

COVID-19 Disparities in the US: Outcomes and How We Can Address Them

May 14, 2020

1:00pm-2:00pm EDT



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COVID-19 in Flint

Line for water

March 20, 2020

COVID-19 activity in food retail outlets in Flint

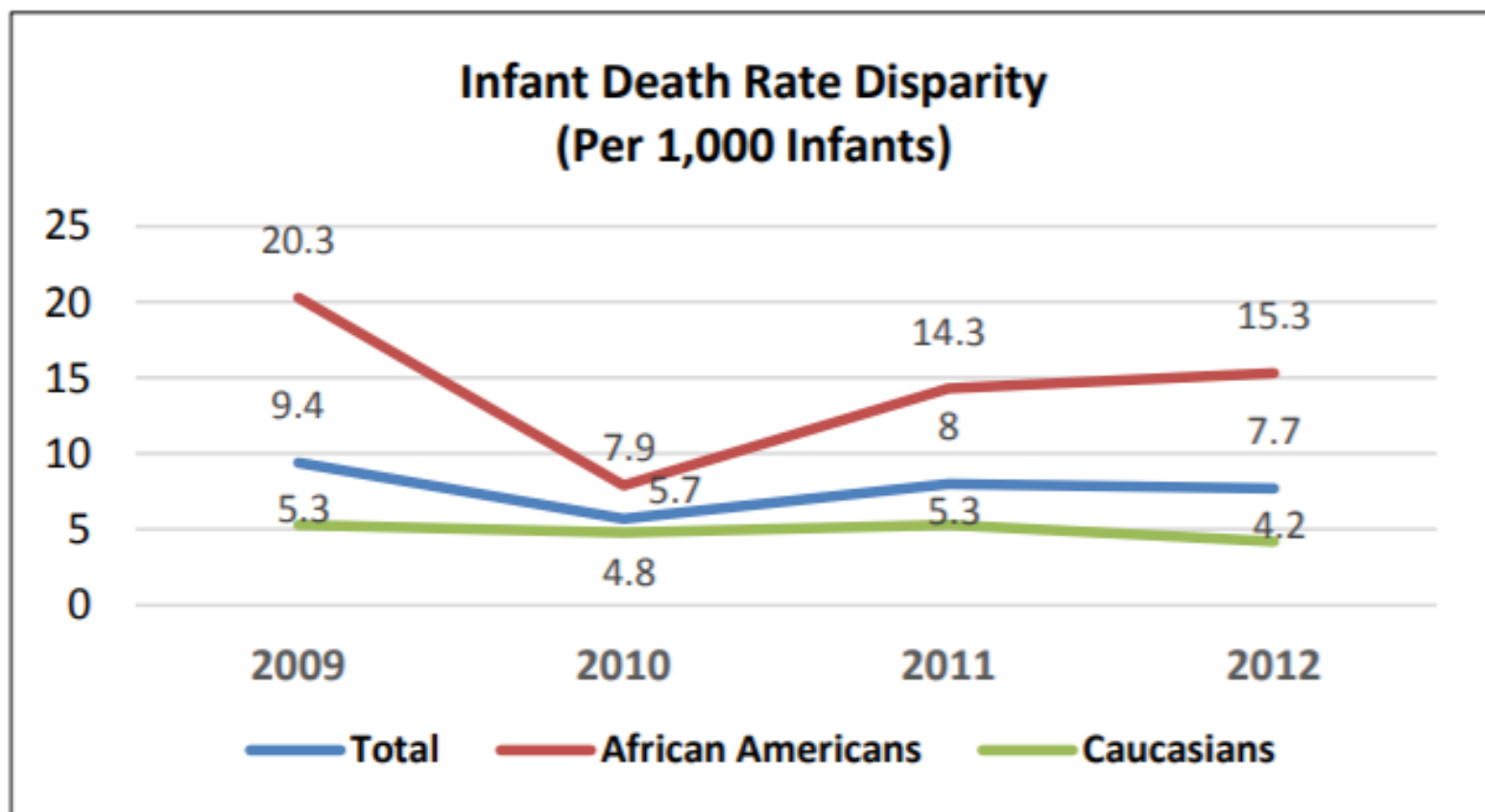
May 1-3

Employees enforcing social distancing	Yes	9 (16%)
	No	49 (84%)
Number of patrons	n=34 range: 0-200 mean: 11.9	
Number of patrons wearing masks	n=34 range: 0-125 mean: 7.15	
Number of patrons wearing gloves	n=34 range: 0-2 mean: 0.29	



