2021 Community Health Needs Assessment

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Jay

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Board Chairman, IU Health East Central Region Board of Directors

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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 Jay is a 25-bed, critical access hospital located in Portland, Indiana, that serves the residents of Jay County. IU Health Jay provides a full range of inpatient services, outpatient surgeries and emergency medical services. Specialties offered at IU Health Jay include neurology and cancer care. The Healthy Beginnings Program assists mothers through pregnancy and parenthood. IU Health Jay is a Joint Commission approved rural healthcare facility.

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/.

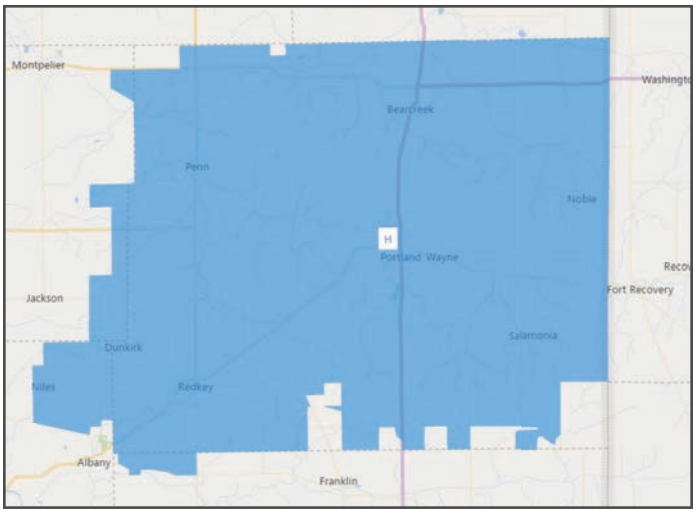
Each IU Health hospital is dedicated to the community it serves. Each hospital conducts a CHNA to understand current community health needs and to inform strategies designed to improve community health, including initiatives designed to address social determinants of health. The CHNAs are conducted using 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 Jay's community is defined as Jay County, Indiana. The county accounted for 72 percent of the hospital's inpatient cases in 2019. The estimated population of this community in 2019 was 20,764. 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, interviews or surveys.

Access to healthcare services

- The low-income population of Jay County has been designated as a Medically Underserved Population (Exhibit 33).
- Jay County has been designated as a Primary Care and Mental Health Care Health Professional Shortage Area (HPSA) and the low-income population has been designated a Dental Care HPSA (Exhibits 34A-C).
- The ratio of population to primary care physicians, dentists and mental health providers in Jay County is unfavorable compared to state and national averages (Exhibit 21).
- A higher proportion of the population is uninsured in Jay County compared to Indiana and national averages (Exhibit 18A).
- Higher rates of preventable hospital admissions indicate difficulty accessing healthcare services (Exhibits 20 and 21).
- Stakeholders identified both access to healthcare services, access to specialty care and access to mental health services as significant needs (Community meetings, Interviews, Survey).
- Other assessments identified access to healthcare services, particularly due to affordability of services,

and access to in-home care as significant needs (Other assessments).

Aging population and needs of seniors

- The number of persons aged 65 years and older in Jay County is projected to grow by 7.2 percent between 2020 and 2025, despite the total population of the county expected to decrease during the same time period (Exhibit 10).
- The rate of preventable hospitals stays for Medicare enrollees is above state and national averages (Exhibit 21).
- Other assessments identified a number of elderly needs as significant issues, including elderly nutrition and physical activity, transportation, in-home care and access to affordable services (Other assessments).
- Stakeholders identified elder needs, particularly the need for more health education programs among elderly populations, as a significant need (Interviews).

Drug and substance abuse (including opioids and alcohol)

- The percent of driving deaths in Jay County that involved alcohol exceeded the state average (Exhibit 21).
- Substance abuse and addiction, including issues with opioids, alcohol and methamphetamines, were identified as significant needs in Jay County. Issues surrounding substance abuse were also highlighted in discussions of access to behavioral health services and stakeholders identified the issue as worsening due to effects of the COVID-19 pandemic (Community meetings, Interviews, Survey).

Food insecurity and healthy eating

- Census tracts throughout the community are designated as food deserts (Exhibit 31).
- Jay County ranks in the bottom quartile of Indiana counties for food environment index (Exhibit 20).
- Other assessments identified nutrition as a significant need, with a focus on the need for increased fruit and vegetable intake (Other Assessments).
- Stakeholders believed an increased focus on healthy eating – including proper nutrition and health education around healthy eating – was a significant issue (Community meetings, Interviews).

Mental health

- Jay County has been designated as a Mental Health Care Health Professional Shortage Area (HPSA) (Exhibit 34C).
- The rate of mental health providers is lower than the state and national averages (Exhibit 21).
- The county ranks in the bottom half of Indiana counties for poor mental health days, and the average number of poor mental health days exceeded the national average (Exhibits 20 and 21).
- Mental health issues and access to mental health services were identified by stakeholders as significant needs in Jay County, including a stigma against mental health. Mental health was thought to contribute to poverty and lack of basic needs due to inability to support oneself if suffering. Participants also believed the issue had worsened due to the COVID-19 pandemic and isolation (Community meetings, Interviews, Survey).

Obesity, diabetes and physical inactivity

- Jay County compared unfavorably to Indiana and United States averages for adult obesity, physical inactivity and access to exercise opportunities (Exhibit 21).
- The diabetes mortality rate in Jay County was significantly above the Indiana rate (Exhibit 22).
- Admissions for several Ambulatory Care Sensitive Conditions (ACSCs) exceeded state averages, including for diabetes long-term complications and lower extremity amputation due to diabetes (Exhibit 28).
- Stakeholders identified obesity, physical inactivity, unhealthy eating, a lack of access to exercise opportunities and a lack of health education resources related to healthy living as significant needs (Community meetings, Interviews, Survey).
- Physical inactivity was identified as a significant community health issue, particularly among older adults (Other assessments).

Smoking, tobacco use and exposure to secondhand smoke

- The adult smoking rate in Jay County exceeded the national average, and the county was in the bottom quartile of Indiana counties for smoking (Exhibits 20 and 21).
- Chronic lower respiratory disease mortality was also higher than average in the county (Exhibit 22). Rates for lung cancer mortality and incidence were above state averages in Jay County (Exhibits 23 and 24).
- The percent of mothers who smoked during pregnancy in Jay County was significantly above the Indiana average (Exhibit 26).
- Smoking, tobacco usage and vaping were all identified as significant issues (Community meetings, Interviews).

Social determinants of health

- The poverty rate in Jay County was above the state and national average and low-income census tracts were located in the county. Poverty rates were particularly high for Black and Hispanic (or Latino) populations (Exhibits 14-16).
- The county ranked in the bottom quartile of Indiana counties for children in poverty and population with any post-secondary education (Exhibit 20).
- Areas in the county were in the bottom quartile nationally for housing and transportation vulnerability (Exhibit 32).
- Stakeholders identified multiple issues with social determinants of health as significant, including poverty, children in poverty, transportation, domestic violence and community resources and health education programs (Community meetings, Surveys).
- Other assessments identified a variety of social determinants of health factors as significant concerns, including affordability of healthcare, community services and transportation (Other assessments).

Data and analysis

Definition of community assessed

The community assessed by IU Health Jay was defined by the geographic origins of the hospital's discharges. In 2019, this geographic area was identified as Jay County, Indiana.

Residents from this county accounted for 72 percent of the hospital's 2019 inpatient discharges (Exhibit 1).

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

County	Percent of inpatients
Jay County	72.0%

Source: Analysis of IU Health Discharge Data, 2019

The estimated population of this county in 2019 was 20,764 persons (Exhibit 2).

