Indiana Primary Care Needs Assessment

2019

INDIANA PRIMARY CARE NEEDS ASSESSMENT REPORT

Prepared for:
Indiana State Department of Health

Prepared by:
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SCHOOL OF MEDICINE
BOWEN CENTER FOR HEALTH
WORKFORCE RESEARCH & POLICY

ACKNOWLEDGEMENTS

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EXECUTIVE SUMMARY

The Indiana Primary Care Needs Assessment (PCNA) has been critical in the efforts to identify gaps in access to health care and allocate resources to communities in greatest need. This five-year project, a collaborative effort between the Bowen Center for Health Workforce Research and Policy (Bowen Center) and the Indiana State Department of Health Primary Care Office, has encompassed numerous efforts to accomplish these goals. These efforts include: development of standard provider data management; statewide analysis of Health Professional Shortage Areas; and, the provision of resources and assistance to health care administrators and community leaders. The 2019 Primary Care Needs Assessment Report summarizes efforts from 2015-2018 and demonstrates how this project has impacted communities throughout Indiana.

The PCNA project began during a time in which the Health Resources and Services Administration (HRSA) initiated a modernization project to streamline the application process for Health Professional Shortage Area (HPSA) designations. In response to this, the Bowen Center has developed provider verification procedures which collects comprehensive information on providers' clinical practice (1, 2). With these verified data, the Bowen Center has been able to assist the Indiana State Department of Health in more effectively managing HPSA applications, obtaining designations for many underserved communities and proactively respond to regulatory changes in the designation process. A summary of the efforts for managing HPSA applications is provided in Section I.

While accurate and timely information on providers is crucial for a needs assessment, evaluating population data is also necessary for identifying emerging health outcomes. The Indiana PCNA project annually evaluates population health data derived from the U.S. Census and the Robert Wood Johnson Foundation. This ongoing evaluation, summarized in Section II, has shown that while certain health outcomes have remained consistently prevalent (such as diabetes and infant mortality) other serious health concerns have recently emerged (such as substance abuse).

In addition to managing provider and population data, the Bowen Center has also worked to maintain positive and effective communication with many health care administrators and community leaders throughout the state. It is important to note that as community needs change so will the efforts for responding to these needs. This report provides an outline of how previous efforts have improved outcomes, what changes still need to be made and how Indiana can move forward to improve access to care and health outcomes. Continued changes will only be possible with comprehensive research and collaborative efforts from researchers, community leaders and health care facilities.

SECTION I. 2018 HEALTH PROFESSIONAL SHORTAGE AREA DATA MANAGEMENT

Shortage Designation Management System and HPSA Applications

National Auto-HPSA Update

In 2016, the Health Resources and Services Administration (HRSA) began developing a plan for the update to Automatic HPSA (Auto-HPSA) facility designations. Throughout 2016 and 2017, HRSA worked with state PCOs to discuss the timeline and feasibility of this update. Similar to the National geographic and population HPSA update, preliminary score analyses – also known as Impact Analyses – were scheduled to be conducted from November 2018 to April 2019. Summary reports would then be provided to state PCOs and representatives of designated facilities shortly after.

In conjunction with the Indiana State Department of Health, the Bowen Center instituted a work plan which involved identifying all Auto-HPSA Facilities from the initial impact analysis that would expect a potential change in their score and the providers associated with their service area. The anticipated score change was then used to prioritize provider verification, which was completed in collaboration with Auto-HPSA facilities.

As of December 2018, 52 Auto-HPSA facilities are anticipated to experience a change in their scores for primary care, psychiatry or dental health. The Bowen Center has initiated a communication plan in which health care organizations can provide verified provider data for their facilities. This process has expedited provider verification and ensured that the most accurate data will be used during the national updated in 2019.

HPSA Designations, 2015 - 2018

Tables 1.1 – 1.3 on the subsequent pages provide a summary of the designations obtained between 2015 and 2018 for primary care, mental health and dental health. As can be observed for each discipline, Indiana had acquired very few HPSA designations at the beginning of the PCNA project in 2015 due to limited resources for conducting comprehensive needs assessments. However, establishment of provider data verification and management procedures developed by the Bowen Center for Health Workforce Research and Policy enabled the state to obtain an increasing number of designations between 2016 and 2018.

In a continuation of the efforts to obtain the most beneficial designations to communities, the Bowen Center has worked with stakeholders throughout 2018 to prepare HPSA applications. As a results of this effort, Indiana was able to obtain 29 geographic designations for dental health (27 designations) and primary care (2 designations). Additionally, 20 designations were also obtained for 19 correctional facilities, 1 Rural Health Clinic and 1 Federally Qualified Health Center Look-alike.

In addition to managing designations, the Bowen Center has also managed ongoing verifications of primary care physicians, psychiatrists and general dentists. It is anticipated that verifications will be completed in the spring of 2019 and verified data will then be used to inform new HPSA applications and update existing designations.

Primary Care

Primary care HPSA designations have continually been a major priority for the State of Indiana as needs assessments have demonstrated a shortage of primary care physicians in many parts of the state. Most designations obtained in 2015 and 2016 were for auto-HPSA facility designations. However, after implementation of newly developed provider data management procedures, Indiana was able to obtain a significantly higher number of geographic and population designations in 2017 and 2018. Table 1.1 provides more information on the primary care HPSA designations that have been obtained between 2015 and 2018.

Table 1.1 Primary care designations obtained, 2015 - 2018

Public ID	Designation Name	Designation Type	Score	Designation Date	Updated Date
		2015 Designations			
11899918BV	Lifespring Health System	Federally Qualified Health Center	15	May 1, 2015	
11899918BW	Brook Health Center	Rural Health Center	10	May 27, 2015	
11899918BX	Wheatfield Health Centre	Rural Health Center	10	May 27, 2015	
1181700267	Low Income - Decatur County	Low Income Population HPSA	7	July 14, 2015	August 25, 2017
1187112117	East Chicago Service Area	High Needs Geographic HPSA	12	November 23, 2015	October 28, 2017
1187760372	Jasper County	Geographic HPSA	7	December 29, 2015	August 25, 2017
118663266	LI-Connersville/Columbia	Medically Underserved Population (MUP)	58.7	November 19, 2015	
		2016 Designations			
1182233139	Sullivan County	Geographic HPSA	11	June 24, 2016	December 26, 2017
11899918OJ	Porter Starke Services, Inc.	Federally Qualified Health Center	17	November 8, 2016	
11899918BY	Wayne County Community Health Center	Federally Qualified Health Center	17	November 16, 2016	
1186472418	Greene County	Geographic HPSA	13	December 16, 2016	
1182311094	Low Income - Tippecanoe County	Low Income Population HPSA	14	December 21, 2016	
		2017 Designations			
1187787488	Low Income - Shelby County	Low Income Population HPSA	8	February 9, 2017	
1184217341	Jay County	Geographic HPSA	15	June 14, 2017	
1183859088	Noble County	Geographic HPSA	5	June 16, 2017	
1187444099	Randolph County	Geographic HPSA	10	June 26, 2017	
1186187427	Low Income - Scott County	Low Income Population HPSA	15	June 28, 2017	
1188597065	White County	Geographic HPSA	12	June 30, 2017	
1188537658	Low Income - Blackford County	Low Income Population HPSA	15	July 18, 2017	
1185297756	Fountain County	Geographic HPSA	8	July 19, 2017	
1189260958	Martin County	Geographic HPSA	8	July 19, 2017	
1181872554	Posey County	Geographic HPSA	7	July 19, 2017	
1184646093	Switzerland County	Geographic HPSA	15	July 19, 2017	
1183530986	Low Income - Huntington County	Low Income Population HPSA	10	July 19, 2017	
1181498758	Low Income - Jennings County	Low Income Population HPSA	14	July 19, 2017	
1185658759	Low Income-Miami County	Low Income Population HPSA	11	July 19, 2017	
1184633766	Low Income-Parke County	Low Income Population HPSA	15	July 19, 2017	
1181680726	Low Income-Pike County	Low Income Population HPSA	14	July 19, 2017	
1184631560	Low Income-Starke County	Low Income Population HPSA	11	July 19, 2017	
1186413385	Low Income-Orange County	Low Income Population HPSA	15	July 27, 2017	
1182336577	Low Income-Montgomery County	Low Income Population HPSA	14	August 4, 2017	
1186931483	Low Income-St. Joseph County	Low Income Population HPSA	9	August 4, 2017	
1183300789	Low Income-Dekalb County	Low Income Population HPSA	11	August 25, 2017	
6181959259	Low Income - Elkhart County	Low Income Population HPSA	17	August 25, 2017	
6186968028	Low Income - Washington County	Low Income Population HPSA	17	August 25, 2017	
6189392167	Low Income-Allen County	Low Income Population HPSA	17	August 25, 2017	
6182441348	Low Income-Lagrange County	Low Income Population HPSA	17	August 25, 2017	
6187825178	Low Income-Randolph County	Low Income Population HPSA	17	August 25, 2017	
1181321652	Low Income-Gibson County	Low Income Population HPSA	11	August 28, 2017	
1182402298	Low Income-Elkhart County	Low Income Population HPSA	13	September 1, 2017	
7182868967	Mental Health Catchment Area 15	High Needs Geographic HPSA	18	September 1, 2017	
7183515359	Mental Health Catchment Area 20	High Needs Geographic HPSA	16	September 1, 2017	
1185129239	Low Income-Morgan County	Low Income Population HPSA	10	September 20, 2017	
7188407449	Mental Health Catchment Area 16-La Porte County	High Needs Geographic HPSA	15	September 20, 2017	
7187565583	Mental Health Catchment Area 22	High Needs Geographic HPSA	16	October 3, 2017	
7183297716	Sullivan County	High Needs Geographic HPSA	19	October 3, 2017	
11899918C1	Aspire Indiana Health	Federally Qualified Health Center Look-alike	7	October 5, 2017	
11899918C2	Greene County Health	Federally Qualified Health Center Look-alike	13	October 5, 2017	
61899918A1	Aspire Indiana Health	Federally Qualified Health Center Look-alike	2	October 5, 2017	
61899918B1	Greene County Health	Federally Qualified Health Center Look-alike	13	October 5, 2017	
71899918A1	Aspire Indiana Health	Federally Qualified Health Center Look-alike	12	October 5, 2017	
71899918A2	Greene County Health	Federally Qualified Health Center Look-alike	16	October 5, 2017	
1189709037	City of Gary	High Needs Geographic HPSA	7	October 11, 2017	
7184619198	Mental Health Catchment Area 29	High Needs Geographic HPSA	10	October 11, 2017	
1189166824	Low Income-Pulaski County	Low Income Population HPSA	11	October 17, 2017	
7181507233	Mental Health Catchment Area 19	High Needs Geographic HPSA	13	October 17, 2017	
11899918C3	Adult and Child Mental Health Center, Inc.	Federally Qualified Health Center Look-alike	4	December 20, 2017	
11899918D2	Southern Indiana Community Health Care, Inc.	Federally Qualified Health Center Look-alike	9	December 20, 2017	
61899918D3	Southern Indiana Community Health Care, Inc.	Federally Qualified Health Center Look-alike	4	December 20, 2017	
71899918A3	Adult and Child Mental Health Center, Inc.	Federally Qualified Health Center Look-alike	10	December 20, 2017	
7189991864	Southern Indiana Community Health Care, Inc.	Federally Qualified Health Center Look-alike	17	December 20, 2017	
1187954740	City of Fort Wayne	High Needs Geographic HPSA	5	December 26, 2017	

