Community Health Needs Assessment
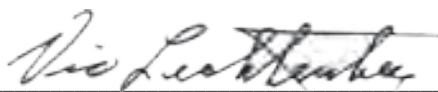
October 3, 2018

**IU Health
White Memorial
Hospital**

White Memorial Hospital

Vic Lechtenberg
Chairman of IU Health White Memorial Board of Directors

10/03/18
Date

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For the 2018 Community Health Needs Assessment, Indiana University Health conducted the community survey data collection in collaboration with Indiana University, University of Evansville and an Indiana Hospital Collaborative, including Community Health Network, Franciscan Alliance, St. Vincent Health and other hospital partners.

Additional IU Health collaborators included:
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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 White Memorial Hospital (IU Health White Memorial Hospital or "the hospital") offers a wide range of services that include: general medical and surgical services which includes hospitalist coverage; a 24-hour emergency department with onsite helipad for critical care transportation; sophisticated diagnostic imaging services including mammography, MRI and CT; laboratory, chemotherapy, physical therapy and swing bed services.

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: https://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 also for associated implementation strategies, visit: https://iuhealth.org/in-the-community. Updated implementation strategies for each IU Health hospital are scheduled to be published by May 15, 2019.

Community Definition

For purposes of this CHNA, IU Health White Memorial Hospital's community is defined as White County, Indiana. This county accounted for over 89 percent of the hospital's inpatient cases in 2016. The total population of this community in 2015 was 24,224.

The following map portrays this community. The map shows county and ZIP code boundaries. Specific ZIP codes are included in analyses if any portion of the ZIP code overlaps with one or more counties.

Source: Microsoft MapPoint and IU Health, 2018

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[1] 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,
- Input obtained from one or more key stakeholders who were interviewed, and
- A community survey conducted in collaboration with other Indiana health systems.

Based on the assessment of the above data sources, the following community health needs have been identified (in alphabetical order) as significant in the community served by IU Health White Memorial Hospital. References are made below to exhibits and findings presented in this report (e.g., whether certain needs were found to be significant based in part on findings from the community survey or community meetings).

Access to Health Care Services
- The area served by IU Health White Memorial Hospital has an under-supply of primary care physicians, mental health professionals, and dentists (**Exhibits 24, 25**).

[1] *"Secondary data" refers to data published by others, for example the U.S. Census and the Indiana State Department of Health.*

- Access to several types of services (mental health and occupational medicine) also is challenging due to limited transportation options (**Community Meetings, Interviews**).
- White County ranks in the bottom quartile both of Indiana counties and peer counties for the rate of preventable admissions (**Exhibits 23, 25**). Across the U.S., a lack of access to quality primary care services has been shown to be a contributing factor.

Drug and Substance Abuse (Including Opioids)
- The opioid crisis, and other forms of drug and substance abuse, were identified by community members as particularly significant (**Community Meeting, Community Survey**).

Health Care and Social Services for Seniors
- Demographic data indicate rapid growth in the population aged 65 years and older (**Exhibit 12**).
- Community members ranked "aging and older adult needs" as among the most significant issues (**Community Survey**).

Maternal and Child Health
- Several maternal and child health indicators for White County are worse than Indiana averages, including rates of smoking during pregnancy, and teen pregnancy (**Exhibit 30**).

Mental Health
- Mental health status was identified by community members as a significant problem (**Community Survey, Community Meeting, Interview**).
- White County ranks in the bottom half of peer counties for "mentally unhealthy days" (**Exhibit 25**).
- Data indicate that peer counties have many more mental health providers available (on a per-capita basis) (**Exhibit 25**).

Obesity and Diabetes
- A higher percentage of White County residents are obese than those living in peer counties (**Exhibit 25**), and almost 30 percent are physically inactive (compared to 23 percent in the U.S. as a whole) (**Exhibit 24**).
- Individuals providing input identified obesity and diabetes as top concerns (**Interview, Community Survey**).
- A lack of exercise facilities, bike trails, and walking areas, and the prevalence of fast food restaurants and cost of healthier eating options are contributing factors (**Interview**).

Smoking
- Smoking rates are comparatively high, including among pregnant women and lower-income residents (**Exhibits 25, 30**).

Social Determinants of Health
- White County's overall poverty rate has been below the Indiana average and the percent of adults "with some college" also is below average (**Exhibits 17, 24, 25**).

- White County ranks in the bottom quartile of peer counties for children in poverty (**Exhibit 25**).

DATA AND ANALYSIS

Definition of Community Assessed

The community assessed by IU Health White Memorial Hospital was defined by the geographic origins of patients discharged from the hospital, and on that basis was identified as White County, Indiana.

Residents from this county accounted for 89 percent of the hospital's 2016 inpatient discharges (**Exhibit 1**).

Exhibit 1: IU Health White Memorial Hospital Inpatient Discharges by County, 2016

County	Percent of Inpatients (2016)
White County	89%

Source: Analysis of Indiana University Health Discharge Data, 2016

The estimated, total population of White County in 2015 was 24,224 persons (**Exhibit 2**).

Exhibit 2: Community Population, 2015

County	Estimated Population 2015	Percent of Total Community Population
White County	24,224	100.0%

Source: State of Indiana by the Indiana Business Research Center, March 2018

The hospital is located in White County (City of Monticello, Indiana, ZIP code 47960).

Exhibit 3 portrays the community. The map shows county and ZIP code boundaries. Specific ZIP codes are included in the assessment if any portion of the ZIP code overlaps with one or more of the counties.

Exhibit 3: IU Health White Memorial Hospital Community
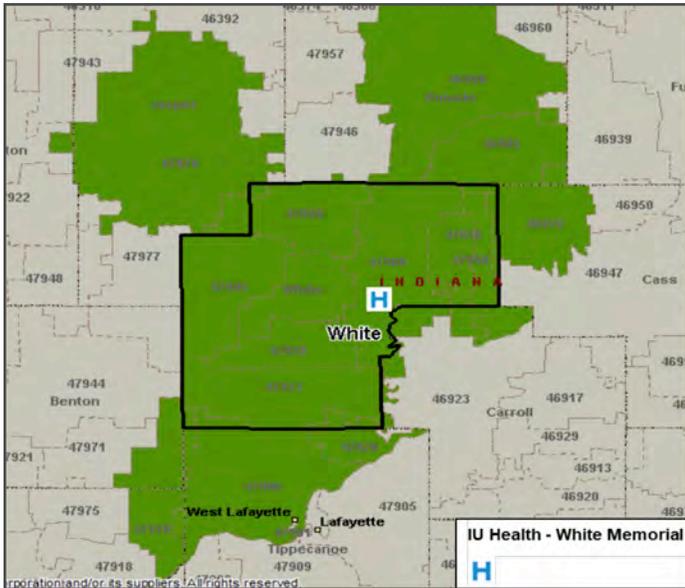
Source: Microsoft MapPoint and IU Health, 2018

Secondary Data Summary

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

Demographics
Population characteristics and trends directly influence community health needs. The total population in the IU Health White Memorial Hospital community is expected to decrease by 1.7 percent from 2015 to 2020. Between 2016 and 2021, nine of the 15 ZIP codes in the IU Health White Memorial Hospital community are projected to gain population. The population in one White County ZIP code is expected to grow by more than five percent.

The number of persons aged 65 years and older is projected to grow at a much faster rate (11.5 percent). This should contribute to growing need for health services, since older individuals typically need and use more services than younger persons.

Linguistic isolation is slightly more prevalent than in Indiana as a whole.

Economic Indicators
Many health needs have been associated with poverty. At 10.0 percent, White County's poverty rate has been below the Indiana average. Low income census tracts are prevalent in IU Health White Memorial Hospital's community.

Unemployment rates in the community have been consistently below Indiana averages.

The percentage of people uninsured has declined in recent years due to two primary factors:
- In recent years, unemployment rates have decreased significantly. Many receive health insurance coverage through their (or a family member's) employer.
- In 2010, the Patient Protection and Affordable Care Act (PPACA) was enacted, and Indiana was among the states that expanded Medicaid eligibility.

Local Health Status and Access Indicators
Indiana has 92 counties. In the 2018 *County Health Rankings* for overall health outcomes, White County ranked 49th.

White County had 19 out of 42 indicators ranked in the bottom half of Indiana counties. Of those, seven were in the bottom quartile, including: adult obesity, teen births, uninsured, dental care, preventable hospital stays, high school graduation, and air pollution.

In the 2018 Community Health Status Indicators (which compares community health indicators for each county with those for peers across the United States), the following indicators appear to be most problematic:
- Years of potential life lost
- Percent reporting fair/poor health
- Percent reporting physically unhealthy days
- Percent low birth rate
- Percent obese
- Percent physically active
- Chlamydia rate
- Teen birth rate
- Percent uninsured
- Preventable hospitalization rate
- High school graduation rate
- Percent with some college
- Percent of children in college
- Social association rate
- Average Daily PM2.5 (Air pollution)

According to the Centers for Disease Control and Prevention (CDC), mortality rates for cancer, all other diseases, other diseases of the heart, chronic lower respiratory diseases, Alzheimer's disease, motor vehicle accidents, and other diseases of the circulatory system were higher compared to Indiana averages. Further, the overall mortality for chronic liver disease and cirrhosis and mortality from pregnancy, childbirth, and the puerperium were more than 50 percent higher than the Indiana average. The overall cancer incidence rate was higher in White County than the Indiana average.

Rates of communicable disease in White County, particularly for syphilis, were significantly higher than Indiana averages.

Ambulatory Care Sensitive Conditions
Ambulatory Care Sensitive Conditions (ACSCs) include thirteen 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."[2] Among these conditions are: angina without procedure, diabetes, perforated appendixes, chronic obstructive pulmonary disease (COPD), hypertension, congestive heart failure, dehydration, bacterial pneumonia, urinary tract infection, and asthma.

The ACSC rate for perforated appendix and community-acquired pneumonia in the IU Health White Memorial Hospital community exceeded the Indiana average.

Community Need Index
Dignity Health, a California-based hospital system, developed and published a *Community Need Index™* (CNI) that measures barriers to health care 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
- 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 White County was 2.6 – lower than the national median of 3.0. One ZIP code in the IU Health White Memorial Hospital community, White ZIP code 47959, scored in the "highest need" category.

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

One census tract within the IU Health White Memorial Hospital community has been designated as a food desert.

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."

White County does not have any medically underserved areas.

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.

Areas throughout IU Health White Memorial Hospital's community have been designated as Primary Care and Mental Health HPSAs.

Relevant Findings of Other CHNAs
This CHNA also has considered the findings of other recent, available assessments conducted by other hospital facilities, local health departments (LHDs), and the State of Indiana. These other assessments consistently have identified the following needs as significant for the community served by IU Health White Memorial Hospital.

- Access to basic and primary health care
- Access to mental health services
- Chronic disease management
- Drug and substance abuse
- Housing issues and homelessness
- Mental and behavioral health
- Obesity

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, while Indiana's recent poverty rate (percent of people at or below 100 percent of the Federal Poverty Level) was 15 percent, the rate in White County was 22 percent. For IU Health White Memorial Hospital, the overall poverty rate thus is considered significant. The last column of **Exhibit 4** identifies where more information regarding the data sources can be found.

