ARC IPC | Alabama Regional Center for Infection Prevention and Control Training and Technical Assistance

COVID-19 Insights from Alabama

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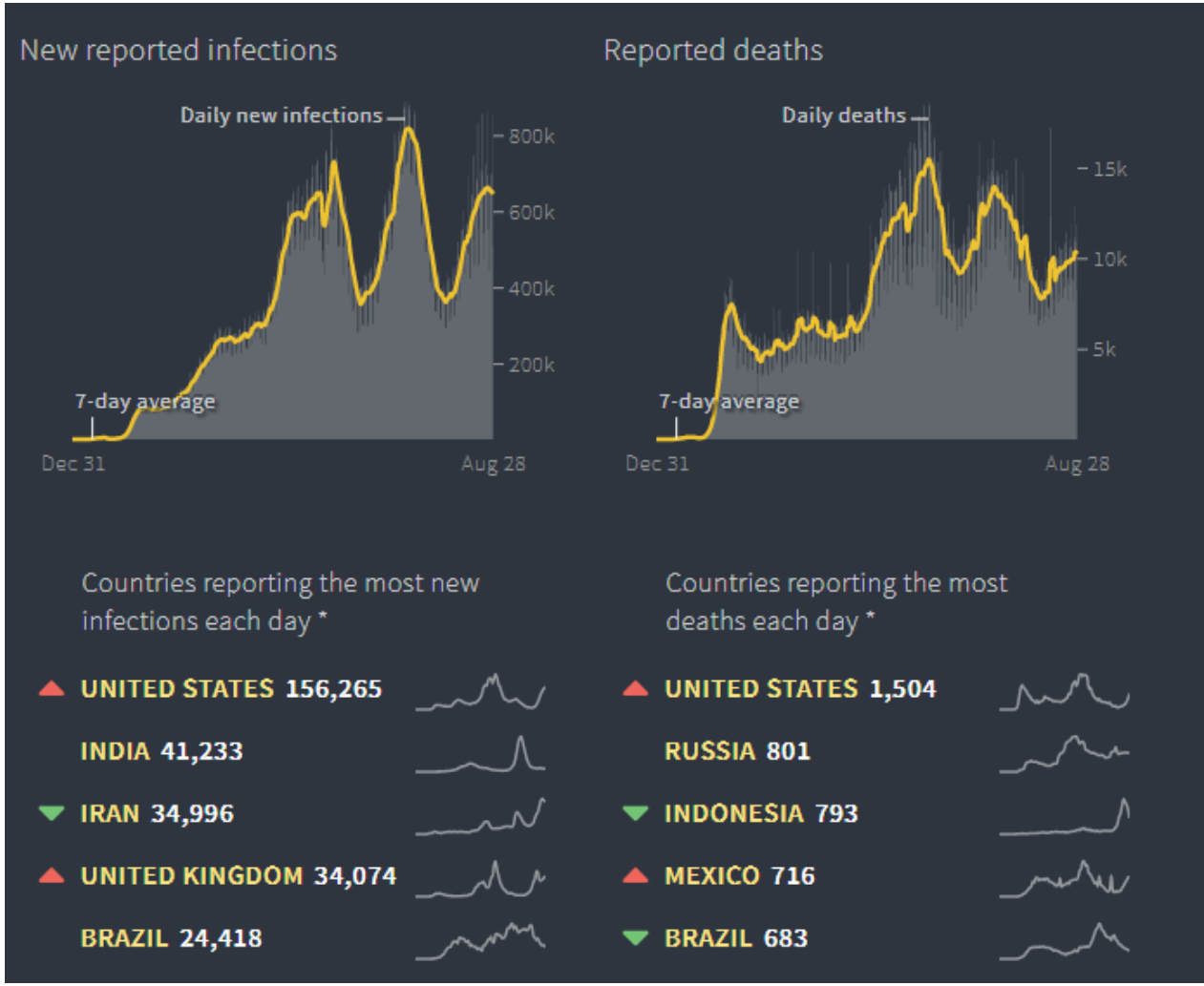
Outline

- COVID-19 Epidemiology
  - COVID-19 and Alabama
  - Rates
  - Vaccination
- Clinical considerations in the setting of Delta
  - Hospitalization
  - K-12

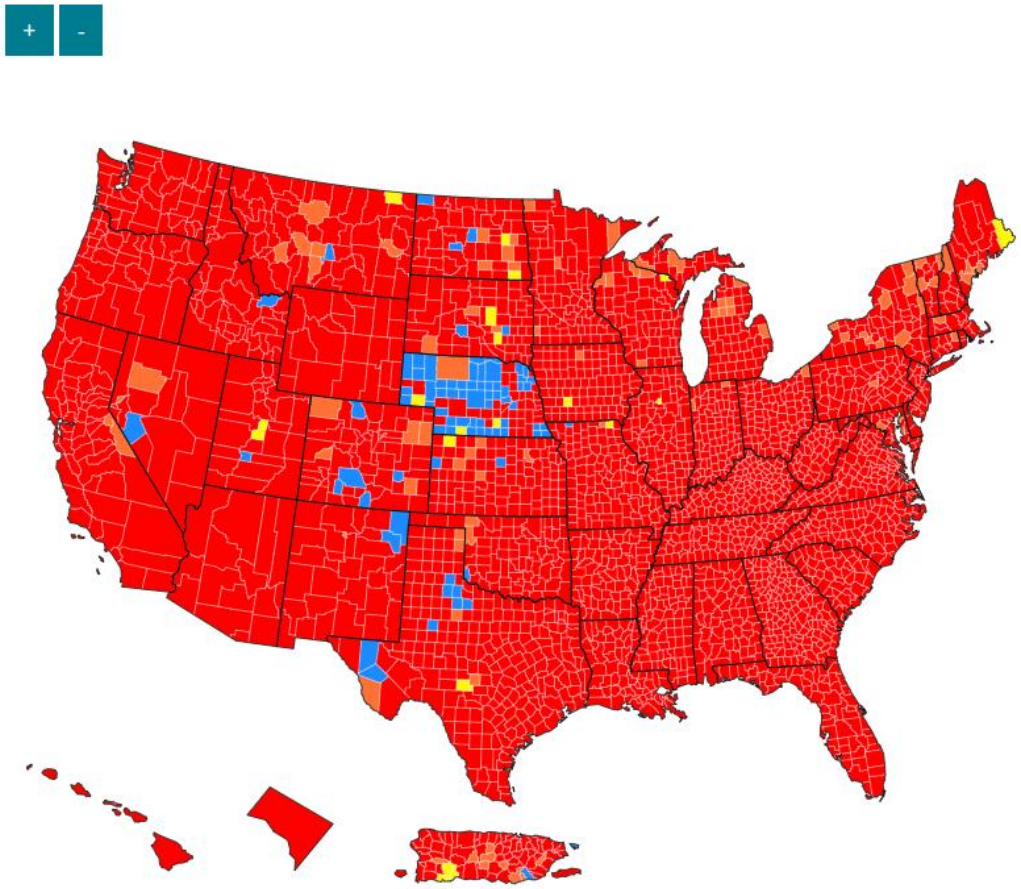
Global Rates of COVID-19

- COVID-19 is rising in 72 countries
  - 216,625,000 reported infections
  - 4,680,000 reported deaths
- 22 countries are still near the peak of their infection



https://graphics.reuters.com/world-coronavirus-tracker-and-maps/

COVID-19 in the US



Community Transmission in US by County

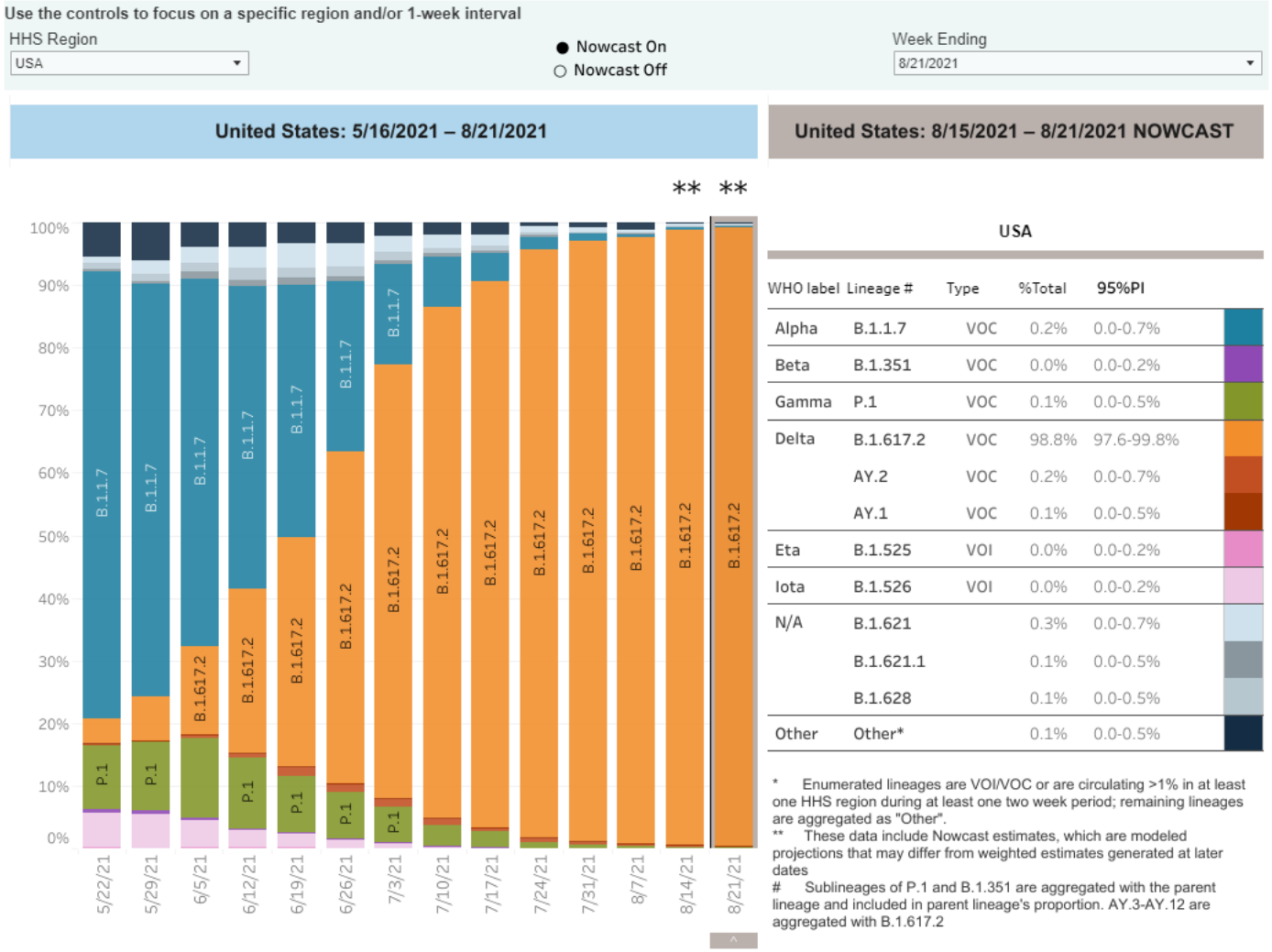
	Total	Percent	% Change
High	3020	93.79%	4.47%
Substantial	91	2.83%	-3.42%
Moderate	22	0.68%	-0.9%
Low	86	2.67%	-0.16%

How is community transmission calculated?

- The United States is at a high level of community transmission with increasing cases
- 7-day moving average of daily new cases increased 2.8%, with 142,000 new cases daily

Rates driven by Delta Variant in the US

- The Delta Variant accounts for 97% of cases in the US
  - In Alabama, 94% are attributable to Delta
- Potentially dangerous evolution of future variants in areas with high transmission rates:
  - MUCH more infectious (easy to transmit);
  - more harmful (severity of illness / hospitalization)



USA

WHO label	Lineage #	Type	%Total	95%PI
Alpha	B.1.1.7	VOC	0.2%	0.0-0.7%
Beta	B.1.351	VOC	0.0%	0.0-0.2%
Gamma	P.1	VOC	0.1%	0.0-0.5%
Delta	B.1.617.2	VOC	98.8%	97.6-99.8%
	AY.2	VOC	0.2%	0.0-0.7%
	AY.1	VOC	0.1%	0.0-0.5%
Eta	B.1.525	VOI	0.0%	0.0-0.2%
Iota	B.1.526	VOI	0.0%	0.0-0.2%
N/A	B.1.621		0.3%	0.0-0.7%
	B.1.621.1		0.1%	0.0-0.5%
	B.1.628		0.1%	0.0-0.5%
Other	Other*		0.1%	0.0-0.5%

* Enumerated lineages are VOI/VOC or are circulating >1% in at least one HHS region during at least one two week period; remaining lineages are aggregated as "Other".
** These data include Nowcast estimates, which are modeled projections that may differ from weighted estimates generated at later dates
# Sublineages of P.1 and B.1.351 are aggregated with the parent lineage and included in parent lineage's proportion. AY.3-AY.12 are aggregated with B.1.617.2

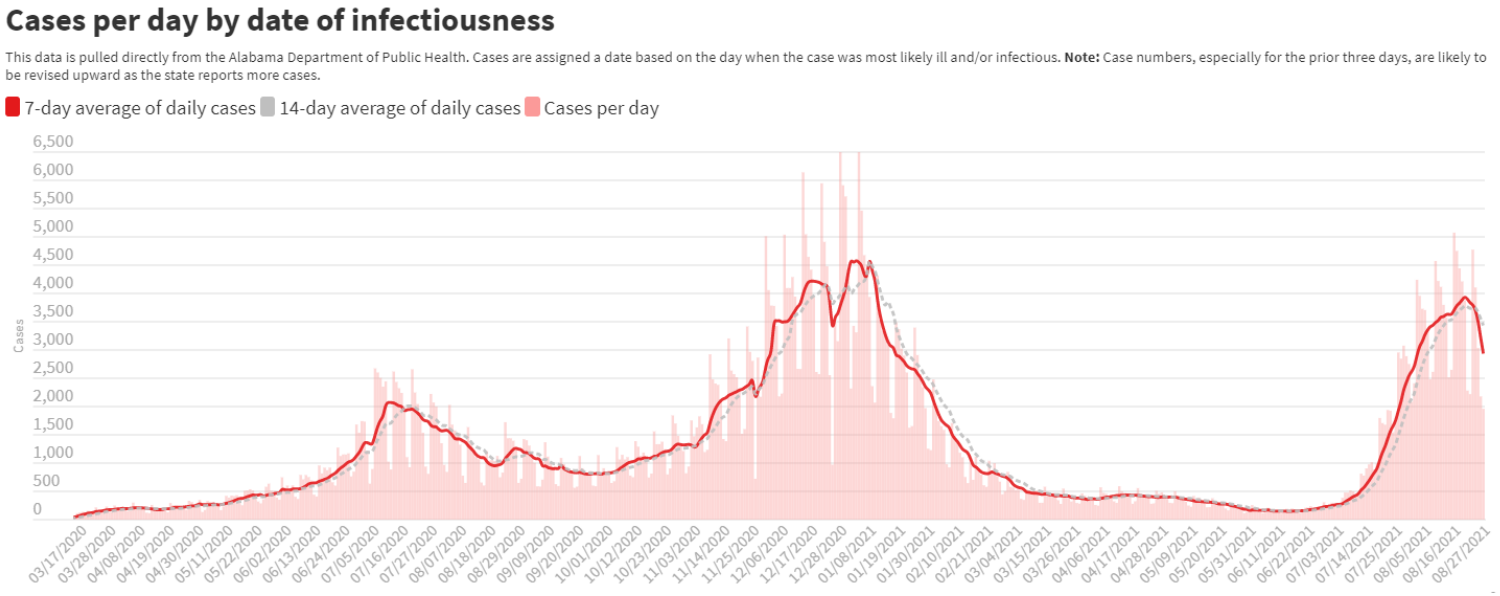
https://covid.cdc.gov/covid-data-tracker/#monitoring-varaint-heading

