



20-H01

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Social Determinants of Health and Their Impact on Mental Health and Substance Misuse

Summary

- About 13% of Indiana adults experienced frequent mental distress and 7% of Hoosiers had a substance use disorder.
- Health and wellbeing are shaped by many factors beyond healthcare, including conditions that make up our social, economic, and physical environments. These factors are often referred to as social determinants of health (SDoHs).
- SDoHs not only affect our physical health, but they also can have an impact on a person's mental health and substance use.
- SDoHs can be grouped into five major categories
 1. Neighborhood and built environment
 2. Health and healthcare
 3. Social and community context
 4. Education
 5. Economic stability
- To address SDoHs effectively, a “health in all policies” approach that integrates health considerations into policymaking across sectors is essential, including non-health sectors, such as housing and education.

Introduction

Our health and wellbeing are shaped by many factors, some of which have traditionally been outside of the healthcare system. This includes the conditions that make up our social, economic, and physical environments. We refer to these factors as social determinants of health (SDoHs). These social determinants not only affect our physical health but can also have an impact on a person’s mental health and their misuse of alcohol and drugs.

In Indiana, adults experienced an average of 4.3 days per month with poor mental health, and nearly one in eight (13%) reported frequent mental distress; i.e., they experienced 14 or more days of poor mental health in the past month (1). Furthermore, 7% of Hoosiers ages 12 and older had a substance use disorder in the past year (2).

The purpose of this short report is to describe how social determinants of health affect the lives of Hoosiers living with behavioral health issues such as substance misuse and mental health problems. More specifically, this brief will:

- Explain what social determinants of health (SDoHs) are;
- Describe the five major categories of SDoHs and give examples of how each category can impact mental