The benchmarks include Indiana averages, national averages, and in some cases averages for "peer counties" from across the United States. In the *Community Health Status Indicators* data source, peer counties are defined as being similar in terms of population density, household incomes, and related characteristics.

[2] *Agency for Healthcare Research and Quality (AHRQ) Prevention Quality Indicators.*

Exhibit 4: Significant Indicators

Indicator	Area	Value	Benchmark	Exhibit
Population change, 2015-2020	White County	-1.7%	1.9% – Indiana	12
65+ Population change, 2015-2020	White County	11.5%	-1.7% – Total Community Population	12
Poverty rate, Hispanic, 2012-2016	White County	24.1%	10.0% – White County Total	18
Percent of children in poverty	White County	16.9%	14.1% – Peer Counties	25
Percent of adults with some college	White County	57.9%	62.0% – Indiana	24
Years of potential life lost per 100,000	White County	8,422	6,700 – U.S.	24
Mentally unhealthy days per month	White County	3.8	3.5 – Peer Counties	25
Physically unhealthy days per month	White County	3.7	3.3 – Peer Counties	25
Discharges for community-acquired pneumonia (rate per 100,000)	White County	259.7	184.5 – Indiana	33
Chronic liver disease and cirrhosis mortality rate (per 100,000)	White County	18.1	11.2 – Indiana	24
Cancer mortality rate (per 100,000)	White County	191.4	172.5 – Indiana	27
Cancer incidence rate (per 100,000)	White County	451.9	445.2 – Indiana	28
Teen birth rate (births per 1,000 females aged 15-19)	White County	39.4	22.4 – Peer Counties	25
Percent of live births with low birth weight	White County	7.5%	6.3% – Peer Counties	25
Smoked during pregnancy percent	White County	22.4%	15.6% – Indiana	30
Average Daily Particulate Matter (PM 2.5)	White County	11.3	9.9 – Peer Counties	25
Percent of adults obese	White County	35.7%	31.8% – Peer Counties	25
Percent of adults physically inactive	White County	29.1%	23.0% – U.S.	24
Hospital stays for ambulatory care sensitive conditions per 1,000 Medicare enrollees	White County	77.9	49.0 – U.S.	24
Population per primary care MD	White County	2,429	1,320 – U.S.	24
Population per dentist	White County	4,000	1,480 – U.S.	24
Population per mental health provider	White County	2,400	470 – U.S.	24

Source: Verité Analysis

Primary Data Summary

Primary data were gathered in three ways: Community Meetings, Key Stakeholder Interviews, and a Community Survey.

Community Meetings
On April 23, 2018, a meeting of community representatives was held at IU Health White Memorial Hospital in Monticello, the county seat of White County. The meeting was attended by 32 community members invited by IU Health because they represent important community organizations and sectors such as: non-profit organizations, local business, health care providers, local policymakers, and schools.

Through this meeting, IU Health sought a breadth of perspectives on the community's health needs. The specific organizations represented at the meeting are listed below.

Organizations Represented at Community Meeting
- Adkev, Inc.
- Ball Corporation
- Boys & Girls Club of White County
- Carroll White REMC
- Greater Monticello Chamber of Commerce
- City of Monticello
- Community Foundation of White County
- Family Health Clinics Monon and Wolcott
- Frontier School Corporation
- Girtz Industries, Inc.
- IU Health White Memorial Hospital
- IU White Foundation
- Monticello Healthcare
- Monticello Spring Corporation
- Monticello – Union Township Public Library
- North White School Corporation
- Premier Advertising
- Purdue Extension
- Purdue University Nutrition Education Program
- Twin Lakes High School
- White County Council
- White County Council on Aging/Public Transit
- White County Economic Development
- White County Area Plan
- White County United Way
- ViaQuest Hospice

The meeting began with a presentation that discussed the goals and status of the CHNA process and the purpose of the community meeting. Then, secondary data were presented, along with a summary of the most unfavorable community health indicators. For the community served by IU Health White Memorial Hospital, those indicators were (in alphabetical order):

- Cancer incidence and mortality
- Education attainment levels
- Low birth weight and teen births
- Motor vehicle accidents, injuries and resulting mortality
- Obesity, physical inactivity and access to exercise opportunities
- Physical environment and air pollution
- Preventable hospitalizations

Meeting participants then were asked to discuss whether the identified, unfavorable indicators accurately identified the most significant community health issues and were encouraged to add issues that they believed were significant. Several issues were added, such as: mental health, drugs, occupational medicine, Spanish-speaking services, and nutrition.

During the meeting, a range of other topics was discussed, including:

- Growing interest in identifying places children can go that are safe to get help
- Distance individuals need to travel to obtain services and lack of transportation options
- Significant Spanish-speaking population for which translation services are needed
- Concerns about extent of available data for maternal and child health

After discussing the needs identified through secondary data and adding others to the list, each participant was asked through a voting process to identify "three to five" they consider to be most significant. From this process, the group identified the following needs as most significant for the community served by IU Health White Memorial Hospital:

- Mental health, including education of the need for these services and lack of access
- Obesity, physical inactivity, and access to exercise opportunities
- Drugs, including methamphetamine and opioids and lack of resources
- Occupational medicine, lack of local access to these services
- Nutrition, quality of food available and lack of knowledge about how to prepare healthy food

Interviews

An interview also was conducted with a representative of the White County Health Department. The interview was conducted to assure that appropriate and additional input was received from a governmental public health official. The individual that was interviewed did not participate in the community meeting. Accordingly, the results of the community meeting were discussed and insights were sought regarding significant community health needs, why such needs are present, and how they can be addressed.

The interview was guided by a structured protocol that focused on opinions regarding significant community health needs, describing why such needs are present, and seeking ideas for how to address them.

- The interviewee confirmed that the needs identified by the community meeting group were significant. These needs were:
  – Mental health
  – Drugs
  – Obesity, physical inactivity, and access to exercise opportunities
- Mental health and the supply of mental health providers is a need, as the county often sends people elsewhere for mental health and substance abuse treatment, especially for inpatient care.
- Drug overdoses have increased greatly overall, and overdoses in high school students are more noticeable. Overdoses are coming in cycles from bad batches of opioids, particularly with fentanyl or methamphetamine.
- Many children are being taken from homes due to positive drug tests among parents.
- The need for more bike trails, walking areas, and established exercise space is significant, and getting residents to use existing equipment is also challenging.
- Obesity, including childhood obesity, is an issue. Fast food is readily available and cheap, making healthy choices difficult. While grocery stores are present, the number of fast food options greatly outnumbers healthy options.
- A lack of primary care providers is a significant issue, with many family practice doctors retiring or moving away in old age. Many residents go elsewhere in the state for medical care.
- Many residents go to the emergency room for primary care purposes, as Medicaid patients think they may get seen quicker there than waiting elsewhere. There is one urgent care clinic, but it is very busy.
- There are few providers for OB care and the local hospital does not have a maternity ward.
- Recruitment of physicians needs to be stronger or more effective to bring providers to White County.
- More resources are needed for people who struggle in their family situation, for child protection, and for support in the court system for those going through addiction.
- Basic needs assistance programs need to be expanded to aid those in poverty, although collaboration in fixing this issue is strong presently.
- Parents often do not know where to go for child immunizations and leads to underutilization of these services.

- Communicable diseases and STDs are becoming more prominent, and more screens and education are needed to combat the issue.

Community Survey
To inform the CHNA, a community survey was conducted by the Indiana Hospital Collaborative.[3]

Across Indiana, 9,161 completed questionnaires were received by all participating hospitals in the Indiana Hospital Collaborative, for an overall response rate of 11.6 percent; 5,030 questionnaires were received from the 17 Indiana counties served by one or more IU Health hospitals. For IU Health White Memorial Hospital, surveys were received from 284 community households. According to the responses, these households included 514 adults.

Exhibit 5 portrays the community health needs considered most significant by survey respondents from IU Health White Memorial Hospital's community.

Exhibit 5: Community Survey – Significant Health Needs

Community Health Need	IU Health White Memorial Hospital Number of Responses	IU Health White Memorial Hospital Percent of Respondents
Substance use or abuse	188	66.3%
Obesity	165	58.0%
Aging and older adult needs	150	52.9%
Chronic diseases, like diabetes, cancer, and heart disease	125	43.9%
Alcohol use or abuse	98	34.7%
Tobacco use	84	29.6%
Mental health	82	28.9%
Food access, affordability, and safety	82	28.8%
Poverty	76	26.8%
Child neglect and abuse	70	24.6%
Injuries and accidents	55	19.3%
Disability needs	50	17.4%
Dental care	40	14.1%
Environmental issues	40	14.1%
Suicide	16	5.8%
Reproductive health and family planning	15	5.3%
Assault, violent crime, and domestic violence	15	5.2%
Homelessness	11	3.9%
Sexual violence, assault, rape, or human trafficking	11	3.9%
Infectious diseases, like HIV, STDs, and hepatitis	7	2.5%
Infant mortality	0	0.0%

Source: Community Survey

The community survey indicates that substance abuse, obesity, aging and older adult needs, alcohol use and abuse, and chronic disease represent top concerns in the community served by IU Health White Memorial Hospital.

Exhibit 6 arrays survey responses regarding health factors across demographic and socioeconomic characteristics. The exhibit includes findings from surveys returned by adults living in the 17 counties served by IU Health.

Exhibit 7 summarizes survey responses regarding health behaviors across demographic and socioeconomic characteristics. As frequently found in community health data, physical and mental health status (and tobacco use) tends to be worse for lower-income individuals and for those without a high school diploma. Opioid misuse also appears to be more prevalent in these populations.

