

# COVID-19 Update

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Medical Director NEBGH

Monday March 28<sup>th</sup>, 2022

# 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.



METRIC

Cases per 100K



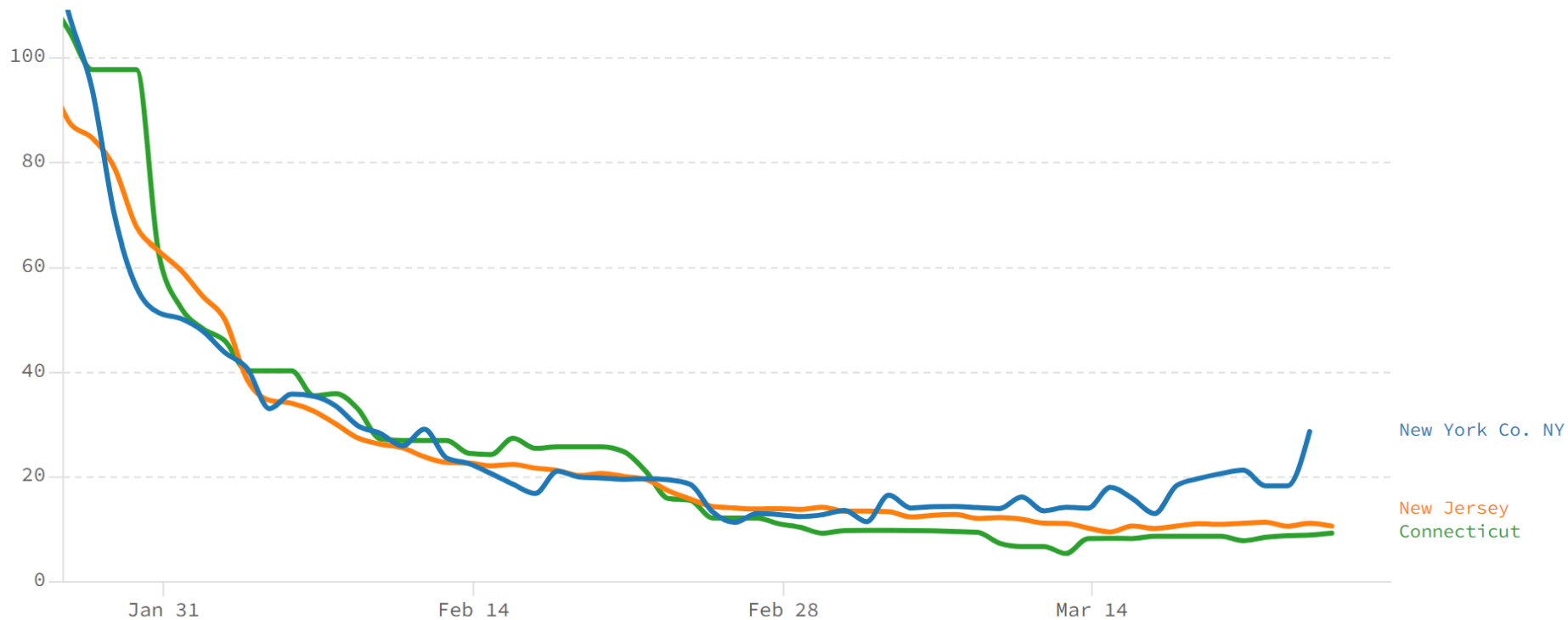
PAST # OF DAYS

60



LOCATIONS

New York County, NY; New Jersey; Connecticut



# NYC

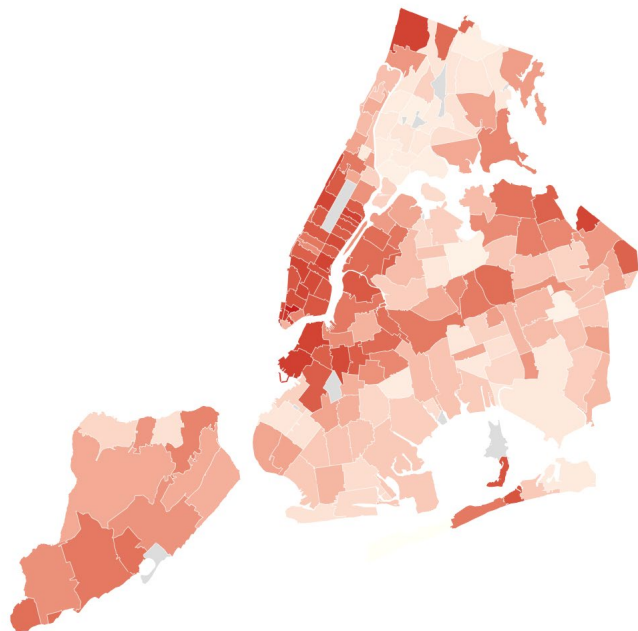
## ZIP codes by positivity over last 7 days

This map shows the proportion of COVID test-takers who received a positive result in the last week. Click [here](#) for test rate.

