

Data and Drafts

Where You Live Matters: Exploring Community Health and Risk Factors in Central Indiana



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The Polis Center analyzed community health and risk factors in Central Indiana

Background

Where you live matters. It's more than just a place – it's a reflection of your culture, community, and identity. Your environment significantly influences your long-term health, with social determinants of health (SDOH) accounting for a large portion of it.



What Are Socio-Economic Factors?



**NEIGHBORHOOD AND
BUILT ENVIRONMENT**



**SOCIAL AND COMMUNITY
CONTEXT**



SOCIAL DETERMINANTS OF HEALTH



**HEALTH CARE
AND QUALITY**



**EDUCATION ACCESS
AND QUALITY**



**ECONOMIC
STABILITY**

These factors account for 80-90% of health outcomes, while clinical care contributes to only 10-20%

<https://www.chenmed.com/blog/how-do-social-determinants-health-affect-care-outcomes>

Why Does this Matter?

Disparities in SDOH create stark differences in life expectancy by shaping access to essential resources such as safe housing, quality education, job opportunities, and nutritious food. Communities with limited access to these necessities face higher risks of chronic illnesses and lower life expectancy

This report explores the following:

- Examine health in neighborhoods in Central Indiana by exploring the spatial pattern of selected health outcomes and risk factors utilizing publicly available datasets and online data visualization tools.
- Identify neighborhoods with poor health outcomes and high risk (scores in the bottom 20%) based on selected health and wellbeing indicators.



Methodology

Data and Method

This report defines Central Indiana as a combination of eleven counties: Boone, Brown, Hamilton, Hancock, Hendricks, Johnson, Marion, Madison, Morgan, Putnam, and Shelby.

We have developed a series of visualizations to compare health outcomes and risk factors across counties in Central Indiana.

Additionally, we identified the bottom 20% of tracts, highlighting communities that may require targeted interventions to improve health equity.



- ACS 5-Year Estimates
- CDC Wonder and CDC Places
- SAVI Community Information System
- County Health Rankings



Indicators of Health Outcomes and Risk Factors

Health Outcomes (9):

- Cancer
- COPD
- Stroke
- Heart Diseases
- High Blood Pressure
- Diabetes
- Asthma
- Poor Mental Health Days
- Poor Physical Health Days

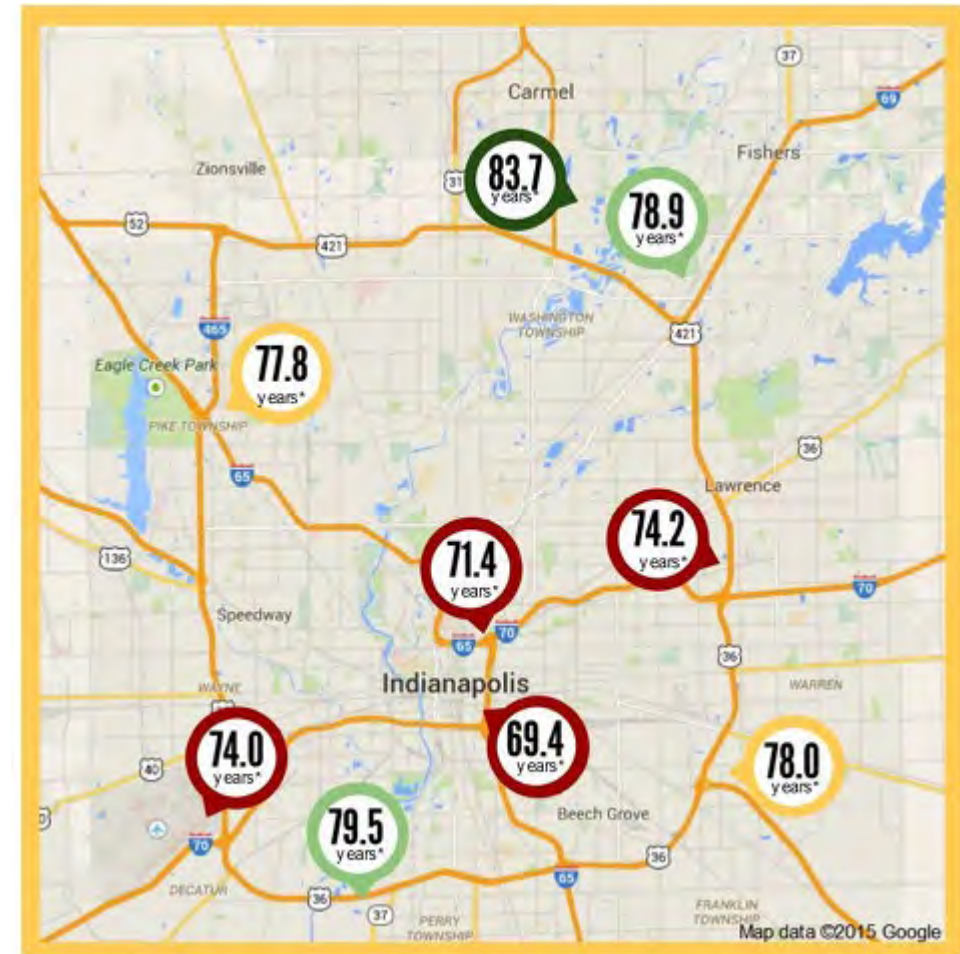
Health Risk Factors (10):

- Below Poverty
- Median Household Income
- Less than High School Diploma
- Smoking
- Lack of Emotional Support
- Not Having Enough Food
- Housing Cost Burden
- Obesity
- No leisure time Activity
- Lack of Health Insurance

Other Indicators: Life Expectancy at Birth, Major Causes of Deaths, Percent of Population Enrolled in Medicaid, Primary Care Physician, Dentist and Mental Health Providers Ratio.

Gaps in Life Expectancy in the Indianapolis Metro Area

A 2015 SAVI article, *Gaps in Life Expectancy in the Indianapolis Metro Area*, illustrates this stark contrast: despite being only 28 miles apart, a northeastern suburb of Indianapolis has a life expectancy of 83.7 years, while a community in the urban core just south of Monument Circle has only 69.4 years.

