Latest numbers on COVID-19 in the UK – 4 February 2022

1. Vaccination
2. Testing & Cases
3. New subvariant
4. Hospitals
5. Deaths
6. Children and Schools

With many thanks to Bob Hawkins for his help in collating the data
Vaccinations
Number of First, Second, and Booster Doses given by Day in the UK
Jan 11, 2021 to Feb 2, 2022
(Source: Covid Daily Update)

Feb 2 Vaccinations
Boosters: 39,037
Second: 27,274
First: 12,466

Thanks to Bob Hawkins for the chart
Percent of Total Population Unvaccinated, First Dosed, Second Dose, and Fully Vaccinated with Booster as at Feb 2
(Source: Covid Daily Update and Mid-2020 ONS Population Estimates)

Thanks to Bob Hawkins for the chart
Tests & Cases
7-day rolling average of number of lateral flow (LFD) and PCR tests taken [reported!] in England by day of test to 2 Feb 2022

Data from [https://coronavirus.data.gov.uk](https://coronavirus.data.gov.uk)
Positivity Rate for England, Scotland and Wales to 28 January 2022

Data from:
Scotland: https://www.opendata.nhs.scot/dataset/covid-19-in-Scotland
England: https://coronavirus.data.gov.uk

Visualisation courtesy of Bob Hawkins

NB: positivity rates starting to mean less now that fewer PCRs are being used
Positivity Rate for N Ireland to 28 January 2022

Data from:
Visualisation courtesy of Bob Hawkins
Reinfections within 90 days included by NI and England
Within 42 days included for Wales
Not yet included for Scotland.
Number of new confirmed COVID-19 cases in England by date of test, showing level of confirmed reinfections

Data from https://coronavirus.data.gov.uk
Cases per 100,000 people per rolling week by home nation by date of test to 29 January 2022

Data from https://coronavirus.data.gov.uk
COVID-19 Infection Rates by Home Nation over last 4 weeks
(Source: Coronavirus (COVID-19) Infection Survey headline results, UK: 26 January 2022)

Nations were between 1.6% and 2.2% at end of Nov 2021

Thanks to Bob Hawkins for the chart
ZOE Symptom Tracker App reports sharp increase in UK cases

UK back to 200,000 a day

Graph 1. The ZOE COVID Study UK incidence figures total number of daily new cases over time.

195069 (180317 - 210333) new cases in UK on 31 January 2022
R = 1.1 (1.0 - 1.2)

Chart from https://covid.joinzoe.com/post/uk-back-to-200-000-a-day
Omicron subvariants:
BA.1; BA.1.1; BA.2
Evidence from Denmark and UK suggests BA.2 has growth advantage over BA.1 and BA.1.1, but it does not seem to be more severe.

**Denmark:** [https://www.medrxiv.org/content/10.1101/2022.01.28.22270044v1](https://www.medrxiv.org/content/10.1101/2022.01.28.22270044v1)

We conclude that Omicron BA.2 is inherently substantially more transmissible than BA.1, and that it also possesses immune-evasive properties that further reduce the protective effect of vaccination against infection, but do not increase its transmissibility from vaccinated individuals with breakthrough infections.


<table>
<thead>
<tr>
<th>Variant</th>
<th>Household contacts becoming cases / all household contacts</th>
<th>Secondary attack rate amongst household contacts (95% CI)</th>
<th>Non-household contacts becoming cases / all non-household contacts</th>
<th>Secondary attack rate amongst non-household contacts (95% CI)</th>
</tr>
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<tbody>
<tr>
<td>VUI-22JAN-01 (BA.2)</td>
<td>64 / 476</td>
<td>13.4% (10.7%-16.8%)</td>
<td>1 / 42</td>
<td>Unavailable</td>
</tr>
<tr>
<td>Omicron excluding VUI-22JAN-01</td>
<td>10,444 / 101,779</td>
<td>10.3% (10.1%-10.4%)</td>
<td>1,299 / 23,665</td>
<td>5.5% (5.2%-5.8%)</td>
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Secondary attack rates are marked as 'Unavailable' when count of contacts is fewer than 50 or count of cases is fewer than 20. Secondary attack rates from NHS Test and Trace should generally be considered lower bounds due to the nature of contact tracing and testing, and specifically so here because of the restricted time period for secondary case detection.
Danish cases, hospitalisations and deaths

https://ourworldindata.org/covid-deaths
Danish hospitalisations and deaths

Covid-19 metrics in Denmark as a percentage of their peak value during the last winter wave (seven-day rolling average)

~25% incidental

Source: Johns Hopkins CSSE via FT Covid tracker (cases and deaths), Our World in Data (hospital and ICU patients)

https://www.ft.com/content/efa3ceaf-b777-4a06-b4ef-bf1330f105d6
Proportion of sequenced cases that are each variant in England over time, showing Omicron variants BA.1, BA.1.1 and BA.2 in England to w/e 29 Jan 2022.

Data from COG UK, [https://sars2.cvr.gla.ac.uk/cog-uk/](https://sars2.cvr.gla.ac.uk/cog-uk/)
Proportion of sequenced cases that are BA.2 over time by home nation to week ending 29 Jan 2022. Most recent week not available for Wales and N Ireland.