Percent positive last 7 days

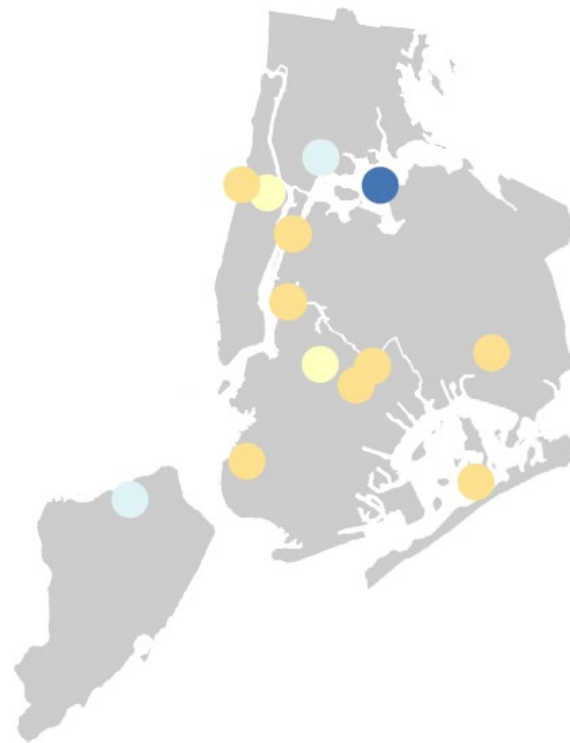
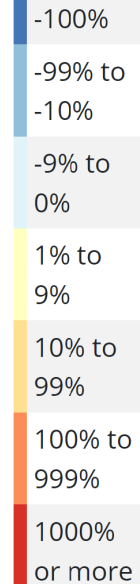


A horizontal color bar legend showing a gradient from light yellow to dark red, representing the percentage of positive test results over the last 7 days. The scale is marked with 0% at the left end and 9% at the right end.



*These data do not include positive test results for people living in nursing homes and other congregate settings.*  
Map: Jaclyn Jeffrey-Wilensky / Gothamist • Source: [NYC DOH](#) • [Get the data](#) • Created with [Datawrapper](#)