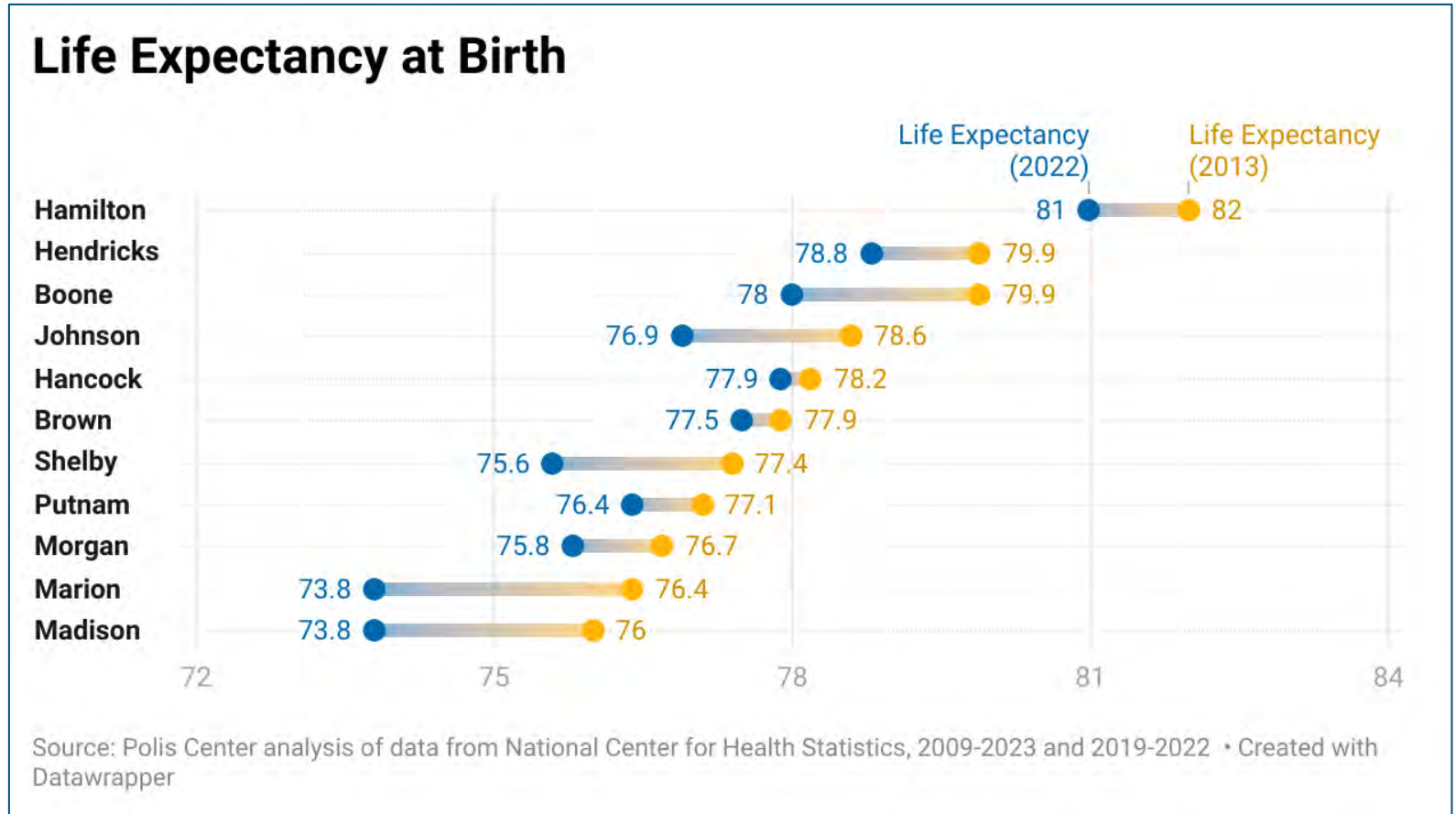


28 miles, 14 years...and worlds apart. Why?

Comparison of Life Expectancy at Birth (2013-2022)

Every county listed has seen a drop in life expectancy from 2013 to 2022, with Marion (-2.6 years) and Madison (-2.2 years) experiencing the largest declines.

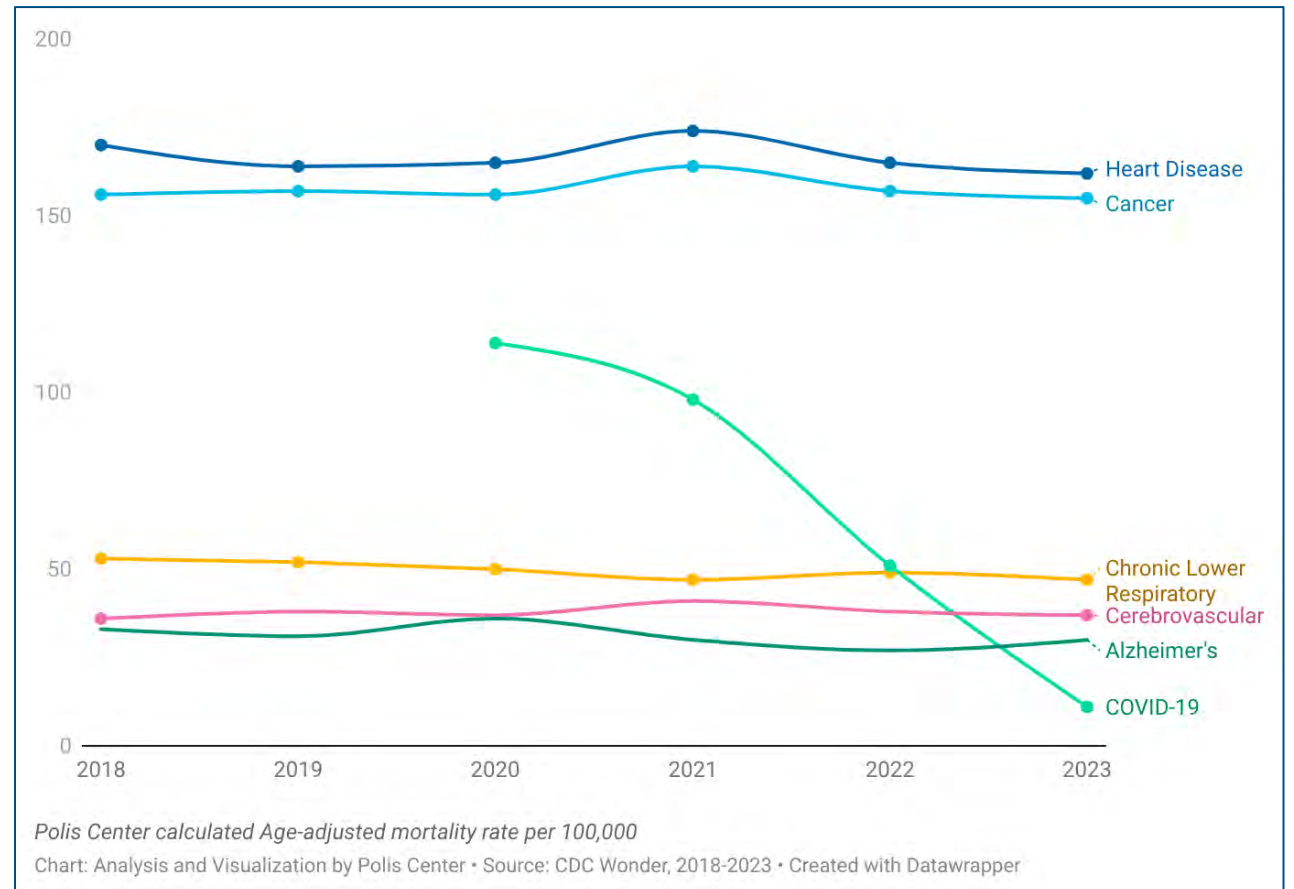
COVID-19 and existing socio-economic disparities may have contributed to declines.



Top Causes of Death

Despite the temporary shift during COVID-19, heart disease and cancer remained the leading causes of death even during the height of the pandemic, underscoring their persistent public health burden.

The leading causes of death in Central Indiana closely mirror national trends, with heart disease and cancer consistently ranking as the top two.



Top causes of death in the eleven-county region (Central Indiana)

Although heart disease and cancer are the leading causes of death, their rate varies across counties.

Hendricks has higher mortality from Alzheimer's than Stroke.

