

2021 | Community Health Needs Assessment



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Arnett

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Table of contents

Executive summary5

 Introduction.....5

 Community definition5

 Significant community health needs.....5

Data and analysis 7

 Definition of community assessed 7

 Secondary data summary..... 7

 Demographics 7

 Economic indicators8

 Local health status and access indicators8

 Ambulatory Care Sensitive Conditions.....8

 Community Need Index.....9

 Food deserts.....9

 Medically Underserved Areas and Populations9

 Health Professional Shortage Areas9

 Relevant findings of other community health needs assessments9

 Significant indicators.....9

 Primary data summary11

 Benton County11

 Carroll County11

 Tippecanoe County12

 White County12

Other facilities and resources in the community.....13

 Federally Qualified Health Centers13

 Hospitals.....14

 Local Health Departments.....14

 Other community resources14

Table of contents

Appendix A – Objectives and methodology	15
Regulatory requirements	15
Methodology	15
Collaborating organizations.....	15
Data sources.....	15
Healthy equity.....	16
Information gaps.....	16
Appendix B – Secondary data assessment	17
Demographics.....	17
Economic indicators	20
People in poverty	20
Unemployment	22
Insurance status.....	22
Crime	23
Local health status and access indicators.....	24
County Health Rankings	24
Indiana Department of Health.....	28
Behavioral Risk Factor Surveillance System.....	32
Ambulatory Care Sensitive Conditions or Preventative Quality Indicators.....	33
Community Need Index.....	34
Food deserts	35
Social Vulnerability Index	35
Medically Underserved Areas and Populations.....	37
Health Professional Shortage Areas.....	37
Findings of other community health needs assessments	38
Indiana State Health Assessment and Improvement Plan	38
Coronavirus disease (COVID-19) pandemic and vaccine	40
Appendix C – Community meeting and survey participants.....	42
Appendix D – Impact of actions taken since the previous community health needs assessment.....	42
Access to care: Workforce development.....	42
Behavioral health: Mental health.....	43
Behavioral health: Substance use.....	43
Behavioral health: Tobacco	44
Health and social services for seniors.....	44
Appendix E – Consultant qualifications.....	44

Executive summary

Introduction

This Community Health Needs Assessment (CHNA) was conducted to identify significant community health needs and to inform development of an Implementation Strategy that addresses them.

Indiana University Health Arnett in Lafayette, Indiana, is a full-service, 191-bed hospital that includes more than 40 specialties and 23 outpatient clinics. The hospital features an adjacent outpatient surgery center, cancer center and several medical offices serving Lafayette and the surrounding counties. IU Health Arnett is a Magnet-designated hospital recognized by the American Nurses Credentialing Center for demonstrating excellence in nursing services and high-quality clinical outcomes for patients.

The hospital is part of Indiana University Health (IU Health), the largest and most comprehensive health system in the state of Indiana. IU Health, in partnership with Indiana University School of Medicine, one of the nation's leading medical schools, gives patients access to leading-edge medicine and treatment options that are available first, and often only, at IU Health. Additional information about IU Health is available at: iuhealth.org/.

Each IU Health hospital is dedicated to the community it serves. Each hospital conducts a CHNA to understand current community health needs and to inform strategies designed to improve community health, including initiatives designed to address social determinants of health. The CHNAs are conducted using widely accepted methodologies to identify the significant needs of a specific community. The assessments also are conducted to comply with federal laws and regulatory requirements that apply to tax-exempt hospitals.

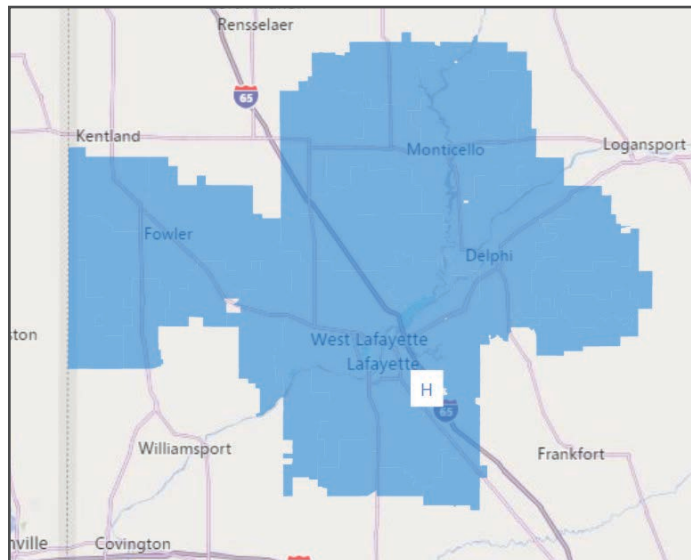
IU Health invites community members to review the Community Health Needs Assessments and provide comments to communitybenefit@iuhealth.org.

For copies of each IU Health CHNA report and implementation strategy, visit: iuhealth.org/in-the-community/community-benefit. Updated implementation strategies for each IU Health hospital are scheduled to be published by May 15, 2022.

Community definition

For purposes of this CHNA, IU Health Arnett's community is defined as Benton, Carroll, Tippecanoe and White counties, Indiana. These four counties accounted for 75 percent

of the hospital's inpatient cases in 2019. The estimated population of this community in 2019 was 245,961. The following map portrays this community.



Source: Power BI and IU Health, 2021

Significant community health needs

Identifying significant community health needs is an important element of CHNAs. Several data sources were assessed to identify those needs, including:

- Secondary data (i.e., data collected by another entity or for a different purpose), including demographics, health status and access to care indicators;
- Findings from other community health assessments of areas served by the hospital; and
- Input obtained from individuals who participated in one or more community meetings or surveys.

Access to healthcare services

- Carroll, Tippecanoe and portions of White counties have been designated as Medically Underserved Areas (MUA) (Exhibit 33).
- Primary care, dental health and mental health care Health Professional Shortage Areas (HPSA) are prominent throughout Benton, Carroll, Tippecanoe and White counties (Exhibits 34A-C).
- Above average rates of Ambulatory Care Sensitive Conditions (ACSC) indicate potential access problems in Benton County (Exhibit 28).
- The uninsured rates in Benton, Carroll and White counties are significantly above state and national averages (Exhibit 18A).
- Poverty, financial constraints, transportation, health insurance and lack of communication between service providers are all barriers in accessing health services (Community meetings).

Drug and substance abuse (including opioids and alcohol)

- Benton and Tippecanoe counties ranked in the bottom half of Indiana counties for excessive drinking and Tippecanoe County rank in the bottom quartile for alcohol-impaired driving deaths (Exhibit 20).
- Focus group participants identified substance abuse and access to substance abuse services as significant community needs, particularly in Tippecanoe and White counties (Community meetings).
- Other recent assessments in Benton and Tippecanoe counties identified substance use disorders, alcohol use and youth alcohol use as significant issues (Other assessments).

Food insecurity and healthy eating

- Tippecanoe County ranked 76th in Indiana counties for food environment index (Exhibit 20).
- Census tracts throughout Tippecanoe County – including in areas proximate to the hospital – are designated as food deserts (Exhibit 31).
- Other assessments described food insecurity as a significant issue, particularly among aging populations.

Maternal and infant health and child wellbeing

- Benton and White counties compared unfavorably to Indiana for most maternal and infant health indicators, including breastfeeding, preterm births and smoking during pregnancy (Exhibit 26).
- Child abuse, trauma and Adverse Childhood Experiences (ACE) were identified by focus group participants as significant needs in Benton, Tippecanoe and White counties (Community meetings).
- Issues surrounding cost and availability of childcare, youth mental health and suicide, COVID-19 pandemic impacts on learning and development of children and teen births were also identified as significant issues (Community meetings).
- Other local health assessments identified infant and maternal health, youth alcohol use, youth tobacco use and youth mental health as significant needs (Other assessments).

Mental health

- All community meetings identified issues with mental health as significant concerns, including mental health needs, suicide, youth suicide ideation, access to mental health services and the impacts of the COVID-19 pandemic and isolation on mental health (Community meetings).
- Benton, Carroll, Tippecanoe and White counties have been designated as Mental Health HPSAs as a part of the Region 30 Mental Health Catchment Area (Exhibit 34C).

- Benton and Tippecanoe counties were in the bottom half of all Indiana counties for poor mental health days (Exhibit 20).
- Other assessments also identified mental health, youth mental health and access to mental health services (due to lack of providers, insurance barriers and others) as significant concerns (Other assessments).

Smoking, tobacco use and exposure to secondhand smoke

- Rates of adult smoking in Benton, Carroll, Tippecanoe and White counties exceeded the national smoking rate (Exhibit 21). Additionally, Benton County ranked in the bottom half of Indiana counties for adult smoking (Exhibit 20).
- Mortality rates for several chronic conditions related to smoking were above state averages for White County, including lung cancer mortality (Exhibits 23 and 24). Incidence rates of lung cancer were higher than state averages in Benton and Carroll counties (Exhibit 24).
- Other health assessments identified smoking and tobacco use, including youth usage, as a significant need (Other assessments).

Social determinants of health

- Benton and Tippecanoe counties poverty rate are above the Indiana and national averages. Across the community, poverty rates are particularly high for Black and Hispanic (or Latino) residents. Low-income census tracts are present in Tippecanoe County (Exhibits 14-16).
- Tippecanoe County ranked 84th out of 92 Indiana counties for high school graduation, and White County ranked 80th (Exhibit 20). The percent of the population with any post-secondary education was lower than the state average in Benton, Carroll and White counties (Exhibit 21).
- Tippecanoe County ranked 90th out of 92 Indiana counties for severe housing problems and Benton County ranked 48th (Exhibit 20). Several census tracts in Tippecanoe County were in the bottom quartile nationally for housing type and transportation vulnerability (Exhibit 32). The need for safe and affordable housing was identified as significant by community meeting participants and survey respondents in Benton, Carroll and Tippecanoe counties (Community meetings).
- Other assessments identified a variety of social determinants of health factors as significant concerns, including housing, transportation and food access (Other assessments).

Data and analysis

Definition of community assessed

The community assessed by IU Health Arnett was defined by the geographic origins of the hospital's discharges. In 2019, this geographic area was identified as Benton, Carroll, Tippecanoe and White counties, Indiana.

Residents from these four counties accounted for 75 percent of the hospital's 2019 inpatient discharges (Exhibit 1).

Exhibit 1: IU Health Arnett inpatient discharges by county, 2019

County	Percent of inpatients
Benton County	4.0%
Carroll County	5.0%
Tippecanoe County	56.0%
White County	10.0%
Total Community	75.0%

Source: Analysis of IU Health discharge data, 2019

The estimated population of these counties in 2019 was 245,961 persons (Exhibit 2).

Exhibit 2: Local community population, 2019

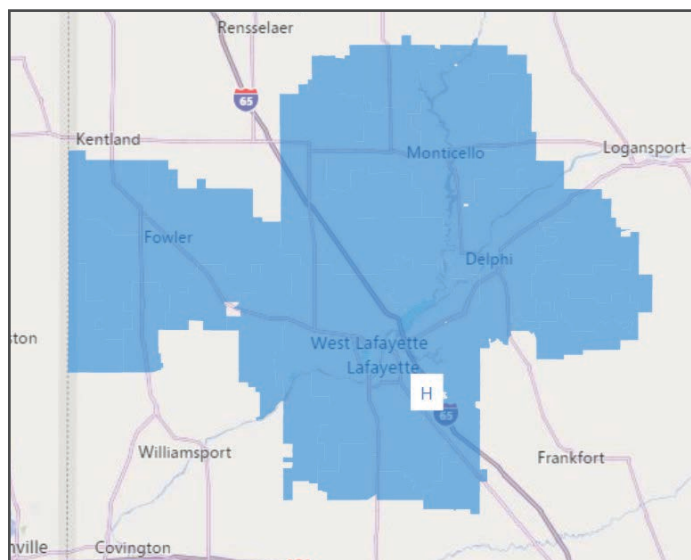
County	Estimated population	Percent of total community population
Benton County	8,653	3.5%
Carroll County	20,127	8.2%
Tippecanoe County	193,048	78.5%
White County	24,133	9.8%
Total Community	245,961	100%

Source: State of Indiana by the Indiana Business Research Center, 2019

The hospital is located in Tippecanoe County (city of Lafayette, Indiana, ZIP code 47905).

Exhibit 3 portrays the community. The map shows county and ZIP code boundaries. Some ZIP codes could overlap one or more counties. The "H" logo marks the location of this hospital on the map.

Exhibit 3: IU Health Arnett community



Source: Power BI and IU Health, 2021

Secondary data summary

The following section summarizes findings from secondary data analysis for the IU Health Arnett community. See Appendix B for more detailed information.

Demographics

Population characteristics and trends directly influence community health needs. The total population of all identified communities is expected to grow 3.9 percent from 2020 to 2025, a rate above the Indiana rate of 2.2 percent. This growth is due to an expected 5.2 percent growth in Tippecanoe County. Benton, Carroll and White counties are all expected to lose population between 2020 and 2025.

At 15.7 percent, the population aged 65 years and older is projected to grow at a significantly faster rate than the population as a whole across all identified communities. The population aged 65 years and older in each of the four counties is expected to grow by at least 12 percent. This should contribute to a growing need for health services, since older individuals typically need and use more services than younger persons.

Significant racial and ethnic diversity is seen throughout the identified ZIP codes. In 2019, ZIP codes 47990 and 47992, south of Lafayette, had the largest proportion of the population that was Black, each above five percent. The proportion of residents that are Hispanic (or Latino) is highest in White County ZIP code 47959 (above 25 percent), Benton County ZIP code 47917 (above 20 percent) and in Tippecanoe County ZIP codes 47909 and 47992 (above 10 percent).

In Benton, Carroll and White counties, the percent of residents with a disability is higher than state and national

averages. Residents experiencing linguistic isolation are much more prevalent in Tippecanoe County and slightly more in White County than Indiana as a whole.

Economic indicators

Many health needs have been associated with poverty, as those in low-income households typically are less healthy than those in more prosperous areas. At 18.7 percent (over the 2015-2019 time period), Tippecanoe County's poverty rate has been above the Indiana and national averages. The rate in Benton County (13.5 percent) also exceeds the state average (13.4 percent). Poverty rates for Black and Hispanic (or Latino) residents throughout the identified communities and in Indiana were generally above the poverty rate of White residents. Low-income census tracts are prevalent in Tippecanoe County, particularly in the central area of the county.

Between 2015 and 2019, unemployment rates decreased in the counties, state and nationally. In recent years, the identified community's unemployment rates have been below state and national averages. Due to the COVID-19 pandemic, it is anticipated that unemployment rates will rise in 2020 data. The rise in unemployment is likely to affect numerous health-related factors, such as access to employer-based health insurance and access to health services.

The percentage of people uninsured in Benton, Carroll and White counties is above both state and national averages.

Crime rates in the identified communities are lower than Indiana averages for all crime types.

Local health status and access indicators

In the 2019 *County Health Rankings*, all community counties ranked favorably for overall health outcomes, with Benton County ranking 7th, Carroll County ranking 17th, Tippecanoe County ranking 24th and White County ranking 26th out of 92 counties in Indiana.

Benton County ranked in the bottom half of Indiana counties for 10 of the 41 indicators assessed. Of those, two were in the bottom quartile, including mental health providers and long commute – driving alone.

Carroll County had eight out of 41 indicators ranked in the bottom half of Indiana counties. Of those, three were in the bottom quartile, including primary care physicians, mammography screening and long commute – driving alone.

Tippecanoe County had 14 out of 41 indicators ranked in the bottom half of Indiana counties. Of those, eight were in the bottom quartile, including food index environment, alcohol-impaired driving deaths, sexually transmitted infections, uninsured, high school graduation, income inequality, social associations and severe housing problems.

White County had nine out of 41 indicators ranked in the bottom half of Indiana counties. Of those, two were in the bottom quartile, including teen births and high school graduation.

According to the Indiana Department of Health (IDOH), mortality rates for major cardiovascular diseases and heart diseases in Benton and White counties were above Indiana averages. Mortality rates were also high for cancer in White County, and diabetes and nephritis in Tippecanoe County.

The overall cancer mortality rate was higher in White County than the Indiana averages, and incidence rates were higher in Benton, Carroll and White counties. All four counties compared unfavorably for colon and rectum cancer incidence.

Rates of communicable disease in community counties were below Indiana averages for all indicators except for chlamydia in Tippecanoe County.

Maternal and infant health indicators were generally unfavorable, particularly in Benton and White counties. At least three community counties had unfavorable rates of breastfeeding percentage, teen births and preterm births. The rate of mothers smoking during pregnancy was more than double the state average in Benton County and above the state average in White County.

