

Racism and Health Equity

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MARION COUNTY
PUBLIC
HEALTH
DEPARTMENT

Prevent. Promote. Protect.

Objectives

At the conclusion of this presentation the participant will be able to:

- Discuss health equity, inequity and racism and the impact on disparity in the context of maternal and child health and adult conditions
- Emphasize the impact of racial and economic biases on maternal and infant and childhood outcomes for individuals from marginalized/vulnerable populations at the clinical, operational and system levels
- Discuss health policy implications supporting quality of maternal and child care (pro-Child) to address health equity and public and private partnerships that demonstrate improvements in maternal and child health.

Health Equity

Health equity is the state in which everyone has a fair and just opportunity to attain their highest level of health.

Health disparities are preventable differences in the burden of disease, injury, violence, or opportunities to achieve optimal health that are experienced by populations that have been disadvantaged by their social or economic status, geographic location, and environment.

Social determinants of health are the conditions in the places where people live, learn, work, play, and worship that affect a wide range of health risks and outcomes. Long-standing inequities in key areas of social determinants of health are interrelated and influence a wide range of health and quality-of-life risks and outcomes.

Definitions

- Disparity (Healthy People 2020)
 - the quantity that separates a group from a reference point on a particular measure of health that is expressed in terms of a rate, proportion, mean, or some other quantitative measure
 - often measured from the most favorable group rate
- Health inequity (Boston Public Health Commission)
 - difference in health that is not only *unnecessary and avoidable* but, in addition, are considered *unfair and unjust*
 - rooted in social injustices that make some population groups more vulnerable to poor health than other groups.



AHA PRESIDENTIAL ADVISORY

Call to Action: Structural Racism as a Fundamental Driver of Health Disparities: A Presidential Advisory From the American Heart Association

Keith Churchwell, MD, FAHA, Chair, Mitchell S.V. Elkind, MD, MS, FAHA, Regina M. Benjamin, MD, MBA, April P. Carson, PhD, MSPH, FAHA, Edward K. Chang, BS, Willie Lawrence, MD, FAHA, Andrew Mills, MPH, Tanya M. Odom, EdM, Carlos J. Rodriguez, MD, MPH, FAHA, Fatima Rodriguez, MD, MPH, FAHA, Eduardo Sanchez, MD, MPH, Anjail Z. Sharrief, MD, MPH, FAHA, Mario Sims, PhD, MS, FAHA, Olajide Williams, MD, MS, and On behalf of the American Heart Association

AHA Advisory: Health Equity

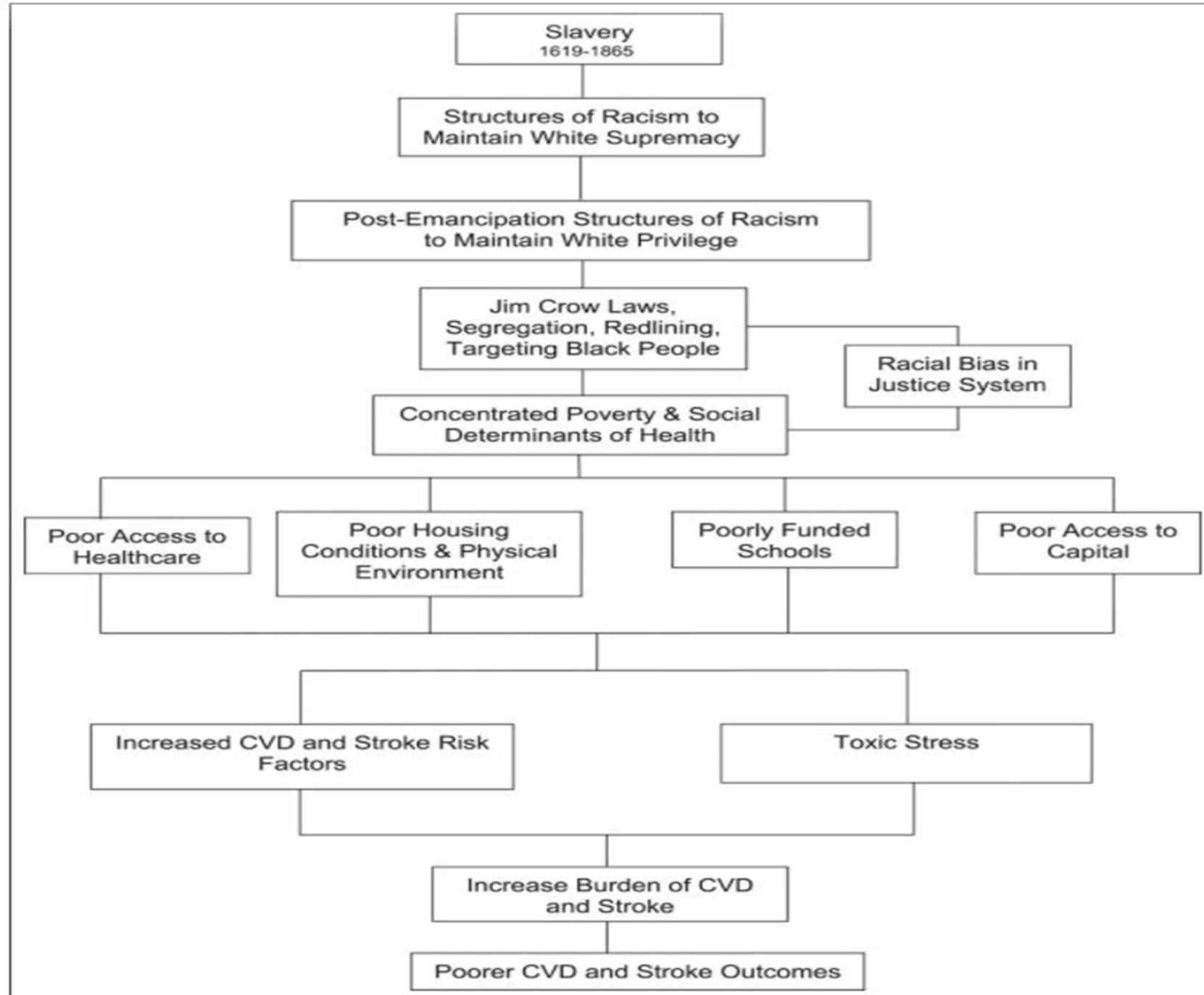


Figure 2. Linking anti-Black structural racism and poor health. CVD indicates cardiovascular disease.

Social and Community Context (including Discrimination and Racism)

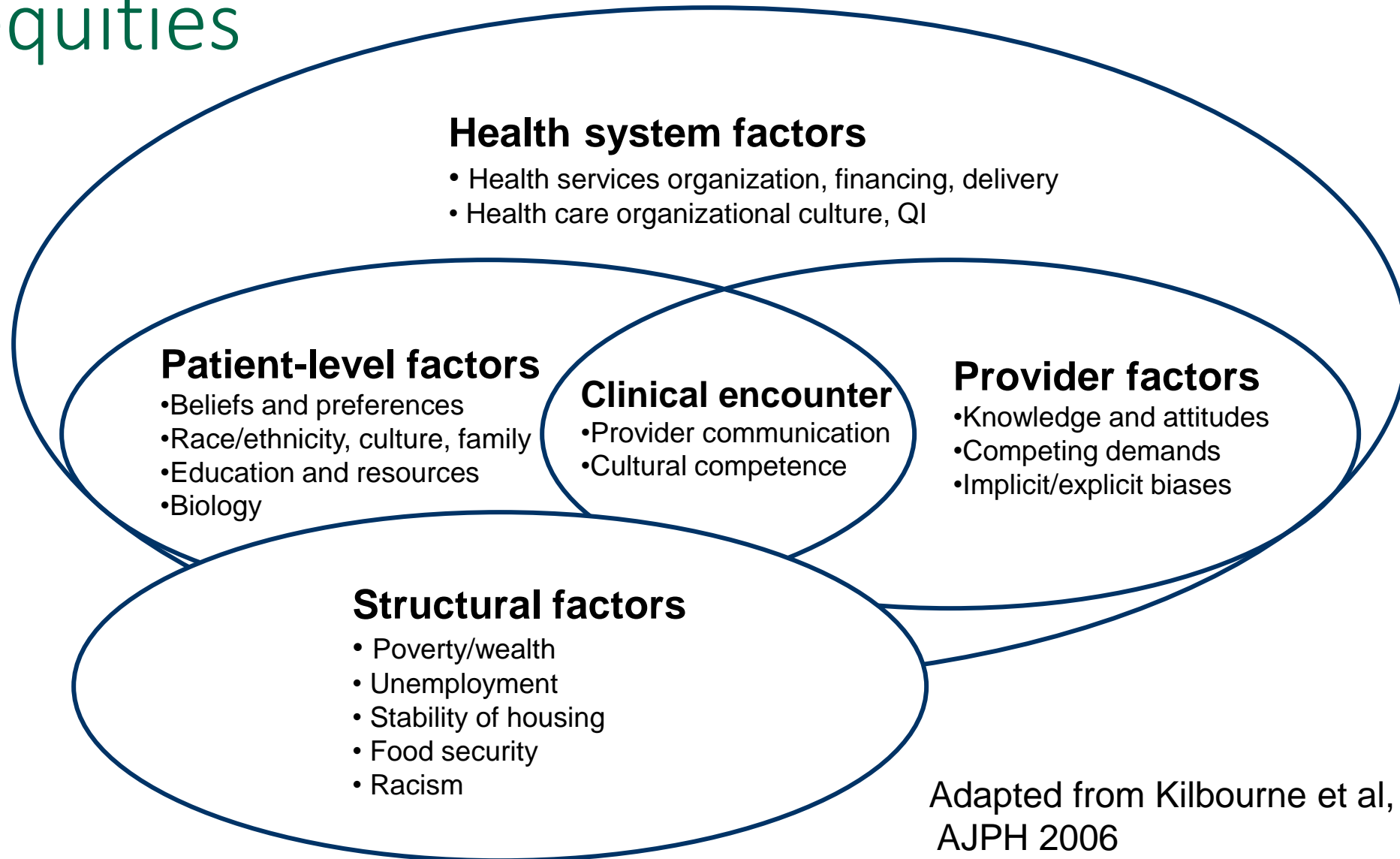
- Structural, Institutional, or Systemic Racism: Differential access to the goods, services, and opportunities of society by race.
- Personally-mediated or Interpersonal Racism: Prejudice (differential assumptions) and discrimination (differential actions) by individuals towards others.
- Internalized Racism: Acceptance by members of the stigmatized races of negative messages about their own abilities and intrinsic worth.

AHA Advisory: Health Equity

Table. Definitions

Term	Definition
Adverse childhood experiences	Potentially traumatic events that occur in childhood (0–17 y), such as violence, abuse, or neglect that can undermine a child's sense of safety, stability, and bonding. Adverse childhood experiences are linked to chronic health problems, mental illness, and substance misuse in adulthood. ²
Allyship	The practice whereby a person or group in a privileged position or position of power seeks to operate in solidarity with a marginalized person or group. ^{2a,2b}
Discrimination	Inappropriate treatment of people because of their actual or perceived group membership and may include both overt and covert behaviors, including microaggressions, or indirect or subtle behaviors that reflect negative attitudes or beliefs about a nonmajority group. ³
Health disparities	A particular type of health difference that is closely linked with social, economic, and environmental disadvantage. Health disparities adversely affect groups of people who have systematically experienced greater obstacles to health based on their racial or ethnic group or other characteristics historically linked to discrimination or exclusion. ⁴
Health inequities	Health inequities are systematic differences in the health status of different population groups. These inequities have significant social and economic costs to both individuals and societies. ⁵
Prejudice	Irrational or unjustifiable negative emotions or evaluations toward persons from other social groups. A primary determinant of discriminatory behavior. ⁶
Race	A social construct primarily based on phenotype, ethnicity, and other indicators of social differentiation that results in varying access to power and social and economic resources. ^{7,8}
Racial trauma	The events of danger related to real or perceived experience of racial discrimination, including threats of harm and injury, humiliating and shaming events, and witnessing harm to other people of color. ⁹
Racism	Anti-Black racism: The system of beliefs and practices that attack, erode, and limit the humanity of Black people. ¹⁰
	Cultural racism: A form of racism that relies on cultural differences rather than on biological markers of racial superiority or inferiority. The cultural differences can be real, imagined, or constructed. ¹¹
	Personally mediated racism: Prejudice and discrimination that can be intentional, and unintentional, as well, and includes acts of commission and acts of omission. ¹² Also known as interpersonal racism; this is the form of racism that most people are familiar with.
	Internalized Racism- Acceptance by members of the stigmatized races of negative messages about their own abilities and intrinsic worth. ¹²
	Institutionalized racism: Differential access to the goods, services, and opportunities of society by race. ¹²
	Structural racism: The normalization and legitimization of an array of dynamics (historical, cultural, institutional and interpersonal) that routinely advantage White people while producing cumulative and chronic adverse outcomes for people of color. ¹
Social determinants of health	Social determinants of health are the conditions in the environment where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks. ¹³
Socioeconomic position	An aggregate concept that includes both material and social resources (such as income, wealth, and educational credentials) and one's rank in a social hierarchy (conceptualized as access and consumption of goods, services, and knowledge), as linked to both childhood and adult social class position. ¹⁴

Contributors to health and health care inequities



COVID-19 Sounded the Alarm

Indiana's public health system is chronically underfunded and undervalued

➡ Indiana ranks 48th for state-provided public health funding

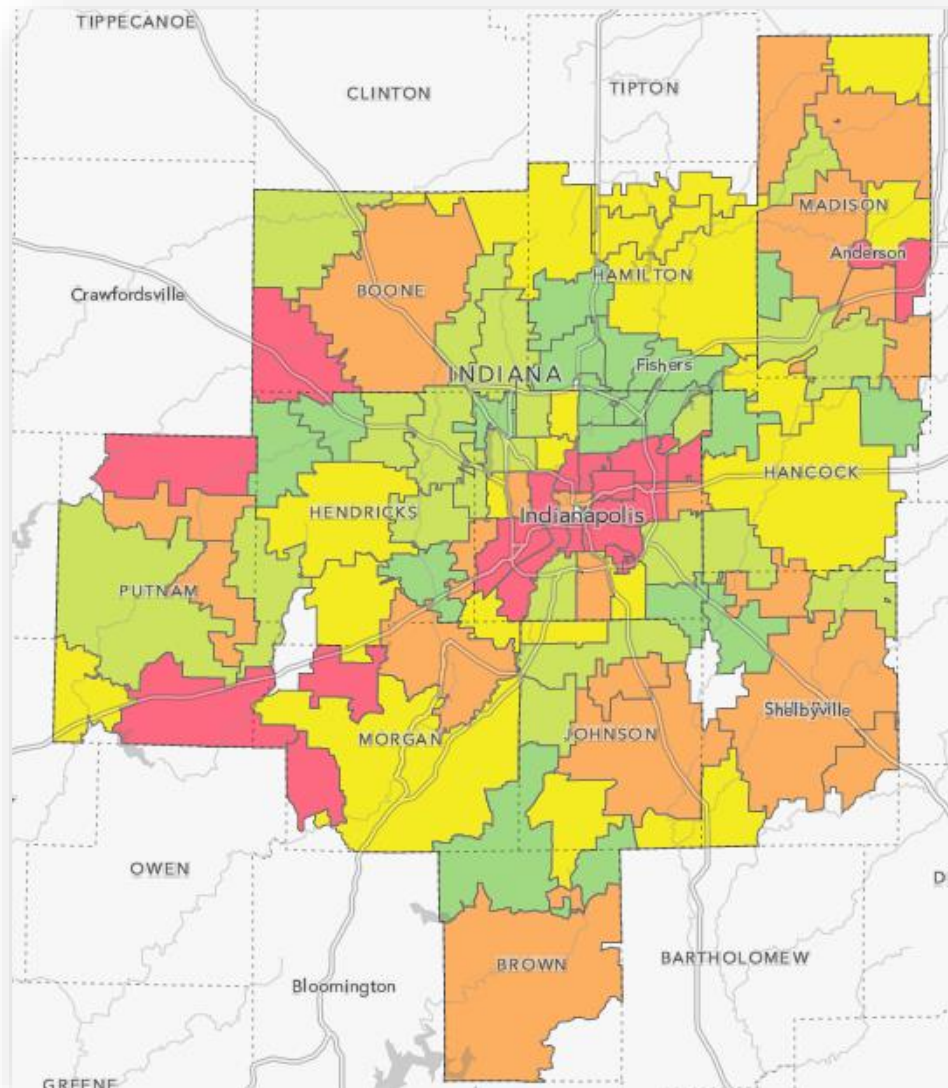
Hoosiers experience higher rates of preventable diseases and injuries as well as healthcare costs compared to other states

➡ Indiana ranks 41st out of 50 states for overall health

Though rare in the history of the U.S.,
we have now lost life expectancy twice in the past decade.

Deaths from COVID since 2020, along with a rise in “deaths of despair”
(suicide, drug & alcohol-related deaths) brought underlying social
fractures into sharp focus.

Differences in the conditions of everyday life increased Black and
Hispanic persons’ exposure to COVID– and resulted in a loss of life
expectancy in 2020 that was 2.5 times the loss among white persons.



In 2018, a child born in these ZIP Codes could expect to live...

