



IU Richard M. Fairbanks School of Public Health

Defining Health Inequities: We can do Better!

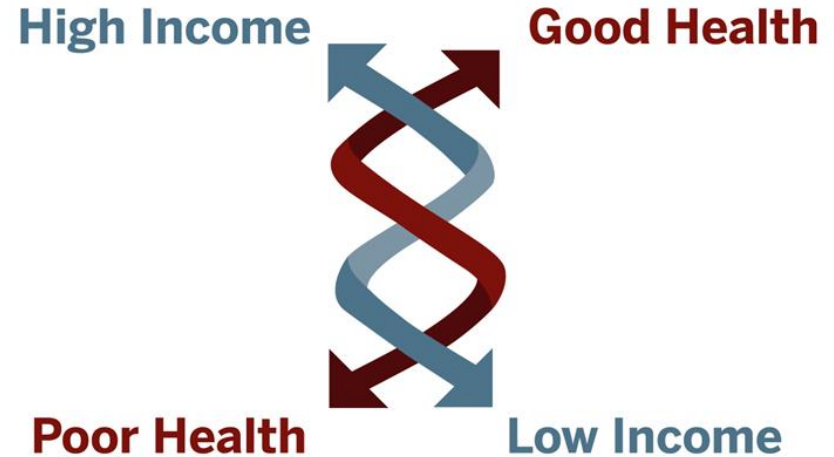
Paul Halverson, DrPH
Founding Dean and Professor

INDIANA UNIVERSITY INDIANAPOLIS

**Why does public health
matter?**

Health and Wealth

- Greater wealth is associated with better health outcomes.
- Larger gaps between rich and poor communities exasperate health disparities.
- Zip code is one of the most influential predictors of health and life expectancy.



Why the US is losing ground in health

>75% of US health spending is attributable to conditions that are largely preventable:

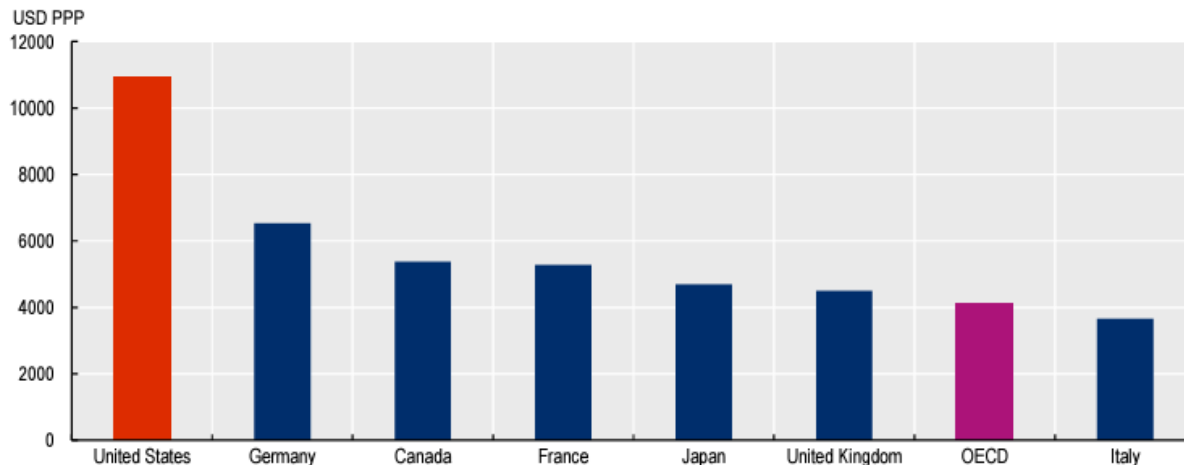
- Cardiovascular disease
- Diabetes
- Lung diseases
- Cancer
- Injuries
- Vaccine-preventable diseases and sexually transmitted infections

<5% of US health spending is allocated to prevention and public health



The US spends more per capita on health care than other Organization for Economic Cooperation and Development (OECD) countries.

Per capita health spending, 2019, adjusted for differences in purchasing power



Note: Data refer to health spending in 2019 (or latest available year).

Source: OECD Health Statistics 2021.



Although, this does not directly relate to higher health outcomes.

	Smoking		Alcohol		Overweight / obese		Ambient air pollution	
	Daily smokers (% population aged 15+)		Litres consumed per capita (population aged 15+)		Population with BMI ≥ 25 (% population aged 15+)		Deaths (per 100 000 population)	
OECD	16.5		8.7		56.4		29	
Canada	10.3	✓	8.0	⊙	59.8	⊙	10	✓
France	24.0	✗	11.4	⊙	49.0	⊙	20	⊙
Germany	18.8	⊙	10.6	⊙	60.0	⊙	32	⊙
Italy	18.6	⊙	7.7	⊙	46.4	⊙	41	⊙
Japan	16.7	⊙	7.1	⊙	27.2	✓	31	⊙
United Kingdom	15.8	⊙	9.7	⊙	64.2	⊙	21	⊙
United States	10.9	✓	8.9	⊙	73.1	✗	15	⊙

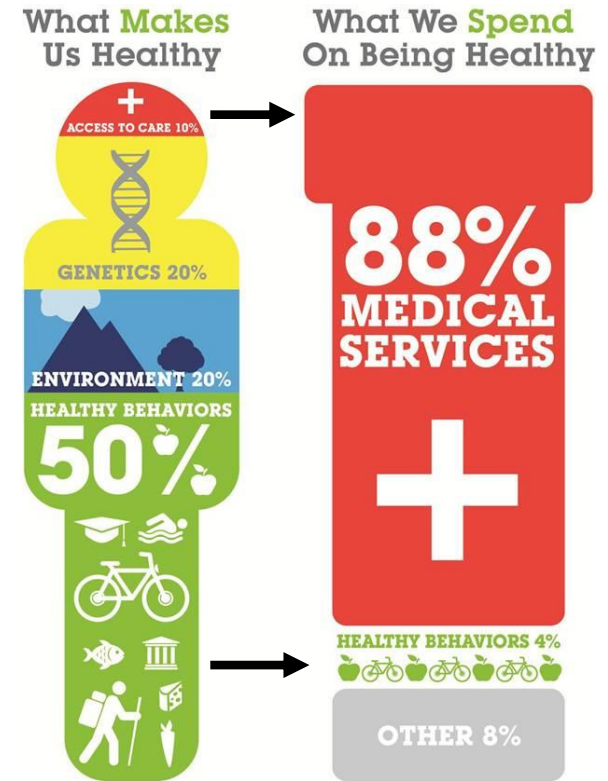
Note: ✓ Better than OECD average; ⊙ Close to OECD average; ✗ Worse than OECD average.