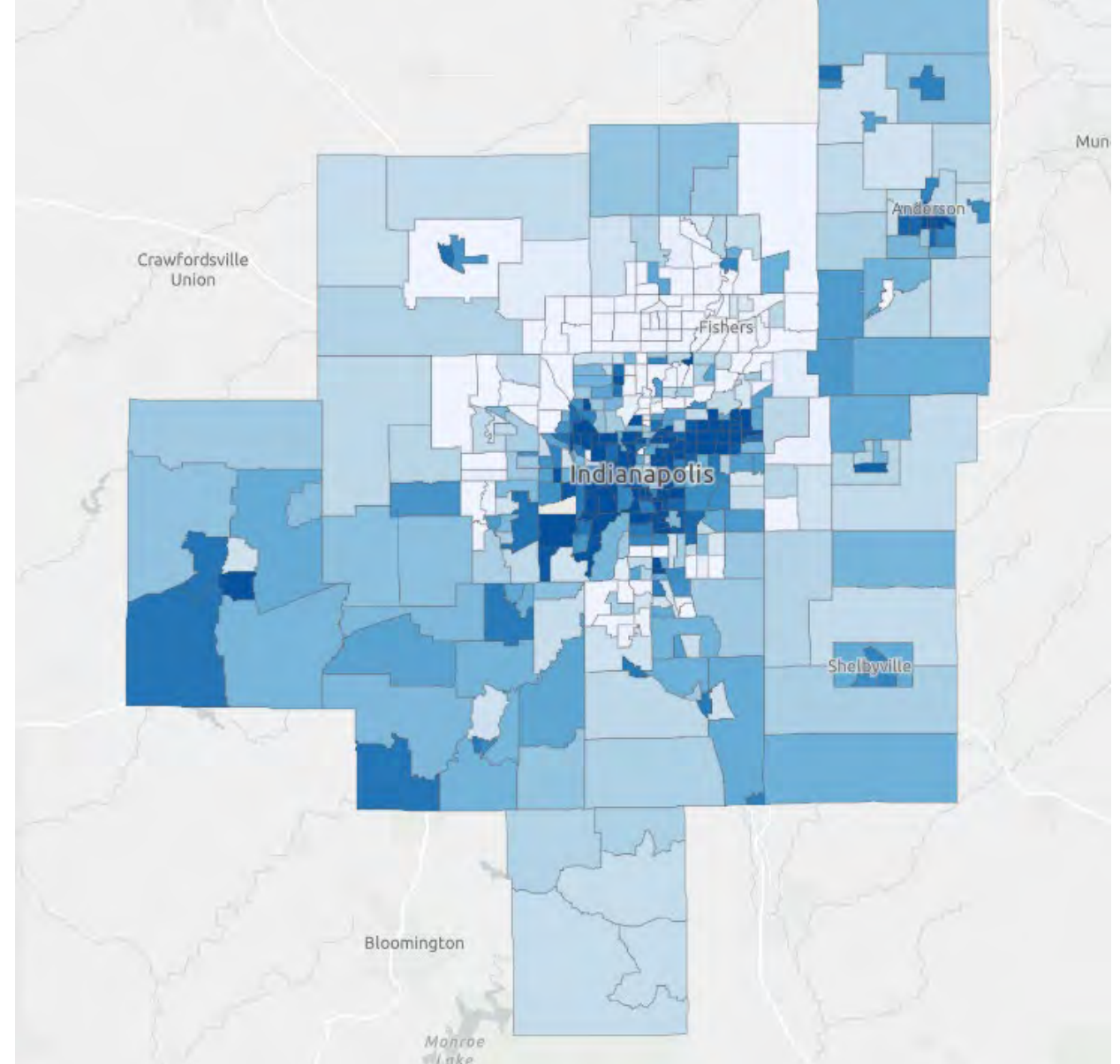
County	Heart Disease	Cancer	Chronic Lower Respiratory Disease	Stroke	Alzheimer's disease	COVID-19
Boone	159	147	40		28	44
Brown	136	145				
Hamilton	120	121	31	31	27	34
Hancock	140	149	55	39	24	46
Hendricks	147	139	40	30	36	47
Johnson	184	156	49	38	38	55
Madison	182	170	69	46	41	70
Marion	180	170	53	41	28	60
Morgan	187	173	50	39		56
Putnam	190	177	59			
Shelby	137	167	50		36	

*Cells with more than 15% suppression from the source provider are not displayed in this chart.

Table: Analysis and Visualization by Polis Center • Source: Polis Center calculated Age-adjusted mortality rate (per 100,000) based on the data from CDC Wonder, 2019-2023 • Created with Datawrapper

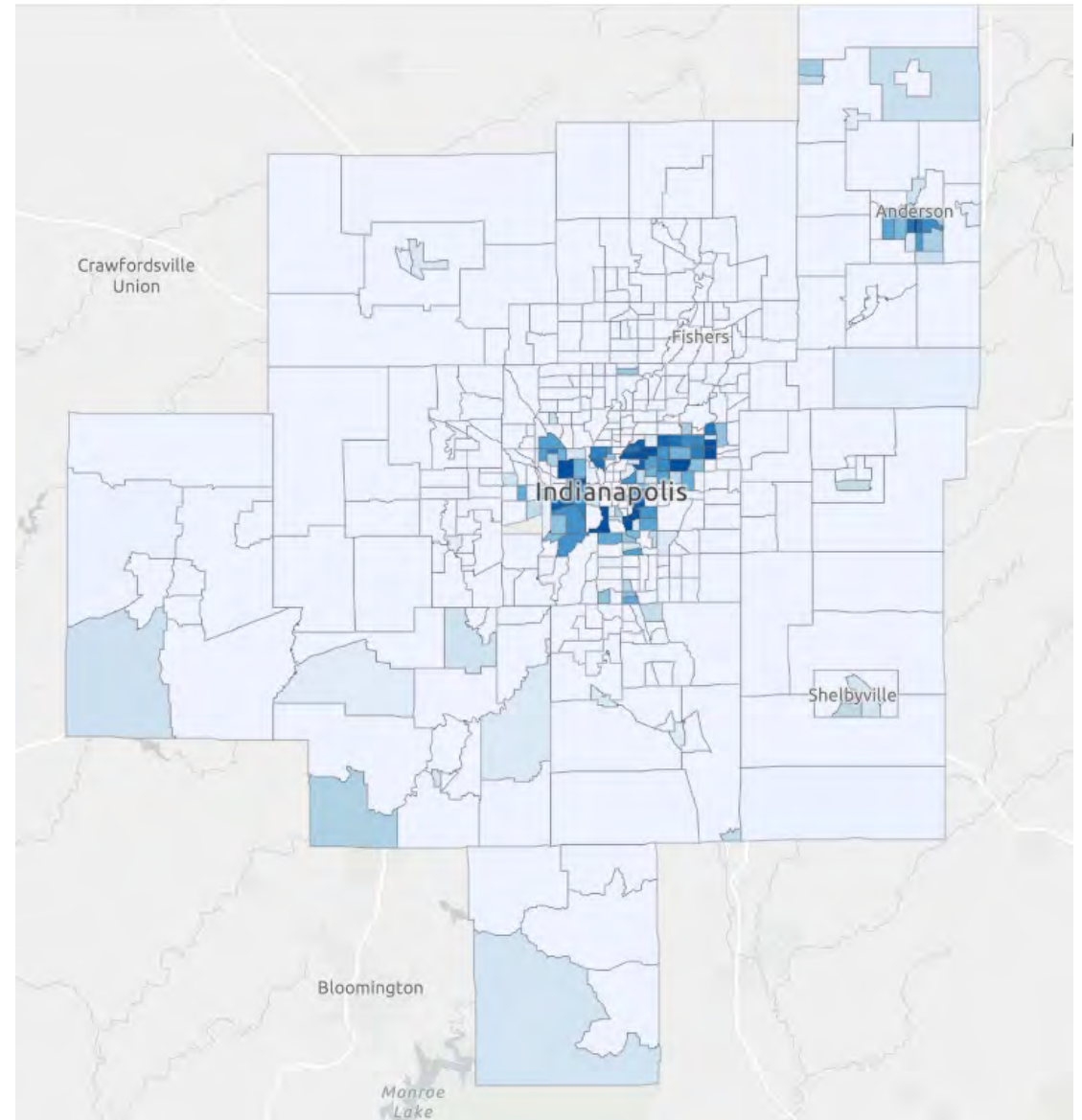
Adults Reporting Poor Mental Health Days (Central Indiana)

Poor mental health affects cognitive functions and the ability to build and maintain meaningful relationships, influencing overall life satisfaction.