Table 1.1 Primary care designations obtained, 2015 - 2018

Public ID	Designation Name	Designation Type	Score	Designation Date	Updated Date
1188628702	Marion County-Indianapolis	High Needs Geographic HPSA	6	December 26, 2017	
7189043060	Mental Health Catchment Area 7	High Needs Geographic HPSA	17	December 26, 2017	
1187515108	Benton County	Geographic HPSA	15	December 27, 2017	
1188694967	Crawford County	Geographic HPSA	15	December 27, 2017	
1187156357	Daviess County	Geographic HPSA	7	December 27, 2017	
1185048045	Putnam County	Geographic HPSA	7	December 27, 2017	
6186716943	Low Income-Lake County	Low Income Population HPSA	16	December 27, 2017	
1188556979	New Albany Planned Parenthood	Other Facility	12	December 28, 2017	
2018 Designations					
6187194018	Low Income - Bartholomew County	Low Income Population HPSA	13	April 13, 2018	
6188725070	Low Income - Benton County	Low Income Population HPSA	15	April 13, 2018	
6185843109	Low Income - Blackford County	Low Income Population HPSA	17	April 13, 2018	
6186675130	Low Income - Carroll County	Low Income Population HPSA	10	April 13, 2018	
6185494974	Low Income - Cass County	Low Income Population HPSA	17	April 13, 2018	
6181544204	Low Income - Clark County	Low Income Population HPSA	15	April 13, 2018	
7189107254	CF-Plainfield Correctional Facility	Correctional Facility	21	April 13, 2018	
7189938169	Indiana State Prison	Correctional Facility	21	April 13, 2018	
7188248848	Indiana Women's Prison	Correctional Facility	3	April 13, 2018	
7186026238	Madison Correctional Facility	Correctional Facility	21	April 13, 2018	
7188546526	Miami Correctional Facility	Correctional Facility	21	April 13, 2018	
7185027293	Pendleton Correctional Facility	Correctional Facility	12	April 13, 2018	
7183164514	Rockville Correctional Facility	Correctional Facility	15	April 13, 2018	
7187718751	Westville Correctional Facility	Correctional Facility	15	April 13, 2018	
6184684870	Low Income-Clay County	Low Income Population HPSA	17	May 4, 2018	
6181383514	Low Income-Clinton County	Low Income Population HPSA	13	May 4, 2018	
6184842002	Low Income-Crawford County	Low Income Population HPSA	17	May 4, 2018	
6188318082	Low Income-Daviess County	Low Income Population HPSA	15	May 4, 2018	
6182687973	Low Income-Decatur County	Low Income Population HPSA	7	May 4, 2018	
6185196587	Low Income-Dekalb County	Low Income Population HPSA	15	May 4, 2018	
6186520491	Low Income-Fayette County	Low Income Population HPSA	19	May 4, 2018	
6183584454	Low Income-Fountain County	Low Income Population HPSA	15	May 4, 2018	
6184733727	Low Income-Franklin County	Low Income Population HPSA	15	May 4, 2018	
6186189734	Low Income-Fulton County	Low Income Population HPSA	14	May 4, 2018	
1184800334	Fulton County	Geographic HPSA	10	July 18, 2018	
1183795988	Low Income-Marshall County	Low Income Population HPSA	11	August 2, 2018	
6188673359	Low Income - Brown County	Low Income Population HPSA	15	August 2, 2018	
6182593416	Low Income - Jennings County	Low Income Population HPSA	17	August 2, 2018	
6187895186	Low Income-Starke County	Low Income Population HPSA	18	August 2, 2018	
1188878294	Westville Correctional Facility	Correctional Facility	6	August 24, 2018	
1181179392	New Castle Correctional Facility	Correctional Facility	6	August 31, 2018	
6186622492	Branchville Correctional Facility	Correctional Facility	3	August 31, 2018	
6182311619	New Castle Correctional Facility	Correctional Facility	6	August 31, 2018	
6189254217	Pendleton Correctional Facility	Correctional Facility	3	August 31, 2018	
6182269696	Rockville Correctional Facility	Correctional Facility	6	August 31, 2018	
11899918C7	Tulip Tree Health Services of Gibson County	Federally Qualified Health Center Look-alike	11	November 9, 2018	
61899918A3	Tulip Tree Health Services of Gibson County	Federally Qualified Health Center Look-alike	8	November 9, 2018	
71899918A5	Tulip Tree Health Services of Gibson County	Federally Qualified Health Center Look-alike	15	November 9, 2018	
6188851949	Low Income - Grant County	Low Income Population HPSA	13	November 15, 2018	
6189074306	Low Income - Jackson County	Low Income Population HPSA	11	November 15, 2018	
6188475205	Low Income - Jay County	Low Income Population HPSA	18	November 15, 2018	
6186255708	Low Income - Kosciusko County	Low Income Population HPSA	16	November 15, 2018	
6181323851	Low Income - Noble County	Low Income Population HPSA	16	November 15, 2018	
6184691112	Low Income - Steuben County	Low Income Population HPSA	14	November 15, 2018	
6188026433	Low Income-Union County	Low Income Population HPSA	14	November 15, 2018	
1.19E+09	Brazil Family Medicine	Rural Health Clinic	15	December 27, 2018	
11899918D6	Clay City Center for Family Medicine	Rural Health Clinic	15	December 27, 2018	
61899980469	Low Income - Greene County	Low Income Population HPSA	15	December 27, 2018	
6183404174	Low Income - Henry County	Low Income Population HPSA	13	December 27, 2018	
6183818424	Low Income - Howard County	Low Income Population HPSA	17	December 27, 2018	
6184602770	Low Income - Huntington County	Low Income Population HPSA	15	December 27, 2018	
6189766291	Low Income - Knox County	Low Income Population HPSA	15	December 27, 2018	
6185845004	Low Income - Laporte County	Low Income Population HPSA	15	December 27, 2018	
6189991893	Brazil Family Medicine	Rural Health Clinic	17	December 27, 2018	
61899918C2	Clay City Center for Family Medicine	Rural Health Clinic	17	December 27, 2018	
7189991894	Brazil Family Medicine	Rural Health Clinic	14	December 27, 2018	
71899918A9	Clay City Center for Family Medicine	Rural Health Clinic	13	December 27, 2018	

Mental Health

Table 1.2 provides a summary of the mental HPSA designations Indiana has obtained between 2015 and 2018. As with primary care HPSA designations, many of the mental health HPSA designations obtained in 2015 and 2016 were primarily facility designations. Between 2017 and 2018, however, more mental health geographic and population designations were obtained primarily for mental health catchment areas. Enhanced communication with correctional health care systems has also facilitated increased mental health designations for correctional facilities throughout the state.