Source: OECD Health at a Glance 2021.



Public Health Spending

- Majority of the dollars spent toward health are spent on **medical services (88%)**
- Resources are often spent when an individual is **already sick**
- If health dollars are invested earlier, in the form of public health protections and the prevention of illness, they would extend further
- **3%** of national health expenditures are spent on governmental public health
- **Over 75%** of overall healthcare costs are attributable to preventable health conditions



Source: <https://bipartisanpolicy.org/report/what-makes-us-healthy-vs-what-we-spend-on-being-healthy/>



What does Public Health mean?

Public health is the science of protecting and improving the health of people and their communities. This work is achieved by promoting healthy lifestyles, researching disease and injury prevention, and detecting, preventing and responding to infectious diseases. Overall, public health is concerned with protecting the health of entire populations. These populations can be as small as a local neighborhood, or as big as an entire country or region of the world.

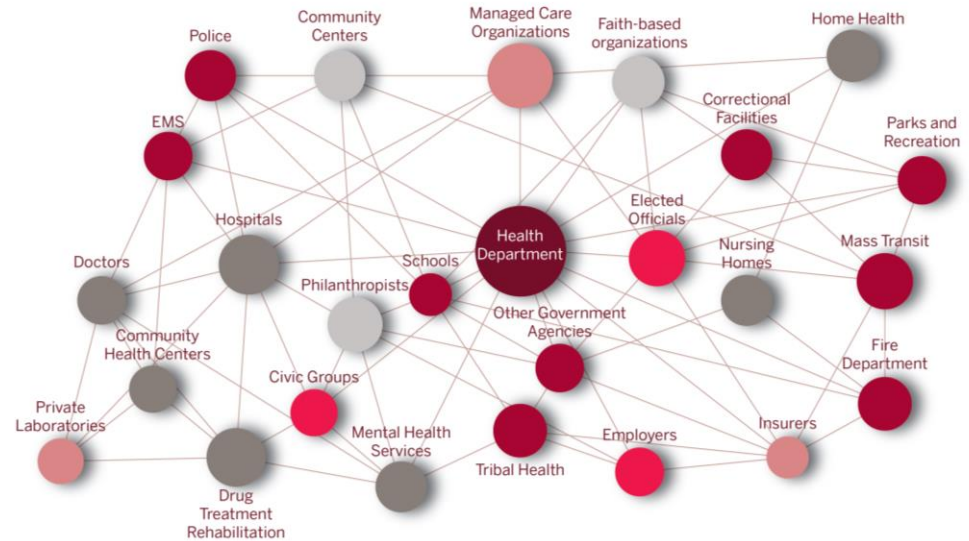
The health care industry treats people who are sick, while public health aims to prevent people from getting sick or injured in the first place.



The Public Health System

Public health agencies **connect and lead other community partners** in the effort to **promote and protect public health** and specifically address social determinants of health.

The Public Health System



10 Great Public Health Achievements

In the period of the 20th century, the US has gained an additional 30 years in life expectancy. Twenty-five of those 30 years are attributed to public health efforts, including the 10 great public health achievements.



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



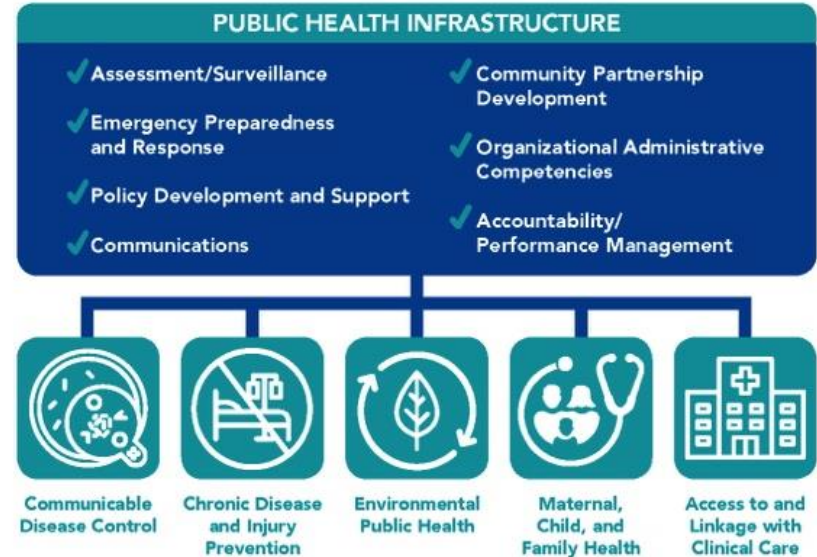
Workplace
Safety



Expectations of a functioning public health system

The **Foundational Public Health Services** are those services that have been **nationally recommended to be provided at the local level**.

These are particularly important because the **local level is where direct services are most provided to communities**.

