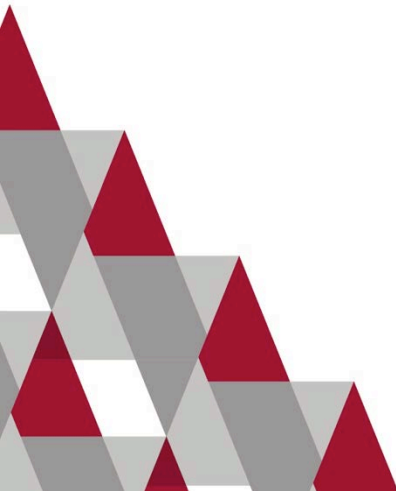


Racial/Ethnic Disparities in COVID-19 Predictors and Outcomes

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Clare C Brown, PhD MPH





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 - College of Public Health (COPH)
 - Sean Young, Mick Tilford, Lori Fischbach, Jenil Patel, Suman Maity, Jyotishka Datta, Blaine Tottori, Benjamin Amick, Mark Williams

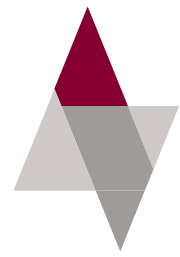
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College of Public Health



Conflicts and Disclosure

- We have no conflicts of interest to disclose
- The views expressed in this presentation are our own and do not reflect the official position or policy of UAMS or of the ADH.



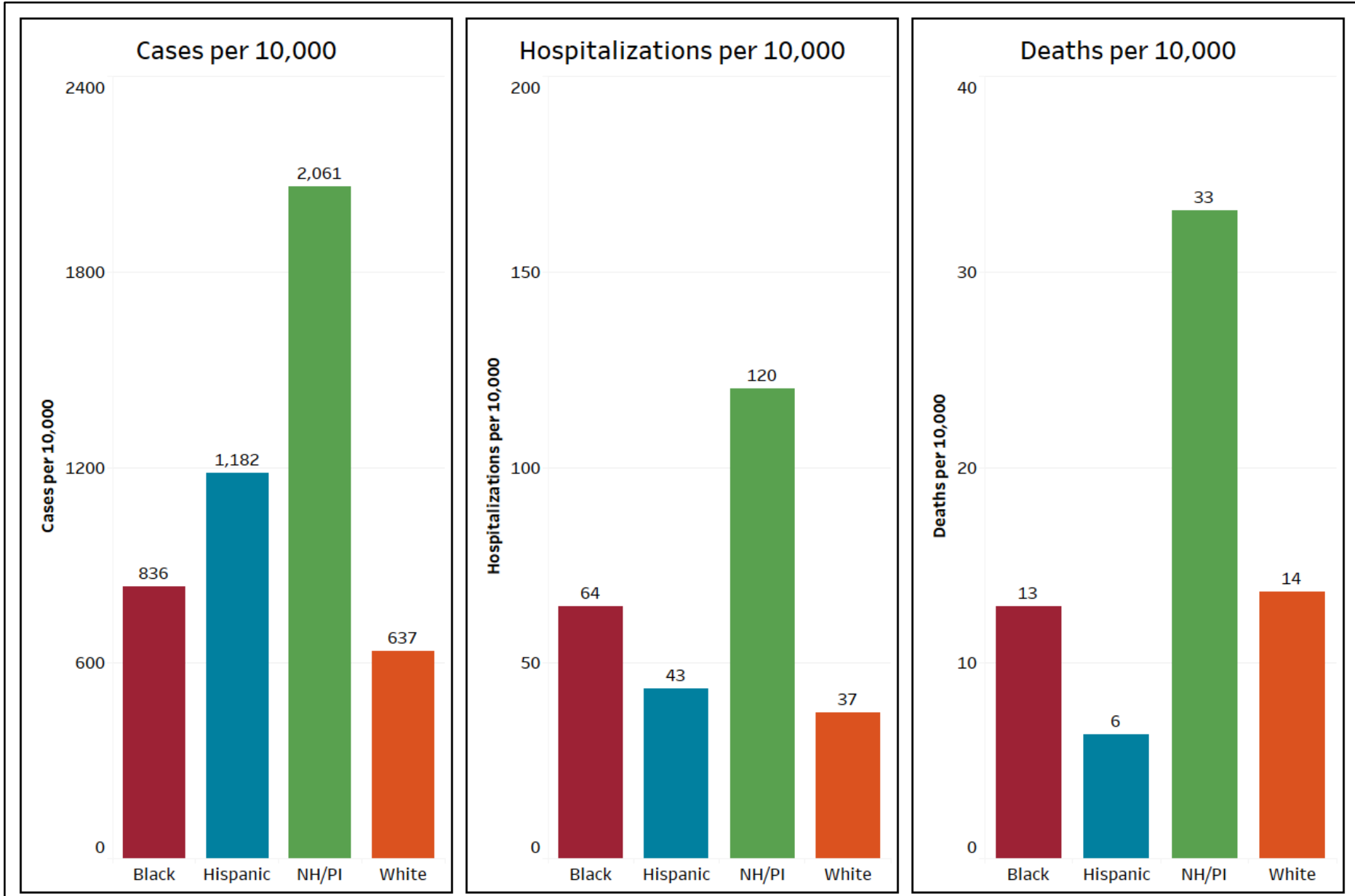
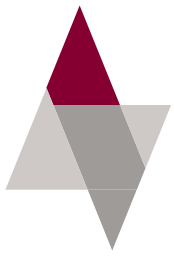
What is a Disparity?