Exhibit 2: Local community population, 2019

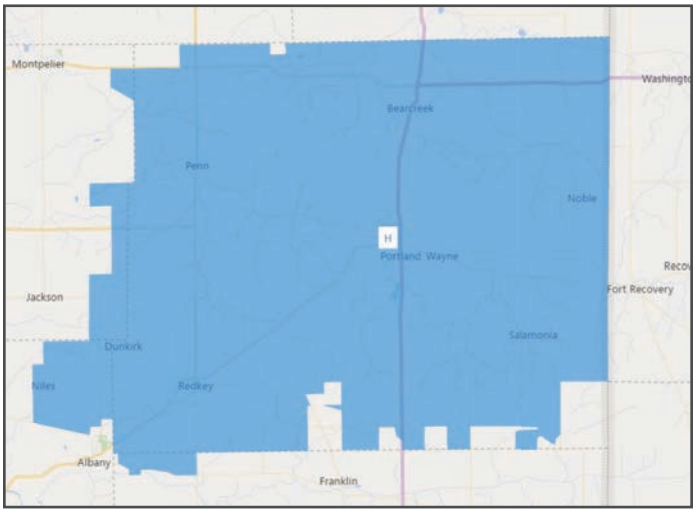
County	Estimated population
Jay County	20,764

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

The hospital is located in the city of Portland, Indiana, ZIP code 47371.

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 Jay community



Source: Power BI and IU Health, 2021

Secondary data summary

The following section summarizes findings from secondary data analysis for Jay County. See Appendix B for more detailed information.

Demographics
Population characteristics and trends directly influence community health needs. The total population of Jay County is expected to decrease by 0.2 percent from 2020 to 2025 (approximately 40 people).

While the total population is expected to decrease between 2020 and 2025, the population aged 65 years and older is projected to grow by 7.2 percent during the same period. This should contribute to a growing need for health services, since older individuals typically need and use more services than younger persons.

ZIP code 47336 (Dunkirk) had a higher proportion of population aged 65 years and older than other areas. All ZIP codes in the community had a proportion of Black residents below 3 percent and a proportion of Hispanic (or Latino) residents below 5 percent.

Residents with a disability are more prevalent than the state and national average. Residents are less likely to have a high school diploma compared to Indiana and less likely to be linguistically isolated compared to Indiana and the United States.

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 14.1 percent (over the 2015-2019 time period), Jay County's poverty rate has been above the Indiana and national averages. Low-income census tracts are located in northeastern portions of Jay County. Poverty rates for Black and Hispanic (or Latino) residents in Jay County, Indiana and the United States were higher than those for White populations.

Between 2015 and 2019, unemployment rates decreased in the county, state and nationally. In recent years, Jay County's unemployment rates have been below Indiana 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 Jay County is above the state and national averages. Crime rates in the county are below Indiana averages for all indicators.

Local health status and access indicators
In the 2019 *County Health Rankings*, Jay County ranked 85th for overall health outcomes and 64th for overall health factors out of 92 counties in Indiana.

Jay County had 27 out of 41 indicators ranked in the bottom half of Indiana counties. Of those, 16 were in the bottom quartile, including health outcomes, length of life, premature death, quality of life, poor or fair health, poor physical health days, poor mental health days, low birthweight, health behaviors, adult smoking, food environment index, access to exercise opportunities, preventable hospital stays, some college, children in poverty and injury deaths.

The percent of residents with access to exercise opportunities and the ratio of population to primary care physicians and dentists in Jay County were significantly unfavorable compared to state and national averages.

According to the Indiana Department of Health (IDOH), the diabetes mortality rate in Jay County was significantly above the state average. Rates were above state averages for chronic lower respiratory disease and other specified accidents.

The overall cancer incidence and mortality rates were higher in Jay County than the Indiana averages. Jay County also compared unfavorably for incidence and mortality rates of lung cancer and Non-Hodgkin's lymphoma.

Rates of communicable disease in Jay County were below Indiana averages for all indicators.

Several maternal and infant health indicators were unfavorable in Jay County, including unfavorable rates of mothers breastfeeding, teen births, prenatal care and mothers who smoked during pregnancy.

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 (ACSCs) include fourteen 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 in Jay County were above state averages for several indicators. Rates of asthma in younger adults and lower extremity amputation with diabetes were more than double Indiana averages, and the rate of diabetes long-term complications was above the state average.

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).

The weighted average CNI score for Jay County was 3.2 – above the national median of 3.0.

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 Jay County have been designated as food deserts, including in areas proximate to the hospital in Portland.

Medically Underserved Areas and Populations
Medically Underserved Areas and Populations (MUA/Ps) 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."

The low-income population of Jay County has been designated as a MUP.

[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*

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.

Jay County has been designated as a Primary Care and Mental Health Care HPSA, and the low-income population of the county has been designated a Dental Care HPSA.

Relevant findings of other CHNAs

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

- Food insecurity
- Chronic disease and chronic disease management
- Aging population and needs of seniors

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 Jay County residents with a disability was 16.9 percent. A comparable statistic for Indiana as a whole was 13.7 percent. For the IU Health Jay community, population with a disability is 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	Jay County	-0.2%	2.2% – Indiana	9
65+ population change, 2020-2025	Jay County	7.2%	15.0% – Indiana	9
Population with a disability	Jay County	16.9%	13.7% – Indiana	13
Poverty rate, Black, 2015-2019	Jay County	95.7%	26.9% – Indiana	15
Poverty rate, Hispanic, 2015-2019	Jay County	26.9%	22.4% – Indiana	15
Potential life lost before age 75 per 100,000	Jay County	10,433.8	6,900.0 – U.S.	21
Percent of adults reporting fair or poor health	Jay County	18.60	16.0 – U.S.	21
Adult obesity	Jay County	34.5%	29.0% – U.S.	21
Percent of adults age 20 and over reporting no time for physical activity	Jay County	27.9%	22.0% – U.S.	21
Percent of population with adequate access to exercise opportunities	Jay County	39.5%	84.0% – U.S.	21
Percent of driving deaths with alcohol involvement	Jay County	24.0%	20.8% – Indiana	21
Uninsured	Jay County	9.8%	9.5% – Indiana	21
Population per primary care physician	Jay County	2,338:1	1,330:1 – U.S.	21
Population per dentist	Jay County	3,491:1	1,460:1 – U.S.	21
Population per mental health provider	Jay County	952:1	440:1 – U.S.	21
Some college	Jay County	43.7%	65.0% – U.S.	21
Teen birth rate	Jay County	34.8%	25.0% – U.S.	21
Children in poverty	Jay County	19.2%	17.8% – U.S.	21
Injury deaths	Jay County	91.8	67.0 – U.S.	21
Mortality rate (all cancers)	Jay County	170.8	163.3 – Indiana	23
Mothers on Medicaid percent	Jay County	46.1%	38.5% – Indiana	26
Smoked during pregnancy percent	Jay County	15.1%	11.8% – Indiana	26
Admissions for diabetes long-term complications (ACSC)	Jay County	137.4	116.6 – Indiana	28

Source: IU Health Analysis

Primary data summary

IU Health Jay obtained community input through focus groups of community stakeholders, an additional survey issued to stakeholders who were unable to attend the community meetings and a key informant interview with a public health expert.

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

Two community meetings were held in 2021 to receive input from stakeholders regarding the health needs in Jay County – one on April 21 and another on April 29. 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.

Participants focused discussion around an aging population and workforce, transportation as a barrier to accessing services (especially specialists, often not located in the community), disabled population needs, the need for health education, increasing mental health needs such as anxiety and depression, a lack of mental health providers, homelessness, poverty, substance abuse and addiction (along with stigma around seeking help), needs of migrant and Spanish-speaking communities and health insurance.

From this process, participants from the April 21 community meeting identified the following needs as most significant for Jay County:

- Substance abuse (including opioids and alcohol)
- Access to healthcare services (including specialists)
- Mental health and access to mental health services
- Children in poverty
- Transportation

Participants from the April 29 community meeting identified the following needs as most significant for Jay County:

- Mental health
- Poverty
- Substance abuse (including opioids and alcohol)
- Transportation
- Health and wellness education

In discussing the impacts of the COVID-19 pandemic on health, participants focused on isolation and its impacts on mental health, increase in pediatric mental health needs, increase in substance abuse, financial impacts on service organizations, lack of preventive care due to fear of going to providers and technology barriers creating a digital divide in an increasingly online world.

