



**NORTHEAST**

BUSINESS GROUP ON HEALTH

# COVID-19 Update

**Dr Mark Cunningham-Hill**

Medical Director NEBGH

Monday August 8<sup>th</sup>, 2022

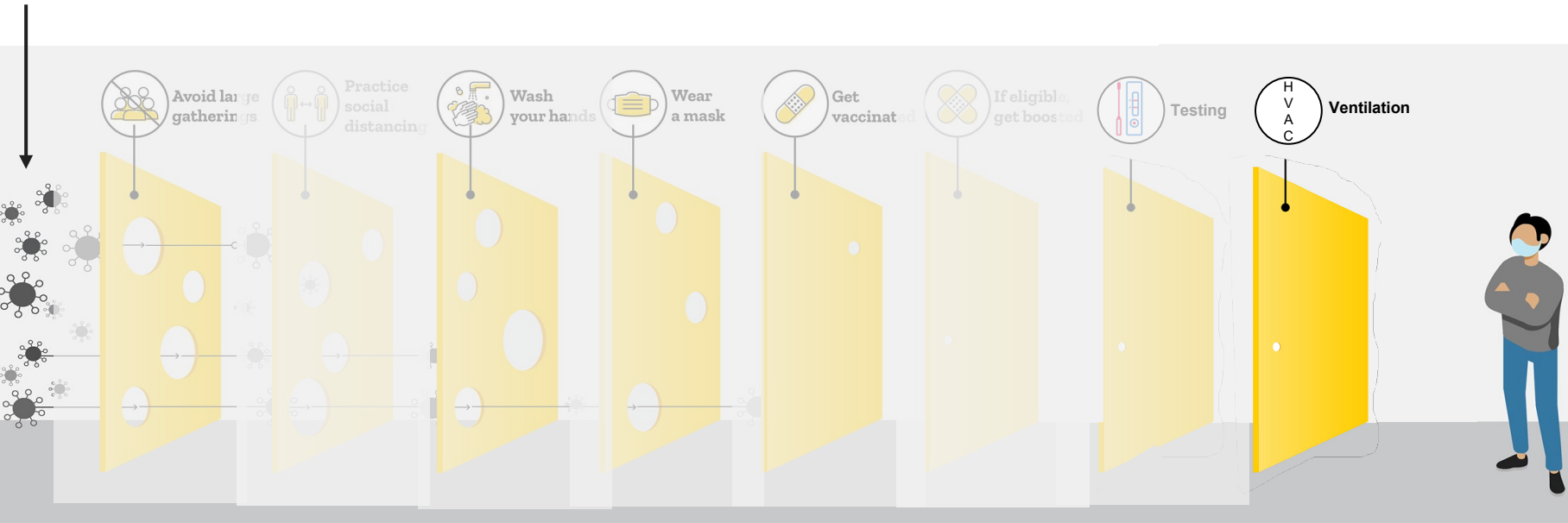
# EEOC on testing

- A COVID test is a medical exam which has implications under the Americans with Disabilities Act (ADA). The ADA generally prohibits medical exams or disability-related inquiries for employees unless they are “job related and consistent with business necessity.”
- New EEOC guidance that now requires organizations to conduct a risk assessment as to “job-relatedness and business necessity”
  - <https://www.eeoc.gov/wysk/what-you-should-know-about-covid-19-and-ada-rehabilitation-act-and-other-eeo-laws>

# EEOC Testing Criteria

- The level of community transmission;
- The vaccination status of employees;
- The accuracy and speed of processing for different types of COVID-19 viral tests;
- The degree to which breakthrough infections are possible for employees who are “up to date” on vaccinations;
- The ease of transmissibility of the current variant(s);
- The possible severity of illness from the current variant;
- What types of contacts employees may have with others in the workplace or elsewhere that they are required to work; and
- The potential impact on operations if an employee enters the workplace with COVID-19

Still high case rates of super transmissible variant



Large gatherings starting to happen

Gone!

Decreasing

80-90% gone!