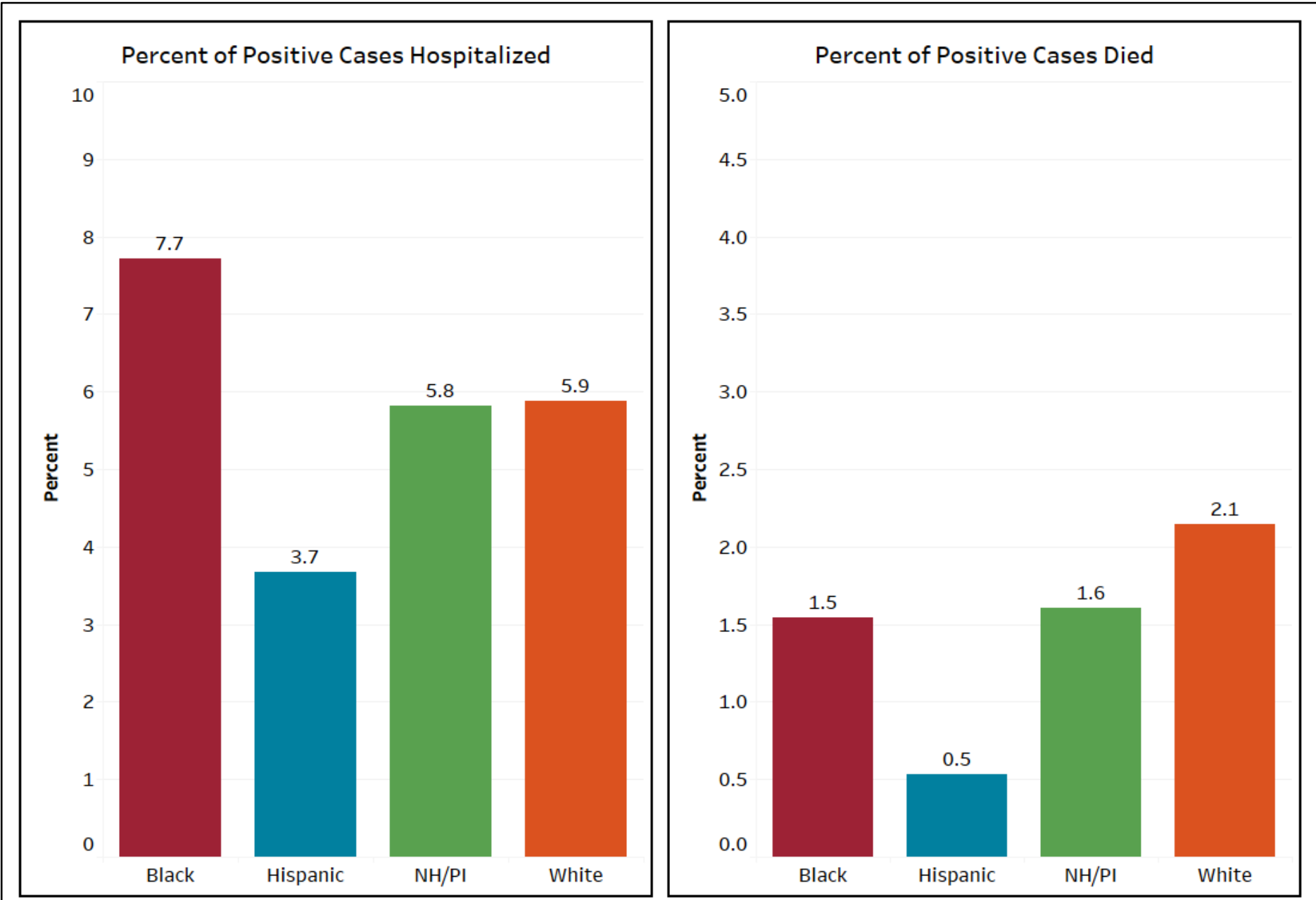
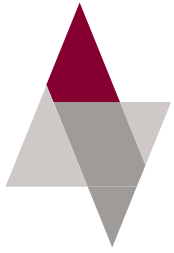
- Not explained by differences in needs, patient preferences, or treatment recommendations
- Health disparity vs Healthcare disparity
- Disparities can be based on
 - Race, age, geographic location, gender, disability status, sexual orientation, language, etc.
- COPH
 - Arkansas Center for Health Disparities

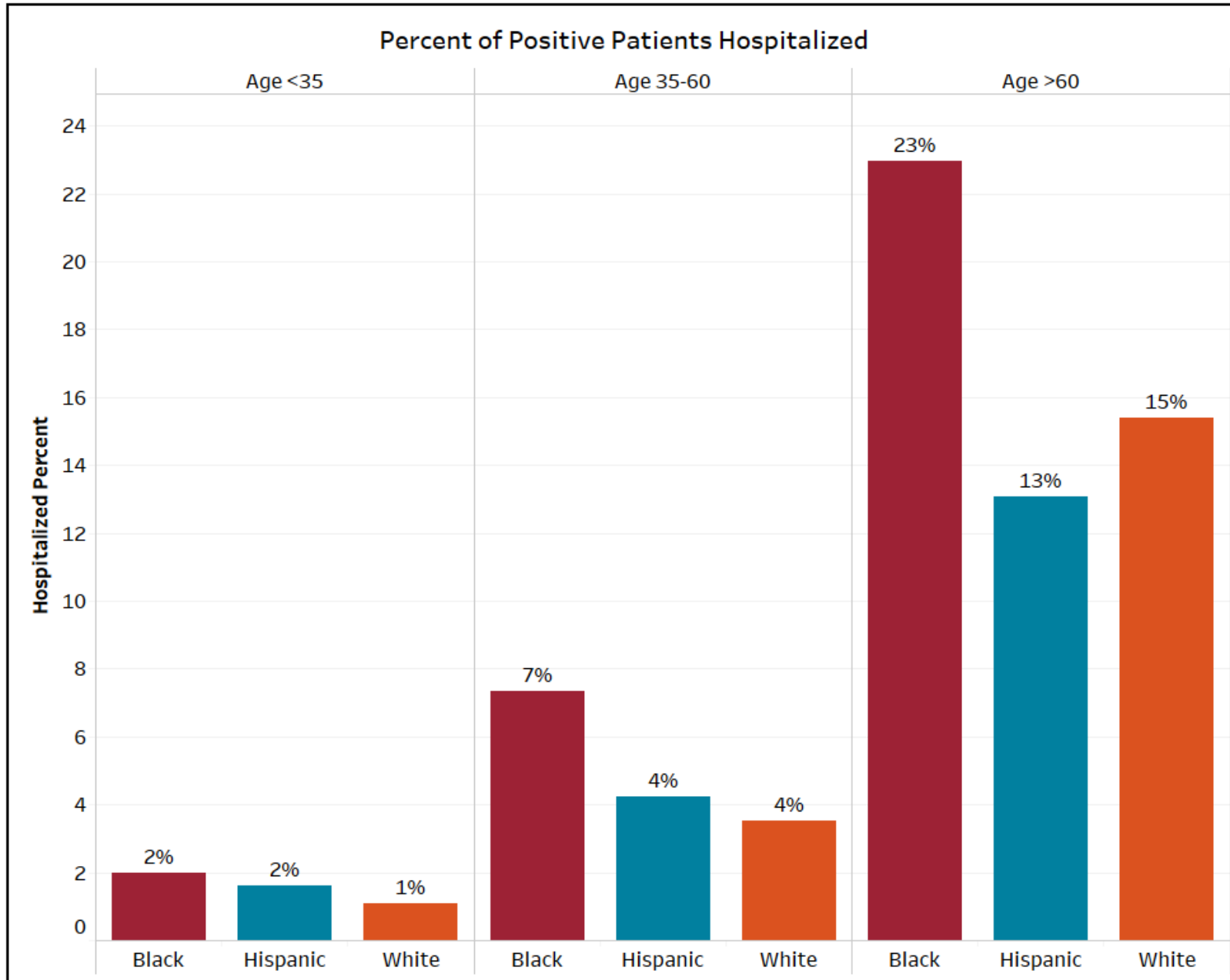
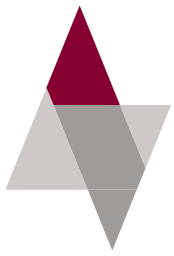


