1. Omicron update
2. Vaccination
3. Cases
4. Long Covid
5. Hospitalisation & Deaths
6. Summary

With many thanks to Bob Hawkins for his help in collating the data
Omicron
Proportion of sequenced cases that are Omicron by week and nation up to 25 Dec 2021

Data from https://sars2.cvr.gla.ac.uk/cog-uk/
Covid variants in England over time in last 18 months

Time from 0%-80% share:
- Alpha: 11 weeks
- Delta: 7 weeks
- Omicron: 4 weeks

Data from COG UK
Proportion of sequenced cases that are likely Omicron by region to 24 December 2021 ("S gene dropout" data)

Data from https://www.gov.uk/government/publications/covid-19-omicron-daily-overview
Vaccine effectiveness against Omicron and Delta: infection

Supplementary data is not available for this figure.

Vaccine effectiveness against Omicron: Hospitalisation

Table 3. Vaccine effectiveness against hospitalisation for Omicron (all vaccine brands combined). OR = odds ratio, HR = hazard ratio, VE = vaccine effectiveness (CI=Confidence interval)

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<tr>
<th>Dose</th>
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<td>1</td>
<td>4+ weeks</td>
<td>0.74 (0.70-0.77)</td>
<td>0.65 (0.30-1.42)</td>
<td>52% (-5-78)</td>
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<tr>
<td>2</td>
<td>2 to 24 weeks</td>
<td>0.82 (0.80-0.84)</td>
<td>0.33 (0.21-0.55)</td>
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<td>0.32 (0.18-0.58)</td>
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Waning protection after 2 doses

Vaccine effectiveness against Omicron: Hospitalisation

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Excellent protection after booster (but still not as good as vs Delta where it was almost 100%)
Vaccination data
Percent of Total Population Unvaccinated, First Dosed, Second Dose, and Fully Vaccinated with Booster as at Jan 3
(Source: Covid Daily Update and Mid-2020 ONS Population Estimates)

England: 23% Unvaccinated, 7% First Dose, 7% Second Dose, 51% Fully Vaccinated with Booster
Scotland: 20% Unvaccinated, 7% First Dose, 19% Second Dose, 55% Fully Vaccinated with Booster
Wales: 21% Unvaccinated, 6% First Dose, 19% Second Dose, 54% Fully Vaccinated with Booster
Northern Ireland: 26% Unvaccinated, 5% First Dose, 24% Second Dose, 44% Fully Vaccinated with Booster

Date: 03-Jan-22

Thanks to Bob Hawkins for the chart
Number of First, Second, and Booster Doses given by Day in the UK
Jan 11 2021 to Jan 3 2022
(Source: Covid Daily Update)

Jan 3 Vaccinations
Boosters: 141,825
Second: 29,295
First: 19,158

Thanks to Bob Hawkins for the chart
Percent of 12-15 and 16-17 Year Olds with First Doses by Home Nation as at Jan 3

Thanks to Bob Hawkins for the chart
Percent of Total Population Unvaccinated First Dosed, Second Dosed and Fully Vaccinated for English Regions as at 5 Jan 2022
(Source: Covid Dashboard, MSOA IMD Data from Tom Forth, and Mid-2020 ONS Population Estimates)

Thank you to Bob Hawkins for the chart
Thank you to Bob Hawkins for the chart.
First Dose Coverage by Deprivation for 12-15 Year Olds in England as at Jan 2
(Source: NHS Weekly Vaccination Report and Mid-2020 ONS Population Estimates)

Thank you to Bob Hawkins for the chart.
Cases
Number of new UK confirmed COVID-19 cases by reported date (people who have had a positive test) to 6 January 2022

Since then, almost 3 million cases have been reported.

Last briefing (16/12): 88K

Same number of cases as over the previous 12 weeks.

Data from https://coronavirus.data.gov.uk
Testing is strained and people seek testing less over Christmas period.

And many people with a positive LFD will not get a PCR or register their test.
Positivity Rate for Home Nations to 1 January 2022

Data from:

Visualisation courtesy of Bob Hawkins
ONS Infection survey – modelled % of population testing positive for Covid-19 in England (Random sampling - does NOT depend on symptoms, testing seeking or test availability to 28 December 2021)

Data from https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/bulletins/coronaviruscovid19infectionsurveypilot/7january2022
Reinfections are rising rapidly – but are NOT yet included in daily case numbers for England

140,000 reinfections in the two weeks to 31 December in England.
About 10% of positive cases are confirmed reinfections.
Number of new England confirmed COVID-19 cases per 100,000 people per rolling 7 days by region to 1 January

Data from https://coronavirus.data.gov.uk.
Percentage of people testing positive for Covid by English region to 31 December

Data from https://coronavirus.data.gov.uk.
Percentage of people testing positive for Covid by English region to 31 December

Data from https://coronavirus.data.gov.uk.
Cases per 100,000 people per week for different age groups in England to 1 January

Data from https://coronavirus.data.gov.uk/
Cases per 100,000 people per week for different age groups in England to 1 January

Figure 4: The percentage of people testing positive for COVID-19 was highest among young adults and primary school aged children in the week ending 31 December 2021.