Table 1.2 Mental health HPSA designations obtained 2015 - 2018

Public ID	Designation Name	Designation Type	Score	Designation Date	Updated Date
2015 Designations					
718999184M	Lifespring Health Systems	Federally Qualified Health Center	16	May 1, 2015	
718999184N	Brook Health Center	Rural Health Clinic	17	May 27, 2015	
718999184O	Wheatfield Health Centre	Rural Health Clinic	18	May 27, 2015	
7184450606	Branchville Correctional Facility	Correctional Facility	21	November 16, 2015	04/13/2018
7185714092	Correctional Industrial Facility	Correctional Facility	21	November 19, 2015	10/27/2017
2016 Designations					
7182646849	CF-New Castle Correctional Facility	Correctional Facility	15	October 3, 2016	10/27/2017
7189991834	Porter Starke Services, Inc.	Federally Qualified Health Center	17	November 8, 2016	
7184093362	Mental Health Catchment Area 14	High Needs Geographic HPSA	13	November 9, 2016	
718999184P	Wayne County Community Health Center	Federally Qualified Health Center	18	November 16, 2016	
2017 Designations					
7187806305	Mental Health Catchment Area 23	High Needs Geographic HPSA	13	February 9, 2017	
7181619621	Scott-Washington Counties	High Needs Geographic HPSA	18	June 5, 2017	
7185267689	East Central Indiana	High Needs Geographic HPSA	14	June 15, 2017	
7182868967	Mental Health Catchment Area 15	High Needs Geographic HPSA	18	September 1, 2017	
7183515359	Mental Health Catchment Area 20	High Needs Geographic HPSA	16	September 1, 2017	
7188407449	Mental Health Catchment Area 16-La Porte County	High Needs Geographic HPSA	15	September 20, 2017	
7187565583	Mental Health Catchment Area 22	High Needs Geographic HPSA	16	October 3, 2017	
7183297716	Sullivan County	High Needs Geographic HPSA	19	October 3, 2017	
71899918A1	Aspire Indiana Health	Federally Qualified Health Center Look-alike	12	October 5, 2017	
71899918A2	Greene County Health	Federally Qualified Health Center Look-alike	16	October 5, 2017	
7184619198	Mental Health Catchment Area 29	High Needs Geographic HPSA	10	October 11, 2017	
7181507233	Mental Health Catchment Area 19	High Needs Geographic HPSA	13	October 27, 2017	
71899918A3	Adult and Child Mental Health Center, Inc.	Federally Qualified Health Center Look-alike	10	December 20, 2017	
7189991864	Southern Indiana Community Health Care, Inc.	Federally Qualified Health Center Look-alike	17	December 20, 2017	
7189043060	Mental Health Catchment Area 7	High Needs Geographic HPSA	17	December 26, 2017	
2018 Designations					
7189991850	Scottsburg Family Practice	Rural Health Clinic	18	March 28, 2018	
7189107254	CF-Plainfield Correctional Facility	Correctional Facility	21	April 13, 2018	
7189938169	Indiana State Prison	Correctional Facility	21	April 13, 2018	
7188248848	Indiana Women's Prison	Correctional Facility	3	April 13, 2018	
7186026238	Madison Correctional Facility	Correctional Facility	21	April 13, 2018	
7188546526	Miami Correctional Facility	Correctional Facility	21	April 13, 2018	
7185027293	Pendleton Correctional Facility	Correctional Facility	12	April 13, 2018	
7183164514	Rockville Correctional Facility	Correctional Facility	15	April 13, 2018	
7187718751	Westville Correctional Facility	Correctional Facility	15	April 13, 2018	
71899918A5	Tulip Tree Health Services of Gibson County	Federally Qualified Health Center Look-alike	15	November 9, 2018	
7189991894	Brazil Family Medicine	Rural Health Clinic	14	December 27, 2018	
71899918A9	Clay City Center for Family Medicine	Rural Health Clinic	13	December 27, 2018	

Dental Health

As has been noted in previous annual PCNA reports, Indiana has historically had very few dental HPSA applications. As is shown in table 1.3, only five dental HPSA facility designations were obtained in 2015 and 2016. However, a greater number of population designations have been obtained in 2017 and 2018 after implementation of provider verification and data management procedures.

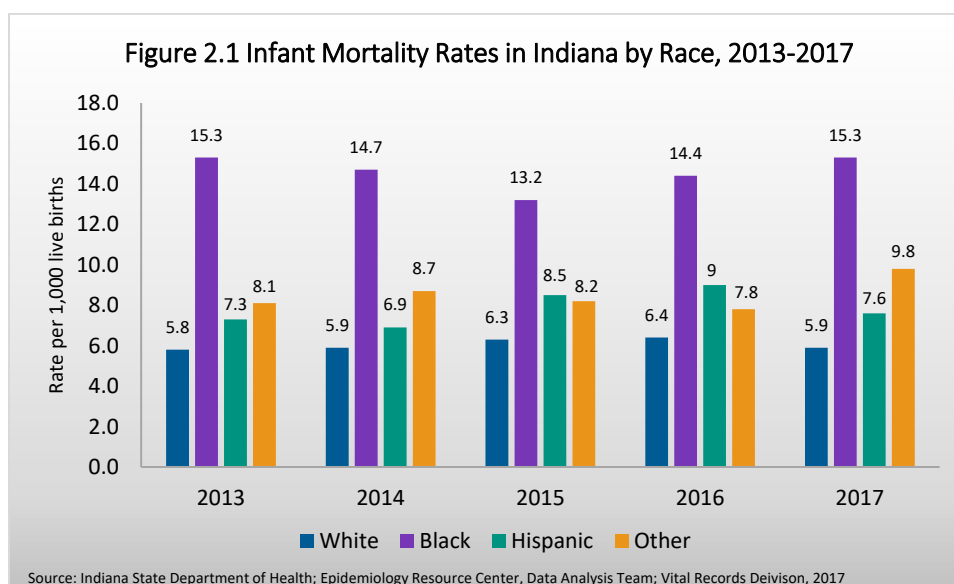Table 1.3 Dental health HPSA designations obtained 2015 - 2018

Public ID	Designation Name	Designation Type	Score	Designation Date	Updated Date
2015 Designations					
618999184G	Lifespring Health Systems	Federally Qualified Health Center	13	May 1, 2015	
618999184H	Brook Health Center	Rural Health Clinic	10	May 27, 2015	
618999184I	Wheatfield Health Centre	Rural Health Clinic	13	May 27, 2015	
2016 Designations					
6189991850	Porter Starke Services, Inc.	Federally Qualified Health Center	15	November 8, 2016	
618999184J	Wayne County Community Health Center	Federally Qualified Health Center	17	November 16, 2016	
2017 Designations					
6184241456	Warren County	High Needs Geographic HPSA	15	April 24, 2017	
6185627973	Low Income-Vermillion County	Low Income Population HPSA	13	April 24, 2017	
6184315051	Low Income-Vigo County	Low Income Population HPSA	13	May 1, 2017	
6188640722	Low Income-Wabash County	Low Income Population HPSA	12	May 9, 2017	
6188430089	Low Income-Wayne County	Low Income Population HPSA	18	May 15, 2017	
6181959259	Low Income - Elkhart County	Low Income Population HPSA	17	August 25, 2017	
6186968028	Low Income - Washington County	Low Income Population HPSA	17	August 25, 2017	
6189392167	Low Income-Allen County	Low Income Population HPSA	17	August 25, 2017	
6182441348	Low Income-Lagrange County	Low Income Population HPSA	17	August 25, 2017	
6187825178	Low Income-Randolph County	Low Income Population HPSA	17	August 25, 2017	
61899918A1	Aspire Indiana Health	Federally Qualified Health Center Look-alike	2	October 5, 2017	
61899918B1	Greene County Health	Federally Qualified Health Center Look-alike	13	October 5, 2017	
61899918D3	Southern Indiana Community Health Care, Inc.	Federally Qualified Health Center Look-alike	4	December 20, 2017	
6186716943	Low Income-Lake County	Low Income Population HPSA	16	December 27, 2017	
2018 Designations					
61899918A2	Scottsburg Family Practice	Rural Health Clinic	6	March 28, 2018	
6185194184	Low Income - Adams County	Low Income Population HPSA	18	April 13, 2018	
6187194018	Low Income - Bartholomew County	Low Income Population HPSA	13	April 13, 2018	
6188725070	Low Income - Benton County	Low Income Population HPSA	15	April 13, 2018	
6185843109	Low Income - Blackford County	Low Income Population HPSA	17	April 13, 2018	
6186675130	Low Income - Carroll County	Low Income Population HPSA	10	April 13, 2018	
6185494974	Low Income - Cass County	Low Income Population HPSA	17	April 13, 2018	
6181544204	Low Income - Clark County	Low Income Population HPSA	15	April 13, 2018	
6184684870	Low Income-Clay County	Low Income Population HPSA	17	May 4, 2018	
6181383514	Low Income-Clinton County	Low Income Population HPSA	13	May 4, 2018	
6184842002	Low Income-Crawford County	Low Income Population HPSA	17	May 4, 2018	
6188318082	Low Income-Daviess County	Low Income Population HPSA	15	May 4, 2018	
6182687973	Low Income-Decatur County	Low Income Population HPSA	7	May 4, 2018	
6185196587	Low Income-Dekalb County	Low Income Population HPSA	15	May 4, 2018	
6186520491	Low Income-Fayette County	Low Income Population HPSA	19	May 4, 2018	
6183584454	Low Income-Fountain County	Low Income Population HPSA	15	May 4, 2018	
6184733727	Low Income-Franklin County	Low Income Population HPSA	15	May 4, 2018	
6186189734	Low Income-Fulton County	Low Income Population HPSA	14	May 4, 2018	
6188673359	Low Income - Brown County	Low Income Population HPSA	15	August 2, 2018	
6182593416	Low Income - Jennings County	Low Income Population HPSA	17	August 2, 2018	
6187895186	Low Income-Starke County	Low Income Population HPSA	18	August 2, 2018	
6186622492	Branchville Correctional Facility	Correctional Facility	3	August 31, 2018	
6182311619	New Castle Correctional Facility	Correctional Facility	6	August 31, 2018	
6189254217	Pendleton Correctional Facility	Correctional Facility	3	August 31, 2018	
6182269696	Rockville Correctional Facility	Correctional Facility	6	August 31, 2018	
6188851949	Low Income - Grant County	Low Income Population HPSA	13	November 15, 2018	
6189074306	Low Income - Jackson County	Low Income Population HPSA	11	November 15, 2018	
6188475205	Low Income - Jay County	Low Income Population HPSA	18	November 15, 2018	
6186255708	Low Income - Kosciusko County	Low Income Population HPSA	16	November 15, 2018	
6181323851	Low Income - Noble County	Low Income Population HPSA	16	November 15, 2018	
6184691112	Low Income - Steuben County	Low Income Population HPSA	14	November 15, 2018	
6188026433	Low Income-Union County	Low Income Population HPSA	14	November 15, 2018	
6189980469	Low Income - Greene County	Low Income Population HPSA	15	December 27, 2018	
6183404174	Low Income - Henry County	Low Income Population HPSA	13	December 27, 2018	
6183818424	Low Income - Howard County	Low Income Population HPSA	17	December 27, 2018	
6184602770	Low Income - Huntington County	Low Income Population HPSA	15	December 27, 2018	
6189766291	Low Income - Knox County	Low Income Population HPSA	15	December 27, 2018	
6185845004	Low Income - Laporte County	Low Income Population HPSA	15	December 27, 2018	
6189991893	Brazil Family Medicine	Rural Health Clinic	17	December 27, 2018	
61899918C2	Clay City Center for Family Medicine	Rural Health Clinic	17	December 27, 2018	