68% vaccinated

48% boosted

Decreasing (EEOC ruling may decrease further)

MERV13 but debatable whether truly optimized

# Masking and Vaccines work

- Study of 140 000 class meetings at a large US university, there were over 850 cases of SARS-CoV-2 infection identified through weekly surveillance testing of all students and faculty on campus
- Everyone was vaccinated and wore masks
- Findings:
  - 850 cases
  - There were 9 instances of potential in-class transmission identified as identical lineages confirmed by SARS-CoV-2 genome sequencing, and none of these instances were confirmed to be in-class transmission

JAMA  
Network | **Open.**



Original Investigation | Infectious Diseases

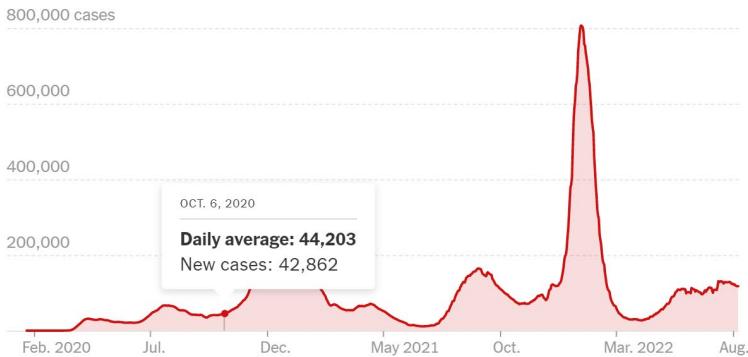
Examination of SARS-CoV-2 In-Class Transmission at a Large Urban University  
With Public Health Mandates Using Epidemiological and Genomic Methodology

Kayla Kuhfeldt, MPH; Jacquelyn Turcinovic, BS; Madison Sullivan, MPH; Lena Landaverde, MS; Lynn Doucette-Stamm, PhD; Davidson H. Hamer, MD; Judy T. Platt, MD; Catherine Klapperich, PhD; Hannah E. Landsberg, MSN, MPH; John H. Connor, PhD

<https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2794964>

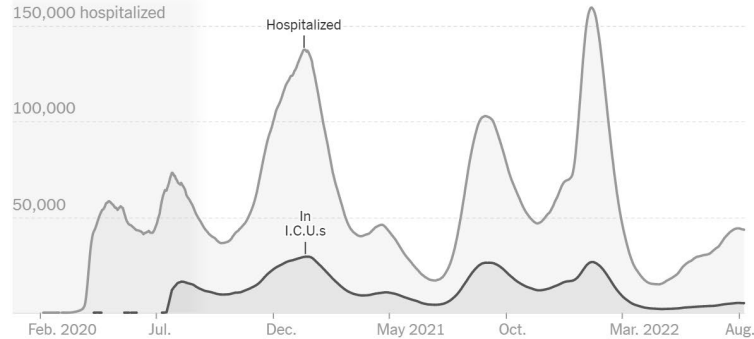
# Current State of the pandemic in the US

### New reported cases by day

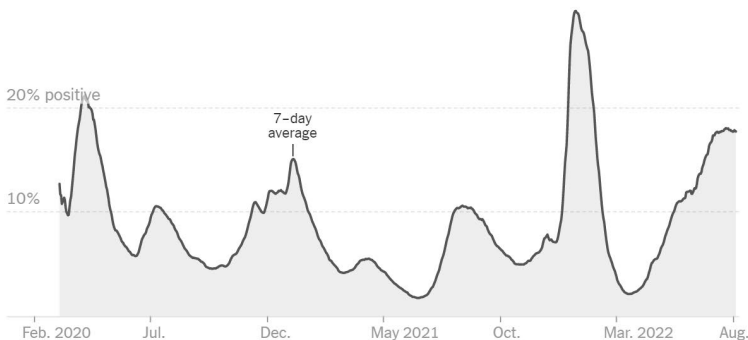


### Covid patients in hospitals and I.C.U.s

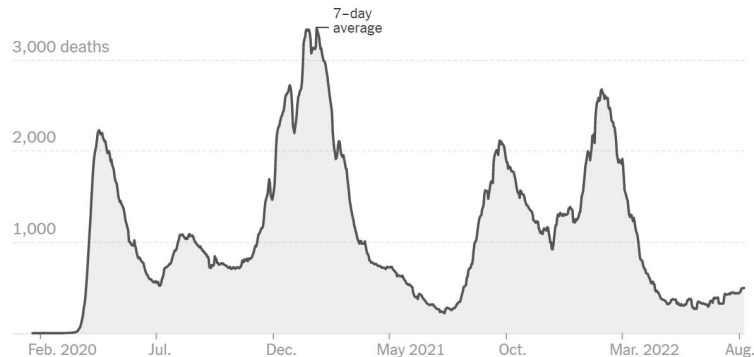
Early data may be incomplete.