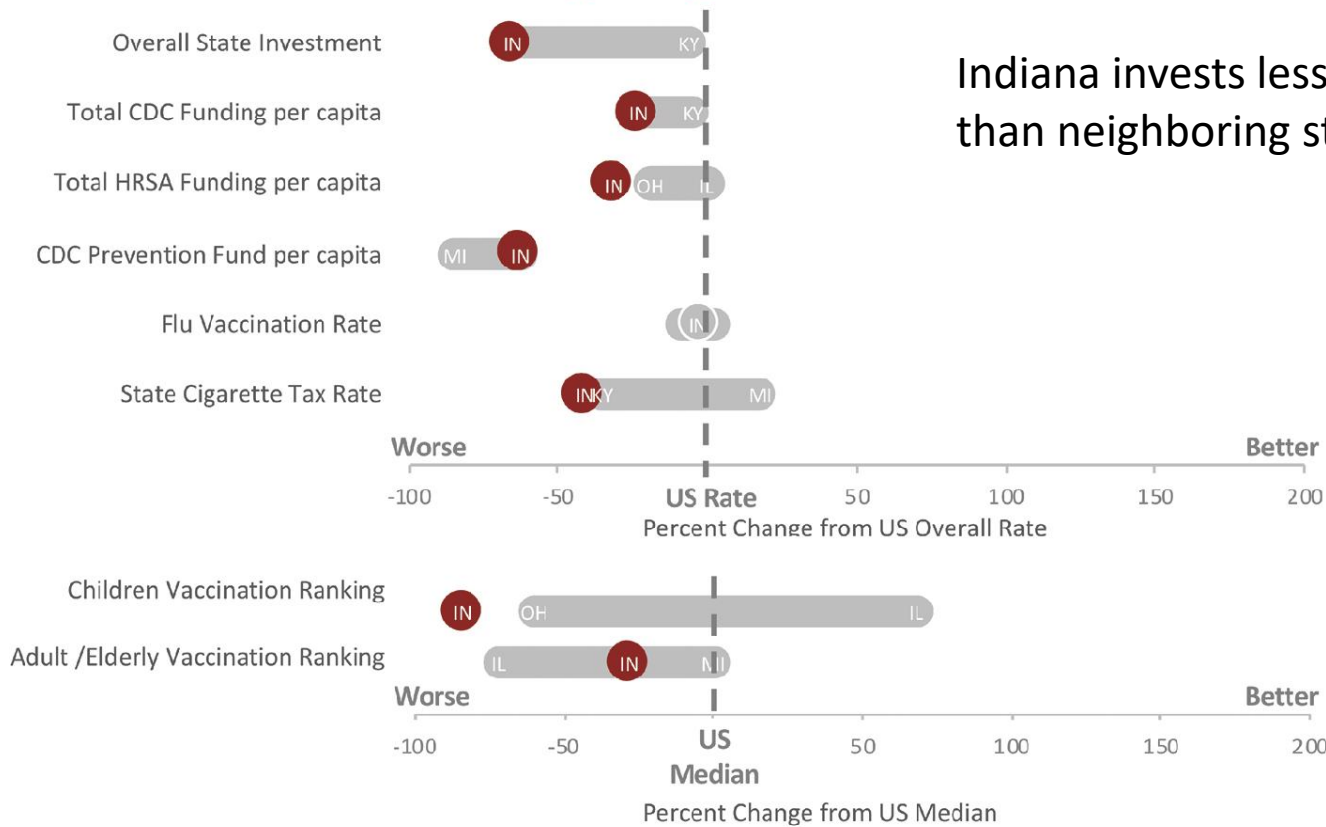


November 2018



Public Health Investment Across Neighboring States

Indiana invests less in public health than neighboring states



Gray bands represent range of comparison states as percent change from the US rate (dotted line). A **red dot** indicates Indiana is at least 10% worse than the US rate, an **orange dot** indicates 5% worse, and a **green dot** indicates 10% better than the rate of the US overall. A grey dot indicates that Indiana is not significantly different from the US rate.

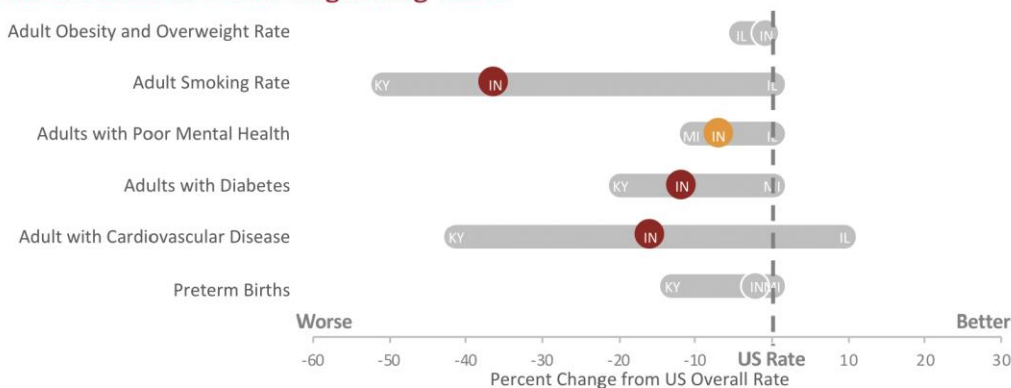


Indiana has one of the highest rates of adult smokers in the nation

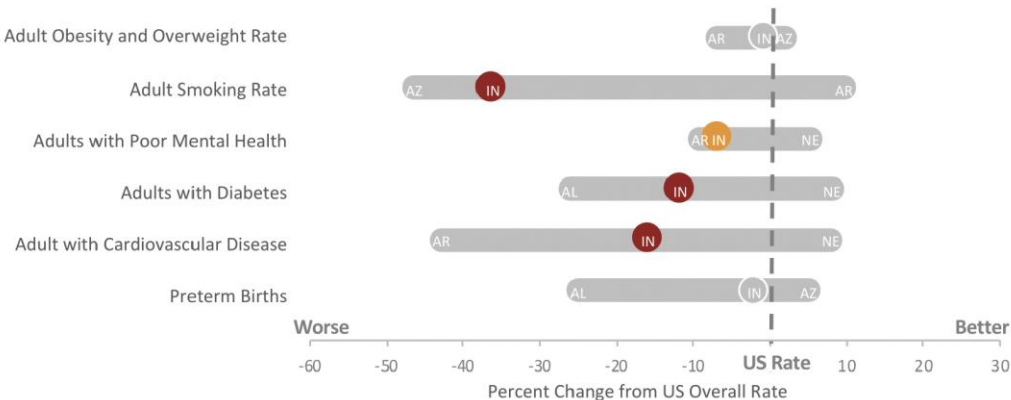
At least 10% below the US average for preventable mortality such as infant deaths, accident deaths, and alcohol, drug, and suicide deaths

