2022 Putnam County Community Health Needs Assessment

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INTRODUCTION

Executive Summary

Putnam county has improved since the last community health needs assessment in 2019 in 10 different areas of estimated data (Table 2). These improved values are decreased teen births, decreased hospital stays, increased mammography screenings, increased flu vaccinations, increased life expectancy, decreased children in poverty, decreased children in single-parent households, increased overall health outcomes, decreased child mortality, and decreased air pollution. These 10 different indicators are areas where significant progress has been made relative to surrounding counties in the last three years. Despite these improvements, there are areas identified from the data that Putnam county could improve. High percentages of adult smoking, adult binge drinking, and physical inactivity are top concerns in quantitative health trends. These behaviors correlate to cancer, obesity, high blood pressure, stroke, and lung disease. In addition to these top conditions, Putnam county has higher rates of suicide deaths and vehicle crash deaths than the state average.

Following secondary data sources, our primary data collection methods yielded findings that related to the above health concerns. Key findings from stakeholder interviews were (1.) a need for more accessibility and affordability of health services, (2.) overcoming mental health stigma and expanding mental health resources, (3.) more representation and bias training in health service personnel, (4.) increased access to transport to health services, and (5.) stronger communication of health resources to patients from providers. In the health needs survey, community members identified these top health needs: (1.) poor recreational outlet access, (2.) poor healthcare access, (3.) poor mental health resource access, (4.) poor healthy food access, and (5.) poor obstetric and childcare resource access. The top barriers to healthcare access were (1.) long appointment wait times, (2.) financial constraints, (3.) fear or embarrassment, (4.) no means to get to a provider, and (5.) no means to find a provider. These findings serve as an opportunity for Putnam county healthcare organizations and community partners to improve care by working toward increased accessibility to facilities, community resources, and the development of specific policies that strengthen community health.

History of Putnam County Hospital

On April 18, 1907, a group of women met in the assembly room of the new county courthouse to adopt the name, "the Putnam County Hospital Association." They would meet again on June 21, 1907 with the expressed aim of establishing a hospital in the county that is "fully equipped and up to date, in every way equal in advantages to large hospitals of the state, where the infirm, sick, wounded and injured might receive the medical attention of any reputable physician." Following years of organizing and fundraising, a November 1920 county election to decide upon the construction of the hospital in Greencastle resulted in majority support. The first location of the hospital was on the northwest corner of Northwood Boulevard. On August 1, 1923, Putnam County Hospital began operating, admitting two patients for surgery the same day. After years of labor union and funding disputes, the hospital also added a nurses' home in October 1937, which today serves as an apartment complex. In the early 1970s, the hospital board of trustees deemed it necessary to construct a new facility given the age and limited space available to expand the current facility. On March 5, 1979, Putnam County Hospital opened in its current location on South Bloomington Street.[1]

In 2001, the hospital expanded to include a medical office building that housed specialists in oncology and physical therapy. Four years later, an outpatient surgery center was opened. Today, nearly 100 years later, Putnam County Hospital still serves the same mission and standards set by its founders: to provide exceptional healthcare to our friends and family in Putnam County by continuing to provide a number of outpatient and inpatient services as a Critical Access Hospital in Greencastle, Indiana.[2]

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[1] Tippin, L. (2021) *The First Putnam County Hospital*. Unpublished manuscript.
[2] *History*. Putnam County Hospital. (n.d.) From https://www.pchosp.org/history#:~:text=In%201924%2C%20the%20hospital%20opened,Hospital%20served%20thousands%20of%20patients.

Hospital Services

Putnam County Hospital was named one of the Top 100 Critical Access Hospitals in the United States.[3] The hospital is equipped with 25 inpatient beds, a full service emergency room, outpatient service lines, and a number of visiting medical specialists. The hospital offers the following specific services: prompt care, inpatient care and intensive care unit, rheumatology, orthopedic surgery, general surgery, respiratory therapy, a tobacco cessation program, cardiopulmonary rehabilitation, hospice and palliative care, radiology and imaging services, family planning and women's health care, infants and children clinic, laboratory services, nutrition services, oncology, and spiritual support groups.

Putnam County Hospital hosts two outpatient clinic areas that bring in physicians from over 10 specialties. These physicians visit the facility to see patients and provide specialty care as needed. This hospital offers support groups that meet monthly for those suffering with cancer, those who have survived cancer, and those affected with cancer including family members and friends. Putnam County Hospital also offers spiritual support through the staff chaplain, along with individual educational support in areas such as nutrition and diabetes management.

In addition to specialty clinics and emotional support, Putnam County Hospital also provides a number of health screenings. Skin cancer and prostate cancer screens are offered biannually through the Putnam County Cancer Center. The hospital also offers cardiac scoring and lung cancer screenings through respective departments. Offering regular community wellness screenings that include vital signs, lab work, and nutritional education are priorities of Putnam County Hospital.

[3] *The Chartis Center for Rural Health announces the 2019 top 100 critical access hospitals and top 100 rural & community hospitals*. The Chartis Center for Rural Health Announces the 2019 Top 100 Critical Access Hospitals and Top 100 Rural & Community Hospitals | Business Wire. (2019, February 6). Retrieved from https://www.businesswire.com/news/home/20190206005634/en/The-Chartis-Center-for-Rural-Health-Announces-the-2019-Top-100-Critical-Access-Hospitals-and-Top-100-Rural-Community-Hospitals

Description of Putnam County

Table 1

Hospital Service Area by Zip Code

Zip Code	Population
46135	9,983
46120	5,660
46121	4,983
46172	2,285
46128	1,712
46105	1,847
46171	2,143
46175	588
46170	36

This table contains zip codes within Putnam County and population counts for each zip code. Putnamville population value could not be calculated due to its correctional facility.[4]

According to the 2010 US Census Report, Putnam county is considered a metropolitan county. The data is based on the American Community Survey, which is a national survey that provides the data of communities.

[4] *2021 Indiana City/Town Population Estimates*. City/Town Population Estimates: STATS Indiana. (n.d.). Retrieved from https://www.stats.indiana.edu/population/sub_cnty_estimates/2021/e2021_places.asp

Overview and Purpose

The Community Health Needs Assessment (CHNA) is conducted every three years by Putnam County Hospital to identify significant trends in community health needs that will be used to inform the development of a community strategic health plan. This report compiles the findings of health indicator data from national county health databases in addition to primary data collected from stakeholder interviews and a survey questionnaire answered by community members.

The Affordable Care Act (ACA) includes numerous provisions aimed at improving the overall health of communities across the United States by investing in wellness and prevention at both the individual and community level. These initiatives include improvements in health care quality and access, cost containment, and reductions in health disparities and disease occurrence. Additionally, the Act establishes the condition for the nation's over 2,900 nonprofit hospitals to conduct a CHNA to maintain their federal tax-exempt status. The aim of this assessment is to fulfill the following objectives:

1. Define the community being served
2. Assess the needs of the defined community
3. Solicit input from stakeholders in the community that represent both broad interests and public health expertise
4. Publish the CHNA and make it publicly available as a written report

Community Assessed

Putnam county is the community being assessed for the purposes of this community health needs assessment.

Special Populations

DePauw University

DePauw University is a liberal arts college located in Greencastle, IN. Formally known as Indiana Asbury University, the higher educational institution has been in Greencastle for 185 years. DePauw currently houses 1,752 students and employs 228 faculty members. Although DePauw has its own health services center led by Hendricks Regional Health to offer care to students and faculty, emergencies and other major illnesses or traumas are directed to the Putnam County Hospital. The student population served is highly diverse, representing individuals from across the country and around the world. For this reason, DePauw is considered a special population for this community health needs assessment.

Putnamville Correctional Facility

Putnamville Correctional Facility is a medium security level penitentiary located in Putnamville, IN and was established in 1914. The current population of the facility is 2,135 and 186 assigned staff in the last 12 months. Putnamville is considered a special population for the community health needs assessment because Putnam County Hospital is the closest place for this population to receive emergency health services.[5]

Partnerships

In order to complete the community health needs assessment, Putnam County Hospital partnered with Putnam County Health Department and DePauw University's Global Health program.

[5] *2016 Final PREA Report - Indiana*. https://www.in.gov/idoc/files/2016-Final-PREA-Report-Putnamville-Correctional-Facility.pdf.

Design

In order to conduct the research for the Community Health Needs Assessment there were three main methods employed to gain quantitative and qualitative data. Secondary data from publicly available resources was used to describe and analyze information such as population characteristics, health status, and mortality characteristics of the community. The second piece of information collected was from interviews of key informants in order to gain insight into the health needs of the community. Finally, there was a general survey collected from residents of Putnam county at various community events in order to further understand the communities' perception and knowledge of their health and the health of the county.

QUANTITATIVE DATA REPORT

Executive Summary

Putnam county has improved since the last community health needs assessment in 2019 in 10 different areas of estimated data (Table 2). These improved values are decreased teen births, decreased hospital stays, increased mammography screenings, increased flu vaccinations, increased life expectancy, decreased children in poverty, decreased children in single-parent households, increased overall health outcomes, decreased child mortality, and decreased air pollution. These 10 different improved areas, especially health outcomes, suggest that Putnam county's overall health has significantly improved in the last three years. Even during the pandemic, this county has improved in many different areas of health. Despite these improvements, there are some areas of concern. Some health behavioral concerns with high percentages are the rates of adult smoking, adult binge drinking, and physical inactivity. These behaviors are leading to high rates of mortality that are correlated with cancer, obesity, high blood pressure, stroke, and lung disease. Furthermore, Putnam county has high rates of suicide deaths and vehicle crash deaths than the state average.

Introduction

The first section of the community health needs assessment involves descriptive review of available county, state, and national statistics and data. This section highlights data sources from 2022 County Health Rankings and offers a comparison between this year's findings and the previous community health needs assessment. There is also supporting data from the US Census, but this is only used as an additional resource as the response rate for the census in 2021 for the total population of Indiana was 87.1%. Therefore, data from County Health Rankings will be used as it is considered the most recent and accurate representation of data for this county. County Health Rankings and US Census data sources are referenced in the appendix for further reading. This section focuses on statistics detailing the overall health outcomes and health status of Putnam county and the demographics associated with this area. These statistics are compared to other counties in Indiana and the average statistics associated with all Indiana residents. In some sections, these statistics are compared to the overview of existing data on United States citizens. The purpose of this section is to better understand the quality of life of Putnam county residents by analyzing ways in which health factors can improve and highlighting which health indicators are stronger than the state or national indicators. Additionally, this section suggests ways in which life of Putnam county residents can improve and what factors contribute to improving health outcomes. These statistics focus on the patterns of health determinants that involve lifestyle, healthcare services, education, risk factors, screening and prevention, health outcomes, and policies.