- 75.1 years or lower
- 75.2-76.5
- 76.6-78.5
- 78.6-80.1
- 80.2 or higher

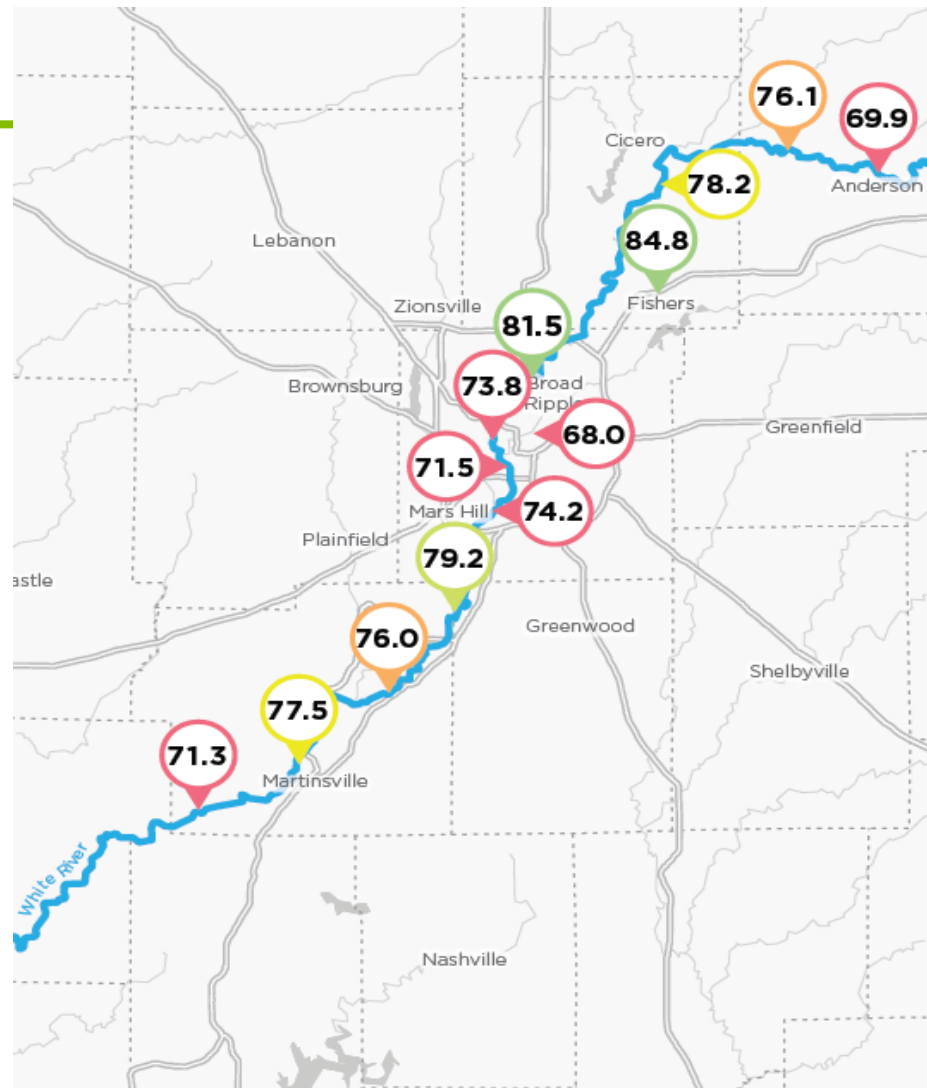
80.2 or higher

The Gap

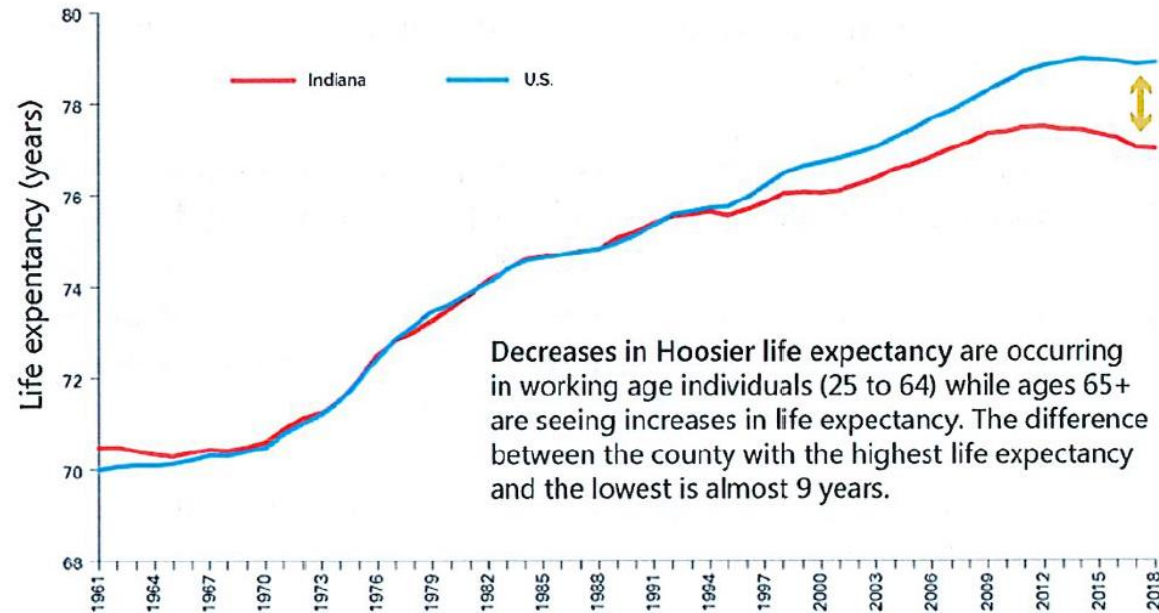
Following the White River, we see a pattern in life expectancy that plays out throughout the metro area.

Though separated by a short distances, life expectancy can be worlds apart.

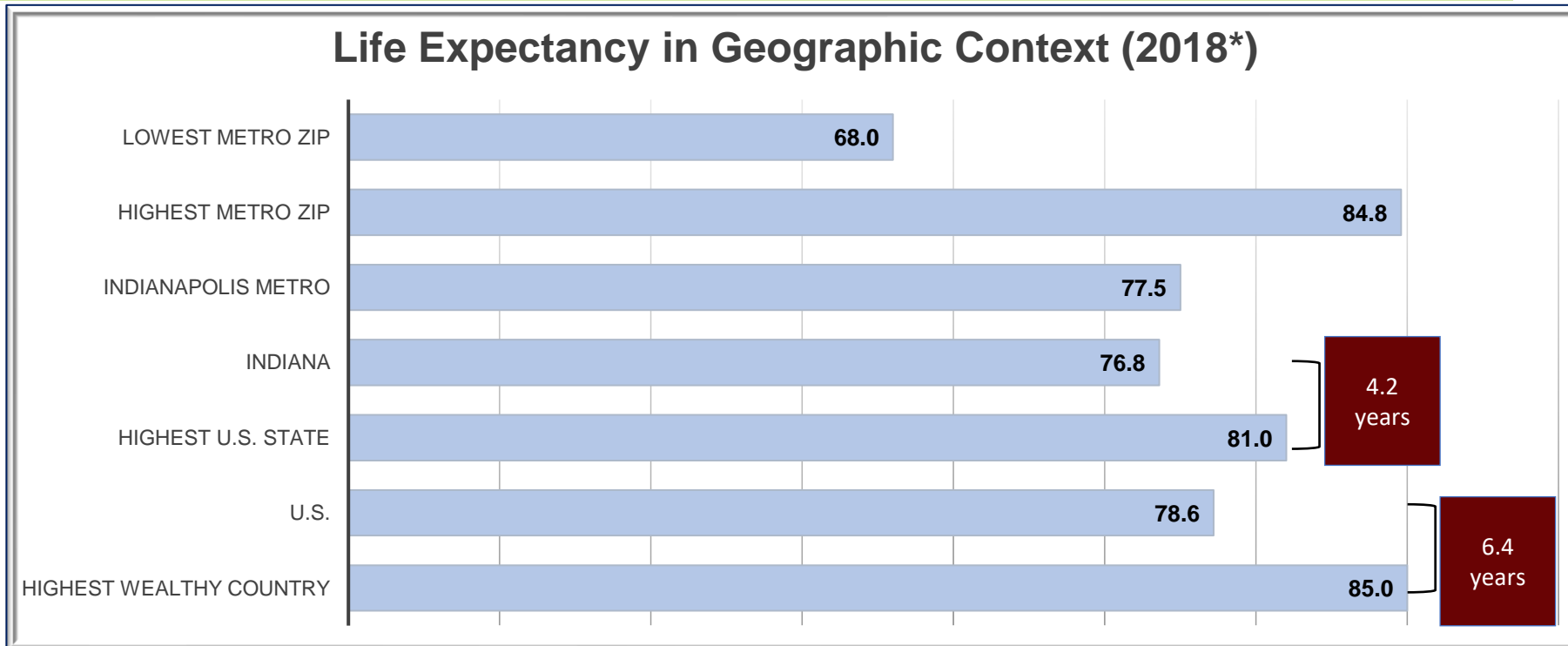
This gap widened by 3.2 years (23.5%) over the 2013 gap.



Life Expectancy at Birth, three-year moving average



Source: United States Mortality Database. University of California, Berkeley (USA).
Available at usa.mortality.org (data downloaded on 5/10/21).

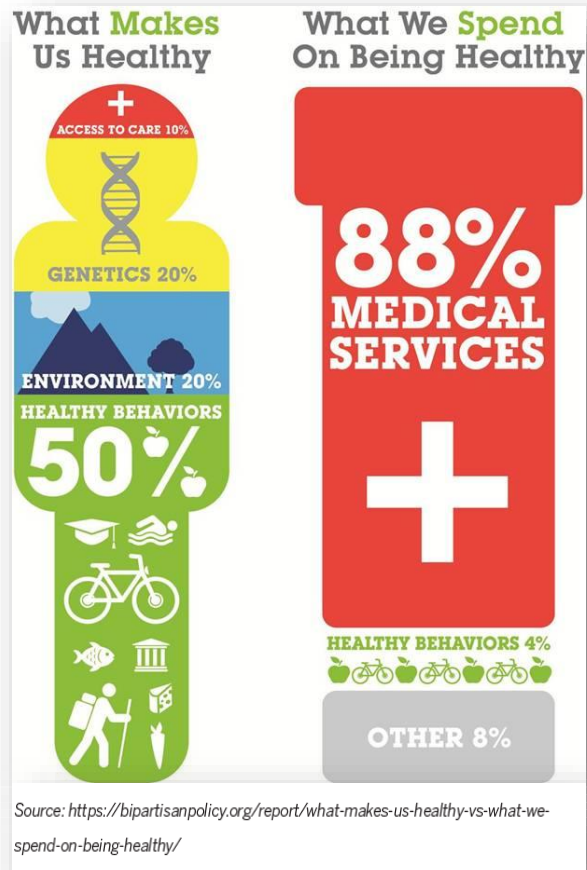


**For ZIP Codes, life expectancy is based on 2014-2018; for states and countries, it is the year 2018.*



While access to healthcare is a crucial part of health, it actually makes up the smallest proportion of what makes us healthy (about 10%).

Instead, the vast majority of what determines our health is the environment we live in



- Public Health specifically focuses on behaviors and the environment, yet the majority of the dollars spent toward health are spent on medical services (88%).

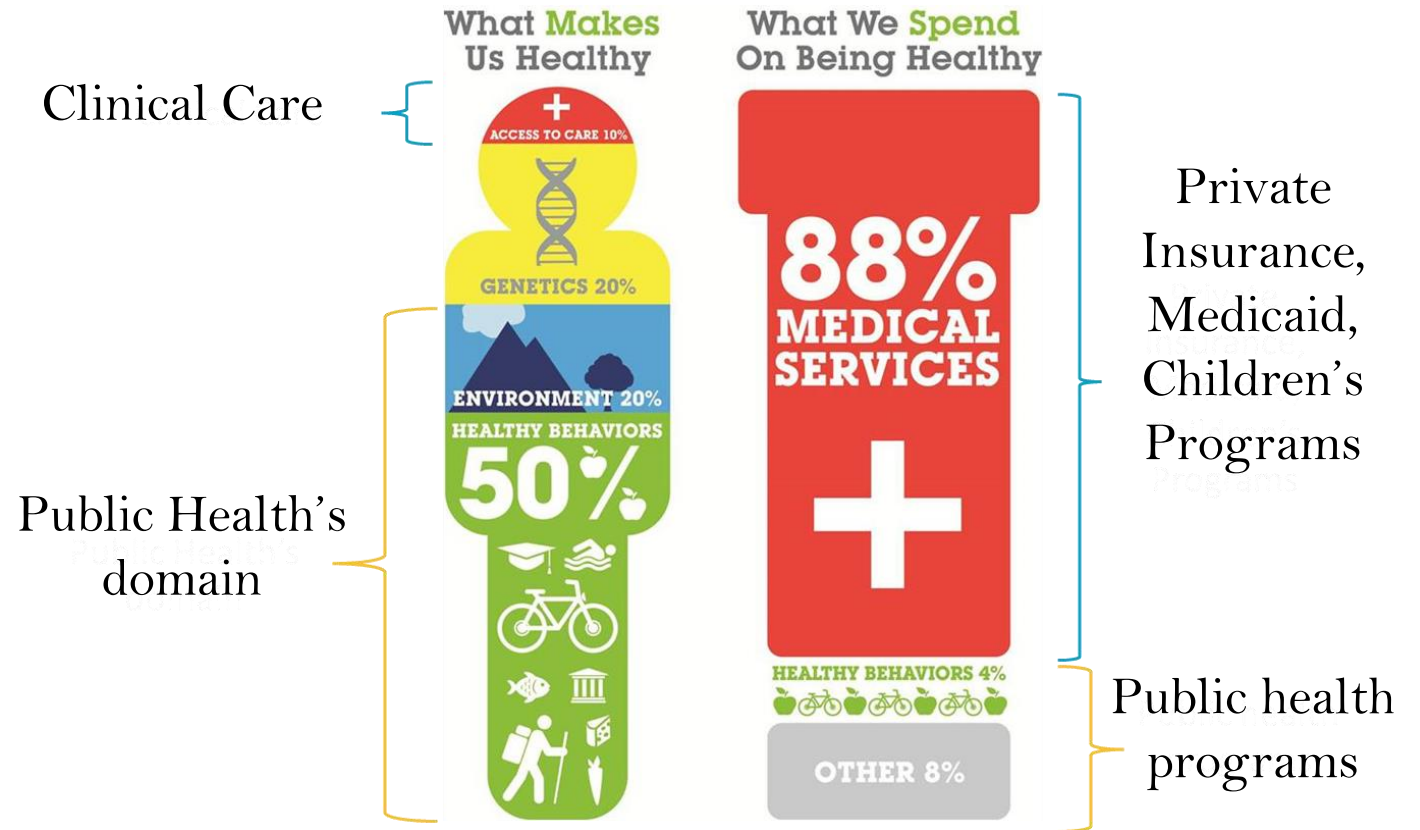
Not only are most medical resources directed at the determinant which has the smallest impact on overall health, the resources are often spent when an individual is already sick.

- If those health dollars are instead invested earlier, in the form of public health protections and the prevention of illness,

Approximately 3% of national health expenditures are spent on governmental public health, despite that more than 75% of overall healthcare costs are attributable to preventable health conditions.

Public Health and Health Outcomes

- The things that most impact health outcomes are not well funded, which contributes to greater healthcare needs over the long-term.
- Investments in public health have as high as a 14:1 ROI





**Control of
Infectious Diseases**



**Family
Planning**



**Healthier Mothers
and Babies**



**Motor Vehicle
Safety**



**Tobacco as a
Health Hazard**



**Declines in deaths from
heart disease and stroke**



**Fluoridation of
Drinking Water**



Immunizations



**Safer and
Healthier Foods**



**Workplace
Safety**

Challenges in Indiana

Public Health Challenges

Rising deaths from drugs,
alcohol, and suicide



Rising rates of adult
and child obesity
and associated health
conditions



Persistently high rates of
adult tobacco use and
teen vaping



Continuing risks from
drug-resistant disease
agents and infectious
diseases



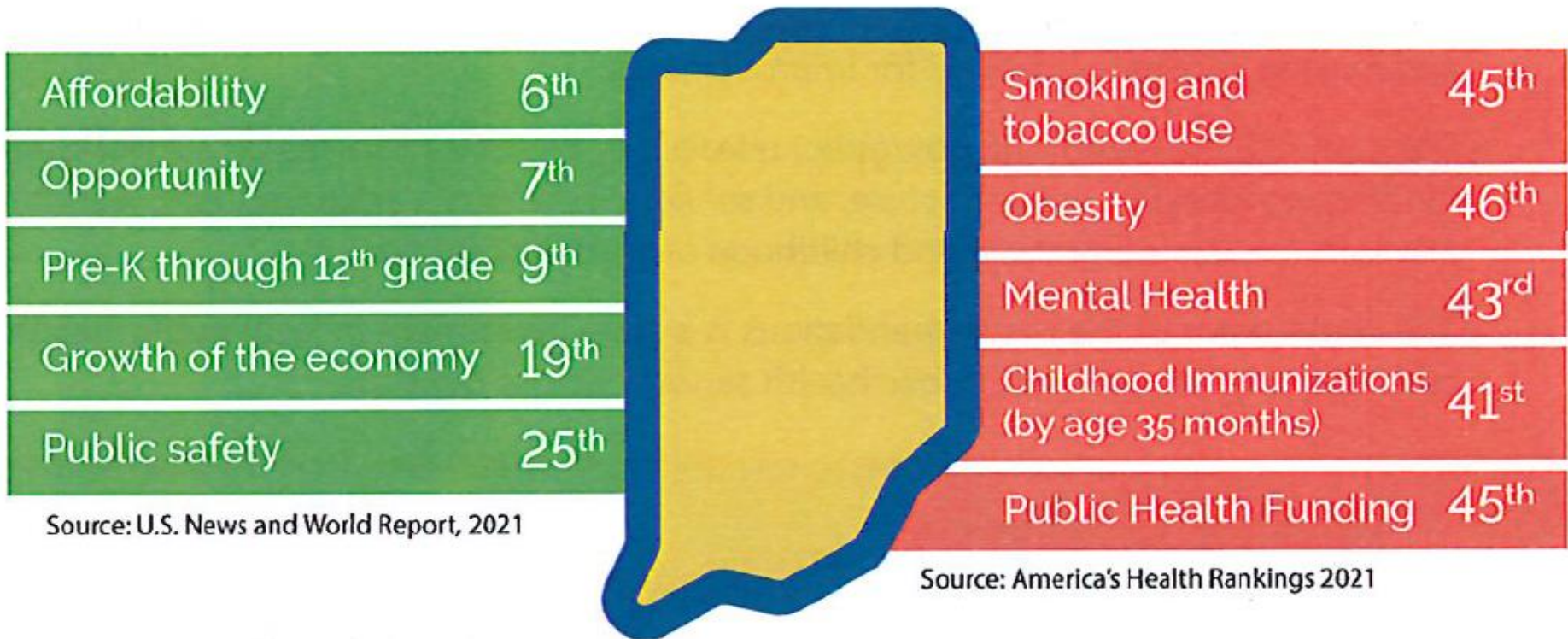
Increasing rates of chronic
disease like cancer and
heart disease



- High prevalence of multiple chronic conditions
- High occupational fatality rate
- High prevalence of cigarette smoking

How Indiana Ranks in the Nation

How Indiana Ranks in the Nation



Highlights

NON-MEDICAL DRUG USE

▲ **63%**

from 9.9% to 16.1% of adults
between 2021 and 2022.

FOOD INSECURITY

▼ **36%**

from 15.2% to 9.7% of
households between
2014-2016 and 2019-2021.

UNINSURED

▼ **14%**

from 8.7% to 7.5% of the
population between
2019 and 2021.

Cost of Poor Health in Indiana

Obesity: accounts for more than \$3.5 billion in medical costs in Indiana yearly.

Chronic disease

- **\$53.3 Billion** – indirect cost **including lost productivity** of major chronic diseases
- **\$22.4 Billion** – direct cost of major chronic diseases
- **\$75.5 Billion** - total direct and indirect cost of major chronic disease

Smoking

Nearly \$3 billion in annual health care costs, including \$590 million in Medicaid costs

Indiana taxpayers pay over \$900 per household in smoking-caused expenditures

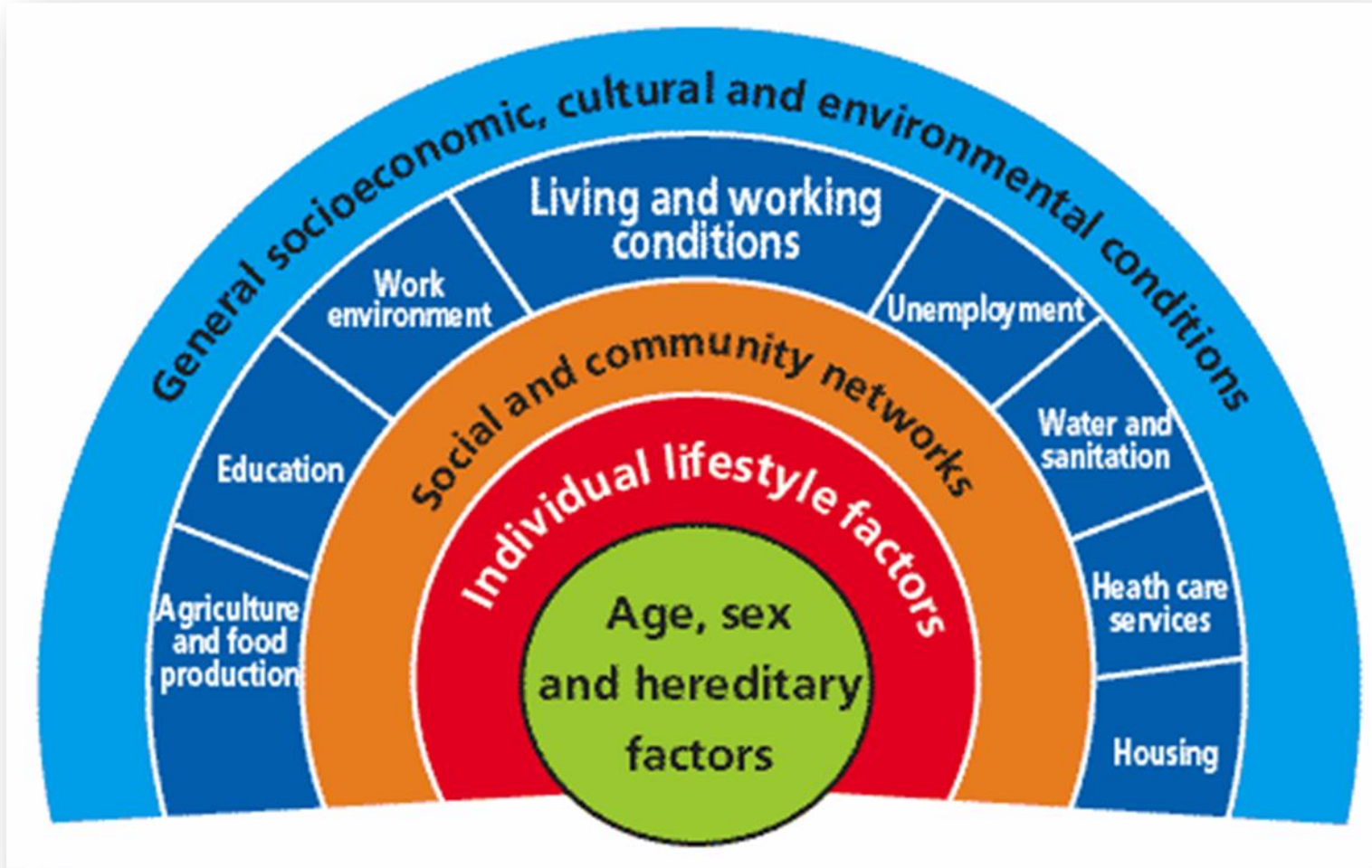
Smoking during pregnancy resulted in an estimated \$3.37 million in healthcare costs in 2019

Cervical cancer: More than \$54 million in estimated direct healthcare costs

Health Disparities in Indiana

- ❖ Blacks are more than twice as likely to die from diabetes, as compared to whites.
- ❖ Stroke deaths among blacks are 1.4 times higher as compared to Whites.
- ❖ Cancer and heart disease deaths among blacks are 1.2 times higher as compared to whites.
- ❖ Infant mortality rates for blacks are nearly three times higher as compared to whites.