### Test positivity rate

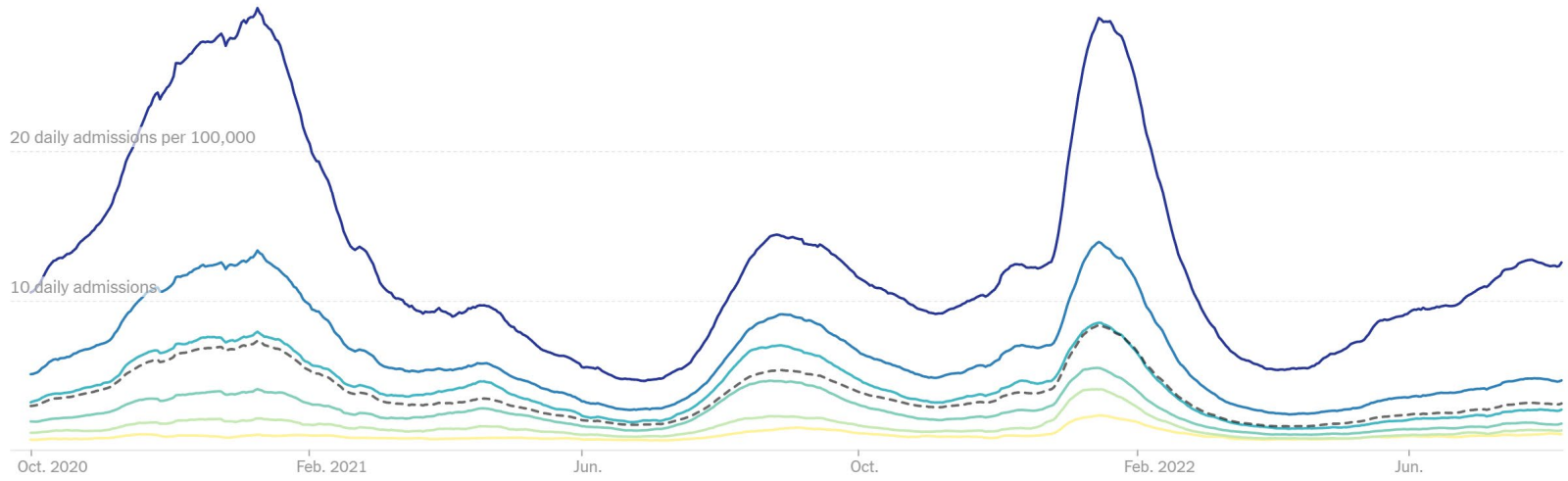


### New reported deaths by day

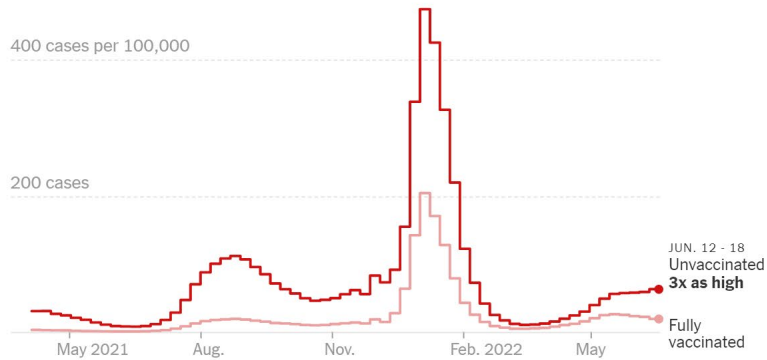


All time Last 90 days

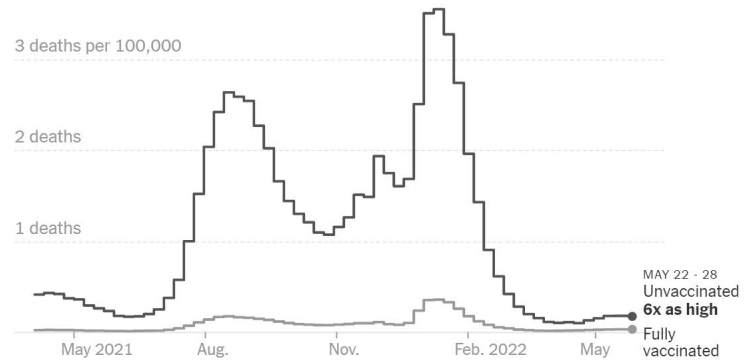
■ UNDER 18 
 ■ 18-29 
 ■ 30-49 
 ■ 50-59 
 ■ 60-69 
 ■ 70+ 
 --- ALL AGES