Table 2

Top 10 Strengths of Putnam county from County Health Rankings Data

Strengths	Putnam County 2021	Putnam County 2022	Indiana	United States
Covid-19 Age Adjusted Mortality per 100,000 population	N/A	78	103	85
Child Mortality per 100,000 population under age 18	50	40	60	50
HIV Prevalence per 100,000 population	175	154	207	378
Teen Births per 1,000 females ages 15-19	17	16	23	19
Flu Vaccinations percentage of Medicare enrollees	48%	50%	52%	48%
Uninsured Adults percentage of population under age 65	9%	9%	12%	13%
Children in Poverty percentage under age 18	14%	13%	15%	16%
Reading Scores for third grade students on standardized english test	3.3	3.3	3.1	3.1
Math Scores for third grade students on standardized math test	3.5	3.5	3.2	3

Table 3

Top 10 Weakness of Putnam county from County Health Rankings Data

Weaknesses	Putnam County 2021	Putnam County 2022	Indiana	United States
Population per Primary Care Physicians	3,150:1	3,130:1	1,490:1	1,310:1
Population per Dentists	2,350:1	2,340:1	1,720:1	1,400:1
Population per Mental Health Providers	1,250:1	1,170:1	560:1	350:1
Frequent Mental Distress percentage of adults reporting 14 or more days of poor mental health in a 30 day month	15%	16%	15%	14%
Physical Inactivity percentage of adults 18 years and over	29%	32%	31%	26%
Access to Exercise Opportunities percentage	59%	51%	68%	80%
Motor Vehicle Crash Deaths per 100,000	15	16	12	12
Suicides per 100,000 population	21	22	15	14
Firearm Fatalities per 100,000 population	11	15	15	12
Some College percentage of adults from ages 25-44 completed post-secondary education	50%	50%	63%	67%

Population Demographics

County Health Rankings Data

Health outcomes can correlate with population demographics including age, gender, race, economic status, housing, and education. The US Census provides Putnam county with the following data. The total population of Putnam county is 37,469. Putnam county's population has a majority of people the age of 18 years and below (19.3%) and the second largest majority is 65 years (17.3%) and above. The majority of the population is male (52.5%), and the female population is 47.5%. The majority of the population is White (92.7%), followed by Asian (2.7%), and Black (2.5%). The percentage of people under the age of 18 years is 19.3% and the percentage of people 65 years and older is 17.3%. The Non-Hispanic Black percentage is 3.7%, American Indian & Alaska Native is 0.4%, and Asian percentage is 1.3%. Hispanic percentage is 2.1% and Non-Hispanic White percentage is 91.2%. The total population is 47.5% female and the remaining 52.5% male. Another key demographic is 64.8% of the population lives in a rural area, which is lower than the state percentage of 27.6%.

US Census Data

The United States Census includes the average cost of housing for Putnam county residents. . There are a total of 15,152 housing units within this county, the average monthly mortgage is $1,190 and the average monthly owner costs without a mortgage is $407. The median gross rent is $832 and the total number of building permits are 151.

From 2017 to 2021, there was a total population of 89.1% high school graduates and 17.7% of the population had a bachelor's degree or higher; these statistics are based on people over the age of 25. The percent of the population with a disability in Putnam County at this time was 8.9%.

Social & Economic Factors

County Health Rankings Data

The County Health Rankings can also be used to examine social and economic factors in Putnam county and to compare them to the state and national data. In the United States on average 11% of the population is uninsured and in Indiana the average percentage is 10%. In Putnam county the average percentage is 8% of the population. The unemployment rate of Putnam county is 6.2% which is lower than the state average of 7.1% and the national average of 8.1%. Half (50%) of Putnam county's population received some form of college or university education, which is lower than the state percentage of 63% and the national average of 67%. The percent of high school completion of 89%; which is the same as the Indiana state average and national average. Fewer children in Putnam county live in poverty (13%) than in the state (15%) and nationally (16%). Putnam county has been successful at reducing children in poverty since 2019, as the percentage was 16% and has since decreased to 13%. Putnam county children living in single-parent households is 17%, which is lower than the state and national percentage, which are both 25%. Reading scores of Putnam county are 3.3 average grade performance which is higher than the average state and national scores of both 3.1. Math scores of Putnam county are also higher with a score of 3.5 average grade performance, which is better than the state average score of 3.2 and the national average score of 3.0. The median household income is $66,600, compared to the Indiana state average of $60,800 and the national average of $67,300. The living wage is defined as a wage that is high enough to maintain a normal standard of living that covers basic household expenses for a household of one adult and two children. Putnam county's living hourly wage is $32.21 per day, compared to the Indiana state average of $33.76 and national average $38.11.

US Census Data

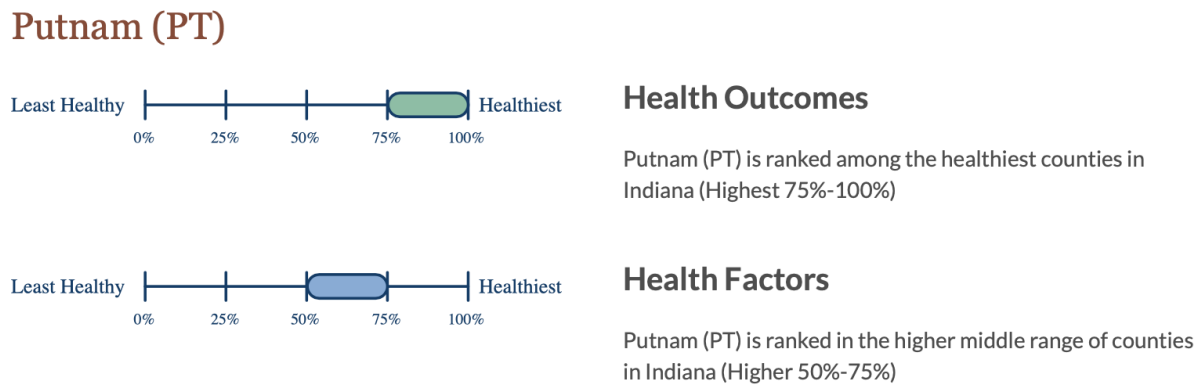
In addition to this data, the 2020 US Census estimated that in Putnam county 2,479 public school students out of the total of 5,140 public school students are eligible for free or reduced lunches. This is 48.23% of the student population. The state average is also 48% and the national average is 52%. Another socioeconomic factor is the percentage of Putnam county population that

received SNAP benefits. SNAP stands for Supplemental Nutrition Assistance Program, which is a federal program that provides low-income individuals with benefits used in stores to purchase food. In the 2020 US Census, it was estimated that 2,250 individuals receive these benefits in Putnam county which is 6% of the total population. This percentage is lower than the state percentage of 8.8% and the national average percentage of 11.7%. Additionally, Putnam county offers a total of 26 SNAP-authorized food stores, which is a rate of 6.94 stores per 10,000 population. This rate is lower than the state rate of 8.08 and national average rate of 7.47 per 10,000 population.

Health Rankings

Figure 1

Health Outcomes and Health Factors of Putnam county, County Health Rankings Data



Putnam County is ranked in the highest 25% of counties in Indiana for health outcomes. This has drastically improved since the previous health needs assessment from 2019, where Putnam County was ranked in the 50%-75% percentile of Indiana counties. Health outcomes include the quality of life and length of life of the average citizen in Putnam County. Putnam County is ranked in the upper middle range of counties in Indiana in health factors; which has remained the same since 2019. Health factors include health behaviors, clinical care, social and economic factors, and the physical environment.

Health Outcomes

County Health Rankings Data

Health outcome statistics show that the average life expectancy of Putnam county residents is 77.7 years, which is higher than the Indiana average of 76.5 and lower than the national average of 78.5. Life expectancy in Putnam county has improved by .1 since the 2019 assessment. Putnam county premature deaths is 7,400, which is years of potential life lost before the age of 75 per 100,000 population (age-adjusted). Based on this population rate, Putnam county is less than the state's total of 8,600 years of potential lives lost per 100,000 people, and higher than the national total of 7,300 potential lives lost per 100,000 people. The leading cause of death under the age of 75 years in Putnam county is malignant neoplasms with 153 deaths and the second leading cause is diseases of the heart with 91 deaths. Following that are chronic lower respiratory diseases with 40 deaths, accidents with 38 deaths, and intentional self-harm with 20 deaths.[6] County Health Rankings estimates that Putnam county on average would have an age-adjusted mortality of 78 Covid-19 related deaths per 100,000 people. This average is lower than the equivalent state average of 103 deaths per 100,000 and national average of 85 deaths per 100,000 people. Putnam county child mortality total is 40 deaths under the age of 18 per 100,000 population under 18. This average number of deaths per 100,000 has decreased from the average in 2019 of 70. This rate of death per 100,000 is lower than the state rate of 60 and national rate of 50 per 100,000 population.

Quality of Life

County Health Rankings Data

In Putnam county, 19% of the population has reported having poor or fair health. In a 30 day average, 17% of all United States citizens consider themselves in poor or fair health and 19% of

[6]"CDC Wonder." *Centers for Disease Control and Prevention*, Centers for Disease Control and Prevention, https://wonder.cdc.gov/.

Indiana residents. Putnam county residents report that their physical health was not good for 4.2 days out of 30, which is higher than the state of 4.1 days and the national total of 3.9 days reported. Mental health was not good for 5.0 days of a 30 day month, which is higher than the state number of 4.8 days and national number of 4.5 days, each reported out of a 30-day month. Frequent physical distress is reported by 13% of the Putnam county population, which is the same as the state percentage and higher by 1% than the national percentage. Similarly, frequent mental distress is reported by 16% of the population, which is higher than the state percentage of 15% and the national percentage of 14%. These percentages are based on adults who report poor physical or mental health for 14 days out of a 30 day month. Diabetes prevalence in the Putnam county population is 11% of adults over the age of 21. This is the same average percentage as the state, yet higher than the national average percentage of 9%. Putnam county HIV prevalence rate is 154 of every 100,000 residents (age 13 and above). This is lower than the state rate of 207 per 100,000 and the national prevalence of 378 per 100,000.

COVID-19 Data Analysis

County Health Rankings and US Census Data

Tables 4, 5, and 6 display COVID-19 related data as of September 16th, 2022. This data estimates that there have been a total of 10,449 confirmed COVID-19 cases in Putnam county, which corresponds to a rate per 100,000 population that is lower than both the state and national average. There have been 131 COVID-19 related deaths, which is a 346.75 per 100,000 population rate. This rate is higher than the national average, but lower than the state average. Therefore suggesting that the Putnam county mortality rate of COVID-19 is worse than the national average, but better than the Indiana average. Additionally, the COVID-19 vaccination percentage of Putnam county is 51.40%, which is significantly lower than the national percentage of 74.17% and Indiana percentage of 66.56%. The estimated percent of adults hesitant about receiving the COVID-19 vaccination is 13.43%, which is higher than the national (10.29%) and state (12.35%) averages. This data suggests a concern for vaccination hesitancy, as the vaccination percentage is low and the hesitancy rate is high.

