PARKVIEW HEALTH

2019 Community Health Needs Assessment

Parkview Wabash Hospital, Wabash County

RICHARD M. FAIRBANKS
SCHOOL OF PUBLIC HEALTH
Indianapolis

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Contributors

Indiana Partnership for Healthy Communities

      The Indiana Partnership for Healthy Communities (IN-PHC) is a collaboration between **the Polis Center at IUPUI** (Polis) and the **Indiana University Richard M. Fairbanks School of Public Health** (FSPH). Formed with support from the Indiana Clinical and Translational Sciences Institute (I-CTSI), its mission is to help build the capacity of hospitals, local health departments, and community-based organizations to improve the health of Indiana communities. IN-PHC does this by translating knowledge generated by the academy and by communities into improved and sustainable processes for understanding and effecting community health.

The Polis Center at IUPUI

      Focused on finding practical, effective, and cost-efficient ways for communities to enhance their capacity for meaningful change, Polis uses innovative approaches to understand communities. Polis enhances community capacity for collaborative, data-informed decision making and action using place-sensitive analysis. Team members include:

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Executive Summary

To assist Parkview Health in completing its 2019 community health needs assessment (CHNA), the Polis Center and the Richard M. Fairbanks School of Public Health designed and conducted both primary and secondary data collection and analysis activities for the seven counties in northeast Indiana that compose Parkview's primary service area, including: Allen, Huntington, Kosciusko, Lagrange, Noble, Wabash, and Whitley. This report is particular to **Wabash County**.

The CHNA team assessed the health needs of the Parkview Health region as a whole, as well as the needs of the individual counties. A preliminary list of community health needs was identified using secondary data from the Healthy Communities Institute database as well as other state and national data sources. This list of community health needs was augmented with local input collected via a community phone survey and a local provider survey.

The Parkview Health service area includes a relatively large Hispanic population in Kosciusko and Noble Counties and Amish population in LaGrange County. Because Hispanic and Amish populations are often underrepresented in online and telephone surveys, a focus group was conducted with the Hispanic community and a paper survey was conducted in the Amish Community to ensure that the community health concerns of these populations were captured.

The assessment team objectively prioritized the identified community health needs using the Hanlon Basic Priority Rating Method recommended by the National Association of County and City Health Officials (*Guide-to-Prioritization-Techniques.pdf*, n.d.). This method rates health concerns based on: 1) size of the health problem, 2) seriousness of the health problem, and 3) availability of evidence-based interventions.

The top health concerns identified for Wabash County are **cardiovascular disease** (heart disease and stroke), **diabetes** (adults 20+ with diabetes), **aging** (Alzheimer's disease), **obesity** (adults 20+ who are obese), and **drug and alcohol use and addiction** (non-fatal ED visits due to opioid overdoses).

As the next step in selecting health priorities for its community health improvement planning efforts, the CHNA team recommended that Parkview screen the identified health concerns based on feasibility of available public health interventions. Feasibility includes the suitability and community acceptability, availability of resources, cost-benefits ratio, and legality of potential interventions. Based on a consideration of these factors, Parkview Wabash Hospital selected **substance use/mental health and obesity** as top community health priorities for Wabash County for 2020-2022.

Organization of the Report

This CHNA report was designed to support Parkview Health's community benefit programming efforts and to fulfill its IRS reporting requirements. As such, it provides a description of the following:

1. **Description of Service Area** (The hospital primary service area)
2. **The Community** (Socio-demographics of the populations residing in the primary service area and availability of social services relevant to public health)
3. **Data Sources** (Primary and secondary data sources used to conduct the CHNA)
4. **Identification of Community Health Needs** (The process for identifying community health needs and social determinants of health via primary and secondary data analysis)
5. **Ranking of Identified Community Health Needs** (The process and criteria used for scoring and ranking the identified community health needs and the results (the top ranked needs). The full set of indicator rankings is included in **Appendix B: Scoring of Community Health Needs.)**
6. **Priority Selection** (Priorities selected by Parkview Health)
7. **Data Limitations** (Data limitations and information gaps)

INTRODUCTION

The IRS requires all nonprofit hospitals to complete a Community Health Needs Assessment (CHNA) every three years. Parkview Health partnered with The Polis Center at IUPUI (Polis) and the Indiana University Richard M. Fairbanks School of Public Health (FSPH) to design and conduct a 2019 CHNA for each of its seven hospitals. This report provides an overview of the CHNA processes and methods used to identify and prioritize significant health needs of the community served by the Parkview Health region.

DESCRIPTION OF SERVICE AREA

Parkview Wabash Hospital serves Wabash County, Indiana as shown in *Figure 1*: Primary Service Area of Parkview Hospitals.

Figure 1: Primary Service Area of Parkview Hospitals in Wabash County
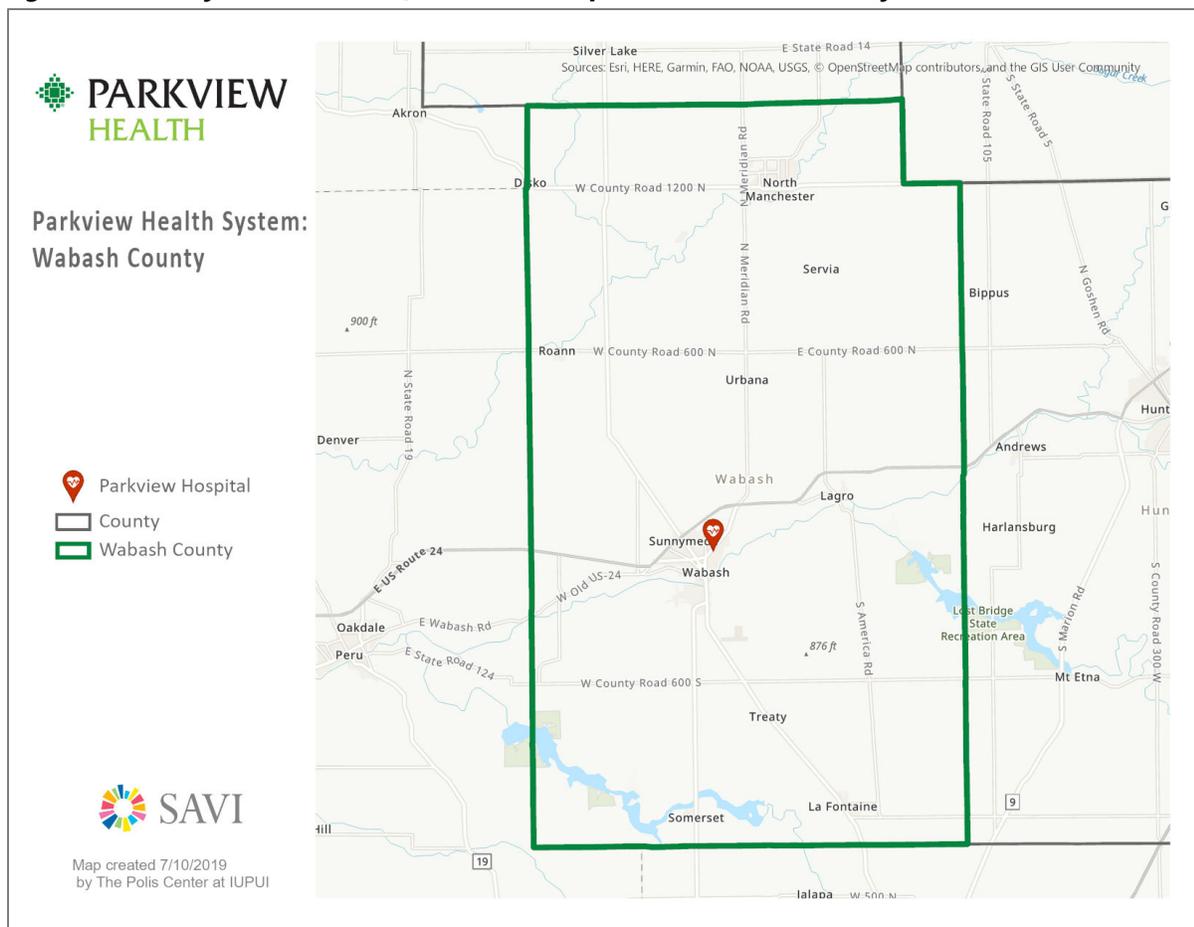
THE COMMUNITY

DEMOGRAPHICS

Population Size

The seven-county Parkview Health service area comprises about 10% of the total population in Indiana *(Table 1)*. Based on population density, Wabash County is considered rural/mixed (Ayres, Waldorf, & McKendree, n.d.).

	Parkview Health	Indiana	U.S.
Population	634,457	6,614,418	321,004,407

Table 1: Population

Source: US Census Bureau (American Community Survey 2013-2017 Five-year Averages)

Allen County has the highest population in the service area (367,747) followed by Kosciusko (78,720) *(Table 2)*. While Allen, Kosciusko, LaGrange, and Whitley Counties all experienced population growth between 2014 and 2017, Huntington, Noble, and Wabash each experienced some population decline. Wabash County had a decline in population of 3.13% from 2014 to 2017.

Year	Allen	Huntington	Kosciusko	LaGrange	Noble	Wabash	Whitley
2017	367,747	36,520	78,720	38,720	47,421	31,848	33,481
2014	360,990	36,959	77,790	37,759	47,497	32,492	33,307

Table 2: Population in Parkview Counties, 2014 and 2017   Source: Stats Indiana

Age

The median age ranges from 31.5 years in LaGrange County to 42 years in Wabash County *(Table 3)*. The median age in LaGrange County is notably lower than the other counties as well as the state and nation, while the median ages in Wabash (42.0) and Whitley (41.0) Counties are notably higher.

Year	Allen	Huntington	Kosciusko	LaGrange	Noble	Wabash	Whitley	Parkview	IN
2017	35.7	40.3	38.0	31.5	38.5	42.0	41.0	36.8	37.5
2014	35.6	39.9	38.0	30.9	37.6	42.3	40.6	36.6	37.2

Table 3: Median Age in Years

Source: US Census Bureau (American Community Survey Five-year Averages)

The Wabash County area has a similar population age makeup to the rest of the Parkview Health region. About two-thirds of the population belong to the 18-64-year-old age group and only seven percent belonging to 0-4-year-old age group (*Figure 2*: Population by Age Group).

Figure 2: Population by Age Group
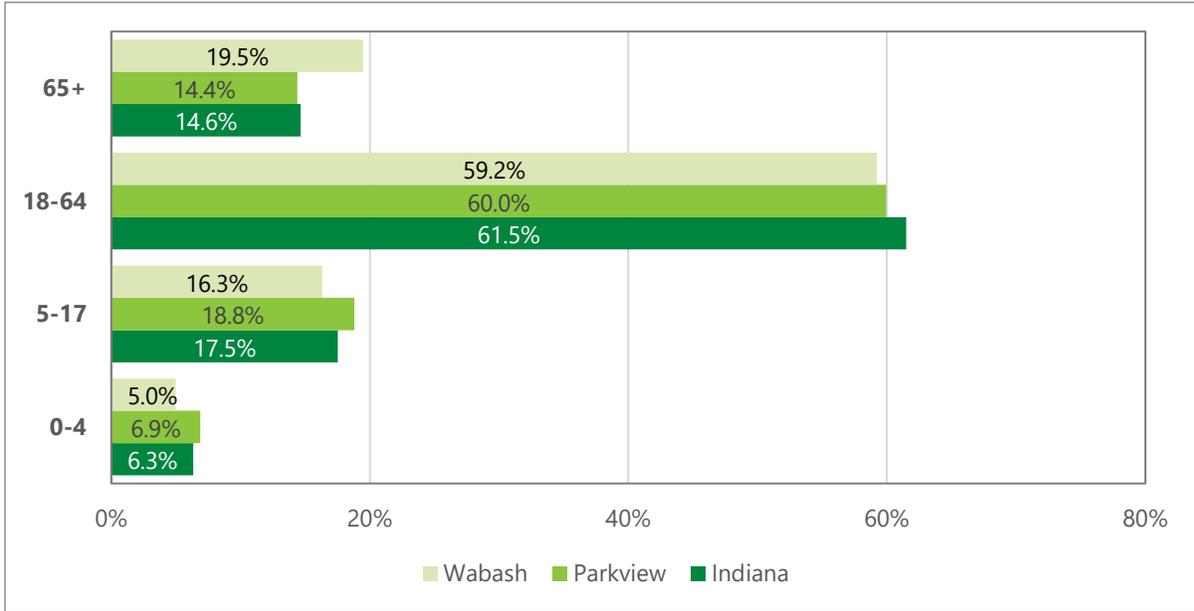
Source: US Census Bureau (American Community Survey 2013-2017 Five-year Averages)

Figure 3: Age Pyramid
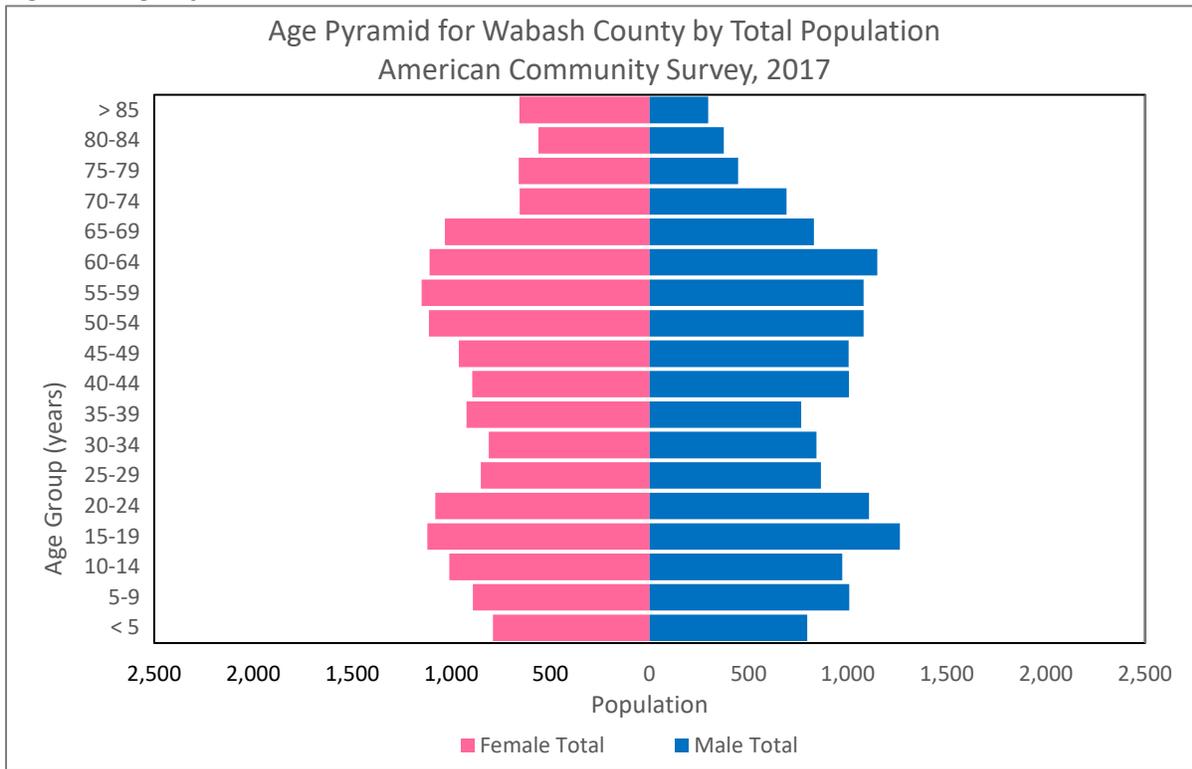
Source: US Census Bureau (American Community Survey 2013-2017 Five-year Averages)

The age pyramid for Wabash County is of the restrictive type. As is evident from *Figure 3,* the size of the younger population is low with the exception of the 15-19 year- old age group. There is a relatively high number in the 55- 59 age group, the baby boomer generation. It will be important to establish and enhance services (clinical and social needs) for the growing senior population.

Because different age groups require different levels and types of care, strategies for improving community health outcomes should incorporate the needs of each generation. The percentage of the population under 18 years is 21.3% for Wabash County (*Figure 4*: Child and Senior Population*)*. At the other end of the age spectrum, are individuals 65 years and older. *Figure 4* demonstrates that the 65 and older population in Wabash County is 19.5% (the highest in the Parkview Health region). Adequate health care is critical to allow the senior population to age in place and maintain their quality of life as they grow older.

Figure 4: Child and Senior Population
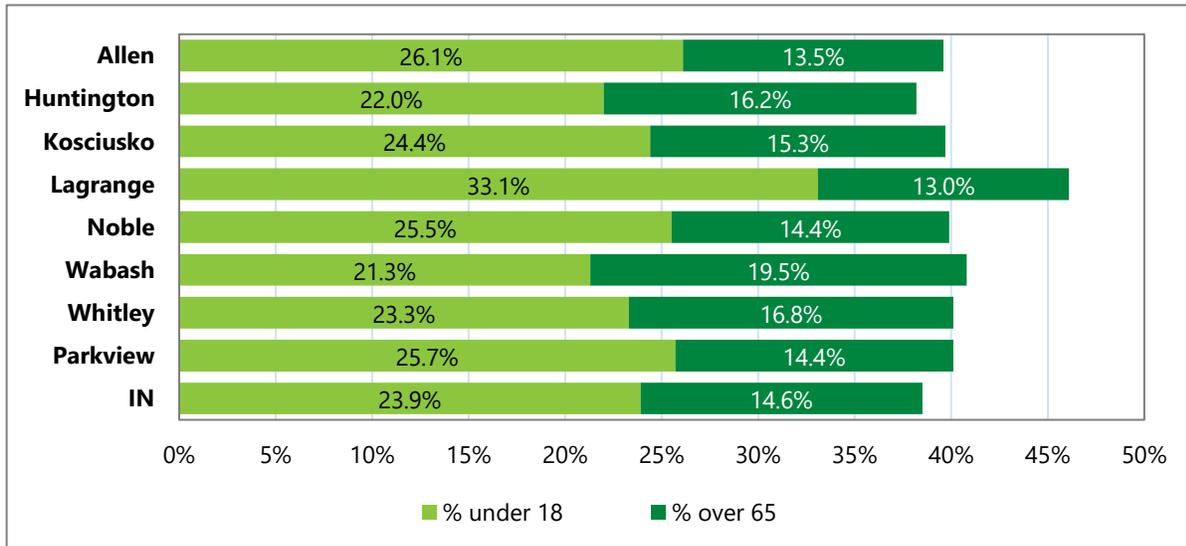
Source: US Census Bureau (American Community Survey 2013-2017 Five-year Averages)

Race and Ethnicity

Many racial and ethnic groups experience disparities in health and healthcare. These groups may face unique challenges in accessing healthcare due to linguistic, social, or cultural differences. Therefore, it is important to be cognizant of the racial and ethnic makeup of the hospital service area and to design and implement culturally competent healthcare services. As illustrated by *Table 4* and *Figure 5*, the racial composition of the entire Parkview Health region is predominantly non-Hispanic White, which is similar to the rest of Indiana. However, some racial diversity exists in some of the Parkview Health counties. Noble County has the highest Hispanic population (10.2%) in the region, followed by Kosciusko County (7.9%).

	Year	Allen	Huntington	Kosciusko	LaGrange	Noble	Wabash	Whitley	Parkview	IN
White	2017	74.6%	95.2%	88.6%	94.4%	87.6%	94.5%	95.7%	81.8%	79.8%
	2014	75.6%	95.8%	89.2%	94.8%	88.2%	95.0%	96.0%	82.7%	80.8%
Black/ African American	2017	11.3%	0.8%	0.7%	0.1%	0.4%	0.9%	0.4%	6.8%	9.1%
	2014	11.5%	0.6%	0.7%	0.1%	0.3%	0.5%	0.3%	6.8%	9.0%
Hispanic/ Latino	2017	7.2%	2.2%	7.9%	3.9%	10.2%	2.5%	1.9%	6.5%	6.7%
	2014	6.8%	1.9%	7.7%	3.8%	9.8%	2.2%	1.8%	6.2%	6.3%
Other Race or Ethnicity	2017	6.9%	1.8%	2.8%	1.6%	1.8%	2.1%	2.0%	4.9%	4.4%
	2014	6.1%	1.7%	2.4%	1.3%	1.7%	2.3%	1.9%	4.3%	3.9%

Table 4: Percent of Population by Race and Ethnicity

Source: US Census Bureau (American Community Survey Five-year Averages)

Since 2014, Wabash County had an increase in the percentage of Black and Hispanic population. The White non-Hispanic percentage decreased by 0.5% during the same time period.