For the state of Indiana, Behavioral Risk Factor Surveillance System (BRFSS) data indicates that on all but one measure presented, risk factors were higher for Black residents than for White residents (and for lower-income residents than those with higher incomes). Hispanic (or Latino) residents have experienced higher uninsured, physical inactivity and occasional smoking rates.

Ambulatory Care Sensitive Conditions

Ambulatory Care Sensitive Conditions (ACSC) include 14 health conditions (also referred to as Preventative Quality Indicators, or "PQIs") "for which good outpatient care can potentially prevent the need for hospitalization or for which early intervention can prevent complications or more severe disease."¹ These conditions include diabetes, perforated appendixes, chronic obstructive pulmonary disease (COPD), hypertension, congestive heart failure, pneumonia, urinary tract infection and asthma.

The rates of admissions for ACSCs across identified communities were below state averages for all indicators. Rates for ACSCs in Benton County were higher than state averages for 10 indicators, with particularly high rates of uncontrolled diabetes, asthma in younger adults and lower extremity amputation with diabetes.

¹ Agency for Healthcare Research and Quality – AHRQuality Indicators™. (n.d.) *Prevention Quality Indicators Overview*. Retrieved from https://qualityindicators.ahrq.gov/Modules/pqi_resources.aspx#techspecs

Community Need Index

Dignity Health, a California-based hospital system, developed and published a Community Need Index™ (CNI) that measures barriers to healthcare access. The index is based on five social and economic indicators:

- The percentage of elders, children and single parents living in poverty;
- The percentage of adults over the age of 25 with limited English proficiency and the percentage of the population that is non-White;
- The percentage of the population without a high school diploma;
- The percentage of uninsured and unemployed residents; and
- The percentage of the population renting houses.

A CNI score is calculated for each ZIP code. Scores range from “Lowest Need” (1.0-1.7) to “Highest Need” (4.2-5.0).

For a weighted average CNI score, Benton County scored a 3.1, Carroll County a 2.1, Tippecanoe County a 3.0 and White County scored a 2.4. These scores were in line or below the national median of 3.0. Three ZIP codes – two in Tippecanoe County, one in White County- scored in the “highest need” category.

Food deserts

The U.S. Department of Agriculture’s Economic Research Service identifies census tracts that are considered “food deserts” because they include lower-income persons without supermarkets or large grocery stores nearby.

Census tracts in Tippecanoe County have been designated as food deserts, including in areas near the hospital.

Medically Underserved Areas and Populations

Medically Underserved Areas and Populations (MUA/P) are designated by the Health Resources and Services Administration (HRSA) based on an “Index of Medical Underservice (Index).” The Index includes the following variables: ratio of primary medical care physicians per 1,000 population, infant mortality rate, percentage of the population with incomes below the poverty level and percentage of the population age 65 or over. Areas with a score of 62 or less are considered “medically underserved.”

Carroll, Tippecanoe and White counties all were designated as MUA/Ps.

Health Professional Shortage Areas

A geographic area can receive a federal Health Professional Shortage Area (HPSA) designation if a shortage of primary medical care, dental care or mental health care professionals is found to be present.

Benton, Carroll and White counties have each been designated as primary care HPSAs, as well as the low-income population of Tippecanoe County. The low-income populations of Benton, Carroll and Tippecanoe counties have been designated as dental health HPSAs. Benton, Carroll, Tippecanoe and White counties have all been designated as mental health care HPSAs (as part of the Region 30 Mental Health area).

Relevant findings of other CHNAs

This CHNA also considered the findings of other recent, available assessments or reports conducted by community-based organizations or agencies, Local Health Departments (LHD) and the state of Indiana. These other assessments consistently identified the following needs as significant for the community served by IU Health Arnett.

- Mental health
- Access to healthcare services
- Substance use disorders
- Tobacco use
- Maternal and infant health
- Chronic disease and chronic disease management
- Social determinants of health
 - Food insecurity
 - Housing
 - Transportation

Significant indicators

Exhibit 4 presents many of the indicators discussed in the above secondary data summary. An indicator is considered significant if it varies materially from a benchmark level (e.g., an average for Indiana or the United States). For example, the percent of Tippecanoe County residents with a severe housing problem was 18.9 percent. A comparable statistic for Indiana as a whole was 13.7 percent. For the IU Health Arnett community, housing problems are considered significant. The last column of Exhibit 4 identifies where more information regarding the data sources can be found in this report. The benchmarks include Indiana averages and national averages.

Exhibit 4: Significant indicators

Indicator	Area	Value	Benchmark	Exhibit
Population change, 2020-2025	Tippecanoe County	5.2%	2.2% – Indiana	9
65+ population change, 2020-2025	Four-County Composite	15.7%	15.0% – Indiana	9
Population with a disability	White County	16.6%	13.7% – Indiana	13
Population linguistically isolated	Tippecanoe County	6.3%	3.1% – Indiana	13
Poverty rate, 2015-2019	Tippecanoe County	18.7%	13.4% – Indiana	14
Poverty rate, Black, 2015-2019	Tippecanoe County	40.4%	26.9% – Indiana	15
Poverty rate, Asian, 2015-2019	Tippecanoe County	39.0%	18.0% – Indiana	15
Poverty rate, Hispanic, 2015-2019	Carroll County	26.2%	22.4% – Indiana	15
Some college	Benton County	56.3	65.0 – U.S.	21
Uninsured	Benton County	11.7	10.0 – U.S.	21
Injury death rate per 100,000 population	Benton County	76	67.0 – U.S.	21
Percent of population with adequate access to exercise opportunities	Carroll County	53.1%	84.0% – U.S.	21
Population per primary care physician	Carroll County	6,657:1	1,330:1 – U.S.	21
Population per dentist	Carroll County	2,505:1	1,460:1 – U.S.	21
Population per mental health provider	Benton County	2,871:1	440:1 – U.S.	21
Income inequality	Tippecanoe County	5.1	4.4 – Indiana	21
Teen birth rate	Benton County	29.5	25.0 – U.S.	21
New chlamydia cases per 100,000	Tippecanoe County	536.5	466.0 – Indiana	21
Long commute – driving alone	Carroll County	46.0	30.7 – Indiana	21
Severe housing problems	Tippecanoe County	18.9%	13.7% – Indiana	21
Smoked during pregnancy percent	Benton County	24.8%	11.8% – Indiana	26
Mothers on Medicaid percent	Benton County	40.4%	38.5% – Indiana	26

Source: IU Health Analysis

Primary data summary

IU Health Arnett obtained community input through focus groups of community stakeholders in each county, as well as an additional survey issued to stakeholders who were unable to attend the community meetings.

See Appendix C for a list of organizations and community members who participated in the community input process.

Benton County

A community meeting was held on April 7, 2021, to receive input from stakeholders regarding the health needs in Benton County. Secondary data and a preliminary list of community health need priorities was presented at the meeting. Each group was then asked questions about the preliminary list, including their reactions, additions to the proposed needs, thoughts regarding the causes of the needs, impacts of the COVID-19 pandemic and others.

After this discussion, participants were given the opportunity to make additional comments before being asked to vote on what they believed were the most significant needs in the county. Participants were asked to choose three to five significant health needs in a poll during the meeting until the group was able to reach some consensus regarding the priority needs.

Preliminary needs identified include a wide array of topics, including mental health and access to mental health providers, smoking, lack of exercise, alcohol abuse, food insecurity, insurance, housing, high-school graduation rates, teen births and others.

In addition to these topics, participants focused discussion on cancer and cancer screenings, child abuse and trauma, substance abuse, transportation, the cost of care and difficulties with insurance, mental health access and lack of knowledge of available community resources.

From this process, participants identified the following needs as most significant for Benton County:

- Access to mental health providers
- Child abuse
- Insurance barriers and uninsured populations

Although the following issues did not make the top three from voting, substance use, long commutes and severe housing problems were all tied for fourth place.

In discussing the impacts of the COVID-19 pandemic on health, participants focused on the migration of community members to other areas with more job opportunities, housing issues for low-income populations, isolation leading to poor health and a rise in alcohol misuse.

An additional community survey was issued to stakeholders unable to attend community meetings, asking them to

identify priority needs. Among five responses, the following issues were identified as the most significant:

- Mental health, suicide and access to mental health services
- The need for more community resources, action and interventions
- Access to healthcare services
- Childcare
- Severe housing problems

The survey also asked about the impacts of the COVID-19 pandemic. Issues most often selected as significant impacts include:

- Social isolation and loneliness
- Poverty and economic disparities
- Lack of access to healthcare services
- Childcare difficulties and cost

Carroll County

A community meeting was held on April 13, 2021, to receive input from stakeholders regarding the health needs in Carroll County. Secondary data and a preliminary list of community health need priorities was presented at the meeting. Each group was then asked questions about the preliminary list, including their reactions, additions to the proposed needs, thoughts regarding the causes, impacts of the COVID-19 pandemic and others.

After this discussion, participants were given the opportunity to make additional comments before being asked to vote on what they believed were the most significant needs in the county. Participants were asked to choose three to five significant health needs in a poll during the meeting until the group was able to reach some consensus regarding the priority needs.

Preliminary needs identified include a wide collection of topics, including food insecurity, physical inactivity, housing, educational achievement, teen births, access to primary care, income inequality and others.

In addition to these topics, participants focused discussion on lack of knowledge on places to exercise, transportation, mental health, child abuse, internet access and availability as a barrier for care, housing (particularly for seniors) and costs of housing, homelessness and lack of shelters, the lack of resources due to rural community, substance abuse and others.

From this process, participants identified the following needs as most significant for Carroll County:

- Mental health
- Internet access
- Transportation
- Severe housing problems
- Access to primary care providers

Although the issue was not selected as a top-five need,

two of the meeting participants strongly believed that substance use should be prioritized.

In discussing the impacts of the COVID-19 pandemic on health, participants focused on isolation and its impacts on mental health (particularly on children, leading to outbursts), the general uncertainty and fear that the pandemic caused and misinformation about the virus.

Tippecanoe County

Two community meetings were held in 2021 to receive input from stakeholders regarding the health needs in Tippecanoe County – one on April 6 and another on April 16. Secondary data and a preliminary list of community health need priorities was presented at both meetings. Each group was then asked questions about the preliminary list, including their reactions, additions to the proposed needs, thoughts regarding the causes, impacts of the COVID-19 pandemic and others.

After these discussions, participants were given the opportunity to make additional comments before being asked to vote on the significant needs in the county. Participants were asked to choose three to five significant health needs in a poll during the meeting until each group was able to reach some consensus regarding the priority needs.

Preliminary needs identified include a wide array of topics, including food insecurity, drunk-driving deaths, lack of health insurance, sexually transmitted infections, high school graduation, income inequality, housing and teen births.

In addition to these topics, participants focused discussion on child abuse and adolescent trauma/mental health, youth suicide ideation, substance abuse and access to substance abuse services, infant mortality, mental health and access to services, lack of health insurance, racism and health disparities for minorities, generational poverty, housing, transportation and others.

From this process, participants from the April 6 community meeting identified the following needs as most significant for Tippecanoe County:

- Mental health
- Substance abuse
- Child abuse

Participants from the April 16 community meeting identified the following needs as most significant for Tippecanoe County:

- Mental health
- Substance abuse
- Food insecurity

In discussing the impacts of the COVID-19 pandemic on health, participants focused on isolation and its impacts on mental health, increased alcohol usage and substance

abuse, impacts on child development and the overtaxing of support services.

An additional community survey was issued to stakeholders unable to attend community meetings, asking them to identify priority needs. Among 29 responses, the following issues identified as the most significant:

- Mental health and access to mental health services
- Substance abuse and access to substance abuse treatment
- Access to primary care and the cost of care
- Housing affordability and homelessness
- The need for more community partnerships and resources
- Health inequities and disparities, including disparities by race/ethnicity and poverty

The survey also asked about the impacts of the COVID-19 pandemic. Issues most often selected as significant impacts include:

- Social isolation and loneliness
- Food access and affordability
- Unemployment and underemployment
- Economic disparities

White County

Two community meetings were held in 2021 to receive input from stakeholders regarding the health needs in White County – one on April 13 and another on April 19. Secondary data and a preliminary list of community health need priorities was presented at both meetings. Each group was then asked questions about the preliminary list, including their reactions, additions to the proposed needs, thoughts regarding the causes, impacts of the COVID-19 pandemic and others.

After these discussions, participants were given the opportunity to make additional comments before being asked to vote on the significant needs in the county. Participants were asked to choose three to five significant health needs in a poll during the meeting until each group was able to reach some consensus regarding the priority needs.

Preliminary needs identified include a wide collection of topics, including teen births, high school graduation, access to exercise opportunities, access to care (primary, dental and mental health) and a lack of social associations and organizations.

In addition to these topics, participants focused discussion on child mental health and ACEs, child sexual abuse, mental health training, prenatal care, birth control, transportation, substance abuse, accessing care and a lack of knowledge around available resources, health insurance and others.

From this process, participants from the April 13 community meeting identified the following needs as most significant for White County:

- Mental health, including youth suicide ideation and access to mental health providers
- Transportation
- Substance abuse
- Child abuse and ACEs

Participants from the April 16 community meeting identified the following needs as most significant for White County:

- Mental health
- Substance abuse
- Teen births

In discussing the impacts of the COVID-19 pandemic on health, participants focused on isolation and its impacts on mental health, impacts on child development and learning, increased substance abuse and a lack of preventive care as people did not go to providers outside of emergencies.

An additional community survey was issued to stakeholders unable to attend community meetings, asking them to identify priority needs. Among 19 responses, the following issues identified as the most significant:

- Mental health
- Access to healthcare services and resources
- Substance abuse
- Transportation

The survey also asked about the impacts of the COVID-19 pandemic. Issues most often selected as significant impacts include:

- Social isolation and loneliness
- Poverty
- Lack of access to healthcare services
- Learning and development impacts among children

Other facilities and resources in the community

This section identifies other facilities and resources available in the community served by IU Health Arnett that are available to address community health needs.

Federally Qualified Health Centers

Federally Qualified Health Centers (FQHC) are established to promote access to ambulatory care in areas designated as “medically underserved.” These clinics provide primary care, mental health and dental services for lower-income populations. FQHCs receive enhanced reimbursement for Medicaid and Medicare services and most also receive federal grant funds under Section 330 of the Public Health Service Act.

There are currently 13 FQHC sites operating in the IU Health Arnett community (Exhibit 5).

Exhibit 5: Federally Qualified Health Centers, 2021

County	Facility
Carroll	Family Health Clinic of Burlington (Burlington)
Carroll	Family Health Clinic of Carroll County (Delphi)
Carroll	North Central Nursing Clinics (Delphi)
Tippecanoe	Franciscan Health Lafayette (Lafayette)
Tippecanoe	IU Health Arnett (Lafayette)
Tippecanoe	Lafayette Regional Rehabilitation Hospital (Lafayette)
Tippecanoe	Riggs Community Health Center Annex (Lafayette)
Tippecanoe	Riggs Community Health Center (Lafayette)
Tippecanoe	Riggs Community Health Center South Street (Lafayette)
Tippecanoe	River Bend Hospital (West Lafayette)
Tippecanoe	Sycamore Springs Hospital LLC (Lafayette)
White	Family Health Clinic of Monon (Monon)
White	Family Health Clinic of Wolcott (Wolcott)

Source: HRSA, 2021

Hospitals

Six hospitals (including IU Health Arnett) are located in the community (Exhibit 6).

Exhibit 6: Hospitals, 2021

County	Facility
Tippecanoe	Franciscan Health Lafayette (Lafayette)
Tippecanoe	IU Health Arnett (Lafayette)
Tippecanoe	Lafayette Regional Rehabilitation Hospital (Lafayette)
Tippecanoe	River Bend Hospital (West Lafayette)
Tippecanoe	Sycamore Springs Hospital LLC (Lafayette)
White	IU Health White Memorial (Monticello)

Source: Indiana Department of Health, 2021

Local Health Departments

Exhibit 7 presents information on LHDs that provide services in the IU Health Arnett community.

Exhibit 7: Local Health Departments, 2021

Public Health Department
Benton County Health Department (Fowler)
Carroll County Health Department (Delphi)
Tippecanoe County Public Health Department (Lafayette)
White County Health Department (Monticello)

Source: Indiana Department of Health, 2021

Other community resources

A wide range of agencies, coalitions and organizations that provide health and social services, is available in the region served by IU Health Arnett. Indiana 211 is a free service that helps Indiana residents find health and human service agencies and resources in their local community. Indiana 211 is a division of the Indiana Family and Social Services Administration (FSSA). To get help, residents can visit the website, (www.in211.org), call 2-1-1 or 1-866-211-9966 (available 24/7) or text their zip code to 898-211 (available Monday – Friday 8 am – 5 pm)).