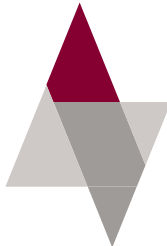
Methodological considerations

- What's a COVID case?
 - Confirmed
 - Probable
 - Active
- Which cases do we include?
 - Jails and Nursing Homes
 - Somewhat closed systems, but have workers and visitors
 - Spread may not represent spread in community
 - Arkansas resident status
 - College Students (from out of state)
- What counts as a hospitalization/death?
 - All confirmed or only symptomatic?
- Border counties
- Testing date vs confirmed date

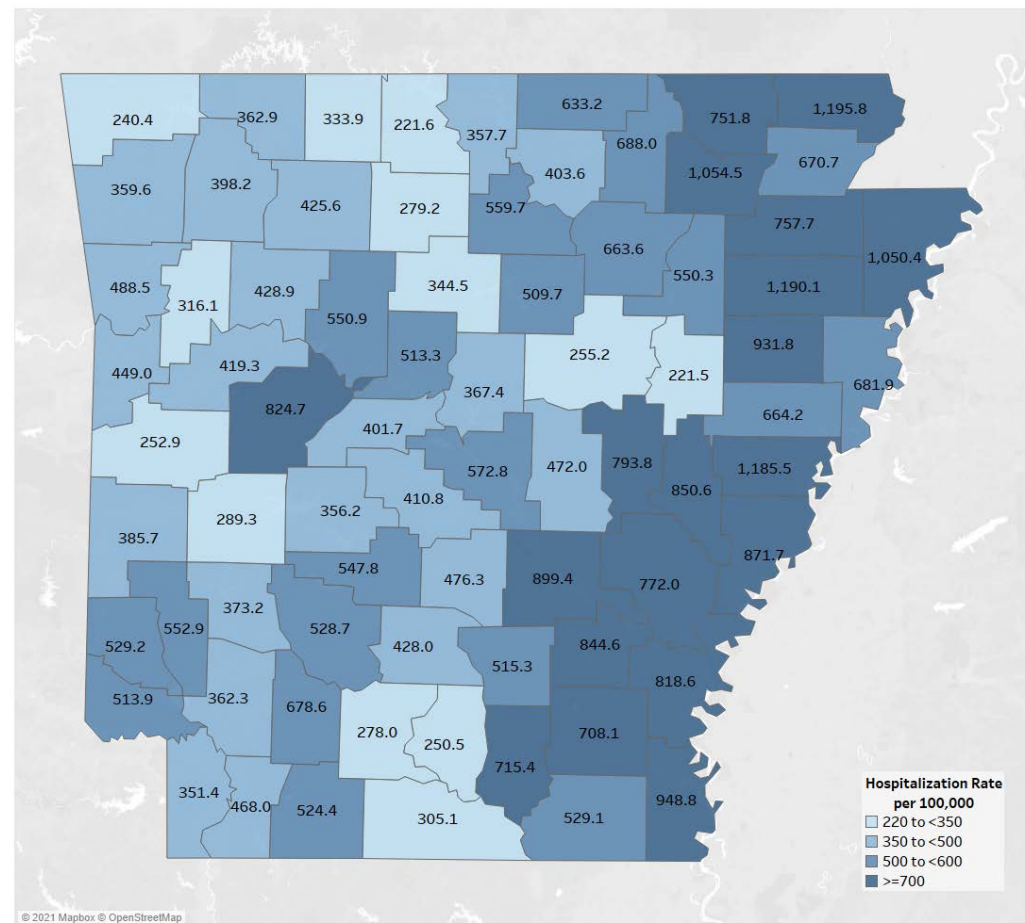




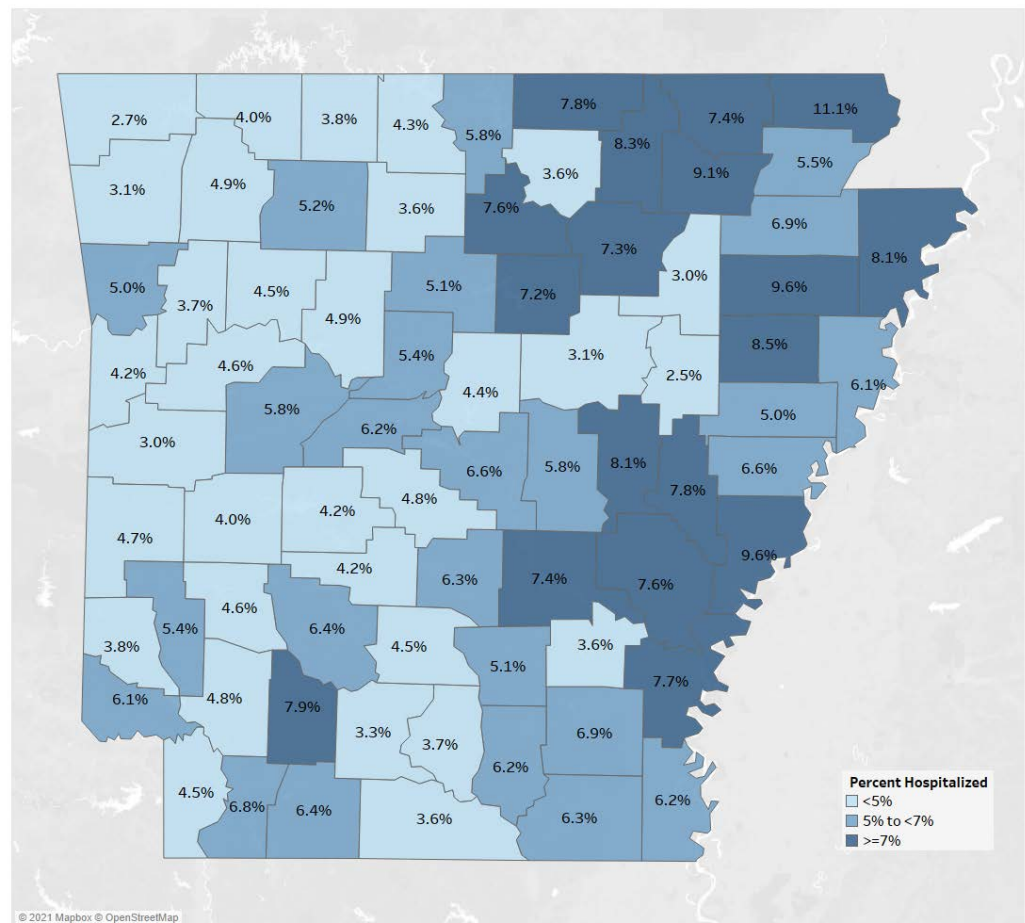




Hospitalization rates per 100,000 residents by county

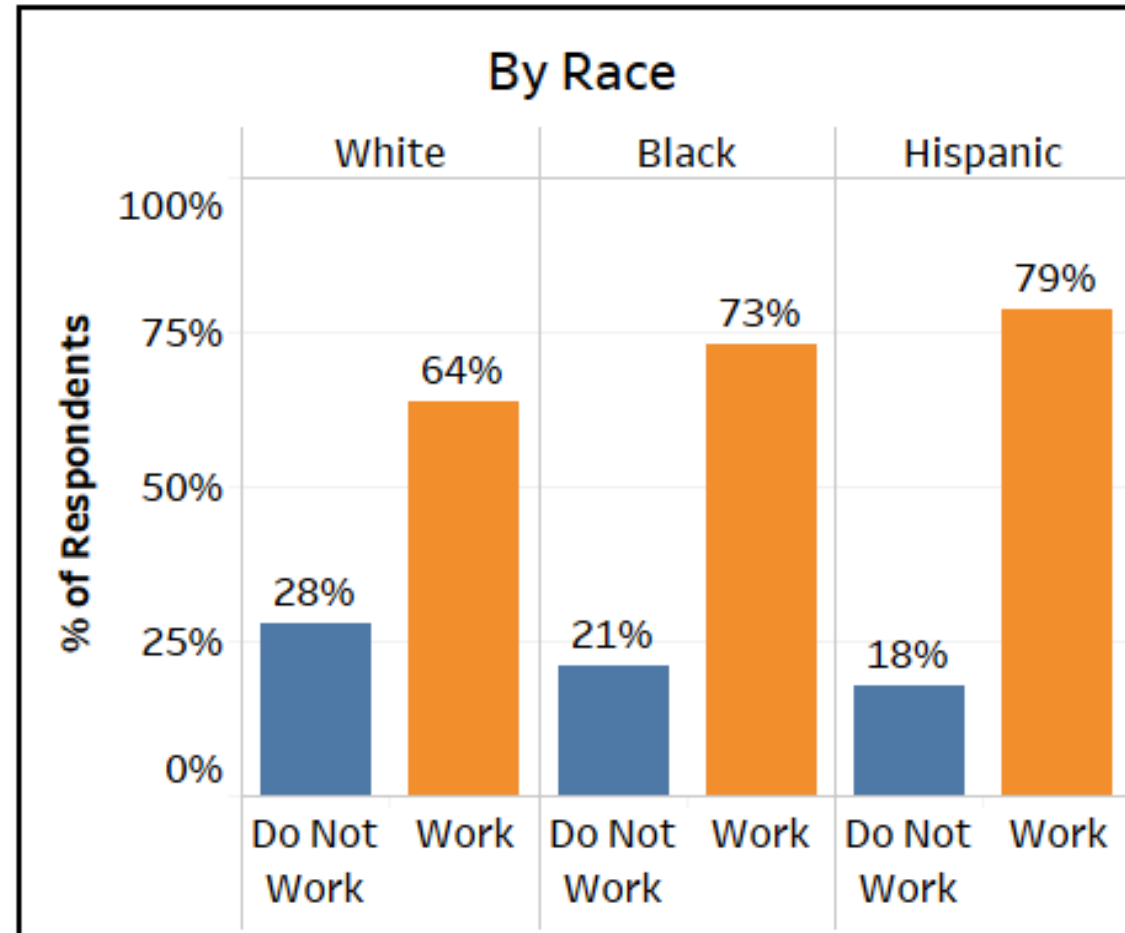


Percent of positive cases hospitalized by county

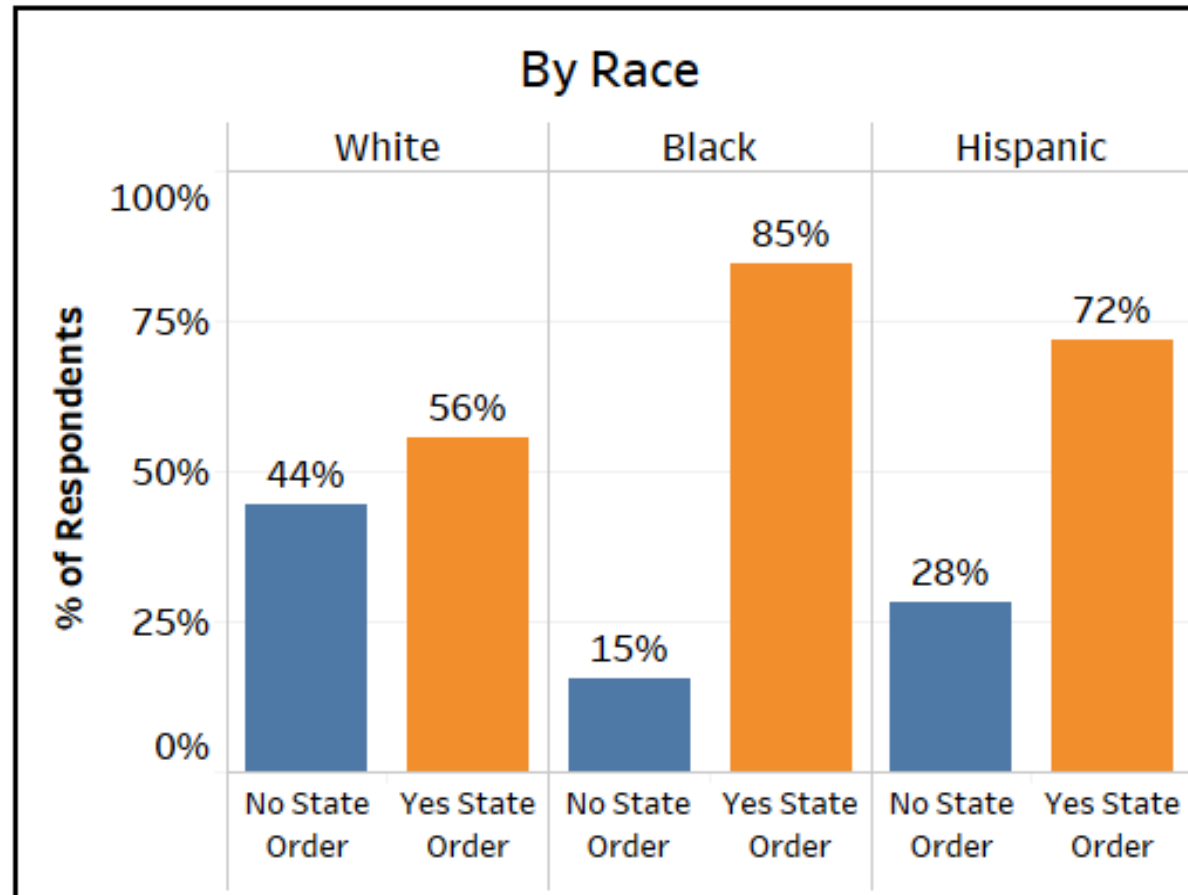


Data through 1/31/2021

Face Masks Effectiveness