Figure 5: Race and Ethnicity
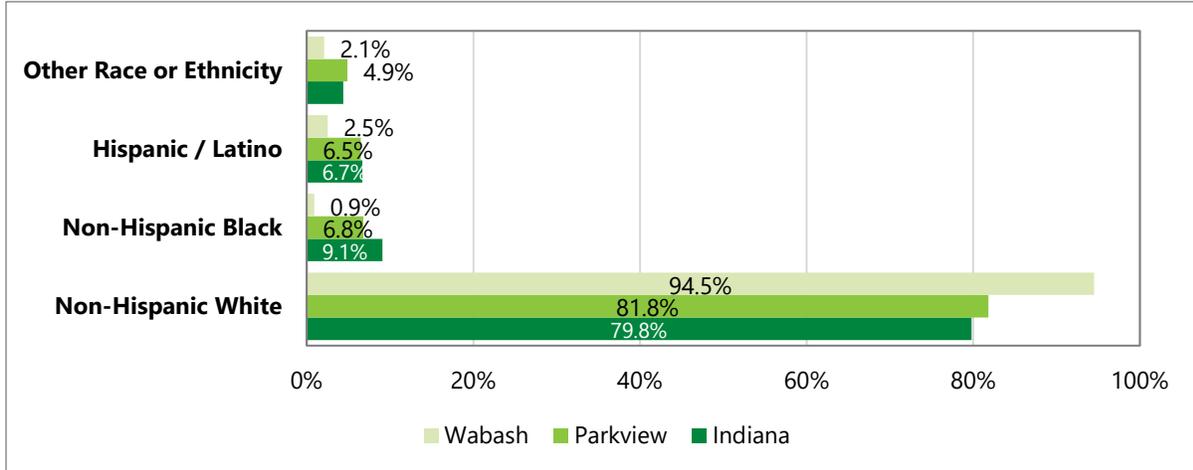
Source: US Census Bureau (American Community Survey 2013-2017 Five-year Averages)

Northeast Indiana is home to a large Amish population. According to the 2010 U.S. Religion Census, more than 14,000 Amish lived in LaGrange County, accounting for 37.9% of its total population, making it the second largest county (by population) for the Amish in the United States. None of the 2010 population of Wabash County was Amish. The map included as *Figure 6* shows the Amish population by county in the seven-county region in Northeast Indiana.
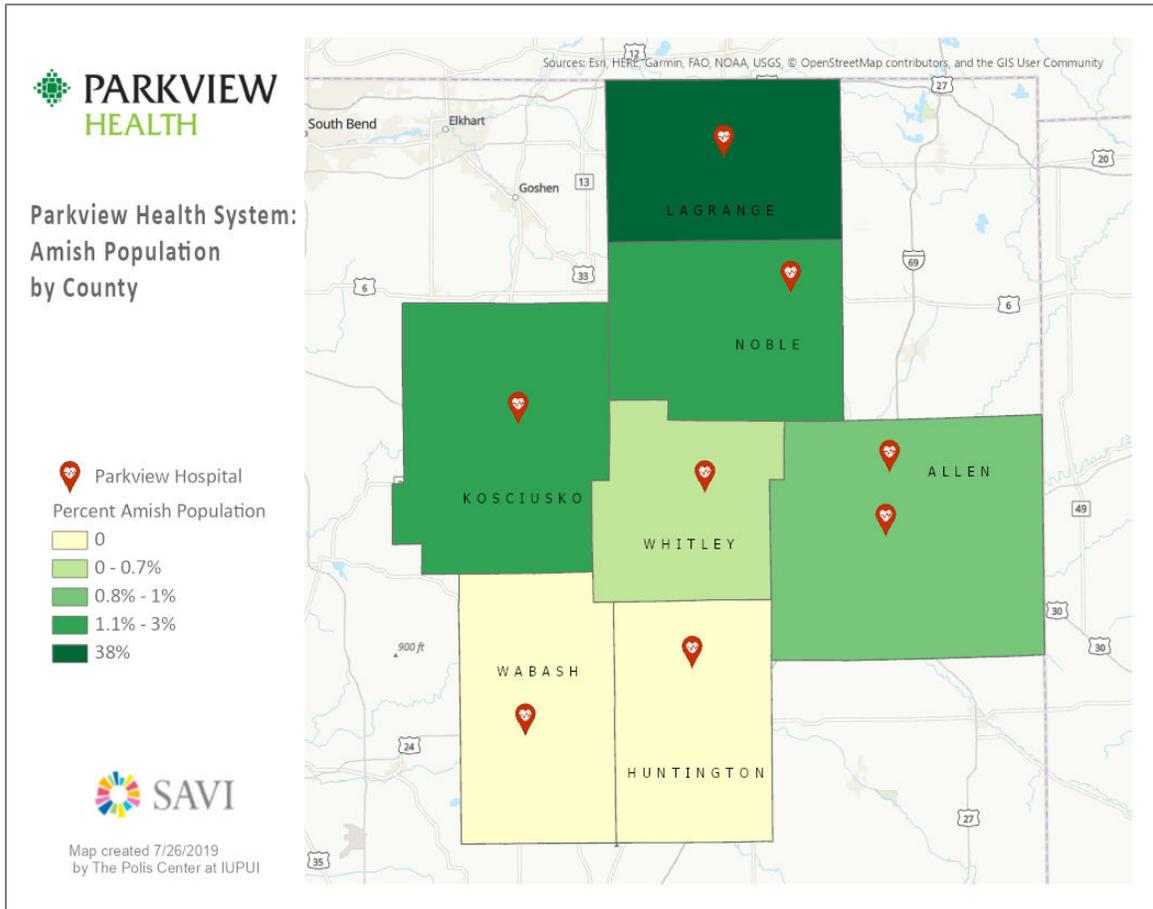
Figure 6: Amish Population by County in Parkview Service Area

Source: Association of Religion Data Archives, 2010 US Religion Census

SOCIOECONOMIC STATUS

Socioeconomic status (SES) is a powerful determinant of health outcomes. SES refers to one's access to financial, educational, and social resources. SES underlies three major determinants of health, including environmental exposure, health behavior, and health care. In addition, chronic stress associated with lower SES may increase morbidity and mortality. When using socioeconomic factors to understand potential health risks, income, poverty, employment status and educational status are typically considered.

Median Household Income

The median household income in Wabash County is $49,052, which is lower than the Indiana average of $52,182 (*Table 5*). From 2014 to 2017, the median household income has increased in Wabash County. From 2014 to 2017, the median household income increased by 7% in Wabash County.

Table 5: Median Household Income

Year	Allen	Huntington	Kosciusko	LaGrange	Noble	Wabash	Whitley	Parkview	IN
2017	$51,091	$50,063	$57,190	$58,336	$52,393	$49,052	$57,041	$52,540	$52,182
2014	$49,124	$47,356	$52,706	$49,112	$49,102	$45,657	$54,023	$49,540	$48,737

Source: US Census Bureau (American Community Survey Five-year Averages)

Racial disparities regarding median household income are evident in *Figure 7.* The median household income for African American households is much lower than white and even lower than the median household income for African Americans in the state. For the Asian population, the median household income in the service area is lower than the median household income for Asians in the state. For Wabash County, the median household income data is not available for African American and Asian population. The Hispanic/Latino population has a higher median household income ($53,393) than the Hispanic/Latino population in the Parkview Health region and the state ($42,473 and $42,995, respectively).

Figure 7: Median Household Income by Race and Ethnicity

Bar chart showing Median Household Income by Race and Ethnicity for Wabash, Parkview, and Indiana:

- Hispanic/Latino: Wabash $53,393; Parkview $42,473; Indiana $42,995
- Asian: Parkview $52,168; Indiana $59,361
- African American: Parkview $27,901; Indiana $32,163
- White: Wabash $48,794; Parkview $55,448; Indiana $55,338
- Total: Wabash $49,052; Parkview $52,540; Indiana $52,182

Legend: ■ Wabash ■ Parkview ■ Indiana
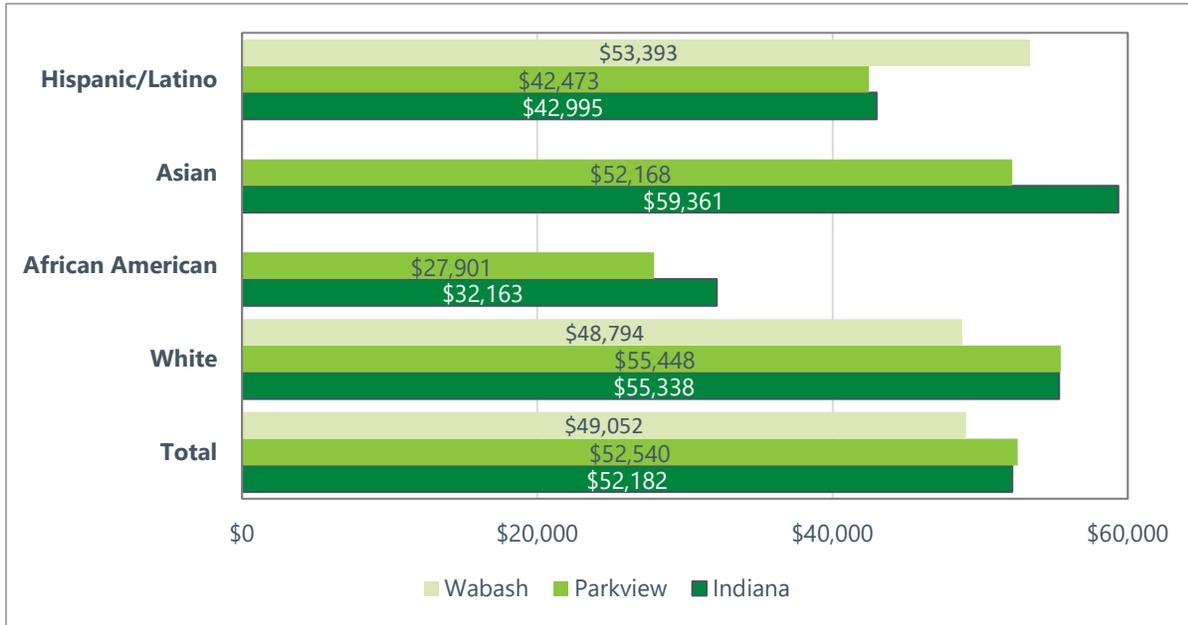
Source: US Census Bureau (American Community Survey 2013-2017 Five-year Averages)
Median Household income for the Black/African American and Asian population from American Community Survey not available for Wabash County for 2013-2017.

Poverty

The percentage of the population living below poverty in Wabash County (13.3%) is slightly higher than in the Parkview region (13.0%), but lower than the state percentage (14.6%). The percentage of individuals living in poverty has decreased between 2014 (14.9%) and 2017 (13.3%).

Table 6: Percentage of Population below Poverty Line

Year	Allen	Huntington	Kosciusko	LaGrange	Noble	Wabash	Whitley	Parkview	IN
2017	14.7%	11.6%	11.2%	9.1%	9.3%	13.3%	9.5%	13.0%	14.6%
2014	15.5%	11.6%	12.4%	15.3%	12.8%	14.9%	8.9%	14.3%	15.5%

Source: US Census Bureau (American Community Survey Five-year Averages)

Racial disparities in poverty result from cumulative disadvantage over the life course, as the effects of hardship in one domain spill over into other domains. *Figure 8* shows that in Wabash County a higher percentage of the African American population is in poverty than the Hispanic or Asian population, although a higher percentage of the White population is in poverty in Wabash County, which is different than in the Parkview region or state overall.

Figure 8: Population below the Federal Poverty Level by Race/Ethnicity
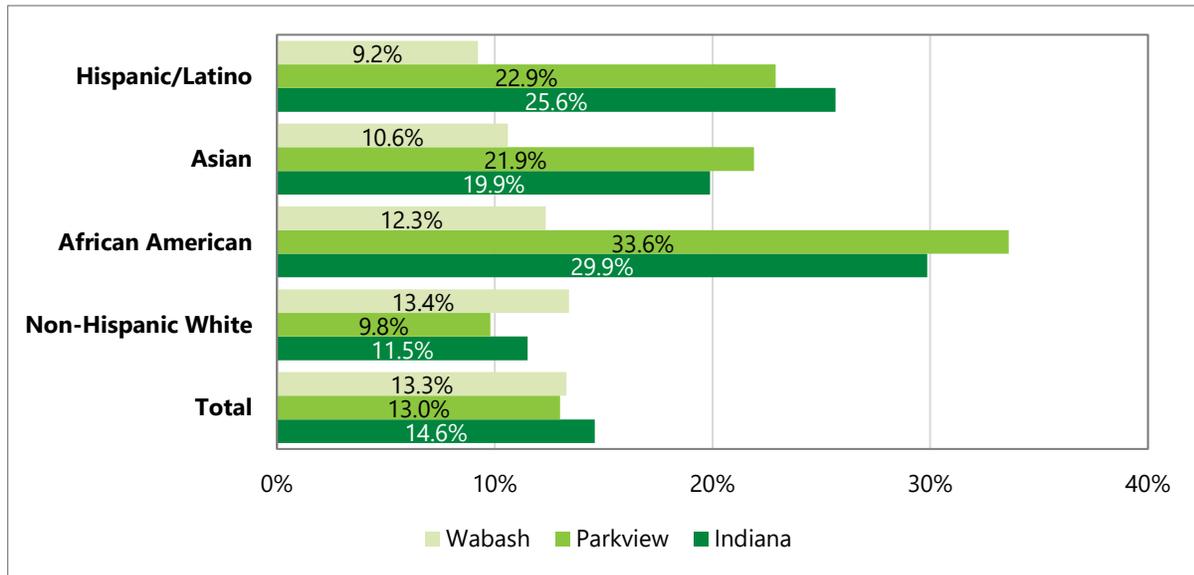
Source: US Census Bureau (American Community Survey 2013-2017 Five-year Averages)

Unemployment

Unemployment rate is another important indicator for assessing the social and economic status of a geographic area or population. Unemployment in Wabash County (5.5%) is slightly lower than the state of Indiana overall (6.1%) (*Table 7*). Like Indiana as a whole, reported unemployment rates went down between 2014 and 2017.

Year	Allen	Huntington	Kosciusko	LaGrange	Noble	Wabash	Whitley	Parkview	IN
2017	6.3%	3.9%	4.6%	2.9%	5.7%	5.5%	3.6%	5.6%	6.1%
2014	9.0%	8.7%	7.7%	7.1%	10.0%	7.4%	6.4%	8.6%	8.8%

Table 7: Percentage of Population Unemployed

Source: US Census Bureau (American Community Survey Five-year Averages)

Racial disparities visible in income and poverty level are also seen with unemployment. The reported percentage of the Asian population that is unemployed in Wabash County (32.4%) is much higher than in the overall Parkview Region (7.0%) and the state (4.6%). In contrast, the African American population has a lower unemployment rate (5.2%) than the Parkview region (15.2%) and for the state of Indiana (13.7%) (*Figure 9*).

Figure 9: Unemployment Rate by Race/Ethnicity
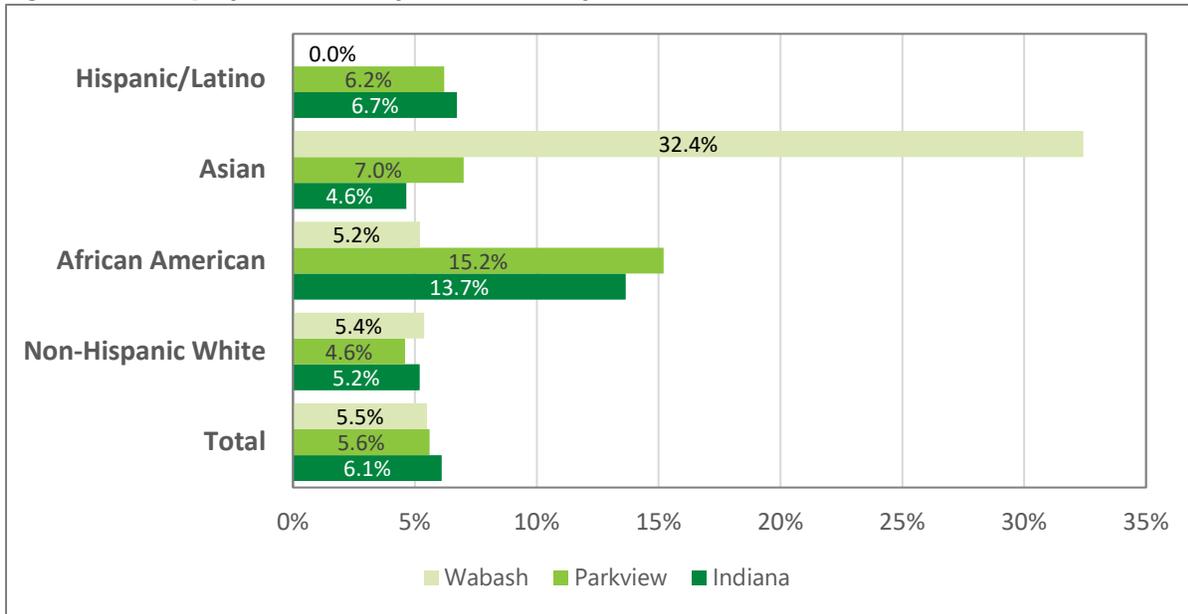
Source: US Census Bureau (American Community Survey 2013-2017 Five-year Averages)
Unemployment rate was not available for the Hispanic/Latino racial category for Wabash County from American Community Survey for 2013-2017.

Education

Education is a powerful predictor of other social measures. Education leads to higher incomes and lower poverty and unemployment, which in turn lead to greater economic stability. Identifying populations with limited education may help to identify areas of special health service needs.

Table 8 shows the percentage of population without a high school diploma or equivalent. Wabash County has a lower percentage of the population without a high school diploma (11.3%) compared to the entire Parkview Health service area (12.7%). For Wabash County, this percentage decreased since 2014 (12.0%).

Year	Allen	Huntington	Kosciusko	LaGrange	Noble	Wabash	Whitley	Parkview	IN
2017	10.6%	9.5%	15.2%	36.7%	15.0%	11.3%	8.9%	12.7%	11.7%
2014	10.7%	11.1%	14.9%	36.9%	16.0%	12.0%	8.9%	13.0%	12.4%

Table 8: Population without High School Diploma

Source: US Census Bureau (American Community Survey Five-year Averages)

Figure 10: Percent of Households with No High School Diploma
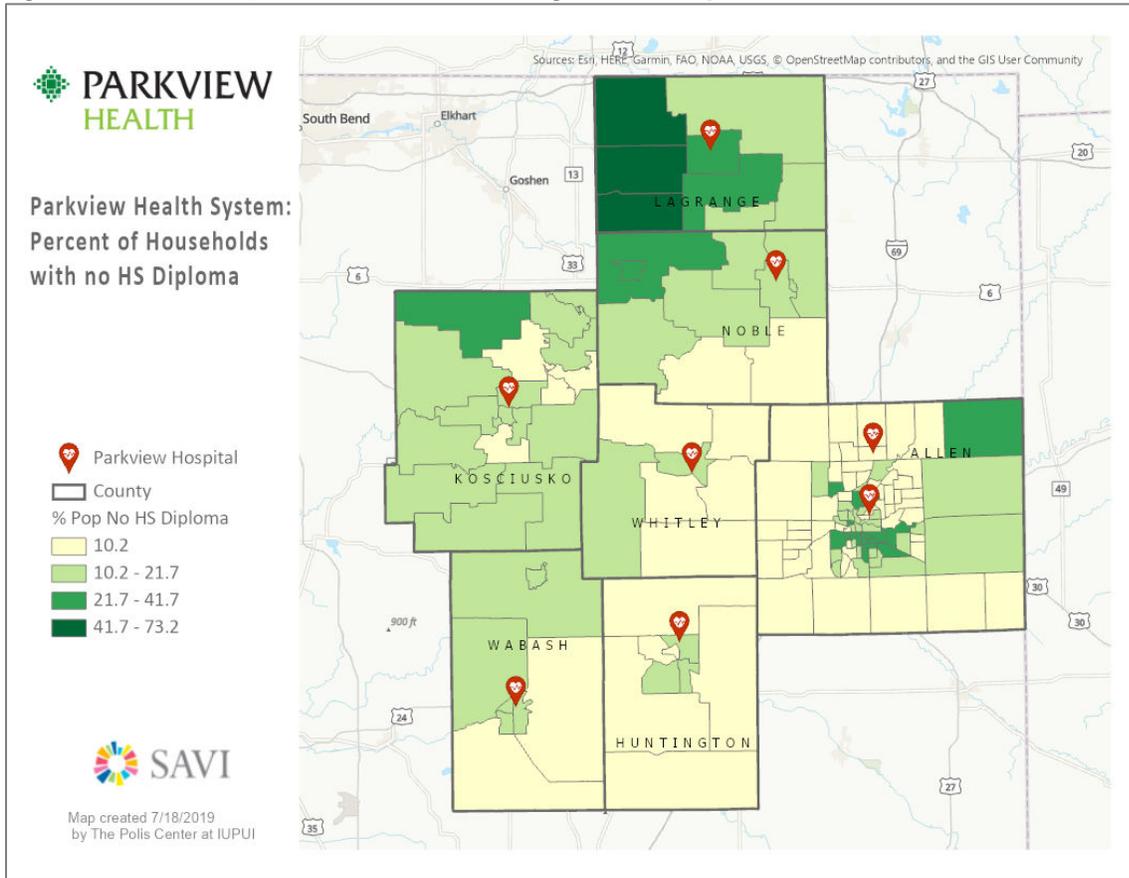
Source: US Census Bureau (American Community Survey 2013-2017 Five-year Averages)

Overall, the Parkview Health region seems to have almost similar percentage of population without a high school diploma as the rest of the state. However, racial disparities are still seen with educational attainment (*Figure 11*).