Table 4

COVID-19 Confirmed Cases per 100,000 population, County Health Rankings, Putnam county

COVID-19 - Confirmed Cases

This indicator reports incidence rate of confirmed COVID-19 cases per 100,000 population. Data for this indicator are updated daily and derived from the Johns Hopkins University data feed.

In the report area, there have been 10,449 total confirmed cases of COVID-19. The rate of confirmed cases is 27,658.22 per 100,000 population, which is less than the state average of 28,580.36. Data are current as of 09/16/2022.

Report Area	Total Population	Total Confirmed Cases	Confirmed Cases, Rate per 100,000 Population	Last Update
Putnam County, IN	37,779	10,449	**27,658.22**	09/16/2022
Indiana	6,691,878	1,912,563	28,580.36	09/16/2022
United States	326,262,499	93,490,589	28,655.02	09/16/2022

Note: This indicator is compared to the state average.
Data Source: Johns Hopkins University. Accessed via ESRI. Additional data analysis by CARES. 2022. Source geography: County → Show more details

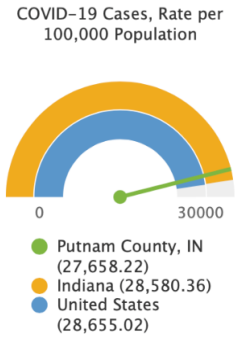


Table 5

COVID-19 Mortality per 100,000 population, County Health Rankings, Putnam county

COVID-19 - Mortality

In the report area, there have been 131 total deaths among patients with confirmed cases of the coronavirus disease COVID-19. The mortality rate in the report area is 346.75 per 100,000 population, which is less than the state average of 365.46. Data are current as of 09/16/2022.

Report Area	Total Population	Total Deaths	Deaths, Rate per 100,000 Population	Last Update
Putnam County, IN	37,779	131	**346.75**	09/16/2022
Indiana	6,691,878	24,456	365.46	09/16/2022
United States	326,262,499	1,032,127	316.35	09/16/2022

Note: This indicator is compared to the state average.
Data Source: Johns Hopkins University. Accessed via ESRI. Additional data analysis by CARES. 2022. Source geography: County → Show more details

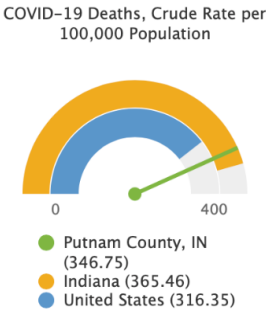


Table 6

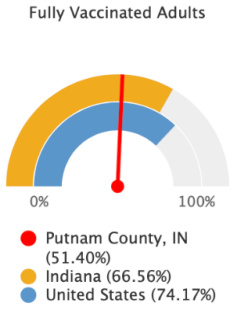
COVID-19 Fully Vaccinated Adults, County Health Rankings, Putnam county

COVID-19 Fully Vaccinated Adults

This indicator reports the percent of adults fully vaccinated for COVID-19. Data is updated daily from the CDC API. Vaccine hesitancy is the percent of the population estimated to be hesitant towards receiving a COVID-19 vaccine. The Vaccine Coverage Index is a score of how challenging vaccine rollout may be in some communities compared to others, with values ranging from 0 (least challenging) to 1 (most challenging).

Report Area	Percent of Adults Fully Vaccinated	Estimated Percent of Adults Hesitant About Receiving COVID-19 Vaccination	Vaccine Coverage Index	Last Update
Putnam County, IN	**51.40%**	13.43%	0.71	09/07/2022
Indiana	66.56%	12.35%	0.60	09/07/2022
United States	74.17%	10.29%	0.44	09/07/2022

Note: This indicator is compared to the state average.
Data Source: Centers for Disease Control and Prevention and the National Center for Health Statistics, CDC - GRASP. 2022. Source geography: County → Show more details



Health Behaviors

County Health Rankings

The following health behavioral data is from County Health Rankings. Some health behaviors essential to explore are adult smoking and adult obesity. In Putnam county, 22% of adults report being smokers, which is two percent higher than Indiana prevalence and 6% higher than national smoking prevalence. In addition, the adult smoking prevalence has increased by 3% since the last community health needs assessment in 2019. This high percentage of adult smokers is a health concern, as smoking can lead to cancer of the lung, throat, mouth, nose, voice box, esophagus, pancreas, liver, stomach, kidneys, bladder, ureter, bowel, ovary, cervix, and bone marrow

(myeloid leukemia) in addition to many other diseases. Indiana health rankings provide 19 strategies to reduce smoking.[7]

Additionally, in Putnam county, adult obesity has a prevalence of 34%, which is 2% higher than the national average and 1% lower than the state average. Putnam county's percentage of adult obesity has increased by 2% since 2019. Adult obesity is also a major health concern as obesity can lead to stroke, heart disease, hypertension, high cholesterol, type 2 diabetes, and obstructive sleep apnea. Physical inactivity is reported by 32% of the population, which is higher than the national average of 26% and the state average of 31%. The percentage of the Putnam county population with adequate access to locations for physical exercise is 51%, which is lower than the state percentage of 68% and the national average of 80%.

One of the strengths of Putnam county (shown in Table 2) is the low rate of teenagers giving birth. Putnam county has an average of 16 per 1,000 females ages 15-198, which is below the Indiana state average of 23 per 1,000 and below the national average of 19 per 1,000. In addition, teen births have decreased from 20 to 16 per 1,000 since the previous 2019 community health needs assessment and by 1 since 2021.

There is a high percentage of motor vehicle crash deaths in Putnam county, as the average is 16 deaths per 100,000 people compared to the state and national average of 12 per 100,000. This yearly total has also increased since 2019 from 12 to 16 total motor vehicle crash deaths per 100,000 and is in the top 10 weaknesses of Putnam county (shown in Table 3).

And the insufficient sleep percentage is 38% which is the same as the state average, but lower than the national average. Insufficient sleep has significantly increased from 31% to 38% in the

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[7]"Strategies." *County Health Rankings & Roadmaps*, https://www.countyhealthrankings.org/take-action-to-improve-health/what-works-for-health/strategies?f%5B0%5D=goal%3AReduce+initiation+and%2For+increase+cessation&f%5B1%5D=goal%3AReduce+exposure+to+environmental+tobacco+smoke&f%5B2%5D=health-factor%3ATobacco+Use&sort_by=title&items_per_page=10&0=goal%3AReduce+exposure+to+environmental+tobacco+smoke&1=health-factor%3ATobacco+Use&page=1.

past three years. This can pose a problem as sleep deprivation is linked to many chronic health problems including heart disease, kidney disease, high blood pressure, diabetes, stroke, obesity, and depression.

Putnam county's preventable hospital stays are 4,082 hospital stays per 100,000 people enrolled in Medicare that might have been prevented by outpatient treatment. Putnam county has significantly decreased preventable hospital stays from 4,738 since the previous community health needs assessment in 2019. This rate of preventable hospital stays is higher than the national average but lower than the Indiana state average. Putnam county is improving when it comes to the previous average of preventable hospital stays and when compared to the state average.

An additional health behavior that is under the strength category (see Table 2) are influenza vaccination rates. Putnam county has increased their flu vaccination percentage from 44% to 50% in the last three years. Mammography screening rates have also improved from 38% in 2019 to 41% in 2022. Mammography screening in the state is 44% and in the nation is 43%.

US Census Data

The United States conducts a census every 10 years and the most recent one provided data on health behaviors that contribute to the overall health of the Putnam county population. The US Census estimates binge drinking in Putnam county is correlated with 16.80% of the population reported having five or more drinks (men) and four or more drinks (women) in a 30 day period. This percent of binge drinking is higher than the state and national average. The US census also estimated that 8,296 Putnam county citizens reported physical inactivity, which is 27. 9%. This percentage is higher than the national average of 22% and a little over the state average of 25.7%. Physical inactivity contributes to poor health outcomes like obesity and other significant cardiovascular problems. Additionally, tobacco usage in Putnam county exceeds the national and state average with 20.60% of the Putnam county population reporting tobacco use of the Putnam county population reporting tobacco use. This percentage is based on everyone over the age of

18 that has smoked over 100 cigarettes in their lifetime and currently smoke everyday or some days.

Physician Ratio per Population

County Health Rankings

The ratios of physicians, mental health providers, and dentists are all weaknesses of Putnam county (shown in Table 3). The population ratio of primary care physicians is 3,130:1, which is higher than both the national average of 1,310:1 and the Indiana state average of 1,490:1. The population ratio of dentists (2,340:1) per population is also higher than the national average (1,400:1) and state average (1,720:1). The population ratio of mental health care providers (1,170:1) per population is also higher than the national average (350:1) and state average (560:1). Previous data from the 2019 County Health Rankings shows that this ratio was 1,400:1. These ratios demonstrate a need for more physicians and health care providers in the area.

Physical and Food Environment

County Health Rankings

In 2019, the annual average amount of fine particulate matter (air pollution) was 11.2 micrograms per cubic meter. In 2022, the annual average amount of fine particulate matter was 9.4 micrograms per cubic meter. The percentage of severe housing problems has remained the same since 2019, with 11% of households experiencing at least one of the following four housing problems: overcrowding, high housing costs, lack of kitchen facilities, or lack of plumbing facilities. This percentage is lower than the state average in Indiana, thus suggesting that Putnam county is successful with providing adequate housing conditions compared to other counties in Indiana. The percent of the population that is food insecure is 12%, which is the same as the state average and 1% higher than the national average. This suggests a problem in both Putnam county and Indiana, as 12% of the population is food insecure. The percentage of the population that has low-income and does not live close to a grocery store is 4%. Limited access to healthy foods is lower than the Indiana state average of 9% and lower than the national average of 6%.

There is a smaller average rate of drug overdose deaths in Putnam county (15 per 100,000) than at the state level (28 per 100,000) and the national level (23 per 100,000). Still, Putnam county needs to bring attention to the increasing number of drug overdose deaths, as the yearly total has grown from 11 deaths per 100,000 to 16 deaths per 100,000 since 2019. Putnam county scored 8.1 out of a possible 10 on the food environment index, which includes access to healthy foods and food insecurity. The average value for the state is 6.6 and the national average is 7.8. Putnam county is 483 square miles with a total of 4 grocery stores, which is 120.75 miles per grocery store. Food security in Putnam county is not adequate and presents a common trend of traveling a long time for groceries. In addition, most of the population lives in rural areas which also adds distance traveled for buying groceries.

Chronic Conditions

US Census Data

The US census also estimates data on chronic conditions such as diabetes, heart diseases, and high blood pressure. The reported number of adults with diagnosed diabetes in Putnam county is 4,097 which is a rate of 12.6%. The Indiana state average is 9.8% and the national average is 9%. Diabetes is a health indicator that may suggest less privilege and access to environments that support a healthy lifestyle. The US census also estimated that 1,558 Putnam county citizens were diagnosed with a heart disease. Additionally 2,639 citizens have high blood pressure, which is a lower rate per population than the national and state averages.