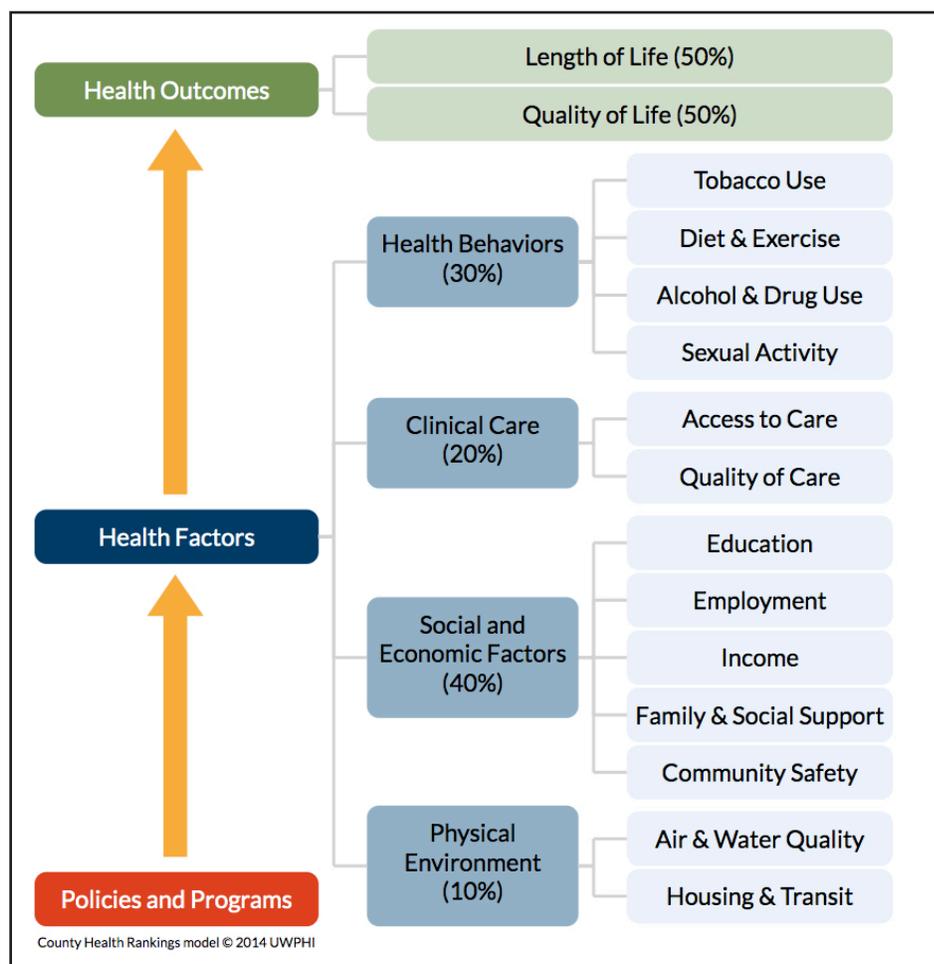
health and substance use, and

- Report Indiana data to provide a context of SDoHs in our state.

Social Determinants of Health

The federal government’s *Healthy People 2020* initiative defines social determinants of health as “the conditions in the environments in which 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” (3). The World Health Organization

Figure 1: County Health Rankings Model, 2014 (5)



(WHO) adds that these circumstances are in turn shaped by a wider set of forces including economics, social policies, and politics (4).

People's choices have an effect on their health outcomes: what to eat, how often to exercise, when to see a doctor, whether to use alcohol or drugs, how they protect themselves during sexual activity, etc. These choices, however, are made in the wider context of community and environment. For example, it will be difficult for an individual to receive all recommended preventive health screenings if the nearest primary care provider is 45 minutes away. In addition, the health effects of a particular choice might vary depending on the SDoHs present - a person choosing to drink water over sugar-sweetened beverages could be harmed if the drinking water was contaminated with lead. According to the county health rankings model, medical care and health behaviors make up only about 40-50% of modifiable contributors to a healthy population, the remainder is attributable to social determinants of health (see Figure 1) (5).

Healthy People 2020 groups SDoH into five categories (3):

1. Neighborhood and built environment
2. Health and healthcare
3. Social and community context
4. Education
5. Economic stability

How social determinants of health affect mental health and substance misuse

Mental health issues, too, are shaped by the social, economic, and physical environments in which people live (6). Social determinants

of health affect behavioral health as well as physical health, in individual and combined ways (7). Exposure to adverse SDoH factors can increase the level of stress experienced by individuals, which then can raise the risk for experiencing mental health issues and substance use problems (8).

Below are the descriptions of each SDoH category, accompanied by a general health example, evidence from the literature describing how mental health and/or substance misuse are influenced by it, and data about how prevalent these factors are in Indiana.

For a selected list of SDoH indicators by Indiana county, see the Appendix.

Neighborhood and built environment

Description: This category refers to the layout, safety, and physical conditions of the environment in which people exist. Factors include environmental conditions (water and air quality, weather and climate, and topography), quality of housing/worksites (noise, presence of toxic substances/irritants/physical hazards, aesthetics), crime and violence (community safety, exposure to social disorder, exposure to crime and violence), access to food (food deserts, availability of quality healthful foods), recreational facilities (presence and quality of green space, parks, playgrounds or community centers), and transportation systems (how people move from one location to another, commute methods and durations). Good health requires having homes and neighborhoods that are safe and free from physical hazards. Inequalities within neighborhoods and the built environment can exacerbate health disparities.

General Example: An individual who would like to eat healthier will have a harder time being successful in their goal if they live in a food desert that is also poorly serviced by the public transportation system, compared to an individual who lives within a community with a weekly fresh farmers market and a well-stocked grocery store within walking distance.

Literature Evidence: Both the natural and built environment directly and indirectly affect mental health. Individuals have less mental distress, less anxiety and depression, greater wellbeing and healthier cortisol^a profiles when living in urban areas with more greenspace compared with less greenspace (9). Individuals who moved from a less green to a more green area were found to show significantly better mental health in the three years after they moved, implying a sustained improvement (10). Housing environments with overcrowding are associated with poor mental health among women, black and minority ethnic communities, and children (11). Further, adverse neighborhood conditions are associated with poor mental health and increased drug use, especially among individuals with lower incomes (12-18). Additionally, neighborhoods with inadequate transportation present a barrier for individuals using drugs to access or continue treatment (19).

