



INDIANA PRIMARY CARE NEEDS ASSESSMENT

2017 Report



INDIANA PRIMARY CARE NEEDS ASSESSMENT REPORT

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Authors:

Hannah Maxey, PhD, MPH, RDH

Sierra Vaughn, MPH



SCHOOL OF MEDICINE

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WORKFORCE RESEARCH & POLICY

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EXECUTIVE SUMMARY

Needs assessments are critical to identifying gaps, prioritizing issues, and allocating resources and efforts. This is especially the case with population health and the healthcare sector. There is a direct link between primary healthcare service access and population health. Health systems with strong primary care infrastructure are better able to support the health of the population.¹ Assessing primary care capacity within Indiana's health system is critical to ensuring Hoosier health.

The Indiana Primary Care Needs Assessment (PCNA) project is focused on monitoring primary care capacity and population health outcomes for the purpose of informing related policy and planning initiatives. The PCNA is a five year collaborative project between the Bowen Center for Health Workforce Research and Policy and the Indiana State Health Department Primary Care Office. Support for the PCNA project comes from the Bureau of Primary Care at the Health Resources Services Administration (HRSA). The PCNA project includes a number of specific activities with associated deliverables: 1) primary care needs assessment and report; 2) statewide primary care, dental, and mental health professional databases; 3) entry and maintenance of health professional data in the Shortage Designation Management System (SDMS) which is the federal online database; and 4) Health Professional Shortage Area (HPSA) designation application development. This report contains a summary of activities and associated deliverables for the PCNA project funding period ending March 31, 2017.

During this funding period, the primary care needs assessment included evaluation of county level information in order to 1) identify counties meeting the minimum criteria for federal shortage area designation and 2) examine the combined impact of health professional capacity and population (socioeconomic and health) characteristics. Counties meeting the minimum criteria for shortage area designation were identified using the federal criterion for Health Professional Shortage Areas (HPSA) and Medically Underserved Area/Population (MUA/P). HPSA and MUA/P designations use population to provider ratios and selected population characteristics as a means of determining primary care (including mental/behavioral health and dental) service capacity within geographic areas. These designations are which are used to allocate resources focused on enhancing healthcare capacity within communities. County level HPSA and MUA/P scores were imputed by applying the federal criteria to county level information. County scoring may be helpful to proactively identifying shortages and prioritizing related efforts. Full criteria for HPSA and MUA/P designations are found in Appendix A.

In addition to generating county-level HPSA and MUA scores, the primary care needs assessment included an evaluation of the combined impact of health professional capacity, geography, socioeconomic status, and behavioral risk factors on health priorities within Indiana, including 1) infant mortality, 2) Cancer, 3) Diabetes, 4) Hypertension, 5) Asthma. Using methods developed by the Robert Wood Johnson Foundation for the County Health Rankings Project (www.countyhealthrankings.org) and data from multiple sources, Indiana counties were ranked by category and overall. These data point to important factors in Indiana.

Since July of 2015, the Bowen Center for Health Workforce Research and Policy (BCHW) has worked on behalf of the Indiana Primary Care Office (Indiana PCO) to enter data into the Shortage Designation Management System (SDMS), which maintains records of all the United States Primary Care, Mental Health and Dental Health providers. Records have updated for Primary Care, Mental and Dental Health provider data in SDMS for seventy-nine Indiana counties. A database was also prepared for upload to SDMS which includes information on providers actively working in Indiana which is used for HPSA designation applications. PCNA activities are summarized and project deliverables are provided in this report.

¹ Starfield B, Shi L, Macinko J. Contribution of Primary Care to Health Systems and Health. *Milbank Quarterly*. 2005;83(3):457-502.

**SECTION I. SHORTAGE DESIGNATION MANAGEMENT SYSTEM (SDMS) HEALTH PROFESSIONAL
DATA MANAGEMENT AND HPSA DESIGNATION APPLICATION DEVELOPMENT UPDATES**

Introduction

Beginning in July of 2015, the Bowen Center for Health Workforce Research and Policy (BCHW) began entering and maintaining data for the Indiana Primary Care Office (Indiana PCO) in the Shortage Designation Management System (SDMS) hosted by the U.S. Department of Health Resources and Services Administration (HRSA), Bureau of Health Workforce. The SDMS database allows Primary Care Officers (PCOs) the ability to record all of the United States Primary Care, Mental Health and Dental Health providers. On behalf of the Indiana PCO, BCHW team members updated Primary Care, Mental and Dental Health provider data in SDMS for seventy-nine Indiana counties. Since March of 2016, after provider data was entered into SDMS, BCHW team members prepared 86 Healthcare Provider Shortage Area (HPSA) applications for the Indiana PCO which resulted in 14 new designations in the state. Activities are outlined in detail below.

SDMS Statewide Database Preparation

Excel workbooks are prepared which contain information needed to update the profiles of providers actively working in Indiana on the SDMS site. This information includes National Provider Identifier (NPI) data, J1 Visa Status and NHSC participant status and practice address data. This workbook was prepared with data for primary care physicians, psychiatrists and dentists in accordance with the requirements of HRSA and is included with this report as supplemental material. This workbook is periodically updated to reflect changes in the license or work status of a provider.

Application Preparation Activities

Applications were prepared based on a priority list provided by the Indiana PCO. When preparing applications, the BCHW team assessed the following: geographic area, population group or location. Primary Care, Mental and Dental Health HPSA application requests are tested first as a geographic area. For example, if the criteria for geographic area designation was not met for a service area then a population group application was created. Multiple test applications were prepared for the majority of service areas to determine eligibility for designation and designation type offering highest score

The following outline selected HRSA requirements for designation applications: 1) applications must meet HPSA designation criteria; 2) the service area or location must meet rational service area guidelines, population to provider ratios, and overutilized or excessively distant contiguous area parameters to fulfill HRSA's criteria requirements; and, 3) in the event that a county or location is severely medically underserved, Primary Care applications can be prepared as Medically Underserved Area (MUA), Medically Underserved Population (MUP). MUA and MUP applications are based on initial assessment of the primary care physicians per 1,000 civilian, economic or cultural populations, infant mortality rate, percent of population that fall below the Federal Poverty Level (FPL) and percent of population over age 65.

BCHW prepared a total of 615 applications, including test applications, during this project period. A summary of applications and associated designations is provided below:

Primary Care Application Preparation and Designation

Based upon the Indiana PCO priority list, BCHW completed the preparation of fifty-six Primary Care Designation applications during this year’s fiscal period. Of the applications BCHW prepared, 13 were prepared for withdrawal and 8 did not qualify. Six applications have been submitted to the Indiana PCO for review and 4 have been submitted for HRSA review. One application was not approved for designation, however 9 applications have been approved for designation. Of those applications that were approved, 5 counties (Adams, Greene, LaGrange, Washington and Sullivan) qualified for geographic HPSA designation; two counties (Shelby and Tippecanoe) qualified for low-income HPSA designation; one county (Rush) qualified for a Medicaid eligible population designation; and one health care facility in Marion County qualified for a MUP designation.

Primary Care Designations		
Name	Type	Score
Tippecanoe County	Low-Income Population	14
Rush County	Medicaid Eligible Population	8
Washington County	Geographic	7
Sullivan County	Geographic	10
Indiana Hemophilia & Thrombosis Center	Medically Underserved Population	85.2
Greene County	Geographic	13
Adams County	Geographic	13
LaGrange County	Geographic	8
Shelby County	Low-Income Population	8

Mental Health Application Preparation and Designation

BCHW completed the preparation of 9 Mental Health Designation applications for the Indiana PCO during this year’s fiscal period. Five applications are currently under Indiana PCO review. Two geographic high needs HPSAs were designated for mental health catchment areas 14 (Clinton, Howard and Tipton Counties) and 23 (Lawrence, Morgan, Monroe and Owen Counties).

Mental Health Designations		
Name	Type	Score
MHCA 14 (Howard, Tipton, Clinton)	Geographic High Needs	13
MHCA 23 (Morgan, Owen, Monroe, Lawrence)	Geographic High Needs	13

Dental Health Application Preparation and Designation

BCHW completed the preparation of eighteen Dental Health Designation applications during this year’s fiscal period. Eight dental applications are currently under review by the Indiana PCO. One dental geographic HPSA designation has been approved for Brown County and an Auto-HPSA designation has been approved for Northshore Dental

Dental Designations		
Name	Type	Score
Northshore Dental	Auto-HPSA	18
Brown County	Geographic	11

HRSA Impact Analysis

In July of 2017, HRSA will perform an update to all HPSAs designations in the county that are greater than 4 years old. In preparation for this update, HRSA has conducted impact analysis which examines the possible changes that will occur to currently designated HPSAs during the scheduled update. In response to the results from this analysis, BCHW has prepared 80 test applications in order to analyze the best possible HPSA application to submit to the PCO before the scheduled update.

**SECTION II. PRIMARY CARE NEEDS ASSESSMENT HEALTH PROFESSIONAL SHORTAGE AREA AND
MEDICALLY UNDERSERVED AREA SCORING**

Introduction

The federal government recognizes the important role of access to healthcare in population health. The delivery of healthcare services is dependent upon, among other things, the availability of health professionals. Thus, the distribution and practice characteristics of health professionals is frequently used as a barometer of access to care. Identifying communities experiencing shortages of health professionals is an important initiative at the federal, state, and local levels, and assists with the allocation of resources to the “areas of greatest need.”

The Bureau of Health Workforce at the Health Resources Services Administration of the Department of Health and Human Services administers the Shortage Designation program which works in partnership with states Offices of Primary Care to identify healthcare shortage areas: Health Professional Shortage Areas (HPSA) and Medically Underserved Area/Populations (MAU/P). HPSA and MUA/P designations use population to provider ratios and selected population characteristics as a means of determining primary care (including mental/behavioral health and dental) service capacity within geographic areas. The criteria associated with these designations are presented in Appendix A. Scores, associated with the degree of shortage, are calculated for geographic areas. These are used to determine severity of shortage.

Federal shortage area designations are used to allocate resources focused on enhancing healthcare capacity within communities. For example, the U.S. Health Center Program requires Community Health Centers to be located in a MUA/P in order to be considered for federal funding. Additionally, HPSA designations are used to prioritize funding for programs such as the National Health Service Corps, a student loan repayment program for health profession, which supports the recruitment of health professionals in to shortage areas.

Methods

This study examines health professional capacity in Indiana’s 92 Counties using the federal criteria for shortage area designations. County level data were used to calculate projected HPSA and MUA/P scores.

Data Sources and Variables

Variable descriptions and data sources are found in table 2.1 Population characteristics were obtained from the American Community Survey and the U.S. Census. Population health characterizes (infant mortality and substance abuse) were obtained from the Indiana State Health Department. Travel time or the distance to the nearest source of non-designated care is a factor in shortage designation that we were unable to account for. In order to adjust for this we assigned a score of “1”, the most conservative travel time estimate to all counties. Information used to calculate the population-to-provider ratios were obtained from the Indiana Health Workforce Database.

Table 2.1 List and description of HPSA and MUA/P designation data variables and sources

Variable	Description	Data Source
Population	Total population of each county in Indiana	American Community Survey (ACS), 2015
% Under 18	Percent of population under age 18	American Community Survey (ACS), 2015
% 65 and Up	Percent of population age 65 and over	American Community Survey (ACS), 2015
% Below 100% FPL	Percent of population below 100% Federal Poverty Line	US Census, 2015
% Below 200% FPL	Percent of population below 200% Federal Poverty Line	American Community Survey (ACS), 2015
PCP Pop to Prov	Ratio of total population to total Primary Care Provider FTE	2015 Physician Survey Data
PSY Pop to Prov	Ratio of total population to total Psychiatrist FTE	2015 Physician Survey Data
Dent Pop to Prov	Ratio of total population to total Dentist FTE	2016 Dental Survey Data
Infant Mortality	Number of deaths in children less than one year of age per 1,000 live births	Indiana State Department of Health, Maternal and Child Health Epidemiology Division (2015). Indiana State Department of Health, Epidemiology Resource Center, Data Analysis Team, 2011-2015.
Alcohol Abuse Prevalence: Worst Quartile	Identifies county with the worst quartile for alcohol abuse ED visits in the state	Indiana State Department of Health, 2015
Substance Abuse Prevalence: Worst Quartile	Identifies county with the worst quartile for substance abuse ED visits in the state	Indiana State Department of Health, 2015
Fluoridation Status	Identifies county which has fluoridated water available for 50% or more of the population	Centers for Disease Control (CDC), 2015
Travel Distance	Measure of the time or distance to the nearest non-designated provider.	<i>**This variable could not be calculated for HPSA scoring. The nearest source of care has to be assumed, therefore, every county received a score of 1.**</i>

Explanation of Health Professional Data

For primary care HPSA and MUA/P scoring the following primary care physician specialties were included: family medicine, general pediatrics, general internal medicine, and obstetric/gynecologist. Mental HPSA scoring included only general psychiatrist and child psychiatry, and dental HPSA scoring included general dentists. Full criteria for HPSA and MUA/P designations are found in Appendix A.

Data used to calculate the population to provider ratio came from the Indiana Health Workforce Database. Full-time equivalency (FTE) for health professionals came from two sources: license renewal surveys² and imputation. The survey gathers information on the number of weekly hours a provider spends in direct patient in four hour increments. Providers were assigned to FTE categories based on their response. Survey response options and associated FTE are found in Table 2.2. For example, a provider who reported spending 21-24 hours per week in direct patient care was assigned an FTE .6. For providers that did not respond to the survey, FTE was assigned by calculating and applying the average FTE of the county in which they practice.

Table 2.2: Hours in Direct Patient Care Survey Response Options and Associated Full-time Equivalency

Hours per Week in Patient Care	Assigned FTE
0	0.0
1 – 4	0.1
5 – 8	0.2
9 – 12	0.3
13 – 16	0.4
17 – 20	0.5
21 – 24	0.6
25 – 28	0.7
29 – 32	0.8
33 – 36	0.9
37 – 40	1.0
40 or more hours	1.0

For geographic area HPSA scoring, FTE was used as reported/assigned. For low-income HPSA scoring provider FTE is adjusted to account for their contribution to the safety-net using the following formula:

² The license renewal survey is a voluntary survey administered to health professionals who renewed their license online through the Professional Licensing Agency (PLA). The survey is designed to gather information on practice characteristics required for HPSA and MUA/P designations. Data collected from the online survey are cleaned, verified, and maintained by the Bowen Center for Health Workforce Research and Policy (BCHW). The verification procedures can be found in Appendix B.

Formulas for FTE Calculations

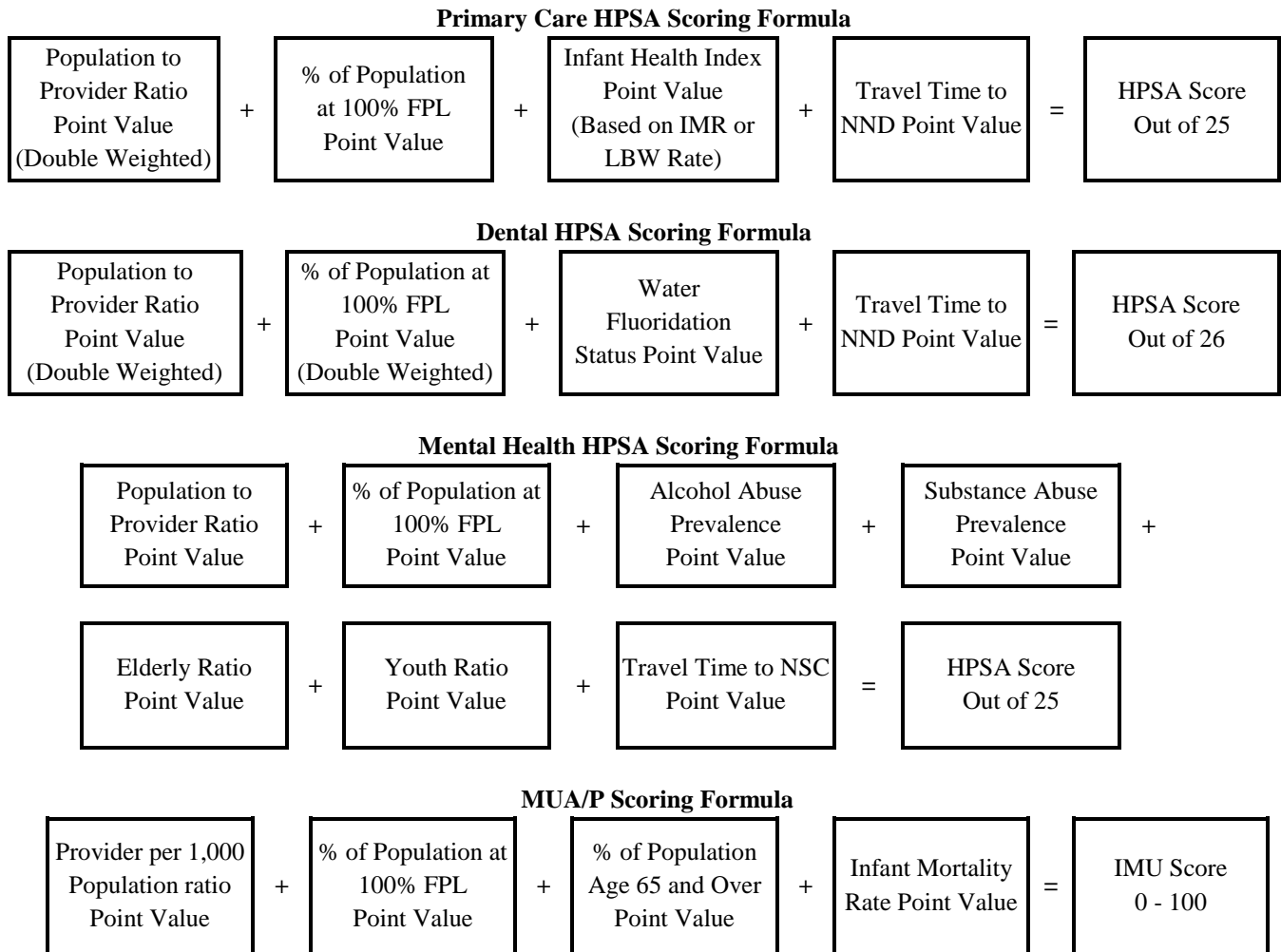
Primary Care Low-income provider FTE = (# Medicaid Claims/5000) + (# of Hours in Direct Patient Care / 40) * (Sliding Fee Scale Percent)

Mental and Dental Low-income Provider FTE = (# Medicaid Claims/4000) + (# of Hours in Direct Patient Care / 40) * (Sliding Fee Scale Percent)

Scoring Methodology

The formulas used to calculate HPSA and MUA/P scores are presented in Figure 2.1. The variables included and specific formulas varied by type of designation. All analyses were performed using SAS® Enterprise Guide 7.1.

Figure 2.1 HPSA and MUA/P Scoring Formulas



The above formulas were used for both geographic and low-income scoring; however, for low-income scoring the low-income provider FTE and population at or below 200% poverty was used to calculate population to provider ratio.

HEALTH PROFESSIONAL SHORTAGE AREA DESIGNATIONS

Primary Care Geographic HPSA Scoring

Highlights

- Scoring for geographic primary care HPSAs are found in Table 2.3.
- 9 counties (Benton, Clay, Crawford, Jennings, Putnam, Randolph, Ripley, Union and Vermillion) meet the minimum criteria for HPSA designation but are not currently designated
- 3 counties (Benton, Crawford and Switzerland) do not have any primary care FTE
- The highest HPSA score was found in Crawford County with a score of 13, the highest population to primary care FTE ratio was found in Union County with a ratio of 72,990.0:1.

Table 2.3 Primary Care Geographic HPSA Scoring

County	FIPS	Population	Poverty Rate: % Below 100% FPL	Total PC FTE	PC Pop to Prov	Infant Mortality Rate	Score: PC Pop to Prov	Score: Poverty Rate	Score: IMR	Score: Travel	Total HPSA Score	Meets Minimum Requirements*	Already Designated as a HPSA
Adams	1	34,642	16.0%	6.4	5,412.8	6.2	4	1	0	1	10	Yes	Yes
Allen	3	363,453	15.6%	247.0	1,471.2	7.3	0	1	0	1	2	No	No
Bartholomew	5	79,488	12.6%	51.4	1,546.5	10.7	0	0	1	1	2	No	No
Benton	7	8,752	13.5%	0.0	—	—	5	0	0	1	11	Yes	No
Blackford	9	12,476	13.6%	5.6	2,227.9	—	0	0	0	1	1	No	No
Boone	11	60,511	5.8%	38.3	1,579.9	—	0	0	0	1	1	No	No
Brown	13	15,011	12.4%	1.6	9,381.9	—	4	0	0	1	9	Yes	Yes
Carroll	15	20,014	10.7%	2.3	8,701.7	—	4	0	0	1	9	Yes	Yes
Cass	17	38,476	15.3%	19.7	1,953.1	8.4	0	1	0	1	2	No	No
Clark	19	113,181	10.6%	51.8	2,185.0	7.5	0	0	0	1	1	No	No
Clay	21	26,686	14.3%	6.3	4,235.9	—	3	0	0	1	7	Yes	No
Clinton	23	32,835	13.7%	8.5	3,862.9	—	2	0	0	1	5	Yes	Yes
Crawford	25	10,591	20.5%	0.0	—	—	5	2	0	1	13	Yes	No
Daviess	27	32,411	12.9%	13.0	2,493.2	8.6	0	0	0	1	1	No	No
Dearborn	29	49,679	9.2%	29.6	1,678.3	—	0	0	0	1	1	No	No
Decatur	31	26,240	13.9%	14.7	1,785.0	—	0	0	0	1	1	No	No

Table 2.3 Primary Care Geographic HPSA Scoring

County	FIPS	Population	Poverty Rate: % Below 100% FPL	Total PC FTE	PC Pop to Prov	Infant Mortality Rate	Score: PC Pop to Prov	Score: Poverty Rate	Score: IMR	Score: Travel	Total HPSA Score	Meets Minimum Requirements*	Already Designated as a HPSA
DeKalb	33	42,449	14.4%	17.1	2,482.4	—	0	0	0	1	1	No	Yes
Delaware	35	117,335	20.6%	84.2	1,393.5	8.4	0	2	0	1	3	No	Yes
Dubois	37	42,291	9.6%	28.0	1,510.2	7.8	0	0	0	1	1	No	No
Elkhart	39	200,685	15.7%	80.9	2,480.7	7.1	0	1	0	1	2	No	Yes
Fayette	41	23,773	20.2%	14.2	1,674.2	—	0	2	0	1	3	No	No
Floyd	43	75,900	12.6%	41.1	1,846.7	—	0	0	0	1	1	No	No
Fountain	45	16,888	11.8%	3.9	4,330.3	—	3	0	0	1	7	Yes	Yes
Franklin	47	22,935	10.5%	16.9	1,357.1	—	0	0	0	1	1	No	No
Fulton	49	20,527	14.7%	10.6	1,936.5	—	0	0	0	1	1	No	No
Gibson	51	33,668	10.9%	14.5	2,321.9	—	0	0	0	1	1	No	Yes
Grant	53	68,896	17.2%	25.9	2,660.1	9.5	0	1	0	1	2	No	No
Greene	55	32,815	13.4%	7.2	4,557.6	—	3	0	0	1	7	Yes	Yes
Hamilton	57	296,635	4.7%	208.7	1,421.3	4.1	0	0	0	1	1	No	No
Hancock	59	71,328	6.4%	42.4	1,682.3	5.2	0	0	0	1	1	No	No
Harrison	61	39,230	13.7%	16.2	2,421.6	—	0	0	0	1	1	No	No
Hendricks	63	153,435	4.9%	110.4	1,389.8	5.6	0	0	0	1	1	No	No
Henry	65	49,146	15.2%	17.5	2,808.3	8.4	0	1	0	1	2	No	No
Howard	67	82,765	17.5%	56.0	1,477.9	6	0	1	0	1	2	No	No
Huntington	69	36,863	11.5%	19.1	1,930.0	—	0	0	0	1	1	No	No
Jackson	71	43,471	14.5%	25.2	1,725.0	7.9	0	0	0	1	1	No	No
Jasper	73	33,448	8.1%	10.6	3,155.5	—	1	0	0	1	3	No	Yes
Jay	75	21,255	16.0%	5.0	4,251.0	—	3	1	0	1	8	Yes	Yes
Jefferson	77	32,453	13.4%	24.0	1,352.2	—	0	0	0	1	1	No	No
Jennings	79	28,113	15.6%	6.1	4,608.7	—	3	1	0	1	8	Yes	No
Johnson	81	145,645	9.8%	90.2	1,614.7	5.6	0	0	0	1	1	No	No
Knox	83	38,062	14.8%	28.4	1,340.2	—	0	0	0	1	1	No	No
Kosciusko	85	77,983	11.1%	36.4	2,142.4	8.1	0	0	0	1	1	No	No
LaGrange	87	38,084	12.9%	10.0	3,808.4	5.4	2	0	0	1	5	Yes	Yes