SECTION II. POPULATION HEALTH PRIORITIES IN INDIANA

Infant Mortality

Infant Mortality Rate, 2013 – 2017

It is well documented that, as compared to other states in the U.S., Indiana ranks poorly in regards to trends in infant mortality rates (IMR) (3). Moreover, many infant deaths in Indiana are considered to be preventable. Factors contributing to Indiana's infant mortality rate include congenital abnormalities, preterm birth, maternal health and access to prenatal care, maternal income status and environmental factors (4, 5). Additionally, examination of Indiana's infant mortality rate by race demonstrates that significant disparities exist. African American infants are more than twice as likely as white infants to die before their first birthday. Although there have been incremental improvements in Indiana's overall IMR over the past five years, these disparities persist (see figure 2.1). A more detailed summary of the trends in infant mortality in Indiana by county can be found in Appendix A.

Figure 2.1 Infant Mortality Rates in Indiana by Race, 2013-2017

Source: Indiana State Department of Health; Epidemiology Resource Center, Data Analysis Team; Vital Records Deivison, 2017

Maternal and Child Health Initiatives – Labor of Love

The Indiana State Department of Health is actively collaborating with key organizations and stakeholders to tackle some of the leading causes of IMR in Indiana[1]. These collaborations led to the inception of the Labor of Love program in 2012 under the Indiana Perinatal Quality Improvement Collaborative (IPQIC), which focuses on perinatal health for women and treatment of substance use disorder during pregnancy. Expectant mothers can access educational information and services for regular and early prenatal care by phone using the MCH MOMS Helpline or on the website. ISDH and IPQIC monitor maternal and child health outcomes in the state of Indiana and produces yearly reports on IMR and maternal mortality rates.

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[1] More information can be found at https://www.in.gov/laboroflove/

Obesity and Related Outcomes

Obesity Rate, 2013 – 2017

According to the 2017 annual report published by the Trust for America's Health and the Robert Wood Johnson Foundation, Indiana had the 10th highest rate of adult obesity in the United States (6). Additionally, it ranked 11th among the rates of children ages 10 to 17 who were obese. A total of 3.2 million adults in Indiana are estimated to be overweight and obese, while 1.7 million remain at risk of becoming overweight or obese (6). Overweight and obesity trends have continued to grow steadily over time as seen in figure 2.2. Poor nutrition and sedentary behaviors are large contributors to the obesity epidemic. Obesity continues to affect racial and ethnic minorities disproportionally compared to the white population. Health issues related to obesity, such as chronic disease, are also on the rise, as 11.8% of adults in Indiana had diabetes in 2017 and 35.2% had hypertension. Indiana ranked 11th and 10th respectively for those health issues in 2017 (6).

Figure 2.2 Combined Overweight and Obesity Rates by Race/Ethnicity, 2013-2017

Source: Kaiser Family Foundation analysis of the Centers for Disease Control and Prevention (CDC)'s Behavioral Risk Factor Surveillance System (BRFSS) 2013-2017 Survey Results.
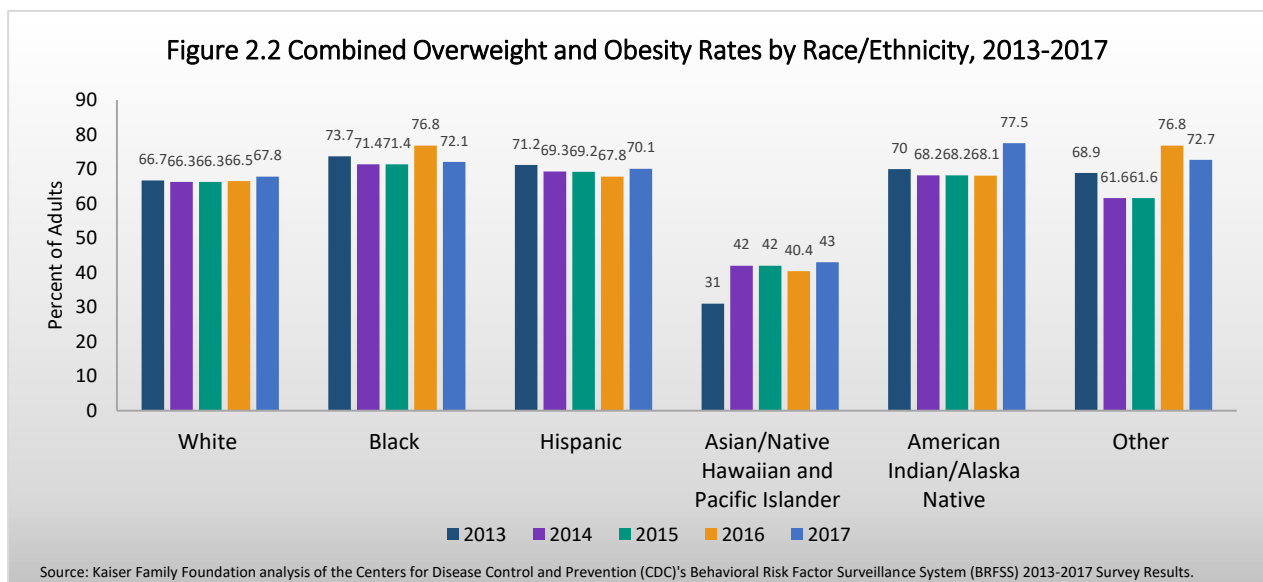
Obesity Related Initiatives – Indiana Healthy Weight

In an effort to combat the growing obesity rates, Indiana has state policies and initiatives in place. Established through the Indiana State Department of Health, The Indiana Healthy Weight Initiative serves as a coalition dedicated to supporting policy and priorities related to nutrition, physical activity, and obesity. Established by the coalition in 2008, *Indiana's Comprehensive and Physical Activity Plan, 2010-2020* is an effort to assess the specific needs across the state in order to improve nutrition and physical activity plan. Decreasing the percentage of adults who are obese to 25% and the percent of high school students to 10% are just some of the few goals of the plan (7).

Obesity Related Initiatives – Health by Design

Active living workshops are another initiative designed to promote physical activity through the collaboration of the Indiana State Department of Health Division of Nutrition and Physical Activity and Health by Design. Select communities are awarded resources to facilitate educational workshops guided by strategic plans, policies, programs, and projects[2].

Health Care Costs Related to Obesity

Obesity is known as a major driver of healthcare costs in the United State (8). Data suggests that emergency room costs for an individual who is obese are 41% higher compared to a normal weight patient. An increased BMI is positively associated with the number of days away from work, medical insurance claims, and overall healthcare costs. Additionally, obese adults spend 42% more on costs associated with direct healthcare compared to adults who are a normal weight (8). In relation to that, A 2011 report from the Indiana Department of Health indicated that health care spending for obesity-related conditions increased by 89% between 1998 and 2006 (9).

SNAP/WIC Benefits at Farmers' Markets

The Supplemental Nutrition Assistance Program (SNAP) allows participants to purchase from registered farmers markets as they are the most affordable source of fresh fruit and vegetable options. This benefit increases access to nutritional foods in communities that are considered "food deserts," where individuals are at a higher risk for obesity (10). To encourage the access to farmers markets the United States Department of Agriculture (USDA) requires states to provide options for farmers markets and other retailers to have the capability to accept SNAP at no cost (11).

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[2] More information can be found at http://www.healthbydesignonline.org/aboutUs.html

Smoking

The number of individuals that smoke in the United States has declined significantly over the past few years. Despite the decline, cigarette smoking continues to be the leading cause of preventable deaths. The tobacco epidemic is very prevalent in Indiana with an estimated 11,100 adult deaths each year from smoking related diseases (12). An estimated 21.1% of adults in Indiana were smokers in 2016 compared the national rate which was 17.1% (13). Despite smoking rates among adults being higher than the national average, figure 2.4 shows that the smoking rate has slightly decreased since 2012.