**Average daily cases**



**Average daily deaths**



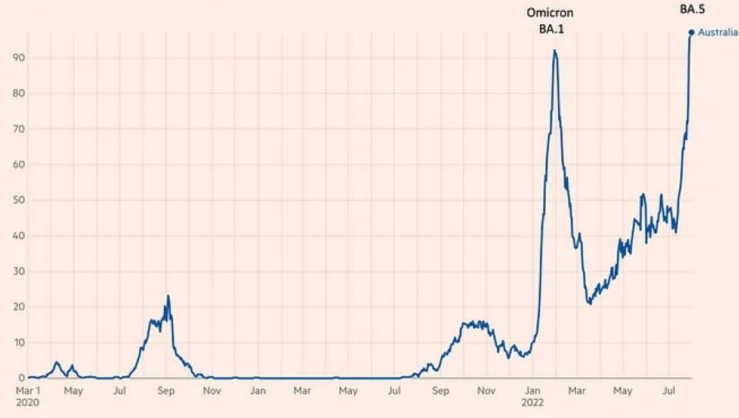
# Immunity Walls

- The “immunity wall” of a population is an aggregate of many factors that include:
  - Demographics such as age and comorbidities, like obesity or diabetes.
  - Prior infections, vaccines, boosters, combined infections and boosters (hybrid immunity)
  - Waning of the immunity from vaccines or infections over time.
  - There are also other factors that come into play providing intrinsic protection (without exposure) vs Covid



