Latest numbers on COVID-19 in the UK – 3 December 2021

1. Cases

2. Hospitalisation and Death

3. Long Covid

4. Omicron

5. Vaccinations

With many thanks to Bob Hawkins for his help in collating the data
Cases
Number of new UK confirmed COVID-19 cases by reported date (people who have had a positive test) to 2 December 2021

Data from https://coronavirus.data.gov.uk
Cases per 100,000 people per rolling week by home nation by date of test to 29 November

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Data from https://coronavirus.data.gov.uk
Positivity Rate for Home Nations to 27 November

Data from:
Scotland: https://www.opendata.nhs.scot/dataset/covid-19-in-Scotland
Visualisation courtesy of Bob Hawkins
Number of new England confirmed COVID-19 cases per 100,000 people per rolling 7 days by region

Data from https://coronavirus.data.gov.uk.
ONs infection survey now has highest prevalence by far in children under 11. Highest prevalence in children under 11 since start of pandemic. Lowest (by far) in over 70s.
Proportion of index cases in households aged 18 years and younger
22 May – 2 Oct 2021

Infections in children and their households: 1 Sept – 4 Oct 2021

Hospitalisation and deaths
Number of people in hospital per million people – UK nations
7 day rolling average to 1 July 2020 – 2 Dec 2021

Data from https://coronavirus.data.gov.uk.
Number of hospital admissions with Covid every day in England to 30 Nov

Data from https://www.england.nhs.uk/statistics/statistical-work-areas/covid-19-hospital-activity/
Number of deaths within 28 days of +ve COVID test reported per day across the UK to 2 December 2021

Data from https://coronavirus.data.gov.uk/
Long Covid
Percentage of population living with “Long Covid” (symptoms lasting at least 4 weeks) by age over time (ONS surveys July - Dec 2021)

Data from
https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/datasets/alldatarelatingtoprevalenceofongoingsymptomsfollowingcoronaviruscovid19infectionintheuk
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Omicron variant
New variant B.1.1.529 identified last week, now called Omicron. Spreading very fast in Gauteng in South Africa.

Number of reported cases each day in Gauteng province – log scale.

Data from [https://sacoronavirus.co.za/category/daily-cases/](https://sacoronavirus.co.za/category/daily-cases/).

NB a large backlog was reported on 23 Nov, which I removed and replaced with average of cases on 22 and 24 November.

NB no numbers for 11 November, so I assigned difference in cumulative cases from 12 to 10 November across 10 and 11 November equally.
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Blue dots are Sundays and Mondays which are always the lowest reporting days (weekend effects).

On a log scale, exponential growth is a straight line

Faster increase here
Pure (?) Omicron growth once dominant
From 15-2 Dec, fit an exponential of 25% daily growth
3 to 4 day doubling

Gradual increase here
Omicron gaining dominance over Delta?
Fit an exponential of 4% daily growth

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Covid cases, test positivity and hospitalisations are all on steep exponential paths with the latter likely to steepen since it lags cases by roughly a week

Cases, test positivity and hospital admissions in Gauteng province, by number of days since each wave began* (log scale)

https://twitter.com/jburnmurdoch/status/1466480113487392769?s=20
New variant B.1.1.529 identified last week, now called Omicron
Cases mainly in young people

https://twitter.com/tomtom_m/status/1466121405322260482?s=20
From the latest South African press briefing on Omicron this morning

Number of hospital admissions per 100,000 people age group and epidemiological week in Gauteng

https://www.youtube.com/watch?v=FFNM7h0h3B4
From the latest South African press briefing on Omicron this morning

Number of COVID-19 admissions in first two weeks of third and fourth wave, by age group in years, City of Tshwane Metro, 9-22 May 2021 and 14-27 November 2021

Likely a combination of lower infection rates and vaccination

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Growth could be driven by infectiousness or immune evasion or combination of both

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New variant B.1.1.529 identified last week, now called Omicron
Growth seems to be driven by immune evasion

According to new evidence collected in South Africa by its National Institute for Communicable Diseases (NICD) the latest epidemiological evidence suggests that Omicron can evade immunity from infection with earlier variants and is causing reinfections at three times previous rates.

https://www.medrxiv.org/content/10.1101/2021.11.11.21266068v2.full.pdf
New variant B.1.1.529 identified last week, now called Omicron
What we know – and don’t know

Omicron has a growth advantage over Delta in South Africa and has spread rapidly – mostly so far in younger populations. We don’t know if it is more severe once infected.

The advantage seems to be more immune escape than infectiousness – which means we can rely less on population immunity to prevent growth

It has seeded in many countries worldwide, including the UK. It is likely there are hundreds of Omicron cases here already.

It might be growing rapidly here already, but even if it is, unlikely to be very noticeable in daily numbers for a few weeks yet.

Experts expect that boosters should still prevent severe disease and death. We are waiting for results from first experiments on vaccine escape.

UK context very different to S Africa:
- Much older population
- Much more vaccinated *and* much more boosted population
- It’s winter here, not summer
- We already have a large Delta wave going on.
Boosters best chance of defence – other mitigations will help, especially *as* we boost.

https://www.theguardian.com/world/2021/dec/02/covid-booster-shots-significantly-strengthen-immunity-trial-finds
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Vaccination data
Thanks to Bob Hawkins for the chart
Number of First, Second, and Booster Doses given by Day in the UK
Jan 11 to Dec 1
(Source: Covid Daily Update)

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Currently doing about 350K people a day (2.5m people a week)
If we increase to 400-420K a day (~3m people a week), we can meet the end Jan target to boost all eligible adults.

Every week we delay dominance of Omicron over next few weeks allows millions more to be booster-protected. The earlier it is, the easier it is to slow it down. This means now!
JCVI also need to urgently consider offering vaccination to 5-11 year olds. Highest rates currently are in school children – who are mostly either 1-dose vaccinated (12-17 yr olds) or entirely unvaccinated. It seems previous infection will **not** be as effective against Omicron as it is against Delta. We should offer them the protection of vaccines as well!
• Cases rising in UK – now higher than they’ve been since July. Still driven by school children and their parents’ generation, although looks like cases are plateauing.

• Hospital admissions and deaths were falling but now flattish.

• Latest news from South Africa is that both their cases and their admissions are rising faster than previous waves.

• Early indications are that Omicron growth more due to immune escape rather than increased infectiousness.

• Also worrying signs that under 5s are more affected in this wave than they have been previously.

• Every week we can delay Omicron growth in the UK, we can boost millions more people. SAGE reiterated this week that delaying growth is easiest in the early stages – and that means NOW