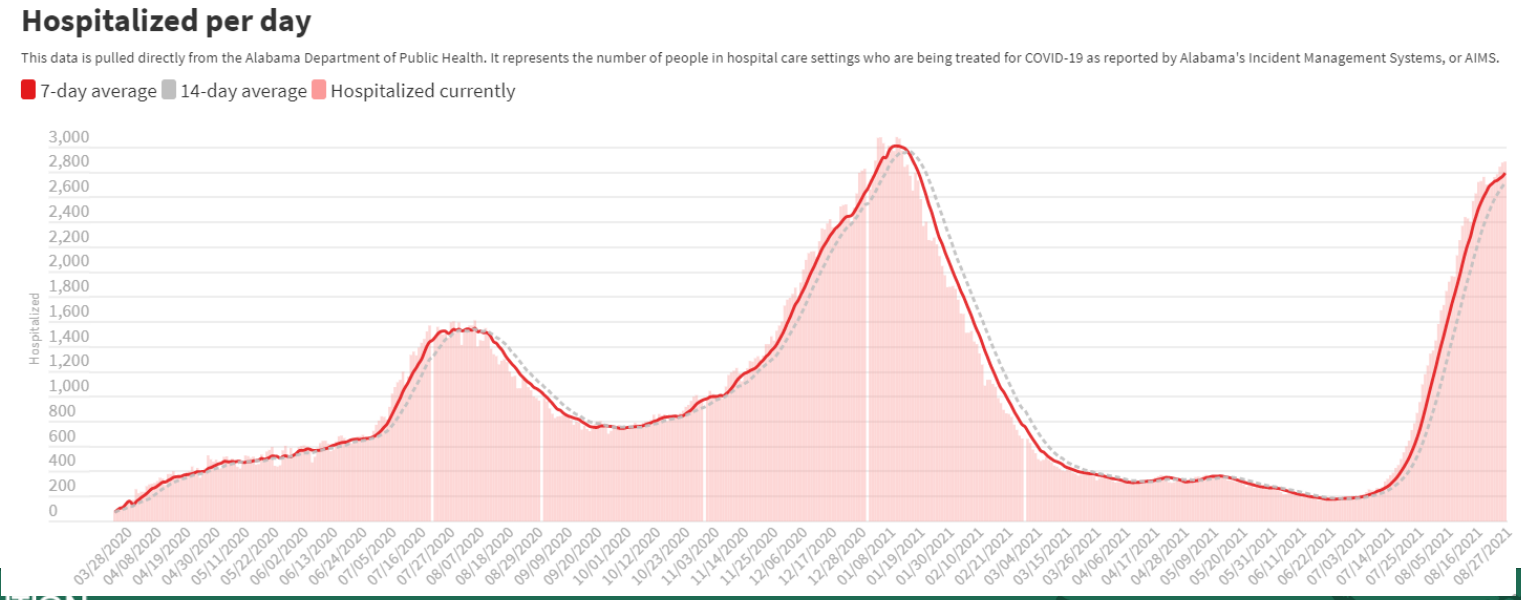
COVID-19 in Alabama

Alabama has had 688,018 total cases

22.6% positivity (out of an average of 18-20,000 tests/day)

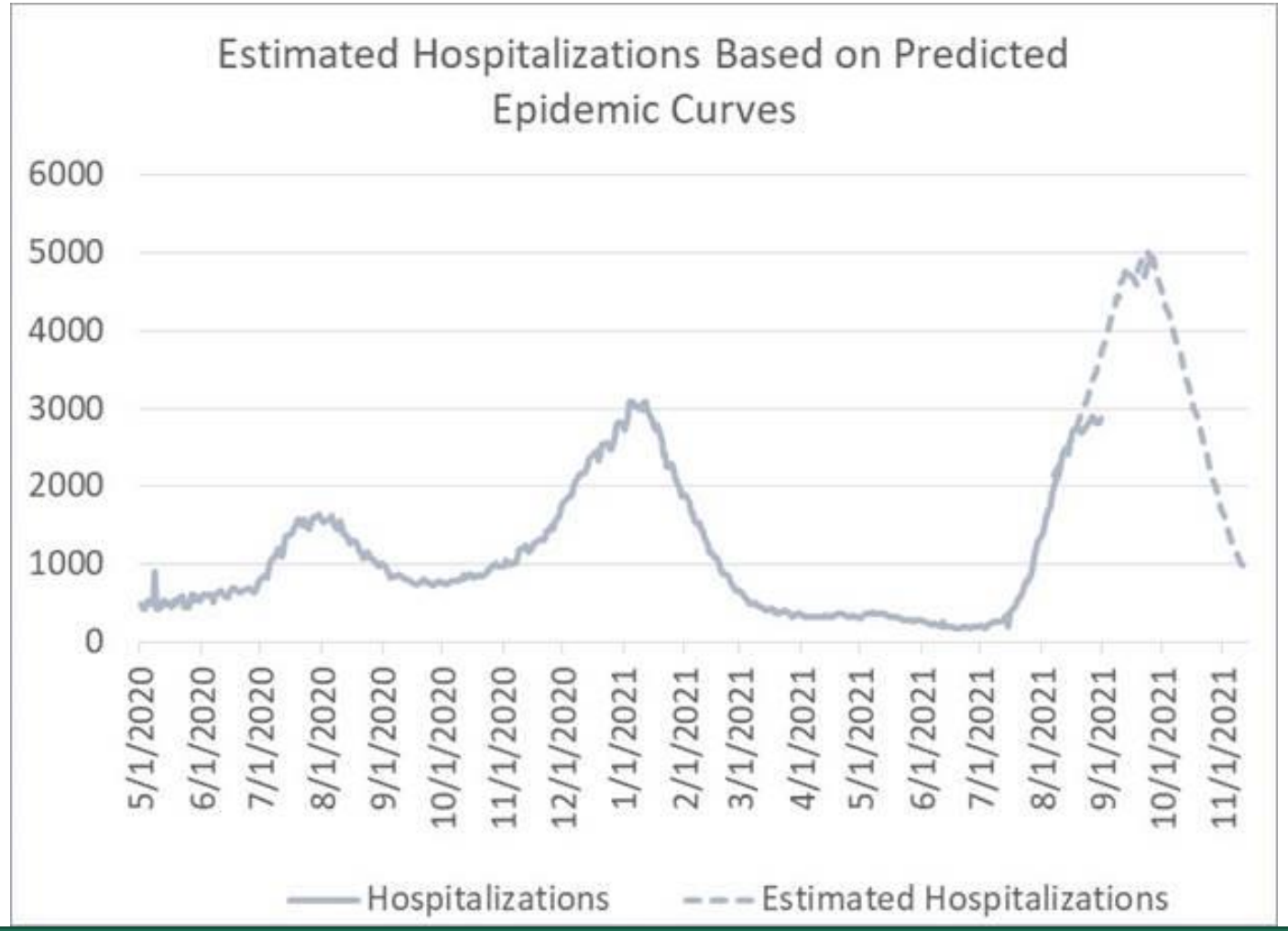
2,887 hospitalizations, which is increasing





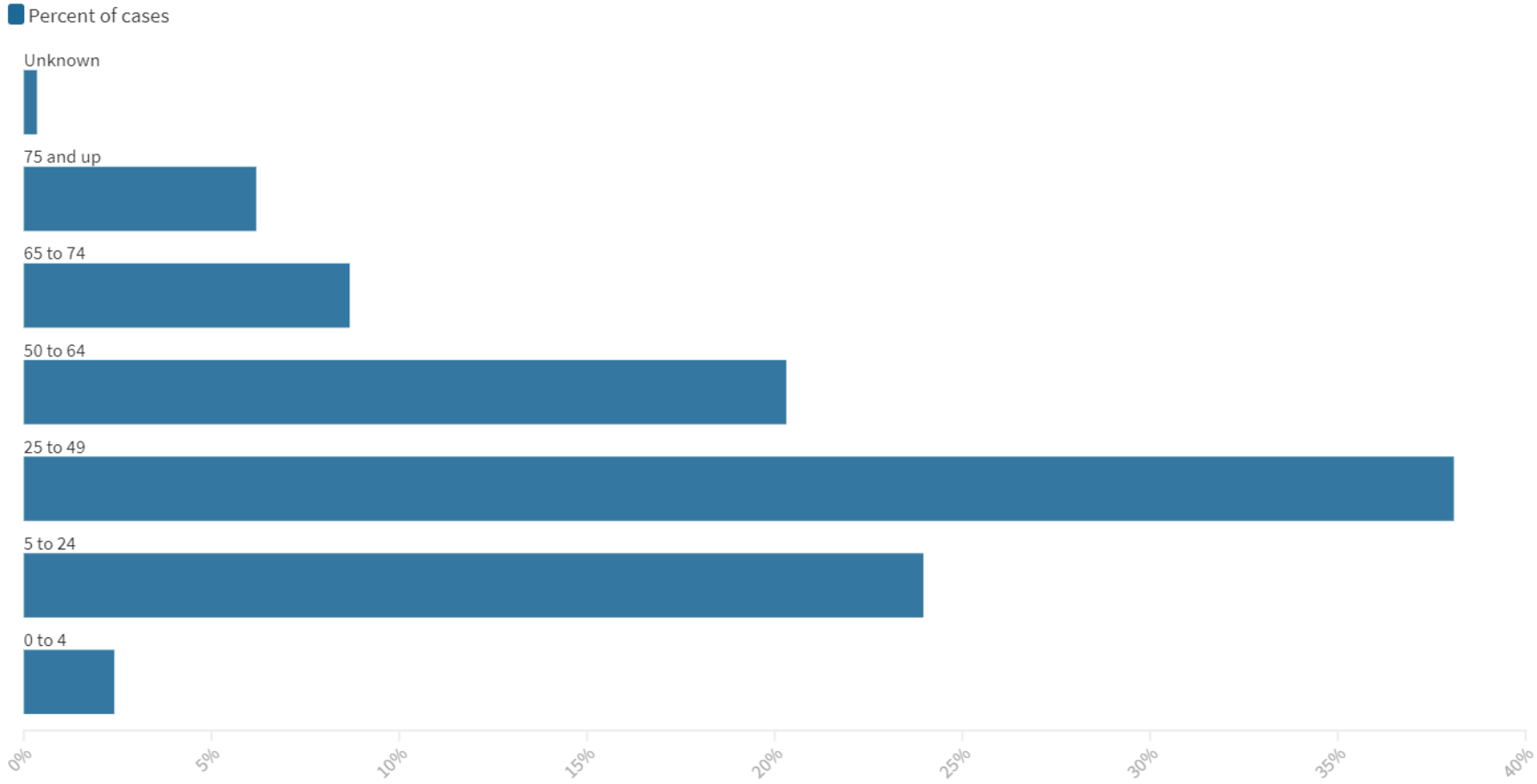
https://www.alreporter.com/mapping-coronavirus-in-alabama/

Prediction Model for Hospitalizations



Data Courtesy Suzanne Judd, PhD

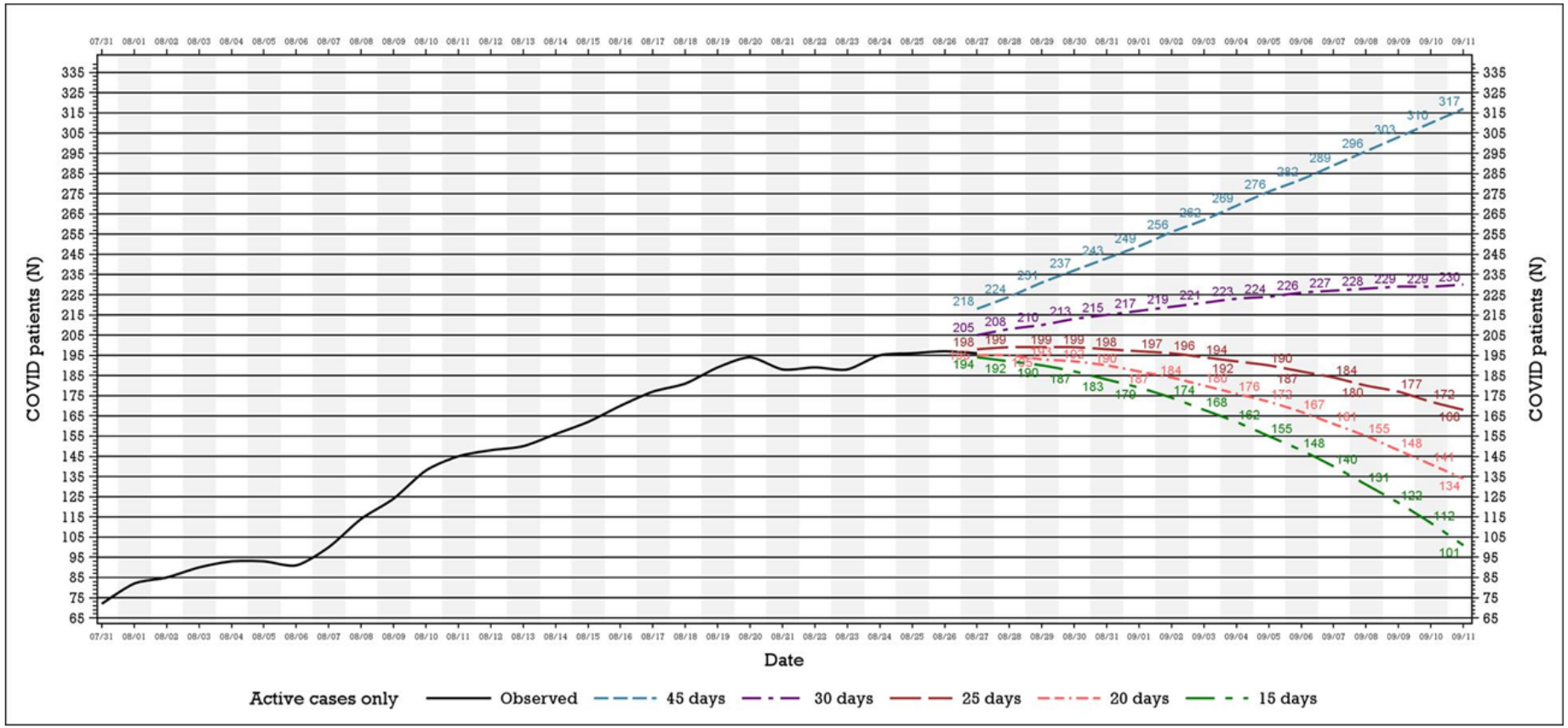
COVID Transmission is being driven by younger ages



https://www.alreporter.com/mapping-coronavirus-in-alabama/

COVID Admission Projections at UAB

Prediction model using max daily census for active cases only:



Tightly controlled in terms of admissions

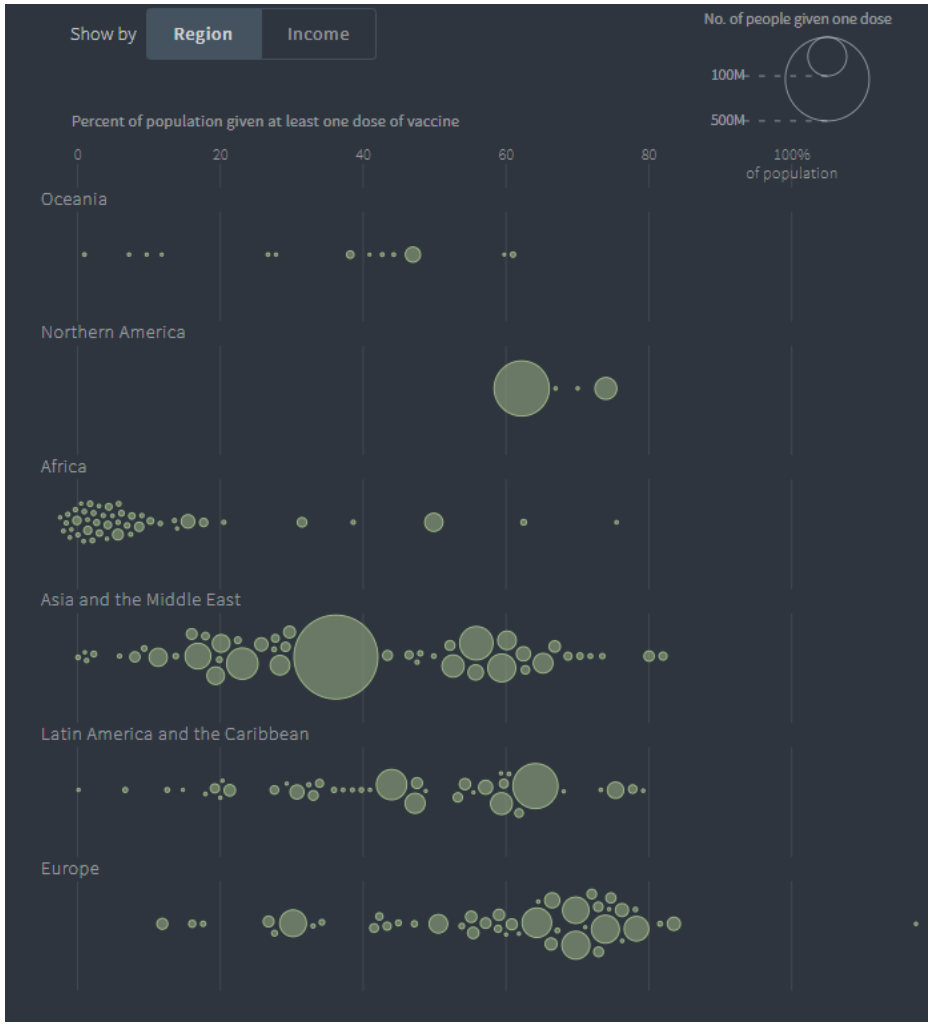
Large amounts of discharges, convalescing of active cases