A little over a quarter (25.8%) of the total Hispanic population constitutes of individuals who are without a high school diploma. These are followed by the African American population where slightly less than a quarter (23.3%) of the population is without a high school diploma.

Figure 11: Population without a High School Diploma by Race/Ethnicity
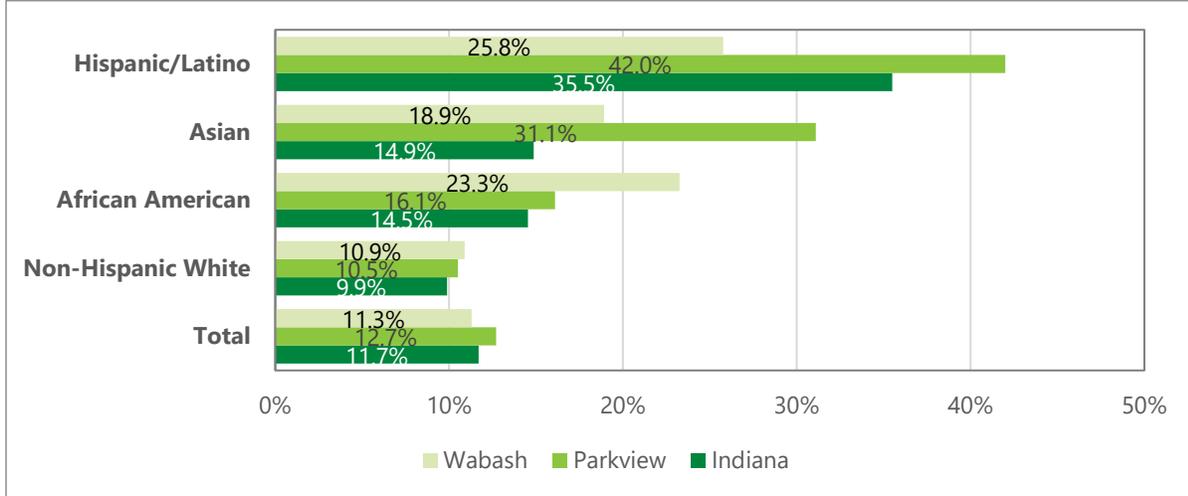
Source: US Census Bureau (American Community Survey 2013-2017 Five-year Averages)

ACCESS TO HEALTHCARE

Access to healthcare is another important social determinant of health. It is commonly measured by lack of access to primary care services and by lack of health insurance.

Medically Underserved Areas and Populations

Medically underserved areas and medically underserved populations identify geographic areas and populations with a lack of access to primary care services. The Health Resources and Services Administration identified several medically underserved *areas (Figure 12,* light green) in the southwest end of the Parkview Health region. The highest percentage of the medically underserved *populations* was in Wabash County (*Figure 12*, darker green).

Figure 12: Medically Underserved Areas and Populations
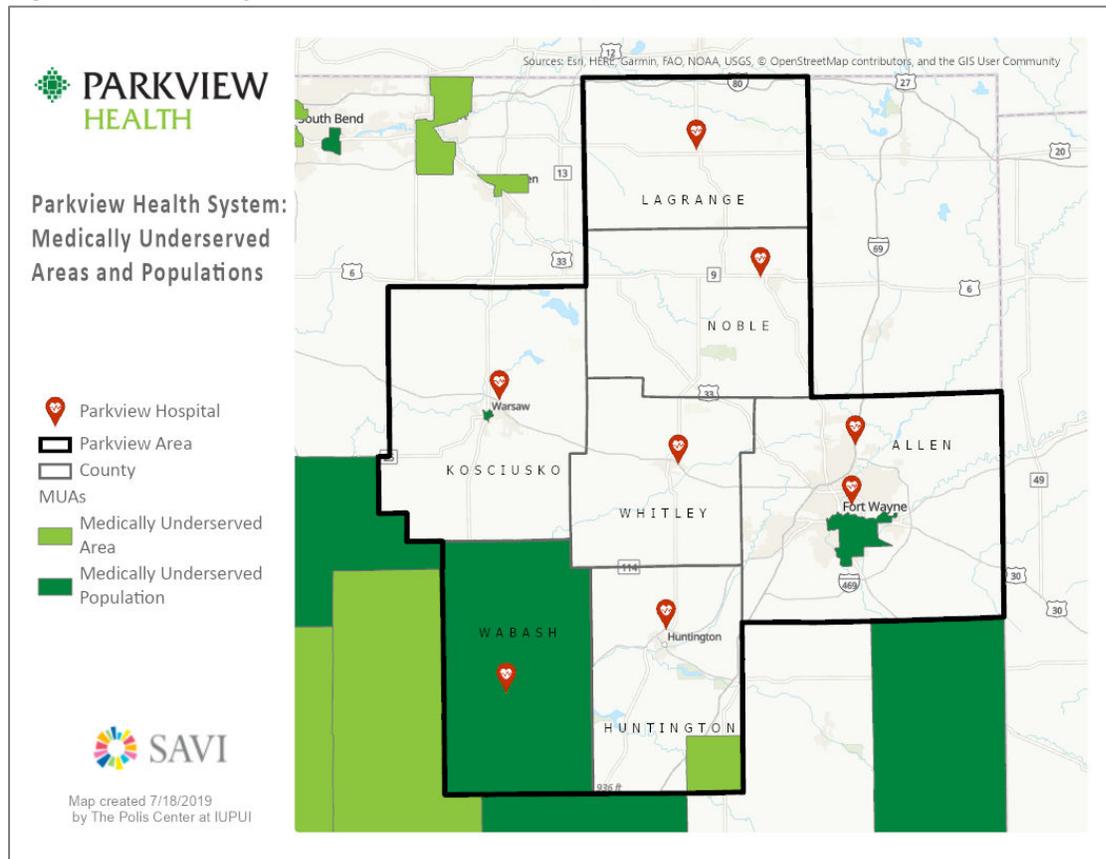
Source: Health Resources & Services Administration, 2019

Health Insurance

The percentage of the population without health insurance in Wabash County is 9.3% which is lower than the Parkview region total of 12.3% (*Table 9*). This percentage has decreased from 10.3% in 2014. The map in *Figure 13* presents this information at the census tract level to illustrate the geographic distribution of those without health insurance.

Table 9: Health Insurance

Demographic	Year	Allen	Huntington	Kosciusko	LaGrange	Noble	Wabash	Whitley	Parkview	IN
Population without health insurance	2017	10.8%	9.4%	11.8%	39.7%	9.2%	9.3%	7.6%	12.3%	10.3%
	2014	14.5%	11.8%	15.6%	44.5%	14.8%	10.3%	9.1%	15.8%	13.8%
Adults without health insurance	2017	14.7%	12.2%	15.1%	37.7%	12.1%	13.3%	10.9%	15.4%	14.0%
	2014	19.7%	16.4%	20.2%	45.0%	19.7%	15.0%	12.7%	12.3%	18.9%
Children without health insurance	2017	7.5%	8.3%	10.5%	53.1%	7.1%	6.4%	4.4%	11.2%	7.0%
	2014	9.1%	6.9%	12.8%	56.6%	10.5%	5.6%	5.1%	12.9%	8.2%

Source: US Census Bureau (American Community Survey Five-year Averages)

Figure 13: Percent of Population with No Health Insurance
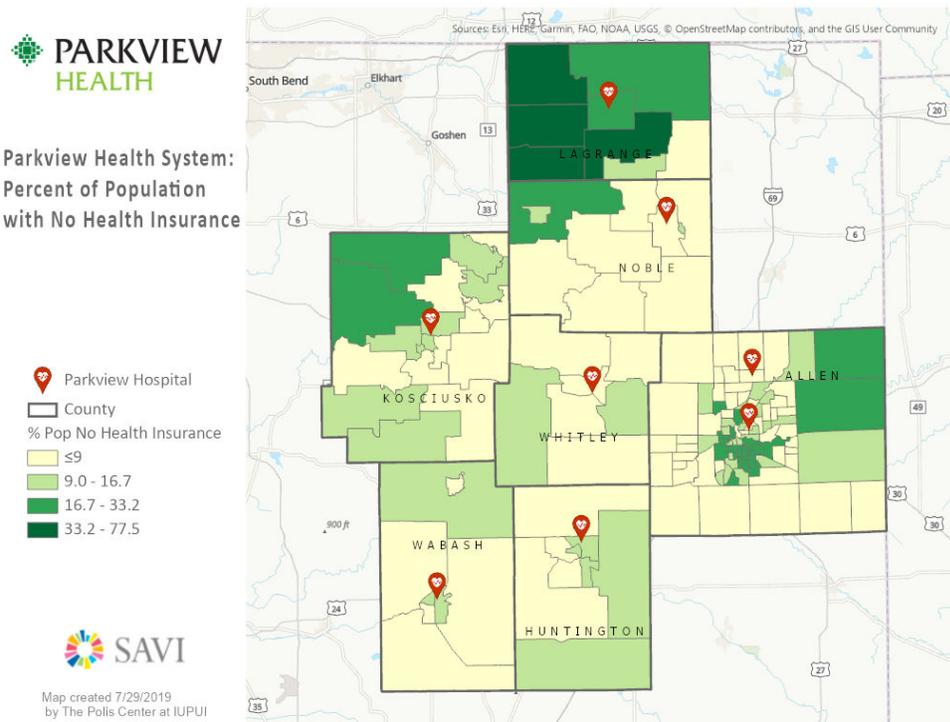
Source: US Census Bureau (American Community Survey 2013-2017 Five-year Averages)

Transportation

Transportation is a critical factor that influences people's health and the health of a community. As six of the seven counties in the service area are rural or mixed urban/rural, having a personal vehicle is of utmost importance as lower population density in rural areas often leads to lower ridership for fixed transit routes and a smaller tax base to fund maintenance and repair of transportation systems. It is evident from the map in *Figure 14* shows that some of Wabash County has >5.4 % of households without a vehicle.

*Figure 14: Households with No Vehicle*
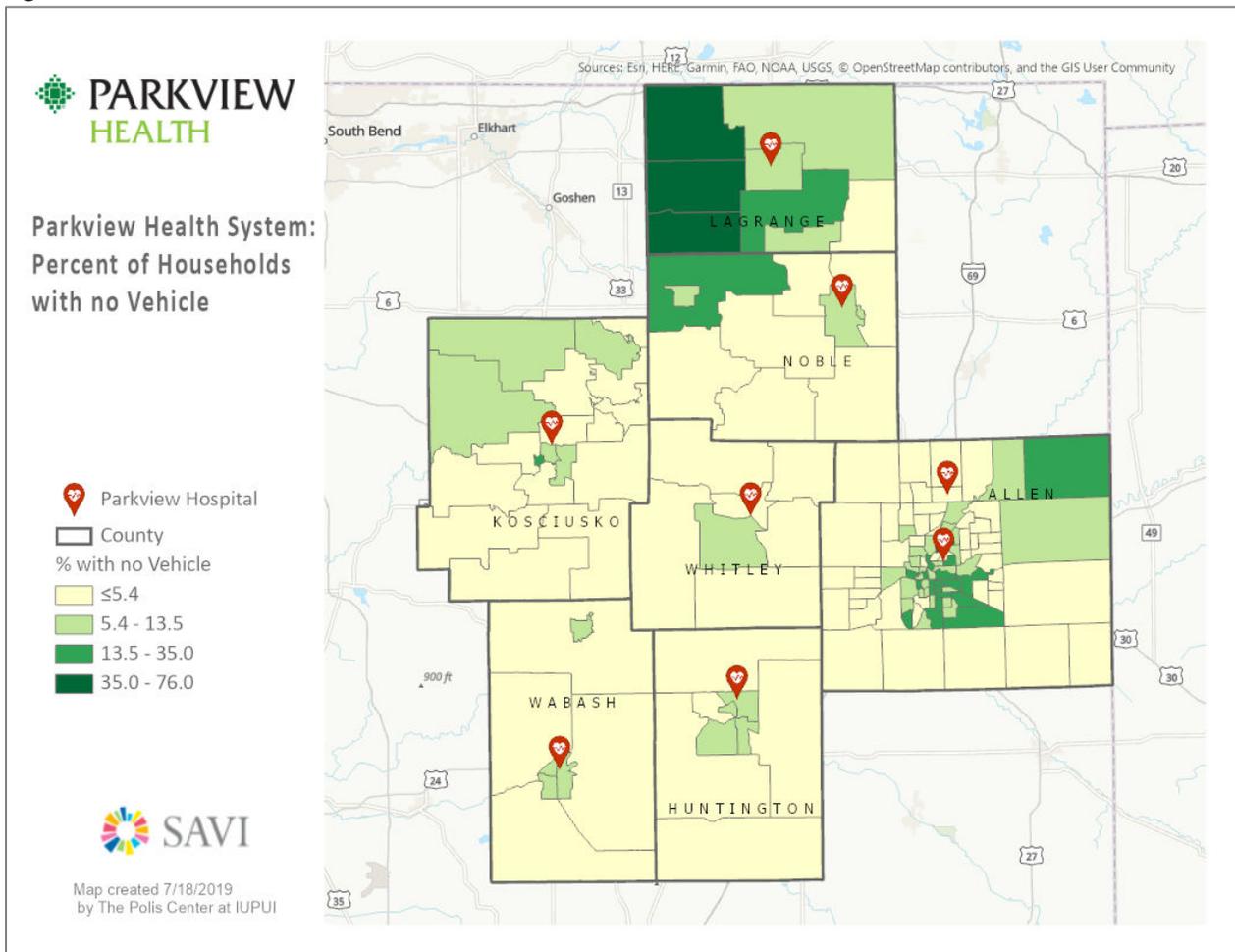
Source: US Census Bureau (American Community Survey 2013-2017 Five-year Averages

DATA COLLECTION

The identification of health needs for Parkview Health region was carried out using two types of data: 1) secondary data from the Healthy Communities Institute (HCI) dashboard and other local and national agencies (e.g., County Health Rankings, etc.) and 2) primary data obtained through an online survey of Parkview healthcare providers (e.g., physicians, nurses, social workers, etc.) and a survey of community residents in each Parkview Health county. To supplement these data, a focus group was conducted with Hispanic community members in Kosciusko County and a survey of the Amish community was conducted in LaGrange County. These data sources are described in the following sections.

SECONDARY DATA

The Parkview Health Community Dashboard developed by HCI was used as a primary source of secondary data. This dashboard includes data from the Indiana Hospital Association as well as the Indiana State Department of Health, National Cancer Institute, Centers for Disease Control and Prevention, Centers for Medicaid and Medicare Services, the National Center for HIV/AIDS, Viral Hepatitis, STD and TB Prevention, Institute for Health Metrics and Evaluation, County Health Rankings website, US Census Bureau, US Department of Agriculture, and other sources. Additional state and national secondary data sources were accessed for more recent and geographically specific information, including the following:

- **American Community Survey:** The American Community Survey (ACS) helps local officials, community leaders, and businesses understand the changes taking place in their communities. It is the premier source for detailed population and housing information about our nation.
- **Annie E. Casey Foundation:** The Annie E. Casey Foundation is a private philanthropic organization that works to build a brighter future for disadvantaged children in the United States. The KIDS COUNT Data Book offers a national look at the well-being of America's children and families by exploring how states are performing on key data indicators.
- **Center for Disease Control and Prevention:** As a federally-funded agency, CDC serves as a great resource for mortality and morbidity data for all the infectious and chronic diseases and other conditions.
- **County Health Rankings:** A Robert Wood Johnson Foundation program implemented by the University of Wisconsin Population Health Institute that releases new estimates annually measuring health across all US counties. These data are compiled from a variety

of providers and typically combines data across multiple years to release estimates for areas with small populations, such as rural counties.

- **Centers for Medicare & Medicaid Services:** The Centers for Medicare and Medicaid Services (CMS) provides health coverage to more than 100 million people through Medicare, Medicaid, and the Children's Health Insurance Program, and the Health Insurance Marketplace. The CMS seeks to strengthen and modernize the nation's health care system to provide access to high quality care and improved health at lower costs.
- **Feeding America:** A nonprofit organization working to feed America's hungry through foodbanks. Data are compiled from the Current Population Survey, American Community Survey, and Bureau of Labor Statistics to produce food-insecurity reports.
- **Indiana INdicators:** A free data resource providing current Indiana health-related data at the state and county levels and developed by the Indiana State Department of Health, Indiana Hospital Association, and Indiana Business Research Center.
- **Indiana State Department of Health (ISDH):** The ISDH's annual natality report includes information on live births in Indiana as well as a mortality report compiling information on the deaths of Indiana residents.
- **National Cancer Institute:** The National Cancer Institute (NCI) is the federal government's principal agency for cancer research and training. NCI maintain large registries of information about people diagnosed with cancer to help identify important issues that affect cancer patients and survivors.
- **National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention**: The National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention is one of the larger centers at CDC and a federal source of data about sexually transmitted infections and diseases.
- **The National Environmental Public Health Tracking Network:** The Tracking Network brings together health data and environment data from national, state, and city sources and provides supporting information to make the data easier to understand.
- **US Census Bureau:** A leading source of data on the people and economy of the US.
- **2018 Indiana Association of Adult Day Services (IAADS) Survey:** The 5th Annual Indiana Adult Day Center Survey was conducted during the summer of 2018 by the Member Relations Committee of the IAADS Board of Directors. \

Results of the secondary data analysis are presented in **Secondary Data Analysis** section.

PRIMARY DATA

This assessment used four sources of community input: 1) an online survey of healthcare and social service providers; 2) a phone survey of the broader community; 3) a paper survey of the Amish community; and 4) a Hispanic focus group. The associated data collection efforts are described below. Results of the provider survey are included in **Provider Survey Results.**

Parkview Provider Survey

An online survey of health and social service providers in the seven-county area was conducted in January 2019 to collect provider perceptions about community health needs and concerns. The survey was designed by Polis and FSPH in partnership with Parkview Health and implemented using Qualtrics, an online survey service. The Parkview Community Benefits team collaborated with the leadership team in each hospital to distribute the survey to health and social service providers in their county. A total of 265 providers responded to the survey. The survey covered aspects of the provider's work including the setting in which they practiced, the duration of time in practice in the region/county, and their perception of the chief public health concerns, barriers to care, and available resources in their communities. The majority of respondents primarily practiced in Allen County (31.3%), followed by Huntington County (29.1%). Wabash County constituted 9.8% of the total provider survey respondents (*Table 10*).

Table 10: Provider Survey Respondents

County	Count	% of Respondents
Allen	83	31.3%
Huntington	77	29.1%
Kosciusko	8	3.0%
LaGrange	27	10.2%
Noble	24	9.1%
Wabash	26	9.8%
Whitley	20	7.5%
Total	265	

Providers were asked about the duration for which they had been in practice in Wabash County. About 40.0% of the respondents had been in practice for more than 20 years. This suggests that a good proportion of the responding providers had spent most of their careers in the Wabash County and so likely were aware of the community's needs and concerns. About 24.0% of the respondents had been in practice for 6-10 years while 20.0% of the respondents had been in practice for 5 or fewer years (*Figure 15*).