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

- Substance abuse and addiction (including alcohol)
- Obesity, physical inactivity and unhealthy eating
- Smoking and tobacco use
- Domestic violence
- Mental health
- Community resources and providers

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

- Social isolation and loneliness
- Unemployment or underemployment
- Childcare access and costs
- Learning and development in children
- Distrust with the medical community
- Digital divide (lack of Internet or device access)

An additional interview was conducted with representatives of a local public health department to obtain subject-matter expertise into the health needs in Jay County. The following issues were discussed as significant:

- Poverty is an issue in the community, and children in poverty is noticeable
- Mental health is an issue and leads to further poverty concerns as mental issues often can lead to inability to work (a stigma around mental health still exists)
- Substance abuse is prominent and generational in nature
- Physical inactivity and access to exercise opportunities is a significant need
- Smoking, tobacco usage and vaping are all common
- Specialty services, such as dialysis and radiation treatment, are mostly not located in the county, leading to access issues that are exacerbated by transportation concerns
- More health education programs are needed, particularly focused on youth and also elderly education on available resources for seniors
- Amish residents are a vulnerable population, often difficult to access and provide information surrounding topics such as COVID-19

Other facilities and resources in the community

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

Federally Qualified Health Centers

Federally Qualified Health Centers (FQHCs) 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 2 FQHC sites operating in the IU Health Jay community (Exhibit 5).

Exhibit 5: Federally Qualified Health Centers, 2021

County	Facility
Jay	Meridian Health Services – West Jay (Dunkirk)
Jay	Meridian MD Convenience Care (Portland)

Source: HRSA, 2021

Hospitals

IU Health Jay is the only hospital located in the community (Exhibit 6).

Exhibit 6: Hospitals, 2021

County	Facility
Jay	IU Health Jay (Portland)

Source: Indiana Department of Health, 2021

Local Health Departments

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

Exhibit 7: Local Health Departments, 2021

Public Health Department
Jay County Health Department (Portland)

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 Jay. 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 Jay, 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 key informant interviews, 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;
- Input obtained from individuals who participated in one or more community meetings; and
- Input obtained from individuals who were interviewed.

Collaborating organizations

For this assessment, IU Health Jay collaborated with other Indiana health systems on the community meetings and key informant interviews.

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

[3] *Ibid.*

provided by local, state and federal government agencies, local community service organizations and IU Health. 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 and key informant interviews. 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, measure 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

[4] *Centers for Disease Control and Prevention. (March 11, 2020). Health Equity. Retrieved from: https://www.cdc.gov/chronicdisease/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.*

local health departments (LHDs) may not be available for every county in the 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 Jay community. IU Health Jay's community is comprised of Jay County, Indiana.

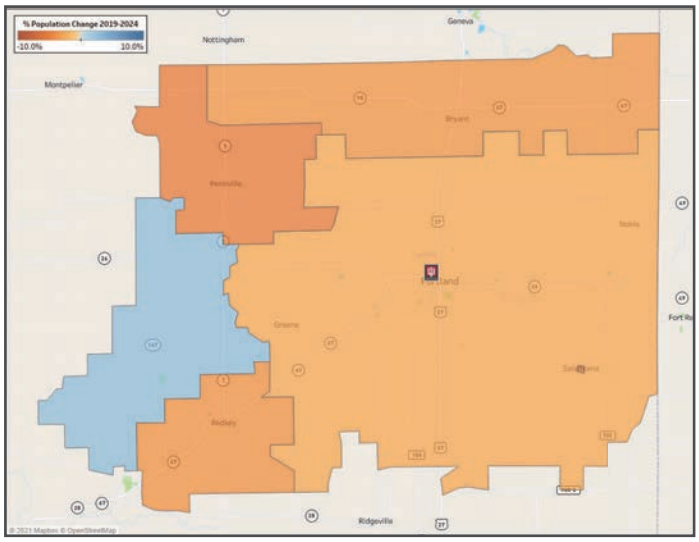
Demographics

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

County	Estimated population 2020	Estimated population 2025	Percent change 2020-2025
Jay County	21,149	21,109	-0.2%
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 Jay 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 Jay County population is expected to remain relatively unchanged between 2020 and 2025.

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
Jay County	**21,149**	**21,109**	**-0.2%**
0-19	5,982	6,047	1.1%
20-44 male	2,979	2,950	-1.0%
20-44 female	2,955	3,000	1.5%
45-64	5,438	5,042	-7.3%
65+	3,795	4,070	7.2%
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

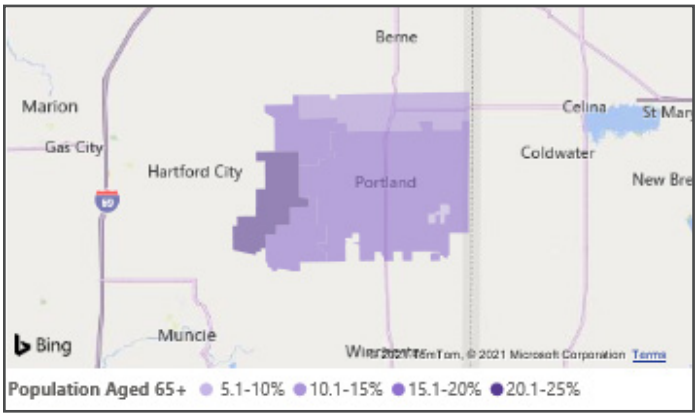
Description

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 7.2 percent in Jay County 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 on 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

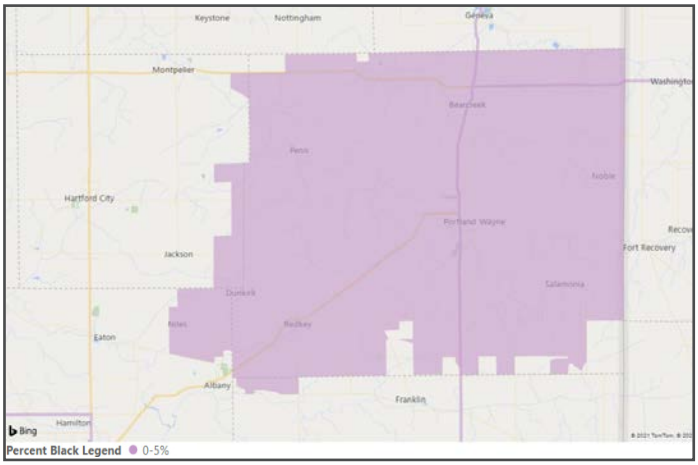
Description

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

Observations

- ZIP code 47336 (Dunkirk, west of Portland) has the highest proportion of the population aged 65 and older in the community, above 20 percent.

Exhibit 11: Percent of population – Black, 2019



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

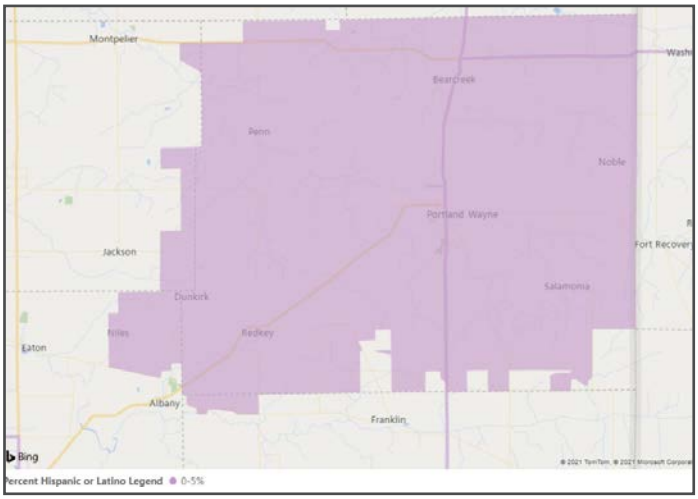
Description

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

Observations

- The Black population of Jay County is under three percent in all ZIP codes.

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

- All ZIP codes for residents that are Hispanic (or Latino) in Jay County were below five percent in 2019.

