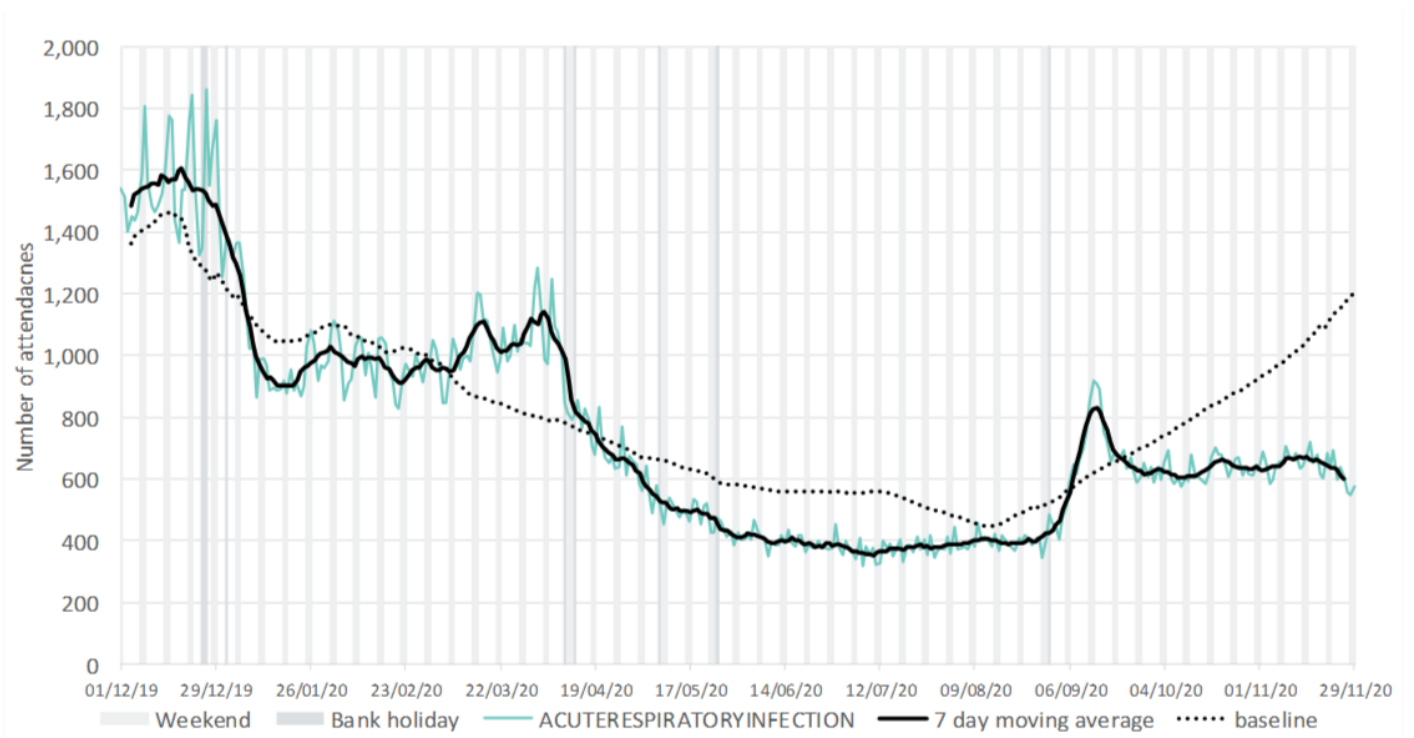
Please note: the COVID-19-like ED indicator is an underestimation of the number of COVID-19 attendances as it only includes attendances with a COVID-19-like diagnosis as their primary diagnosis. The EDSSS COVID-19-like indicator should therefore be used to monitor trends in ED attendances and not to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

**Figure 44: Daily ED attendances for (a) COVID-19-like and (b) acute respiratory infections, all ages, England**

(a)



(b)



# Mortality surveillance

## Cumulative COVID-19 deaths

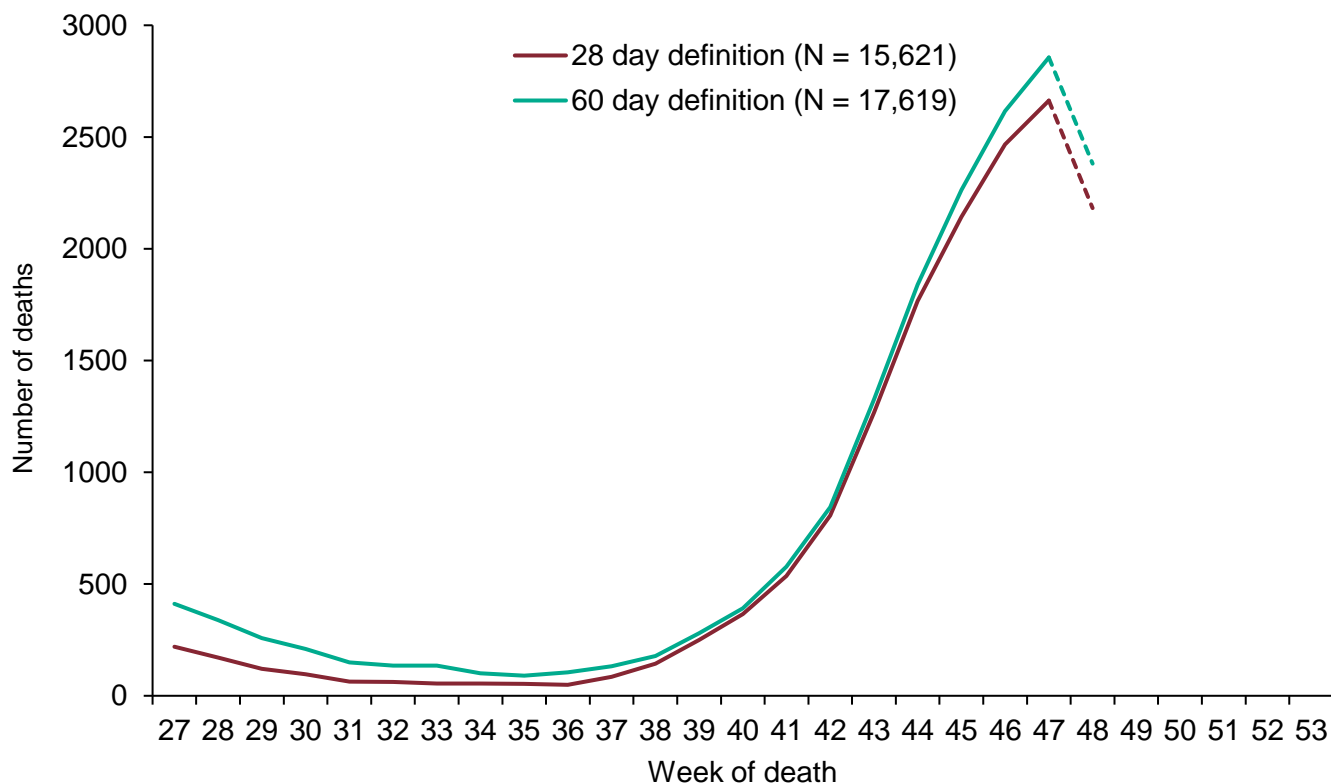
Changes to the definitions of COVID-19 related deaths in England are described in more detail in an [accompanying PHE technical summary](#).