The other organizations and resources accessible through Indiana 211 provide the following types of services and resources:

- Housing and utilities
- Food, clothing and household items
- Summer food programs
- Healthcare and disability services
- Health insurance and expense assistance
- Mental health and counseling
- Substance abuse and other addictions
- Support groups
- Tax preparation assistance
- Legal, consumer and financial management services
- Transportation
- Employment and income support
- Family support and parenting
- Holiday assistance
- Disaster services
- Government and community services
- Education, recreation and the arts
- Donations and volunteering

In addition to Indiana 211, IU Health Arnett, along with other hospitals and organizations in the community, use Aunt Bertha to connect patients and the community with local organizations and resources that can help address their healthcare and social needs including food, housing, transportation, health, clothing, household items, education and legal and employment services.

IU Health's branded Aunt Bertha public platform, *IU Health Connect*, is a free service found at www.iuhealthconnect.org.

Appendix A – Objectives and methodology

Regulatory requirements

Federal law requires that tax-exempt hospital facilities conduct a CHNA every three years and adopt an Implementation Strategy that addresses significant community health needs.² In conducting a CHNA, each tax-exempt hospital facility must:

- Define the community it serves;
- Assess the health needs of that community;
- Solicit and take into account input from persons who represent the broad interests of that community, including those with special knowledge of or expertise in public health;
- Document the CHNA in a written report that is adopted for the hospital facility by an authorized body of the facility; and
- Make the CHNA report widely available to the public.

The CHNA report must include certain information including, but not limited to:

- A description of the community and how it was defined;
- A description of the methodology used to determine the health needs of the community; and
- A prioritized list of the community's health needs.

Methodology

CHNAs seek to identify significant health needs for particular geographic areas and populations by focusing on the following questions:

- **Who** in the community is most vulnerable in terms of health status or access to care?
- **What** are the unique health status and/or access needs for these populations?
- **Where** do these people live in the community?
- **Why** are these problems present?

The focus on who is most vulnerable and where they live is important to identifying groups experiencing health inequities and disparities. Understanding why these issues are present is challenging, but is important to designing effective community health improvement initiatives. The question of how each hospital can address significant community health needs is the subject of the separate Implementation Strategy.

² IRS. (Aug. 3, 2021). *Community Health Needs Assessment for Charitable Hospital Organizations – Section 501(r)(3)*. Retrieved from: <https://www.irs.gov/charities-non-profits/community-health-needs-assessment-for-charitable-hospital-organizations-section-501r3>

Federal regulations allow hospital facilities to define the community they serve based on “all of the relevant facts and circumstances,” including the “geographic location” served by the hospital facility, “target populations served” (e.g., children, women or the aged) and/or the hospital facility’s principal functions (e.g., focus on a particular specialty area or targeted disease).³

This assessment was conducted by IU Health in collaboration with Verité Healthcare Consulting, LLC. See Appendix E for consultant qualifications.

Data from multiple sources was gathered and assessed, including secondary data published by others and primary data obtained through community input. See Appendix B for an assessment of secondary data. Input from the community was received through community meetings and a community survey.

The informants participating in the community input process represented the broad interests of the community and included individuals with special knowledge of or expertise in public health. See Appendix C.

Considering a wide array of information is important when assessing community health needs to ensure the assessment captures a wide range of facts and perspectives and to increase confidence that significant community health needs have been identified accurately and objectively.

Certain community health needs were determined to be “significant” if they were identified as problematic in at least two of the following four data sources:

- Secondary data (i.e., data collected by another entity or for a different purpose), including demographics, health status and access to care indicators;
- Findings from other community health assessments of areas served by the hospital; and
- Input obtained from individuals who participated in one or more community meetings.

Collaborating organizations

For this assessment, IU Health Arnett collaborated with other Indiana health systems on the community meetings.

Data sources

Community health needs were identified by collecting and analyzing data from multiple sources. Statistics for numerous community health statuses, healthcare access and related indicators were analyzed, including data provided by local, state and federal government agencies, local community service organizations and IU Health.

³ Ibid.

Comparisons to benchmarks were made where possible. Findings from recent assessments of the community's health needs conducted by other organizations (e.g., local health departments) were reviewed as well.

Input from persons representing the broad interests of the community was taken into account through community meetings. Participants included: individuals with special knowledge of or expertise in public health; local public health departments; agencies with current data or information about the health and social needs of the community; representatives of social service organizations; and leaders, representatives and members of medically underserved, low-income and minority populations.

Health equity

The CHNA process is an opportunity to research and expand health equity work for IU Health. Identifying significant community health needs involves continuing to recognize and understand every factor that impacts optimal health for all in a community. According to the Centers for Disease Control and Prevention (CDC), "Health equity is achieved when every person has the opportunity to "attain his or her full health potential" and no one is "disadvantaged from achieving this potential because of social position or other socially determined circumstances." Health inequities are reflected in differences in length of life; quality of life; rates of disease, disability and death; severity of disease; and access to treatment."⁴ These differences, or health disparities, may be seen by race/ethnicity, age, gender, income, insurance status, education, geographic location and other factors. A community's most vulnerable and marginalized populations experience health disparities more than others. Eliminating these disparities is key to achieving health equity.

Overall health and health disparities are strongly influenced by "the conditions in the environment where people are born, live, learn, work, play, worship and age."⁵ These conditions, also referred to as social determinants of health, may have a greater impact on health outcomes than healthcare. Also, addressing social determinants of health reduces health disparities, thus advancing health equity in communities. Examples of social determinants of health include poverty, food insecurity, housing, social isolation, transportation, racism and other forms of discrimination. Healthy People 2030 groups social determinants of health into five domains: economic stability; education access and quality; healthcare access and quality; neighborhood and built environment; and social community context.⁶ Determining the existence and extent of these conditions

within a community is as important as knowing the health outcomes within a community.

Through the CHNA process, several steps were taken to work towards a better understanding of inequities in the community including analyzing data sources by demographic factors (if available) to identify disparities; inviting and engaging community members and community-based organizations representing certain populations or that offer services to certain populations to participate in the primary data collection process; and including social determinants of health data in the analysis.

Information gaps

This CHNA relies on multiple data sources and community input gathered in January through June of 2021. Several data limitations should be recognized when interpreting results. For example, some data (e.g., County Health Rankings, mortality data and others) exist only at a county-wide level of detail. Those data sources do not allow the assessment of health needs at a more granular level of detail, such as by ZIP code or census tract.

Secondary data, upon which this assessment relies, measures community health in prior years and may not reflect current conditions. The impacts of recent public policy developments, changes in the economy and other community developments are not yet reflected in those data sets.

Not all existing data can be stratified by demographic indicators to identify health disparities and patterns of inequity. Often no or limited demographic data is collected as part of the surveillance process for some data sources. When health disparities are identified, the data may not provide a clear understanding of why they exist and may be beyond the scope of this CHNA. This CHNA does not capture the policies, laws, systems, environments, nor practices that cause health inequities. Additional data, analysis and community engagement are needed to identify the root causes of health disparities to best advance health equity in the community.

The availability of data sources, including indexes, capturing social determinants of health indicators and their impact on health continues to grow and may not all be reflected in this CHNA.

Relevant findings from other assessments or reports conducted by community-based organizations, agencies or LHDs may not be available for every county in the

⁴ Centers for Disease Control and Prevention. (March 11, 2020). *Health Equity*. Retrieved from: <https://www.cdc.gov/chronic-disease/healthequity/index.htm>

⁵ Healthy People 2030. (n.d.). *Social Determinants of Health*. Retrieved from: <https://health.gov/healthypeople/objectives-and-data/social-determinants-health>

⁶ *Ibid.*

defined community. If available, assessments may have focused on the overall health and well-being of the county or region; specific health conditions, health behaviors or social determinants of health; or the health and well-being of certain populations in the community.

The findings of this CHNA may differ from those of others that assessed this community. Differences in data sources, geographic areas assessed (e.g., hospital service areas versus counties or cities), interview questions and prioritization processes can contribute to differences in findings.

Appendix B – Secondary data assessment

This section presents an assessment of secondary data regarding health needs in the IU Health Arnett community. IU Health Arnett's community is comprised of Benton, Carroll, Tippecanoe and White counties, Indiana.

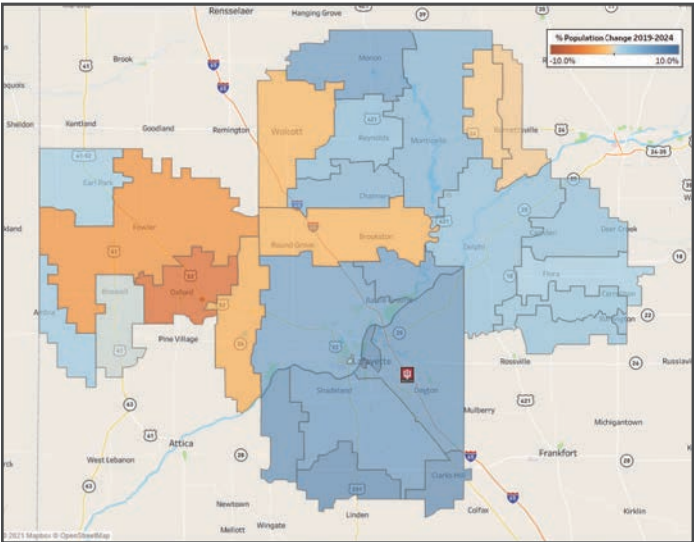
Demographics

Exhibit 8A: Percent change in community population by county, 2020-2025

County	Estimated population 2020	Estimated population 2025	Percent change 2020-2025
Benton County	8,507	8,440	-0.8%
Carroll County	19,509	19,263	-1.3%
Tippecanoe County	195,555	205,719	5.2%
White County	23,810	23,549	-1.1%
Total Community	247,381	256,971	3.9%
Indiana Total	6,738,573	6,889,552	2.2%

Source: State of Indiana by the Indiana Business Research Center, February 2021

Exhibit 8B: Percent change in community population by ZIP code, 2020-2025



Source: Advisory Board, 2020

Description

Exhibit 8A shows the total population for each county in 2020 and projections to 2025. Exhibit 8B maps the percent change in population by ZIP code between 2020 and 2025 for each ZIP code in the community.

Observations

- The population of Benton, Carroll and White counties is expected to remain relatively unchanged between 2020 and 2025.
- An increase in population is expected for Tippecanoe County between 2020 and 2025.
- On a combined basis, the population in the counties is expected to grow faster than Indiana as a whole.

Exhibit 9: Percent change in population by age/sex cohort, 2020-2025

Age/sex cohort	Estimated population 2020	Projected population 2025	Percent change 2020-2025
Benton County	8,507	8,440	-0.8%
0-19	2,333	2,362	1.2%
20-44 male	1,198	1,132	-5.5%
20-44 female	1,173	1,131	-3.6%
45-64	2,285	2,088	-8.6%
65+	1,518	1,727	13.8%
Carroll County	19,509	19,263	-1.3%
0-19	4,602	4,449	-3.3%
20-44 male	2,754	2,695	-2.1%
20-44 female	2,725	2,652	-2.7%
45-64	5,423	4,962	-8.5%
65+	4,005	4,505	12.5%
Tippecanoe County	195,555	205,719	5.2%
0-19	53,187	55,181	3.7%
20-44 male	43,584	45,420	4.2%
20-44 female	37,875	39,478	4.2%
45-64	37,247	37,933	1.8%
65+	23,662	27,707	17.1%
White County	23,810	23,549	-1.1%
0-19	5,980	6,002	0.4%
20-44 male	3,177	2,991	-5.9%
20-44 female	3,061	2,859	-6.6%
45-64	6,379	5,846	-8.4%
65+	5,213	5,851	12.2%
Total Community	247,381	256,971	3.9%
0-19	66,102	67,994	2.9%
20-44 male	50,713	52,238	3.0%
20-44 female	44,834	46,120	2.9%
45-64	51,334	50,829	-1.0%
65+	34,398	39,790	15.7%
Indiana State	6,738,573	6,889,552	2.2%
0-19	1,754,443	1,786,582	1.8%
20-44 male	1,093,860	1,100,228	0.6%
20-44 female	1,080,537	1,088,697	0.8%
45-64	1,695,267	1,632,008	-3.7%
65+	1,114,466	1,282,037	15.0%

Source: State of Indiana by the Indiana Business Research Center, February 2021

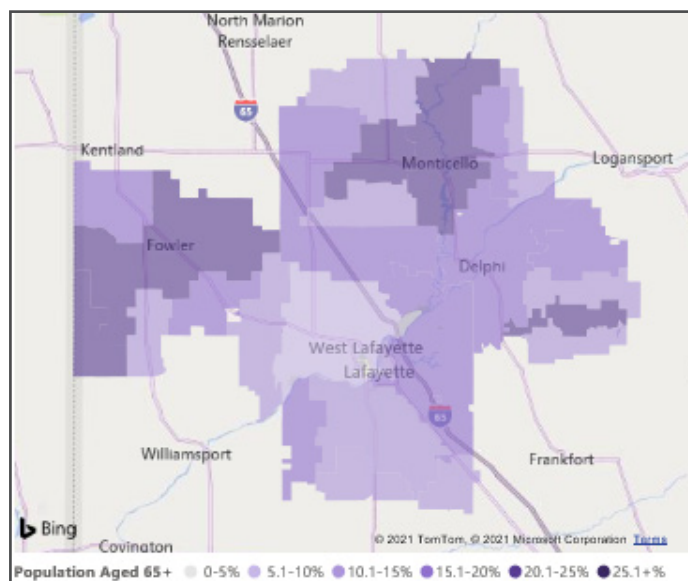
Description

Exhibit 9 shows the community's population for certain age and sex cohorts in 2020, with projections to 2025.

Observations

- The number of persons aged 65 years and older is projected to grow by 15.7 percent in the total community (all 4 counties) and 15.0 percent in Indiana between 2020 and 2025.
- The growth of older populations is likely to lead to growing need for health services, since an overall per-capita basis, older individuals typically need and use more services than younger persons.

Exhibit 10: Percent of population aged 65+ by ZIP code, 2019



Source: U.S. Census American Community Survey (ACS) 2019 5-year estimates and Power BI

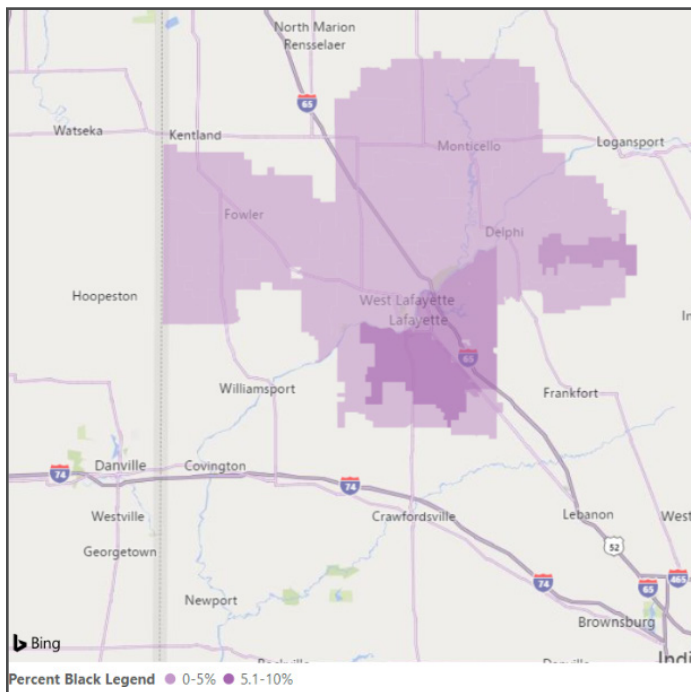
Description

Exhibit 10 portrays the percent of the population 65 years of age and older in the community by ZIP code.

Observations

- ZIP codes with the highest proportions of the population aged 65 and older are currently located in Benton County (surrounding Fowler) and Carroll County (near Monticello).