Table 2.3 Primary Care Geographic HPSA Scoring

County	FIPS	Population	Poverty Rate: % Below 100% FPL	Total PC FTE	PC Pop to Prov	Infant Mortality Rate	Score: PC Pop to Prov	Score: Poverty Rate	Score: IMR	Score: Travel	Total HPSA Score	Meets Minimum Requirements*	Already Designated as a HPSA
Lake	89	491,596	17.7%	289.2	1,699.8	8.3	0	1	0	1	2	No	Yes
LaPorte	91	111,280	16.0%	58.7	1,895.7	8.5	0	1	0	1	2	No	No
Lawrence	93	45,814	12.8%	19.8	2,318.5	—	0	0	0	1	1	No	No
Madison	95	130,280	16.2%	75.4	1,727.9	7.5	0	1	0	1	2	No	No
Marion	97	926,335	20.7%	802.4	1,154.5	8.6	0	2	0	1	3	No	No
Marshall	99	46,962	11.9%	25.1	1,871.0	—	0	0	0	1	1	No	No
Martin	101	10,262	12.9%	2.5	4,104.8	—	3	0	0	1	7	Yes	Yes
Miami	103	36,211	14.3%	17.2	2,105.3	—	0	0	0	1	1	No	No
Monroe	105	142,404	22.3%	78.4	1,816.4	6	0	2	0	1	3	No	Yes
Montgomery	107	38,172	13.5%	11.8	3,234.9	—	1	0	0	1	3	No	No
Morgan	109	69,403	11.9%	29.9	2,321.2	6.3	0	0	0	1	1	No	Yes
Newton	111	14,057	13.5%	1.3	10,813.1	—	5	0	0	1	11	Yes	Yes
Noble	113	47,546	11.9%	12.6	3,773.5	6.9	2	0	0	1	5	Yes	Yes
Ohio	115	6,033	7.8%	2.0	3,016.5	—	1	0	0	1	3	No	Yes
Orange	117	19,725	17.3%	6.3	3,131.0	—	1	1	0	1	4	No	No
Owen	119	21,192	15.0%	3.7	5,727.6	—	4	0	0	1	9	Yes	Yes
Parke	121	17,107	14.5%	9.1	1,879.9	—	0	0	0	1	1	No	No
Perry	123	19,414	11.7%	9.1	2,136.3	—	0	0	0	1	1	No	No
Pike	125	12,687	9.8%	5.0	2,537.4	—	0	0	0	1	1	No	No
Porter	127	166,570	11.3%	92.3	1,804.7	4.3	0	0	0	1	1	No	No
Posey	129	25,567	11.0%	5.6	4,565.5	—	3	0	0	1	7	Yes	Yes
Pulaski	131	13,047	13.9%	6.3	2,071.0	—	0	0	0	1	1	No	Yes
Putnam	133	37,650	8.6%	8.7	4,327.6	—	3	0	0	1	7	Yes	No
Randolph	135	25,596	17.7%	6.0	4,266.0	—	3	1	0	1	8	Yes	No
Ripley	137	28,612	8.4%	6.9	4,146.7	—	3	0	0	1	7	Yes	No
Rush	139	16,991	17.3%	7.8	2,178.3	—	0	1	0	1	2	No	No
St. Joseph	141	267,246	17.0%	218.6	1,222.5	7.9	0	1	0	1	2	No	No
Scott	143	23,783	17.4%	8.1	2,936.2	—	0	1	0	1	2	No	No

Table 2.3 Primary Care Geographic HPSA Scoring

County	FIPS	Population	Poverty Rate: % Below 100% FPL	Total PC FTE	PC Pop to Prov	Infant Mortality Rate	Score: PC Pop to Prov	Score: Poverty Rate	Score: IMR	Score: Travel	Total HPSA Score	Meets Minimum Requirements*	Already Designated as a HPSA
Shelby	145	44,441	11.9%	16.4	2,709.8	8.3	0	0	0	1	1	No	No
Spencer	147	20,856	10.6%	8.0	2,607.0	—	0	0	0	1	1	No	No
Starke	149	23,117	15.9%	8.4	2,752.0	—	0	1	0	1	2	No	No
Steuben	151	34,267	10.3%	12.1	2,832.0	—	0	0	0	1	1	No	Yes
Sullivan	153	21,111	16.7%	8.2	2,574.5	—	0	1	0	1	2	No	Yes
Switzerland	155	10,500	19.3%	0.0	—	—	5	1	0	1	12	Yes	Yes
Tippecanoe	157	180,952	20.4%	94.3	1,918.9	7.7	0	2	0	1	3	No	No
Tipton	159	15,573	9.8%	6.4	2,433.3	—	0	0	0	1	1	No	No
Union	161	7,299	10.3%	0.1	72,990.0	—	5	0	0	1	11	Yes	No
Vanderburgh	163	181,305	15.9%	149.9	1,209.5	7.8	0	1	0	1	2	No	No
Vermillion	165	15,860	12.6%	3.6	4,405.6	—	3	0	0	1	7	Yes	No
Vigo	167	108,268	18.7%	78.2	1,384.5	7.1	0	1	0	1	2	No	No
Wabash	169	32,358	13.5%	11.4	2,838.4	—	0	0	0	1	1	No	No
Warren	171	8,367	8.8%	2.0	4,183.5	—	3	0	0	1	7	Yes	Yes
Warrick	173	60,995	9.7%	75.2	811.1	—	0	0	0	1	1	No	No
Washington	175	27,930	15.0%	7.7	3,627.3	—	2	1	0	1	6	Yes	Yes
Wayne	177	67,866	20.2%	43.7	1,553.0	9	0	2	0	1	3	No	No
Wells	179	27,796	11.9%	13.8	2,014.2	—	0	0	0	1	1	No	No
White	181	24,388	9.5%	6.3	3,871.1	—	2	0	0	1	5	Yes	Yes
Whitley	183	33,330	7.9%	12.9	2,583.7	—	0	0	0	1	1	No	Yes

*County level scoring does not take into account sub-county service areas. In some cases, a full county may not meet the minimum criteria for designation, but sub-county service areas may meet the requirements.

Primary Care Low-Income HPSA Scoring

Highlights

- Scoring for the low-income HPSA is found in Table 2.4
- Of Indiana’s 92 counties 66 (71.7%) meet the minimum criterial for low-income primary care HPSA designation
- Of the 66 counties that meet the minimum criteria 37 are not currently designated.
- 7 counties (Fayette, Jay, LaGrange, Orange, Parke, Randolph and Starke) had the highest scores of 15 and Carroll County had the highest population to primary care provide ratio of 433,920.8:1.

County	FIPS	Population	Poverty Rate: % Below200% FPL	Total PC Low- Income FTE	Population to PC FTE	Infant Mortality Rate: Rate per 1,000	Score: Population to PC Provider FTE	Score: Poverty	Score: IMR	Score: Travel	Total HPSA Score	Meets Minimum Requirements*	Already Designated As a HPSA
Adams	1	34,642	38.1%	0.60	22,065.5	6.2	5	3	0	1	14	Yes	No
Allen	3	363,453	34.5%	6.95	18,032.9	7.3	5	3	0	1	14	Yes	No
Bartholomew	5	79,488	28.9%	1.77	12,934.1	10.7							
Benton	7	8,752	36.9%	0.00	—	—	0	3	0	1	4	Yes	Yes
Blackford	9	12,476	38.5%	0.12	40,903.7	—	5	3	0	1	14	Yes	No
Boone	11	60,511	20.2%	0.49	24,901.6	—							
Brown	13	15,011	30.9%	0.00	—	—	0	3	0	1	4	Yes	No
Carroll	15	20,014	32.0%	0.01	433,920.8	—	5	3	0	1	14	Yes	No
Cass	17	38,476	39.4%	0.87	17,451.2	8.4	5	3	0	1	14	Yes	Yes
Clark	19	113,181	29.5%	2.92	11,425.4	7.5							
Clay	21	26,686	36.8%	0.58	16,996.8	—	5	3	0	1	14	Yes	No
Clinton	23	32,835	36.0%	0.93	12,689.5	—	5	3	0	1	14	Yes	No
Crawford	25	10,591	44.6%	0.00	—	—	0	4	0	1	5	Yes	Yes
Daviess	27	32,411	36.9%	1.10	10,887.3	8.6	5	3	0	1	14	Yes	Yes
Dearborn	29	49,679	23.7%	0.59	19,944.0	—							
Decatur	31	26,240	33.9%	0.96	9,268.9	—	4	3	0	1	12	Yes	Yes
DeKalb	33	42,449	34.6%	1.64	8,964.7	—	4	3	0	1	12	Yes	No
Delaware	35	117,335	40.7%	5.58	8,557.4	8.4	4	4	0	1	13	Yes	No

County	FIPS	Population	Poverty Rate: % Below200% FPL	Total PC Low- Income FTE	Population to PC FTE	Infant Mortality Rate: Rate per 1,000	Score: Population to PC Provider FTE	Score: Poverty	Score: IMR	Score: Travel	Total HPSA Score	Meets Minimum Requirements*	Already Designated As a HPSA
Dubois	37	42,291	26.7%	1.23	9,189.3	7.8							
Elkhart	39	200,685	37.8%	6.96	10,905.8	7.1	5	3	0	1	14	Yes	No
Fayette	41	23,773	43.7%	0.63	16,407.9	—	5	4	0	1	15	Yes	Yes
Floyd	43	75,900	26.5%	2.33	8,632.8	—							
Fountain	45	16,888	34.1%	0.69	8,298.0	—	4	3	0	1	12	Yes	No
Franklin	47	22,935	29.3%	0.81	8,336.5	—							
Fulton	49	20,527	35.1%	0.99	7,265.4	—	4	3	0	1	12	Yes	No
Gibson	51	33,668	30.9%	1.45	7,192.4	—	4	3	0	1	12	Yes	No
Grant	53	68,896	37.8%	1.53	17,019.5	9.5	5	3	0	1	14	Yes	Yes
Greene	55	32,815	35.1%	1.12	10,265.7	—	5	3	0	1	14	Yes	No
Hamilton	57	296,635	14.0%	7.70	5,388.8	4.1							
Hancock	59	71,328	20.1%	1.97	7,265.0	5.2							
Harrison	61	39,230	29.5%	0.65	17,892.2	—							
Hendricks	63	153,435	18.0%	3.77	7,330.7	5.6							
Henry	65	49,146	35.2%	0.72	24,037.2	8.4	5	3	0	1	14	Yes	Yes
Howard	67	82,765	36.1%	4.42	6,770.7	6	4	3	0	1	12	Yes	Yes
Huntington	69	36,863	33.0%	0.37	32,580.0	—	5	3	0	1	14	Yes	Yes
Jackson	71	43,471	35.5%	1.21	12,738.9	7.9	5	3	0	1	14	Yes	No
Jasper	73	33,448	26.0%	0.77	11,315.6	—							
Jay	75	21,255	41.4%	0.49	17,835.7	—	5	4	0	1	15	Yes	No
Jefferson	77	32,453	37.1%	0.09	134,736.8	—	5	3	0	1	14	Yes	No
Jennings	79	28,113	38.3%	0.49	22,058.8	—	5	3	0	1	14	Yes	Yes
Johnson	81	145,645	25.8%	5.00	7,513.4	5.6							
Knox	83	38,062	32.8%	1.26	9,885.3	—	4	3	0	1	12	Yes	Yes
Kosciusko	85	77,983	30.5%	1.94	12,293.6	8.1	5	3	0	1	14	Yes	No
LaGrange	87	38,084	41.7%	0.76	20,939.6	5.4	5	4	0	1	15	Yes	No

County	FIPS	Population	Poverty Rate: % Below200% FPL	Total PC Low- Income FTE	Population to PC FTE	Infant Mortality Rate: Rate per 1,000	Score: Population to PC Provider FTE	Score: Poverty	Score: IMR	Score: Travel	Total HPSA Score	Meets Minimum Requirements*	Already Designated As a HPSA
Lake	89	491,596	36.1%	17.03	10,430.0	8.3	5	3	0	1	14	Yes	Yes
LaPorte	91	111,280	33.4%	1.25	29,750.8	8.5	5	3	0	1	14	Yes	No
Lawrence	93	45,814	34.7%	2.51	6,329.4	—	4	3	0	1	12	Yes	Yes
Madison	95	130,280	36.8%	6.92	6,929.5	7.5	4	3	0	1	12	Yes	Yes
Marion	97	926,335	42.0%	71.94	5,410.1	8.6	4	4	0	1	13	Yes	No
Marshall	99	46,962	35.1%	1.26	13,040.6	—	5	3	0	1	14	Yes	No
Martin	101	10,262	32.4%	0.28	11,836.3	—	5	3	0	1	14	Yes	No
Miami	103	36,211	38.0%	0.84	16,326.3	—	5	3	0	1	14	Yes	Yes
Monroe	105	142,404	38.5%	3.63	15,070.7	6	5	3	0	1	14	Yes	No
Montgomery	107	38,172	34.2%	0.54	24,118.2	—	5	3	0	1	14	Yes	No
Morgan	109	69,403	28.2%	1.59	12,318.3	6.3							
Newton	111	14,057	36.7%	0.08	60,730.1	—	5	3	0	1	14	Yes	No
Noble	113	47,546	34.2%	0.43	37,421.0	6.9	5	3	0	1	14	Yes	No
Ohio	115	6,033	25.4%	0.05	31,199.2	—							
Orange	117	19,725	44.7%	0.84	10,486.7	—	5	4	0	1	15	Yes	Yes
Owen	119	21,192	38.2%	0.16	50,899.9	—	5	3	0	1	14	Yes	No
Parke	121	17,107	40.6%	0.16	44,334.7	—	5	4	0	1	15	Yes	Yes
Perry	123	19,414	31.3%	0.20	30,763.0	—	5	3	0	1	14	Yes	Yes
Pike	125	12,687	30.0%	0.26	14,581.1	—							
Porter	127	166,570	23.6%	3.22	12,206.9	4.3							
Posey	129	25,567	23.5%	0.18	32,446.7	—							
Pulaski	131	13,047	36.8%	0.16	30,047.4	—	5	3	0	1	14	Yes	No
Putnam	133	37,650	24.3%	0.83	11,045.8	—							
Randolph	135	25,596	42.6%	0.63	17,324.4	—	5	4	0	1	15	Yes	Yes
Ripley	137	28,612	29.2%	0.27	31,316.2	—							
Rush	139	16,991	38.5%	0.88	7,441.5	—	4	3	0	1	12	Yes	No

County	FIPS	Population	Poverty Rate: % Below200% FPL	Total PC Low- Income FTE	Population to PC FTE	Infant Mortality Rate: Rate per 1,000	Score: Population to PC Provider FTE	Score: Poverty	Score: IMR	Score: Travel	Total HPSA Score	Meets Minimum Requirements*	Already Designated As a HPSA
St. Joseph	141	267,246	36.6%	10.13	9,665.2	7.9	4	3	0	1	12	Yes	Yes
Scott	143	23,783	39.3%	0.42	22,169.9	—	5	3	0	1	14	Yes	Yes
Shelby	145	44,441	32.4%	1.28	11,303.3	8.3	5	3	0	1	14	Yes	Yes
Spencer	147	20,856	25.1%	0.92	5,720.5	—							
Starke	149	23,117	41.3%	0.67	14,205.7	—	5	4	0	1	15	Yes	Yes
Steuben	151	34,267	31.9%	0.24	44,819.4	—	5	3	0	1	14	Yes	No
Sullivan	153	21,111	36.1%	0.76	9,996.3	—	4	3	0	1	12	Yes	No
Switzerland	155	10,500	44.0%	0.00	—	—	0	4	0	1	5	Yes	No
Tippecanoe	157	180,952	37.7%	4.27	15,956.2	7.7	5	3	0	1	14	Yes	Yes
Tipton	159	15,573	28.5%	0.27	16,714.1	—							
Union	161	7,299	34.8%	0.02	156,975.3	—	5	3	0	1	14	Yes	Yes
Vanderburgh	163	181,305	36.4%	10.68	6,174.8	7.8	4	3	0	1	12	Yes	Yes
Vermillion	165	15,860	35.6%	0.35	16,047.8	—	5	3	0	1	14	Yes	No
Vigo	167	108,268	39.5%	5.61	7,628.5	7.1	4	3	0	1	12	Yes	No
Wabash	169	32,358	34.3%	0.38	29,547.8	—	5	3	0	1	14	Yes	Yes
Warren	171	8,367	24.7%	0.05	39,616.1	—							
Warrick	173	60,995	23.2%	3.32	4,255.9	—							
Washington	175	27,930	39.8%	0.35	32,116.1	—	5	3	0	1	14	Yes	No
Wayne	177	67,866	41.5%	2.99	9,409.2	9	4	4	0	1	13	Yes	Yes
Wells	179	27,796	30.3%	0.19	43,395.1	—	5	3	0	1	14	Yes	No
White	181	24,388	27.4%	0.14	48,746.4	—							
Whitley	183	33,330	25.1%	0.25	33,736.4	—							

*County level scoring does not take into account sub-county service areas. In some cases, a full county may not meet the minimum criteria for designation, but sub-county service areas may meet the requirements.

Mental Health Geographic HPSA Scoring

Highlights

- A summary of the mental health geographic HPSA scoring can be found in Table 2.5
- 22 Indiana counties met the minimum criteria for mental health geographic HPSA designation but are not currently designated
- Henry County had the highest mental health graphic HPSA score of 14 and Posey County had the highest population to psychiatrist FTE ratio of 255,670.0:1
- 46 counties do not have any psychiatrist FTE

Table 2.5. Mental Health Geographic HPSA Scoring

County	FIPS	Population	Youth Ratio: % Under 18	Elderly Ratio: % 65-Over	Poverty Rate: % Below 100% FPL	Total Psych FTE	psych pop prov	Alcohol Abuse: Worst Quartile	Substance Abuse: Worst Quartile	Score: Psych Pop to Prov	Score: Poverty Rate	Score: Youth Ratio	Score: Elderly Ratio	Score: Alcohol Abuse	Score: Substance Abuse	Score: Travel	Total Score HPSA	Meets Minimum Requirements*	Already Designated as a HPSA
Adams	1	34,642	31.3%	14.3%	16.0%	1.0	34,642.0	0	0	1	1	1	1	0	0	1	5	Yes	Yes
Allen	3	363,453	26.4%	12.8%	15.6%	10.5	34,552.9	1	1	1	1	1	1	1	1	1	7	Yes	No
Bartholomew	5	79,488	24.5%	14.8%	12.6%	2.5	31,795.2	0	0	1	0	1	1	0	0	1	4	Yes	No
Benton	7	8,752	25.1%	16.0%	13.5%	0.0	—	0	0	4	0	1	2	0	0	1	8	Yes	Yes
Blackford	9	12,476	22.1%	19.4%	13.6%	0.1	124,760.0	1	1	7	0	1	2	1	1	1	13	Yes	Yes
Boone	11	60,511	27.1%	12.5%	5.8%	2.4	25,212.9	0	0	0	0	1	1	0	0	1	3	No	No
Brown	13	15,011	20.0%	20.2%	12.4%	0.0	—	0	0	7	0	1	2	0	0	1	11	Yes	No
Carroll	15	20,014	23.6%	17.3%	10.7%	0.0	—	0	0	7	0	1	2	0	0	1	11	Yes	Yes
Cass	17	38,476	24.4%	15.8%	15.3%	1.1	34,978.2	0	0	1	1	1	2	0	0	1	6	Yes	Yes
Clark	19	113,181	23.3%	13.8%	10.6%	7.8	14,510.4	1	1	0	0	1	1	1	1	1	5	No	No
Clay	21	26,686	23.6%	16.1%	14.3%	0.0	—	0	0	7	0	1	2	0	0	1	11	Yes	No
Clinton	23	32,835	26.1%	15.3%	13.7%	0.5	65,670.0	0	0	7	0	1	2	0	0	1	11	Yes	Yes
Crawford	25	10,591	22.6%	16.7%	20.5%	0.0	—	0	0	5	2	1	2	0	0	1	11	Yes	Yes
Daviess	27	32,411	29.1%	14.3%	12.9%	0.0	—	0	0	7	0	1	1	0	0	1	10	Yes	No
Dearborn	29	49,679	23.6%	14.6%	9.2%	1.3	38,214.6	0	0	2	0	1	1	0	0	1	5	Yes	Yes
Decatur	31	26,240	24.9%	15.2%	13.9%	0.0	—	0	0	7	0	1	2	0	0	1	11	Yes	No
DeKalb	33	42,449	25.3%	14.3%	14.4%	2.0	21,224.5	0	0	0	0	1	1	0	0	1	3	No	Yes
Delaware	35	117,335	19.3%	15.7%	20.6%	10.1	11,666.8	1	1	0	2	0	2	1	1	1	7	No	No
Dubois	37	42,291	24.9%	15.6%	9.6%	0.0	—	0	0	7	0	1	2	0	0	1	11	Yes	Yes

Table 2.5. Mental Health Geographic HPSA Scoring

County	FIPS	Population	Youth Ratio: % Under 18	Elderly Ratio: % 65-Over	Poverty Rate: % Below 100% FPL	Total Psych FTE	psych pop prov	Alcohol Abuse: Worst Quartile	Substance Abuse: Worst Quartile	Score: Psych Pop to Prov	Score: Poverty Rate	Score: Youth Ratio	Score: Elderly Ratio	Score: Alcohol Abuse	Score: Substance Abuse	Score: Travel	Total Score HPSA	Meets Minimum Requirements*	Already Designated as a HPSA
Elkhart	39	200,685	28.1%	13.0%	15.7%	12.7	15,792.4	0	0	0	1	1	1	0	0	1	4	No	Yes
Fayette	41	23,773	22.7%	18.0%	20.2%	0.0	—	0	0	7	2	1	2	0	0	1	13	Yes	Yes
Floyd	43	75,900	23.4%	14.0%	12.6%	3.9	19,461.5	1	1	0	0	1	1	1	1	1	5	No	No
Fountain	45	16,888	23.1%	18.5%	11.8%	0.0	—	0	0	7	0	1	2	0	0	1	11	Yes	Yes
Franklin	47	22,935	24.5%	15.4%	10.5%	0.0	—	0	0	7	0	1	2	0	0	1	11	Yes	Yes
Fulton	49	20,527	24.2%	17.3%	14.7%	0.0	—	0	0	7	0	1	2	0	0	1	11	Yes	Yes
Gibson	51	33,668	23.7%	15.9%	10.9%	0.0	—	0	0	7	0	1	2	0	0	1	11	Yes	No
Grant	53	68,896	21.0%	17.3%	17.2%	1.9	36,261.1	1	1	2	1	1	2	1	1	1	9	Yes	Yes
Greene	55	32,815	23.0%	17.5%	13.4%	0.0	—	0	0	7	0	1	2	0	0	1	11	Yes	Yes
Hamilton	57	296,635	29.0%	9.9%	4.7%	13.4	22,136.9	0	0	0	0	1	0	0	0	1	2	No	No
Hancock	59	71,328	24.7%	14.3%	6.4%	3.1	23,009.0	0	0	0	0	1	1	0	0	1	3	No	No
Harrison	61	39,230	22.9%	15.5%	13.7%	0.0	—	0	0	7	0	1	2	0	0	1	11	Yes	No
Hendricks	63	153,435	26.3%	11.9%	4.9%	4.4	34,871.6	0	0	1	0	1	1	0	0	1	4	Yes	No
Henry	65	49,146	21.2%	17.6%	15.2%	0.0	—	1	1	7	1	1	2	1	1	1	14	Yes	No
Howard	67	82,765	23.0%	17.6%	17.5%	5.1	16,228.4	0	0	0	1	1	2	0	0	1	5	No	Yes
Huntington	69	36,863	22.6%	15.5%	11.5%	0.0	—	1	1	7	0	1	2	1	1	1	13	Yes	Yes
Jackson	71	43,471	24.3%	15.0%	14.5%	0.7	62,101.4	1	1	7	0	1	1	1	1	1	12	Yes	Yes
Jasper	73	33,448	24.9%	15.2%	8.1%	0.0	—	0	0	7	0	1	2	0	0	1	11	Yes	Yes
Jay	75	21,255	26.1%	16.4%	16.0%	0.0	—	0	0	7	1	1	2	0	0	1	12	Yes	No
Jefferson	77	32,453	21.6%	15.7%	13.4%	0.0	—	0	0	7	0	1	2	0	0	1	11	Yes	No
Jennings	79	28,113	24.8%	14.4%	15.6%	0.0	—	0	0	7	1	1	1	0	0	1	11	Yes	Yes
Johnson	81	145,645	25.6%	13.4%	9.8%	2.3	63,323.9	0	0	7	0	1	1	0	0	1	10	Yes	No
Knox	83	38,062	21.4%	16.5%	14.8%	3.6	10,572.8	1	1	0	0	1	2	1	1	1	6	No	No
Kosciusko	85	77,983	24.8%	14.6%	11.1%	1.7	45,872.4	1	1	4	0	1	1	1	1	1	9	Yes	Yes
LaGrange	87	38,084	33.9%	12.4%	12.9%	0.5	76,168.0	0	0	7	0	1	1	0	0	1	10	Yes	Yes
Lake	89	491,596	24.8%	14.2%	17.7%	29.2	16,835.5	1	1	0	1	1	1	1	1	1	6	No	Yes
LaPorte	91	111,280	22.2%	15.2%	16.0%	2.9	38,372.4	1	1	2	1	1	2	1	1	1	9	Yes	No