[3] *For more information on the survey methodology, see Appendix A.*

Exhibit 6: Community Survey – Health Factors

Measure	Total	Female	Male	White	Black	Asian	Hispanic	$0 – $25k	$25 – $75k	$75k+	No High School Diploma
Total Number of Responses	**8,885**	5,694	3,137	8,487	133	111	148	1,480	3,659	3,328	329
Fair or Poor Health	**16.6%**	16.4%	16.8%	16.6%	33.1%	6.3%	18.2%	39.4%	16.7%	5.9%	39.2%
Physical Health – Fair or Poor	**42.6%**	42.8%	42.5%	42.7%	27.1%	60.4%	46.6%	17.4%	36.8%	60.8%	18.8%
Mental Health – Fair or Poor	**8.2%**	8.6%	7.5%	8.2%	18.0%	4.5%	5.4%	22.2%	8.0%	2.4%	20.4%
Social Well-being – Fair or Poor	**61.2%**	61.5%	61.2%	61.1%	52.6%	79.3%	62.2%	33.9%	57.8%	77.7%	37.4%
Are not satisfied with life	**12.8%**	12.3%	13.9%	12.6%	15.0%	23.4%	10.1%	19.0%	12.1%	11.2%	14.6%
Without Health Insurance	**4.2%**	4.2%	4.0%	4.1%	7.5%	0.9%	10.1%	6.6%	5.3%	2.1%	7.9%
Without Primary Care Physician	**11.0%**	10.5%	11.9%	10.9%	10.5%	20.7%	23.0%	11.2%	11.0%	12.0%	15.8%

Exhibit 7: Community Survey – Health Behaviors

Measure	Total	Female	Male	White	Black	Asian	Hispanic	$0 – $25k	$25 – $75k	$75k+	No High School Diploma
Total Number of Responses	8,885	5,694	3,137	8,487	133	111	148	1,480	3,659	3,328	329
Smoked cigarettes or used other tobacco	9.9%	8.8%	12.0%	9.9%	8.3%	1.8%	9.5%	17.9%	11.3%	5.6%	20.4%
Physically active on regular basis	52.9%	50.3%	57.9%	52.8%	45.1%	54.1%	52.7%	37.3%	51.0%	62.3%	37.7%
Ate a healthy balanced diet	57.5%	57.9%	57.0%	57.6%	41.4%	62.2%	59.5%	42.2%	54.7%	67.6%	34.0%
Got plenty of sleep	56.2%	55.5%	57.8%	56.8%	39.1%	36.9%	46.6%	46.8%	57.1%	59.7%	43.2%
Took an opioid or narcotic that was prescribed to me	8.3%	8.9%	7.4%	8.4%	7.5%	0.0%	2.7%	15.3%	9.0%	5.0%	12.8%
Took an opioid or narcotic that was not prescribed to me	0.6%	0.6%	0.4%	0.5%	0.0%	0.9%	0.0%	1.2%	0.5%	0.4%	0.0%
Took a medication for anxiety, depression, or other mental health challenge that was prescribed to me	18.2%	22.9%	9.6%	18.4%	15.8%	4.5%	10.8%	26.4%	17.4%	16.0%	19.8%

Exhibit 7: Community Survey – Health Behaviors (continued)

Measure	Total	Female	Male	White	Black	Asian	Hispanic	$0 – $25k	$25 – $75k	$75k+	No High School Diploma
Had blood pressure checked	48.0%	46.4%	50.9%	48.3%	38.3%	32.4%	31.8%	53.7%	52.1%	40.8%	52.0%
Drank alcohol to the point of intoxication	6.1%	4.8%	8.5%	6.1%	7.5%	1.8%	12.2%	2.9%	5.5%	8.9%	1.8%
Drove while under the influence of alcohol or drugs	1.0%	0.7%	1.6%	1.1%	0.0%	0.0%	0.7%	1.0%	1.1%	1.1%	0.3%
Took steps to reduce level of stress	27.9%	32.2%	20.2%	27.8%	33.8%	25.2%	27.7%	24.1%	24.1%	34.5%	20.4%

OTHER FACILITIES AND RESOURCES IN THE COMMUNITY

This section identifies other facilities and resources available in the community served by IU Health White Memorial Hospital 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 currently are two FQHC sites operating in the IU Health White Memorial Hospital community (**Exhibit 8**).

Exhibit 8: Federally Qualified Health Centers, 2018

County	Facility
White	Family Health Clinic of Monon (Monon)
White	Family Health Clinic of Wolcott (Wolcott)

Source: HRSA, 2018

Hospitals

One hospital (including IU Health White Memorial Hospital) is located in the community (**Exhibit 9**).

Exhibit 9: Hospitals, 2018

County	Facility
White	IU Health White Memorial Hospital (Monticello)

Source: Indiana State Department of Health, 2018

Local Health Departments (LHDs)

Exhibit 10 presents information on LHDs that provide services in the IU Health White Memorial Hospital community.

Exhibit 10: Local Health Departments, 2018

County	Public Health Department
White	White County Health Department (Monticello)

Source: Indiana State Department of Health, 2018

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 White Memorial Hospital. Indiana 211 Partnership, Inc. is a nonprofit 501(c)(3) organization that provides the Indiana 2-1-1 information and referral service. By calling 2-1-1 or (866) 211-9966 (available 24/7), individuals receive referrals to service providers 24 hours a day. Individuals also can search for services using the organization's website, https://www.in211.org/.

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

- Housing and utilities
- Food, clothing, and household items
- Summer food programs
- Health care 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

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.[4] 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.

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).[5]

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

Data from multiple sources were gathered and assessed, including secondary data[6] 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

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[4] *Internal Revenue Code, Section 501(r).*

[5] *501(r) Final Rule, 2014.*
[6] *"Secondary data" refers to data published by others, for example the U.S. Census and the Indiana State Department of Health. "Primary data" refers to data observed or collected from first-hand experience, for example by conducting interviews.*

least two of the following five data sources:

- Secondary data[7] 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,
- Input obtained from individuals who were interviewed, and
- A community survey conducted in collaboration with other Indiana health systems.

Collaborating Organizations

For this assessment, IU Health White Memorial Hospital collaborated with all IU Health hospitals and also with other Indiana health systems on the community survey.

Data Sources

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

Community Survey Methodology

To inform the CHNA, a community survey was conducted. The survey was sponsored by a cooperative of Indiana hospital systems, under contract with the University of Evansville and the Indiana University School of Public Health-Bloomington. Researchers from Indiana University and University of Evansville contracted with the Center for Survey Research at Indiana University to administer the survey.

The survey was conducted in two phases, with Phase 1 conducted as a paper survey mailed to an address-based sample, and Phase 2 administered by some of the hospitals to a convenience sample they selected. IU Health participated in Phase 1.

A questionnaire was developed, with input provided by the Indiana hospital systems, and included a number

of questions about general health status, access and utilization of services, personal behaviors, social determinants of health, and also respondent demographic information (e.g., ZIP code, income level, employment status, race and ethnicity, household size, gender, and age). The survey was mailed to approximately 82,000 households, and the "field period" was April 2, 2018 through June 29, 2018. The process included two mailings to each address; a postcard mailing also took place to encourage responses.

Overall, 9,161 completed questionnaires were received by all participating hospitals in the Indiana Hospital Collaborative, for an overall response rate of 11.6 percent; 5,030 questionnaires were received from the 17 Indiana counties served by one or more IU Health hospitals. A dataset was created from the IU Health survey responses, and the responses were adjusted for two factors:

- The number of adults in each household (i.e., a survey from a household with two adults received a base weight of "2" and a survey from a household with one adult received a base weight of "1").
- A post-stratification adjustment designed to make the results more representative of the population in each community (i.e., female and older adults were overrepresented among survey respondents when compared to census data, and the adjustment made corrections).

For IU Health White Memorial Hospital, surveys were received from 284 community households. According to the responses, these households included 514 adults.

Information Gaps

This CHNA relies on multiple data sources and community input gathered between February 2018 and August 2018. Several data limitations should be recognized when interpreting results. For example, some data (e.g., County Health Rankings, Community Health Status Indicators, mortality data, and others) exist only at a county-wide level of detail. Those data sources do not allow assessing 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.

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.

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[7] "Secondary data" refers to data published by others, for example the U.S. Census and the Indiana State Department of Health.

APPENDIX B – SECONDARY DATA ASSESSMENT

This section presents an assessment of secondary data regarding health needs in the IU Health White Memorial Hospital community. IU Health White Memorial Hospital's community is comprised of White County, Indiana, spanning across 15 ZIP codes.

Demographics

Exhibit 11A: Percent Change in Community Population by County, 2015-2020

County	Estimated Population 2015	Estimated Population 2020	Percent Change 2015-2020
White County	24,224	23,810	-1.7%
Indiana Total	6,612,768	6,738,573	1.9%

Source: State of Indiana by the Indiana Business Research Center, March 2018

Exhibit 11B: Percent Change in Community Population by ZIP Code, 2016-2021
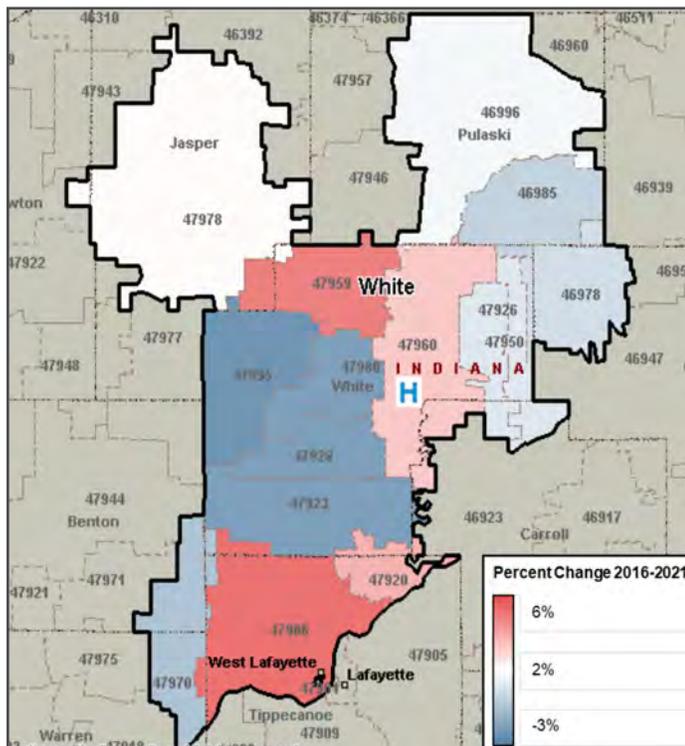
Healthcare Advisory Board, 2017

Description
Exhibit 11A shows the populations for each community county in 2015 and the projected population of each county in 2020. Exhibit 11B maps the percent change in population by ZIP code between 2016 and 2021 for each ZIP code in the community.

Observations
- A decrease in population is projected for White county between 2015 and 2020.
- Increases in population are projected in nine of the 15 ZIP codes that overlap the community, while decreases are projected in about one-third of the ZIP codes.
- An increase of five percent in the population of ZIP code 47906 is projected.

Exhibit 12: Percent Change in Population by Age/Sex Cohort, 2015-2020

Age/Sex Cohort	Estimated Population 2015	Projected Population 2020	Percent Change 2015-2020
White County	**24,224**	**23,810**	**-1.7%**
0-17	5,568	5,382	-3.3%
Male, 18-44	3,667	3,493	-4.7%
Female, 18-44	3,482	3,343	-4.0%
45-64	6,830	6,379	-6.6%
65+	4,677	5,213	11.5%
Indiana State	**6,612,768**	**6,738,573**	**1.9%**
0-17	1,578,079	1,571,356	-0.4%
Male, 18-44	1,178,486	1,187,607	0.8%
Female, 18-44	1,160,314	1,169,877	0.8%
45-64	1,729,765	1,695,267	-2.0%
65+	966,124	1,114,466	15.4%

*Source: State of Indiana by the Indiana Business Research Center, March 2018*

Description
Exhibit 12 shows the community's population for certain age and sex cohorts in 2015, with projections to 2020.

