## The number of people testing positive for COVID-19 in the UK



Number of cases each day, by date reported, up to 15 December

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## The number of people in hospital with COVID-19 in the UK



Number of people in hospital each day, up to 14 December

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# The number of deaths of people who had a positive test result for COVID-19 in the UK

Number of deaths each day, by date reported, up to 15 December



# The number of people aged 12 and over who have received a vaccination for COVID-19 in the UK

Cumulative number of people who have received a COVID-19 vaccination, by date reported, up to 14 December Millions



BR Source: <u>https://coronavirus.data.gov.uk/</u> Further details on data sources can be found here:

https://www.gov.uk/government/collections/slides-and-datasets-to-accompany-coronavirus-press-conferences

# Unadjusted rates of COVID-19 hospitalisation for vaccinated and unvaccinated people in England

Cases presenting to emergency care within 28 days of a positive test resulting in overnight inpatient admission, by specimen date, between 08 November 2021 and 05 December 2021

Rate per 100,000



https://www.gov.uk/government/collections/slides-and-datasets-to-accompany-coronavirus-press-conferences

## S Gene Target Failure cases in England

### Number and percentage of COVID-19 cases with S GeneTarget Failure of those tested as of 14 December 2021



## S Gene Target Failure cases in England by region of residence

Percentage of COVID-19 cases with S GeneTarget Failure of those tested as of 14 December 2021



https://www.gov.uk/government/collections/slides-and-datasets-to-accompany-coronavirus-press-conferences

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# VOLUNTEER & JOIN THE TEAM england.nhs.uk/ JoinVaccineTeam

# **Statistical notes**

#### Number of daily cases, UK:

Number of people who have had at least one positive COVID-19 test result, either lab-reported or lateral flow device (England only), by date reported - the date the case was first included in the published totals. COVID-19 cases are identified by taking specimens from people and testing them for the presence of the SARS-CoV-2 virus. If the test is positive, this is referred to as a case. Positive rapid lateral flow test results can be confirmed with Polymerase Chain Reaction (PCR) tests taken within 72 hours. If these PCR test results are negative, these are not reported as cases. People tested positive more than once are only counted once. The 7-day rolling mean average of daily cases is plotted on the chart on the middle day of each seven day period.

As of 9 April 2021, the way cases are reported has changed. Cases that have been identified through a positive rapid lateral flow test are now removed for people who took PCR tests within 3 days that were all negative. Cases of this type that were previously reported have been removed from the cumulative total, reducing the total by 8,010. Newly reported numbers of cases for the UK and England were unaffected by the removal of these. Historical published date totals have not been changed.

#### People in hospital with COVID-19, UK:

Total number of people in hospital with COVID-19 in the UK. Definitions are not always consistent between the four nations. England data now covers all Acute Trusts, Mental Health Trusts and the Independent Sector and are reported daily by trusts to NHS England and NHS Improvement. Welsh data include confirmed COVID-19 patients in acute hospitals only, including those recovering.

#### COVID-19 daily deaths within 28 days of a positive test, UK:

Number of deaths of people who had a positive test result for COVID-19 and died within 28 days of the first positive test. Data from the four nations are not directly comparable as methodologies and inclusion criteria vary. The 7-day rolling mean average of daily deaths is plotted on the chart on the middle day of each seven day period. Data presented is by date reported rather than date of death or registered.

#### Number of people who have received a vaccination for COVID-19, UK:

Number of people who have received a first dose or both a first and a second dose of a vaccination for COVID-19, by day on which the vaccine was reported. Data are reported daily, and include all vaccination events that are entered on the relevant system at the time of extract. This includes reported vaccines that were administered up to and including the date shown. England data includes vaccinations reported in the National Immunisation Management Service which is the system of record for the vaccination programme in England, including both hospital hubs and local vaccination services. Data are extracted at midnight on the date of report. Welsh data includes vaccination services are of report. Scottish data includes vaccinations reported in the Vaccination Management Tool. Data is extracted at 8:30am on the day following the date of report. Northern Ireland data are extracted at the end of day of the date of report.