Table 2.5. Mental Health Geographic HPSA Scoring

County	FIPS	Population	Youth Ratio: % Under 18	Elderly Ratio: % 65-Over	Poverty Rate: % Below 100% FPL	Total Psych FTE	psych pop prov	Alcohol Abuse: Worst Quartile	Substance Abuse: Worst Quartile	Score: Psych Pop to Prov	Score: Poverty Rate	Score: Youth Ratio	Score: Elderly Ratio	Score: Alcohol Abuse	Score: Substance Abuse	Score: Travel	Total Score HPSA	Meets Minimum Requirements*	Already Designated as a HPSA
Lawrence	93	45,814	22.5%	17.5%	12.8%	0.4	114,535.0	0	0	7	0	1	2	0	0	1	11	Yes	Yes
Madison	95	130,280	22.3%	16.5%	16.2%	6.0	21,713.3	1	1	0	1	1	2	1	1	1	7	No	No
Marion	97	926,335	24.9%	11.1%	20.7%	61.4	15,083.4	1	1	0	2	1	1	1	1	1	7	No	No
Marshall	99	46,962	25.8%	15.7%	11.9%	0.0	—	0	0	7	0	1	2	0	0	1	11	Yes	Yes
Martin	101	10,262	23.2%	16.6%	12.9%	0.0	—	0	0	5	0	1	2	0	0	1	9	Yes	No
Miami	103	36,211	22.0%	15.3%	14.3%	0.0	—	0	0	7	0	1	2	0	0	1	11	Yes	Yes
Monroe	105	142,404	16.1%	11.0%	22.3%	11.0	12,945.8	0	0	0	2	0	1	0	0	1	4	No	Yes
Montgomery	107	38,172	23.3%	16.4%	13.5%	1.2	31,810.0	0	0	1	0	1	2	0	0	1	5	Yes	Yes
Morgan	109	69,403	24.0%	14.5%	11.9%	0.0	—	0	0	7	0	1	1	0	0	1	10	Yes	Yes
Newton	111	14,057	22.1%	17.2%	13.5%	0.0	—	0	0	6	0	1	2	0	0	1	10	Yes	Yes
Noble	113	47,546	25.7%	13.9%	11.9%	1.4	33,961.4	0	0	1	0	1	1	0	0	1	4	Yes	Yes
Ohio	115	6,033	20.2%	18.9%	7.8%	0.0	—	0	0	3	0	1	2	0	0	1	7	Yes	Yes
Orange	117	19,725	24.0%	17.1%	17.3%	0.0	—	0	0	7	1	1	2	0	0	1	12	Yes	Yes
Owen	119	21,192	22.1%	16.6%	15.0%	0.1	211,920.0	0	0	7	0	1	2	0	0	1	11	Yes	Yes
Parke	121	17,107	21.5%	16.8%	14.5%	0.0	—	0	0	7	0	1	2	0	0	1	11	Yes	Yes
Perry	123	19,414	21.0%	16.4%	11.7%	0.0	—	0	0	7	0	1	2	0	0	1	11	Yes	Yes
Pike	125	12,687	22.0%	18.4%	9.8%	0.0	—	0	0	6	0	1	2	0	0	1	10	Yes	No
Porter	127	166,570	23.2%	13.9%	11.3%	6.6	25,237.9	1	1	0	0	1	1	1	1	1	5	No	No
Posey	129	25,567	22.8%	15.7%	11.0%	0.1	255,670.0	1	1	7	0	1	2	1	1	1	13	Yes	No
Pulaski	131	13,047	23.2%	17.8%	13.9%	0.0	—	0	0	6	0	1	2	0	0	1	10	Yes	Yes
Putnam	133	37,650	19.9%	14.6%	8.6%	0.4	94,125.0	0	0	7	0	0	1	0	0	1	9	Yes	Yes
Randolph	135	25,596	23.8%	18.1%	17.7%	0.0	—	0	0	7	1	1	2	0	0	1	12	Yes	Yes
Ripley	137	28,612	24.4%	16.5%	8.4%	0.3	95,373.3	0	0	7	0	1	2	0	0	1	11	Yes	Yes
Rush	139	16,991	23.1%	17.4%	17.3%	0.0	—	0	0	7	1	1	2	0	0	1	12	Yes	Yes
St. Joseph	141	267,246	24.1%	14.0%	17.0%	19.1	13,991.9	1	1	0	1	1	1	1	1	1	6	No	Yes
Scott	143	23,783	23.3%	15.4%	17.4%	0.0	—	0	0	7	1	1	2	0	0	1	12	Yes	No
Shelby	145	44,441	23.6%	15.2%	11.9%	0.4	111,102.5	0	0	7	0	1	2	0	0	1	11	Yes	No

Table 2.5. Mental Health Geographic HPSA Scoring

County	FIPS	Population	Youth Ratio: % Under 18	Elderly Ratio: % 65-Over	Poverty Rate: % Below 100% FPL	Total Psych FTE	psych pop prov	Alcohol Abuse: Worst Quartile	Substance Abuse: Worst Quartile	Score: Psych Pop to Prov	Score: Poverty Rate	Score: Youth Ratio	Score: Elderly Ratio	Score: Alcohol Abuse	Score: Substance Abuse	Score: Travel	Total Score HPSA	Meets Minimum Requirements*	Already Designated as a HPSA
Spencer	147	20,856	23.1%	17.2%	10.6%	0.0	—	0	0	7	0	1	2	0	0	1	11	Yes	Yes
Starke	149	23,117	23.4%	16.3%	15.9%	0.0	—	0	0	7	1	1	2	0	0	1	12	Yes	No
Steuben	151	34,267	21.5%	16.6%	10.3%	0.8	42,833.8	0	0	3	0	1	2	0	0	1	7	Yes	Yes
Sullivan	153	21,111	20.2%	15.9%	16.7%	0.0	—	0	0	7	1	1	2	0	0	1	12	Yes	No
Switzerland	155	10,500	25.2%	15.7%	19.3%	0.0	—	0	0	5	1	1	2	0	0	1	10	Yes	Yes
Tippecanoe	157	180,952	20.6%	10.0%	20.4%	6.9	26,224.9	0	0	0	2	1	1	0	0	1	5	No	Yes
Tipton	159	15,573	21.9%	19.0%	9.8%	0.0	—	0	0	7	0	1	2	0	0	1	11	Yes	Yes
Union	161	7,299	23.7%	16.3%	10.3%	0.0	—	0	0	4	0	1	2	0	0	1	8	Yes	Yes
Vanderburgh	163	181,305	22.0%	15.0%	15.9%	14.3	12,678.7	1	1	0	1	1	1	1	1	1	6	No	No
Vermillion	165	15,860	22.5%	18.2%	12.6%	0.0	—	1	1	7	0	1	2	1	1	1	13	Yes	Yes
Vigo	167	108,268	20.9%	14.2%	18.7%	9.3	11,641.7	1	1	0	1	1	1	1	1	1	6	No	No
Wabash	169	32,358	21.8%	19.1%	13.5%	0.0	—	1	1	7	0	1	2	1	1	1	13	Yes	Yes
Warren	171	8,367	21.8%	18.6%	8.8%	0.0	—	0	0	4	0	1	2	0	0	1	8	Yes	Yes
Warrick	173	60,995	24.9%	15.4%	9.7%	0.7	87,135.7	1	1	7	0	1	2	1	1	1	13	Yes	No
Washington	175	27,930	24.2%	15.0%	15.0%	1.0	27,930.0	0	0	0	1	1	1	0	0	1	4	No	No
Wayne	177	67,866	22.4%	17.5%	20.2%	1.9	35,718.9	0	0	2	2	1	2	0	0	1	8	Yes	Yes
Wells	179	27,796	24.4%	16.9%	11.9%	0.0	—	0	0	7	0	1	2	0	0	1	11	Yes	Yes
White	181	24,388	23.7%	18.1%	9.5%	0.7	34,840.0	0	0	1	0	1	2	0	0	1	5	Yes	Yes
Whitley	183	33,330	23.6%	15.6%	7.9%	0.0	—	0	0	7	0	1	2	0	0	1	11	Yes	Yes

*County level scoring does not take into account sub-county service areas. In some cases, a full county may not meet the minimum criteria for designation, but sub-county service areas may meet the requirements.

Mental Health Low-Income HPSA Scoring

Highlights

- A summary of the mental health low-income HPSA scoring can be found in Table 2.6
- Of the 66 counties that qualify for low-income HPSA scoring, 50 met the minimum low-income mental health HPSA criteria but are not currently designated.
- 7 counties (Blackford, Grant, Huntington, Vermillion, Wabash, Henry and Knox) had the highest HPSA score of 16.
- Orange County had the highest population to psychiatrist FTE ratio of 2,937,333.3:1 and 33 counties had no psychiatrist FTE

Table 2.6 Mental Health Low-Income HPSA Scoring

County	FIPS	Population	Poverty Rate: % Below 200% FPL	Youth Ratio: % Under18	Elderly Ratio: % 65-Over	Total Psych Low-Income FTE	Population to Psych FTE	Alcohol Abuse: Worst Quartile	Substance Abuse: Worst Quartile	Score: Population to Psych FTE	Score: Poverty Rate	Score: Youth Ratio	Score: Elderly Ratio	Score: Alcohol Abuse	Score: Substance Abuse	Score: Travel	Total HPSA Score	Meets Minimum Requirements	Already Designated as a HPSA
Adams	1	34,642	38.1%	31.3%	14.3%	0.1343	98,234.6	0	0	7	3	1	1	0	0	1	13	Yes	No
Allen	3	363,453	34.5%	26.4%	12.8%	2.2230	56,344.1	1	1	6	3	1	1	1	1	1	14	Yes	No
Bartholomew	5	79,488	28.9%	24.5%	14.8%	0.2819	81,376.6	0	0										
Benton	7	8,752	36.9%	25.1%	16.0%	0.0000	—	0	0	4	3	1	2	0	0	1	11	Yes	No
Blackford	9	12,476	38.5%	22.1%	19.4%	0.0105	458,939.1	1	1	7	3	1	2	1	1	1	16	Yes	No
Boone	11	60,511	20.2%	27.1%	12.5%	0.2505	48,914.2	0	0										
Brown	13	15,011	30.9%	20.0%	20.2%	0.0000	—	0	0	7	3	1	2	0	0	1	14	Yes	No
Carroll	15	20,014	32.0%	23.6%	17.3%	0.0000	—	0	0	7	3	1	2	0	0	1	14	Yes	No
Cass	17	38,476	39.4%	24.4%	15.8%	3.9734	3,815.4	0	0	0	3	1	2	0	0	1	7	No	No
Clark	19	113,181	29.5%	23.3%	13.8%	0.7641	43,682.5	1	1										
Clay	21	26,686	36.8%	23.6%	16.1%	0.0000	—	0	0	7	3	1	2	0	0	1	14	Yes	No
Clinton	23	32,835	36.0%	26.1%	15.3%	0.1341	88,141.7	0	0	7	3	1	2	0	0	1	14	Yes	No
Crawford	25	10,591	44.6%	22.6%	16.7%	0.0000	—	0	0	5	4	1	2	0	0	1	13	Yes	No
Daviess	27	32,411	36.9%	29.1%	14.3%	0.0000	—	0	0	7	3	1	1	0	0	1	13	Yes	Yes
Dearborn	29	49,679	23.7%	23.6%	14.6%	0.0191	615,038.1	0	0										
Decatur	31	26,240	33.9%	24.9%	15.2%	0.0000	—	0	0	7	3	1	2	0	0	1	14	Yes	No
DeKalb	33	42,449	34.6%	25.3%	14.3%	0.9206	15,972.8	0	0	0	3	1	1	0	0	1	6	No	No
Delaware	35	117,335	40.7%	19.3%	15.7%	6.6620	7,172.7	1	1	0	4	0	2	1	1	1	9	No	Yes
Dubois	37	42,291	26.7%	24.9%	15.6%	0.1678	67,338.3	0	0										

Table 2.6 Mental Health Low-Income HPSA Scoring

County	FIPS	Population	Poverty Rate: % Below 200% FPL	Youth Ratio: % Under18	Elderly Ratio: % 65-Over	Total Psych Low-Income FTE	Population to Psych FTE	Alcohol Abuse: Worst Quartile	Substance Abuse: Worst Quartile	Score: Population to Psych FTE	Score: Poverty Rate	Score: Youth Ratio	Score: Elderly Ratio	Score: Alcohol Abuse	Score: Substance Abuse	Score: Travel	Total HPSA Score	Meets Minimum Requirements	Already Designated as a HPSA
Elkhart	39	200,685	37.8%	28.1%	13.0%	12.1667	6,238.2	0	0	0	3	1	1	0	0	1	6	No	No
Fayette	41	23,773	43.7%	22.7%	18.0%	0.0000	—	0	0	7	4	1	2	0	0	1	15	Yes	No
Floyd	43	75,900	26.5%	23.4%	14.0%	0.6891	29,190.4	1	1										
Fountain	45	16,888	34.1%	23.1%	18.5%	0.0000	—	0	0	7	3	1	2	0	0	1	14	Yes	No
Franklin	47	22,935	29.3%	24.5%	15.4%	0.0000	—	0	0										
Fulton	49	20,527	35.1%	24.2%	17.3%	0.0000	—	0	0	7	3	1	2	0	0	1	14	Yes	No
Gibson	51	33,668	30.9%	23.7%	15.9%	0.0000	—	0	0	7	3	1	2	0	0	1	14	Yes	No
Grant	53	68,896	37.8%	21.0%	17.3%	0.3817	68,302.0	1	1	7	3	1	2	1	1	1	16	Yes	No
Greene	55	32,815	35.1%	23.0%	17.5%	0.0000	—	0	0	7	3	1	2	0	0	1	14	Yes	No
Hamilton	57	296,635	14.0%	29.0%	9.9%	0.8107	51,160.8	0	0										
Hancock	59	71,328	20.1%	24.7%	14.3%	0.8538	16,769.8	0	0										
Harrison	61	39,230	29.5%	22.9%	15.5%	0.0000	—	0	0										
Hendricks	63	153,435	18.0%	26.3%	11.9%	0.0838	330,047.9	0	0										
Henry	65	49,146	35.2%	21.2%	17.6%	0.0000	—	1	1	7	3	1	2	1	1	1	16	Yes	Yes
Howard	67	82,765	36.1%	23.0%	17.6%	0.5690	52,580.3	0	0	5	3	1	2	0	0	1	12	Yes	No
Huntington	69	36,863	33.0%	22.6%	15.5%	0.0000	—	1	1	7	3	1	2	1	1	1	16	Yes	No
Jackson	71	43,471	35.5%	24.3%	15.0%	0.0068	2,287,259.3	1	1	7	3	1	1	1	1	1	15	Yes	No
Jasper	73	33,448	26.0%	24.9%	15.2%	0.0000	—	0	0										
Jay	75	21,255	41.4%	26.1%	16.4%	0.0000	—	0	0	7	4	1	2	0	0	1	15	Yes	Yes
Jefferson	77	32,453	37.1%	21.6%	15.7%	0.0000	—	0	0	7	3	1	2	0	0	1	14	Yes	No
Jennings	79	28,113	38.3%	24.8%	14.4%	0.0000	—	0	0	7	3	1	1	0	0	1	13	Yes	No
Johnson	81	145,645	25.8%	25.6%	13.4%	0.2931	128,249.7	0	0										
Knox	83	38,062	32.8%	21.4%	16.5%	0.0234	532,480.0	1	1	7	3	1	2	1	1	1	16	Yes	Yes
Kosciusko	85	77,983	30.5%	24.8%	14.6%	0.5315	44,788.3	1	1	3	3	1	1	1	1	1	11	Yes	No
LaGrange	87	38,084	41.7%	33.9%	12.4%	0.2826	56,228.6	0	0	6	4	1	1	0	0	1	13	Yes	No
Lake	89	491,596	36.1%	24.8%	14.2%	6.2253	28,525.4	1	1	0	3	1	1	1	1	1	8	No	Yes
LaPorte	91	111,280	33.4%	22.2%	15.2%	0.6312	58,800.7	1	1	6	3	1	2	1	1	1	15	Yes	No

Table 2.6 Mental Health Low-Income HPSA Scoring

County	FIPS	Population	Poverty Rate: % Below 200% FPL	Youth Ratio: % Under18	Elderly Ratio: % 65-Over	Total Psych Low-Income FTE	Population to Psych FTE	Alcohol Abuse: Worst Quartile	Substance Abuse: Worst Quartile	Score: Population to Psych FTE	Score: Poverty Rate	Score: Youth Ratio	Score: Elderly Ratio	Score: Alcohol Abuse	Score: Substance Abuse	Score: Travel	Total HPSA Score	Meets Minimum Requirements	Already Designated as a HPSA
Lawrence	93	45,814	34.7%	22.5%	17.5%	0.0170	933,941.2	0	0	7	3	1	2	0	0	1	14	Yes	No
Madison	95	130,280	36.8%	22.3%	16.5%	1.8892	25,377.6	1	1	0	3	1	2	1	1	1	9	No	No
Marion	97	926,335	42.0%	24.9%	11.1%	15.4419	25,204.6	1	1	0	4	1	1	1	1	1	9	No	Yes
Marshall	99	46,962	35.1%	25.8%	15.7%	0.4059	40,621.6	0	0	3	3	1	2	0	0	1	10	Yes	No
Martin	101	10,262	32.4%	23.2%	16.6%	0.0000	—	0	0	5	3	1	2	0	0	1	12	Yes	Yes
Miami	103	36,211	38.0%	22.0%	15.3%	0.0000	—	0	0	7	3	1	2	0	0	1	14	Yes	No
Monroe	105	142,404	38.5%	16.1%	11.0%	0.9774	56,029.9	0	0	6	3	0	1	0	0	1	11	Yes	No
Montgomery	107	38,172	34.2%	23.3%	16.4%	0.0094	1,388,870.9	0	0	7	3	1	2	0	0	1	14	Yes	No
Morgan	109	69,403	28.2%	24.0%	14.5%	0.0000	—	0	0										
Newton	111	14,057	36.7%	22.1%	17.2%	0.0000	—	0	0	6	3	1	2	0	0	1	13	Yes	No
Noble	113	47,546	34.2%	25.7%	13.9%	0.7269	22,368.4	0	0	0	3	1	1	0	0	1	6	No	No
Ohio	115	6,033	25.4%	20.2%	18.9%	0.0000	—	0	0										
Orange	117	19,725	44.7%	24.0%	17.1%	0.0030	2,937,333.3	0	0	7	4	1	2	0	0	1	15	Yes	No
Owen	119	21,192	38.2%	22.1%	16.6%	0.0040	2,022,000.0	0	0	7	3	1	2	0	0	1	14	Yes	No
Parke	121	17,107	40.6%	21.5%	16.8%	0.0040	—	0	0	7	4	1	2	0	0	1	15	Yes	No
Perry	123	19,414	31.3%	21.0%	16.4%	0.0040	—	0	0	7	3	1	2	0	0	1	14	Yes	No
Pike	125	12,687	30.0%	22.0%	18.4%	0.0000	—	0	0										
Porter	127	166,570	23.6%	23.2%	13.9%	2.9489	13,339.4	1	1										
Posey	129	25,567	23.5%	22.8%	15.7%	0.0188	318,477.9	1	1										
Pulaski	131	13,047	36.8%	23.2%	17.8%	0.0000	—	0	0	6	3	1	2	0	0	1	13	Yes	No
Putnam	133	37,650	24.3%	19.9%	14.6%	0.0210	434,521.3	0	0										
Randolph	135	25,596	42.6%	23.8%	18.1%	0.0000	—	0	0	7	4	1	2	0	0	1	15	Yes	No
Ripley	137	28,612	29.2%	24.4%	16.5%	0.0122	684,690.1	0	0										
Rush	139	16,991	38.5%	23.1%	17.4%	0.0000	—	0	0	7	3	1	2	0	0	1	14	Yes	No
St. Joseph	141	267,246	36.6%	24.1%	14.0%	2.1092	46,421.7	1	1	4	3	1	1	1	1	1	12	Yes	No
Scott	143	23,783	39.3%	23.3%	15.4%	0.0000	—	0	0	7	3	1	2	0	0	1	14	Yes	Yes
Shelby	145	44,441	32.4%	23.6%	15.2%	0.4232	34,066.7	0	0	1	3	1	2	0	0	1	8	Yes	No

Table 2.6 Mental Health Low-Income HPSA Scoring

County	FIPS	Population	Poverty Rate: % Below 200% FPL	Youth Ratio: % Under18	Elderly Ratio: % 65-Over	Total Psych Low-Income FTE	Population to Psych FTE	Alcohol Abuse: Worst Quartile	Substance Abuse: Worst Quartile	Score: Population to Psych FTE	Score: Poverty Rate	Score: Youth Ratio	Score: Elderly Ratio	Score: Alcohol Abuse	Score: Substance Abuse	Score: Travel	Total HPSA Score	Meets Minimum Requirements	Already Designated as a HPSA
Spencer	147	20,856	25.1%	23.1%	17.2%	0.0000	—	0	0										
Starke	149	23,117	41.3%	23.4%	16.3%	0.0000	—	0	0	7	4	1	2	0	0	1	15	Yes	No
Steuben	151	34,267	31.9%	21.5%	16.6%	0.4522	24,146.6	0	0	0	3	1	2	0	0	1	7	No	No
Sullivan	153	21,111	36.1%	20.2%	15.9%	0.0000	—	0	0	7	3	1	2	0	0	1	14	Yes	No
Switzerland	155	10,500	44.0%	25.2%	15.7%	0.0000	—	0	0	5	4	1	2	0	0	1	13	Yes	No
Tippecanoe	157	180,952	37.7%	20.6%	10.0%	0.6003	113,564.8	0	0	7	3	1	1	0	0	1	13	Yes	No
Tipton	159	15,573	28.5%	21.9%	19.0%	0.0000	—	0	0										
Union	161	7,299	34.8%	23.7%	16.3%	0.0000	—	0	0	4	3	1	2	0	0	1	11	Yes	No
Vanderburgh	163	181,305	36.4%	22.0%	15.0%	2.2342	29,527.2	1	1	0	3	1	1	1	1	1	8	No	No
Vermillion	165	15,860	35.6%	22.5%	18.2%	0.0000	—	1	1	7	3	1	2	1	1	1	16	Yes	No
Vigo	167	108,268	39.5%	20.9%	14.2%	0.9272	46,174.9	1	1	4	3	1	1	1	1	1	12	Yes	No
Wabash	169	32,358	34.3%	21.8%	19.1%	0.0000	—	1	1	7	3	1	2	1	1	1	16	Yes	No
Warren	171	8,367	24.7%	21.8%	18.6%	0.0000	—	0	0										
Warrick	173	60,995	23.2%	24.9%	15.4%	0.0000	—	1	1										
Washington	175	27,930	39.8%	24.2%	15.0%	0.2670	41,674.6	0	0	3	3	1	1	0	0	1	9	Yes	No
Wayne	177	67,866	41.5%	22.4%	17.5%	0.4613	61,051.5	0	0	7	4	1	2	0	0	1	15	Yes	No
Wells	179	27,796	30.3%	24.4%	16.9%	0.0000	—	0	0	7	3	1	2	0	0	1	14	Yes	No
White	181	24,388	27.4%	23.7%	18.1%	0.1058	63,243.5	0	0										
Whitley	183	33,330	25.1%	23.6%	15.6%	0.0000	—	0	0										

*County level scoring does not take into account sub-county service areas. In some cases, a full county may not meet the minimum criteria for designation, but sub-county service areas may meet the requirements.

Dental Geographic HPSA Scoring

Highlights

- Dental geographic HPSA scoring can be found in Table 2.7
- 27 Indiana counties met the minimum criteria for dental geographic HPSA designation but are not currently designated
- Crawford County had the highest score of 16
- Blackford County had the highest population to dentist FTE ratio of 25,991.7:1 and 5 counties (Ohio, Pulaski, Union, Pike and Crawford) had no dentist FTE.