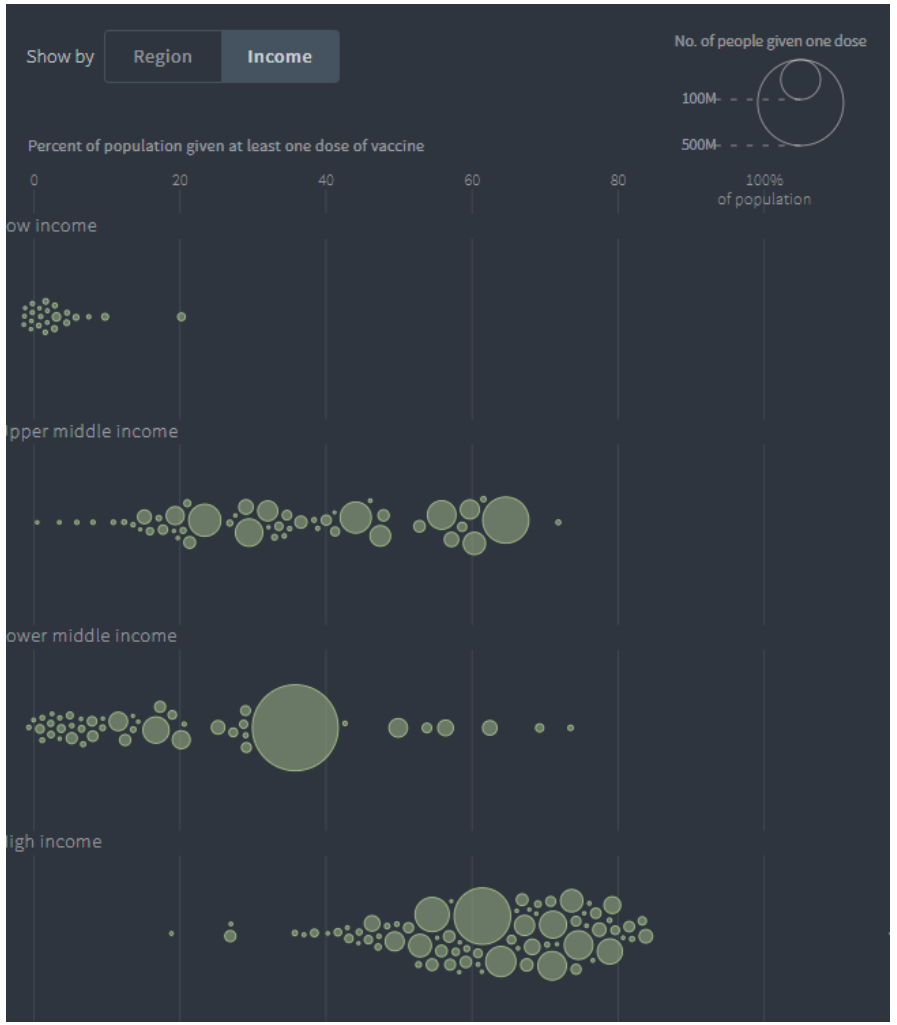
Increase in Deaths in the past two weeks

Data courtesy Dr. Russell Griffin PhD

COVID-19 Vaccination

Global Vaccination Rates





- At least 200 countries have started vaccinating against COVID-19
- 38% of people from high income countries have received at least 1 dose

https://graphics.reuters.com/world-coronavirus-tracker-and-maps/vaccination-rollout-and-access/

COVID-19 Vaccination in the US

Total Vaccine Doses

Delivered	440,028,085
Administered	368,863,734

Learn more about the distribution of vaccines.

173.5M
People fully vaccinated

901k
People received an additional dose since August 13th, 2021

People Vaccinated	At Least One Dose	Fully Vaccinated
Total	204,435,968	173,520,211
% of Total Population	61.6%	52.3%
Population ≥ 12 Years of Age	204,207,795	173,388,637
% of Population ≥ 12 Years of Age	72%	61.2%
Population ≥ 18 Years of Age	191,142,250	163,404,705
% of Population ≥ 18 Years of Age	74%	63.3%
Population ≥ 65 Years of Age	50,301,734	44,682,670
% of Population ≥ 65 Years of Age	92%	81.7%

COVID-19 Real-Time Learning Network

Brought to you by CDC and IDSA

Emerging SARS-CoV-2 Variants of Concern

Selected CDC/World Health Organization Designees with Published Clinical Data

Version 7/30/21

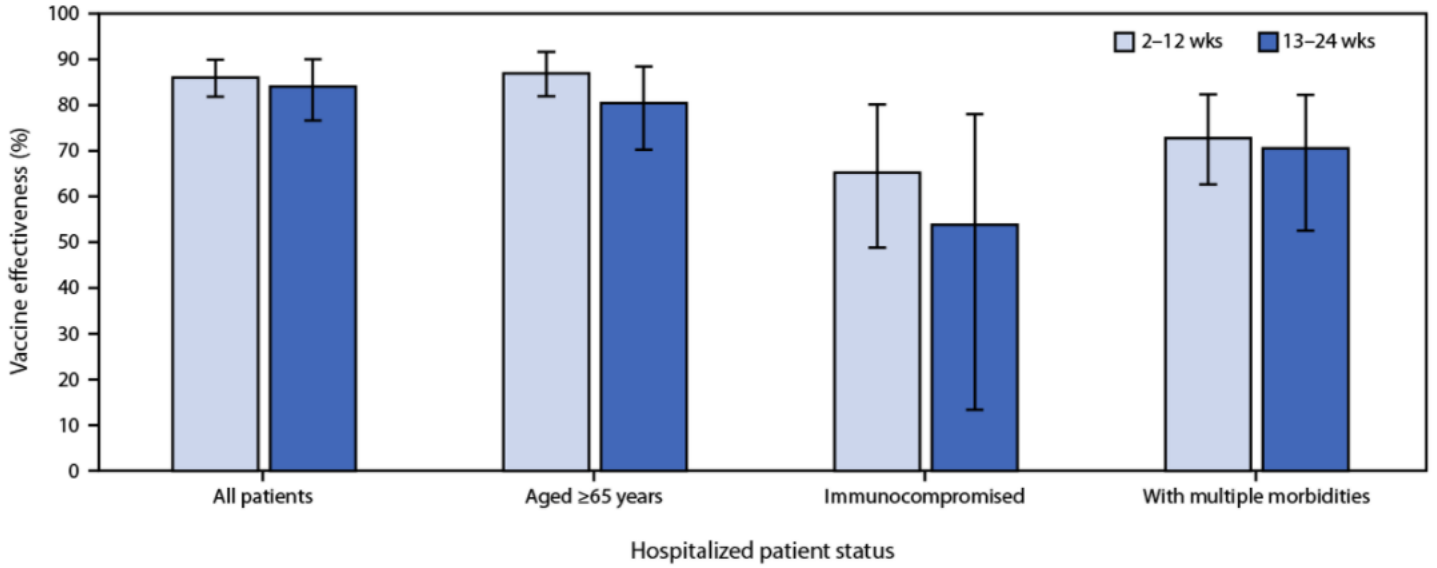
Variant (WHO label/ Pango lineage)	Location/ Year of Origin	Clinical effects			
		Treatment efficacy (*in vitro*)**	Vaccine effectiveness against selected variant* (by vaccine platform)		
			mRNA	Viral vector	Nanoparticle/subunit
Alpha B.1.1.7	U.K. 2020	Bamlanivimab + etesevimab: Retains neutralization efficacy (FDA EUA) REGEN-COV (casirivimab + imdevimab): Retains neutralization efficacy (FDA EUA) Sotrovimab: Retains neutralization efficacy (FDA EUA) Convalescent sera: Retains neutralization efficacy (Planas, March 2021)	Pfizer-BioNTech vaccine: **Preserved effectiveness** against infection and severe COVID-19 in the U.K. (Hall, May 2021), Israel (Haas, May 2021), Qatar (Abu-Raddad, May 2021) and Canada (Nasreen, July 2021 - *preprint*) Moderna vaccine: **Preserved effectiveness** against infection and severe COVID-19 in Canada (Nasreen, July 2021 - *preprint*)	Oxford-AstraZeneca vaccine: Slightly reduced effectiveness against infection but **preserved effectiveness against severe COVID-19** in the U.K. (Emary, April 2021) and Canada (Nasreen, July 2021 - *preprint*)	Novavax vaccine: **Preserved effectiveness** against infection and severe COVID-19 in the U.K. (Heath, June 2021)
Beta B.1.351	South Africa 2020	Bamlanivimab + etesevimab: **Markedly reduced efficacy** (FDA EUA; Chen, June 2021) REGEN-COV (casirivimab + imdevimab): Retains neutralization efficacy (FDA EUA; Wang, March 2021)	Pfizer-BioNTech vaccine: Slightly reduced effectiveness against infection but **preserved effectiveness against severe COVID-19** in Qatar (Abu-Raddad, May 2021) Moderna vaccine:	Oxford-AstraZeneca vaccine: **No effectiveness against infection** in South Africa (Madhi, May 2021) Reduced effectiveness against infection but **preserved effectiveness against severe COVID-19** in Canada (Nasreen, July 2021 - *preprint*)	Novavax vaccine: **Reduced effectiveness** against infection (Shinde, May 2021)

Variant (WHO label/ Pango lineage)	Location/ Year of Origin	Clinical effects			
		Treatment efficacy (*in vitro*)**	Vaccine effectiveness against selected variant* (by vaccine platform)		
			mRNA	Viral vector	Nanoparticle/subunit
Delta B.1.617.2	India 2020	Bamlanivimab + etesevimab:	Pfizer-BioNTech vaccine: Slightly reduced effectiveness against infection but **preserved**	Oxford-AstraZeneca vaccine: Slightly reduced effectiveness against infection but **preserved**	*No data*
		Retains neutralization efficacy (FDA EUA) ***Bamlanivimab alone inefficacious*** REGEN-COV (casirivimab + imdevimab): Retains neutralization efficacy (FDA EUA; Planas, July 2021) Sotrovimab: Retains neutralization efficacy (FDA EUA) Convalescent sera: **Potential moderately reduced neutralization** (Planas, March 2021)	**effectiveness*** against severe COVID-19** after 2 doses in the U.K. (Bernal, May 2021 - *preprint*; Stowe May 2021 - *preprint*), Scotland (Sheikh, June 2021) and Canada (Nasreen, July 2021 -*preprint*) Moderna vaccine: Slightly reduced effectiveness against infection but **preserved effectiveness against severe COVID-19** in Canada (Nasreen, July 2021 - *preprint*)	**effectiveness*** against severe COVID-19** after 2 doses in the U.K. (Bernal, July 2021), Stowe, May 2021 - *preprint*), Scotland (Sheikh, June 2021) and Canada (Nasreen, July 2021 -*preprint*)	

COVID-19 Vaccination in the Face of Variants

- Among fully vaccinated people, vaccination is >90% effective against hospitalizations
- A new study finds that among all adults in New York state, overall effectiveness against new COVID-19 infections declined from about 92% to about 80%.
  - Likely due to Delta + relaxation of masking and physical distancing

FIGURE 2. Sustained vaccine effectiveness* against COVID-19 among hospitalized adults, by patient status[†,§] and interval since vaccination — 21 medical centers in 18 states,[¶] March–July 2021



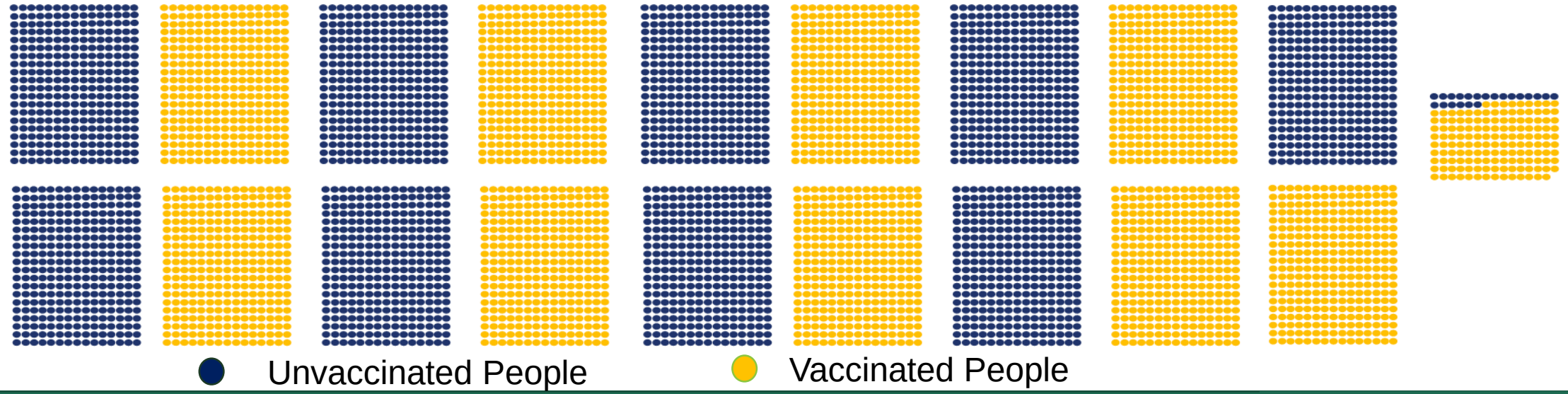
https://www.cdc.gov/mmwr/volumes/70/wr/mm7034e2.htm?s_cid=mm7034e2_w%E2%80%A2

Do Vaccinations Work?

- Approximately 170,000,000 Americans are vaccinated (leaving around 165,000,000 Americans who are unvaccinated). So, we are nearly split 50/50
- If vaccinations have no effect, the death toll would look nearly identical between the vaccinated and unvaccinated

5,564 people died from COVID during the week of August 15-21

Here is the split we would expect, if vaccinations made no difference



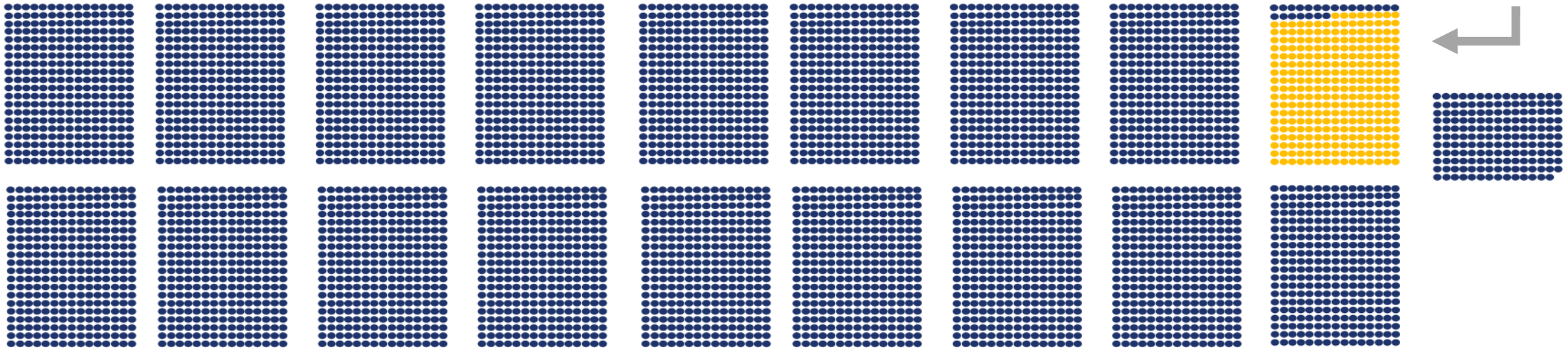
Source: the Joint Commission

But here are the data we actually see

- There were 5,564 COVID deaths during the week of August 15th to August 21st
- Depending upon the state you are in, the proportion of vaccinated people who die from COVID ranges from 0.1% to 5% of COVID all deaths.