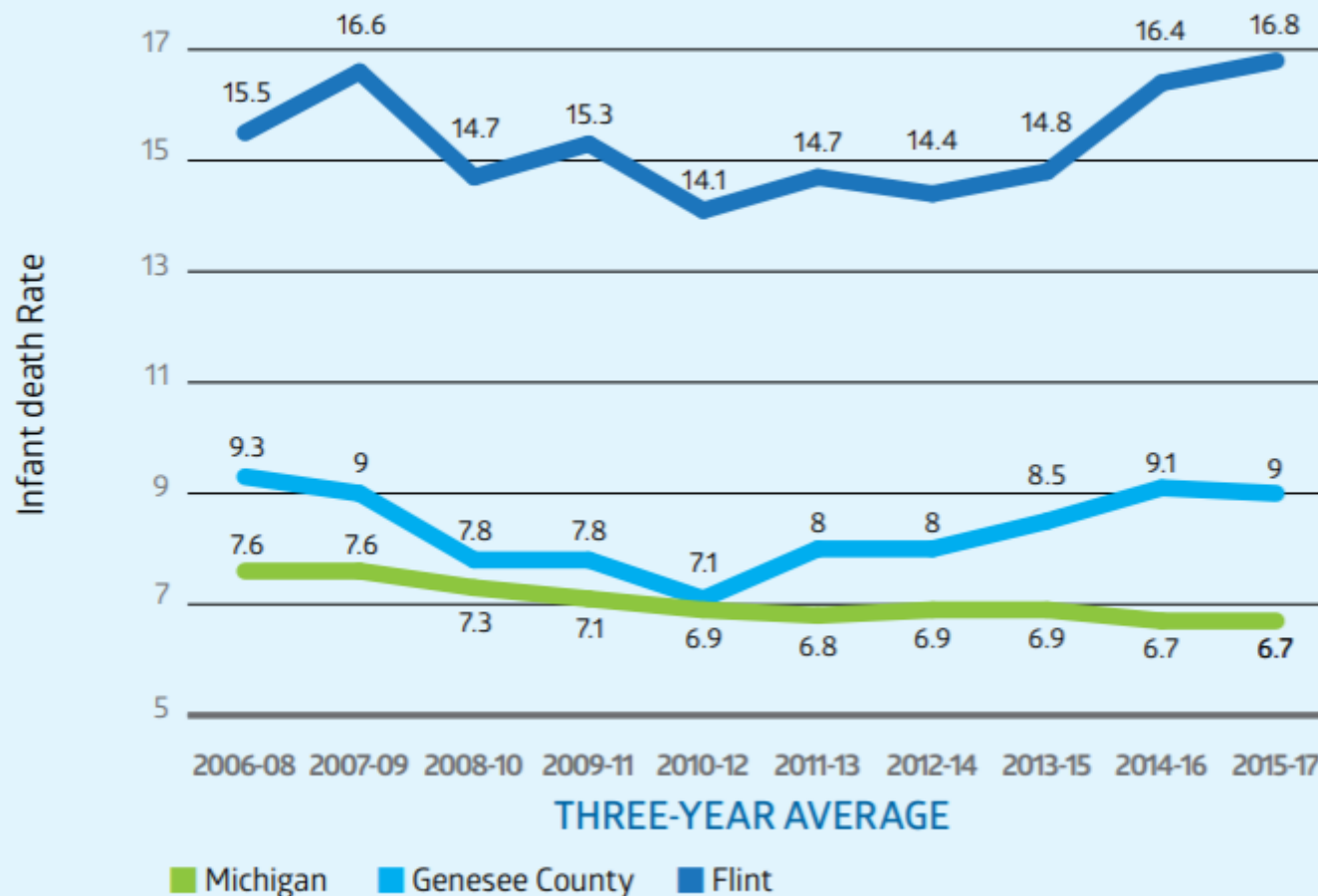
COVID-19
in Flint
May 5, 2020

Flint area

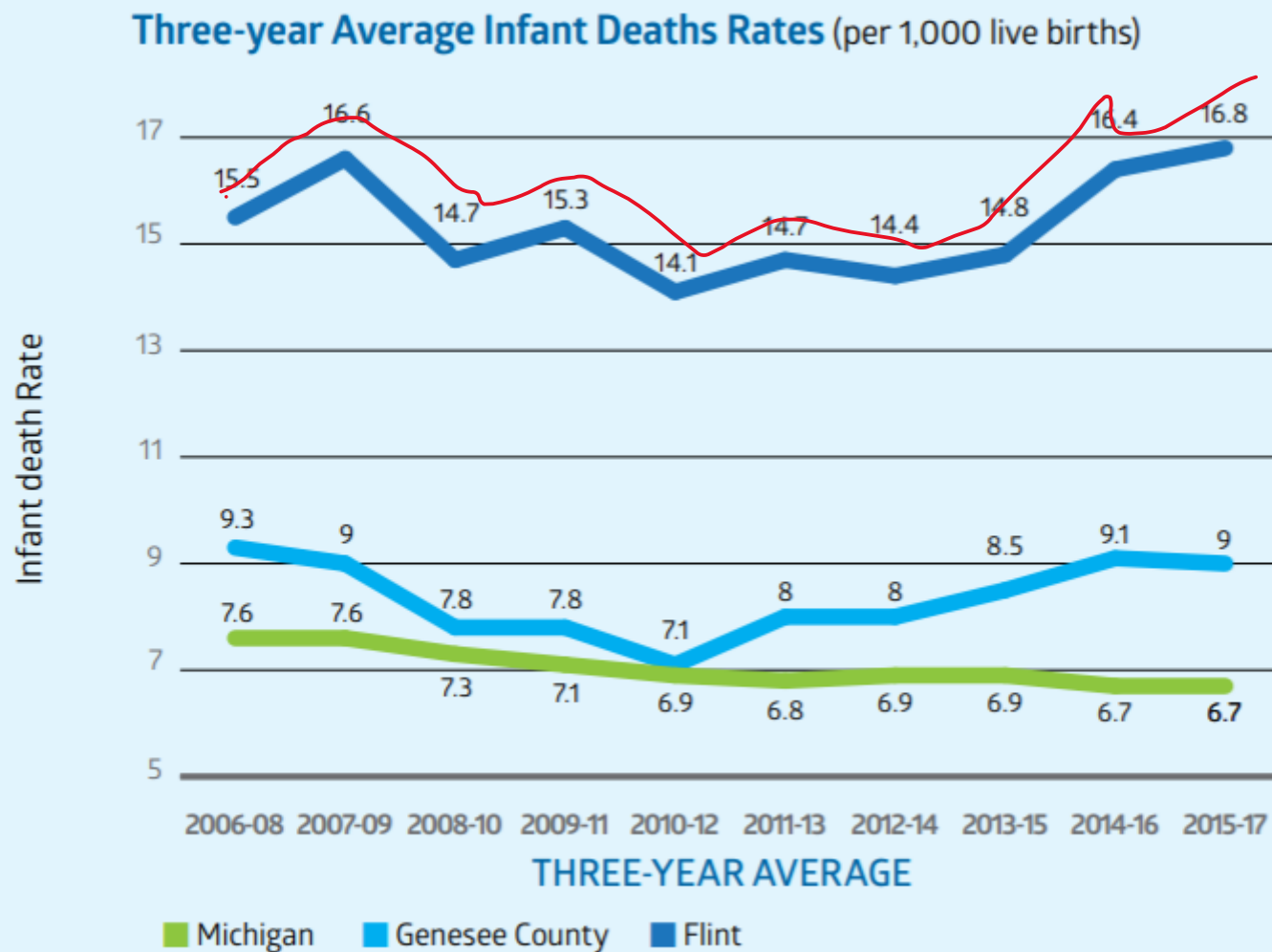


Data Source: Michigan Department of Health & Human Services.

Three-year Average Infant Deaths Rates (per 1,000 live births)



Health and Human Services 2006-2008 to 2015-2017



Health and Human Services 2006-2008 to 2015-2017

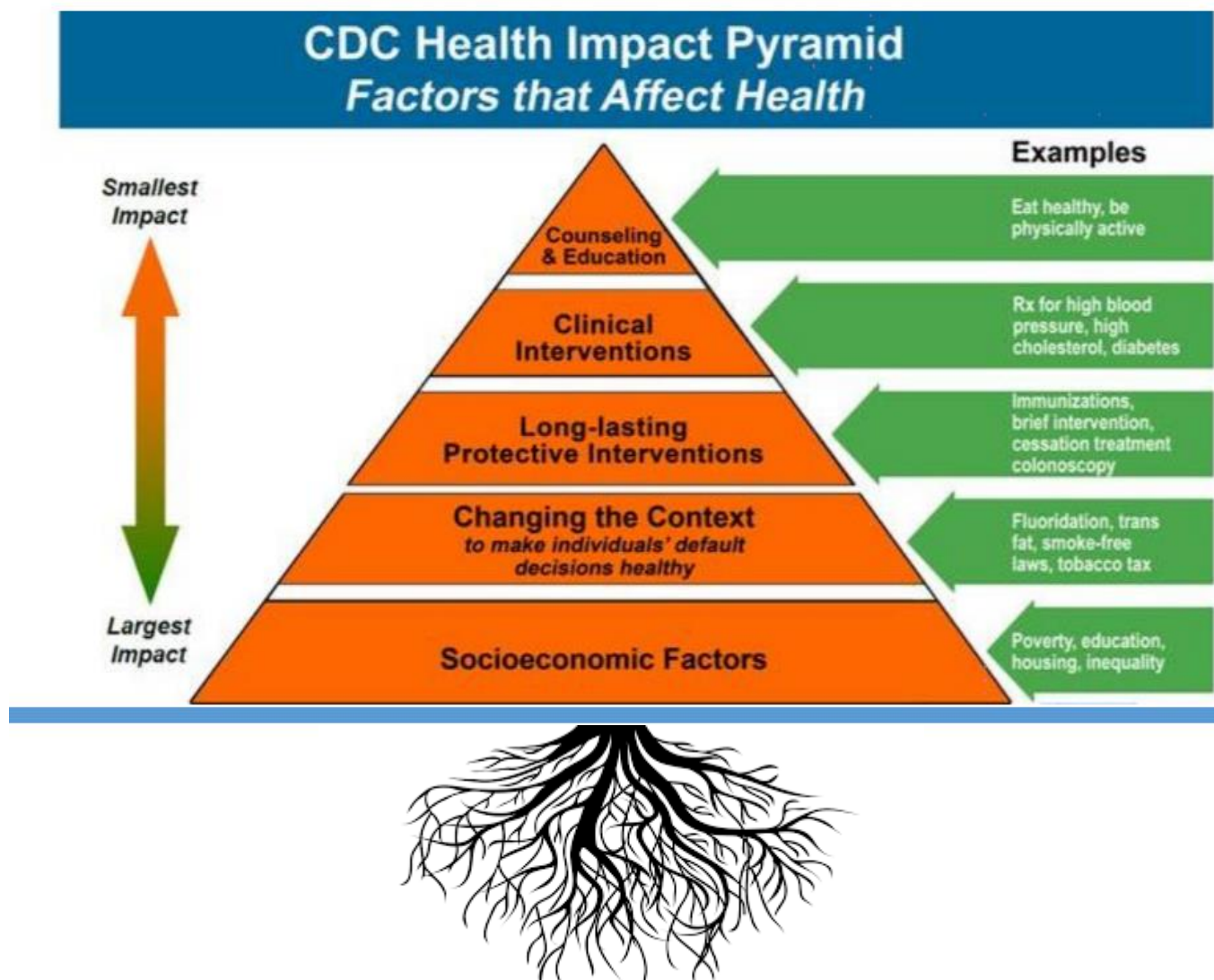


CDC Health Impact Pyramid

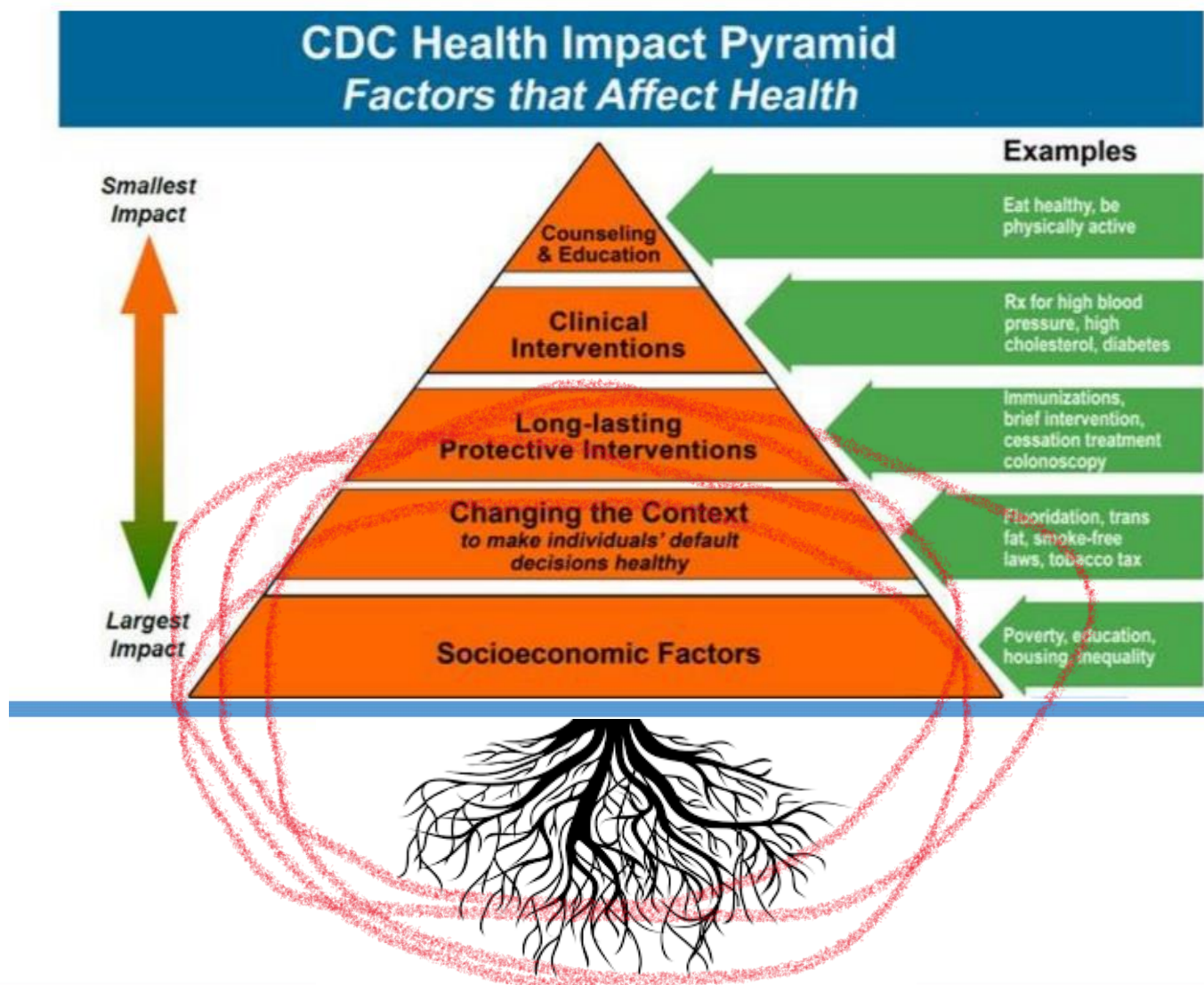
Factors that Affect Health



Factors that Affect Health



Factors that Affect Health



Confront root causes

Racial Inequities in America

3 Observations



Racial inequity looks the same across systems



Socio-economic difference does not explain the racial inequity



Inequities are caused by systems, regardless of people's culture or behavior

"Our racially structured society is what causes racial inequity"

COVID19 - The status quo

Black and Latino workers are overrepresented among the essential, the unemployed, and the dead.