Observations
- The number of persons aged 65 years and older is projected to increase by 11.5 percent between 2015 and 2020. This growth rate exceeds that projected for Indiana as a whole (1.9 percent).
- 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 13: Percent of Population Aged 65+ by ZIP Code, 2015
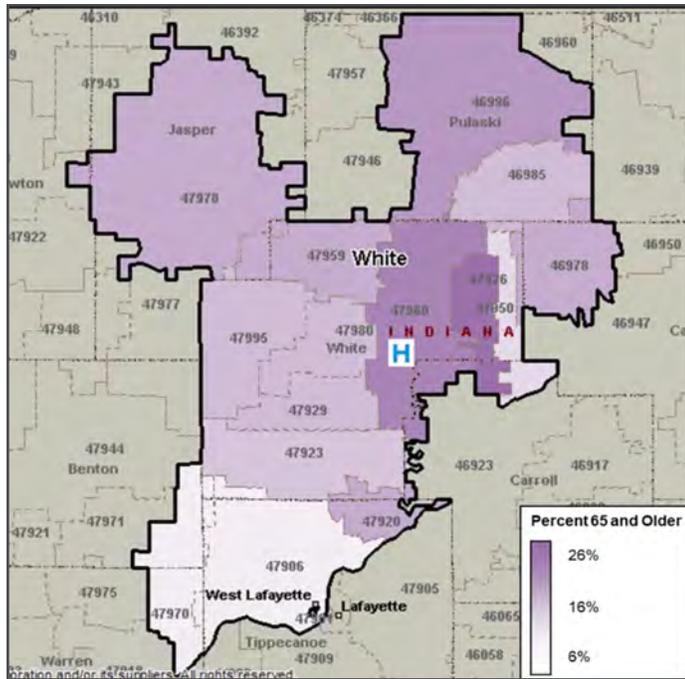
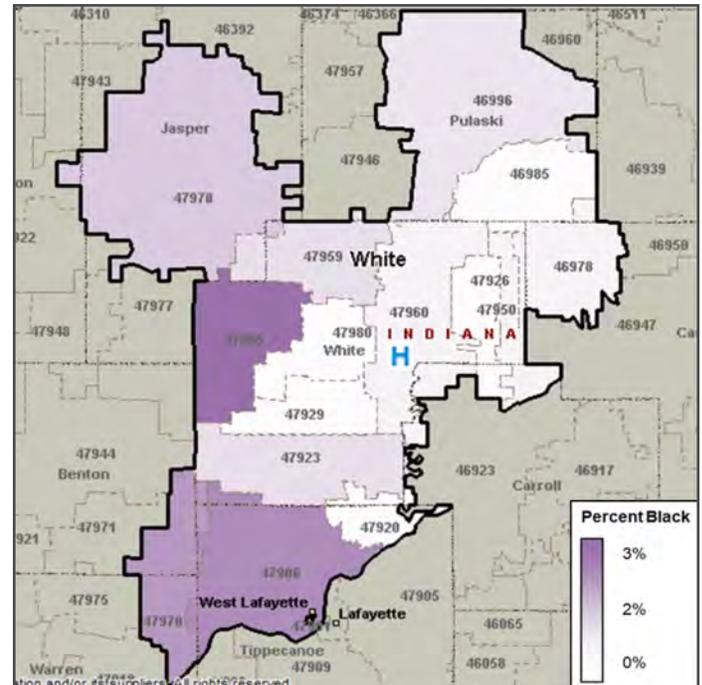*Source: U.S. Census ACS 2016 5-year estimates and Microsoft MapPoint*

Description
Exhibit 13 portrays the percent of the population 65 years of age and older in the community by ZIP code.

Observations
- ZIP codes with the highest proportions of the population 65 years of age and older are located in areas nearest to the hospital.

Exhibit 14: Percent of Population – Black, 2015

Source: U.S. Census ACS 2016 5-year estimates and Microsoft MapPoint

Description
Exhibit 14 portrays locations in the community where the percentages of the population that are Black were highest in 2015. The diversity of the community is important to recognize given the presence of health disparities and barriers to health care access experienced by different racial and ethnic groups.

Observations
- Three percent of residents of ZIP code 47995 in 2015 were Black.
- In 2015, only three ZIP codes (47906, 47970 and 47995) were estimated to have two percent or more of Black residents.

Exhibit 15: Percent of Population – Hispanic (or Latino), 2015
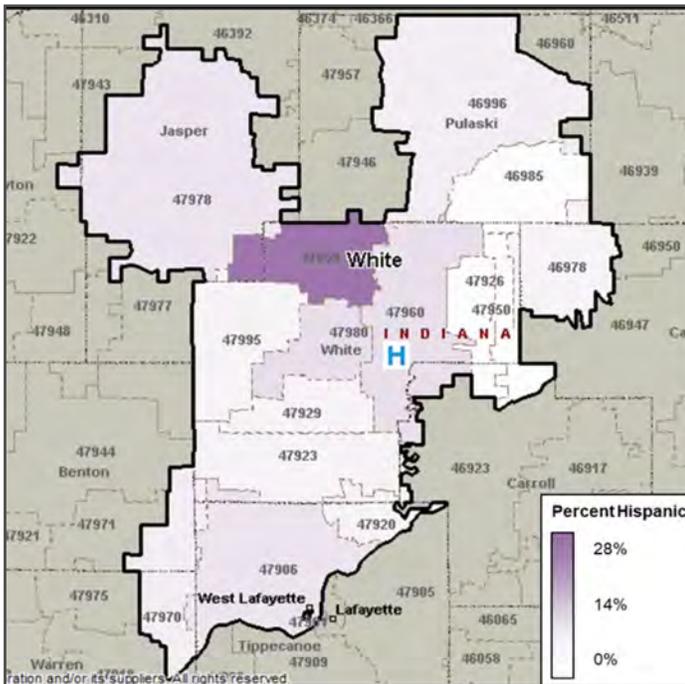
Source: U.S. Census ACS 2016 5-year estimates and Microsoft MapPoint

Description
Exhibit 15 portrays locations in the community where the percentages of the population that are Hispanic (or Latino) were highest in 2015. The diversity of the community is important to recognize given the presence of health disparities and barriers to health care access experienced by different racial and ethnic groups.

Observations
- The percentage of residents that are Hispanic (or Latino) was highest in ZIP codes 47959 (26.6 percent).

Exhibit 16: Other Socioeconomic Indicators, 2012-2016

Measure	White County	Indiana	United States
Population 25+ without High School Diploma	10.4%	11.9%	13.0%
Population with a Disability	15.8%	13.6%	12.5%
Population Linguistically Isolated	3.4%	3.2%	8.5%

Source: U.S. Census, ACS 5-Year Estimates, 2017

Description
Exhibit 16 portrays the percent of the population (aged 25 years and above) without a high school diploma, with a disability, and linguistically isolated, by county.

Observations
- White County had a lower percentage of residents aged 25 years and older without a high school diploma than the Indiana average.

- White County had a higher percentage of the population with a disability compared to Indiana and United States averages.
- Compared to Indiana, White County had a slightly higher proportion of the population that is linguistically isolated. Linguistic isolation is defined as residents who speak a language other than English and speak English less than "very well."

Economic Indicators

The following economic indicators with implications for health were assessed: (1) people in poverty; (2) unemployment rates; (3) insurance status; and (4) crime rates.

People in Poverty

Exhibit 17: Percent of People in Poverty, 2012-2016
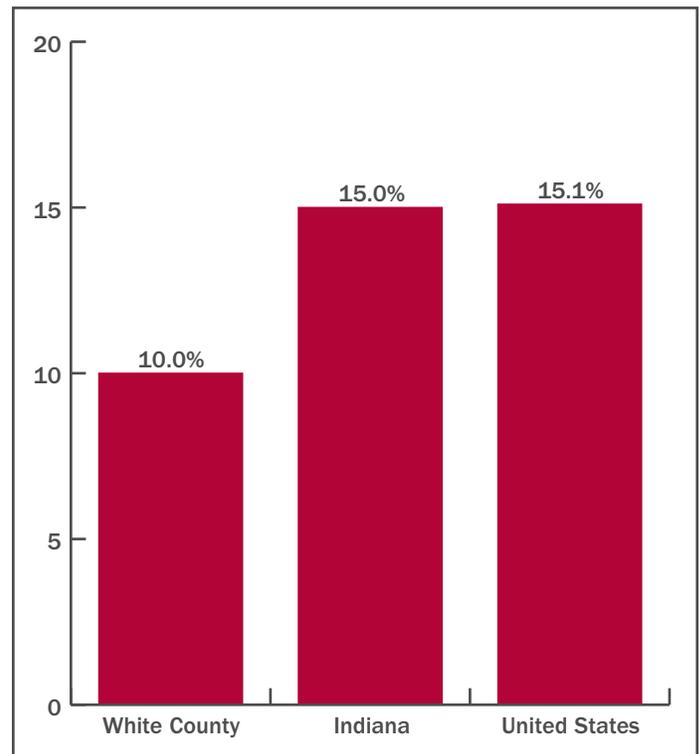
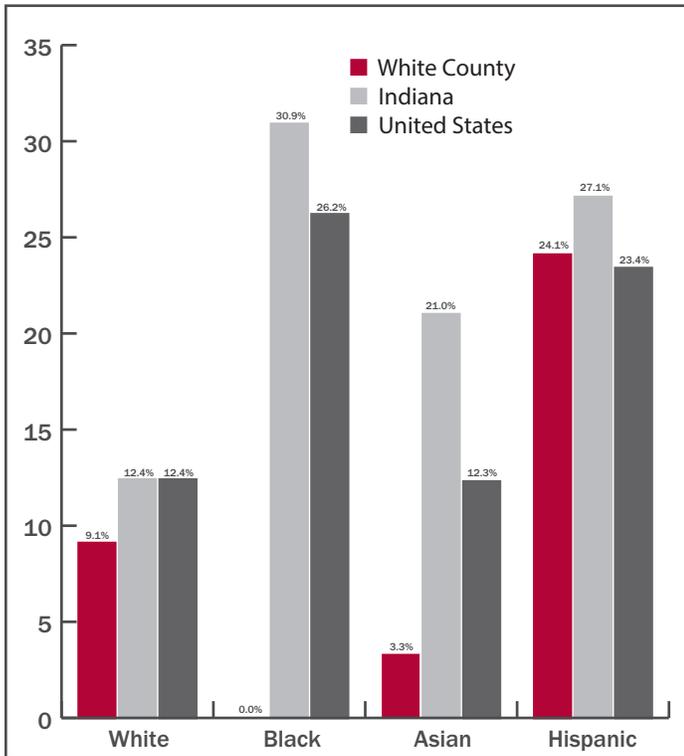*Source: U.S. Census, ACS 5-Year Estimates, 2017*

Description
Exhibit 17 portrays poverty rates by county.

Observations
- The poverty rate in White County was lower than both Indiana and the national average from 2012-2016.

Exhibit 18: Poverty Rates by Race and Ethnicity, 2012-2016

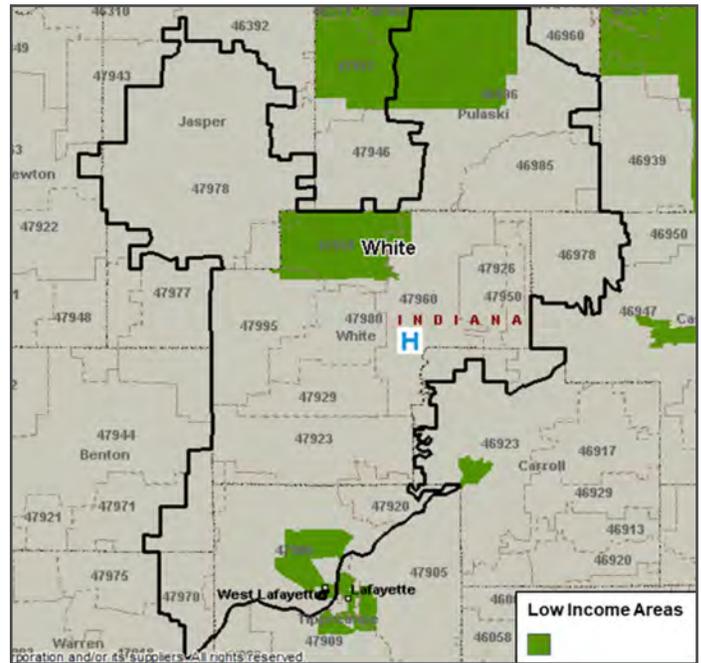*Source: U.S. Census, ACS 5-Year Estimates, 2017*

Description
Exhibit 18 portrays poverty rates by race and ethnicity.