Social Determinants of Health



Social causes of death

- Low education
- Racial residential segregation
- Low social support
- Poverty
- Income inequality

Galea S, Tracy M, Hoggatt KJ, DiMaggio C, Karpati A. Estimated Deaths Attributable to Social Factors in the United States. *American Journal of Public Health*. 2011;101(8):1456-1465. doi:10.2105/AJPH.2010.300086

Indiana Poverty Rate by Race in 2020

Race	Population	Poverty Rate	National Poverty Rate	Population
Black	585,186	29.9%	25.2% ?	8.8%
American Indian	14,372	19.6%	26.8% ?	0.2%
Asian	130,256	19.9%	11.9% ?	2.0%
Pacific Islander	2,511	24.5%	19.0% ?	0.0%
Other	142,820	29.0%	23.8% ?	2.2%
Two Or More Races	147,143	24.5%	18.4% ?	2.2%
White	5,130,979	11.5%	10.3% ?	77.6%
Hispanic	430,702	25.6%	22.2% ?	6.5%

Data source - <https://www.welfareinfo.org/poverty-rate/indiana/>

The 5 Leading Causes of Death by Reported Race and Sex: All Age Groups, City of Fort Wayne Residents, 2018

TOTAL POPULATION	Number	TOTAL MALE	Number	TOTAL FEMALE	Number
ALL CAUSES	2,950	ALL CAUSES	1,509	ALL CAUSES	1,441
Diseases of heart	594	Diseases of heart	313	Malignant neoplasms (cancer)	295
Malignant neoplasms (cancer)	574	Malignant neoplasms (cancer)	279	Diseases of heart	281
Chronic lower respiratory diseases	186	Accidents (unintentional injuries)	124	Alzheimer's disease	99
Accidents (unintentional injuries)	173	Chronic lower respiratory diseases	90	Chronic lower respiratory diseases	96
Alzheimer's disease	147	Cerebrovascular diseases (stroke)	61	Cerebrovascular diseases (stroke)	67

WHITE POPULATION	Number	WHITE MALE	Number	WHITE FEMALE	Number
ALL CAUSES	2,518	ALL CAUSES	1,283	ALL CAUSES	1,235
Diseases of heart	507	Diseases of heart	271	Malignant neoplasms (cancer)	255
Malignant neoplasms (cancer)	493	Malignant neoplasms (cancer)	238	Diseases of heart	236
Chronic lower respiratory diseases	174	Accidents (unintentional injuries)	99	Alzheimer's disease	91
Accidents (unintentional injuries)	141	Chronic lower respiratory diseases	87	Chronic lower respiratory diseases	87
Alzheimer's disease	136	Cerebrovascular diseases (stroke)	51	Cerebrovascular diseases (stroke)	57

BLACK POPULATION	Number	BLACK MALE	Number	BLACK FEMALE	Number
ALL CAUSES	384	ALL CAUSES	199	ALL CAUSES	185
Diseases of heart	83	Diseases of heart	39	Diseases of heart	44
Malignant neoplasms (cancer)	70	Malignant neoplasms (cancer)	33	Malignant neoplasms (cancer)	37
Accidents (unintentional injuries)	27	Assault (homicide)	23	Cerebrovascular diseases (stroke)	9
Assault (homicide)	24	Accidents (unintentional injuries)	21	Chronic lower respiratory diseases	9
Cerebrovascular diseases (stroke)	17	Cerebrovascular diseases (stroke)	8	Diabetes mellitus	8
		Nephritis, nephrotic syndrome and nephrosis (kidney disease)	8	Essential hypertension and hypertensive renal disease	7
		Certain conditions originating in the perinatal period	8		

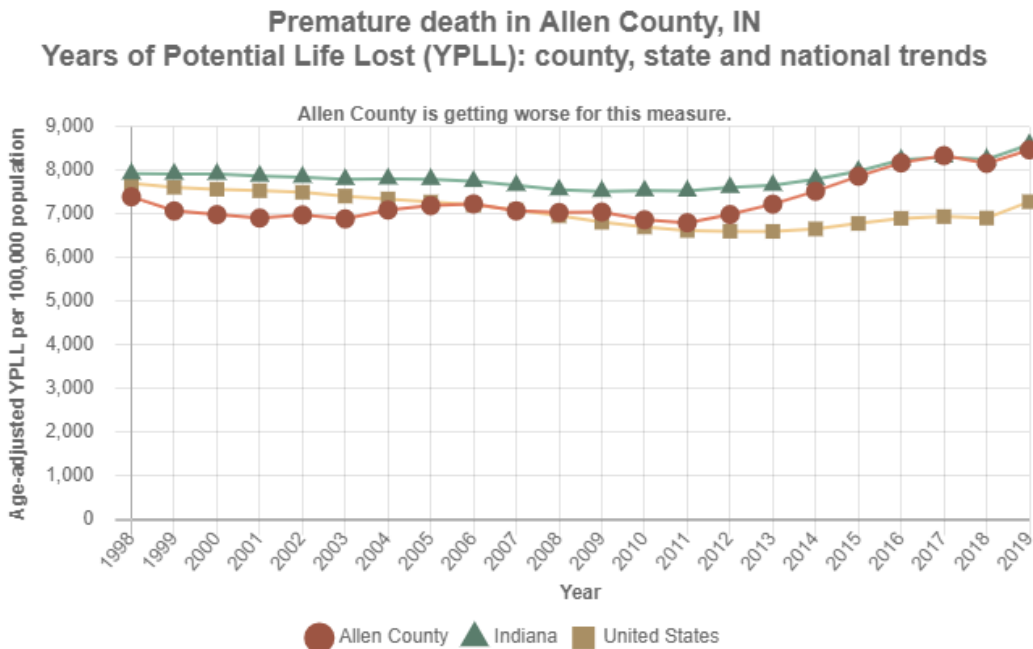
Source: Indiana State Department of Health, Epidemiology Resource Center, Data Analysis Team.
 Section 508 Web Alternate Format - If you are experiencing difficulty accessing any table of this report,
 please call 317.233.7349 or e-mail us at data-analysis@isdh.IN.gov, and we will do our best to assist you.
 This table was run on September 25, 2018.

Length of Life, Allen County, IN

In Allen County, Indiana, 8,500 years of life were lost to deaths of people under age 75, per 100,000 people.

Disaggregated by Race	Value	Error Margin
Years of Potential Life Lost Rate	8,500	8,100-8,800
Asian	6,700	5,400-8,100
Black	14,800	13,500-16,000
Hispanic	6,500	5,400-7,500
White	7,600	7,300-8,000

Years of potential life lost before age 75 per 100,000 population (age-adjusted).



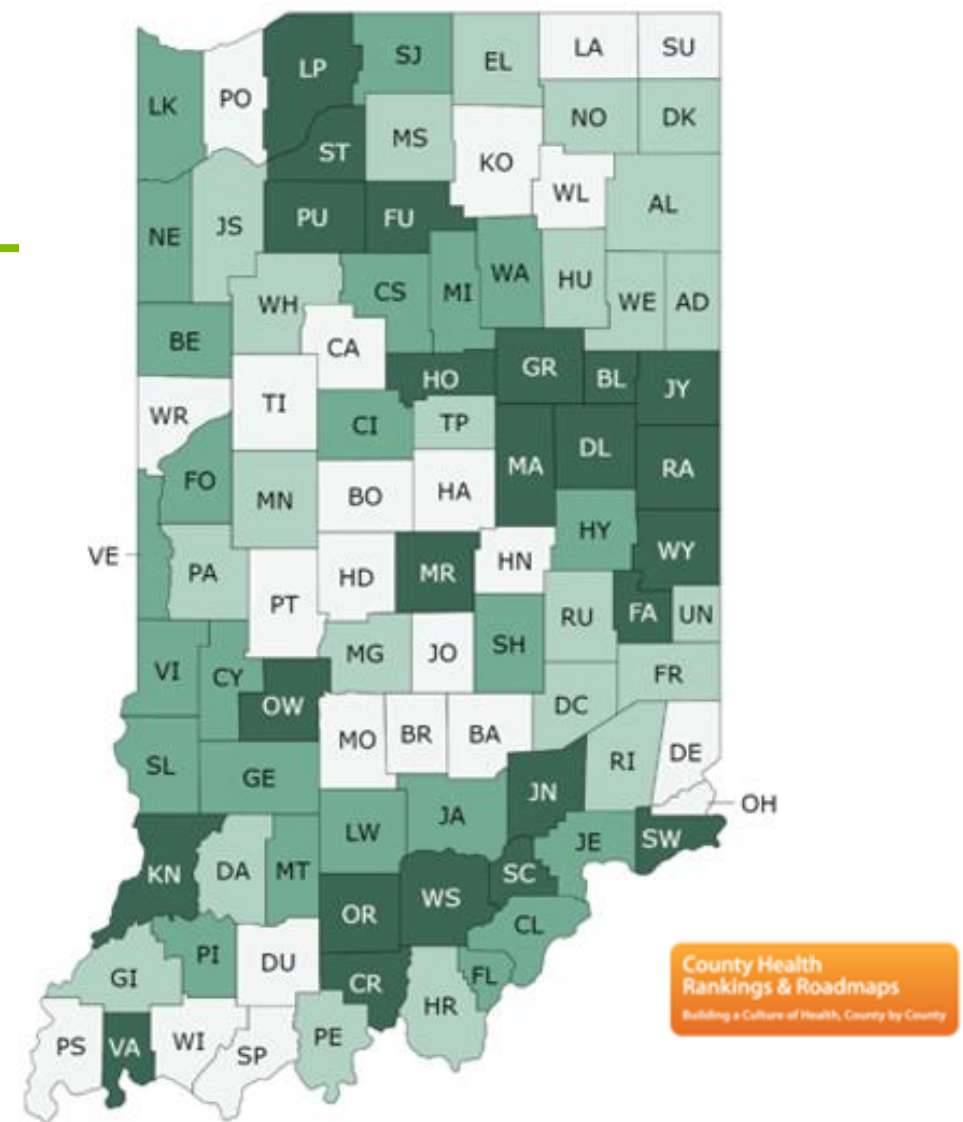
Notes:
Each year represents a 3-year average around the middle year
(e.g. 2015 is the middle year of 2014-2016).

Source: County Health Rankings & Roadmaps <https://www.countyhealthrankings.org/explore-health-rankings/indiana/allen?year=2022>. Accessed 03/23/2023

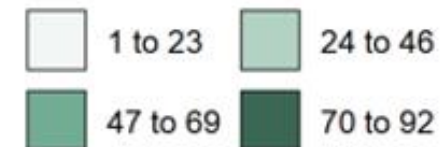
Health Outcomes, Indiana 2022

Allen County (AL), IN 2022 Rank #46 of 92 counties in Indiana

- Health outcomes represent how healthy a county is right now, in terms of length of life but quality of life as well.
- Allen County is ranked among the higher middle range of counties in Indiana (Higher 50%-75%).




Health Outcome Ranks



Source: County Health Rankings & Roadmaps <https://www.countyhealthrankings.org/explore-health-rankings/indiana/allen?year=2022>. Accessed 03/23/2023

Health Outcomes, Allen County, IN

Health Outcomes			
Length of Life	Allen (AL) County	Indiana	United States
Premature Death	 8,500	8,600	7,300
Quality of Life	Allen (AL) County	Indiana	United States
Poor or Fair Health	19%	19%	17%
Poor Physical Health Days	4.2	4.1	3.9
Poor Mental Health Days	4.8	4.8	4.5
Low Birthweight	9%	8%	8%

Leading Causes of Death under age 75 in Allen (AL) County

Leading Causes of Death Under Age 75	Deaths	Age-Adjusted Rate per 100,000
Malignant neoplasms	1210	89.7
Diseases of heart	862	67.3
Accidents	528	50.5
Chronic lower respiratory diseases	296	21.1
Diabetes mellitus	241	18

Source: [CDC WONDER](https://www.cdc.gov/wonder/). Premature Mortality includes all deaths among people under age 75 and the rates are age-adjusted to the US 2000 population. Since counties have different age make-ups, age-adjustment can help in comparing health measures between counties.

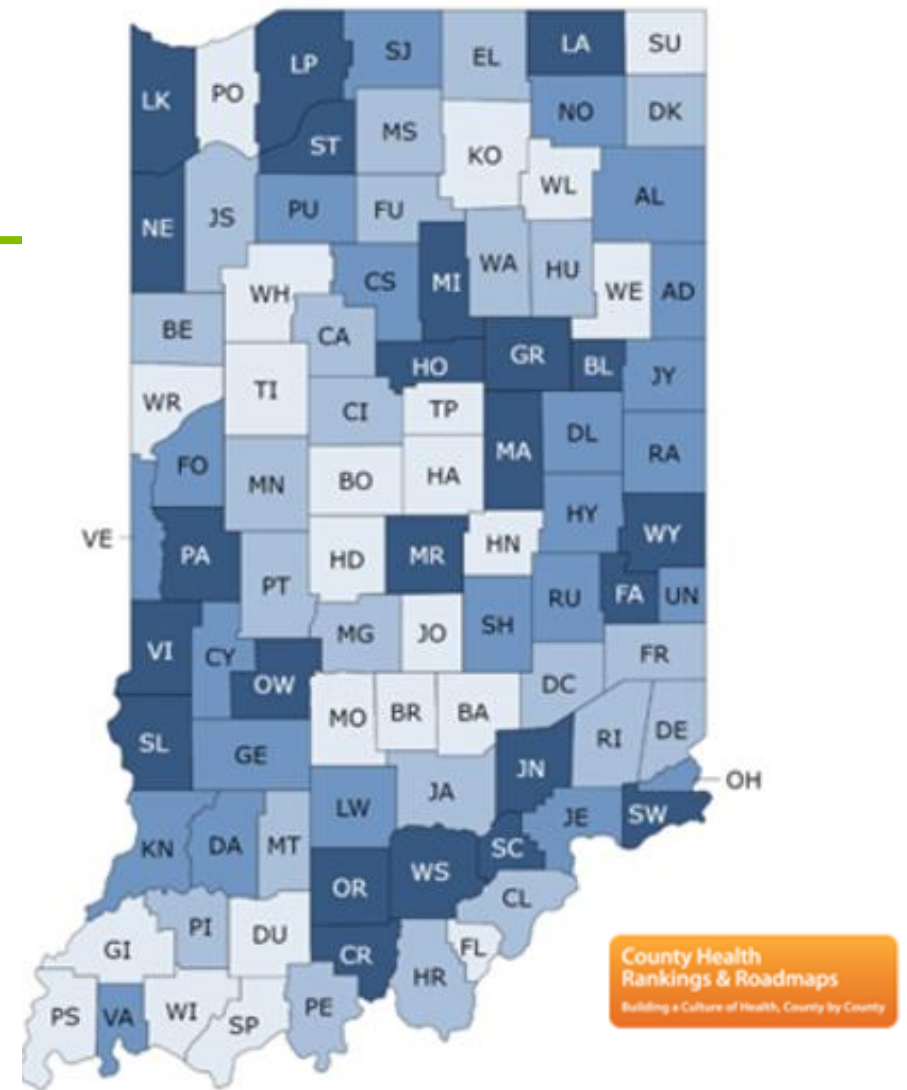
Source: County Health Rankings & Roadmaps <https://www.countyhealthrankings.org/explore-health-rankings/indiana/allen?year=2022>. Accessed 03/23/2023

Health Factors, Indiana 2022

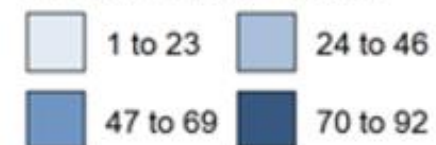
Allen County (AL), IN 2022

Rank #48 of 92 counties in Indiana

- Health Factors represent those things we can modify to improve the length and quality of life for residents.
- Allen (AL) is ranked in the lower middle range of counties in Indiana (Lower 25%-50%).