Figure 2.4 Trends in Smoking in Indiana 2012-2018

Year	USA	Indiana
2012	21.2	25.6
2013	19.6	24
2014	19	21.9
2015	18.1	22.9
2016	17.5	20.6
2017	17.1	21.1
2018	17.7	21.8

Source: CDC, Behavioral Risk Factor Surveillance System
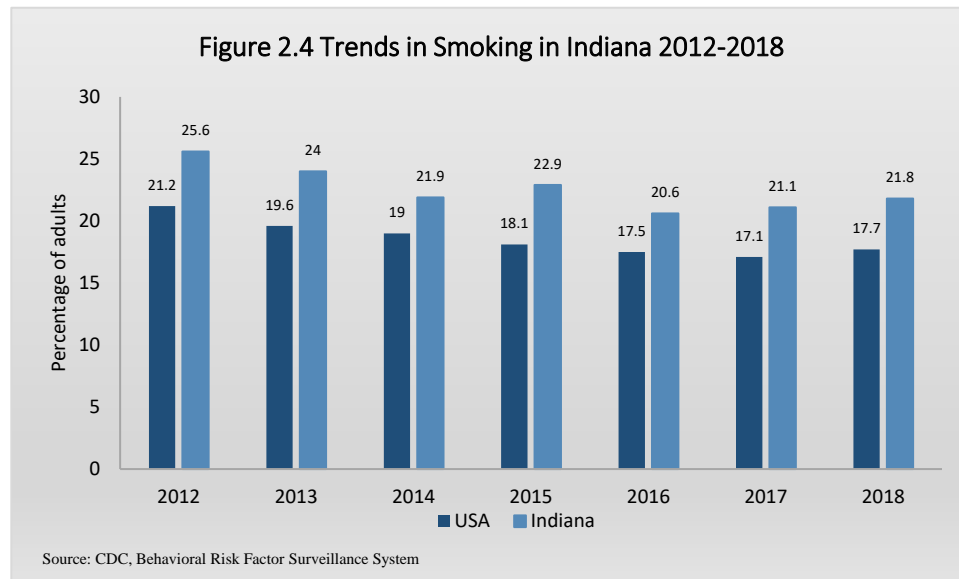
An estimated $2.93 billion was spent in 2018 on health care costs related to smoking (not including exposure to secondhand smoke) (13). Reducing the number of smokers would likely reduce the cost of health care spending. The state of Indiana has put forth several policies to promote prevention and cessation of tobacco use. Passed on July 1, 2012, the smoke free air law deemed nearly all public places smoke free (15). Additionally, the State of Indiana offers a telephone-based tobacco quitline that provides services that help and educate tobacco users at no cost[3] (15). Established in 2006, the quitline has had over 110,000 tobacco users call and receive assistance from trained quit coaches (16).

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[3] More information can be found at https://www.in.gov/quitline/

Substance Abuse

Drug-related deaths in the United States have grown exponentially over the past few years. As displayed in figure 2.5, Indiana has had a consistently higher rate compared to the national average (17). Indiana was identified by the CDC as one of a number of states identified as having statistically significant increases in drug overdose death rates specifically from 2016 to 2017 (17). As shown in figure 25, the rates of drug-related deaths in Indiana has consistently increased between 2012 and 2018. Appendix B also provides a detailed summary of trends in non-fatal hospitalizations in Indiana which involve any opioid overdose from 2011 to 2017.

Figure 2.5 Trends in Drug Deaths from 2012-2018

Source: CDC WONDER Online Database, Underlying Cause of Death, Multiple Cause of Death files.
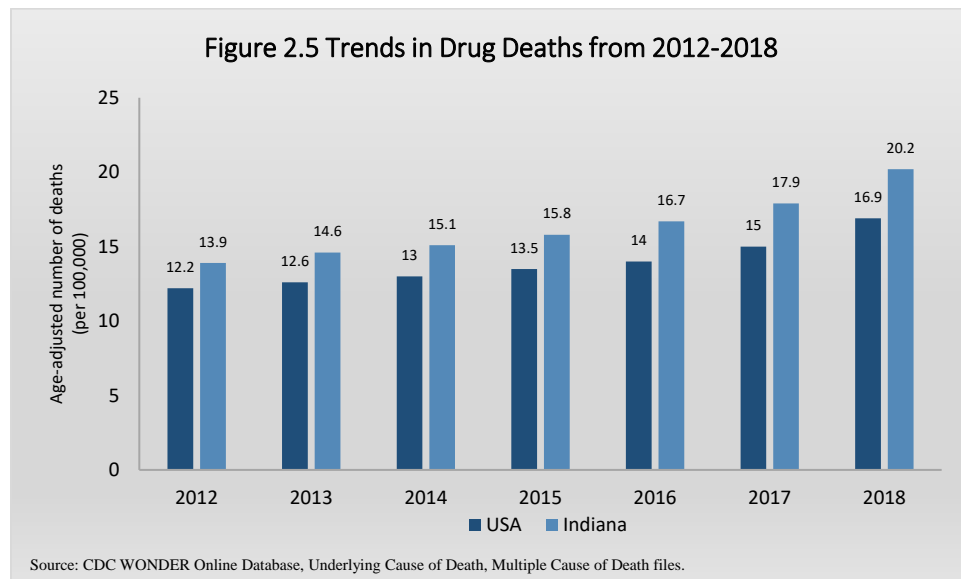
According to a 2016 report by the Richard M. Fairbanks Foundation on the growing opioid epidemic in Indiana, 657 infants were born in 2014 with Neonatal Abstinence Syndrome (NAS) due to exposure to opioids in utero. In addition, the cost for treatment newborns with NAS in Indiana hospitals was over $64 million in that same year (18). In response to the crisis, the Fresh Start Recovery Center was opened through the Indiana Department of Child Services. This residential addiction program accepts pregnant women who live in Indiana and are using opiates and provides program participants with residential treatment and resources at no cost (19).

Other initiatives formed to combat the opioid crisis include grants administered by the Indiana State Department of Health (ISDH). The naloxone distribution program offered in collaboration with the Indiana Criminal Justice Institute provides funding for naloxone kits to 63 local health departments that distribute them at no cost within their communities. The second grant supports an effort for ISDH to distribute naloxone to first responders. This grant is administered in partnership with the Overdose lifeline and provides funding that enables first responders in 49 targeted rural counties to be trained to carry and administer naloxone. In addition, the ISDH is working to expand the Indiana Recovery and Peer Support Initiative for referral to treatment services (20).

Closing Summary

This report has summarized the impact of the PCNA project since efforts were initiated in 2015. This project has identified gaps in access to health care which has allowed for improved use of resources and has assisted many different communities throughout Indiana. The milestones from the project from previous years have helped to fuel its progression and support new goals.

Preparation for the update to Automatic HPSA (Auto-HPSA) facility designations began in November 2018 and will continue until the summer of 2019. The Bowen Center and ISDH have collaborated to identify contributing factors for potential score changes due to the update. The anticipated score change has allowed for the prioritization of provider verifications. With the help of the communication plan created by the Bowen Center, health care organizations will be able to provide their facilities with verified provider data during the national update.

Since the inception of the PCNA project in 2015, the number of HPSA designations obtained in Indiana has grown each year. In 2017, Indiana still lacked sufficient capacity of dentists throughout the state and a goal was set to acquire new dental HPSA designations where they were needed. In 2018, Indiana obtained 33 population designations for dental health. Indiana also acquired a significant number of HSPA designations in primary care and mental health between 2017 and 2018. This increased effort to inform and obtain designations has been facilitated by improved provider data management and stakeholder engagement. Increased support of provider recruitment through federal HPSA designations has improved health care access, and through continued effort this expansion will help improve health care outcomes for many underserved communities throughout the state.

Indiana's priorities in population health consistently highlight infant mortality, obesity, and smoking as health concerns. Initiatives in place to address these concerns have been implemented and continue to inform policy and future initiatives. Substance abuse has recently emerged as a top health concern and is currently one of Indiana's population health priorities. This has increased awareness regarding the need for and expansion of mental health services. The Bowen Center continues to work with state agencies and community leaders to produce data that can be utilized to monitor changes in population needs and identify gaps in health services.

The Indiana Primary Care Needs Assessment project has provided valuable data on workforce capacity and health care access needs in Indiana. As the Bowen Center continues its effort to increase health workforce research and inform policy, future work will continue to provide data that further improves health care access and health outcomes.