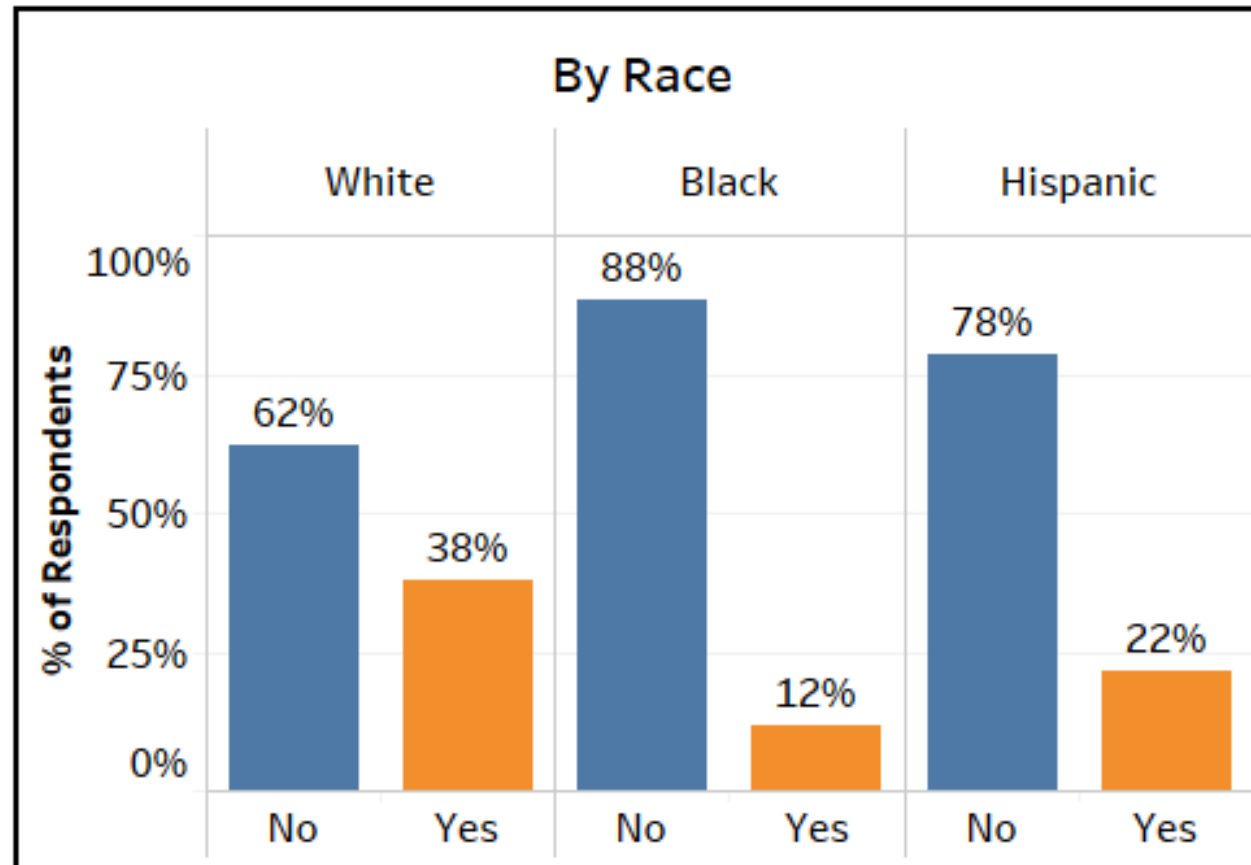


Need for Face Mask Order





Allow Large Groups to Gather



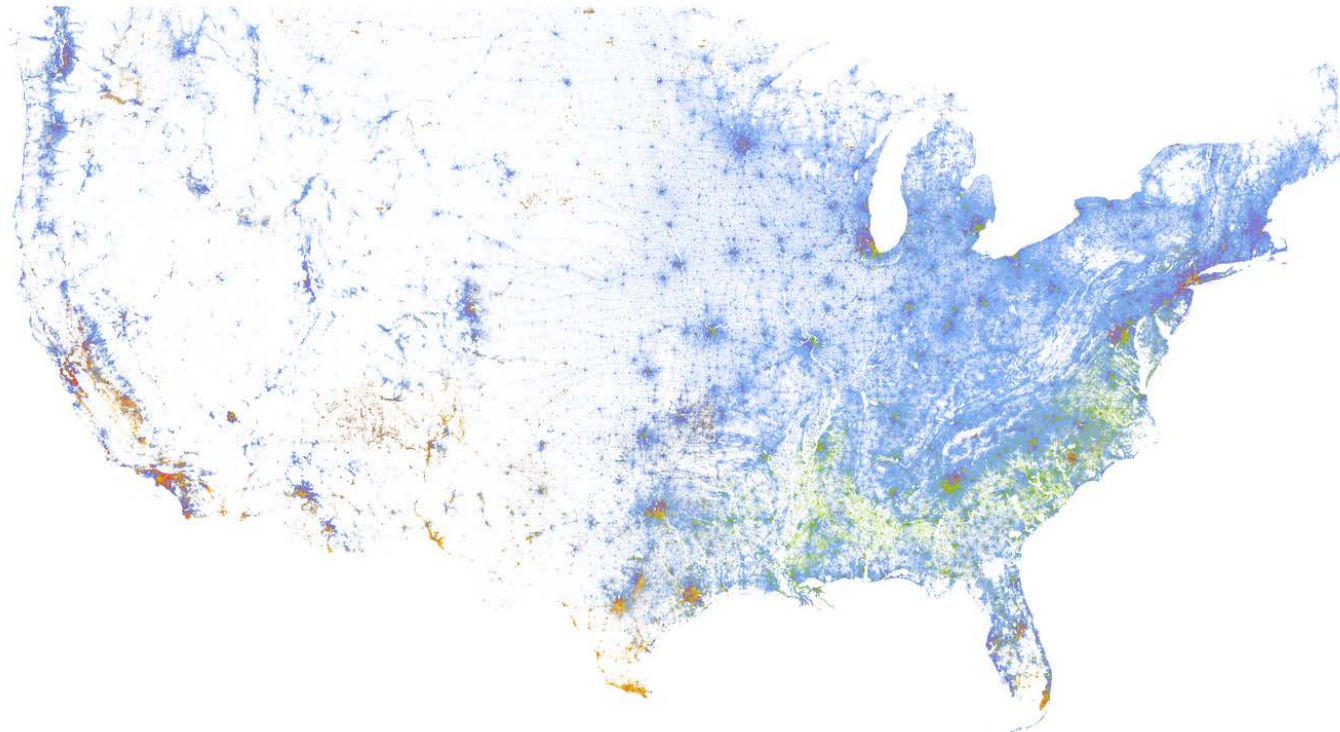


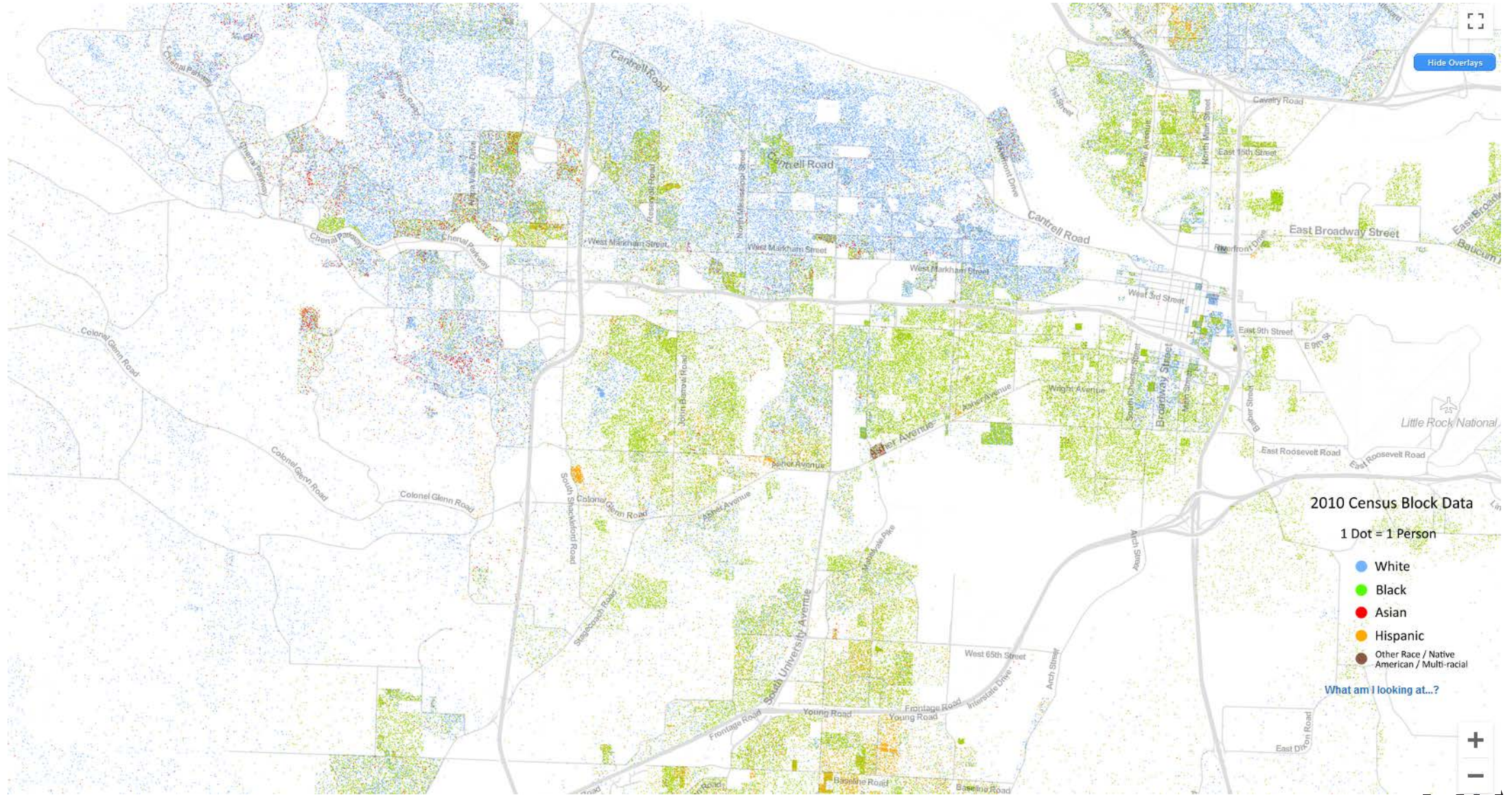
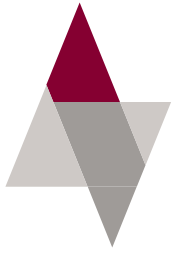
Data challenges

- COVID-specific
 - National hospitalizations by race are lacking
- Race is often not collected
 - E.g., insurance companies

What do we do about that?