Health Factor Ranks



Source: County Health Rankings & Roadmaps website <https://www.countyhealthrankings.org/explore-health-rankings/indiana/allen?year=2022>. Accessed 03/23/2023

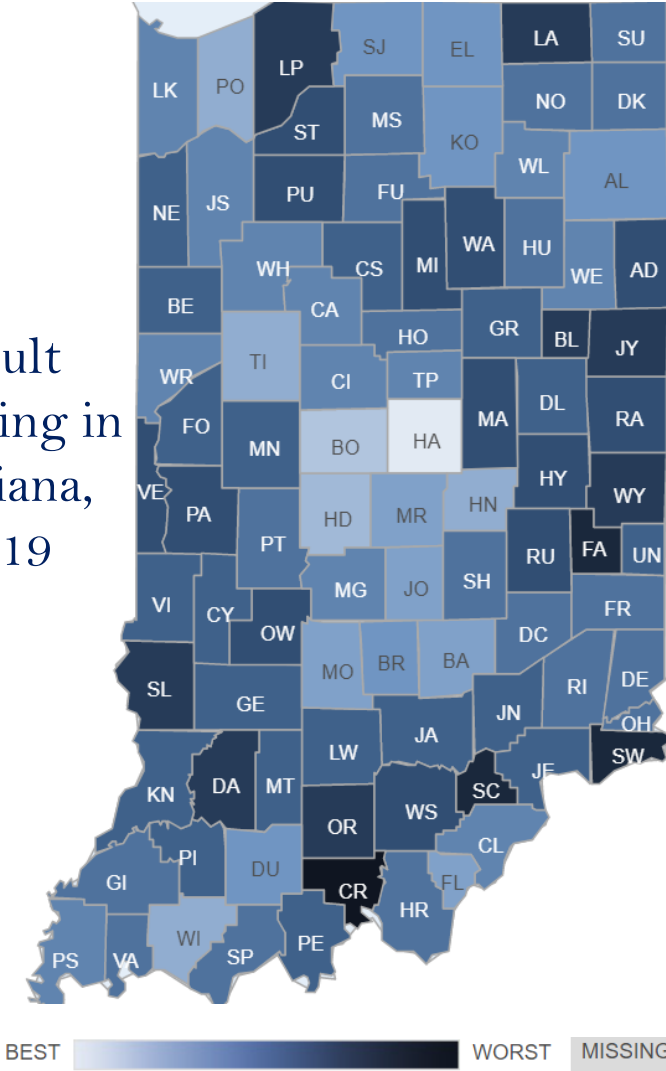
Health Factors, Allen County, IN

Health Factors			
Health Behaviors	Allen (AL) County	Indiana	United States
Adult Smoking	20%	20%	16%
Adult Obesity	38%	35%	32%
Food Environment Index	7.4	6.6	7.8
Physical Inactivity	29%	31%	26%
Access to Exercise Opportunities	75%	68%	80%
Excessive Drinking	18%	18%	20%
Alcohol-Impaired Driving Deaths	35%	19%	27%
Sexually Transmitted Infections	733.2	526.3	551.0
Teen Births	25	23	19

Areas to explore

Areas of strength

Adult Smoking in Indiana, 2019



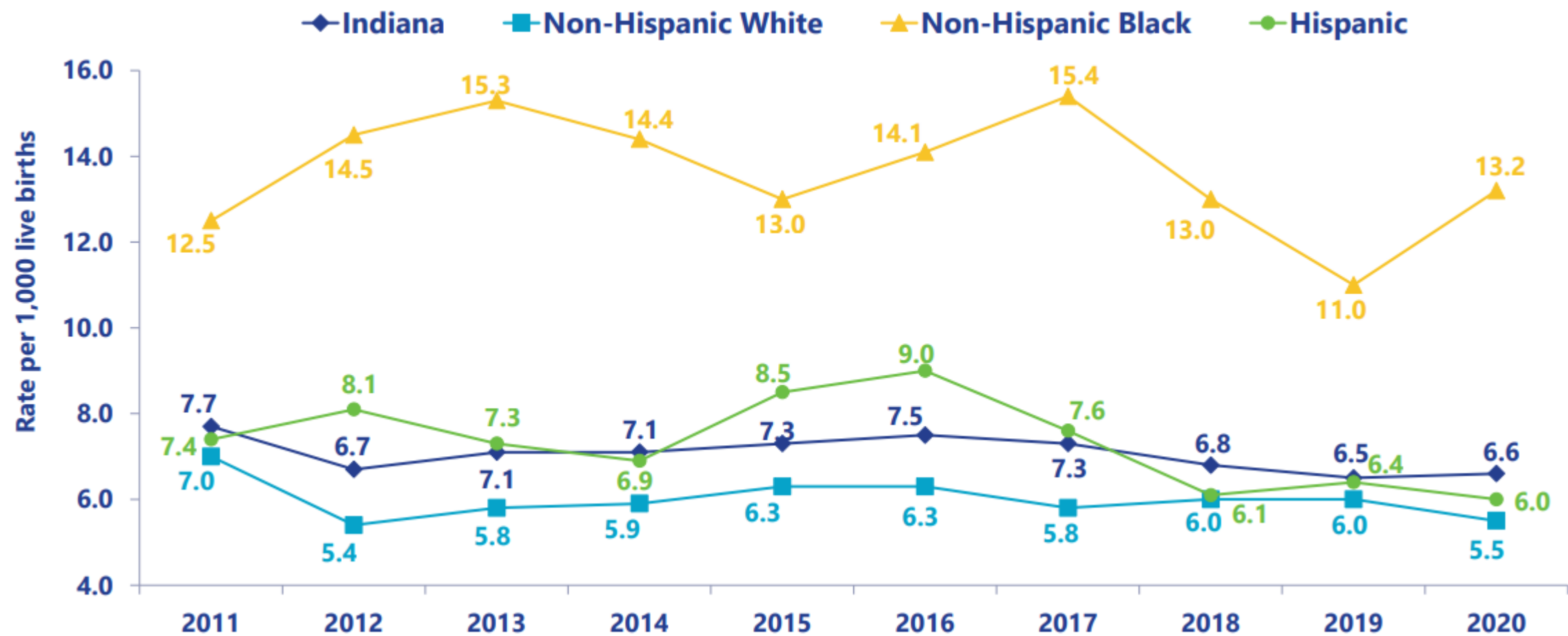
National WIC Program: SAMPLE OF TOTAL USA PARTICIPATION: (Data as of March 10, 2023)

State / Territory	December 2021	November 2022 Preliminary	December 2022 Initial	Percent Change Dec 2022 vs Nov 2022	Percent Change Dec 2022 vs Dec 2021
Connecticut	45,652	47,370	--	--	--
Delaware	17,848	18,481	18,821	1.8%	5.5%
District of Columbia	13,656	10,263	10,450	1.8%	-23.5%
Florida	397,305	413,899	400,306	-3.3%	0.8%
Georgia	206,220	178,495	180,837	1.3%	-12.3%
Guam	5,020	5,514	5,522	0.1%	10.0%
Hawaii	24,776	26,237	26,310	0.3%	6.2%
Idaho	28,878	30,267	30,168	-0.3%	4.5%
Illinois	149,467	159,832	159,403	-0.3%	6.6%
Indiana	154,488	142,274	141,422	-0.6%	-8.5%
Iowa	54,749	57,625	57,554	-0.1%	5.1%
Kansas	42,248	45,328	42,248	-6.8%	0.0%
Kentucky	106,647	114,626	114,590	0.0%	7.4%
Louisiana	82,993	84,870	84,146	-0.9%	1.4%
Maine	16,673	16,999	17,164	1.0%	2.9%
Dept. of Human Services	16,588	16,902	17,081	1.1%	3.0%
Pleasant Point	33	30	33	10.0%	0.0%
Indian Township	52	67	50	-25.4%	-3.8%
Maryland	116,291	121,640	120,073	-1.3%	3.3%
Massachusetts	113,269	119,934	120,687	0.6%	6.5%
Michigan	196,401	204,210	204,021	-0.1%	3.9%
Minnesota	97,739	102,629	102,830	0.2%	5.2%
Mississippi	67,162	64,263	63,646	-1.0%	-5.2%
State Board of Health	66,406	63,440	62,863	-0.9%	-5.3%
Shastan Indians	758	822	782	4.0%	2.8%

Infant Mortality Rate

- Infant mortality (IM) is defined as the death of an infant that occurs during the first 365 days of life.
- The infant mortality rate (IMR) is the total number of infant deaths per 1,000 live births.

Indiana IMRs by Race and Ethnicity 2011-2020

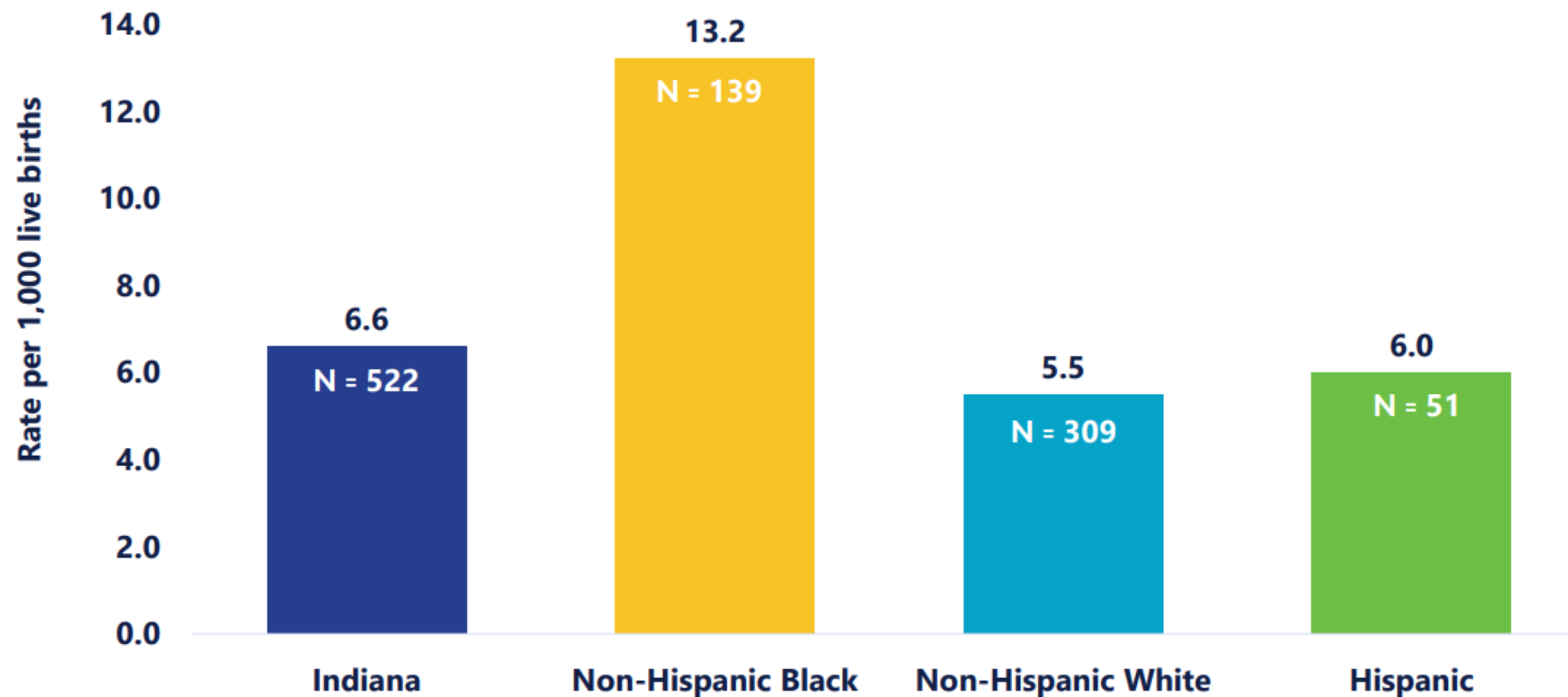


Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division [October 13, 2021] Indiana
Original Source: Indiana Department of Health, Vital Records, ODA, DAT



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Infant Mortality by Race and Ethnicity 2020

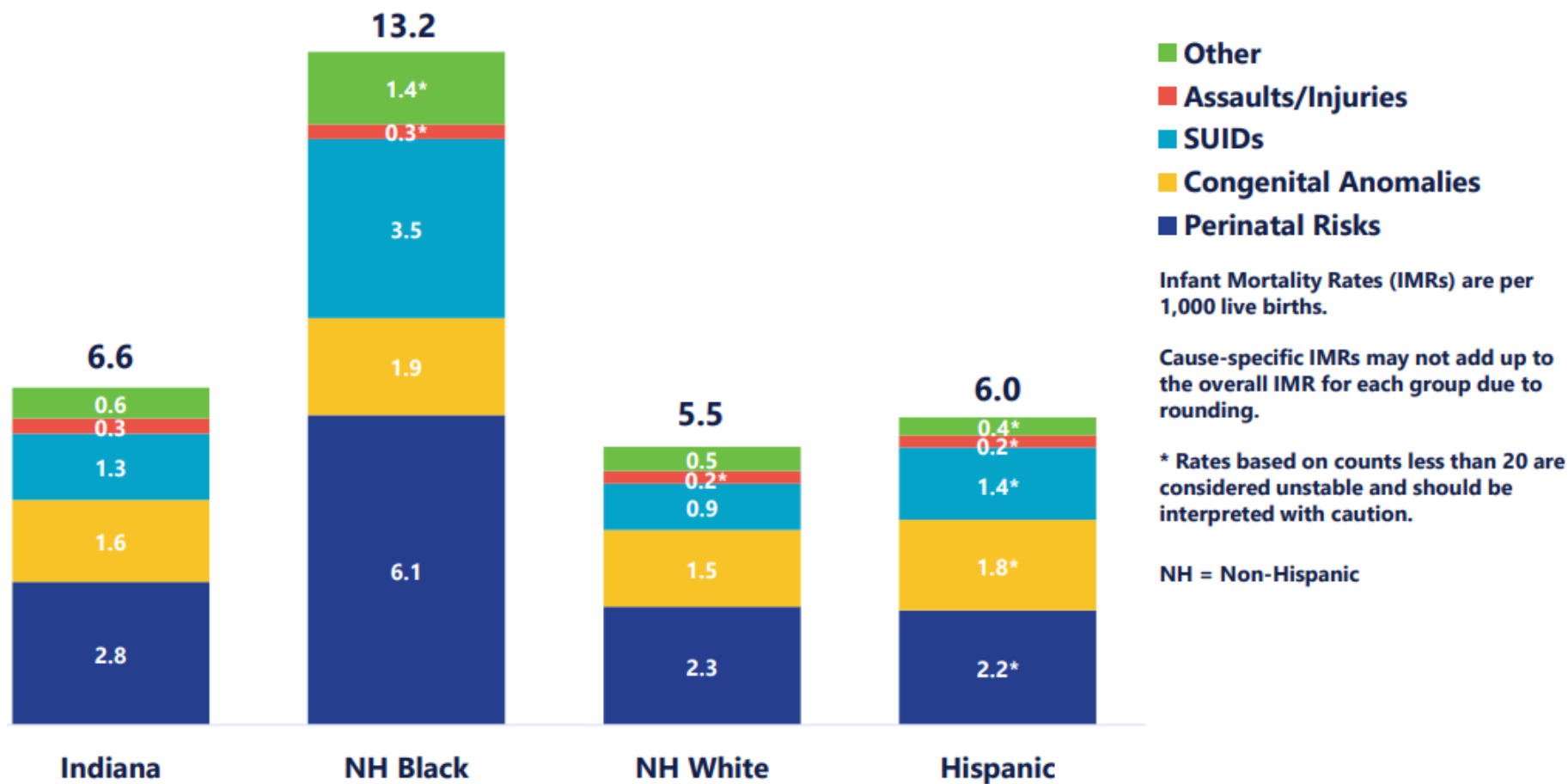


Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division [November 5, 2021] Indiana
Original Source: Indiana Department of Health, Vital Records, ODA, Data Analysis Team

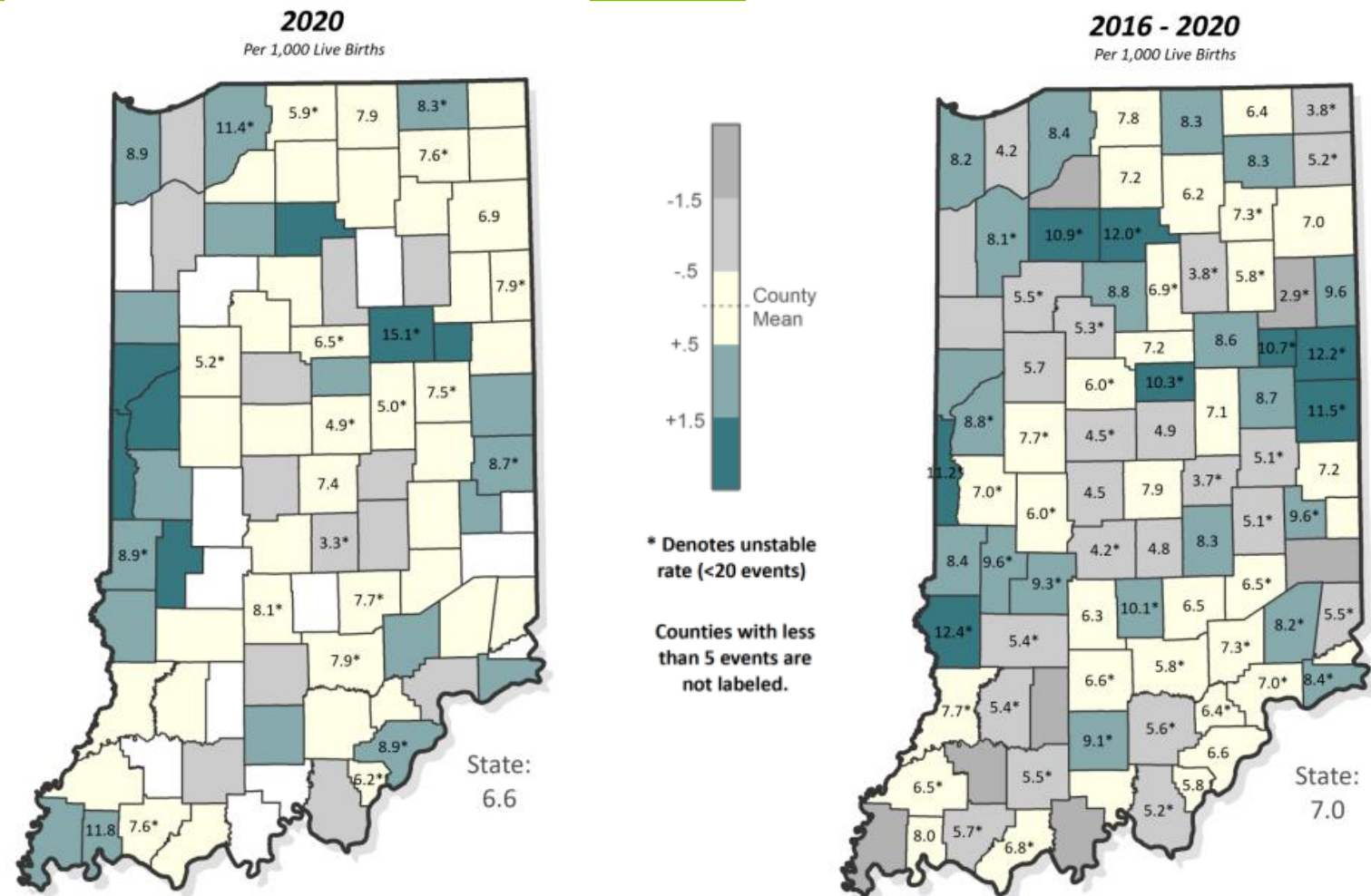


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2020 Cause-Specific IMR by Race/Ethnicity



Infant Mortality by County



County-Level Rates by Race/Ethnicity 2016-2020

Stable NH Black Infant Mortality Rates

Elkhart, 23.4	Vanderburgh, 16.9	St. Joseph, 15.3
Allen, 15.2	Lake, 13.9	Marion, 12.0

Stable NH White Infant Mortality Rates*

Adams, 10.4	Shelby, 9.1	Grant, 8.8	Noble, 8.0
Vigo, 7.8	LaPorte, 7.7	Clark, 7.5	Delaware, 7.4

Stable Hispanic Infant Mortality Rates

Allen, 8.9	Elkhart, 8.3	Lake, 7.2	Marion, 6.1
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NH = Non-Hispanic
Infant Mortality Rates are per 1,000 live births.

* Stable rates are only shown if they are above the state average of 7.0 for 2016-2020.

County-Level Rates by Race/Ethnicity 2016-2020

Zip Code	County	Births	Deaths	IMR	NH White IMR	NH Black IMR	Hispanic IMR
→ 46404	Lake	1121	20	17.8	U	17.7*	U
→ 46516	Elkhart	2823	40	14.2	7.7*	34.9*	11.7*
46628	St. Joseph	2050	26	12.7	5.2*	18.5*	U
47302	Delaware	1583	20	12.6	10.7*	26.7*	U
46219	Marion	2396	26	10.9	7.9*	17.7*	U
→ 46806	Allen	2399	26	10.8	17.8*	11.8*	8.1*
→ 46312	Lake	2068	22	10.6	U	17.0*	6.8*
46410	Lake	2164	23	10.6	U	14.5*	U
46514	Elkhart	2842	30	10.6	8.1*	26.8*	11.3*
46260	Marion	2471	26	10.5	U	18.9	U
46222	Marion	3033	31	10.2	U	19.6	4.3*
→ 46218	Marion	2482	25	10.1	U	12.6	U
46203	Marion	2785	28	10.1	7.9*	15.6*	10.9*
46241	Marion	2587	26	10.1	10.2*	12.8*	U

*Rates based on counts less than 20 are considered unstable and should be interpreted with caution.

**Rates based on counts less than 5 have been suppressed.

NH = Non-Hispanic

Added to the table this year.

→ On the list in 2014-2018, 2015-2019, and 2016-2020.