Exhibit 13: Other socioeconomic indicators, 2015-2019

Measure	Population with a disability	Population 25+ without high school diploma	Population linguistically isolated
Jay County	16.9%	12.0%	1.0%
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.

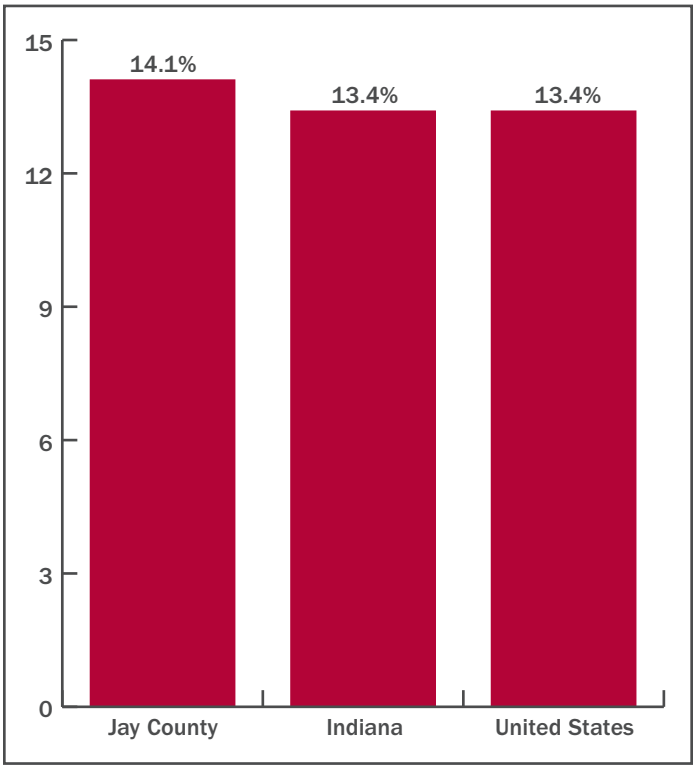
Observations

- Jay County had a higher percentage of the population with a disability compared to Indiana.
- Jay County had a higher percentage of residents aged 25 years and older without a high school diploma than Indiana. It was the same percentage as the U.S.
- Compared to Indiana, Jay County had a lower 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

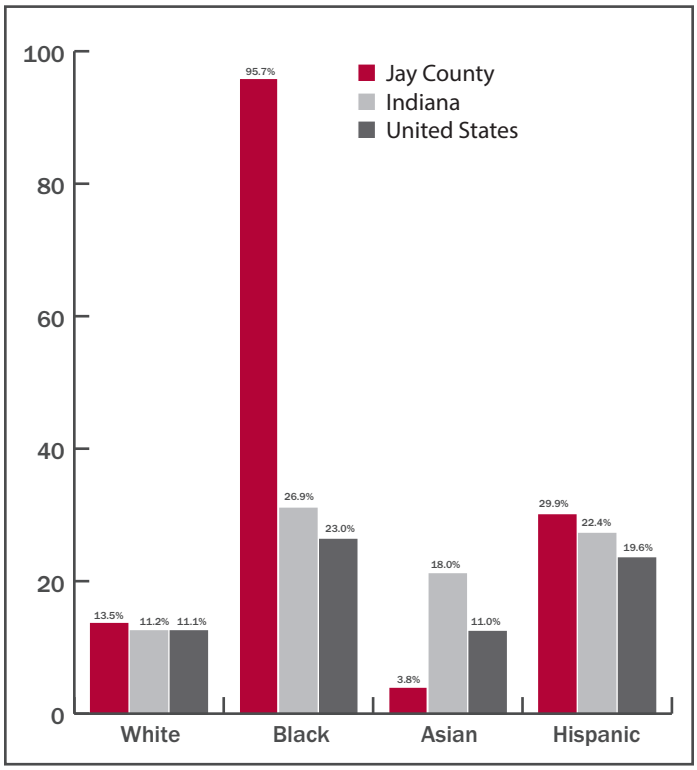


Source: U.S. Census, ACS 5-year estimates, 2020

Description
Exhibit 14 portrays poverty rates in Jay County, Indiana and the U.S.

Observations
- The poverty rate in Jay County was above Indiana and national averages from 2015-2019.

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

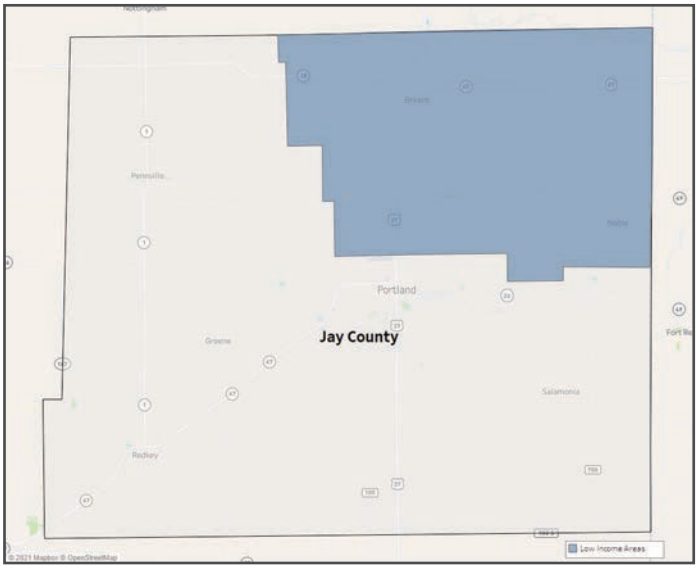


Source: U.S. Census, ACS 5-year estimates, 2020

Description
Exhibit 15 portrays poverty rates in Jay County, Indiana and the U.S. by race and ethnicity.

Observations
- Poverty rates for the White, Black and Hispanic (or Latino) populations in Jay County were above both Indiana and U.S. averages.
- Poverty rates were particularly problematic for Black residents in Jay County. This was the highest percentage of Blacks in poverty among all counties in Indiana.

Exhibit 16: Low-income census tracts, 2021



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

Description

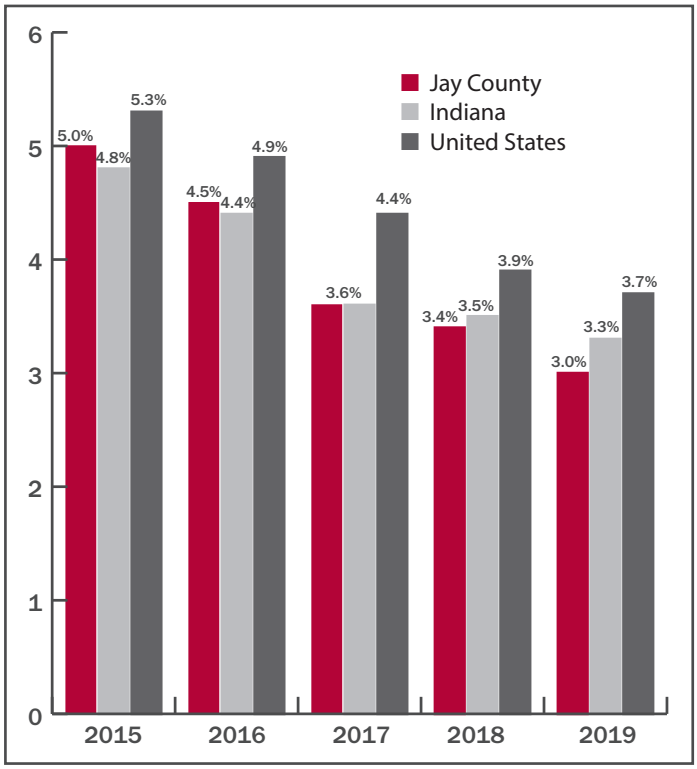
Exhibit 16 portrays the location of federally designated low-income census tracts.

Observations

- Low-income census tracts are concentrated in the northeast corner of Jay County.

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 Jay County, with Indiana and national rates for comparison.