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

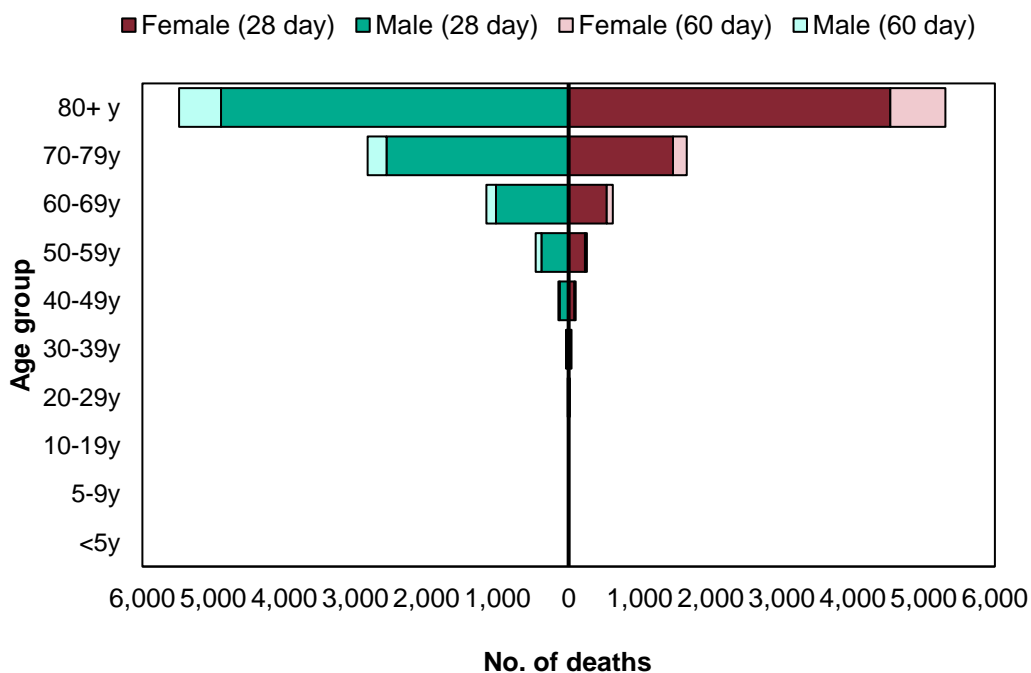
The introduction of these definitions will affect the numbers which have been presented in past reports and therefore Figure 45 represents these differences by definition.

**Figure 45: 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 46: 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	89.7	89.9
Asian / Asian British	7.4	7.2
Black / African / Caribbean / Black British	1.5	1.5
Mixed / Multiple ethnic groups	0.4	0.4
Other ethnic group	1.0	1.0

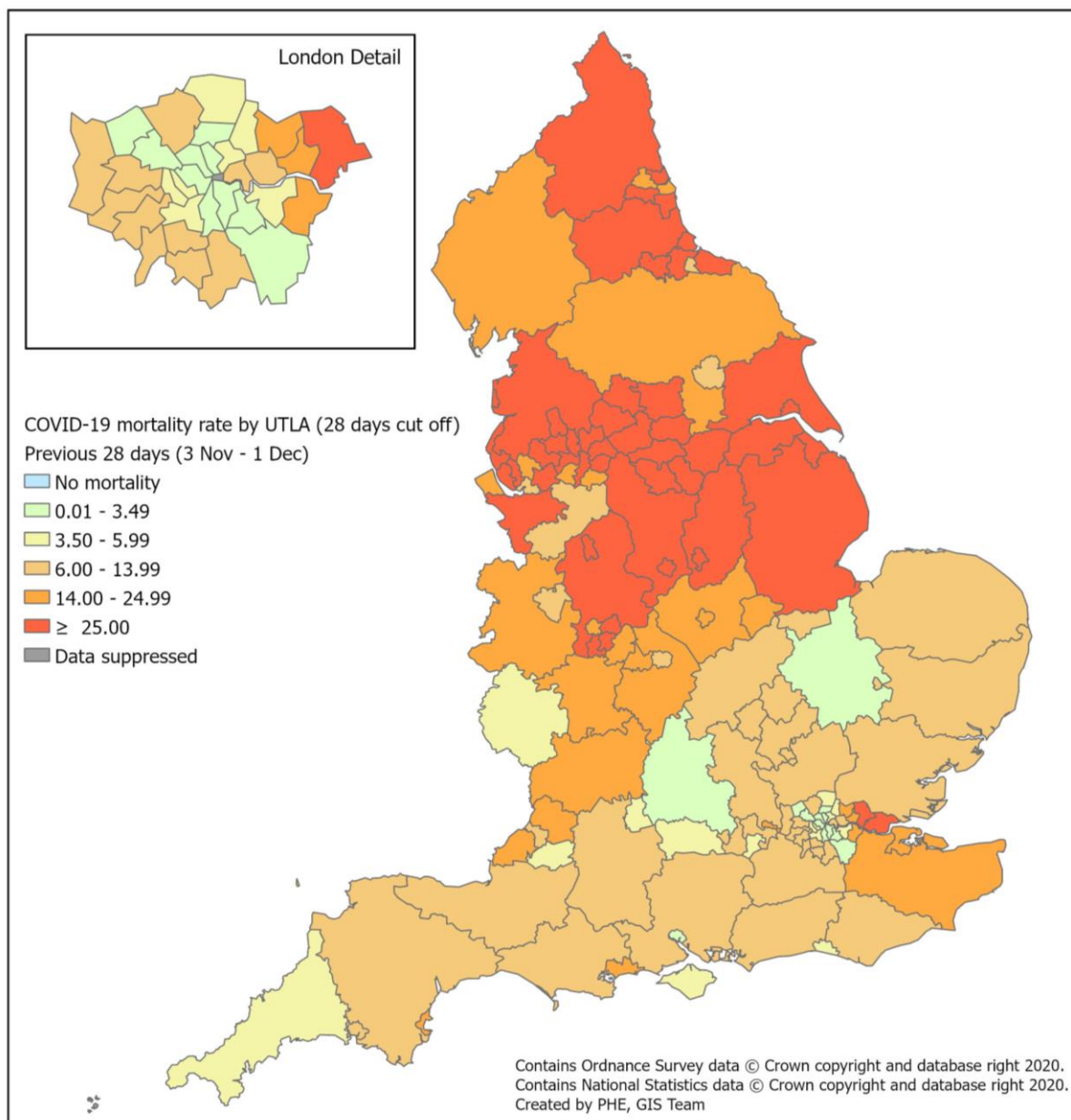


**Table 6: Cumulative number of COVID-19 deaths since week 27 and time since laboratory confirmation of COVID-19 by PHE Centres**