Figure 15: Years Practiced in Parkview Area (Wabash Provider Survey Respondents)
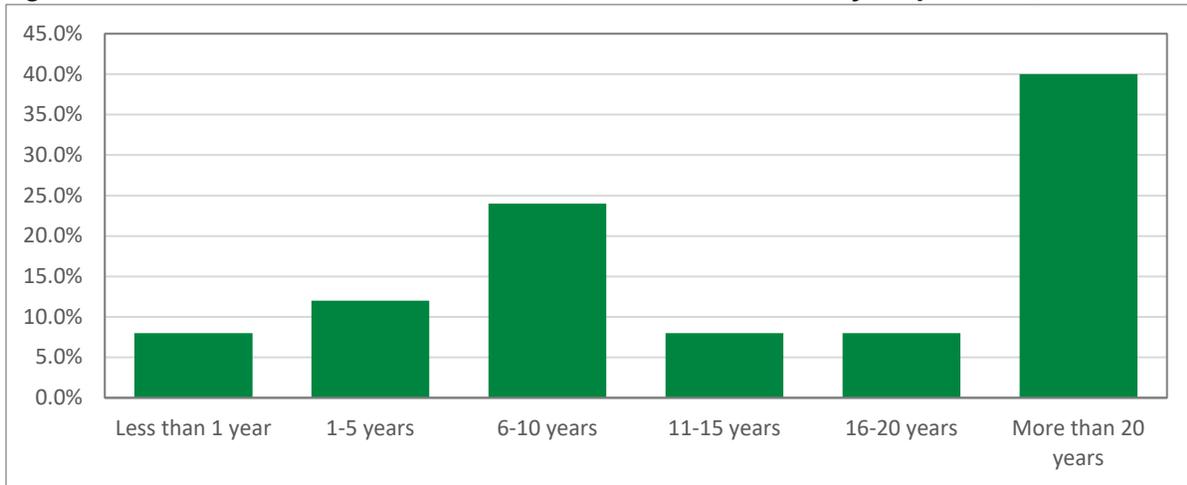
The highest proportions of provider survey respondents were social workers/case managers (15.4%) followed by physicians (11.5%) and registered nurses (11.5%) (*Table 11*).

Table 11: Respondents by Provider Type

Profession	Allen (n=83)	Huntington (n=77)	Kosciusko (n=8)	LaGrange (n=27)	Noble (n=24)	Wabash (n=26)	Whitley (n=20)	All (265)
Physician	27.7%	10.4%	12.5%	11.1%	8.3%	11.5%	10.0%	**15.8%**
Physician's Assistant	1.2%	0.0%	0.0%	0.0%	0.0%	0.0%	5.0%	**0.8%**
Nurse Practitioner	25.3%	2.6%	0.0%	0.0%	0.0%	7.7%	0.0%	**9.4%**
Registered Nurse	3.6%	11.7%	0.0%	22.2%	16.7%	11.5%	15.0%	**10.6%**
Mental/Behavioral Health	7.2%	1.3%	0.0%	3.7%	0.0%	3.8%	0.0%	**3.4%**
Nutritionist	0.0%	2.6%	0.0%	0.0%	8.3%	0.0%	0.0%	**1.5%**
Wellness Practitioner	1.2%	9.1%	0.0%	3.7%	4.2%	0.0%	0.0%	**3.8%**
Public Health/Community Health Practitioner	3.6%	5.2%	0.0%	3.7%	4.2%	7.7%	5.0%	**4.5%**
Social Worker/Case Management	10.8%	11.7%	25.0%	3.7%	16.7%	15.4%	15.0%	**12.1%**
Educator/Counselor	0.0%	6.5%	25.0%	18.5%	8.3%	7.7%	10.0%	**6.8%**
First Responder	0.0%	5.2%	0.0%	0.0%	4.2%	3.8%	0.0%	**2.3%**
Other Health	3.6%	9.1%	0.0%	0.0%	0.0%	7.7%	0.0%	**4.5%**
Other Social Services	3.6%	3.9%	0.0%	3.7%	8.3%	3.8%	0.0%	**3.8%**
Other	4.8%	9.1%	12.5%	18.5%	8.3%	15.4%	25.0%	**10.6%**
No response to this question	7.2%	11.7%	25.0%	11.1%	12.5%	3.8%	15.0%	**10.2%**

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Community Survey

A community phone survey was conducted from April through June 2019 by the Survey Research Lab at the School of Public Health at the University of Alabama School, a partner of the Richard M. Fairbanks School of Public Health). The survey was designed to collect community perspectives on the top community health issues in the Parkview Health service area. A random, population sample of 700 individuals was selected from the seven-county Parkview Health service area (*Figure 16).*

Figure 16: Community Survey Respondents by ZIP Code
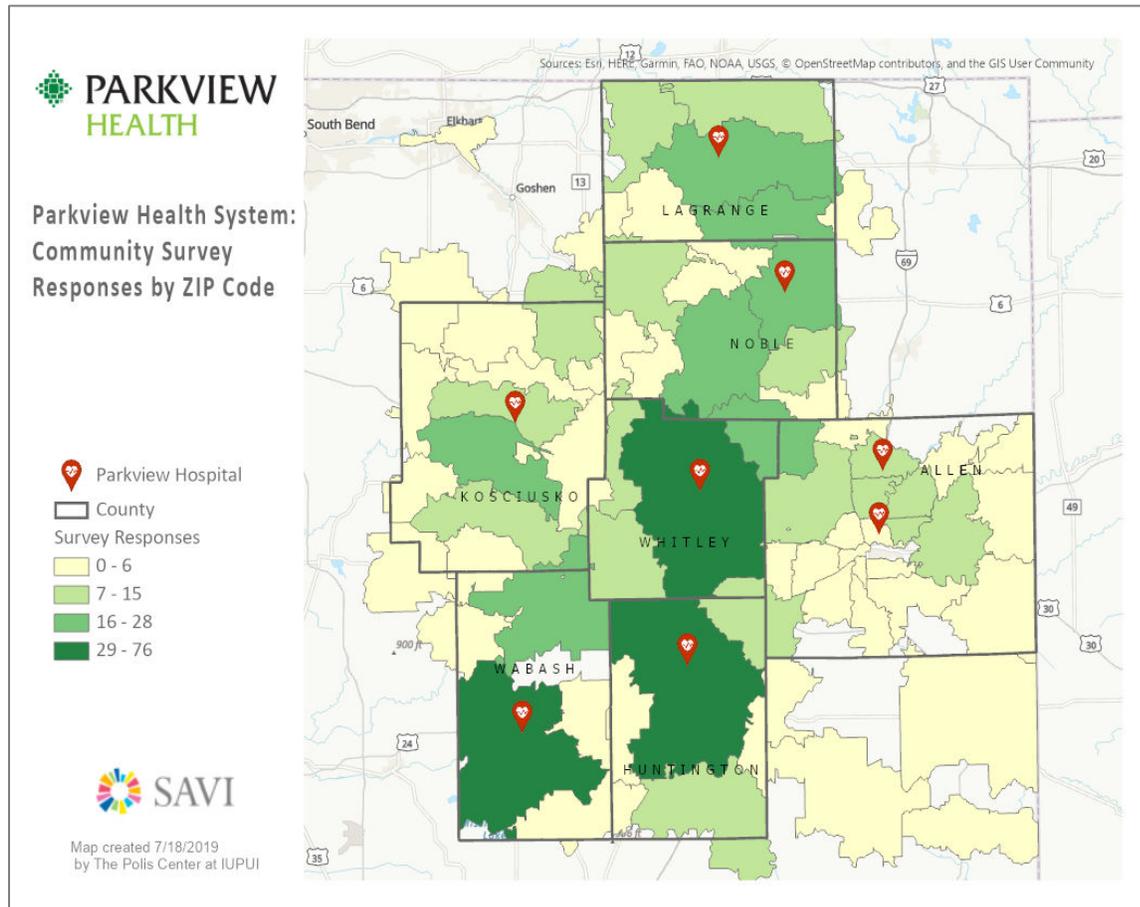
One question asked respondents to choose what they perceived as top health concerns in their community. A second question asked respondents to indicate how important listed health and community services were for their community.

The survey results were algorithmically weighted to control for differences in the demographic makeup of survey participants compared to the total population of each region. Results of the community survey are included in **Community Survey Results.**

Amish Community Survey

A written Amish Community survey was administered from February through April 2019 to a convenience sample of 1) people who patronized the Topeka Pharmacy, which is highly trusted in the Amish community, 2) Amish members of the LaGrange Hospital Board of Directors, and 3) Amish members of the Parkview Health LaGrange Hospital Patient & Family Advisory Council.

The survey asked respondents to select five health issues from a list of 15; items were not ranked, nor were responders asked to add to the list provided or provide comments. One hundred and fifteen (115) Amish individuals completed the survey. *Figure 17 s*hows the distribution of the survey respondents by ZIP code.

Results of the community survey are included in **Amish Community Survey Results** section. A detailed report, including comparison of the survey results from 2016 and 2019, was produced as a companion to this CHNA report.

Figure 17: Amish Survey Respondents by ZIP Code
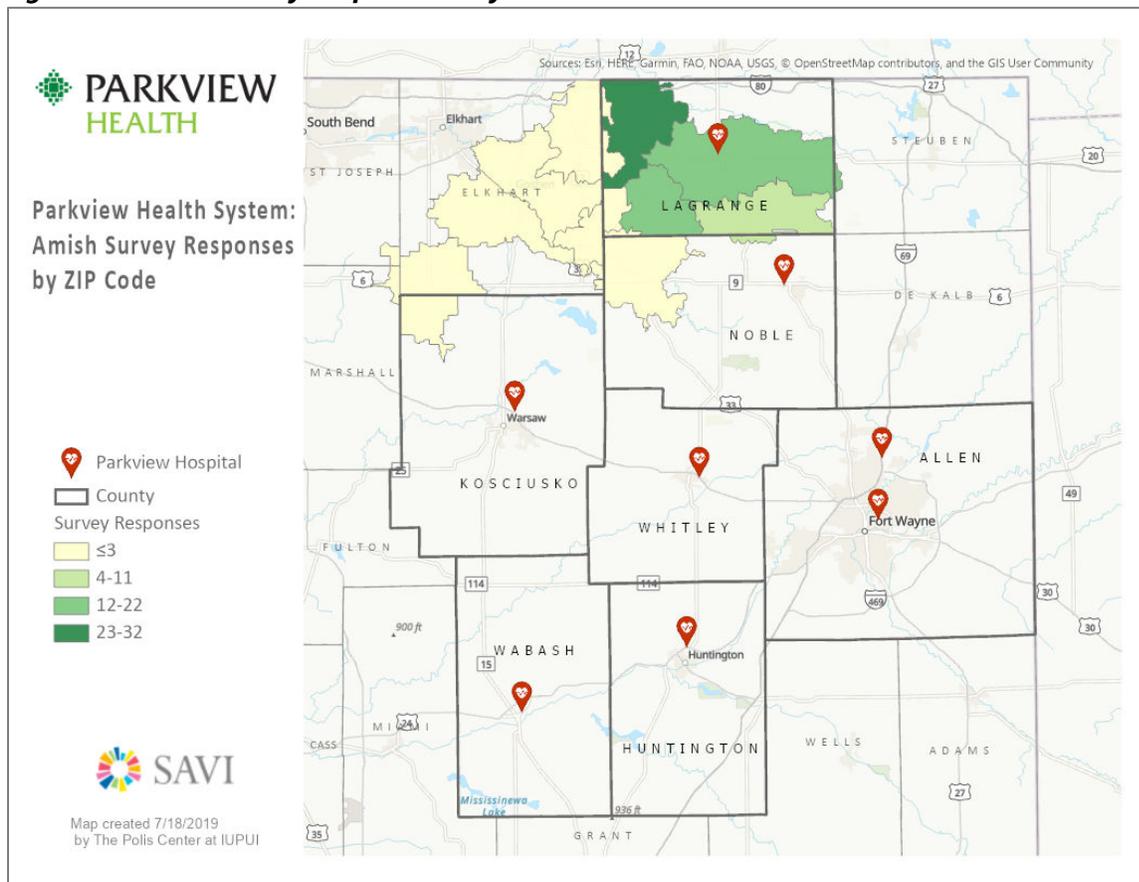
Hispanic Focus Groups

A focus group with thirteen (13) Hispanic community members from Kosciusko County was conducted on March 24, 2019. *Table 12* shows the demographic characteristics of the participants. The focus group representation from both the younger age group (46%) and older (54%) members of the community. The gender distribution was also almost equal between males and females, 46% and 54 % respectively. The majority of the participants (62%) had been residents of Kosciusko County for more than 30 years. The education level in the group was on the lower side with only seven percent of members having completed college but more than one-third of the group had a high school diploma.

Table 12: Hispanic Focus Group Participants (n=13)

Participant Characteristic		Count	% of Participants
Age	Adult (25-45 years)	6	46%
	Senior Adult (>45 years)	7	54%
Length of Time Lived in Kosciusko County	0 – 12 years	2	15%
	13-20 years	4	23%
	30+ years	7	62%
Education	Completed elementary school	6	46%
	Completed middle school	1	7%
	Completed high school	5	38%
	Completed college or university	1	7%
Sex / Gender	Male	6	46%
	Female	7	54%

Focus group participants were asked to indicate 1) the community health issues of greatest concern for the people living in their community, 2) which services were most important in addressing the need, and 3) whether there were any existing programs or service in the community to help address the identified needs.

The Hispanic Community Focus Group was conducted in Spanish translated, transcribed, and analyzed in English.

Results of the focus group are included in the **Hispanic Focus Group Results** section. In addition, a detailed report was produced as a companion to this CHNA report.

SECONDARY DATA ANALYSIS

COMMUNITY HEALTH ISSUES

Based on the review of more than two hundred (200) HCI indicators, *Table 13*: County Health Indicators Performing in the Bottom Quartile of the State lists the health outcomes and behavior for which any county in the Parkview Health primary service area was in the lowest performing quartile of Indiana counties. Each of these indicators was included in the assessment of community health problems and potential community health priorities.

Thirty-six (36) HCI health indicators were in the bottom performing quartile. Some HCI health indicators relate to the same health condition (e.g., incidence rate and age-adjusted death rate for breast cancer). If at least one indicator for a specific health condition was in the bottom quartile, then that condition was considered a potential community health concern for Parkview Health. For example, breast cancer incidence rate was not in the bottom quartile for Kosciusko County, but the age-adjusted rate of breast cancer was. As such, breast cancer is considered a health concern for Kosciusko County. Indicators that were duplicative in terms of identifying a health condition as being of concern were removed, thus reducing the number of health indicators used for the CHNA to 28 indicators. The 28 indicators were categorized into 15 general health concerns, as shown in *Table 13*.

Associated rates for each of these indicators are included in **Appendix B** in the Size of Health Problem column.

Table 13: County Health Indicators Performing in the Bottom Quartile of the State

Health Issue (in alphabetical order)	Health Indicator	Allen	Huntington	Kosciusko	LaGrange	Noble	Wabash	Whitley
Aging	Alzheimer's Disease or Dementia *						X	
	Osteoporosis*		X					
Alcohol Use	Alcohol-Impaired Driving Deaths	X					X	
Asthma	Asthma*	X	X	X			X	
Cancer	Breast Cancer‡			X			X	
	Oral Cavity and Pharynx Cancer†							X
	Prostate Cancer‡					X	X	X
Cardiovascular Disease	Cerebrovascular Disease (Stroke) ‡						X	
	Coronary Heart Disease‡						X	
	Hyperlipidemia: Medicare Population		X				X	
Chronic Kidney Disease	Chronic Kidney Disease*		X					
Respiratory Diseases	Chronic Lower Respiratory Diseases‡		X			X		
Diabetes	Diabetes‡						X	
Drug Use	Controlled Substances Dispensed				X			
	Non-Fatal ED Visits due to Opioid Overdoses						X	
Infectious Diseases	Salmonella Infection†		X	X		X	X	X
	Influenza and Pneumonia‡		X				X	
	Gonorrhea†	X						
	Chlamydia†	X						
	Hepatitis C Prevalence						X	
Maternal/Child Health	Mothers Who Did Not Receive Early Prenatal Care	X		X	X	X		
	Child Abuse Rate						X	
	Babies with Low Birth Weight		X					
Mental Health	Depression*	X						
Obesity	Adults 20+ who are Obese			X	X			
Tobacco Use	Adults who Smoke		X					
	Mothers who Smoked During Pregnancy						X	
Unintentional Injuries	Unintentional Injuries‡						X	
County		Allen	Huntington	Kosciusko	LaGrange	Noble	Wabash	Whitley
# Indicators in the Lowest Quartile in the State		6	9	5	3	5	15	3

*Medicare population. †Incidence Rate. ‡Age-Adjusted Death Rate. Data Source: Parkview Health Community Dashboard, 2019.

Aging

Alzheimer's disease is a chronic, incurable, progressive disorder that affects and disrupts cognition and eventually renders the patient unable to perform basic tasks. Most people with Alzheimer's begin to present symptoms in their 60s. Osteoporosis is an incurable disease that causes bones to become brittle leading to bone fracture and other complications ("FastStats - Osteoporosis," n.d.). It is most common in post-menopausal women. *Table 14* shows that Wabash County had the highest Alzheimer's disease age-adjusted death rate (46.0 per 100,000) and percentage of Alzheimer's disease or Dementia (12.7%) among Parkview Health counties.

Indicator	Year	Allen	Huntington	Kosciusko	LaGrange	Noble	Wabash	Whitley
Alzheimer's Disease‡ (per 100,000)	2017	36.6	24.5	27.2	37.3	30.3	46.0	23.9
	2014	30.1	23.1	33.3	25.5	38.9	25.8	20.0
Alzheimer's Disease or Dementia* (%)	2017	11.4%	11.1%	10.3%	10.7%	9.7%	12.7%	10.2%
	2014	11.0%	10.5%	9.5%	8.3%	7.9%	10.4%	9.0%
Osteoporosis* (%)	2017	5.9%	7.1%	4.9%	4.9%	4.8%	6.3%	5.1%
	2014	5.7%	6.5%	4.5%	4.7%	5.2%	6.4%	4.6%

Table 14: Aging   *Medicare population. ‡Age-Adjusted Death Rate*

Cancer

Cancer (the suite of diseases resulting in abnormally and often uncontrollable growth of malignant cells) collectively forms the second leading cause of death in the United States. Although, overall mortality due to cancer continues to decline, it is still the second leading cause of death ("Cancer Data and Statistics | CDC," 2019). Wabash County had the second highest age adjusted death rate of breast cancer (25.7 per 100,000 population) and prostate cancer (27.0 per 100,000 population) among the seven counties (Table 15).

Table 15: Cancer (per 100,000)

Indicator	Year	Allen	Huntington	Kosciusko	LaGrange	Noble	Wabash	Whitley
Breast Cancer‡	2015	23.2	21.4	28.3	18.8	23.8	25.7	17.9
	2014	25.9	25.7	28.0	16.9	22.5	24.3	19.3
Colorectal Cancer‡	2015	14.8	17.5	18.6	12.0	15.7	15.4	12.3
	2014	15.6	17.0	16.2	10.9	16.9	13.2	13.1
Oral Cavity and Pharynx	2015	11.6	7.7	11.2	11.2	12.7	11.7	17.4
	2014	11.3	9.1	10.9	N/A	11.3	13.8	8.1
Prostate Cancer‡	2015	22.2	17.3	23.1	22.7	26.4	27.0	31.5
	2014	21.4	24.8	23.8	N/A	31.0	28.5	39.9

†Incidence Rate. ‡Age-Adjusted Death Rate.

Cardiovascular Disease

Heart disease is the leading cause of death according to the CDC ("Heart Disease Facts & Statistics | cdc.gov," 2018). The most common of these is coronary artery disease, which can lead to heart attack ("Heart Disease Facts & Statistics | cdc.gov," 2018). Heart disease affects populations of all races and genders, and usually occurs in middle age. *Table 16* shows that all five heart disease indicators increased within the time period from 2014 to 2017 for Wabash County. This county had the highest rates of coronary heart disease, heart attacks, and hyperlipidemia compared to the other counties in the Parkview region.

Table 16: Cardiovascular Disease (per 100K)   *Medicare Population*   *‡Age-Adjusted Death Rate*

Indicator	Year	Allen	Huntington	Kosciusko	LaGrange	Noble	Wabash	Whitley
Coronary Heart Disease‡	2017	85.1	99.6	93.0	92.7	96.1	120.1	90.6
	2014	90.7	101.7	92.7	77.1	119.3	97.6	98.0
Stroke‡	2017	36.5	42.6	38.3	34.8	46.2	45.5	37.9
	2014	39.2	63.2	41.9	54.1	46.8	35.5	27.3
Heart Attacks‡	2016	61.5	62.0	68.9	57.7	55.7	99.3	60.9
	2014	69.4	69.1	71.5	62.6	62.0	96.8	68.8
Hyperlipidemia *(%)	2017	39.4%	44.4%	42.1%	37.4%	35.3%	44.5%	39.2%
	2014	42.8%	43.5%	45.1%	41.0%	41.3%	41.1%	41.0%
Stroke* (%)	2017	3.9%	3.4%	3.6%	2.2%	3.2%	3.3%	2.8%
	2014	3.9%	3.2%	3.1%	2.6%	2.8%	3.2%	3.1%

Chronic Kidney Disease

Chronic kidney disease is a gradual loss of kidney function. In the early stages of this disease, it is possible that very few signs or symptoms will be present, but the disease can lead ultimately to kidney failure and death (*National Chronic Kidney Disease Fact Sheet, 2017*, n.d.). *Table 17* shows that Wabash County had the third largest percentage of chronic kidney disease for the Medicare population (24.4%) in the region. However, this county had a lower age-adjusted death rate of kidney disease (16.3 per 100,000 population) compared to other counties.