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Appendix A. Infant Mortality Rates in Indiana by County, 2013 – 2017

Table 2.1 Infant Mortality Rates

County of Residence	Race/Ethnicity	2013 IMR	2013 Infant Deaths	2014 IMR	2014 Infant Deaths	2015 IMR	2015 Infant Deaths	2016 IMR	2016 Infant Deaths	2017 IMR	2017 Infant Deaths
Indiana	All Races	7.1	594	7.1	597	7.3	613	7.5	623	7.3	602
	White	5.8	393	5.9	403	6.3	437	6.4	435	5.9	391
	Black	15.3	153	14.7	153	13.2	137	14.4	151	15.3	165
	Hispanic	7.3	50	6.9	50	8.5	65	9	67	7.6	58
	Other	8.1	48	8.7	41	8.2	39	7.8	37	9.8	46
Adams	All Races		6		2		4		7		8
	White		6		2		4		7		8
	Black		0		0		0		0		0
	Hispanic		1		0		0		0		0
	Other		0		0		0		0		0
Allen	All Races	8.7	44	9.2	48	7.8	41	8.4	43	7.3	38
	White	6.1	23	8.2	32	7.3	29	6.7	26	6.2	24
	Black		18		15		11		15		12
	Hispanic		2		6		6		5		4
	Other		3		1		1		2		2
Bartholomew	All Races		8		10		15		6		6
	White		7		8		9		5		5
	Black		0		1		3		1		0
	Hispanic		0		0		0		0		2
	Other		1		1		3		0		1
Benton	All Races		0		0		0		1		1
	White		0		0		0		1		1
	Black		0		0		0		0		0
	Hispanic		0		0		0		0		0
	Other		0		0		0		0		0
Blackford	All Races		0		0		0		0		2
	White		0		0		0		0		2
	Black		0		0		0		0		0
	Hispanic		0		0		0		0		1
	Other		0		0		0		0		0
Boone	All Races		3		1		4		6		1
	White		3		1		4		6		1
	Black		0		0		0		0		0
	Hispanic		1		0		0		0		0
	Other		0		0		0		0		0
Brown	All Races		1		0		1		2		1
	White		1		0		1		2		1
	Black		0		0		0		0		0
	Hispanic		0		0		0		0		0
	Other		0		0		0		0		0
Carroll	All Races		1		2		0		1		0
	White		1		1		0		1		0
	Black		0		0		0		0		0
	Hispanic		0		1		0		0		0
	Other		0		1		0		0		0
Cass	All Races		1		2		9		8		2
	White		1		1		9		3		2
	Black		0		0		0		4		0
	Hispanic		0		1		2		5		0
	Other		0		1		0		1		0
Clark	All Races		6		15		15		14		13
	White		6		11		13		12		12
	Black		0		4		1		2		1
	Hispanic		0		1		1		1		1
	Other		0		0		1		0		0
Clay	All Races		2		2		2		2		2
	White		2		2		1		2		2
	Black		0		0		1		0		0
	Hispanic		0		0		0		0		
	Other		0		0		0		0		0
Clinton	All Races		4		1		6		2		2
	White		3		1		5		2		2
	Black		0		0		0		0		0
	Hispanic		1		0		2		0		2
	Other		1		0		1		0		0
Crawford	All Races		0		0		0		0		1
	White		0		0		0		0		1
	Black		0		0		0		0		0
	Hispanic		0		0		0		0		0
	Other		0		0		0		0		0
Daviess	All Races		9		6		2		2		2
	White		9		6		2		1		2
	Black		0		0		0		1		0
	Hispanic		0		0		0		1		0
	Other		0		0		0		0		0
Dearborn	All Races		2		3		2		4		3
	White		1		3		2		3		3

Table 2.1 Infant Mortality Rates

County of Residence	Race/Ethnicity	2013		2014		2015		2016		2017	
		IMR	Infant Deaths	IMR	Infant Deaths	IMR	Infant Deaths	IMR	Infant Deaths	IMR	Infant Deaths
	Black		1		0		0		0		0
	Hispanic		0		0		0		1		0
	Other		0		0		0		1		0
Decatur	All Races		0		1		0		4		2
	White		0		1		0		4		2
	Black		0		0		0		0		0
	Hispanic		0		0		0		0		0
	Other		0		0		0		0		0
DeKalb	All Races		3		4		1		3		1
	White		3		4		1		2		1
	Black		0		0		0		0		0
	Hispanic		0		1		0		0		0
	Other		0		0		0		1		0
Delaware	All Races		12		10		7		7		15
	White		10		10		3		6		11
	Black		2		0		4		1		3
	Hispanic		0		0		0		0		0
	Other		0		0		0		0		1
Dubois	All Races		1		5		8		6		4
	White		1		5		8		6		3
	Black		0		0		0		0		0
	Hispanic		0		0		0		0		1
	Other		0		0		0		0		1
Elkhart	All Races		18		17	8.8	28	9.9	31	8.4	26
	White		12		11		17	7.3	20		18
	Black		2		4		6		6		5
	Hispanic		2		2		7		5		5
	Other		4		2		5		5		3
Fayette	All Races		2		3		6		2		2
	White		2		3		6		2		1
	Black		0		0		0		0		0
	Hispanic		0		0		0		0		0
	Other		0		0		0		0		1
Floyd	All Races		4		2		3		3		2
	White		4		0		2		3		1
	Black		0		1		1		0		1
	Hispanic		0		0		0		0		0
	Other		0		1		0		0		0
Fountain	All Races		1		2		2		1		2
	White		0		2		2		1		2
	Black		0		0		0		0		0
	Hispanic		0		0		0		0		0
	Other		1		0		0		0		0
Franklin	All Races		0		0		1		0		1
	White		0		0		0		0		1
	Black		0		0		0		0		0
	Hispanic		0		0		0		0		0
	Other		0		0		1		0		0
Fulton	All Races		3		2		4		4		1
	White		3		2		4		4		1
	Black		0		0		0		0		0
	Hispanic		0		0		0		0		0
	Other		0		0		0		0		0
Gibson	All Races		5		2		3		3		4
	White		5		2		3		3		4
	Black		0		0		0		0		0
	Hispanic		0		0		0		0		0
	Other		0		0		0		0		0
Grant	All Races		7		11		6		5		6
	White		6		10		6		5		5
	Black		1		1		0		0		0
	Hispanic		0		0		0		0		0
	Other		0		0		0		0		1
Greene	All Races		4		4		0		2		1
	White		4		4		0		2		1
	Black		0		0		0		0		0
	Hispanic		0		0		0		0		0
	Other		0		0		0		0		0
Hamilton	All Races		14		19	5.4	21		18	5.9	23
	White		13		14	5.9	20		12		19
	Black		1		2		1		4		1
	Hispanic		1		2		0		1		1
	Other		0		3		0		2		3
Hancock	All Races		2		0		5		4		3
	White		1		0		4		3		3
	Black		1		0		1		0		0
	Hispanic		0		0		0		0		0
	Other		0		0		0		1		0
Harrison	All Races		4		1		1		6		1
	White		4		1		1		6		1
	Black		0		0		0		0		0

Table 2.1 Infant Mortality Rates

County of Residence	Race/Ethnicity	2013		2014		2015		2016		2017	
		IMR	Infant Deaths	IMR	Infant Deaths	IMR	Infant Deaths	IMR	Infant Deaths	IMR	Infant Deaths
	Hispanic		1		0		0		0		0
	Other		0		0		0		0		0
Hendricks	All Races		11		6		14		12		8
	White		10		3		14		12		5
	Black		0		2		0		0		2
	Hispanic		2		0		2		1		0
	Other		1		1		0		0		1
Henry	All Races		5		6		4		3		0
	White		4		5		4		3		0
	Black		0		1		0		0		0
	Hispanic		1		0		0		0		0
	Other		1		0		0		0		0
Howard	All Races		5		9		7		8		9
	White		3		6		4		7		5
	Black		1		2		3		1		2
	Hispanic		0		0		0		0		1
	Other		1		1		0		0		2
Huntington	All Races		0		3		3		5		0
	White		0		3		3		5		0
	Black		0		0		0		0		0
	Hispanic		0		0		0		0		0
	Other		0		0		0		0		0
Jackson	All Races		5		6		4		2		4
	White		4		5		4		2		4
	Black		0		0		0		0		0
	Hispanic		1		1		0		0		0
	Other		1		1		0		0		0
Jasper	All Races		2		2		4		7		4
	White		2		1		4		7		3
	Black		0		0		0		0		1
	Hispanic		0		1		0		0		0
	Other		0		1		0		0		0
Jay	All Races		6		1		4		7		2
	White		5		1		4		7		2
	Black		1		0		0		0		0
	Hispanic		0		0		0		0		0
	Other		0		0		0		0		0
Jefferson	All Races		3		1		3		3		1
	White		3		1		3		3		1
	Black		0		0		0		0		0
	Hispanic		0		0		0		0		0
	Other		0		0		0		0		0
Jennings	All Races		2		0		1		4		0
	White		2		0		1		4		0
	Black		0		0		0		0		0
	Hispanic		0		0		0		1		0
	Other		0		0		0		0		0
Johnson	All Races		5		4		16		9		12
	White		4		4		13		8		9
	Black		1		0		1		0		0
	Hispanic		0		0		1		1		0
	Other		0		0		2		1		3
Knox	All Races		2		3		3		3		4
	White		2		2		3		2		3
	Black		0		0		0		1		0
	Hispanic		0		2		0		0		0
	Other		0		1		0		0		1
Kosciusko	All Races		7		9		7		7		9
	White		6		8		7		7		9
	Black		0		1		0		0		0
	Hispanic		0		1		2		1		3
	Other		1		0		0		0		0
Lagrange	All Races		2		3		5		2		6
	White		1		3		5		2		6
	Black		1		0		0		0		0
	Hispanic		0		0		0		0		0
	Other		0		0		0		0		0
Lake	All Races	8.5	51	7.7	47	7.3	43	8.7	49	10.5	59
	White		18	5.3	20		14	7.2	25		16
	Black	17	32	13.5	25	16.5	29	12.9	23	22.5	40
	Hispanic		5		7		10		8		11
	Other		1		2		0		1		3
LaPorte	All Races		3		10		15		12		6
	White		3		6		11		9		5
	Black		0		4		3		1		1
	Hispanic		0		1		1		1		0
	Other		0		0		1		2		0
Lawrence	All Races		1		2		1		6		3
	White		1		2		1		6		3
	Black		0		0		0		0		0
	Hispanic		0		0		0		0		0