Scores in the bottom tier nationally on public health preparedness

Health Conditions Across Neighboring States



Health Conditions across Companion States



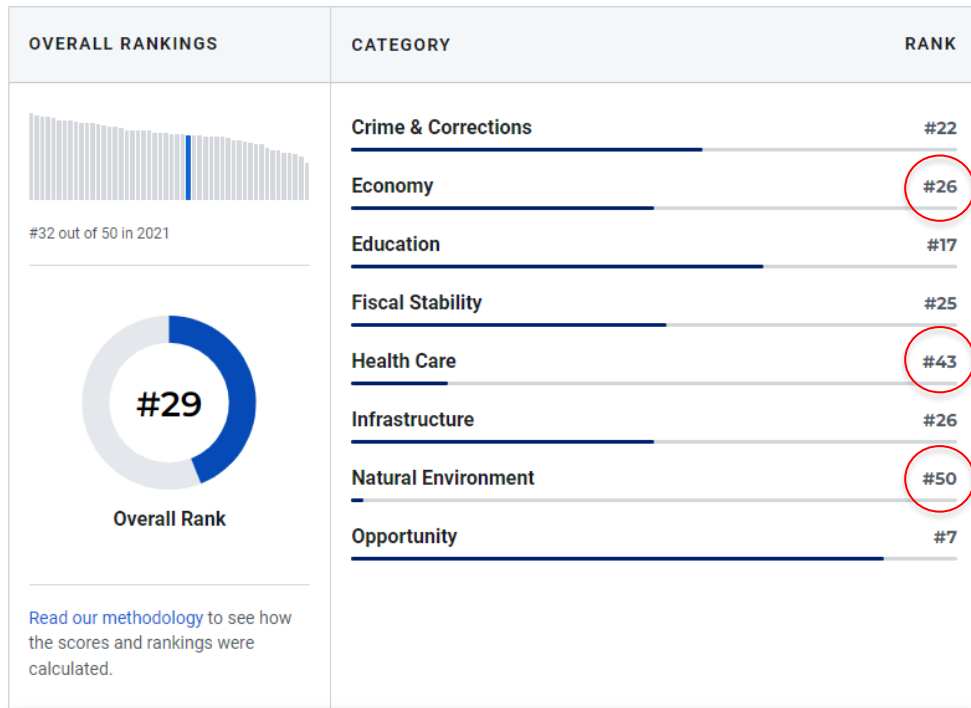
Gray bands represent range of comparison states as percent change from the US rate (dotted line). A **red dot** indicates Indiana is at least 10% worse than the US rate, an **orange dot** indicates 5% worse, and a **green dot** indicates 10% better than the rate of the US overall. A grey dot indicates that Indiana is not significantly different from the US rate.



Indiana's Health Rankings

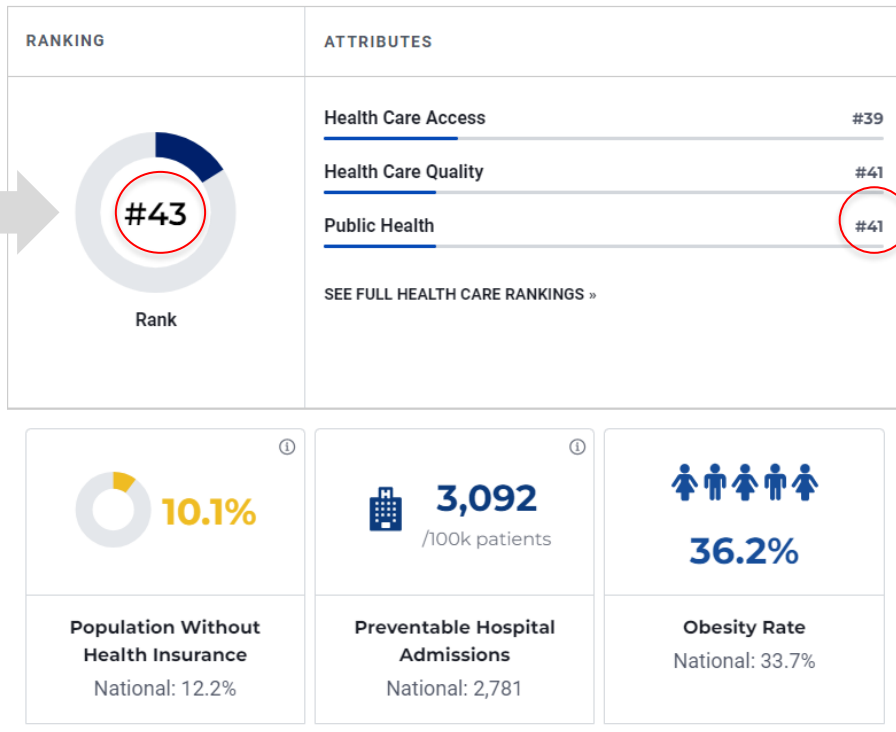
US News and World Report 2022

Indiana Rankings



US News and World Report 2022

Health Care



Indiana fell in our health care and public health rankings from 2021. In 2021, Indiana was ranked #32 for health care and #40 for public health.