Mortality

US Census Data

Mortality rates and health outcomes are necessary towards understanding current health concerns and problems and show trends in specific types of death. The 2020 US Census data provided the mortality rates of cancer, lung disease, motor vechile crashes, stroke, and suicide. From 2016-2020 there were a total of 449 cancer related deaths in Putnam county. This cancer mortality death rate based on a 100,000 population is 188.5. The state average is 166.8 and the national rate is 149.4, therefore suggesting that the cancer mortality in Putnam county is a high

reported cause of death and a concern when comparing the mortality rates to the state and country. The lung disease rate is also high at 60.5, compared to the Indiana state average of 55.3 and the national average of 39.1. From 2016-2020 there were a total of 145 lung disease related deaths, which also is a great concern and emphasizes the need for continued support in tobacco cessation programs and emphasizes the need for continued support in tobacco cessation programs for Putnam county.

Motor vehicle crash deaths are preventable and a major concern when the rates are high. Putnam county had 31 vehicle crash deaths from 2016 to 2020. 31 total deaths in four years is a high number of preventable deaths. This figure is age-adjusted to the year 2000 standard to compare to the state and national rates. In addition, county health rankings compare the average 16 per 100,000 rate of Putnam county's vehicle crash deaths to the 12 per 100,000 Indiana rate and national rate, which poses a significant concern. Lastly, in Putnam county there were 22 deaths by suicide per 100,000 people, which is higher than both the state and national average rate. The state average is 15 per 100,000 and the national average is 14 per 100,000. This is a high number of suicide deaths per year and the rate being higher than the state and US poses a deep concern with the mental health of Putnam county citizens and their timely access to mental health support services.

COMMUNITY SURVEY REPORT

Executive Summary

Putnam County Hospital surveyed Putnam county community members to collect and solicit input on community health topics. In total, 403 responses were gathered and analyzed by the hospital administration office. Overall, survey respondents identified the following top five health concerns: (1.) poor recreational outlet access, (2.) poor healthcare access, (3.) poor mental health resource access, (4.) poor healthy food access, and (5.) poor obstetric and childcare resource access. The top barriers to healthcare access were (1.) long appointment wait times, (2.) poor affordability, (3.) fear or embarrassment, (4.) no means to get to a provider, and (5.) no means to find a provider. The findings serve as an opportunity for Putnam county healthcare organizations and community partners to improve care by working toward increased accessibility to recreational facilities, healthcare services, and mental healthcare and resources.

Survey Purpose

As part of the assessment's primary data collection, a digital, 48-question survey was developed to collect participant demographic data, personal health perceptions and behaviors, and input on community health issues. The survey was open to all Putnam county residents and was dispersed throughout Putnam County Hospital and the community through hospital tabling events, email campaigns, social media, and community events. Survey distribution was also aided by community stakeholders and partners, such as the Greencastle City Council, DePauw University, Putnam county school districts, Putnam County Health Department and other community members. For a complete list of community stakeholders, see Appendix C.

Survey Structure

The community health needs assessment survey was created to identify health needs throughout the community. The questionnaire was reviewed and edited by both Putnam County Hospital and Putnam County Health Department administration leadership. In total, the survey asked 48 questions, 47 of which were multiple choice with 13 'other' open text options and a final, optional, open text question soliciting input about what Putnam county needs to improve overall community health. For a breakdown of the questions asked and the rationale for asking them, see table 7. For the complete survey, see Appendix A.

Methodology

The community health needs assessment survey was available from August 2nd, 2022 to December 21st, 2022. Printed QR codes were distributed throughout the community via mail, community events, and email. Additionally, the survey link was posted on the Putnam County Hospital's Facebook page, the Putnam County Health Department's Facebook page, the Banner Graphic's website, and county school district websites. For a list of all community collaborators, see Appendix C. Themes for each question were ranked based on the number of responses for that answer choice; the more responses that highlighted an issue, the higher it was ranked on the list.

Survey Instrument

The survey contained questions that gather information on specific health topics and input from community members.

Table 7

Survey question description by topic and related questions

Health Topic	Number of Questions	Purpose
Demographics	9 questions	Gather demographic information on participants
Personal Perceptions of Health	4 questions	Gather ratings of participants' overall health, mental health, eating habits and exercise frequency
Healthcare Accessibility	17 questions	Gather data on access to providers, cost coverage and health resources
Health Behaviors	9 questions	Gather information on behaviors such as smoking, vaping, drinking and drug use
Perceptions on Community Health	7 questions	Gather input on pressing health and social concerns and solicit improvement suggestions
Suggestions for Community Health Improvement	1 question	Gather free response suggestions and priorities to improve community health

Table 8

Demographic of survey respondents categories: gender, age, race, educational level, and household income

Demographic Categories	Total Respondents (n=403)	Percentage
Gender	n=403	
Male	100	25
Female	291	72
Other	12	3
Age	n=385	
Under 20	51	13.2
20-30	81	21
31-40	49	12.7
41-50	71	18.4
51-60	74	19.2
61-70	38	9.9
71 or older	21	5.5
Race	n=403	
White/Caucasian	363	90.8
Asian	13	3.2
Black/African American	11	2.7
Hispanic/Latinx	10	2.5
Other	3	0.7
Educational Level	n=403	
Less than high school	2	0.5
Some high school	1	0.2
High school or GED	46	11.4
Some college	108	26.8
Associate's degree	42	10.4
Bachelor's degree	97	24.1
Graduate degree	107	26.6
Household Income	n=403	
Dependent	57	14.1
Less than $20,000	22	5.5
$20,001-$40,000	46	11.4
$40,001-$60,000	40	9.9
$60,001-$80,000	46	11.4
$80,001-$100,000	58	14.4
Over $100,000	134	33.3

Table 9

Demographic of survey respondents categories: marital status, housing status, individuals per household, and employment status.

Demographic Category	Total Respondents (n=403)	Percentage
Marital Status		
Married or cohabitating	250	62
Single	128	31.8
Divorced or Widowed	25	6.2
Housing Status		
Own	291	72.2
Rent	68	16.9
University Housing	34	8.4
Parent/Guardian Housing	10	2.5
Individuals per Household		
One	40	9.9
Two	132	32.8
Three	68	16.9
Four	86	21.3
Five	51	12.7
Six	8	2
Seven	6	1.5
Employment Status		
Full-time	240	59.6
Part-time	46	11.4
Student	70	17.4
Homemaker	5	1.2
Retired	37	9.2
Unemployed	5	1.2

Table 10

Reported personal health perceptions of survey respondents

Health Category	Total Respondents (n=403)	Percentage
Overall Health		
Excellent	57	14.4
Very Good	168	42.2
Good	148	36.7
Fair	24	6
Poor	3	0.7
Mental Health		
Excellent	50	12.5
Very Good	132	32.5
Good	140	35
Fair	64	16
Poor	16	4
Eating Habits		
Very Healthy	29	7.2
Somewhat Healthy	221	55.3
Neither healthy or unhealthy	95	23.8
Somewhat Unhealthy	52	13
Very Unhealthy	29	7.2
Physical Activity Frequency		
Everyday	98	24.3
A few times a week	177	43.9
Once a week	49	12.2
A few times a month	40	9.9
Once a month	11	2.7
Less than once a month	28	6.9

Table 11

Reported healthcare accessibility of survey respondents

Health Access Category	Total Respondents (n=403)	Percentage
Insurance Coverage Type		
Employer Sponsored	295	73.2
Private or Medicare	78	19.4
Medicaid	18	4.5
Tricare	7	1.7
None	5	1.2
Physician Visit in Last 12 Months		
Yes	321	79.7
No	52	13.2
I do not have a PCP	29	7.2
Provider Type Sought for Illness		
Clinic/doctor's office	293	72.7
Urgent care	61	15.1
Do not seek medical attention	40	9.9
Emergency department	5	1.2
Health department	4	1
Frequency of Routine Check-up		
One year ago	328	81.4
Two years ago	42	10.4
Three years ago	17	4.2
Four years ago	2	0.5
Five years ago	14	3.5
Source of Medical Information		
Physician	251	62.3
Internet	79	19.6
Familiar Medical Professional	59	14.6
Friends/Family	11	2.7
Pharmacist	3	0.7

Table 12

Reported health screening accessibility of survey respondents

Screening	Total Respondents (n=403)	Percentage
Colonoscopy/Sigmoidoscopy †		
Yes	108	26.8
No	48	11.9
N/A	247	61.3
Mammogram ‡		
Yes	115	28.5
No	25	6.2
N/A	263	65.3
Pap Smear §		
Yes	170	42.2
No	103	25.6
N/A	130	32.3

† - Between the ages of 50 and 75 years, the CDC and U.S. Preventive Services Task Force recommends regular colorectal cancer screening strategies, such as a colonoscopy or sigmoidoscopy procedure.
‡ - Between the ages of 45 and 74 years old, the CDC and U.S. Preventive Services Task Force recommends people with breasts to screen for breast cancer every two years with a mammogram.
§ - After the age of 21, the CDC recommends pap tests for people with a cervix to screen for cervical precancer every three years.

Table 13

Reported COVID-19 testing and vaccination accessibility of survey respondents

Access Category	Total Respondents (n=403)	Percentage
COVID-19 Test		
Very easy	262	65.2
Easy	69	17.1
Neither easy or difficult	42	10.4
Difficult	17	4.2
Very Difficult	13	3.2
COVID-19 Vaccination		
Very Easy	293	72.7
Easy	53	13.1
Neither easy or difficult	24	5.9
Difficult	19	4.7
Very difficult	9	2.2

Table 14

Reported health indicators from a physician of survey respondents

Health Indicator	Total Respondents (n=403)	Percentage
High Blood Pressure		
Yes	292	73
No	108	27
High Cholesterol		
Yes	282	70
No	121	30
Obesity		
Yes	227	56.3
No	176	43.7

Table 15

Reported transportation access to healthcare services of survey respondents

Transportation Type	Total Respondents (n=403)	Percentage
Car	395	95.5
Walking	16	4
Public Transport	2	0.5

Table 16

Reported frequency of health behaviors of survey respondents

Health Behavior	Total Respondents (n=403)	Percentage
Fast Food Consumption		
Everyday	5	1.2
A few times a week	93	23.1
Once a week	102	25.3
A few times a month	110	27.3
Once a month	38	9.4
Less than once a month	55	13.6
Cigarette Smoking		
Never	363	90.1
Everyday	20	5
A few times a week	5	1.2
Once a week	0	0
A few times a month	6	1.5
Less than once a month	9	2.2
Once a month	0	0
Vaping		
Never	366	90.8
Everyday	19	4.7
A few times a week	5	1.2
Once a week	2	0.5
A few times a month	4	1
Less than once a month	7	1.7
Once a month	0	0
Tobacco Use		
Never	395	98
Everyday	3	0.7
A few times a week	2	0.5
Once a week	1	0.2
A few times a month	2	0.5
Less than once a month	0	0
Once a month	0	0
Smoking Cessation Attempt		
Yes	20	5.5
No	50	12.4
N/A	366	82.1

