

The background of the image is a dark red color with a white line-art map of the Harvard University campus. The map shows a dense grid of streets and building footprints, with some larger, more irregular shapes representing open spaces or specific campus landmarks.

**BLOOMBERG
HARVARD**

City
Leadership
Initiative



COVID-19

SITUATION REPORT

August 5, 2021 | Joshua Sharfstein, MD



Last Updated at (M/D/YYYY)
8/5/2021, 8:21 AM

Cases

200,413,577

Deaths

4,260,351

Vaccine Doses Administered

4,296,046,271

Cases and Deaths by
Country/Region/Sovereignty

35,334,571 | 614,809
US

31,812,114 | 426,290
India

20,026,533 | 559,607
Brazil

6,296,570 | 159,803
Russia

6,272,189 | 112,233
France

5,980,887 | 130,300
United Kingdom

5,822,487 | 51,767
Turkey

4,975,616 | 106,747
Argentina

4,815,063 | 121,695
Colombia

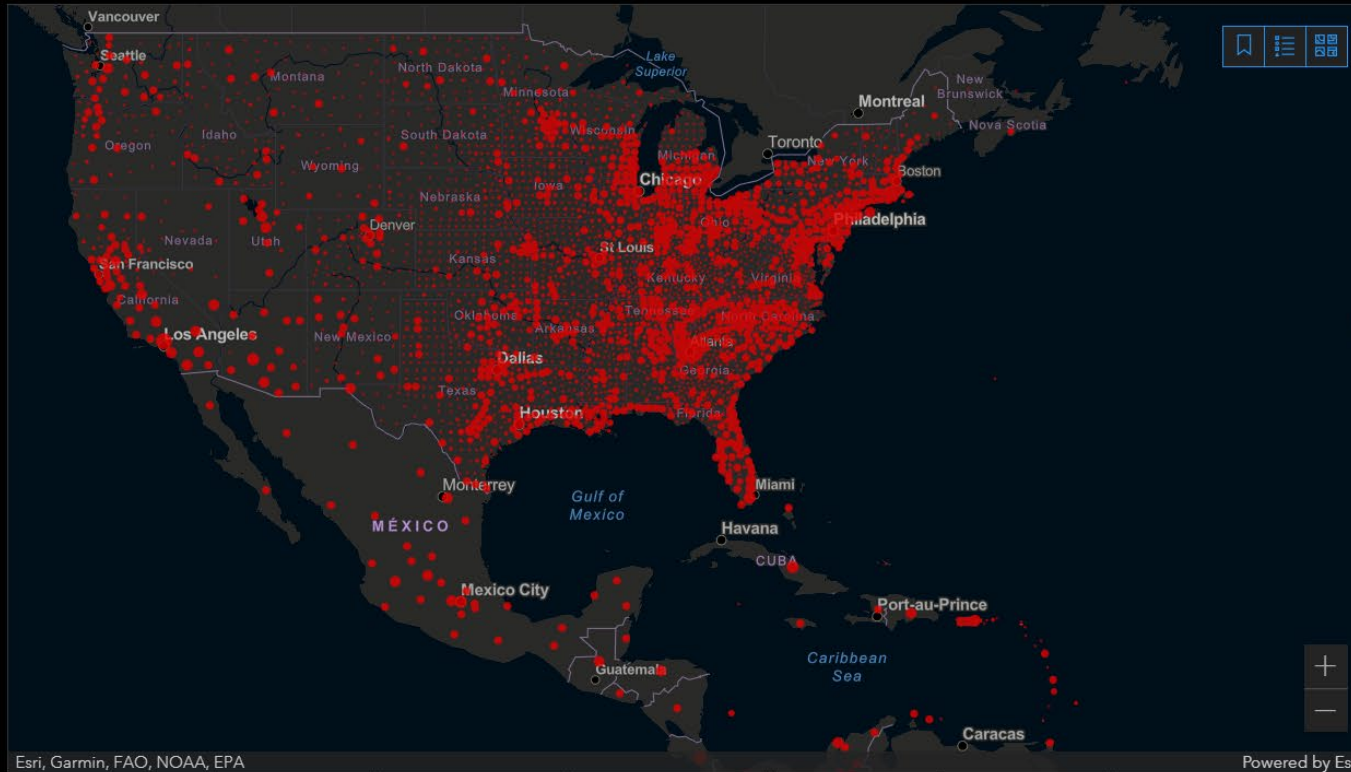
4,545,184 | 81,844
Spain

4,369,966 | 128,136

Admin0

Admin1

Admin2



Esri, Garmin, FAO, NOAA, EPA

Powered by Esri

Cumulative Cases

Incidence Rate

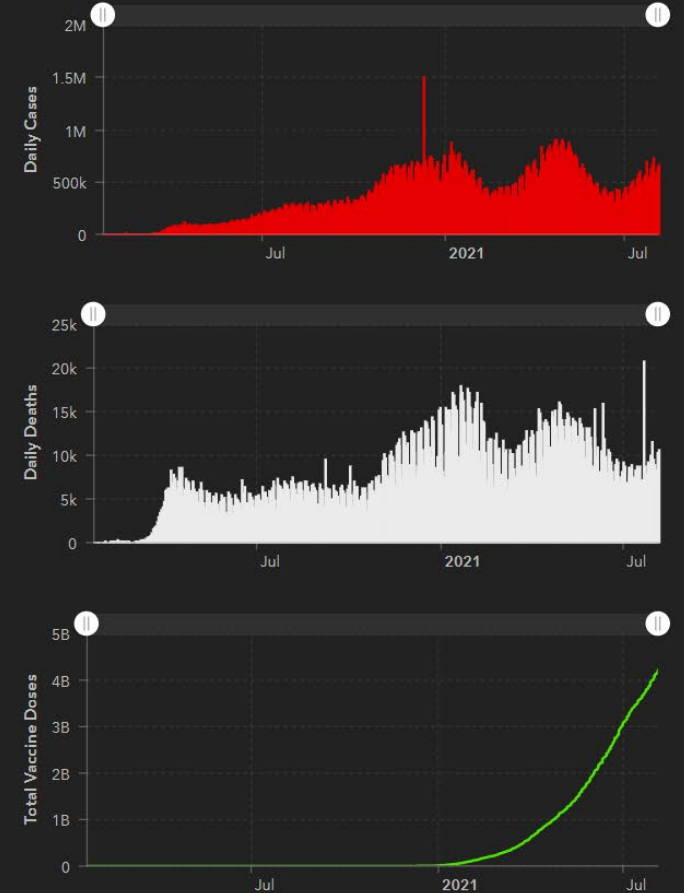
Case-Fatality Ratio

Global Vaccinations

US Vaccinations

US Testing Rate

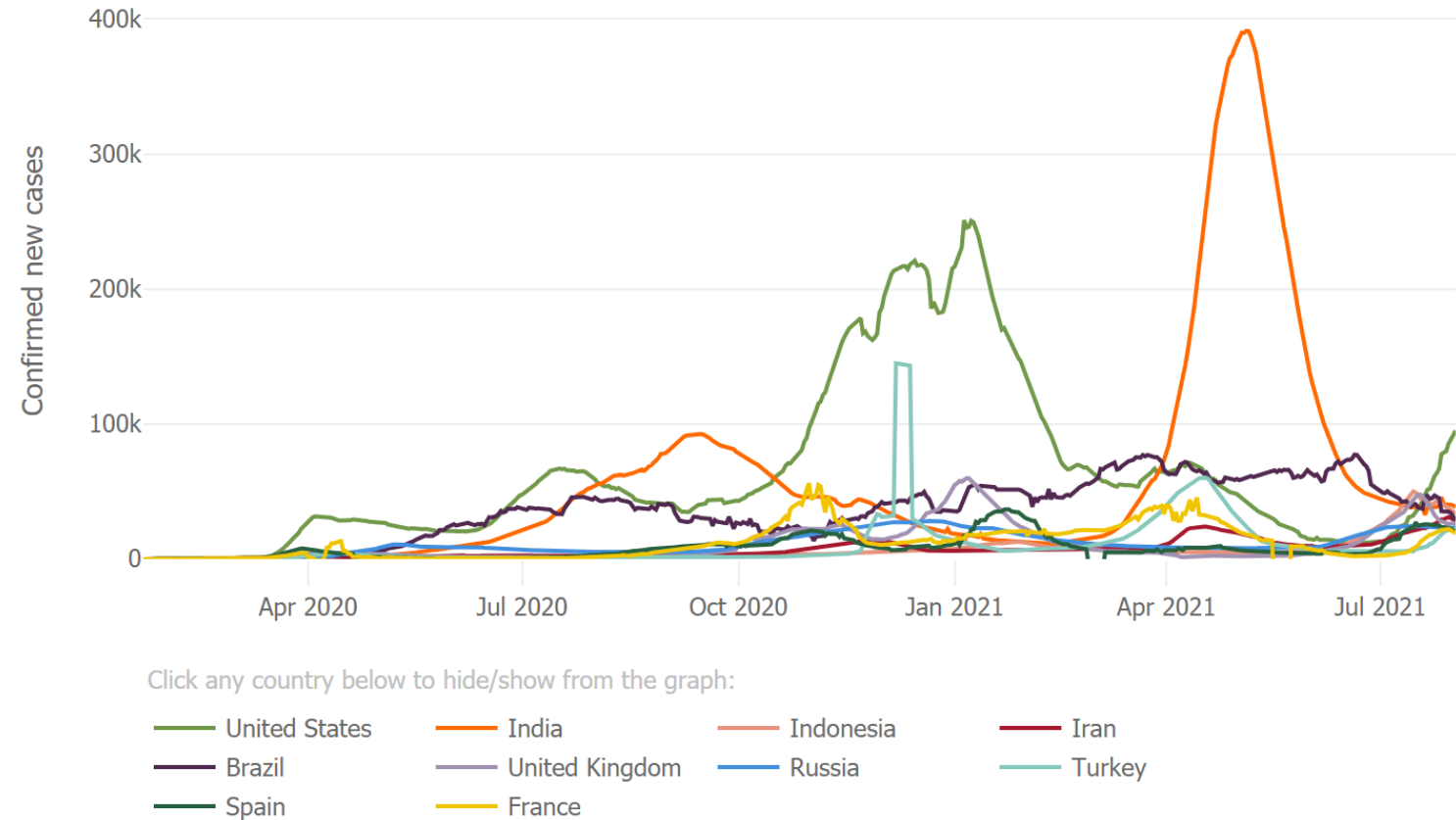
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**U.S. again
reporting
most cases
globally**