Table 2.7. Dental Geographic HPSA Scoring

County	FIPS	Population	Poverty Rate: % Below 100% FPL	Total Dentist FTE	Dent Pop to Prov	Fluoride Rate: % With Fluoridated Water	Score: Dent Pop to Prov	Score: Poverty Rate	Score: Fluoride Rate	Score: Travel	Total Score HPSA	Meets Minimum Requirements *	Already Designated As a HPSA
Adams	1	34,642	16.0%	9.2	3,752.9	43.2%	0	1	0	1	3	No	No
Allen	3	363,453	15.6%	133.2	2,727.9	67.7%	0	1	1	1	4	No	No
Bartholomew	5	79,488	12.6%	38.2	2,083.4	71.0%	0	0	1	1	2	No	No
Benton	7	8,752	13.5%	2.6	3,392.2	66.2%	0	0	1	1	2	No	No
Blackford	9	12,476	13.6%	0.5	25,991.7	92.6%	5	0	1	1	12	Yes	No
Boone	11	60,511	5.8%	22.3	2,711.6	47.6%	0	0	0	1	1	No	No
Brown	13	15,011	12.4%	1.0	15,636.5	91.2%	5	0	1	1	12	Yes	Yes
Carroll	15	20,014	10.7%	5.1	3,891.6	33.1%	0	0	0	1	1	No	No
Cass	17	38,476	15.3%	7.7	4,994.3	38.4%	1	1	0	1	5	No	No
Clark	19	113,181	10.6%	30.4	3,726.0	96.5%	0	0	1	1	2	No	No
Clay	21	26,686	14.3%	4.0	6,618.6	9.4%	3	0	0	1	7	Yes	No
Clinton	23	32,835	13.7%	9.1	3,607.6	57.0%	0	0	1	1	2	No	No
Crawford	25	10,591	20.5%	0.0	—	57.7%	5	2	1	1	16	No	No
Daviess	27	32,411	12.9%	5.7	5,736.5	67.8%	2	0	1	1	6	Yes	No
Dearborn	29	49,679	9.2%	5.0	9,986.6	50.5%	4	0	1	1	10	Yes	No
Decatur	31	26,240	13.9%	12.3	2,138.0	60.9%	0	0	1	1	2	No	No
DeKalb	33	42,449	14.4%	9.7	4,398.5	59.0%	1	0	1	1	4	No	No
Delaware	35	117,335	20.6%	45.6	2,574.1	71.1%	0	2	1	1	6	No	No

Table 2.7. Dental Geographic HPSA Scoring

County	FIPS	Population	Poverty Rate: % Below 100% FPL	Total Dentist FTE	Dent Pop to Prov	Fluoride Rate: % With Fluoridated Water	Score: Dent Pop to Prov	Score: Poverty Rate	Score: Fluoride Rate	Score: Travel	Total Score HPSA	Meets Minimum Requirements *	Already Designated As a HPSA
Dubois	37	42,291	9.6%	18.4	2,293.4	90.0%	0	0	1	1	2	No	No
Elkhart	39	200,685	15.7%	49.1	4,087.1	49.2%	1	1	0	1	5	No	No
Fayette	41	23,773	20.2%	4.0	5,896.1	69.9%	2	2	1	1	10	Yes	No
Floyd	43	75,900	12.6%	42.5	1,784.5	81.1%	0	0	1	1	2	No	No
Fountain	45	16,888	11.8%	2.4	7,036.7	45.4%	3	0	0	1	7	Yes	No
Franklin	47	22,935	10.5%	6.1	3,732.6	57.6%	0	0	1	1	2	No	No
Fulton	49	20,527	14.7%	4.0	5,084.5	34.2%	2	0	0	1	5	Yes	No
Gibson	51	33,668	10.9%	11.2	3,010.4	88.8%	0	0	1	1	2	No	No
Grant	53	68,896	17.2%	19.5	3,530.0	68.2%	0	1	1	1	4	No	No
Greene	55	32,815	13.4%	8.9	3,681.6	20.4%	0	0	0	1	1	No	No
Hamilton	57	296,635	4.7%	182.3	1,627.0	54.6%	0	0	1	1	2	No	No
Hancock	59	71,328	6.4%	18.4	3,872.1	36.4%	0	0	0	1	1	No	No
Harrison	61	39,230	13.7%	6.6	5,963.8	92.0%	2	0	1	1	6	Yes	No
Hendricks	63	153,435	4.9%	54.2	2,833.5	34.9%	0	0	0	1	1	No	No
Henry	65	49,146	15.2%	11.4	4,294.3	50.2%	1	1	1	1	6	No	No
Howard	67	82,765	17.5%	35.3	2,347.7	72.5%	0	1	1	1	4	No	No
Huntington	69	36,863	11.5%	8.6	4,298.9	58.5%	1	0	1	1	4	No	No
Jackson	71	43,471	14.5%	12.7	3,428.7	71.5%	0	0	1	1	2	No	No
Jasper	73	33,448	8.1%	9.4	3,548.2	16.4%	0	0	0	1	1	No	No
Jay	75	21,255	16.0%	3.0	7,028.8	41.0%	3	1	0	1	9	Yes	No
Jefferson	77	32,453	13.4%	14.1	2,307.2	92.8%	0	0	1	1	2	No	No
Jennings	79	28,113	15.6%	4.2	6,721.0	77.0%	3	1	1	1	10	Yes	No
Johnson	81	145,645	9.8%	57.9	2,515.6	76.7%	0	0	1	1	2	No	No
Knox	83	38,062	14.8%	9.2	4,137.2	64.8%	1	0	1	1	4	No	No
Kosciusko	85	77,983	11.1%	20.6	3,788.4	23.4%	0	0	0	1	1	No	No
LaGrange	87	38,084	12.9%	3.8	10,098.0	15.1%	5	0	0	1	11	Yes	Yes

Table 2.7. Dental Geographic HPSA Scoring

County	FIPS	Population	Poverty Rate: % Below 100% FPL	Total Dentist FTE	Dent Pop to Prov	Fluoride Rate: % With Fluoridated Water	Score: Dent Pop to Prov	Score: Poverty Rate	Score: Fluoride Rate	Score: Travel	Total Score HPSA	Meets Minimum Requirements *	Already Designated As a HPSA
Lake	89	491,596	17.7%	182.2	2,697.5	96.8%	0	1	1	1	4	No	Yes
LaPorte	91	111,280	16.0%	28.3	3,925.4	62.0%	0	1	1	1	4	No	No
Lawrence	93	45,814	12.8%	8.7	5,275.6	87.8%	2	0	1	1	6	Yes	No
Madison	95	130,280	16.2%	31.1	4,195.5	63.9%	1	1	1	1	6	No	No
Marion	97	926,335	20.7%	433.0	2,139.4	82.4%	0	2	1	1	6	No	Yes
Marshall	99	46,962	11.9%	10.3	4,558.5	38.2%	1	0	0	1	3	No	No
Martin	101	10,262	12.9%	1.4	7,126.4	119.3%	3	0	1	1	8	Yes	No
Miami	103	36,211	14.3%	7.4	4,878.0	47.9%	1	0	0	1	3	No	No
Monroe	105	142,404	22.3%	41.7	3,412.1	78.2%	0	2	1	1	6	No	No
Montgomery	107	38,172	13.5%	14.8	2,571.0	43.5%	0	0	0	1	1	No	No
Morgan	109	69,403	11.9%	17.9	3,873.3	75.1%	0	0	1	1	2	No	No
Newton	111	14,057	13.5%	1.7	8,367.3	39.7%	4	0	0	1	9	Yes	No
Noble	113	47,546	11.9%	11.8	4,020.8	36.9%	1	0	0	1	3	No	No
Ohio	115	6,033	7.8%	0.0	—	39.8%	5	0	0	1	11	No	No
Orange	117	19,725	17.3%	4.5	4,380.6	78.5%	1	1	1	1	6	No	No
Owen	119	21,192	15.0%	1.5	13,942.1	87.8%	5	0	1	1	12	Yes	No
Parke	121	17,107	14.5%	2.8	6,198.2	39.5%	3	0	0	1	7	Yes	No
Perry	123	19,414	11.7%	3.2	6,105.0	78.5%	3	0	1	1	8	Yes	No
Pike	125	12,687	9.8%	0.0	—	81.7%	5	0	1	1	12	No	No
Porter	127	166,570	11.3%	61.8	2,696.7	26.5%	0	0	0	1	1	No	No
Posey	129	25,567	11.0%	3.9	6,555.6	46.8%	3	0	0	1	7	Yes	No
Pulaski	131	13,047	13.9%	0.0	—	32.6%	5	0	0	1	11	No	No
Putnam	133	37,650	8.6%	7.1	5,331.7	49.1%	2	0	0	1	5	Yes	No
Randolph	135	25,596	17.7%	1.8	14,220.0	56.6%	5	1	1	1	14	Yes	Yes
Ripley	137	28,612	8.4%	4.7	6,113.7	90.3%	3	0	1	1	8	Yes	No
Rush	139	16,991	17.3%	4.2	4,086.3	43.6%	1	1	0	1	5	No	No

Table 2.7. Dental Geographic HPSA Scoring

County	FIPS	Population	Poverty Rate: % Below 100% FPL	Total Dentist FTE	Dent Pop to Prov	Fluoride Rate: % With Fluoridated Water	Score: Dent Pop to Prov	Score: Poverty Rate	Score: Fluoride Rate	Score: Travel	Total Score HPSA	Meets Minimum Requirements *	Already Designated As a HPSA
St. Joseph	141	267,246	17.0%	89.2	2,996.8	61.5%	0	1	1	1	4	No	No
Scott	143	23,783	17.4%	4.1	5,814.9	94.6%	2	1	1	1	8	Yes	No
Shelby	145	44,441	11.9%	12.7	3,507.6	43.7%	0	0	0	1	1	No	No
Spencer	147	20,856	10.6%	3.4	6,207.1	79.4%	3	0	1	1	8	Yes	No
Starke	149	23,117	15.9%	1.5	15,411.3	24.1%	5	1	0	1	13	Yes	No
Steuben	151	34,267	10.3%	8.8	3,894.0	31.7%	0	0	0	1	1	No	No
Sullivan	153	21,111	16.7%	3.8	5,550.7	38.2%	2	1	0	1	7	Yes	No
Switzerland	155	10,500	19.3%	1.3	8,203.1	75.7%	4	1	1	1	12	Yes	No
Tippecanoe	157	180,952	20.4%	59.5	3,040.9	56.3%	0	2	1	1	6	No	No
Tipton	159	15,573	9.8%	4.7	3,310.6	44.8%	0	0	0	1	1	No	No
Union	161	7,299	10.3%	0.0	—	33.2%	5	0	0	1	11	No	No
Vanderburgh	163	181,305	15.9%	74.3	2,439.4	92.3%	0	1	1	1	4	No	No
Vermillion	165	15,860	12.6%	2.0	8,010.1	60.8%	4	0	1	1	10	Yes	No
Vigo	167	108,268	18.7%	34.6	3,125.4	66.9%	0	1	1	1	4	No	No
Wabash	169	32,358	13.5%	5.5	5,926.4	61.0%	2	0	1	1	6	Yes	No
Warren	171	8,367	8.8%	0.7	11,620.8	42.0%	5	0	0	1	11	Yes	No
Warrick	173	60,995	9.7%	17.2	3,549.0	70.0%	0	0	1	1	2	No	No
Washington	175	27,930	15.0%	4.5	6,206.7	61.7%	3	1	1	1	10	Yes	Yes
Wayne	177	67,866	20.2%	16.7	4,065.3	76.0%	1	2	1	1	8	No	No
Wells	179	27,796	11.9%	6.5	4,289.5	43.6%	1	0	0	1	3	No	No
White	181	24,388	9.5%	5.0	4,877.6	50.4%	1	0	1	1	4	No	No
Whitley	183	33,330	7.9%	8.0	4,145.5	40.4%	1	0	0	1	3	No	No

*County level scoring does not take into account sub-county service areas. In some cases, a full county may not meet the minimum criteria for designation, but sub-county service areas may meet the requirements.

Dental Low-Income HPSA Scoring

Highlights

- A summary of the dental low-income HPSA scoring can be found in Table 2.8
- Of the 66 counties that qualify for low-income HPSA scoring, 42 met the minimum dental low-income HPSA criteria but are not currently designated.
- 5 counties (Crawford, Randolph, Orange, Wayne and Switzerland) had the highest score of 20.
- Starke County had the highest population to dentist FTE of 1,042, 386.0:1 and 7 counties had no dentist FTE

Table 2.8. Dental Low-Income HPSA Designation

County	FIPS	Population	Poverty Rate: % Below 200% FPL	Total Dentist Low-Income FTE	Population to Dent FTE	Fluoride Rate: % With Fluoridated Water	Score: Population To Dentist FTE	Score: Poverty Rate	Score: Fluoride	Score: Travel	Total HPSA Score	Meets Minimum Requirements*	Already Designated as a HPSA
Adams	1	34,642	38.1%	0.71	18,516.1	43.2%	5	3	0	1	17	Yes	No
Allen	3	363,453	34.5%	11.02	11,363.1	67.7%	5	3	1	1	18	Yes	Yes
Bartholomew	5	79,488	28.9%	5.46	4,204.1	71.0%							
Benton	7	8,752	36.9%	0.00	—	66.2%	5	3	1	1	18	No	No
Blackford	9	12,476	38.5%	0.00	—	92.6%	5	3	1	1	18	No	No
Boone	11	60,511	20.2%	6.52	1,879.9	47.6%							
Brown	13	15,011	30.9%	0.00	—	91.2%	5	3	1	1	18	No	No
Carroll	15	20,014	32.0%	0.15	42,507.8	33.1%	5	3	0	1	17	Yes	No
Cass	17	38,476	39.4%	0.14	109,966.6	38.4%	5	3	0	1	17	Yes	No
Clark	19	113,181	29.5%	2.08	16,042.6	96.5%							
Clay	21	26,686	36.8%	0.87	11,350.2	9.4%	5	3	0	1	17	Yes	No
Clinton	23	32,835	36.0%	1.60	7,408.3	57.0%	3	3	1	1	14	Yes	No
Crawford	25	10,591	44.6%	0.00	—	57.7%	5	4	1	1	20	No	No
Daviess	27	32,411	36.9%	0.73	16,314.1	67.8%	5	3	1	1	18	Yes	No
Dearborn	29	49,679	23.7%	0.11	107,256.2	50.5%							
Decatur	31	26,240	33.9%	2.12	4,184.8	60.9%	1	3	1	1	10	No	No
DeKalb	33	42,449	34.6%	0.86	17,044.0	59.0%	5	3	1	1	18	Yes	No
Delaware	35	117,335	40.7%	13.57	3,522.1	71.1%	0	4	1	1	10	No	Yes

Table 2.8. Dental Low-Income HPSA Designation

County	FIPS	Population	Poverty Rate: % Below 200% FPL	Total Dentist Low-Income FTE	Population to Dent FTE	Fluoride Rate: % With Fluoridated Water	Score: Population To Dentist FTE	Score: Poverty Rate	Score: Fluoride	Score: Travel	Total HPSA Score	Meets Minimum Requirements*	Already Designated as a HPSA
Dubois	37	42,291	26.7%	3.99	2,834.5	90.0%							
Elkhart	39	200,685	37.8%	2.80	27,155.0	49.2%	5	3	0	1	17	Yes	Yes
Fayette	41	23,773	43.7%	1.93	5,368.7	69.9%	2	4	1	1	14	Yes	No
Floyd	43	75,900	26.5%	3.09	6,500.0	81.1%							
Fountain	45	16,888	34.1%	0.22	26,722.3	45.4%	5	3	0	1	17	Yes	No
Franklin	47	22,935	29.3%	0.00	30,285,000.0	57.6%							
Fulton	49	20,527	35.1%	0.26	28,069.9	34.2%	5	3	0	1	17	Yes	No
Gibson	51	33,668	30.9%	0.62	16,749.2	88.8%	5	3	1	1	18	Yes	Yes
Grant	53	68,896	37.8%	2.08	12,544.0	68.2%	5	3	1	1	18	Yes	No
Greene	55	32,815	35.1%	1.47	7,811.4	20.4%	3	3	0	1	13	Yes	No
Hamilton	57	296,635	14.0%	19.77	2,098.2	54.6%							
Hancock	59	71,328	20.1%	3.22	4,452.9	36.4%							
Harrison	61	39,230	29.5%	0.36	32,123.8	92.0%							
Hendricks	63	153,435	18.0%	6.27	4,415.1	34.9%							
Henry	65	49,146	35.2%	1.10	15,747.8	50.2%	5	3	1	1	18	Yes	No
Howard	67	82,765	36.1%	3.49	8,568.8	72.5%	4	3	1	1	16	Yes	No
Huntington	69	36,863	33.0%	0.90	13,508.1	58.5%	5	3	1	1	18	Yes	No
Jackson	71	43,471	35.5%	4.65	3,320.1	71.5%	0	3	1	1	8	No	No
Jasper	73	33,448	26.0%	2.13	4,089.7	16.4%							
Jay	75	21,255	41.4%	0.38	23,171.5	41.0%	5	4	0	1	19	Yes	No
Jefferson	77	32,453	37.1%	0.55	22,025.7	92.8%	5	3	1	1	18	Yes	Yes
Jennings	79	28,113	38.3%	1.12	9,634.3	77.0%	4	3	1	1	16	Yes	No
Johnson	81	145,645	25.8%	8.76	4,292.6	76.7%							
Knox	83	38,062	32.8%	0.93	13,353.6	64.8%	5	3	1	1	18	Yes	No
Kosciusko	85	77,983	30.5%	1.52	15,710.2	23.4%	5	3	0	1	17	Yes	No
LaGrange	87	38,084	41.7%	0.33	48,495.4	15.1%	5	4	0	1	19	Yes	No

Table 2.8. Dental Low-Income HPSA Designation

County	FIPS	Population	Poverty Rate: % Below 200% FPL	Total Dentist Low-Income FTE	Population to Dent FTE	Fluoride Rate: % With Fluoridated Water	Score: Population To Dentist FTE	Score: Poverty Rate	Score: Fluoride	Score: Travel	Total HPSA Score	Meets Minimum Requirements*	Already Designated as a HPSA
Lake	89	491,596	36.1%	27.89	6,367.7	96.8%	3	3	1	1	14	Yes	No
LaPorte	91	111,280	33.4%	6.37	5,827.7	62.0%	2	3	1	1	12	Yes	No
Lawrence	93	45,814	34.7%	1.92	8,270.1	87.8%	4	3	1	1	16	Yes	No
Madison	95	130,280	36.8%	5.27	9,100.4	63.9%	4	3	1	1	16	Yes	No
Marion	97	926,335	42.0%	84.33	4,615.0	82.4%	1	4	1	1	12	No	Yes
Marshall	99	46,962	35.1%	0.51	32,058.7	38.2%	5	3	0	1	17	Yes	No
Martin	101	10,262	32.4%	0.50	6,682.7	119.3%	3	3	1	1	14	Yes	No
Miami	103	36,211	38.0%	0.83	16,586.1	47.9%	5	3	0	1	17	Yes	No
Monroe	105	142,404	38.5%	7.45	7,349.7	78.2%	3	3	1	1	14	Yes	No
Montgomery	107	38,172	34.2%	2.41	5,425.5	43.5%	2	3	0	1	11	Yes	No
Morgan	109	69,403	28.2%	4.38	4,475.2	75.1%							
Newton	111	14,057	36.7%	0.00	—	39.7%	5	3	0	1	17	No	No
Noble	113	47,546	34.2%	0.54	29,942.9	36.9%	5	3	0	1	17	Yes	No
Ohio	115	6,033	25.4%	0.00	—	39.8%							
Orange	117	19,725	44.7%	0.74	11,847.9	78.5%	5	4	1	1	20	Yes	No
Owen	119	21,192	38.2%	0.36	22,753.2	87.8%	5	3	1	1	18	Yes	No
Parke	121	17,107	40.6%	0.52	13,302.7	39.5%	5	4	0	1	19	Yes	No
Perry	123	19,414	31.3%	0.61	9,978.6	78.5%	4	3	1	1	16	Yes	No
Pike	125	12,687	30.0%	0.00	—	81.7%							
Porter	127	166,570	23.6%	3.59	10,944.8	26.5%							
Posey	129	25,567	23.5%	0.29	20,453.5	46.8%							
Pulaski	131	13,047	36.8%	0.00	—	32.6%	5	3	0	1	17	No	No
Putnam	133	37,650	24.3%	0.18	50,666.5	49.1%							
Randolph	135	25,596	42.6%	0.00	—	56.6%	5	4	1	1	20	No	No
Ripley	137	28,612	29.2%	0.07	119,131.1	90.3%							
Rush	139	16,991	38.5%	0.03	231,040.6	43.6%	5	3	0	1	17	Yes	Yes

Table 2.8. Dental Low-Income HPSA Designation

County	FIPS	Population	Poverty Rate: % Below 200% FPL	Total Dentist Low-Income FTE	Population to Dent FTE	Fluoride Rate: % With Fluoridated Water	Score: Population To Dentist FTE	Score: Poverty Rate	Score: Fluoride	Score: Travel	Total HPSA Score	Meets Minimum Requirements*	Already Designated as a HPSA
St. Joseph	141	267,246	36.6%	8.73	11,217.1	61.5%	5	3	1	1	18	Yes	Yes
Scott	143	23,783	39.3%	0.13	74,658.7	94.6%	5	3	1	1	18	Yes	No
Shelby	145	44,441	32.4%	1.34	10,719.2	43.7%	5	3	0	1	17	Yes	No
Spencer	147	20,856	25.1%	0.14	38,226.3	79.4%							
Starke	149	23,117	41.3%	0.01	1,042,386.0	24.1%	5	4	0	1	19	Yes	No
Steuben	151	34,267	31.9%	3.19	3,417.7	31.7%	0	3	0	1	7	No	No
Sullivan	153	21,111	36.1%	0.07	102,803.1	38.2%	5	3	0	1	17	Yes	No
Switzerland	155	10,500	44.0%	0.10	44,835.0	75.7%	5	4	1	1	20	Yes	Yes
Tiptecanoe	157	180,952	37.7%	11.42	5,969.8	56.3%	2	3	1	1	12	Yes	Yes
Tipton	159	15,573	28.5%	0.23	19,542.1	44.8%							
Union	161	7,299	34.8%	0.00		33.2%	5	3	0	1	17	No	No
Vanderburgh	163	181,305	36.4%	6.36	10,375.9	92.3%	5	3	1	1	18	Yes	Yes
Vermillion	165	15,860	35.6%	0.07	76,778.8	60.8%	5	3	1	1	18	Yes	No
Vigo	167	108,268	39.5%	8.79	4,870.2	66.9%	1	3	1	1	10	No	No
Wabash	169	32,358	34.3%	0.71	15,698.5	61.0%	5	3	1	1	18	Yes	No
Warren	171	8,367	24.7%	0.08	26,134.9	42.0%							
Warrick	173	60,995	23.2%	3.52	4,007.0	70.0%							
Washington	175	27,930	39.8%	0.63	17,635.1	61.7%	5	3	1	1	18	Yes	No
Wayne	177	67,866	41.5%	2.74	10,295.3	76.0%	5	4	1	1	20	Yes	No
Wells	179	27,796	30.3%	2.13	3,950.6	43.6%	0	3	0	1	7	No	No
White	181	24,388	27.4%	0.25	26,693.3	50.4%							
Whitley	183	33,330	25.1%	0.40	21,106.7	40.4%							

*County level scoring does not take into account sub-county service areas. In some cases, a full county may not meet the minimum criteria for designation, but sub-county service areas may meet the requirements.

