



COVID-19 Update

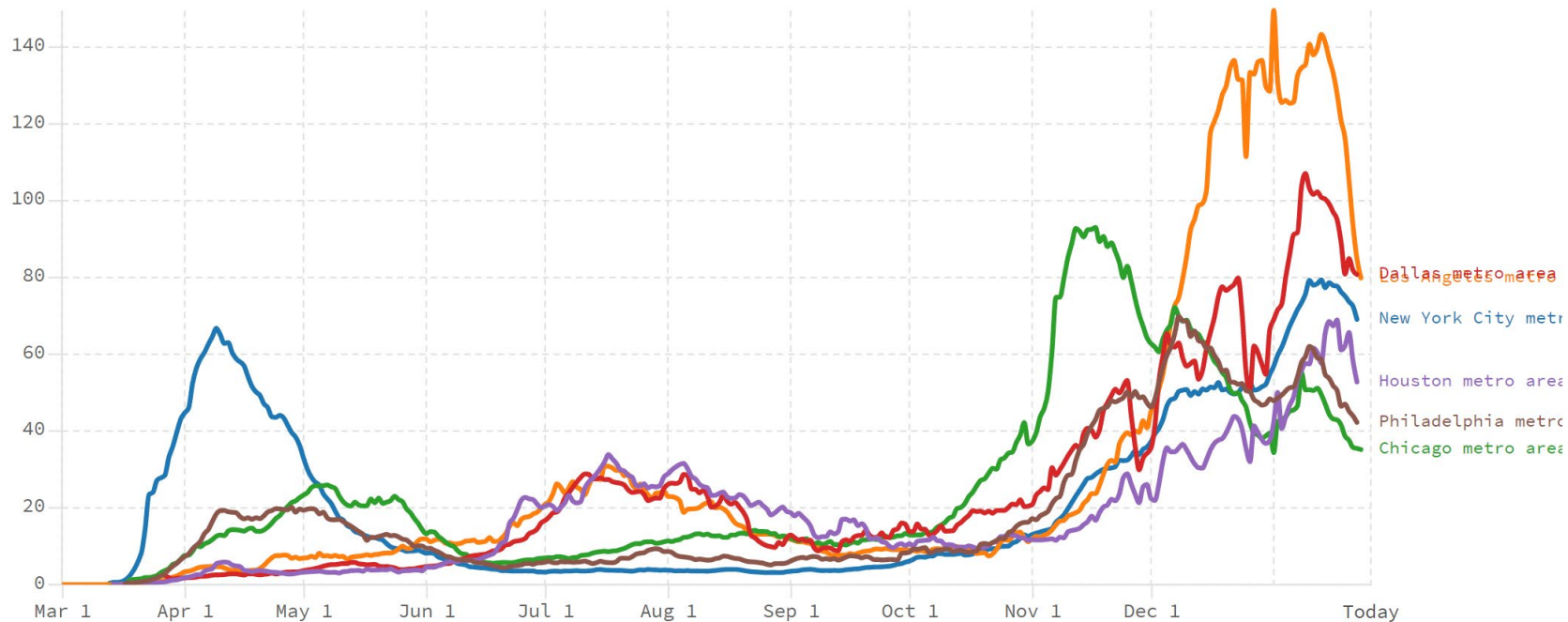
Dr Mark Cunningham-Hill
Medical Director NEBGH

Monday January 25th, 2021



Where we are now

CASES PER 100K POPULATION IN NEW YORK CITY METRO AREA, LOS ANGELES METRO AREA, CHICAGO METRO AREA, DALLAS METRO AREA, HOUSTON METRO AREA AND PHILADELPHIA METRO AREA