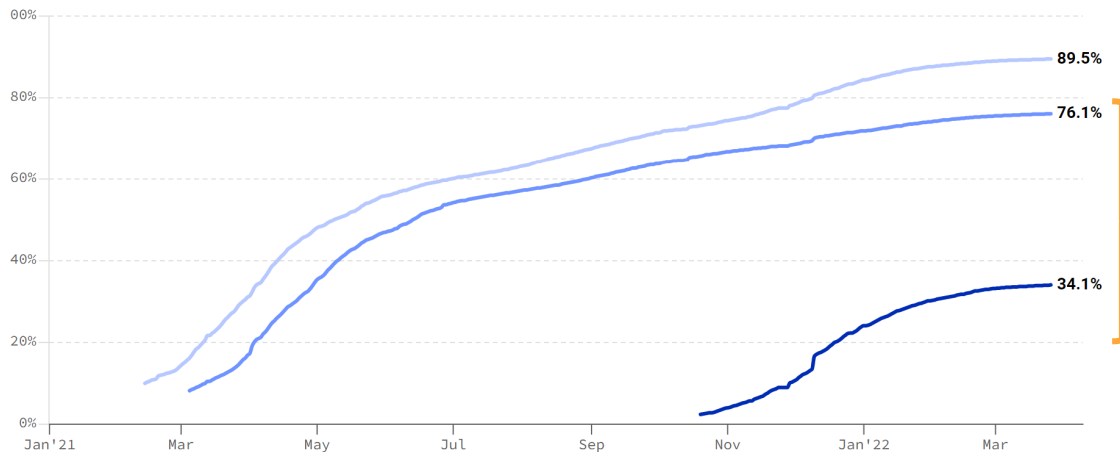
## 15-day % change category



# Will we see a BA.2 Surge in NYC?

## % Vaccinated New York State

1+ DOSE      2+ DOSES OR J&J      BOOSTER SHOT  
● 89.5%    ● 76.1%    ● 34.1%

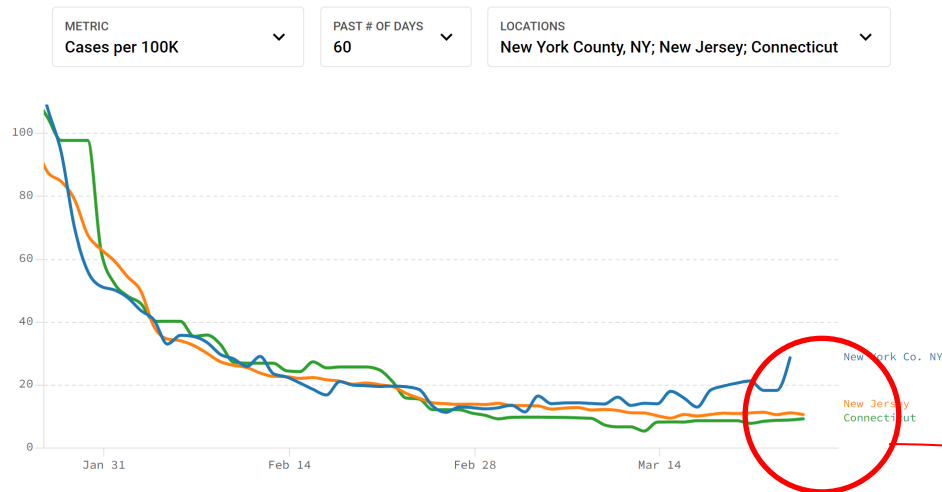


### The question is:

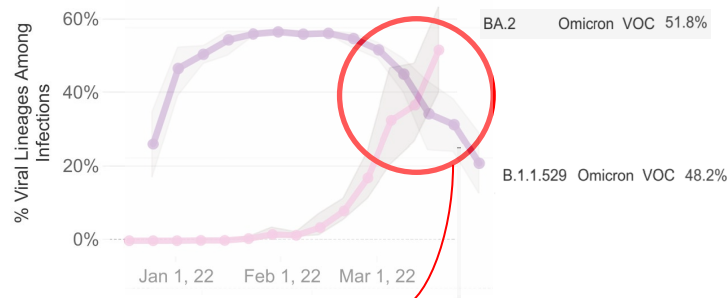
- Is vaccinated + booster
- Or vaccinated + Omicron (BA.1)

Enough to stop a BA.2 surge?

