Latest numbers on COVID-19 in the UK – 17 December 2021

1. Omicron update
2. National picture
3. Testing
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With many thanks to Bob Hawkins for his help in collating the data
Omicron
Proportion of sequenced cases that are Omicron by week and nation up to 11 Dec 2021

Data from https://sars2.cvr.gla.ac.uk/cog-uk/
Proportion of sequenced cases that are likely Omicron and Delta in England to 13 December 2021 ("S gene dropout" data)

Proportion of sequenced cases that are likely Omicron by region to 13 December 2021 ("S gene dropout" data)

Data from https://www.gov.uk/government/publications/covid-19-omicron-daily-overview
### Regional doubling times for the number of test with SGTF

<table>
<thead>
<tr>
<th>Region</th>
<th>Doubling Time</th>
<th>Doubling Time Lower CI</th>
<th>Doubling Time Upper CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>East Midlands</td>
<td>1.89</td>
<td>2.64</td>
<td>1.48</td>
</tr>
<tr>
<td>East of England</td>
<td>1.64</td>
<td>2.25</td>
<td>1.29</td>
</tr>
<tr>
<td>London</td>
<td>1.5</td>
<td>1.96</td>
<td>1.21</td>
</tr>
<tr>
<td>North East</td>
<td>1.55</td>
<td>2.06</td>
<td>1.24</td>
</tr>
<tr>
<td>North West</td>
<td>1.84</td>
<td>2.14</td>
<td>1.62</td>
</tr>
<tr>
<td>South East</td>
<td>1.65</td>
<td>1.95</td>
<td>1.43</td>
</tr>
<tr>
<td>South West</td>
<td>2.18</td>
<td>3.26</td>
<td>1.64</td>
</tr>
<tr>
<td>West Midlands</td>
<td>1.54</td>
<td>1.98</td>
<td>1.26</td>
</tr>
<tr>
<td>Yorkshire and Humber</td>
<td>1.53</td>
<td>2.09</td>
<td>1.21</td>
</tr>
</tbody>
</table>

Data up to 18h00 15 December 2021

Imperial study out today also confirms 2 day doubling rates.

Imperial report out today on Omicron

Reports highest rates by far in London and in 18-29 year olds.

You are five times more likely to be reinfected with Omicron than you would have been with Delta.

Two doses of vaccine (either AZ or Pfizer) do little to prevent Omicron infection. A booster helps *a lot* but is still worse than for Delta. (Vaccines should still help significantly against severe disease)

“We find strong evidence of immune evasion, both from natural infection ... and from vaccine-induced protection [for infection]”

“Hospitalisation and asymptomatic infection indicators were not significantly associated with Omicron infection, suggesting at most limited changes in severity compared with Delta.”

National picture
Number of new UK confirmed COVID-19 cases by reported date (people who have had a positive test) to 16 December 2021

Data from https://coronavirus.data.gov.uk
Cases per 100,000 people per rolling week by home nation by reporting date to 16 December

Data from https://coronavirus.data.gov.uk
Number of people in hospital per million people – UK nations
7 day rolling average to 1 May 2021 – 16 Dec 2021

Data from https://coronavirus.data.gov.uk.
ONS Infection survey prevalence of Covid in England by age to 11 December

Figure 4: The percentage of people testing positive for COVID-19 remained highest among those aged 2 years to school Year 6

Estimated daily percentage of the population testing positive for coronavirus (COVID-19) on nose and throat swabs by age group, England, 31 October 2021 to 11 December 2021

Chart from https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/bulletins/coronaviruscovid19infectionsurveypilot/17december2021
Number of hospital admissions with Covid every day in England to 7 Dec

Data from https://www.england.nhs.uk/statistics/statistical-work-areas/covid-19-hospital-activity/
7-day average of Covid hospital admissions in England since July 2020 for adults

Data from https://coronavirus.data.gov.uk/
7-day average of Covid hospital admissions in England since July 2020 for children

Data from https://coronavirus.data.gov.uk/
Outbreaks in England hospitals per week to 12 December

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

Number of deaths within 28 days of +ve COVID test reported per day across the UK to 16 December

Data from [https://coronavirus.data.gov.uk/](https://coronavirus.data.gov.uk/)
Number of 3\textsuperscript{rd} vaccine doses given per day across the UK to 15 December

Data from https://coronavirus.data.gov.uk/
Testing
7-day rolling average of number of Lateral Flow and PCR tests taken each day to 15 December in England

Most number of PCR test ever (480K on 15 December)

Data from https://coronavirus.data.gov.uk
Percentage of test results returned within 24 hour of test by week to week ending 12 December in England

- Regional
- Local
It is likely that there will soon be a testing crunch, so that daily case numbers will no longer be reliable indicators of new infections.