And here are the 6 to 278 vaccinated people who died (you probably heard about breakthrough cases like these on the news)

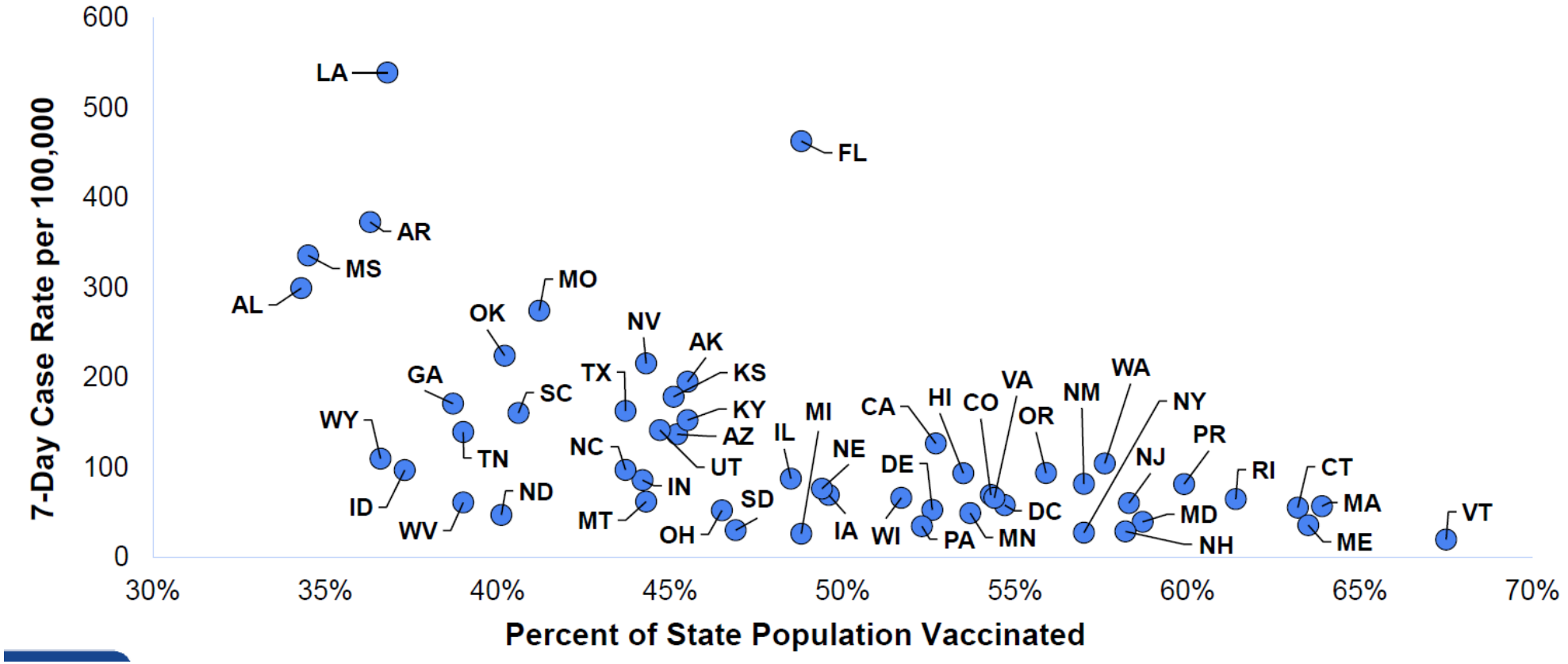
Approximately 5,286 unvaccinated people died from COVID during the week of August 15-21



Unvaccinated People Vaccinated People

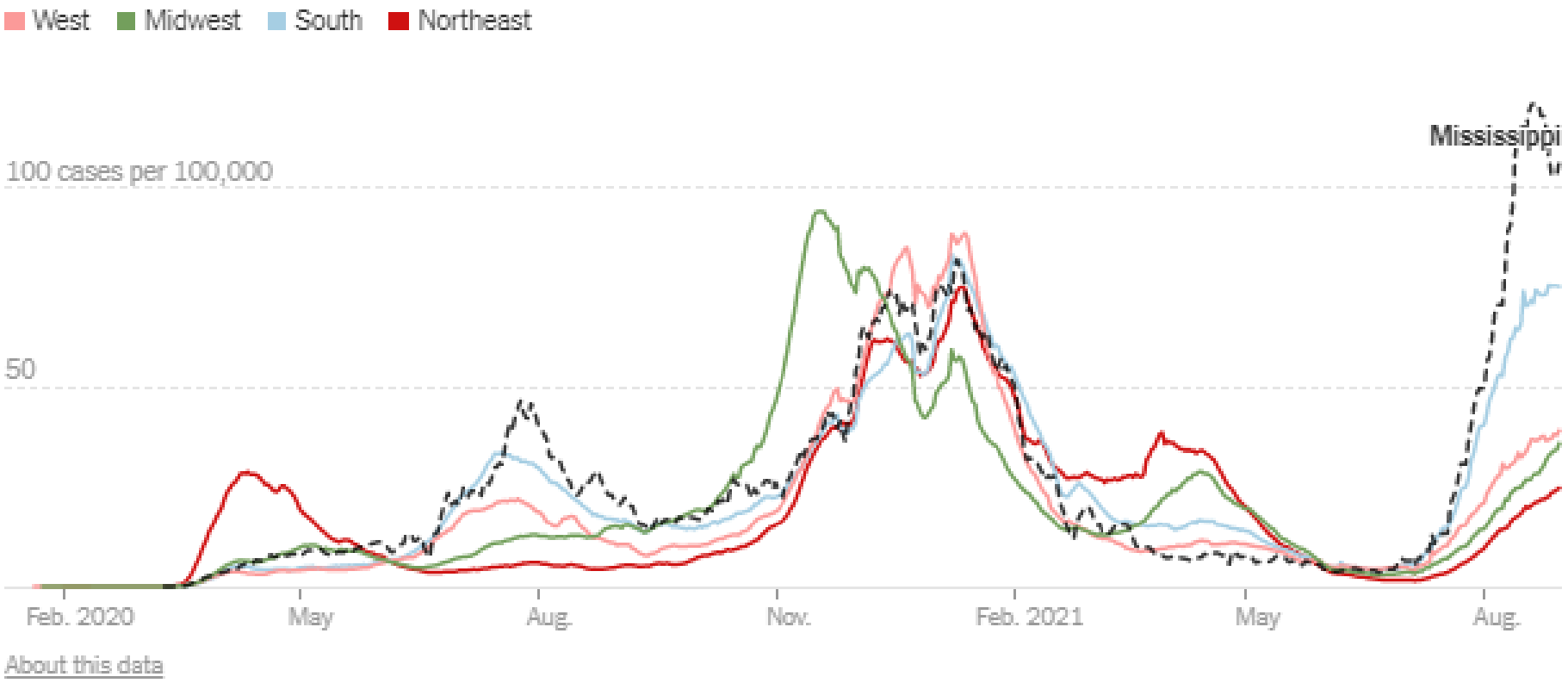
Vaccination Rates can control COVID-19

COVID-19 Case Rate (7-day rate per 100,000) By Percent of State Population Fully Vaccinated, July 22-28, 2021



Source: CDC

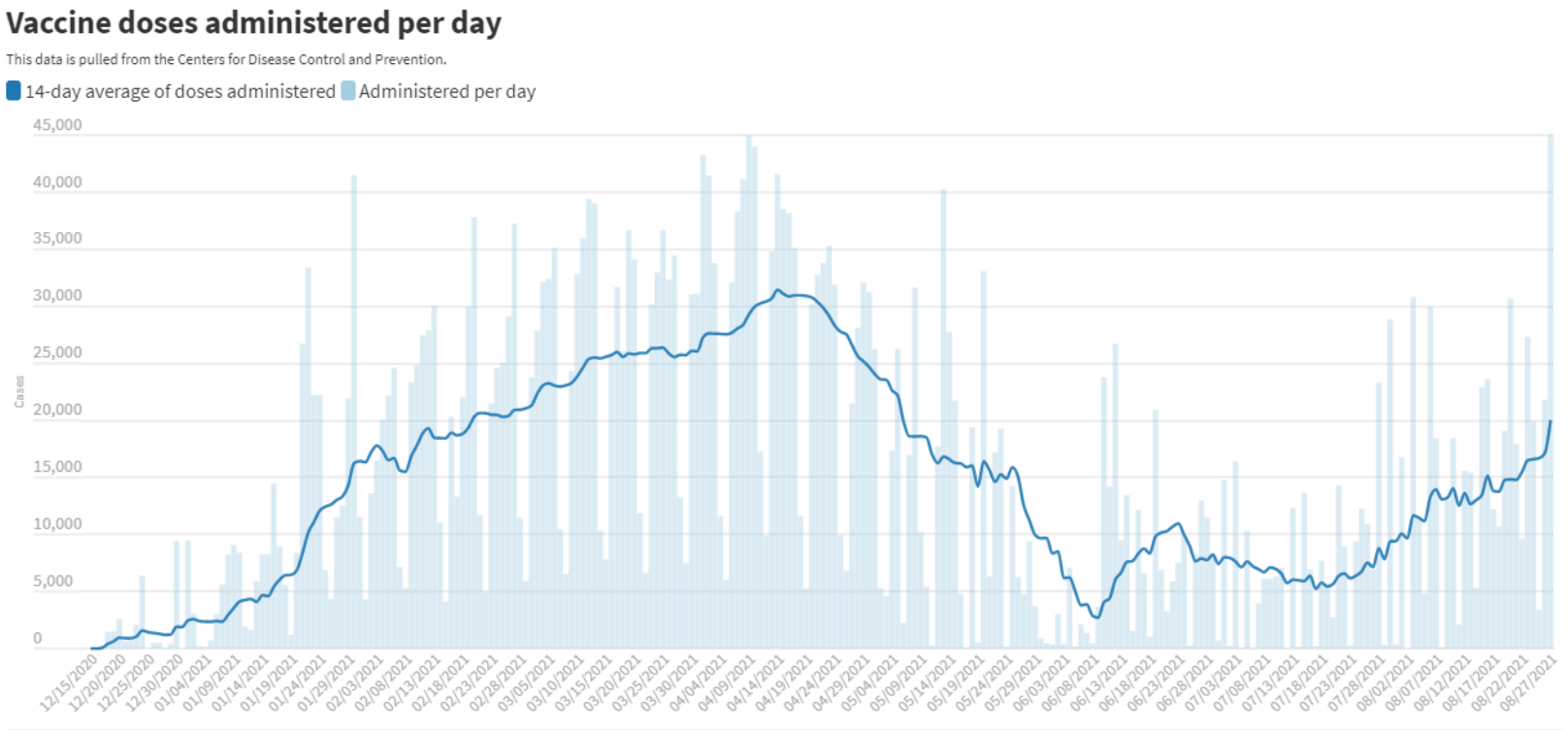
Daily cases have changed in different parts of the country

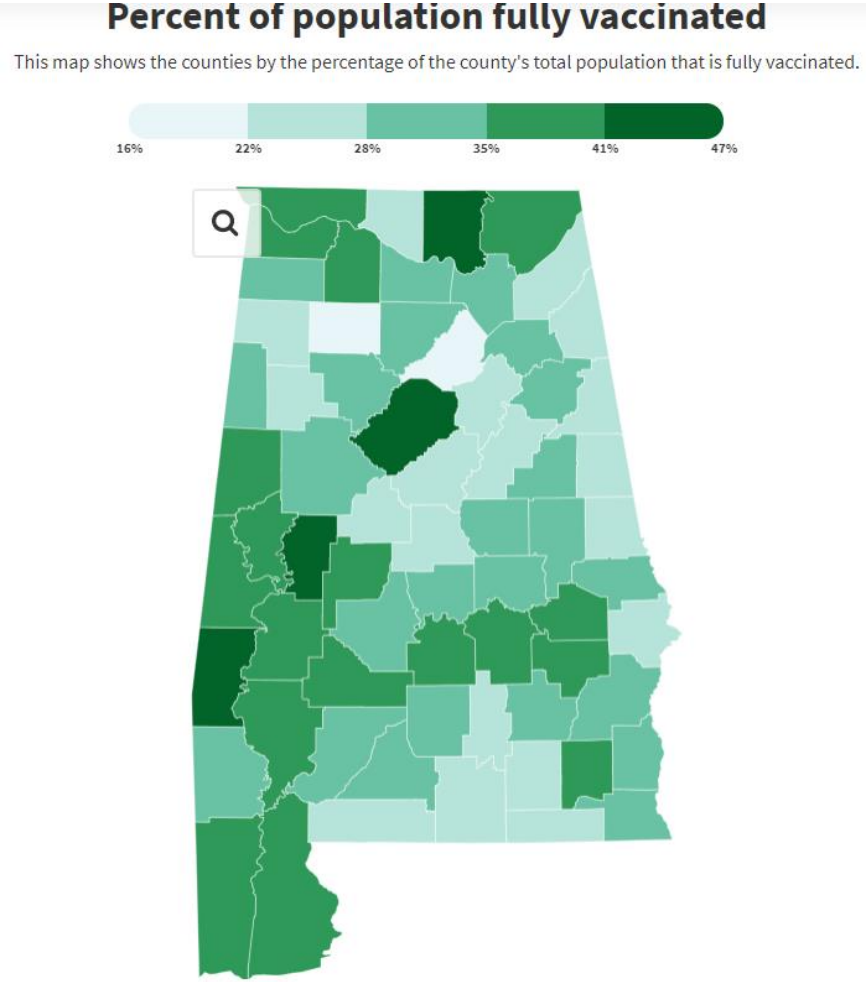


Much of the South is contending with its most serious outbreak of the pandemic

https://www.nytimes.com/interactive/2021/us/covid-cases.html

COVID-19 Vaccinations/day in Alabama

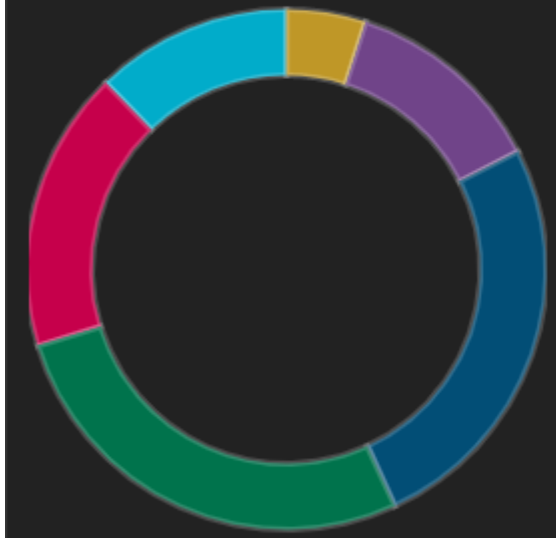




Alabama is no longer last in nation!
65% of vaccinations in Alabama today are first doses!