Observations

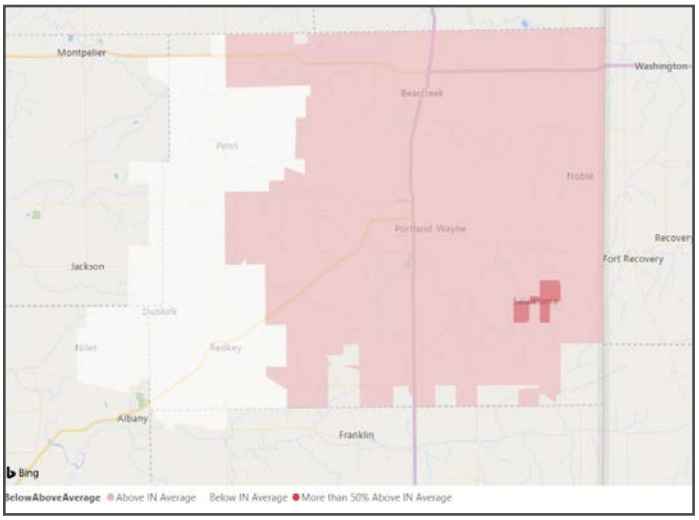
- Between 2015 and 2019, unemployment rates at the local, state and national levels declined significantly.
- Unemployment rates in Jay County were similar to Indiana averages for the time period.

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

County	Population	Population uninsured	Percent uninsured
Jay County	16,796	1,804	10.7%
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 in Jay County and Indiana in 2019. Exhibit 18B maps the 2019 uninsured rates by ZIP code.

Observations

- The percent of population without health insurance in Jay County is above both state and national averages.
- In 2019, the uninsured rate was 50 percent higher than the Indiana rate in Jay County ZIP code 47381.
- 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*

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

Indicator	Jay County	Indiana
Aggravated assault	70.9	499.5
Arson	–	10.8
Burglary	18.9	664.2
Homicide	4.7	10.6
Larceny	510.7	2,992.9
Motor vehicle theft	28.4	423.7
Property crime	558.0	4,080.9
Rape	14.2	79.4
Robbery	–	160.8
Violent crime	89.8	750.2

Source: Federal Bureau of Investigation, 2020

Description

Exhibit 19 provides crime statistics.

Observations

- Crime rates in Jay County were well below Indiana averages.

Local health status and access indicators

Exhibit 20: County Health Rankings, 2019

Measure	Jay County
Health outcomes	**85**
Health factors	**64**
Length of life	**83**
Premature death	83
Quality of life	**84**
Poor or fair health	81
Poor physical health days	82
Poor mental health days	80
Low birthweight	84
Health behaviors	**70**
Adult smoking	72
Adult obesity	59
Food environment index	71
Physical inactivity	54
Access to exercise opportunities	87
Excessive drinking	8
Alcohol-impaired driving deaths	39
Sexually transmitted infections	25
Teen births	63
Clinical care	**65**
Uninsured	57
Primary care physicians	60
Dentists	64
Mental health providers	25
Preventable hospital stays	76
Mammography screening	32
Social and economic factors	**60**
High school graduation	11
Some college	89
Unemployment	49
Children in poverty	80
Income inequality	44
Children in single-parent households	62
Social associations	7
Violent crime	21
Injury deaths	79
Physical environment	**28**
Air pollution	62
Severe housing problems	62
Driving alone to work	10
Long commute – driving alone	13

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 1 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, Jay County had 29 out of 41 indicators ranked in the bottom half of Indiana counties. Of those, 16 were in the bottom quartile: health outcomes, length of life, premature death, quality of life, poor or fair health, poor physical health days, poor mental health days, low birthweight, health behaviors, adult smoking, food environment index, access to exercise opportunities, preventable hospital stays, some college, children in poverty and injury deaths.

[8] *County Health Rankings and Roadmaps. (2021). County Health Rankings Model. Retrieved from: https://www.countyhealthrankings.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	Jay County	Indiana	U.S.
Health outcomes				
Length of life	Years of potential life lost before age 75 per 100,000 population (age-adjusted)	10,433.8	8,237.5	6900.0
Quality of life	Percentage of adults reporting fair or poor health (age-adjusted)	18.6	17.7	16.0
Quality of life	Average number of physically unhealthy days reported in past 30 days (age-adjusted)	4.2	3.9	3.7
Quality of life	Average number of mentally unhealthy days reported in past 30 days (age-adjusted)	4.3	4.3	3.8
Quality of life	Percentage of live births with low birthweight (<2500 grams)	8.8	8.1	8.0
Health factors				
Health behaviors				
Adult smoking	Percentage of adults who are current smokers	21.1	21.1	17.0
Adult obesity	Percentage of adults that report a BMI of 30 or more	34.5	32.8	29.0
Food environment index	Index of factors that contribute to a healthy food environment, 0 (worst) to 10 (best)	7.6	7.1	7.7
Physical inactivity	Percentage of adults age 20 and over reporting no leisure-time physical activity	27.9	25.1	22.0
Access to exercise opportunities	Percentage of population with adequate access to locations for physical activity	39.5	75.2	84.0
Excessive drinking	Percentage of adults reporting binge or heavy drinking	16.1	18.6	18.0
Alcohol-impaired driving deaths	Percentage of driving deaths with alcohol involvement	24.0	20.8	29.0
Sexually transmitted infections	Number of newly diagnosed chlamydia cases per 100,000 population	236.7	466.0	497.3
Teen births	Number of births per 1,000 female population ages 15-19	34.8	28.4	25.0
Clinical care				
Uninsured	Percentage of population under age 65 without health insurance	9.8	9.5	10.0
Primary care physicians	Ratio of population to primary care physicians	2,338:1	1,495:1	1,330:1
Dentists	Ratio of population to dentists	3,491:1	1,810:1	1,460:1
Mental health providers	Ratio of population to mental health providers	952:1	669:1	440:1
Preventable hospital stays	Number of hospital stays for ambulatory-care sensitive conditions per 1,000 Medicare enrollees	5,899.0	5,023.0	4520.0
Mammography screening	Percentage of female Medicare enrollees ages 67-69 that receive mammography screening	40.0	40.0	41.0
Flu vaccinations	Percentage of Medicare enrollees who receive an influenza vaccination	47.0	47.0	45.0
Social and economic factors				
High school graduation	Percentage of ninth-grade cohort that graduates in four years	95.9	83.8	85.0
Some college	Percentage of adults ages 25-44 with some post-secondary education	43.7	62.4	65.0
Unemployment	Percentage of population ages 16 and older unemployed but seeking work	3.6	3.5	4.4
Children in poverty	Percentage of children under age 18 in poverty	23.2	17.8	18.0
Income inequality	Ratio of household income at the 80th percentile to income at the 20th percentile	3.9	4.4	4.9
Children in single-parent households	Percentage of children that live in a household headed by single parent	33.2	33.6	33.0
Social associations	Number of membership associations per 10,000 population	19.0	12.3	9.0

Indicator category	Indicator	Jay County	Indiana	U.S.
Violent crime	Number of reported violent crime offenses per 100,000 population	99.9	385.1	386.0
Injury deaths	Number of deaths due to injury per 100,000 population	91.8	74.1	67.0
Physical Environment				
Air pollution	Average daily density of fine particulate matter in micrograms per cubic meter (PM2.5)	12.1	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	12.7	13.7	18.0
Driving alone to work	Percentage of the workforce that drives alone to work	79.1	83.0	76.0
Long commute – driving alone	Among workers who commute in their car alone, the percentage that commute more than 30 minutes	20.4	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 Jay County:
  - Percentage of population with adequate access to locations for physical activity
  - Ratio of population to primary care physicians
  - Ratio of population to dentists

[9] *County Health Rankings provides details 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*