Table 17: Chronic Kidney Disease

Indicator	Year	Allen	Huntington	Kosciusko	LaGrange	Noble	Wabash	Whitley
Chronic Kidney Disease*	2017	24.7%	28.8%	23.6%	21.4%	23.8%	24.4%	22.2%
	2014	18.0%	21.8%	16.1%	14.0%	14.9%	17.5%	16.3%
Kidney Disease‡ (per 100,000)	2017	21.8	27.6	13.1	N/A	23.4	16.3	20.6
	2014	24.9	31.2	15.1	N/A	18.5	15.5	N/A

*Medicare population. ‡Age-Adjusted Death Rate

Diabetes

Diabetes is a group of diseases which affect the way the body uses blood sugar. A diabetes diagnosis means a person has too much blood sugar, which can lead to other more serious health complications ("Diabetes and Pre-diabetes | CDC," n.d.) (*Table 18)*.

Table 18: Diabetes ‡Age-Adjusted Death Rate . *Medicare population

Indicator	Year	Allen	Huntington	Kosciusko	LaGrange	Noble	Wabash	Whitley
Diabetes‡ (per 100,000)	2017	27.2	30.8	30.2	26.3	29.9	28.9	22.0
	2014	21.8	18.1	30.3	25.9	32.4	45.3	26.2
Diabetes*(%)	2017	26.3	27.8	27.4	26.5	27.2	29.4	26.7
	2014	25.3	26.5	27.4	25.8	26.6	27.2	24.4

Drug and Alcohol Abuse and Addiction

Drug use and dependence can cause accidental death, unintentional injury, or other health problems. Substance abuse is preventable and may be treatable. According to the CDC, excessive alcohol use can lead to an increased risk of health problems, such as liver disease ("CDC - Fact Sheets-Alcohol Use And Health: Alcohol," 2018) and unintentional injuries. Wabash County had the lowest percentage of adults who drink excessively (16.9%) (*Table 19)*. However, the county had the highest non-fatal ED visits from opioid overdoses (159.0 per 100,000 population), substance abuse treatment rate for alcohol (329.8 per 100,000 population), and the second highest percentage of alcohol-impaired driving deaths (29.0%).

Table 19: Substance Abuse

Indicator	Year	Allen	Huntington	Kosciusko	LaGrange	Noble	Wabash	Whitley
Adults who Drink Excessively (%)	2016	18.7%	17.7%	17.3%	18.2%	17.8%	16.9%	18.0%
	2014	16.2%	15.6%	16.3%	16.4%	15.8%	14.9%	16.1%
Alcohol-Impaired Driving Deaths (%)	2017	33.3%	17.4%	16.7%	15.0%	9.4%	29.0%	22.2%
	2014	30.2%	4.6%	36.6%	34.2%	11.1%	23.7%	29.2%
Non-Fatal ED Visits - Opioid Overdoses ^	2017	88.8	107.3	98.5	N/A	56.7*	159.0	137.5*
	2014	13.9	65.5**	28.0	N/A	N/A	77.8**	N/A
Controlled Substances Dispensed ^^	2016	0.8	1.0	0.9	3.3	0.9	1.2	1.0
	2014	1.5	1.9	1.6	0.9	1.7	2.0	1.9
Substance Abuse Treatment Rate: Alcohol ^	2015	198.9	122.9	165.4	172.6	184.4	329.8	110.8
	2014	197.9	92.6	113.3	179.5	182.7	257.3	104.8

*2016 data. **2015 data. ^per 100,000. ^^per capita

Food Safety

Salmonellosis is an infection with Salmonella bacterium. Salmonella are usually transmitted to humans by eating foods contaminated with animal feces. Contaminated foods are often of animal origin, such as beef, poultry, milk, or eggs, but any food, including vegetables, may become contaminated. Most persons infected with Salmonella develop diarrhea, fever, and abdominal cramps 12 to 72 hours after infection ("Salmonella Homepage | CDC," 2019). The illness usually lasts four to seven days, and most persons recover without treatment. *Table 20 i*ndicates that Wabash County had the second highest rate of salmonella infection in 2017 at 22.3 per 100,000 population (*Table 20*).

Table 20: Food Safety (per 100,000).

Indicator	Year	Allen	Huntington	Kosciusko	LaGrange	Noble	Wabash	Whitley
Salmonella Infection†	2017	13.1	16.5	20.2	15.3	16.9	22.3	23.7
	2014	7.9	24.7*	17.8	28.1*	21.0	15.7*	23.9**

*2016 data. **2015 data. †Incidence Rate.

Infectious Disease

Hepatitis C and influenza are types of infectious diseases caused by viruses. Hepatitis C is a contagious liver disease ranging from mild to severe illnesses transmitted primarily from the sharing of needles. Influenza is a contagious disease that in most cases causes the complication of pneumonia. Wabash County had the highest prevalence rate of Hepatitis C in 2014 and 2017, 77.5 and 194.0, respectively. (*Table 21*).

Table 21: Infectious Disease (per 100,000)

Indicator	Year	Allen	Huntington	Kosciusko	LaGrange	Noble	Wabash	Whitley
Hepatitis C Prevalence	2017	83.1	82.6	72.0	N/A	48.5	194.0	N/A
	2014	65.6	54.5	39.5	N/A	52.5	77.5	N/A
Influenza/ Pneumonia‡	2017	9.3	27.7	17.0	N/A	15.7	19.3	N/A
	2014	12.4	18.7	16.5	N/A	18.0	17.0	20.6*

*2012 data. ‡Age-Adjusted Death Rate.

Maternal, Infant, and Child Health

Maternal, infant, and child health care is a broad category which encompasses a variety of health indicators related to pregnancy, birth, and complications at the time of and immediately following birth. Affected populations include mothers and their children. Wabash County had the highest child abuse rate (26.3 per 1,000 children) and the highest percentage of mothers who smoked during pregnancy (26.3%) (*Table 22*). The percentage of preterm births and mothers who smoked during pregnancy increased from 2014 to 2017 for Wabash County.

Table 22: Maternal, Infant and Child Health   §Cases per 1,000 children.

Indicator	Year	Allen	Huntington	Kosciusko	LaGrange	Noble	Wabash	Whitley
Babies with Low Birth Weight (%)	2017	8.8%	9.7%	6.7%	6.9%	5.7%	7.9%	5.8%
	2014	9.4%	7.0%	7.6%	5.6%	6.2%	9.1%	7.3%
Child Abuse Rate§	2015	10.3	16.6	8.4	10.2	18.1	26.3	13.3
	2014	8.9	20.7	6.8	11.6	11.5	26.9	10.2
Mothers with no prenatal care in 1st trimester (%)	2017	41.6%	23.6%	55.7%	56.2%	37.7%	28.2%	30.8%
	2014	45.2%	32.2%	63.8%	62.1%	38.4%	36.1%	32.8%
Mothers who Smoked During Pregnancy (%)	2017	10.3%	21.5%	15.1%	6.2%	16.7%	26.3%	14.1%
	2014	10.3%	16.8%	15.6%	6.7%	19.0%	25.2%	17.5%
Preterm Births (%)	2017	9.6%	11.1%	8.4%	7.7%	6.5%	10.1%	9.2%
	2014	10.1%	7.2%	9.0%	5.6%	8.7%	9.4%	8.7%

Mental Health

Depression is a serious illness that affects an individual's ability to perform daily tasks or cope with daily life. Individuals with depression are at higher risk for other mental illnesses, injury, or death ("NIMH» Depression," n.d.). Depression is also linked to economic and social burdens, which may perpetuate depressive episodes. Depression among the Medicare population increased by 4.3% in Wabash County from 2014 to 2017 (*Table 23*).

Table 23: Mental Health   *Medicare population.

Indicator	Year	Allen	Huntington	Kosciusko	LaGrange	Noble	Wabash	Whitley
Depression*(%)	2017	21.2%	20.8%	18.4%	17.8%	19.8%	19.7%	18.1%
	2014	20.7%	18.2%	16.4%	16.7%	19.0%	15.4%	18.1%

Obesity

Obesity (having a body mass index greater than 30.0) affects all age groups and disproportionately affects people of lower socioeconomic statuses and racial/ethnic groups. There are many complications that can occur as a direct or indirect result of obesity. Wabash County had an increase of the obesity percentage from 32.7% in 2014 to 34.2% in 2015 (*Table 24).*

Table 24: Obesity

Indicator	Year	Allen	Huntington	Kosciusko	LaGrange	Noble	Wabash	Whitley
Adults 20+ who are Obese (%)	2015	31.6%	33.9%	36.4%	36.8%	33.2%	34.2%	35.4%
	2014	28.7%	31.9%	34.3%	34.1%	33.9%	32.7%	36.6%

Respiratory Diseases

Respiratory diseases affect the lungs and other parts of the respiratory system. Chronic lower respiratory disease (CLRD) refers to a diverse group of disorders, such as asthma, emphysema, bronchitis, and chronic obstructive pulmonary disease. Asthma is a chronic, incurable disease which causes many symptoms that make breathing difficult ("CDC - Data and Statistics - Chronic Obstructive Pulmonary Disease (COPD)," 2019). The disease burden is high due to expensive and potentially life-long costs associated with managing symptoms of asthma.

Table 25 shows the percentage of the Medicare population who have asthma. Wabash County had an 0.9% increase in the percentage of the Medicare population who have asthma from 2014 to 2017 while the chronic lower respiratory disease rate declined from 64.7 to 54.7 per 100,000

Table 25: Respiratory Disease (per 100,000)

Indicator	Year	Allen	Huntington	Kosciusko	LaGrange	Noble	Wabash	Whitley
Asthma* (%)	2017	6.1%	6.6%	5.6%	3.5%	5.0%	5.7%	5.0%
	2014	5.6%	6.0%	4.5%	3.6%	5.5%	4.8%	5.5%
Chronic Lower Respiratory Diseases‡	2017	50.3	69.4	53.4	50.2	72.7	54.7	49.4
	2014	54.5	58.6	63.3	48.1	78.3	64.7	54.7

*Medicare population. ‡Age-Adjusted Death Rate.

Sexually Transmitted Infections

Chlamydia and gonorrhea are two common sexually transmitted diseases (STD) that, in some cases, present no symptoms, but can lead to serious health problems if left untreated ("Chlamydia - STD information from CDC," 2019; "Gonorrhea - STD information from CDC," 2019) . Younger populations, those with multiple partners, and those who do not use a condom during sex are at high risk to contract these and other sexually transmitted infections. Those who have or have had sexually transmitted infections in the past are at even greater risk. Both chlamydia and gonorrhea incidence rates increased from 2014 to 2016 for Wabash County (*Table 26*).

Table 26: Sexually Transmitted Infections (per 100,000)

Indicator	Year	Allen	Huntington	Kosciusko	LaGrange	Noble	Wabash	Whitley
Chlamydia†	2016	597.9	294.8	281.1	118.5	331.0	227.1	317.3
	2014	514.6	252.8	198.8	60.5	250.2	182.3	144.2
Gonorrhea†	2016	188.1	43.7	64.9	10.3	60.8	34.2	35.9
	2014	151.8	19.0	62.9	7.9	46.2	12.4	15.0

†Incidence Rate.

Tobacco Use/Smoking

Smoking is the leading cause of preventable death (CDC Tobacco Free, 2017). People of all ages, races, and genders are susceptible to the effects of smoking and secondhand smoke. *Table 27* shows the adult smoking rate. Wabash County had a 0.3% decrease in the adult smoking rate from 19.2% in 2014 to 18.9% in 2016.

Table 27: Smoking

Indicator	Year	Allen	Huntington	Kosciusko	LaGrange	Noble	Wabash	Whitley
Adults who Smoke (%)	2016	18.8%	21.8%	18.7%	20.7%	20.8%	18.9%	18.6%
	2014	20.4%	21.5%	18.5%	22.2%	20.4%	19.2%	18.1%

Prevention and Safety

Unintentional injuries are a leading cause of death for Americans of all ages, regardless of gender, race, or economic status. Major categories of unintentional injuries include motor vehicle collisions, poisonings, and falls. *Table 28* shows that Wabash County had the highest age-adjusted death rates for 2014 and 2017 (59.9 and 74.0, respectively).

Table 28: Prevention and Safety (per 100,000)

Indicator	Year	Allen	Huntington	Kosciusko	LaGrange	Noble	Wabash	Whitley
Motor Vehicle Traffic Collisions‡	2017	10.2	N/A	14.1	N/A	N/A	28.7	N/A
	2014	8.7	N/A	12.0	19.2*	14.7*	34.6	N/A
Unintentional Injuries‡	2017	50.6	53.8	51.4	26.1	44.9	74.0	47.6
	2014	39.0	41.7	42.0	33.5	49.7	59.9	35.2

*2012 data. ‡Age-Adjusted Death Rate.

SOCIAL DETERMINANTS OF HEALTH (SDOH)

Social determinants of health are the conditions in which people are born, grow, live, work and age. These indicators affect a wide range of health risks and outcomes(Artiga, May 10, 2018). SDOH include factors like socioeconomic status, education, neighborhood, physical environment, employment, and social support networks, as well as access to health care. The effect of individual social determinants of health is difficult to discern as these factors are interdependent and interconnected. Evidence shows that poverty limits access to food, safe neighborhoods, and better education. On the other hand, poorer neighborhoods are severely affected by food insecurities and lower educational status. These ultimately lead to poor health outcomes and reduced life expectancies. A person's ZIP Code can affect his or her health which ultimately leads to a concentration of health disparities in geographical locations identified as poor neighborhoods. Considering the Maslow's Hierarchy of Needs pyramid, it is evident that basic needs like food, shelter, safety, and security serve as the basis of better overall physical and mental health of individuals (Mcleod, n.d.). Focused social determinants of health, also referred to as "upstream" factors by the public health sector, decrease the risk of diseases and the predisposing behavioral and other risk factors (Booske, Athens, Kindig, Park, & Remington, n.d.). *Table 29* and *Table 30* list the social indicators and access indicators, respectively, for which counties in the Parkview region are in the bottom-performing quartile.

Table 29: County Social Indicators in the Bottom-Performing Quartile of the State

Social Issue	Indicator	Allen	Huntington	Kosciusko	LaGrange	Noble	Wabash	Whitley
Economy	Households with Cash Public Assistance Income						X	
	Per Capita Income				X			
Education	4th Grade Proficiency in English/Language Arts					X		
	4th Grade Proficiency in Math						X	
	8th Grade Proficiency in English/Language Arts					X	X	
	High School Graduation						X	
	People 25+ w/ a Bachelor's Degree or Higher				X			
	People 25+ w/ a High School Degree or Higher			X	X	X		
	Student-to-Teacher Ratio	X						X
Employment	Female Population 16+ in Civilian Labor Force				X			
	Total Employment Change			X				X
Social Environment	Households w/ Internet Subscription				X			
	Households w/ >=1 Types of Computing Devices				X			
	People 65+ Living Alone	X						
	Voter Turnout: Presidential Election	X				X		
County		Allen	Huntington	Kosciusko	LaGrange	Noble	Wabash	Whitley
# Indicators in Lowest Quartile in State		3	0	2	6	4	4	2

Data Source: Parkview Health Community Dashboard, 2019.

Table 30: County Access Indicators in the Bottom Performing Quartile of the State

Issue	Access Indicator	Allen	Huntington	Kosciusko	LaGrange	Noble	Wabash	Whitley
Access to Health Services	Adults with Health Insurance: 18-64			X	X	X		
	Persons with Health Insurance			X	X	X		
	Children with Health Insurance			X	X			
	Clinical Care Ranking			X	X	X		
	Non-Physician Primary Care Provider Rate†				X	X	X	X
	Primary Care Provider Rate†				X	X		
	Dentist Rate†				X			
	Mental Health Provider Rate†				X			
	Preventable Hospital Stays*					X		
Food Access	Food Insecure Children Likely Ineligible for Assistance							X
	Food Insecurity Rate	X						
	Children with Low Access to a Grocery Store	X						
	Low-Income and Low Access to a Grocery Store	X	X					
	People 65+ with Low Access to a Grocery Store	X	X					
	People with Low Access to a Grocery Store	X	X					
	Households w/o Car & Low Access to Grocery Store				X			
	Fast Food Restaurant Density		X				X	
	SNAP Certified Stores					X	X	
Access to Safe and Healthy Environment	Physical Environment Ranking				X	X		
	Houses Built Prior to 1950		X				X	
	Violent Crime Rate	X						
	Access to Exercise Opportunities				X			
Housing Affordability and Supply	Homeownership				X			
	Spending >=30% Household Income on Rent		X					
	Severe Housing Problems				X			
Transportation	Households without a Vehicle				X			
	Workers Commuting by Public Transportation				X	X		
	Workers who Drive Alone to Work						X	X
	Workers who Walk to Work	X						X
County		Allen	Huntington	Kosciusko	LaGrange	Noble	Wabash	Whitley
# Indicators in the Lowest Quartile in the State		7	6	7	13	9	4	4

*Medicare population. †Providers per 100,000 population. Data Source: Parkview Health Community Dashboard, 2019.

Access to Health Services

Access to comprehensive, quality healthcare services is important for promoting and maintaining health, preventing and managing disease, reducing unnecessary disability and premature death, and achieving health equity for all Americans. Wabash County had the second highest percentage of children with health insurance (94.3%) and the highest mental health provider rate (198 per 100,000 population) among the seven counties in the Parkview region.

Table 31: Access to Health Services

Indicator	Year	Allen	Huntington	Kosciusko	LaGrange	Noble	Wabash	Whitley
Adults with Health Insurance: 18-64 (%)	2017	89.0%	91.0%	87.0%	75.7%	88.0%	89.5%	90.3%
Children with Health Insurance (%)	2017	93.2%	95.0%	91.0%	74.7%	93.2%	94.3%	94.2%
Dentist Rate†	2017	64	41	32	23	27	41	41
Mental Health Provider Rate†	2018	164	63	144	28	82	198	66
Non-Physician Primary Care Provider Rate†	2018	143	69	43	33	21	25	18
Persons with Health Insurance (%)	2017	90.3%	92.1%	88.2%	75.1%	89.6%	90.8%	91.4%
Preventable Hospital Stays* (per 1,000)	2015	52.5	67.0	59.2	55.6	79.2	50.7	40.8
Primary Care Provider Rate†	2016	65	63	40	26	27	41	54

*Medicare population. †Providers per 100,000 population.

Built/Physical Environment

The built environment is the space in which we live, work, learn, and play. It includes workplaces and housing, businesses and schools, landscapes and infrastructure. Built environment influences the public's health, particularly in relation to chronic diseases.

Despite significant evidence that an active lifestyle along with proper nutrition and reduced exposure to toxic conditions can lower the burden of chronic disease, our built environments are not well-designed to facilitate healthy behaviors or create good health conditions. (*Table 32*). Wabash County had the third highest access to exercise opportunities percentage (67.7%) compared to the other counties.

Table 32: Built/Physical Environment

Indicator	Year	Allen	Huntington	Kosciusko	LaGrange	Noble	Wabash	Whitley
Access to Exercise Opportunities	2019	78.5%	76.3%	67.4%	23.4%	64.0%	67.7%	57.4%
Households Built Prior to 1950	2013-2017	19.6%	45.8%	22.8%	25.3%	30.5%	44.1%	28.0%

*Households.

Economy

The lower one's income, the higher the risk of disease and premature death. As shown in *Table 33,* per capita income in Wabash County is third lowest in the Parkview Health area ($24,700). The highest percentage of population with cash public assistance is in Wabash County (2.3%).

Among minorities, income is one of the driving forces behind health disparities. Racial health disparities observed among non-Hispanic Whites, Blacks, and Hispanics are minimized by the disparities due to income observed within each racial group. That is, higher-income Blacks, Hispanics, and Native Americans have better health than members of their groups with less income and this income gradient appears to be more strongly tied to health than their race or ethnicity.