### New deaths attributed to Covid-19 in Australia

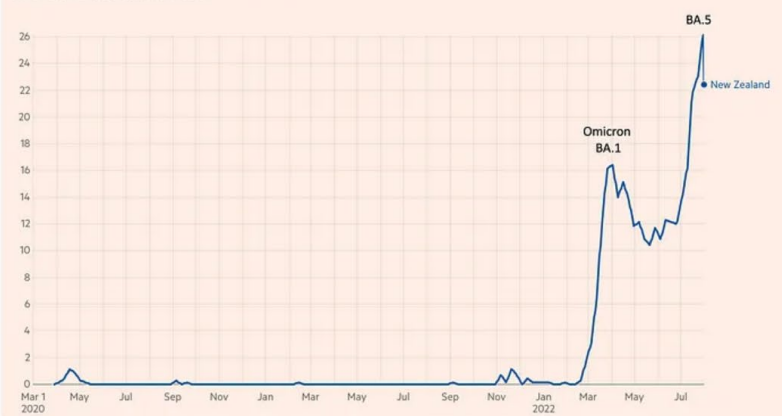
Seven-day rolling average of new deaths



FINANCIAL TIMES

### New deaths attributed to Covid-19 in New Zealand

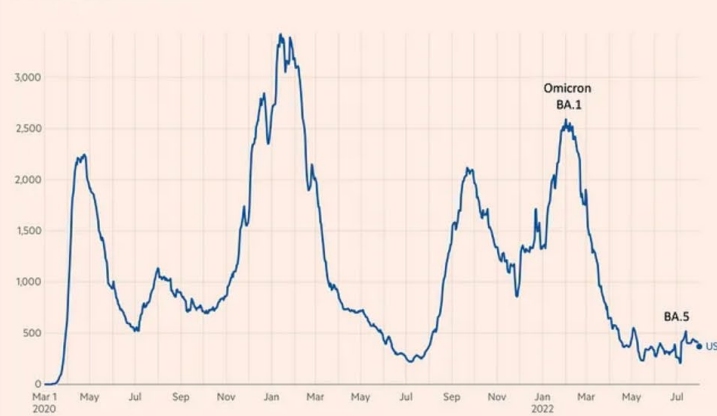
Seven-day rolling average of new deaths



FINANCIAL TIMES

### New deaths attributed to Covid-19 in US

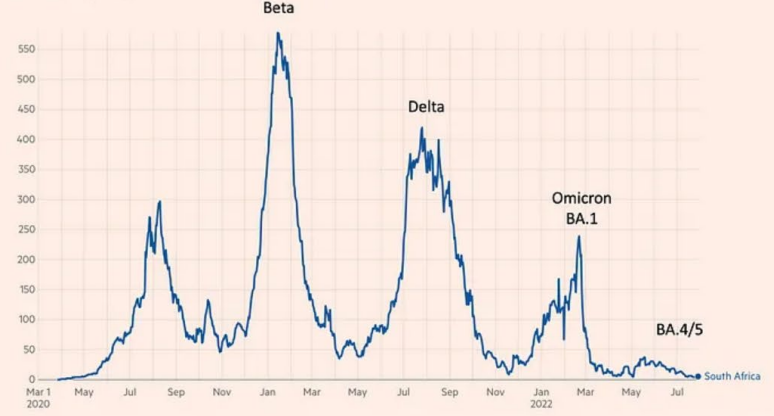
Seven-day rolling average of new deaths



FINANCIAL TIMES

### New deaths attributed to Covid-19 in South Africa

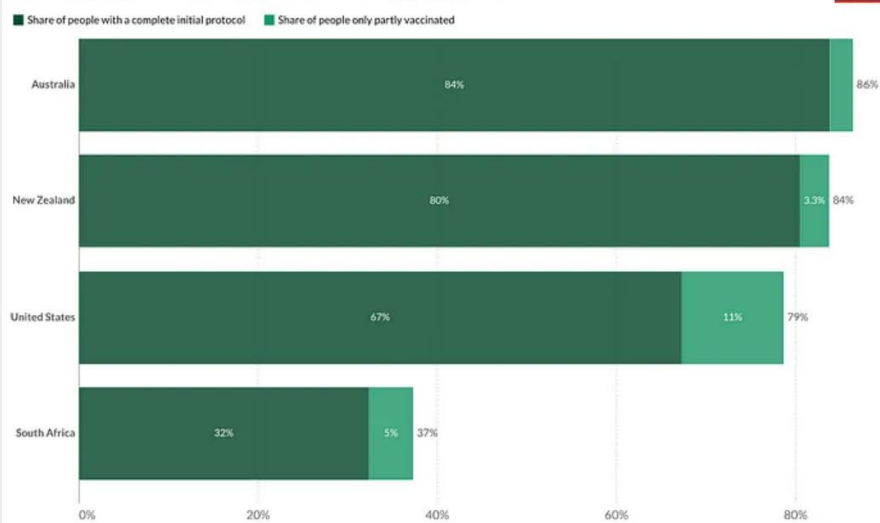
Seven-day rolling average of new deaths



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# Vaccine & Booster Rates

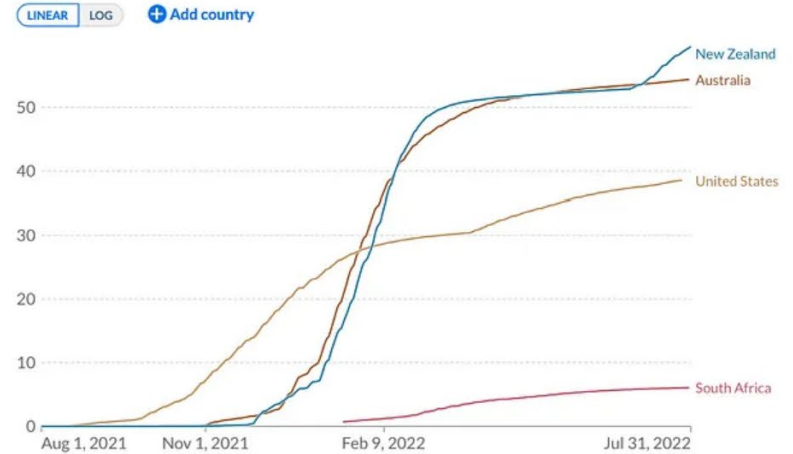
Share of people vaccinated against COVID-19, Jul 31, 2022



Source: Official data collated by Our World in Data  
 Note: Alternative definitions of a full vaccination, e.g. having been infected with SARS-CoV-2 and having 1 dose of a 2-dose protocol, are ignored to maximize comparability between countries.  
 CC BY  
 ▶ Dec 13, 2020 Jul 31, 2022

COVID-19 vaccine boosters administered per 100 people

Total number of vaccine booster doses administered, divided by the total population of the country. Booster doses are doses administered beyond those prescribed by the original vaccination protocol.



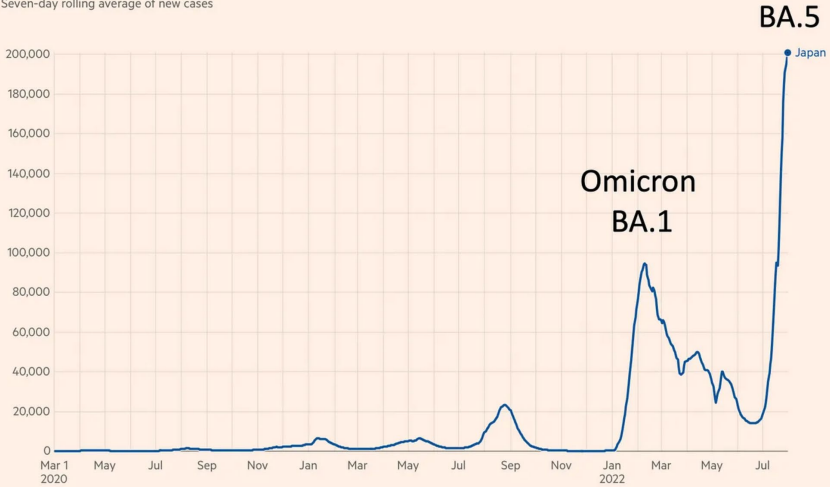
Source: Official data collated by Our World in Data - Last updated 1 August 2022  
 OurWorldInData.org/coronavirus • CC BY