Table 17

Reported frequency of drug and alcohol use of survey respondents

Health Behavior	Total Respondents (n=403)	Percentage
Drinking		
Never	93	23.1
Everyday	12	11.7
A few times a week	82	20.3
Once a week	47	11.7
A few times a month	82	20.3
Once a month	22	5.5
Less than once a month	65	16.1
Binge Drinking		
Yes	74	18.4
No	329	81.6
Drug Use		
Yes	39	9.7
No	364	90.3
Drug Use Cessation Attempt		
Yes	6	1.5
No	397	98.5

Community Health Perceptions

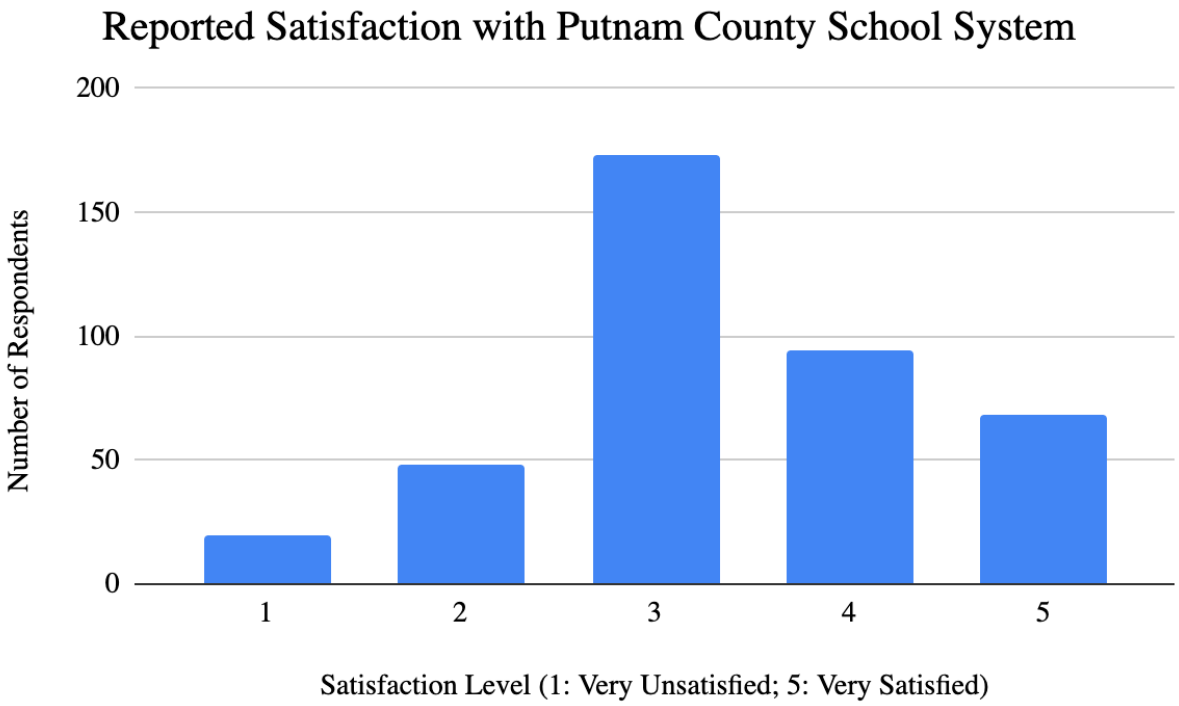

Figure 2: Respondents' rating of satisfaction with the county school system and education, by number of respondents. n=403

Community Education Satisfaction - Participants were asked to report their satisfaction level with the county school system and education resources on a scale of 1, very satisfied, to 5, very unsatisfied. A majority of respondents reported a neutral satisfaction level (42.9%, n=173). Respondents also reported, in descending order, feeling satisfied (23.3%, n=94), feeling very satisfied (16.9%, n=68), unsatisfied (11.9%, n=48) and very unsatisfied (5%, n=20).

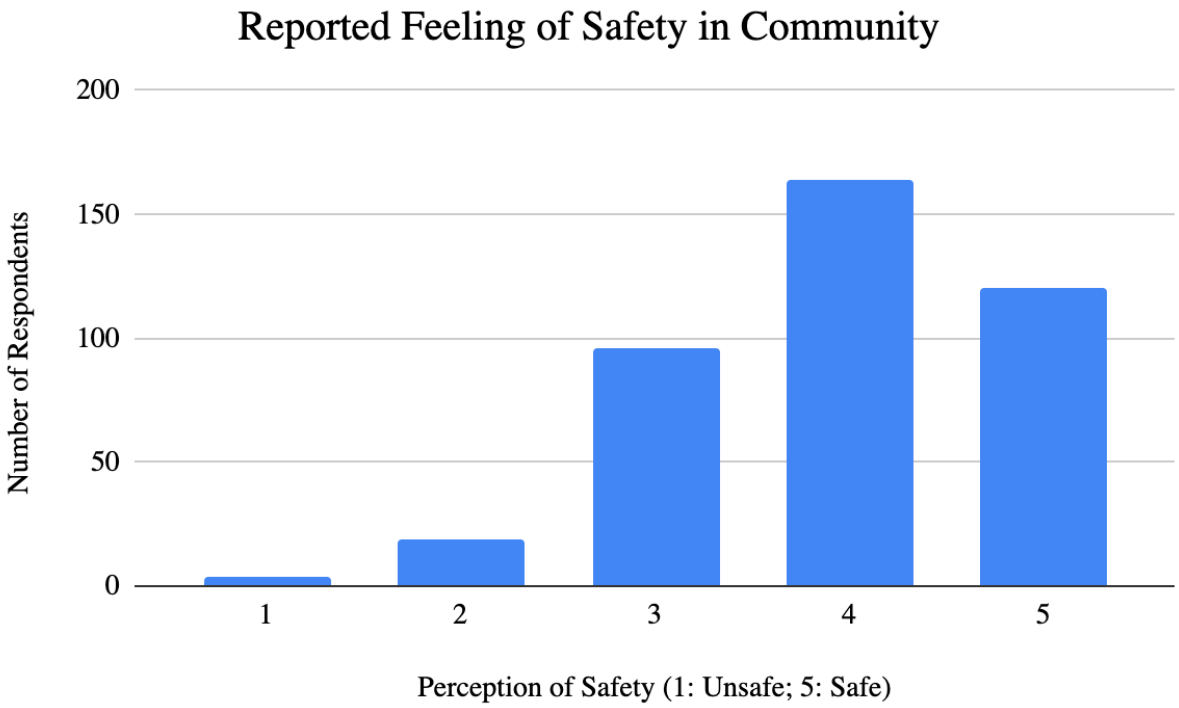

Figure 3: Respondents' feeling of safety in the community, by number of respondents. n=403

Feeling of Safety - Participants were asked to report their feeling of safety in their community on a scale of 1, unsafe, to 5, safe. A majority of respondents reported feeling somewhat safe (40.7%, n=164). Respondents also reported, in descending order, feeling safe, (30%, n=120), feeling neutral (23.8%, n=96), feeling somewhat unsafe (4.6%, n=19) and feeling unsafe (0.9%, n=4).

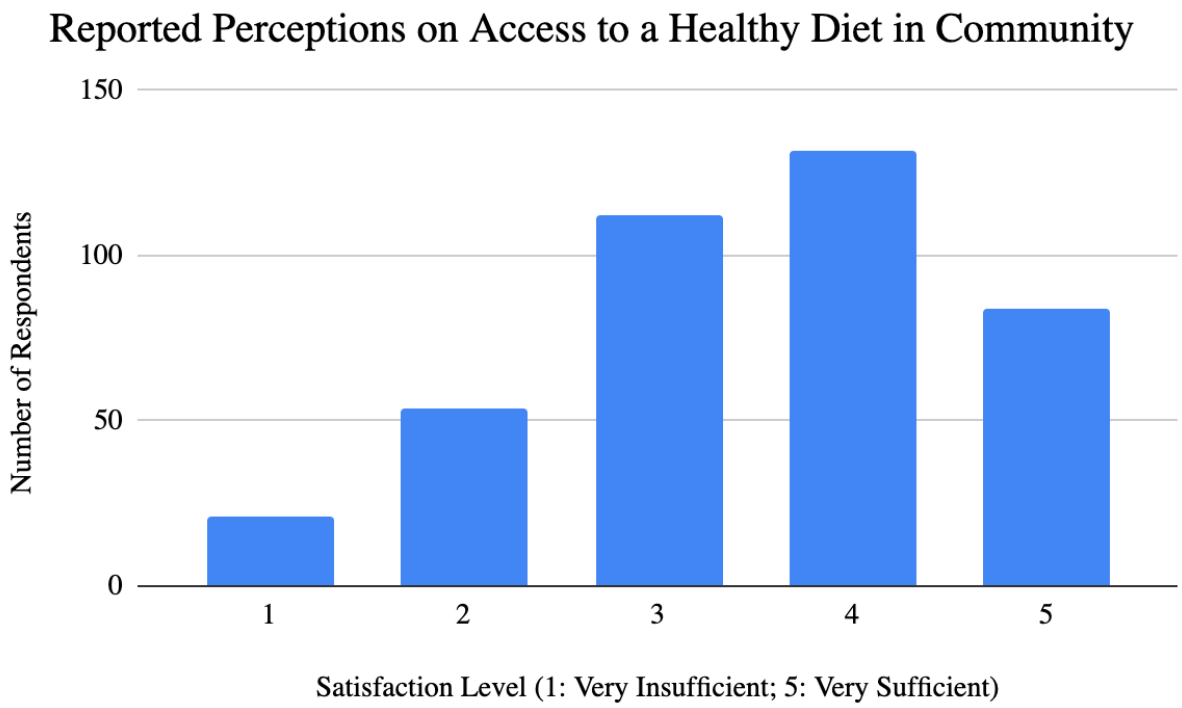

Figure 4: Respondents' perception of healthy diet selections from restaurants and grocery stores in the community, by number of respondents. n=403

Healthy Food Access - Participants were asked what their perception of restaurants and grocery stores in their community and their sufficiency in providing a healthy diet to residents on a scale of 1, very insufficient to 5, very sufficient. A majority of respondents reported their community's selection of grocery stores and restaurants is mostly sufficient (32.5%, n=130). Respondents indicated, in descending order, neither sufficient nor insufficient (28%, n=112), very sufficient (21%, n=84), mostly insufficient(13.5%, n=54), and very insufficient (5%, n=20).

Participants were recommended to select at least three answer boxes to respond to each of the following final prompts to the survey; however, they could choose to select as many boxes as they liked or as few as one box. Participants could also provide an open text response instead of, or in addition to, selecting box answer choices. All answers were reviewed and grouped into larger themes that would provide identifiable trends that could be ranked by the number of respondents who answered for that theme. The top five trends will be presented along with their categorical number and percentage; however, note that respondents could make more than one response and that value totals and percentages are represented accordingly.