- Area-level estimates
 - Smaller granularity is better
 - Will often use % of a race in an area

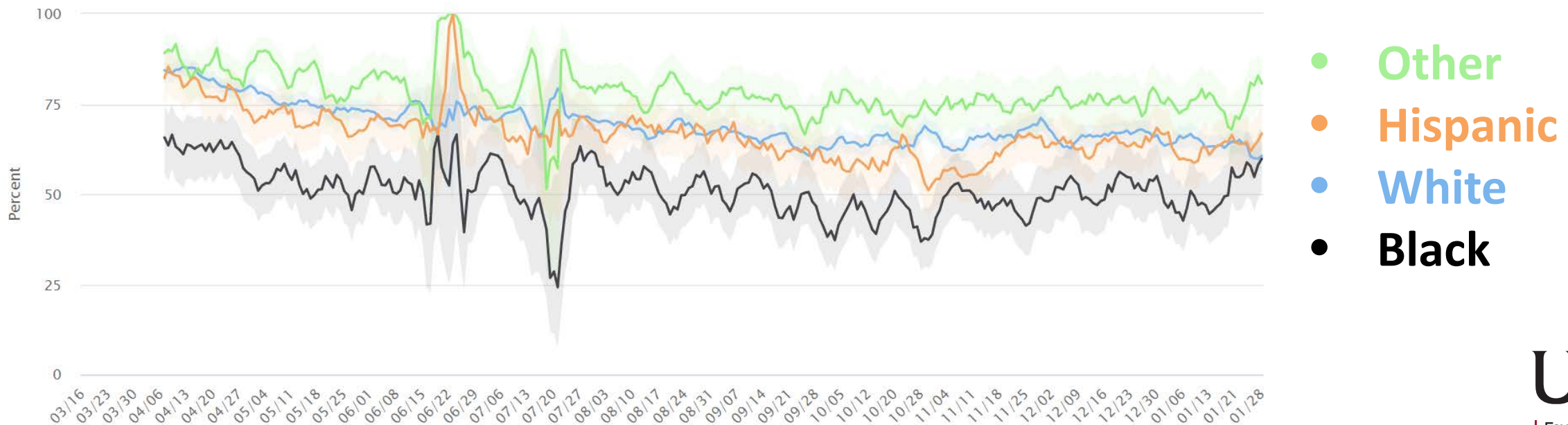




Racial Health Disparities and COVID-19: Caution and Context

“Disparity figures without explanatory context can perpetuate harmful myths and misunderstandings that actually undermine the goal of eliminating health inequities.” Chowkwanyun and Reed, NEJM