Mo Barbosa
Health Resources in Action

Serwer, Adam. "The Coronavirus Was an Emergency Until". The Atlantic. May 8, 2020.



Artist: Molly Crabapple, "Underpaid, Ignored, and Essential"
<https://www.thenation.com/article/society/coronavirus-crabapple/>

CDC: COVID-19 in Racial and Ethnic Minority Groups

Living conditions

- Densely populated areas
- Residential segregation
- Further from grocery stores and medical facilities
- Multi-generational households
- Over-represented in jails, prisons, and detention centers



Thank you for listening.

Questions?

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'It's disturbing': Coronavirus kills black residents at dramatic rates across Louisiana

BY JEFF ADELSON, YOUSSEF RDDAD AND FAIMON ROBERTS | Staff writers APR 21, 2020 - 8:30 PM 6 min to read



The Times-Picayune

HEALTH DISPARITIES THROUGH THE LENS OF THE COVID-19 PANDEMIC

MAUREEN Y. LICHTVELD, MD, MPH
PROFESSOR AND CHAIR
TULANE UNIVERSITY
SCHOOL OF PUBLIC HEALTH AND TROPICAL
MEDICINE



'A Terrible Price': The Deadly Racial Disparities of Covid-19 in America

For the Zulu club, a black social organization in New Orleans, Mardi Gras was a joy. The coronavirus made it a tragedy.

ENGLISH ESPAÑOL 中文

The New York Times

Why is coronavirus taking such a deadly toll on black Americans?

Longstanding health and socio-economic disparities have made minorities more vulnerable to Covid-19


The Guardian

THE AVENUE

Mapping racial inequity amid COVID-19 underscores policy discriminations against Black Americans

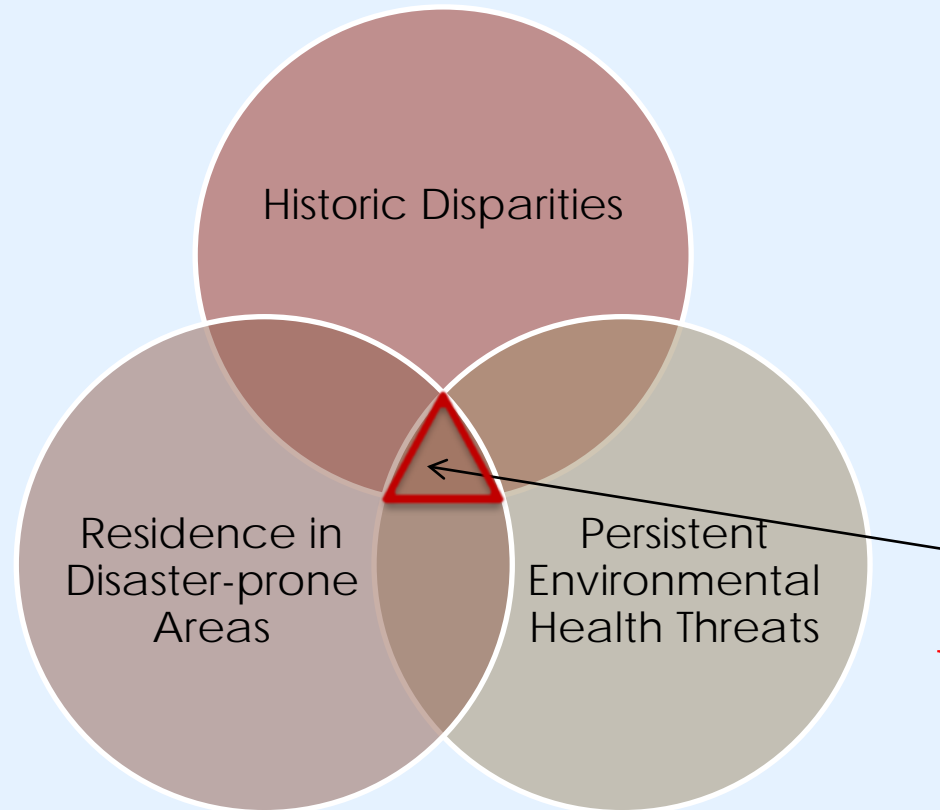
Andre M. Perry, David Harshbarger, and Carl Romer · Thursday, April 16, 2020

BROOKINGS



Tulane University
School of Public Health
and Tropical Medicine

TRIPLE RISK BURDEN



unique
Covid-19
vulnerability



**Tulane
University**
School of Public Health
and Tropical Medicine

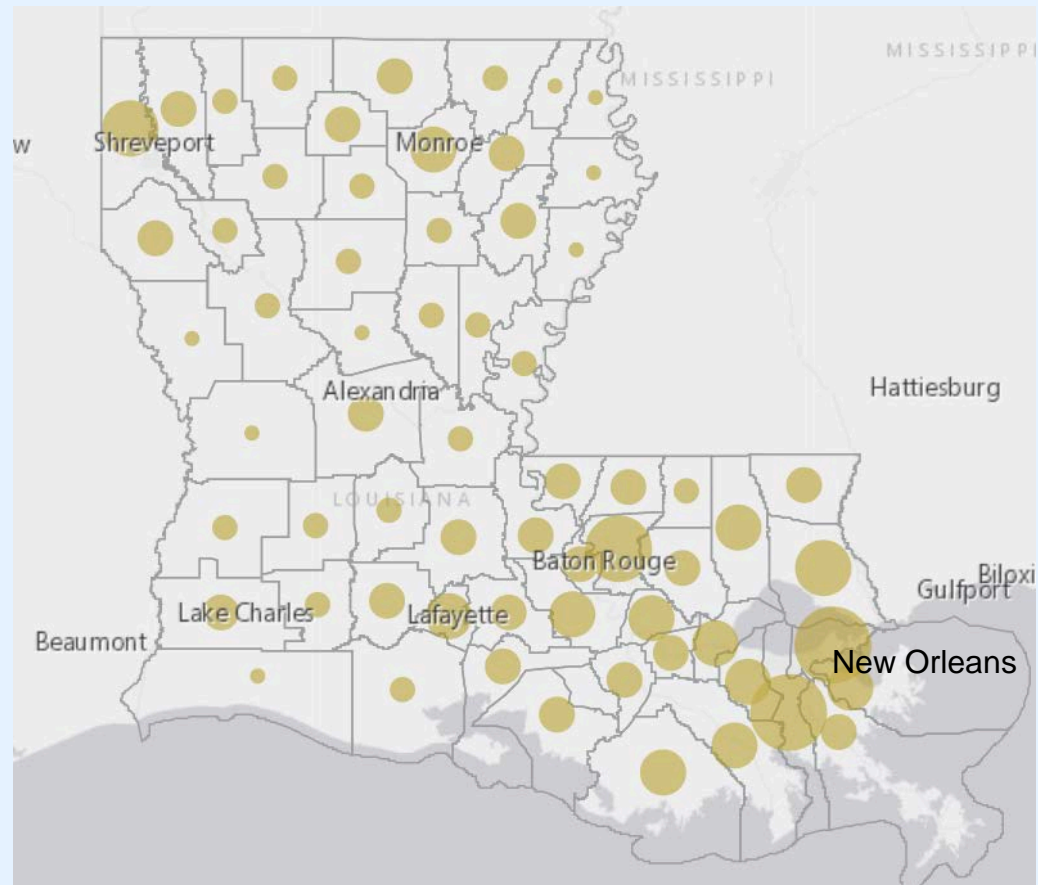


HEAD OFF ENVIRONMENTAL ASTHMA IN LOUISIANA (HEAL)



COVID-19 CASES STATEWIDE

- Orleans
- Jefferson
- St. Bernard
- Plaquemines
- St. John the Baptist

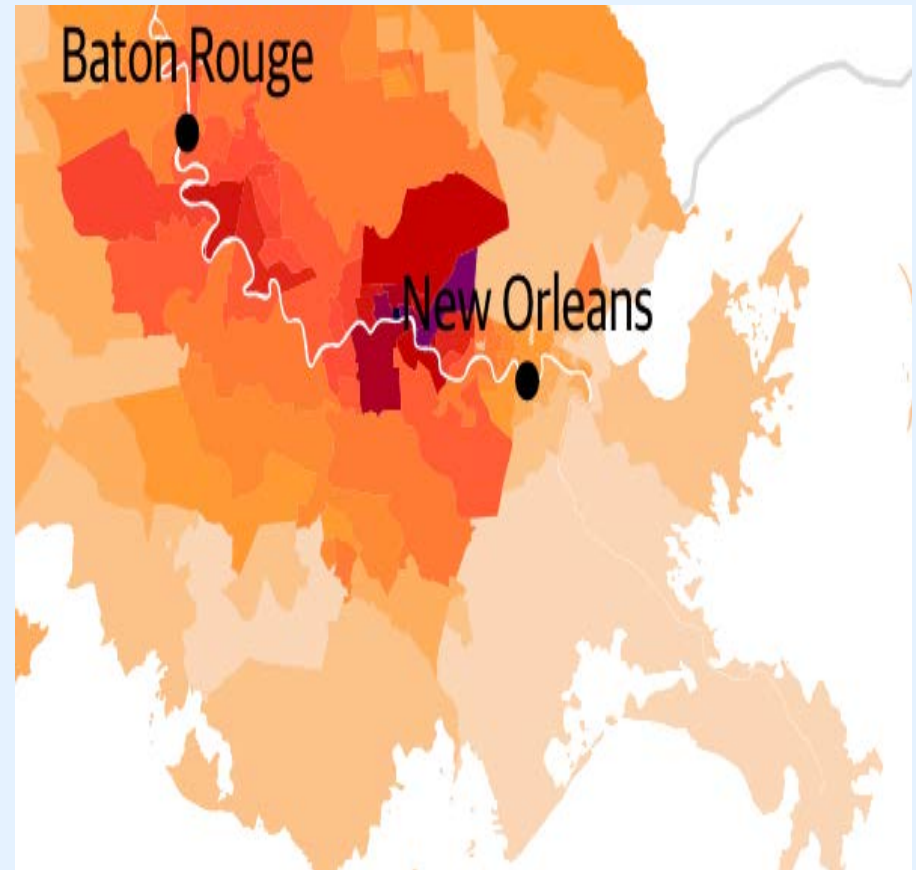


CANCER ALLEY



CANCER ALLEY

- 140 chemical factories and oil refineries¹
- Reserve cancer rate 578* (95% CI 484, 684)
 - 54% Black, median income \$32,466, 21.5% below FPL³
- St. Gabriel cancer rate 634* (95% CI 570, 703)²
 - 72% Black, median income \$25,352, 23.9% below FPL³
- LaPlace cancer rate 554* (95% CI 478, 643)²
 - 47.9% Black, 47% White, median income \$45,103, 12.1% below FPL³
- National average cancer rate 439*



*Per 100,000

Wendland, Tegan. "New Gas And Chemical Facilities Crowd Louisiana's 'Cancer Alley'." *NPR*, NPR, 10 Mar. 2020, www.npr.org/2020/03/10/813922168/new-gas-and-chemical-facilities-crowd-louisianas-cancer-alley?utm_medium=RSS.