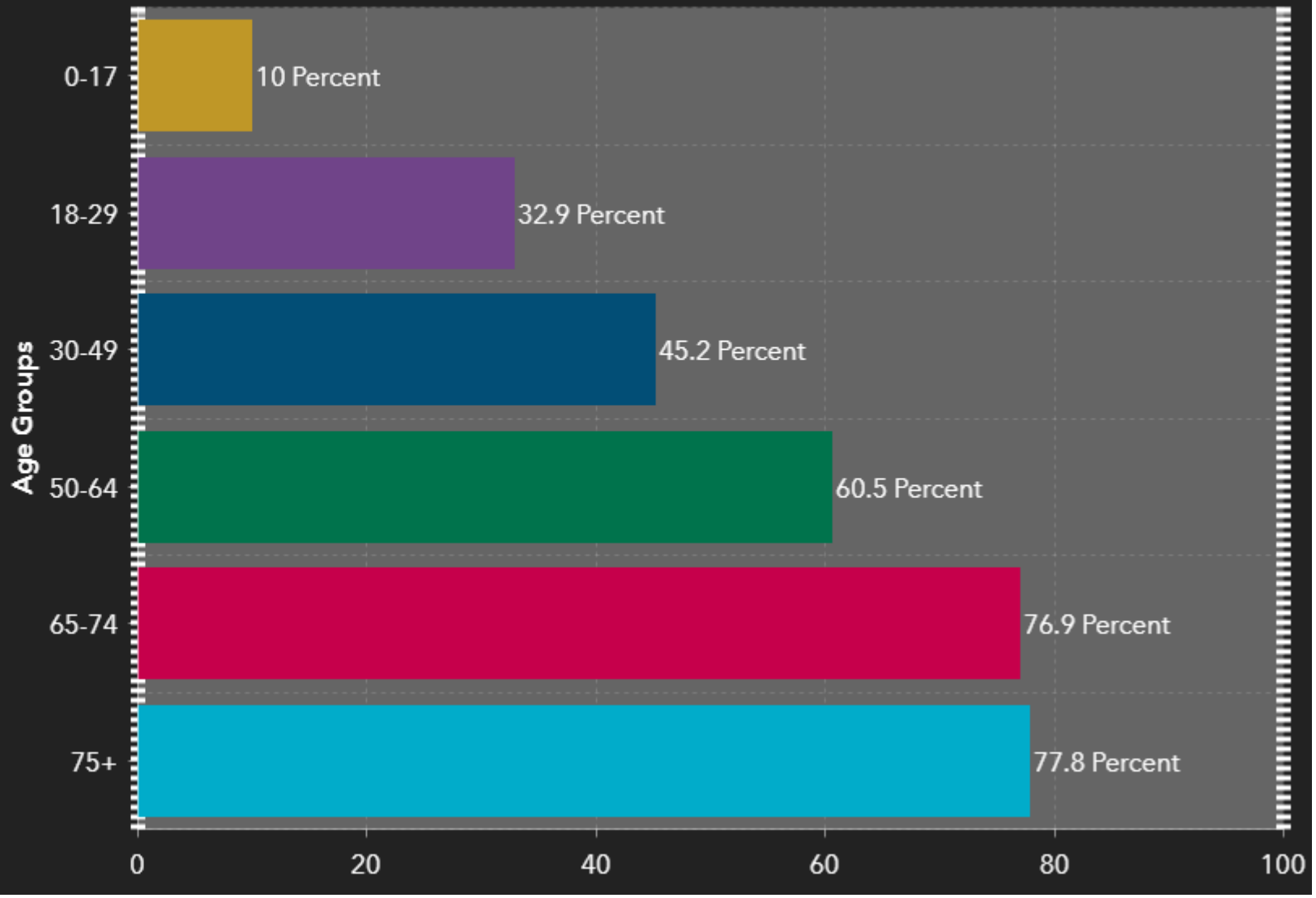
https://www.alreporter.com/mapping-coronavirus-in-alabama/

Age in Years of People Receiving COVID-19 Vaccine (Age at Time of First Dose)

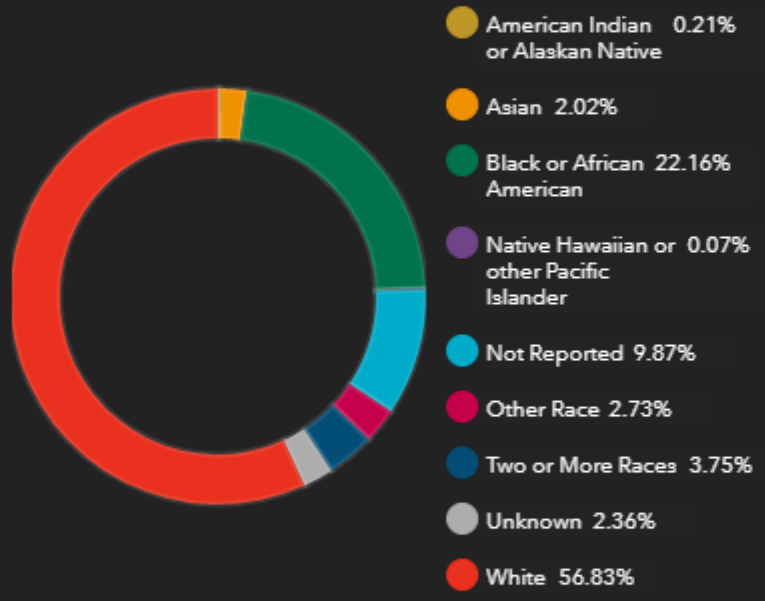


- 0-17 4.94%
- 18-29 12.56%
- 30-49 25.66%
- 50-64 27.1%
- 65-74 17.5%
- 75+ 12.24%

Percent of People in Alabama Initiating COVID-19 Vaccination by Age (Age at Time of First Dose)

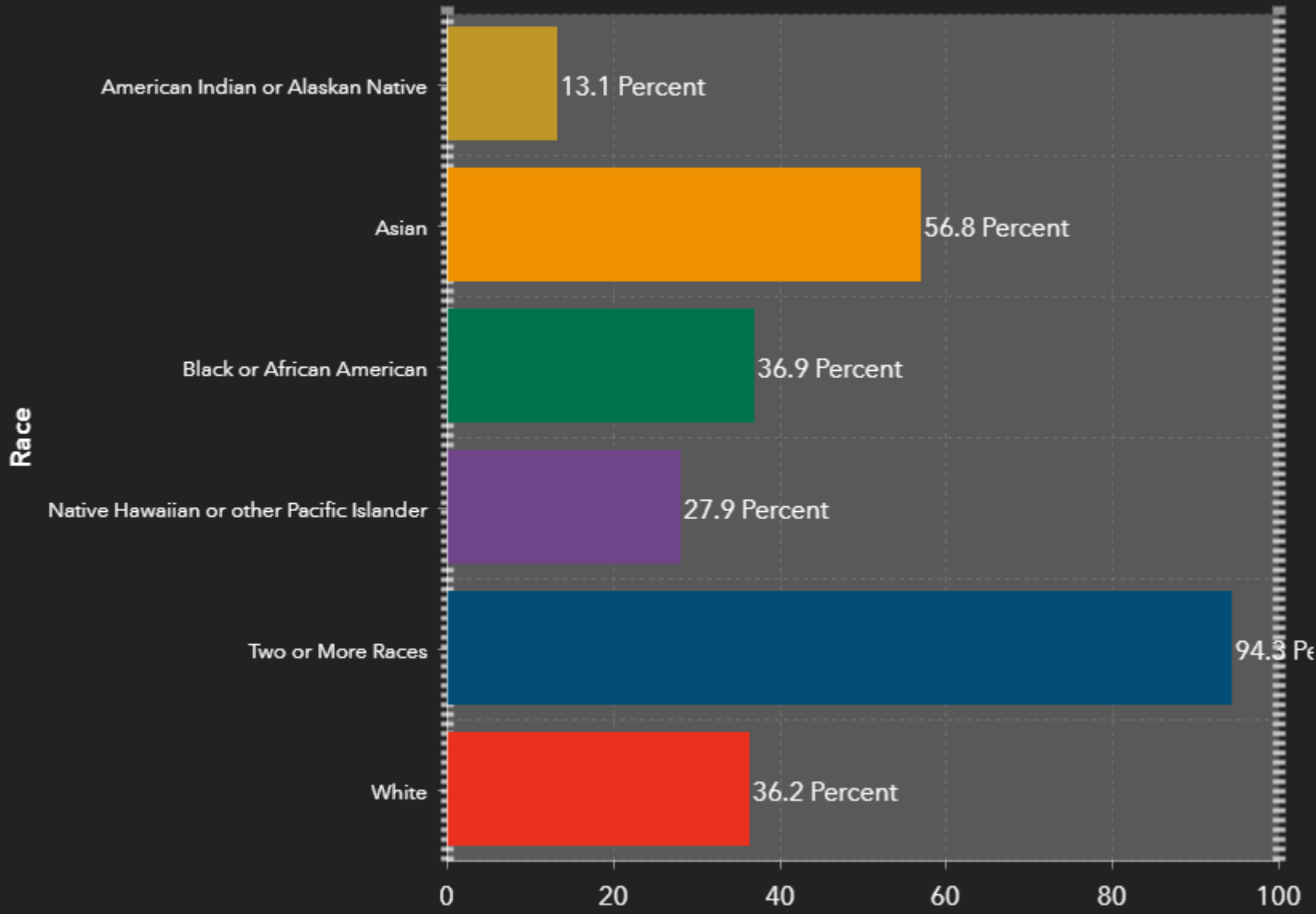


Race of People Receiving COVID-19 Vaccine



Hover over the donut chart for the number.

Percent of People Initiating COVID-19 Vaccination by Race



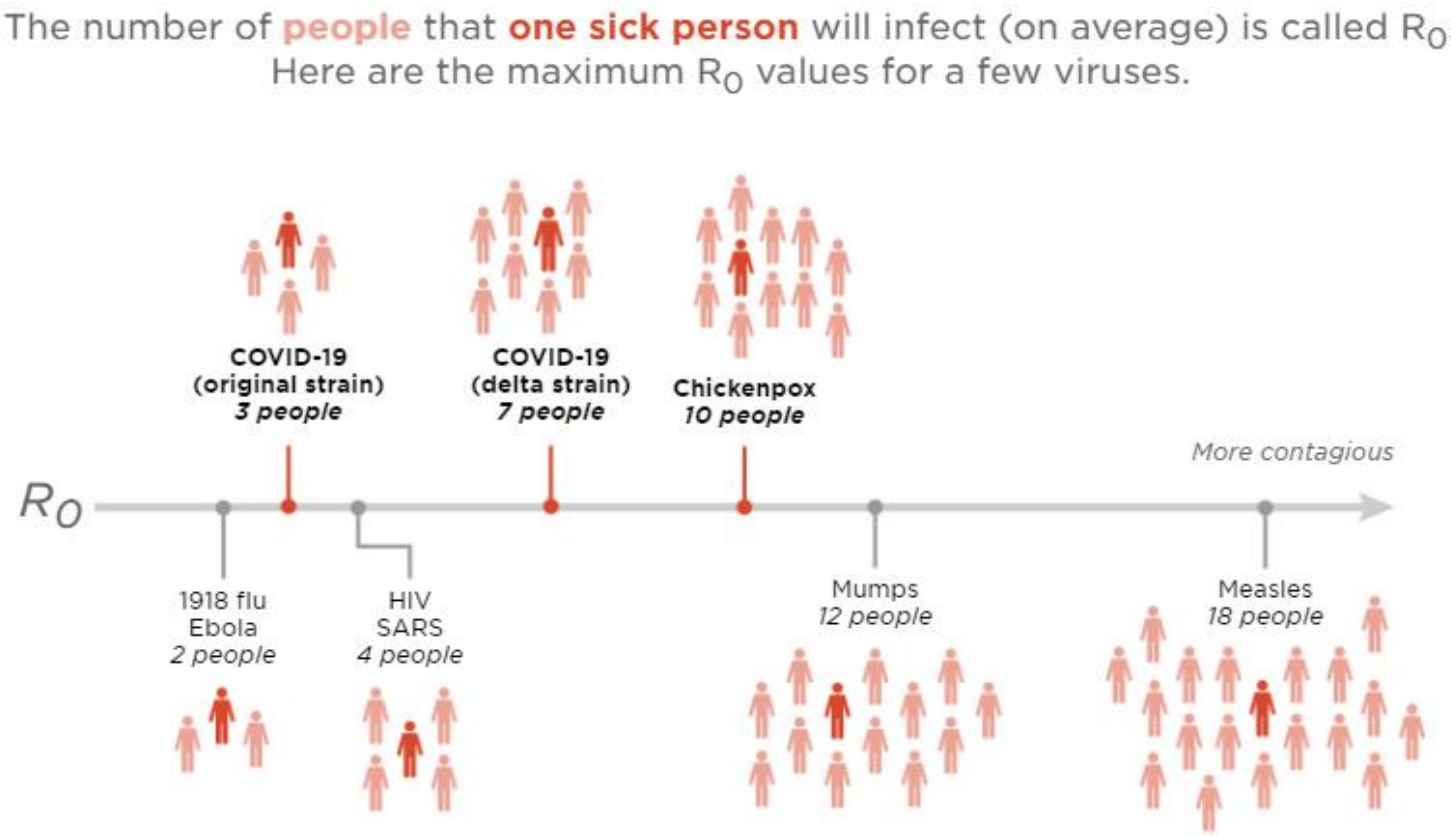
*Percentage calculations are based on the population of residents in each race category.

https://alpublichealth.maps.arcgis.com/apps/MapSeries/index.html?appid=d84846411471404c83313bfe7ab2a367

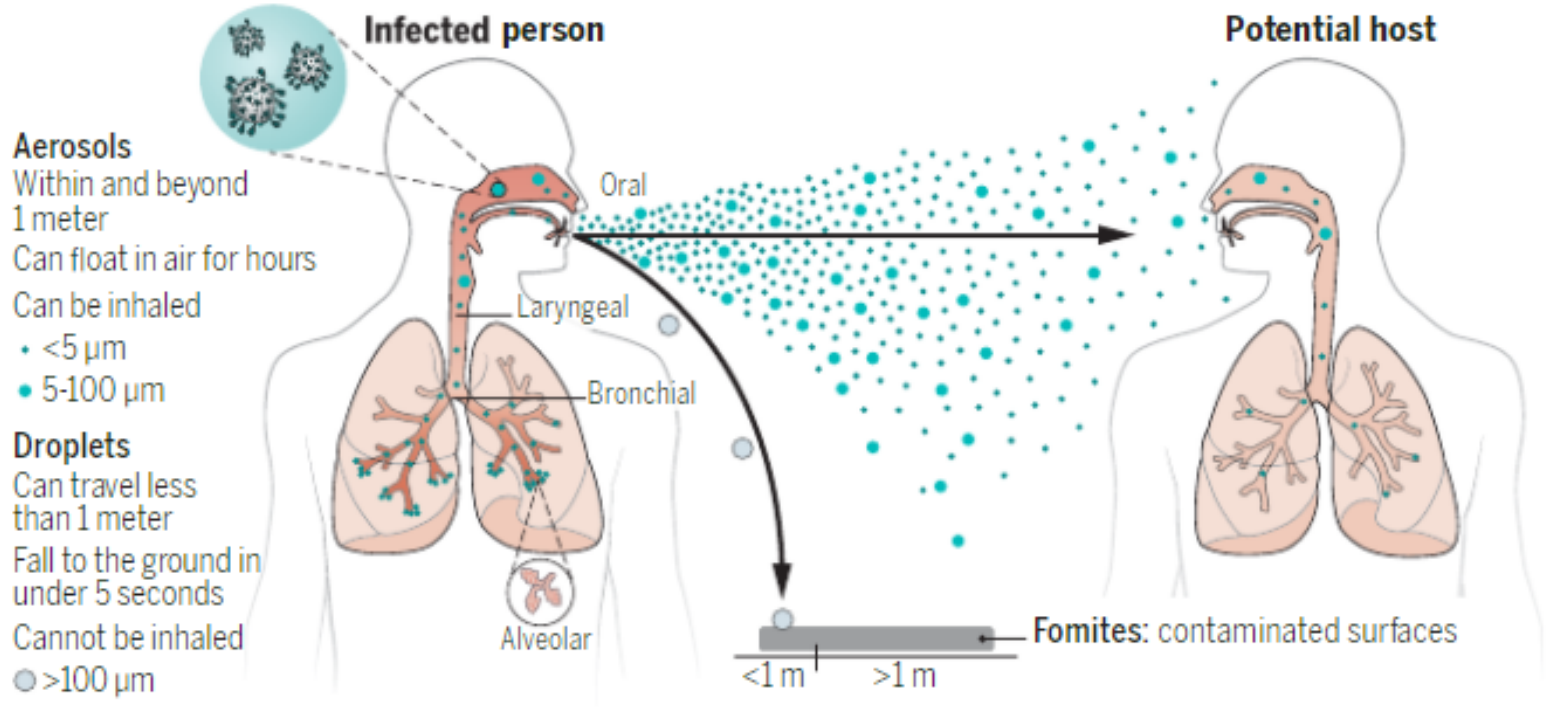
Clinical Considerations of the Delta Variant

Delta Variant

- More contagious (more than 2x)



https://www.npr.org/sections/goatsandsoda/2021/08/11/1026190062/covid-delta-variant-transmission-cdc-chickenpox



Phases involved in airborne transmission of respiratory viruses. Virus-laden aerosols (<100 µm) are first generated by an infected individual through expiratory activities, through which they are exhaled and transported in the environment. They may be inhaled by a potential host to initiate a new infection, provided that they remain infectious. In contrast to droplets (>100 µm), aerosols can linger in air for hours and travel beyond 1 to 2 m from the infected individual who exhales them, causing new infections at both short and long ranges.