Table 33: Economy

Indicator	Year	Allen	Huntington	Kosciusko	LaGrange	Noble	Wabash	Whitley
Asset Limited, Income Constrained, Employed*	2016	22.1%	26.5%	28.4%	29.3%	25.7%	25.0%	21.5%
Cash Public Assistance Income (%)*	2013-2017	2.2%	1.7%	1.8%	1.0%	1.5%	2.3%	0.9%
Per Capita Income ($)	2013-2017	$26,932	$24,222	$27,884	$22,780	$25,260	$24,700	$28,073

*Households.

Education

Education has an indirect effect on the health of individuals. Education is important for higher-paid jobs, economic productivity and a healthier population. Educational attainment not only defines income status and job opportunities; it also affects life expectancy. Between 1990 and 2008, the life expectancy gap between the most and least educated Americans grew from 13 to 14 years among males and from 8 to 10 years among females (Rosoff & Lohoff, 2019). The gap has widened since the 1960s. Individuals with low educational attainment levels have a higher risk of heart disease, diabetes, and diminished physical abilities due to health reasons, or

are disabled. They also tend to have higher rates of risky behaviors like smoking, drinking, and illicit drug use.

Table 34 shows educational attainment level in the Parkview region. Kosciusko County had the highest high school graduation percentage at 92.6%. Wabash County had the lowest percentage of 4th grade students that were proficient in math (54.9%). This county also has the lowest percentage of high school graduation (87.1%).

Table 34: Education

Indicator	Year	Allen	Huntington	Kosciusko	LaGrange	Noble	Wabash	Whitley
4th Grade Students Proficient in English/Language Arts (%)	2017	63.2%	74.4%	65.0%	65.4%	58.0%	69.4%	64.2%
4th Grade Students Proficient in Math (%)	2017	56.9%	62.9%	62.9%	67.0%	57.7%	54.9%	60.3%
8th Grade Students Proficient in English/Language Arts (%)	2017	61.8%	70.7%	58.3%	63.9%	51.5%	55.7%	63.5%
High School Graduation (%)	2017	91.8%	91.8%	92.6%	92.3%	91.2%	87.1%	91.3%
People 25+ with a Bachelor's Degree or Higher (%)	2013-2017	27.5%	18.1%	22.3%	9.9%	14.0%	18.7%	19.5%
People 25+ with a High School Degree or Higher (%)	2013-2017	89.4%	90.5%	84.8%	63.3%	85.0%	88.7%	91.1%
Student-to-Teacher Ratio (Students per teacher)	2016-2017	18.5	15.2	16.3	15.2	16.1	17.2	18.1

Employment

Employment has a multifaceted effect on the health of individuals. Well-paid jobs translate into better access to nutritious food, education, healthier/safer neighborhoods, and good health insurance benefits for individuals and their families. Conversely, low-paid jobs or job layoffs result in poor health and stress-related conditions such as stroke, heart attack, heart disease, or arthritis. The total employment change increased by 2.2% in Wabash County during the 2015-2016 time period (Table 35).

Table 35: Employment

Indicator	Year	Allen	Huntington	Kosciusko	LaGrange	Noble	Wabash	Whitley
Female Population 16+ in Civilian Labor Force)	2013-2017	62.0%	59.6%	57.2%	47.1%	59.8%	55.3%	57.0%
Total Employment Change	2015-2016	2.4%	2.1%	-1.1%	4.4%	3.7%	2.2%	-2.7%

Food Security

Food security measures accessibility to and affordability of food. According to the World Health Organization, the three pillars of food security are availability, access, and use/misuse ("What is food security? | WFP | United Nations World Food Programme-Fighting Hunger Worldwide," n.d.). On the other hand, food insecurity refers to the inability to afford enough food for an active, healthy life ("Food Insecurity," n.d.). Food insecurity is associated with adverse health outcomes in children and adults. It is linked to an increased risk of depression, cardiovascular disease, and peripheral arterial disease in older adults (Laraia, 2013). Access to healthy, nutritious food, including fruits and vegetable is important for a healthy lifestyle.

Among Parkview counties, Wabash County had the highest fast food restaurant density (0.81 per 1,000 population) and SNAP certified stores (0.9 per 1,000 population) (*Table 36*).

Table 36: Access to Food

Indicator	Year	Allen	Huntington	Kosciusko	LaGrange	Noble	Wabash	Whitley
Children w/ Low Access to a Grocery Store	2015	7.8%	5.4%	4.9%	0.0%	1.7%	1.9%	1.3%
Fast Food Restaurant Density*	2014	0.66	0.84	0.69	0.21	0.55	0.81	0.60
Food Insecurity Rate	2017	13.3%	11.4%	10.0%	9.2%	9.4%	11.9%	10.1%
Households w/ No Car and Low Access to a Grocery Store	2015	2.7%	2.1%	3.1%	21.4%	2.9%	2.6%	1.5%
Low-Income and Low Access to a Grocery Store	2015	9.8%	8.5%	5.6%	0.1%	2.1%	4.7%	1.9%
65+ with Low Access to a Grocery Store	2015	3.8%	3.6%	2.4%	0.0%	0.5%	1.1%	0.6%
Low Access to a Grocery Store	2015	30.4%	22.2%	18.3%	0.2%	5.7%	10.5%	5.1%
SNAP Certified Stores*	2016	0.8	0.8	0.8	0.5	0.7	0.9	0.8

*Per 1,000 population

Homeownership and Housing Affordability

The net income and wealth of an individual affects homeownership. "Housing is commonly considered *affordable* when a family spends less than 30 percent of its income to rent or buy a residence. ("How Does Housing Affect Health?," 2011). The shortage of affordable housing limits a family's options in choosing their place of residence. This ultimately leads to poor families living in subsidized housing in neighborhoods that are unsafe and lack the assets needed for healthier lifestyle e.g., parks, bike paths, walking tracks, recreational activities, and grocery stores with healthy selections. The burden faced by families to afford housing affects their ability to meet other essential needs like nutrition and healthcare.

Whitley County had the highest percentage of homeownership at 73.4% and Kosciusko County had the lowest at 59.5%. Severe housing problems are highest in LaGrange County (15.1%). Huntington County has the least affordable rental housing with nearly half of the renters spending more than 30% of their income. Wabash County had the fourth highest homeownership percentage (67.5%) among the seven-county Parkview region. (*Table 37*).

Table 37: Homeownership

Indicator	Year	Allen	Huntington	Kosciusko	LaGrange	Noble	Wabash	Whitley
Homeownership	2013-2017	62.5%	69.8%	59.5%	68.0%	66.4%	67.5%	73.4%
Renters Spending 30% or More of Household Income on Rent	2013-2017	45.1%	47.3%	37.9%	32.0%	39.8%	45.0%	39.9%
Severe Housing Problems	2011-2015	11.8%	10.6%	10.9%	15.1%	12.2%	10.9%	8.5%

Public Safety

Public safety is another important social determinant of health. Just as affordable housing is important in achieving positive health outcomes, the conditions/environment surrounding the housing affect health outcomes. High crime rates can lead to mental distress, a lower quality-of-life, an increase in negative health outcomes, premature death, or non-fatal injuries (Margolin, Vickerman, Oliver, & Gordis, 2010). An example of the negative effect of a high crime rate in the neighborhood is a reluctance of residents to walk outdoors or permit their children to play or bike outside which encourages obesity and related health issues.

The violent crime rate was the third lowest in Wabash County at 50.7 per 100,000 population (*Table 38*).

Table 38: Public Safety   *2009-2011

Indicator	Year	Allen	Huntington	Kosciusko	LaGrange	Noble	Wabash	Whitley
Violent Crime Rate	2014-2016	295.9	33.0	159.3	103.5	158.0	50.7	45.5*

Social Environment

Social support and interaction are the most important factors in predicting one's physical health and well-being, regardless of age ("The importance of social interaction to human health |," n.d.). Today, people socialize more often with others through technology. Social media has become the preferred method of making, maintaining, and communicating with friendships and filling leisure time. Individuals use the Internet for various day-to-day activities like banking, paying bills, shopping, studying, and more.

Wabash County had the second lowest percentage of households with an Internet subscription (70.9%). (*Table 39*)

An aging population suffers from a higher risk of social isolation than a younger population as indicated by Americas Health Rankings. The percentage of individuals age 65 and older living alone ranges from 16.2% in LaGrange County to 30.4% in Allen County.

Table 39: Social Environment

Indicator	Year	Allen	Huntington	Kosciusko	LaGrange	Noble	Wabash	Whitley
Households with an Internet Subscription	2013-2017	78.9%	73.7%	75.3%	54.8%	76.1%	70.9%	76.0%
Households with >= 1 Type of Computing Device	2013-2017	88.1%	85.4%	85.5%	63.9%	85.5%	85.4%	88.0%
People 65+ Living Alone	2013-2017	30.4%	26.1%	24.4%	16.2%	28.1%	27.6%	25.7%
Voter Turnout: Presidential Election	2016	55%	63%	61%	71%	56%	61%	71%

Transportation

Transportation is often cited as a barrier to healthcare access, especially in rural areas. The consequences of this hurdle include rescheduled or missed appointments, delayed care, and missed or delayed medication use ("Traveling Towards Disease: Transportation Barriers to Health Care Access," n.d.) which leads to inadequate management of chronic illness and deficient health outcomes. In Indiana, a nonexistent comprehensive public transportation system contributes to this dilemma *(Table 40)*.

Individuals using public transport to commute to work is less than one percent in all counties. Wabash County has the second lowest percentage of household without a vehicle at 4.5%. The percentage of workers commuting by public transportation is second highest among the seven county Parkview region at 0.7%.

Table 40: Transportation

Indicator	Year	Allen	Huntington	Kosciusko	LaGrange	Noble	Wabash	Whitley
Households without a Vehicle	2013-2017	6.3%	4.8%	6.3%	27.8%	5.3%	4.5%	3.6%
Workers Commuting by Public Transportation	2013-2017	0.8%	0.3%	0.1%	0.2%	0.0%	0.7%	0.3%

COMMUNITY PERCEPTIONS

PROVIDER SURVEY RESULTS

Top Community Health Concerns (Provider Perceptions)

Providers in Wabash County perceive that the top three greatest community health issues of concern are **substance use or abuse** (83.3%), **mental health** (83.3%), and **obesity** (79.2%) (*Figure 18*).

Figure 18: Community Health Issues of Greatest Concern (Provider Perceptions)
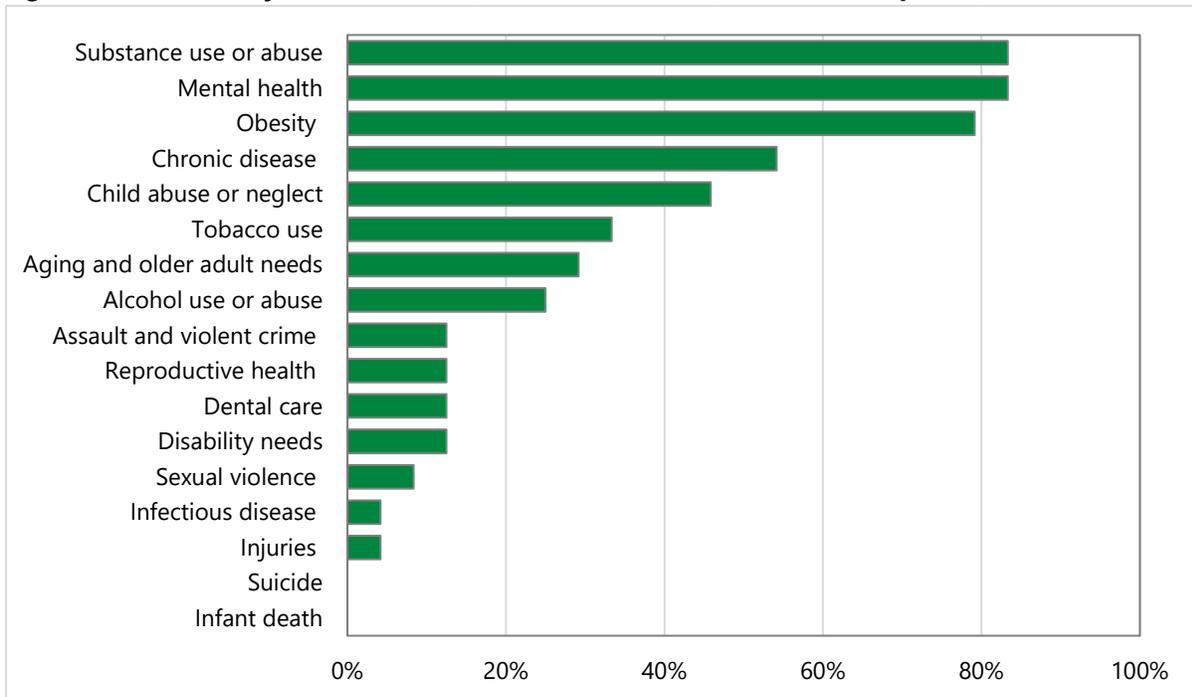
Most Important Service Needs (Provider Perceptions)

The three most important service needs identified by providers in Wabash County include **substance abuse services** (95.7%), **mental health counseling** (73.9%), and **assistance with transportation** (73.9%) (*Figure 19*).

Figure 19: Greatest Social Service Needs (Provider Perceptions)
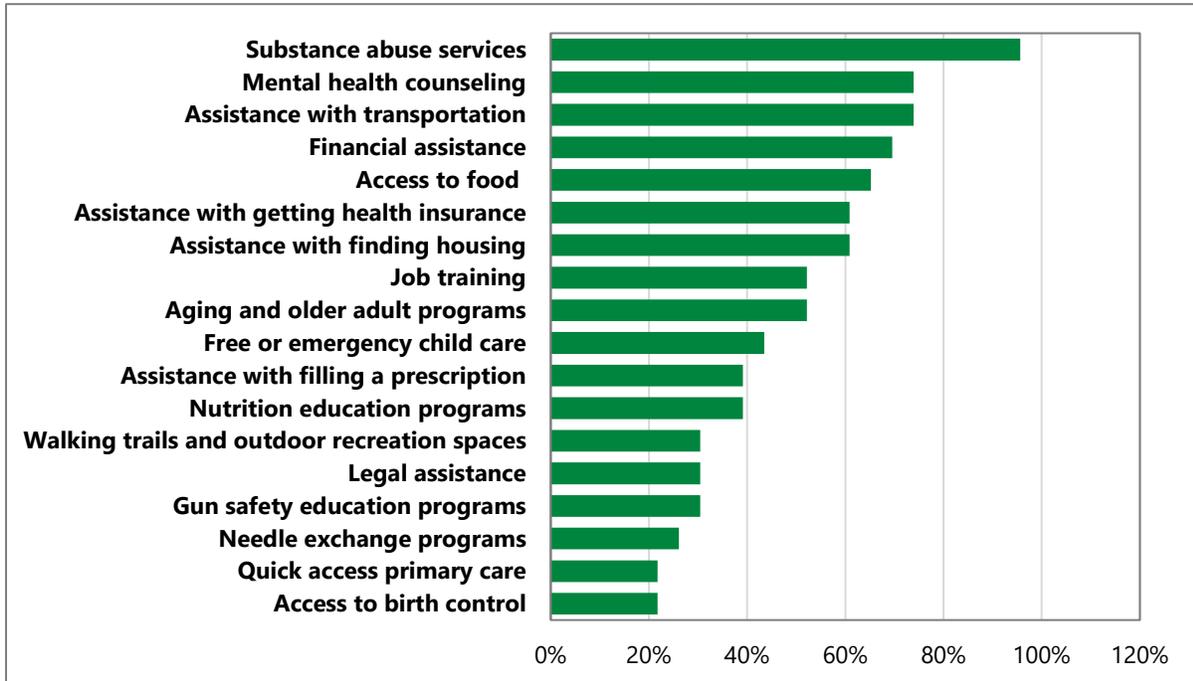
Top Barriers to Care/Service Access (Provider Perceptions)

Providers in Wabash County identified **cost** as the biggest barrier faced by community members when accessing care/services (83.3%). Providers also identified **lack of insurance** (62.5%), **transportation** (50%), and **education/health literacy** (45.8%) as major concerns. (*Figure 20*)

Figure 20: Top Barriers to Patients Accessing Care/Services (Provider Perceptions)
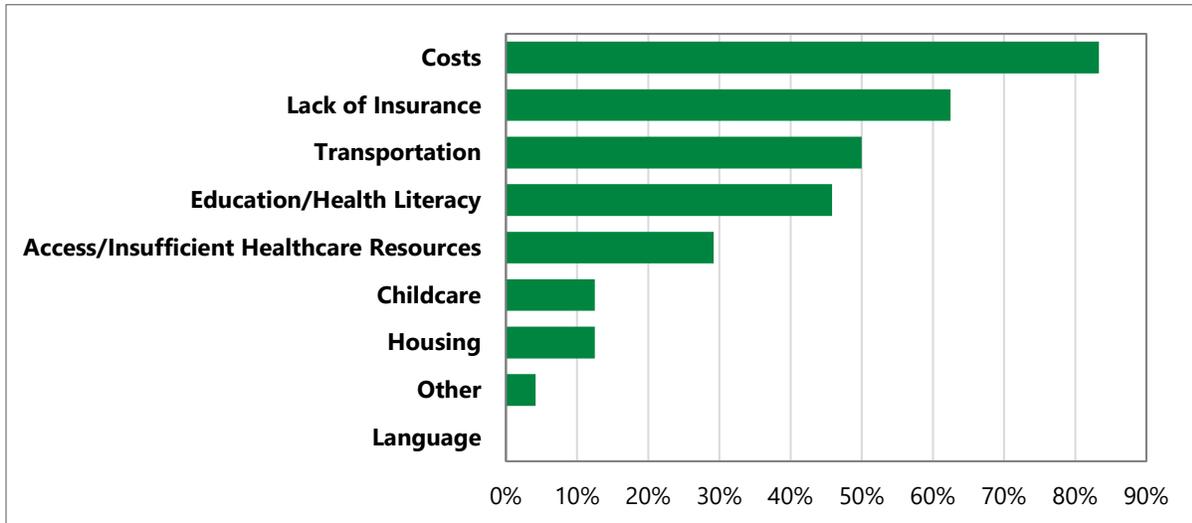
Top Barriers to Care/Service Delivery (Provider Perceptions)

Providers in Wabash County identify the top barriers in care/service delivery as the **lack of collaboration or communication in community member care** (43.5%), **insufficient healthcare resources**, (39.1%), and **other** barriers not specified in the survey (30.4%. (*Figure 21*).

Figure 21: Top Barriers to Providing Care/Services (Provider Perceptions)
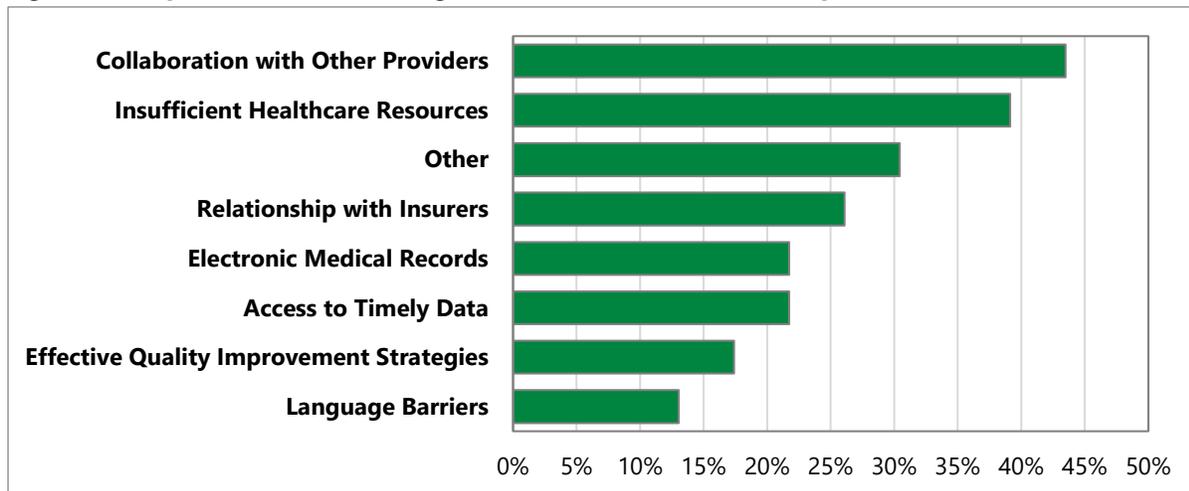
COMMUNITY SURVEY RESULTS

Community Health Concerns

Public survey respondents in the Parkview region ranked **child abuse or neglect** as their top (80.6%) health concern, followed by **chronic disease** (70.8%) and **mental health** (67.7%) (*Figure 22*).