Indiana Data: Adequate housing protects from exposure and provides a sense of privacy, stability, and control (1). Common housing problems include overcrowding, high housing costs, lack of kitchen facilities, or lack of plumbing facilities. Overall in Indiana, 14%

of households have at least one of the four problems. The percentage of households with housing problems ranged from 7% in Tipton County to 22% in Monroe County (1).

Communities with high rates of crime can compromise physical safety and psychological well-being. Exposure to crime and violence increases stress and discourages people to go outside to exercise or socialize (1). In Indiana, the rate of reported violent crime offenses was 385 per 100,000 population. The rate ranged from 16 per 100,000 in Henry County to 1,251 per 100,000 in Marion County (1).

Amenities within a neighborhood, such as sidewalks or walking or bike paths; playgrounds or parks; recreation centers, community centers, or boys and girls clubs; and libraries or book mobiles, offer places for children to play and learn and for neighbors to socialize. Only 26.4% of Indiana children aged 0-17 have access to all four kinds of amenities, compared to 38.6% of children in the United States (20).

Health and healthcare

Description: This category refers to the presence, quality, and affordability of healthcare. Factors include provider availability (distance to the provider or healthcare facility, size of the provider's patient panel) care affordability (health insurance status, out-of-pocket costs), health literacy and cultural competency (is care provided in a way that is understandable to and respectful of the recipient; can the recipient obtain, process, and understand basic health information and services), and the quality of care provided.

^aCortisol is a hormone that is often measured as an indicator of stress.

General Example: An immigrant community within an urban area might have better health outcomes if the healthcare providers nearby use culturally respectful practices when engaging with individuals of that community.

Literature Evidence: A survey of 5,000 American adults reported that 25% had to choose between getting mental health treatment and paying for daily necessities. In addition, 38% had to wait longer than a week for mental health treatments (21). There is also a large disparity in access to mental health care based on level of income and location. Individuals located in rural areas and of lower income are less likely to say that mental health services are extremely accessible to them, though they report the same adequacy of treatment (21).

Indiana Data: In 2014, prior to the implementation of the Affordable Care Act, 14% of the Indiana population under the age of 65 did not have health insurance. In 2018, the uninsured rate had decreased to 8.2% of Indiana residents under 65, ranging from 5% in Hamilton County to 22% in LaGrange County (20).

Access to mental health care requires access to qualified providers, as well as insurance coverage. The overall ratio of population to mental health providers in Indiana is 670 persons for every one mental health provider

(1). In Indiana, 30% of the population lives in a designated Mental Health Professional Shortage Area^b (1). Mental health providers are defined as psychiatrists, psychologists, licensed clinical social workers, counselors, marriage and family therapists, and mental health providers that treat alcohol and other drug abuse, as well as advanced practice nurses specializing in mental health care.

While 20.9% of adults in Indiana reported having a diagnosable mental, behavioral, or emotional disorder (other than a developmental or substance use disorder), only 17.6% of adults received mental health services in the past year (22). Additionally, 6.5% of Indiana residents older than 12 years reported needing, but not receiving treatment at a specialty facility for substance use in the past year (22).

Social and community context

Description: This category refers to the interactions between individuals and groups in a community. Factors include discrimination (racism, segregation), incarceration, social cohesion (connectedness, degree and quality of social interaction, presence of social support or isolation), culture (social norms, gender roles, food preference, religion, social aspects of health-related behaviors, political beliefs, values), and civic participation (engagement in changing conditions that affect the group).

^b Mental Health Professional Shortage Area is a designation from the Health Resources and Services Administration that identifies geographic areas or population groups that are experiencing a shortage of mental health professionals. This designation is used to direct National Health Service Corps personnel to the areas of greatest needs. The seven components used to determine if a Mental Health Professional Shortage Area designation is applicable are 1) population-to-provider ratio, 2) percent of population below 100% of the federal poverty level, 3) elderly ratio, 4) youth ratio, 5) alcohol abuse prevalence, 6) substance abuse prevalence, and 7) travel time to the nearest source of care outside the area (76).