Observations
- Poverty rates in White County are lower than Indiana averages for all population cohorts.
- Approximately one-quarter of Hispanic residents in White County were in poverty.

Exhibit 19: Low Income Census Tracts, 2017

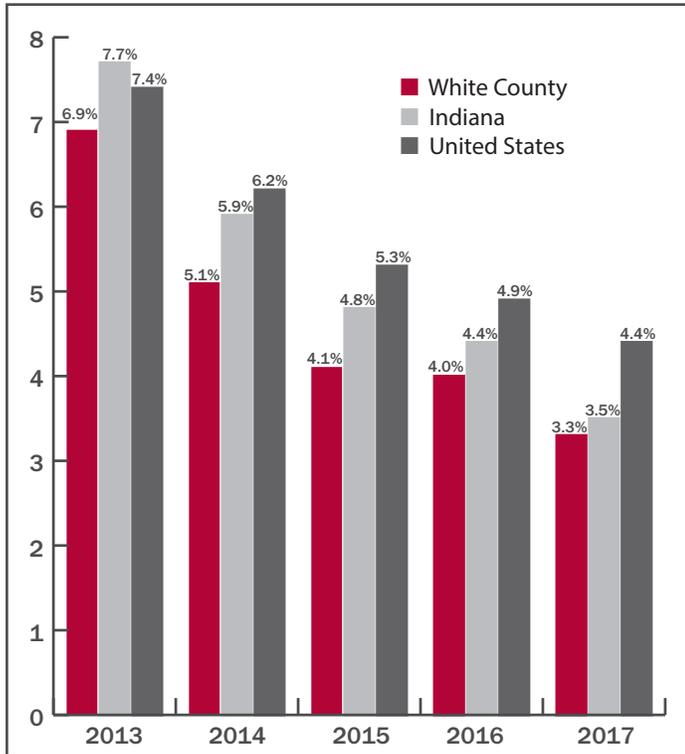*Source: US Department of Agriculture Economic Research Service, ESRI, 2017*

Description
Exhibit 19 portrays the location of federally-designated low income census tracts.

Observations
- Low income census tracts are located throughout the community.

Unemployment

Exhibit 20: Unemployment Rates, 2013-2017

Legend: ■ White County ■ Indiana ■ United States

Data by year:
- 2013: 6.9%, 7.7%, 7.4%
- 2014: 5.1%, 5.9%, 6.2%
- 2015: 4.1%, 4.8%, 5.3%
- 2016: 4.0%, 4.4%, 4.9%
- 2017: 3.3%, 3.5%, 4.4%

Source: Bureau of Labor Statistics, 2018

Description
Exhibit 20 shows unemployment rates for 2013 through 2017 for White County, with Indiana and national rates for comparison.

Observations
- Between 2013 and 2017, unemployment rates at the local, state, and national levels declined significantly.
- The unemployment rate in White County has been below Indiana and U.S. averages.

Insurance Status

Exhibit 21A: Percent of the Population without Health Insurance, 2015-2020

County	Population	Population Uninsured	Percent Uninsured
White County	24,026	2,348	9.8%
Indiana	6,490,256	747,942	11.5%
United States	313,576,137	36,700,246	11.7%

Source: U.S. Census, ACS 5-Year Estimates, 2017

Exhibit 21B: Percent of the Population without Health Insurance, 2015-2020
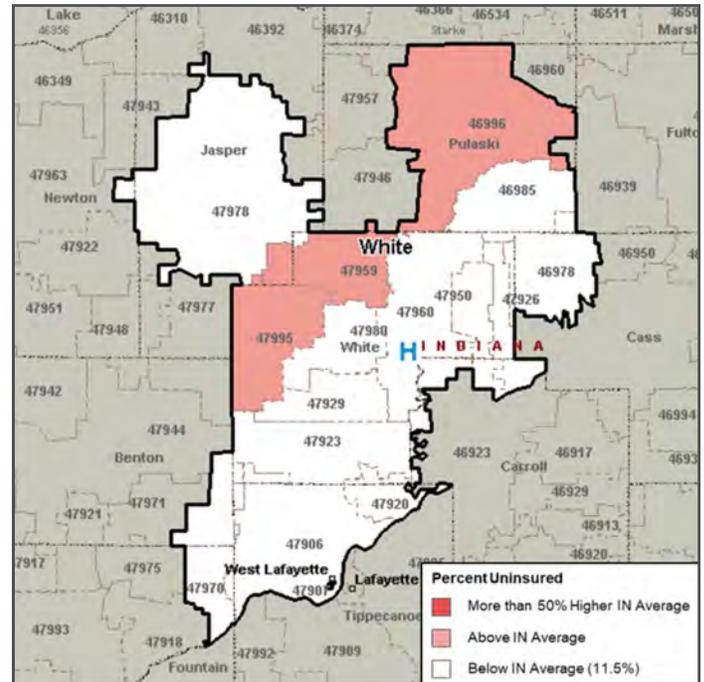
Source: U.S. Census, ACS 5-Year Estimates, 2017

Description
Exhibit 21A presents the estimated percent of people uninsured by county in 2015, with a projection to 2020. Exhibit 21B maps the 2015 uninsured rates by ZIP code.

Observations
- 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 United States, uninsured rates have fallen most in states that decided to expand Medicaid.[8]

[8] See: *http://hrms.urban.org/briefs/Increase-in-Medicaid-under-the-ACA-reduces-uninsurance.html*

Crime

Exhibit 22: Crime Rates by Type and Jurisdiction, Per 100,000, 2016

Indicator	White (Data N/A)	Indiana
Violent crime	–	407.4
Murder	–	6.7
Rape (revised definition)	–	38.0
Rape (legacy definition)	–	28.1
Robbery	–	111.2
Aggravated assault	–	251.5
Property crime	–	2,606.5
Burglary	–	517.4
Larceny - theft	–	1,865.5
Motorvehicle theft	–	223.5

Source: Federal Bureau of Investigation, 2017

Description

Exhibit 22 provides crime statistics. No crime data were available for White County.

Observations

- 2016 crime rates were unavailable for White County.

Local Health Status and Access Indicators

This section assesses health status and access indicators for the IU Health White Memorial Hospital community. Data sources include: (1) County Health Rankings, (2) the Indiana State Department of Health, and (3) the CDC's Behavioral Risk Factor Surveillance System.

Throughout this section, data and cells are highlighted if indicators are unfavorable – because they exceed benchmarks (typically, Indiana averages). Where confidence interval data are available, cells are highlighted only if variances are unfavorable and statistically significant.

County Health Rankings

Exhibit 23: County Health Rankings, 2015 and 2018

Measure	White County 2015	White County 2018
Health Outcomes	36	49
Health Factors	35	33
Length of Life	36	59
Premature death	36	59
Quality of Life	33	27
Poor or fair health	17	32
Poor physical health days	38	21
Poor mental health days	24	10
Low birthweight	53	45
Health Behaviors	31	23
Adult smoking	31	10
Adult obesity	49	78
Food environment index	26	11
Physical inactivity	23	46
Access to exercise opportunities	88	39
Excessive drinking	9	19
Alcohol-impaired driving deaths	17	31
Sexually transmitted infections	72	61
Teen births	73	74
Clinical Care	71	64
Uninsured	75	73
Primary care physicians	44	53
Dentists	53	71
Mental health providers	60	64
Preventable hospital stays	74	81
Diabetes monitoring	31	38
Mammography screening	51	7
Social & Economic Factors	33	36
High school graduation	52	82
Some college	32	35
Unemployment	32	29
Children in poverty	43	40
Income inequality	15	9
Children in single-parent households	35	13
Social associations	48	48
Violent crime	38	22
Injury deaths	58	52
Physical Environment	25	38
Air pollution	26	67
Severe housing problems	54	28
Driving alone to work	38	32
Long commute – driving alone	46	46

Source: County Health Rankings, 2018

Description

Exhibit 23 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." Indicators and composites are grouped into the following categories: health behaviors, clinical care,[9] social and economic factors, and physical environment.[10] *County Health Rankings* is updated annually. *County Health Rankings 2018* relies on data from 2006 to 2017, with most data from 2011 to 2016.

The exhibit presents 2015 and 2018 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 bottom quartile of Indiana counties.

Observations

- In 2018, White County ranked in the bottom 50th percentile among Indiana counties for 19 of the 42 indicators assessed. Of those 19 indicators ranking in the bottom 50th percentile, 7 were in the bottom quartile, including adult obesity, teen births, uninsured status, lack of dental professionals, preventable hospital stays, high school graduation rates, and air pollution.

Exhibit 24: County Health Rankings Data Compared to Indiana and U.S. Averages, 2018

Indicator Category	Indicator	White County	Indiana	U.S.
	Health Outcomes			
Length of life	Years of potential life lost before age 75 per 100,000 population (age-adjusted)	8,422	7,794	6,700
Quality of life	Percentage of adults reporting fair or poor health (age-adjusted)	15.8	17.7	16.0
Quality of life	Average number of physically unhealthy days reported in past 30 days (age-adjusted)	3.7	3.9	3.7
Quality of life	Average number of mentally unhealthy days reported in past 30 days (age-adjusted)	3.8	4.3	3.8
Quality of life	Percentage of live births with low birthweight (< 2500 grams)	7.5	8.0	8.0
	Health Factors			
Health Behaviors				
Adult smoking	Percentage of adults who are current smokers	17.5	21.1	17.0
Adult obesity	Percentage of adults that report a BMI of 30 or more	35.7	32.0	28.0
Food environment index	Index of factors that contribute to a healthy food environment, 0 (worst) to 10 (best)	8.6	7.0	7.7
Physical inactivity	Percentage of adults age 20 and over reporting no leisure-time physical activity	29.1	26.8	23.0
Access to exercise opportunities	Percentage of population with adequate access to locations for physical activity	68.8	76.6	83.0
Excessive drinking	Percentage of adults reporting binge or heavy drinking	16.7	18.6	18.0
Alcohol-impaired driving deaths	Percentage of driving deaths with alcohol involvement	17.5	22.4	29.0
Sexually transmitted infections	Number of newly diagnosed chlamydia cases per 100,000 population	294.4	437.9	478.8
Teen births	Number of births per 1,000 female population ages 15-19	39.4	30.5	27.0

[9]   A composite measure of Access to Care, which includes the percent of the population without health insurance and ratio of population to primary care physicians, and of Quality of Care, which includes the hospitalization rate for ambulatory care sensitive conditions, whether diabetic Medicare patients are receiving HbA1C screening, and percent of chronically ill Medicare enrollees in hospice care in the last 8 months of life.