Indiana Department of Health

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

Indicator	Jay County	Indiana
Major cardiovascular diseases	206.8	237.5
Diseases of heart	161.6	178.7
Cancer	170.0	163.3
Other diseases of circulatory system	<10	80.7
Other diseases of heart	47.0	72.6
Chronic lower respiratory diseases	83.3	56.1
All other and unspecified accidents and adverse effects	67.0	45.3
Cerebrovascular diseases (stroke)	<10	41.5
Alzheimer's disease	<10	31.7
Diabetes mellitus	43.0	25.0
Nephritis, nephrotic syndromes and nephrosis (kidney disease)	<10	17.1
Intention self<10harm (suicide)	<10	14.1
Influenza and pneumonia	<10	11.6
Motor vehicle accidents	<10	12.6
Chronic liver disease and cirrhosis	<10	12.0
Hypertensive heart disease with or without renal disease	<10	13.1
Essential hypertension and hypertensive renal disease	<10	10.4
Assault (homicide)	<10	7.2
Symptoms, signs, and abnormal clinical and laboratory findings, not elsewhere classified (excluding SIDS)	<10	6.0
Certain conditions originating in the perinatal period	<10	3.6
Congenital malformations, deformations and chromosomal abnormalities	<10	4.0
All other external causes	<10	2.4
Athersclerosis	<10	2.3
Pregnancy, childbirth and the puerperium	<10	0.9
Sudden infant death syndrome (SIDS)	<10	0.7
Peptic ulcer	<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; dark grey shading highlights any indicators more than 50 percent worse than the Indiana average. The Indiana Department of Health does not provide rates when total deaths for that particular cause of death is <10 in that county.

Observations

- Selected causes of death for Jay County exceeded the state average for all other and unspecified accidents and adverse effects, cancer, and chronic lower respiratory diseases.
- Mortality rates in Jay County for diabetes mellitus were more than 50 percent worse than the Indiana average.

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

Indicator	Jay County	Indiana
All cancers	170.0	163.3
Breast	<10	10.6
Cervix uteri, corpus uteri and ovary	<10	7.0
Colon, rectum and anus	<10	15.0
Leukemia	12.3	14.5
Non-Hodgkin's lymphoma	24.1	18.3
Other forms of cancer	46.6	51.5
Pancreas	<10	11.8
Prostate	<10	7.9
Stomach	<10	2.4
Trachea, bronchus and lung	53.8	42.9
Urinary tract	<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 Indiana Department of Health does not provide rates when total cases of that particular type of cancer are <10 in that county.

Observations

- Cancer mortality rates in Jay County for all cancers, Non-Hodgkin's lymphoma 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	Jay County	Indiana
All cancers	484.9	459.3
Bladder	27.3	21.7
Brain and ONS	<10	6.5
Breast	104.1	122.9
Cervix	<10	8.2
Childhood (ages <15)	<10	16.2
Colon and rectum	62.0	42.6
Esophagus	<10	5.5
Kidney and renal pelvis	21.3	19.0
Leukemia	12.3	13.7
Liver and bile duct	<10	7.2
Lung and bronchus	74.5	72.2
Melanoma of the skin	17.8	21.7
Non-Hodgkin's lymphoma	24.1	18.6
Oral cavity and pharynx	18.9	12.7
Ovary	<10	10.4
Pancreas	13.3	13.3
Prostate	79.9	94.2
Stomach	<10	5.9
Thyroid	<10	12.5
Uterus	26.4	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 Jay County for all cancers, bladder, colon and rectum, kidney and renal pelvis, lung and bronchus, Non-Hodgkin's lymphoma and oral cavity and pharynx were higher than the Indiana averages.

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

Indicator	Jay County	Indiana
Chlamydia	293.6	526.3
Gonorrhea	97.9	177.1
HIV/AIDS	62.6	189.9
Primary and secondary syphilis	<5	5.0

Source: Indiana Department of Health, 2019

Description

Exhibit 25 presents incidence rates for various communicable diseases.

Observations

- Jay County had lower communicable disease rates than the Indiana averages in 2019.

Exhibit 26: Maternal and child health indicators, 2019

Indicator	Jay County	Indiana
Breastfeeding	80.8%	82.0%
Infant mortality rate (per 1,000 Live Births)	0.0	6.5
Low birthweight	7.4%	8.2%
Mothers on Medicaid	34.0%	38.5%
Mothers under 19 (per 1,000 mothers)	27.5	20.7
Prenatal care	57.2%	68.9%
Preterm births	9.4%	10.1%
Smoked during pregnancy	17.5%	11.8%
Unmarried mothers	45.1%	44.5%

Source: Indiana Department of Health, 2017

Description

Exhibit 26 presents various maternal and infant health indicators. Light grey shading highlights indicators 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 Jay County, breastfeeding, mothers under 19, prenatal care, smoked during pregnancy and unmarried mothers percent were worse than the 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 and 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	Jay	Indiana	U.S.
Diabetes short-term complications	52.4	90.3	58.3
Diabetes long-term complications	137.4	116.6	104.1
COPD or asthma in older adults	448.6	467.9	493.8
Hypertension	39.3	56.7	60.0
Heart failure	268.3	455.7	413.0
Community acquired pneumonia	229.1	248.3	158.8
Urinary tract infection	78.5	149.1	141.3
Uncontrolled diabetes	6.5	39.2	43.0
Asthma in younger adults	99.5	27.2	30.3
Lower extremity amputation with diabetes	72.0	30.2	29.3
Prevention overall composite	1,164.8	1,465.9	1,306.3
Prevention acute composite	307.6	397.4	300.1
Prevention chronic composite	857.3	1,068.7	1,006.4
Prevention diabetes composite	216.0	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 Jay 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), hyptertension, 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 Jay County, the rates of admissions for ACSC were more than 50 percent worse than the Indiana averages for two of 14 conditions: asthma in younger adults and lower extremity amputation with diabetes.

[10] *Ibid, 8.*

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

Indicator	Jay County	Indiana	Ratio: Jay/Indiana
Asthma in younger adults	99.5	27.2	3.7
Lower extremity amputation with diabetes	72.0	30.2	2.4
Diabetes long-term complications	137.4	116.6	1.2
COPD or asthma in older adults	448.6	467.9	1.0
Community acquired pneumonia	229.1	248.3	0.9
Prevention overall composite	1,164.8	1,465.9	0.8
Prevention acute composite	307.6	397.4	0.8
Prevention chronic composite	857.3	1,068.7	0.8
Prevention diabetes composite	216.0	257.4	0.8
Hypertension	39.3	56.7	0.7
Diabetes short-term complications	52.4	90.3	0.6
Heart failure	268.3	455.7	0.6
Urinary tract infection	78.5	149.1	0.5
Uncontrolled diabetes	6.5	39.2	0.2

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

Description

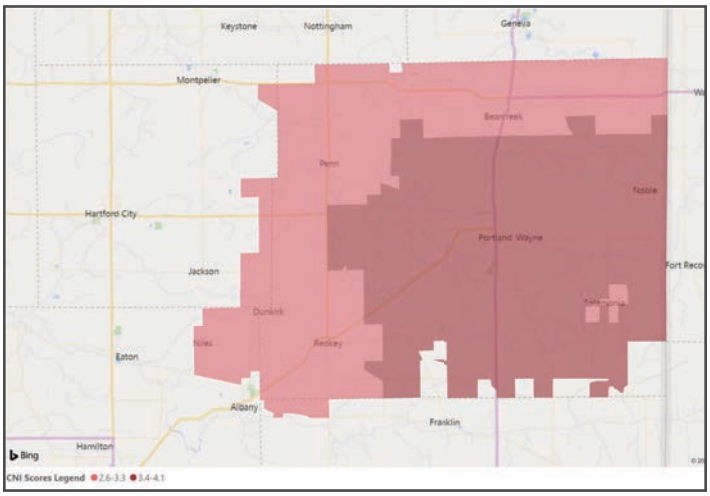
Exhibit 29 provides the ratio of Ambulatory Care Sensitive Conditions (ACSC) also referred to as Preventative Quality Indicators (PQI) rates for the IU Health Jay community compared to Indiana averages. Conditions where the ratios are highest (meaning that the PQI rates in the community are the most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

Observations

- In Jay County, ACSC rates for asthma in younger adults were more than triple the Indiana average. Rates for lower extremity amputation with diabetes were more than double the Indiana average. Rates for diabetes long term complications were 20 percent higher than the state averages.