General Example: A person who falls on hard times will incur fewer negative effects if they have a strong social support network that willingly provides emotional and physical assistance, as compared to a socially isolated person who must work through troubles on their own.

Literature Evidence: Social categories such as race and gender influence access to resources, roles, and expectations (23). Women have higher levels of common mental disorders when compared to men, at every income level (8), whereas men are more likely to develop substance use disorder (24). Biracial and multiracial youth are at higher risk for engaging in substance use when compared to monoracial youth (25).

Social connectedness is an important indicator of mental health. Social isolation and a lack of support networks are associated with poor mental health (26-27), especially among older individuals (8, 28-31). Family instability (divorce, loss of custody, death, etc.) disrupts social networks and can be a trigger for substance use (32). Similarly, incarceration or ties to incarcerated individuals are associated with poor mental health outcomes (33).

Exposure to adverse events during childhood is associated with an increased likelihood of developing mental health conditions (34-37) and substance use disorder (38) in adulthood. Children living in poverty and racial and ethnic minorities are most likely to experience adverse childhood events (39). Children with family members (especially mothers) with mental health conditions are more likely to develop mental health conditions (8). Youth who are disproportionately exposed to trauma are more

likely to be vulnerable to substance use (40). Exposure to neighborhood violence increases risk for substance use (12, 41). Youth exposed to substance use via family or friend influence are more likely to engage in substance use themselves (41-42). Otherwise, youth with high levels of psychosocial protection (i.e., strong antidrug views and elevated parental engagement) and low levels of psychosocial risk (i.e., low peer substance use, school-related problems, and social-environmental risk) report very low levels of substance use (25).

On a broader level, Spooner and Hetherington discuss how attitudes, norms, and values relating to drugs are shaped by a range of cultural factors, including, but not limited to, the media, marketing, fashion trends, and western ideals such as consumerism, individualism, and secularism (23).

Indiana Data: Racial residential segregation, an indicator of structural racism (43), can be measured with the Index of Dissimilarity. This index refers to the degree of separation between white and black residents within census tracts as compared to the geographic area as a whole. The Index is scored from 0 (complete integration) to 100 (complete segregation), giving the percentage of the population that would need to move to achieve an even residential pattern. Values of 30-60 are usually considered moderate levels of segregation, while values below 30 are considered low (44). Indiana, as a whole, has an index score of 68, but this varies by county from 33 in Switzerland County to 90 in Cass County (1). Nationally, the median dissimilarity index is 53 (45).

Social connectedness and engagement are difficult to measure on large scale, but one

measurable factor is the number of voluntary groups and organizations that exist per population. These types of interactions enhance social trust because people who belong to such groups tend to trust others in the group. Indiana has 12.3 membership associations per 10,000 population (Range: 7.6 per 10,000 in Washington and Crawford counties to 23.7 per 10,000 in Pulaski County) (1). Another measure of social engagement is voter registration. Of U.S. citizens in Indiana aged 18 and older, 68.8% are registered to vote (46).

Adverse childhood experiences are stressful or traumatic events that occur during childhood and may have long-term effects on development and well-being. Over one third of Indiana children reported experiencing at least one adverse childhood experience (19.1% experienced one, 16.6% experienced two or more) (39).

Education

Description: This category refers to the educational attainment of a community, as well as its access to quality, affordable educational opportunities. Factors include early childhood education, enrollment in higher education, high school graduation, language and literacy, quality of education, and vocational training.

General Example: Higher educational attainment is associated with better jobs and higher incomes, which give people more choice and control over the conditions in which they live.

Literature Evidence: Education is important in building emotional resilience and affects many later life outcomes, such as employment,

income, and community participation (6). Low educational attainment has been associated with both increased risk for mental health concerns and with increased likelihood of substance use (8, 41, 47). High levels of education are protective against poor mental health (28).