[10] A composite measure that examines Environmental Quality, which includes the number of air pollution-particulate matter days and air pollution-ozone days, and Built Environment, which includes access to healthy food and recreational facilities and the percent of restaurants that are fast food.

Exhibit 24: County Health Rankings Data Compared to Indiana and U.S. Averages, 2018 (continued)

Indicator Category	Indicator	White County	Indiana	U.S.
Clinical Care				
Uninsured	Percentage of population under age 65 without health insurance	12.3	**11.3**	11.0
Primary care physicians	Ratio of population to primary care physicians	2429:1	**1,505:1**	1,320:1
Dentists	Ratio of population to dentists	4000:1	**1,852:1**	1,480:1
Mental health providers	Ratio of population to mental health providers	2400:1	**701:1**	470:1
Preventable hospital stays	Number of hospital stays for ambulatory-care sensitive conditions per 1,000 Medicare enrollees	77.9	**56.8**	49.0
Diabetes monitoring	Percentage of diabetic Medicare enrollees ages 65-75 that receive HbA1c monitoring	86.6	**84.7**	85.0
Mammography screening	Percentage of female Medicare enrollees ages 67-69 that receive mammography screening	68.5	**62.1**	63.0
Social and Economic Environment				
High school graduation	Percentage of ninth-grade cohort that graduates in four years	85.9	**87.2**	83.0
Some college	Percentage of adults ages 25-44 with some post-secondary education	57.9	**62.0**	65.0
Unemployment	Percentage of population ages 16 and older unemployed but seeking work	4.0	**4.4**	4.9
Children in poverty	Percentage of children under age 18 in poverty	16.9	**19.1**	20.0
Income inequality	Ratio of household income at the 80th percentile to income at the 20th percentile	3.5	**4.4**	5.0
Children in single-parent households	Percentage of children that live in a household headed by single parent	23.4	**33.7**	34.0
Social associations	Number of membership associations per 10,000 population	13.6	**12.3**	9.3
Violent crime	Number of reported violent crime offenses per 100,000 population	88.3	**356.2**	380.0
Injury deaths	Number of deaths due to injury per 100,000 population	76.5	**69.9**	65.0
Physical Environment				
Air pollution – particulate matter1	Average daily density of fine particulate matter in micrograms per cubic meter (PM2.5)	11.3	**11.1**	8.7
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	10.8	**14.0**	19.0
Driving alone to work	Percentage of the workforce that drives alone to work	82.7	**83.0**	76.0
Long commute – driving alone	Among workers who commute in their car alone, the percentage that commute more than 30 minutes	33.4	**30.5**	35.0

Source: County Health Rankings, 2018

Description

Exhibit 24 provides data for each underlying indicator of the composite categories in the *County Health Rankings*.[11] The exhibit also includes Indiana and national averages. Light grey shading highlights indicators found to be worse than the Indiana average; dark grey shading highlights indicators more than 50 percent worse than the Indiana average.

Observations

- The following indicators (presented alphabetically) compared particularly unfavorably across the three counties in the community:
  – Ratio of population to dentists
  – Ratio of population to mental health providers
  – Ratio of population to primary care physicians

[11] *County Health Rankings provides details about what each indicator measures, how it is defined, and data sources at*
http://www.countyhealthrankings.org/sites/default/files/resources/2013Measures_datasources_years.pdf

Community Health Status Indicators

Exhibit 25: Community Health Status Indicators, 2018

Indicator	White County
Years of Potential Life Lost Rate	▓
% Fair/Poor Health	▓
Physically Unhealthy Days	▓
Mentally Unhealthy Days	░
% Low Birth Weight	▓
% Smokers	░
% Obese	▓
Food Environment Index	
% Physically Inactive	▓
% With Access to Exercise Opportunities	
% Excessive Drinking	
% Driving Deaths Alcohol-Impaired	
Chlamydia Rate	▓
Teen Birth Rate	▓
% Uninsured	▓
Primary Care Physicians Rate	
Dentist Rate	░
Mental Health Professionals Rate	░
Preventable Hosp. Rate	▓
% Receiving HbA1c Screening	░
% Mammography Screening	
High School Graduation Rate	▓
% Some College	▓
% Unemployed	
% Children in Poverty	▓
Income Ratio	
% Single-Parent Households	
Social Association Rate	▓
Violent Crime Rate	░
Injury Death Rate	░
Average Daily PM2.5	▓
% Severe Housing Problems	░
% Drive Alone to Work	░
% Long Commute – Drives Alone	░

Source: County Health Rankings and Verité Analysis, 2018.

Description

County Health Rankings has organized community health data for all 3,143 counties in the United States. Following a methodology developed by the Centers for Disease Control's (CDC) *Community Health Status Indicators* Project (CHSI), County Health Rankings also publishes lists of "peer counties," so comparisons with peer counties in other states can be made. Each county in the U.S. is assigned 30 to 35 peer counties based on 19 variables including population size, population growth, population density, household income, unemployment, percent children, percent elderly, and poverty rates.

This *Community Health Status Indicators* analysis formerly was available from the CDC. Because comparisons with peer counties (rather than only counties in the same state) are meaningful, Verité Healthcare Consulting rebuilt the CHSI comparisons for this and other CHNAs.

Exhibit 25 compares White County to its respective peer counties and highlights community health issues found to rank in the bottom half and bottom quartile of the counties included in the analysis. Light grey shading indicates rankings in the bottom half of peer counties; dark grey shading indicates rankings in the bottom quartile of peer counties.

Observations

- White County compares poorly in years of potential life lost rate, percent reporting fair or poor health days, percent reporting physically unhealthy days, percent of low birth rate, percent obese, percent physically inactive, chlamydia rate, teen birth rate, percent uninsured, preventable hospitable stays, high school graduation rate, percent with some college, percent of children in poverty, social association rate, and average daily PM2.5 (air pollution).

Exhibit 26: Selected Causes of Death, Age-Adjusted Rates per 100,000 Population, 2016

Indicator	White County	Indiana
Major cardiovascular diseases	227.9	237.4
Diseases of heart	180.1	180.6
Cancer	191.4	172.5
All other diseases	180.9	171.3
Ischemic heart diseases	95.7	102.2
Other diseases of heart	81.1	68.3
Chronic lower respiratory diseases	70.0	54.6
All other and unspecified accidents and adverse effects	25.1	40.1
Cerebrovascular diseases (stroke)	36.5	39.5
Alzheimer's disease	41.1	34.9
Diabetes mellitus	21.4	26.0
Nephritis, nephrotic syndrome and nephrosis (kidney disease)	9.3	18.4
Intentional self-harm (suicide)	7.2	15.4
Influenza and pneumonia	10.2	12.6
Motor vehicle accidents	14.2	12.4
Chronic liver disease and cirrhosis	18.1	11.2
Hypertensive heart disease with or without renal disease	3.3	10.2
Essential hypertension and hypertensive renal disease	2.4	10.0
Assault (homicide)	0.0	7.6
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (excluding SIDS)	2.4	6.2
Other diseases of circulatory system	8.9	6.2
Certain conditions originating in the perinatal period	0.0	4.9
Congenital malformations, deformations and chromosomal abnormalities	0.0	3.9
All other external causes	0.0	2.6
Atherosclerosis	0.0	1.1
Pregnancy, childbirth and the puerperium	5.6	0.8
Sudden infant death syndrome (SIDS)	0.0	0.7
Peptic ulcer	0.0	0.5

Source: Indiana State Department of Health, 2017

Description

Exhibit 26 provides age-adjusted mortality rates for selected causes of death in 2016. 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.

Observations

- Mortality rates for cancer, all other diseases, other diseases of the heart, chronic lower respiratory diseases, Alzheimer's disease, motor vehicle accidents and other diseases of the circulatory system were higher compared to Indiana averages.
- Mortality rates for chronic liver disease and cirrhosis and pregnancy, childbirth and the puerperium were more than 50 percent worse than the Indiana average.

Exhibit 27: Age-Adjusted Cancer Mortality Rates per 100,000 Population, 2016

Cancer Site or Type	White County	Indiana
All Cancers	191.4	172.5
Stomach	0.0	2.7
Colon, rectum and anus	17.3	14.9
Pancreas	5.7	11.9
Trachea, bronchus and lung	45.7	49.2
Breast	4.3	11.6
Cervix uteri, corpus uteri and ovary	4.7	8.2
Prostate	10.5	7.6
Urinary tract	24.6	8.8
Non-Hodgkin's lymphoma	10.0	6.4
Leukemia	7.1	6.7
Other forms of cancer	61.4	44.6

Source: Indiana State Department of Health, 2017

Description

Exhibit 27 provides age-adjusted mortality rates for selected forms of cancer in 2016. 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

- Cancer mortality rates for all cancers, colon, rectum and anus, prostate, leukemia, and other forms of cancer were higher in White County than the Indiana averages.
- Cancer mortality rates for urinary tract cancer and Non-Hodgkin's lymphoma were 50 percent worse in White County than the Indiana average.

Exhibit 28: Age-Adjusted Cancer Incidence Rates per 100,000 Population, 2010-2014

Indicator	White County	Indiana
All cancers	451.9	445.2
Breast	107.4	120.1
Prostate	84.0	95.7
Lung and bronchus	71.9	72.8
Colon and rectum	40.9	43.2
Uterus	33.3	27.0
Bladder	27.2	21.0
non-Hodgkin lymphoma	17.6	19.0
Kidney and renal pelvis	16.7	17.8
Leukemia	15.2	13.2
Pancreas	12.9	12.7
Thyroid	22.4	11.8
Oral cavity and pharynx	16.3	11.7

Source: Centers for Disease Control and Prevention, 2014.

Description
Exhibit 28 presents age-adjusted cancer incidence rates in the community. Light grey shading highlights indicators worse than Indiana averages; dark grey shading highlights indicators more than 50 percent worse than the Indiana average.

Observations
- The all cancers, uterine, bladder, leukemia, pancreas, and oral cavity and pharynx incidence rates in White County were higher than the Indiana average.
- Thyroid cancer is significantly higher in the White County community than the Indiana average.

Exhibit 29: Communicable Disease Incidence Rates per 100,000 Population, 2016

Indicator	White County	Indiana
HIV/AIDS*	98.0	188.0
Chlamydia	346.8	465.0
Gonorrhea	53.7	142.5
Primary and Secondary Syphilis	20.4	5.0

*Note: Data from 2014
Source: Indiana State Department of Health, 2016.

Description
Exhibit 29 presents incidence rates for various communicable diseases in the community. Light grey shading highlights indicators worse than Indiana averages; dark grey shading highlights indicators more than 50 percent worse than Indiana averages.

Observations
- White County has had comparatively high incidence rates of syphilis.