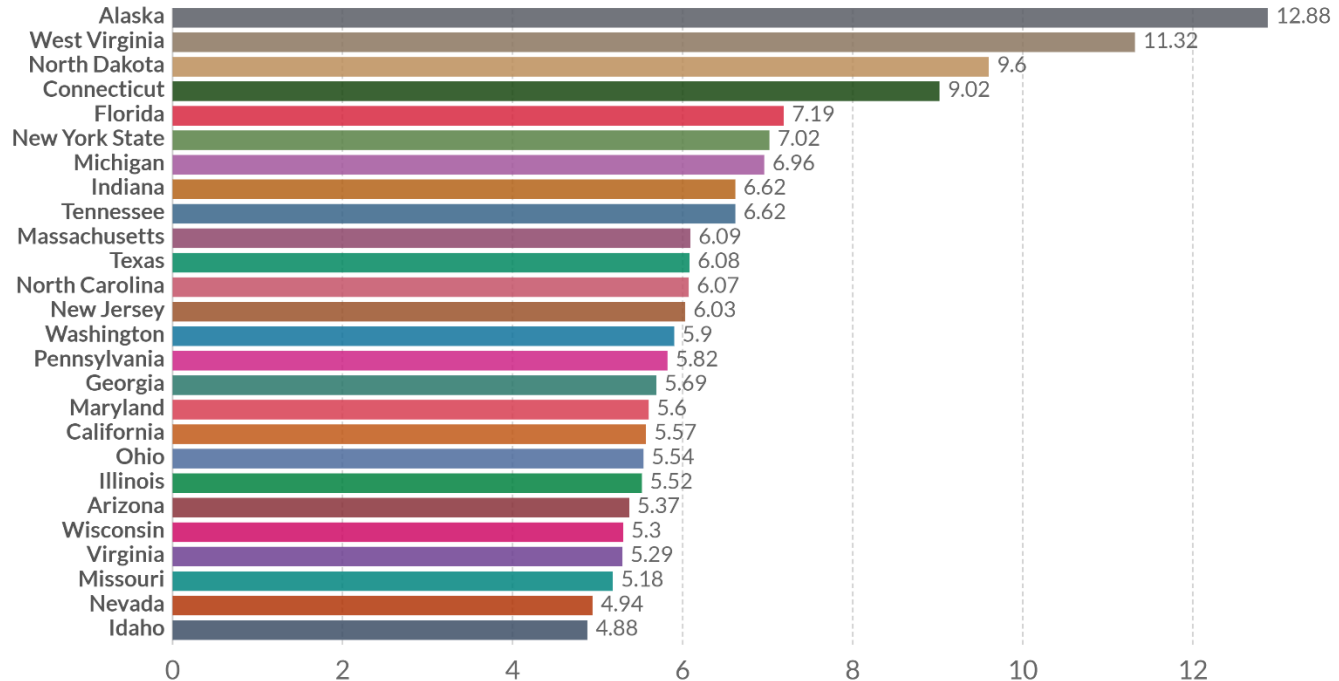


Where we are now

US: Total COVID-19 vaccine doses administered per 100 people, Jan 24, 2021

Our World
in Data

Total number of vaccination doses administered per 100 people in the total population. This is counted as a single dose, and may not equal the total number of people vaccinated, depending on the specific dose regime (e.g. people receive multiple doses).