Indiana Data: One third of Indiana residents have graduated high school and a quarter have a bachelor's degree or higher. However, 11.7% have no high school diploma or equivalency (48) The current high school graduation rate in Indiana is 84%, ranging from 75% in Howard County to 98% in Brown and Rush counties (1).

In addition, about 7% of teens and young adults aged 16-19 years are considered disconnected youth, they are neither working nor in school (1). Disconnected youth are at an increased risk of violent behavior and substance use, and as compared to their peers who are working or in school, are more likely to have emotional deficits and lower cognitive scores (49-52).

Economic Stability

Description: This category refers to the economic environment in which people function. Factors include employment opportunities, poverty, cost of living, access to adequate resources (including food security, housing stability, and personal assistance programs), income inequality, and debt.

General Example: A food-borne illness might just be an inconvenience to a person with a well-paying job that provides paid time-off, but a person who would lose wages because they must take time unpaid might choose to go to work ill and risk spreading it to coworkers and customers.

Literature Evidence: Low socio-economic status can create chronic stress, which has a negative impact upon an individual's mental health, as well as reduced access to resources such as mental health services, education and recreation opportunities, and social support (23). Poor and disadvantaged individuals (those with lower household income, higher poverty rates, more financial debt, and materially disadvantaged) suffer disproportionately from mental disorders, and consequences, but middle-class individuals are also affected (8, 53-62). Family income is also associated with substance use among adolescents, with those from low- and high-income families being more likely to engage in substance use (63).

Financial strain and instability are linked to both mental health concerns and substance use. Unemployment or job loss is associated with mental health disorders and symptoms (8, 64-65). Housing instability is seen as a risk factor for substance use (47), and a barrier to accessing and continuing with substance use treatment (66). Youth who have unstable housing situations show higher rates of substance use problems, crime and violent behavior concerns, and comorbid mental health and substance use disorders (67). Financial strain has been associated with substance use (41, 68), perhaps as a result of the costs of substance use, and/or as a coping mechanism for dealing with the stress resulting from financial concerns. Financial strain is also perceived as a barrier to accessing and continuing with substance use treatment (66). Similarly, food insecurity is strongly associated with substance use (69).

Economic stability can provide a protective effect. Job security or a sense of control over

one's career prospects is associated with positive mental health and lower substance use (70-72). And among families who receive income supplements, negative adolescent behaviors, including substance use, fell significantly (73).

Indiana Data: In 2017, 3.5% of Indiana residents aged 16 and older were unemployed but seeking work. This ranged from 2.5% in Elkhart County to 5.4% in Vermillion County (1). Additionally, 14% of Hoosiers were food insecure; i.e., they did not have access to a reliable source of food in the past year. The percentage of Indiana residents experiencing food insecurity ranged from 9% in Hamilton, Hendricks, and Dubois counties to 18% in Marion and Monroe counties (1).

According to a report by the National Low-Income Housing Coalition (74), a person earning minimum wage in Indiana (\$7.25) would need to work 71 hours per week to comfortably afford a one-bedroom apartment and utilities. To afford a two-bedroom apartment and utilities from one full time job, an Indiana resident would need to earn \$16.03 dollars per hour. The average renter earns \$14.04 per hour (ranging from \$6.58 in Crawford County to \$19.06 in Bartholomew County).

Income inequality can have broad health impacts and can serve as a source of social stress. The median household income in Indiana in 2017 was \$54,100, though this varied widely between counties and racial/ethnic groups. Comparing counties, in Delaware County the median household income was \$41,900, but in Hamilton County it was \$95,100. Comparing racial and ethnic groups, the median income in Marion County in 2017 for black households was \$32,000, \$33,100 for Hispanic households,

and \$54,000 for white households. Overall in Indiana, the households in the 80th percentile brought home 4.4 times the income of the households in the 20th percentile. This ranged from 3.2 times in LaGrange County to 6.3 times in Monroe County (1).