Very or somewhat likely to get coronavirus vaccine if available



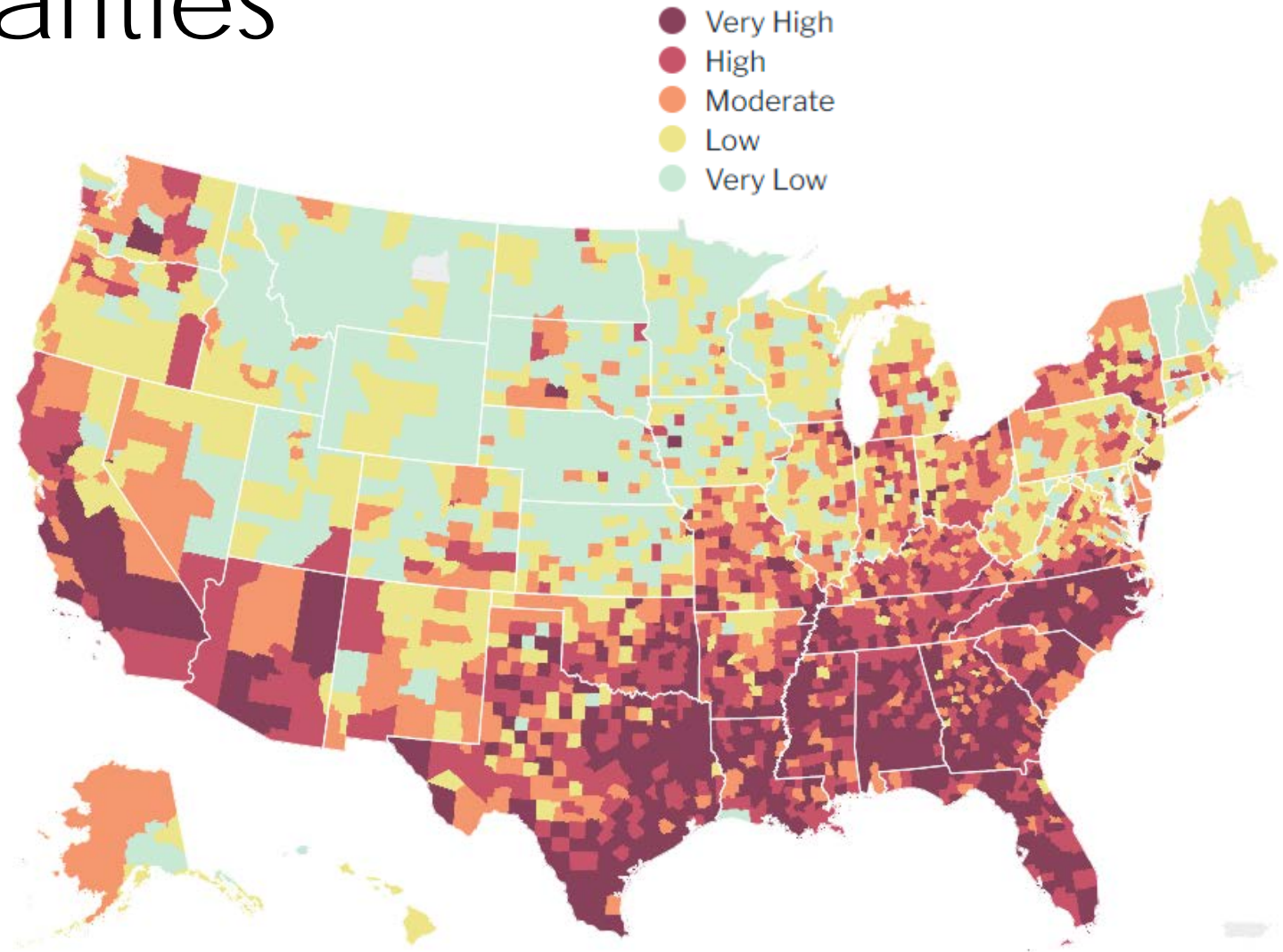
Social Determinants of Health



Measuring disparities

COVID Community Vulnerability Index

- Demographics
- Housing
- Transportation
- Pre-existing conditions
- Health systems
- High risk workplaces