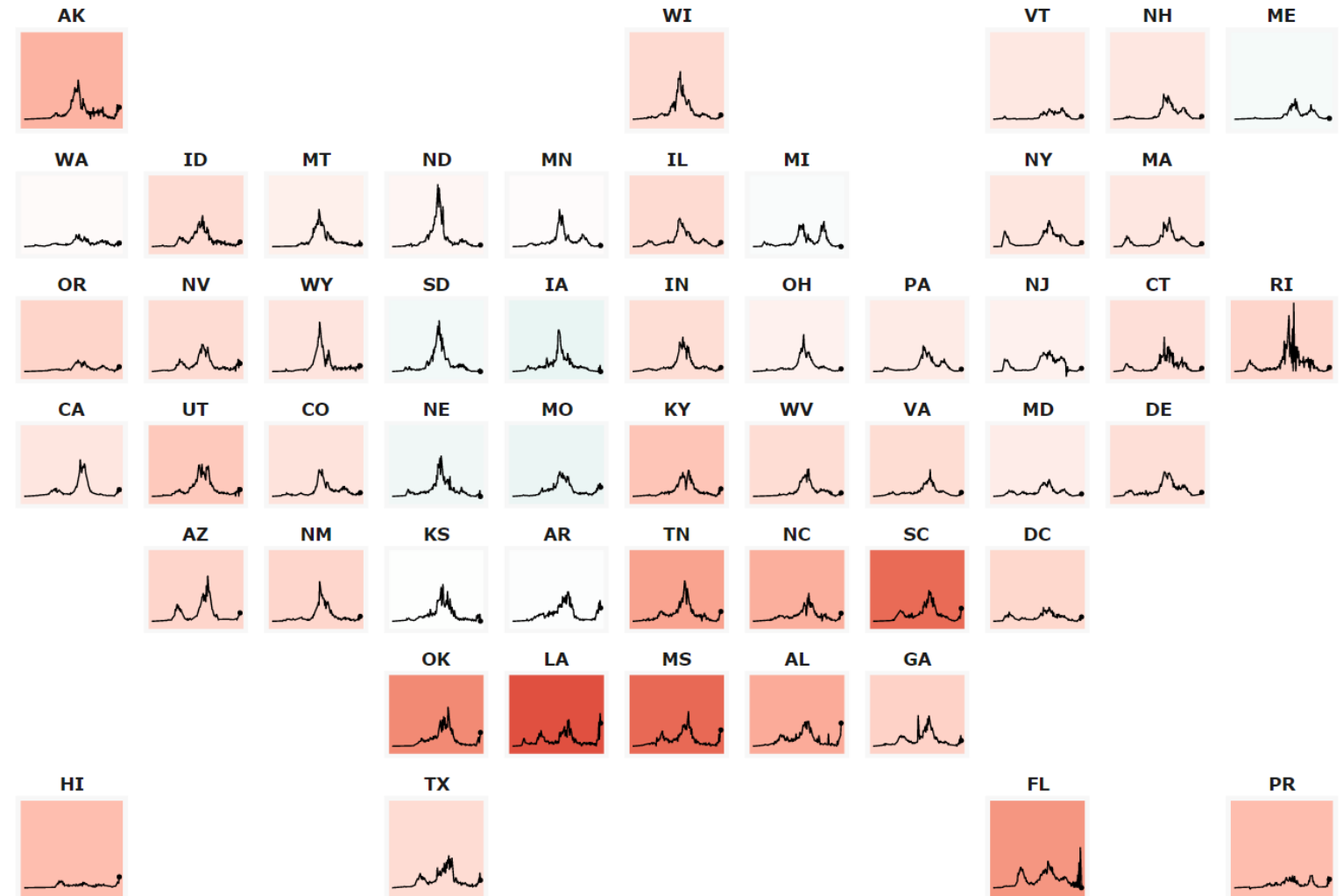
DAILY CONFIRMED NEW CASES (7-DAY MOVING AVERAGE)

Outbreak evolution for the current most affected countries



Southern states with worst outbreaks

Daily New Cases per 100k people. Data shown from **1/22/20** to **8/2/21**.



What's New This Week



Vaccine Outreach

There are still many people who will receive the vaccine if they are made available in convenient locations (e.g. supermarkets).



For Mayors

Vaccination remains the best path out of the pandemic. Support for community efforts is essential.



What's New This Week



Vaccine Mandates?

Mandating vaccines does improve uptake. Highest priority is for health care field given risks to patients. Cities can mandate for city workers.

For Mayors

FDA full approval anticipated soon. This is an opportunity to revisit standards to keep city employees and residents safe.