Source: Office for National Statistics – Coronavirus (COVID-19) Infection Survey

Data from https://coronavirus.data.gov.uk/
Cases per 100,000 people per week for different age groups in London to 1 January – under 50s

Data from https://coronavirus.data.gov.uk/
Cases per 100,000 people per week for different age groups in London to 1 January – over 50s

Data from [https://coronavirus.data.gov.uk/](https://coronavirus.data.gov.uk/)
Outbreaks in England care homes per week to 31 December

**Figure 21:** Number of acute respiratory infection (ARI) incidents in care homes by virus type, England

BUT boosters are proving very effective so far in preventing severe illness

Long Covid
Percentage of population living with “Long Covid” (symptoms lasting at least 12 weeks) by age over time (ONS survey)

Data from https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/datasets/alldatarelatingtoprevalenceofongoingsymptomsfollowingcoronaviruscovid19infectionintheuk
Percentage of population living with “Long Covid” (symptoms lasting at least 4 weeks) by age over time (ONS survey)

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Percentage of population living with “Long Covid” (symptoms lasting at least 4 weeks) by age over time (ONS survey)

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.

Data from https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/datasets/alldatarelatingtoprevalenceofongoingsymptomsfollowingcoronaviruscovid19infectionintheuk
Hospitalisation and deaths
Number of people in hospital with Covid per million people – UK nations
7 day rolling average to 1 Apr 2020 – 6 Jan 2022

Data from https://coronavirus.data.gov.uk.
Data from [https://coronavirus.data.gov.uk](https://coronavirus.data.gov.uk).
Number of people in hospital with Covid in England by primary reason

- Covid primary diagnosis
- Covid NOT primary diagnosis

These are patients whose Covid diagnosis is incidental to their admission (e.g. caught in hospital or trauma)

- Covid primary diagnosis:
  - 25-Oct-21: 4,500
  - 01-Nov-21: 5,000
  - 08-Nov-21: 5,500
  - 15-Nov-21: 5,000
  - 22-Nov-21: 4,000
  - 29-Nov-21: 3,000
  - 06-Dec-21: 2,000
  - 13-Dec-21: 2,500
  - 20-Dec-21: 2,000
  - 27-Dec-21: 1,500
  - 03-Jan-22: 1,000
  - 10-Jan-22: 0

- Covid NOT primary diagnosis:
  - 25-Oct-21: 1,500
  - 01-Nov-21: 1,000
  - 08-Nov-21: 1,500
  - 15-Nov-21: 1,000
  - 22-Nov-21: 500
  - 29-Nov-21: 250
  - 06-Dec-21: 200
  - 13-Dec-21: 150
  - 20-Dec-21: 100
  - 27-Dec-21: 0
  - 03-Jan-22: 50
  - 10-Jan-22: 0

- % Distribution:
  - Covid primary diagnosis: 63%
  - Covid NOT primary diagnosis: 37%
Number of people with Covid per million people in mechanically ventilated beds –
UK nations
7 day rolling average to 1 Apr 2020 – 6 Jan 2022

Data from https://coronavirus.data.gov.uk.
Percent of Staff Absent from NHS Acute Hospital Trusts in England
7 Apr 2021– 2 Jan 2022 Compared to prior Years
(Source: NHS England Urgent and Emergency Care Daily Situation Reports 2021-22)


Thanks to Bob Hawkins for the chart
Percent of All Staff Absent from NHS Acute Hospital Trusts by Region
Week on Week Increase

(Source: NHS England Urgent and Emergency Care Daily Situation Reports 2021-22)

Thanks to Bob Hawkins for the chart
Number of hospital admissions with Covid every day in England to 4 Jan 2022

Data from https://www.england.nhs.uk/statistics/statistical-work-areas/covid-19-hospital-activity/
7-day average of daily number of new hospital admissions with COVID-19 per day / million people across different regions in England

Data from https://www.england.nhs.uk/statistics/statistical-work-areas/covid-19-hospital-activity/
7-day average of Covid hospital admissions in England since July 2020 for adults

- 18-64 yr olds
- 65-84 yr olds
- 85+ yr olds

Data from [https://coronavirus.data.gov.uk/](https://coronavirus.data.gov.uk/)
Data from https://coronavirus.data.gov.uk/
Daily Covid hospital admissions in England for all children (0-18 yrs) since the start of the pandemic

More children have been admitted in the last 3 weeks (1,598) than over the whole of the first wave (March – August 2020: 1,333)

Data from https://coronavirus.data.gov.uk/
Number of deaths within 28 days of +ve COVID test reported per day across the UK to 6 January 2022

Data from https://coronavirus.data.gov.uk/
SUMMARY

• Omicron is now the dominant variant in the UK.
• Really need booster to protect well from hospitalisation. After 10 weeks, boosters only provide moderate protection against infection (~40%).
• Cases in UK far higher than they’ve ever been.
• Freshly boosted young adults will hopefully provide a brake on transmission (along with numbers of recently infected!). Highly boosted older adults will hopefully reduce severe illness as Omicron spreads.
• Hospital admissions and number of people in hospital with Covid are very high, but pressure is not translating to intensive care.
• NHS is struggling because not only are there rising admissions from Covid and a large amount of urgent non-Covid care but also high levels of staff sickness.
• Long Covid rates are increasing – particularly in children. We do not know about Omicron and long covid, although vaccines likely to provide some protection.
• Children are returning to school with very high rates of Covid and little vaccine protection. Without addressing transmission in schools, the Omicron wave will be prolonged by weeks.
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