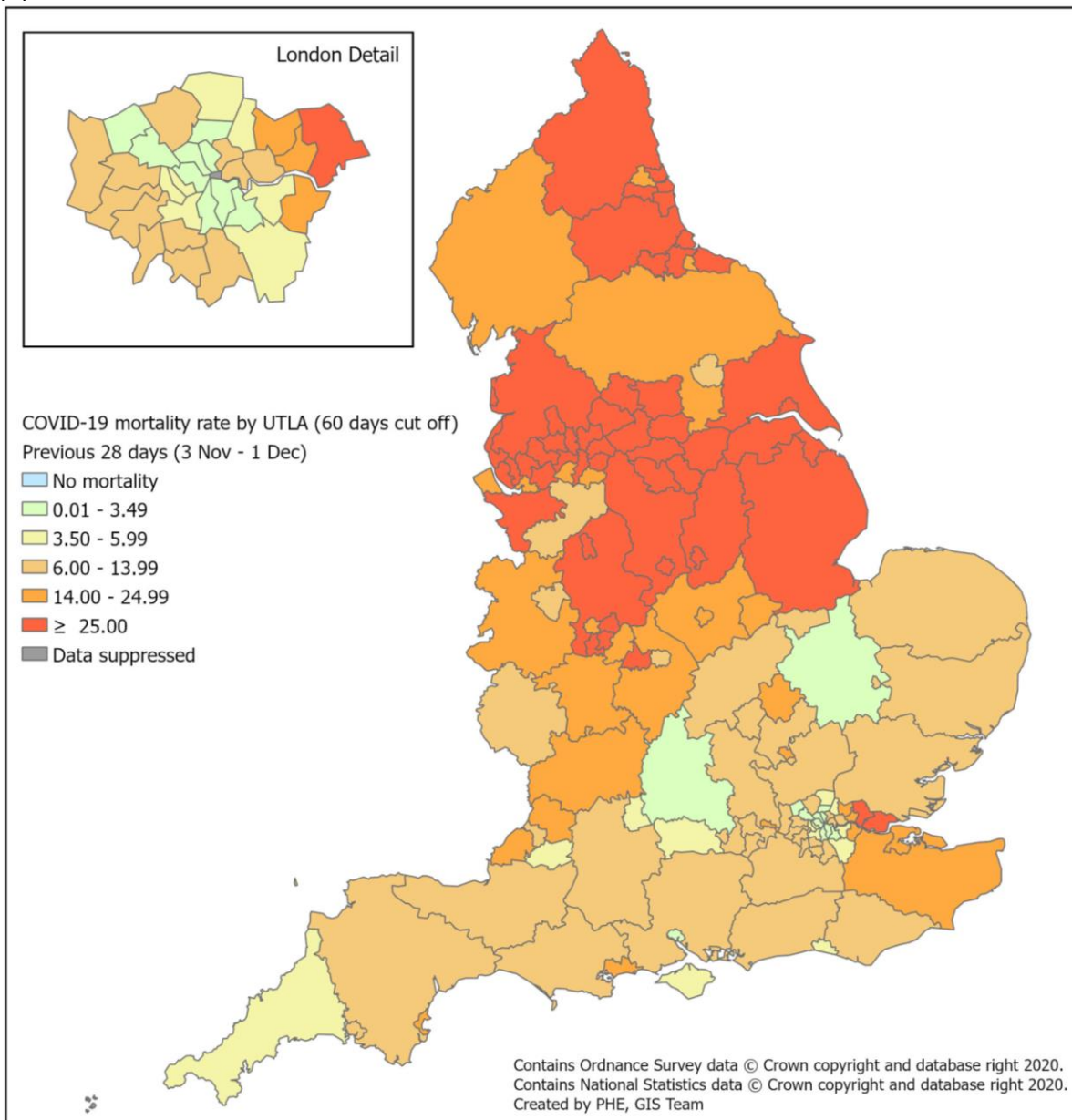
<b>PHE Centres</b>	<b>28 day definition</b>	<b>60 day definition</b>
North East	1,308	1,458
North West	4,234	4,791
Yorkshire & Humber	2,642	2,939
West Midlands	1,886	2,125
East Midlands	1,366	1,895
East of England	1,693	1,227
London	966	1,135
South East	1,255	1,547
South West	751	832

**Figure 47: 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)



\* Figure 47 has been calculated using mid-2019 ONS population estimates

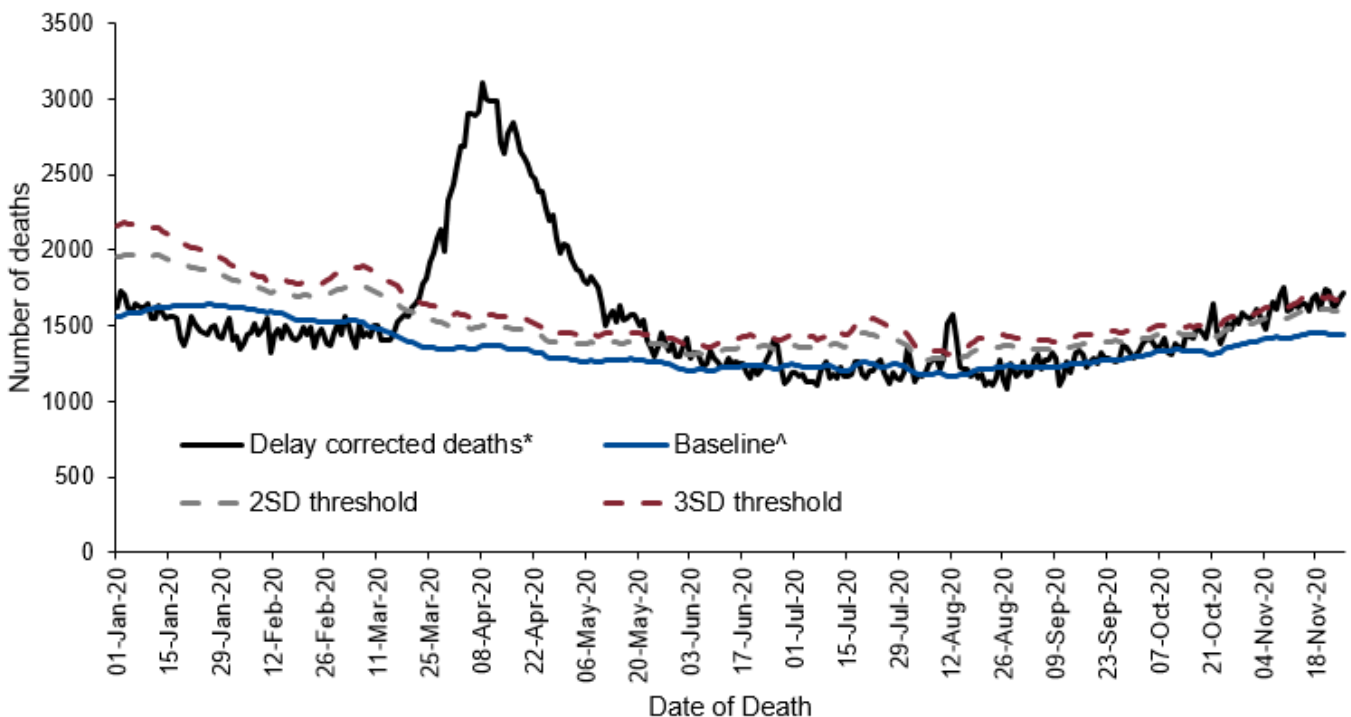
## Daily excess all-cause mortality (England)

Deaths occurring from 1 January to 25 November 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 48).

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.