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 healthcare access. The index, available for every ZIP code in the United States, is derived from five social and economic indicators:

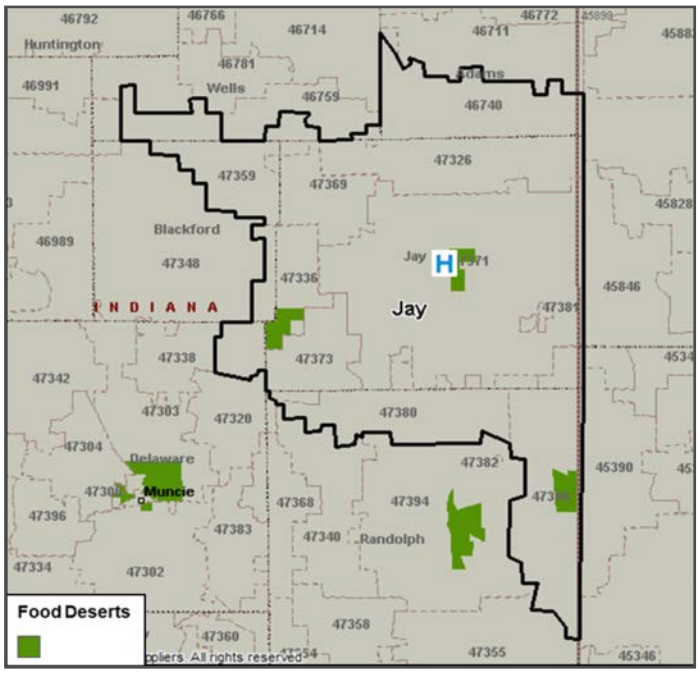
- The percentage of elders, children and single parents living in poverty;
- The percentage of adults over the age of 25 with limited English proficiency and the percentage of the population that is non-White;
- The percentage of the population without a high school diploma;
- The percentage of uninsured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

- Jay County scored a 3.2 on the CNI scale, which is above the national average of 3.0.

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.

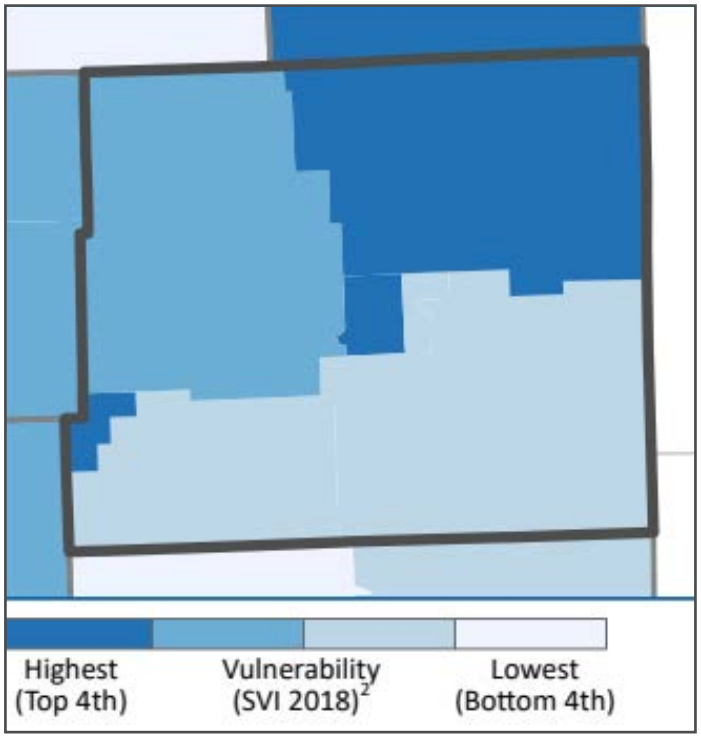
The U.S. Department of Agriculture's Economic Research Service defines urban food deserts as low-income areas more than one mile from a supermarket or large grocery store and rural food deserts as more than 10 miles from a supermarket or large grocery store. Many government-led initiatives aim to increase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

Observations

- Several census tracts in the IU Health Jay community have been designated as food deserts.

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

Jay County housing/transportation SVI map



Source: Centers for Disease Control and Prevention, 2018

Description

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

Observations

- Two (2) of Jay County's 7 census tracts (28.6 percent) ranked in the bottom quartile nationally. Those 2 census tracts make up 37.2 percent of the county's population.

[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
Jay	Low Income – Jay County	Medically Underserved Population

Source: HRSA, 2021

Description
Exhibit 33 illustrates the location of Medically Underserved Areas (MUAs) 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
- The low income population of Jay County has been designated as a Medically Underserved Population.

[12] *Health Resources & Services Administration. (Feb. 2021). What is Shortage Designation? Retrieved from: https://bhw.hrsa.gov/workforce-shortage-areas/shortage-designation*
[13] *Ibid.*

Health Professional Shortage Areas

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

County	HPSA	Type
Jay	Jay County	HPSA Geographic

Source: HRSA, 2021

Description
Exhibit 34A lists the locations of federally designated primary care HPSA 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. In addition to areas and populations that can be designated as HPSAs, a health care 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 which 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
- Jay County has been designated as a primary care HPSA.

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

County	HPSA	Type
Jay	Low Income – Jay County	HPSA Population

Source: HRSA, 2021

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

Observations
- Low-income populations in Jay County have been designated as a dental care HPSA.

[14] *Ibid.*

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

County	HPSA	Type
Jay	East Central Indiana	HPSA Geographic High Needs

Source: HRSA, 2021

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

Observations
- Jay County has been designated as a mental health HPSA as a part of the East Central Indiana region.

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 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/.

[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*

Exhibit 35: Significant needs identified in other assessments or reports

Prioritized need	Frequency
Food insecurity	2
Aging population and needs of seniors	1
Asthma	1
Cardiovascular disease	1
Diabetes	1
Health disparities	1
Infant mortality	1
Obesity	1
Physical inactivity	1
Public health infrastructure	1
Screenings for cancer	1
Substance use disorders	1
Tobacco use	1
Transportation	1

Source: Analysis by IU Health, 2021

Description

Several other assessments and reports conducted by community-based organizations or agencies, local health departments (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 hospital CHNAs that assessed IU Health Jay's community:
  - Food insecurity
  - Chronic disease and chronic disease management
  - Aging population and needs of seniors

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	Jay	Indiana	United States
Total positive cases	2,137	806,094	36,951,181
Total case rate per 100,000	10,457.0	11,934.0	11,273.0
Total deaths	32	13,743	620,493
Total death rate per 100,000	156.6	210.0	187.0
Total population vaccinated	6,036	3,019,608	168,689,357
Percent of population vaccinated	35.5	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/20-02ExecutiveOrder DeclarationofPublicHealthEmergencyforCOVID-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 – Interview, community meeting and survey participants

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

- A Better Life Briana's Hope
- First Presbyterian Church Portland
- IU Health
- IU Health Jay
- Jay Community Center
- Jay County Department of Children Services
- Jay County Health Department
- Jay County Prosecutor
- Jay County Sheriff's Office
- Jay Randolph Developmental Services, Inc.
- Jay School Corporation
- LifeStream Services
- Persimmon Ridge
- Purdue Extension
- The Rock Church
- WIC Family Services
- Youth Service Bureau of Jay County

Appendix D – Impact of actions taken since the previous CHNA

This appendix discusses the impact of community health improvement actions taken by IU Health Jay 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 healthcare