Exhibit 11: Percent of population – Black, 2019



Source: U.S. Census ACS 2019 5-year estimates and Power BI

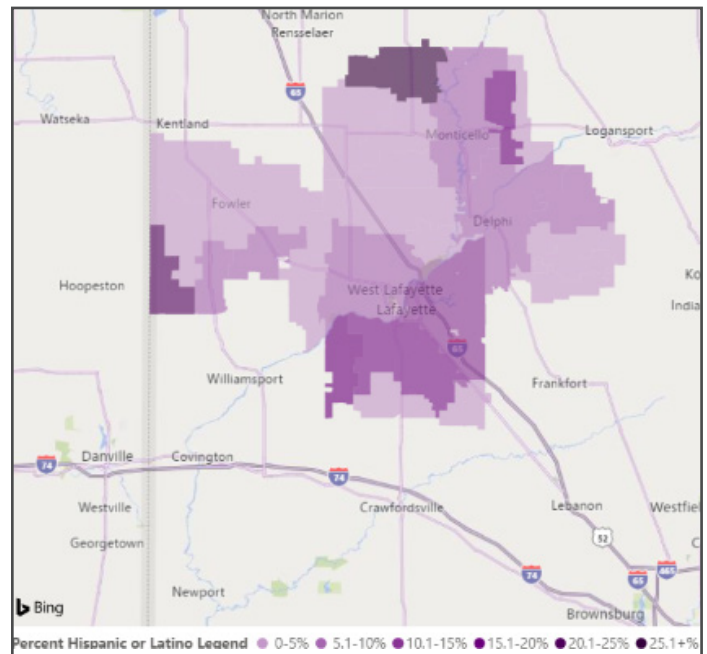
Description

Exhibit 11 portrays locations where the percentages of the population that are Black were highest in 2019.

Observations

- ZIP codes 47990 and 47992, south of Lafayette, had the largest proportion of the population that was Black in 2019, each above 5 percent.

Exhibit 12: Percent of population – Hispanic (or Latino), 2019



Source: U.S. Census ACS 2019 5-year estimates and Power BI

Description

Exhibit 12 portrays locations in the community where the percentages of the population that are Hispanic (or Latino) were highest in 2019. The diversity of the community is important to recognize given the presence of health disparities and barriers to healthcare access experienced by different racial and ethnic groups.

Observations

- The proportion of residents that are Hispanic (or Latino) is highest in Benton County ZIP code 47917 at 20 to 25 percent and second highest in Tippecanoe County ZIP codes 47909 and 47992 at 10 to 15 percent.

Exhibit 13: Other socioeconomic indicators, 2015-2019

Measure	Population with a disability	Population 25+ without high school diploma	Population linguistically isolated
Benton County	18.5%	10.2%	1.0%
Carroll County	15.2%	11.6%	0.8%
Tippecanoe County	10.3%	8.4%	6.3%
White County	16.6%	11.2%	3.2%
Indiana	13.7%	11.8%	3.1%
United States	12.6%	12.0%	8.2%

Source: U.S. Census, ACS 5-year estimates, 2020

Description

Exhibit 13 portrays the percent of the population with a disability, aged 25 years and above without a high school diploma and linguistically isolated.

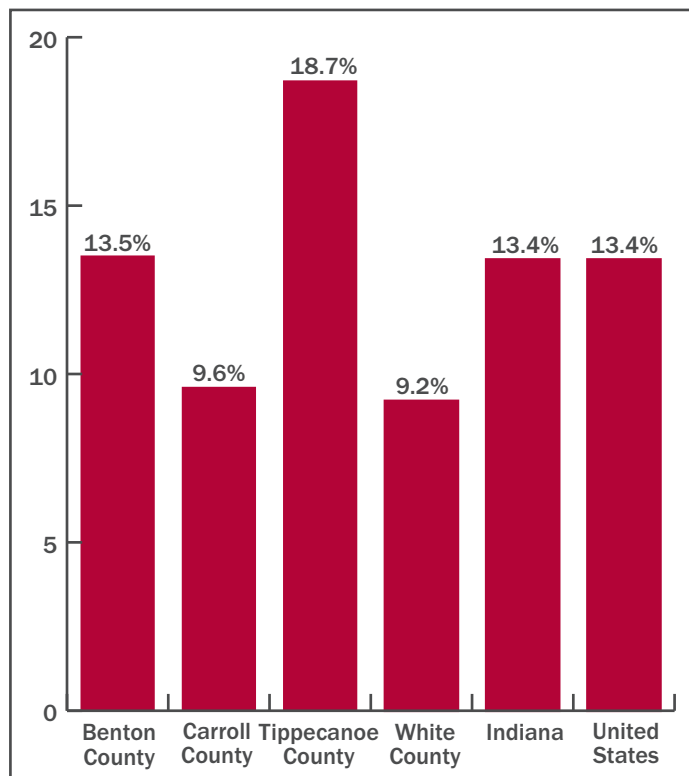
Observations

- Benton, Carroll and White counties had a higher percentage of the population with a disability compared to Indiana and U.S. averages.
- All community counties had a lower percentage of residents aged 25 years and older without a high school diploma than Indiana and U.S. averages.
- Compared to Indiana, Tippecanoe County had a higher proportion of the population that is linguistically isolated. Linguistic isolation is defined as residents who speak a language other than English and speak English less than “very well.”

Economic indicators

People in poverty

Exhibit 14: Percent of people in poverty, 2015-2019



Source: U.S. Census, ACS 5-year estimates, 2020

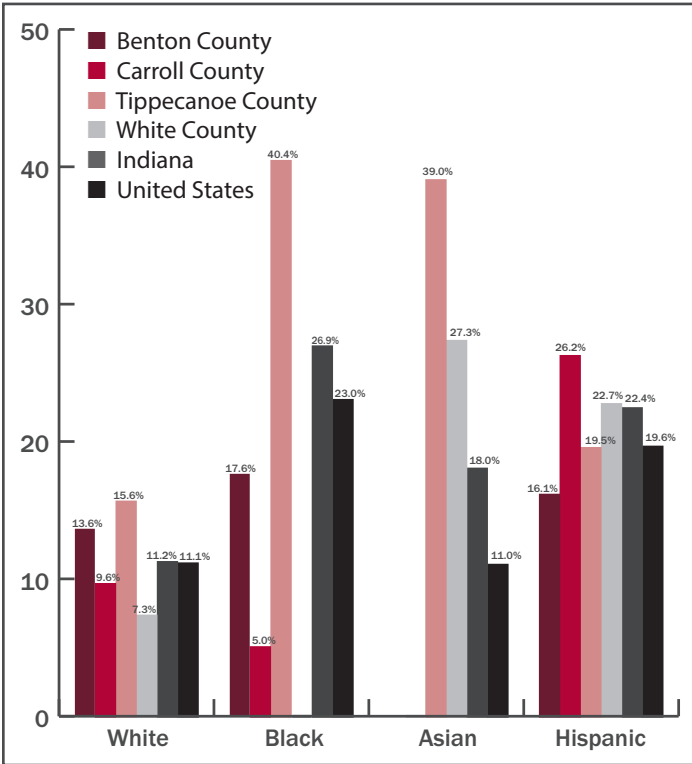
Description

Exhibit 14 portrays poverty rates for Benton, Carroll, Tippecanoe and White counties in addition to Indiana and the U.S.

Observations

- The poverty rates in Carroll and White counties were well below the Indiana and U.S. averages in 2015-2019.
- The poverty rate in Tippecanoe County was well above Indiana and national averages from 2015-2019.

Exhibit 15: Poverty rates by race and ethnicity, 2015-2019



Source: U.S. Census, ACS 5-year estimates, 2020

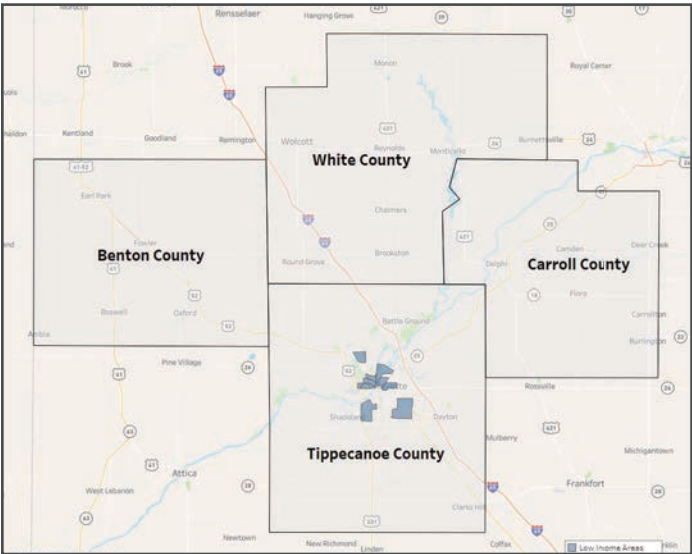
Description

Exhibit 15 portrays poverty rates in Benton, Carroll, Tippecanoe and White counties, Indiana and the U.S. by race and ethnicity.

Observations

- Poverty rates in Tippecanoe County have been higher than national averages for White, Black and Asian populations.
- No data was available for the Black race in White County and the Asian race in Benton and Carroll counties.

Exhibit 16: Low-Income census tracts, 2021



Source: U.S. Department of Housing and Urban Development (HUD), Qualified Census Tracts, 2021

Description

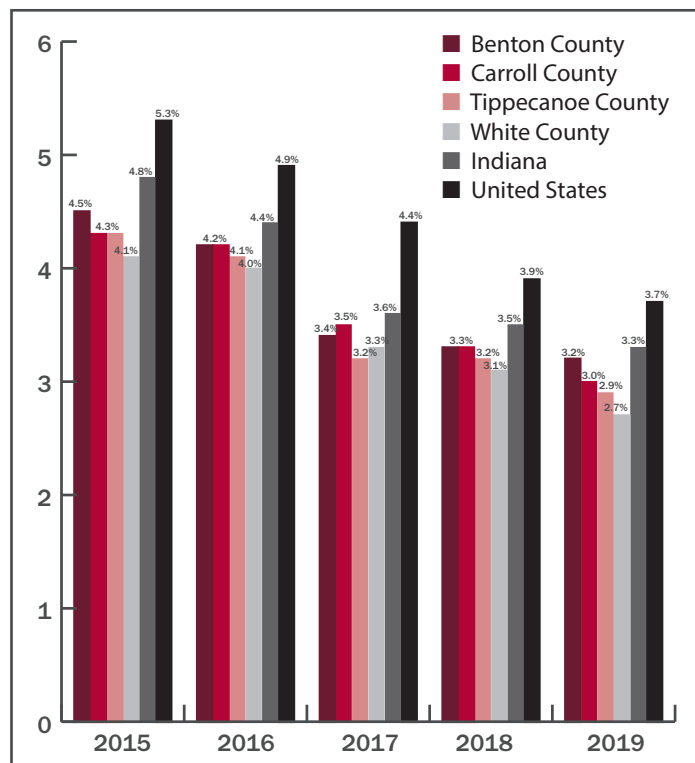
Exhibit 16 portrays the location of federally designated low-income census tracts.

Observations

- Low-income census tracts have been prevalent in areas surrounding the hospital.

Unemployment

Exhibit 17: Unemployment rates, 2015-2019



Source: U.S. Bureau of Labor Statistics, 2020

Description

Exhibit 17 shows unemployment rates for 2015 through 2019 for Benton, Carroll and Tippecanoe counties, with Indiana and national rates for comparison.

Observations

- Between 2015 and 2019, unemployment rates at the local, state and national levels declined significantly.
- Unemployment rates in Benton, Carroll, Tippecanoe and White counties were below Indiana and U.S. averages for the time period.

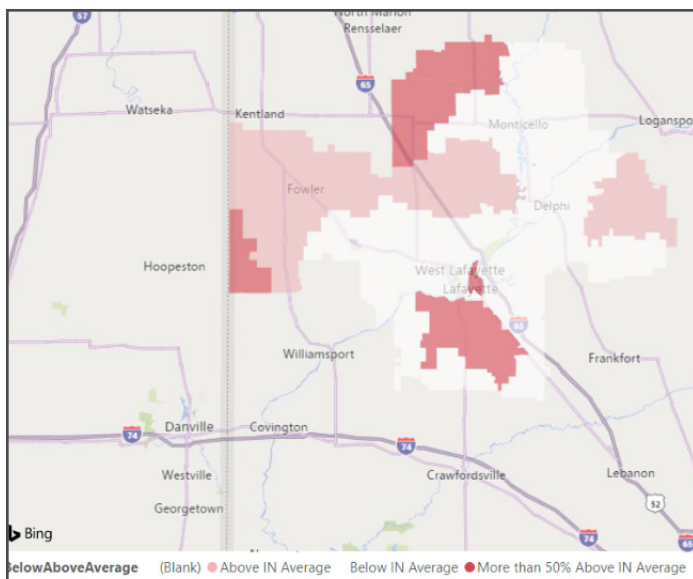
Insurance status

Exhibit 18A: Percent of the population without health insurance, 2019

County	Population	Population uninsured	Percent uninsured
Benton County	7,036	723	10.3%
Carroll County	16,101	1,651	10.3%
Tippecanoe County	155,607	14,873	9.6%
White County	19,053	2,201	11.6%
Indiana	5,474,844	532,695	9.7%
United States	319,706,872	28,248,613	8.8%

Source: U.S. Census, Small Area Health Insurance Estimates (SAHIE), 2019

Exhibit 18B: Percent of the population without health insurance, 2019



Source: U.S. Census, Small Area Health Insurance Estimates (SAHIE), 2019

Description

Exhibit 18A presents the estimated percent of people uninsured by county in 2019. Exhibit 18B maps the 2019 uninsured rates by ZIP code.

Observations

- The percent of population without health insurance in Benton, Carroll and White counties is above both state and national averages.
- In 2019, uninsurance rates were 50 percent or higher than the Indiana rates in Benton County ZIP code 47917, Tippecanoe County Zip codes 47992 and 47909 and White County ZIP codes 47995 and 47959.
- Subsequent to the Affordable Care Act's passage, a June 2012 Supreme Court ruling provided states with discretion regarding whether or not to expand Medicaid eligibility. Indiana was one of the states that expanded Medicaid. Across the U.S., uninsured rates have fallen in most states that decided to expand Medicaid.⁷

⁷ Assistant Secretary from Planning and Evaluation, Office of Health Policy. Issue Brief No. HP-2021-13. Health Coverage Under the Affordable Care Act: Enrollment Trends and State Estimates. Retrieved from: https://aspe.hhs.gov/sites/default/files/migrated_legacy_files/200776/ASPE%20Issue%20Brief-ACA-Related%20Coverage%20by%20State.pdf.

Crime

Exhibit 19: Crime rates by type and jurisdiction, per 100,000, 2019

Indicator	Tippecanoe County	White County	Indiana
Aggravated assault	153.4	50.4	499.5
Arson	5.1	4.2	10.8
Burglary	280.7	84.0	664.2
Homicide	3.1	–	10.6
Larceny	1,274.3	105.0	2,992.9
Motor vehicle theft	104.3	21.0	423.7
Property Crime	1,659.4	210.0	4,080.9
Rape	28.1	–	79.4
Robbery	32.7	–	160.8
Violent crime	217.3	50.4	750.2

Source: Federal Bureau of Investigation, 2020

Description

Exhibit 19 provides crime statistics. No data were available from the Federal Bureau of Investigation for Benton and Carroll counties.

Observations

- Crime rates in Tippecanoe and White counties were well below Indiana averages.

Local health status and access indicators

Exhibit 20: County Health Rankings, 2019

Measure	Benton County	Carroll County	Tippecanoe County	White County
Health outcomes	7	17	24	26
Health factors	31	18	17	24
Length of life	6	17	15	24
Premature death	6	17	15	24
Quality of life	10	21	40	29
Poor or fair health	57	33	47	32
Poor physical health days	43	24	51	21
Poor mental health days	53	16	48	10
Low birthweight	1	27	29	49
Health behaviors	40	14	8	17
Adult smoking	64	19	9	10
Adult obesity	33	12	8	38
Food environment index	17	7	76	12
Physical inactivity	50	61	8	75
Access to exercise opportunities	56	65	17	46
Excessive drinking	48	32	54	19
Alcohol-impaired driving deaths	1	22	80	31
Sexually transmitted infections	15	33	88	43
Teen births	40	13	8	73
Clinical care	46	55	21	43
Uninsured	5	61	87	39
Primary care physicians	N/A	80	8	57
Dentists	32	44	30	63
Mental health providers	73	45	19	64
Preventable hospital stays	23	26	17	19
Mammography screening	62	71	51	15
Social and economic factors	36	27	45	42
High school graduation	22	35	84	80
Some college	43	64	5	30
Unemployment	40	41	30	34
Children in poverty	46	16	39	40
Income inequality	29	43	90	11
Children in single-parent households	16	7	49	20
Social associations	36	42	76	48
Violent crime	N/A	N/A	45	13
Injury deaths	43	32	5	51
Physical environment	5	16	8	19
Air pollution	7	38	4	42
Severe housing problems	48	6	90	18
Driving alone to work	7	30	3	23
Long commute – driving alone	76	79	1	50

Source: County Health Rankings, 2019

Description

Exhibit 20 presents *County Health Rankings*, a University of Wisconsin Population Health Institute initiative funded by the Robert Wood Johnson Foundation, which incorporates a variety of health status indicators into a system that ranks each county/city within each state in terms of “health factors” and “health outcomes.” Health factors consists of summary composites that are grouped into the following categories: health behaviors, clinical care, social and economic factors and physical environment. Health outcomes consist of summary composites that are grouped by the categories of length of life and quality of life.⁸ *County Health Rankings* are updated annually. *County Health Rankings 2019* relies on data from 2007 to 2019.