Significant excess all-cause mortality was observed in week 47 overall, by age group in the 85 plus year olds and subnationally in the North West, West Midlands and Yorkshire and Humber. The excess noted in week 33 coincides with a heat wave (Figure 48, 49 and Table 7).

**Figure 48: Daily excess all-cause deaths in all ages, England, 1 January 2020 to 25 November 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**

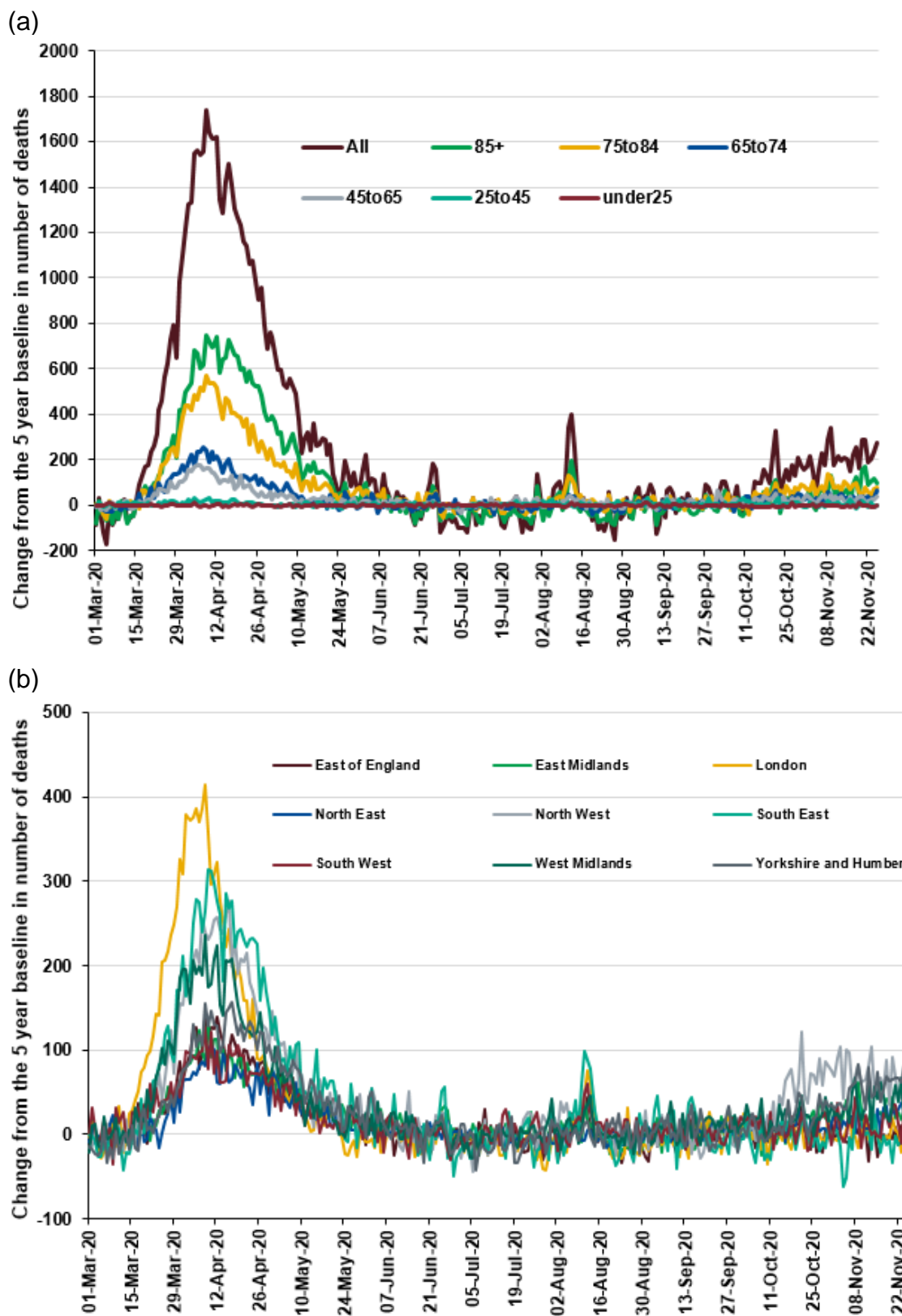
(a)

Age Group	Excess detected in week 46 2020?	Weeks in excess since week 10 2020
All	✓	13 to 21, 33, 43 to 47
under 25	x	None
25 to 44	x	14 to 16, 32, 38
45 to 64	x	12 to 19
65 to 74	x	13 to 19
75 to 84	x	13 to 21, 33, 43 to 46
85+	✓	13 to 21, 33, 47

(b)

PHE Centres	Excess detected in week 46 2020?	Weeks in excess since week 10 2020
East of England	x	14 to 19, 21
East Midlands	x	13 to 19
London	x	12 to 19, 33
North East	x	14 to 21
North West	✓	13 to 20, 33, 42 to 47
South East	x	13 to 21, 33
South West	x	13 to 19, 33
West Midlands	✓	13 to 20, 45 to 47
Yorkshire and Humber	✓	14 to 21, 23, 43 to 47

**Figure 49: Daily excess all-cause deaths by (a) age group and (b) PHE centres , England, 1 March 2020 to 25 November 2020**



# 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 48, 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 48, no influenza viruses were tested for antiviral susceptibility.

## Antimicrobial susceptibility

Table 8 shows in the 12 weeks up to week 48 2020, the proportion of all lower respiratory tract isolates of *Streptococcus pneumoniae*, *Haemophilus influenzae*, *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 (%)
<i>S. pneumoniae</i>	Penicillin	882	85
	Macrolides	961	75
	Tetracycline	950	78
<i>H. influenzae</i>	Amoxicillin/ampicillin	3,745	62
	Co-amoxiclav	4,108	72
	Macrolides	843	6
	Tetracycline	4,203	97
<i>S. aureus</i>	Methicillin	2,978	93
	Macrolides	3,253	70
MRSA	Clindamycin	121	36
	Tetracycline	162	75
MSSA	Clindamycin	1,932	76
	Tetracycline	2,689	92

\* 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

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 17-47 are summarised. This programme has previously involved testing approximately 1000 donor samples from two different NHS regions each week. In this week's report, the data presented reflects a change in the sampling strategy as of week 44, with approximately 250 samples from each geographic NHS region being 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 17-47. This report presents seropositivity estimates 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. This is because assay sensitivity will change according to the time since infection in these cohorts due to waning of antibodies.

### 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 6.5% (95% CI 5.9% - 7.1%) for the period 28<sup>th</sup> October– 22<sup>nd</sup> November (weeks 44-47). Estimates are based on 7292 samples, of which 481 were positive. This compares with 5.7% (95% CI 5.2% - 6.3%) for the period of 28<sup>th</sup> September – 23<sup>rd</sup> October (weeks 40-43).

Changes in seropositivity are likely to reflect the net effect of increases due to recent transmission and decreases due to antibody waning. Demographic changes in the donor population also need to be considered, such as when donors aged 70 years and older were excluded from donating during the first national lockdown.

### Regional prevalence over time

Seropositivity (weighted by age group and sex) vary across the country and over time. Figure 50 shows the overall 4-weekly rolling proportion seropositive in each region over time. Seropositivity estimates are plotted weekly using the mid-point of a rolling 4-weekly period.