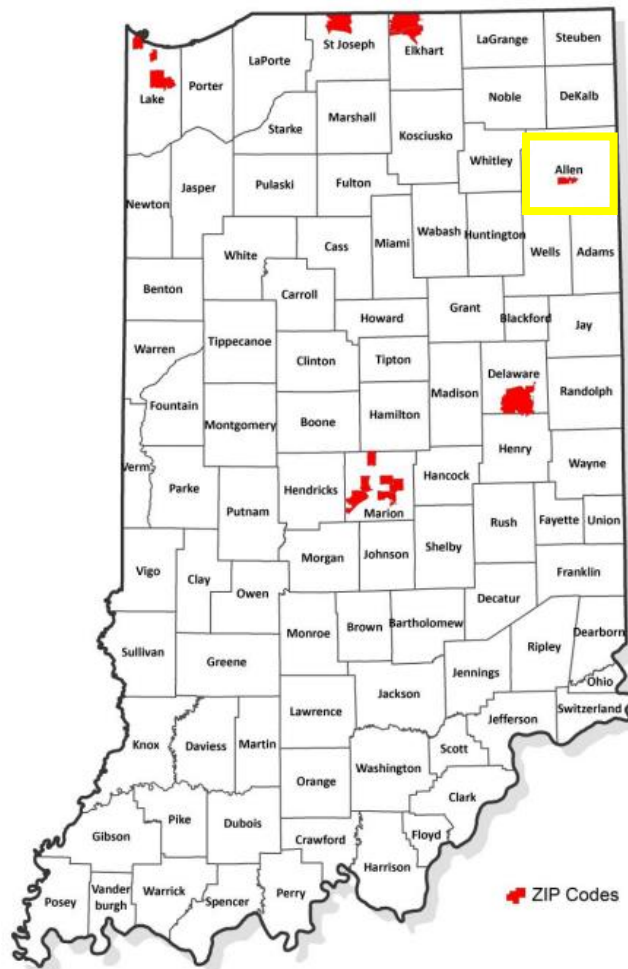


Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division [October 29, 2021] Indiana
Original Source: Indiana Department of Health, Vital Records, ERC, Data Analysis Team



Prevent. Promote. Protect.

Highest Infant Mortality Rates by ZIP Code, 2016-2020



Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division [November 5, 2021]
Original Source: Indiana Department of Health, Vital Records, ODA, Data Analysis Team
Map Author: Indiana Department of Health, ODA, PHG

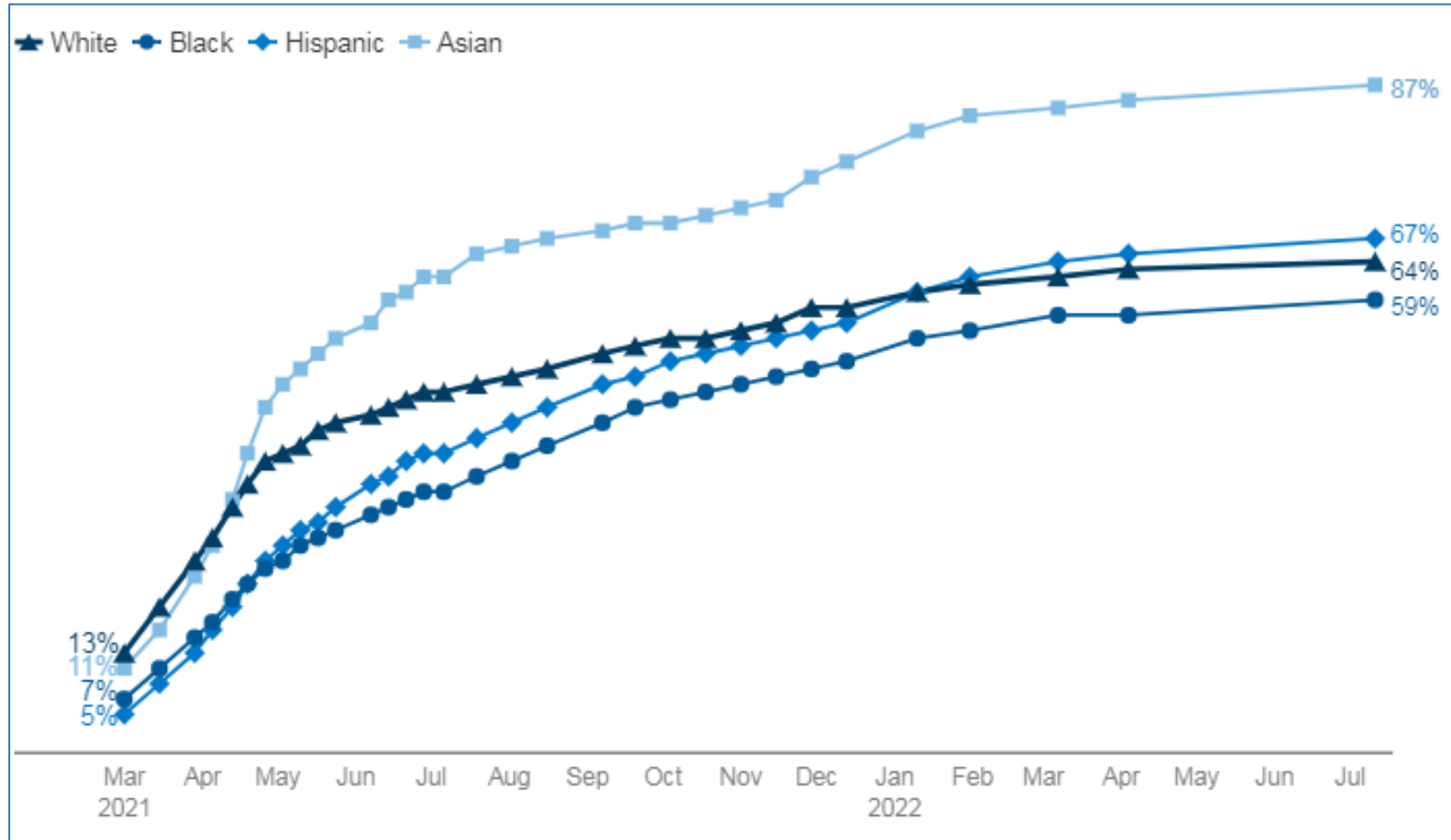


Prevent. Promote. Protect.

COVID-19 Vaccinations



Percent of Total Population that Has Received at Least One COVID-19 Vaccine Dose by Race/Ethnicity, March 1, 2021 to July 11, 2022



Risk for COVID-19 Infection, Hospitalization, and Death By Race/Ethnicity

Rate ratios compared to White, Non-Hispanic persons	American Indian or Alaska Native, Non-Hispanic persons	Asian, Non-Hispanic persons	Black or African American, Non-Hispanic persons	Hispanic or Latino persons
Cases ¹	1.6x	0.8x	1.1x	1.5x
Hospitalization ²	2.5x	0.7x	2.2x	1.9x
Death ^{3, 4}	2.1x	0.8x	1.7x	1.8x

Race and ethnicity are risk markers for other underlying conditions that affect health, including socioeconomic status, access to health care, and exposure to the virus related to occupation, e.g., frontline, essential, and critical infrastructure workers.

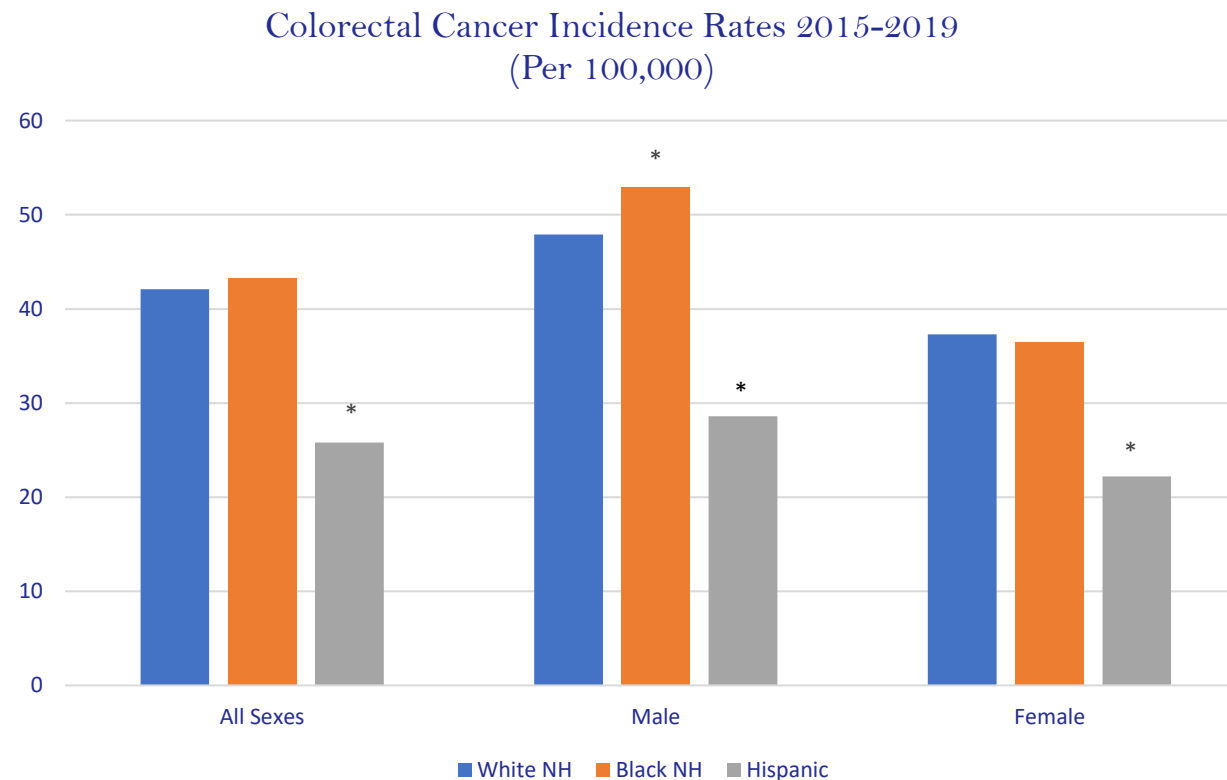
Note: Adjusting by age is important because risk of infection, hospitalization, and death is different by age, and age distribution differs by racial and ethnic group. If the effect of age is not accounted for, racial and ethnic disparities can be underestimated or overestimated.

How influenza affects African Americans/Black Individuals

- Compared with White adults, during the 2021-2022 flu season, flu vaccination coverage was 16.3 percentage points lower among African Americans/Black adults⁽³⁾
- Low vaccination rates are due to poorer access to health care and distrust in physicians and the government⁽⁴⁾
- Disparities in vaccination coverage is present among those who have reported having a routine medical checkup in the past year, a personal health care provider, and having medical insurance⁽²⁾

Colorectal cancer incidence

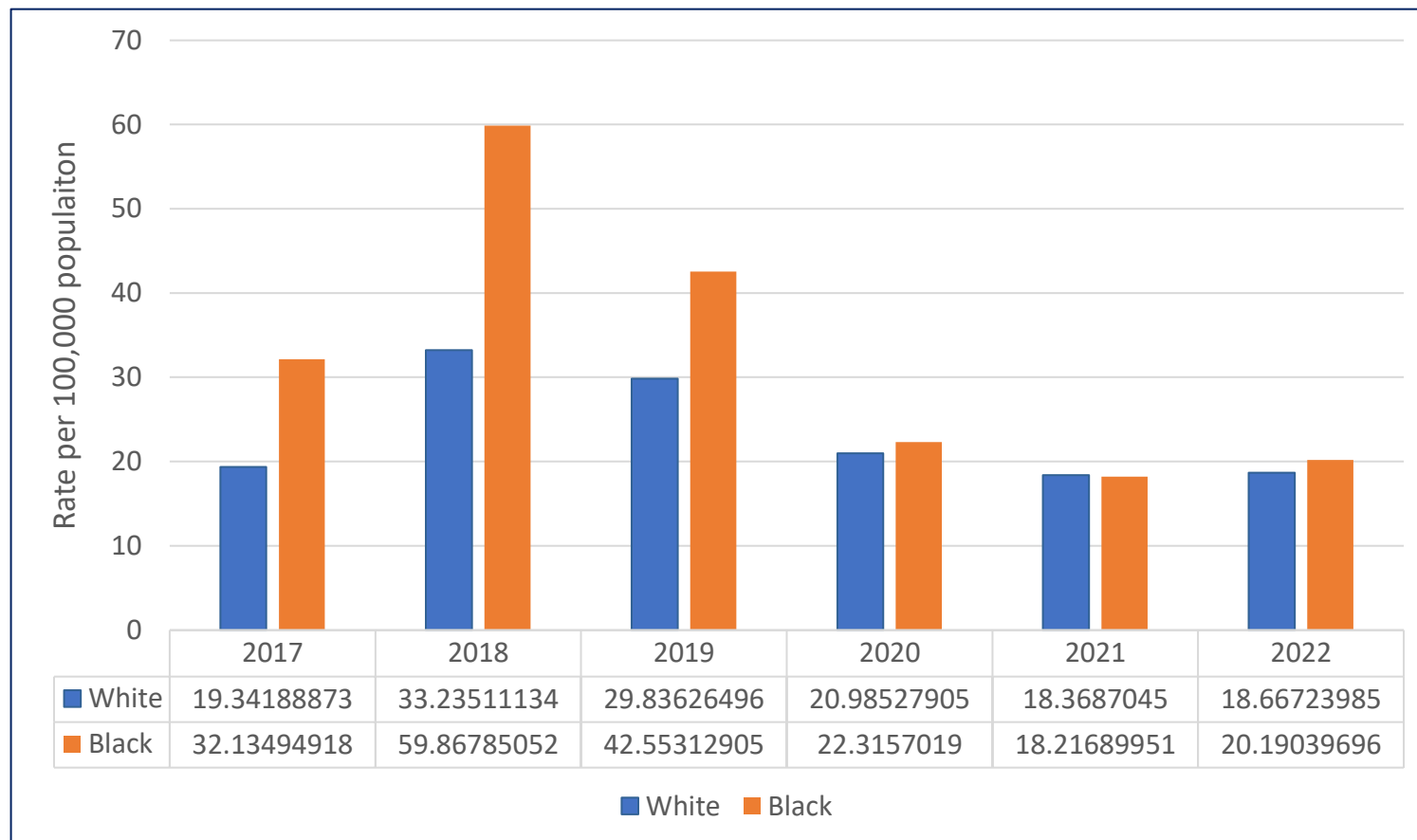
- Hispanics are more likely to be diagnosed with diabetes, a risk factor for colorectal cancer.
- Hispanics are also less likely to be diagnosed with colorectal cancer due to reduced screening rates and access to timely follow-up treatment.
- Black individuals have the highest colorectal cancer incidence and mortality in Indiana and the US.
- Men have much higher rates than women in Indiana and the US (6).



* Bars with an asterisk represent a statistically significant difference between rates compared with their white NH counterpart

Deaths due to Any Opioid Drug Overdose in Indiana

- Rates for the Black population in Indiana are higher than those for the White population for all overdose-related ED visits, overdose-related hospitalizations and opioid-involved overdose deaths in the years provided



US Maternal and Infant Mortality

US has higher maternal and infant mortality
than other wealthy countries

2018

Maternal Mortality - 20.7 deaths/100,000 live births

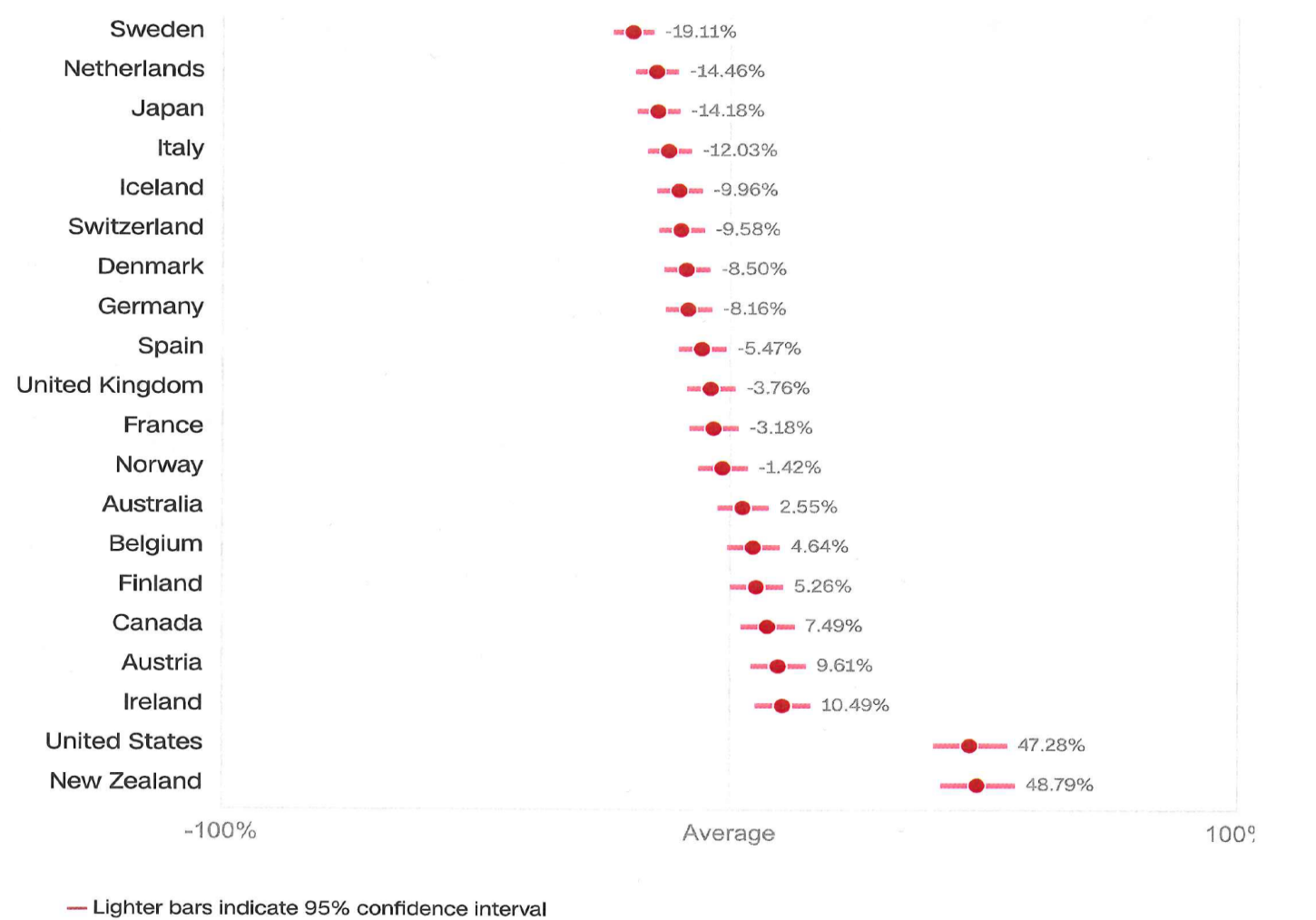
2017

Infant Mortality – 5.8 deaths/1000 births

Low in Massachusetts (3.7/1000)

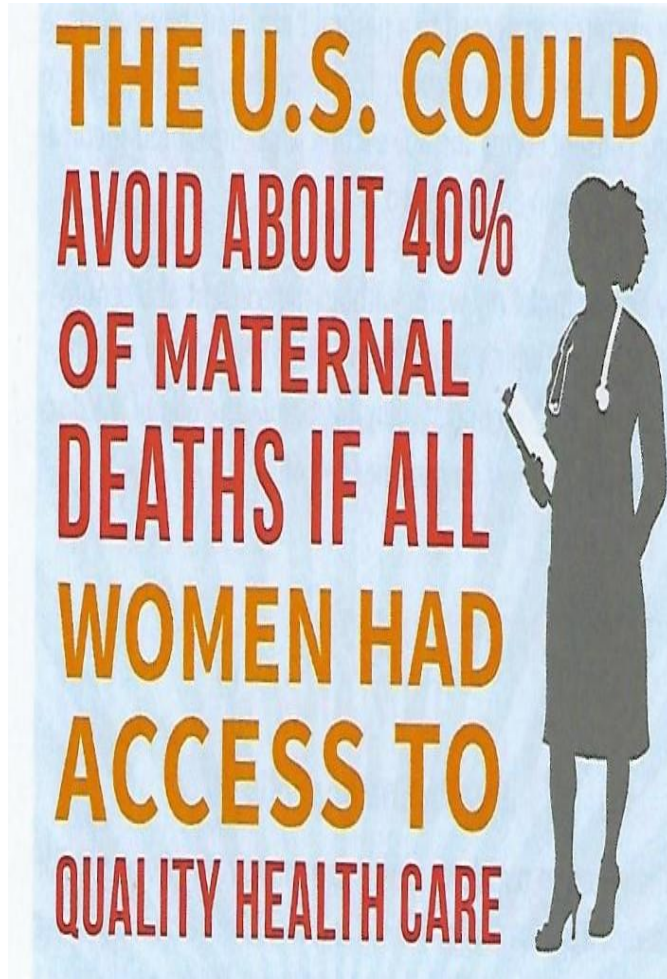
High Mississippi (8.6/1000)