Adults Reporting Poor Physical Health Days (Central Indiana)

Good physical health enhances energy levels and lowers the risk of severe illnesses, while poor physical health can limit mobility, independence, and overall well-being.



Healthcare providers per 100,000 population

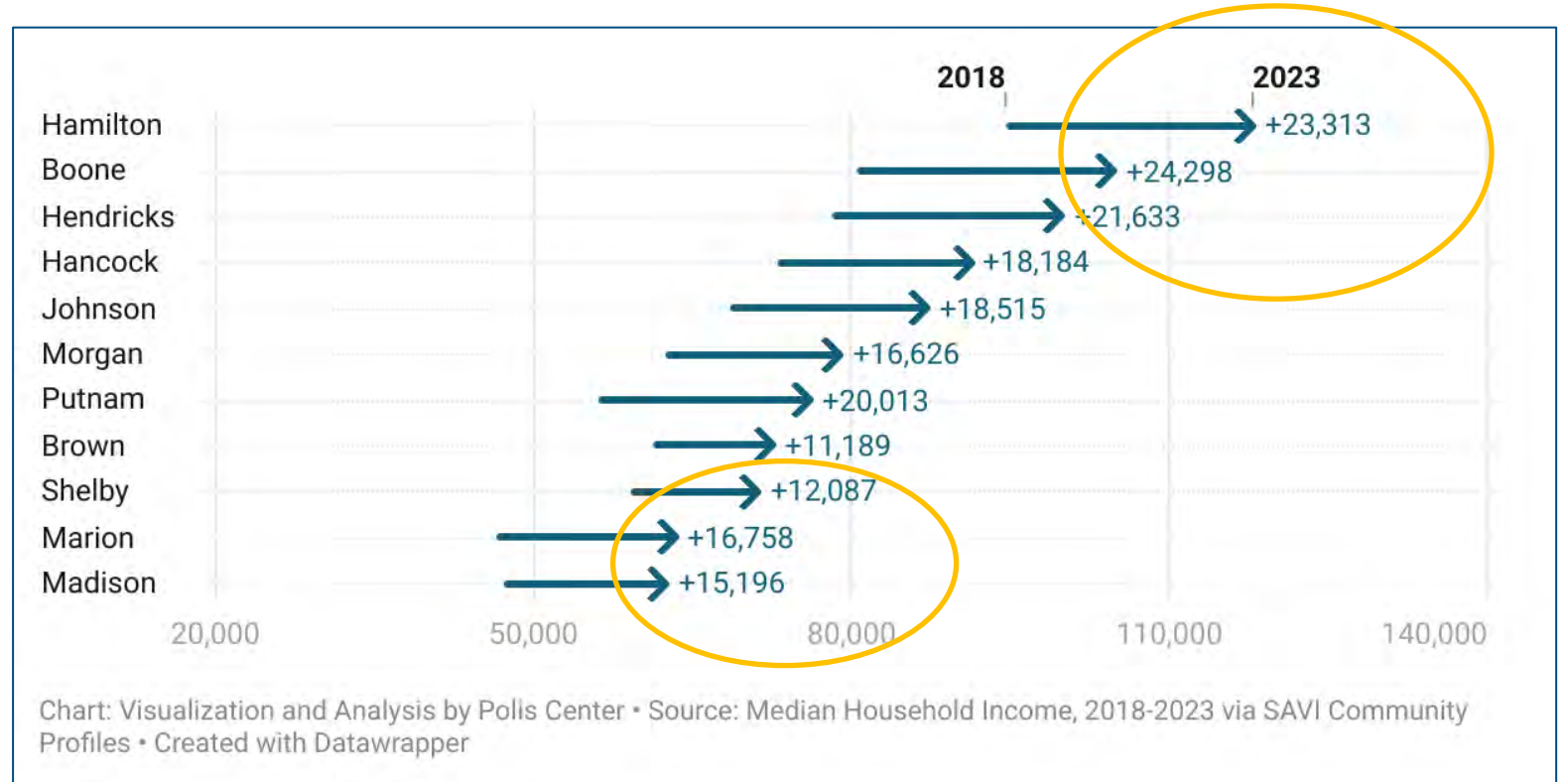
Boone County has the highest rate for PCP, and Marion County has the highest rate for mental health providers and dentists.

County	Primary Care Physicians Rate	Dentists Rate	Mental Health Providers Rate
Boone	211	49	144
Hamilton	139	74	185
Hancock	83	34	113
Johnson	80	68	127
Marion	78	94	365
Hendricks	49	47	130
Madison	48	56	151
Morgan	40	47	90
Shelby	36	38	111
Brown	32	6	90
Putnam	32	46	102

Table: Visualizations by Polis Center • Source: CMS, National Provider Identification, 2023 and Area Health Resource File/American Medical Association, 2022 • Created with Datawrapper

Median Household Income (2018-2023)

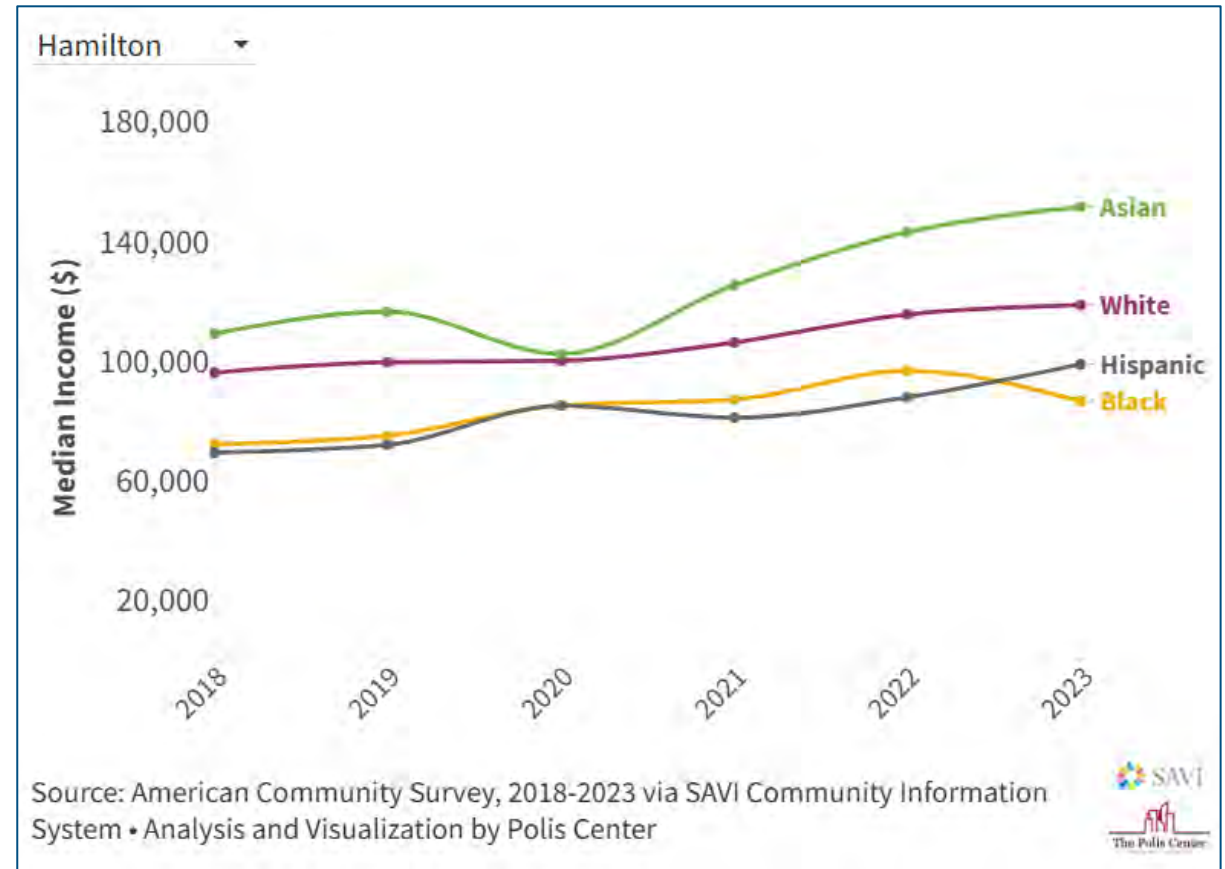
Higher-income counties such as Hamilton, Boone, and Hendricks experienced the largest increase, while the lowest-income counties (i.e., Marion and Madison) experienced the smallest increase.