Most Important Health Issues facing the Community

Participants (n=403) were asked to provide responses to the prompt, "Identify the most important health issues in our community." Participants were allowed to check more than one box or fill in their own open text response if none of the options were suitable to them. Responses were coded into general trends, the top five of which are listed below:

1. Poor mental health (n=302, 75.3%)
2. Obesity, heart disease and diabetes (n=215, 53.6%)
3. Challenges of Aging (dementia, immobility, hearing loss) (n=94, 23.4%)
4. Infectious Illness (flu, pneumonia, STDs) (n=91, 22.7%)
5. Cancer (n=79, 19.7%)

Factors Negatively Affecting Participants' Well-Being in the Community

Participants (n=403) were asked to provide responses to the prompt, "Identify the most important factors that negatively impact your well being in the community." Participants were allowed to check more than one box or fill in their own free response if none of the options applied to them. Responses were coded into general trends, the top five of which are listed below:

1. Poor healthy food access (n=227, 56.6%)
2. Lack of exercise (n=223, 55.6%)
3. Drug abuse (n=89, 22.2%)
4. Angry or violent behavior (n=83, 20.7%)
5. Alcohol Abuse (n=77, 19.2%)

Factors that would Improve Overall Health in the Community

Participants (n=403) were asked to provide responses to the prompt, "What do you think needs to be improved upon in the community to improve the overall health of the community?" Participants were allowed to check more than one box or fill in their own open text response if none of the options suited their view. Responses were coded into general trends, the top five of which are listed below:

1. Mental health resources (n=264, 65.8%)
2. Recreation centers (n=167, 41.6%)
3. Healthy grocery store and restaurant selections (n=121, 30.2%)
4. Clinics and hospitals (n=109, 27.2%)
5. Affordable housing (n=107, 26.7%)

Factors Negatively Affecting Ability to Keep Work

Participants (n=403) were asked to provide responses to the question, "What factors make it difficult for you to keep or find work?" Participants were allowed to check more than one box or put an open text answer if none of the options applied to them. Responses were coded into general trends, the top five of which are listed below:

1. Lack of job training and opportunities (n=80, 19.8%)
2. Affordable childcare (n=58, 14.5%)
3. Transportation (n=21, 5.2%)
4. Disability (n=19, 4.6%)
5. Caring for someone with a disability (n=13, 3.2%)

A majority of respondents (n=304, 75.8%) indicated no barrier affecting ability to keep or find work.

Community Health Improvement Suggestions

Participants were asked to provide open text answers to the final question of the survey, "What do you think needs to be in the community that would improve your health?" 178 out of the 403 participants provided responses to this prompt. All answers were reviewed and grouped into trends ranked by the number of respondents who answered for that trend. The top five needs trends which emerged included, (1) access to wellness programs and recreational outlets, (2) access to healthcare and services, (3) access to mental healthcare and services, (4) access to healthy food, (5) access to obstetric and childcare resources. Quotes from the survey are provided from the form submission for each trend.

1. Access to Wellness Programs and Recreational Outlets

"*[The community] needs a facility like the YMCA. If not the YMCA, we need a facility that offers classes for smoking cessation, group workout sessions, and a healthy "to-go" option for food instead of fast food."*

"We need a free or cheap indoor exercise area with an indoor pool for fitness and therapy use."

Seventy five participants suggested improvements relative to recreational outlet access. Specific examples included needs for exercise equipment in local parks, exercise and wellness programs, an indoor swimming pool, providing a more bikeable community, and continued expansion of the People Pathways parks. A majority of responses to this prompt specifically indicated support for the addition of the YMCA community center.

2. Access to Healthcare and Services

"More medical facilities besides the Putnam County Hospital. Getting to emergency services past 9pm is impossible for those without cars, and getting back home if you take an ambulance is even more of a hassle."

"Increased access to trans and lgbt+ friendly healthcare, more mental health care providers and primary care providers."

Thirty five participants suggested improvements relative to healthcare access. Participants expressed the need to increase accessibility to a broader range of health services and make healthcare more inclusive. Specific examples included a need for primary care physicians, improved access to specialists, more in-network providers, free screenings like dental, vision and physicals, and increased clinic availability throughout the community.

3. Access to Mental Healthcare and Resources

"Better mental health accessibilities and education. My son can't even get help for months as needed in the present time."

"I think more messaging on health care and mental health in the county would be helpful. I have moved to Greencastle from an urban area and I am surprised by the lack of messaging around health care in general (with the exception of social media)."

Twenty one participants suggested improvements relative to mental healthcare access. Specific examples included a need for more mental healthcare providers, such as counselors, therapists, and psychiatrists. Others consistently voiced support for addressing mental health awareness and stigma, in addition to increasing educational opportunities surrounding mental health.

4. Access to Healthy Foods

"Less fast food restaurants and more healthy options! Promoting better eating habits goes a long way for communities."

"I struggle finding quality food products that are not over processed in some way. I'd love to see more quality food choices available to our community or see grocery stores such as Aldi's move to a larger location to stock more of their products. I love that our community hosts farmers markets and we have small town stores such as Myers Market."

Twenty participants suggested improvements relative to healthy food access. Specific examples included a need for more grocery store options, healthier restaurant alternatives to fast food, and increased nutritional education in K-12 schools.

5. Access to Obstetric and Childcare Resources

"We live in an obstetric desert, and with changing laws regarding reproductive health, it would be beneficial for the community to ensure that the childbearing community members are safe in their community with access to education and resources on how and where to find care."

Twelve participants suggested improvements relative to obstetric and childcare resource access. Specific examples included a need for a birthing center, affordable childcare options, and increased parental resources for raising children.

Fifteen participants suggested improvements outside of these trends. Specific examples included a need for more affordable housing, increasing sexual education resources, increasing violence prevention initiatives, and prioritizing bias sensitivity in healthcare.

Limitations

A considerable limitation of this community health needs survey is the sample population, which is not representative of the county population demographically. The sample demographic disproportionately reported being female, white, a higher level of education, and a higher household income than demographic data represented in the *quantitative data* section for Putnam county. Respondents were collected from a convenience sample representing contacts, resources, community events and connections from Putnam County Hospital and DePauw University.

In addition to sample bias, accessibility and formating of the survey may have impacted respondent representation. The digital format of the survey meant that those without smartphone or computer access were unable to participate without the devices being provided by the survey distributor. The length of the survey also served as a barrier for some participating, as those attending community events were less likely to finish or open the survey if the individual had other obligations.

Discussion

Each thematic health need can be understood in both a national and local context. Given the local findings provided in the community health needs survey, academic discussion of these themes below examines in closer detail why these issues may be prevalent in our community. In addition to reporting the findings of academic publications supporting these trends, resources and citations for community health improvement are also provided in this section from national health entities. It is important to reiterate that, while solutions may be discussed in this section, the purpose of the assessment is to identify barriers and sources of information for satisfying health needs as opposed to providing in-depth strategies to address these needs.

Access to Wellness Programs and Recreational Outlets

"The scientific evidence continues to build—physical activity is linked with even more positive health outcomes than we previously thought. And, even better, benefits can start accumulating with small amounts of, and immediately after doing, physical activity."

– Physical Activity Guidelines for Americans, 2nd Edition

The top community health improvement suggestion from respondents to the community health needs survey was to address the prevalence of physical inactivity and recreational outlet access in the community. Specifically, many respondents supported the construction of the YMCA community center and felt that this would help address this need. This section aims to explore other potential barriers and suggestions for improvement to this health theme through a brief literature review of physical activity and recreational access in communities.

People of all demographic distributions benefit from increased physical activity. The CDC published the results of a national, state-based telephone survey study that reported a prevalence of physical inactivity of 25.3% among Americans.[8] In this same study, Indiana reported a prevalence of 28.5%. The CDC lists both immediate and long-term benefits to an individual's health following physical activity. The immediate beneficial impact of physical activity includes improved sleep quality, reduced feelings of anxiety, and reduced blood pressure. Long term impacts demonstrate reduced risk of dementia development, heart disease, stroke, diabetes, cancers (bladder, breast, colon, endometrium, kidney, lung and stomach), weight gain, falls, and improved bone health.[9] Chronic conditions listed here, like obesity, heart disease and diabetes were also identified as the second top health issue facing the community in the community health needs survey. While research continues to unveil the promise of physical activity on individual health, not everyone has the same opportunity to engage in it.

Several barriers exist for people to engage in organized physical activity, especially for low income, racial and ethnic minority groups. In a study engaged members of a low income community and exercise leaders to examine perceptions of barriers, motives and enabling factors to organized physical activity, participants reported high costs, need for childcare, lack of time, and low awareness of recreational activity opportunities as barriers to joining exercise classes offered in the study. Feelings of low confidence, support and competency in engaging physical activity were also cited as personal barriers to participation. An effective, community health engagement strategy for expanding access and enabling retention for physical activity in a community may address the following factors: affordability of memberships to recreational facilities and equipment, accessibility of childcare, availability and accessible timing of exercise

[8] "Adult Physical Inactivity Prevalence Maps by Race/Ethnicity." *Centers for Disease Control and Prevention*, Centers for Disease Control and Prevention, 17 Feb. 2022, https://www.cdc.gov/physicalactivity/data/inactivity-prevalence-maps/index.html.

[9] "Health Benefits of Physical Activity for Adults." *Centers for Disease Control and Prevention*, Centers for Disease Control and Prevention, 1 Nov. 2021, https://www.cdc.gov/physicalactivity/basics/adults/health-benefits-of-physical-activity-for-adults.html.

program sessions, effective dissemination of information on recreational opportunities, and fostering a social environment in exercise groups.[10] Another study found that, while most motivators and barriers to physical activity were similar across demographics (age, gender, and race/ethnic groups), effective promotion strategies for adults and youth should be family and peer focused.[11] The findings of these studies are reflected in concerns community health needs survey participants provided. These are just some considerations of policies that could positively impact community participation in organized physical activity at recreational facilities and parks.

Aside from organized physical activity, physical activity can also be achieved in one's day-to-day activities. However, barriers to engaging in physical activity in daily life exist in multiple forms. One literature review explored several categories of barriers, particularly environmental challenges. The authors specified the following environmental barriers to physical activity for underserved populations: inadequate sidewalk, transit, and street infrastructure, unsafe neighborhoods and community spaces, and a lack of accessible or existing recreational facilities and spaces.[12] These barriers, in addition to barriers to organized physical activity, were also issues reported in free response answers to the current community need survey.

The Physical Activity Guidelines for Americans provides evidence-based strategies for communities to partake in to increase physical activity engagement.[13] Specific suggestions for communities include strengthening school policies on physical education, launching community

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[10] Withall, Janet, et al. "Why Some Do but Most Don't. Barriers and Enablers to Engaging Low-Income Groups in Physical Activity Programmes: A Mixed Methods Study." *BMC Public Health*, U.S. National Library of Medicine, 28 June 2011, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3141466/.