Infant Mortality Wealthy Countries



Source: Health Affairs

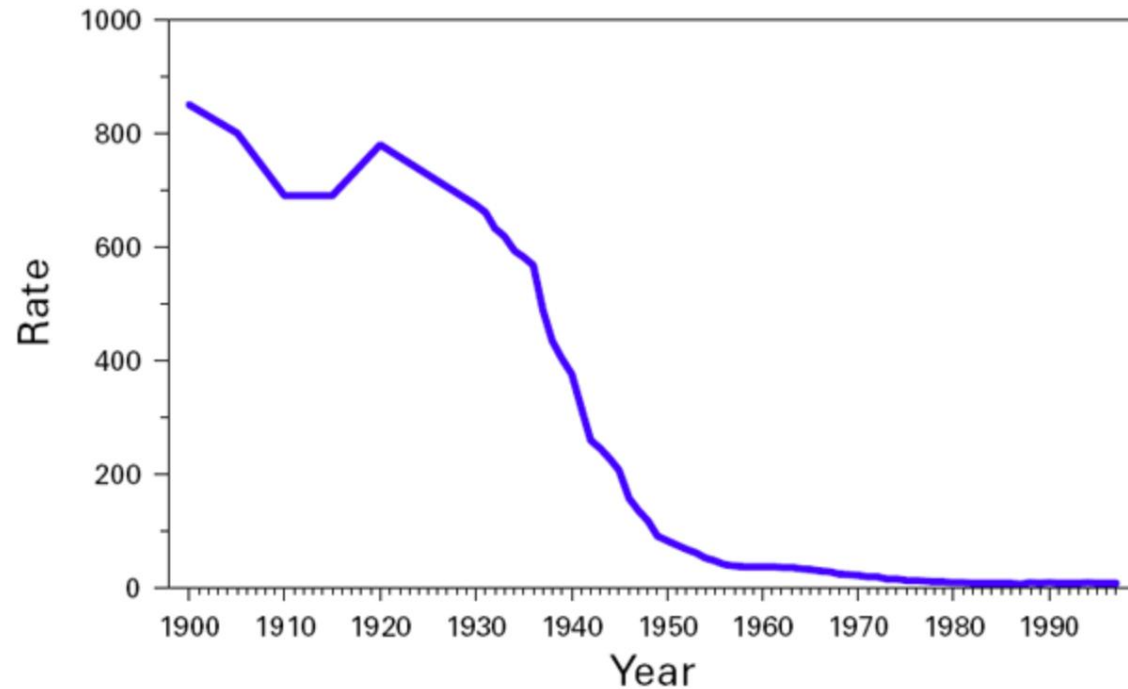
Marginalized populations



- US has higher maternal mortality than Iran, Libya and Turkey
- US maternal mortality 2x greater than Canada
- Childbirth number 1 reason for hospitalization in the US
- For every maternal death 50-100 near miss morbidities
- 60 maternal deaths postpartum
- Black women die at rate of 3 to 4 times that of white women in the US

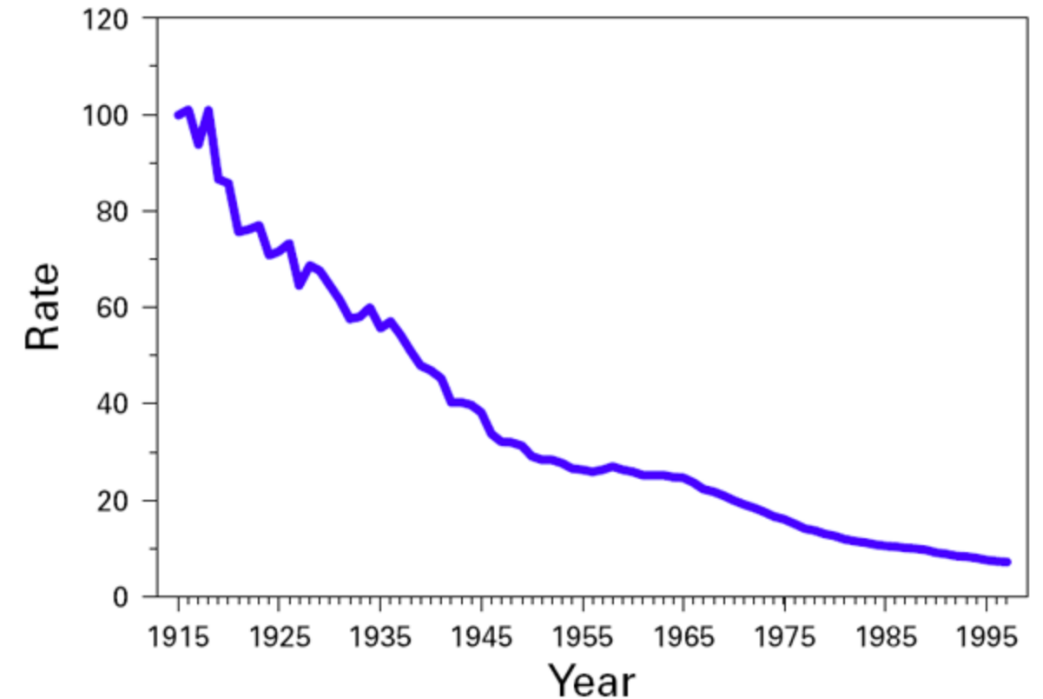
Maternal and Infant Mortality

FIGURE 2. Maternal mortality rate,* by year — United States, 1900–1997



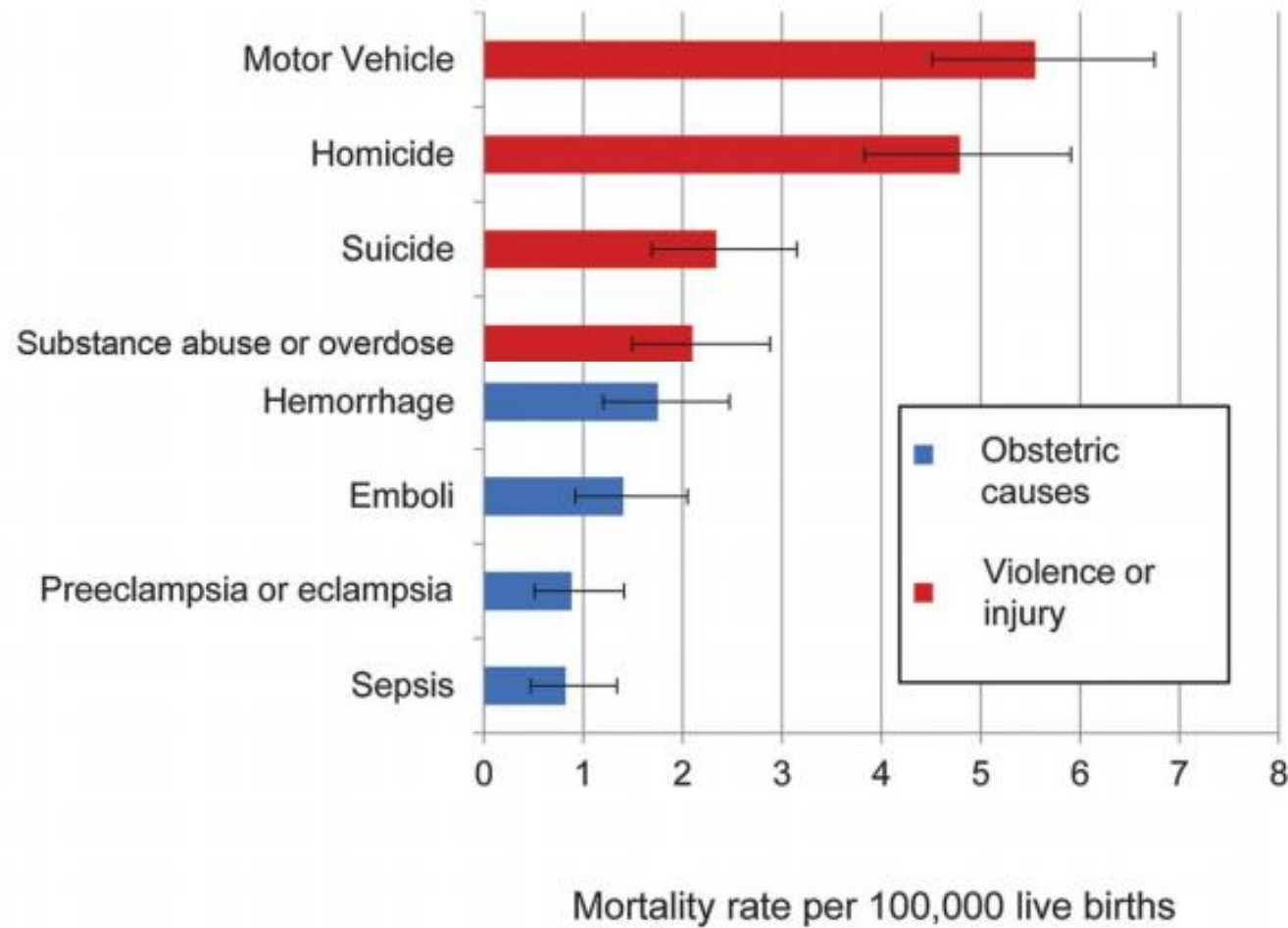
*Per 100,000 live births.

FIGURE 1. Infant mortality rate,* by year — United States, 1915–1997

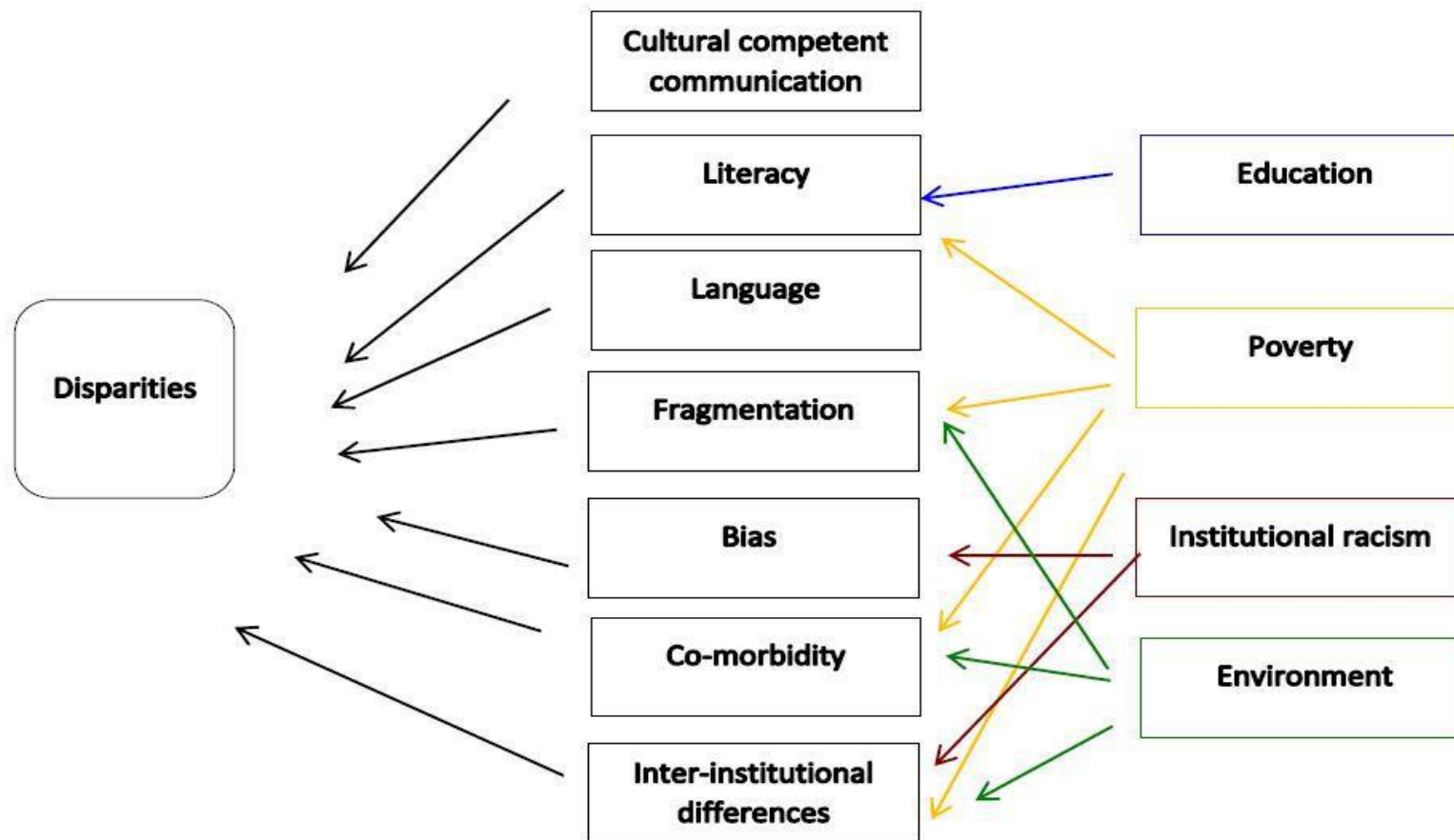


*Per 1000 live births.

“Hidden causes” of maternal mortality



Understanding Racial Disparities: The Big Picture



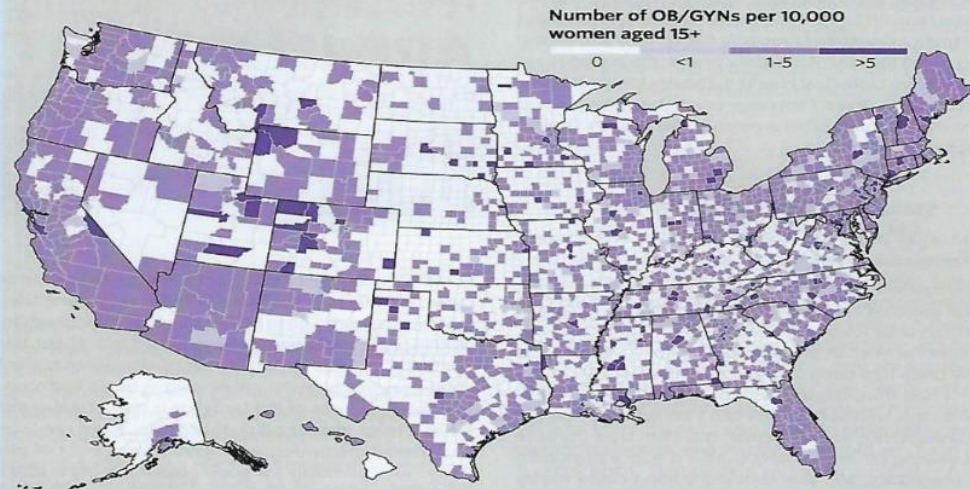
Source: Elisabeth Howell, MD, MPP. Reduction of Peripartum Disparities Bundle. 2017.

Marginalized Maternity Populations

MATERNAL HEALTH IN RURAL AREAS

Maternity Deserts

Obstetrician/gynecologists are scarce in rural areas and small towns.



Sources: Census Bureau; Physician data derived from American Medical Association Masterfile, March 2017

At least **81 rural hospitals have shut down across the country** since 2010, according to the North Carolina Rural Health Research and Policy Analysis Center at UNC.*

A recent study by researchers at the University of Minnesota found that **more than half of the nation's rural counties no longer have hospital obstetric services**, and 9 percent of them lost those services between 2004 and 2014.*

Only about **6 percent of the nation's ob-gyns work in rural areas**, according to the latest survey numbers from the American Congress of Obstetricians and Gynecologists (ACOG). Yet **15 percent of the country's population, or 46 million people, live in rural America.****

As a result, **fewer than half of rural women live within a 30-minute drive of the nearest hospital offering obstetric services**. Only about 88 percent of women in rural towns live within a 60-minute drive, and in the most isolated areas that number is 79 percent.**

* Source: <https://www.politico.com/magazine/story/2017/10/03/meadows-medicare-rural-hospitals-pregnant-women-dying-215671>

** Source: <https://www.scientificamerican.com/article/maternal-health-care-is-disappearing-in-rural-america/>

Incarceration & Pregnancy:

IN MOST STATES incarcerated women and their infants are separated 2-3 days after the birth and recovery.

SHACKLING DURING any part of the maternal process increases infant mortality and poor health outcomes.

22 STATES either have no policy at all addressing when restraints can be used on pregnant women or have a policy which allows for the use of dangerous leg irons or waist chains.

34 STATES do not require screening and treatment for women with high risk pregnancies.

43 STATES do not require medical examinations as a component of prenatal care.

29 States And D.C. Don't Prohibit Shackling Prisoners While They Give Birth

Shackling of pregnant prisoners during labor and delivery is regarded by human rights groups and medical professionals as unnecessary and potentially harmful to the health of both the mother and her child. Shackled prisoners are not able to adequately position themselves to cope with labor pains, and can be bruised or cut by shackles during the strains of childbirth. Restraints used during labor and delivery also restrict how doctors are able to manipulate a woman for the safe delivery of her child, and can limit their ability to perform emergency C-sections. In at least two states with prohibitions on shackling during labor and delivery – Texas and Pennsylvania – investigations revealed it was happening in violation of the law.