Maniscalco L et. al. *Cancer Incidence in Louisiana by Census Tract 2007-2016*. New Orleans: Louisiana Tumor Registry, 2020.

United States Census Bureau (May 8, 2020). United States Census Bureau. Retrieved from: <https://data.census.gov/cedsci/>

CLIMATE: MORE THAN JUST A THREAT...



ISLE DE JEAN CHARLES



NEW ORLEANS – SOCIAL DETERMINANTS

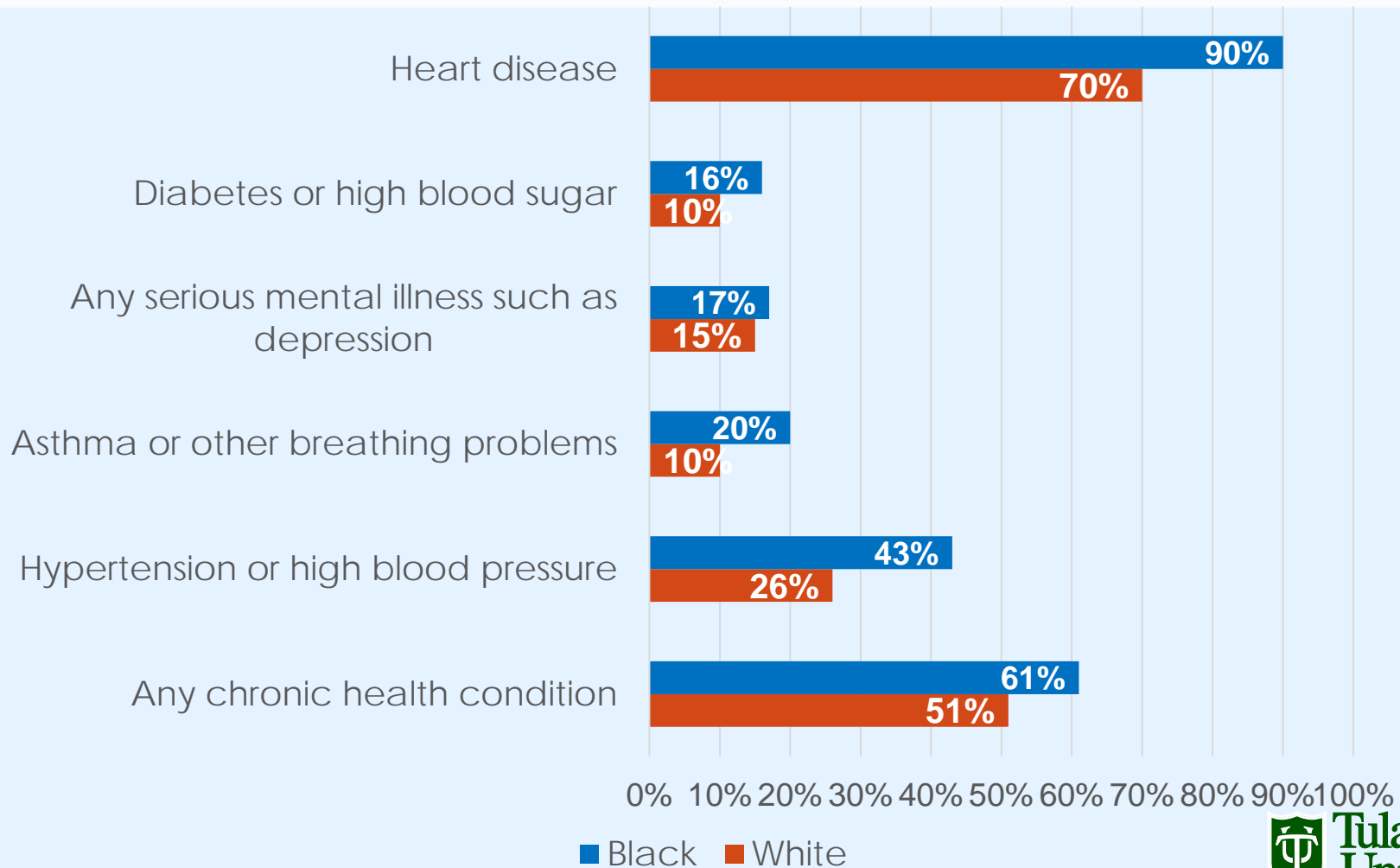
- Median household income \$39,576¹
- 24.6% live at or below federal poverty level
- 30% of adults obese (95% CI 26, 33)²
- 73% high school graduation rate²
- 23% of adults smoke (95% CI 22, 23)²
- Medicaid expanded June 1, 2016
 - Led to additional coverage for about 500,000

Census Quickfacts. (May 8, 2020). New Orleans city, Louisiana. Retrieved from: <https://www.census.gov/quickfacts/fact/table/neworleanscitylouisiana/INC110218>

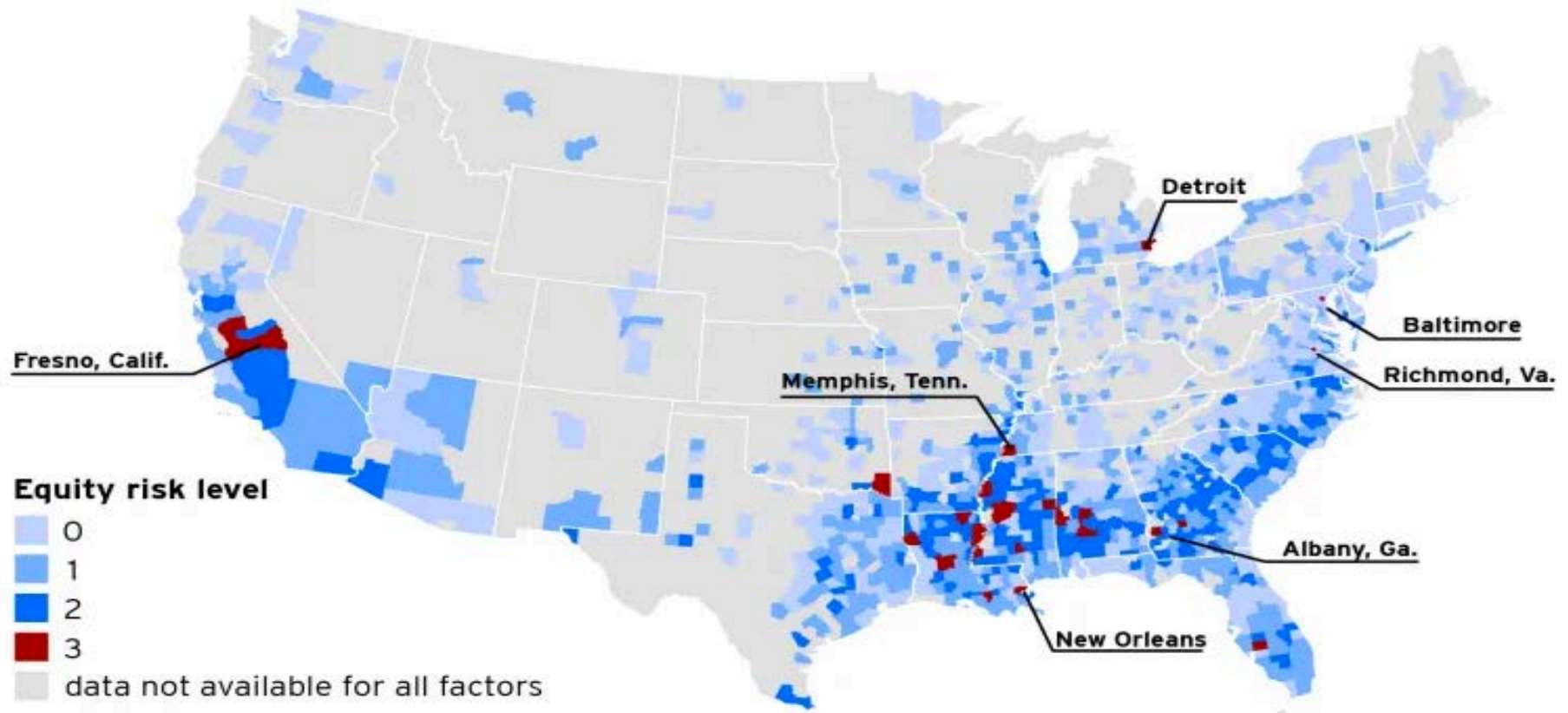
County Health Ratings (May 8, 2020). Orleans, Louisiana. Retrieved from:

<https://www.countyhealthrankings.org/app/louisiana/2020/rankings/orleans/county/outcomes/overall/snapshot>

