Latest numbers on COVID-19 in the UK – 25 September 2020

Headlines:

1. New cases going up by any measure.

2. Hospital admissions are rising.

3. Where, who and the start of university term.

4. The need for communication & support for self-isolation.

5. Summary.

With many thanks to Catherine Finney for help in collating and understanding the data.
These numbers are not an accurate reflection of new cases because so many people can’t get tested.

There will be many more cases than this!
England positivity rate (*new* people tested only)


“Pillar 1” – tests done in hospital settings

“Pillar 2” – tests done in community settings
Care homes being prioritised? (English data)

Pillar 2 – tests processed in other community settings (drive / walk in, home tests)

Pillar 2 – satellite tests processed (mainly for care homes)

Positivity rates (new people tested only) for England, Wales & Scotland

Percentage of new people tested who then test positive
Pillar 1 + Pillar 2

Data from https://www.gov.uk/government/collections/nhs-test-and-trace-statistics-england-weekly-reports
Number of new UK confirmed COVID-19 cases (people who have had a positive test)

These numbers are not an accurate reflection of new cases because so many people can’t get tested.

There will be many more cases than this!

Data from https://coronavirus.data.gov.uk/
Estimated number of people with new infections from the Office of National Statistics Infection Survey

Data from https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/datasets/coronaviruscovid19infectionsurveydata
Estimated number of people with symptomatic COVID-19 from King’s College symptom tracker app

Estimated doubling time of 6 days most recent week

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

- 175 on 14th September
- 268 on 22nd September

Hospital doubling time slowing?

Data from https://coronavirus.data.gov.uk/
Number of new hospital admissions with COVID-19 per day in England

Exponential growth with doubling every 8 days

Data from https://coronavirus.data.gov.uk/
Number of new hospital admissions with COVID-19 per day in England

Exponential growth with doubling every 8 days

Exponential growth with doubling every 9 days

Data from https://coronavirus.data.gov.uk/
Number of new hospital admissions with COVID-19 per day in England

Even slowing down growth by just a bit buys more time

Exponential growth with doubling every 8 days

Exponential growth with doubling every 9 days

Data from https://coronavirus.data.gov.uk/
Where are the cases?

Maps from https://www.travellingtabby.com/uk-coronavirus-tracker/

ONS saw increases concentrated in the North and London

Maps from https://www.travellingtabby.com/uk-coronavirus-tracker/
What age are the cases?

Increases in younger age groups are spreading to higher age groups – but not yet to 70+

Weekly cases per 100,000 population in England since July

<table>
<thead>
<tr>
<th>Week ending</th>
<th>05-Jul</th>
<th>12-Jul</th>
<th>19-Jul</th>
<th>26-Jul</th>
<th>02-Aug</th>
<th>09-Aug</th>
<th>16-Aug</th>
<th>23-Aug</th>
<th>30-Aug</th>
<th>06-Sep</th>
<th>13-Sep</th>
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Week to 19th September, ONS saw highest rates in the **17-24 year age group**


ONS data from [https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/bulletins/coronaviruscovid19infectionsurvey试点](https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/bulletins/coronaviruscovid19infectionsurvey试点)
Covid: Scottish university students told not to go to pubs

It comes after thousands of students UK-wide were forced to go into isolation within days of campuses reopening, as ministers refused to rule out keeping them away from home over Christmas to stop the spread of Covid-19.

From PHE weekly surveillance report to week ending 13 September (Figure 20, week 38).
Outbreak sources – Europe experience

Netherlands

From https://www.bddataplan.nl/corona/

Many universities are reporting Covid-19 cases among students as the academic year begins

Secondary schools & universities (universities returned 2 Sept)

Primary schools

Weeks after universities reopened across much of Europe, thousands of students are in quarantine
Key things to improve (not just testing!!)

Only about half of people up to mid August correctly identified the most common symptoms of COVID-19

From https://www.medrxiv.org/content/10.1101/2020.09.15.20191957v1.full.pdf. Note – this study is currently undergoing peer review
Key things to improve (not just testing!!)

Hardly anyone with symptoms is isolating, despite best intentions

![Graph]

Figure 2. Percentage of people who reported not leaving home at all since developing COVID-19 symptoms (in those who had experienced COVID-19 symptoms in the last seven days), and who reported intending not to leave home at all if they were to develop COVID-19 symptoms (in people who had not had COVID-19 symptoms in the last seven days). Error bars are 95% confidence intervals.

From [https://www.medrxiv.org/content/10.1101/2020.09.15.20191957v1.full.pdf](https://www.medrxiv.org/content/10.1101/2020.09.15.20191957v1.full.pdf). Note – this study is currently undergoing peer review
Key things to improve (not just testing!!)

Even fewer people contacted by test & trace are isolating, despite best intentions

Figure 5. Percentage of people who reported quarantining for 14 days after being alerted that they had been in contact with a confirmed COVID-19 case by the NHS contact tracing service (the most recent time they had been alerted), and who reported intending to quarantine for 14 days if they were alerted that they had been in contact with a confirmed COVID-19 case by the NHS contact tracing service (in people who had never been alerted). Errors bars are 95% confidence intervals.

From https://www.medrxiv.org/content/10.1101/2020.09.15.20191957v1.full.pdf. Note – this study is currently undergoing peer review.
A combination of steep increases in cases, increasing spread across the country & ages, increasing hospital admissions and a broken testing system has left us in a dangerous place.

Doubling times are somewhere between 7-9 days. Cases seem to be increasing a bit faster but hospital admissions increasing a bit lower, likely due to ages of people getting infected.

Contribution of university terms starting to transmission is concerning – as is students’ wellbeing.

Fixing testing must remain a priority, but must accompany rebuilding the whole Find, Test, Trace, Isolate and Support (FTTIS) infrastructure including:

- Communication on symptoms
- Support for self-isolation with symptoms
- Support for self-isolation if contacted by test & trace
- Moving capability to local communities