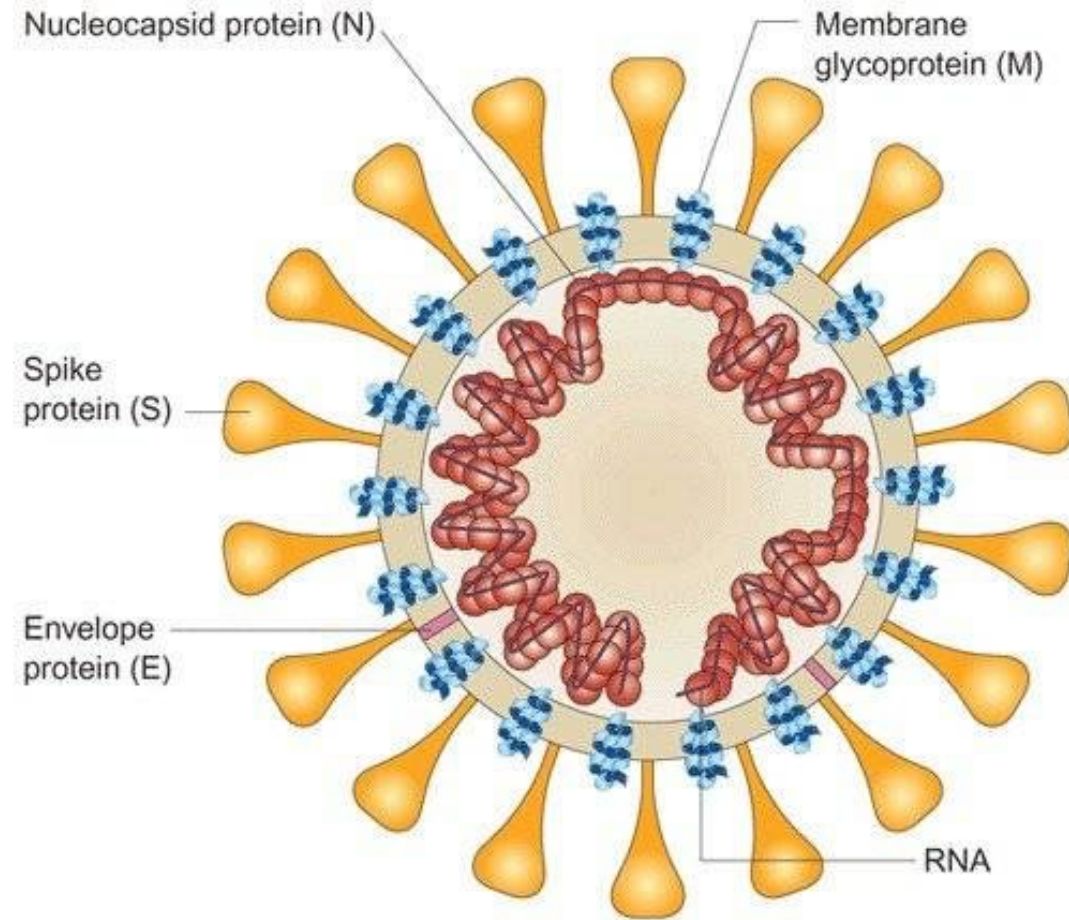
COVID-19 Delta variant

Andrew Pekosz, PhD

PROFESSOR, MOLECULAR MICROBIOLOGY AND
IMMUNOLOGY | JOHNS HOPKINS UNIVERSITY
BLOOMBERG SCHOOL OF PUBLIC HEALTH

What is a virus variant?

All viruses mutate at a particular rate
COVID-19 appears to mutate every week or so



COVID-19 variants

Some COVID-19 variants are highly transmissible

THE CDC AND WHO

- Established a system of Greek letters to classify new variants of COVID-19 that merit further investigation

VARIANTS OF INTEREST

- Have mutations that are predicted or known to affect virus characteristics such as transmissibility, disease severity, immune escape, diagnostic, or therapeutic escape
- Have caused a significant number of cases in multiple geographic regions

VARIANTS OF CONCERN

- Have documented:
 - Increased transmission
 - Increased clinical disease
 - Decreased sensitivity to public health control measures



COVID-19 variants

Some COVID-19 variants are highly transmissible

ALPHA VARIANT

- Emerged in September 2020 in Kent, England
- Contains an unusually high number of mutations compared to most other COVID viruses
- More transmissible than previous variants

BETA AND GAMMA VARIANTS

- Have mutations that reduce antibody binding
- Transmit with slightly higher efficiency than previous variants

OTHER VARIANTS – *EXAMPLE: Delta, Lambda, Iota*

- Have mutations that may reduce antibody binding
- Are not related to the above variants and appear to be new

More infected people means more chances for
COVID-19 to mutate and adapt to humans



What do we know about the Delta variant?

TRANSMISSION

- Increased transmission across all age groups has clearly been documented in several countries
- Unvaccinated individuals are still driving the size of the Delta wave

ESCAPE FROM IMMUNE RESPONSES

- Some of the mutations of the Delta variant reduce susceptibility to antibodies resulting in a slight reduction in efficacy

CLINICAL DISEASE

- Disease severity is increased slightly across all age groups
- There is a larger amount of virus in individuals infected with the Delta variant



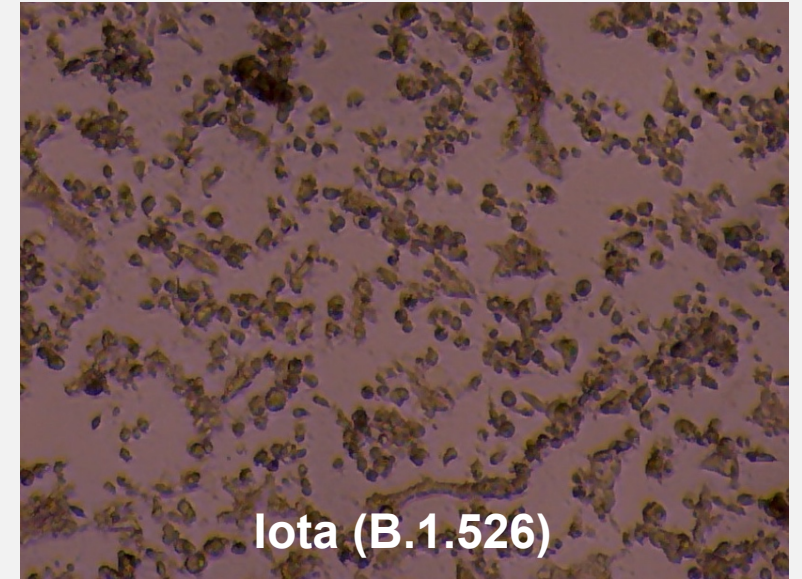
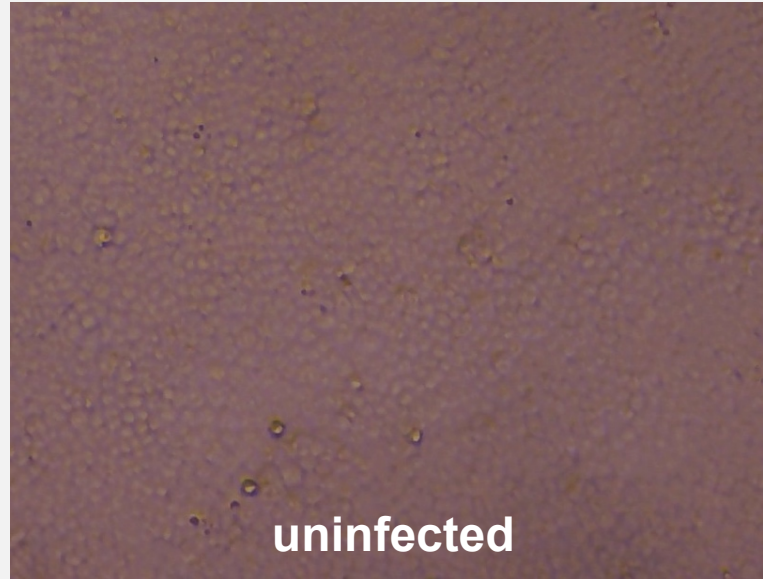
Vaccinated individuals continue to be protected from severe disease, but symptomatic infections with high amounts of virus are increasing in frequency