[11] Bragg, Marie A, et al. "Motivators of and Barriers to Engaging in Physical Activity: Perspectives of Low-Income Culturally Diverse Adolescents and Adults." *American Journal of Health Education*, U.S. National Library of Medicine, 2009, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5844488/.

[12] Bantham, Amy, et al. "Overcoming Barriers to Physical Activity in Underserved Populations." *Progress in Cardiovascular Diseases*, W.B. Saunders, 5 Nov. 2020, https://www.sciencedirect.com/science/article/pii/S0033062020301821?casa_token=iR7oyKWC1WsAAAAA%3AhWmCZJ1PNQto5GQGUIfziGZ-4PlKABBfqXWD1J1ShwXXssUSOBes2f0IbNfKpmtfvr68Me9U#s0005.

[13] Physical Activity Guidelines for Americans, 2nd Edition

wide events that incorporate physical activity as the central focus, providing access to indoor and outdoor recreational facilities and outlets, and designing street infrastructure that are both well-lit and accommodate walkers, bikers and wheelchair users. The guidelines provide more in-depth recommendations to individuals, community sectors, and health providers that improve engagement in physical activity in chapter 8 of the publication.

Access to Healthcare and Services

"Today, the extent and quality of public health services that are available in your community is entirely dependent on what county you live in."

– Indiana Public Health System Review

Improving overall access to healthcare services was the second most important community health improvement suggestion in the needs assessment survey. Respondents specifically cited the need for more specialists, primary care physicians, clinics, dentists, and in-network providers. This section aims to detail general healthcare access barriers and community improvement suggestions from public health resources.

Putnam county is considered rural by the definition of the USDA Business and Loan Guarantees, which is defined as an area not in a city or town with less than 50,000 inhabitants.[14] The CDC estimates that around 46 million Americans living in a rural area experience higher incidence of chronic disease, substance abuse, and mortality to COVID-19.[15] The National Rural Health Association reports that the patient-to-primary care physician ratio in rural areas is only 39.8 physicians per 100,000 people, compared to 53.3 physicians per 100,000 in urban areas.[16] Despite making up less than 14% of the national population, rural communities represent nearly

[14] "Business & Industry Loan Guarantees." *Rural Development*, 27 May 2022, https://www.rd.usda.gov/programs-services/business-programs/business-industry-loan-guarantees#:~:text=Rural%20areas%20not%20in%20a,in%20an%20eligible%20rural%20area.

[15] "Rural Health." *Centers for Disease Control and Prevention*, Centers for Disease Control and Prevention, 1 July 2019, https://www.cdc.gov/chronicdisease/resources/publications/factsheets/rural-health.htm.

[16] "NRHA." *NRHA, National Rural Health Association*, https://www.ruralhealth.us/about-nrha/about-rural-health-care.

two thirds of the health professional shortage areas (HPSAs) in the country.[17,18] In a recent report on HSPAs from the Kaiser Family Foundation, the estimated number of providers needed to alleviate the nationwide shortage is 14,858.[19] Indiana has 138 total primary care HPSA designations, including Putnam county, affecting 2.4 million Hoosiers.[20] The national average drive time to the nearest hospital in a rural community was found to be 17 minutes, while those in urban communities drive on average 10.4 minutes to the nearest hospital.[21] While access to healthcare can be very limited in rural communities like Putnam county, there are community efforts that can be made to reduce the gaps between providers and patients.

The Rural Health Information Hub outlines a few strategies for rural healthcare facilities to increase healthcare access to rural community members, the first being the expansion of telehealth service use. Telehealth has emerged in recent years as a well-established method to closing the gaps in access to care for rural communities, increasing quality of patient care and reducing the overall cost of care.[22] In a study exploring the differences of use of telehealth services in urban and rural family physicians, rural family physicians used telehealth twice as

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[17] U.S. Department of Agriculture, "Rural America At A Glance: 2019 Edition" (Washington: 2019), available at https://www.ers.usda.gov/webdocs/publications/95341/eib-212.pdf; CAP analysis of data from U.S.

[18] Department of Health and Human Services Health Resources and Services Administration, "HPSA Find," available at https://data.hrsa.gov/tools/shortage-area/hpsa-find

[19] "Primary Care Health Professional Shortage Areas (Hpsas)." *KFF*, 21 Oct. 2022, https://www.kff.org/other/state-indicator/primary-care-health-professional-shortage-areas-hpsas/?currentTimeframe=0&sortModel=%7B%22colId%22%3A%22Location%22%2C%22 short%22%3A%22asc%22%7D.

[20] "HPSA/Mua." *Indiana Primary Health Care Association*, IPHCA, 24 Aug. 2022, https://www.indianapca.org/about-chcs/hpsa-mua/.

[21] Onyi Lam, Brian Broderick, and Skye Toor, "How far Americans live from the closest hospital differs by community type," Pew Research Center, December 12, 2018, available at https://www.pewresearch.org/fact-tank/2018/12/12/how-far-americans-live-from-the-closest-hospital-differs-by-community-type/.

[22] Marcin, James P., et al. "Addressing Health Disparities in Rural Communities Using Telehealth." *Nature News*, Nature Publishing Group, 14 Oct. 2015, https://www.nature.com/articles/pr2015192.

often to connect to patients than urban physicians.[23] In a systematic review of rural patient satisfaction with telehealth services, telehealth supported increased overall satisfaction with physical, occupational and speech therapy delivery.[24] In the community health needs survey, however, a slim majority of respondents (54.8%) answered that telemedicine would increase the likelihood that they would access health services. Literature on telehealth implementation reveals several challenges for rural communities that may be associated with the perception of telehealth for Putnam county community members. A published review examined the different barriers to implementation that exist with telehealth: patients may be unaccustomed or anxious about using technology supporting telehealth; lack of available broadband network services, infrastructure and technology for patients; lack of reimbursement for providers from telehealth service companies; and privacy and integrity constraints.[25] Another study described additional barriers, such as interstate licensing requirements for health providers and differences in commercial and state Medicaid coverage for telehealth services.[26] While telehealth demonstrates promise in terms of reduced costs of service, increased accessibility and patient satisfaction with health services, several barriers exist in the implementation of telehealth services that rural healthcare facilities must consider.

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[23] Jetty, Anuradha, et al. "Rural Family Physicians Are Twice as Likely to Use Telehealth as Urban ..." *Rural Family Physicians Are Twice as Likely to Use Telehealth as Urban Family Physicians*, Mary Ann Liebert, Inc, 1 Apr. 2018, https://www.liebertpub.com/doi/abs/10.1089/tmj.2017.0161.

[24] Harkey, Loriana C, et al. "Patient Satisfaction with Telehealth in Rural Settings: A Systematic Review." *International Journal of Telerehabilitation*, U.S. National Library of Medicine, 8 Dec. 2020, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7757651/.

[25] Gurupur, Varadraj P, and Zhuqi Miao. *A Brief Analysis of Challenges in Implementing Telehealth in a Rural Setting*. U.S. National Library of Medicine, 20 Apr. 2022, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9014233/.

[26] Cortelyou-Ward, Kendall, et al. "Navigating the Digital Divide: Barriers to Telehealth in Rural Areas." *Journal of Health Care for the Poor and Underserved*, Johns Hopkins University Press, 10 Nov. 2020, https://muse.jhu.edu/article/772756/summary?casa_token=1cDhopMqNq0AAAAA%3AdQkSb3kk76nBzbF1m-auU9p0HUiQ2AO5caRkqK2eD5nMFtAe7xLO16fcfXLF-NzqCbIzpcs6.

Effective employment recruitment and retention is a second key strategy supported by the Rural Health Information Hub to increase hospital and clinic access to rural community members.[27] This resource provides a comprehensive list of guidelines and strategies for rural healthcare employers engaging health providers. Barriers to recruitment and retention of health providers listed in this resource include a heavier workload due to more patients and fewer providers to distribute to; difficulty in taking time off; isolation from other professionals in the field; limited job opportunities for spouses; travel distances to attend school; and fewer options for facility or clinic employment in the area. Another significant consideration of employment is hiring younger providers to replace the nearly quarter of physicians who will retire across the country by 2030.[28] Schools training future medical personnel recognize this challenge and encourage students from rural backgrounds, who are more likely to return to those backgrounds, to return and practice there. Partnerships between rural hospitals and medical schools have culminated in mentorship programs that also help solidify health service availability in rural communities.[29] These are some considerations health facilities must make when building and expanding the presence of healthcare in rural communities. In addition to broadening healthcare access, it is also important to consider the unique health challenges rural communities face.

Rural Americans face numerous health challenges compared to their urban counterparts. They are more likely than urban Americans to die prematurely of the five leading causes of death in the United States: heart disease, stroke, chronic lower respiratory disease, cancer, and unintentional injury.[30] Despite higher vulnerability and susceptibility to poorer health outcomes,

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[27] "Rural Health Information Hub." *Recruitment and Retention for Rural Health Facilities Overview*, https://www.ruralhealthinfo.org/topics/rural-health-recruitment-retention.

[28] Skinner, Lucy, and Author AffiliationsFrom the Geisel School of Medicine (L.S.) and the Department of Economics (D.O.S.). "Implications of an Aging Rural Physician Workforce: Nejm." *New England Journal of Medicine*, https://www.nejm.org/doi/full/10.1056/NEJMp1900808.

[29] Jaret, Peter. "Attracting the next Generation of Physicians to Rural Medicine." *AAMC*, 3 Feb. 2020, https://www.aamc.org/news-insights/attracting-next-generation-physicians-rural-medicine.

[30] "Rural Health." *Centers for Disease Control and Prevention*, Centers for Disease Control and Prevention, 1 July 2019, https://www.cdc.gov/chronicdisease/resources/publications/factsheets/rural-health.htm.

resource and service availability is also more limited than urban community members. This brief review does not cover the full scope of rural health accessibility issues at the national and local level; however, sources listed in this section provide an abundance of data, guidelines, and strategies for further reading.

Access to Mental Healthcare and Resources

"Rural America suffers from the effects of long-standing rural shortages of specialty mental health services, long travel distances to obtain treatment, and stigma and cultural/societal attitudes about efforts to ensure access to the full range of mental health services."

– National Rural Health Association

The third most reported community health improvement suggestion was expanding the number of mental health care workers, facilities and resources in the community. In addition to supporting increased resources and services, respondents also indicated a need for de-stigmatization and education on mental health challenges in the community. Differentiated by the type of care, issues of accessibility of mental healthcare are mirrored in the discussion provided in the previous section about general rural healthcare accessibility. This section aims to provide trends and identify barriers specific to mental healthcare in rural communities, as well as remarking on potential directions for community health improvement.

The National Institute of Mental Health (NIMH) estimated that 52 million, or 21% of adults nationwide live with any mental illness (AMI).[31] The NIMH defines AMI as "a mental, behavioral, or emotional disorder. AMI can vary in impact, ranging from no impairment to mild, moderate, and even severe impairment." The National Survey on Drug and Substance Use (NSDSU) estimated approximately 7.7 million nonmetropolitan adults reported having AMI, representing 20.7% of all nonmetropolitan adults.[32] While metropolitan and nonmetropolitan adults suffer AMIs at a similar rate proportionate to their populations, suicidality is markedly

[31] "Mental Illness." *National Institute of Mental Health*, U.S. Department of Health and Human Services, https://www.nimh.nih.gov/health/statistics/mental-illness.