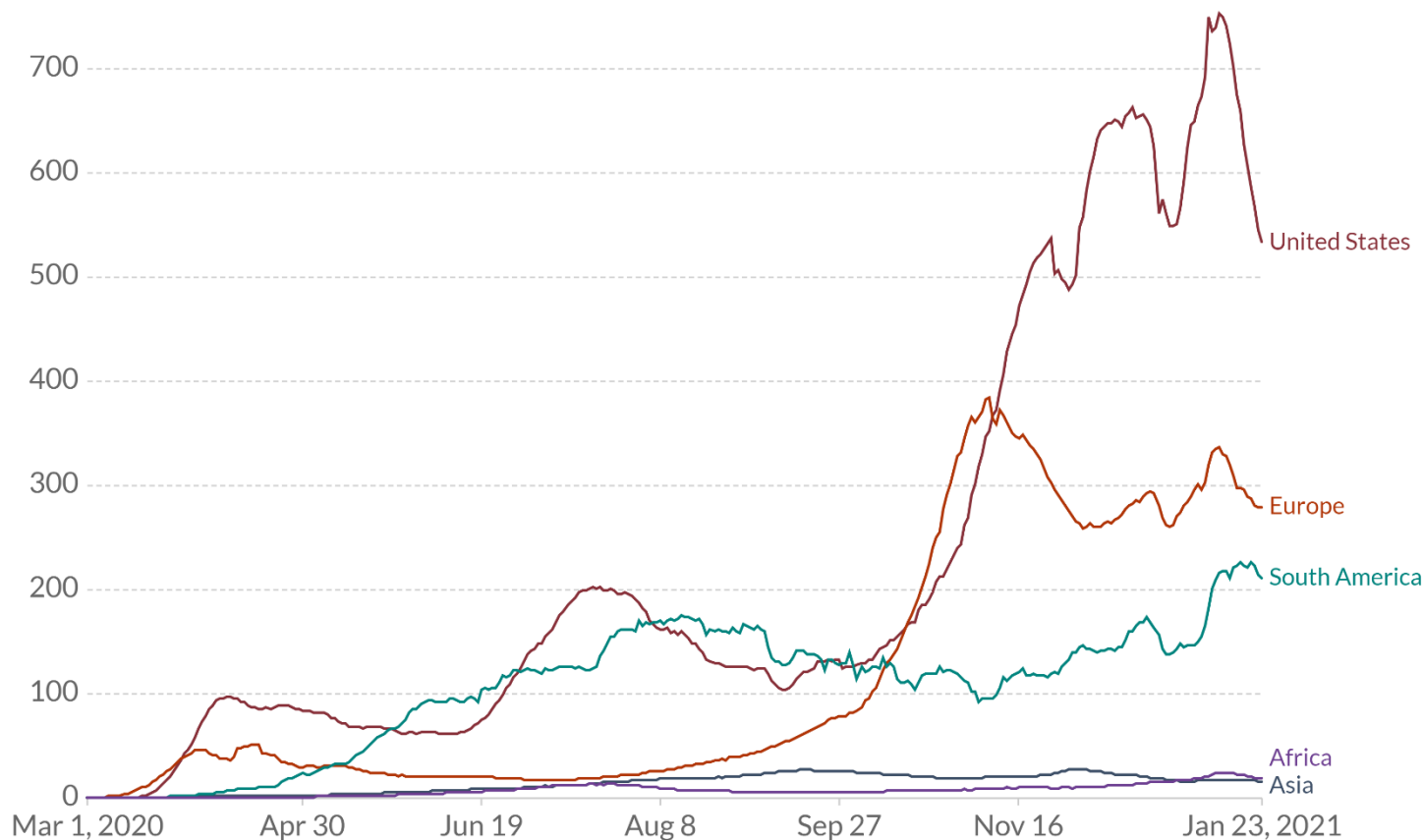
Source: Centers for Disease Control and Prevention – Last updated January 24, 14:56 (Eastern Time)

OurWorldInData.org/us-states-vaccinations • CC BY

Daily new confirmed COVID-19 cases per million people

Shown is the rolling 7-day average. The number of confirmed cases is lower than the number of actual cases; the main reason for that is limited testing.