▶ Jan 6, 2021 Jul 31, 2022

# Prior infections

New confirmed cases of Covid-19 in Japan

Seven-day rolling average of new cases



Source: Financial Times analysis of data from Johns Hopkins CSSE, World Health Organization, UK Government coronavirus dashboard, Government of Peru, Public Health France, Israeli Health Ministry, Slovenian Ministry of Health, Finnish Institute for Health and Welfare and the Swedish Public Health Agency. Data updated August 1 2022 2.23pm BST. Interactive version: [ft.com/covid19](https://ft.com/covid19)

FINANCIAL TIMES

New deaths attributed to Covid-19 in Japan

Seven-day rolling average of new deaths



Source: Financial Times analysis of data from Johns Hopkins CSSE, World Health Organization, UK Government coronavirus dashboard, Government of Peru, Public Health France, Israeli Health Ministry, Slovenian Ministry of Health, Finnish Institute for Health and Welfare and the Swedish Public Health Agency. Data updated August 1 2022 2.23pm BST. Interactive version: [ft.com/covid19](https://ft.com/covid19)

FINANCIAL TIMES

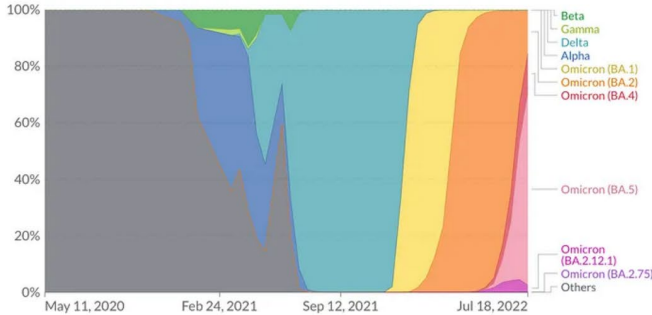
# Variant of Past Infection

## SARS-CoV-2 variants in analyzed sequences, Australia

The number of analyzed sequences in the preceding two weeks that correspond to each variant group. This number may not reflect the complete breakdown of cases since only a fraction of all cases are sequenced.



[Change country](#)  Relative



Source: GISAID, via CoVariants.org - Last updated 31 July 2022

Note: Recently-discovered or actively-monitored variants may be overrepresented, as suspected cases of these variants are likely to be sequenced preferentially or faster than other cases.

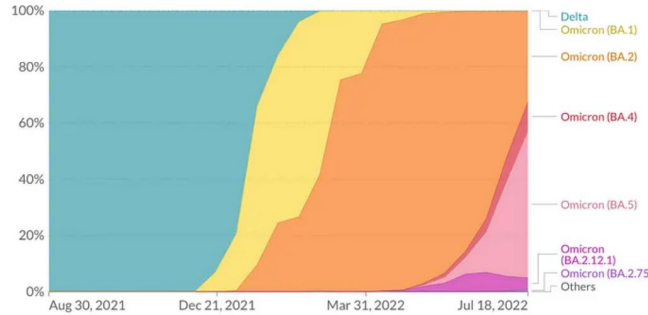
OurWorldInData.org/coronavirus • CC BY

## SARS-CoV-2 variants in analyzed sequences, New Zealand

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Source: GISAID, via CoVariants.org - Last updated 31 July 2022

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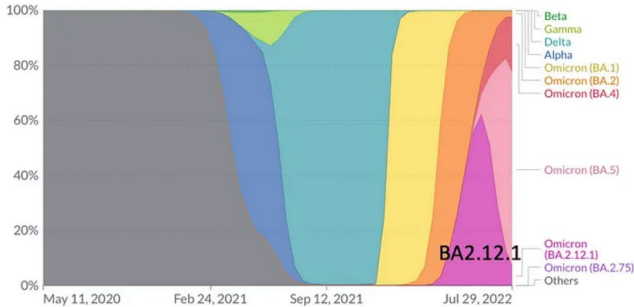
OurWorldInData.org/coronavirus • CC BY

## SARS-CoV-2 variants in analyzed sequences, United States

The number of analyzed sequences in the preceding two weeks that correspond to each variant group. This number may not reflect the complete breakdown of cases since only a fraction of all cases are sequenced.



[Change country](#)  Relative



Source: GISAID, via CoVariants.org - Last updated 31 July 2022

Note: Recently-discovered or actively-monitored variants may be overrepresented, as suspected cases of these variants are likely to be sequenced preferentially or faster than other cases.