Exhibit 30: Maternal and Child Health Indicators, 2011-2015

Indicator	White County	Indiana
Infant Mortality Rate (per 1,000 Live Births)	6.2	7.2
Low Birthweight Percent	8.0%	8.0%
Preterm Births Percent	8.9%	9.7%
Early Prenatal Care Percent	67.3%	68.1%
Smoked During Pregnancy Percent	22.4%	15.6%
Unmarried Mothers Percent	45.0%	43.2%
Breastfeeding Percent	73.0%	77.4%
Mother on Medicaid Percent	47.6%	44.3%
Teen Birth Rate (15-17)	14.3	13.6
Teen Birth Rate (15-19)	40.6	30.4

Source: Indiana Department of Health, 2016

Description
Exhibit 30 presents various maternal and infant health indicators in the community. Light grey shading highlights indicators worse than Indiana averages.

Observations
- In White County, the percent of pregnant women with early prenatal care was lower than the Indiana average. Additionally, rates of the teen birth rates for 15-17 and 15-19 years olds were higher than the Indiana averages.
- In White County, the percent of pregnant women who smoked during pregnancy was higher and the percent of breastfeeding was lower than the Indiana averages.

Exhibit 31A: Behavioral Risk Factor Surveillance System, Race/Ethnicity, 2016

Indicator	White	Black	Hispanic	Indiana
Current Smokers	21.0%	23.0%	17.8%	21.1%
Adults without Health Care Coverage	10.8%	17.1%	39.4%	13.6%
Obese (based on BMI)	32.1%	42.1%	26.8%	32.5%
Diabetes	11.4%	16.2%	8.8%	11.5%
Angina or Coronary Heart Disease	5.1%	4.2%	2.2%	4.9%
No Physical Activity in Past Month	26.3%	27.5%	32.9%	26.8%
Asthma	9.8%	15.9%	6.3%	10.2%

Source: Behavioral Risk Factor Surveillance System, 2016

Description

The Centers for Disease Control and Prevention's (CDC) Behavioral Risk Factor Surveillance System (BRFSS) gathers data through a telephone survey regarding health risk behaviors, healthcare access, and preventive health measures. Data are 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 31A and 31B 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 reported behaviors for the White community were worse for angina than the Indiana averages.
- The reported behaviors for the Black community were worse for all indicators except for coronary heart disease, than the Indiana averages.
- The reported behaviors for the Hispanic community were worse for Adults without Health Care Coverage and No Physical Activity in the Past Month than the Indiana averages.

Exhibit 31B: Behavioral Risk Factor Surveillance System, Income, 2016

Indicator	<$15,000	$15-$24,999	$25-$49,999	$50-$74,999	>$75,000	No High School Diploma	Indiana
Current Smokers	38.5%	30.0%	25.3%	16.6%	10.3%	38.1%	21.1%
Adults without Health Care Coverage	23.7%	25.3%	16.3%	7.6%	3.6%	33.1%	13.6%
Obese (based on BMI)	36.5%	35.3%	34.1%	34.6%	28.7%	34.0%	32.5%
Diabetes	18.7%	17.4%	11.9%	9.3%	6.5%	15.4%	11.5%
Angina or Coronary Heart Disease	8.3%	6.5%	5.1%	3.0%	3.0%	6.3%	4.9%
No Physical Activity in Past Month	42.5%	38.0%	28.6%	20.8%	13.7%	41.2%	26.8%
Asthma	20.4%	12.6%	9.5%	7.5%	7.1%	15.6%	10.2%

Source: Behavioral Risk Factor Surveillance System, 2016

Observations
- The reported behaviors for residents with annual income from $0 to $24,999 were worse for all indicators than the Indiana averages.
- The reported behaviors for residents without a high school diploma were worse for all indicators than the Indiana averages.

Ambulatory Care Sensitive Conditions (ACSC) also referred to as Preventative Quality Indicators (PQI)

Exhibit 32: PQI (ACSC) Rates per 100,000, 2017

County	Diabetes Short-Term Complications	Perforated Appendix	Diabetes Long-Term Complications	Chronic Obstructive Pulmonary Disease (COPD) or Asthma in Older Adults	Hypertension	Heart Failure	Low Birth Weight
White County	10.6	1,000.0	74.2	435.5	31.8	328.5	4,745.8
Indiana	59.0	632.7	110.2	664.1	63.3	434.8	6,174.2
United States	68.9	351.4	101.6	480.9	49.2	321.6	N/A

Source: IU Health, 2018 - Note: Rates are not age-sex adjusted

County	Dehydration	Community-Acquired Pneumonia	Urinary Tract Infection	Uncontrolled Diabetes	Asthma in Younger Adults	Lower-Extremity Amputation Among Patients with Diabetes
White County	106.0	259.7	63.6	15.9	16.6	49.9
Indiana	138.5	184.5	148.2	40.6	32.0	82.4
United States	130.1	249.7	155.6	13.2	41.1	17.2

Source: IU Health, 2018 - Note: Rates are not age-sex adjusted

Description

Exhibit 32 provides 2017 ACSC (PQI) rates (per 100,000 persons) for ZIP codes in the IU Health White Memorial Hospital community – with comparisons to Indiana and US 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."[12] 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, preventive care and health education. Among these conditions are: angina without procedure, diabetes, perforated appendixes, chronic obstructive pulmonary disease (COPD), hypertension, congestive heart failure, dehydration, bacterial pneumonia, urinary tract infection, and asthma.

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

Observations

- For White County, the rates of admissions for ACSC exceeded Indiana averages for two of thirteen conditions: perforated appendix and community acquired pneumonia.

Exhibit 33: Ratio of ACSC Rates for IU Health White Memorial Hospital Community and Indiana, 2017

Indicator	White County	Indiana	Ratio: White/ Indiana
Perforated Appendix	1,000.0	632.7	1.6
Community-Acquired Pneumonia	259.7	184.5	1.4
Low Birth Weight	4,745.8	6,174.2	0.8
Dehydration	106.0	138.5	0.8
Heart Failure	328.5	434.8	0.8
Diabetes Long-Term Complications	74.2	110.2	0.7
Chronic Obstructive Pulmonary Disease (COPD) or Asthma in Older Adults	435.5	664.1	0.7
Lower-Extremity Amputation Among Patients with Diabetes	49.9	82.4	0.6
Asthma in Younger Adults	16.6	32.0	0.5
Hypertension	31.8	63.3	0.5
Urinary Tract Infection	63.6	148.2	0.4
Uncontrolled Diabetes	15.9	40.6	0.4
Diabetes Short-Term Complications	10.6	59.0	0.2

Source: IU Health, 2018 - Note: Rates are not age-sex adjusted

[12] *Agency for Healthcare Research and Quality (AHRQ) Prevention Quality Indicators.*

Description
Exhibit 33 provides the ratio of Ambulatory Care Sensitive Conditions (ACSC) also referred to as Preventative Quality Indicators (PQI) rates in the IU Health White Memorial Hospital community compared to the Indiana averages. Conditions where the ratios are highest (meaning that the PQI rates in the community are the most above average) are presented first.
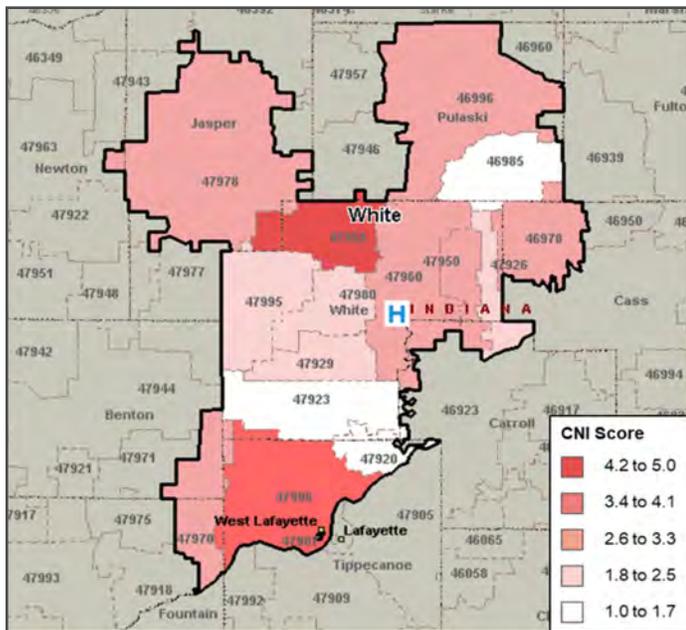
Observations
- In the community, ACSC rates for perforated appendix were 60 percent higher than the Indiana average.
- In the community, ACSC rates for Community-Acquired Pneumonia were 40 percent higher than the Indiana average.

Community Need Index™ and Food Deserts

Dignity Health Community Need Index

Exhibit 34: Community Need Index, 2017

Source: Microsoft MapPoint and Dignity Health, 2017

Description
Exhibit 34 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.

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

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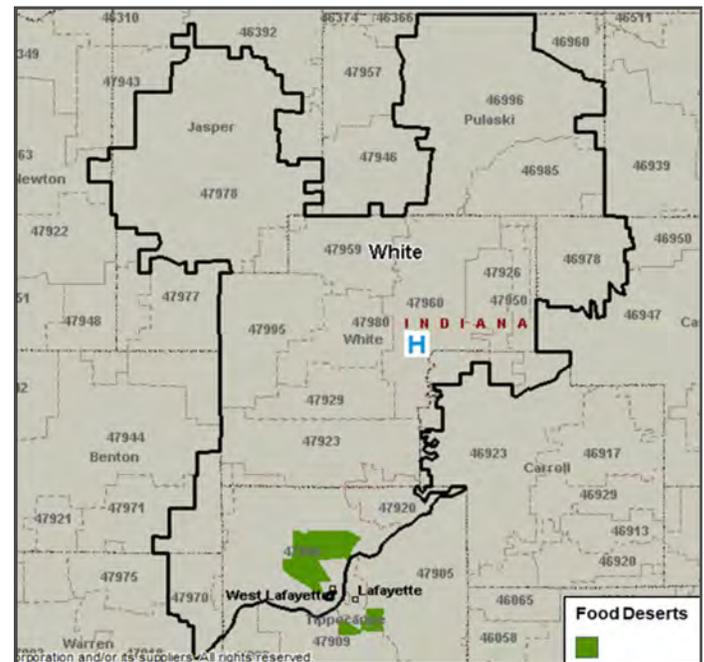- The percentage of the population renting houses.

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

Observations
- White County scored a 2.6 on the CNI scale.
- White County had one ZIP code that scored in the "highest need" category (47959).

Food Deserts

Exhibit 35: Food Deserts, 2017

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

Description
Exhibit 35 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
- One census tract in the IU Health White Memorial Hospital community has been designated as a food desert.

Medically Underserved Areas and Populations

Description
Medically Underserved Areas and Populations (MUA/Ps) are designated by the Health Resources and Services Administration (HRSA) based on an "Index of Medical Underservice." 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.[13] 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."[14]

Observations
- No areas have been designated as medically underserved in White County.

Health Professional Shortage Areas (HPSA)

Exhibit 37A: Primary Care Health Professional Shortage Areas, 2018

County	HPSA Name	HPSA Type Description
White	White County	HPSA Geographic
White	Monticello Medical Center LLC	Rural Health Clinic

Source: Health Resources and Services Administration, 2018

Description
Exhibit 37A depicts 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."[15]

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."[16]

Observations
- The population of White County has been designated as primary care HPSAs.
- Within the IU Health White Memorial Hospital community, one rural health centers has been designated as primary care HPSAs.