Our World
in Data



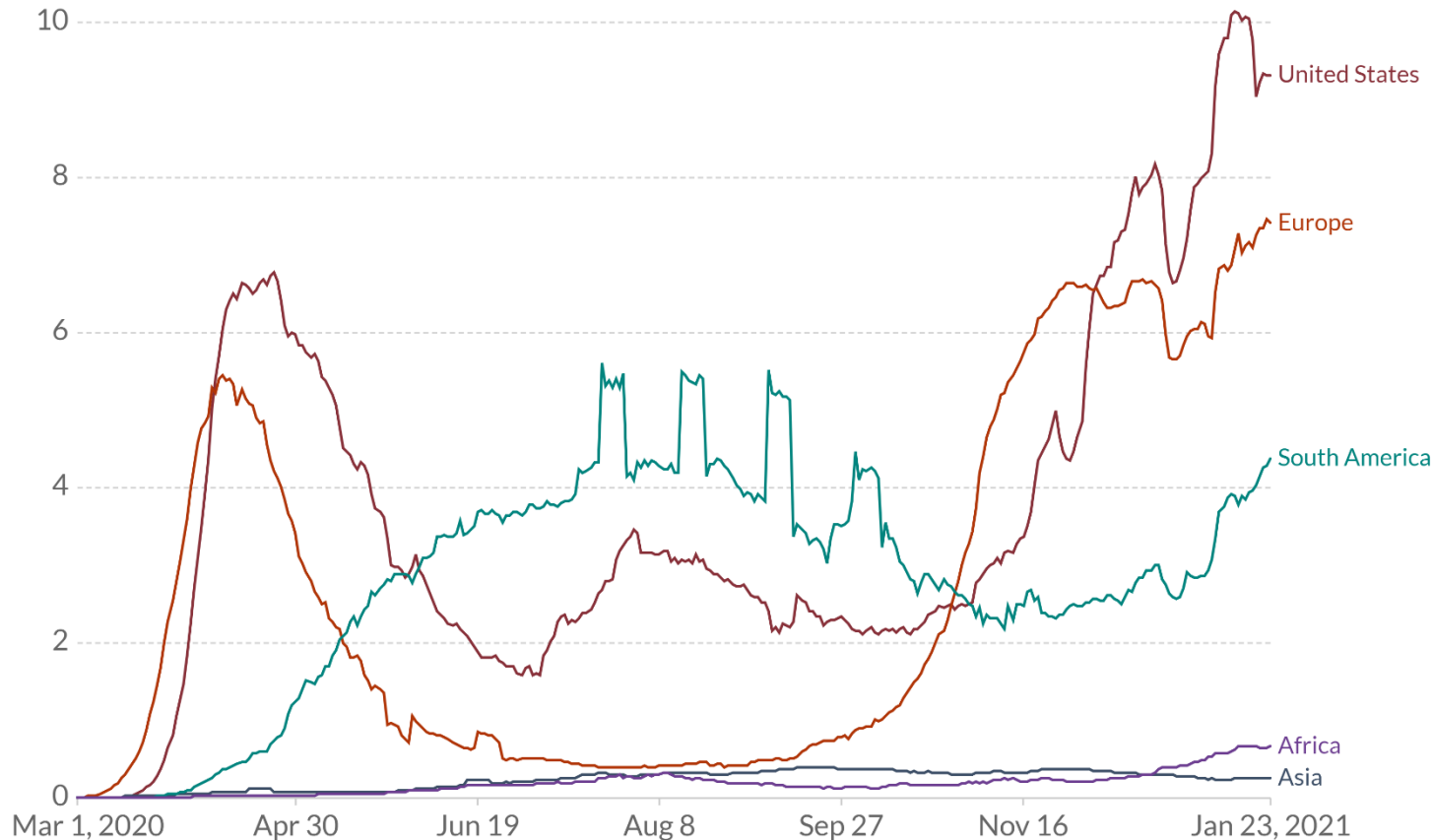
Source: Johns Hopkins University CSSE COVID-19 Data – Last updated 24 January, 09:02 (London time)

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nebgh.org

Daily new confirmed COVID-19 deaths per million people

Shown is the rolling 7-day average. Limited testing and challenges in the attribution of the cause of death means that the number of confirmed deaths may not be an accurate count of the true number of deaths from COVID-19.