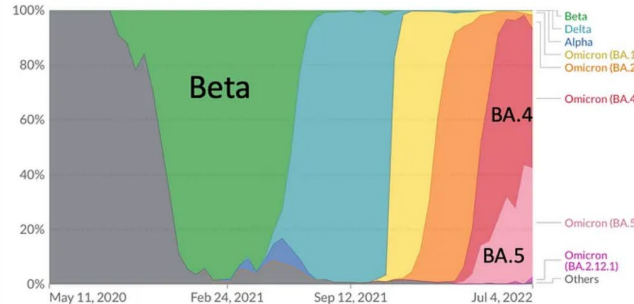
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## SARS-CoV-2 variants in analyzed sequences, South Africa

The number of analyzed sequences in the preceding two weeks that correspond to each variant group. This number may not reflect the complete breakdown of cases since only a fraction of all cases are sequenced.



[Change country](#)  Relative



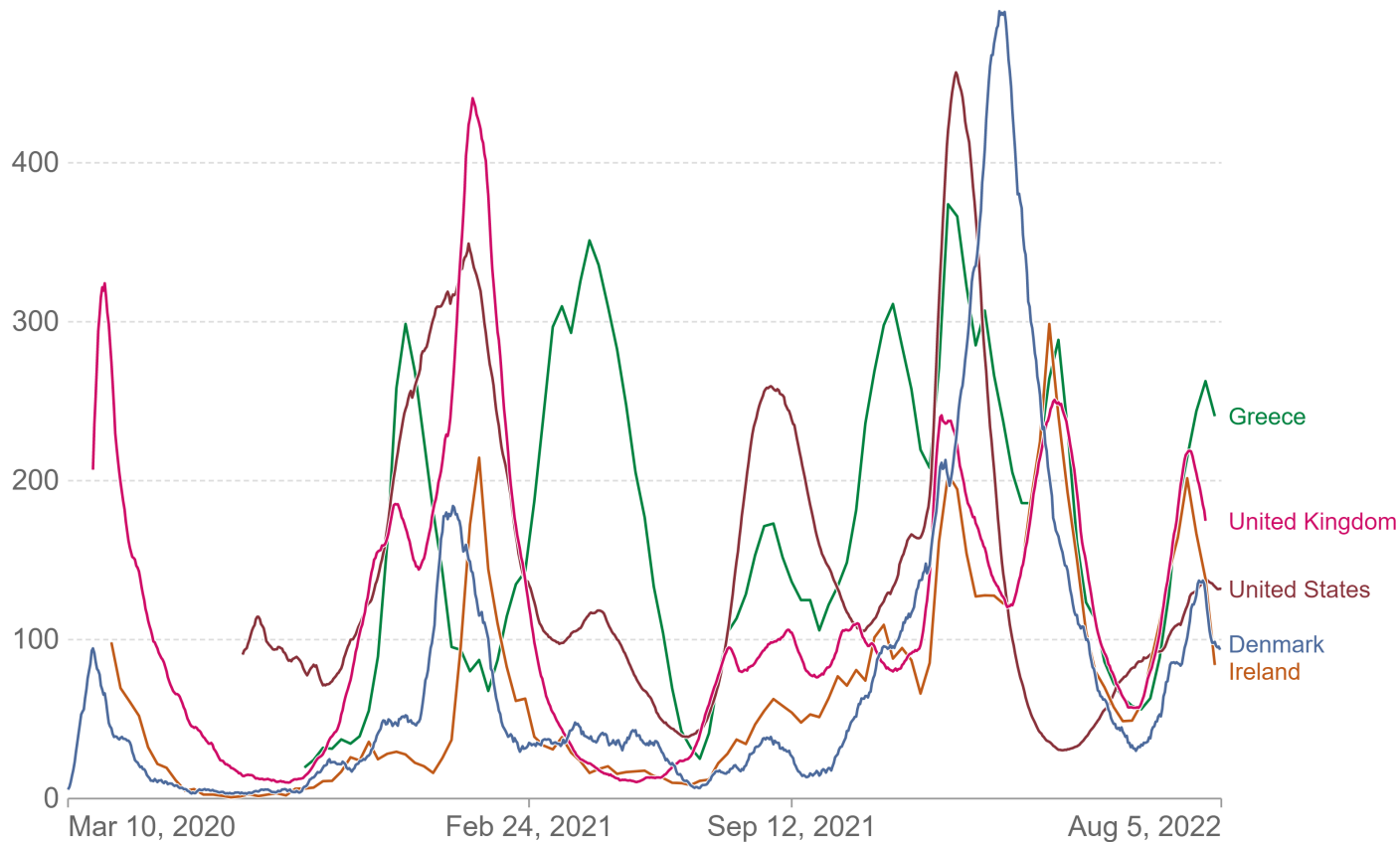
Source: GISAID, via CoVariants.org - Last updated 31 July 2022

Note: Recently-discovered or actively-monitored variants may be overrepresented, as suspected cases of these variants are likely to be sequenced preferentially or faster than other cases.