Please note that the population denominators used for the population weighted estimates will be updated from mid-2018 to mid-2019 in next week's report.

In London where estimates have generally been highest, the 4-weekly rolling seropositivity increased from 11.9% (week 16-19) to 13.7% (weeks 20-23). From week 24 seropositivity declined and plateaued with estimates at 7.8% in weeks 30-33. This was then followed by a rise in seropositivity to 10.4% (95% CI 9.1% - 12%) in weeks 34-37 and has plateaued to 8.8% (95% CI 7.3% - 10.6%) in weeks 44-47. Contributory factors to this fluctuation are likely to include variability in the precise locations of sampling within London and changes in exposure of donors. Increases in seropositivity observed in weeks 34-37 in part may reflect samples being tested from donors who were likely to be returning to donate having donated in earlier parts of the epidemic when incidence was high.

Data from the North West show that seropositivity increased from 6.4% (95% CI 5.1 – 8.1%) in weeks 40-43 to 9.3% (95% CI 7.6% - 11.2%) in weeks 44-47.

In the East of England seropositivity increased to 6.7% (95% CI 5.2% - 8.6%) in the most recent data (weeks 44-47) fluctuating between 4.2% (95% CI 3.1% - 5.6%) in weeks 40-43 and 5.9% (95% CI 4.6% - 7.6%) in weeks 35-38.

Seropositivity in the South East region was 4.9% (95% CI 3.7% - 6.5%) for weeks 44-47. This has increased compared to 3.7% (95% CI 2.7% - 5.0%) in weeks 40-43.

Seropositivity in the South West region has remained stable at 3.5% (95% CI 2.4% - 5.1%) in weeks 44-47 and 3.5% (95% CI 2.5 – 4.8%) in weeks 40-43.

In the North East and Yorkshire NHS region the seropositivity decreased from 5.6% (95% CI 4.3%-7.3%) in weeks 40-43 to 4.9% (95% CI 3.7% - 6.5%) in week 44-47.

Data from the Midlands show a stable proportion seropositive at 6.7% (95% CI 5.2% - 8.6%) in weeks 44-47. This compares with 6.9% (95% CI 5.3% - 8.9%) in weeks 40-43.

The change in proportion seropositive observed in some regions is likely to be driven by changes in the precise locations of sample collection. However, the most recent increases observed in the North West, East of England and South 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 will also be a contributing factor to the lower prevalence.

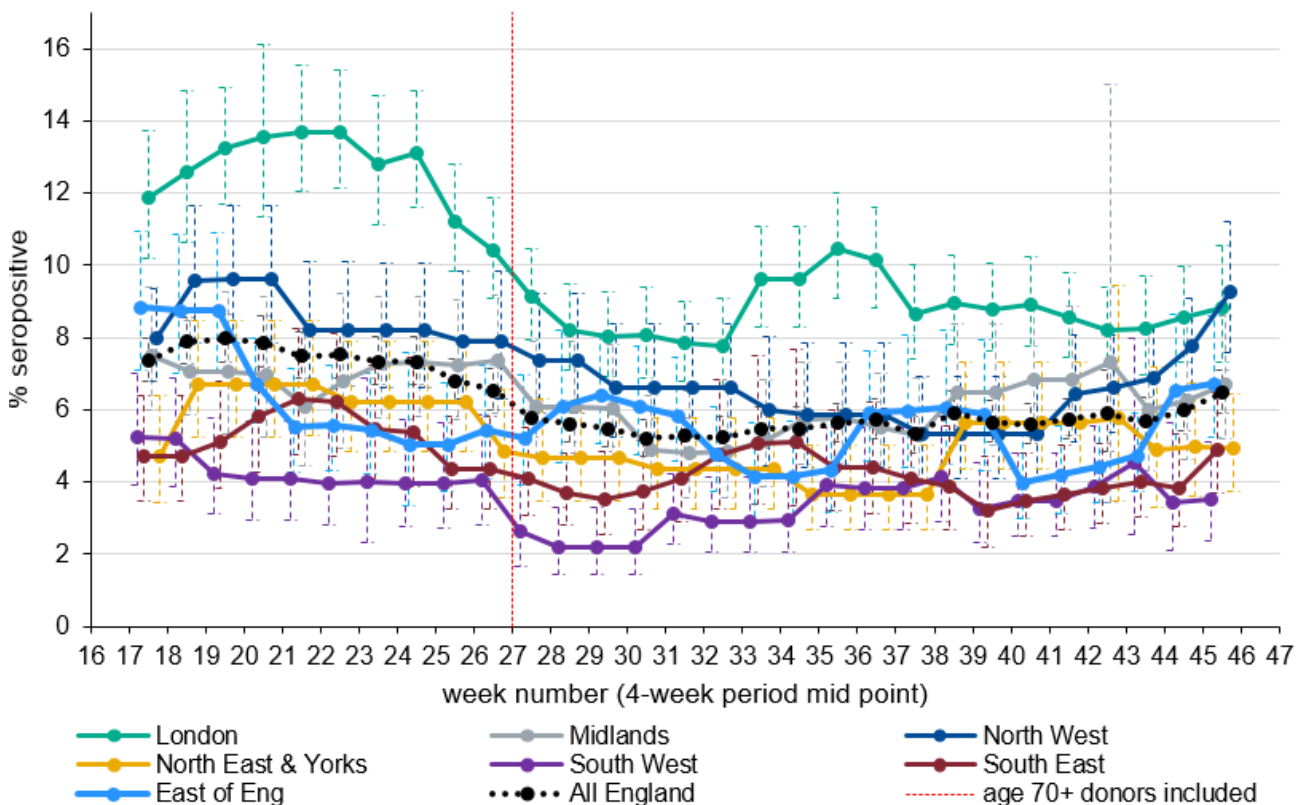
**Prevalence by age group**

Population weighted antibody prevalence (unadjusted) estimates have remained highest in donors aged 17-29 and has generally declined with age, with lowest prevalence in donors aged 70-84. Donors aged 70-84 years were only included from week 26 onward as this age group, who were advised to not to donate during the first national lockdown, have been able to return to donor clinics since then (Figure 51).