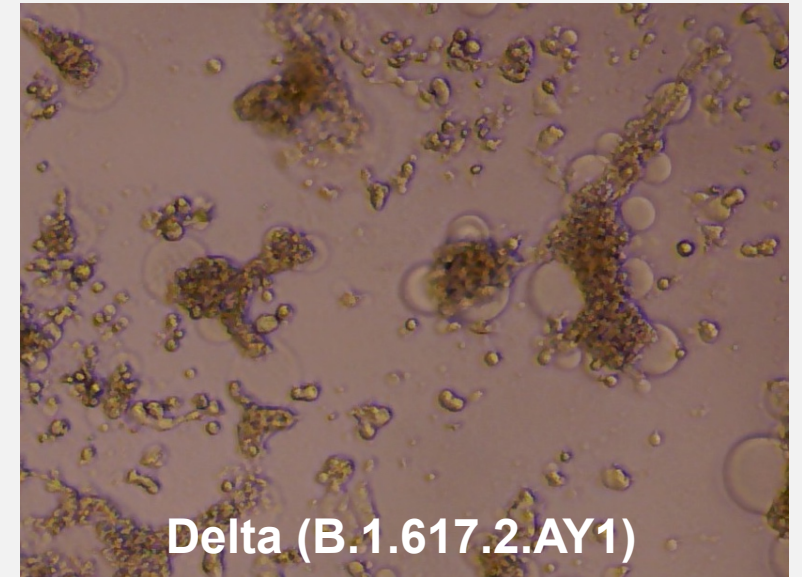
Booster vaccinations for high-risk groups may be coming to ensure good protection from severe disease (England and Israel)



Delta variant behaves differently in laboratory settings



More cases will result in more hospitalizations and deaths, even if the virus isn't causing more severe disease