# Will we see a BA.2 Surge in NYC?



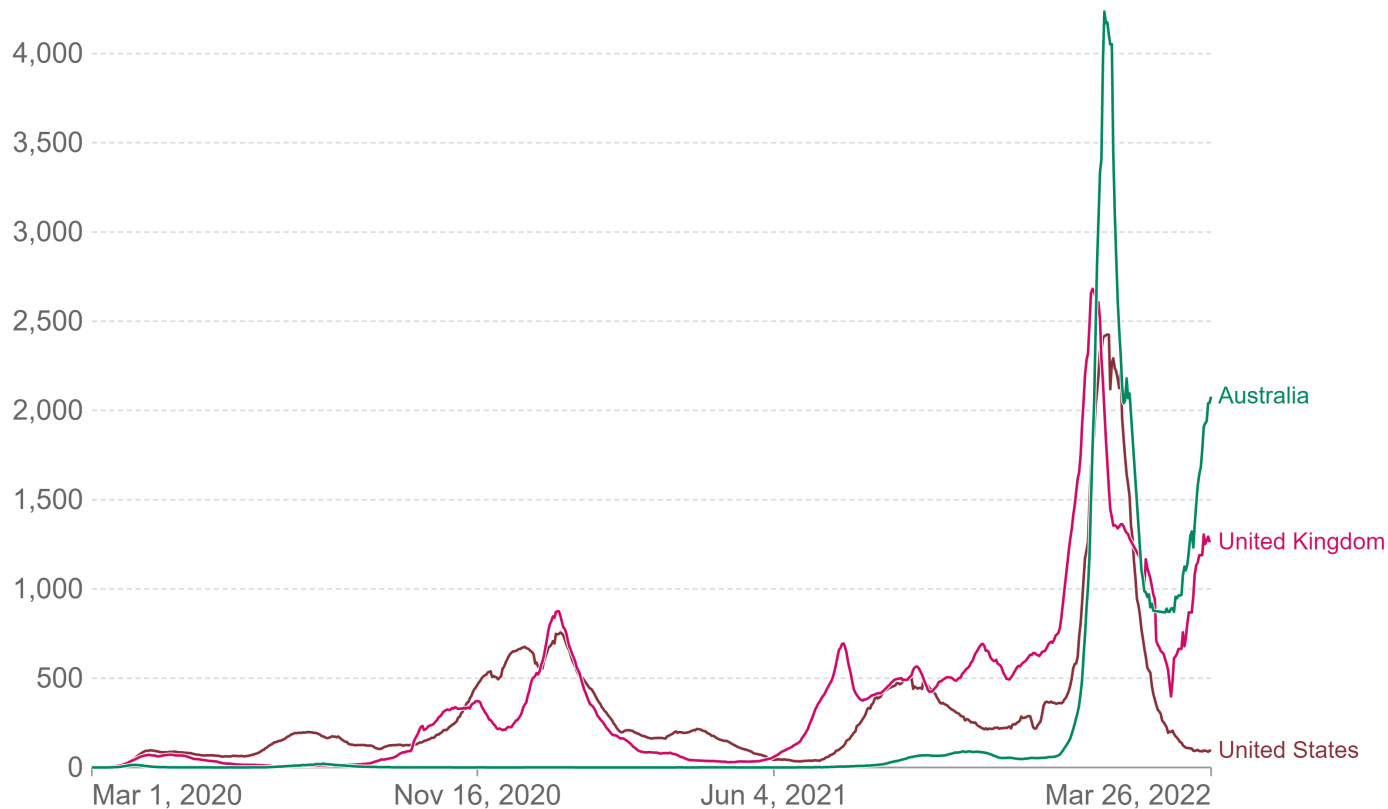
BA.2 already dominant in the region



Not a question of **if we will see** a BA.2 surge in NYC but how **big a surge**?

