Latest numbers on COVID-19 in the UK – 23 October 2020

Mostly bad, but growth may be slowing in some places.

1. Cases, how many and where. Closer look at Manchester, Liverpool & Nottingham

2. What about schools?

3. Hospitalisations and deaths

4. How a circuit break would work

With many thanks to Catherine Finney for help in collating and understanding the data.
Number of new UK confirmed COVID-19 cases
(people who have had a positive test)

Data from https://coronavirus.data.gov.uk
Trends in Test, Trace and Isolate (England)

Map of cases over previous seven days broken down by local authority (per 100k of population)

Data from https://www.travellingtabby.com/uk-coronavirus-tracker/
Data from https://coronavirus.data.gov.uk.
ONS reports that people in tier 2 & tier 3 areas are going out less and meeting fewer people.

76% of adults are worried about impact of COVID-19 on their life right now compared to 64% in August.
Number of new confirmed COVID-19 cases / 100,000 people – England regions

Data from https://coronavirus.data.gov.uk
Data from https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/bulletins/coronaviruscovid19infectionsurveypilot/latest
Manchester, Liverpool and Nottingham

All three had university outbreaks that are now declining.

Data from https://www.manchester.ac.uk/coronavirus/cases/
Manchester, Liverpool and Nottingham

Looking at wards within each city you can see certain wards had big spikes

Turns out that almost all of these are in student residence / university campus areas

Data from
https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/bulletins/coronaviruscovid19infectionsurveypilot/latest
Removing student areas (from looking through each university website and newspaper articles), picture less clear

Many areas within each city are still increasing. Liverpool is most hopeful with many wards seeing declines in recent week *but* positivity rates still almost 20% which is concerning.

Data from: https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/bulletins/coronaviruscovid19infectionsurveypilot/latest
Manchester, Liverpool and Nottingham

Greater Manchester is still increasing

![Image of Greater Manchester COVID-19 infection rates]

<table>
<thead>
<tr>
<th>Borough</th>
<th>Rate</th>
<th>Week-on-week change</th>
<th>Tier</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rochdale</td>
<td>476.6</td>
<td>17%</td>
<td>3</td>
</tr>
<tr>
<td>Wigan</td>
<td>452.8</td>
<td>14%</td>
<td>3</td>
</tr>
<tr>
<td>Salford</td>
<td>428.4</td>
<td>9%</td>
<td>3</td>
</tr>
<tr>
<td>Oldham</td>
<td>422.6</td>
<td>9%</td>
<td>3</td>
</tr>
<tr>
<td>Manchester</td>
<td>421.7</td>
<td>-15%</td>
<td>3</td>
</tr>
<tr>
<td>Bolton</td>
<td>413.8</td>
<td>33%</td>
<td>3</td>
</tr>
<tr>
<td>Bury</td>
<td>405.8</td>
<td>11%</td>
<td>3</td>
</tr>
<tr>
<td>Tameside</td>
<td>351.9</td>
<td>11%</td>
<td>3</td>
</tr>
<tr>
<td>Trafford</td>
<td>319.3</td>
<td>-7%</td>
<td>3</td>
</tr>
<tr>
<td>Stockport</td>
<td>278.1</td>
<td>-5%</td>
<td>3</td>
</tr>
</tbody>
</table>

England average: 169.8

Infection rate = total cases in week ending October 16 per 100,000 population. Source: PHE.

[Source Link](https://www.manchestereveningnews.co.uk/news/greater-manchester-news/latest-greater-manchester-infection-rates-19138002)
Manchester, Liverpool and Nottingham

NW hospital admissions still increasing – Liverpool is highest

Number of new hospital admissions with COVID-19 per day in England

14 day doubling (R=1.3)

19 day doubling (R=1.2)

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

3-day average of daily number of new hospital admissions with COVID-19 per day / million people across different regions (without NW, NE+Yorks)

Data from https://www.england.nhs.uk/statistics/statistical-work-areas/covid-19-hospital-activity/
Estimated proportion of people who have COVID by age (ONS) – England (does not depending on testing behaviour)

Data from [https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/bulletins/coronaviruscovid19infectionsurveypilot/latest](https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/bulletins/coronaviruscovid19infectionsurveypilot/latest)
Impact on school from ONS social survey

8% of adults said that oldest children in their household had been sent home due to COVID outbreak in their school.