Aerosols (an over-arching term)- includes a range of particles

Droplets: larger than 5-10 microns (a micron [µm]; about 1/10 the width of a human hair) fall to the ground within seconds of impact on another surface without evaporating

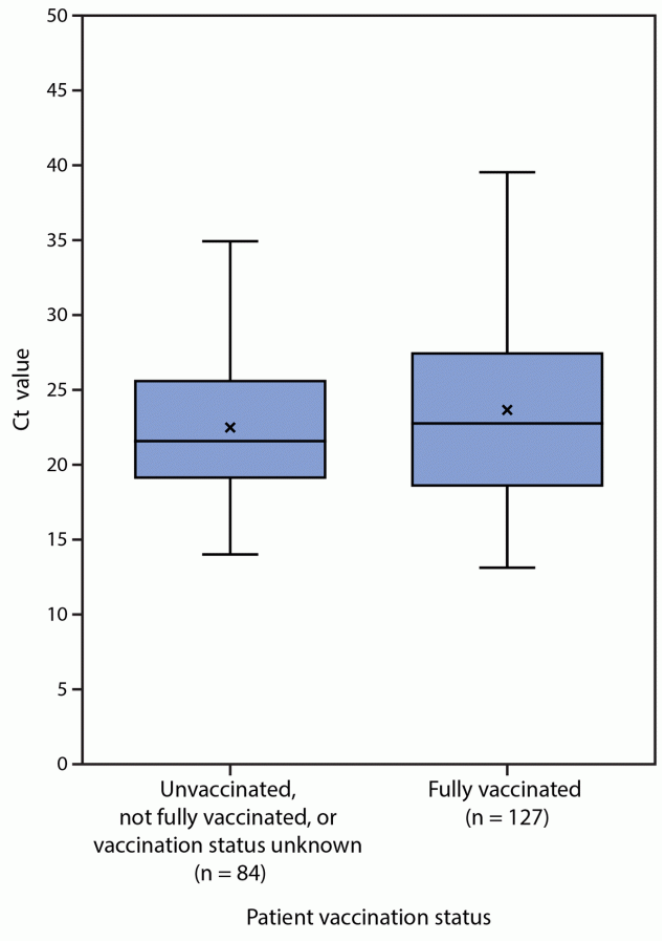
Droplet nuclei: remain suspended in the air and evaporate quickly, leaving behind particles consisting of proteins, salts, and suspended viruses

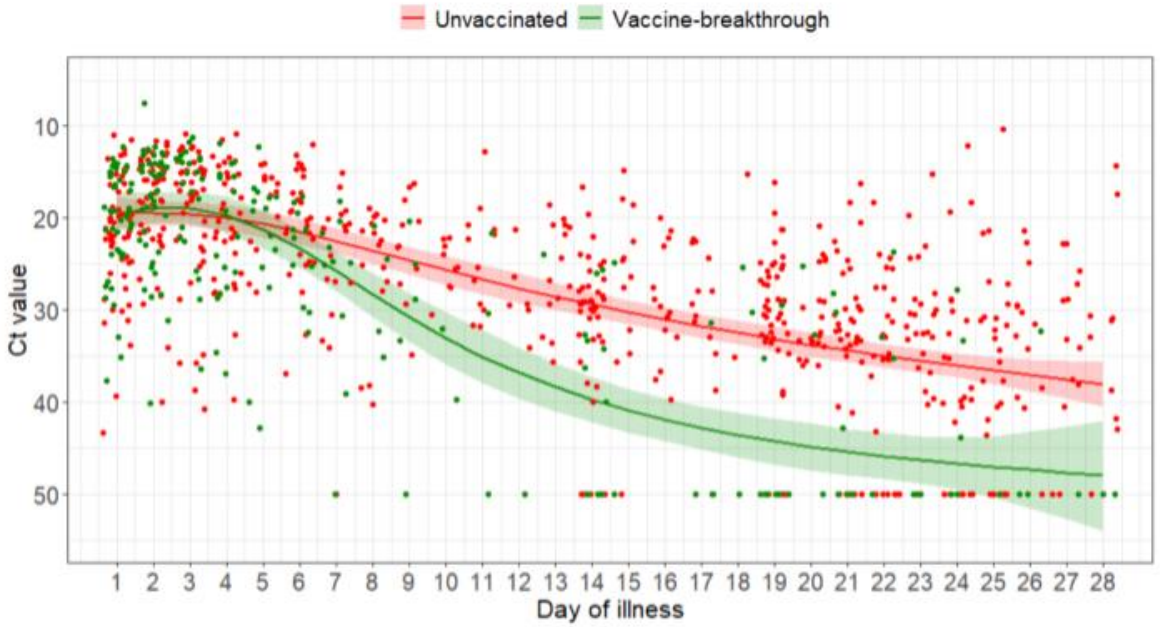
- can remain airborne for hours
- It is only the droplet nuclei that are capable of riding the air currents through a hospital, etc

https://www.science.org/doi/epdf/10.1126/science.abd9149

Delta Variant and Transmission

- Transmissibility depends on a variety of factors, including:
  - Magnitude and duration of viral shedding
  - Ventilation
  - Symptoms
  - PPE
- Recent studies have shown similar viral loads in vaccinated vs unvaccinated



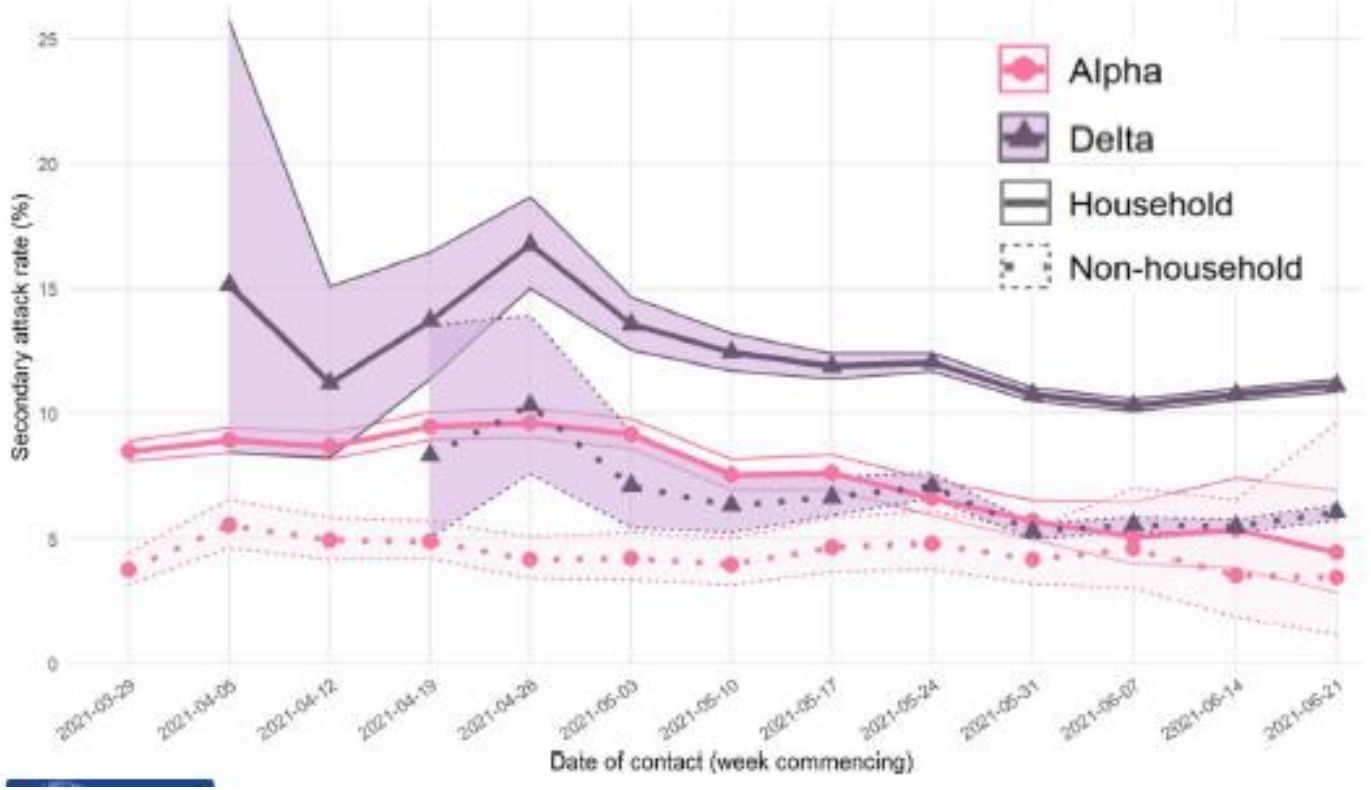


Similar viral loads initially, then drops quickly as vaccine antibodies kick in

https://www.cdc.gov/mmwr/volumes/70/wr/mm7031e2.htm
https://www.medrxiv.org/content/10.1101/2021.07.28.21261295v1

Secondary Attack Rate

Secondary attack rates amongst household and non-household contacts of non-travel cases of Alpha and Delta, with 95% confidence intervals (29 MAR 2021 to 27 JUN 2021)



In unvaccinated persons, Delta variant infections are at least twice as infectious as infections with non-Delta variants

Public Health England: SARS-CoV-2 variants of concern and variants under investigation in England, Technical Briefing 19
Investigation of SARS-CoV-2 variants of concern: technical briefings -GOV.UK (www.gov.uk)

Airborne vs droplet

- Droplet and airborne transmission are not really a dichotomy, more like a continuum with many factors

Small Particle Aerosol Transmission

Spread when concentrated in poorly ventilated spaces or very large amounts

True Airborne pathogens:

Measles: R0 = 12-18, household attack rates >90%

Varicella: R0 = 10, household attack rates = 85%

TB: R0 = 10, household attack rates = 50%

COVID-19:

R0= 2.3, household attack rates = 10.5%

Delta: R0 6-7, household attack rates = 10-20%

Delta and Severity of disease

- Data from 43,338 COVID-19 positive patients
  - 8,682 Delta
  - 34,656 Alpha
- Delta patients were younger (median 29y)
- Delta had >2x risk of hospitalization (particularly in unvaccinated)
- Delta used the emergency department more than Alpha patients

	Alpha variant (B.1.1.7)	Delta variant (B.1.617.2)	HR (95% CI), delta variant vs alpha variant	
			Unadjusted	Adjusted*
Hospital admission within 14 days after specimen	764/34 656 (2·2%)	196/8682 (2·3%)	1·03 (0·88–1·21)	2·26 (1·32–3·89)
Hospital admission or emergency care attendance within 14 days after specimen	1448/34 656 (4·2%)	498/8682 (5·7%)	1·39 (1·25–1·53)	1·45 (1·08–1·95)

Data are n/N (%) except where otherwise stated. HR=hazard ratio. *Stratification for age group, ethnicity, lower-tier local authority, calendar week of specimen, vaccination status; regression adjustment for age (linear), date (linear), sex, index of multiple deprivation, and international traveller status.

Table 2: **Hospitalisation outcomes for patients with the delta variant compared with patients with the alpha variant**

	Alpha variant*	Delta variant*	Adjusted HR (95% CI)†, delta variant vs alpha variant	p value‡
Hospital admission				
Unvaccinated or <21 days after first vaccination dose	536/28 029 (1·9%)	149/6681 (2·2%)	2·32 (1·29–4·16)	..
≥21 days after first vaccination dose with or without second vaccination dose	228/6627 (3·4%)	47/2001 (2·3%)	1·94 (0·47–8·05)	0·82
Hospital admission or emergency care attendance				
Unvaccinated or <21 days after first vaccination dose	1095/28 029 (3·9%)	369/6681 (5·5%)	1·43 (1·04–1·97)	..
≥21 days after first vaccination dose with or without second vaccination dose	353/6627 (5·3%)	129/2001 (6·4%)	1·58 (0·69–3·61)	0·82

Data are n/N (%) except where otherwise stated. HR=hazard ratio. *These crude descriptive frequencies are unadjusted for age and other confounders, and so they are not directly comparable between the groups. †Stratification for age group, ethnicity, lower-tier local authority, calendar week, vaccination status; regression adjustment for age, sex, index of multiple deprivation, specimen date, and international travel status. ‡p values are for tests for interaction between vaccination status and variant.

Table 3: **Hospitalisation outcomes for patients with the delta variant compared with patients with the alpha variant, by vaccination status**

https://www.thelancet.com/journals/laninf/article/PIIS1473-3099(21)00475-8/fulltext

Risk of Reinfection with Delta

- Among Kentucky residents who were previously infected with SARS-CoV-2 in 2020, those who were unvaccinated against COVID-19 had a significantly higher likelihood of reinfection.
- Preprint from Israel has recently concluded that natural immunity confers longer lasting and stronger protection
  - Difficulty in understanding if the data is truly capturing efficacy of vaccine vs natural immunity
  - We have no way to predict who will develop enough antibodies to be considered protected after COVID infection

TABLE 2. Association of SARS-CoV-2 reinfection* with COVID-19 vaccination status — Kentucky, May–June 2021