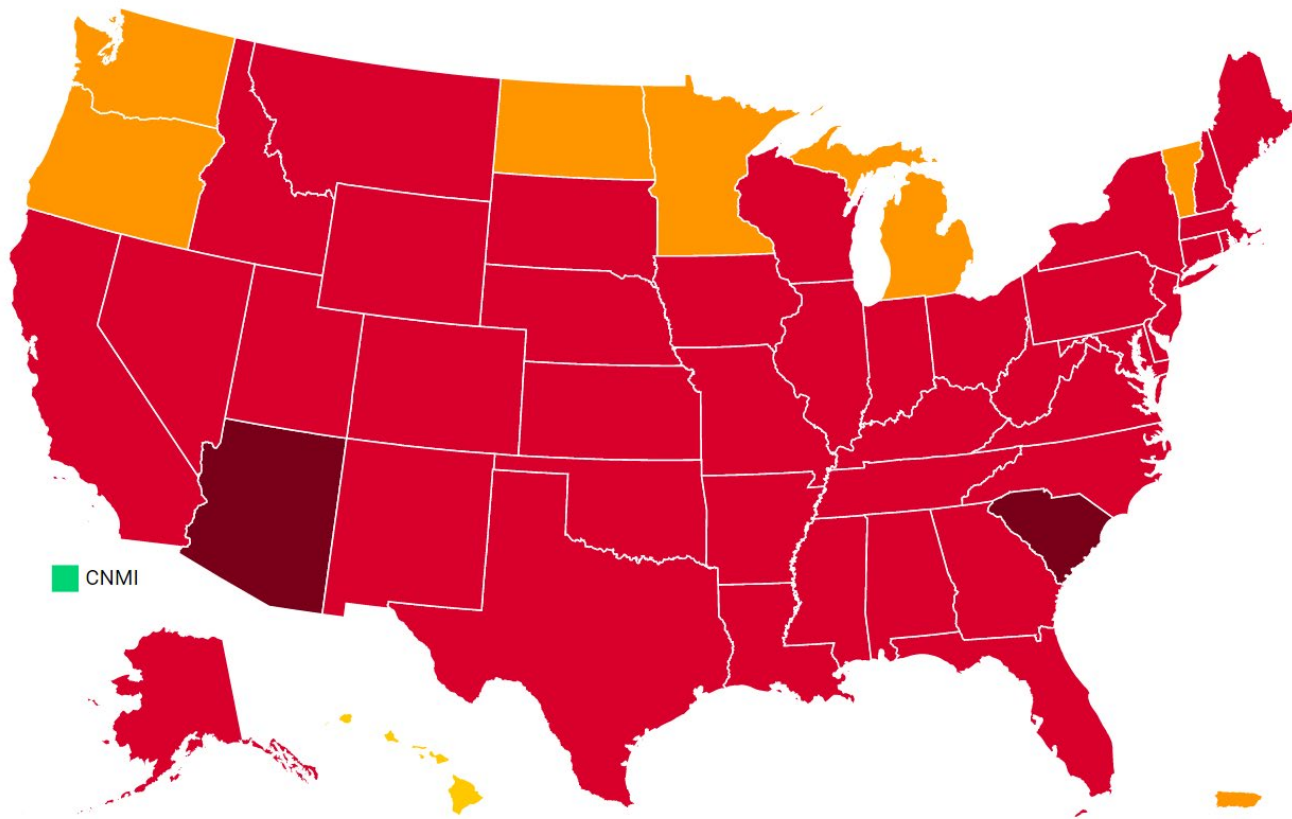
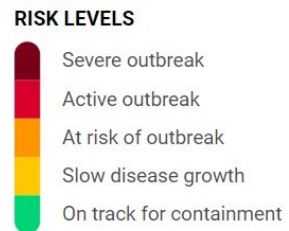


Source: Johns Hopkins University CSSE COVID-19 Data – Last updated 24 January, 09:02 (London time)

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States  Counties



 CNMI



4 Things That Could Impact The Pandemic

1. The Virus
2. The Vaccine
3. Testing
4. People

Variant B.1.1.3

- Likely that VOC B.1.1.7 is associated with an increased risk of death compared to other versions of SARS-CoV-2
- Three analysis of data:
 - LSHTM - relative hazard of death within 28 days of test for was 1.35 (95%CI 1.08-1.68)
 - Imperial College London: Relative CFR for B.1.1.3 1.36 (95%CI 1.18-1.56)
 - University of Exeter: mortality hazard ratio for B.1.1.3 infected individuals 1.91 (1.35 - 2.71)
- Note that the absolute risk of death per infection remains low

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/955239/NERVTAG_paper_on_variant_of_concern_VOC_B.1.1.7.pdf