The exhibit presents 2019 rankings for each available indicator category. Rankings indicate how the county ranked among all 92 counties in Indiana, with one indicating the highest (most favorable) ranking and 92 the lowest (least favorable).

Light grey shading indicates rankings in the bottom half of Indiana counties; dark grey shading indicates rankings in the bottom quartile of Indiana counties.

Observations

- In 2019, Benton County ranked in the bottom half of Indiana counties for 10 of the 41 indicators assessed. Of those, two were in the bottom quartile: mental health providers and long commute – driving alone.
- Carroll County had eight out of 41 indicators ranked in the bottom half of Indiana counties. Of those, three were in the bottom quartile: primary care physicians, mammography screening and long commute – driving alone.
- Tippecanoe County had 14 out of 41 indicators ranked in the bottom half of Indiana counties. Of those, eight were in the bottom quartile: food index environment, alcohol-impaired driving deaths, sexually transmitted infections, uninsured, high school graduation, income inequality, social associations and severe housing problems.
- White County had nine out of 41 indicators ranked in the bottom half of Indiana counties. Of those, two were in the bottom quartile: teen births and high school graduation.

⁸ *County Health Rankings and Roadmaps. (2021). County Health Rankings Model. Retrieved from: <https://www.county-healthrankings.org/explore-health-rankings/measures-data-sources/county-health-rankings-model>*

Exhibit 21: County Health Rankings data compared to Indiana and U.S. averages, 2019

Indicator category	Indicator	Benton County	Carroll County	Tippecanoe County	White County	Indiana	U.S.
Health Outcomes							
Length of life	Years of potential life lost before age 75 per 100,000 population (age-adjusted)	6,087.5	6,725.7	6,514.3	7,505.6	8,237.5	6900.0
Quality of life	Percentage of adults reporting fair or poor health (age-adjusted)	17.0	15.9	16.6	15.8	17.7	16.0
Quality of life	Average number of physically unhealthy days reported in past 30 days (age-adjusted)	3.8	3.7	3.9	3.7	3.9	3.7
Quality of life	Average number of mentally unhealthy days reported in past 30 days (age-adjusted)	4.1	3.8	4.1	3.8	4.3	3.8
Quality of life	Percentage of live births with low birthweight (<2500 grams)	5.2	7.1	7.1	7.6	8.1	8.0
Health factors							
Health behaviors							
Adult smoking	Percentage of adults who are current smokers	20.7	18.2	17.3	17.5	21.1	17.0
Adult obesity	Percentage of adults that report a BMI of 30 or more	32.7	30.7	29.9	33.3	32.8	29.0
Food environment index	Index of factors that contribute to a healthy food environment, 0 (worst) to 10 (best)	8.5	8.7	7.3	8.6	7.1	7.7
Physical inactivity	Percentage of adults age 20 and over reporting no leisure-time physical activity	27.5	28.5	21.2	30.2	25.1	22.0
Access to exercise opportunities	Percentage of population with adequate access to locations for physical activity	58.0	53.1	77.1	64.8	75.2	84.0
Excessive drinking	Percentage of adults reporting binge or heavy drinking	17.5	17.1	17.6	16.7	18.6	18.0
Alcohol-impaired driving deaths	Percentage of driving deaths with alcohol involvement	N/A	16.0	20.3	15.2	20.8	29.0
Sexually transmitted infections	Number of newly diagnosed chlamydia cases per 100,000 population	368.6	342.5	536.5	345.8	466.0	497.3
Teen births	Number of births per 1,000 female population ages 15-19	29.5	21.8	18.1	37.5	28.4	25.0
Clinical care							
Uninsured	Percentage of population under age 65 without health insurance	11.7	10.0	10.6	11.6	9.5	10.0
Primary care physicians	Ratio of population to primary care physicians	N/A	6,657:1	1,436:1	2,667:1	1,495:1	1,330:1
Dentists	Ratio of population to dentists	2,153:1	2,505:1	2,141:1	3,455:1	1,810:1	1,460:1
Mental health providers	Ratio of population to mental health providers	2,871:1	1,431:1	744:1	2,418:1	669:1	440:1
Preventable hospital stays	Number of hospital stays for ambulatory-care sensitive conditions per 1,000 Medicare enrollees	3,943.0	4,035.0	3,883.0	3,889.0	5,023.0	4520.0
Mammography screening	Percentage of female Medicare enrollees ages 67-69 that receive mammography screening	37.0	35.0	38.0	44.0	40.0	41.0
Flu vaccinations	Percentage of Medicare enrollees who receive an influenza vaccination	52.0	49.0	53.0	49.0	47.0	45.0

Exhibit 21: County Health Rankings data compared to Indiana and U.S. averages, 2019 (continued)

Indicator category	Indicator	Benton County	Carroll County	Tippecanoe County	White County	Indiana	U.S.
Social and economic factors							
High school graduation	Percentage of ninth-grade cohort that graduates in four years	94.2	92.9	84.7	85.5	83.8	85.0
Some college	Percentage of adults ages 25-44 with some post-secondary education	56.3	51.4	72.4	58.8	62.4	65.0
Unemployment	Percentage of population ages 16 and older unemployed but seeking work	3.4	3.4	3.2	3.3	3.5	4.4
Children in poverty	Percentage of children under age 18 in poverty	17.0	13.0	16.0	16.3	17.8	18.0
Income inequality	Ratio of household income at the 80th percentile to income at the 20th percentile	3.8	3.9	5.1	3.5	4.4	4.9
Children in single-parent households	Percentage of children that live in a household headed by single parent	24.0	19.8	31.1	25.1	33.6	33.0
Social associations	Number of membership associations per 10,000 population	15.0	14.5	10.3	13.8	12.3	9.0
Violent crime	Number of reported violent crime offenses per 100,000 population	N/A	N/A	243.3	61.7	385.1	386.0
Injury deaths	Number of deaths due to injury per 100,000 population	76.0	70.1	52.9	80.7	74.1	67.0
Physical environment							
Air pollution	Average daily density of fine particulate matter in micrograms per cubic meter (PM2.5)	11.0	11.6	10.9	11.7	11.8	8.6
Severe housing problems	Percentage of households with at least 1 of 4 housing problems: overcrowding, high housing costs, or lack of kitchen or plumbing facilities	11.8	8.5	18.9	9.9	13.7	18.0
Driving alone to work	Percentage of the workforce that drives alone to work	78.0	82.0	74.0	82.0	83.0	76.0
Long commute – driving alone	Among workers who commute in their car alone, the percentage that commute more than 30 minutes	43.0	46.0	14.0	34.3	30.7	35.0

Source: County Health Rankings, 2019

Description

Exhibit 21 provides data for each underlying indicator of the composite categories in the *County Health Rankings*.⁹ The exhibit also includes Indiana and national averages. Light grey shading highlights indicators found to be worse than the Indiana average; dark grey shading highlights indicators more than 50 percent worse than the Indiana average.

Observations

- The following indicators (presented alphabetically) compared particularly unfavorably across the four counties in the community:
 - Percentage of population under age 65 without health insurance
 - Ratio of population to dentists
 - Ratio of population to mental health providers

⁹ County Health Rankings provides details about what each indicator measures, how it is defined and data source at <https://www.countyhealthrankings.org/explore-health-rankings/measures-data-sources/county-health-rankings-model>

Exhibit 22: Selected causes of death, age-adjusted rates per 100,000 population, 2019

Indicator	Benton County	Carroll County	Tippecanoe County	White County	Indiana
Major cardiovascular diseases	226.9	145.3	178.9	257.5	237.5
Diseases of heart	180.3	101.3	138.1	210.0	178.7
Cancer	146.5	163.2	138.0	186.3	163.3
Other diseases of circulatory system	<10	<10	<10	<10	80.7
Other diseases of heart	<10	34.2	70.2	<10	72.6
Chronic lower respiratory diseases	<10	35.0	49.2	52.8	56.1
All other and unspecified accidents and adverse effects	<10	<10	41.5	34.3	45.3
Cerebrovascular diseases (stroke)	<10	<10	<10	<10	41.5
Alzheimer's disease	<10	<10	24.6	<10	31.7
Diabetes mellitus	<10	<10	25.8	<10	25.0
Nephritis, nephrotic syndromes and nephrosis (kidney disease)	<10	<10	18.4	<10	17.1
Intention self-harm (suicide)	<10	<10	<10	<10	14.1
Influenza and pneumonia	<10	<10	8.2	<10	11.6
Motor vehicle accidents	<10	<10	6.7	<10	12.6
Chronic liver disease and cirrhosis	<10	<10	9.0	<10	12.0
Hypertensive heart disease with or without renal disease	<10	<10	10.2	<10	13.1
Essential hypertension and hypertensive renal disease	<10	<10	8.0	<10	10.4
Assault (homicide)	<10	<10	<10	<10	7.2
Symptoms, signs, and abnormal clinical and laboratory findings, not elsewhere classified (excluding SIDS)	<10	<10	<10	<10	6.0
Certain conditions originating in the perinatal period	<10	<10	<10	<10	3.6
Congenital malformations, deformations and chromosomal abnormalities	<10	<10	<10	<10	4.0
All other external causes	<10	<10	<10	<10	2.4
Atherosclerosis	<10	<10	<10	<10	2.3
Pregnancy, childbirth and the puerperium	<10	<10	<10	<10	0.9
Sudden infant death syndrome (SIDS)	<10	<10	<10	<10	0.7
Peptic ulcer	<10	<10	<10	<10	0.7

Source: Indiana Department of Health, 2019

Description

Exhibit 22 provides age-adjusted mortality rates for selected causes of death in 2019. Light grey shading highlights indicators worse than the Indiana average. The IDOH does not provide rates when total deaths for that particular cause of death is <10 in that county.

Observations

- Selected causes of death for Benton County exceeded the state average for diseases of heart and major cardiovascular diseases.

- Selected causes of death for Carroll County did not exceed the state average for any indicators.
- Selected causes of death for Tippecanoe County exceeded the state average for diabetes mellitus and nephritis, nephrotic syndromes and nephrosis (kidney disease).
- Selected causes of death for White County exceeded the state average for cancer, diseases of heart and major cardiovascular diseases.

Exhibit 23: Age-adjusted cancer mortality rates per 100,000 population, 2019

Indicator	Benton County	Carroll County	Tippecanoe County	White County	Indiana
All cancers	146.5	163.2	138.0	186.3	163.3
Breast	<10	<10	<10	<10	10.6
Cervix uteri, corpus uteri and ovary	<10	<10	8.0	<10	7.0
Colon, rectum and anus	<10	<10	13.5	<10	15.0
Leukemia	<10	13.1	11.3	15.2	14.5
Non-Hodgkin's lymphoma	<10	21.4	16.2	20.5	18.3
Other forms of cancer	<10	48.4	37.5	71.2	51.5
Pancreas	<10	<10	11.4	<10	11.8
Prostate	<10	<10	<10	<10	7.9
Stomach	<10	<10	<10	<10	2.4
Trachea, bronchus and lung	<10	<10	38.5	48.7	42.9
Urinary tract	<10	<10	7.3	<10	8.5

Source: Indiana Department of Health, 2019

Description

Exhibit 23 provides age-adjusted mortality rates for selected forms of cancer in 2019. Light grey shading highlights indicators worse than the Indiana average. The IDOH does not provide rates when total cases of that particular type of cancer are <10 in that county.

Observations

- Cancer mortality rates in Carroll County for Non-Hodgkin's lymphoma were higher than the Indiana averages.
- Cancer mortality rates in Tippecanoe County for cervix uteri, corpus uteri and ovary were higher than the Indiana averages.
- Cancer mortality rates in White County for all cancers, leukemia, Non-Hodgkin's lymphoma, other forms of cancer, and trachea, bronchus and lung were higher than the Indiana averages.

Exhibit 24: Age-adjusted cancer incidence rates per 100,000 population, 2013-2017

Indicator	Benton County	Carroll County	Tippecanoe County	White County	Indiana
All cancers	485.9	472.3	417.8	467.6	459.3
Bladder	<10	18.4	20.8	24.3	21.7
Brain and ONS	<10	<10	5.3	<10	6.5
Breast	122.2	95.4	115.6	122.2	122.9
Cervix	<10	<10	7.6	<10	8.2
Childhood (ages <15)	<10	<10	11.6	<10	16.2
Colon and rectum	50.2	52.4	45.5	46.1	42.6
Esophagus	<10	<10	4.6	<10	5.5
Kidney and renal pelvis	<10	17.8	15.7	16.9	19.0
Leukemia	<10	13.1	11.3	15.2	13.7
Liver and bile duct	<10	<10	5.6	<10	7.2
Lung and bronchus	73.3	75.6	60.7	66.8	72.2
Melanoma of the skin	<10	17.1	20.0	19.0	21.7
Non-Hodgkin's lymphoma	<10	21.4	16.2	20.5	18.6
Oral cavity and pharynx	<10	13.0	9.4	20.3	12.7
Ovary	<10	<10	11.6	<10	10.4
Pancreas	<10	14.8	14.6	13.3	13.3
Prostate	124.3	93.9	81.2	70.0	94.2
Stomach	<10	<10	6.5	<10	5.9
Thyroid	<10	<10	14.4	20.3	12.5
Uterus	<10	38.5	26.1	36.1	28.2

Source: Centers for Disease Control and Prevention, 2017

Description

Exhibit 24 presents age-adjusted cancer incidence rates in the community. Light grey shading highlights indicators worse than the Indiana average. The CDC does not provide rates when total cases of that particular type of cancer are <10 in that county.

Observations

- Cancer incidence rates in Benton County for all cancers, colon and rectum, lung and bronchus, and prostate were higher than the Indiana averages.

- Cancer incidence rates in Carroll County for all cancers, colon and rectum, lung and bronchus, Non-Hodgkin's lymphoma, oral cavity and pharynx, pancreas, and uterus were higher than the Indiana averages.
- Cancer incidence rates in Tippecanoe County for colon and rectum, ovary, pancreas, stomach, and thyroid were higher than the Indiana averages.
- Cancer incidence rates in White County for all cancers, bladder, colon and rectum, leukemia, Non-Hodgkin's lymphoma, oral cavity and pharynx, thyroid and uterus were higher than the Indiana averages.

Exhibit 25: Communicable disease incidence rates per 100,000 population, 2019

Indicator	Benton County	Carroll County	Tippecanoe County	White County	Indiana
Chlamydia	308.6	286.3	560.5	344.4	526.3
Gonorrhea	<5	54.3	164.0	74.7	177.1
HIV/AIDS	69.3	39.7	96.9	82.9	189.9
Primary and secondary syphilis	<5	<5	8.2	<5	5.0

Source: Indiana Department of Health, 2019

Description

Exhibit 25 presents incidence rates for various communicable diseases. Light grey shading highlights indicators worse than Indiana averages.

Observations

- Benton, Carroll and White counties had lower communicable disease rates than the Indiana averages in 2019.
- The chlamydia rate in Tippecanoe County was worse than the Indiana average.

Exhibit 26: Maternal and child health indicators, 2019

Indicator	Benton County	Carroll County	Tippecanoe County	White County	Indiana
Breastfeeding	76.1%	81.1%	82.0%	79.4%	82.0%
Infant mortality rate (per 1,000 live births)	0.0	0.0	0.0	0.0	6.5
Low birthweight	8.3%	6.1%	7.8%	7.4%	8.2%
Mothers on Medicaid	40.4%	28.8%	35.9%	39.9%	38.5%
Mothers under 19 (per 1,000 mothers)	24.0	24.5	11.5	22.3	20.7
Prenatal care	68.8%	77.8%	75.9%	76.5%	68.9%
Preterm births	11.0%	11.8%	10.1%	12.2%	10.1%
Smoked during pregnancy	24.8%	10.8%	11.3%	15.4%	11.8%
Unmarried mothers	45.0%	33.5%	40.6%	44.7%	44.5%

Source: Indiana Department of Health, 2019

Description

Exhibit 26 presents various maternal and infant health indicators. Light grey shading highlights indicators worse than the Indiana average; dark grey shading highlights indicators more than 50 percent worse than the Indiana average. Values of 0.0 were listed for rates so low that they could not be reported by the IDOH.