Data from COG UK, [https://sars2.cvr.gla.ac.uk/cog-uk/](https://sars2.cvr.gla.ac.uk/cog-uk/)
Proportion of sequenced cases that are BA.2 in English regions over time to week ending 22 Jan 2022

Low proportions still but growing
Concentrated in South East and London

Data from Sanger [https://covid19.sanger.ac.uk/downloads](https://covid19.sanger.ac.uk/downloads)
Chances of having symptoms when (randomly) tested by the ONS infection survey for Delta & Omicron second infections and Delta first infection

Second infections just as likely to be symptomatic

Both Delta and Omicron infections more likely to be symptomatic than Alpha

Data from ONS reinfection survey
https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/bulletins/coronaviruscovid19infectionsurveycharacteristicsofpeopletestingpositiveforcovid19uk/2february2022
Hospitals
Number of people in hospital with Covid per million people – UK nations
7 day rolling average to 1 Apr 2020 – 3 Feb 2022

Data from https://coronavirus.data.gov.uk.
Number of daily hospital admissions with Covid in England to 1 Feb 2022

Admissions falling steadily - boosters!

Data from https://www.england.nhs.uk/statistics/statistical-work-areas/covid-19-hospital-activity/
Percent of Staff Absent from NHS Acute Hospital Trusts in England
7 Apr 2021– 30 Jan 2022 Compared to prior Years
(Source: NHS England Urgent and Emergency Care Daily Situation Reports 2021-22)

31 Jan: 67,238 Absent (7.1%)


Thanks to Bob Hawkins for the chart
Deaths
Number of deaths within 28 days of +ve COVID test reported per day across the UK to 3 February 2022

Data from https://coronavirus.data.gov.uk/
Number of deaths within 28 days of +ve COVID test by date of death across the UK to 27 January 2022

It’s still the highest since Feb 2021 but it’s not 500 a day (or near it)

From ONS death registrations, deaths involving Covid have risen in week to 21 January (1,484 that week). 73% listed Covid as main cause.

Data from https://coronavirus.data.gov.uk/
Children and schools
Cases per 100,000 people per week for different age groups in England to 29 January 2022

Data from https://coronavirus.data.gov.uk/
COVID-19 Infection Rates by Age for England: January
(Source: Coronavirus (COVID-19) Infection Survey headline results, UK: 26 January 2022)

Thanks to Bob Hawkins for the chart
ZOE Symptom Tracker App reports increase in children to end of January

Chart from [https://covid.joinzoe.com/post/uk-back-to-200-000-a-day](https://covid.joinzoe.com/post/uk-back-to-200-000-a-day)
Daily Covid hospital admissions in England for all children (0-17 yrs) since the start of the pandemic to 1 Feb 2022

Plus increasing rates of long covid in both children and school staff

Data from https://coronavirus.data.gov.uk/
Almost 2% of 12 to 16 year olds (73,000) are living with symptoms lasting more than 4 weeks.

• As a proportion of the UK population, prevalence of self-reported long COVID was greatest in people aged 35 to 69 years, females, people living in more deprived areas, those working in health care, social care, or teaching and education (which saw the biggest month-on-month increase out of all employment sectors), and those with another activity-limiting health condition or disability.

https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/bulletins/prevalenceofongoingsymptomsfollowingcoronaviruscovid19infectionintheuk/6january2022
The coronavirus vaccination uptake among those aged 12 to 17 years increases with age for both first and second doses

Percentage of pupils aged 12 to 17 years in state-funded schools who have been vaccinated by age and number of doses, England, up to 9 January 2022

- Proportion receiving at least one dose of COVID-19 vaccine
- Proportion receiving two doses of COVID-19 vaccine

Source: Coronavirus (COVID-19) vaccination uptake in school pupils, England: up to 9 January 2022

https://twitter.com/ONS/status/1488452517960851459?s=20&t=dLUi1ttHy8ZXdaY1k22Wmw
Children’s vaccination update: ONS data up to 9 Jan 2022

Coronavirus vaccination uptake varies between schools in the same free school meal band

Percentage of pupils in state-funded secondary schools who have been vaccinated against coronavirus grouped by the percentage of pupils accessing free school meals, England, up to 9 January 2022

Source: Coronavirus (COVID-19) vaccination uptake in school pupils, England: up to 9 January 2022

https://twitter.com/ONS/status/1488452517960851459?s=20&t=dLUi1ttiHY8ZXdaY1k22Wmw
For 12-18 year olds who had been vaccinated, the most common motivations were: protecting others (63%) and protecting themselves (56%).

For 62% of children ages 5-11 years, parents said there were fairly or very likely to take the vaccine if offered.
Ventilation:
29% of secondary schools said good ventilation was very challenging to implement. Temperature was a major barrier.
Ventilation:
Where CO2 monitors were in place, about 10% gave consistent red readings with no way of improving ventilation.

Nearly a quarter of headteachers said they had not received any guidance on using the monitors in their school.
• Reported cases are flat in all home nations apart from N Ireland where they are increasing. ONS reports less of a fall than reported cases & ZOE symptom tracker app is reporting an increase. Reinfections included but not yet consistently and 90 days may be too long an interval. Hard to interpret.

• Hospital admissions are coming down overall, driven by adults. Remain high in children.

• Deaths have been increasing but look to have peaked at the end of January

• A new Omicron subvariant (BA.2) is increasing in many countries and across UK. Likely more transmissible but not more severe. We don’t know enough yet about whether BA.2 can evade immunity from recent BA.1 (main Omicron) infection, but expect it to become dominant here.

• Infection remains rampant in schools. We need more vaccination and more mitigations – including clean air.

• Coronavirus is still mutating – and it’s getting plenty of opportunities to do so across the globe. Adapting to new waves must involve accepting – and mitigating - its airborne nature.
### Risk of SARS-CoV-2 transmission in different settings

**considering only asymptomatic individuals**

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**Risk of transmission**
- **low** (green)
- **medium** (yellow)
- **high** (red)

*From Jones N et al BMJ 2020;370:m3223*