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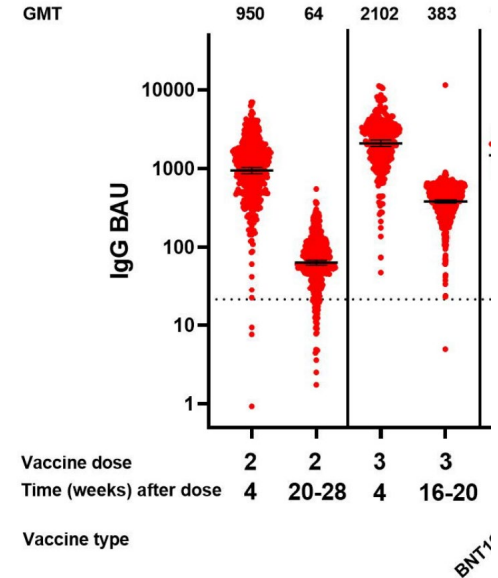
## Boosters – 3<sup>rd</sup> and 4<sup>th</sup> shots





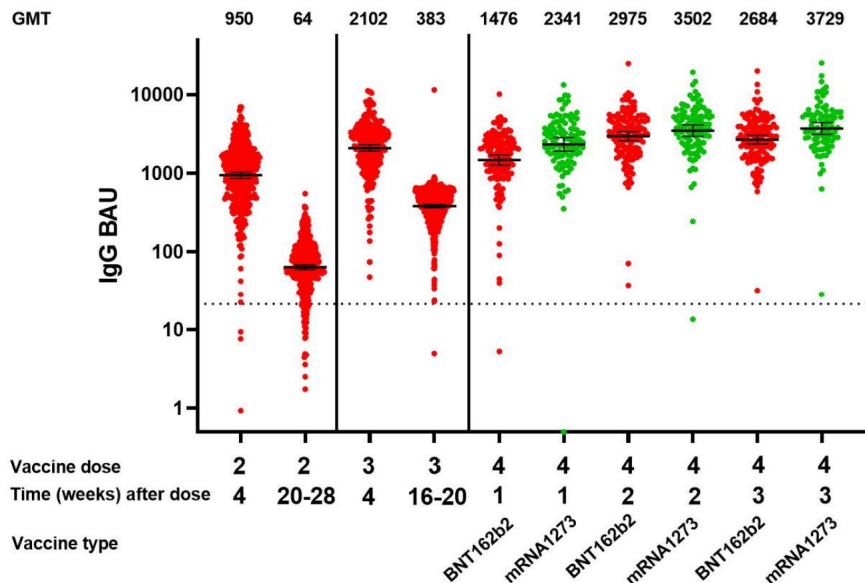
# Boosters

- We know there is waning immunity after vaccination especially against Omicron
- We know that a booster (3<sup>rd</sup> dose) is effective at providing protection against severe illness and hospitalization
- We also know that IgG antibodies also decline after a 3<sup>rd</sup> dose
- So what about a 4<sup>th</sup> dose (second booster):



## 4<sup>th</sup> Dose

- Evidence that a 4<sup>th</sup> mRNA vaccine dose is immunogenic restoring antibody levels to a that of the 3<sup>rd</sup> dose when given 4-5 months after the third dose
  - suggests that current mRNA vaccines hit a “ceiling of immunity” after the third dose
- 4<sup>th</sup> dose appears safe and may be slightly more efficacious against symptomatic disease
- Benefit to young healthy people may be limited but likely of benefit for those over aged 50 or at high risk



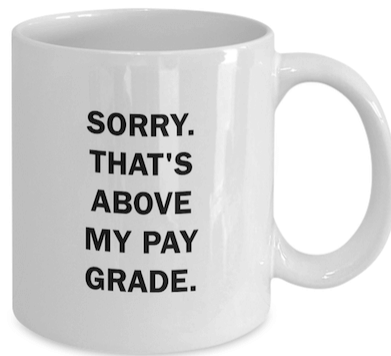
## 4<sup>th</sup> Dose

- FDA likely to recommend an optional 4<sup>th</sup> dose for those over 50 this week

The question is when should people get this booster?