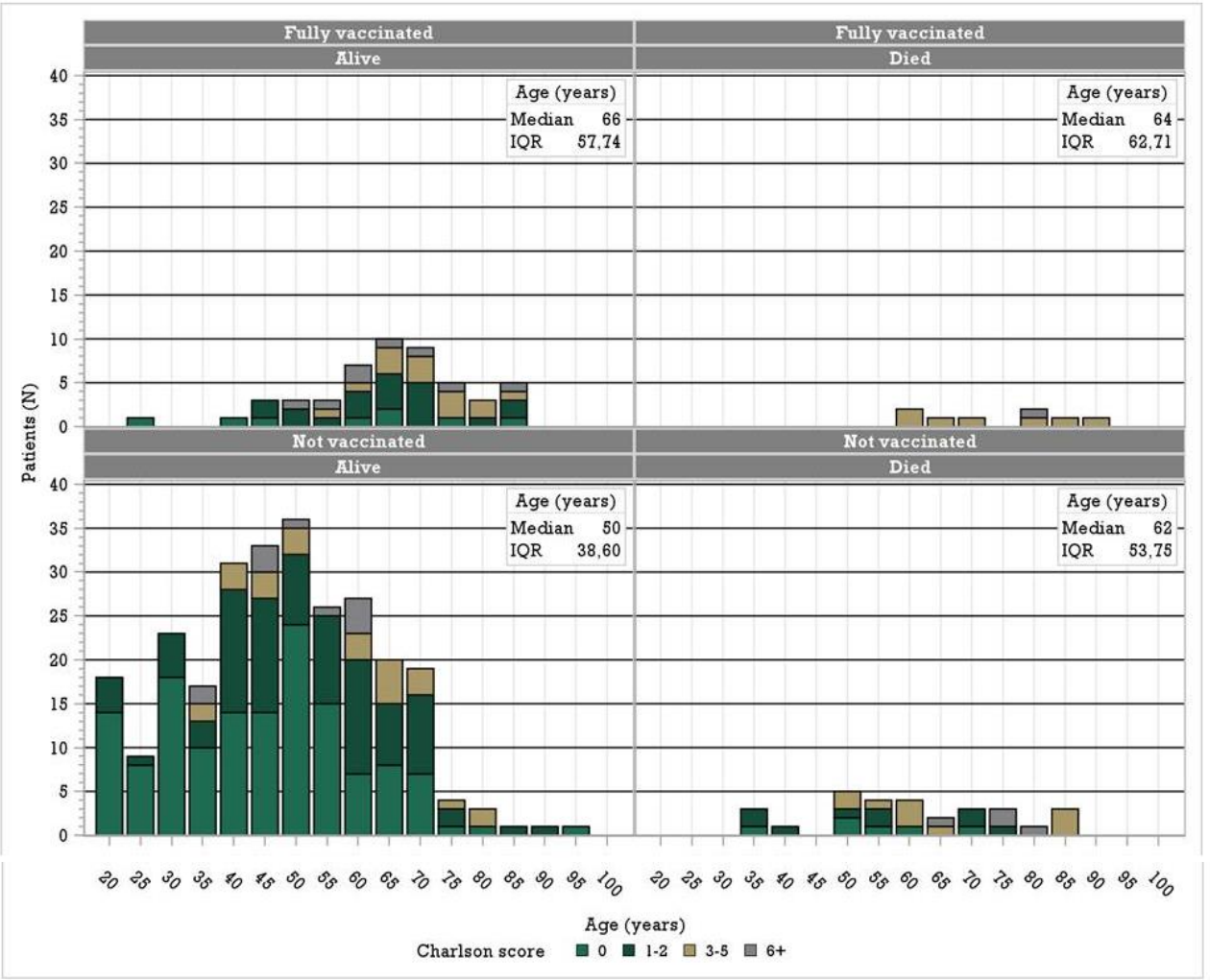
	No. (%)		
Vaccination status	Case-patients	Control participants	OR (95% CI)†
Not vaccinated	179 (72.8)	284 (57.7)	2.34 (1.58–3.47)
Partially vaccinated¶	17 (6.9)	39 (7.9)	1.56 (0.81–3.01)
Fully vaccinated§	50 (20.3)	169 (34.3)	Ref
Total	**246 (100)**	**492 (100)**	—

https://www.cdc.gov/mmwr/volumes/70/wr/mm7032e1.htm?s_cid=mm7032e1_w

Vaccinations and admissions at UAB

Over 30 day period:

- 531 patients, 12% fully vaccinated
  - 1/3 of fully vaccinated are immunocompromised
- A vast majority of the hospitalized who are not vaccinated:
  - Have no or 1 comorbidity
  - Overall younger



Summary of Delta vs other variants

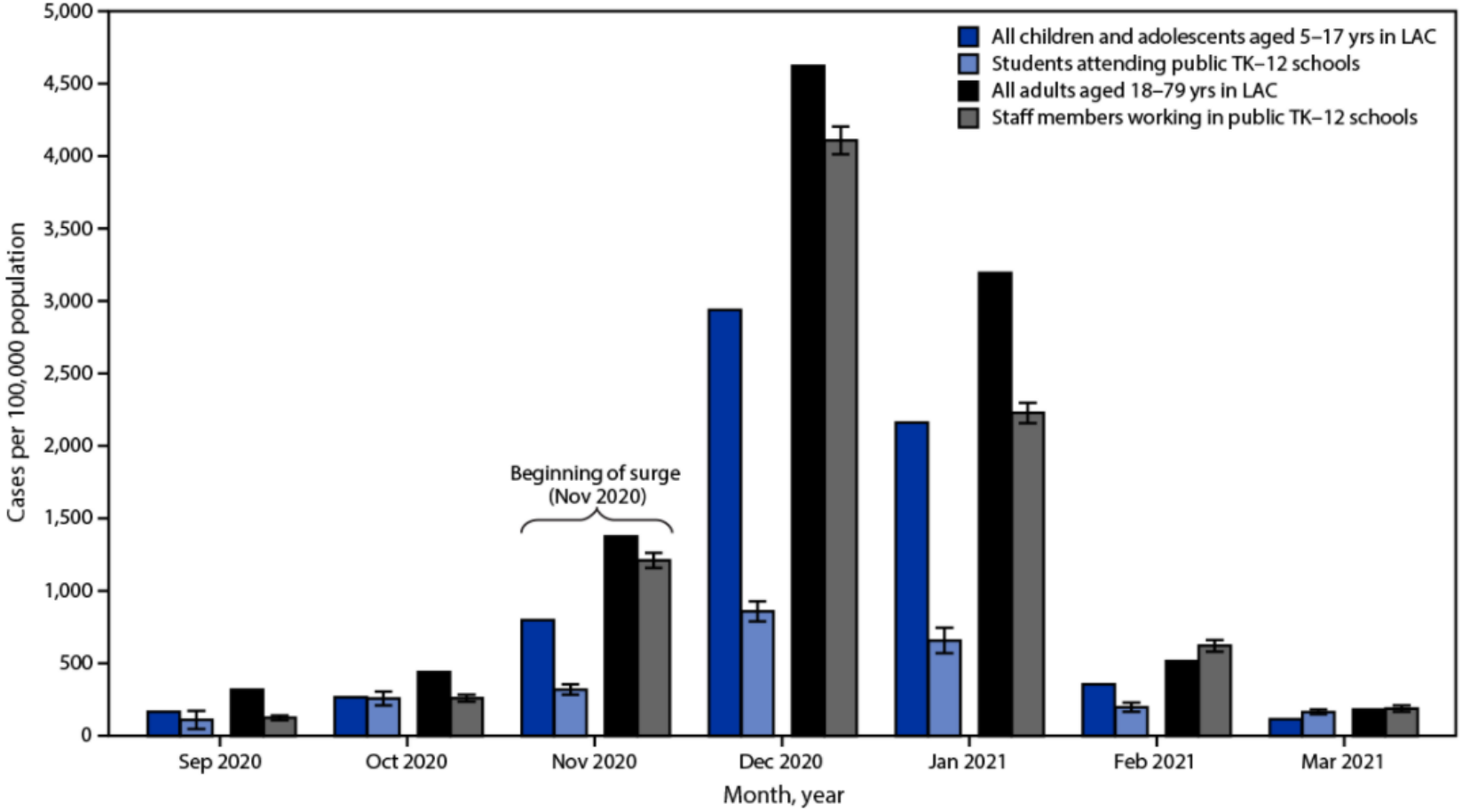
- In unvaccinated people without prior infection:
  - Delta achieves a higher viral load than other variants
  - Delta is at least twice as infectious

- In Vaccinated people with breakthrough infections:
  - Delta achieves higher viral load compared to other variants
  - How much more infectious Delta is in this population remains unknown

Prevention of Spread of COVID-19 in schools

In-person teaching in Los Angeles

FIGURE. COVID-19 case rates* among children, adolescents, and adults† in transitional kindergarten through grade 12 schools and in the community, by month — Los Angeles County, California, September 2020–March 2021



In schools with safety protocols in place for prevention and containment, case rates in children and adolescents were 3.4 times lower during the winter peak compared with rates in the community.

https://www.cdc.gov/mmwr/volumes/70/wr/mm7035e3.htm?s_cid=mm7035e3_x

Alabama Dashboard for K-12

August 27, 2021 - The Alabama Department of Public Health and the Alabama State Department of Education are working together to get the reporting process in place for the 2021 - 2022 school year. This week is a test week. We currently have 52 out of 143 schools districts reporting. Thank you for your patience and understanding!

Acceleration Academy
Total Cases This Week: Unreported

Alabaster City
Total Cases This Week: 34

Albertville City
Total Cases This Week: Unreported

Alexander City
Total Cases This Week: Unreported

Andalusia City
Total Cases This Week: Unreported

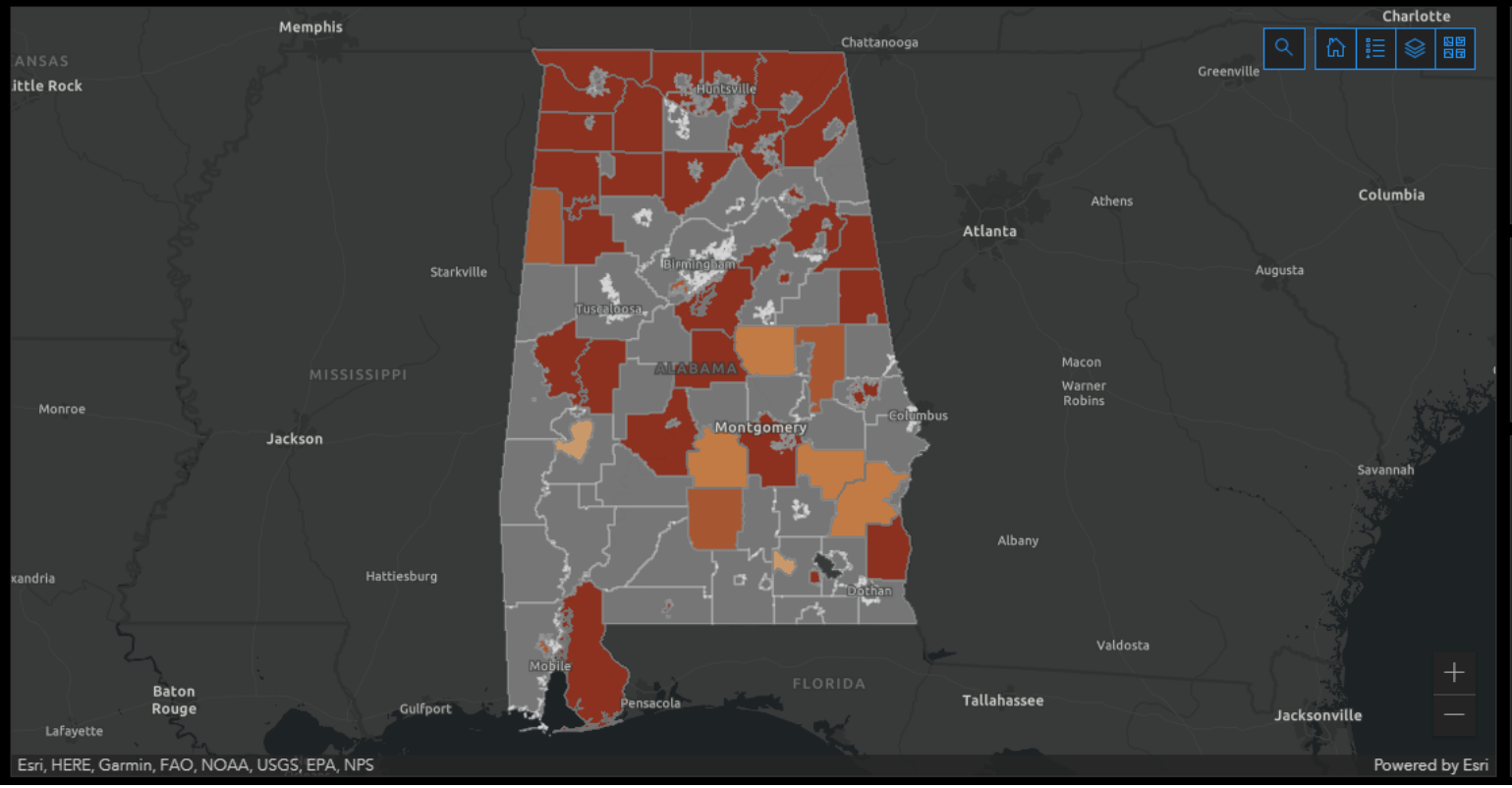
Anniston City
Total Cases This Week: Unreported

Arab City
Total Cases This Week: Unreported

1 of 143

Acceleration Academy School District

Instructional Type:	
Address:	3100 Cottage Hil Rd ,Mobile AL 36606
Total Cases:	Unreported

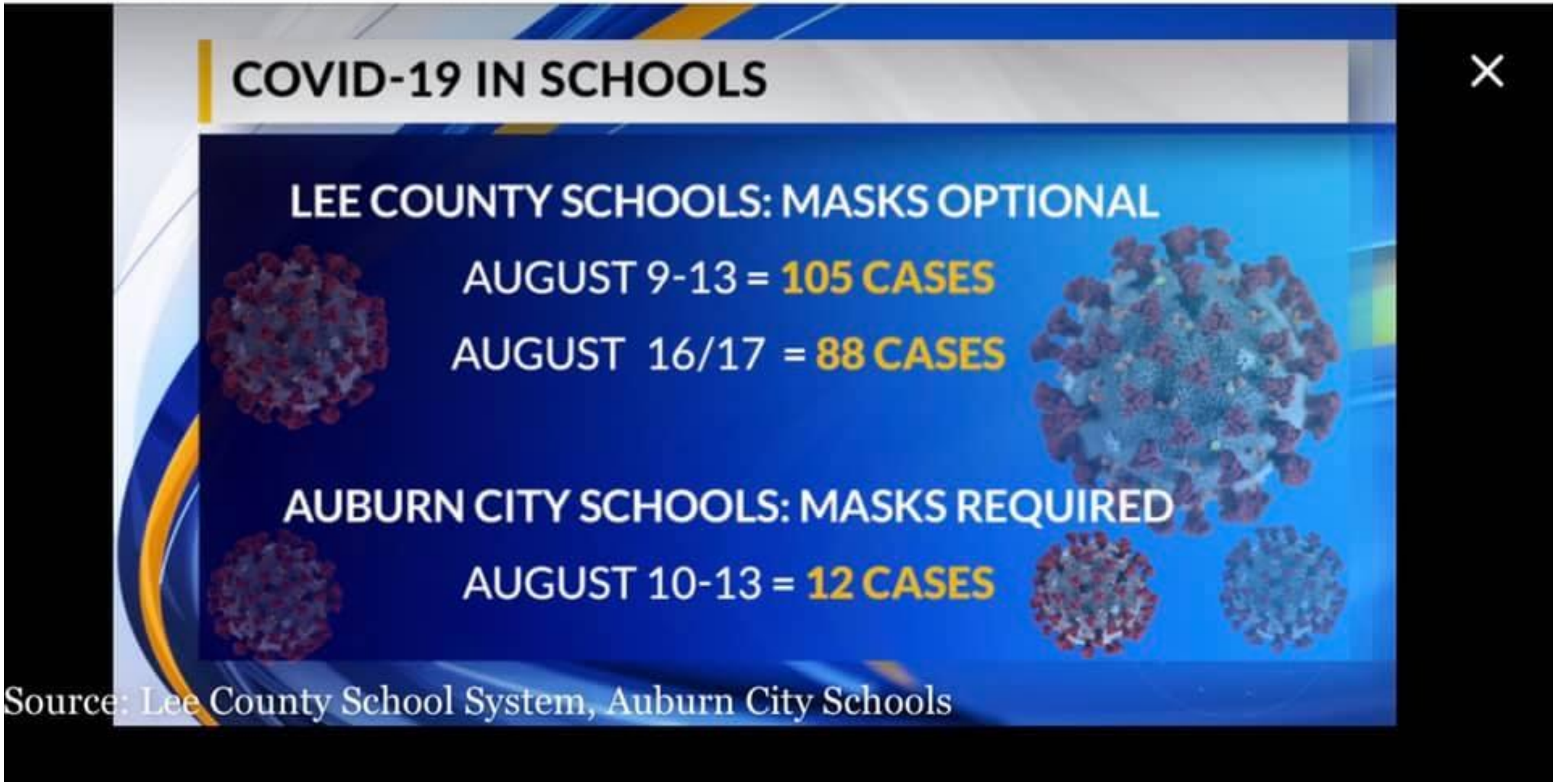


Total Cases
4,337
This Week

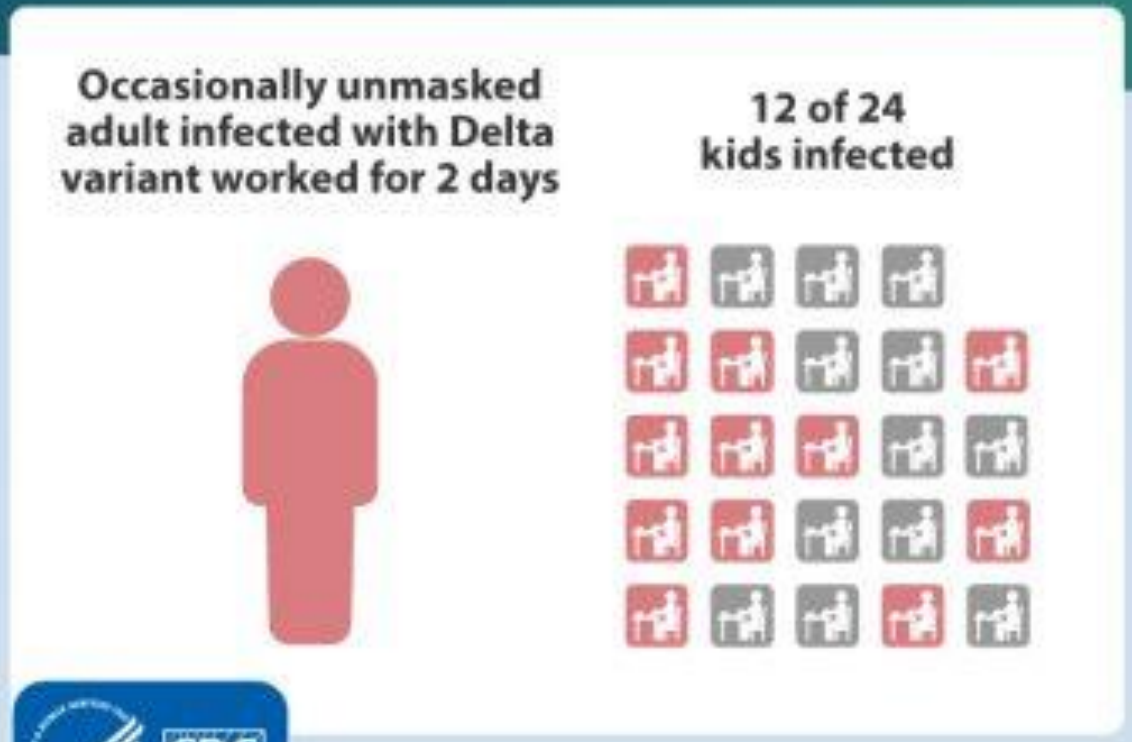
TOTAL CASES
-
REPORTED LAST WEEK

School Districts
Total Cases
- > 24 - 1,000
- > 15 - 24
- > 9 - 15
- > 0 - 9
- 0 - 0

https://alpublichealth.maps.arcgis.com/apps/MapSeries/index.html?appid=d84846411471404c83313bfe7ab2a367