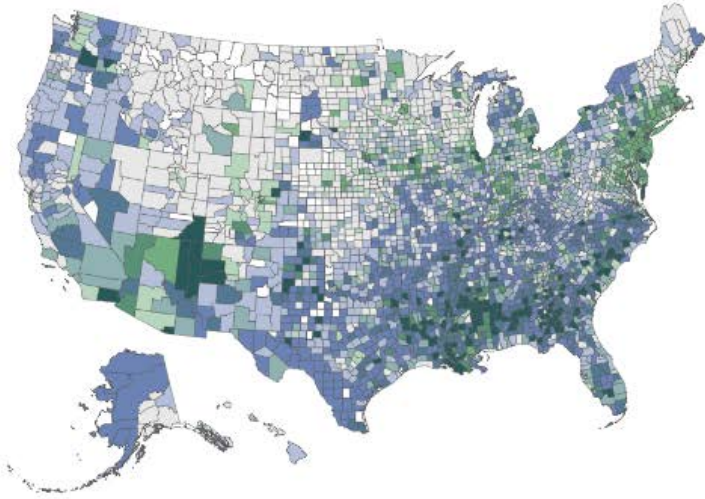


Publicly available COVID-19 data

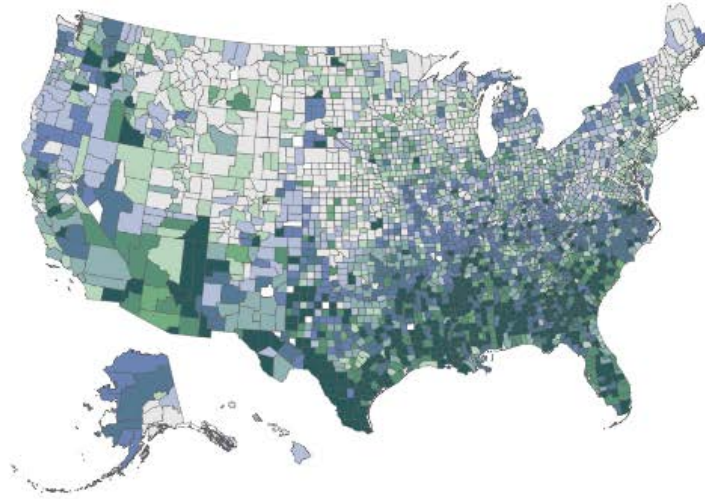
date	county	state	fips	cases	deaths
9/6/2020	Larimer	Colorado	8069	2076	44
9/6/2020	Las Anima	Colorado	8071	20	0
9/6/2020	Lincoln	Colorado	8073	8	0
9/6/2020	Logan	Colorado	8075	699	5
9/6/2020	Mesa	Colorado	8077	465	5
9/6/2020	Mineral	Colorado	8079	19	0
9/6/2020	Moffat	Colorado	8081	35	1
9/6/2020	Montezun	Colorado	8083	126	5
9/6/2020	Montrose	Colorado	8085	350	13
9/6/2020	Morgan	Colorado	8087	720	48
9/6/2020	Otero	Colorado	8089	82	6
9/6/2020	Ouray	Colorado	8091	26	1
9/6/2020	Park	Colorado	8093	46	1
9/6/2020	Phillips	Colorado	8095	22	0
9/6/2020	Pitkin	Colorado	8097	202	2
9/6/2020	Prowers	Colorado	8099	88	0
9/6/2020	Pueblo	Colorado	8101	928	34

Using the CCVI in combination with national COVID death data

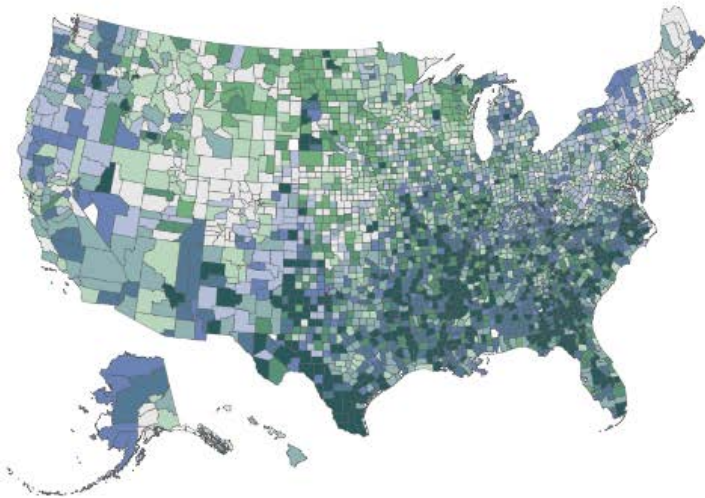
A May-June



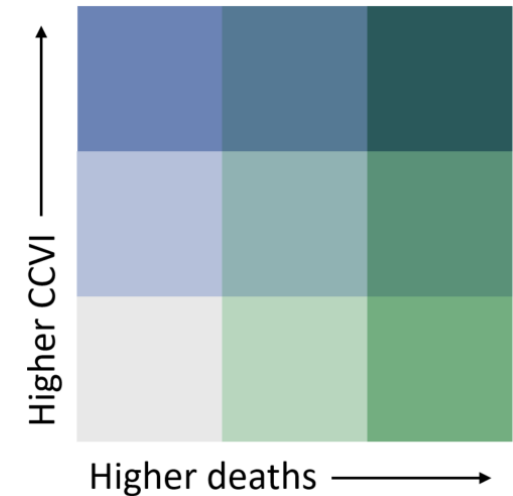
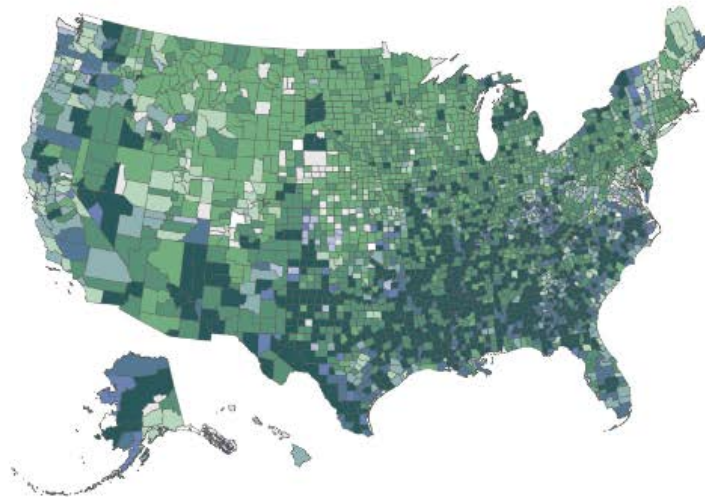
B July-August



C September-October



D November-December



COVID, incarceration, and disparities

Jail populations are returning to pre-pandemic levels, despite rising COVID-19 case rates across the country





Disparities and vaccinations

METRO

Racial disparity revealed in NYC COVID-19 vaccination distribution: new data

By Nolan Hicks and Aaron Fels

January 31, 2021 | 1:54pm | Updated

First Thing: vast racial disparity in Covid vaccination rates

THE CORONAVIRUS CRISIS

Early Data Shows Striking Racial Disparities In Who's Getting The COVID-19 Vaccine

January 28, 2021 · 6:21 PM ET

Heard on [All Things Considered](#)

Early State Vaccination Data Raise Warning Flags for Racial Equity

Nambi Ndugga [🐦](#), Olivia Pham, Latoya Hill [🐦](#), Samantha Artiga [🐦](#), and Salem Mengistu

Jan 21, 2021

AP Analysis: Racial disparity seen in US vaccination drive

By CARLA K. JOHNSON, ANGELIKI KASTANIS and KAT STAFFORD yesterday



 Fay W. Boozman
 College of Public Health

Public health and equity





Questions?

- cbrown3@uams.edu
- 501-526-6602



Differences in hospitalization and deaths, by
race/ethnicity and place of residence

All ages				
	Percent of Positive Hospitalized		Percent of Positive Died	
	Urban	Rural	Urban	Rural
White	5.6	6.3	2.0	2.3
Black	7.9	7.4	1.4	1.8
Hispanic	3.7	3.6	0.5	0.7
Age 35 to 60				
White	3.7	3.9	0.3	0.6
Black	8.2	7.1	0.8	0.8
Hispanic	4.6	4.6	0.4	0.5
Age 60 plus				
White	16.4	16.1	8.3	7.7
Black	25.2	23.6	7.5	8.3
Hispanic	13.8	15.0	4.5	6.4