Median Household Income by Race (2018-2023)

Over the past year, median income has generally increased across most counties in Central Indiana. However, income levels vary by race/ethnicity, with Asian and White households typically earning more than Black and Hispanic households.

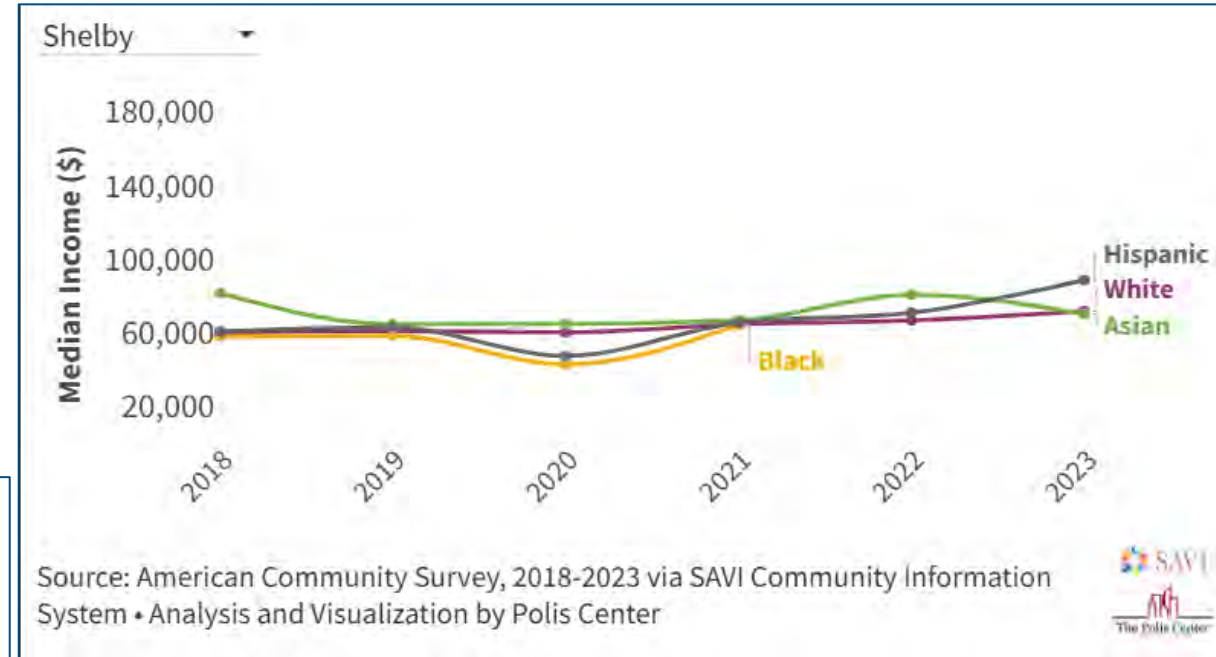
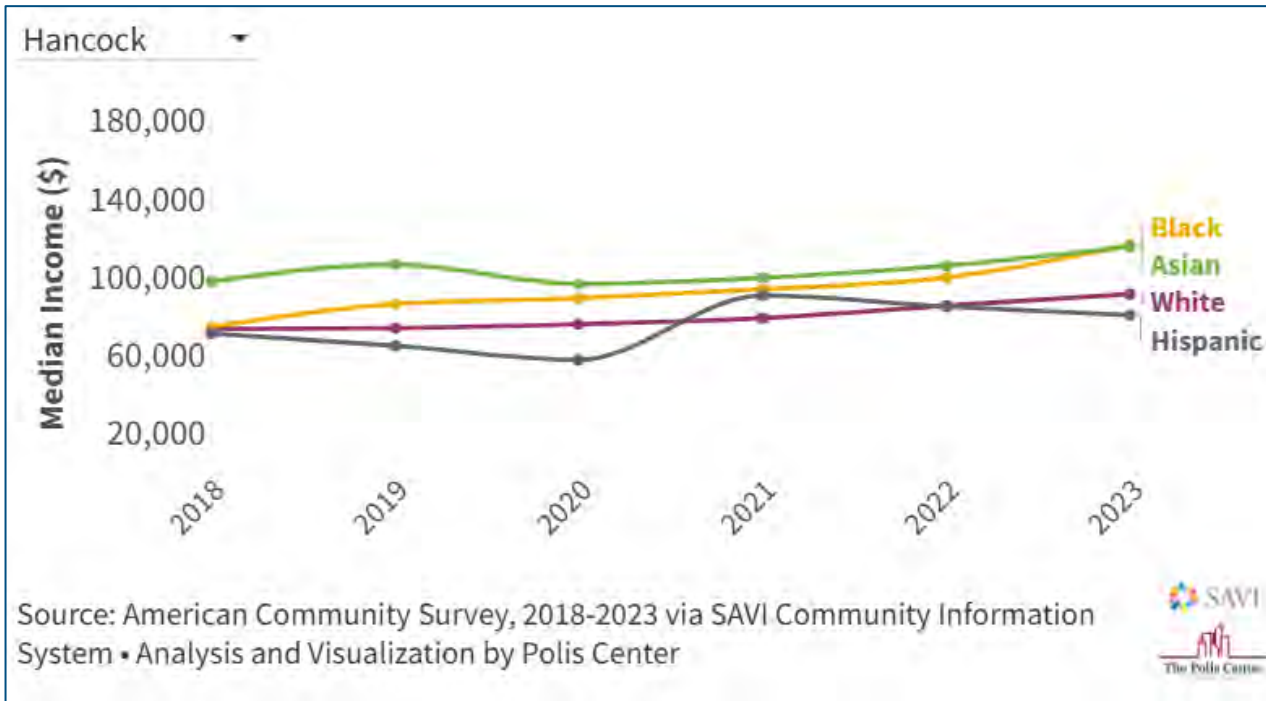
Hamilton County exhibited the largest Black-White income gap (\$32,219)