Exhibit 37B: Dental Care Health Professional Shortage Areas, 2018

Description
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);

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[13] Heath Resources and Services Administration. See http://www.hrsa.gov/shortage/mua/index.html
[14] Ibid.

[15] U.S. Health Resources and Services Administration, Bureau of Health Professionals. (n.d.). Health Professional Shortage Area Designation Criteria. Retrieved 2012, from http://bhpr.hrsa.gov/shortage/hpsas/designationcriteria/index.html
[16] Ibid

(2) a population group; or (3) a public or nonprofit private medical facility."[17]

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."[18]

Observations
- No areas or populations have been designated as Dental Care HPSAs in White County.

Exhibit 37C: Mental Health Care Professional Shortage Areas, 2018

County	HPSA Name	HPSA Type Description
White	Region 30 Mental Health	HPSA Geographic

Source: Health Resources and Services Administration, 2018

Description
Exhibit 37C lists the locations of federally-designated mental health 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."[19]

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

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[17] U.S. Health Resources and Services Administration, Bureau of Health Professionals. (n.d.). Health Professional Shortage Area Designation Criteria. Retrieved 2012, from http://bhpr.hrsa.gov/shortage/hpsas/designationcriteria/index.html
[18] Ibid.
[19] Ibid.
[20] Ibid.

by the chief executive officer and local officials of the state where the requested population resides."[20]

Observations
- As a part of the Region 30 Mental Health catchment area, White County has been designated as a Mental Health Care HPSA.

Findings of Other Community Health Needs Assessments

Indiana State Health Assessment and Improvement Plan

A State Health Assessment and Improvement Plan (SHA) was published recently by the Indiana State Department of Health.[21] 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. This group, 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 assessments from local health assessments around the state, ten needs were most often prioritized:
  – 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

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[21] Available at: https://www.in.gov/isdh/18888.htm

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."
- Income inequality was identified as a social determinant of health need, with the top 20 percent of households in Indiana having an income 13.5 times higher than the bottom 20 percent.
- Indiana residents report different health status based on their location in the state, largely due to access to affordable healthcare. Mid-sized population areas report the lowest number of poor or fair health days, while rural areas report the highest.
- Indiana introduced expanded insurance options for lower income residents through the Healthy Indiana Plan (HIP) 2.0 in 2015. Over 1.4 million residents are enrolled in Medicaid in the state, with more than 20,000 of these enrollees being pregnant women.
- Language barriers and cultural competency of services were identified as major obstacles to receiving healthcare and social services in Indiana.
- Heart disease, cancer, and stroke were identified as the top causes of mortality in Indiana, and identified as significant needs in the community.
- Indiana was the tenth most obese state in the nation, with over two-thirds of adults being overweight and almost a third being obese. Obesity disproportionately affects low-income, rural, and African American populations.
- Poor nutrition contributed to four of the top ten causes of death in Indiana: cardiovascular disease, stroke, diabetes, and cancer.
- Over 21 percent of Indiana adults were current smokers, the tenth highest rate in the nation and contributing to five of the top ten leading causes of death (cardiovascular disease, stroke, diabetes, chronic lower respiratory disease, and cancer). Smoking rates are disproportionately high for low income adults, those with a high school education or less, and those identifying as LGBT.
- Infant mortality has been an Indiana health priority since 2014. The national rate of infant deaths is 5.9 deaths per 1,000 live births. In Indiana, this rate was 7.5 in 2016. Additionally, Healthy People 2020 established a goal of 6.0 deaths by 2020.

- Drug overdose and opioid-related deaths increased by 500 percent between 1999 and 2016. More than 1,500 residents died of drug overdoses in 2016, with 785 of these overdoses being from opioids. This increase in opioid-related deaths represents a 1,725 percent increase since 1999.

State Health Improvement Plan. After the finalization of the state health assessment, a state health improvement plan (SHIP) 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

Exhibit 38: Significant Needs Identified in Other CHNAs

Prioritized Need	Frequency
Access to basic/primary health care	1
Access to mental health services	1
Chronic disease management	1
Drug/substance abuse	1
Housing issues/homelessness	1
Mental/behavioral health	1
Obesity	1

Source: Analysis of Other CHNA Reports by Verité, 2018

Description
Several other needs assessments conducted by hospital facilities were reviewed. Significant needs identified by these facilities are presented in Exhibit 38. The reviewed assessments include the following:
- Riverbend Hospital CHNA 2015

Observations
- The following indicators most often were identified as significant in other hospital CHNAs that assessed IU Health White Memorial Hospital's community:
  - Access to basic and primary health care
  - Access to mental health services
  - Chronic disease management
  - Drug/substance abuse
  - Housing issues and homelessness
  - Mental/behavioral health
  - Obesity

APPENDIX C – INTERVIEWEES AND COMMUNITY MEETING PARTICIPANTS

Individuals from a wide variety of organizations and communities participated in the interview process and/or community meetings (**Exhibit 39**).

Exhibit 39: Interviewee and Community Meeting Participant Organizational Affiliations

- Adkev, Inc.
- Ball Corporation
- Boys & Girls Club of White County
- Carroll White REMC
- Greater Monticello Chamber of Commerce
- City of Monticello
- Community Foundation of White County
- Family Health Clinics Monon and Wolcott
- Frontier School Corporation
- Girtz Industries, Inc.
- IU Health White Memorial Hospital
- IU White Foundation
- Monticello Healthcare
- Monticello Spring Corporation
- Monticello – Union Township Public Library
- North White School Corporation
- Premier Advertising
- Purdue Extension
- Purdue University Nutrition Education Program
- Twin Lakes High School
- White County Council
- White County Council on Aging/Public Transit
- White County Economic Development
- White County Area Plan
- White County Health Department
- White County United Way
- ViaQuest Hospice

APPENDIX D – IMPACT OF ACTIONS TAKEN SINCE THE PREVIOUS CHNA

This appendix discusses the impact of community health improvement actions taken by IU Health White Memorial Hospital 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.

Nutrition and Active Living (Obesity Prevention)

- **Community Walking Programs.** In 2017, IU Health White Memorial Hospital provided four scholarships for individuals to participate in the local Silver Sneakers Club. Silver Sneakers is a free fitness program for seniors. The hospital also provided free health screenings to Silver Sneakers program participants once per month.
- **Community Education.** Staff from IU Health White Memorial Hospital provided education programs at local Farmer's Markets, a Health and Safety Fair, and local senior residences. The education topics included nutrition, physical education, and obesity prevention. The goal of the education programs was to increase the participants' awareness of overall well-being and health.
- **Meals on Wheels.** IU Health White Memorial Hospital partners with Meals on Wheels to prepare and provide meals to those in need. Staff time is utilized along with funding to supplement the program needs. 90 seniors participate in the program. During 2016, 7,056 meals were provided along with $17,220 to subsidize the cost. During 2017, 12,788 meals were provided along with $18,013 to subsidize the cost.

Access to Healthcare

- **Walk-in Clinic.** The IU Health White Memorial Hospital Walk-In Clinic has expanded hours. The hospital's goal is to provide care to the White County area by appointment and by walk-in appointment seven days a week. By being open seven days a week and having extended hours, the hospital hopes to expand access to healthcare.
- **Low-Cost Healthcare Options.** IU Health White Memorial Hospital provides financial assistance and information on prescription and healthcare assistance to those in need. During 2016, charity care was provided to 1,049 patients, and 3,410 patients visited the hospital that were on Medicaid. During 2017, charity care was provided to 1,132 patients, and 3,280 patients visited the hospital that were on Medicaid.

- **Car Seat Installations and Donations.** This program is a collaboration between IU Health Arnett and IU Health White Memorial Hospital hospitals, and any statistics include both hospitals. Car seat installations are performed to ensure the safety of child passengers. In addition, during 2017, 402 car seats were donated to families. Staff time is utilized for the car seat fittings. During 2017, 1,201 car seats were installed, and it is anticipated that during 2018, they will reach the milestone of 10,000 car seat installations.
- **Cardiopulmonary Resuscitation/Automated External Defibrillator (CPR/AED) Classes.** IU Health White Memorial Hospital provides CPR classes to bus drivers and to anyone requiring knowledge of these topics. The classes are free and open to members of the community. Staff time is used to teach the classes.
- **Nurse Family Partnership.** The goal of the Nurse Family Partnership program is to provide prenatal and postnatal care to residents of both Tippecanoe and White Counties. This program was a collaboration between IU Health White Memorial Hospital and IU Health Arnett Hospital. There was a monetary investment by the system for this program and staff time was involved. The program began in 2015 with 22 mothers and entered 2016 with 21 clients. During 2017, 21 mothers completed the program. Funding was not available to continue this program in 2018.

Behavioral Health

- **Screening, Brief Intervention, and Referral to Treatment (SBIRT Training).** IU Health White Memorial Hospital provided SBIRT training in 2015. SBIRT is an early intervention and treatment model for people with substance use disorders and those at risk of developing these disorders. The goal of the program is to increase identification and treatment of individuals with substance abuse disorders.
- **Mental Health America Question, Persuade, and Refer (QPR) Suicide Prevention Training/National Alliance on Mental Illness (NAMI) Training**. QPR training teaches community members the warning signs of those in mental crisis and awareness for high school students/ teachers on how to get help for crisis situations. The training is planned to take place in 2018.
- **Teen Texting Program.** The SAFE2TALK program is a crisis hotline that allows students to text for help with mental health issues rather than calling. Staff time was utilized to meet with school officials and Mental Health America (MHA) to plan and implement the program. In 2018, Safe2Talk is to be rolled out in schools in White, Clinton, and Carroll Counties.
- **Quit for Life.** The Indiana Tobacco Quitline is a free phone-based counseling service that helps Indiana smokers quit. Staff referred team members to the Quitline. During 2016 and 2017, there were five and zero Quit for Life participants, respectively.

- **New Behavioral Health Program in Primary Setting.** The new program provides outpatient access to community members requiring behavioral health services. The second part of the program involves working in collaboration with Sycamore Springs, River Bend Hospital, and NAMI to serve community members in need of inpatient behavioral health services. While the behavioral program is only located at IU Health Arnett primary care settings, it is open to individuals in the region.

Chronic Disease Management

- **Community Event Health Education and Screenings.** In order to increase the health knowledge of attendees, staff participated in community events to provide screenings and education sessions. Activities included blood pressure and cholesterol screenings, support groups, a sleep quiz, and diabetes education. During 2016, 6,453 people were served and 72 screenings occurred.
- **Aging Brain Care (ABC) Program.** The ABC program provides support for patients and family members supporting those with dementia. There is no cost to patients to participate in this program. While the aging program is only located at IU Health Arnett primary care settings, it is open to individuals in the region.

K-12 Education

- **United Way's Kindergarten Countdown (K-Camps) Support.** These United Way programs aim to increase readiness for students entering Kindergarten. During 2016 and 2017, 57 and 48 students attended K-Camp, respectively. During 2017 and 2018, $5,000 and $7,500, respectively, were provided to support the programs by IU Health White Memorial Hospital.

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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 more than 60 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.