JOHNS HOPKINS
BLOOMBERG SCHOOL
of PUBLIC HEALTH

Center for
Health Security

COVID-19 Delta Variant

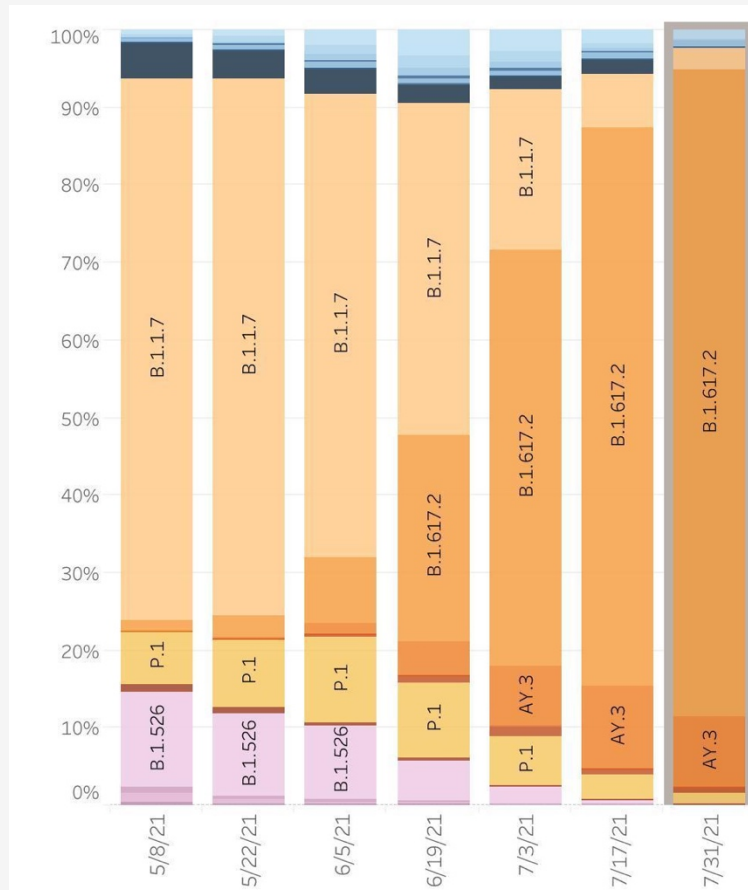
– Policy Implications

Crystal Watson, DrPH, MPH

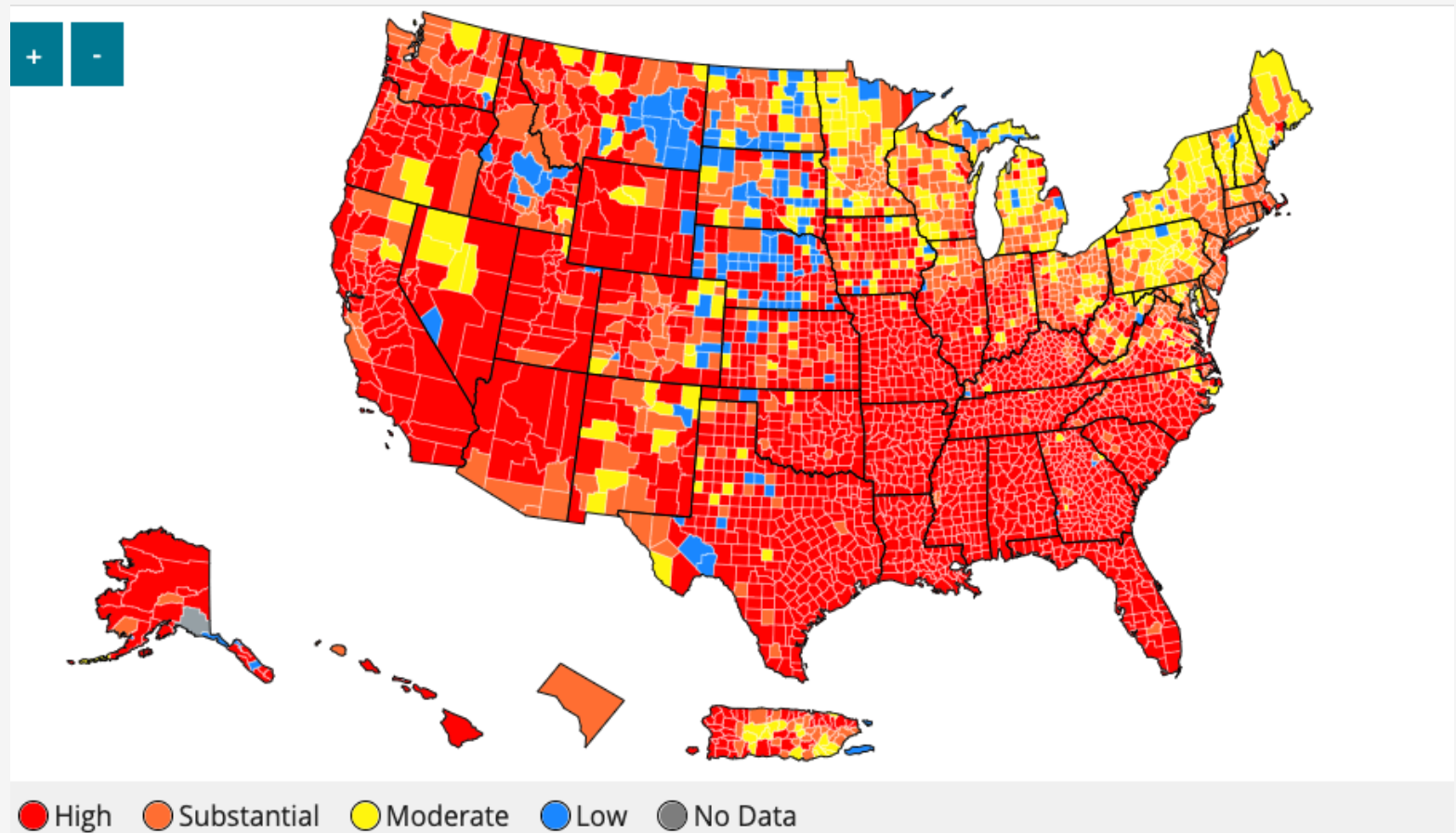
SENIOR SCHOLAR | JOHNS HOPKINS CENTER FOR
HEALTH SECURITY, ASSISTANT PROFESSOR | DEPARTMENT
OF ENVIRONMENTAL HEALTH AND ENGINEERING

The Delta Variant – Causing a Surge Everywhere

Estimated Proportions of COVID-19 Variant Lineages



Level of Community Transmission by County



Masking Policies

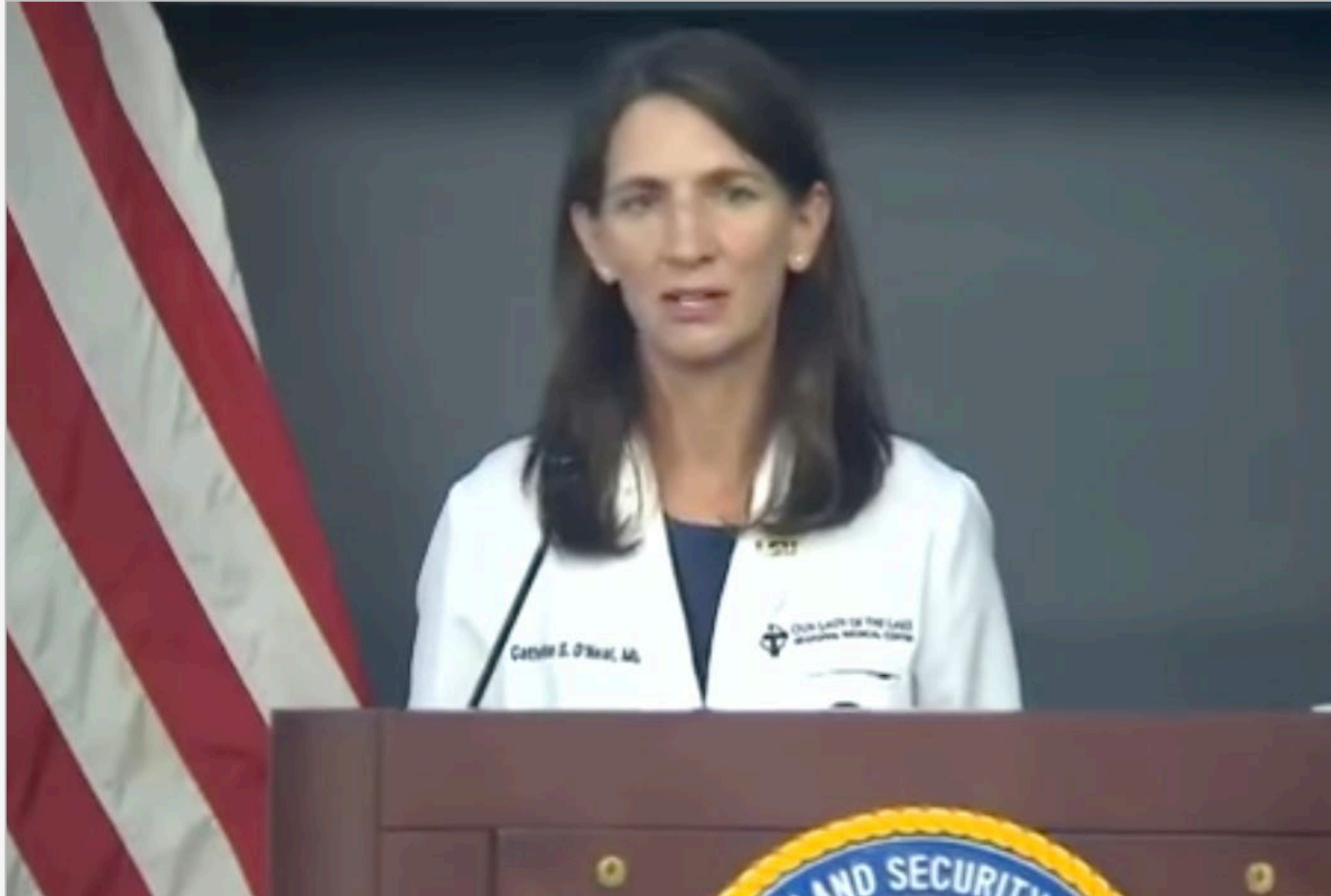
CDC is recommending everyone **mask up again** in indoor public places if they are in areas of significant or high transmission (which will likely be everyone soon)