PREVALENCE CHRONIC HEALTH CONDITIONS BY RACE NEW ORLEANS



RACIAL INEQUITY IN THE US



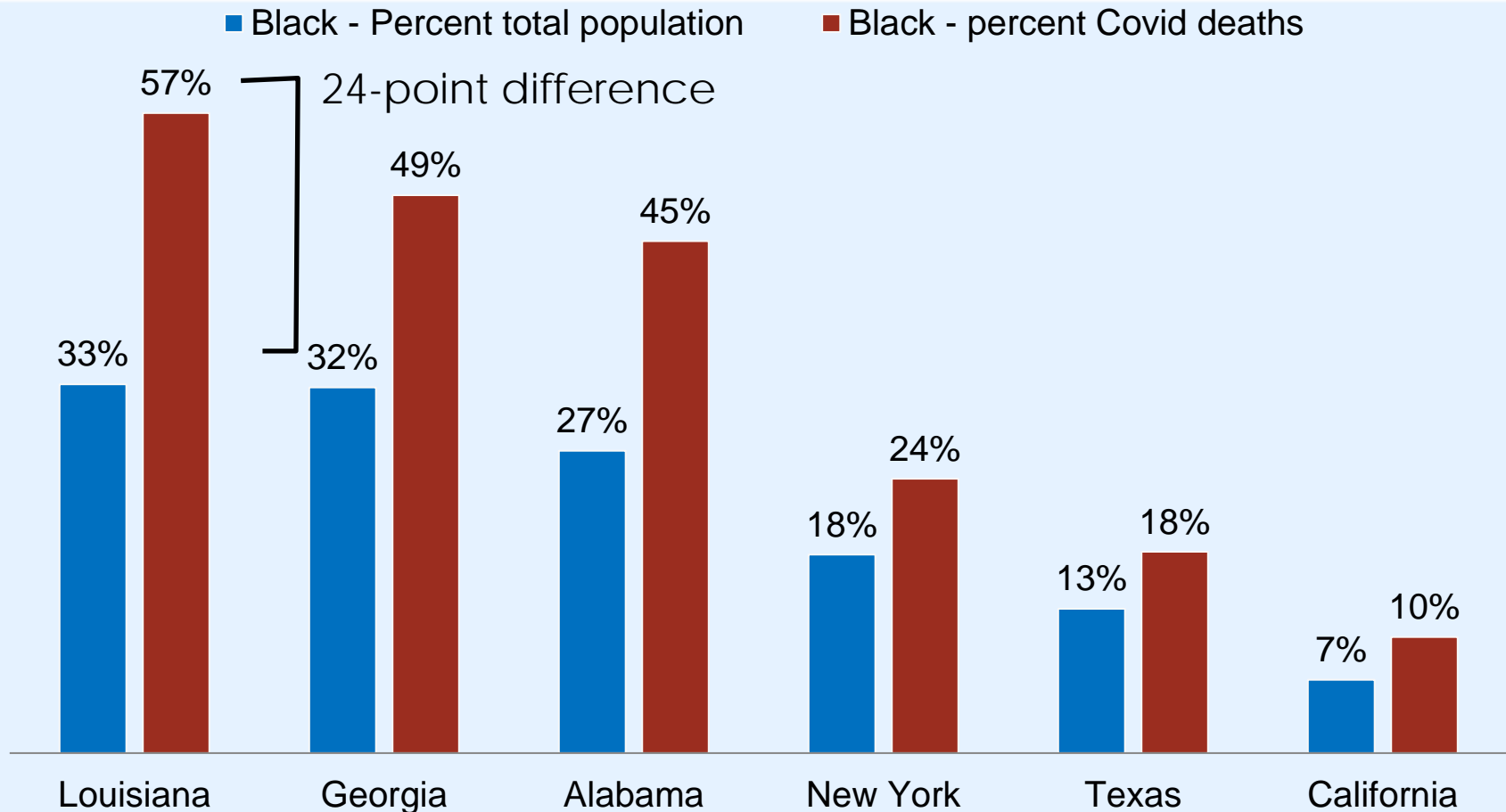
NOTE: EQUITY RISK LEVEL REFLECTS THE NUMBER OF TIMES THE COUNTY APPEARS IN THE TOP QUINTILE OF ALL COUNTIES FOR POVERTY RATE, MULTIGENERATIONAL HOUSEHOLDS, AND GAP IN WHITE/BLACK LIFE EXPECTANCY.

Source: Brookings analysis of 2018 5-year American Community Survey estimates and 2018 National Center for Health Statistics Mortality Files via countyhealthrankings.org.

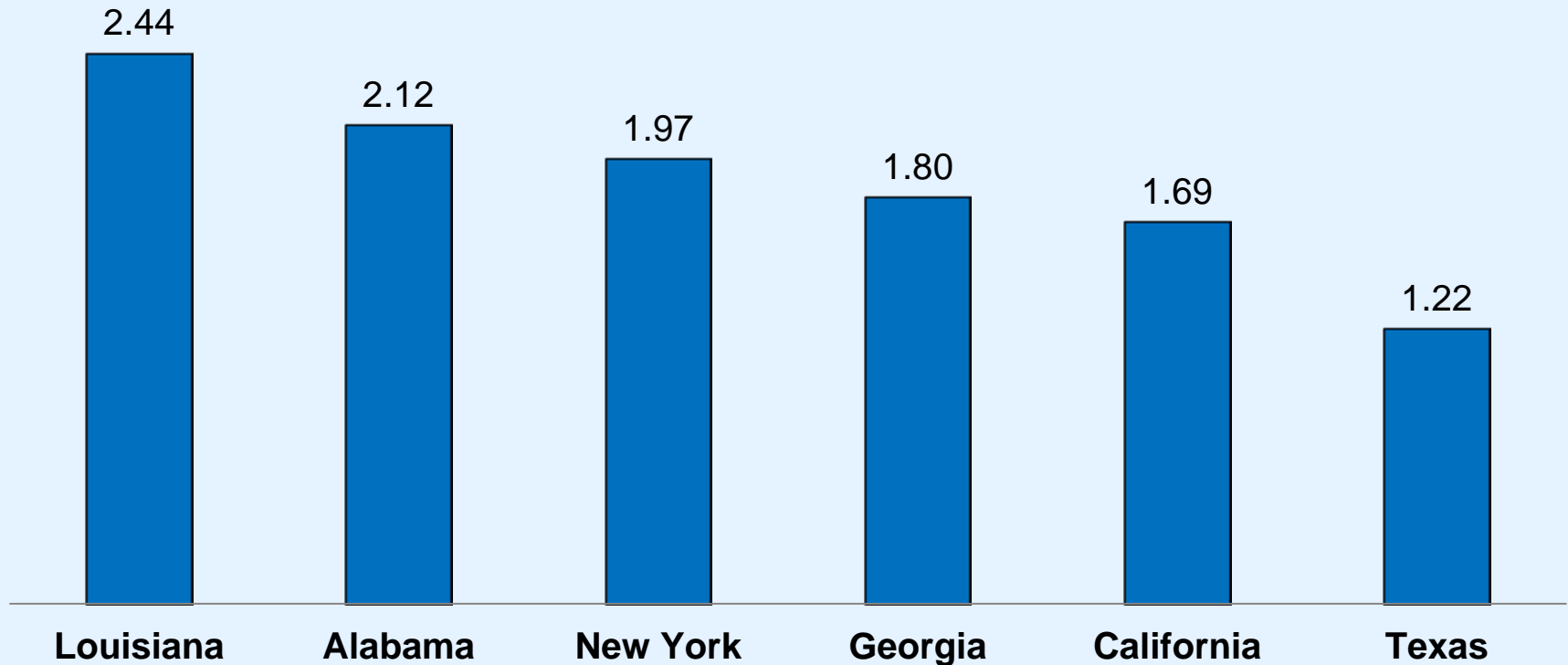
WHY ARE SOME MINORITY GROUPS HIGHEST RISK FOR COVID-19?

- Higher rates of co-morbidities such as diabetes, heart disease and obesity
- Higher rates of multi-generational household units increasing the likelihood of family clusters
- Greater difficulty getting access to testing compared to their white counterparts
 - First testing sites were drive-through only, excluding those who did not have access to a vehicle
 - Black, indigenous and other people of color are less likely to be insured compared to their white counterparts
- Barriers to health care and economic opportunity
- Inability to comply with social distancing due to employment

INEQUITY IN MORTALITY IN BLACKS BY STATE



RISK OF DEATH FROM COVID-19 FOR BLACKS COMPARED TO WHITES



HISPANIC/LATINOS & COVID-19

- In Louisiana – 1.75% of Covid deaths Hispanic/Latino¹
 - Louisiana is not reporting race/ethnicity for cases
- In Iowa – 24% of cases Hispanic/Latino²
- Washington State – 33% of cases Hispanic/Latino³
- Florida – 31% of cases Hispanic/Latino⁴
- Texas – 39.2% of cases Hispanic/Latino⁵
- Many states are not reporting race/ethnicity data
- Undocumented do not have access to stimulus funds/unemployment
- Need IDs to be tested in many states

Louisiana Department of Health and Hospitals (May 11, 2020). Covid Dashboard. Retrieved from:

<http://ldh.la.gov/Coronavirus/>

Iowa Department of Health and Hospitals (May11, 2020). Covid Dashboard. Retrieved from:

<https://coronavirus.iowa.gov/pages/case-counts>

Washington State Department of Health and Hospitals (May11, 2020). Covid Dashboard. Retrieved from:

<https://www.doh.wa.gov/Emergencies/NovelCoronavirusOutbreak2020COVID19/DataDashboard>