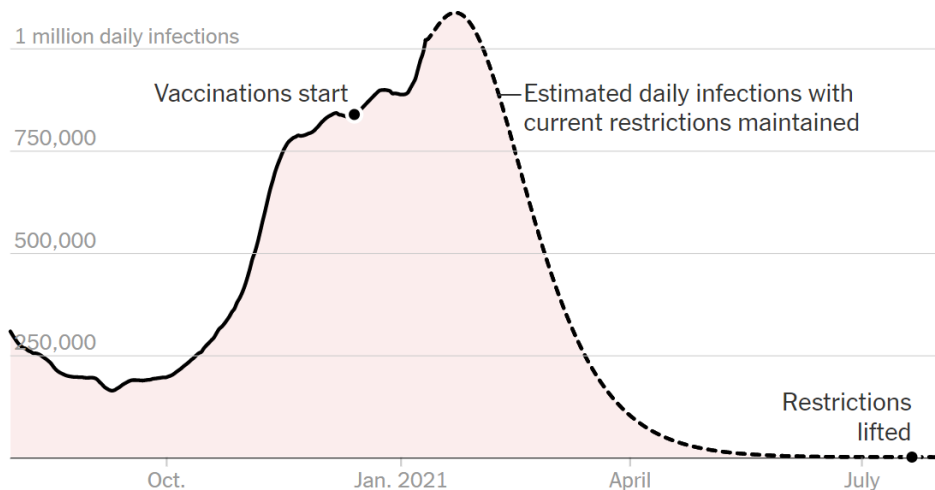


501Y.V2 and P.1

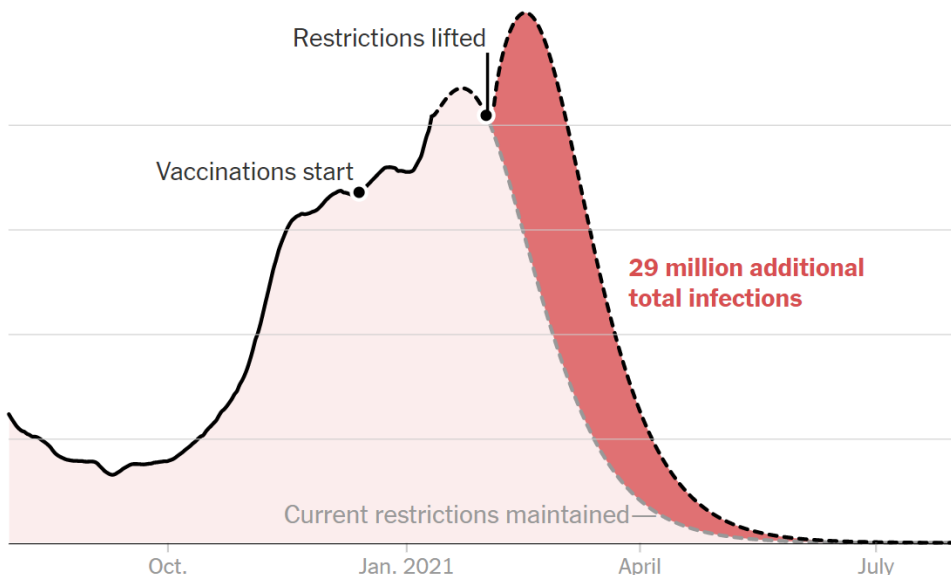
- 20H/501Y.V2 or B.1.351 (S. Africa)
 - Increased infectivity
 - E484K mutation has been shown to reduce antibody recognition
- P.1 (Brazil)
 - Similar concerns for the P.1 variant

Will Vaccines End the Pandemic?

If current restrictions remain in place until late July



If restrictions are lifted in February



https://www.nytimes.com/interactive/2021/01/24/us/covid-vaccine-rollout.html?campaign_id=9&emc=edit_nn_20210125&instance_id=26368&nl=the-morning®i_id=133683995&segment_id=50154&te=1&user_id=2d08c44db6a3f80e804af188898e5f61