America's Health Rankings, Overall Ranking: #35



Indiana is ranked:

- 45th in public health funding
- 43rd in mental health providers
- 37th in overall health outcomes
- 41st in smoking use
- 39th in mortality



Health Equity and Equality in Indiana

Top 10 Leading Causes of Death in Indiana

1. Heart Disease
2. Cancer
3. COVID-19
4. Accidents
5. Chronic Lower Respiratory Diseases
6. Stroke
7. Diabetes
8. Alzheimer's Disease
9. Kidney Disease
10. Chronic Liver Disease/Cirrhosis

Quick Facts- Health Indicators	Indiana
Adult Obesity	35%
Children < 3 Years Old Completing Recommended Vaccine Series	57.7%
Infant Mortality	6.8 per 1,000 live births
Life Expectancy	76.5 years old
Smoking Rate	21.0%
Suicide Rate	17.2 per 100,000 persons
Years of Potential Life Lost due to Injury (Age-Adjusted)	2527.14



Social Determinants of Health



Social Determinants of Health
Copyright-free

 Healthy People 2030

Examples of SDOHs include:

- Safe housing, transportation, and neighborhoods
- Racism, discrimination, and violence
- Education, job opportunities, and income
- Access to nutritious foods and physical activity opportunities
- Polluted air and water
- Language and literacy skills



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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

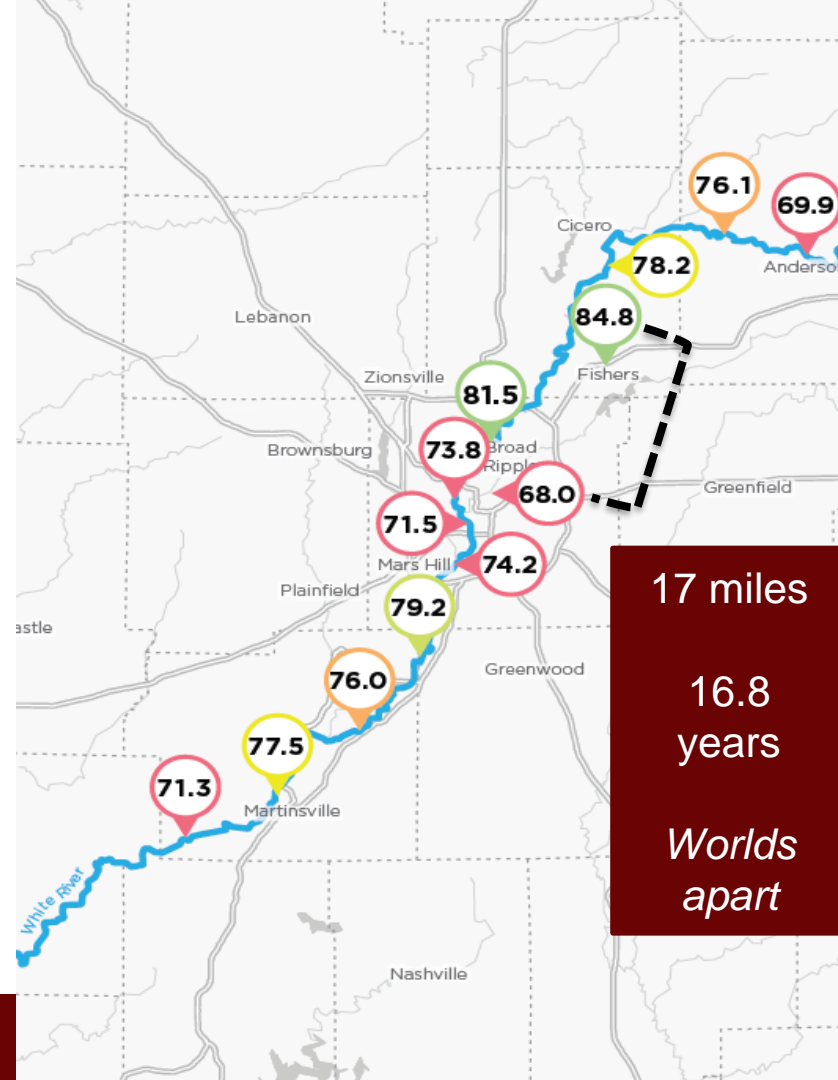


Life Expectancy

An FSPH study done in 2021 reviewed the life expectancy trend among the Indianapolis metro area as it was in “normal” times, prior to COVID-19. These findings from 2014 to 2018 were compared to the prior results from 2009-2013.

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.



Racism and residential segregation

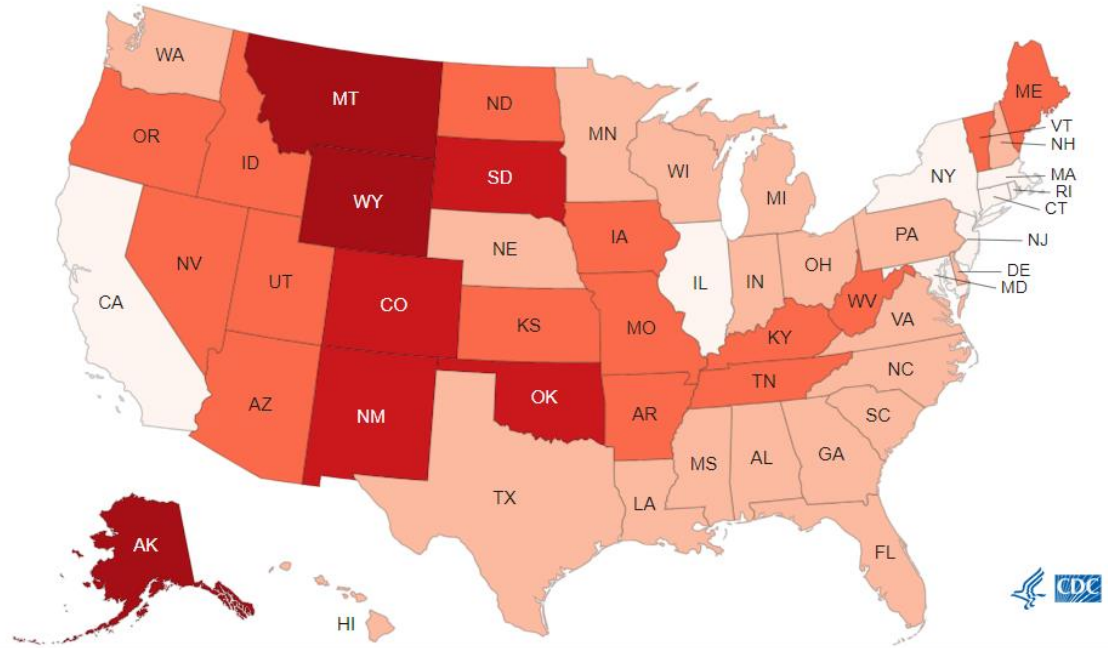
In a national study of the 500 largest cities, Indianapolis was among the most segregated group and the group with the widest life expectancy gap.