- States with no laws on shackling during labor and delivery
- States where laws that prohibit shackling during labor and delivery have been introduced but not passed
- States with a set of regulations on shackling issued by the Department of Corrections
- States with laws that prohibit shackling during labor and delivery

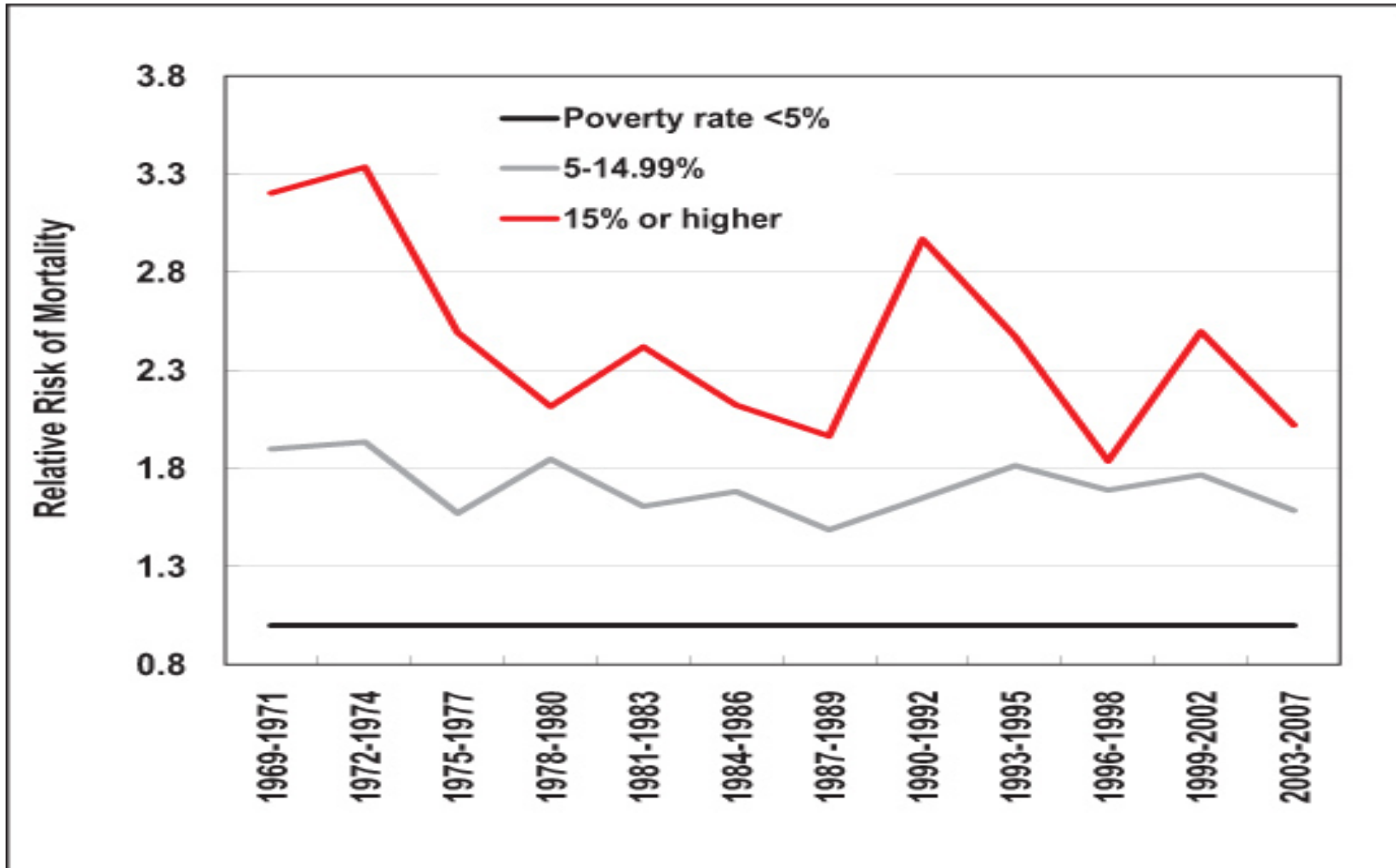


Source: National Women's Law Center report, Mothers Behind Bars: <https://www.nwlc.org/sites/default/files/pdfs/mothersbehindbars2010.pdf>

Source: ACLU

THE HUFFINGTON POST

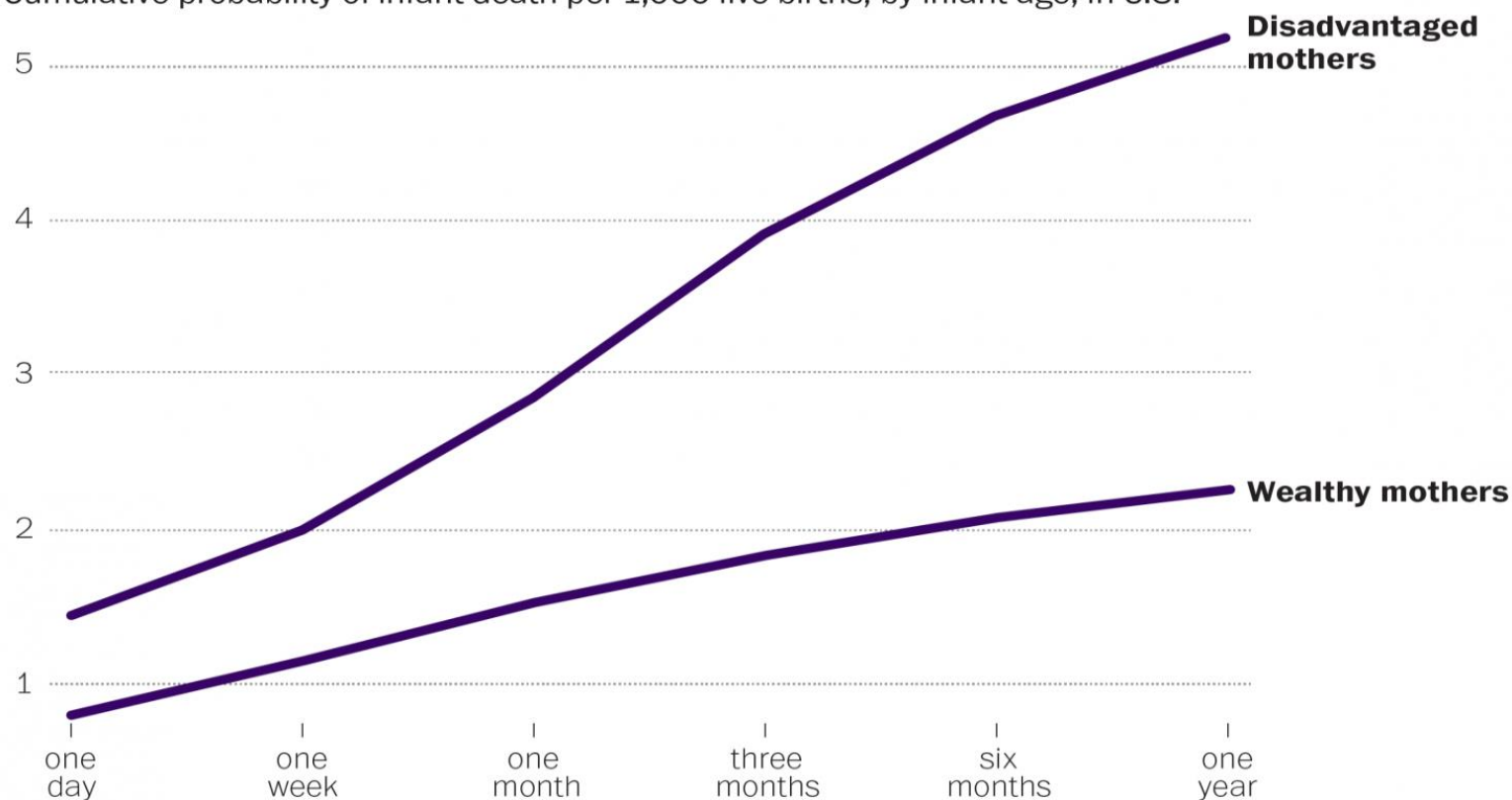
Maternal Mortality by Poverty Level



Infant Mortality

A growing income gap in infant mortality

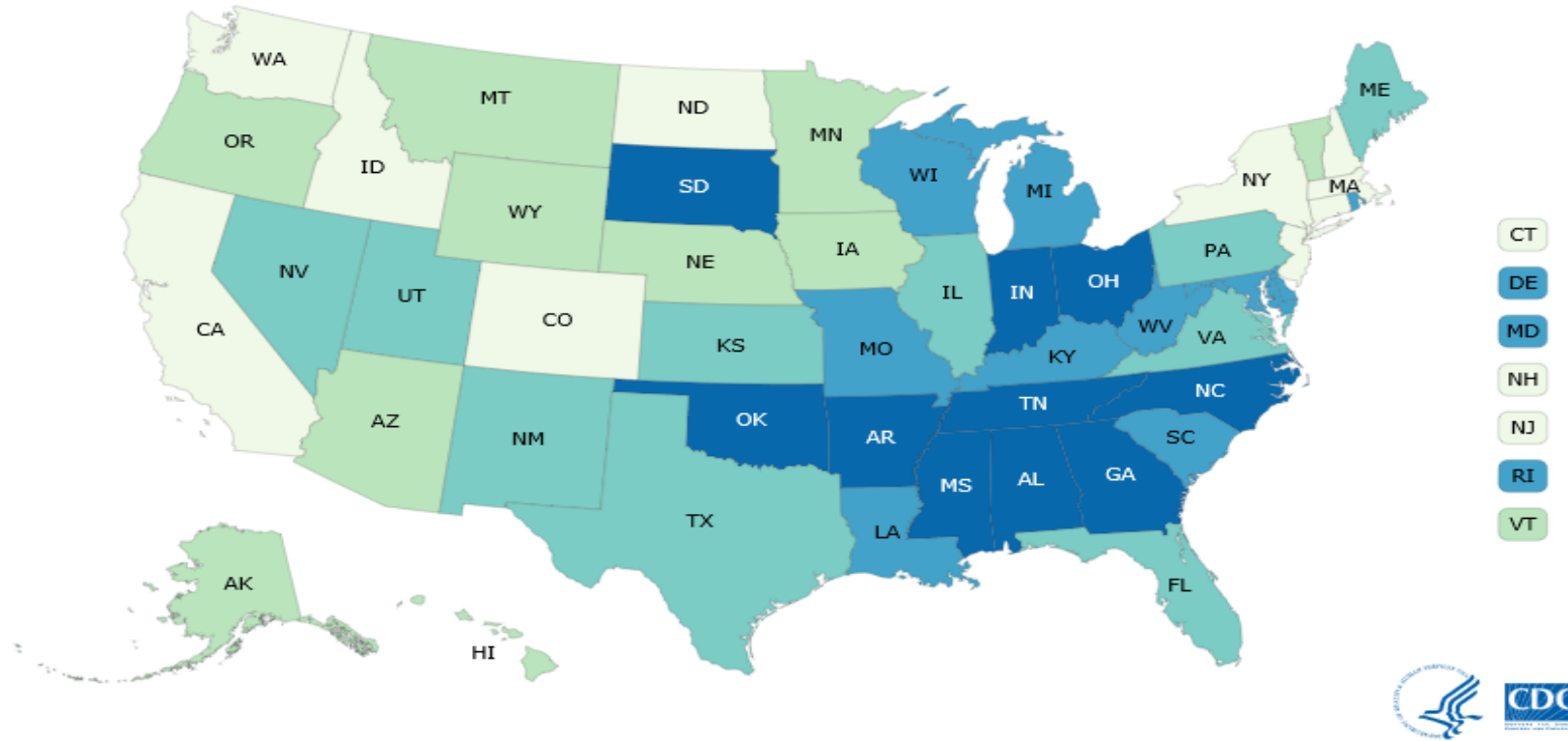
Cumulative probability of infant death per 1,000 live births, by infant age, in U.S.



WASHINGTONPOST.COM/**WONKBLOG**

Source: Alice Chen, Emily Oster and Heidi Williams

Infant Mortality Rates by State, 2017



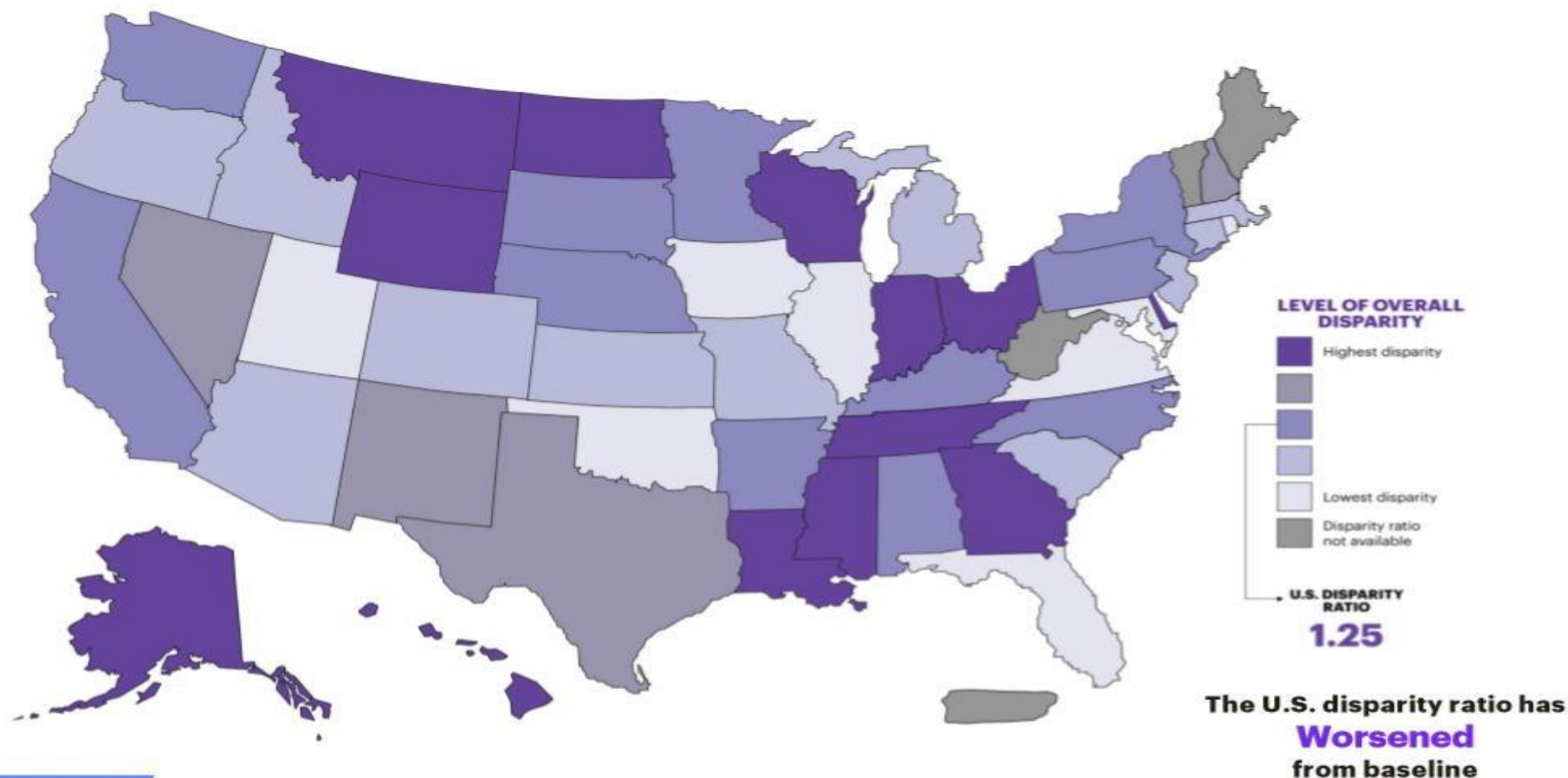
Death Rates¹

United States 5.8

- 3.7 - 4.6
- 4.6 - 5.7
- 5.7 - 6.1
- 6.2 - 7.1
- 7.1 - 8.6

RACE & ETHNICITY DISPARITY BY STATE

The March of Dimes disparity ratio measures and tracks progress towards the elimination of racial/ethnic disparities in preterm birth. It is based on Healthy People 2020 methodology and compares the group with the lowest preterm birth rate to the average for all other groups. Progress is evaluated by comparing the current disparity ratio to a baseline disparity ratio. A lower disparity ratio is better, with a disparity ratio of 1 indicating no disparity.



MORE INFORMATION

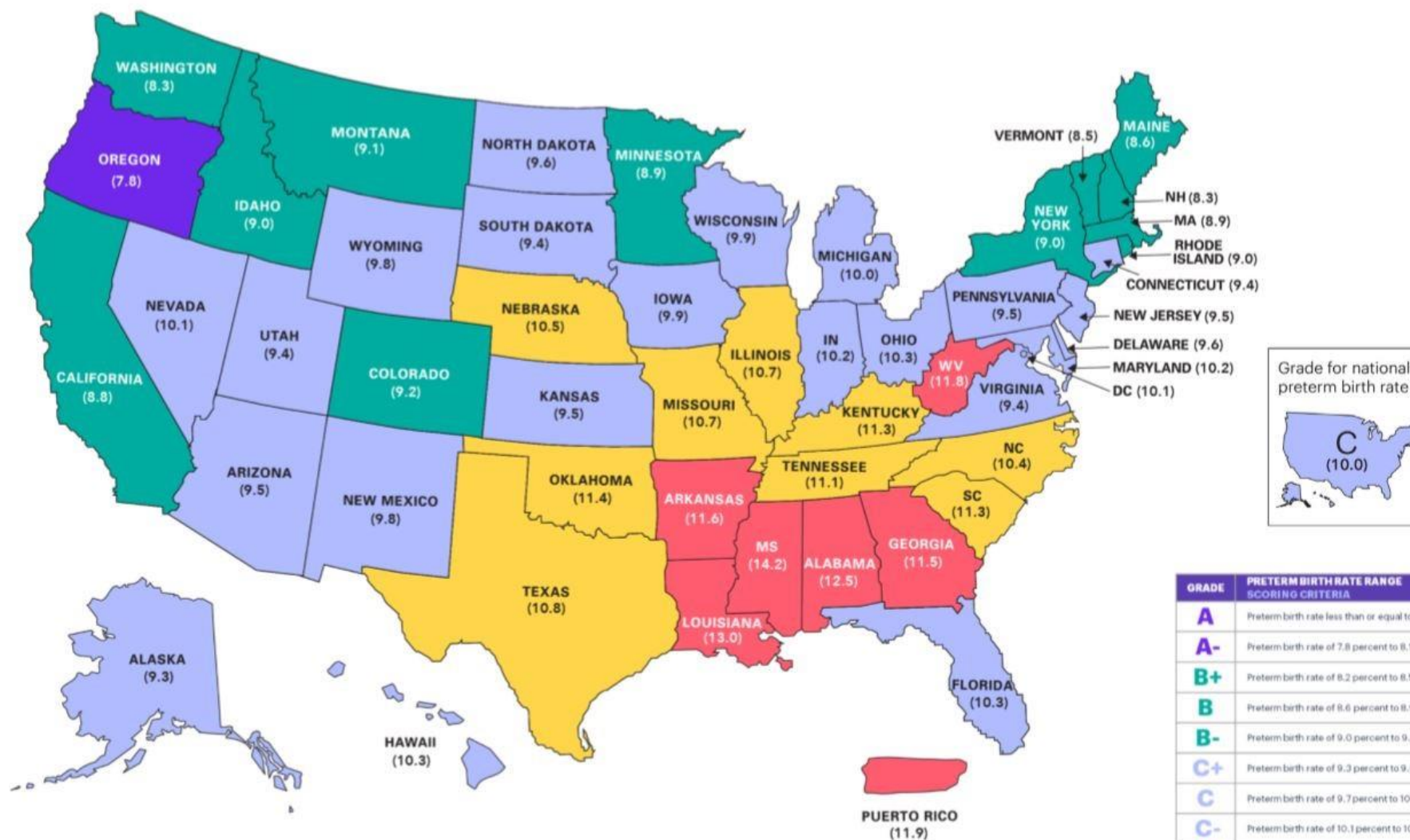
[MARCHOFDIMES.ORG/REPORTCARD](https://www.marchofdimes.org/reportcard)

For details on data sources and calculations, see Technical Notes.

For more information on how we are working to reduce premature birth, visit www.marchofdimes.org.

©2019 March of Dimes

PRETERM BIRTH RATES AND GRADES BY STATE



Puerto Rico is not included in the United States total.
 Preterm is less than 37 completed weeks of gestation, based on obstetric estimate of gestational age.
 Source: Preterm birth rates are from the National Center for Health Statistics, 2018 final natality data. Grades assigned by March of Dimes Perinatal Data Center.
 © 2019 March of Dimes

GRADE	PRETERM BIRTH RATE RANGE SCORING CRITERIA
A	Preterm birth rate less than or equal to 7.7 percent.
A-	Preterm birth rate of 7.8 percent to 8.1 percent.
B+	Preterm birth rate of 8.2 percent to 8.5 percent.
B	Preterm birth rate of 8.6 percent to 8.9 percent.
B-	Preterm birth rate of 9.0 percent to 9.2 percent.
C+	Preterm birth rate of 9.3 percent to 9.6 percent.
C	Preterm birth rate of 9.7 percent to 10.0 percent.
C-	Preterm birth rate of 10.1 percent to 10.3 percent.
D+	Preterm birth rate of 10.4 percent to 10.7 percent.
D	Preterm birth rate of 10.8 percent to 11.1 percent.
D-	Preterm birth rate of 11.2 percent to 11.4 percent.
F	Preterm birth rate greater than or equal to 11.5 percent.