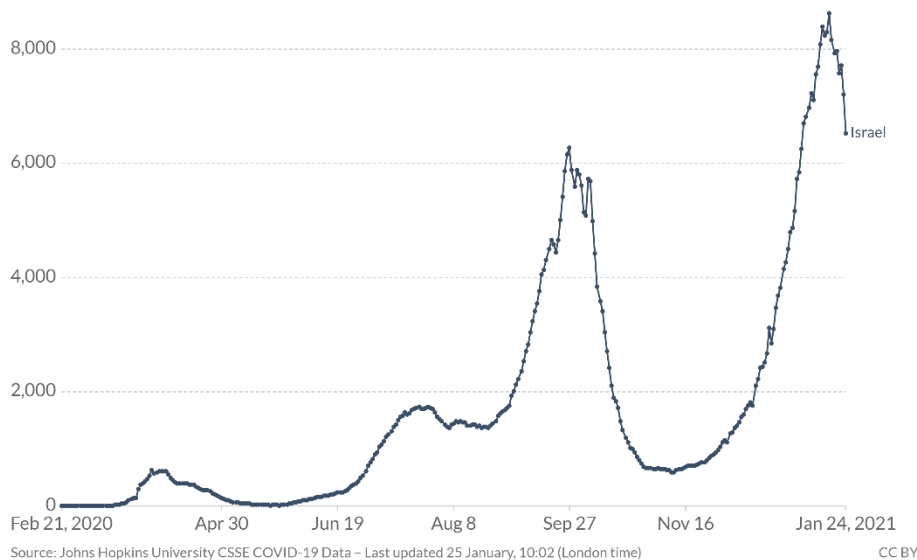
The Vaccine

- December – Pfizer vaccine 90% 14 days after 1st dose
 - UK decided to delay 2nd dose
- Real world data from Israel:
 - Protection after 1 dose – 52%
 - Over 60's as low as 33%
- Additional questions about length of immunity after 1 dose

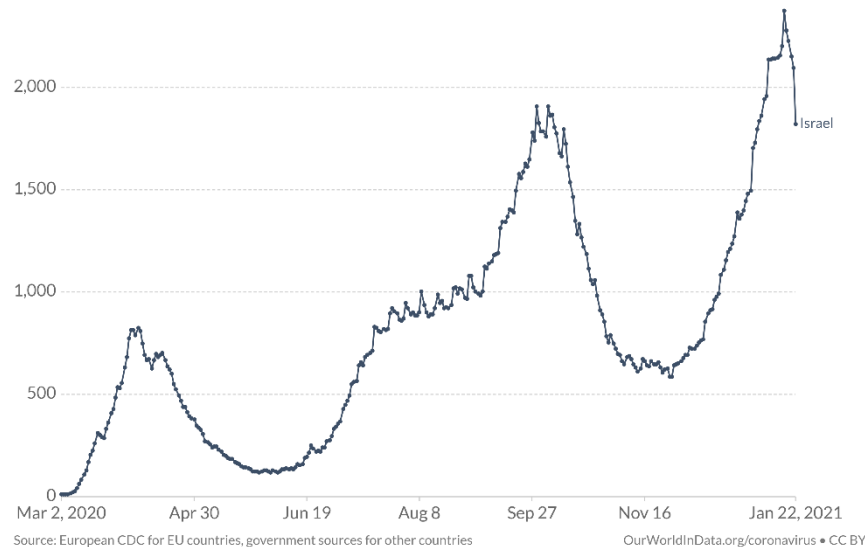
Cases and Hospitalizations decreasing after 20% vaccinated

Daily new confirmed COVID-19 cases

Shown is the rolling 7-day average. The number of confirmed cases is lower than the number of actual cases; the main reason for that is limited testing.



Number of COVID-19 patients in hospital



US at about 5% had 1 dose and 1% had 2 doses

<https://www.beckershospitalreview.com/public-health/states-ranked-by-percentage-of-covid-19-vaccines-administered.html#:~:text=That%20means%20about%205.35%20percent%20of%20the%20U.S.%20population%20has%20been%20vaccinated.>