In that same study, Fishers was identified as the city with the lowest segregation and smallest life expectancy gap.



Suicide Mortality by State

Indiana's rate is 16.4 per 100,000 people, ranked at #26.



Food Insecurity

According to Gleaners Food Bank, which serves 21 counties throughout the state, many people who need food are assistance are middle-class families, the working poor, children, and the elderly.

Close to 1 million Hoosiers are in need of food assistance.

Hunger within their 21 County
Service Area:



258,810

Food Insecure People



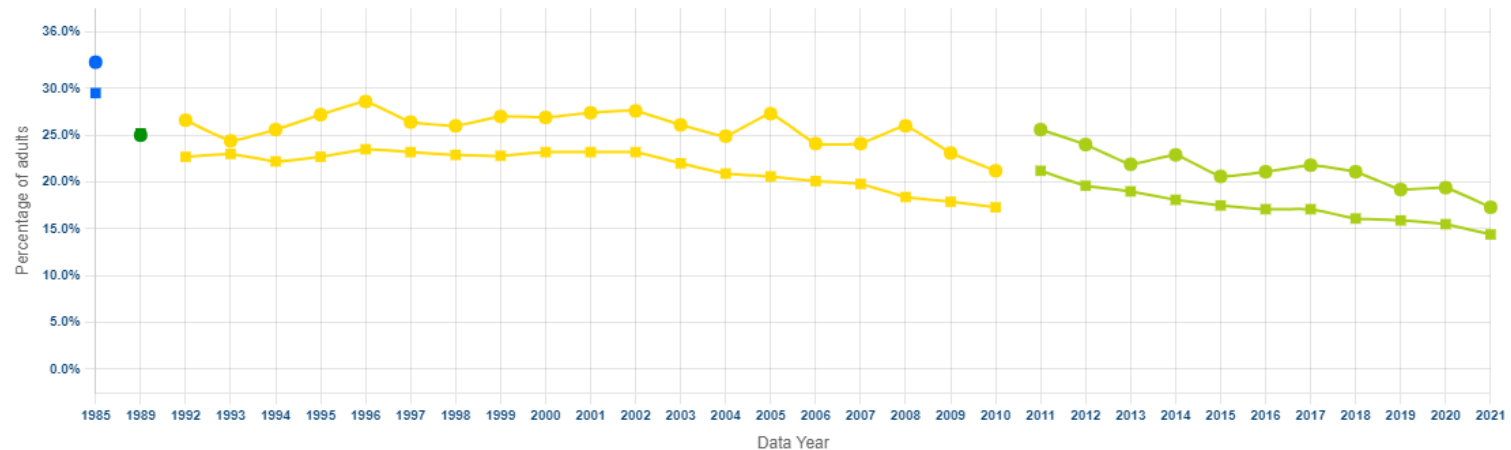
89,250

Food Insecure Children



Percentage of adults who reported smoking at least 100 cigarettes in their lifetime and currently smoke daily or some days

Indiana 2021 value was 17.3%, ranking at #41 out of 50 states.



● Indiana ■ United States

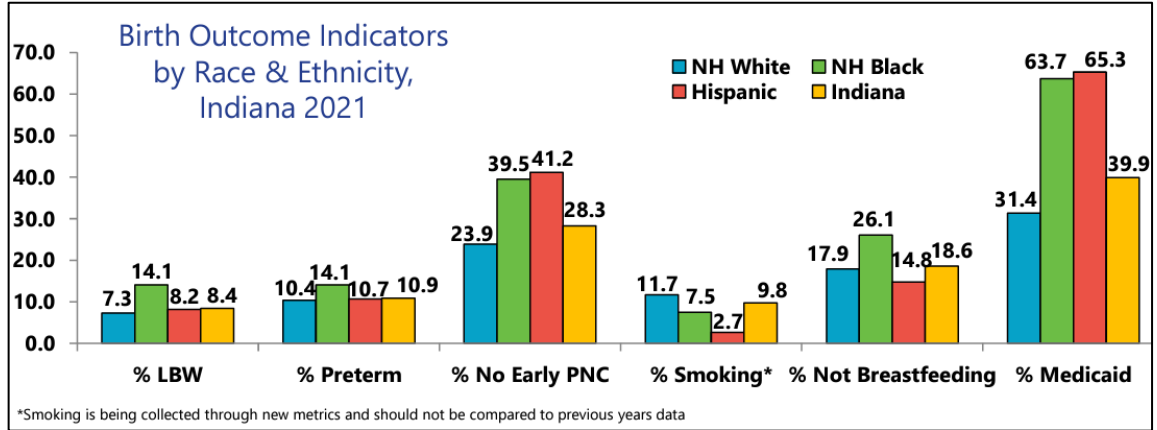
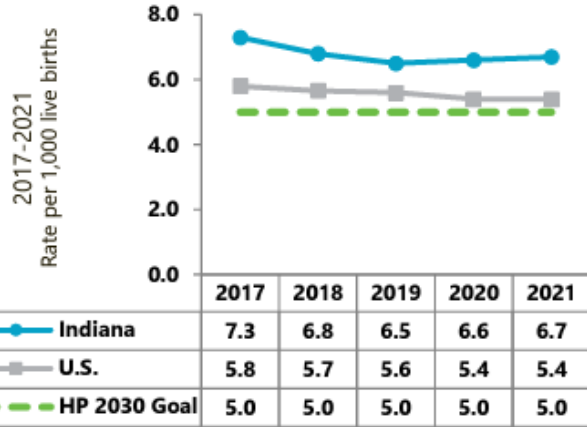
Sources:

- CDC, Behavioral Risk Factor Surveillance System
- Office of the Surgeon General, Department of Health and Human Services
- National Heart, Lung and Blood Institute, US Department of Health and Human Services



Infant Mortality and Outcomes 2021

Infant Mortality Rates

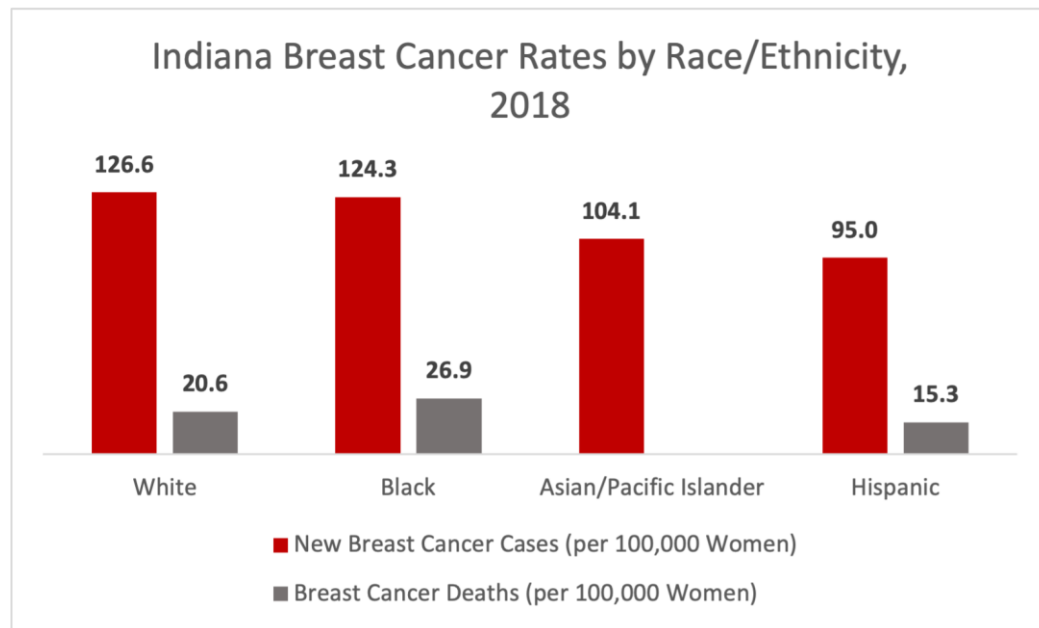


The top causes of infant mortality were

1. Perinatal Risks
2. Congenital Anomalies
3. SUIDs



Breast Cancer



*Data for Asian/Pacific Islander deaths are suppressed if counts are below 16.

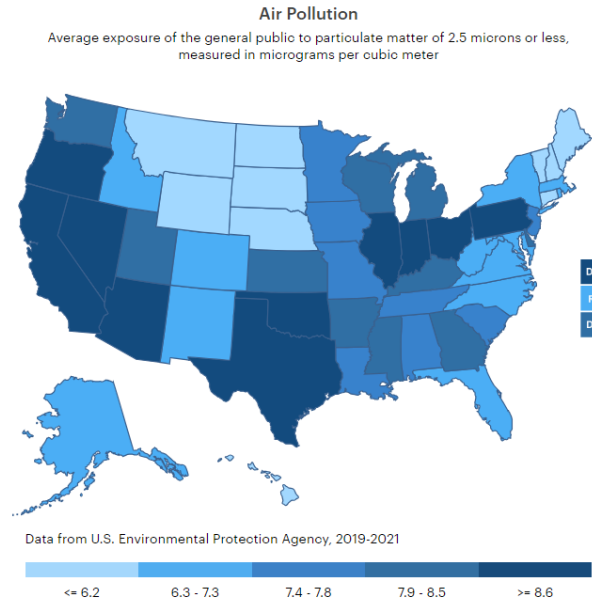
While White and Black Women are diagnosed with breast cancer at similar rates, the death rate is higher for Black women.

Black women are more likely than any other racial group to die from breast cancer.



Air Pollution

Indiana ranked at #46, with a value of 9.0, for air pollution in the 2022 America's Health Rankings report. The US average value is 7.8.



Top States	Rank	Value
Hawaii	1	3.8
New Hampshire	2	4.6
Wyoming	3	4.7
Vermont, North Dakota	4	5.0
Maine	6	5.1

Bottom States	Rank	Value
Indiana	46	9.0
Nevada	47	9.6
Illinois	48	9.8
Arizona	49	10.5
California	50	12.8

[View All States >](#)



BRFSS: Adults Who Reported Fair or Poor Health Status

Race/Ethnicity	Rate
White	19.2%
Black	24.6%
Hispanic	22.0%
Asian/Native Hawaiian or Pacific Islander	NSD
American Indian/Alaska Native	42.1%
Other	25.6%
All Adults	19.9%

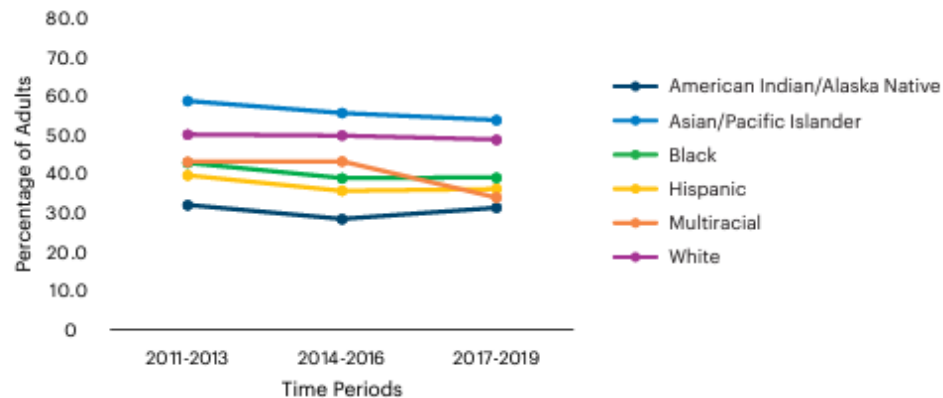
Data based on the Behavioral Risk Factor Surveillance System, an ongoing, state-based, random-digit-dialed telephone survey of non-institutionalized civilian adults aged 18 years and older. Information about the BRFSS is available at <http://www.cdc.gov/brfss/index.html>.