MEDICALLY UNDERSERVED AREA/POPULATION SCORING: SUMMARY OF KEY FINDINGS

Highlights

- A summary of the primary care MUA/P scoring can be found in Table 2.9
- Crawford County had the lowest Medical Underservice Index (MUI) score of 55.7, indicating that it has the greatest medical underservice
- Hamilton County had the highest MUI, indicating that it has the lowest underservice
- 4 counties (Benton, Greene, Randolph and Wabash) meet the minimum requirement for MUA/P designation but are not currently designated

Table 2.9. Primary Care MUA/P Scoring

County	FIPS	Population	% 65-Over	% Below 100% FPL	Total PC FTE	PC FTE per 1,000 Population	Infant Mortality Rate: Rate/1,000	Score: PC FTE per 1,000 Population	Score: IMR	Score: Poverty	Score: Elderly	Medical Underservice Index	Meets Minimum Requirements	Already Designated as a MUA/P
Adams	1	34,642	14.3%	16.0%	6.4	0.185	6.2	2.8	26.0	17.4	18.7	64.9	Yes	Yes
Allen	3	363,453	12.8%	15.6%	247.0	0.680	7.3	20.7	26.0	17.4	19.1	83.2	No	Yes
Bartholomew	5	79,488	14.8%	12.6%	51.4	0.647	10.7	19.1	24.0	18.7	18.7	80.5	No	No
Benton	7	8,752	16.0%	13.5%	0.0	0.000	—	0.0	26.0	18.7	16.1	60.8	Yes	No
Blackford	9	12,476	19.4%	13.6%	5.6	0.449	—	10.7	26.0	18.7	11.1	66.5	No	No
Boone	11	60,511	12.5%	5.8%	38.3	0.633	—	19.1	26.0	22.8	19.1	87.0	No	No
Brown	13	15,011	20.2%	12.4%	1.6	0.107	—	1.5	26.0	18.7	9.8	56.0	Yes	Yes
Carroll	15	20,014	17.3%	10.7%	2.3	0.115	—	1.5	26.0	20.0	14.4	61.9	Yes	Yes
Cass	17	38,476	15.8%	15.3%	19.7	0.512	8.4	14.8	25.6	17.4	17.8	75.6	No	Yes
Clark	19	113,181	13.8%	10.6%	51.8	0.458	7.5	12.6	26.0	20.0	18.9	77.5	No	Yes
Clay	21	26,686	16.1%	14.3%	6.3	0.236	—	4.1	26.0	17.4	16.1	63.6	Yes	Yes
Clinton	23	32,835	15.3%	13.7%	8.5	0.259	—	5.7	26.0	18.7	17.8	68.2	No	No
Crawford	25	10,591	16.7%	20.5%	0.0	0.000	—	0.0	26.0	13.6	16.1	55.7	Yes	Yes
Daviess	27	32,411	14.3%	12.9%	13.0	0.401	8.6	10.7	25.6	18.7	18.7	73.7	No	Yes
Dearborn	29	49,679	14.6%	9.2%	29.6	0.596	—	16.9	26.0	21.0	18.7	82.6	No	No
Decatur	31	26,240	15.2%	13.9%	14.7	0.560	—	16.9	26.0	18.7	17.8	79.4	No	Yes
DeKalb	33	42,449	14.3%	14.4%	17.1	0.403	—	10.7	26.0	17.4	18.7	72.8	No	No
Delaware	35	117,335	15.7%	20.6%	84.2	0.718	8.4	21.9	25.6	13.6	17.8	78.9	No	Yes
Dubois	37	42,291	15.6%	9.6%	28.0	0.662	7.8	20.7	26.0	21.0	17.8	85.5	No	No

Table 2.9. Primary Care MUA/P Scoring

County	FIPS	Population	% 65-Over	% Below 100% FPL	Total PC FTE	PC FTE per 1,000 Population	Infant Mortality Rate: Rate/1,000	Score: PC FTE per 1,000 Population	Score: IMR	Score: Poverty	Score: Elderly	Medical Underservice Index	Meets Minimum Requirements	Already Designated as a MUA/P
Elkhart	39	200,685	13.0%	15.7%	80.9	0.403	7.1	10.7	26.0	17.4	19.1	73.2	No	Yes
Fayette	41	23,773	18.0%	20.2%	14.2	0.597	—	16.9	26.0	13.6	14.4	70.9	No	Yes
Floyd	43	75,900	14.0%	12.6%	41.1	0.542	—	14.8	26.0	18.7	18.7	78.2	No	No
Fountain	45	16,888	18.5%	11.8%	3.9	0.231	—	4.1	26.0	20.0	12.8	62.9	Yes	Yes
Franklin	47	22,935	15.4%	10.5%	16.9	0.737	—	21.9	26.0	20.0	17.8	85.7	No	Yes
Fulton	49	20,527	17.3%	14.7%	10.6	0.516	—	14.8	26.0	17.4	14.4	72.6	No	Yes
Gibson	51	33,668	15.9%	10.9%	14.5	0.431	—	10.7	26.0	20.0	17.8	74.5	No	Yes
Grant	53	68,896	17.3%	17.2%	25.9	0.376	9.5	9.0	24.8	16.2	14.4	64.4	Yes	Yes
Greene	55	32,815	17.5%	13.4%	7.2	0.219	—	4.1	26.0	18.7	14.4	63.2	Yes	No
Hamilton	57	296,635	9.9%	4.7%	208.7	0.704	4.1	21.9	26.0	22.8	19.8	90.5	No	No
Hancock	59	71,328	14.3%	6.4%	42.4	0.594	5.2	16.9	26.0	21.9	18.7	83.5	No	No
Harrison	61	39,230	15.5%	13.7%	16.2	0.413	—	10.7	26.0	18.7	17.8	73.2	No	No
Hendricks	63	153,435	11.9%	4.9%	110.4	0.720	5.6	21.9	26.0	22.8	19.4	90.1	No	No
Henry	65	49,146	17.6%	15.2%	17.5	0.356	8.4	9.0	25.6	17.4	14.4	66.4	No	No
Howard	67	82,765	17.6%	17.5%	56.0	0.677	6	20.7	26.0	16.2	14.4	77.3	No	Yes
Huntington	69	36,863	15.5%	11.5%	19.1	0.518	—	14.8	26.0	20.0	17.8	78.6	No	Yes
Jackson	71	43,471	15.0%	14.5%	25.2	0.580	7.9	16.9	26.0	17.4	18.7	79.0	No	Yes
Jasper	73	33,448	15.2%	8.1%	10.6	0.317	—	7.3	26.0	21.0	17.8	72.1	No	No
Jay	75	21,255	16.4%	16.0%	5.0	0.235	—	4.1	26.0	17.4	16.1	63.6	Yes	Yes
Jefferson	77	32,453	15.7%	13.4%	24.0	0.740	—	21.9	26.0	18.7	17.8	84.4	No	Yes
Jennings	79	28,113	14.4%	15.6%	6.1	0.217	—	4.1	26.0	17.4	18.7	66.2	No	No
Johnson	81	145,645	13.4%	9.8%	90.2	0.619	5.6	19.1	26.0	21.0	18.9	85.0	No	Yes
Knox	83	38,062	16.5%	14.8%	28.4	0.746	—	21.9	26.0	17.4	16.1	81.4	No	Yes
Kosciusko	85	77,983	14.6%	11.1%	36.4	0.467	8.1	12.6	25.6	20.0	18.7	76.9	No	Yes
LaGrange	87	38,084	12.4%	12.9%	10.0	0.263	5.4	5.7	26.0	18.7	19.1	69.5	No	No
Lake	89	491,596	14.2%	17.7%	289.2	0.588	8.3	16.9	25.6	16.2	18.7	77.4	No	Yes

Table 2.9. Primary Care MUA/P Scoring

County	FIPS	Population	% 65-Over	% Below 100% FPL	Total PC FTE	PC FTE per 1,000 Population	Infant Mortality Rate: Rate/1,000	Score: PC FTE per 1,000 Population	Score: IMR	Score: Poverty	Score: Elderly	Medical Underservice Index	Meets Minimum Requirements	Already Designated as a MUA/P
LaPorte	91	111,280	15.2%	16.0%	58.7	0.527	8.5	14.8	25.6	17.4	17.8	75.6	No	Yes
Lawrence	93	45,814	17.5%	12.8%	19.8	0.431	—	10.7	26.0	18.7	14.4	69.8	No	No
Madison	95	130,280	16.5%	16.2%	75.4	0.579	7.5	16.9	26.0	16.2	16.1	75.2	No	No
Marion	97	926,335	11.1%	20.7%	802.4	0.866	8.6	25.3	25.6	13.6	19.4	83.9	No	Yes
Marshall	99	46,962	15.7%	11.9%	25.1	0.534	—	14.8	26.0	20.0	17.8	78.6	No	Yes
Martin	101	10,262	16.6%	12.9%	2.5	0.244	—	4.1	26.0	18.7	16.1	64.9	Yes	Yes
Miami	103	36,211	15.3%	14.3%	17.2	0.475	—	12.6	26.0	17.4	17.8	73.8	No	Yes
Monroe	105	142,404	11.0%	22.3%	78.4	0.551	6	16.9	26.0	12.2	19.6	74.7	No	Yes
Montgomery	107	38,172	16.4%	13.5%	11.8	0.309	—	7.3	26.0	18.7	16.1	68.1	No	Yes
Morgan	109	69,403	14.5%	11.9%	29.9	0.431	6.3	10.7	26.0	20.0	18.7	75.4	No	No
Newton	111	14,057	17.2%	13.5%	1.3	0.092	—	0.5	26.0	18.7	14.4	59.6	Yes	Yes
Noble	113	47,546	13.9%	11.9%	12.6	0.265	6.9	5.7	26.0	20.0	18.9	70.6	No	No
Ohio	115	6,033	18.9%	7.8%	2.0	0.332	—	7.3	26.0	21.9	12.8	68.0	No	Yes
Orange	117	19,725	17.1%	17.3%	6.3	0.319	—	7.3	26.0	16.2	14.4	63.9	Yes	Yes
Owen	119	21,192	16.6%	15.0%	3.7	0.175	—	2.8	26.0	17.4	16.1	62.3	Yes	Yes
Parke	121	17,107	16.8%	14.5%	9.1	0.532	—	14.8	26.0	17.4	16.1	74.3	No	Yes
Perry	123	19,414	16.4%	11.7%	9.1	0.468	—	12.6	26.0	20.0	16.1	74.7	No	Yes
Pike	125	12,687	18.4%	9.8%	5.0	0.394	—	9.0	26.0	21.0	12.8	68.8	No	Yes
Porter	127	166,570	13.9%	11.3%	92.3	0.554	4.3	16.9	26.0	20.0	18.9	81.8	No	Yes
Posey	129	25,567	15.7%	11.0%	5.6	0.219	—	4.1	26.0	20.0	17.8	67.9	No	Yes
Pulaski	131	13,047	17.8%	13.9%	6.3	0.483	—	12.6	26.0	18.7	14.4	71.7	No	Yes
Putnam	133	37,650	14.6%	8.6%	8.7	0.231	—	4.1	26.0	21.0	18.7	69.8	No	No
Randolph	135	25,596	18.1%	17.7%	6.0	0.234	—	4.1	26.0	16.2	12.8	59.1	Yes	No
Ripley	137	28,612	16.5%	8.4%	6.9	0.241	—	4.1	26.0	21.0	16.1	67.2	No	Yes
Rush	139	16,991	17.4%	17.3%	7.8	0.459	—	12.6	26.0	16.2	14.4	69.2	No	Yes
St. Joseph	141	267,246	14.0%	17.0%	218.6	0.818	7.9	24.3	26.0	16.2	18.7	85.2	No	Yes

Table 2.9. Primary Care MUA/P Scoring

County	FIPS	Population	% 65-Over	% Below 100% FPL	Total PC FTE	PC FTE per 1,000 Population	Infant Mortality Rate: Rate/1,000	Score: PC FTE per 1,000 Population	Score: IMR	Score: Poverty	Score: Elderly	Medical Underservice Index	Meets Minimum Requirements	Already Designated as a MUA/P
Scott	143	23,783	15.4%	17.4%	8.1	0.341	—	7.3	26.0	16.2	17.8	67.3	No	Yes
Shelby	145	44,441	15.2%	11.9%	16.4	0.369	8.3	9.0	25.6	20.0	17.8	72.4	No	No
Spencer	147	20,856	17.2%	10.6%	8.0	0.384	—	9.0	26.0	20.0	14.4	69.4	No	No
Starke	149	23,117	16.3%	15.9%	8.4	0.363	—	9.0	26.0	17.4	16.1	68.5	No	Yes
Steuben	151	34,267	16.6%	10.3%	12.1	0.353	—	9.0	26.0	20.0	16.1	71.1	No	No
Sullivan	153	21,111	15.9%	16.7%	8.2	0.388	—	9.0	26.0	16.2	17.8	69.0	No	No
Switzerland	155	10,500	15.7%	19.3%	0.0	0.000	—	0.0	26.0	14.9	17.8	58.7	Yes	Yes
Tippecanoe	157	180,952	10.0%	20.4%	94.3	0.521	7.7	14.8	26.0	13.6	19.6	74.0	No	Yes
Tipton	159	15,573	19.0%	9.8%	6.4	0.411	—	10.7	26.0	21.0	12.8	70.5	No	No
Union	161	7,299	16.3%	10.3%	0.1	0.014	—	0.0	26.0	20.0	16.1	62.1	Yes	Yes
Vanderburgh	163	181,305	15.0%	15.9%	149.9	0.827	7.8	24.3	26.0	17.4	18.7	86.4	No	Yes
Vermillion	165	15,860	18.2%	12.6%	3.6	0.227	—	4.1	26.0	18.7	12.8	61.6	Yes	Yes
Vigo	167	108,268	14.2%	18.7%	78.2	0.722	7.1	21.9	26.0	14.9	18.7	81.5	No	Yes
Wabash	169	32,358	19.1%	13.5%	11.4	0.352	—	9.0	26.0	18.7	11.1	64.8	Yes	No
Warren	171	8,367	18.6%	8.8%	2.0	0.239	—	4.1	26.0	21.0	12.8	63.9	Yes	Yes
Warrick	173	60,995	15.4%	9.7%	75.2	1.233	—	10.7	26.0	21.0	17.8	75.5	No	No
Washington	175	27,930	15.0%	15.0%	7.7	0.276	—	5.7	26.0	17.4	18.7	67.8	No	No
Wayne	177	67,866	17.5%	20.2%	43.7	0.644	9	19.1	25.6	13.6	14.4	72.7	No	Yes
Wells	179	27,796	16.9%	11.9%	13.8	0.496	—	12.6	26.0	20.0	16.1	74.7	No	No
White	181	24,388	18.1%	9.5%	6.3	0.258	—	5.7	26.0	21.0	12.8	65.5	No	Yes
Whitley	183	33,330	15.6%	7.9%	12.9	0.387	—	9.0	26.0	21.9	17.8	74.7	No	No

**County level scoring does not take into account sub-county service areas. In some cases, a full county may not meet the minimum criteria for designation, but sub-county service areas may meet the requirements.*

SECTION III. RANKING OF COUNTIES BY STATE HEALTH PRIORITIES

Introduction

Federal shortage area designations are used to identify workforce capacity and are useful for targeting programming and allocating resources. These designations, however, do not account for the myriad of factors that play a role in population health, such as unemployment rates, food access, teen pregnancy and high school graduation. The *County Health Rankings & Roadmaps* program, a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, generates data annually which categorizes and ranks counties based on specific characteristics. As part of this fiscal year's PCNA project, methods used in the *County Health Rankings & Roadmaps* were applied to county level data on state priorities in Indiana to categorize and rank counties. The priority areas included: socio-economic, access to care, risk factors, and health outcomes.

Methods

This study examines data from 92 Indiana Counties in order to determine how they compare in factors which contribute to health. Study measures, variables and definitions, and data sources are found in Table 3.1.

Statistical Analyses

The average value and standard deviation of the variable for each measured variables was calculated and used to calculate the z-score for each county. The equation below was used for z-score calculation.

$$Z\text{-Score} = \frac{(\text{Measured value} - \text{Average of state counties})}{\text{Standard Deviation}}$$

A summary of the z-score for each county was also calculated and used to rank each county according to the best and worst score. Negative z-scores indicate that the county's health data value fell below the state average, making it a better score. On the other hand, a positive value indicated that the county's health data was greater than the state average, making it a worse score. Table 3.2 show the summary of z-scores and county rankings. Tables containing health rankings data and z-scores for each county can be found in Appendices D and E.

Table 3.1 List and description of collected for health ranking analysis

Measure	Variable	Description	Data Source
Geography	Population	Total population of each county in Indiana	American Community Survey (ACS), 2015
	Rurality	Classification of each county as urban or rural	Office of Management and Budget (OMB)
Socio-Economic	% White	Percent of population in each county that is Non-Hispanic White	American Community Survey (ACS), 2015
	% Under 18	Percent of population under age 18	American Community Survey (ACS), 2015
	% 65 and Up	Percent of population age 65 and over	American Community Survey (ACS), 2015
	% Below 100% FPL	Percent of population below 100% Federal Poverty Line	US Census, 2015
	% Below 200% FPL	Percent of population below 200% Federal Poverty Line (Medicaid Eligible)	American Community Survey (ACS), 2015
Access to Care	PCP Pop to Prov	Ratio of total population to total Primary Care Provider FTE	2015 Physician Survey Data
	PSY Pop to Prov	Ratio of total population to total Psychiatrist FTE	2015 Physician Survey Data
	Dent Pop to Prov	Ratio of total population to total Dentist FTE	2016 Dental Survey Data
Risk Factors	Alcohol Abuse	Number of Emergency Department visits for alcohol abuse per 10,000 Emergency Department visits	Indiana State Department of Health, 2015
	Obesity	Percent of adult population with a BMI over 30	County Health Ranking - RWJF, 2015
	Smoking	Percent of adult population who are current smokers	County Health Ranking - RWJF, 2015
	Substance Abuse	Number of Emergency Department visits for substance abuse per 10,000 Emergency Department visits	Indiana State Department of Health, 2015
Health Outcomes	Asthma	Number of Emergency Department visits for asthma attacks per 10,000 Emergency Department visits	Indiana State Department of Health, Epidemiology Resource Center, Data Analysis Team. (2015). Emergency Department Utilization, Hospital Discharge Data, 2015.
	Cancer	Cancer incidence per 100,000 persons	Indiana State Department of Health (2015). Indiana Cancer Registry.
	Diabetes	Percent of adults with diagnosed diabetes	County Health Ranking - RWJF, 2015
	Hypertension	Percent of adults with hypertension	Behavioral Risk Factors Surveillance System - CDC, 2006-2012
	Infant Mortality	Number of deaths in children less than one year of age per 1,000 live births	Indiana State Department of Health, Maternal and Child Health Epidemiology Division (2015). Indiana State Department of Health, Epidemiology Resource Center, Data Analysis Team, 2011-2015.

Indiana Health Ranking Z-Score Summary

Socio-economic

- The highest ranking for socio-economic factors was given to Hamilton County which had the lowest z-score of -7.013, indicating that many of these factors were below the state average for this county.
- Fayette County had the highest z-score of 4.583 and the lowest ranking for socio-economic factors. All socio-economic factors were above the state average for this county.

Access to Care

- Marion County had the lowest z-score of -1.834, giving it the highest ranking for access to care. All of the population to provider FTE ratios for primary care, mental health and dentistry were below the state average for this county.
- Crawford County, having no provider FTE for primary care, mental health or dentistry, had the lowest ranking for access to care. A z-score could not be calculated since no population to provider ratios were available for this county.

Risk Factors

- With the lowest z-score of -7.088, Hamilton County had the highest ranking for risk factors. All risk factors fell below the state average for this county.
- The highest z-score of 5.075 was found in Vanderburgh County, giving it the lowest risk factors ranking. All risk factors for Vanderburgh were above the state average. In particular, this county had the highest alcohol abuse rate in the state.

Health Outcomes

- Hamilton County also had the highest ranking for health outcomes with a z-score of -7.121.
- Grant County had the lowest health outcomes ranking with a z-score of 5.285. Regarding specific health outcomes, Grant had the highest Cancer rate per 100,000 persons (508.5) and second highest diabetes prevalence (13.8%).

Total Z-Score

- Overall, Hamilton County had the highest health ranking in Indiana with a total z-score of -23.019. Out of all health indicators factored into the z-score calculation, only the youth rate (29.0%) and cancer rate per 100,000 persons (405.7) were above the state average.
- Blackford County had the lowest overall health ranking with a total z-score of 18.632. Only two health indicators follow below the state average for this county: 22.1% youth rate and primary care population to provider FTE of 2,227.9:1.

Table 3.2 Health Ranking Z-Score Summary

County	FIPS	Population	Socio-Economic	SE Rank	Access to Care	ATC Rank	Risk Factors	Risk Rank	Health Outcomes	Outcomes Rank	Overall	Overall Rank
Hamilton	57	296,635	-7.013	1	-1.797	2	-7.088	1	-7.121	1	-23.019	1
Monroe	105	142,404	-3.338	8	-1.443	11	-6.315	2	-3.676	7	-14.771	2
Hendricks	63	153,435	-6.172	2	-1.217	18	-2.847	13	-4.262	4	-14.498	3
Boone	11	60,511	-4.135	4	-1.419	12	-4.207	6	-3.126	11	-12.887	4
Porter	127	166,570	-3.453	7	-1.393	13	-0.207	41	-4.961	2	-10.014	5
Dubois	37	42,291	-1.311	25	-1.074	24	-4.606	4	-2.894	12	-9.885	6
Hancock	59	71,328	-3.964	5	-1.133	19	-1.964	21	-2.324	18	-9.385	7
Tippecanoe	157	180,952	-2.846	11	-1.264	16	-4.969	3	-0.277	46	-9.356	8
Franklin	47	22,935	-0.547	37	-0.702	32	-2.972	11	-4.251	5	-8.472	9
DeKalb	33	42,449	0.946	62	-0.920	26	-2.902	12	-3.145	10	-6.021	10
Spencer	147	20,856	-1.106	28	0.137	68	-2.350	17	-2.135	19	-5.454	11
Whitley	183	33,330	-2.339	15	-0.428	46	-1.055	28	-1.618	25	-5.441	12
Wayne	177	67,866	2.956	83	-0.843	27	-4.563	5	-2.549	16	-4.999	13
Johnson	81	145,645	-2.658	14	-0.704	31	-0.921	29	-0.568	39	-4.852	14
Warrick	173	60,995	-2.091	16	-0.051	60	-2.260	19	-0.385	41	-4.787	15
Dearborn	29	49,679	-2.693	13	0.838	77	-0.404	36	-2.475	17	-4.734	16
Wells	179	27,796	0.518	51	-0.464	44	-2.832	14	-1.910	21	-4.688	17
Warren	171	8,367	-1.164	27	1.820	83	-3.734	9	-1.549	26	-4.626	18
Elkhart	39	200,685	0.662	56	-1.114	20	-1.324	25	-2.817	13	-4.593	19

Table 3.2 Health Ranking Z-Score Summary

County	FIPS	Population	Socio-Economic	SE Rank	Access to Care	ATC Rank	Risk Factors	Risk Rank	Health Outcomes	Outcomes Rank	Overall	Overall Rank
Perry	123	19,414	-1.354	23	0.048	65	-2.315	18	-0.780	35	-4.401	20
Kosciusko	85	77,983	-1.280	26	-0.638	34	0.097	46	-2.556	15	-4.377	21
Clark	19	113,181	-3.304	9	-1.277	15	0.543	55	-0.165	47	-4.203	22
Putnam	133	37,650	-4.834	3	1.036	79	-0.395	37	0.070	49	-4.123	23
St. Joseph	141	267,246	-1.337	24	-1.613	7	0.000	43	-1.130	32	-4.080	24
Harrison	61	39,230	-0.314	39	0.046	64	-2.367	16	-1.381	28	-4.016	25
Martin	101	10,262	0.588	54	0.584	73	-3.904	8	-1.116	33	-3.848	26
Floyd	43	75,900	-2.762	12	-1.752	5	2.340	76	-1.352	30	-3.526	27
Adams	1	34,642	4.488	91	-0.444	45	-3.625	10	-3.889	6	-3.470	28
Ohio	115	6,033	-1.754	21	-0.073	57	-0.231	40	-1.384	27	-3.442	29
Marshall	99	46,962	0.717	58	-0.409	47	0.007	45	-3.462	8	-3.147	30
Allen	3	363,453	-1.783	20	-1.242	17	1.653	71	-1.371	29	-2.743	31
Noble	113	47,546	0.152	46	-0.599	35	1.202	64	-3.206	9	-2.451	32
Steuben	151	34,267	-0.901	31	-0.579	36	-0.287	39	-0.361	44	-2.128	33
Ripley	137	28,612	-0.742	32	1.251	81	-0.639	34	-1.862	22	-1.992	34
Brown	13	15,011	0.682	57	3.596	87	-3.993	7	-1.701	23	-1.416	35
Bartholomew	5	79,488	-2.070	17	-1.463	10	0.537	53	1.624	65	-1.372	36
Jasper	73	33,448	-1.861	19	-0.516	39	0.545	57	0.481	56	-1.351	37
LaGrange	87	38,084	4.413	89	1.908	84	-2.569	15	-4.761	3	-1.009	38
Vigo	167	108,268	-0.448	38	-1.603	8	1.950	72	-0.840	34	-0.941	39
White	181	24,388	-0.689	35	-0.335	49	-1.156	26	1.443	62	-0.737	40
Tipton	159	15,573	-0.232	41	-0.676	33	0.458	50	0.295	52	-0.155	41
Gibson	51	33,668	-0.731	33	-0.772	30	-0.696	33	2.178	73	-0.021	42
Pulaski	131	13,047	1.991	76	-0.197	54	-0.133	42	-1.643	24	0.018	43
Montgomery	107	38,172	0.801	59	-1.108	21	0.689	59	-0.319	45	0.063	44
Cass	17	38,476	0.585	53	-0.552	37	1.001	62	-0.777	37	0.257	45
Fulton	49	20,527	1.793	75	-0.257	53	-0.390	38	-0.698	38	0.448	46