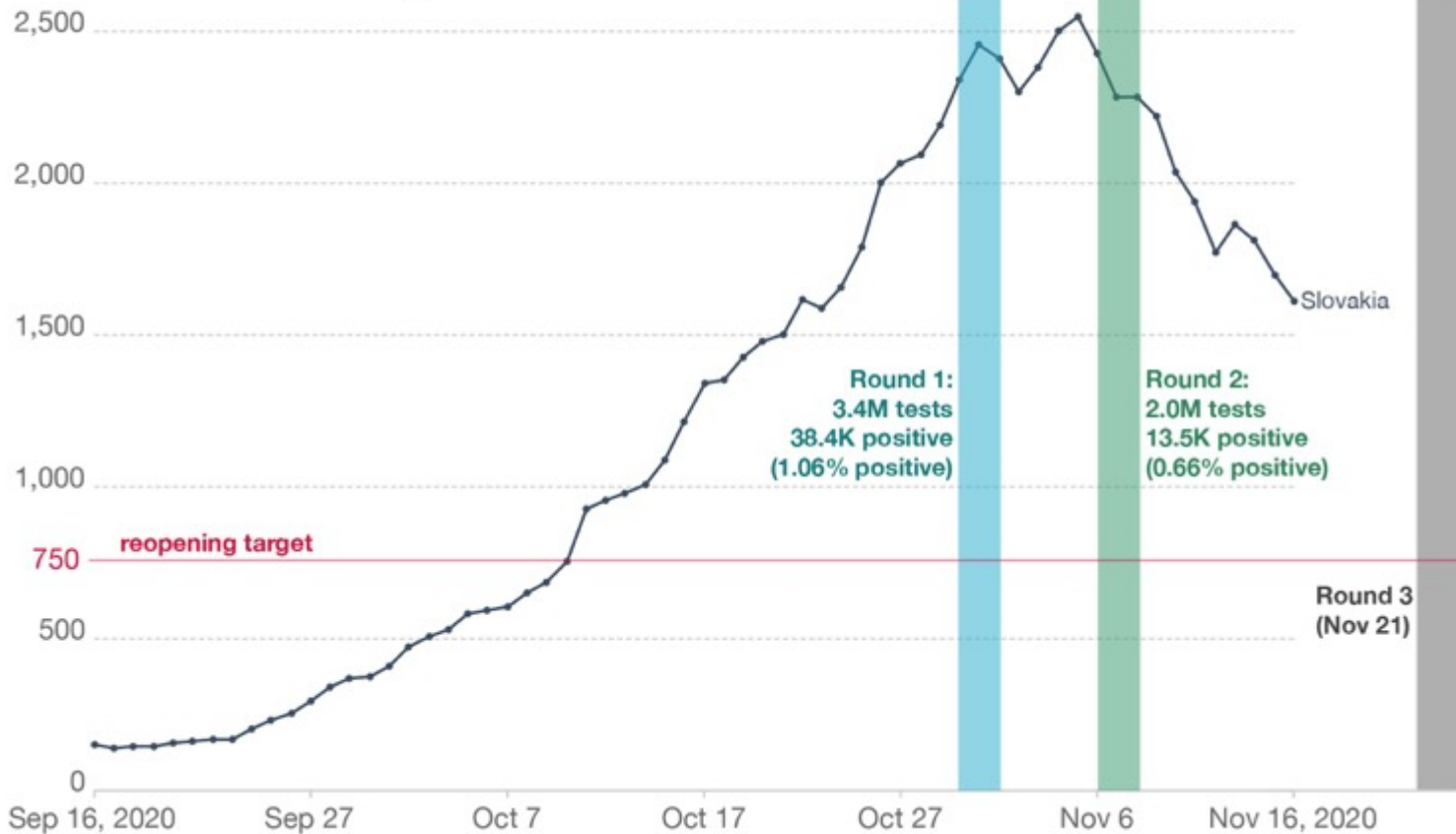
Testing

- Rapid Antigen Testing
 - Less accurate but cheap and easy to use
 - Frequent mass testing to identify those most infectious
 - Biden Pandemic Plan:
 - Fund rapid test acquisition and distribution for priority populations
 - Spur development and manufacturing of at-home tests, and
 - Work to ensure that tests are widely available.

<https://www.whitehouse.gov/wp-content/uploads/2021/01/National-Strategy-for-the-COVID-19-Response-and-Pandemic-Preparedness.pdf>

Slovakia: Daily new confirmed COVID-19 cases (7d avg)

Shown is the rolling 7-day average. The number of confirmed cases is lower than the number of actual cases; the main reason for that is limited testing.



Source: European CDC – Situation Update Worldwide – Last updated 16 November, 10:06 (London time)

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People







Questions