Figure 22: Top Community Health Concerns (Community Perceptions)
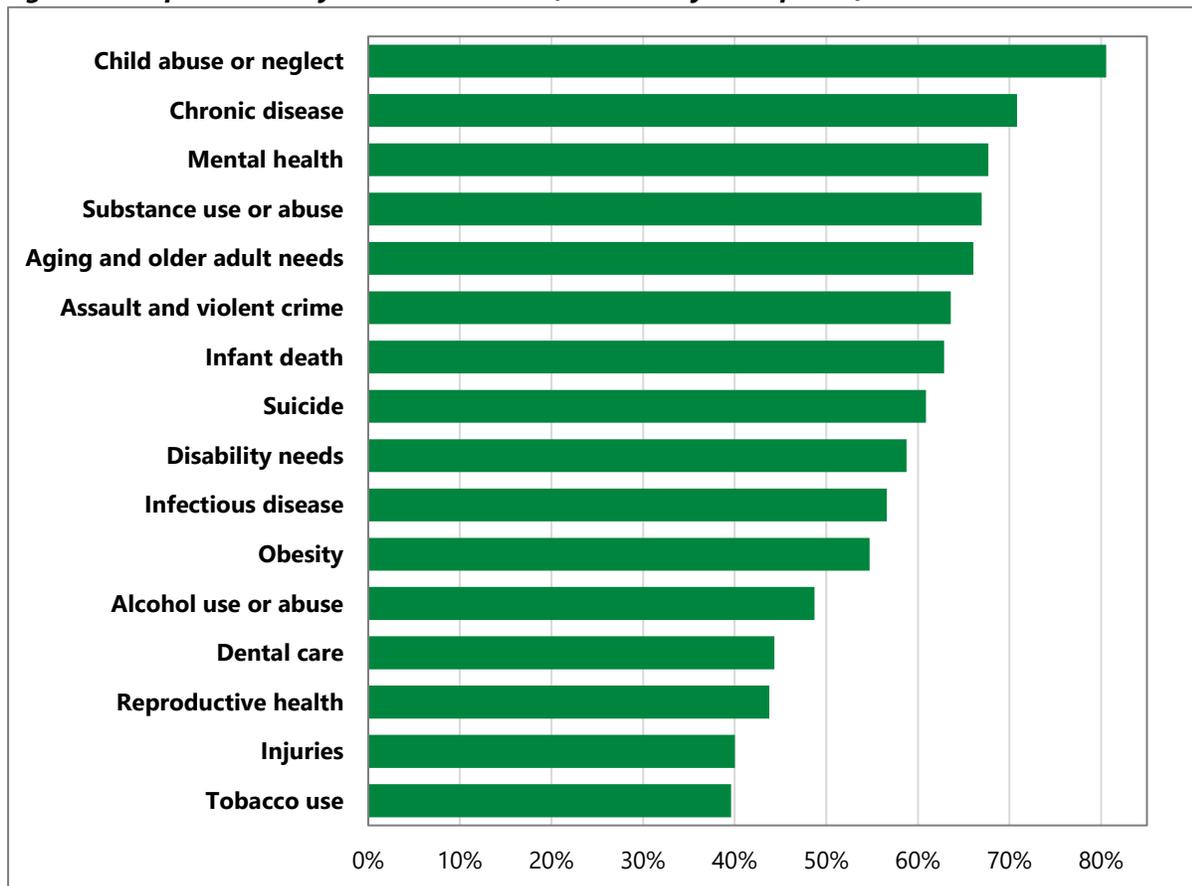
Social Issues Important to the Community

Substance abuse services is most frequently indicated by community respondents as a top social service issue for their community (67.0%), followed by **mental health counseling** (64.9%) and **access to food** (53.5%) (*Figure 23*).

Figure 23: Top Social Service Needs (Community Perceptions)
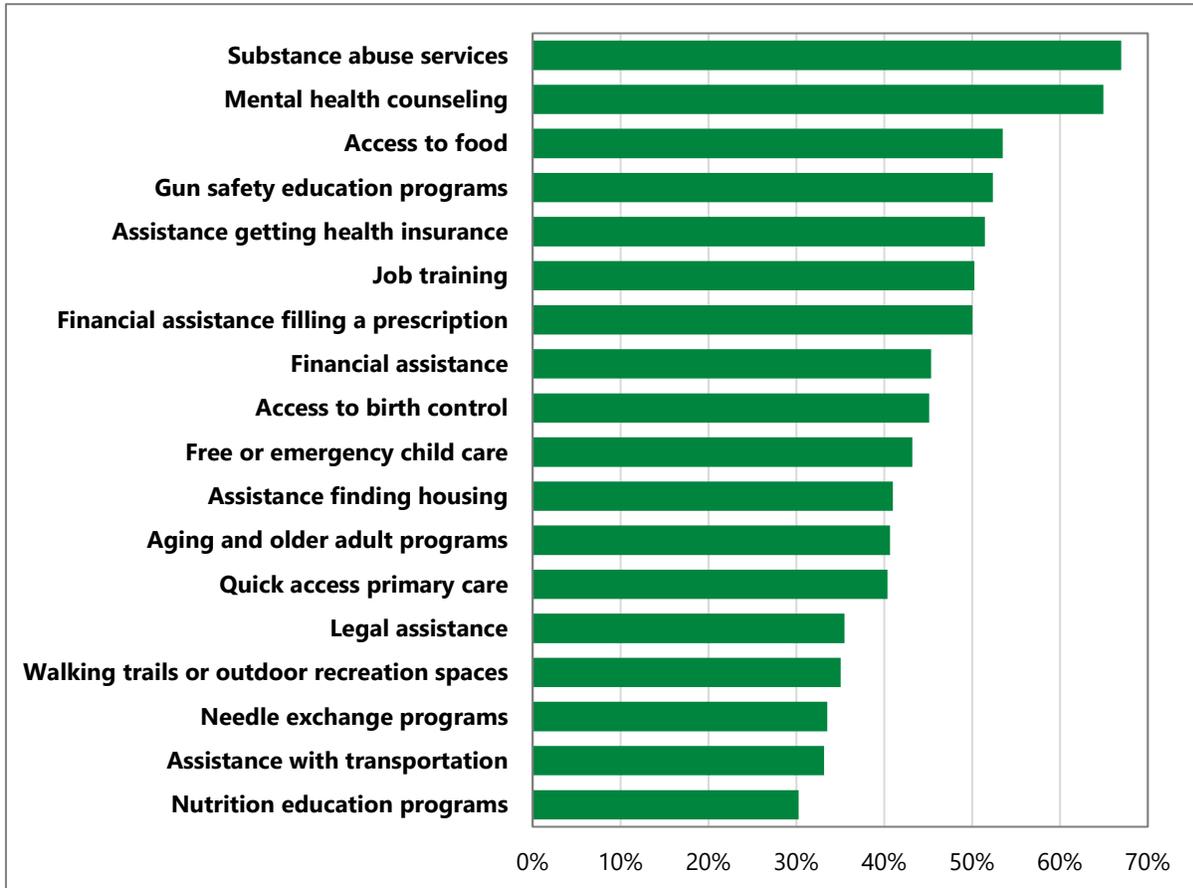
AMISH COMMUNITY SURVEY RESULTS

The Amish community survey results indicate the top community health concerns are **chronic diseases** (67.8%), **alcohol use or abuse** (60%), **tobacco use** (57.4%**)**, **injuries** (55.7%), and **obesity** (53.9%). A detailed report comparing survey results from 2016 and 2019 serves as a companion piece to this CHNA report.

Figure 24: Top Health Concerns Identified by Amish Community
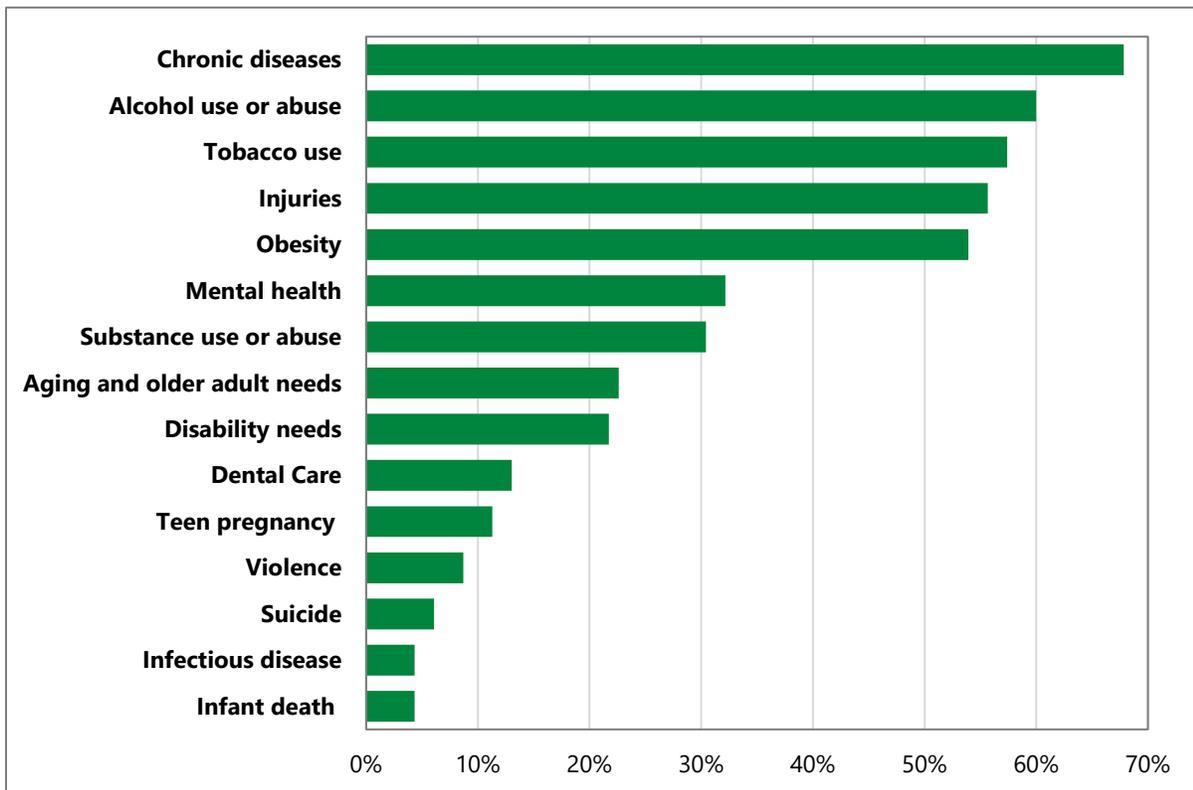
In the 2016 Parkview Health CHNA, the health issues perceived as "big problems" by the Amish community were **drug use** (72.4%), **overweight/obese** (65.5%), and **alcohol use** (60.3%). In 2019, **substance use** ("drug abuse" in 2016) ranked seventh among the top health issues, suggesting a decline in perceived importance. In 2019, the top three issues are **chronic diseases** (ranked first), **alcohol use/abuse** (ranked second), and **smoking** (ranked third).

HISPANIC FOCUS GROUP RESULTS

The Hispanic focus group participants identified the top five unmet service needs in Kosciusko County as (in order) **substance use or abuse** (54%), **alcohol use or abuse** (46%), and **chronic disease** (diabetes, cancer and heart disease etc. (38%).

Figure 25: Top Community Health Concerns (Hispanic Focus Group Perceptions)
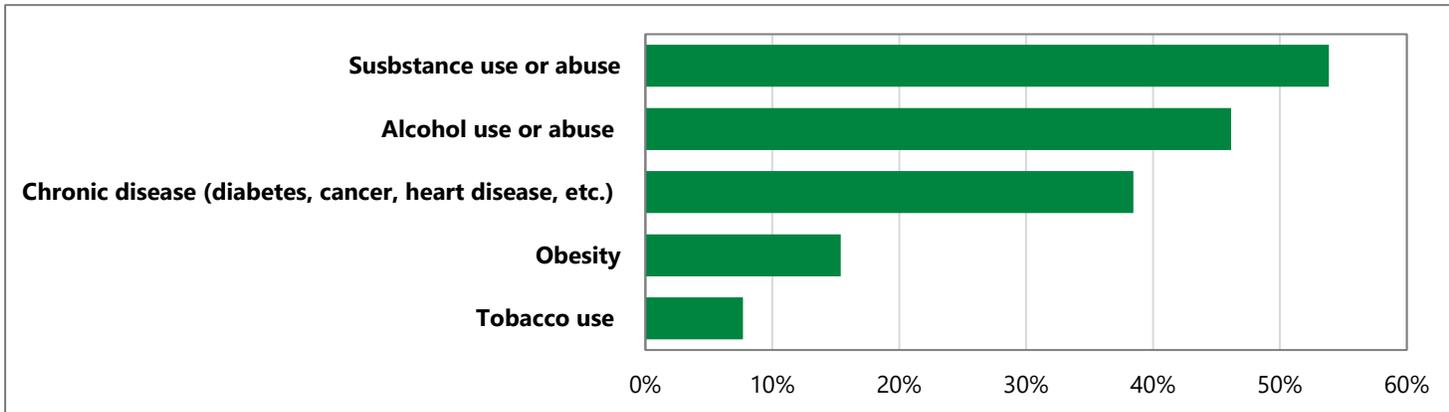
The group identified the highest priority unmet needs as **assistance with getting health insurance** (54%), **substance abuse services treatment** (prevention or treatment) (38%), and **legal assistance** (including for immigration status) (8%).

Figure 26: Top Social Service Needs (Hispanic Focus Group Perceptions)
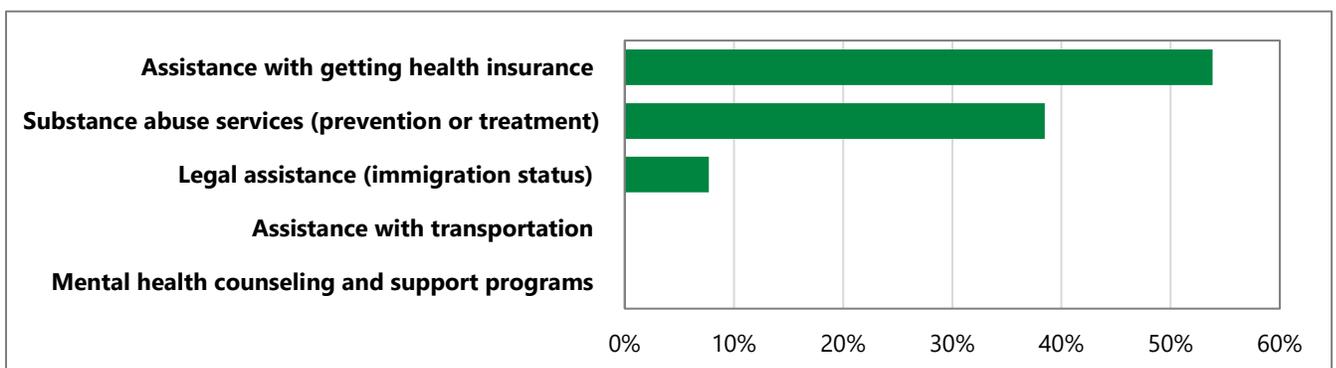
More details can be found in the Hispanic Focus Group Report, produced as a companion piece to this CHNA report.

RANKING COMMUNITY HEALTH NEEDS

PROCESS AND CRITERIA

A modified Hanlon Method prioritized health concerns for Parkview Health hospital communities. This method, also known as the Basic Priority Rating System (BPRS) 2.0, is recommended by the National Association of County and City Health Officials (NACCHO) for prioritizing community health needs (*Guide-to-Prioritization-Techniques.pdf*, n.d.). Although complex to implement, it is useful when the desired outcome is an objectively selected list. Explicit identification of factors must be considered to set priorities which enables a transparent and replicable process. As illustrated in Figure 277, priority scores (D) are calculated based on the size of the health problem (A), seriousness of the health problem (B), and the availability of effective health interventions (C).

Figure 27: Components of the Priority Score

Priority Score
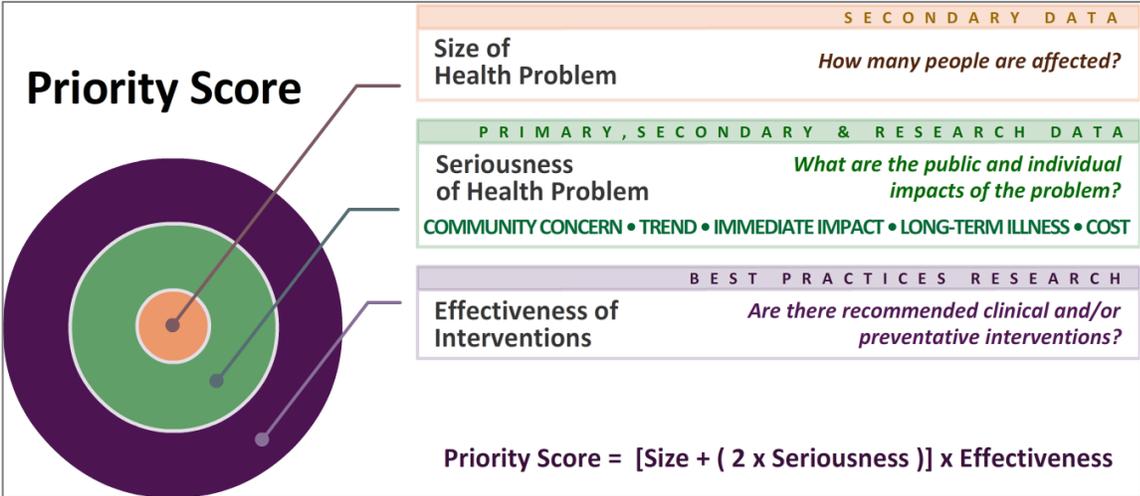
SECONDARY DATA
Size of Health Problem   *How many people are affected?*

PRIMARY, SECONDARY & RESEARCH DATA
Seriousness of Health Problem   *What are the public and individual impacts of the problem?*
COMMUNITY CONCERN • TREND • IMMEDIATE IMPACT • LONG-TERM ILLNESS • COST

BEST PRACTICES RESEARCH
Effectiveness of Interventions   *Are there recommended clinical and/or preventative interventions?*

Priority Score = [Size + (2 x Seriousness)] x Effectiveness

Size of Health Problem

How many people are affected?

Population percentage estimates of each health problem are calculated and used to measure the **size** of a health problem following the recommendations of Neiger et al. (Neiger, Thackeray, & Fagen, 2011). The assigned size score of each health indicator is shown in column A of the scoring tables in Appendix B.

Seriousness of Health Problem

What are the public and individual impacts of the problem?

COMMUNITY CONCERN • TREND • IMMEDIATE IMPACT • LONG-TERM ILLNESS • COST

The **seriousness** of each health problem was determined based on five questions.

1. Is there an immediate potential impact on the larger community?
   — Is there a **communicable nature** of the health problem?
   — Are there **behavioral effects** related to the health problem **on others**?
   — Is there **emotional and physical impact** of the health problem **on others** with respect to caregiving?
2. Is there a measurable **public health concern**?
   (Measured using the Community and Provider Survey results)
3. Does the problem cause **long term illness**?
   (Years of life lived with a disability and years lost due to premature death)
4. Is there an **increasing prevalence** of the problem in the community?
   (Based on time trends of affected population)
5. Are there **high costs** associated with the problem?
   (Healthcare spending associated with the health problem)

Seriousness scores are shown in column B of the scoring tables in Appendix B.

Effectiveness of Interventions

Are there recommended clinical and/or preventative interventions?

The final criterion, **effectiveness of interventions**, was calculated using two resources for systematic reviews: *CDC's Community Guide* and *HealthEvidence.org*. The *Community Guide* recommended by NACCHO was used as the main source ("Health Evidence," n.d.; "The Guide to Community Preventive Services (The Community Guide)," n.d.). The *Community Guide* conducts systematic reviews of interventions in many topic areas to learn what works to promote public health. The Community Preventive Services Task Force uses the results of these reviews to issue evidence-based recommendations and findings to the public health community. Only the Task Force's recommended interventions were considered in this report.

For health problems not found in the *Community Guide, Healthevidence.org* was used. *Healthevidence.org* is a registry of systematic reviews maintained by McMaster University in Canada to promote evidence-based public health. Interventions evaluated in high-quality studies and recommended by reviewers were used in this report.

Scores were assigned based on whether a policy or preventive and/or therapeutic intervention was recommended by either of these sources, as outlined below.

— At least one recommended policy, preventive, or therapeutic intervention = 1 point
— No recommended interventions = 0 points

For each health indicator, the effectiveness score, basic priority score, and resulting rank are shown in columns C, D, and E, respectively, of the table in **Appendix B**.