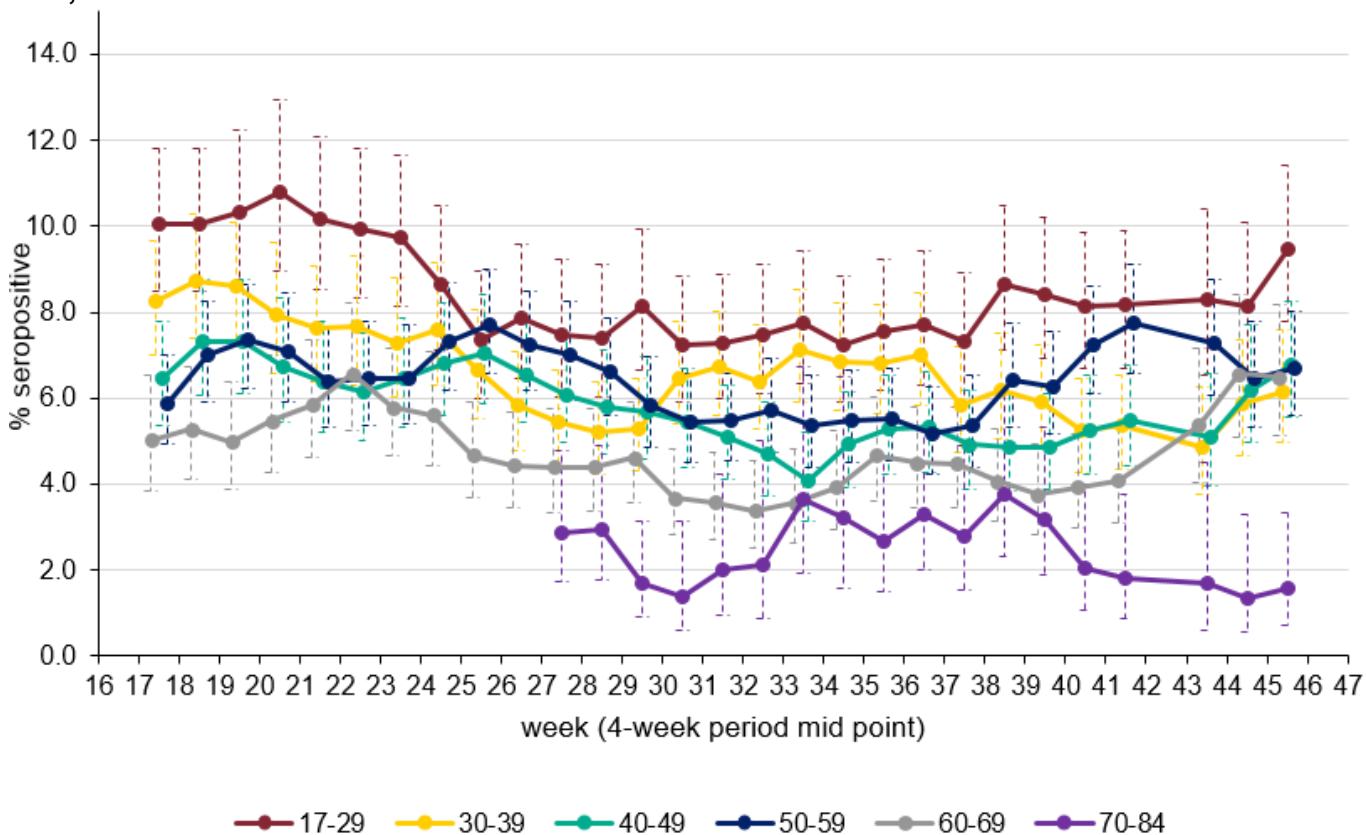
Prevalence for all age groups for weeks 41-44 has been excluded due to a change in sampling strategy from week 44 which resulted in a small number of samples from older age groups in some regions which makes interpretation of trends for this period difficult.

The largest variation over time are observed in those aged 17-29, prevalence has increased recently from 8.2% (95% CI 6.7% - 9.9%) in weeks 19-22 to 9.5% (95% CI 7.8% - 11.4%). There has also been a recent increase in prevalence in donors aged 60-69 from 4.1% (95% CI 3.1% - 5.4%) in weeks 40-43 to 6.5% (95% CI 5.1% - 8.2%) in weeks 44-47. Recently seropositivity appears similar across the four age groups representing 30-69 year olds. Seropositivity has remained highest in the those aged 17-29 and lowest in those aged 70-84 year.

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



**Figure 51: 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**



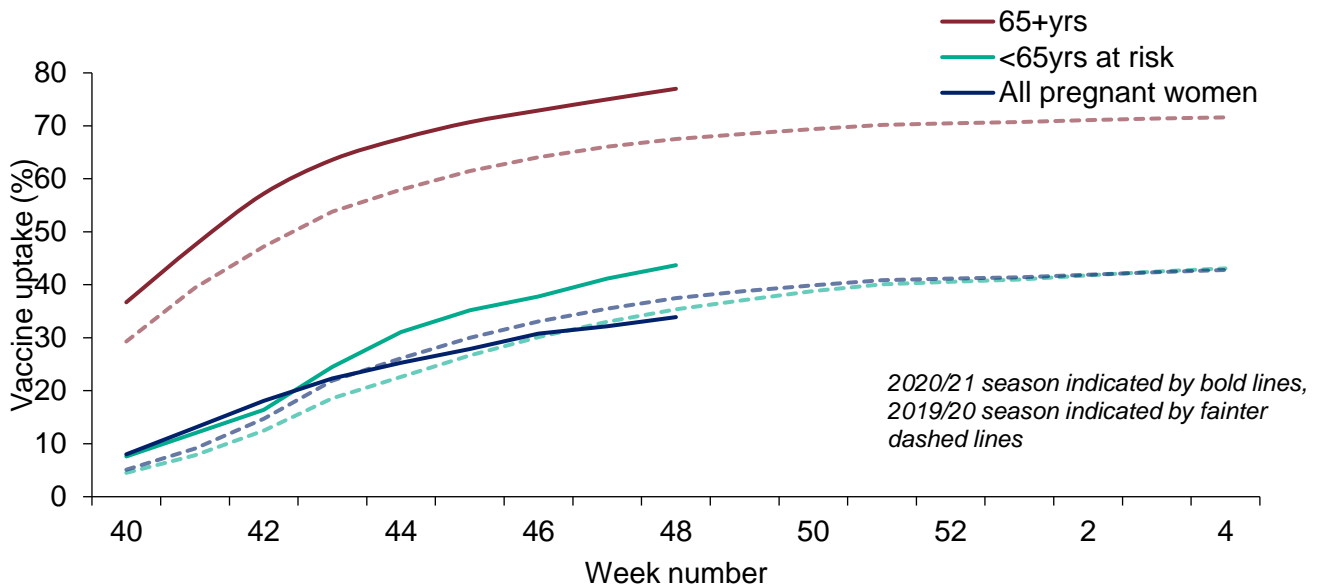
# Influenza vaccination

## Influenza vaccine uptake in GP patients

Up to week 48 2020 in 96.2% 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 52):

- 43.7% in under 65 years in a clinical risk group
- 33.9% in pregnant women
- 77.0% in 65+ year olds