Of the rest, 41% said their school or college had had an outbreak this term.

Data from: https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/healthandwellbeing/bulletins/coronavirusandthesocialimpactsongreatbritain/23october2020
Impact on school from ONS social survey

Department for Education: 46% of state secondary schools had one or more pupils self-isolating due to potential COVID contact. Only 16% of primary schools.

Overall 4% of state school pupils (about 400,000 children).


Overall secondary school attendance is 86% but much lower in parts of England with high COVID-19 transmission:

Attendance is down to 73% in Nottingham, 75% in Middlesbrough, 78% in Manchester, 73% Oldham, 70% in Rochdale, 67% in Liverpool, and 61% in Knowsley

104749 104750 104751_Table_of_attendance_in_schools.xls for 15 Oct, supplied in answer to a parliamentary question by Margaret Greenwood MP

At the extreme end, some (smaller) schools have had over 5% of their students test positive for COVID-19 (often asymptomatic, uncovered when schools test on advice of PHE).

https://www.sthelensstar.co.uk/news/18753228.principal-pens-letter-parents-four-students-staff-member-test-positive-coronavirus-rainford-high/
https://www.swindonadvertiser.co.uk/news/18813482.wilkes-academy-covid-outbreak-linked-students-staff-outside-college/
Number of new UK deaths from COVID-19 per week

These are registered deaths where COVID-19 was mentioned on the death certificate, regardless of location.

- Northern Ireland
- Scotland
- England and Wales

Data from:
England and Wales: www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/deathsregisteredweeklyinenglandandwalesprovisional/latest
Northern Ireland: www.nisra.gov.uk/publications/weekly-deaths
Number of new UK deaths from COVID-19 per week

Deaths within 28 days of a positive test England:

28 Aug – 10 Sept: 113 deaths
11 Sept – 24 Sept: 212 deaths
25 Sept – 8 Oct: 537 deaths
9 Oct – 22 Oct: 1215 deaths

By 5th Nov? 2000?
By 19th Nov? 4000?
By 3rd Dec? we can change this number!

Data from:
England and Wales: www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/deathsregisteredweeklyinenglandandwalesprovisional/latest
Northern Ireland: www.nisra.gov.uk/publications/weekly-deaths
How a 2-week circuit break would work

Number of daily confirmed cases

Assuming new tiers reduce R to 1.1
Which you would see kick in 1 week later

But cases continue to grow...
How a 2-week circuit break would work

A two week circuit break could reduce R to 0.65 (cases halve every 8 days)

After 2 weeks, keep only enough restrictions to keep R below 1 (here 0.9). 4 weeks later could be back at below 4,000 new cases a day.
How a 2-week circuit break would work

Number of daily confirmed cases

If less effective, R could be 0.75 (halving every 12 days) but still have a big impact
How a 2-week circuit break would work

Number of daily confirmed cases

A circuit breaker done later will always work, but at the cost of tens of thousands more infections in the meantime.

PLUS might need to do for longer to really drive cases down.
COVID continues to spread across the whole of the UK – but Scotland possibly levelling off two weeks into increased restrictions there.

Test and trace is still performing poorly – and as case numbers continue to increase, this will only continue.

Schools are being increasingly impacted (and impacting..?)

The government **urgently** needs to halt and reverse growth.

A two week circuit break now, followed by 4 more week of some restrictions, should dramatically reverse growth, allow time for schools to “reset”, and allow time to rebuild test and trace and other infrastructure to prevent need for further circuit breaks in the future.