- **The Healthy Community Alliance of East Central Indiana (HCA)** engages 149 collaborating organizations in three East Central Region counties (Delaware, Blackford and Jay). In 2019 and 2020, ten new partners were added to the network (Crossroads Financial Credit Union, Jay County Development Corporation, Jay County Drug Prevention Coalition, Jay Community Schools, Home Health Angels, United Way of Jay County, Alexandria Care Center, John Jay Center for Learning, United Day Care Center of Delaware County and Community Partners Children's Bureau). The HCA makes multiple resources available to collaborators, including facilitated workgroup sessions in each county, materials such as Tobacco Cessation Toolkits and Healthy Lifestyle toolkits, online resources like an e-newsletter, media messaging and access to community health data for each of the three counties. These resources are provided to all collaborating organizations free of charge. In 2020, the HCA began offering webinar programming as a way to engage partners in accessing resources and programming in all three counties. The CDC Change tool survey process was conducted in both Delaware and Jay counties in 2020 by the HCA partner organizations with HCA partner support. In Blackford County, HCA efforts led to programming and curriculum changes at the Blackford Community School System. A 2019 survey found that 105 of HCA partner organizations were utilizing at least one of these provided resources to influence change amongst their audiences. The Healthy Community Alliance is organized and facilitated by the IU Health East Central Region Hospitals and receives materials and support from IU Health Ball.
- **The IU Health East Central Region added six new primary care providers** – two physicians, two Family Nurse Practitioners (FNP), one Nurse Practitioner (NP) and one Physician Assistant (PA) – in 2019. Two of the new primary care providers are located in Jay County, one in Blackford County and three in Delaware County, where the provider footprint was expanded with the addition of an existing physician practice into the IU Health physician network. A new HIV Pre-Exposure Prophylaxis Clinic and Pediatric Hospitalist Program was started at IU Health Ball

in 2019. Six new primary care providers joined the IU Health East Central Region – three physicians, two FNPs and one Women's Health Nurse Practitioner (WHNP) – in 2020. Two of the new providers are located in Jay County, two in Grant County and two in Delaware County. Additionally, virtual services were expanded allowing all primary care providers to provide virtual visits to their patients. In Jay County, a new program focused solely on Women's Health and prenatal and postnatal care was established in 2020. In 2021, a new two-physician primary care clinic was established in Upland that including FNP-BC to provide additional primary care support. A partnership with Taylor University provided a student health center at this practice in August of 2021. A new Nurse Practitioner joined the Blackford practice in May of 2021. Jay Family First Healthcare had a new physician join in August of 2021.

- **The IU Health East Central Region Perinatal Coordinator** facilitated the development of 36 collaborators to enhance efforts to decrease infant mortality and improve the health of newborns and women in 2019-2020. Access to community resources increased due to East Central Region (ECR) efforts that include the promotion of Baby and Me Tobacco Free program, implementation of a Tobacco Treatment Pilot Program in five ECR physician office settings designed to provide client consultations and referrals to 1-800 Quit Now and pharmacotherapy options. IU Health Jay received an IDOH OB Navigation grant which provided OB Navigation for clients in Jay and Blackford counties to offer continuum of care throughout pregnancy in 2020. Physician practices in the region received Safe Sleep education and resources, and a partnership with IU Health Ball Lactation Services resulted in the development of telemedicine lactation services at IU Health Jay. An Intra-professional Model of Care for Newborn Intensive Care Unit (NICU) rounds with discharge planning was developed at IU Health Ball to decrease Length of Stay (LOS) and barriers to discharge. IU Health Jay submitted and received an Indiana Department of Health grant to support a new OB Navigation program called Healthy Beginnings. Launched in 2020, the Healthy Beginnings Program is a comprehensive women's health model that focuses on access to care and improving maternal/infant health outcomes by utilizing care coordination, outpatient services and community collaboration. In 2021, the Indiana Department of Health awarded two years of funding for the implementation of a HIPPA compliant text messaging and remote monitoring virtual platform to all obstetrical practices in the ECR providing prenatal care and offering delivery services at IU Health Ball.

Behavioral health

- **IU Health East Central Region Virtual Care Behavioral Health Hub** was established in 2019. The IU Health Blackford and IU Health Jay Emergency Departments had 161 patients admitted with a Substance Use Disorder (SUD) diagnosis in 2019. The number of admitted patients increased to 190 at both EDs in 2020. Patients were identified by administering an UNCOPE screening, the patient reports previous substance use/treatment or bedside staff identifies substance misuse as the cause of the ED visit. Treatment of 52 episodes of substance use in 47 patients were served by the virtual peer recovery program in 2019 with 37 episodes of treatment for 32 patients in 2020. In the first half of 2021, 35 episodes of treatment were provided for 30 patients. The hub employees include a total of seven peer recovery coaches. A coach is always available 24-hours a day, 7-days a week. The average response time after a consult is requested was approximately 5-minutes. The Hub receives a call from the ECR every 8-10 days on average. Collaborators include System Clinical Services (SCS)/Virtual Care, BHC and ED staff. Funding was through the FSSA and Indiana Department of Health.

Chronic disease management

- **The IU Health Ball Addiction Treatment and Recovery Center** opened in 2019 and offered an Intensive Outpatient Program (IOP), which included group recreation therapy and individual and family counseling services and peer recovery coaching. Medication Assisted Treatment (MAT), an Individual Outpatient Program and IOP Aftercare Program are also available. This center provided 67 assessments and had 44 persons enrolled in IOP and/or the Individual Track in July-December of 2019. Those numbers increased to 130 and 107 in 2020. Patients who completed the IOP demonstrated a 35 percent increase in sobriety and pregnant women demonstrated a 100 percent sobriety rate. The IU Health Behavioral Health Collaborative agreed to supply the cost of staff, space and equipment in 2019. Numerous community partners were engaged including AA, NA, Briana's Hope, A Better Life, Celebrate Recovery and Smart Recovery, plus faith-based partnerships and community resource partners.
- **Drug take-back kiosks** were installed at four East Central Indiana locations: Pavilion Pharmacy at IU Health Ball in Muncie (Pavilion), IU Health Yorktown Pharmacy in Yorktown, IU Health Blackford Pharmacy in Hartford City and IU Health Jay in Portland. The kiosks are open to the public and available during business hours. In 2019, 874 pounds of prescription meds were recovered at Pavilion, 230 pounds at Blackford, 161 pounds at Yorktown and 161 pounds at Jay. In 2020, 897 pounds of meds were collected from the four locations and destroyed. In January-June of 2021, 690 pounds of meds were collected and destroyed with an estimated 800 pounds to be collected in the second half of 2021.

- **1-800 Quit Now telephone service** was established in the East Central Region in 2019. The Indiana Tobacco Quit Line received 226 referrals from Delaware County, 28 from Blackford County and 32 from Jay County in 2019. Participant numbers declined in the face of the COVID-19 pandemic in 2020. The Indiana Tobacco Quit Line received 152 referrals with 103 from Delaware County, 20 from Blackford County and 29 from Jay County in 2020. In January-June of 2021, referrals totaled 58 with 38 from Delaware County, ten from Blackford County and nine from Jay County.

Obesity and diabetes

- **The East Central Indiana Food Council** is a volunteer-run organization led by local activists interested in addressing community issues around food access and nutrition that began in 2019. It receives support from the IU Health-led Healthy Community Alliance initiative. The group has strategically grown from a Delaware County focus to include participants from Blackford and Jay counties. The Council is composed of multiple community collaborators representing Ball State University, Muncie Food Hub, IU Health, Purdue Extension, Second Harvest Food Bank, Grace Baptist Church, Soup Kitchen of Muncie, Blood-n-Fire Ministries, Community and Family Services Food Pantries in Hartford City, Montpelier, Portland and the Children's Bureau as well as local farmers and farmers market organizers. In 2019, the group offered guidance to area schools and farmers regarding the process of bringing local farm products to schools, with the outcome of a new online resource for accessing mandatory forms and policies and connections made between schools and farmers. In response to the COVID-19 pandemic, the group held a special philanthropy session in 2020 where funders talked directly with food support organizations directly about their needs. The result was that groups received funding for initiatives such as additional equipment and the Muncie Food Hub partnered with IU Health to offer free produce for 15-weeks delivered to ten locations in Delaware, Blackford and Jay counties. Sites included food pantries, childcare centers, community centers and healthcare organizations where vulnerable populations were able to be reached. The Healthy Community Alliance Nutrition Workgroup was combined into the Food Council in June of 2021 and brought additional partners into the collaborative while integrating a more defined focus on healthy eating. The group organized a field trip in July 2021 to tour an aquaculture facility which has long term potential to bring fresh produce to underserved areas.

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.

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