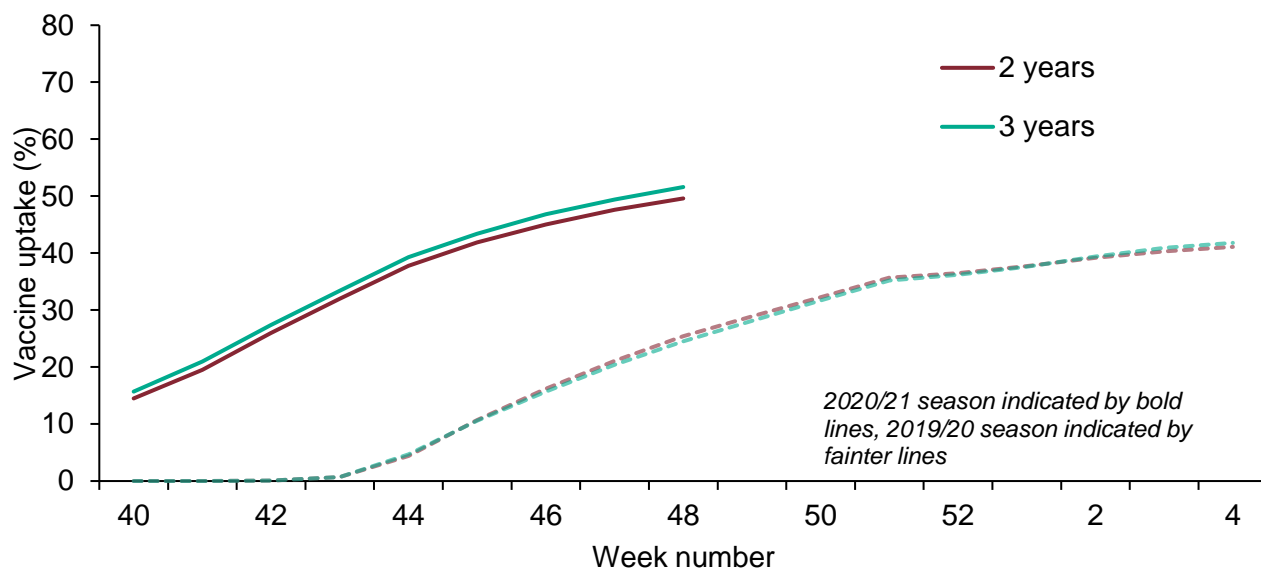
**Figure 52: Cumulative weekly influenza vaccine uptake by target group in England**



In 2020/21, all 2 and 3 year olds continue to be eligible for influenza vaccination through their GPs. Up to week 47 2020, in 94.6% 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 53):

- 49.6% in 2 year olds
- 51.6% in 3 year olds

**Figure 53: Cumulative weekly influenza vaccine uptake in 2 and 3 year olds, in England**



On 26 November 2020, **monthly data** which cover vaccinations that were given between 1 September and 31 October 2020 was published and for the first time includes ethnicity for at-risk groups and pregnant women.

## Influenza vaccine uptake in school age children

**Provisional data** from the first monthly collection of influenza vaccine uptake for children of school years Reception to Year 7 (from a sample of 99.3% of all Local Authorities in England) show the provisional proportion of children in England who received the 2020/21 influenza vaccine via school, pharmacy or GP practice by 31 October 2020 in targeted groups in Table 9.

**Table 9: Provisional cumulative influenza vaccine uptake in children in school years Reception to Year 7, up to 31 October 2020 and 2019, England**

School Year	% Vaccine uptake (up to 31 October)	
	2020/21	2019/20
Reception (4-5 years)	19.1	17.9
Year 1 (5-6 years)	19.4	17.6
Year 2 (6-7 years)	19.3	17.3
Year 3 (7-8 years)	19.3	16.6
Year 4 (8-9 years)	18.8	16.4
Year 5 (9-10 years)	18.6	15.8
Year 6 (10-11 years)	18.1	15.2
Year 7 (11-12 years)	25.9	-

\* Year 7 were not part of the programme in 2019/20

## Influenza vaccine uptake in healthcare workers

**Provisional data** from the first monthly collection of the influenza vaccine uptake by frontline healthcare workers show 51.6% were vaccinated by 31 October 2020 from 95.0% of all organisations, compared to 43.6% vaccinated in the previous season by 31 October 2019. The report provides uptake at national, NHS region, Sustainability and Transformation Partnerships (STP) and Trust-level.

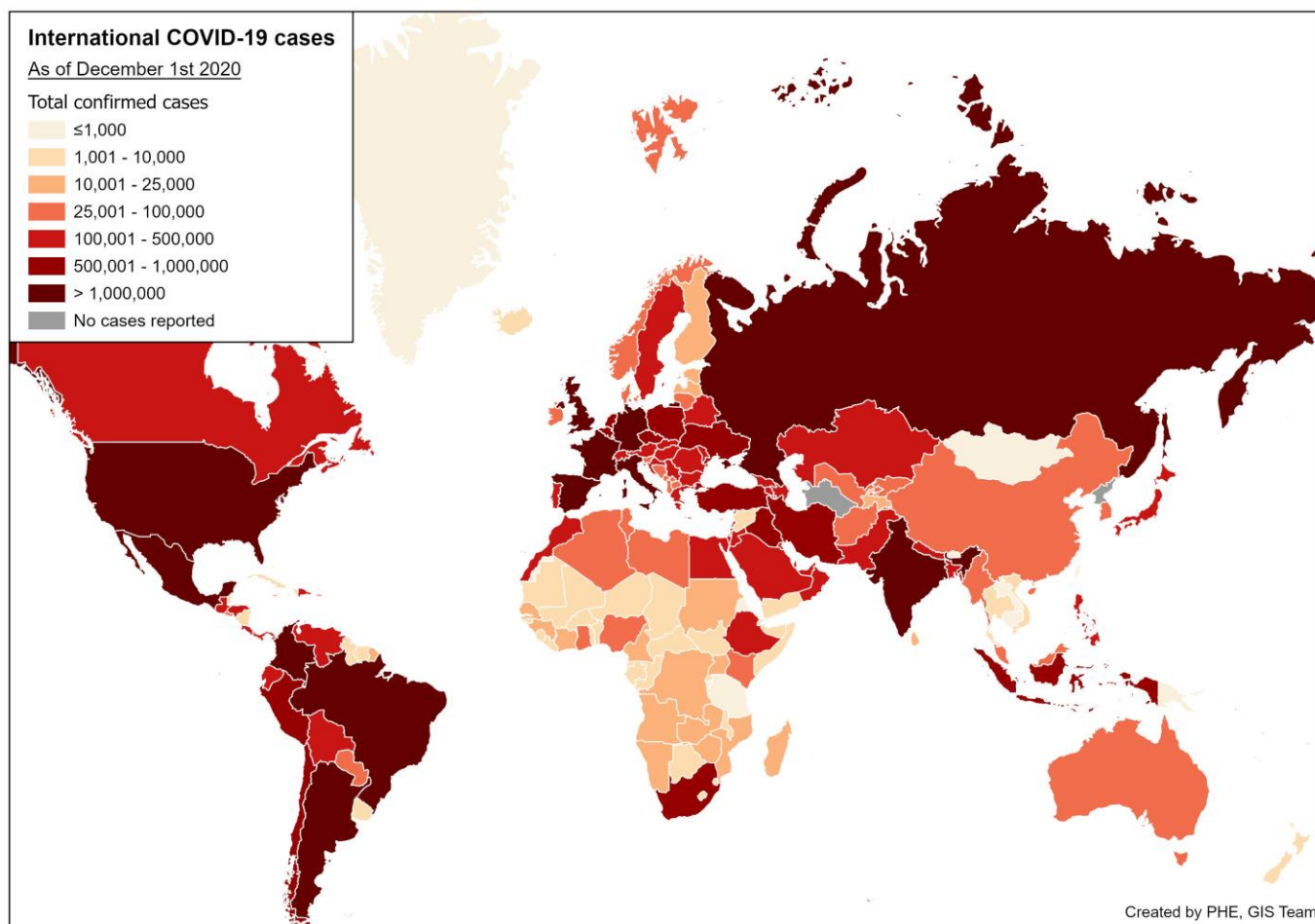
# International update

## Global COVID-19 update

Globally, up to 1 December 2020, a total of 63,442,098 cases of COVID-19 infection have been reported worldwide, including 1,473,380 COVID-19 related deaths.