Observations

- In Benton County, most of the maternal and infant health indicators were worse than the Indiana averages and the smoked during pregnancy percent was 50 percent worse than the Indiana averages.

- In Carroll County, only breastfeeding, mothers under 19 and preterm births percent were worse than the Indiana averages.
- In Tippecanoe County, all of the indicators were better than the Indiana averages.
- In White County, most of the maternal and infant health indicators were worse than the Indiana averages. Only low birthweight and prenatal care percent were better than Indiana averages.

Exhibit 27A: Behavioral Risk Factor Surveillance System, Indiana data by race/ethnicity, 2019

Indicator	Black	White	Hispanic	Indiana
Angina or coronary heart disease	3.8%	4.9%	1.6%	4.6%
Asthma	17.6%	14.6%	8.9%	14.5%
Diabetes	17.9%	12.1%	9.0%	12.4%
No health coverage	10.8%	8.9%	33.1%	10.9%
No physical activity	33.9%	30.3%	38.0%	30.9%
Obese (based on BMI)	43.5%	33.3%	29.3%	33.6%
Smoke everyday	36.8%	31.9%	20.7%	31.9%
Smoke some days	17.4%	10.0%	29.7%	11.5%

Source: Behavioral Risk Factor Surveillance System and Centers for Disease Control and Prevention, 2019

Exhibit 27B: Behavioral Risk Factor Surveillance System, Indiana data by income and education level, 2019

Indicator	< \$15,000	\$15-\$24,999	\$25-\$34,999	\$35-\$49,999	\$50-\$74,999	≥ \$75,000	No High School Diploma	Indiana
Angina or coronary heart disease	6.0%	7.1%	6.5%	4.7%	3.7%	2.3%	7.1%	4.6%
Asthma	19.8%	18.3%	16.9%	14.4%	14.6%	11.7%	16.8%	14.5%
Diabetes	18.7%	20.0%	13.4%	11.1%	10.3%	7.8%	16.1%	12.4%
No health coverage	19.0%	18.1%	13.6%	11.1%	8.0%	4.5%	22.8%	10.9%
No physical activity	46.2%	44.4%	35.1%	31.6%	25.0%	19.4%	47.6%	30.9%
Obese (based on BMI)	39.8%	36.7%	35.4%	34.3%	34.3%	28.6%	33.9%	33.6%
Smoke everyday	44.0%	40.8%	34.4%	32.2%	29.6%	22.2%	43.5%	31.9%
Smoke some days	17.1%	15.3%	9.5%	12.9%	9.2%	6.4%	14.0%	11.5%

Source: Behavioral Risk Factor Surveillance System and Centers for Disease Control and Prevention, 2019

Description

The Centers for Disease Control and Prevention's (CDC) Behavioral Risk Factor Surveillance System (BRFSS) gathers data through a telephone survey regarding health measures. Data is collected for the entire United States. Analysis of BRFSS data can identify localized health issues, trends, health disparities and can enable county, state or nation-wide comparisons.

Exhibits 27A and 27B depict BRFSS data for the state of Indiana by race/ethnicity, income level and for those without a high school diploma. Light grey shading highlights indicators worse than the Indiana average; dark grey shading highlights indicators more than 50 percent worse than the Indiana average.

Observations

- The BRFSS data indicate that on all but one measure presented, risk factors were higher for Black residents of Indiana than for White residents (and for lower-income residents than those with higher incomes). Hispanic (or Latino) residents have experienced higher uninsured, physical inactivity and occasional smoking rates.
- BRFSS indicators for residents without a high school diploma were worse than average when compared to Indiana for all indicators presented in this exhibit. Additionally, those with lower income levels compare unfavorably to those with higher income levels for all indicators.

Ambulatory Care Sensitive Conditions or Preventative Quality Indicators

Exhibit 28: PQIs (ACSCs) rates per 100,000, 2019

Indicator	Benton	Carroll	Tippecanoe	White	Arnett community	Indiana	U.S.
Diabetes short-term complications	91.5	31.7	49.5	48.6	49.1	90.3	58.3
Diabetes long-term complications	30.5	152.0	59.2	81.1	70.1	116.6	104.1
COPD or asthma in older adults	522.3	294.8	386.4	290.1	338.2	467.9	493.8
Hypertension	30.5	25.3	29.0	27.0	28.0	56.7	60.0
Heart failure	487.9	240.7	241.3	210.8	226.1	455.7	413.0
Community acquired pneumonia	366.0	253.3	195.0	189.2	192.1	248.3	158.8
Urinary tract infection	106.8	31.7	81.7	59.5	70.6	149.1	141.3
Uncontrolled diabetes	76.3	19.0	17.4	37.8	27.6	39.2	43.0
Asthma in younger adults	46.4	-	8.2	-	4.1	27.2	30.3
Lower extremity amputation with diabetes	45.8	25.3	14.8	16.2	15.5	30.2	29.3
Prevention overall composite	1,569.9	962.6	857.8	859.4	858.6	1,465.9	1,306.3
Prevention acute composite	472.8	285.0	276.7	248.6	262.7	397.4	300.1
Prevention chronic composite	1,097.4	677.6	581.1	610.8	595.9	1,068.7	1,006.4
Prevention diabetes composite	213.5	209.0	131.9	173.0	152.4	257.4	218.8

Source: IU Health, 2019 – Note: Rates are not age-sex adjusted

Description

Exhibit 28 provides 2019 ACSC (PQI) rates (per 100,000 persons) for ZIP codes in the IU Health Arnett community compared to Indiana and U.S. averages. Light grey shading highlights indicators worse than Indiana averages; dark grey shading highlights indicators more than 50 percent worse than Indiana averages.

ACSCs are health “conditions for which good outpatient care can potentially prevent the need for hospitalization or for which early intervention can prevent complications or more severe disease.”¹⁰ As such, rates of hospitalization for these conditions can “provide insight into the quality of the health care system outside of the hospital,” including the accessibility and utilization of primary care, preventative care, and health education. Among these conditions are: asthma, diabetes, chronic obstructive pulmonary disease (COPD), hypertension, congestive heart failure, urinary tract infection, and prevention overall, acute and chronic composites.

Disproportionately high rates of discharge for ACSC indicate potential problems with the availability or accessibility of ambulatory care and preventative services and can suggest areas for improvement in the health care system and ways to improve outcomes.

Observations

- For Benton County, the rates of admissions for ACSC exceeded Indiana averages for 10 of 14 conditions: diabetes short term, COPD or asthma in older adults, heart failure, community acquired pneumonia, lower extremity amputation, prevention overall, prevention acute and prevention chronic.
- For Carroll County, the rates of admissions for ACSC exceeded Indiana averages for 2 of 14 conditions: diabetes long term and community acquired pneumonia.
- For Tippecanoe and White counties, the rates of admissions for ACSC were below the Indiana averages for all 14 conditions.

¹⁰ *Ibid*, 8.

Exhibit 29: Ratio of ACSC rates for IU Health Arnett community and Indiana, 2019

Indicator	Arnett community	Indiana	Ratio: Arnett/Indiana
Community acquired pneumonia	250.9	248.3	1.0
Uncontrolled diabetes	37.6	39.2	1.0
COPD or asthma in older adults	373.4	467.9	0.8
Lower extremity amputation with diabetes	25.5	30.2	0.8
Prevention acute composite	320.8	397.4	0.8
Diabetes long-term complications	80.7	116.6	0.7
Prevention overall composite	1,062.4	1,465.9	0.7
Prevention chronic composite	741.7	1,068.7	0.7
Prevention diabetes composite	181.8	257.4	0.7
Diabetes short-term complications	55.3	90.3	0.6
Heart failure	295.2	455.7	0.6
Hypertension	28.0	56.7	0.5
Urinary tract infection	69.9	149.1	0.5
Asthma in younger adults	13.7	27.2	0.5

Source: IU Health, 2019 – Note: Rates are not age-sex adjusted

Description

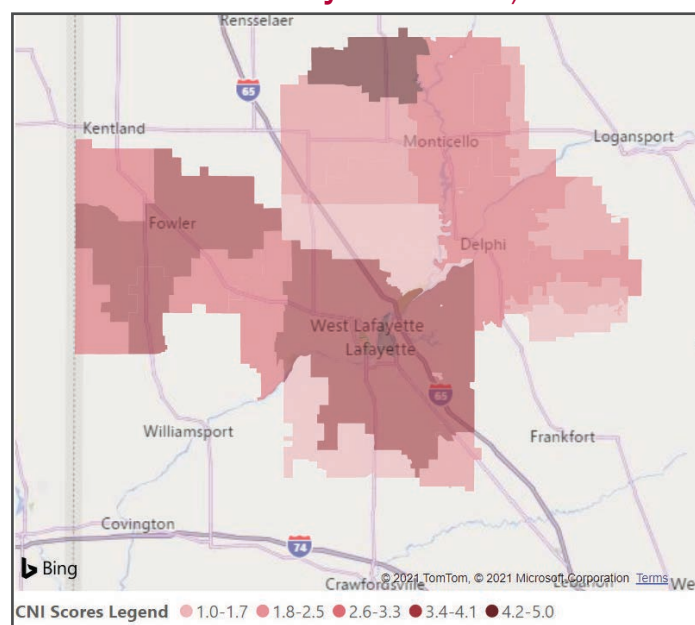
Exhibit 29 provides the ratio of Ambulatory Care Sensitive Conditions (ACSC) also referred to as Preventative Quality Indicators (PQI) rates in the IU Health Arnett community compared to Indiana averages. Conditions where the ratios are highest (meaning that the PQI rates in the community are the most above average) are presented first.

Observations

- In the IU Health Arnett community, all ACSC rates were below the Indiana average.

Community Need Index, Food deserts and Social Vulnerability Index

Exhibit 30: Community Need Index, 2020



Source: Power BI and Dignity Health, 2020

Description

Exhibit 30 presents the *Community Need Index™* (CNI) score for each ZIP code in the community. Higher scores (e.g., 4.2 to 5.0) indicate higher levels of community need. The national median score is calibrated to 3.0

Dignity Health, a California-based hospital system, developed and published the CNI as a way to assess barriers to health care access. The index, available for every ZIP code in the United States, is derived from five social and economic indicators:

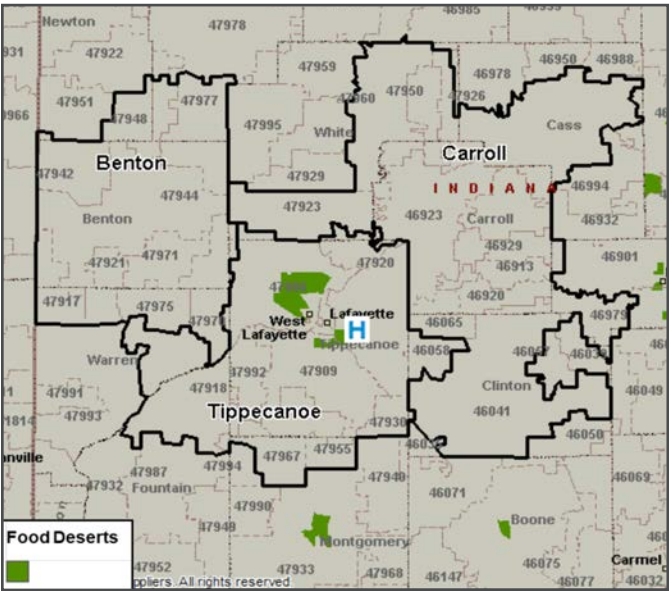
- The percentage of elders, children and single parents living in poverty;
- The percentage of adults over the age of 25 with limited English proficiency and the percentage of the population that is non-White;
- The percentage of the population without a high school diploma;
- The percentage of uninsured and unemployed residents; and
- The percentage of the population renting houses.

CNI scores are grouped into “Lowest Need” (1.0-1.7) to “Highest Need” (4.2-5.0) categories.

Observations

- Benton County scored a 3.1, Carroll County a 2.1, Tippecanoe County a 3.0 and White County scored a 2.4 on the CNI scale.
- Two Tippecanoe County ZIP codes (47901 and 47907) and one White County ZIP code (47959) scored in the “highest need” category.

Exhibit 31: Food deserts, 2017



Source: Microsoft MapPoint and U.S. Department of Agriculture, 2017

Description

Exhibit 31 shows the location of “food deserts” in the community.

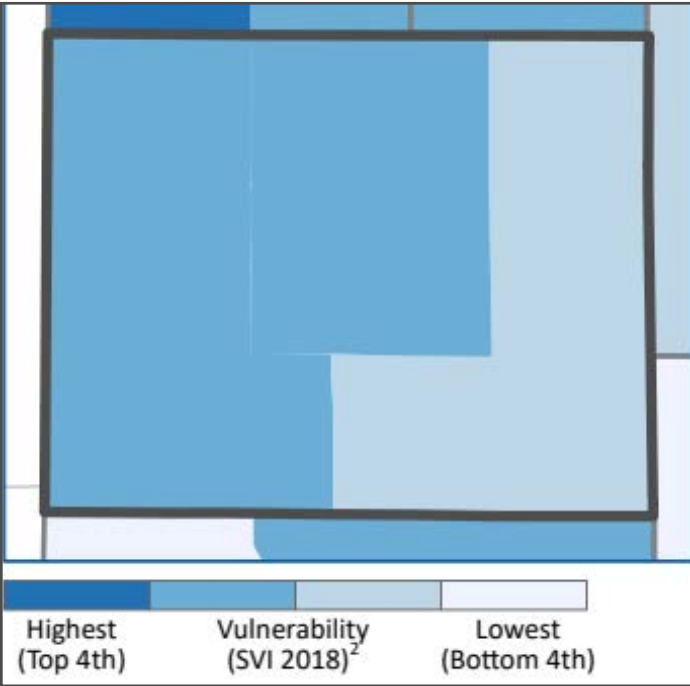
The U.S. Department of Agriculture’s Economic Research Service defines urban food deserts as low-income areas more than one mile from a supermarket or large grocery store and rural food deserts as more than 10 miles from a supermarket or large grocery store. Many government-led initiatives aim to increase the availability of nutritious and affordable foods to people living in these areas.

Observations

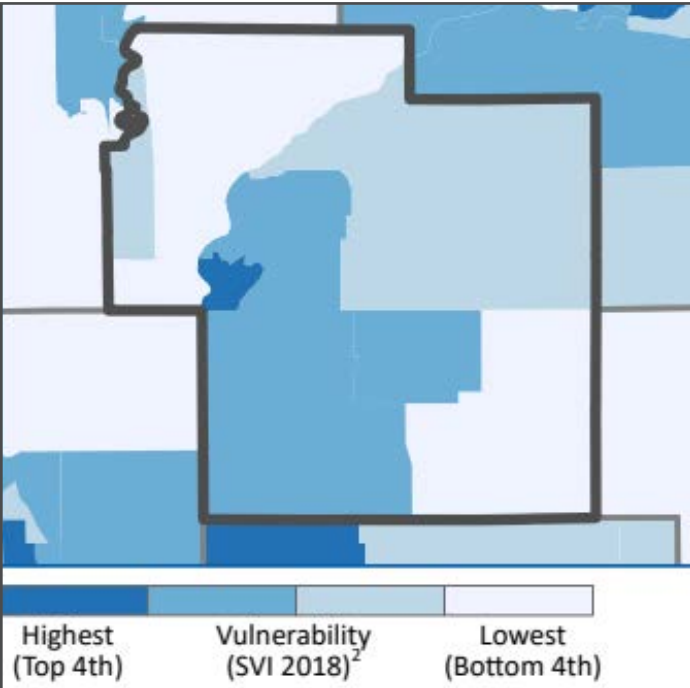
- Several census tracts in the IU Health Arnett community have been designated as food deserts, notably in census tracts close to the hospital.