- **Especially important for people at high risk of severe disease** or have someone living with them who is at high risk
 - For most people, the **vaccine is very protective against hospitalization and death**
 - For some with **older or compromised immune systems the vaccines are not as protective against the Delta variant**
-

Recent CDC data suggests that **people who are fully vaccinated may still be able to transmit the Delta variant** to others

Adding a **layer of protection** (masks) is **helpful to reduce transmission**, especially if everyone does it together

The Urgency of Masking



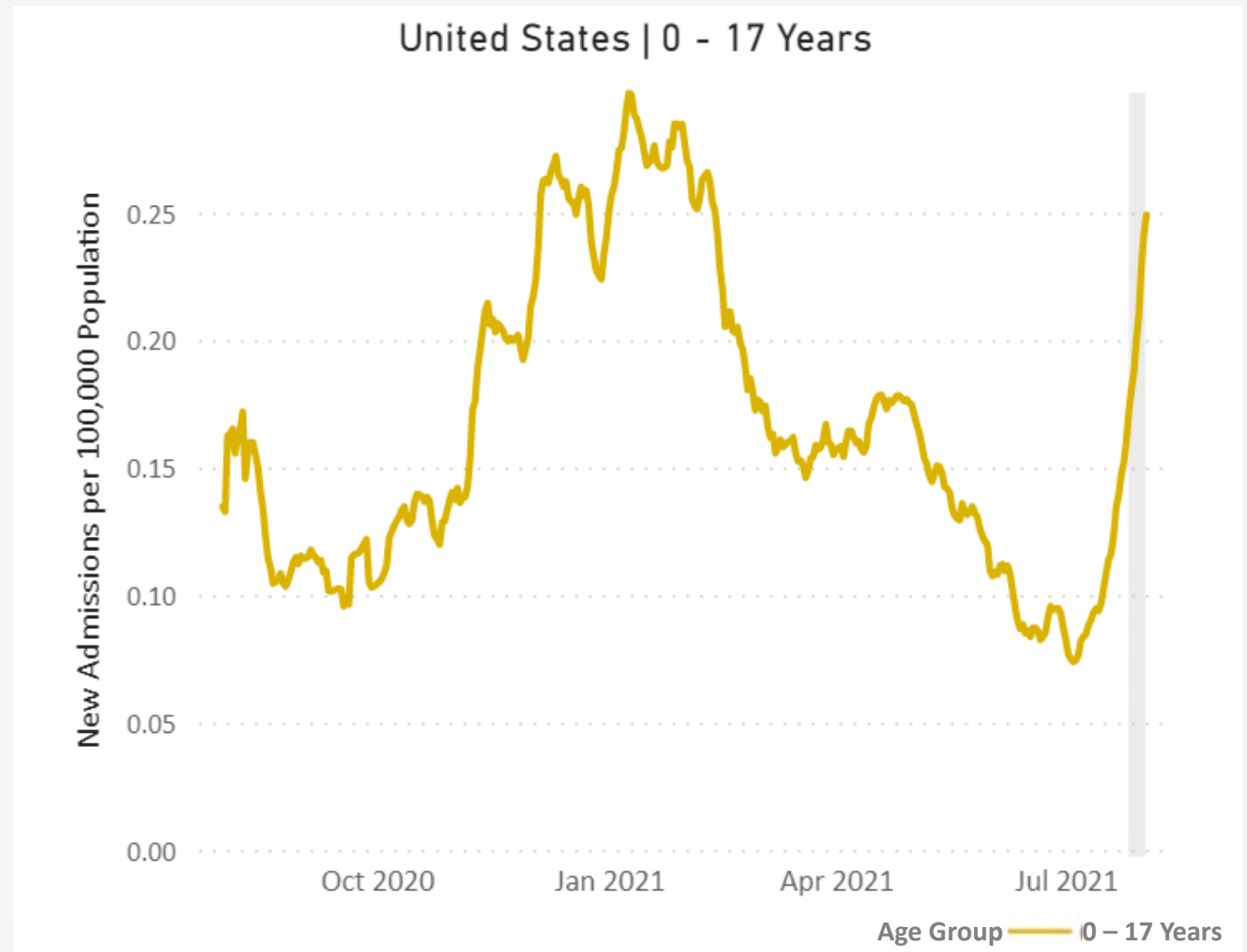
Dr. Catherine O'Neal, Chief Medical Officer at Our Lady of the Lake Regional Medical Center, Baton Rouge, Louisiana