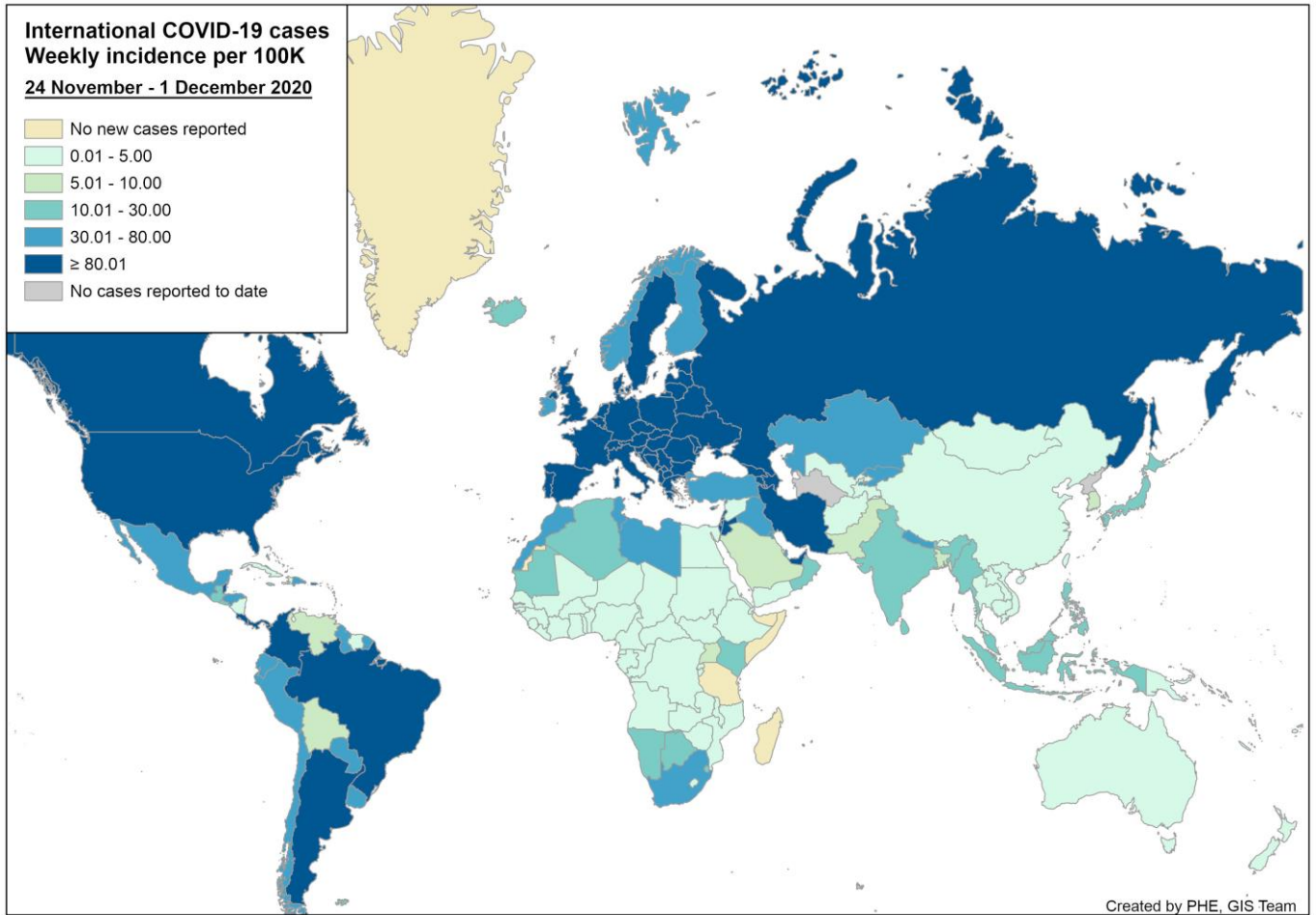
For further information on the global COVID-19 situation please see the [WHO COVID-19 situation reports](#).

**Figure 54: Global map of cumulative COVID-19 cases**





**Figure 55: Global map of weekly COVID-19 case incidence rate per 100,000, week 48 2020**



## Global influenza update

Updated on 23 November 2020 (based on data up to 08 November 2020) ([WHO website](#))

In the temperate zone of the northern hemisphere, influenza activity remained below inter-seasonal levels, though sporadic detections of influenza A and B viruses were reported in some countries. In the temperate zones of the southern hemisphere, influenza activity was reported at inter-seasonal level. 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 of influenza A and B viruses were reported across reporting countries.

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

In Western Asia, influenza activity remained at inter-seasonal level and ILI activity remained low overall.

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, no influenza detections were reported across reporting countries in this period.

In the tropical countries of South America, there were no influenza detections across reporting countries.

In tropical Africa, influenza activity was reported in West Africa however no influenza detections were reported for this period in Eastern Africa.

In Southern Asia, influenza activity remained low where reported.

In South East Asia, influenza activity of predominately influenza A(H3N2) was detected in Lao PDR, Thailand and Viet Nam in this reporting period.

In Oceania, ILI and other influenza activity indicators remained very low and RSV was circulating in part of Australia.

The WHO GISRS laboratories tested more than 108,638 specimens between 26 October 2020 and 08 November 2020. A total of 100 specimens were positive for influenza viruses, of which 63 (63%) were typed as influenza A and 37 (37%) as influenza B. Of the sub-typed influenza A viruses, 7 (11.3%) were influenza A(H1N1)pdm09 and 55 (88.7%) were influenza A(H3N2). Of the characterized B viruses, 1 (6.7%) belonged to the B-Yamagata lineage and 14 (93.3%) to the B-Victoria lineage.

## Influenza in Europe

Updated on 30 November 2020 ([Joint ECDC-WHO Europe Influenza weekly update](#))

For week 47 2020, influenza activity remained at interseasonal levels throughout Europe.

Of 36 countries and areas that reported on the intensity indicator, 31 reported activity at baseline levels and 5 countries reported low intensity (Azerbaijan, Serbia, Slovakia, Ukraine and United Kingdom (England)) for week 47 2020. Of 37 countries and areas that reported on geographic spread, 30 reported no activity and 7 reported sporadic spread (in eastern, northern and western areas) for week 47 2020.

For week 47 2020, of 663 sentinel specimens tested for influenza viruses, none were positive. Since the start of the season, of 4 433 sentinel-source specimens that have been tested for influenza viruses, one was positive.

There were no hospitalized laboratory-confirmed influenza cases in ICUs for week 47 2020 and since the start of the season.

There were no laboratory-confirmed influenza cases in wards outside ICUs for week 47 2020 and since the start of the season.

## Influenza in the Northern Hemisphere

Influenza activity remains low in the United States of America and in Canada.

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 9 November 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:

Since the last update on 10 July 2020, one new laboratory-confirmed human case of influenza A(H9N2) virus infection was reported from China to WHO on 28 August 2020.

### Middle East respiratory syndrome coronavirus (MERS-CoV)

Latest update on 1 December 2020 ([WHO website](#))

Up to 1 December 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 through the on-going surveillance since September 2012.

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.

# 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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