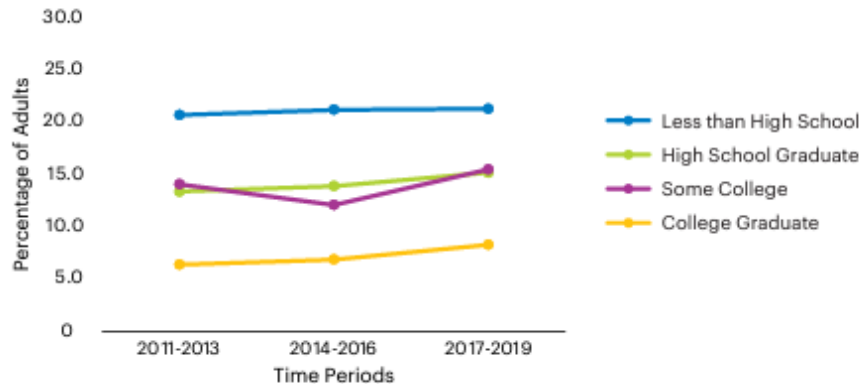
America's Health Ranking 2021 Health Disparities Report for Indiana

Trends

High Health Status by Race & Ethnicity



Frequent Mental Distress by Education



Governor Holcomb's Public Health Commission

The Commission

The Governor's Public Health Commission was established in August 2021 to examine the strengths and weaknesses of Indiana's public health system and make recommendations for improvements. The commission released its report in August 2022, with recommendations for six different areas of public health.

Commission Workstreams

The Commission's work was driven through the following six workstreams led by Designated Policy Advisors who conducted research, engaged experts and stakeholders, and developed draft recommendations for the Commission's consideration.

Workstream	Purpose
Emergency Preparedness	Analyze the State and local health departments' response to the COVID-19 pandemic; make recommendations for future improvements
Public Health Funding	Review public health funding sources, current levels, and suggestions for standardization
Governance, Infrastructure, and Services	Review public health governance and infrastructure, public health services delivered through LHDs, and shared services models
Workforce	Consider policies to support public health workforce planning and to identify and address workforce shortages
Data and Information Integration	Consider policies to improve the use and integration of public health data to better support public health programming and delivery
Child and Adolescent Health	Review opportunities to improve school-based health education, prevention, and wellness activities and improve access to child and adolescent health care

For the full report, please [click here](#)



Senate Enrolled Act 4

Health First Indiana transforms public health through a state and local partnership to deliver services at the county level.

This legislation passed by the 2023 Indiana General Assembly, provides funding starting in 2024 so counties can determine the health needs of their communities and implement evidence-based programs focused on prevention.

Counties decide whether to opt-in to the new funding and to provide the core public health services, including trauma and injury prevention, chronic disease prevention, maternal and child health and more.



Participating Counties Must Follow the KPIs

Key Performance Indicators (KPIs) For Core Public Health Services

At least 60% of funding must be spent for preventive core services addressed by these KPIs:



Infectious disease prevention and control



Vital records



Tobacco and Vaping Prevention and Cessation



Student health



Fatality review (child, suicide, overdose)



Maternal and child health



Testing/counseling for HIV, HCV, STI



TB prevention and case management



Emergency preparedness



Referrals to clinical care



Chronic disease prevention and reduction



Childhood lead screenings and case management



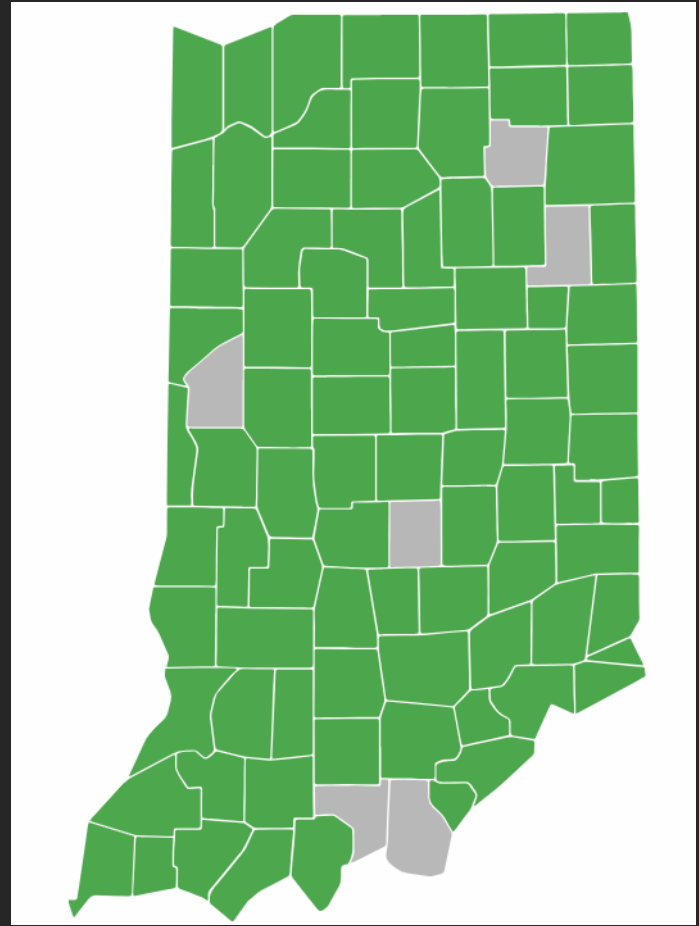
Trauma and injury prevention and education



Child and adult immunizations



Participating Counties



Questions?



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