Exhibit 32: Social Vulnerability Index, housing type and transportation theme, 2018

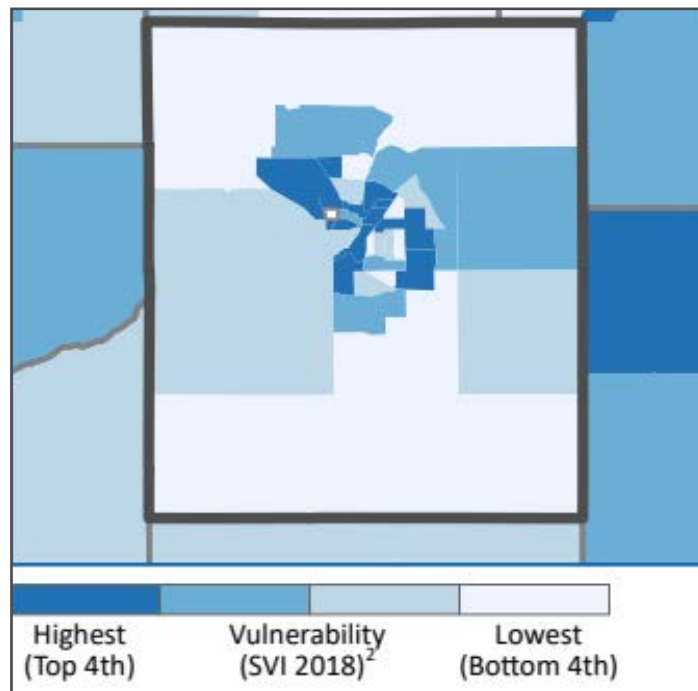
Benton County housing/transportation SVI map



Carroll County housing/transportation SVI map



Tippecanoe County housing/transportation SVI map



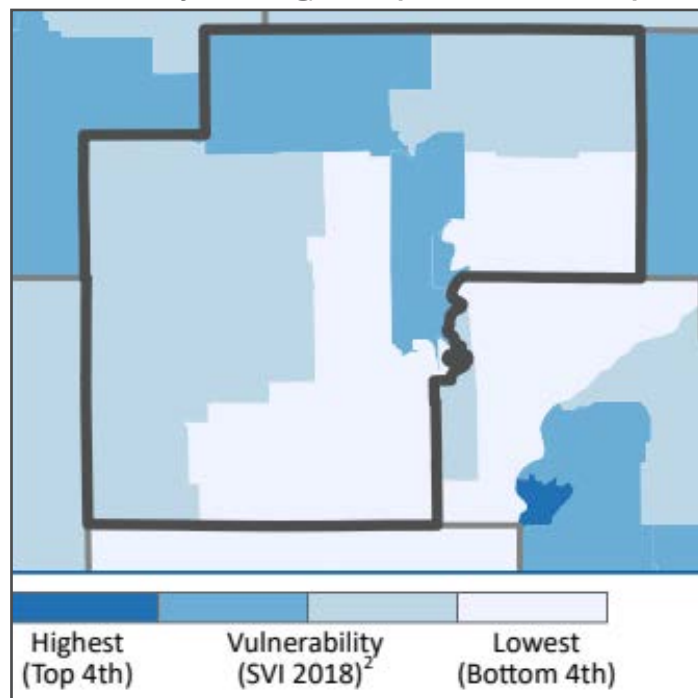
Description

Exhibit 32 portrays Social Vulnerability Index (SVI) scores (for the housing and transportation theme only) for census tracts throughout Benton, Carroll, Tippecanoe and White counties. The SVI is derived from U.S. census data. Variables are grouped into four themes, including: socioeconomic status, household composition, race/ethnicity/language and housing/transportation.¹¹ The maps in this exhibit display the housing and transportation theme of SVI for each county in the community.

Observations

- None of Benton County's census tracts ranked in the bottom quartile nationally.
- One (1) of Carroll County's 7 census tracts (14.3 percent) ranked in the bottom quartile nationally. That 1 census tract makes up 17.7 percent of the county's population.
- Fourteen (14) of Tippecanoe County's 37 census tracts (37.8 percent) ranked in the bottom quartile nationally. Those 14 census tracts make up 34.2 percent of the county's population.
- None of White County's census tracts ranked in the bottom quartile nationally.

White County housing/transportation SVI map



Source: Centers for Disease Control and Prevention, 2018

¹¹ Agency for Toxic Substances and Disease Registry. (Aug. 30, 2021). CDC/ATSDR SVI Fact Sheet. Retrieved from: https://www.atsdr.cdc.gov/placeandhealth/svi/fact_sheet/fact_sheet.html

Medically Underserved Areas and Populations

Exhibit 33: Medically Underserved Areas, 2021

County	Designated area	Medically underserved designation type
Carroll	Carroll County	Medically Underserved Area
Tippecanoe	Tippecanoe Service Area	Medically Underserved Area

Source: HRSA, 2021

Description

Exhibit 33 illustrates the location of Medically Underserved Areas (MUA) in the community.

Medically Underserved Areas and Populations (MUA/Ps) are designated by the Health Resources and Services Administration (HRSA) based on an "Index of Medical Underservice (IMU)." The index includes the following variables: ratio of primary medical care physicians per 1,000 population, infant mortality rate, percentage of the population with incomes below the poverty level, and percentage of the population age 65 or over.¹² Areas with a score of 62 or less are considered "medically underserved."

Populations receiving MUP designation include groups within a geographic area with economic barriers or cultural and/or linguistic access barriers to receiving primary care. If a population group does not qualify for MUP status based on the IMU score, Public Law 99-280 allows MUP designation if "unusual local conditions which are a barrier to access to or the availability of personal health services exist and are documented, and if such a designation is recommended by the chief executive officer and local officials of the state where the requested population resides."¹³

Observations

- While no specific census tracts have been designated medically underserved in the community, the entirety of Carroll and Tippecanoe counties were designated as Medically Underserved Areas.
- Benton and White counties have not been designated medically underserved.

Health Professional Shortage Areas

Exhibit 34A: Primary care Health Professional Shortage Areas, 2021

County	HPSA	Type
Benton	Benton County	HPSA Geographic
Carroll	Carroll County	HPSA Geographic
Tippecanoe	Low Income – Tippecanoe County	HPSA Population
Tippecanoe	Purdue University	Federally Qualified Health Center
Tippecanoe	Riggs Community Health Center, Inc.	Federally Qualified Health Center
White	White County	HPSA Geographic

Source: HRSA, 2021

Description

Exhibit 34A lists the locations of federally designated primary care Health Professional Shortage Areas (HPSA) .

A geographic area can receive a federal HPSA designation if a shortage of primary medical care, dental care or mental health care professionals is found to be present. In addition to areas and populations that can be designated as HPSAs, a healthcare facility can receive federal HPSA designation and an additional Medicare payment if it provides primary medical care services to an area or population group identified as having inadequate access to primary care, dental or mental health services. HPSAs can be: (1) An urban or rural area (which need not conform to the geographic boundaries of a political subdivision) and is a rational area for the delivery of health services; (2) a population group; or (3) a public or nonprofit private medical facility.¹⁴

Observations

- The populations of Benton, Carroll and White counties; the low-income population of Tippecanoe County; and two FQHCs have been designated as primary care HPSAs.

¹² Health Resources & Services Administration. (Feb. 2021). What is Shortage Designation? Retrieved from: <https://bhwa.hrsa.gov/workforce-shortage-areas/shortage-designation>

¹³ Ibid.

¹⁴ Ibid.

Exhibit 34B: Dental care Health Professional Shortage Areas, 2021

County	HPSA	Type
Benton	Low income – Benton County	HPSA population
Carroll	Low income – Carroll County	HPSA population
Tippecanoe	Low income – Tippecanoe County	HPSA population
Tippecanoe	Purdue University	Federally Qualified Health Center
Tippecanoe	Riggs Community Health Center, Inc.	Federally Qualified Health Center

Source: HRSA, 2021

Description

Exhibit 34B shows the locations of federally designated dental care HPSA areas.

Observations

- Low-income populations in Benton, Carroll and Tippecanoe counties have been designated as dental care HPSAs, as well as several health centers.

Exhibit 34C: Mental health care Health Professional Shortage Areas, 2021

County	HPSA	Type
Benton	Region 30 Mental Health	HPSA Geographic
Carroll	Region 30 Mental Health	HPSA Geographic
Tippecanoe	Purdue University	Federally Qualified Health Center
Tippecanoe	Riggs Community Health Center, Inc.	Federally Qualified Health Center
Tippecanoe	Region 30 Mental Health	HPSA Geographic
White	Region 30 Mental Health	HPSA Geographic

Source: HRSA, 2021

Description

Exhibit 34C lists the locations of federally designated mental health HPSA areas.

Observations

- Benton, Carroll, Tippecanoe and White counties have been designated as mental health HPSAs as a part of the Region 30 Mental Health Catchment Area.
- Two comprehensive health centers in this community have been designated as mental health HPSAs.

Findings of other community health needs assessments

Indiana State Health Assessment and Improvement Plan

A State Health Assessment and Improvement Plan (SHA) was published in 2018 by the Indiana Department of Health.¹⁵ The SHA was conducted in collaboration with over 100 partner organizations, key informants and health experts to identify and address Indiana's greatest health challenges.

The Indiana Health Improvement Partnership (IHIP) met three times during 2017 and early 2018 to develop key components of the SHA, including values, forces of change analysis and assessment of strengths, weaknesses, opportunities and threats. The process involved five steps:

1. Conducting a community health status assessment;
2. Assessing and analyzing prior assessments;
3. Reviewing other agency and coalition plans;
4. Interviewing key informants and gathering qualitative data; and
5. Identifying health needs.

State Health Assessment. The SHA had the following conclusions regarding state health needs:

- After reviewing local health assessments around the state, the IHIP observed that ten needs were most often identified as priorities:
 - Access to care
 - Mental and behavioral health
 - Obesity
 - Substance abuse disorders
 - Nutrition and physical activity
 - Diabetes
 - Tobacco use
 - Heart disease
 - Cancer
 - Maternal and infant health
- The initial prioritization of health needs by the IHIP steering committee focused on the following areas:
 - Social determinants of health and health equity
 - Improving public health infrastructure (funding and culture/equality of public health practices)
 - Improving health and reducing health disparities, particularly in the areas of chronic disease, birth outcomes and infant mortality, reduced injury and death due to opioid exposure and improved access to mental health services
- When asked about barriers to achieving optimal health in their communities, key informants indicated that low staffing levels, low funding levels, not being able to break

¹⁵ Indiana Department of Health. (May 2018). *Indiana Health Assessment and Improvement Plan, May 2018 – December 2021*. Retrieved from: http://www.isdh.state.in.us/NewIntranet/pdfs/OPM/Indiana_State_Health_Plan_I-SHIP.pdf

cultural barriers, increases in drug use, poverty and apathy, lack of free clinics, unaffordable healthcare and medications, lack of available affordable housing, provider billing and limited local resources as major limitations.

- Social determinants of health were recognized as a key component to achieving optimal health in Indiana, with a recognition to improve population health, “the public health system must expand to include non-traditional partners such as transportation, workforce development and housing.”

Related data points from the assessment supporting the above conclusions have not been included in this report. The data points in the report no longer reflect the most recent year of data available. The current SHA and ISHIP will sunset at the end of 2021. A committee was convened in the summer of 2021 to coordinate an update to the plan that will span 2022-2026; however, the process was not far enough along to provide updates for this CHNA.

State Health Improvement Plan. After the finalization of the state health assessment, the Indiana State Health Improvement Plan (ISHIP) was drafted to address the final priorities. These priorities were:

- Improve birth outcomes and reduce infant mortality
- Address the opioid epidemic
- Reduce rates of chronic disease
- Improve the public health infrastructure

Since the publication of the ISHIP, the priorities of the plan have not changed though some of the approaches to addressing the priorities have evolved according to the Indiana Department of Health. The SHA and ISHIP annual report did not have current targets on objectives. The annual report can be found on the Indiana Department of Health website at <https://www.in.gov/health/phpm/tracking-public-health-performance/state-health-improvement-plan/>.

Exhibit 35: Significant needs identified in other assessments or reports

Prioritized Need	Frequency
Mental health (including access to services)	5
Drug and alcohol use (including in youth)	5
Access to healthcare services	2
Maternal, infant and child health	2
Affordable housing	1
Transportation	1
Nutrition and wellness	1
Tobacco use (including youth)	1
Public health infrastructure	1
Chronic diseases	1
Home and community-based services	1

Source: Analysis by IU Health, 2021

Description

Several other assessments and reports conducted by community-based organizations or agencies, LHDs and the state of Indiana were reviewed. Significant needs identified in these assessments are presented in Exhibit 35.

Observations

- The following indicators most often were identified as significant in other CHNAs that assessed IU Health Arnett's community:
 - Mental health
 - Access to healthcare services
 - Substance use disorders
 - Tobacco use
 - Maternal and infant health
 - Chronic disease and chronic disease management
 - Social determinants of health
 - Food insecurity
 - Housing
 - Transportation

Coronavirus disease (COVID-19) pandemic and vaccine

COVID-19 is a very contagious virus that has become a major threat to the health and well-being of all people around the world. In March 2020, the Indiana Department of Health confirmed the first case of COVID-19 in Indiana

and the first reported death.^{16,17} The coronavirus outbreak was declared a state, national and international public health emergency.^{18,19,20} It has had tremendous health and economic impacts on Indiana and its residents. There have been 806,094 total positive cases of COVID-19 and 13,743 total deaths from COVID-19 in the state of Indiana (Exhibit 36). The virus has spread to every county in Indiana.

Exhibit 36: COVID-19 indicators – counties, Indiana and United States – results as of August 16, 2021

Indicator	Benton	Carroll	Tippecanoe	White	Indiana	United States
Total positive cases	1,149	2,132	24,465	3,490	806,094	36,951,181
Total case rate per 100,000	13,134.4	10,524.8	12,499.2	14,480.1	11,934.0	11,273.0
Total deaths	15	24	234	54	13,743	620,493
Total death rate per 100,000	171.5	118.5	119.6	224.0	210.0	187.0
Total population vaccinated	3,498	7,182	9,4974	10,033	3,019,608	168,689,357
Percent of population vaccinated	47.4	41.3	56.3	49.1	51.5	50.8

Source: Indiana Department of Health Indiana COVID-19 Dashboard and Map, 2021; Centers for Disease Control and Prevention COVID Data Tracker, 2021; Indiana Department of Health COVID-19 Vaccination Dashboard, 2021; COVID-19 Data Tracker – Vaccinations in the United States, 2021.

Certain groups are particularly vulnerable to the effects of COVID-19 and are at greater risk of severe illness and outcomes, including hospitalization and death. The CDC continues to review and update information on the groups most at risk.²¹ The current groups, of which some are listed below, can all be found in communities throughout Indiana, including those served by IU Health hospitals. Of particular concern is that some of the underlying conditions and risk factors are significantly prevalent in Indiana.

- People aged 65 and older – risk increases with age
- Many racial and ethnic minority groups who have long been impacted by health and social inequities
- Adults with underlying medical conditions including:
 - Cancer
 - Cerebrovascular disease
 - Chronic kidney disease
 - Chronic lung disease, including COPD (chronic obstructive pulmonary disease) and asthma
 - Dementia or other neurological conditions
 - Diabetes
 - Down Syndrome
 - Heart conditions

- HIV infection
- Immunocompromised state (weakened immune system)
- Liver disease
- Overweight and obesity
- Pregnancy and recent pregnancy
- Sickle cell disease or thalassemia
- Smoking, current and former
- Solid organ or blood stem cell transplant
- Stroke or cerebrovascular disease
- Substance use disorders
- Children with underlying medical conditions including:
 - Children with medical complexity, with genetic, neurologic, metabolic conditions or with congenital heart disease
 - Obesity
 - Diabetes
 - Asthma or chronic lung disease
 - Sickle cell disease
 - Immunosuppression

The above conditions and risk factors were not the only threats to the health and well-being of people. Many lost jobs or income in 2020 because of temporary or permanent

¹⁶ Indiana Department of Health. (March 6, 2020). Press Release. State Health Department Confirms 1st Case of COVID-19 in Hoosier with Recent Travel. Retrieved from: <https://events.in.gov/event/state-health-department-confirms-1st-case-of-covid-19-in-hoosier-with-recent-travel/>

¹⁷ Indiana Department of Health. (March 6, 2020). Press Release. Health Department Announces 1st COVID-19 Death in Indiana. Retrieved from: <https://events.in.gov/event/isdh-news-release-health-department-announces-1st-covid-19-death-in-indiana>

¹⁸ State of Indiana, Executive Department Indianapolis. (March 6, 2020). Executive Order 20-02. Declaration of Public Health Emergency for Coronavirus Disease 2019 Outbreak. Retrieved from: <https://www.in.gov/gov/files/20-02ExecutiveOrderDeclarationofPublicHealthEmergencyforCOVID-19FINAL.pdf>

¹⁹ U.S. Department of Health and Human Services. Public Health Emergency (Jan. 31, 2020). Determination that a Public Health Emergency Exists. Retrieved from: <https://www.phe.gov/emergency/news/healthactions/phe/Pages/2019-nCoV.aspx>

²⁰ World Health Organization. (March 1, 2020). WHO Director-General's opening remarks at the media briefing on COVID-19 – 11 March 2020. Retrieved from: <https://www.who.int/director-general/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19-11-march-2020>

²¹ Centers for Disease Control and Prevention. (Aug. 20, 2021). People with Certain Medical Conditions. Retrieved from: <https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-with-medical-conditions.html>

business closures due to stay-at-home orders or shutdowns to help reduce the spread of COVID-19 (e.g., Governor Holcomb issued a “Stay-at-Home” order that went into effect on March 24, 2020).²² This made it difficult for individuals and families to cover the expenses for basic needs, such as food, housing, childcare and healthcare services. The Indiana unemployment rate in the first few months of 2020 averaged 3.2 percent but rose significantly in April 2020 to 16.9 percent.²³ The rate remained higher than the beginning of the year for the rest of 2020. The number of people unemployed in Indiana increased from 111,373 in March 2020 to 544,935 in April 2020, which was the highest for the year.²⁴ However, the number of people unemployed in Indiana from April to the end of 2020 never fell as low as March 2020. The Indiana Department of Workforce Development processed 7.8 million unemployment insurance (UI) claims in 2020 compared to about 1 million claims in 2019.²⁵

Employment is just one factor influencing social determinants of health. In April 2020, the U.S. Census Bureau started measuring household experiences across the nation during the coronavirus pandemic through an experimental data system called the Household Pulse Survey.²⁶ These measures represent how people were managing across a range of social determinants of health. Below is a selection of metrics specific to Indiana, mostly from the period of April 23, 2020, to May 5, 2020 – shortly after COVID-19 was confirmed in Indiana.