RANKING OF COMMUNITY HEALTH ISSUES

The 2019 top-ranking indicators for the Parkview Health region are shown in *Table 41*. For Wabash County, two of its top five health concerns–**cardiovascular disease** and **diabetes**–are etiologically and clinically related health issues. If we consider the top 10 health concerns in the region, two other related needs are identified: **drug and alcohol use** and **addiction and mental health**. Mental health disorders are one of the risk factors for developing substance use disorder. Child abuse and neglect–showing up at topmost health concern for Whitley County–is also a risk factor for substance use. These rankings are indicative of interrelated and interconnected health conditions, providing a broader picture of the health issue experienced by the community and rendering credence to the methodology adopted for this purpose. Comparing the rankings for 2019 community health needs assessment for Parkview Region with 2016 community health needs assessments, we see that among the top five health needs, only aging has moved to the top five (from Rank 12 to 3). Changes in the methodology for calculating "size of the health issue" and "effectiveness of intervention" may have contributed to this change.

Table 41: Top Ranking Indicators

Health Need / Concern	Health Indicator	2019 Rank								2016 Rank
		Allen	Huntington	Kosciusko	LaGrange	Noble	Wabash	Whitley	Avg Rank	
1. **Cardiovascular Disease**	Stroke Hospitalizations	1	2	1	1	1	1	1	1.1	6
	Heart Disease Hospitalizations	1	1	1	1	1	1	3	1.3	
2. **Diabetes**	Adults 20+ with Diabetes	1	2	1	1	1	1	3	1.4	3
3. **Aging**	Alzheimer's Disease	5	4	4	1	4	4	3	3.6	12
4. **Obesity**	Adults 20+ who are Obese	5	6	6	1	4	4	3	4.1	2
5. **Drug & Alcohol Use and Addiction**	Non-Fatal ED Visits due to Opioid Overdoses	1	4	4	12	10	4	11	6.6	5
6. Mental Health	Percent of Population with Frequent Mental Distress	7	7	7	10	6	7	7	7.3	10
Drug & Alcohol Use and Addiction	Adults who Drink Excessively	8	7	8	6	6	10	9	7.7	5
7. Tobacco Use	Adults who Smoke	8	7	12	8	8	8	7	8.3	1
8. Maternal Child Health	Child Abuse and Neglect	10	10	17	6	8	8	1	8.6	4

SELECTING 2020-2022 PRIORITIES

PRIORITY SELECTION PROCESS

As part of its priority selection process, Parkview Health considered the availability of evidence-based interventions designed to address its top ranking health issues. The "PEARL" (Propriety, Economics, Acceptability, Resources, and Legality) test eliminates impractical or impracticable interventions (Vilnius & Dandoy, 1990).

The Indiana Partnership for Healthy Communities presented an overview of the Regional Community Health Needs Assessment (CHNA) findings on July 16, 2019 to a group of attendees representing the Parkview Health System. In total, over 60 individuals participated in the prioritization process, including representatives from hospital service lines, community hospitals, healthcare providers/physicians, executive leadership team, community health, and the board of directors. After a thorough review of the data and considerable discussion, the group used an electronic voting system to rank the various health needs identified in the CHNA. Ultimately, the group voted on Substance Use Disorder/Mental Health as the shared health priority across the Parkview System.

Parkview Wabash Hospital's (PWB) community health improvement committee reviewed and discussed the findings of the 2019 Community Health Needs Assessment. The committee developed a Power Point presentation to share at the Board of Directors meeting on August 20. Following the presentation, the board discussed the data and asked several questions. They then engaged in an electronic voting system that ranked the health needs identified. In addition to the already identified Substance Use Disorder/Mental Health as a shared priority for the system, obesity rose to the top for Wabash County. The board voted on and approved obesity as a second priority of focus for the next three years.

The CHNA results were also presented at the September 19 meeting of PWB's Patient Family Advisory Council (PFAC). The two priorities were shared. PFAC members fully supported the choices, acknowledging the need in our community.

SELECTED PRIORITIES

Parkview health Wabash County selected the following health concerns as the top health priorities for 2020-2022.

1. Substance use/mental health
2. Obesity

RESOURCES

Resources in the Parkview Wabash service area for addressing community health are listed in Appendix C.

DATA LIMITATIONS

Secondary Data: One of the most notable limitations of the secondary data is that different data sources applied different models to estimate community health indicators. Some indicators were based on administrative data while others were based on sample surveys. In addition, secondary data was sourced from different data years, based on data availability. The available data ranged from a 2010-2014 five-year average to 2018.

Another notable limitation is that when morbidity rates were not available, hospitalization rates and mortality rates were used. Hospitalization rates are available from state hospital associations and are often used as surrogate measures of community health need. Hospitalization rates typically are based on patient home address versus treatment location, which is appropriate when attempting to use these rates to measure community health. However, a limitation is that hospitalization rates and mortality rates may underreport the rate of a health condition because hospitalization rates only capture data from individuals who seek hospital care and do not capture data from individuals who have the health condition but do not receive associated hospital care. Another limitation is that populations with closer proximity to a hospital facility may be more likely to seek treatment for health conditions, implying that a hospital facility has populations with higher rates of health conditions.

Provider Survey: The principal limitation of the provider survey is that it was not conducted using a random sampling technique and may reflect response bias. This means that the responses were not necessarily representative of the full population of Parkview providers. Another limitation is that respondents were asked to select from pre-defined lists of disadvantaged populations and potential concerns. While the list of possible concerns was developed based on expert knowledge, it is possible that there are other concerns that were not listed.

Community Survey: A general limitation of broad community surveys is that participation tends to be greater among retirees or those otherwise unemployed compared to younger, employed persons. To address this concern, statistical weighting is used by the Survey Research Laboratory of the School of Public Health at the University of Alabama at Birmingham. Also, although the size of the random population sample allowed for conclusions to be made for the Parkview Health System primary service area as a whole, a sufficient sample was not obtained in each county to allow for county specific statistics to be generated. This made the information obtained from the Provider Survey even more important.

THREE YEAR IMPACT REPORT

Overview

The findings of the 2016 CHNA guided our decision to adopt two health priorities for our community:

1. Obesity
2. Maternal/Child Health

The strategic goals of the obesity initiatives supported by Parkview Wabash Hospital are to:

1. Reduce the incidence of obesity in Wabash County
2. Increase the activity level of Wabash County residents

The strategic goals of maternal/child health initiatives are to:

1. Reduce infant mortality rate
2. Improve overall maternal and child health

Parkview Wabash Hospital has provided nearly $53,000 in funding, to external community partners, over the last three years to help improve the health of our community.

Sample Highlights of Obesity Initiatives

As two healthcare leaders in Wabash County, Parkview Wabash Hospital and the YMCA have a strong and long-standing relationship. More than 40% of their membership receives financial assistance and cannot afford the cost of coaching. Through the YMCA's Coaching Program in partnership with the hospital, 113 participants on scholarship received coaching sessions at no cost over the three-year period. In 2019 through July, there were 40 participants of which 17% lowered their blood pressure, 10% lowered their blood sugar, and 50% lowered their BMI by at least 2 points.

In 2017, we helped OJ Neighbours Elementary, pre-K through 4th grade, launch a Fit Club afterschool program for 4th graders, serving a total of 38 students. After this initial one-year partnership, they were able to become self-sustaining and continue the program on their own.

For the last five years, Parkview Wabash Hospital has been the lead sponsor of the Dam2Dam Century Bike Ride. In 2017, we helped to fund a program called Liking for Biking which encourages people of all ages and abilities to ride a bike for up to an hour every Saturday from May to August. An average of 20 to 25 riders participated weekly. From January through July 2019, six riders reported being more active as a result of this program and eight reported 2 lbs.

or more in weight loss. Over the last two years, 83 riders have participated ranging in age from 8 to 88.

Another project having an impact on physical activity is the addition of a nearly half mile loop walking path on our campus. The paved path circles our pond and will soon be completely accessibly by sidewalks to and from the north side of the city. Walkers and joggers are seen on the path daily. It also connects via sidewalk to the Charley Creek Trail, a ¾ mile paved path that extends from OJ Neighbours Elementary School to the Field of Dreams. In November, Ford Meter Box, the county's largest employer, will use the path and pavilion as the start and end point of their annual Turkey Trot 5K Run/Walk for co-workers.

Sample Highlights of Maternal/Child Health Initiatives

Maternal/child health was chosen by our board as a second community health priority. One of our main initiatives was to re-open our OB Unit after a 14-year period. The OB Unit is a part of a new state-of-the-art hospital facility. Prior to its opening in June 2018, we offered several prenatal and family education classes though our birth planner and lactation consultant. Over the last three years through August 2019, approximately 64 participated in these classes.

With the re-opening of our OB unit, we supported the local Tobacco Coalition in their efforts to begin a Baby and Me Tobacco Free program in 2016. Ten individuals were trained as Baby and Me advisors. With a total of nine participants, the program is slowly gaining momentum and saw its first graduate in August 2019.

Conclusion

The Community Health Program at Parkview Wabash Hospital has grown over the last three years. The hospital has built strong partnerships with social service agencies and organizations within the county to positively impact the overall health and well-being of the community in which we work in and live. Though gains are sometimes small, they are positive gains. An increased number of people have become active at the YMCA and in the Liking for Biking program. Programs within the school have increased the activity level of our younger generation. With the re-opening of our Family Birthing Center, we now serve a population that had to travel outside their community for services for the last 14 years. It also allows us to work with other groups who share our mission of improving the health and well-being of pregnant women and young children. Together, we are building a healthier Wabash County.

Objectives & Goals	Baseline Measurement (2016)	Follow-Up Measurement (2017/2018/2019)			Target
Y Coaching Program OJN Fit Club Liking for Biking	34.1% of Wabash Co. Adults 20+ are Obese	45 participants; all on scholarship; completed 495 sessions; coaches had 974 interactions 38 4th grade students participated; 37 showed weight gain as a result of normal growth for a 4th grader; 14 showed more muscle gain than fat; 7 showed muscle gain and fat loss N/A	28 participants; all on scholarship; more than half had obese BMI N/A Average of 20 riders per week; rode more than half of the Saturdays (10 or more); a small group reported continuing to meet on Saturdays after the program ended	*Jan-July 2019:* 40 participants; all on scholarship; 17% of participants lowered blood pressure, 10% lowered blood sugar; half lowered BMI by at least 2 points N/A *Jan-July 2019:* Average of 25 riders per week; one person with perfect attendance; 6 reported being more active as a result; 8 report a 2 pound or more weight loss since beginning	To get adults more active and reduce incidence of obesity in Wabash County. To teach kids to be more active. To promote healthy lifestyles and physical activity with the ultimate goal of improving health

- Priority: Maternal Child Health
- Name of the Program: Baby & Me Tobacco Free, Prenatal Education Classes, Blessings in a Backpack; LIFE Center Car Seat,
- How Long in Existence: Baby & Me (2016); Prenatal Ed. (2018); Blessings (2019), LIFE Center (2016)
- Population Served: Wabash County residents, with a focus on the underserved
- Number of People Served: _____

3 Year Progress

Objectives & Goals	Baseline Measurement (2016)	Follow-Up Measurement (2017/2018/2019)			Target
Blessings in a Backpack	19.2% Child Food Insecurity	N/A	N/A	500 children in grades K-6, county wide who qualify for free and reduced lunch	Lessen food insecurity among County elementary kids/families
Prenatal Education Classes	64.3% of Mothers received prenatal care	12 Participants	11 Participants	*Jan-Aug 2019:* 41 Participants	Improve prenatal care rates, to decrease infant mortality and improve overall maternal and child health
Baby & Me Tobacco Free	24.6% of mothers smoked during pregnancy	Program began – 30 participants in Baby & Me Tobacco Free Lunch and Learn; 10 individuals trained as Baby & Me advisors	47 referrals; 9 admission visits; 4 new admissions; 0 graduates	*Jan-Aug 2019*: 17 new referrals; 5 new admissions; 1 graduate	Decrease smoking among pregnant women; improve birth outcomes; decrease infant mortality
LIFE Center		36 car seats distributed to families who completed parenting classes	N/A	N/A	

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APPENDIX A: PROVIDER SURVEY

Table 42: Most Urgent Community Needs Identified in Provider Survey

Community Need	Allen	Huntington	Kosciusko	LaGrange	Noble	Wabash	Whitley	Region
	% of Providers Responding that Need was Amongst the Most Urgent							
Substance abuse services	79.5%	64.0%	66.7%	93.3%	81.3%	95.7%	87.5%	83.2%
Mental health counseling	80.8%	54.4%	66.7%	79.7%	75.7%	73.9%	68.8%	75.7%
Assistance with transportation	61.6%	54.4%	50.0%	74.5%	71.1%	73.9%	75.0%	62.4%
Financial assistance	61.6%	64.0%	50.0%	69.5%	58.8%	69.6%	81.3%	61.9%
Assistance with getting health insurance	71.2%	60.8%	33.3%	56.1%	64.3%	60.9%	68.8%	57.9%
Access to food	52.1%	73.6%	33.3%	64.7%	60.2%	65.2%	50.0%	55.4%
Aging and older adult programs	60.3%	76.8%	50.0%	46.3%	74.9%	52.2%	50.0%	54.0%
Job training	52.1%	67.2%	16.7%	42.0%	48.0%	52.2%	75.0%	52.5%
Free or emergency child care	45.2%	57.6%	50.0%	46.8%	43.3%	43.5%	56.3%	48.0%
Assistance with finding housing	47.9%	48.0%	66.7%	64.3%	43.6%	60.9%	31.3%	46.0%
Quick access primary care	42.5%	54.4%	33.3%	74.5%	80.1%	21.7%	37.5%	45.0%
Walking trails, outdoor recreation spaces	43.8%	51.2%	33.3%	60.4%	60.2%	30.4%	37.5%	43.1%
Nutrition education programs	49.3%	60.8%	50.0%	32.5%	49.7%	39.1%	31.3%	40.6%
Assistance with filling a prescription	50.7%	44.8%	33.3%	51.3%	32.5%	39.1%	43.8%	40.1%
Access to birth control	43.8%	41.6%	0.0%	32.0%	37.7%	21.7%	56.3%	34.7%
Needle exchange programs	31.5%	41.6%	0.0%	22.7%	21.1%	26.1%	25.0%	27.7%
Gun safety education programs	39.7%	28.8%	16.7%	9.1%	21.6%	30.4%	31.3%	26.2%
Legal assistance	31.5%	28.8%	16.7%	9.1%	32.2%	30.4%	0.0%	22.8%

APPENDIX B: SCORING OF COMMUNITY HEALTH NEEDS

Table 43: Priority Scores and Ranking

HCI Health Indicator (Those in lowest performing quartile of Indiana counties for at least one county served by a Parkview Health hospital)	NOBLE										
	Size of Health Problem (A)^		Seriousness of Health Problem (B)‡						Effectiveness of Interventions (C)^^	Priority Score (D)^^^	Rank
	Size of Health Problem (%)	Score	Q1	Q2	Q3	Q4	Q5	Score	Score		
Heart Disease Hospitalizations	0.95	4	0	3	2	0	2	7	1	18	1
Stroke Hospitalizations	0.17	3	0.5	3	2	0	2	7.5	1	18	1
Adults 20+ with Diabetes	13.30	7	0.5	3	0.5	0	1.5	5.5	1	18	1
Alzheimer's Disease or Dementia	1.64	5	2	2	1	0	1	6	1	17	4
Non-Fatal Emergency Department Visits due to Opioid Overdoses	0.16	3	2	3.5	0.5	1	0	7	1	17	4
Adults 20+ who are Obese	34.20	9	0	2.5	0.5	0	1	4	1	17	4
Percent of Population with Frequent Mental Distress	12.20	7	0.5	2	1	0	1	4.5	1	16	7
Child Abuse and Neglect Rate	2.63	5	2	3	0	0	0	5	1	15	8
Adults who Smoke	18.90	8	1	1	0	0	1.5	3.5	1	15	8
Osteoporosis: Medicare Population (Prorated)	1.23	5	0.5	2	1	0	1	4.5	1	14	10
Adult Asthma Prevalence	10.00	7	0.5	3	0	0	0	3.5	1	14	10
Adults who Drink Excessively	16.90	7	2	1	0.5	0	0	3.5	1	14	10
Mothers who did not Receive Early Prenatal Care	28.20	9	1.5	1	0	0	0	2.5	1	14	10
Prostate Cancer Incidence Rate	0.10	2	0	3	2	0	0.5	5.5	1	13	14
Breast Cancer Incidence Rate	0.10	2	0	3	2	0	0.5	5.5	1	13	14
Oral Cavity and Pharynx Cancer Incidence Rate	0.01	1	0	3	2	0	0.5	5.5	1	12	16
Salmonella Infection Incidence Rate	0.02	1	2	1	1	1	0.5	5.5	1	12	16
Hepatitis C Prevalence	0.19	3	2	1	0	1	0.5	4.5	1	12	16
Gonorrhea Incidence Rate	0.03	1	2	1	0	2	0	5	1	11	19
Injury Emergency Department Visits	10.24	7	0	0	0.5	0	1	1.5	1	10	20
Chlamydia Incidence Rate	0.23	3	2	1	0	0	0	3	1	9	21
Age-Adjusted Death Rate due to Chronic Lower Respiratory Diseases	0.06	2	0	3	0	0	0	3	1	8	22

Age-Adjusted Death Rate due to Influenza and Pneumonia	0.02	1	1	1	0	0	0.5	2.5	1	6	**23**
Chronic Kidney Disease: Medicare Population (Prorated)	4.75	5	0	3	0	0	0	3	0	0	**24**

^ Size (A) [10]

Score	% of Population
10	>= 50%
9	25 to < 50%
8	17.5 to < 25%
7	10 to < 17.5%
6	5 to < 10%
5	1 to < 5%
4	0.50 to < 1%
3	0.10 to < 0.50%
2	0.05 to < 0.10%
1	0.01 – < 0.05%
0	0 – < 0.01% (1/100 of 1%)

‡ Seriousness (B)
Includes Q1 – Q5, as follows:

Q1 Impact on Others
Three aspects of the health issue:
1. Communicable? 1 if Yes, 0 if No.
2. Behavioral effects on others? 1 if Yes, 0 if No.
3. Caregiving required? 1 if Constant, 0.5 if Periodic, 0 if None.
Impact value equals the sum of the above.

Q2 Level of Community Concern
Based on % of community survey respondents that indicated issue was a priority need. Possible values: 0, 0.5, 1, 1.5, 2. These were then combined with provider survey results with same possible values yielding total values from 0-4
A value of 4 represents the highest level of concern and 0 the lowest.

Q3 Severity (Disability)
Based on time lived with disability and time lost due to premature death [1]
Possible values: 0, 0.5, 1, 1.5, 2.
A value of 2 represents highest level of disability and 0 the lowest.

Q4 Urgency
Based on rate of increasing trend as measured as a rolling rate of change for all years available in the time series.
Possible values: 0, 0.5, 1, 1.5, 2.
A value of 2 represents highest rate of increase and 0 the lowest.

Q5 Economic Costs
Based on estimated % of total U.S. healthcare costs [2-17]
Possible values: 0, 0.5, 1, 1.5, 2.
A value of 2 represents highest cost and 0 the lowest.

Score
Q1 + Q2 + Q3 + Q4 + Q5

^^Effectiveness of Intervention (C)
Based on existence of at least one evidence-based intervention, as per evidence presented in the CDC Community Guide or HealthEvidence.org (2019).

Evidence-based Interventions	Score
Yes	1
No	0

^^^Priority Score (D)
= [A + (2 x B)] x C

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APPENDIX C: RESOURCES

Name	City	ZIP Code	Service
OBESITY			
Wabash County YMCA	Wabash	46992	Recreational Club
TOBACCO USE			
Wabash County Tobacco Free Coalition	Wabash	46992	Baby & Me Tobacco Free
Wabash County Tobacco Free Coalition	Wabash	46993	Smoking Cessation
MIC			
Wabash County Health Department	Wabash	46992	Childhood Immunization
Wabash County Division of Family Resources	Wabash	46992	Family Planning Eligibility Program
Area Five WIC - North Manchester	N. Manchester	46962	WIC Care
Area Five WIC - Wabash	Wabash	46992	WIC Care
MENTAL HEALTH			
Friends Counseling Center - Wabash	Wabash	46992	Counseling
Bowen Center - Wabash	Wabash	46992	Outpatient Treatment Services
Bowen Center- Wabash	Wabash	46992	Wraparound for Children's Mental Health
CARDIOVASCULAR DISEASE			
Wabash County Health Department	Wabash	46992	Health Screenings