**“There are no more
beds left”**

**“These are the darkest
days of this pandemic.
We are no longer
giving adequate care
to these patients...”**

K-12 School Mitigation Measures

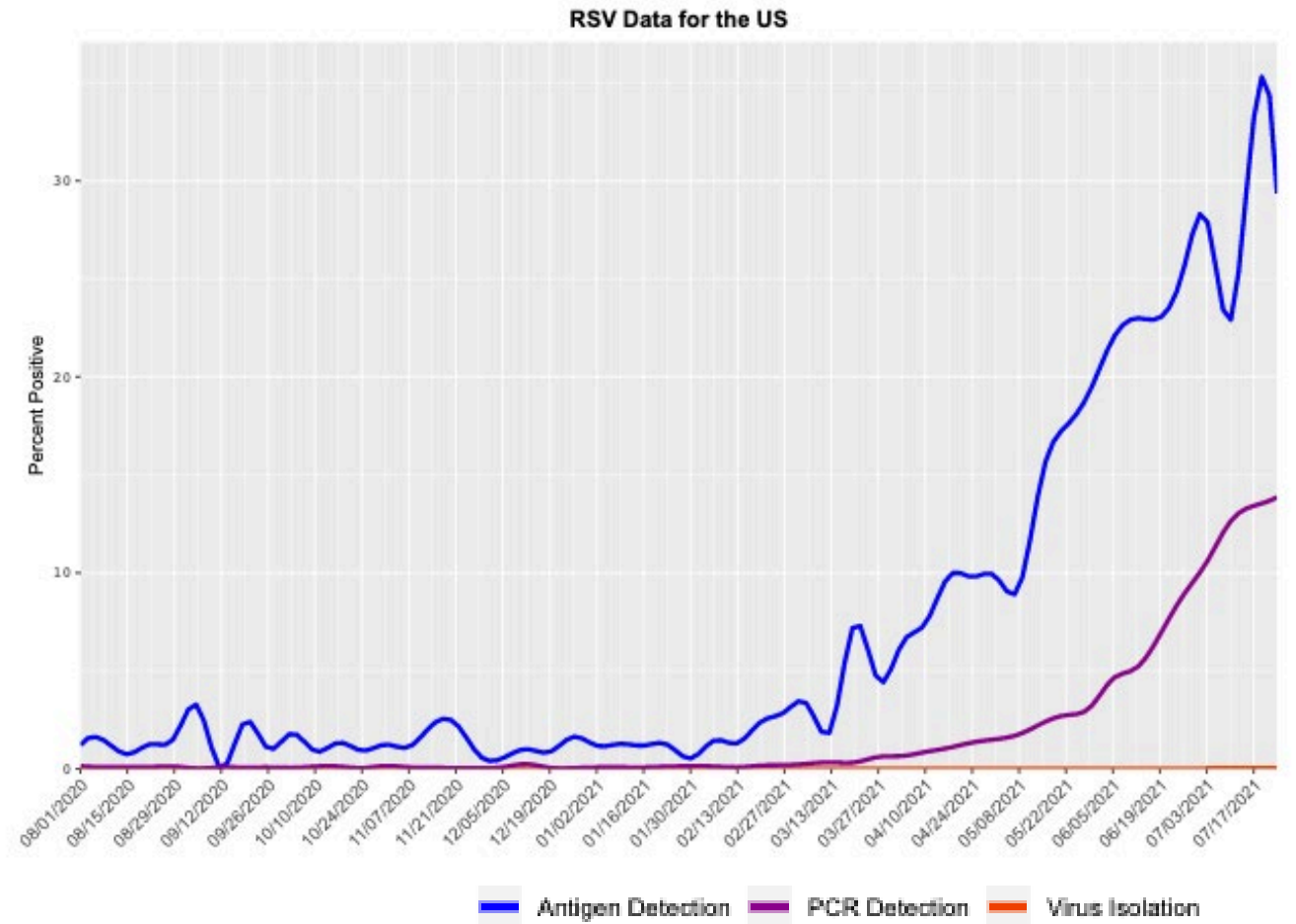
New Admissions of
Patients with Confirmed
COVID-19 per 100,000
Population by Age Group,
United States



K-12 School Mitigation Measures

Respiratory Syncytial Virus (RSV)

Percent Positive



Vaccine Requirements

Universities have led the way on vaccine requirements, initially for students, but now also faculty and staff

Government entities are now requiring vaccine in some cases

- **Federal government** – requiring for VA facilities and requiring either vaccination or rigorous testing, masking and distancing for unvaccinated federal employees
 - **Local government** – NYC recently became the first jurisdiction to require vaccines; in use for customers in restaurants and gyms
-

Examples of private companies requiring vaccination

- **Google**: requirement for employees returning to office
 - **Netflix**: requirement for casts of all US productions, as well as those that come into contact with them
 - **Disney**: requiring vaccines for all salaried and non-union employees in the US in the next 60 days
 - **Uber** and **Lyft**: requirement for employees returning to office
 - **Danny Meyer Restaurants** (Big NY restaurant group): requiring employee proof of vaccines
-

Other Public Health Mitigation Measures

Core response activities should continue:

- Testing of symptomatic and exposed people
- Case investigation and contact tracing
- Isolation and quarantine and support for these measures

Other measures to consider:

- Surveillance testing in high-density/congregate settings
- Limiting visitors to long-term care facilities and nursing homes
- Reducing capacity in mass gatherings and/or testing/verifying negative test and vaccination status before entry

Recommendations for Mayors During the Delta Surge



Continue to vaccinate as many people as possible



Ensure mitigation measures in K-12 schools are implemented (e.g. improved ventilation and masking)



Explore use of vaccine passports for businesses and mass gatherings



Support public health response measures like case investigation, contact tracing and isolation/quarantine



Mandate or highly encourage masking indoors in public



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