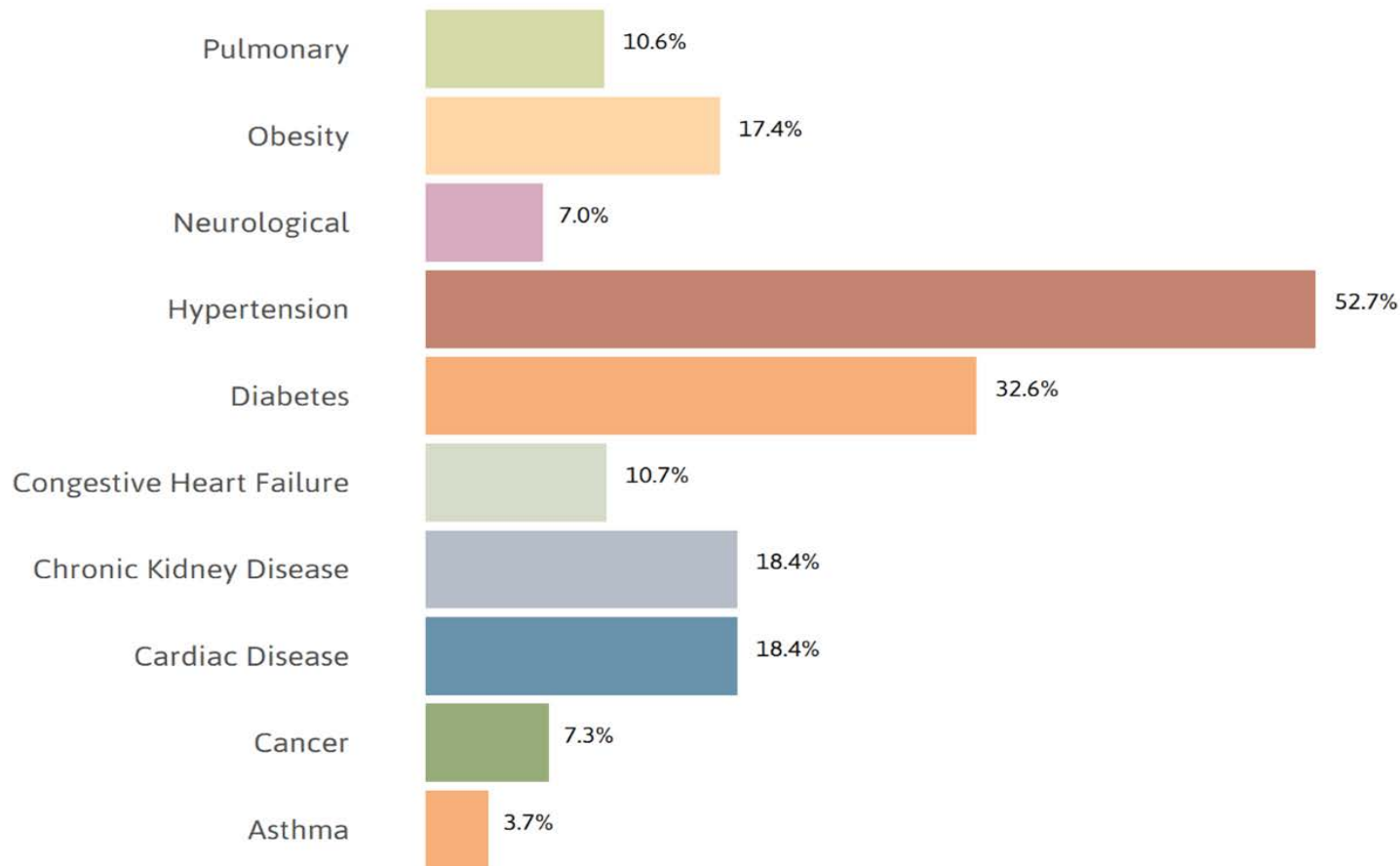
Florida Department of Health and Hospitals (May 5, 2020).). Covid Dashboard. Retrieved from:

<https://floridadisaster.org/globalassets/covid19/dailies/covid-19-data---daily-report-2020-05-05-0941.pdf>

Texas Department of Health and Hospitals (May11, 2020). Covid Dashboard. Retrieved from:

<https://txdshs.maps.arcgis.com/apps/opsdashboard/index.html#/ed483ecd702b4298ab01e8b9cafc8b83>

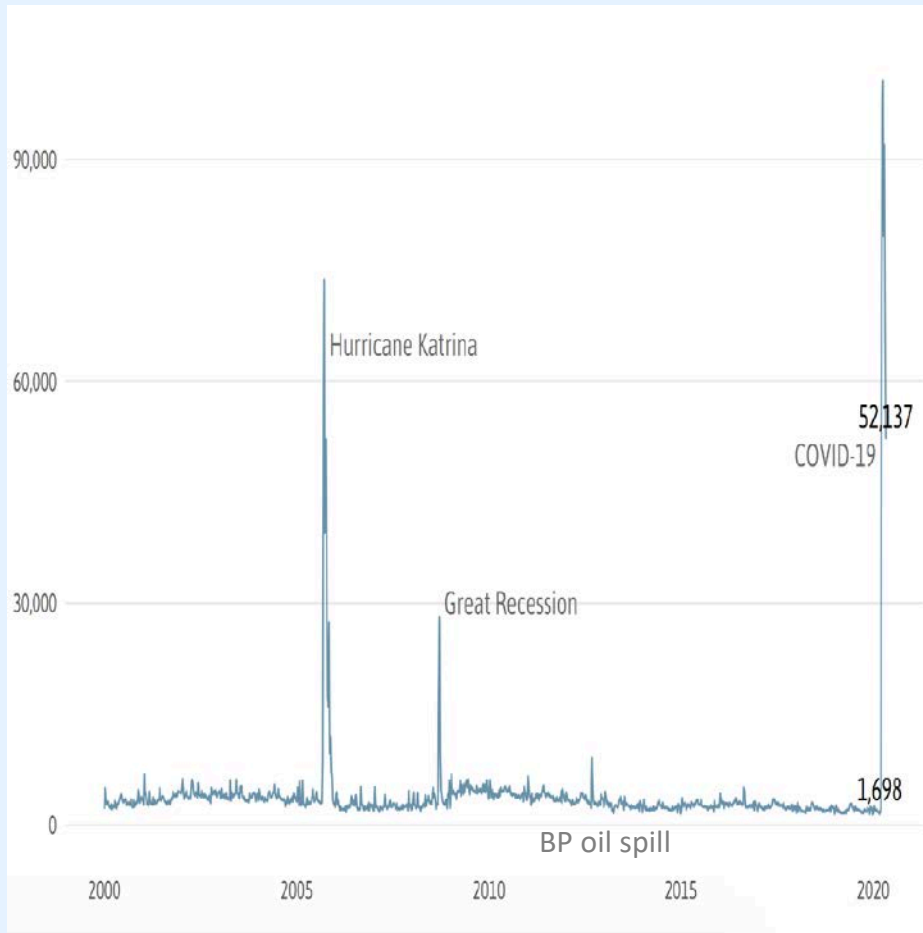
COMORBIDITIES IN COVID-19 DEATHS LOUISIANA



Louisiana Department of Health and Hospitals (May 6, 2020). Covid Dashboard. Retrieved from:

<http://ldh.la.gov/Coronavirus/>

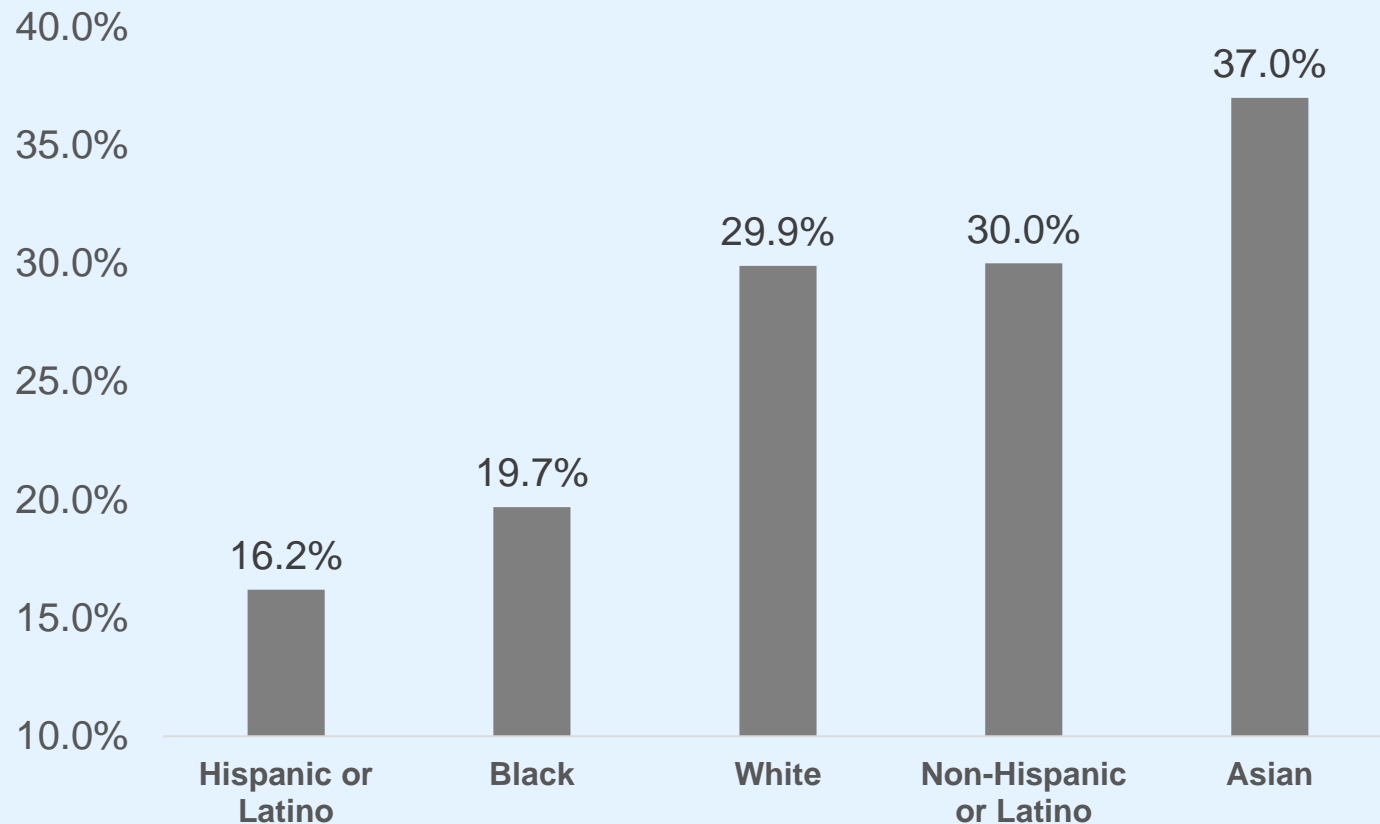
UNEMPLOYMENT



New Orleans metro

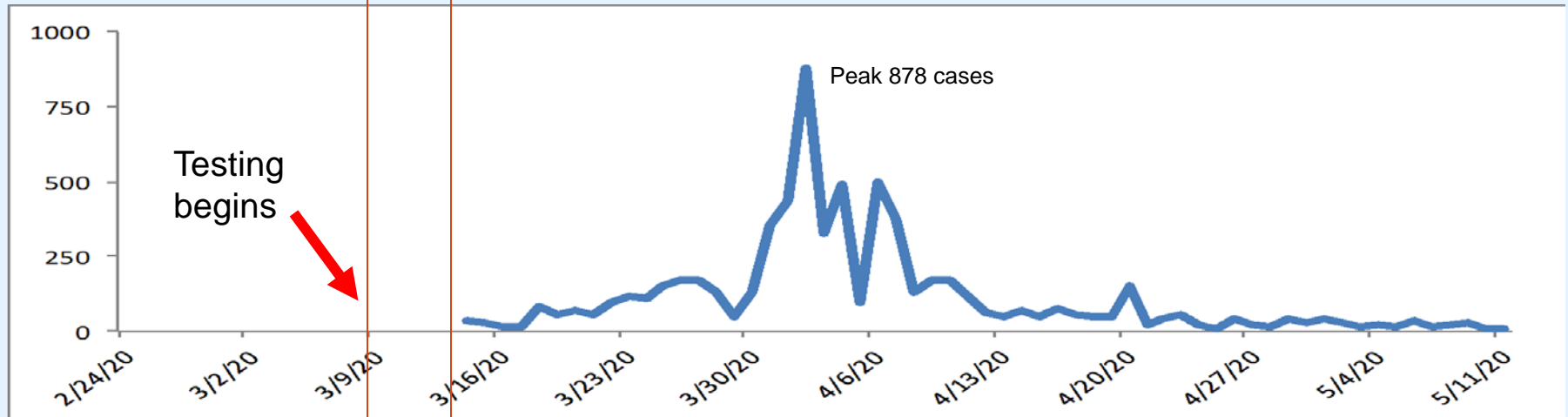
- 105,000 (19% of work force) unemployment claims in first three weeks of pandemic
- 172,000 workers are in immediate-risk industries (30% of work force) for job loss
- As of May 7th, 310,000 unemployment claims in Louisiana

WHO IS ABLE TO WORK FROM HOME?



COVID CASES PER DAY AND CHANGE IN DAILY MOVEMENT ORLEANS PARISH

COVID CASES PER DAY



PERCENT CHANGE IN DAILY MOVEMENT



PROMISING SOLUTIONS TO INTRANSIGENT INEQUITIES

- Covid-19 related:
 - Governor created a health equity task force
 - Expanded access to testing
 - access to flu vaccine
 - Stronger support network for vulnerable communities (urban league partnership)
- Invest in addressing the root causes: the six social capitals
 - Natural (or environmental)
 - Built (infrastructure)
 - Financial (economic)
 - Human and cultural
 - Social
 - Political (institutional or governance)



Walk up testing site. Photo courtesy nola.com



Social Determinants of Health: Baltimore to Bangalore – the issues are pretty much the same

Patricia M. Davidson, PhD, RN, FAAN

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[@nursingdean](#)

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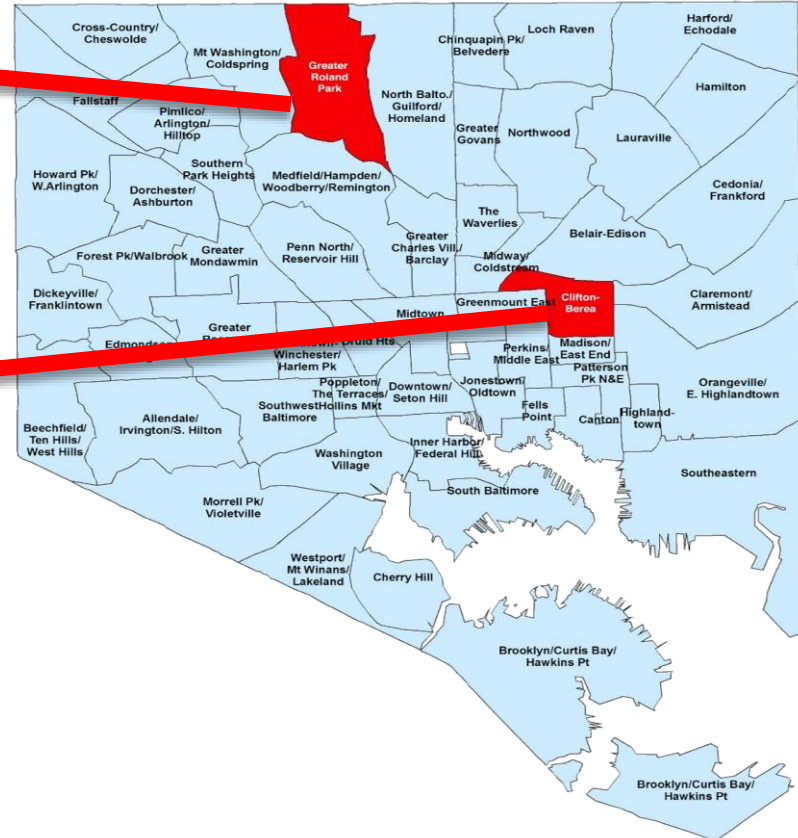
Worlds Apart Though the Distance is 5 Miles

Roland Park

- 82.9 year life expectancy
- **Death rate from Heart Disease: 15.9 per 10,000**
- **Death rate from Stroke: 4.4 per 10,000**
- Median Household Income: \$64,571
- HS Diploma only: 5%

Clifton-Berea

- 67.2 year life expectancy
- **Death rate from Heart Disease: 28 per 10,000**
- **Death rate from Stroke: 5.4 per 10,000**
- Median Household Income: \$24,696
- HS Diploma only: 38%



Source: Baltimore City Neighborhood Health Profile Reports 2011

(<http://health.baltimorecity.gov/neighborhoods/neighborhood-health-profile-reports>). Accessed 2/10/2017

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CORONAVIRUS
RESOURCE CENTER

Home

Maps & Trends

Testing

News & Information

COVID-19 Basics

Videos & Live Events



World Map



NEW



U.S. Map



Critical Trends



COVID-19 Dashboard by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins ...



Total Confirmed

3,598,324

Confirmed Cases by

Country/Region/Sovereignty

1,180,634 US

218,011 Spain

211,938 Italy

191,832 United Kingdom

169,583 France

Admin0



Cumulative Confirmed Cases

Esri, FAO, NOAA

Global Deaths

251,832

68,934 deaths
US

29,079 deaths
Italy

28,809 deaths
United Kingdom

Global Dea...

US State Level

24,999
deaths, 58,950
recovered

New York US

7,910 deaths, 15,642
recovered

New Jersey US

US Deaths,...



Confirmed

Logarithmic

Daily Cases

187

new cases

Lancet Inf Dis Article: [Here](#). Mobile Version: [Here](#).

Lead by [JHU CSSE](#). Automation Support: [Esri Living Atlas team](#) and [JHU](#)

Last Updated at: 5/5/2020, 5:32:30 AM

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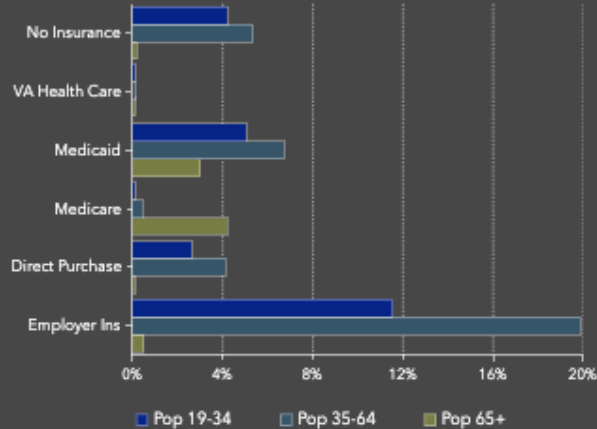


COVID-19 STATUS REPORT

Los Angeles, California

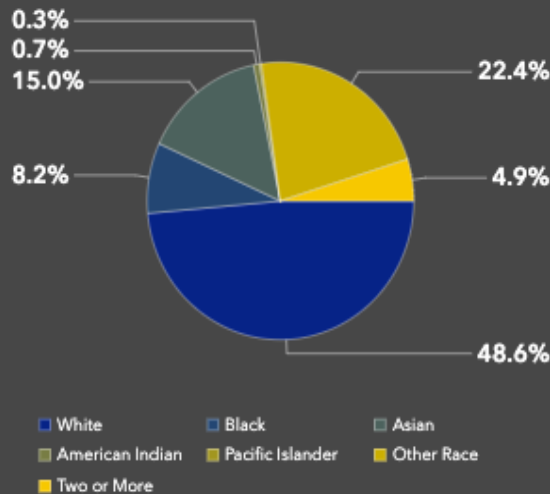
HEALTH FACTS AND INFRASTRUCTURE

HEALTH INSURANCE



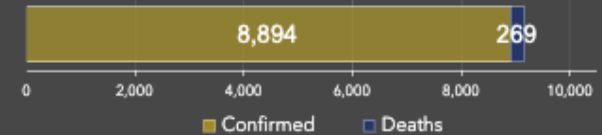
POPULATION

RACE AND ETHNICITY



POLICIES AND CASES

COUNTY CASE DATA



Comparative Statistics to State of California

Total Confirmed	Deaths	Fatality Rate	Tested
22,795	641	2.81%	203,528

Emergency Type	Date	Details
Govt Ordered Community Quarantine	3/20/2020 2:43:43 AM	



22,002
Staffed
Beds



23,259
Licensed
Beds



2,352
ICU
Beds



14.2%
Poverty
Percentage



10,105,518
Total
Population



1,299,277
Population
Age 65+



8,894
Confirmed
Cases



269
Total
Deaths



3.02%
Fatality
Rate

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STATE OF THE WORLD'S NURSING 2020



This map is an approximation of actual country borders.