COVID-19 IN SCHOOLS
LEE COUNTY SCHOOLS: MASKS OPTIONAL
AUGUST 9-13 = 105 CASES
AUGUST 16/17 = 88 CASES
AUBURN CITY SCHOOLS: MASKS REQUIRED
AUGUST 10-13 = 12 CASES
Source: Lee County School System, Auburn City Schools

The Delta variant spreads easily in indoor spaces when people are unmasked and unvaccinated



Schools can help stop spread by ensuring everyone:

- **Wears masks correctly** in indoor spaces
- **Gets vaccinated**, if eligible
- **Stays home** if having symptoms
- **Tests routinely**

CDC

bit.ly/MMWR82721b

MMWR

https://www.cdc.gov/mmwr/volumes/70/wr/mm7035e2.htm?s_cid=mm7035e2_w

Controlling Transmission of COVID-19

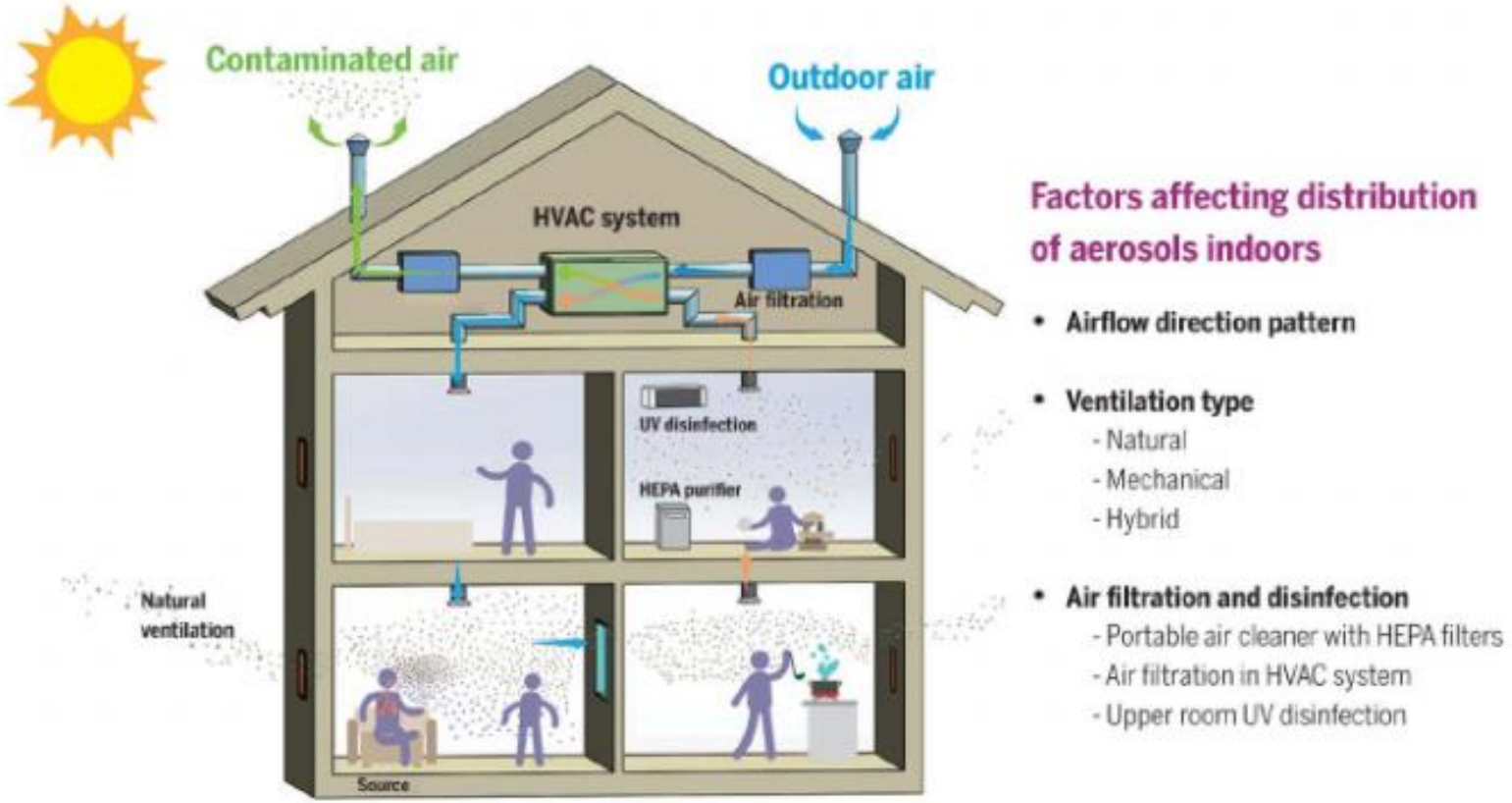


Fig. 4. Factors affecting indoor airborne transmission. Whereas the motion of large droplets is predominantly governed by gravity, the movement of aerosols is more strongly influenced by airflow direction and pattern, type of ventilation, and air filtration and disinfection.

Ventilation
Masking
Cleaning high touch surfaces
Staying home when ill
Distancing
Vaccination

https://www.science.org/doi/epdf/10.1126/science.abd9149

Mask wearing for Respiratory Viruses

Analysis 1.3. Comparison 1 Case-control studies, Outcome 3 Wearing mask.

Study or subgroup	Cases n/N	Control n/N	Odds Ratio M-H, Fixed, 95% CI	Weight	Odds Ratio M-H, Fixed, 95% CI
Chen 2009	59/91	541/657		13.46%	0.4[0.25,0.64]
Lau 2004a	93/330	388/660		54.01%	0.28[0.21,0.37]
Liu 2009	15/51	259/426		11.37%	0.27[0.14,0.51]
Nishiura 2005	8/25	35/90		3.01%	0.74[0.29,1.9]
Seto 2003	0/13	51/241		1.58%	0.14[0.01,2.34]
Wu 2004	25/94	121/281		12.95%	0.48[0.29,0.8]
Yin 2004	68/77	178/180		3.62%	0.08[0.02,0.4]
Total (95% CI)	**681**	**2535**		**100%**	**0.32[0.26,0.39]**
Total events: 268 (Cases), 1573 (Control)					
Heterogeneity: Tau^2=0; Chi^2=10.65, df=6(P=0.1); I^2=43.66%					
Test for overall effect: Z=11.07(P<0.0001)					

RCTs of masking in the setting of a pandemic are unethical
In a Cochrane review of 67 studies, including RCTs of respiratory viruses concluded: Surgical masks or N95 respirators were the most consistent and comprehensive supportive measures. N95 respirators were non-inferior to simple surgical masks but more expensive, uncomfortable and irritating to skin

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6993921/pdf/CD006207.pdf

Effectiveness of Mask Wearing to Control Community Spread of SARS-CoV-2

Table. Studies of the Effect of Mask Wearing on SARS-CoV-2 Infection Risk[a]

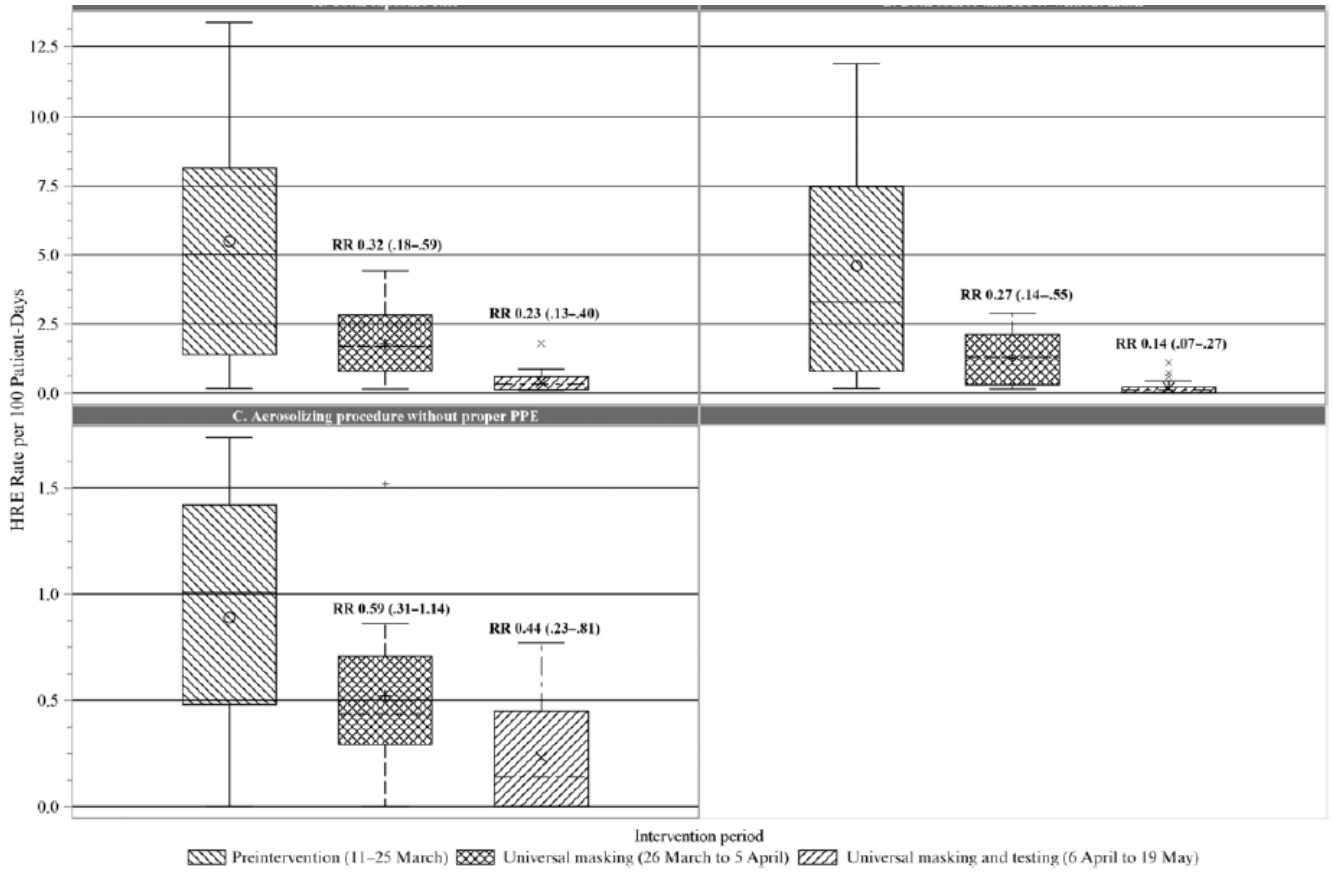
Source	Location	Population studied	Intervention	Outcome
Hendrix et al	Hair salon in Springfield, Missouri	139 Patrons at a salon with 2 infected and symptomatic stylists	Universal mask wearing in salon (by local ordinance and company policy)	No COVID-19 infections among 67 patrons who were available for follow-up
Payne et al	USS Theodore Roosevelt, Guam	382 US Navy service members	Self-reported mask wearing	Mask wearing reduced risk of infection by 70% (unadjusted odds ratio, 0.30 [95% CI, 0.17-0.52])
Wang Y et al	Households in Beijing, China	124 Households of diagnosed cases comprising 335 people	Self-reported mask wearing by index cases or ≥1 household member prior to index case's diagnosis	Mask wearing reduced risk of secondary infection by 79% (adjusted odds ratio, 0.21 [95% CI, 0.06-0.79])
Doung-ngern et al	Bangkok, Thailand	839 Close contacts of 211 index cases	Self-reported mask wearing by contact at time of high-risk exposure to case	Always having used a mask reduced infection risk by 77% (adjusted odds ratio, 0.23 [95% CI, 0.09-0.60])
Gallaway et al	Arizona	State population	Mandatory mask wearing in public	Temporal association between institution of mask wearing policy and subsequent decline in new diagnoses
Rader et al	US	374 021 Persons who completed web-based surveys	Self-reported mask wearing in grocery stores and in the homes of family or friends	A 10% increase in mask wearing tripled the likelihood of stopping community transmission (adjusted odds ratio, 3.53 [95% CI, 2.03-6.43])
Wang X et al	Boston, Massachusetts	9850 Health care workers (HCWs)	Universal masking of HCWs and patients in the Mass General Brigham health care system	Estimated weekly decline in new diagnoses among HCWs of 3.4% after full implementation of the mask wearing policy
Mitze et al	Jena (Thuringia), Germany	City population aged ≥15 y	Mandatory mask wearing in public spaces (eg, public transport, shops)	Estimated daily decline in new diagnoses of 1.32% after implementation of the mask mandate
Van Dyke et al	Kansas	State population	Mandatory mask wearing in public spaces	Estimated case rate per 100 000 persons decreased by 0.08 in counties with mask mandates but increased by 0.11 in those without
Lyu and Wehby	15 US states and Washington, DC	State populations	Mandatory mask wearing in public	Estimated overall initial daily decline in new diagnoses of 0.9% grew to 2.0% at 21 days following mandates
Karaivanov et al	Canada	Country population	Mandatory mask wearing indoors	Estimated weekly 25%-40% decline in new diagnoses following mask mandates

[a] See the Supplement for the complete table.

JAMA. 2021;325(10):998-999. doi:10.1001/jama.2021.1505

Decreasing High-risk Exposures for Healthcare Workers Through Universal Masking and Universal Severe Acute Respiratory Syndrome Coronavirus 2 Testing on Entry to a Tertiary Care Facility

Jeremey Walker,[1] Molly E. Fleece,[1] Russell L. Griffin,[2] Sixto M. Leal,[3] Jorge A. Alsip,[4] William S. Stigler,[5], Sarah D. Nafziger,[6] Jeanne M. Marrazzo,[1] and Rachael A. Lee[1]



Universal masking decreased the rate of high-risk exposures per patient-day by 68%

and universal testing further decreased those exposures by 77%.

Acknowlegdements

Thank you to the Alabama Regional Center for Infection Prevention and Control Training and Technical Assistance!