Median Household Income by Race (2018-2023)

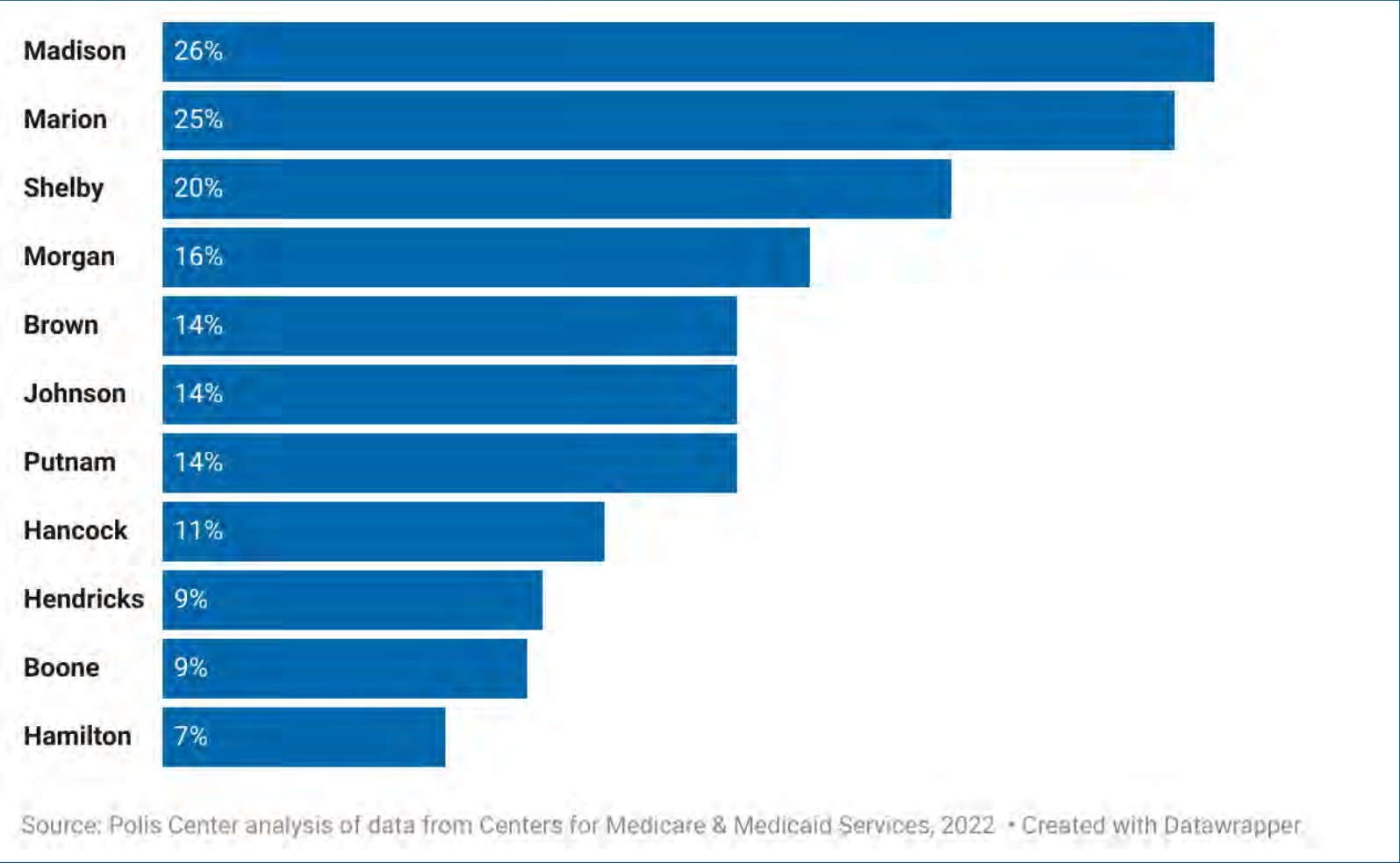
cont.

In recent years, Black residents in Hancock County and Hispanic residents in Shelby and Madison counties have had higher incomes compared to other racial groups.



Share of Population Receiving Medicaid

One-fourth of Madison and Marion County residents are on Medicaid, and one-fifth of Shelby County.



Example of Bottom 20% Tract Calculation.

Selection of Indicators – We identified nine key health outcomes, and ten socio-economic and environmental risk factors.

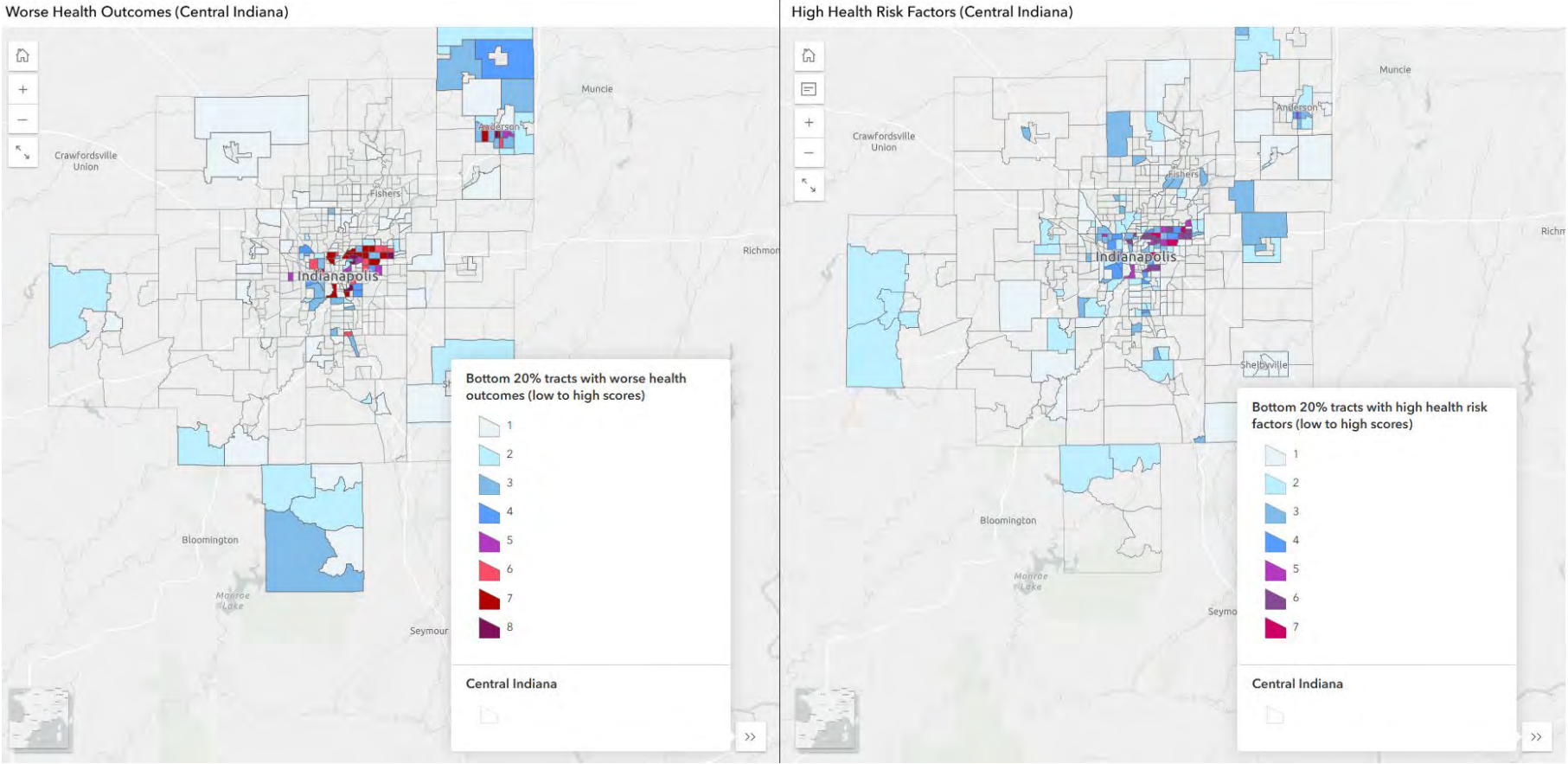
Data Processing and Scoring – We created two separate rankings based on a total of health outcomes (out of 9) and risk factors (out of 10).