Adopted **Not Adopted**

KFF
HENRY J. KAISER
FAMILY FOUNDATION

Rural Hospital Closures

- Many of those hospitals in the South in states that did not expand Medicaid as of January 2017.
 - 82% of rural hospital closures (no Medicaid expansion)
- Rural Southeastern communities with measurable health disparities for chronic conditions
 - Diabetes
 - Hypertension
 - obesity

Fragmentation of Care

- 50% of all hospitals in US provide care for three or fewer deliveries a day
 - Team training for readiness to manage preventable morbidity (i.e. limited blood supply)
- Tighten the partnership with health centers (clinics), hospital and all obstetrical care providers: obstetricians, family physicians, nurse practitioners, midwives)
 - telemedicine
- Shortage and maldistribution of obstetricians in the US particularly in rural communities
 - Specialty and subspecialty consultation

Health Policy Implications

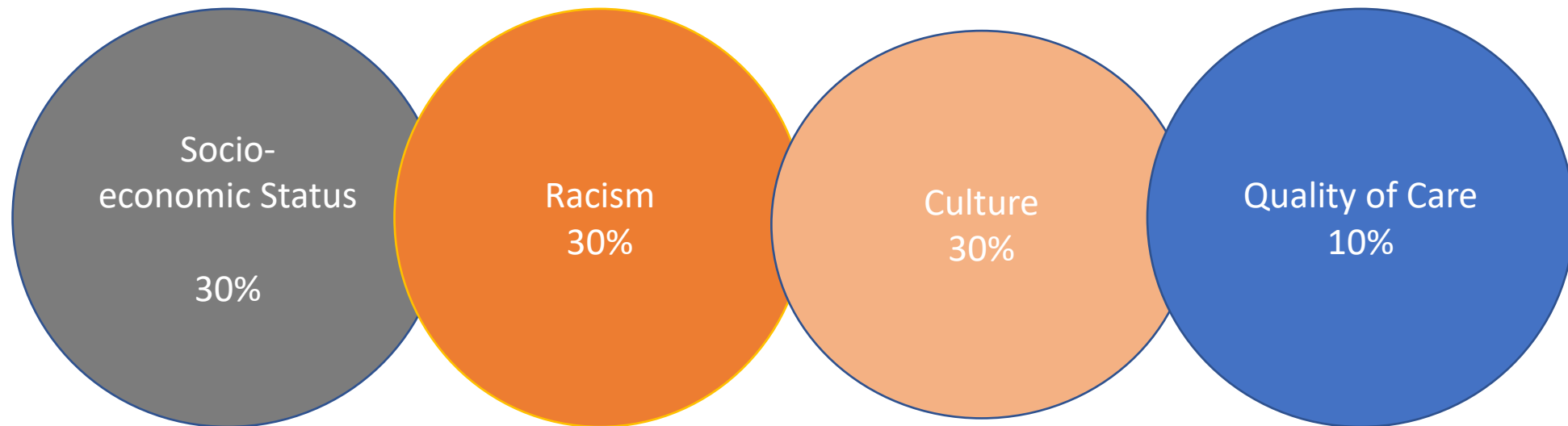
- Coverage up to 12 months postpartum for all women especially those who had a pregnancy complications
- Seamless handover of care
- Disseminate to providers, public and payers
- Monitor and incentivize compliance
- Fund research to improve lifelong health in women (NIH conference in October 2021)

Medicaid Extension Postpartum

- In 2018, the American College of Obstetricians and Gynecologists issued new medical guidelines for postpartum care, saying that ongoing attention rather than a single encounter with a medical professional is urgently needed to “reduce severe maternal morbidity and mortality.”
- To boost maternal health for low-income women, California, Florida, Kentucky and Oregon in May received approval from the federal government to extend Medicaid coverage for 12 months after childbirth.
- Florida first non expansion state to extend Medicaid 12 months postpartum

Health Disparities

Factors in Black/African American Health Disparity



Disparity

- Social inequality kills:
 - It deprives individuals and communities of a healthy start in life, increases their burden of disability and disease, and brings early death.
 - Poverty and discrimination
 - Inadequate medical care
 - Violation of human rights
 - Inadequate education attainment and achievement
 - “All act as powerful social determinants of who lives and who dies, at what age, and with what degree of suffering.”
 - Nancy Krieger (2005). Healthy bodies and disparity. Boston Harvard school of Public Health

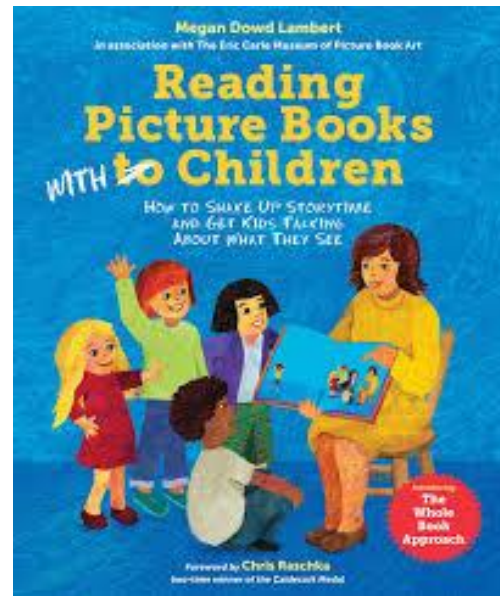
Health Inequity (Disparity)



Phillip Lee, MD

- Assistant U.S. secretary for health and scientific affairs under LBJ 1965.
 - Created Medicare, the federal health-care insurance program for Americans 65 years and older.
 - required racial integration of any hospital that wished to receive Medicare funds
 - Encountered resistance in the South
 - By February 1967 nearly 95% of hospitals compliant.
 - **Medicare** played major role in desegregation of hospitals.
 - Medicaid (1965) designed to provide access to mainstream health care for low income individuals and families
 - 32 states adopted before the first former Confederate State adopted

Reading to young children



Reading to Children

Every day of a child's earliest years matter

- Families, schools and communities all have a role to play to ensure every child receives the lifelong advantages of literacy and early learning before an achievement gap is created.
- From birth to age 5, when a child's brain develops rapidly, is the time to build the foundation of cognitive abilities and character.
- Third graders who cannot read on grade level today are on track to be our nation's lowest income, least skilled citizens.
- Some states use their elementary students' reading failure rates to predict future prison sizes.

Health Inequity and Disparities in Adult Diseases

Disparity and Adult Disease



400+ years since first slave women arrived in American Colonies in 1619

- Adult Health disparities rooted in generational stress black women
 - Prematurity, growth restriction, maternal morbidities
 - Fetal origin of adult disease (diabetes, hypertension, obesity, cardiovascular disease)

Key Resources and Practices for Supporting Trainees from Groups That Are Underrepresented in Medicine.

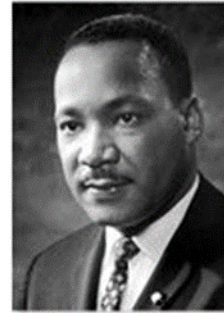
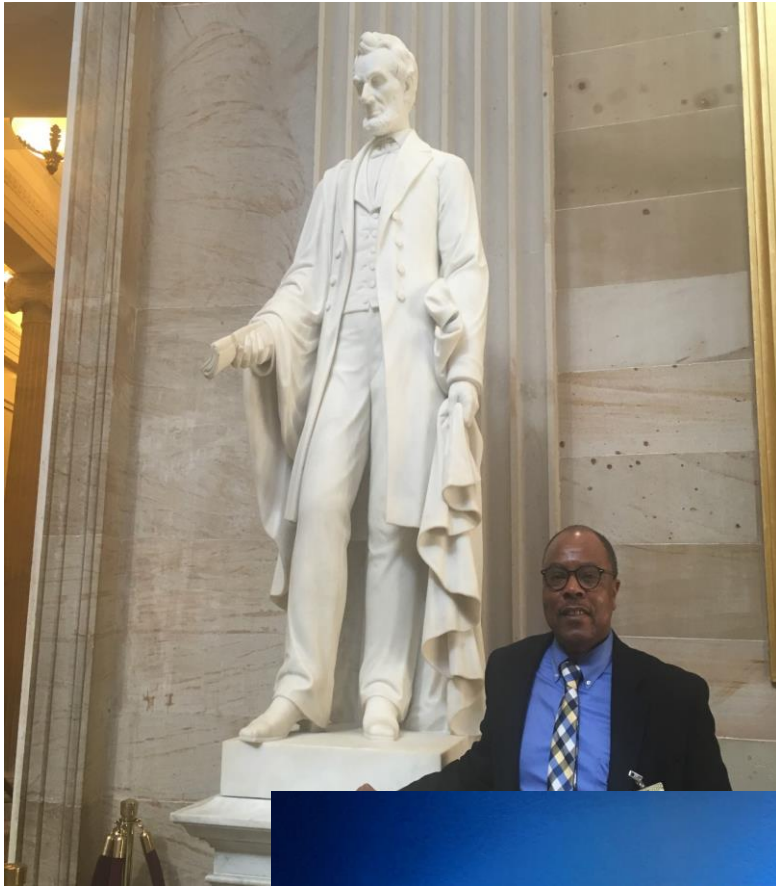
System-Level Changes Promoting Health Equity

- Well-resourced community outreach and engagement efforts
 - Advocacy training for supporting individual patients and groups with chronic diseases and for promoting distributive justice
 - Well-resourced trainee clinics
 - Clinical performance metrics stratified by social risk factors
 - Quality improvement and health care delivery system redesign with an equity lens
-
- N Engl J Med 385;6 August 5, 2021

Health Disparities

- Most health disparities are avoidable
 - They result from decisions we make as society regarding how we allocate our resources and how much injustice we are willing to accept as a fact of life.
-
- Lisa Cooper – Johns Hopkins health equity expert

Health Equity Vulnerable Populations Questions



“Of all the forms of inequality, injustice in health care is the most shocking and inhumane.”

—Dr. Martin Luther King

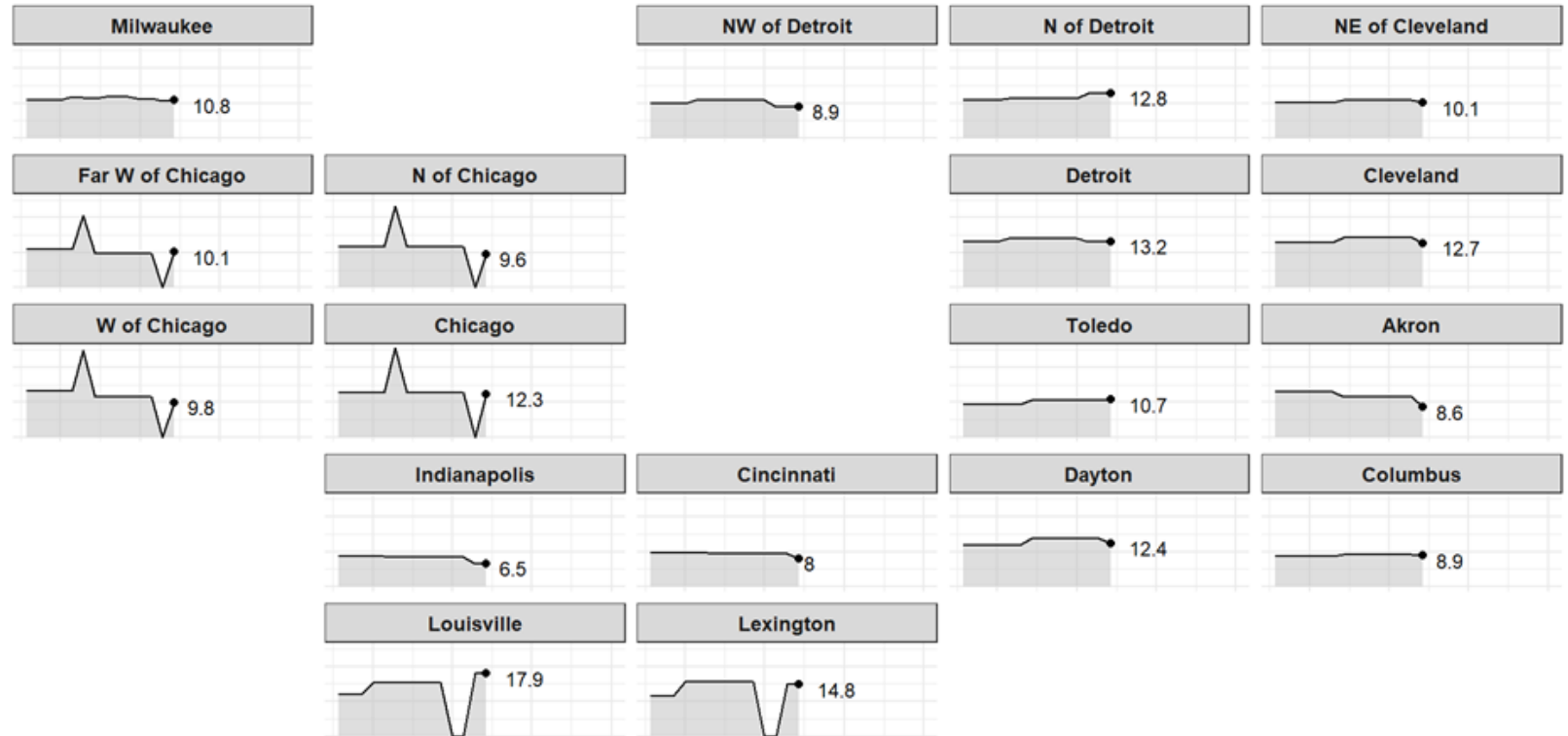
TO DENY A MAN HIS HOPES BECAUSE OF HIS COLOR OR RACE, HIS RELIGION OR THE PLACE OF HIS BIRTH IS NOT ONLY TO DO INJUSTICE, **IT IS TO DENY AMERICA** AND TO DISHONOR THE DEAD WHO GAVE THEIR LIVES FOR AMERICAN FREEDOM.

LYNDON JOHNSON, SPEECH BEFORE CONGRESS
ON VOTING RIGHTS, MARCH 15, 1965

- Racial/ethnic disparities and inequities in maternal and child health are **prevalent and persistent**
- Movement **beyond documentation** of disparities and inequities in maternal and infant morbidity and mortality is critical to their elimination
- Adoption of uniform care standards, **recognizing our own biases and understanding of the contribution of social determinants of health (including systemic racism)** are particularly importance for care and outcomes of women and children from vulnerable communities
- We can and should **advocate for codifying equity best practices**, through policy and legislative action, among others

COVID-19 Case Trends within Other Urban Areas

Last 14 Days of Confirmed COVID-19 Cases (Rolling) for Urban Areas in Indiana and Surrounding States,
2023-02-23 - 2023-03-09



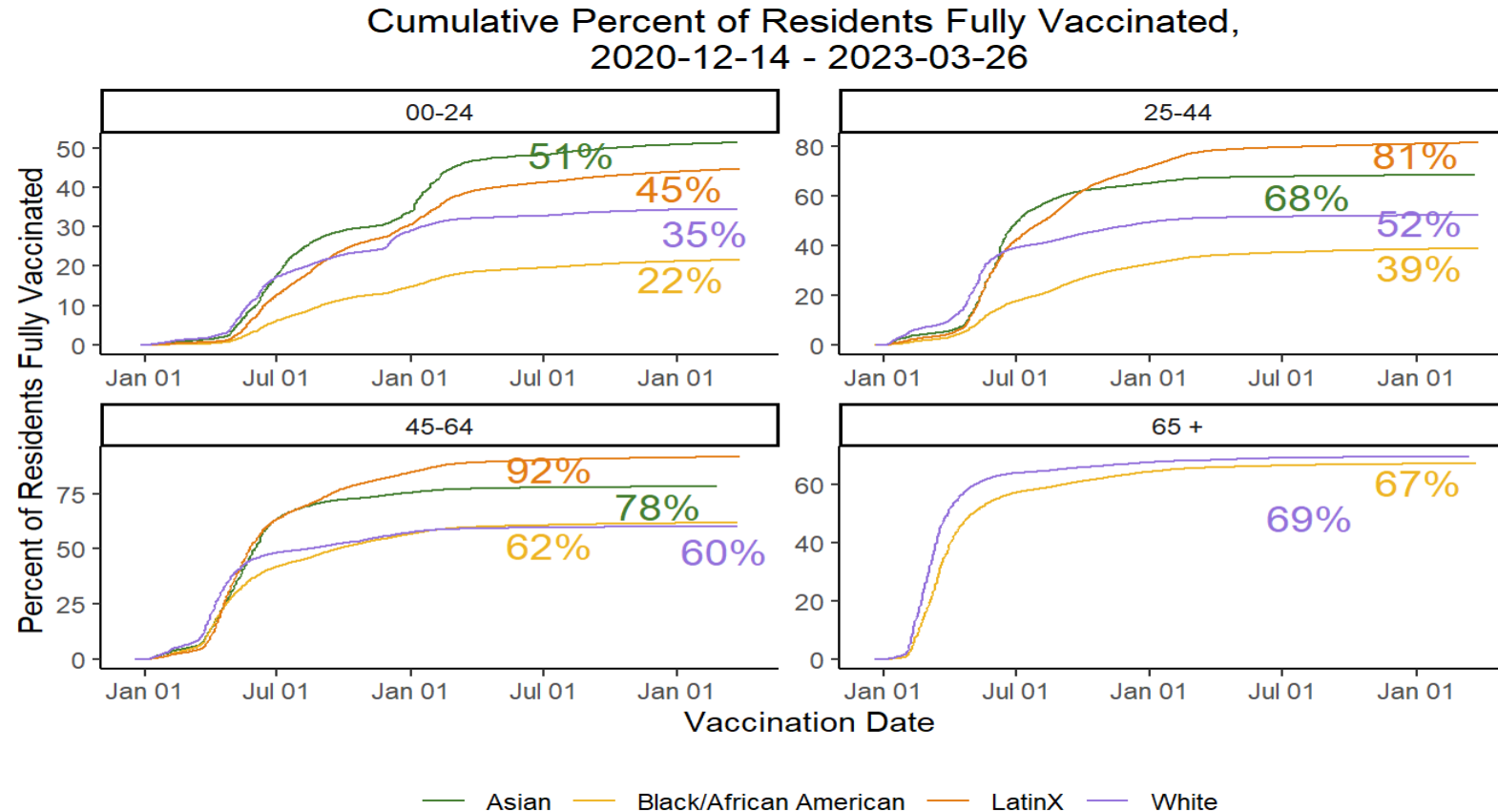
Statistical Trend

- Increase ($p < .05$)
- Marginally Significant Increase ($p \geq .05$ & $\leq .1$)
- Decrease ($p < .05$)
- Marginally Significant Decrease ($p \geq .05$ & $\leq .1$)
- Change Not Statistically Significant ($p > .1$)
- Flat

Cities -
 Row 1: Milwaukee: Milwaukee County, Wisconsin; NW of Detroit: Oakland County, Michigan; N of Detroit: Macomb County, Michigan; NE of Cleveland: Lake County, Ohio
 Row 2: Far W of Chicago: Kane County, Illinois; N of Chicago: Lake County, Illinois; Detroit: Wayne County, Michigan; Cleveland: Cuyahoga County, Ohio
 Row 3: W of Chicago: DuPage County, Illinois; Chicago: Cook County, Illinois; Toledo: Lucas County, Ohio; Akron: Summit County, Ohio
 Row 4: Indianapolis: Marion County, Indiana; Cincinnati: Hamilton County, Ohio; Dayton: Montgomery County, Ohio; Columbus: Franklin County, Ohio
 Row 5: Louisville: Jefferson County, Kentucky; Lexington: Fayette County, Kentucky

DR4553 Jennifer Zuker MCPHD EPI (epidemiology@marionhealth.org) 2023-03-16 Data Source: John Hopkins CSSE & IDH MPH

Percent of Marion County Population Fully Vaccinated by Age Group and Race/Ethnicity, Dec 14 2020 – Mar 26, 2023



DR4806 Jennifer Zuker MCPHD EPI (epidemiology@marionhealth.org)
2023-03-29 Data Source: CHIRP



Advocacy

Thank you



MARION COUNTY
PUBLIC
HEALTH
DEPARTMENT

Prevent. Promote. Protect.