Table 3.2 Health Ranking Z-Score Summary

County	FIPS	Population	Socio-Economic	SE Rank	Access to Care	ATC Rank	Risk Factors	Risk Rank	Health Outcomes	Outcomes Rank	Overall	Overall Rank
Miami	103	36,211	-0.277	40	-0.291	52	1.462	67	-0.376	42	0.518	47
Clinton	23	32,835	1.157	64	-0.065	59	-1.410	24	0.851	60	0.533	48
Carroll	15	20,014	0.520	52	0.304	69	-0.852	30	0.571	58	0.544	49
Marion	97	926,335	-3.230	10	-1.834	1	1.538	68	4.376	90	0.850	50
Morgan	109	69,403	-1.083	29	-0.537	38	2.175	75	0.334	54	0.890	51
Daviess	27	32,411	2.393	80	-0.006	62	-2.054	20	0.693	59	1.026	52
Huntington	69	36,863	-0.561	36	-0.472	42	1.638	70	0.439	55	1.044	53
Jefferson	77	32,453	-0.086	43	-1.091	22	2.705	77	-0.387	40	1.141	54
Decatur	31	26,240	0.871	60	-1.080	23	-1.683	22	3.230	81	1.337	55
Lake	89	491,596	-3.689	6	-1.575	9	2.990	81	3.631	85	1.357	56
Parke	121	17,107	1.533	70	0.039	63	-0.432	35	0.231	50	1.371	57
Wabash	169	32,358	1.494	67	0.091	67	0.477	51	-0.368	43	1.694	58
Knox	83	38,062	-0.120	42	-1.355	14	3.466	84	-0.139	48	1.852	59
Greene	55	32,815	1.621	73	-0.296	50	0.264	49	0.265	51	1.854	60
Pike	125	12,687	0.049	45	-0.136	56	-1.145	27	3.093	80	1.861	61
Posey	129	25,567	-1.974	18	4.637	88	-0.724	32	0.327	53	2.265	62
Sullivan	153	21,111	-0.017	44	-0.046	61	0.540	54	2.019	69	2.495	63
LaPorte	91	111,280	-1.654	22	-0.783	29	3.360	83	1.654	67	2.576	64
Benton	7	8,752	2.007	78	-0.504	40	0.184	48	1.624	66	3.311	65
Henry	65	49,146	0.927	61	-0.358	48	0.863	61	2.019	70	3.451	66
Howard	67	82,765	1.369	66	-1.711	6	1.074	63	2.786	78	3.517	67
Switzerland	155	10,500	4.347	88	0.808	76	0.544	56	-2.073	20	3.627	68
Rush	139	16,991	3.065	84	-0.497	41	-1.630	23	3.348	83	4.286	69
Shelby	145	44,441	-0.709	34	0.667	75	1.312	65	3.335	82	4.605	70
Delaware	35	117,335	0.515	50	-1.752	4	1.999	73	3.950	88	4.711	71
Washington	175	27,930	2.007	77	-0.143	55	4.648	90	-1.255	31	5.257	72
Fountain	45	16,888	1.505	68	0.589	74	0.613	58	2.747	77	5.454	73

Table 3.2 Health Ranking Z-Score Summary

County	FIPS	Population	Socio-Economic	SE Rank	Access to Care	ATC Rank	Risk Factors	Risk Rank	Health Outcomes	Outcomes Rank	Overall	Overall Rank
Vermillion	165	15,860	1.575	72	0.864	78	1.412	66	1.685	68	5.537	74
Newton	111	14,057	1.219	65	1.802	82	3.573	86	-0.779	36	5.815	75
Clay	21	26,686	1.528	69	0.463	70	2.838	79	1.321	61	6.150	76
Lawrence	93	45,814	0.980	63	1.166	80	0.531	52	3.729	86	6.406	77
Crawford	25	10,591	4.297	87		92	1.573	69	0.550	57	6.420	78
Vanderburgh	163	181,305	-1.062	30	-1.793	3	5.075	92	4.294	89	6.515	79
Jennings	79	28,113	1.781	74	0.540	71	2.124	74	2.103	71	6.548	80
Union	161	7,299	0.161	47	9.097	91	0.004	44	-2.648	14	6.614	81
Orange	117	19,725	4.122	86	-0.292	51	0.169	47	2.706	76	6.705	82
Jackson	71	43,471	0.371	49	-0.465	43	4.563	89	2.922	79	7.390	83
Grant	53	68,896	0.647	55	-0.833	28	2.728	78	5.285	92	7.827	84
Madison	95	130,280	0.264	48	-1.065	25	3.566	85	5.127	91	7.892	85
Fayette	41	23,773	4.583	92	-0.070	58	0.837	60	2.573	75	7.923	86
Randolph	135	25,596	4.419	90	2.540	85	-0.748	31	2.165	72	8.376	87
Scott	143	23,783	2.333	79	0.073	66	4.076	88	2.456	74	8.938	88
Starke	149	23,117	2.460	81	2.666	86	2.965	80	1.583	64	9.674	89
Jay	75	21,255	4.040	85	0.577	72	3.291	82	3.385	84	11.293	90
Owen	119	21,192	1.533	71	5.927	89	3.630	87	1.472	63	12.563	91
Blackford	9	12,476	2.705	82	7.009	90	5.067	91	3.851	87	18.632	92

It is important to note that these z-scores and rankings are based on the factors considered to be priorities for the State of Indiana. A more comprehensive analysis which takes into account other factors, such as unemployment and quality of life, may impact the z-scores of health factors and rankings of counties in Indiana.

SECTION IV: APPENDICES

Appendix A. HPSA and MUA/P Scoring Criteria

Primary Care HPSA Designation Scoring

Primary Care HPSA score ranges from 0 to 25, with 0 representing an area with a low shortage and 25 representing an area with a high shortage. A Primary Care HPSA score is calculated from four variables, whose point criteria is outlined in the tables below.

Score for Pop: FTE Ratio	Points
Ratio > 10,000:1 or No PCP and a population over 2,500	5
10,000:1 > Ratio ≥ 5,000:1 or No PCP and a population ≥ 2,000 and < 2,000	4
5,000:1 > Ratio ≥ 4,000:1 or No PCP and a population ≥ 1,500 and < 2,000	3
4,000:1 > Ratio ≥ 3,500:1 or No PCP and a population ≥ 1,000 and < 1,500	2
3,500:1 > Ratio ≥ 3,000:1 or No PCP and a population ≥ 500 and < 1,000	1
Ratio < 3,000	0

Travel time or Distance to Nearest Source of Care (NSC)	Points
Time ≥ 60 minutes or Distance ≥ 50 miles	5
60 min > Time ≥ 50 min or 50 mi > Distance ≥ 40 mi	4
50 min > Time ≥ 40 min or 40 mi > Distance ≥ 30 mi	3
40 min > Time ≥ 30 min or 30 mi > Distance ≥ 20 mi	2
30 min > Time ≥ 20 min or 20 mi > Distance ≥ 10 mi	1
Time < 20 min or Distance < 10 mi	0

Score for % Population with Income at or Below 100% FPL	Points
P ≥ 50%	5
50% > P ≥ 40%	4
40% > P ≥ 30%	3
30% > P ≥ 20%	2
20% > P ≥ 15%	1
P < 15%	0

Infant Health Index	Points
IMR ≥ 20 or LBW ≥ 13	5
20 > IMR ≥ 18 or 13 > LBW ≥ 11	4
18 > IMR ≥ 15 or 11 > LBW ≥ 10	3
15 > IMR ≥ 12 or 10 > LBW ≥ 9	2
12 > IMR ≥ 10 or 9 > LBW ≥ 7	1
IMR < 10 or LBW < 7	0

Minimum Requirements for Primary Care HPSA Designation

- Ratio of population to full-time equivalent (FTE) primary care physicians of at least 3,500:1, or;
- Ratio of population to FTE primary care physicians less than 3,500:1 but greater than 3,000:1, and have an “unusually high need” for primary care services or “insufficient capacity” among existing primary care physicians. A population of “unusually high need” for primary care services must meet *at least one* of the following criteria:
 - Area has more than 100 births per year per 1,000 women in the 18-44 age group, or;
 - Area has more than 20 infant deaths per 1,000 live births, or;
 - Area has more than 20 percent of the population with income below poverty level.

Dental HPSA Designation Scoring

Dental HPSA score ranges from 0 to 26, with 0 representing an area with a low shortage and 25 representing an area with a high shortage. A Dental HPSA score is calculated from four variables, whose point criteria is outlined in the tables below.

Score for Pop: FTE Ratio	Points
Ratio > 10,000:1 or No dentists and a population ≥ 3,000	5
10,000:1 > Ratio ≥ 8,000:1 or No PCP and a population ≥ 2,500 and < 3,000	4
8,000:1 > Ratio ≥ 6,000:1 or No PCP and a population ≥ 2,000 and < 2,500	3
6,000:1 > Ratio ≥ 5,000:1 or No PCP and a population ≥ 1,500 and < 2,000	2
5,000:1 > Ratio ≥ 4,000:1 or No PCP and a population ≥ 1,000 and < 1,500	1
Ratio < 4,000	0

Score for % Population with Income at or Below 100% FPL	Points
P ≥ 50%	5
50% > P ≥ 40%	4
40% > P ≥ 30%	3
30% > P ≥ 20%	2
20% > P ≥ 15%	1
P < 15%	0

Score for Fluoridation	Points
Fluoridated water available for ≥ 50% of population	1
Fluoridated water available for < 50% of population	0

Travel time or Distance to Nearest Source of Care (NSC)	Points
Time ≥ 90 minutes or Distance ≥ 60 miles	5
90 min > Time ≥ 75 min or 60 mi > Distance ≥ 50 mi	4
75 min > Time ≥ 60 min or 50 mi > Distance ≥ 40 mi	3
60 min > Time ≥ 45 min or 40 mi > Distance ≥ 30 mi	2
45 min > Time ≥ 30 min or 30 mi > Distance ≥ 20 mi	1

Time < 30 min **or** Distance < 20 mi

0

Minimum Requirements for Dental HPSA Designation

- Ratio of population to FTE dentists of at least 5,000:1, or;
- Ratio of population to FTE dentists less than 5,000:1 but greater than 4,000:1, and have an “unusually high need” for dental services. A population of “unusually high need” for dental services must meet *at least one* of the following criteria:
 - A majority (more than 50%) of the population does not have a fluoridated water supply, or;
 - Area has more than 20 percent of the population with income below poverty level.
 - Area meets one criteria for insufficient capacity:
 - More than 5,000 visits/year/dentist FTE, or;
 - More than six weeks of waiting time for appointments for routine dental services, or;
 - More than two-thirds of the area’s dentists do not accept new patients.

Mental Health HPSA Designation Scoring

A Mental Health HPSA score ranges from 0 to 25, with 0 representing an area with a low shortage and 25 representing an area with a high shortage. A Mental Health HPSA score is calculated from seven variables, whose point criteria is outlined in the tables below.

Score for Pop: FTE Ratio	Points
Ratio \geq 60,000:1 or No Psychiatrists	7
60,000 > Ratio \geq 55,000	6
55,000 > Ratio \geq 50,000	5
50,000 > Ratio \geq 45,000	4
45,000 > Ratio \geq 40,000	3
40,000 > Ratio \geq 35,000	2
35,000 > Ratio \geq 30,000	1
Ratio < 30,000	0

Score for % Population with Income at or Below 100% FPL	Points
P \geq 50%	5
50% > P \geq 40%	4
40% > P \geq 30%	3
30% > P \geq 20%	2
20% > P \geq 15%	1
P < 15%	0

Elderly Ratio	Points
Ratio \geq 0.25	3
0.25 > Ratio \geq 0.15	2
0.15 > Ratio \geq 0.10	1

Youth Ratio	Points
Ratio \geq 0.6	3
0.6 > Ratio \geq 0.4	2
0.4 > Ratio \geq 0.2	1

Alcohol Abuse Prevalence	Points
Area's rate is in worst quartile for nation, region or state	1

Substance Abuse Prevalence	Points
Area's rate is in worst quartile for nation, region or state	1

Travel time or Distance to Nearest Source of Care	Points
Time \geq 60 minutes	5
60 minutes > Time \geq 50 minutes	4
50 minutes > Time \geq 40 minutes	3
40 minutes > Time \geq 30 minutes	2
30 minutes > Time > 20 minutes	1
Time < 20 minutes	0

Minimum Requirements for Mental Health HPSA Designation

- A Population has an “unusually high need” for services if the ratio of population to psychiatrists is at least 20,000:1.
- Population with “unusually high need” *must meet at least one* of the following criteria:
- More than 20 percent of the population falls below the income below poverty level; or,
- Youth ratio³ exceeds 0.6; or,
- Elderly ratio⁴ exceeds 0.25; or,
- High prevalence of alcoholism in the population (i.e., in the worst quartile for the nation, region, or state); or,
- High prevalence of substance abuse in the population (i.e., in the worst quartile for the nation, region, or state).

³ Youth ratio = number of children less than 18 years / number of adults between 18-64 years

⁴ Elderly ratio = number of adults over 65 years / number of adults between 18-64 years

MUA/P Designation Scoring

The Index Medical Underservice (IMU) score ranges from 0 to 100, with 0 representing an area that is completely underserved and 100 representing an area that is complete served. To qualify for a MUA/P designation a county or rational area must have an IMU of 62.0 or less. The IMU score involves four variables, whose point criteria are outlined in the tables below.

Provider per 1,000 Population Ratio	Points
0 – 0.050	0
0.051 – 0.100	0.5
0.101 – 0.150	1.5
0.151 – 0.200	2.8
0.201 – 0.250	4.1
0.251 – 0.300	5.7
0.301 – 0.350	7.3
0.351 – 0.400	9.0
0.401 – 0.450	10.7
0.451 – 0.500	12.6
0.501 – 0.550	14.8
0.551 – 0.600	16.9
0.601 – 0.650	19.1
0.651 – 0.700	20.7
0.701 – 0.750	21.9
0.751 – 0.800	23.1
0.801 – 0.850	24.3
0.901 – 0.950	25.9
0.951 -1.000	26.6
1.001 – 1.050	27.2
1.051 – 1.100	27.7
1.101 – 1.150	28.0
1.151 – 1.200	28.3
1.201 – 1.250	28.6
Over 1.250	28.7

Infant Mortality Rate	Points
0 – 8	26.0
8.1 – 9.0	25.6
9.1 – 10.0	24.8
10.1 – 11.0	24.0
11.1 – 12.0	23.2
12.1 – 13.0	22.4
13.1 – 14.0	21.5
14.1 – 15.0	20.5
15.1 – 16.0	19.5
16.1 – 17.0	18.5
17.1 – 18.0	17.5
18.1 – 19.0	16.4
19.1 – 20.0	15.3
20.1 – 21.0	14.2
21.1 – 22.0	13.1
22.1 – 23.0	11.9
23.1 – 24.0	10.8
24.1 – 25.0	9.6
25.1 – 26.0	8.5
26.1 – 27.0	7.3
27.1 – 28.0	6.1
28.1 – 29.0	5.4
29.1 – 30.0	5.0
30.1 – 31.0	4.7
31.1 – 32.0	4.3
32.1 – 33.0	4.0
33.1 – 34.0	3.6
34.1 – 35.0	3.3
35.1 – 36.0	3.0
36.1 – 37.0	2.6
37.1 – 39.0	2.0
39.1 – 41.0	1.4
41.1 – 43.0	0.8
43.1 – 45.0	0.2
45.1 +	0

% Population at or below 100% FPL	Points
0	25.1
0.1 – 2.0	24.6
2.1 – 4.0	23.7
4.1 – 6.0	22.8
6.1 – 8.0	21.9
8.1 – 10.0	21.0
10.1 – 12.0	20.0
12.1 – 14.0	18.7
14.1 – 16.0	17.4
16.1 – 18.0	16.2
18.1 – 20.0	14.9
20.1 – 22.0	13.6
22.1 – 24.0	12.2
24.1 – 26.0	10.9
26.1 – 28.0	9.3
28.1 – 30.0	7.8
30.1 – 32.0	6.6
32.1 – 34.0	5.6
34.1 – 36.0	4.7
36.1 – 38.0	3.4
38.1 – 40.0	2.1
40.1 – 42.0	1.3
42.1 – 44.0	1.0
44.1 – 46.0	0.7
46.1 – 48.0	0.4
48.1 – 50.0	0.1
50 +	0

Percent Age 65 and Over	Points
0 – 7.0	20.2
7.1 – 8.0	20.1
8.1 – 9.0	19.9
9.1 – 10.0	19.8
10.1 – 11.0	19.6
11.1 – 12.0	19.4
12.1 – 13.0	19.1
13.1 – 14.0	18.9
14.1 – 15.0	18.7
15.1 – 16.0	17.8
16.1 – 17.0	16.1
17.1 – 18.0	14.4
18.1 – 19.0	12.8
19.1 – 20.0	11.1
20.1 – 21.0	9.8
21.1 – 22.0	8.9
22.1 – 23.0	8.0
23.1 – 24.0	7.0
24.1 – 25.0	6.1
25.1 – 26.0	5.1
26.1 – 27.0	4.0
27.1 – 28.0	2.8
28.1 – 29.0	1.7
29.1 – 30.0	0.6
30 +	0

Appendix B. Verification Protocol for Physician Data

Data Sources

Indiana physician workforce data are collected through a survey administered online in conjunction with medical license renewal cycle. Survey data are matched to National Provider Index (NPI) data that are obtained in the same month as the licensure survey data are generated. Data are grouped into two categories: survey respondents and non-respondents. Self-reported practice addresses are validated and verified by geocoding to determine if geographic coordinates can be identified. Addresses for which geographic coordinates cannot be identified are verified through review of secondary data. Respondents holding an Indiana license but reporting a practice address outside of the State of Indiana are assumed to not practice within Indiana and are not verified. Respondents, who report practicing in the State of Indiana, are prioritized by specialty for verification. Primary care specialties, as defined by HRSA guidelines, and/or Psychiatrists are included in the verification process. Primary data collection is performed for all non-respondents. All survey respondents and non-respondents are analyzed through a geocoding program for address validation and for use by the Indiana Primary Care Office.

Step One: Grouping of Physician survey data

1. Survey respondents and non-respondents are grouped together as Active or Inactive by license status.
 - a. Licenses with the status active, probationary or ‘valid to practice while under review’ are included in the Active physicians group.
 - b. Licenses with the status inactive, expired, expired non-renewable, revoked, suspended and emergency suspension are included in the Inactive group.
 - i. Physicians who are included in the Inactive group will not be included in the verification process.

Matching Physician survey data to National Provider Index (NPI) data

1. Active license status survey respondents and non-respondents are matched to NPI data obtained during the same month as the medical license renewal survey data are generated. NPI data are matched to survey data and are used as a tool for address verification.
2. Respondents who provided a primary, secondary and/or tertiary Indiana practice address on the survey are matched to the NPI data. If the addresses match, the address provided on the survey is considered verified. If the addresses do not match, the address is considered not verified and is included in the review of secondary data collection group.
3. Non-respondents are matched to NPI data and included in the primary data collection group.

Validation of Practice Address through Geocoding

1. Survey respondents who matched to NPI data and hold active, probationary or ‘valid to practice while under review’ license status and have listed a primary, secondary and/or tertiary practice address in Indiana are analyzed through a geocoding program to identify valid and invalid practice address. Addresses returned with geographic coordinates are considered valid. Addresses returning without geographic coordinates are considered invalid.
 - a. All invalid addresses are included in the primary data collection group.

- b. All valid addresses are included in the review of secondary data collection group.

Step Two: Review of Secondary Data Collection

1. Primary Street addresses are sorted by descending alphabetical order
 - a. Many physicians will have practice addresses at the same location indicates a group practice or hospital.
 - i. Physicians can be easily verified by going to the web page of the group or hospital.
2. Filter addresses by key terms to prioritize and anticipate time needed for verification
 - a. Court, Way, Place, Drive, Circle and Parkway
 - i. Through the verification processes, we have identified these terms generally represent physician home addresses and require additional time.
 - b. Blvd. and Street
 - i. Through the verification processes, we have identified these terms generally represent physician practice addresses and require less time.
3. Internet search engines are used to quickly and efficiently look up a physician's practice address
 - a. Google is the preferred search engine as it offers robust search results
 - b. Physicians are entered into the search engine using the following format
 - i. First Name, Middle Initial. Last Name, MD or DO, State of Practice
 1. The middle initial is recommended in place of the full middle name as the full middle name frequently returns invalid results.
 - ii. Middle names and initials are acceptable for use in the distinction of common names
4. Acceptable Web Pages for use in verification
 - a. Private Practice Webpages updated in the last 12 months
 - b. Hospital websites with Physician lookup updated in the last 12 months
 - i. Hospitals who have partnered with iTriage are not acceptable for use in verification due to the inconsistency of the iTriage application.
 - c. Physician Group Websites updated in the last 12 months
 - d. Web Pages that are not acceptable but can be used in the search process
 - i. Web MD
 - ii. HealthGrades
 - iii. Doximity
 - iv. Health.USnews
5. In the event that a physician cannot be verified by the use of secondary data collection methods, the physician will be included with the primary data collection group where the following protocols for primary data collection are followed.

Step 3: Primary Data Collection

1. Structured telephone interviews are used for primary data collection. Practice locations are verified for physicians who could not be verified using secondary data collection methods.
2. Once Primary Data Collection is completed, all addresses are validated through geocoding.

Instructions for directly contacting potential health physician practices

Purpose

Confirm or identify the following information:

1. Confirm the physician practices at the location
2. Confirm the address of the location
3. Obtain hours spent in direct patient care
4. Obtain the proportion of patients that use Medicaid and Federal Sliding Fee Scale

Phone Verification Protocol

Step 1:

- i. Dial the number obtained through contact information search.

Step 2:

- i. Identify yourself and why you are calling.
 - a. “Hi, my name is _____. I am a member of a research team at Indiana University School of Medicine that is currently verifying physician/dentist practice addresses and characteristics in Indiana on behalf of the State Department of Health. I am calling today to confirm that Dr. _____ (first name and last name) still practices at this location.”
- ii. If the respondent asks for additional information about who we are
 - a. We are the Health Workforce Studies program located at the Indiana University School of Medicine, Department of Family Medicine. HWS is conducting this evaluation on behalf of the Indiana State Department of Health (ISDH) Primary Care Office (PCO). The purpose of this project is to identify the practice locations of all physicians/dentists in Indiana for use in federal Health Professional Shortage Area (HPSA) designations.

Step 3:

- i. If the respondent confirms that the physician/dentist practices at this location then proceed to confirm the address of the practice location.
 - a. “Thank you. May I ask for the address of this practice location including the ZIP code?”
 - i. Record the street address given by the respondent
 - b. “Thank you. May I ask how many days, (full days consisting of 8 hours a day and half days consisting of 4 hours a day) a week Dr. _____ see patients at this location?”
 - i. Record the days given by the respondent
 - c. “Thank you. May I ask if Dr. _____ accepts Medicaid?”
 - i. When two or more physicians are practicing
 1. “Thank you. May I ask if the practice accepts Medicaid?”
 - ii. If respondent confirms acceptance of Medicaid
 1. “May I ask what proportion of patients use Medicaid?”
 - a. Record the Medicaid percentage given by the respondent

- d. “Thank you. May I ask if Dr. _____ offers a federal sliding fee scale at this location?
 - i. When two or more physicians are practicing
 - 1. “Thank you. May I ask if the practice accepts Medicaid?”
 - ii. If respondent confirms the use of the federal sliding fee scale
 - 1. “May I ask what percentage of patients utilizes the sliding fee scale?”
 - a. Record the sliding fee scale percentage given by the respondent
- ii. That is all of the information we need, we appreciate your help. Have a good day.”
- iii. If the respondent indicates that the physician/dentist *does not* practice at this location then thank for their time.
 - a. “Thank you. That is all of the information we need, we appreciate your help. Have a good day.”

Step 5:

- i. Record all updated information in the data set for physician.