# **Statistical notes**

#### Number of booster and third vaccine doses, United Kingdom:

The booster vaccination programme began on 16 September 2021. Booster doses are currently offered to people at highest risk from COVID-19 who received their second dose at least 6 months earlier, to give them longer-term protection. Third dose vaccinations are offered to people over 12 with severely weakened immune systems. Unlike boosters, third doses are considered part of a full vaccination course. Initially the vaccines were prioritised to be administered to the over-80s, care home residents and workers, and NHS staff. The number of people of all ages who received each dose is reported. The UK numbers by report date are the sum of the numbers reported individually by the four nations. Due to differing criteria for inclusion, some individuals may be counted in more than one nation's total. People of all ages are included.

The individual nations in the UK started reporting on booster and third dose vaccinations at different times. The first time point in the series for the UK that includes data for all nations is 21 October 2021. Reporting of booster or third dose vaccinations started on 1 October 2021 in England. In Scotland, reporting of third dose vaccinations started on 7 October 2021 and reporting of booster dose vaccinations on 14 October 2021. In Wales, reporting of booster or third dose vaccinations started on 22 October 2021 and separate reporting of booster and third dose vaccinations started on 26 October 2021. In Northern Ireland, reporting of booster or third dose vaccinations started on 30 September 2021.

#### Unadjusted rates of COVID-19 hospitalisation for vaccinated and unvaccinated people in England

COVID-19 cases identified through routine collection from the Second Generation Surveillance System were linked to the National Immunisation Management System to derive vaccination status, using an individual's NHS number as the unique identifier. Attendance to emergency care at NHS trusts was derived from the Emergency Care DataSet (ECDS) managed by NHS Digital. The same data source was used to identify COVID-19 cases where the attendance to emergency care resulted in admission to an NHS trust. ECDS is updated weekly, and cases are linked to these data twice weekly. Data from ECDS are subject to reporting delays. Data from ECDS only report on cases who have been presented to emergency care and had a related overnight patient admission. These data will not show cases who were directly admitted as inpatients without presenting to emergency care. They cannot be used as an indicator of the number of people in hospital with COVID-19. The outcome of overnight inpatient admission following presentation to emergency care was limited to those occurring within 28 days of the earliest specimen date for a COVID-19 case. The rate of COVID-19 cases in fully vaccinated and unvaccinated groups was calculated using vaccine coverage data for each age group extracted from the National Immunisation Management Service.

In the context of very high vaccine coverage in the population, even with a highly effective vaccine, it is expected that a large proportion of hospitalisations and deaths would occur in vaccinated individuals, simply because a larger proportion of the population are vaccinated than unvaccinated and no vaccine is 100% effective. This is especially true because vaccination has been prioritised in individuals who are more susceptible or more at risk of severe disease. Individuals in risk groups may also be more at risk of hospitalisation or death due to non-COVID-19 causes, and thus may be hospitalised or die with COVID-19 rather than because of COVID-19.



# **Statistical notes**

The vaccination status of inpatients should not be used to assess vaccine effectiveness because of differences in risk, behaviour and testing in the vaccinated and unvaccinated populations. There are likely to be systematic differences between vaccinated and unvaccinated populations. For example:

People who are fully vaccinated may be more health conscious, more likely to get tested for COVID-19 and so more likely to be identified as a case;

Many of those who were at the head of the queue for vaccination are those at higher risk from COVID-19 due to their age, their occupation, their family circumstances or because of underlying health issues;

People who are fully vaccinated and people who are unvaccinated may behave differently, particularly with regard to social interactions and therefore may have differing levels of exposure to COVID-19;

People who have never been vaccinated are more likely to have caught COVID-19 in the weeks or months before the period of the cases covered in the report. This gives them some natural immunity to the virus for a few months which may have contributed to a lower case rate in the past few weeks.

#### S Gene Target Failure cases in England and the regions

Omicron VOC-21NOV-01 (B.1.1.529) can be identified through genotyping or sequencing. S Gene target failure is a proxy for identifying Omicron prior to sequencing which takes a longer time. Omicron has a deletion at position 69/70 of the spike protein which allows it to be tracked through S Gene target failure in some polymerase chain reaction (PCR) tests. S Gene target failure is also observed in a very small fraction of test results from lineages lacking this deletion, including the Delta lineage and sub-lineages. These findings have a high level of uncertainty.

Further information and data:

UK - <u>COVID-19 in the UK</u>; for further information contact <u>coronavirus-tracker@phe.gov.uk</u> Welsh Government - <u>NHS activity and capacity during the COVID-19 pandemic</u> Scottish Government - <u>COVID-19 daily data for Scotland</u> Northern Ireland - <u>COVID-19 statistics</u> Europe and other international data - <u>Our World In Data</u>