Table 2.1 Infant Mortality Rates

County of Residence	Race/Ethnicity	2013 IMR	2013 Infant Deaths	2014 IMR	2014 Infant Deaths	2015 IMR	2015 Infant Deaths	2016 IMR	2016 Infant Deaths	2017 IMR	2017 Infant Deaths
	Other		0		0		0		0		0
Madison	All Races		15		11		9		13		11
	White		13		10		7		11		5
	Black		2		1		2		2		5
	Hispanic		1		0		2		0		1
	Other		0		0		0		0		1
Marion	All Races	9.3	133	8.4	123	8	116	8.7	124	7.5	107
	White	7.1	57	4.7	42	6.1	54	5.6	48	4.5	38
	Black	13.4	59	14	65	10.2	47	14.4	66	11.6	55
	Hispanic	9.8	20		13		16		17		14
	Other		17		16		15		10		14
Marshall	All Races		3		2		6		3		3
	White		3		2		6		3		2
	Black		0		0		0		0		0
	Hispanic		1		0		1		0		1
	Other		0		0		0		0		1
Martin	All Races		2		0		1		0		0
	White		2		0		1		0		0
	Black		0		0		0		0		0
	Hispanic		0		0		0		0		0
	Other		0		0		0		0		0
Miami	All Races		2		4		3		3		4
	White		2		4		3		3		4
	Black		0		0		0		0		0
	Hispanic		0		0		0		0		0
	Other		0		0		0		0		0
Monroe	All Races		9		9		8		10		3
	White		7		7		8		9		3
	Black		1		2		0		1		0
	Hispanic		0		0		1		0		0
	Other		1		0		0		0		0
Montgomery	All Races		4		1		0		5		4
	White		4		1		0		4		4
	Black		0		0		0		0		0
	Hispanic		1		0		0		1		0
	Other		0		0		0		1		0
Morgan	All Races		7		2		3		3		3
	White		7		2		3		3		1
	Black		0		0		0		0		1
	Hispanic		0		0		0		0		0
	Other		0		0		0		0		1
Newton	All Races		0		1		0		1		1
	White		0		1		0		1		1
	Black		0		0		0		0		0
	Hispanic		0		0		0		0		1
	Other		0		0		0		0		0
Noble	All Races		6		4		4		6		5
	White		5		4		2		5		5
	Black		1		0		1		0		0
	Hispanic		1		1		0		1		0
	Other		0		0		1		1		0
Ohio	All Races		1		0		0		2		0
	White		1		0		0		2		0
	Black		0		0		0		0		0
	Hispanic		0		0		0		0		0
	Other		0		0		0		0		0
Orange	All Races		1		2		4		3		1
	White		1		2		4		2		0
	Black		0		0		0		0		1
	Hispanic		0		0		0		1		0
	Other		0		0		0		1		0
Owen	All Races		0		0		0		4		3
	White		0		0		0		4		2
	Black		0		0		0		0		1
	Hispanic		0		0		0		0		0
	Other		0		0		0		0		0
Parke	All Races		1		4		0		2		2
	White		1		4		0		2		2
	Black		0		0		0		0		0
	Hispanic		0		0		0		0		0
	Other		0		0		0		0		0
Perry	All Races		0		2		0		2		0
	White		0		2		0		2		0
	Black		0		0		0		0		0
	Hispanic		0		0		0		0		0
	Other		0		0		0		0		0
Pike	All Races		1		0		1		1		0
	White		1		0		1		1		0
	Black		0		0		0		0		0
	Hispanic		0		0		0		0		0
	Other		0		0		0		0		0

Table 2.1 Infant Mortality Rates

County of Residence	Race/Ethnicity	2013		2014		2015		2016		2017	
		IMR	Infant Deaths	IMR	Infant Deaths	IMR	Infant Deaths	IMR	Infant Deaths	IMR	Infant Deaths
Porter	All Races		11		10		8		8		9
	White		11		8		3		6		5
	Black		0		0		4		2		4
	Hispanic		1		1		0		4		2
	Other		0		2		1		0		0
Posey	All Races		4		1		1		0		1
	White		3		1		1		0		1
	Black		0		0		0		0		0
	Hispanic		0		0		0		0		0
	Other		1		0		0		0		0
Pulaski	All Races		0		1		0		0		4
	White		0		1		0		0		4
	Black		0		0		0		0		0
	Hispanic		0		0		0		0		0
	Other		0		0		0		0		0
Putnam	All Races		3		1		2		3		4
	White		3		1		2		3		3
	Black		0		0		0		0		0
	Hispanic		0		0		0		0		0
	Other		0		0		0		0		1
Randolph	All Races		2		2		1		3		4
	White		2		2		1		3		4
	Black		0		0		0		0		0
	Hispanic		0		0		0		0		0
	Other		0		0		0		0		0
Ripley	All Races		2		3		3		3		6
	White		2		3		3		3		6
	Black		0		0		0		0		0
	Hispanic		0		0		0		0		0
	Other		0		0		0		0		0
Rush	All Races		1		0		2		0		3
	White		1		0		2		0		3
	Black		0		0		0		0		0
	Hispanic		0		0		0		0		0
	Other		0		0		0		0		0
Scott	All Races		1		3		4		2		4
	White		1		3		4		2		4
	Black		0		0		0		0		0
	Hispanic		0		0		0		0		0
	Other		0		0		0		0		0
Shelby	All Races		4		4		6		2		7
	White		4		4		5		2		7
	Black		0		0		0		0		0
	Hispanic		0		0		1		0		0
	Other		0		0		1		0		0
Spencer	All Races		2		0		1		1		0
	White		2		0		1		1		0
	Black		0		0		0		0		0
	Hispanic		0		0		0		0		0
	Other		0		0		0		0		0
St. Joseph	All Races	8.7	31	9.8	34	7.5	26	7.3	26	10.3	36
	White		9		17		16		7		18
	Black		14		17		8		14		15
	Hispanic		5		3		4		5		4
	Other		8		0		2		5		3
Starke	All Races		2		2		1		0		2
	White		2		2		1		0		2
	Black		0		0		0		0		0
	Hispanic		0		0		0		0		1
	Other		0		0		0		0		0
Steuben	All Races		4		4		3		0		0
	White		4		4		3		0		0
	Black		0		0		0		0		0
	Hispanic		0		0		1		0		0
	Other		0		0		0		0		0
Sullivan	All Races		1		0		0		5		2
	White		1		0		0		5		2
	Black		0		0		0		0		0
	Hispanic		0		0		0		0		0
	Other		0		0		0		0		0
Switzerland	All Races		1		0		2		0		1
	White		1		0		2		0		1
	Black		0		0		0		0		0
	Hispanic		0		0		0		0		0
	Other		0		0		0		0		0
Tippecanoe	All Races		15	9	21	9.6	23		8		17
	White		7		18		18		6		10
	Black		6		3		4		1		6
	Hispanic		0		2		3		4		0
	Other		2		0		1		1		1
Tipton	All Races		1		0		1		2		1

Table 2.1 Infant Mortality Rates

County of Residence	Race/Ethnicity	2013		2014		2015		2016		2017	
		IMR	Infant Deaths	IMR	Infant Deaths	IMR	Infant Deaths	IMR	Infant Deaths	IMR	Infant Deaths
	White		1		0		1		2		1
	Black		0		0		0		0		0
	Hispanic		0		0		0		0		0
	Other		0		0		0		0		0
	All Races		1		0		1		1		0
Union	White		1		0		1		1		0
	Black		0		0		0		0		0
	Hispanic		0		0		0		0		0
	Other		0		0		0		0		0
Vanderburgh	All Races	11	25	9.4	21		11		14		15
	White		19		17		5		10		10
	Black		4		2		4		3		5
	Hispanic		0		2		1		1		1
	Other		2		2		2		1		0
Vermillion	All Races		0		0		1		2		2
	White		0		0		1		2		2
	Black		0		0		0		0		0
	Hispanic		0		0		0		0		0
	Other		0		0		0		0		0
Vigo	All Races		6		14		10		10		13
	White		4		13		9		10		12
	Black		1		0		0		0		1
	Hispanic		1		0		0		1		0
	Other		1		1		1		0		0
Wabash	All Races		1		2		4		3		0
	White		0		2		4		3		0
	Black		1		0		0		0		0
	Hispanic		1		0		1		0		0
	Other		0		0		0		0		0
Warren	All Races		0		0		0		0		1
	White		0		0		0		0		1
	Black		0		0		0		0		0
	Hispanic		0		0		0		0		0
	Other		0		0		0		0		0
Warrick	All Races		1		7		3		3		5
	White		1		5		3		2		5
	Black		0		0		0		1		0
	Hispanic		0		0		0		0		0
	Other		0		2		0		0		0
Washington	All Races		2		0		1		1		3
	White		2		0		1		1		3
	Black		0		0		0		0		0
	Hispanic		0		0		0		0		0
	Other		0		0		0		0		0
Wayne	All Races		7		6		8		4		5
	White		5		5		6		3		3
	Black		2		0		2		1		2
	Hispanic		0		1		0		0		0
	Other		0		1		0		0		0
Wells	All Races		0		2		2		0		0
	White		0		2		2		0		0
	Black		0		0		0		0		0
	Hispanic		0		0		0		0		0
	Other		0		0		0		0		0
White	All Races		2		3		1		0		2
	White		2		3		1		0		1
	Black		0		0		0		0		0
	Hispanic		0		0		0		0		1
	Other		0		0		0		0		1
Whitley	All Races		2		4		1		4		5
	White		2		4		1		4		5
	Black		0		0		0		0		0
	Hispanic		0		0		0		0		0
	Other		0		0		0		0		0