- 37.8 percent of adults reported symptoms of anxiety or depressive disorder. This peaked at 43.7 percent later in 2020.
- 11.9 percent of adults reported they were uninsured. This peaked at 13.5 percent later in 2020.
- 34.2 percent of adults reported delaying or not getting

medical care because of the COVID-19 pandemic in the last four weeks. This peaked at 44.9 percent later in 2020.

- 9.4 percent of adults reported there was either sometimes or often not enough to eat in the last seven days. This peaked at 13.2 percent in 2021.
- 21.2 percent of adults missed last month's rent or mortgage payment or were not confident they could pay next month's rent or mortgage on time. This peaked at 29.3 percent in 2020.
- 46.1 percent of adults reported the likelihood of eviction or foreclosure (period – August 19 – 31, 2020). This peaked at 54.0 percent almost a year later in 2021.
- 32.8 percent of adults reported that it was somewhat or very difficult to pay for usual household expenses in the last seven days (period – August 19 – 31, 2020). This peaked at 36.8 percent later in 2020.

There are multiple steps people can take to protect themselves from the virus, including getting a vaccine. Though people may not be able to receive a vaccine due to age, weakened immune system or underlying medical condition, it is widely available to people 12 years of age or older. In December 2020, the first vaccinations for COVID-19 were received and administered in Indiana. Out of an estimated 5.7 million people who are eligible for the vaccine in Indiana, as of August 16, 2021, 3,019,608 (51.5 percent) are fully vaccinated for COVID-19 (Exhibit 36).²⁷ In Indiana, 16.1 percent of those aged 18 and over reported being hesitant about receiving a COVID-19 vaccine when compared to 10.5 percent of the United States (data as of August 2, 2021).²⁸ The main reasons reported for the hesitancy in Indiana include concerned about side effects, don't trust the government and don't trust COVID-19 vaccines. These are the same top reasons reported across the U.S.²⁹

²² State of Indiana, Executive Department Indianapolis. (March 23, 2020). Executive Order 20-08. Directive for Hoosiers to Stay at Home. Retrieved from: https://www.in.gov/gov/files/Executive_Order_20-08_Stay_at_Home.pdf

²³ Hoosiers by the Numbers. (n.d.). Local Area Unemployment Statistics (LAUS) – Seasonally Adjusted. Retrieved from: http://www.hoosierdata.in.gov/dpage.asp?id=54&view_number=2&menu_level=&panel_number=2

²⁴ Ibid.

²⁵ Indiana Department of Workforce Development. 2021. 2021 State of the Indiana Workforce Report – Responding to the Pandemic. Retrieved from: <https://www.in.gov/dwd/files/2021-State-of-the-Indiana-Workforce-Report.pdf>

²⁶ U.S. Census Bureau, Household Pulse Survey. (n.d.). Retrieved from: <https://www.census.gov/data-tools/demo/hhp/#/>

²⁷ Indiana Department of Health. (n.d.). Indiana COVID-19 Vaccination Dashboard. Retrieved from: <https://www.coronavirus.in.gov/vaccine/2680.htm>

²⁸ U.S. Census Bureau. (n.d.). Household Pulse Survey COVID-19 Vaccination Tracker – Vaccine Hesitancy. Retrieved from: <https://www.census.gov/library/visualizations/interactive/household-pulse-survey-covid-19-vaccination-tracker.html>

²⁹ Ibid.

Appendix C – Community meeting and survey participants

Individuals from a wide variety of organizations and communities participated in community meetings and surveys. Participants included representatives from the following organizations:

- Anthem
- Bauer Family Resources
- Benton Community School Corporation
- Benton County Health Department
- Boswell Public Library
- Central Catholic Schools
- City of Monticello
- Community Foundation of White County
- Delphi Schools
- Food Finders Food Bank, Inc.
- Four County
- Healthy Communities of Clinton County Coalition
- Hartford House Child Advocacy Center
- Home with Hope, Inc.
- IU Health
- IU Health Arnett
- IU Health Frankfort
- IU Health Quality Board
- IU Health West Central Region
- Indiana Professional Management Group (IPMG)
- Junior Achievement
- Lafayette Adult Resource Academy
- Lafayette Family YMCA
- Lafayette School Corporation
- LTHC Homeless Services
- Mental Health America Wabash Valley Region
- Meridian Health Services
- Monticello Fire Department
- Monticello Spring Corporation
- Monticello-Union Township Public Library
- NAMI West Central Indiana
- North Central Health Services
- North Central Nursing Clinic
- North White School Corporation
- Nurse-Family Partnership
- Phoenix Paramedic Solutions
- Purdue Extension
- Purdue North Central Nursing Clinics
- Otterbein Public Library
- Purdue Extension
- Riggs CHC
- River City Community Center
- Saving Grace Harm Reduction
- SHIP of Indiana
- 6th Alarm Peer Support
- Terra Drive Systems

- Tippecanoe County Health Department
- Tippecanoe County Sheriff's Office
- Twin Lakes School Corporation
- United Way of Greater Lafayette
- Valley Oaks Health
- White County Government
- White County Boys and Girls Club
- White County Council on Aging
- White County Economic Development
- White County Health 4 All Coalition
- White County Health Department
- White County Sheriff's Office
- White County United Way
- Willowstone Family Services

Appendix D – Impact of actions taken since the previous CHNA

This appendix discusses the impact of community health improvement actions taken by IU Health Arnett to address significant community health needs since its last CHNA report was conducted. The impacts (both expected and achieved) of each community health program are described below.

Access to care: Workforce development

- **Low-cost healthcare options.** IU Health Arnett provides financial assistance and information on prescription assistance to those in need. In 2020, there were 94,574 same-day or next day appointments and 51,998 virtual visits. In 2021, there were several same-day appointments and 51,450 virtual visits from January to September.
- **Community Outreach and Engagement and Purdue University School of Nursing Mental Health Practitioner Program** executed a signed agreement to provide scholarships each year. Four students were given scholarships in 2021.
- **IU Health Arnett Family Medicine Residency Program** has 15 residents. The first residency graduation took place on June 30, 2021. Two of the residents will practice at IU Health. One will practice locally with another health system. Two will practice outside the west central region. In 2019, IU Health hired 52 physicians and advanced practitioners. In 2020, IU Health hired 43 physicians and advanced practitioners. In 2021, IU Health hired 52 physicians and advanced practitioners.
- **IU Health Arnett human resources team** members continue to provide outreach to future healthcare professionals. Discussions began with the Greater

Lafayette Career Academy to partner with IU Health for clinical locations and other onsite opportunities for the students.

- **IU Health Pharmacy** hosted 23 students with a total of 1,912 contact hours in 2019. In 2020, there were 13 students with a total 1,380 contact hours. In 2021, 23 students were hosted with a total of 1,912 contact hours.

Behavioral health: Mental health

- **Mental Health America – Wabash Valley Region** received an annual grant commitment from 2019-2021 from the West Central Region of IU Health Community Outreach and Engagement (COE). This funding supported the crisis center and additional community trainings in the region. In 2019, the crisis center received 997 total contacts (904 calls and 93 text messages). The top age ranges for calls were 25-34 years, 18-24 and 45-54. The top age ranges for texts were undisclosed age, 13-17 and 0-12 years. In 2020, the crisis center received 1,021 total contacts total (919 calls and 102 text messages). The top age ranges for calls were 25-34 years, 18-24 years and 35-44 years. The top age ranges for texts were 13-17 and 18-24 years. In January through September of 2021, the crisis center received 9,487 total contacts (9,302 distinct calls and 185 distinct text messages). The top age ranges for calls were 18-24, 25-34 and 13-17 years. The top age ranges for texts were 18-24 and 13-17 (tied), 34-44 and 55-64 years. In January through September of 2021, Tippecanoe County received 559 calls and 57 texts. Clinton County received 178 calls and 17 texts and White County received 56 calls and seven texts during the same time period.
- **Virtual behavioral health services** were offered at IU Health Arnett for patients in the emergency department. In 2019, 40 patients were referred to the virtual psychiatric services. In 2020, 593 patients were referred to the virtual psychiatric services. In 2021, 40 patients were referred to the virtual psychiatric services.
- **National Alliance on Mental Illness (NAMI)** and IU Health COE continued to strengthen its relationship. The COE Committee provided grant funding in 2020 and 2021 to support Wellness Recovery Action Plan (WRAP) classes and Ending the Silence presentations to local schools. There was a total of 50 individuals in the WRAP classes and the Ending the Silence presentations will begin in the last quarter of 2021.
- **North Central Health Services (NCHS)** was awarded grant funds for schools in the region in 2019. Of these, four school systems were in Tippecanoe County. COE provided a supplemental 3-year grant opportunity for these awardees to help cover costs not allowed through NCHS. In Tippecanoe County, two schools each received a grant from the COE, impacting more than 15,000 students and staff.
- **Willowstone Family Services** received grant funding to support Active Parenting classes and the CONNECT

workshop. In 2019, there were 178 episodes of treatment for 152 patients. More than 93 percent of referred patients accepted peer recovery care. There were a total 652 peer recovery sessions, with more than 72 percent successful follow-ups. More than 27 percent of patients were sober on their last follow-up session. Peer recovery coaches spent 6,746 minutes with patients at IU Health Arnett. In 2020, there were five sessions that served a total of 27 families: 35 parents and 63 children. In 2021, Willowstone served a total of 33 parents: 18 in Active Parenting and 15 (the maximum) in CONNECT.

- **6th Alarm Peer Support** received a grant from IU Health COE to help with their scholarship fund. More than 30 people from different first responder fields received mental health assistance through the scholarship fund. 6th Alarm assisted an additional 20 people with peer support. They also helped ten different agencies in Tippecanoe and four adjoining counties after their departments had traumatic incidents.

Behavioral health: Substance use

- **Virtual peer recovery coaches for emergency department patients** were offered at IU Health Arnett. In 2019, there were 178 episodes of treatment for 152 patients. More than 93 percent of referred patients accepted peer recovery care. There were a total 652 peer recovery sessions, with more than 72 percent successful follow-ups. More than 27 percent of patients were sober on their last follow-up session. Peer recovery coaches spent 6,746 minutes with patients at IU Health Arnett. In 2021, there were 178 episodes of treatment for 152 patients. More than 93 percent of referred patients accepted peer recovery care. There were a total 652 peer recovery sessions, with more than 72 percent successful follow-ups. More than 27 percent of patients were sober on their last follow-up session. Peer recovery coaches spent 6,746 minutes with patients at IU Health Arnett.
- **Tippecanoe County Quick Response Team (QRT)** saw 309 clients in 2019, 451 in 2020 and 309 total clients in 2021. In 2020, the number of opioid prescriptions was 14,397 with 918,101 doses prescribed to 5,051 distinct patients. The average quantity prescribed was 63.8, which was down from 64.8 in 2019. The number of controlled substance prescriptions was 24,511, while the distinct count of patients getting controlled substance prescriptions was 7,174 in 2021. The number of opioid prescriptions was 12,761 with 827,452 doses prescribed to patients. The average quantity prescribed was 64.8 in 2021, which was down from 67.2 in 2020.
- **IU Health Arnett Retail Pharmacy** provides the opportunity for community members and patients to dispose of their medications in a locked drug disposal box. In 2019, there were five disposals of medications. In 2020, there were four boxes of disposed medications weighing about 20 pounds each. In 2021, there were five disposals of medi-

cations. In 2019, the pharmacy and westside Urgent Care also partnered with Purdue University School of Pharmacy/BoilerWoRx on a prescription disposal program. In 2021, the pharmacy and urgent care facility distributed 205 drug disposal packets.

- **IU Health Arnett emergency department** started dispensing Naloxone to patients who presented with an overdose. IU Health COE purchased seven NaloxBoxes to be placed throughout Tippecanoe County. They were placed in the following locations: Lafayette Recovery Café, Lafayette YMCA, Mental Health America Wabash Valley Region and four locations at Lafayette Transitional Housing Center. Three people were trained on when and how to administer naloxone.
- **Lafayette Recovery Café** was awarded grant funding to host peer recovery coach specialists by IU Health COE in 2021. A total of 29 people attended the training and 11 of these individuals were Recovery Café Lafayette members. The Lafayette Recovery Café was also able to host Wellbriety courses in July and August 2021. Six people attended these courses in the School for Recovery.

Behavioral health: Tobacco

- **Population Health** received a grant for smoking cessation. Training took place in 2019. The virtual smoking cessation classes kicked off in Lafayette in January of 2020 and Frankfort and Monticello in February of 2020. The beginning of the program started with 68 participants. After completing the initial assessment and at least two sessions, 38 people dropped out of the program. Seven participants quit smoking and are no longer using nicotine replacement therapy. Twelve of the participants completed all of the classes and either quit, are using nicotine replacement therapy or combination NRT and weaning down. Twelve participants continue to receive telephonic outreach. Four participants continued to join classes for support after completing their training.
- **COPD support group** led by Population Health saw minimal participation due to the COVID-19 pandemic.

Health and social services for seniors

- **IU Health Arnett team members** were expected to participate in outreach activities aimed at seniors in 2020. However, due to COVID restrictions, many of the events were canceled. Oncology interacted with 359 people, providing 241 breast screenings, 104 colon screenings, 14 smoking cessation and lung screenings.
- **The Alzheimer's Association Walk to End Alzheimer's** was sponsored by IU Health Arnett in 2021. A team physician led the charge for team members to participate. IU Health had seven teams with 60 walkers that raised

over \$12,000. Community Outreach and Engagement also collaborated with the Alzheimer's Association on educational programs throughout the year. During 2020-2021, 344 individuals participated in the virtual education programs.

- **The Lafayette Family YMCA** received a grant in 2019, 2020 and 2021 for senior programming. They utilized this money for senior scholarships. In 2019, the Lafayette Family YMCA had 1,008 adults who were 65+ years of age. Of these, 68 percent received some sort of financial assistance. In 2020, that number jumped to 2,349 seniors with 146 receiving scholarships. At the time of this report, the Lafayette Family YMCA provided 102 full or partial scholarships to seniors in 2021.
- **The Meals on Wheels program** through IU Health Arnett prepared meals from early 2019 through June of 2020. This program served over 750 seniors in the Lafayette area with IU Health team members spending over 4,000 hours preparing meals in 2019.
- **Trauma Services** provided outreach with Stepping On and fall prevention classes. In 2019, there were 372 Stepping On and fall prevention participants. Most of the classes in 2020 and 2021 were canceled due to the COVID-19 pandemic.

Appendix E – Consultant qualifications

Verité Healthcare Consulting, LLC (Verité) was founded in May 2006 and is located in Alexandria, Virginia. The firm serves clients throughout the United States as a resource that helps hospitals conduct Community Health Needs Assessments and develop Implementation Strategies to address significant health needs. Verité has conducted numerous needs assessments for hospitals, health systems and community partnerships nationally since 2010.

The firm also helps hospitals, hospital associations and policy makers with community benefit reporting, program infrastructure, compliance and community benefit-related policy and guidelines development. Verité is a recognized, national thought leader in community benefit and Community Health Needs Assessments.



Arnett