- At least 5 months since 3<sup>rd</sup> shot
- But immunity likely to wane after 4<sup>th</sup> shot so best time is before the next wave
  - Is that now with a potential BA.2 surge
  - Or before the expected late summer/fall surge

- A 3<sup>rd</sup> shot is really important – get one!
- A 4<sup>th</sup> shot is likely to be needed at some point



# Data and Testing

- Governments are decreasing the frequency of reporting to 5 or less days per week
- Free lateral flow tests stopping in the UK
- Sweden only suggesting testing if over 65 or at risk because of medical condition
- Public funded tools such as 'ZOE' and 'REACT-1' are losing funding
- Home testing means many positive cases go unreported
- Many companies are rethinking testing strategies because of cost and logistics

**But is this the time when BA.2 is becoming dominant around the world?**

# What should we do

- Continue testing to:
  - Confirm cases
  - Screen high-risk situations
  - Surveillance for breakthrough infections
  - Provide easy and cheap/free access to at home testing
    - Encourage reporting - can be anonymous
    - Positive tests leads to easy access to treatment options
- Increase wastewater surveillance ++++++
- Genomic sequencing to identify emerging variants
  - Hospital patients
  - Wastewater



# Monoclonal Antibody Treatments for COVID

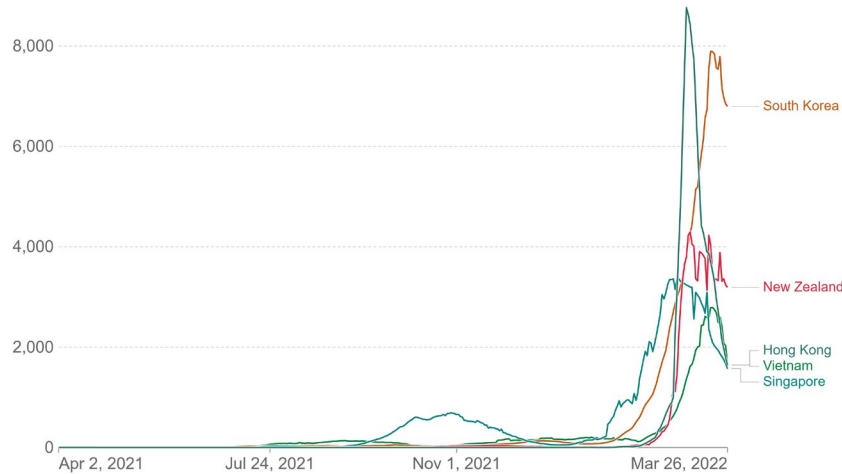
- Sotrovimab was effective against the Omicron subvariant BA.1 and while initially thought to be effective against BA.2 recent studies suggest it is not effective.
  - FDA restricted its use in states where BA.2 is the dominant variant
  - Studies underway to see if a higher dose is effective
- FDA had already restricted use of MAB treatments during the Delta surge because they were ineffective (and also thought unlikely to work with BA.2)
- Highlights ongoing challenge of changing variants and MAB treatments
- This leaves only bebtelovimab and other antiviral drugs
  - Also - Evusheld a prophylactic MAB combo for the immunocompromised – 80% unused, mostly unknown or confusion over who is eligible.

# Asia and Oceana

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

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Our World  
in Data



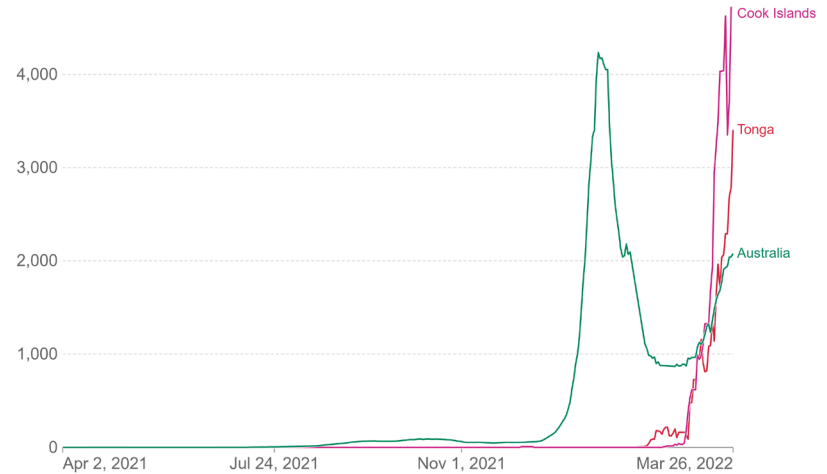
Source: Johns Hopkins University CSSE COVID-19 Data