Each census tract was assigned a binary value (1 or 0) for every indicator. For example, tracts in the bottom 20% for a given risk factor, such as poverty rate, received a score of 1, while all others received a score of 0.

GEO LABEL	Poverty	Poverty_ Ranking	Income	Income_ Ranking	Combined _Scores
Tract 18097355100	54%	1	16597	1	6
Tract 18097360302	50%	1	27845	1	7
Tract 18097350300	50%	1	27844	1	4
Tract 18097330806	49%	1	33138	0	3
Tract 18097353500	48%	1	36858	0	2
Tract 18097391001	48%	1	51205	0	1
Tract 18097358000	48%	1	38438	0	3

Bottom 20% Tracts with Worse Health Outcome and High Health Risk Factors

Out of 475 census tracts in Central Indiana, 148 score in the worst 20% for at least one of the nine health outcomes, while 200 tracts score in the worst 20% for at least one of the ten health risk factors.



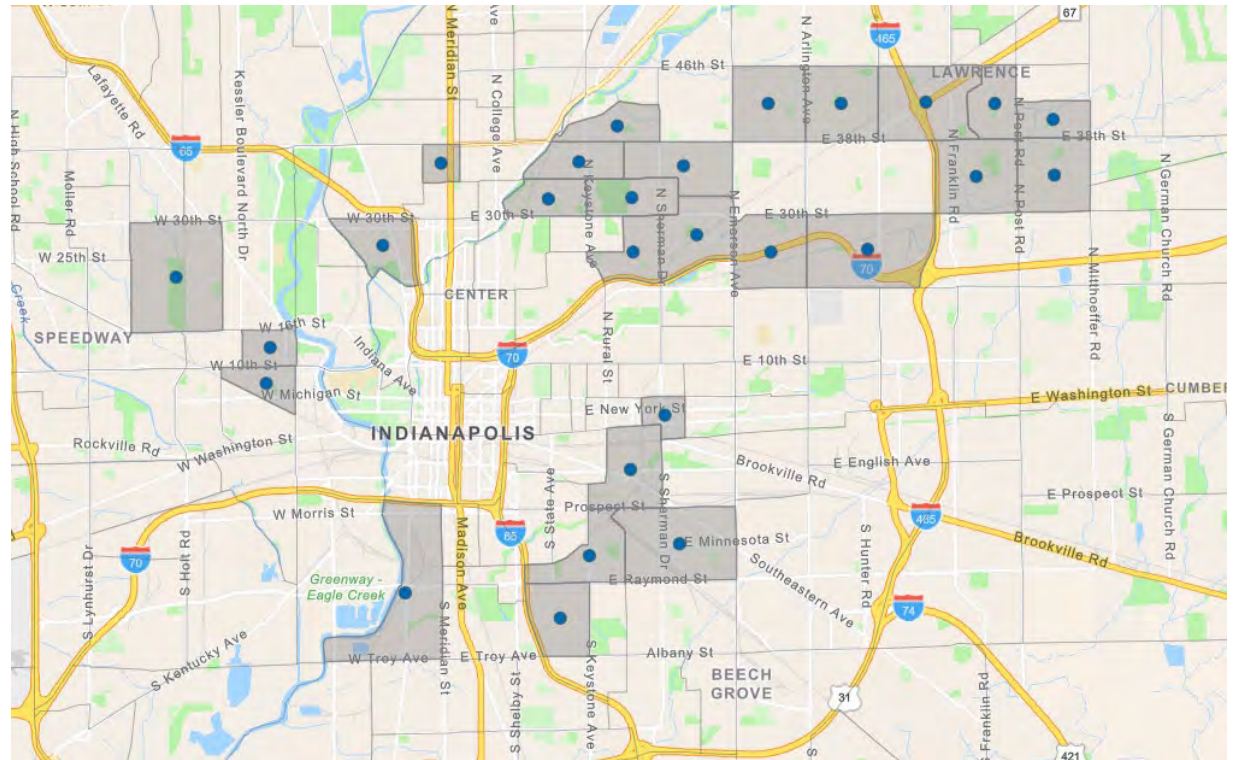
Narrowing the Most Vulnerable Areas (Marion)

Indianapolis (27 tracts)

Location of high-risk/worse outcomes tracts:

- **Near Eastside** (Brightwood, Martindale-Brightwood, Brookside, Englewood)
- **Near Westside** (Haughville, Hawthorne, Stringtown, Riverside)
- **Far Eastside** (Cumberland, Warren Township, Lawrence Township)
- **Southside** (Fountain Square, Garfield Park, Bean Creek)

The analysis identifies 31 census tracts in Central Indiana with a score of 4 or higher in both poor health outcomes and high health risk factors.



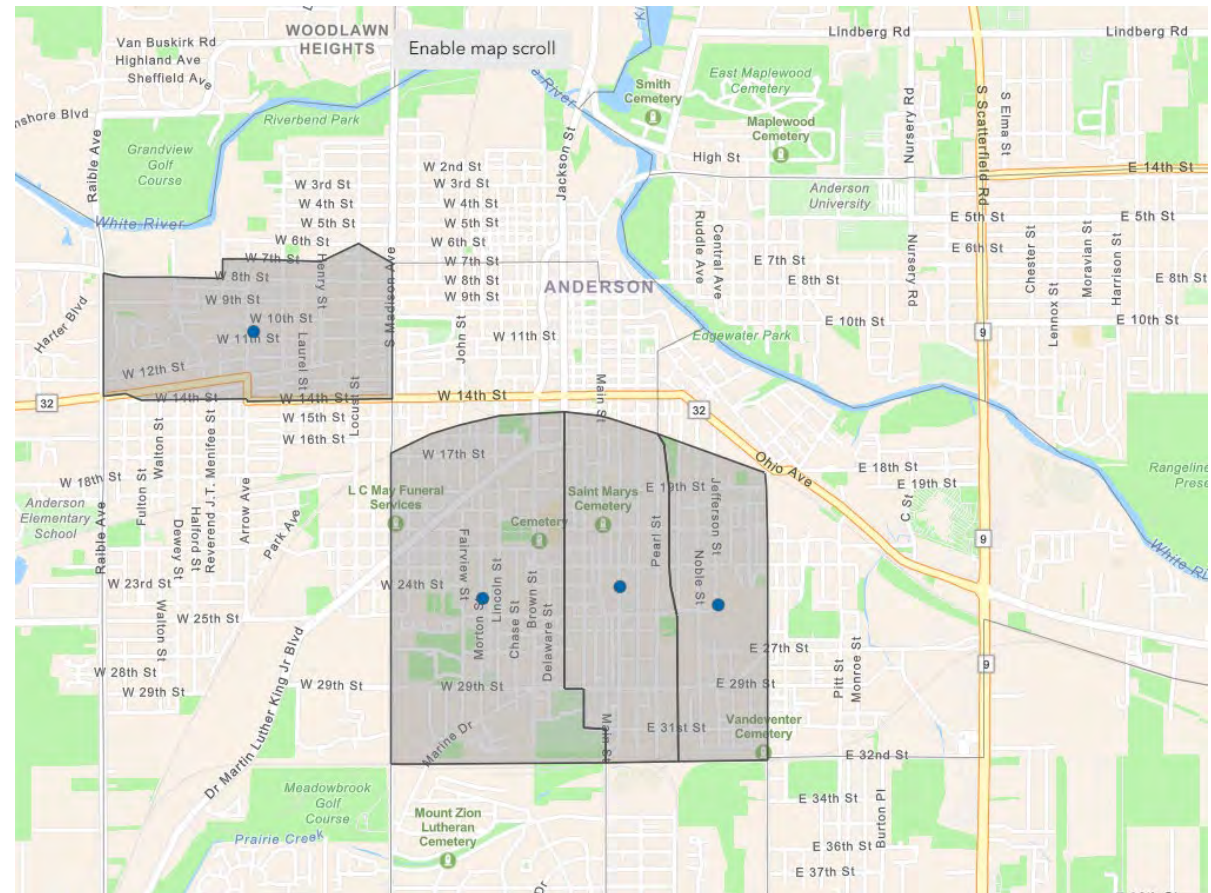
Narrowing the Most Vulnerable Areas (Madison)