Then best sources are ONS Infection Survey, REACT studies or hospital admissions but these are lagged by at least another week.

Plus the King’s College Symptom tracker app will give best real time estimate of trend.
London
Number of new England confirmed COVID-19 cases per 100,000 people per rolling 7 days by region to 14th December (most recent few days NOT COMPLETE!)

Data from https://coronavirus.data.gov.uk.
Data from https://coronavirus.data.gov.uk.
Some London boroughs positives by date of test over pandemic

Westminster

Lambeth

Data from https://coronavirus.data.gov.uk/
Cases per 100,000 people per week for different age groups in London to 11 December

Data from https://coronavirus.data.gov.uk/
7-day average of daily number of new hospital admissions with COVID-19 per day / million people across different regions in England

Data from https://www.england.nhs.uk/statistics/statistical-work-areas/covid-19-hospital-activity/
Number of people in hospital with Covid in London by primary diagnosis

Covid primary diagnosis – consistently about 80% - 85% of patients

Covid NOT primary diagnosis – consistently about 15% - 20% of patients
These are patients whose Covid diagnosis is incidental to their admission (e.g. caught in hospital or trauma)
Number of Occupied Adult Critical Care Beds in London
(Source: NHS England Urgent and Emergency Care Daily Situation Reports 2021-22)

Thank you to Bob Hawkins for the chart

Percent of Total Population Unvaccinated First Dosed, Second Dosed and Fully Vaccinated for English Regions as at Dec 14
(Source: Covid Dashboard, MSOA IMD Data from Tom Forth, and Mid-2020 ONS Population Estimates)

Thank you to Bob Hawkins for the chart
Vaccination coverage by age in London as at Dec 14
(Source: Covid Dashboard, MSOA IMD Data from Tom Forth, and Mid-2020 ONS Population Estimates)

Thank you to Bob Hawkins for the chart
Booster coverage by age and deprivation in London as at Dec 9
(Source: Covid Dashboard, MSOA IMD Data from Tom Forth, and Mid-2020 ONS Population Estimates)

Thank you to Bob Hawkins for the chart
SUMMARY

• Cases in the UK higher than they’ve ever been and rising rapidly.
• Omicron is now the dominant variant in the UK.
• Increasing evidence that Omicron is very immune evasive and can spread very quickly.
• Even if Omicron has half the case-hospitalisation rate of Delta, in four more doublings consequent admissions would be higher than last January.
• Doubling times are less than 2 days right now – we need them to slow down.
• So we either hope it peaks on its own (no sign that it is) or we do something.
• We should do something.
EMERGENCY PLAN

The opportunity for early action has been lost and we can’t afford to wait any longer.

We are calling for an **immediate circuit break** until **24th December**:

- No indoor gatherings between households (except for bubbles and other roadmap 2 exemptions). Indoor hospitality and entertainment shut.
- Outdoor meetings of rule of 6, outdoor hospitality, indoor retail open.
- All close contacts of cases must isolate for 10 days, with financial & practical support
- Continue vaccination effort

Allow household mixing over **25-28th December** and government to reassess situation over Christmas in light of latest evidence about what needs to happen after.

We cannot prevent infections that have happened this week, but we can prevent them next week. Doing so would save lives, protect the NHS and enable people to have a much safer Christmas.

We must also accelerate vaccination of people in **all** countries. The UK should support vaccine patent waivers and transfer of expertise and technology

Experts Identify 100 Plus Firms to Make Covid-19 mRNA Vaccines
US, German Governments Should Press Vaccine Makers to Transfer Technology Widely

Vaccine Experts Identify Over 100 Companies with Potential to Make mRNA Covid-19 Vaccines