Appendix B. Non-Fatal Emergency Department Visits in Indiana Involving Any Opioid Overdose, by County: 2011 – 2017

Table 2.2 Non-Fatal Emergency Department Visits Involving any Opioid Overdose

Patient's County of Residence	2011	2012	2013	2014	2015	2016	2017
Indiana	28.5	30.1	32.8	42.8	45	104.5	122.5
Adams	0	0	17.3	14.4	20	73.8	70.4
Allen	14	16.4	15.7	13.9	30.9	69.9	88.8
Bartholomew	19.3	26.5	21.4	81	43.1	173.2	212.1
Benton	0	0	0	0	0	0	58.1
Blackford	63.5	72	0	0	65.1	189.3	250.5
Boone	31.3	35.6	38	51.7	41	99	106.3
Brown	0	0	0	0	0	33.5	73.2
Carroll	0	24.9	54.8	0	30.2	45.1	64.9
Cass	18	13	20.8	20.8	55.3	60.6	60.5
Clark	29.6	42	60.2	65.6	35.5	161.2	153
Clay	33.5	26.1	29.8	0	22.6	45.6	49.6
Clinton	63.4	69.7	91.1	91.5	73.6	123.2	123.8
Crawford	0	0	0	0	0	123.4	94.6
Daviess	0	0	15.4	18.3	0	33.4	24.2
Dearborn	14	18.1	16.1	40.5	70.8	105.4	118.6
Decatur	46.4	23	61	49	56.6	22.6	78.5
DeKalb	18.8	14.2	35.4	30.6	16.4	37.4	37.4
Delaware	11.9	19.6	22.1	51.2	79.6	211.1	284.8
Dubois	14.2	0	0	0	0	11.8	0
Elkhart	11.6	13	15.5	19.8	22.1	32.4	37.6
Fayette	49.4	62.4	79.6	204.5	76.8	235.7	387.8
Floyd	25.3	37.2	32.8	44.6	59.9	170.2	142.7
Fountain	29	35	65.2	0	36.2	36.4	60.6
Franklin	34.7	26.1	21.8	26.2	30.6	70.4	57.5
Fulton	33.5	33.8	0	39	24.6	39.7	79.8
Gibson	20.9	23.9	0	14.8	0	0	0
Grant	28.7	36.1	26	52.5	60.3	100.1	142.9
Greene	15.2	33.4	0	24.4	37	55.9	37.3
Hamilton	20.2	24.2	27	27.4	38.7	66.7	65.8
Hancock	28.4	36.7	33.5	45.8	52.4	92.2	101.4
Harrison	40.7	23	25.5	30.5	50.5	153.2	92.7
Hendricks	33.1	19.3	15.6	40.4	39.2	99.6	106.3
Henry	22.3	30.4	34.7	28.6	18.4	66	68.1
Howard	61.6	55.5	45.9	66.3	73.9	190.1	171.2
Huntington	40.3	29.7	29.9	27.2	65.5	101.6	107.3
Jackson	25.6	16.2	18.4	61.8	40.8	115.9	150.4
Jasper	29.9	20.9	0	38.8	26.9	77.8	83.7
Jay	42.2	23.4	37.5	51.9	75.8	332.6	391.5
Jefferson	37.2	24.6	43.1	36.9	15.4	43.2	37.4
Jennings	39	49.7	46	67.9	93.2	252.2	267.9
Johnson	33.2	34.9	33.7	44.7	70.2	153.3	139.7
Knox	0	15.7	15.8	21.1	18.5	23.8	0
Kosciusko	22	29.6	30.8	28	28	78.4	98.5
LaGrange	18.7	0	15.8	15.6	15.5	17.9	12.7
Lake	23.8	28.6	30.7	35.7	32.8	66.3	101.9
LaPorte	42.2	38.7	52.1	48.5	60.4	153.6	122.7
Lawrence	58.4	45.6	61.1	56.9	24.2	72.5	92
Madison	48	50.6	35.3	37.7	54.7	82.8	93.4
Marion	38.8	39.8	45	73.5	78	192.7	232.1

Table 2.2 Non-Fatal Emergency Department Visits Involving any Opioid Overdose

Patient's County of Residence	2011	2012	2013	2014	2015	2016	2017
Marshall	14.9	36.2	25.5	36.1	27.7	79.5	71
Martin	0	0	0	0	0	0	0
Miami	38.2	16.4	16.6	61.2	41.8	128.2	125.5
Monroe	14.3	17	28.9	36.3	38.7	60.5	78.9
Montgomery	52	75.8	70.7	55.1	75.9	115.6	132.4
Morgan	69.1	75	64.5	93.3	94.8	196.6	199.4
Newton	0	35.6	0	0	42.8	64.6	70.8
Noble	14.7	21	25.2	25.2	12.6	23.1	23.2
Ohio	0	0	0	0	0	0	0
Orange	0	55.9	40.5	0	30.6	56.9	36
Owen	0	0	47.2	42.9	28.7	57.6	86.4
Parke	0	0	0	29	0	0	35.5
Perry	0	46.2	25.6	0	0	0	41.9
Pike	0	0	0	0	0	0	0
Porter	29.6	26	30.6	40.7	33.4	71.5	65.9
Posey	0	0	0	0	19.6	0	19.5
Pulaski	59.9	68.6	69.2	46.3	54.3	55.3	119.7
Putnam	23.7	39.7	37.3	21.3	29.3	69.5	66.3
Randolph	19.2	38.7	31.2	55.2	51.6	211.3	200.6
Ripley	0	0	31.7	31.6	24.4	86.7	130.1
Rush	28.9	0	47	41.4	48	36	60.1
St. Joseph	28.9	33.8	49.9	47.5	50.7	93.6	121.7
Scott	87.5	84.1	66.7	84.3	25.3	210.7	188.5
Shelby	58.6	56.2	40.2	62.8	71.9	128.6	171.2
Spencer	0	0	0	0	0	29.1	0
Starke	56	47.4	51.7	47.7	39.2	152.1	214
Steuben	17.6	17.6	34.9	20.4	17.5	29.3	40.6
Sullivan	28.1	42.5	37.7	0	23.9	48.1	28.9
Switzerland	0	0	0	0	0	57	93.5
Tippecanoe	28	33.8	30.5	33.9	49.5	98.4	130.1
Tipton	0	0	31.9	45.4	52.4	59.3	0
Union	0	0	68.7	151.8	0	0	111.1
Vanderburgh	18.9	16.6	17.1	25.8	22	55.6	66.6
Vermillion	0	0	0	0	0	38.4	70.9
Vigo	13.9	10.1	13.9	17.6	9.3	28.7	49.3
Wabash	52.1	18.5	24.7	58.9	77.8	91.3	159
Warren	0	0	0	0	0	61.2	0
Warrick	16.6	18.2	18	13.1	14.5	36.8	28.8
Washington	0	32.2	54	78.9	50.3	115.6	219.2
Wayne	64.1	54.1	72.2	69.5	0	225.3	356.6
Wells	32.5	43.4	0	0	28.6	64.4	96.5
White	36.4	24.6	32.7	40.9	49.4	87.5	91
Whitley	27	21	18	32.9	23.9	80.7	41.5

Appendix D. Trends in Smoking and Drug Deaths in Indiana, 2012-2018

Table 2.4 Raw Data for Trends in Smoking and Drug Deaths in Indiana 2012-2018

Population	2012		2013		2014		2015		2016		2017		2018	
	Smoking	Drug-Related Deaths	Smoking	Drug-Related Deaths	Smoking	Drug-Related Deaths	Smoking	Drug-Related Deaths	Smoking	Drug-Related Deaths	Smoking	Drug-Related Deaths	Smoking	Drug-Related Deaths
United States	21.2	12.2	19.6	12.6	18.8	13	18.1	13.5	17.5	14	17.1	15	17.1	16.9
Indiana	25.6	11	24	14.6	21.9	15.1	22.9	15.8	20.6	16.7	21.1	17.9	21.8	33
Male	27.6	16.8	26.5	17.5	23.5	18.1	24.5	19.1	21.9	20.2	23.6	21.8	23.5	25.2
Female	23.8	11	21.6	11.7	20.4	12.1	21.5	12.4	19.3	13.3	18.8	14	20.2	15.3
White	25	14.7	23.5	15.6	22	16.8	23.1	16.9	20.9	20.2	21	19.2	22.3	21.6
Black	31.4	9.4	29.2	8.8	24.8	10.1	27.1	10	21.6	10.9	23	11.6	21.2	14.4
Hispanic/Latino	22.4	2.5	18.9	2.8	15.2	4	14.1	4.5	11.3	5.1	17.8	5.5	14	5.9
Asian/Native Hawaiian or Pacific Islander	13.8		8.1		6.2		11.5		8.9					
American Indian/Alaska Native	36.7		36.7		34		31.7				36.1		33.3	
Other														