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# Weekly new hospital admissions for COVID-19 per million people

Weekly admissions refer to the cumulative number of new admissions over the previous week.



Source: Official data collated by Our World in Data

**The very same variant that is seen as “mild”  
in one county can be quite “severe” in  
another**

## Daily new confirmed COVID-19 cases per million people

7-day rolling average. Due to limited testing, the number of confirmed cases is lower than the true number of infections.

Our World in Data

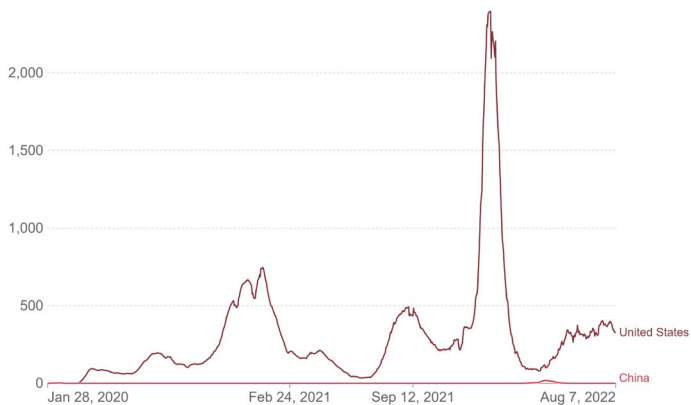


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## Daily new confirmed COVID-19 cases per million people

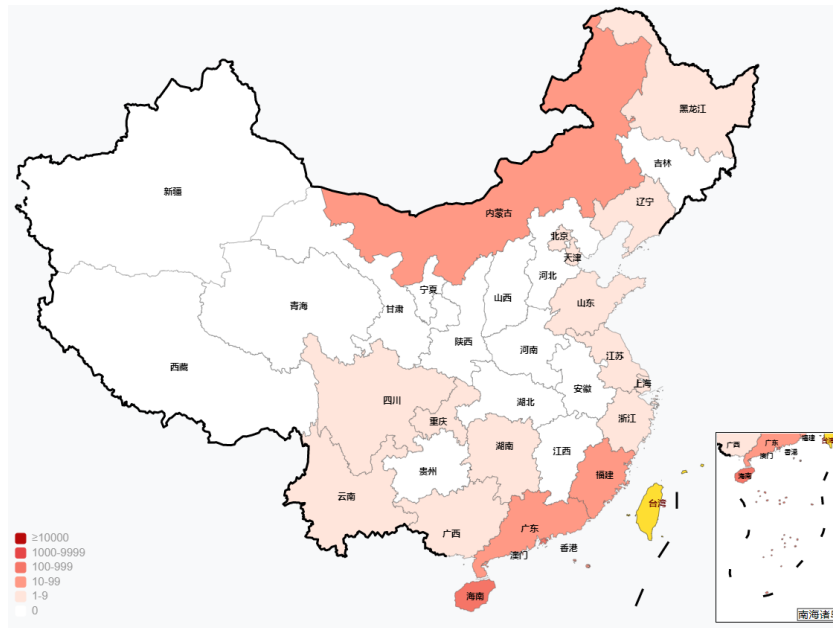
7-day rolling average. Due to limited testing, the number of confirmed cases is lower than the true number of infections.

Our World in Data



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# China



# Travel and COVID





# Risk of catching COVID while Abroad

- This is a real risk as travel brings you into many new people, crowded spaces and possibly new variants – so what can you do:
  - Get up to date on vaccinations and boosters
  - Wear a high-efficiency mask while in the airport, on the plane and on public transport. Also in busy indoor spaces and tourist locations – just because others are not wearing a mask doesn't mean it is safe!
  - If high risk or elderly traveler see if their PCP will prescribe paxlovid to take if they get sick while aboard
  - Check what your travel insurance will/will not cover
  - Most countries have dropped testing requirements to travel but still take some tests with you – if you test positive don't get the first flight home – quarantine for at least 5 days and then wear a KN95/N95 100% of the time when around others.
  - Test 2-3 days after getting home just to be sure and don't go and visit your most vulnerable relatives until you know you are probably not infected
  - Take non-stop flights where possible

# Questions

## Upcoming NEBGH virtual events:

- **August 22** – Monday Bi-Weekly COVID-19 Update w/ Dr. Mark
- **Sept. 8** - Digital Health Tech's Hot Summer: What's On the Horizon?