Appendix C. Verification Protocol for Dentist Data

Accessing REDCap:

To access our provider data on Red Cap visit: <https://redcap.uits.iu.edu/>. Verification will be conducted in REDCap on data for primary care physicians, psychiatrists and dentists. Once you sign in, click on the My Projects tab and then click on the project for provider data verification. On the left hand side of the project you will see the Add/Edit Records link which you will click on taking you to the provider verification page. You will see two rectangular tables with a light yellow heading. **You will only work in the first table with the Incomplete, Unverified and Complete Records.**

REDCap data entry fields (in order of appearance):

1. Does this Provider Have a practice in Indiana?
 - a. Selecting 'Yes' includes the Provider in the actively practicing Indiana Providers
 - b. Selecting 'No' excludes the Provider from actively practicing Indiana Providers
 - i. When 'No' is selected, three drop down sections of radio buttons appear.
 1. Is the Provider deceased?
 - a. Selecting 'Yes' includes the Provider in the actively practicing Indiana Providers
 - b. Selecting 'No' excludes the Provider from actively practicing Indiana Providers
 2. Is the Provider retired?
 - a. Selecting 'Yes' includes the Provider in the actively practicing Indiana Providers
 - i. If 'Yes' is selected then another section of radio buttons appears inquiring about the Providers volunteer activities. Provider who volunteer on a non-regular basis will be excluded.
 - b. Selecting 'No' excludes the Provider from actively practicing Indiana Providers
 - c. Does this Provider have a practice in Indiana?
 - i. Selecting 'Yes' includes the Provider in the actively practicing Indiana Providers
 - ii. Selecting 'No' excludes the Provider from actively practicing Indiana Providers
2. Primary and Secondary (and Tertiary, if applicable) Practice Address
 - a. Not a Valid address:
 - i. ONLY select this when the provider has retired, is deceased, or lists a home address and you cannot locate the providers practice address through primary and secondary data verification.
 - b. Update Street, City, State, Zip, County fields
 - c. Average Hours
 - i. Record average hours from the drop down
 - d. Medicaid Percent
 - i. Record percent of patient panel on Indiana Medicaid from the drop down
 - e. Sliding Fee Scale
 - i. Record percent of patient panel on Sliding Fee Scale
3. Outcome
 - a. Select Verified – Complete

- i. If the Providers practice location was verified. Another set of radio buttons will appear that will ask the verification source.
 - 1. Select Direct Contact or Practice Website
 - b. Select Verified – Practice Address
 - i. If the Providers practice location was verified. Another set of radio buttons will appear that will ask the verification source.
 - 1. Select Direct Contact or Practice Website
 - ii. This will most commonly be selected for survey non-respondents or offline license renewals.
 - c. Could not be verified
 - i. Include any notes in the ‘Notes on Verification’ free text box.
 - d. Complete?
 - i. Select Complete if all fields are filled out and the Provider has been verified by the above protocol.
 - ii. ONLY select unverified by approval.

***Please do not edit Name, Status, Match Type, License Address, and NPI Address 1 or 2.**

Data Verification Protocol:

Step 1: Locate the **Incomplete Records** row and select the first record which will be a dental license number starting with “12”.

Step 2: Web Search verification (Secondary Data Collection)

6. Google is the preferred search engine as it offers robust search results
 - a. Providers are entered into the search engine using the following format
 - i. First Name, Middle Initial. Last Name, [MD, DO or DDS], State of Practice
 1. The middle initial is recommended in place of the full middle name as the full middle name frequently returns invalid results.
 - ii. Middle names and initials are acceptable for use in the distinction of common names
7. Acceptable Web Pages for use in verification
 - a. Private Practice Webpages updated in the last 12 months
 - b. Hospital websites with Provider lookup updated in the last 12 months
 - i. Hospitals who have partnered with iTriage are not acceptable for use in verification due to the inconsistency of the iTriage application.
 - c. Provider Group Websites updated in the last 12 months
 - d. Web Pages that are not acceptable but can be used in the search process
 - i. Web MD
 - ii. HealthGrades
 - iii. Doximity
 - iv. Health.USnews
8. Report the Providers address in the **Primary or Secondary practice address** section of the form.
9. Once a Provider has been verified by the use of secondary data collection methods, select complete from the **Complete?** drop down at the bottom of the page.

10. In the event that a Provider cannot be verified by the use of secondary data collection methods, the Provider will be included with the primary data collection group where the following protocols for primary data collection are followed.

- a. Providers should be called **immediately** when secondary data collection methods are not successful.

.Step 3: Primary Data Collection

3. Structured telephone interviews are used for primary data collection. Practice locations are verified for physicians who could not be verified using secondary data collection methods.
4. Once Primary Data Collection is completed, all addresses are validated through geocoding.

Instructions for directly contacting potential health Provider practices

Purpose

Confirm or identify the following information:

5. Confirm the Provider practices at the location
6. Confirm the address of the location
7. Obtain hours spent in direct patient care
8. Obtain the proportion of patients that use Medicaid and Federal Sliding Fee Scale

Phone Verification Protocol

Step 1:

- ii. Dial the number obtained through contact information search.

Step 2:

- iii. Identify yourself and why you are calling.
 - a. “Hi, my name is _____. I am a member of a research team at Indiana University School of Medicine that is currently verifying Provider practice addresses and characteristics in Indiana on behalf of the State Department of Health. I am calling today to confirm that Dr. _____ (first name and last name) still practices at this location.”
- iv. If the respondent asks for additional information about who we are
 - a. We are the Health Workforce Studies program located at the Indiana University School of Medicine, Department of Family Medicine. HWS is conducting this evaluation on behalf of the Indiana State Department of Health (ISDH) Primary Care Office (PCO). The purpose of this project is to identify the practice locations of all physicians/Providers in Indiana for use in federal Health Professional Shortage Area (HPSA) designations.

Step 3:

- iv. If the respondent confirms that the physician/Provider practices at this location then proceed to confirm the address of the practice location.
 - a. “Thank you. May I ask for the address of this practice location including the ZIP code?”

- i. Record the street address given by the respondent
 - b. “Thank you. May I ask how many days, (full days consisting of 8 hours a day and half days consisting of 4 hours a day) a week Dr. _____ see patients at this location?”
 - i. Record the days given by the respondent
 - c. “Thank you. May I ask if Dr. _____ accepts Medicaid?”
 - i. When two or more physicians are practicing
 - 1. “Thank you. May I ask if the practice accepts Medicaid?”
 - ii. If respondent confirms acceptance of Medicaid
 - 1. “May I ask what proportion of patients use Medicaid?”
 - a. Record the Medicaid percentage given by the respondent
 - d. “Thank you. May I ask if Dr. _____ offers a federal sliding fee scale as defined by HRSA guidelines at this location?”
 - i. When two or more physicians are practicing
 - 1. “Thank you. May I ask if the practice offers a sliding fee scale as defined by HRSA guidelines?”

(If respondent is unsure of the HRSA guidelines, please refer to the guidelines provided in Attachment A)
 - ii. If respondent confirms the use of the federal sliding fee scale
 - 1. “May I ask what percentage of patients utilizes the sliding fee scale?”
 - a. Record the sliding fee scale percentage given by the respondent
 - e. “Are there any other Providers practicing at this location?”
- v. That is all of the information we need, we appreciate your help. Have a good day.”
- vi. If the respondent indicates that the physician/Provider *does not* practice at this location then thank for their time.
 - a. “Thank you. That is all of the information we need, we appreciate your help. Have a good day.”

Step 5:

- ii. Record all updated information in the data set for the provider.

Appendix D: Health Ranking Data

County	FIPS	Population	SOCIO-ECONOMIC					ACCESS TO CARE			RISK FACTORS				HEALTH OUTCOMES				
			% White	% Under 18	% 65-Over	% Below 100% FPL	% Below 200% FPL	Primary Care PC Pop to Prov	Mental Health Psych Pop to Prov	Dental Dent Pop to Prov	Alcohol Abuse ED Visits per 10,000	Smoking %	Obesity %	Substance Abuse ED Visits per 10,000	Asthma ED Visits per 10,000	Cancer Incidence per 100,000	Diabetes %	Hypertension %	Infant Mortality IMR per 1000
Adams	1	34,642	97.5%	31.3%	14.3%	16.0%	38.1%	5,412.8	34,642.0	3,752.9	0.86	20.8%	28.7%	41.74	21.9	352.0	10.0%	25.2%	6.2
Allen	3	363,453	79.5%	26.4%	12.8%	15.6%	34.5%	1,471.2	34,552.9	2,727.9	5.48	21.0%	32.6%	56.48	45.0	302.6	10.3%	28.7%	7.3
Bartholomew	5	79,488	87.1%	24.5%	14.8%	12.6%	28.9%	1,546.5	31,795.2	2,083.4	2.59	19.4%	33.9%	78.24	40.5	398.4	10.6%	26.8%	10.7
Benton	7	8,752	97.8%	25.1%	16.0%	13.5%	36.9%	-	-	3,392.2	1.15	28.2%	33.6%	50.69	26.8	497.9	12.6%	-	-
Blackford	9	12,476	97.4%	22.1%	19.4%	13.6%	38.5%	2,227.9	124,760.0	25,991.7	4.88	29.4%	36.5%	76.44	43.3	468.0	12.4%	37.0%	-
Boone	11	60,511	94.4%	27.1%	12.5%	5.8%	20.2%	1,579.9	25,212.9	2,711.6	1.42	17.1%	27.2%	50.20	24.4	389.1	9.2%	25.0%	-
Brown	13	15,011	97.3%	20.0%	20.2%	12.4%	30.9%	9,381.9	-	15,636.5	0.00	20.2%	31.9%	20.03	17.1	490.4	11.9%	19.0%	-
Carroll	15	20,014	97.8%	23.6%	17.3%	10.7%	32.0%	8,701.7	-	3,891.6	2.52	25.8%	30.6%	38.78	24.2	446.2	10.9%	33.4%	-
Cass	17	38,476	85.7%	24.4%	15.8%	15.3%	39.4%	1,953.1	34,978.2	4,994.3	2.11	23.0%	34.7%	72.41	43.6	338.6	9.5%	29.0%	8.4
Clark	19	113,181	88.3%	23.3%	13.8%	10.6%	29.5%	2,185.0	14,510.4	3,726.0	3.73	25.8%	29.7%	62.32	25.6	318.2	12.8%	30.1%	7.5
Clay	21	26,686	97.4%	23.6%	16.1%	14.3%	36.8%	4,235.9	-	6,618.6	2.64	22.9%	36.3%	96.97	35.9	460.4	11.3%	31.4%	-
Clinton	23	32,835	92.8%	26.1%	15.3%	13.7%	36.0%	3,862.9	65,670.0	3,607.6	1.84	18.9%	29.4%	86.79	40.7	459.4	12.9%	22.6%	-
Crawford	25	10,591	97.3%	22.6%	16.7%	20.5%	44.6%	-	-	-	1.91	25.3%	37.4%	52.47	24.6	353.6	13.5%	29.9%	-
Davies	27	32,411	96.2%	29.1%	14.3%	12.9%	36.9%	2,493.2	-	5,736.5	0.61	23.6%	32.1%	40.42	47.2	439.0	11.9%	20.5%	8.6
Dearborn	29	49,679	97.1%	23.6%	14.6%	9.2%	23.7%	1,678.3	38,214.6	9,986.6	2.43	24.9%	31.7%	46.91	25.5	228.8	11.2%	30.3%	-
Decatur	31	26,240	96.2%	24.9%	15.2%	13.9%	33.9%	1,785.0	-	2,138.0	1.89	21.2%	29.6%	63.72	49.2	404.2	12.3%	36.4%	-
DeKalb	33	42,449	96.9%	25.3%	14.3%	14.4%	34.6%	2,482.4	21,224.5	4,398.5	1.64	22.3%	27.0%	54.71	26.0	261.4	10.1%	28.8%	-
Delaware	35	117,335	88.8%	19.3%	15.7%	20.6%	40.7%	1,393.5	11,666.8	2,574.1	3.94	25.2%	33.4%	64.78	45.0	473.4	11.8%	35.3%	8.4
Dubois	37	42,291	95.3%	24.9%	15.6%	9.6%	26.7%	1,510.2	-	2,293.4	1.41	18.3%	29.9%	6.12	5.6	478.7	10.1%	21.9%	7.8
Elkhart	39	200,685	86.2%	28.1%	13.0%	15.7%	37.8%	2,480.7	15,792.4	4,087.1	2.80	20.1%	29.9%	58.88	44.5	277.1	9.3%	27.5%	7.1
Fayette	41	23,773	96.3%	22.7%	18.0%	20.2%	43.7%	1,674.2	-	5,896.1	3.41	24.8%	31.0%	69.13	27.5	273.8	13.1%	44.4%	-
Floyd	43	75,900	90.4%	23.4%	14.0%	12.6%	26.5%	1,846.7	19,461.5	1,784.5	5.08	28.1%	30.7%	62.52	27.1	384.1	9.8%	30.8%	-
Fountain	45	16,888	97.8%	23.1%	18.5%	11.8%	34.1%	4,330.3	-	7,036.7	3.01	27.3%	30.6%	60.88	60.9	410.2	13.1%	27.8%	-
Franklin	47	22,935	98.0%	24.5%	15.4%	10.5%	29.3%	1,357.1	-	3,732.6	0.44	31.7%	27.5%	19.24	12.4	225.5	12.4%	22.0%	-
Fulton	49	20,527	94.6%	24.2%	17.3%	14.7%	35.1%	1,936.5	-	5,084.5	1.97	17.6%	35.4%	60.05	35.0	311.9	11.5%	30.1%	-

County	FIPS	Population	SOCIO-ECONOMIC					ACCESS TO CARE			RISK FACTORS				HEALTH OUTCOMES				
			% White	% Under 18	% 65-Over	% Below 100% FPL	% Below 200% FPL	PC Pop to Prov	Psych Pop to Prov	Dent Pop to Prov	Alcohol Abuse	Smoking	Obesity	Substance Abuse	Asthma	Cancer	Diabetes	Hypertension	Infant Mortality
											ED Visits per 10,000	%	%	ED Visits per 10,000	ED Visits per 10,000	Incidence per 100,000	%	%	IMR per 1000
Gibson	51	33,668	94.9%	23.7%	15.9%	10.9%	30.9%	2,321.9	-	3,010.4	1.48	25.7%	31.0%	59.81	47.4	449.3	11.4%	32.4%	-
Grant	53	68,896	88.6%	21.0%	17.3%	17.2%	37.8%	2,660.1	36,261.1	3,530.0	3.82	28.7%	33.1%	70.46	59.1	508.5	13.8%	25.4%	9.5
Greene	55	32,815	98.0%	23.0%	17.5%	13.4%	35.1%	4,557.6	-	3,681.6	2.16	24.2%	34.1%	50.55	24.8	324.1	14.5%	26.9%	-
Hamilton	57	296,635	87.6%	29.0%	9.9%	4.7%	14.0%	1,421.3	22,136.9	1,627.0	1.45	12.4%	22.9%	39.39	19.5	405.7	7.8%	21.6%	4.1
Hancock	59	71,328	95.3%	24.7%	14.3%	6.4%	20.1%	1,682.3	23,009.0	3,872.1	2.34	20.4%	29.6%	51.57	29.0	435.7	10.3%	27.8%	5.2
Harrison	61	39,230	97.5%	22.9%	15.5%	13.7%	29.5%	2,421.6	-	5,963.8	1.26	13.4%	34.0%	56.85	23.0	281.7	10.5%	35.4%	-
Hendricks	63	153,435	89.3%	26.3%	11.9%	4.9%	18.0%	1,389.8	34,871.6	2,833.5	1.52	18.1%	32.1%	31.54	15.3	400.5	9.2%	27.1%	5.6
Henry	65	49,146	95.1%	21.2%	17.6%	15.2%	35.2%	2,808.3	-	4,294.3	3.47	28.3%	30.5%	54.30	46.1	418.5	10.6%	33.1%	8.4
Howard	67	82,765	88.2%	23.0%	17.6%	17.5%	36.1%	1,477.9	16,228.4	2,347.7	1.45	24.0%	35.5%	73.65	57.3	366.3	12.5%	37.7%	6.0
Huntington	69	36,863	97.0%	22.6%	15.5%	11.5%	33.0%	1,930.0	-	4,298.9	3.55	25.7%	32.7%	66.61	40.0	305.7	13.2%	28.7%	-
Jackson	71	43,471	92.6%	24.3%	15.0%	14.5%	35.5%	1,725.0	62,101.4	3,428.7	3.63	23.2%	37.7%	109.37	67.9	489.2	11.8%	24.6%	7.9
Jasper	73	33,448	96.7%	24.9%	15.2%	8.1%	26.0%	3,155.5	-	3,548.2	2.39	27.1%	32.5%	53.48	34.1	391.3	11.5%	31.3%	-
Jay	75	21,255	98.1%	26.1%	16.4%	16.0%	41.4%	4,251.0	-	7,028.8	2.37	25.6%	34.7%	115.52	54.2	468.1	12.7%	30.7%	-
Jefferson	77	32,453	94.9%	21.6%	15.7%	13.4%	37.1%	1,352.2	-	2,307.2	2.78	29.1%	33.7%	82.06	31.0	271.0	11.0%	36.7%	-
Jennings	79	28,113	97.3%	24.8%	14.4%	15.6%	38.3%	4,608.7	-	6,721.0	0.72	33.1%	31.9%	101.80	55.6	432.9	11.2%	31.3%	-
Johnson	81	145,645	92.8%	25.6%	13.4%	9.8%	25.8%	1,614.7	63,323.9	2,515.6	1.74	24.1%	30.7%	60.48	39.0	441.5	10.4%	31.2%	5.6
Knox	83	38,062	94.5%	21.4%	16.5%	14.8%	32.8%	1,340.2	10,572.8	4,137.2	3.69	30.3%	34.3%	72.51	43.6	477.5	10.0%	25.7%	-
Kosciusko	85	77,983	92.9%	24.8%	14.6%	11.1%	30.5%	2,142.4	45,872.4	3,788.4	3.82	21.9%	31.3%	54.18	28.7	268.2	9.7%	29.3%	8.1
LaGrange	87	38,084	97.9%	33.9%	12.4%	12.9%	41.7%	3,808.4	76,168.0	10,098.0	0.77	19.3%	33.8%	30.15	27.4	249.3	10.5%	26.3%	5.4
Lake	89	491,596	61.7%	24.8%	14.2%	17.7%	36.1%	1,699.8	16,835.5	2,697.5	5.47	24.0%	35.4%	48.93	69.9	383.5	12.9%	28.5%	8.3
LaPorte	91	111,280	84.0%	22.2%	15.2%	16.0%	33.4%	1,895.7	38,372.4	3,925.4	4.87	26.6%	33.9%	71.16	52.5	389.9	9.9%	33.2%	8.5
Lawrence	93	45,814	96.7%	22.5%	17.5%	12.8%	34.7%	2,318.5	114,535.0	5,275.6	2.42	20.1%	34.4%	72.54	50.5	408.4	15.6%	27.2%	-
Madison	95	130,280	88.1%	22.3%	16.5%	16.2%	36.8%	1,727.9	21,713.3	4,195.5	4.01	27.9%	35.2%	73.46	87.0	455.5	12.4%	30.6%	7.5
Marion	97	926,335	63.1%	24.9%	11.1%	20.7%	42.0%	1,154.5	15,083.4	2,139.4	4.17	24.2%	31.3%	73.85	83.4	410.9	10.9%	32.2%	8.6
Marshall	99	46,962	93.3%	25.8%	15.7%	11.9%	35.1%	1,871.0	-	4,558.5	3.20	21.0%	32.2%	59.76	25.9	275.5	10.9%	23.9%	-
Martin	101	10,262	97.6%	23.2%	16.6%	12.9%	32.4%	4,104.8	-	7,126.4	0.98	17.5%	30.6%	31.29	15.0	370.9	11.2%	31.5%	-
Miami	103	36,211	91.4%	22.0%	15.3%	14.3%	38.0%	2,105.3	-	4,878.0	1.12	31.1%	33.4%	72.22	45.0	319.2	10.9%	30.3%	-

County	FIPS	Population	SOCIO-ECONOMIC					ACCESS TO CARE			RISK FACTORS				HEALTH OUTCOMES				
			% White	% Under 18	% 65-Over	% Below 100% FPL	% Below 200% FPL	Primary Care	Mental Health	Dental	Alcohol Abuse	Smoking	Obesity	Substance Abuse	Asthma	Cancer	Diabetes	Hypertension	Infant Mortality
								PC Pop to Prov	Psych Pop to Prov	Dent Pop to Prov	ED Visits per 10,000	%	%	ED Visits per 10,000	ED Visits per 10,000	Incidence per 100,000	%	%	IMR per 1000
Monroe	105	142,404	86.8%	16.1%	11.0%	22.3%	38.5%	1,816.4	12,945.8	3,412.1	0.90	17.8%	22.8%	42.36	22.9	392.0	8.5%	29.2%	6.0
Montgomery	107	38,172	96.2%	23.3%	16.4%	13.5%	34.2%	3,234.9	31,810.0	2,571.0	1.31	23.2%	34.6%	79.26	51.3	368.2	11.7%	23.3%	-
Morgan	109	69,403	97.4%	24.0%	14.5%	11.9%	28.2%	2,321.2	-	3,873.3	3.45	24.2%	33.6%	82.70	41.6	484.1	10.8%	28.7%	6.3
Newton	111	14,057	97.0%	22.1%	17.2%	13.5%	36.7%	10,813.1	-	8,367.3	2.14	41.7%	35.7%	28.56	31.1	327.2	11.8%	-	-
Noble	113	47,546	96.5%	25.7%	13.9%	11.9%	34.2%	3,773.5	33,961.4	4,020.8	2.51	26.7%	34.6%	50.49	32.7	239.4	10.8%	26.9%	6.9
Ohio	115	6,033	98.9%	20.2%	18.9%	7.8%	25.4%	3,016.5	-	-	3.37	28.4%	30.9%	21.89	-	231.7	11.9%	-	-
Orange	117	19,725	96.5%	24.0%	17.1%	17.3%	44.7%	3,131.0	-	4,380.6	1.53	28.2%	31.7%	61.72	52.8	467.1	11.7%	31.3%	-
Owen	119	21,192	97.3%	22.1%	16.6%	15.0%	38.2%	5,727.6	211,920.0	13,942.1	2.87	32.0%	34.5%	81.45	32.7	408.9	12.2%	33.0%	-
Parke	121	17,107	96.2%	21.5%	16.8%	14.5%	40.6%	1,879.9	-	6,198.2	2.37	30.0%	28.6%	49.70	32.2	362.0	11.7%	31.7%	-
Perry	123	19,414	94.8%	21.0%	16.4%	11.7%	31.3%	2,136.3	-	6,105.0	0.52	24.5%	30.8%	42.90	73.8	227.0	10.7%	26.1%	-
Pike	125	12,687	99.4%	22.0%	18.4%	9.8%	30.0%	2,537.4	-	-	3.18	18.4%	34.4%	21.44	14.4	527.4	12.9%	36.7%	-
Porter	127	166,570	92.0%	23.2%	13.9%	11.3%	23.6%	1,804.7	25,237.9	2,696.7	4.47	21.4%	30.8%	40.85	44.0	326.8	8.9%	24.9%	4.3
Posey	129	25,567	97.2%	22.8%	15.7%	11.0%	23.5%	4,565.5	255,670.0	6,555.6	3.53	21.5%	31.3%	39.59	20.7	488.6	11.0%	30.5%	-
Pulaski	131	13,047	96.4%	23.2%	17.8%	13.9%	36.8%	2,071.0	-	-	0.78	22.4%	34.7%	70.60	29.4	328.6	13.6%	19.4%	-
Putnam	133	37,650	93.2%	19.9%	14.6%	8.6%	24.3%	4,327.6	94,125.0	5,331.7	1.06	24.4%	30.6%	87.27	25.1	444.9	11.8%	27.9%	-
Randolph	135	25,596	97.1%	23.8%	18.1%	17.7%	42.6%	4,266.0	-	14,220.0	1.19	23.5%	32.8%	58.40	47.7	440.2	13.6%	25.5%	-
Ripley	137	28,612	97.1%	24.4%	16.5%	8.4%	29.2%	4,146.7	95,373.3	6,113.7	1.74	26.5%	31.1%	50.87	39.0	334.3	10.0%	27.2%	-
Rush	139	16,991	97.2%	23.1%	17.4%	17.3%	38.5%	2,178.3	-	4,086.3	1.20	21.9%	30.9%	61.78	83.1	352.7	11.9%	31.5%	-
St. Joseph	141	267,246	79.5%	24.1%	14.0%	17.0%	36.6%	1,222.5	13,991.9	2,996.8	4.13	20.8%	28.6%	78.12	50.6	300.5	9.5%	29.1%	7.9
Scott	143	23,783	97.4%	23.3%	15.4%	17.4%	39.3%	2,936.2	-	5,814.9	2.53	24.6%	29.5%	190.78	51.9	333.4	11.9%	37.4%	-
Shelby	145	44,441	94.4%	23.6%	15.2%	11.9%	32.4%	2,709.8	111,102.5	3,507.6	2.47	27.0%	30.8%	90.16	51.6	427.0	11.2%	35.5%	8.3
Spencer	147	20,856	96.2%	23.1%	17.2%	10.6%	25.1%	2,607.0	-	6,207.1	2.90	20.0%	30.3%	25.59	22.5	360.1	10.6%	27.2%	-
Starke	149	23,117	95.6%	23.4%	16.3%	15.9%	41.3%	2,752.0	-	15,411.3	1.31	32.6%	34.7%	88.42	51.8	441.3	10.5%	31.8%	-
Steuben	151	34,267	97.3%	21.5%	16.6%	10.3%	31.9%	2,832.0	42,833.8	3,894.0	2.91	21.7%	33.2%	43.64	40.7	237.7	11.8%	33.3%	-
Sullivan	153	21,111	93.4%	20.2%	15.9%	16.7%	36.1%	2,574.5	-	5,550.7	1.43	25.0%	30.8%	100.34	46.8	429.2	12.0%	31.0%	-
Switzerland	155	10,500	96.9%	25.2%	15.7%	19.3%	44.0%	-	-	8,203.1	2.85	29.2%	31.5%	42.76	10.6	203.3	13.2%	31.3%	-
Tippecanoe	157	180,952	85.0%	20.6%	10.0%	20.4%	37.7%	1,918.9	26,224.9	3,040.9	1.29	14.7%	25.5%	61.99	38.0	431.2	8.6%	32.8%	7.7