Conclusion

A variety of conditions and circumstances beyond choice or willpower affect our physical and mental health and wellbeing. This includes the physical environment in which we live; the healthcare and treatment services to which we have access; the social and community context in which we are embedded; the education to which we have been exposed; and the economic stability in our family and community. These social determinants of health can shape a person's likelihood of experiencing behavioral health issues, but also their ability to obtain treatment and maintain recovery.

In this report, we summarized the five major SDoH categories and provided examples for each category individually. However, it is important to note that it is the interaction between all SDoH categories that truly affects people's vulnerability to experience mental health and substance use problems, and their chances of accessing treatment and maintaining recovery.

At an individual level, clinical interventions can address certain SDoHs. However, a more impactful approach would be to make changes at the community or societal level through policies that promote health equity for all. To address SDoHs effectively, a "health in all policies" approach integrating health considerations into policymaking across sectors is essential, including non-health sectors, such as employment, housing, and education (75).

Appendix – Selected List of SDoH Indicators by Indiana County

County	Number of Days in Past Month with Poor Mental Health	% with Severe Housing Problems	Violent Crime Rate per 100,000	% Uninsured	Population to Mental Health Practitioner Ratio
Adams	4.1	17%		12%	4,440:1
Allen	3.8	12%	296	9%	580:1
Bartholomew	3.9	11%	96	10%	700:1
Benton	4.1	12%		12%	2,870:1
Blackford	4.2	11%	49	10%	3,990:1
Boone	3.6	11%	187	6%	1,050:1
Brown	4.0	14%	187	11%	1,880:1
Carroll	3.8	8%		10%	1,430:1
Cass	4.2	13%	70	12%	460:1
Clark	3.9	12%	356	9%	460:1
Clay	4.2	13%		9%	1,870:1
Clinton	4.1	12%	107	11%	2,690:1
Crawford	4.3	13%	238	11%	2,640:1
Daviess	4.1	12%	161	18%	1,230:1
Dearborn	3.8	11%		8%	840:1
Decatur	4.0	11%		9%	3,340:1
DeKalb	4.0	10%	117	9%	1,710:1
Delaware	4.5	16%	271	10%	380:1
Dubois	3.7	9%	395	9%	970:1
Elkhart	4.0	14%	357	15%	800:1
Fayette	4.5	16%		10%	1,450:1
Floyd	4.0	12%	132	7%	770:1
Fountain	4.2	9%		9%	1,500:1
Franklin	4.1	9%	36	9%	3,230:1
Fulton	4.0	11%	49	12%	1,430:1
Gibson	3.9	9%	115	7%	4,800:1
Grant	4.4	12%	234	10%	520:1

County	Number of Days in Past Month with Poor Mental Health	% with Severe Housing Problems	Violent Crime Rate per 100,000	% Uninsured	Population to Mental Health Practitioner Ratio
Greene	4.2	12%	39	10%	1,610:1
Hamilton	3.0	9%	33	5%	750:1
Hancock	3.6	9%	118	7%	1,740:1
Harrison	4.1	11%	82	9%	4,430:1
Hendricks	3.4	9%	176	7%	1,160:1
Henry	4.0	13%	16	9%	1,210:1
Howard	4.1	13%	431	9%	580:1
Huntington	4.1	11%	33	9%	1,510:1
Jackson	4.2	12%	223	10%	1,220:1
Jasper	3.9	10%		9%	2,230:1
Jay	4.3	13%	100	10%	950:1
Jefferson	4.0	14%		9%	1,040:1
Jennings	4.1	14%	261	9%	1,260:1
Johnson	3.7	13%	284	8%	1,320:1
Knox	4.0	11%	109	9%	680:1
Kosciusko	3.8	11%	159	11%	650:1
LaGrange	4.1	15%	103	22%	3,020:1
Lake	3.9	16%	395	9%	590:1
LaPorte	4.1	14%	302	9%	1,160:1
Lawrence	4.0	11%	315	9%	1,570:1
Madison	4.8	14%	211	10%	850:1
Marion	4.1	19%	1,251	11%	380:1
Marshall	4.2	12%		14%	990:1
Martin	4.1	10%		9%	5,110:1
Miami	4.2	11%	147	9%	2,240:1
Monroe	4.4	22%	307	9%	430:1
Montgomery	3.9	11%	837	11%	1,010:1