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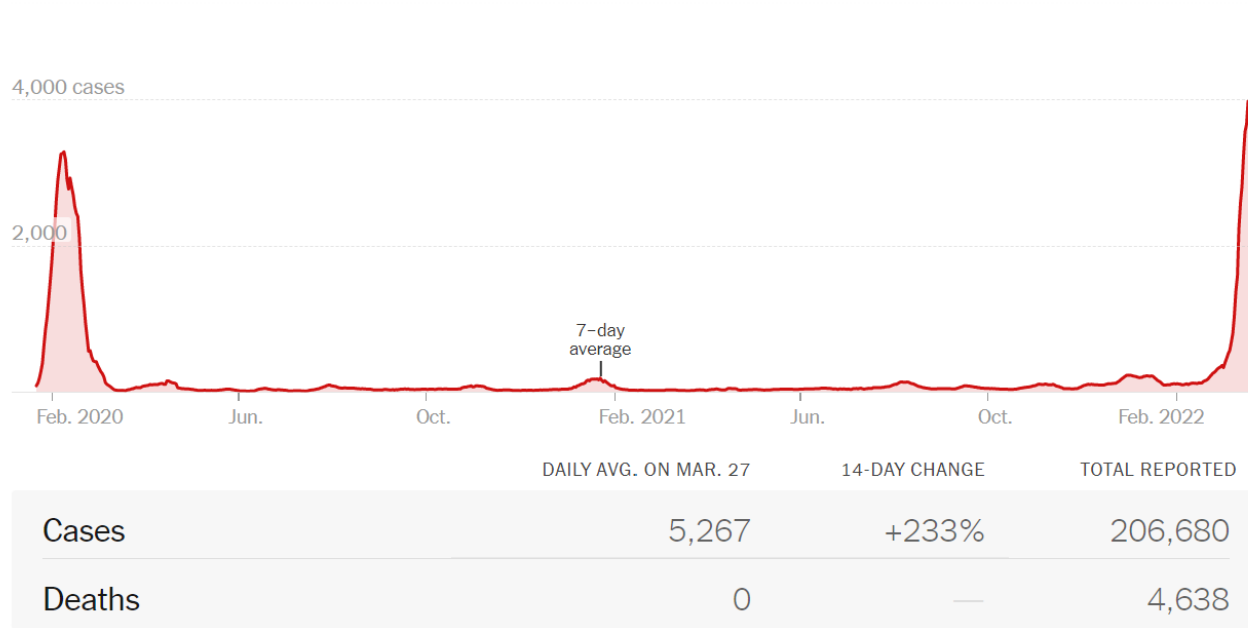


Source: Johns Hopkins University CSSE COVID-19 Data

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# China



- An average of 5,267 cases per day were reported in China in the last week. Cases have increased by 233 percent over last 14 days
- Shanghai – 2,600 cases yesterday:
  - Testing (26M people) and lockdowns in 2- phases

The background of the slide features several stylized, purple virus particles. These particles are spherical with a textured surface and are covered in numerous protruding, cone-shaped spikes. The particles are rendered with a sense of depth and are scattered across the frame, with some appearing more prominent than others. The overall color scheme is a deep purple, creating a cohesive and thematic visual for a presentation related to COVID-19.

# Questions

## Upcoming NEBGH virtual events:

- **April 4** – Dr. Mark's Weekly COVID-19 Update
- **June 16** – Benefits Leadership for a Changing World: Accept the Challenge!