County	FIPS	Population	SOCIO-ECONOMIC					ACCESS TO CARE			RISK FACTORS				HEALTH OUTCOMES				
			% White	% Under 18	% 65-Over	% Below 100% FPL	% Below 200% FPL	Primary Care	Mental Health	Dental	Alcohol Abuse	Smoking	Obesity	Substance Abuse	Asthma	Cancer	Diabetes	Hypertension	Infant Mortality
								PC Pop to Prov	Psych Pop to Prov	Dent Pop to Prov	ED Visits per 10,000	%	%	ED Visits per 10,000	ED Visits per 10,000	Incidence per 100,000	%	%	IMR per 1000
Tipton	159	15,573	97.3%	21.9%	19.0%	9.8%	28.5%	2,433.3	-	3,310.6	2.62	25.4%	33.2%	49.13	40.4	435.1	12.2%	23.8%	-
Union	161	7,299	96.3%	23.7%	16.3%	10.3%	34.8%	72,990.0	-	-	0.00	29.8%	33.4%	-	-	221.9	11.4%	25.3%	-
Vanderburgh	163	181,305	86.2%	22.0%	15.0%	15.9%	36.4%	1,209.5	12,678.7	2,439.4	7.15	25.1%	33.2%	89.02	54.9	485.1	12.7%	32.3%	7.8
Vermillion	165	15,860	98.1%	22.5%	18.2%	12.6%	35.6%	4,405.6	-	8,010.1	4.46	24.7%	31.2%	63.09	48.7	409.9	13.0%	26.7%	-
Vigo	167	108,268	87.5%	20.9%	14.2%	18.7%	39.5%	1,384.5	11,641.7	3,125.4	5.00	23.4%	31.5%	71.46	44.9	418.5	9.6%	27.5%	7.1
Wabash	169	32,358	96.0%	21.8%	19.1%	13.5%	34.3%	2,838.4	-	5,926.4	3.73	19.3%	33.0%	63.79	27.4	375.3	13.4%	23.9%	-
Warren	171	8,367	98.1%	21.8%	18.6%	8.8%	24.7%	4,183.5	-	11,620.8	1.21	19.3%	29.1%	36.28	47.3	301.0	11.6%	22.9%	-
Warrick	173	60,995	94.6%	24.9%	15.4%	9.7%	23.2%	811.1	87,135.7	3,549.0	4.04	13.7%	29.7%	46.69	30.1	465.0	10.8%	26.5%	-
Washington	175	27,930	98.1%	24.2%	15.0%	15.0%	39.8%	3,627.3	27,930.0	6,206.7	2.16	37.1%	28.8%	151.29	44.3	375.4	10.5%	24.5%	-
Wayne	177	67,866	90.0%	22.4%	17.5%	20.2%	41.5%	1,553.0	35,718.9	4,065.3	0.45	26.0%	27.6%	6.12	41.9	314.7	10.2%	18.4%	9.0
Wells	179	27,796	96.8%	24.4%	16.9%	11.9%	30.3%	2,014.2	-	4,289.5	1.43	20.5%	29.2%	48.99	28.0	362.0	10.8%	25.9%	-
White	181	24,388	94.4%	23.7%	18.1%	9.5%	27.4%	3,871.1	34,840.0	4,877.6	0.41	21.7%	32.0%	80.27	53.8	412.1	11.3%	29.6%	-
Whitley	183	33,330	96.7%	23.6%	15.6%	7.9%	25.1%	2,583.7	-	4,145.5	2.10	21.5%	32.6%	45.50	35.1	266.1	9.9%	33.7%	-

Appendix E. Health Ranking Z-Scores

County	FIPS	Population	SOCIO-ECONOMIC					ACCESS TO CARE			RISK FACTORS				HEALTH OUTCOMES				
			% White	% Under 18	% 65-Over	% Below 100% FPL	% Below 200% FPL	Primary Care	Mental Health	Dental	Alcohol Abuse	Obesity	Smoking	Substance Abuse	Asthma	Cancer	Diabetes	Hypertension	Infant Mortality
								PC Pop to Prov	Psych Pop to Prov	Dent Pop to Prov	Ed Visits per 10,000	%	%	Ed Visits per 10,000	Ed Visits per 10,000	Incidence Rate per 100,000	%	%	Rate per 1,000
Adams	1	34,642	0.632	3.169	-0.710	0.680	0.717	0.241	-0.279	-0.405	-1.129	-1.129	-0.652	-0.714	-1.064	-0.296	-0.956	-0.810	-0.763
Allen	3	363,453	-2.194	1.162	-1.473	0.571	0.150	-0.276	-0.281	-0.685	2.158	0.281	-0.612	-0.175	0.357	-0.904	-0.743	-0.059	-0.022
Bartholomew	5	79,488	-1.009	0.366	-0.478	-0.218	-0.732	-0.266	-0.336	-0.861	0.100	0.752	-0.936	0.622	0.080	0.275	-0.530	-0.466	2.265
Benton	7	8,752	0.677	0.611	0.161	0.018	0.540	-	-	-0.504	-0.920	0.643	0.848	-0.387	-0.763	1.499	0.888	-	-
Blackford	9	12,476	0.617	-0.596	1.852	0.053	0.779	-0.177	1.526	5.659	1.729	1.692	1.091	0.556	0.253	1.131	0.746	1.721	-
Boone	11	60,511	0.148	1.430	-1.576	-2.053	-2.085	-0.262	-0.468	-0.689	-0.729	-1.671	-1.402	-0.404	-0.911	0.160	-1.523	-0.852	-
Brown	13	15,011	0.587	-1.468	2.249	-0.270	-0.417	0.761	-	2.836	-1.739	0.028	-0.774	-1.509	-1.360	1.406	0.392	-2.139	-
Carroll	15	20,014	0.674	0.005	0.802	-0.722	-0.239	0.672	-	-0.367	0.051	-0.442	0.361	-0.822	-0.923	0.863	-0.318	0.949	-
Cass	17	38,476	-1.218	0.325	0.049	0.501	0.927	-0.213	-0.272	-0.067	-0.242	1.041	-0.206	0.408	0.271	-0.461	-1.311	0.006	0.718
Clark	19	113,181	-0.819	-0.131	-0.966	-0.756	-0.632	-0.182	-0.682	-0.413	0.910	-0.767	0.361	0.039	-0.837	-0.712	1.030	0.241	0.112
Clay	21	26,686	0.607	-0.004	0.180	0.225	0.521	0.086	-	0.376	0.138	1.619	-0.227	1.307	-0.203	1.037	-0.034	0.520	-
Clinton	23	32,835	-0.110	1.013	-0.216	0.078	0.393	0.038	0.342	-0.445	-0.431	-0.876	-1.038	0.935	0.093	1.025	1.101	-1.367	-
Crawford	25	10,591	0.594	-0.405	0.485	1.885	1.738	-	-	-	-0.383	2.017	0.260	-0.321	-0.898	-0.276	1.526	0.199	-
Daviess	27	32,411	0.417	2.276	-0.700	-0.133	0.532	-0.142	-	0.136	-1.307	0.101	-0.085	-0.762	0.493	0.774	0.392	-1.818	0.852
Dearborn	29	49,679	0.566	-0.010	-0.557	-1.145	-1.548	-0.249	-0.208	1.295	-0.014	-0.044	0.179	-0.525	-0.843	-1.812	-0.105	0.284	-
Decatur	31	26,240	0.427	0.520	-0.258	0.126	0.056	-0.235	-	-0.846	-0.399	-0.803	-0.571	0.091	0.616	0.346	0.675	1.593	-
DeKalb	33	42,449	0.533	0.690	-0.712	0.257	0.178	-0.143	-0.548	-0.229	-0.571	-1.744	-0.348	-0.239	-0.812	-1.411	-0.885	-0.037	-
Delaware	35	117,335	-0.741	-1.780	-0.033	1.934	1.135	-0.286	-0.739	-0.727	1.059	0.571	0.240	0.129	0.357	1.197	0.321	1.357	0.718
Dubois	37	42,291	0.288	0.541	-0.050	-1.021	-1.069	-0.271	-	-0.803	-0.735	-0.695	-1.159	-2.018	-2.068	1.263	-0.885	-1.517	0.314
Elkhart	39	200,685	-1.140	1.855	-1.354	0.622	0.678	-0.144	-0.657	-0.314	0.252	-0.695	-0.794	-0.087	0.327	-1.218	-1.452	-0.316	-0.157
Fayette	41	23,773	0.432	-0.385	1.117	1.822	1.597	-0.249	-	0.179	0.687	-0.297	0.158	0.288	-0.720	-1.258	1.243	3.309	-
Floyd	43	75,900	-0.484	-0.095	-0.847	-0.234	-1.102	-0.227	-0.583	-0.942	1.871	-0.406	0.827	0.046	-0.744	0.099	-1.098	0.392	-
Fountain	45	16,888	0.668	-0.207	1.384	-0.438	0.098	0.099	-	0.490	0.403	-0.442	0.665	-0.014	1.336	0.420	1.243	-0.252	-

County	FIPS	Population	SOCIO-ECONOMIC					ACCESS TO CARE			RISK FACTORS				HEALTH OUTCOMES				
			% White	% Under 18	% 65-Over	% Below 100% FPL	% Below 200% FPL	Primary Care	Mental Health	Dental	Alcohol Abuse	Obesity	Smoking	Substance Abuse	Asthma	Cancer	Diabetes	Hypertension	Infant Mortality
								PC Pop to Prov	Psych Pop to Prov	Dent Pop to Prov	Ed Visits per 10,000	%	%	Ed Visits per 10,000	Ed Visits per 10,000	Incidence Rate per 100,000	%	%	Rate per 1,000
Franklin	47	22,935	0.706	0.364	-0.182	-0.780	-0.655	-0.291	-	-0.411	-1.428	-1.563	1.557	-1.538	-1.649	-1.852	0.746	-1.496	-
Fulton	49	20,527	0.177	0.265	0.764	0.333	0.255	-0.215	-	-0.042	-0.340	1.294	-1.301	-0.044	-0.258	-0.789	0.108	0.241	-
Gibson	51	33,668	0.211	0.035	0.102	-0.675	-0.405	-0.164	-	-0.608	-0.687	-0.297	0.341	-0.053	0.505	0.901	0.037	0.735	-
Grant	53	68,896	-0.760	-1.043	0.765	1.004	0.681	-0.120	-0.247	-0.466	0.979	0.462	0.949	0.337	1.225	1.629	1.739	-0.767	1.458
Greene	55	32,815	0.711	-0.238	0.904	-0.007	0.250	0.129	-	-0.425	-0.205	0.824	0.037	-0.391	-0.886	-0.639	2.236	-0.445	-
Hamilton	57	296,635	-0.921	2.200	-2.874	-2.348	-3.070	-0.282	-0.530	-0.985	-0.706	-3.226	-2.355	-0.800	-1.212	0.364	-2.516	-1.582	-2.176
Hancock	59	71,328	0.289	0.449	-0.709	-1.880	-2.112	-0.248	-0.512	-0.373	-0.073	-0.803	-0.734	-0.354	-0.627	0.734	-0.743	-0.252	-1.436
Harrison	61	39,230	0.621	-0.286	-0.099	0.085	-0.634	-0.151	-	0.198	-0.841	0.788	-2.153	-0.161	-0.997	-1.161	-0.601	1.378	-
Hendricks	63	153,435	-0.658	1.092	-1.882	-2.290	-2.434	-0.287	-0.275	-0.656	-0.661	0.101	-1.200	-1.087	-1.471	0.301	-1.523	-0.402	-1.166
Henry	65	49,146	0.250	-0.984	0.917	0.473	0.271	-0.101	-	-0.258	0.728	-0.478	0.868	-0.254	0.425	0.522	-0.530	0.885	0.718
Howard	67	82,765	-0.822	-0.246	0.941	1.081	0.416	-0.275	-0.648	-0.788	-0.706	1.330	-0.004	0.454	1.114	-0.120	0.817	1.872	-0.897
Huntington	69	36,863	0.541	-0.418	-0.088	-0.516	-0.080	-0.216	-	-0.256	0.784	0.318	0.341	0.196	0.050	-0.866	1.314	-0.059	-
Jackson	71	43,471	-0.144	0.278	-0.363	0.284	0.316	-0.243	0.271	-0.494	0.842	2.126	-0.166	1.761	1.767	1.392	0.321	-0.938	0.381
Jasper	73	33,448	0.494	0.517	-0.269	-1.430	-1.173	-0.055	-	-0.461	-0.040	0.245	0.625	-0.284	-0.314	0.187	0.108	0.499	-
Jay	75	21,255	0.723	1.038	0.353	0.689	1.236	0.088	-	0.488	-0.056	1.041	0.321	1.986	0.924	1.132	0.959	0.370	-
Jefferson	77	32,453	0.219	-0.833	-0.021	-0.012	0.561	-0.291	-	-0.799	0.234	0.679	1.030	0.762	-0.504	-1.293	-0.247	1.657	-
Jennings	79	28,113	0.590	0.500	-0.657	0.587	0.761	0.135	-	0.404	-1.229	0.028	1.841	1.484	1.010	0.699	-0.105	0.499	-
Johnson	81	145,645	-0.108	0.818	-1.171	-0.987	-1.210	-0.257	0.295	-0.743	-0.504	-0.406	0.017	-0.028	-0.012	0.805	-0.672	0.477	-1.166
Knox	83	38,062	0.149	-0.886	0.365	0.366	-0.113	-0.293	-0.761	-0.300	0.885	0.896	1.273	0.412	0.271	1.248	-0.956	-0.702	-
Kosciusko	85	77,983	-0.093	0.488	-0.577	-0.629	-0.469	-0.188	-0.054	-0.396	0.973	-0.189	-0.429	-0.259	-0.646	-1.327	-1.169	0.070	0.516
LaGrange	87	38,084	0.681	4.240	-1.656	-0.144	1.292	0.030	0.553	1.325	-1.190	0.715	-0.956	-1.138	-0.726	-1.560	-0.601	-0.574	-1.301
Lake	89	491,596	-4.973	0.476	-0.761	1.157	0.411	-0.246	-0.636	-0.693	2.151	1.294	-0.004	-0.451	1.890	0.091	1.101	-0.102	0.650
LaPorte	91	111,280	-1.486	-0.589	-0.243	0.687	-0.024	-0.220	-0.204	-0.358	1.722	0.752	0.523	0.363	0.819	0.170	-1.027	0.906	0.785
Lawrence	93	45,814	0.502	-0.428	0.903	-0.177	0.181	-0.165	1.321	0.010	-0.020	0.932	-0.794	0.413	0.696	0.398	3.016	-0.381	-
Madison	95	130,280	-0.851	-0.544	0.400	0.741	0.518	-0.242	-0.538	-0.285	1.110	1.222	0.787	0.447	2.943	0.977	0.746	0.349	0.112
Marion	97	926,335	-4.760	0.557	-2.305	1.939	1.338	-0.317	-0.671	-0.845	1.228	-0.189	0.037	0.461	2.721	0.428	-0.318	0.692	0.852

County	FIPS	Population	SOCIO-ECONOMIC					ACCESS TO CARE			RISK FACTORS				HEALTH OUTCOMES				
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								PC Pop to Prov	Psych Pop to Prov	Dent Pop to Prov	Ed Visits per 10,000	%	%	Ed Visits per 10,000	Ed Visits per 10,000	Incidence Rate per 100,000	%	%	Rate per 1,000
Marshall	99	46,962	-0.027	0.896	0.003	-0.407	0.252	-0.223	-	-0.186	0.536	0.137	-0.612	-0.055	-0.818	-1.237	-0.318	-1.088	-
Martin	101	10,262	0.643	-0.167	0.436	-0.152	-0.172	0.069	-	0.515	-1.044	-0.442	-1.321	-1.096	-1.489	-0.064	-0.105	0.542	-
Miami	103	36,211	-0.331	-0.663	-0.216	0.231	0.703	-0.193	-	-0.098	-0.946	0.571	1.436	0.402	0.357	-0.700	-0.318	0.284	-
Monroe	105	142,404	-1.042	-3.087	-2.360	2.373	0.778	-0.231	-0.714	-0.498	-1.100	-3.262	-1.261	-0.691	-1.003	0.196	-2.020	0.048	-0.897
Montgomery	107	38,172	0.423	-0.103	0.350	0.019	0.112	-0.045	-0.336	-0.728	-0.809	1.005	-0.166	0.659	0.745	-0.097	0.250	-1.217	-
Morgan	109	69,403	0.613	0.167	-0.614	-0.419	-0.830	-0.164	-	-0.372	0.710	0.643	0.037	0.785	0.148	1.329	-0.389	-0.059	-0.695
Newton	111	14,057	0.552	-0.596	0.755	0.008	0.500	0.948	-	0.853	-0.217	1.402	3.584	-1.197	-0.498	-0.601	0.321	-	-
Noble	113	47,546	0.466	0.880	-0.896	-0.406	0.108	0.026	-0.293	-0.332	0.048	1.005	0.544	-0.394	-0.400	-1.681	-0.389	-0.445	-0.292
Ohio	115	6,033	0.846	-1.389	1.571	-1.513	-1.268	-0.073	-	-	0.655	-0.333	0.888	-1.440	-	-1.776	0.392	-	-
Orange	117	19,725	0.471	0.174	0.694	1.027	1.756	-0.058	-	-0.234	-0.651	-0.044	0.848	0.017	0.837	1.120	0.250	0.499	-
Owen	119	21,192	0.590	-0.632	0.429	0.413	0.733	0.282	3.272	2.373	0.304	0.969	1.618	0.739	-0.400	0.404	0.604	0.863	-
Parke	121	17,107	0.420	-0.863	0.558	0.296	1.121	-0.222	-	0.262	-0.057	-1.165	1.213	-0.423	-0.431	-0.173	0.250	0.585	-
Perry	123	19,414	0.208	-1.069	0.319	-0.458	-0.354	-0.189	-	0.236	-1.372	-0.369	0.098	-0.672	2.130	-1.834	-0.459	-0.616	-
Pike	125	12,687	0.920	-0.653	1.315	-0.975	-0.558	-0.136	-	-	0.518	0.932	-1.139	-1.457	-1.526	1.862	1.101	1.657	-
Porter	127	166,570	-0.235	-0.173	-0.923	-0.567	-1.555	-0.232	-0.468	-0.693	1.440	-0.369	-0.531	-0.747	0.296	-0.606	-1.736	-0.874	-2.041
Posey	129	25,567	0.582	-0.325	0.012	-0.664	-1.580	0.130	4.148	0.359	0.768	-0.189	-0.511	-0.793	-1.138	1.384	-0.247	0.327	-
Pulaski	131	13,047	0.459	-0.151	1.048	0.115	0.519	-0.197	-	-	-1.188	1.041	-0.328	0.342	-0.603	-0.584	1.597	-2.054	-
Putnam	133	37,650	-0.055	-1.498	-0.536	-1.291	-1.454	0.098	0.912	0.025	-0.983	-0.442	0.077	0.952	-0.868	0.847	0.321	-0.230	-
Randolph	135	25,596	0.569	0.089	1.195	1.138	1.428	0.090	-	2.449	-0.892	0.354	-0.105	-0.104	0.524	0.789	1.597	-0.745	-
Ripley	137	28,612	0.556	0.331	0.394	-1.350	-0.673	0.075	0.937	0.239	-0.501	-0.261	0.503	-0.380	-0.012	-0.514	-0.956	-0.381	-
Rush	139	16,991	0.576	-0.206	0.852	1.050	0.793	-0.183	-	-0.314	-0.886	-0.333	-0.429	0.019	2.702	-0.288	0.392	0.542	-
St. Joseph	141	267,246	-2.187	0.222	-0.833	0.969	0.492	-0.308	-0.693	-0.611	1.200	-1.165	-0.652	0.617	0.702	-0.930	-1.311	0.027	0.381
Scott	143	23,783	0.606	-0.122	-0.143	1.077	0.914	-0.084	-	0.157	0.057	-0.840	0.118	4.741	0.782	-0.525	0.392	1.807	-
Shelby	145	44,441	0.139	-0.002	-0.275	-0.402	-0.168	-0.114	1.252	-0.472	0.019	-0.369	0.604	1.058	0.764	0.627	-0.105	1.400	0.650
Spencer	147	20,856	0.427	-0.185	0.729	-0.756	-1.320	-0.127	-	0.264	0.320	-0.550	-0.815	-1.305	-1.028	-0.196	-0.530	-0.381	-
Starke	149	23,117	0.334	-0.084	0.313	0.671	1.227	-0.108	-	2.774	-0.810	1.041	1.740	0.995	0.776	0.802	-0.601	0.606	-

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								PC Pop to Prov	Psych Pop to Prov	Dent Pop to Prov	Ed Visits per 10,000	%	%	Ed Visits per 10,000	Ed Visits per 10,000	Incidence Rate per 100,000	%	%	Rate per 1,000
Steuben	151	34,267	0.596	-0.850	0.442	-0.830	-0.259	-0.098	-0.115	-0.367	0.329	0.498	-0.470	-0.644	0.093	-1.702	0.321	0.928	-
Sullivan	153	21,111	-0.016	-1.398	0.103	0.889	0.404	-0.131	-	0.085	-0.720	-0.369	0.199	1.431	0.468	0.654	0.463	0.435	-
Switzerland	155	10,500	0.525	0.641	-0.030	1.565	1.647	-	-	0.808	0.287	-0.116	1.050	-0.677	-1.760	-2.125	1.314	0.499	-
Tippecanoe	157	180,952	-1.329	-1.212	-2.830	1.870	0.656	-0.217	-0.448	-0.599	-0.821	-2.286	-1.889	0.027	-0.074	0.678	-1.949	0.821	0.247
Tipton	159	15,573	0.588	-0.684	1.621	-0.969	-0.788	-0.150	-	-0.526	0.123	0.498	0.280	-0.444	0.074	0.726	0.604	-1.110	-
Union	161	7,299	0.445	0.034	0.305	-0.832	0.210	9.097	-	-	-1.739	0.571	1.172	-	-	-1.897	0.037	-0.788	-
Vanderburgh	163	181,305	-1.150	-0.654	-0.381	0.670	0.453	-0.310	-0.719	-0.763	3.341	0.498	0.219	1.016	0.967	1.341	0.959	0.713	0.314
Vermillion	165	15,860	0.714	-0.467	1.222	-0.226	0.332	0.109	-	0.756	1.432	-0.225	0.138	0.067	0.585	0.416	1.172	-0.488	-
Vigo	167	108,268	-0.937	-1.111	-0.764	1.415	0.949	-0.287	-0.740	-0.576	1.818	-0.116	-0.125	0.374	0.351	0.522	-1.240	-0.316	-0.157
Wabash	169	32,358	0.388	-0.745	1.704	0.023	0.124	-0.097	-	0.187	0.915	0.426	-0.956	0.093	-0.726	-0.009	1.455	-1.088	-
Warren	171	8,367	0.718	-0.715	1.454	-1.231	-1.390	0.080	-	1.740	-0.879	-0.984	-0.956	-0.914	0.499	-0.924	0.179	-1.303	-
Warrick	173	60,995	0.168	0.517	-0.152	-0.997	-1.628	-0.362	0.772	-0.461	1.132	-0.767	-2.092	-0.533	-0.560	1.094	-0.389	-0.531	-
Washington	175	27,930	0.714	0.254	-0.381	0.422	0.997	0.007	-0.414	0.264	-0.206	-1.093	2.652	3.295	0.314	-0.008	-0.601	-0.960	-
Wayne	177	67,866	-0.544	-0.475	0.892	1.827	1.256	-0.265	-0.258	-0.320	-1.421	-1.527	0.402	-2.018	0.167	-0.755	-0.814	-2.268	1.121
Wells	179	27,796	0.520	0.320	0.602	-0.412	-0.512	-0.205	-	-0.259	-0.722	-0.948	-0.713	-0.449	-0.689	-0.173	-0.389	-0.659	-
White	181	24,388	0.141	0.030	1.161	-1.063	-0.957	0.039	-0.275	-0.099	-1.446	0.064	-0.470	0.696	0.899	0.443	-0.034	0.134	-
Whitley	183	33,330	0.498	0.020	-0.052	-1.484	-1.321	-0.130	-	-0.298	-0.250	0.281	-0.511	-0.576	-0.252	-1.353	-1.027	1.014	-