Country capacity on:

✓ Yes ✖ Partial ✗ No NR No Response

EDUCATION REGULATION

- Master list of accredited education institutions ✓
- Accreditation mechanisms for education institutions ✓
- Standards for duration and content of education ✓
- Standards for interprofessional education ✓
- Standards for faculty qualifications¹ ✓

PRACTICE REGULATION

- Nursing council/authority for regulation of nursing¹ ✓
- Fitness for practice examination¹ ✓
- Continuing professional development ✓
- Existence of advanced nursing roles ✓

WORKING CONDITIONS

- Regulation on working hours and conditions ✓
- Regulation on minimum wage ✓
- Regulation on social protection ✓
- Measures to prevent attacks on HWs ✓

GOVERNANCE AND LEADERSHIP

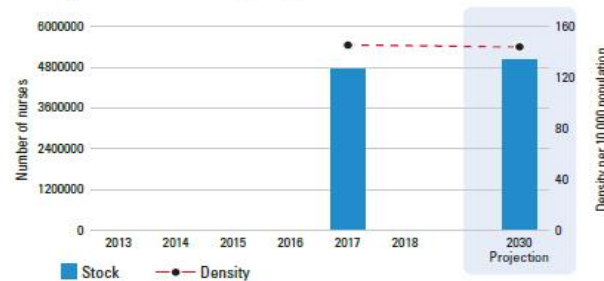
- Chief Nursing Officer position¹ ✖
- Nursing leadership development program¹ ✓
- National association for pre-licensure students¹ ✓

United States of America

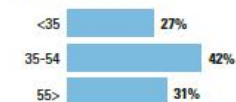
COUNTRY	WHO REGION
Total population (UN population prospects, 2019)	329064917 1009950130
UHC Service Coverage Index (0-100 points, 2017)	84 -
Life expectancy at birth m/f (years, 2016)	76.0/81.0 73.8/79.8
Probability of dying under five (per 1 000 live births, 2016)	6.5 13.5
Probability of dying between 15 and 60 years m/f (per 1 000 population, 2016)	142/86 162/89
Gross domestic product (GDP) (per capita US\$, 2017)	60055 26759
Current health expenditure as a per cent of GDP (2017)	17.1 7.0
Current health expenditure per capita (US\$, 2017)	10245 1019

Source: WHO

Nursing stock and density 2013-2018



Age distribution



Sex distribution



Nurse mobility

Foreign trained NR
Foreign born 15.72%

Nursing personnel (latest year)

4729338

Nursing professionals 3703000	Nursing associates 1026338	Nurses not further defined 0
----------------------------------	-------------------------------	---------------------------------

Share of professional nurses 78%	Density 145.5 per 10 000 population	Graduates per year 281893	Minimum duration of training NR
-------------------------------------	--	------------------------------	------------------------------------

Share of nurses within the health workforce



Issues for consideration

Density above threshold, no estimation for shortage.

¹As compared to a benchmark density. Details in *State of the world's nursing 2020 report* and *Global Strategy on Human Resources for Health: Workforce 2030*

Source: National Health Workforce Accounts (NHWA), 2020 except f. Latest available data are displayed. Includes multiple data sources such as the OECD/Eurostat/WHO EURO Joint Data Collection, labour force survey, census data and estimates from WHO for shortages. Stock and density projection by 2030 based on a simple stock and flow model. See full report for further details. NR=Not reported. Data as of 10 March 2020.

Health care as an ecosystem

- Macro- social, political and economic agenda
- Meso- organizational factors
- Micro- individual factors

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1 NO
POVERTY



2 NO
HUNGER



3 GOOD
HEALTH



4 QUALITY
EDUCATION



5 GENDER
EQUALITY



6 CLEAN WATER
AND SANITATION



7 RENEWABLE
ENERGY



8 GOOD JOBS AND
ECONOMIC GROWTH



9 INNOVATION AND
INFRASTRUCTURE



10 REDUCED
INEQUALITIES



11 SUSTAINABLE CITIES
AND COMMUNITIES



12 RESPONSIBLE
CONSUMPTION



13 CLIMATE
ACTION



14 LIFE BELOW
WATER



15 LIFE
ON LAND



16 PEACE AND
JUSTICE



17 PARTNERSHIPS
FOR THE GOALS



THE GLOBAL GOALS
For Sustainable Development

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A New Conceptual Framework for Academic Health Centers

William B. Borden, MD, Alvin I. Mushlin, MD, ScM, Jonathan E. Gordon, MBA,
Joan M. Leiman, PhD, and Herbert Pardes, MD

Abstract

Led by the Affordable Care Act, the U.S. health care system is undergoing a transformative shift toward greater accountability for quality and efficiency. Academic health centers (AHCs), whose triple mission of clinical care, research, and education serves a critical role in the country's health care system, must adapt to this evolving environment. Doing so successfully, however, requires a broader understanding of the wide-ranging roles of the AHC. This article proposes

a conceptual framework through which the triple mission is expanded along four new dimensions: health, innovation, community, and policy. Examples within the conceptual framework categories, such as the AHCs' safety net function, their contributions to local economies, and their role in right-sizing the health care workforce, illustrate how each of these dimensions provides a more robust picture of the modern AHC and demonstrates the value added by AHCs.

This conceptual framework also offers a basis for developing new performance metrics by which AHCs, both individually and as a group, can be held accountable, and that can inform policy decisions affecting them. This closer examination of the myriad activities of modern AHCs clarifies their essential role in our health care system and will enable these institutions to evolve, improve, be held accountable for, and more fully serve the health of the nation.

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Applying Examples Within the Four Dimensions of a Conceptual Framework for Academic Health Centers

AHC mission	Health	Innovation	Community	Policy
Clinical care	<ul style="list-style-type: none">• Provide advanced specialty care• Provide care to low-income communities, with significant free care	<ul style="list-style-type: none">• Achieve improvements in patient safety	<ul style="list-style-type: none">• Engage in community outreach through health screenings, etc.• Provide economic benefits through employment, construction, sourcing, etc.	<ul style="list-style-type: none">• Consolidate expensive resources through regionalization• Provide health care surge capacity for disaster relief
Research	<ul style="list-style-type: none">• Conduct bedside-to-bench-to-beside research	<ul style="list-style-type: none">• Develop medical technology into practical clinical use	<ul style="list-style-type: none">• Integrate AHC and community research programs	<ul style="list-style-type: none">• Allow for research both with and without commercial potential• Examine quality of care and efficiency through health services research
Education	<ul style="list-style-type: none">• Train next generations of all health care providers (MDs, RNs, technicians, etc.)	<ul style="list-style-type: none">• Use novel education techniques to address challenges in care	<ul style="list-style-type: none">• Serve as medical “capital” of any geographic region• Provide continuing education for community physicians	<ul style="list-style-type: none">• Provide an avenue for adapting to future workforce needs through Medicare support of training

Abbreviations: AHC indicates academic health center; MD, medical doctor; RN, registered nurse.

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"HopkinsLocal reflects our strong belief that real, sustained progress demands clear goals and public accountability in order to deliver on our commitment to invest in our neighbors and in the promise of our great city."

Ronald J. Daniels
President
Johns Hopkins University



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Health and Human Rights Business and Health





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Impact of Covid on Native Americans

Mark Hauswald MS, MD FACEP
Professor of Emergency Medicine
Director of Global Health Programs
University of New Mexico
Contract Physician, Northern Navajo Medical Center, Shiprock NM

Native Americans suffer from myriad social and health issues

- Poverty
- Unemployment
- Chronic illnesses
 - Diabetes, Cardiovascular, Hepatic, Renal
 - Substance abuse, Trauma
- Life expectancy is 5-6 years shorter than US average

Native Americans have unique health care advantages

- Native Americans are essentially guaranteed healthcare
 - Limited treaty obligations back to the 1700s
 - Federal Trust responsibility since 1831
 - BIA in 1921
 - Indian Health Service since 1954
 - “638” contracts since 1975 devolve control to tribes
- Almost 80% of Native Americans are also covered by Medicare, Medicaid or Private Insurance

IHS

- 92 Clinics, 24 Hospitals, 35 States
- 2 Million Natives, 500+ Federally Chartered Tribes
- Funding via Federal budget (5.1 billion), CMS
 - Much care is not done by IHS
 - Referrals for specialty care
 - Self directed care
- \$8 billion in COVID-19 funding to tribes
- Chronic shortage of providers

All Natives are not the same and all tribes are different

- Some Pueblos are only used for ceremonies
 - Some tribes are fully urban
 - Some tribes are rich
-
- The media version is not incorrect

Impact of infections

- Mortality from H1N1 was 4x US average

Covid in Indian Country

- 4544 cases
- 135 deaths

Pueblos and COVID

- Highly concentrated small towns
 - Rural (Zuni, Hopi)
 - Urban (Rio Grand Pueblos)
- Zia 31 – 850 members
- San Felipe 52 – 2080 members

Navajo Nation

- Hyper-rural
 - 2700 sq mi
 - 350,000 members, half on the “Rez”
 - 9000 mi of unpaved roads
- Poor
 - 40% unemployed
 - 40% under poverty line
 - Median household income \$20,000
- Multi-generational households

Navajo Nation and Dikos Ntsaaigii -19

- 3245 Cases
- 103 Deaths
- Large evangelical meeting March 7
- Socioeconomic status
 - 40% haul water

Navajo Nation and Dikos Ntsaaigii -19

- Aggressive public health measures
 - Reservation closed mid-March
 - Casinos
 - Schools
 - Self isolation
 - Limited gatherings
 - Major public health push for hand hygiene and masks
 - Gallup closed May 1
 - 8% of population has been tested

Navajo IHS

- Numbers for NNMC: Total tested – 2754, 612+, Inpatients – 24
- Marginal PPE availability
- External tent triage
- ER has one US dedicated for COVID cases
- Intubated patients are transferred

What would help reduce disparities?

- Additional money for healthcare?
 - Probably minimal effect
- Health education?
 - Federal government and Tribes already active
- Basic public health measures?

What would help reduce disparities?

- Basic public health measures
 - Sewage – much improved
 - Water – limited access
 - Roads – very expensive

What would help reduce disparities?

- The demographic transition has hit Natives hard
 - Reservations are food deserts
 - 80% are overweight or obese (but this seem to be improving)
- Support for exercise and diet programs
- Support for nutritional food supply
- Support for anti-violence and anti-substance abuse programs

What would help reduce disparities?

- Communication is very difficult for rural tribes
 - Phones
 - Internet
- More care off Rez

University of New Mexico Outreach

- Residency training in IHS Hospitals
- Pre-clinical medical student rotations
- Clinical medical student rotations
- Center for Native American Health
- UNM Hospital Native American Health Services