The analysis identifies 31 census tracts in Central Indiana with a score of 4 or higher in both poor health outcomes and high health risk factors.

Anderson (4 tracts)

Location of high-risk/worse outcomes tracts:

- **Westside** (W 9th St, 12th St, Arrow Ave)
- **Downtown Anderson** (Brown St, Fairview St, Fletcher St, Noble St, Meridian St)



Comparing Racial Breakdown and Vulnerability Indicators

Black residents make up 53% of areas with higher risk/worse outcomes, despite only comprising 15% of Central Indiana's population.

Racial Makeup of Areas with High Risk/Worse Outcomes

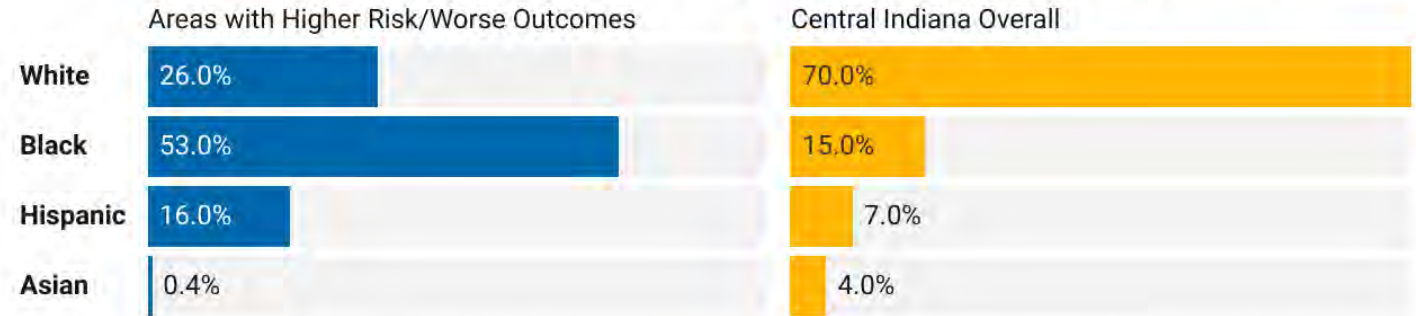


Chart: Visualizations by Polis Center • Source: American Community Survey, 2022 vis SAVI Community Information System • Created with Datawrapper

Comparison of Social Vulnerability Indicators

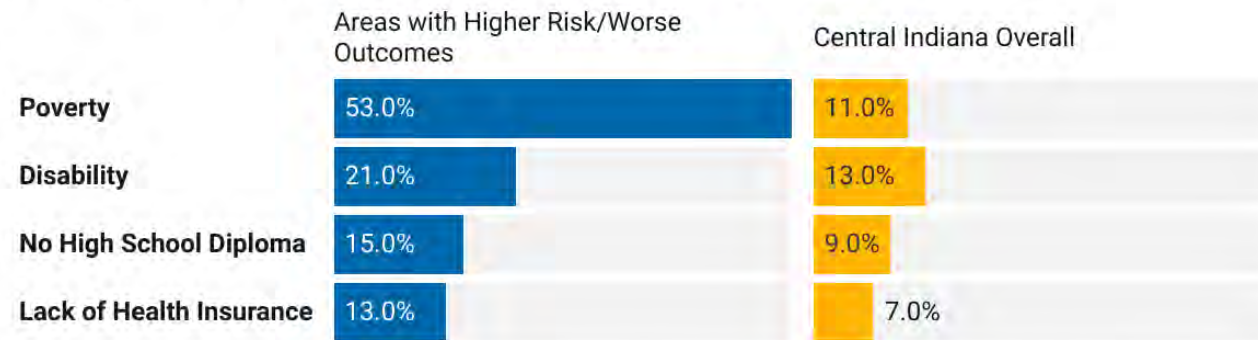


Chart: Analysis and Visualizations by Polis Center • Source: American Community Survey, 2022 vis SAVI Community Information System • Created with Datawrapper

Areas with higher risk/worse outcomes have higher vulnerability compared to Central Indiana.

Summary

Hamilton County consistently ranked higher in the health and well-being matrix with lower risk factors and better health outcomes. Marion and Madison counties consistently ranked lower in the health and wellbeing matrix with high risk and worse health outcomes.

In Central Indiana, there is an imbalance in healthcare services (i.e., Primary Care Physicians, Dentists, and Mental Health Providers), suggesting a need for targeted healthcare policies to improve coverage and access for vulnerable populations.

This distribution of health outcomes and risk factors also highlights significant geographic disparities in health, emphasizing the need for targeted public health interventions and resource allocation to address these vulnerabilities.



Questions?

Discussion Questions

1. What other risk factors and/or health outcomes would you like to see included in this study?



Indicators of Health Outcomes and Risk Factors (again)

Health Outcomes (9):

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- COPD
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- Heart Diseases
- High Blood Pressure
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- Poor Physical Health Days

Health Risk Factors (10):

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Other Indicators: Life Expectancy at Birth, Major Causes of Deaths, Percent of Population Enrolled in Medicaid, Primary Care Physician, Dentist and Mental Health Providers Ratio.

Discussion Question #2

2. Let's look at the map of Central Indiana. Are there any areas that surprise you in terms of health outcomes or risk factors?

Access Link:

<https://iu.maps.arcgis.com/apps/instant/compare/index.html?appid=bd8d9766c74349c6a8174cc038818521>



High Risk Factors
(Central Indiana)



Poor Health Outcomes
(Central Indiana)



Discussion Question #3

3. Let's look at the most vulnerable census tracts in Marion County. Why do you think these tracts have the worst health outcomes and highest risk factors?

Access Link:

<https://iu.maps.arcgis.com/apps/instant/basic/index.html?appid=1ffb7771381c48dfa7129fcb5861b6f0>



Discussion Question #4

4. How can you use this information? Is there other health information not included here that would be helpful to you?





Thank you!

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