County	Number of Days in Past Month with Poor Mental Health	% with Severe Housing Problems	Violent Crime Rate per 100,000	% Uninsured	Population to Mental Health Practitioner Ratio
Morgan	4.1	12%		9%	1,740:1
Newton	4.1	10%	22	12%	14,130:1
Noble	4.0	12%	158	11%	1,220:1
Ohio	3.7	11%		8%	
Orange	4.2	13%		10%	2,430:1
Owen	4.0	13%		11%	1,160:1
Parke	4.2	13%	64	12%	1,690:1
Perry	4.2	9%		8%	1,590:1
Pike	3.9	10%	58	9%	2,470:1
Porter	3.9	13%	97	7%	620:1
Posey	3.9	11%	305	7%	8,530:1
Pulaski	4.1	14%		10%	2,090:1
Putnam	3.9	11%		8%	1,400:1
Randolph	4.4	11%		10%	3,560:1
Ripley	4.0	12%	30	9%	2,190:1
Rush	4.2	12%		12%	1,190:1
Scott	4.5	12%	194	9%	2,650:1
Shelby	4.1	12%	535	9%	1,140:1
Spencer	3.8	8%		8%	5,100:1
St. Joseph	4.2	13%	426	10%	470:1
Starke	4.2	13%	97	10%	3,270:1
Steuben	3.8	10%	70	9%	1,330:1
Sullivan	4.2	14%	128	9%	2,960:1
Switzerland	4.4	14%		11%	3,570:1
Tippecanoe	4.1	19%	243	11%	740:1
Tipton	3.9	7%	132	8%	2,520:1
Union	4.0	11%		9%	
Vanderburgh	4.5	15%	409	9%	500:1
Vermillion	4.0	8%		9%	1,940:1

County	Number of Days in Past Month with Poor Mental Health	% with Severe Housing Problems	Violent Crime Rate per 100,000	% Uninsured	Population to Mental Health Practitioner Ratio
Vigo	4.6	16%	233	9%	690:1
Wabash	4.1	11%	51	10%	450:1
Warren	3.8	8%		8%	
Warrick	4.0	10%	223	7%	2,500:1
Washington	4.2	12%		10%	3,480:1
Wayne	4.4	15%		11%	210:1
Wells	4.0	8%	18	8%	2,540:1
White	3.8	10%	62	12%	2,420:1
Whitley	3.8	8%		8%	1,410:1

Source: Robert Wood Johnson Foundation. County Health Rankings & Roadmaps, 2019

County	Segregation Index	Graduation Rate	% Unemployed	% Food Insecure	Median Household Income
Adams	37	93%	3%	13%	\$51,500
Allen	47	92%	3%	14%	\$52,700
Bartholomew	27	89%	3%	11%	\$61,900
Benton	8	94%	3%	12%	\$52,800
Blackford	28	97%	4%	13%	\$42,600
Boone	28	95%	3%	10%	\$82,700
Brown	45	98%	3%	12%	\$57,000
Carroll	48	93%	3%	11%	\$55,500
Cass	47	91%	4%	11%	\$47,700
Clark	36	91%	4%	12%	\$52,700
Clay	27	90%	4%	14%	\$50,700
Clinton	45	90%	3%	10%	\$51,500
Crawford	17	88%	4%	14%	\$42,600
Daviess	67	95%	3%	12%	\$46,300
Dearborn	35	94%	4%	11%	\$65,000
Decatur	47	96%	3%	12%	\$55,800
DeKalb	30	91%	3%	12%	\$54,300
Delaware	45	91%	4%	17%	\$41,900
Dubois	66	93%	3%	9%	\$63,000
Elkhart	40	91%	3%	11%	\$58,800
Fayette	44	92%	5%	16%	\$45,000
Floyd	39	94%	3%	13%	\$61,000
Fountain	10	93%	4%	13%	\$50,800
Franklin	53	96%	4%	12%	\$62,500
Fulton	37	93%	4%	12%	\$51,100
Gibson	50	92%	3%	12%	\$53,700
Grant	54	96%	4%	16%	\$44,800
Greene	35	94%	5%	14%	\$59,300
Hamilton	28	77%	3%	9%	\$95,100
Hancock	38	92%	3%	10%	\$73,300
Harrison	22	97%	3%	12%	\$57,100

County	Segregation Index	Graduation Rate	% Unemployed	% Food Insecure	Median Household Income
Hendricks	36	96%	3%	9%	\$75,600
Henry	30	94%	4%	14%	\$48,900
Howard	38	75%	4%	15%	\$51,000
Huntington	29	92%	4%	12%	\$53,600
Jackson	45	92%	3%	12%	\$48,800
Jasper	38	93%	4%	10%	\$58,900
Jay	38	96%	4%	13%	\$46,700
Jefferson	28	82%	4%	13%	\$51,200
Jennings	37	91%	4%	13%	\$49,000
Johnson	43	93%	3%	11%	\$70,700
Knox	33	97%	3%	14%	\$44,000
Kosciusko	30	93%	3%	10%	\$62,700
LaGrange	30	93%	3%	11%	\$63,300
Lake	61	87%	5%	15%	\$54,900
LaPorte	52	89%	5%	15%	\$51,500
Lawrence	43	84%	4%	13%	\$49,100
Madison	51	85%	4%	15%	\$45,000
Marion	47	76%	4%	18%	\$47,600
Marshall	42	90%	3%	10%	\$53,400
Martin		96%	3%	12%	\$50,200
Miami	37	95%	4%	14%	\$47,200
Monroe	38	91%	4%	18%	\$49,200
Montgomery	35	97%	3%	12%	\$53,700
Morgan	28	92%	4%	12%	\$61,100
Newton	44	88%	5%	12%	\$58,400
Noble	33	91%	3%	10%	\$52,800
Ohio	24	94%	4%	11%	\$56,900
Orange	53	92%	4%	14%	\$43,100
Owen	17	92%	4%	13%	\$49,000
Parke	23	85%	4%	13%	\$48,500
Perry	38	90%	4%	13%	\$50,700

County	Segregation Index	Graduation Rate	% Unemployed	% Food Insecure	Median Household Income
Pike	39	93%	3%	11%	\$49,800
Porter	29	91%	4%	11%	\$67,500
Posey	52	93%	3%	10%	\$65,600
Pulaski	22	92%	4%	12%	\$50,000
Putnam	33	91%	4%	12%	\$57,400
Randolph	27	91%	4%	13%	\$46,000
Ripley	42	94%	4%	11%	\$52,600
Rush	57	98%	3%	14%	\$51,100
Scott	32	87%	4%	13%	\$48,600
Shelby	45	95%	3%	12%	\$61,300
Spencer	23	93%	3%	11%	\$56,600
St. Joseph	44	85%	4%	15%	\$52,200
Starke	33	93%	4%	13%	\$46,900
Steuben	29	86%	3%	11%	\$55,200
Sullivan	43	82%	4%	15%	\$46,800
Switzerland	13	95%	4%	15%	\$47,500
Tippecanoe	38	85%	3%	16%	\$52,900
Tipton	39	95%	3%	10%	\$55,500
Union		92%	3%	12%	\$48,200
Vanderburgh	45	81%	3%	15%	\$47,500
Vermillion	39	94%	5%	14%	\$46,300
Vigo	30	89%	4%	17%	\$42,500
Wabash	27	87%	4%	12%	\$50,200
Warren	41	96%	3%	10%	\$58,000
Warrick	27	91%	3%	11%	\$75,700
Washington	51	90%	4%	13%	\$47,700
Wayne	40	82%	4%	16%	\$44,200
Wells	18	97%	3%	11%	\$55,200
White	46	86%	3%	10%	\$52,400
Whitley	25	91%	3%	10%	\$60,100

Source: Robert Wood Johnson Foundation. County Health Rankings & Roadmaps, 2019

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