[32] "2020 NSDUH Detailed Tables." *SAMHSA.gov*, https://www.samhsa.gov/data/report/2020-nsduh-detailed-tables.

increased in nonmetropolitan areas. Between 2000-2020, the CDC reported that suicide rates in nonmetropolitan areas increased 46% compared to a 27% increase in metropolitan areas. Rural residents also have a 1.5 times higher rate of ER visits for non-fatal self harm than urban residents.[33] During the COVID-19 pandemic, 61% of rural respondents to the CDC Anxiety and Depression Household Pulse Survey stated the pandemic had worsened their mental health.[34] These factors and others not listed here are indicative of unique challenges facing mental public health in rural communities.

Accessibility to mental health resources is a nationwide issue. About 158 million Americans live in a mental health professional shortage area (MHPSA).[35] For those providing mental and behavioral health services in rural areas, 60% of providers are primary care physicians that may not be trained to handle serious mental health illness.[36] The National Rural Health Association lists the following four challenges for the advancement of mental health services in rural communities: accessibility, affordability, availability, and acceptability.[37] Long distances to travel, lack of transportation access, less insurance coverage, unaffordability of out-of-pocket expenses even if insurance coverage exists, and stigmatization surrounding mental health and its services are key barriers to strengthening rural mental healthcare access.

The Rural Health Information Hub provides a plethora of resources and data for rural healthcare facilities to address significant gaps in mental healthcare access.[38] The following data come from

[33] "Suicide in Rural America." *Centers for Disease Control and Prevention*, Centers for Disease Control and Prevention, 17 Nov. 2022, https://www.cdc.gov/ruralhealth/Suicide.html.

[34] "Mental Health - Household Pulse Survey - Covid-19." *Centers for Disease Control and Prevention*, Centers for Disease Control and Prevention, 29 Nov. 2022, https://www.cdc.gov/nchs/covid19/pulse/mental-health.htm.

[35] "Health Workforce Shortage Areas." *Shortage Areas*, https://data.hrsa.gov/topics/health-workforce/shortage-areas.

[36] JS;, Wodarski. "The Integrated Behavioral Health Service Delivery System Model." *Social Work in Public Health*, U.S. National Library of Medicine, https://pubmed.ncbi.nlm.nih.gov/24871769/.

[37] "NRHA." *NRHA, National Rural Health Association*, https://www.ruralhealth.us/blogs/ruralhealthvoices/april-2020/rural-mental-health-challenges-and-hope-for-the-fu.

[38] "Rural Health Information Hub." *Rural Mental Health Overview*, https://www.ruralhealthinfo.org/topics/mental-health.

this resource. The most significant challenge posed to access is the lack of mental health professionals providing service in these areas. Out of 6,599 MHPSAs nationwide, rural areas (including Putnam county) make up 3,426 of them. The hub recommends rural healthcare facilities expand accessibility to telehealth services, provide clinical rotations to expose future professionals to a rural healthcare setting, and offer loan repayment and state tax waivers to recent behavioral professional graduates as suggestions for filling the gap in workforce shortages. Integrating mental health services into primary care is a recommendation that enhances coordination of other health resources and providers, reduces stigma in pursuing care, and improves quality and delivery of patient care.

The Rural Health Information Hub also distinguishes between two types of mental health stigmas: self-stigma and public-stigma. Self-stigma is fear or embarrassment related to seeking out mental healthcare due to internal beliefs, and public stigma is negative judgment related to an individual's mental health condition from community members, family, providers, and friends.[39] Understanding how this stigma affects accessibility of currently available mental health resources is integral to a successful implementation of a mental health program or initiative. The hub suggests forming partnerships with community organizations and healthcare providers to launch mental health community campaigns that resonate with community members. Additionally, the integration of mental and behavioral care into primary care settings could increase feelings of anonymity, comfort and accessibility for the patient seeking care. The normalization of seeking mental healthcare is a key facet of addressing mental health issues. Although the county is designated an MPHSA, our community must work together to make the currently available resources and care utilizable by community members who live with mental health challenges in addition to expanding care resources.

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[39] "Stigma – Rhihub Mental Health Toolkit." *Stigma – RHIhub Mental Health Toolkit*, https://www.ruralhealthinfo.org/toolkits/mental-health/4/stigma#:~:text=Highlighting%20the%20importance%20of%20mental,to%20create%20integrated%20health%20systems.

Access to Healthy Food

"Many rural and farm communities — the very places where crops are grown to feed the world — face hunger. It seems impossible, but in lands of plenty, hunger and nutrition pains can be the sharpest."

– Feeding America

The fourth most reported community health improvement suggestion was increasing the availability of healthy dietary choices for Putnam county residents. Respondents specifically cited the need for more healthy options in regards to grocery stores, restaurants, and school provided meals. This section will detail general national health trends in food insecurity and food deserts in rural communities and information on which this security may be strengthened.

Food and nutrition insecurity are defined by the CDC as, "a term to describe when someone is unable to access or afford enough food or enough nutritious food for their overall health and well-being." The CDC defines food deserts as "areas that lack access to affordable fruits, vegetables, whole grains, low-fat milk, and other foods that make up the full range of a healthy diet."[40] The USDA sets the parameters for a rural food desert as a low income tract of at least 500 individuals or 100 households living more than 10 miles away from the nearest large grocery store by foot and 20 miles by car.[41] The distinction between these terms is necessary for understanding the difference between a household's access to food and a community's access to healthy food. According to a USDA Economic Research Service (ERS) publication, living in a food insecure area is strongly associated with chronic disease development, such as cancer, heart disease and type II diabetes.[42] Another USDA ERS report found that in 2021, 34 million

[40] "Food and Nutrition Insecurity and Diabetes." *Centers for Disease Control and Prevention*, Centers for Disease Control and Prevention, 1 Aug. 2022, https://www.cdc.gov/diabetes/library/features/diabetes-and-food-insecurity.htm.

[41] *Documentation*. USDA ERS - Documentation. (n.d.). Retrieved from https://www.ers.usda.gov/data-products/food-access-research-atlas/documentation/#:~:text=Definition%3A%20A%20tract%20in%20which,supermarket%2C%20regardless%20of%20vehicle%20availability.

[42] Christian A. Gregory and Alisha Coleman-Jensen. "Food Insecurity, Chronic Disease, and Health among Working-Age Adults." *USDA ERS*, July 2017, https://www.ers.usda.gov/publications/pub-details/?pubid=84466.

Americans were food insecure with 17.7% of these households being in rural communities.[43] 23.5 million Americans live in food deserts with the highest concentrations occurring in rural communities. Feeding America's *Map the Meal* report also found that 9 out of the 10 highest food insecure counties were rural, representing 87% of counties facing food insecurity despite making up only 63% of total counties in the country. Native Americans experience the highest rates of food insecurity of any racial or ethnic group in rural communities. Black people are also 2.5 times more likely than white, non-Hispanic people to face hunger in rural communities.[44] Food insecurity has unique challenges for those living in rural communities that have an unequal impact on different demographics.

The top barrier to food security is living with a low income or being unemployed. Other barriers identified by Feeding America include unstable housing, inaccessibility to healthcare, and systemic racism. Unstable housing and inaccessibility to healthcare are barriers specific to financial ability; one must choose between paying the bills on either need or a meal. One way in which systemic racism plays a role in food insecurity is the impact of redlining that has left communities of color without infrastructural investment in grocery markets, restaurants, or the transportation means to get to either of those food sources.[45,46] Redlining is defined by Cornell Law as "a discriminatory practice that consists of the systematic denial of services such as mortgages, insurance loans, and other financial services to residents of certain areas, based on their race or ethnicity." [47] This practice extends beyond food insecurity by affecting access to

[43] Alisha Coleman-Jensen, M. P. R. (n.d.). *Household food security in the United States in 2021*. USDA ERS. Retrieved from https://www.ers.usda.gov/publications/pub-details/?pubid=104655

[44] *Rural hunger facts*. Feeding America. (n.d.). from https://www.feedingamerica.org/hunger-in-america/rural-hunger-facts

[45] Zhang, M., & Ghosh, D. (2015, March 26). *Spatial supermarket redlining and neighborhood ... - Wiley Online Library*. Spatial Supermarket Redlining and Neighborhood Vulnerability: A Case Study of Hartford, Connecticut. Retrieved from https://onlinelibrary.wiley.com/doi/abs/10.1111/tgis.12142

[46] Shaker, Y., Grineski, S. E., Collins, T. W., & Flores, A. B. (2022, July 22). *Redlining, racism and food access in US urban cores - agriculture and human values*. SpringerLink. Retrieved from https://link.springer.com/article/10.1007/s10460-022-10340-3

[47] Legal Information Institute. (2022, April). *Redlining*. Legal Information Institute. Retrieved from https://www.law.cornell.edu/wex/redlining

clinics, construction, retail, and other essential services nationwide. In constructing policy, this and other equity challenges are integral to combating food insecurity throughout the community. Characteristics of community food security for policymakers to focus on were identified by several studies examining its barriers: accessibility, availability, utilization, and stability. [48,49] Accessibility refers to the individual's ability to procure healthy food given factors such as the distance from a market or restaurant and income. Availability describes the presence of these restaurants and grocery stores in the community and the amount of healthy dietary choices offered. Utilization details the kind of food an individual purchases, prepares and distributes in the household. Stability describes the capacity of an individual to maintain consistent access to food, which can be affected by restaurant and market closures, change in employment status, price inflation, or other events affecting access. These four pillars provide a broader framework for policymakers examining and addressing food insecurity in the community.

Other survey questions were designed to gather more information on this health concern. Poor dietary intake is strongly associated with the development of type II diabetes, cancer, and cardiovascular disease. The second top community health concern identified in the community health needs survey were these same chronic conditions. Additionally, 78% of respondents reported a self perception of their eating habits as "somewhat healthy" or "neither healthy or unhealthy" with a combined reported fast food consumption tendency of 48% for eating fast food "once a week" to "a few times a week." Interestingly, only 18.5% of respondents indicated that Putnam County provides an insufficient selection of grocery stores and restaurants to provide a healthy diet. These survey results may point to food utilization, social and commercial pressures,

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[48] Sawyer, A. D. M., van Lenthe, F., Kamphuis, C. B. M., Terragni, L., Roos, G., Poelman, M. P., Nicolaou, M., Waterlander, W., Djojosoeparto, S. K., Scheidmeir, M., Neumann-Podczaska, A., & Stronks, K. (2021, July 13). *Dynamics of the complex food environment underlying dietary intake in low-income groups: A systems map of associations extracted from a systematic umbrella literature review - International Journal of Behavioral Nutrition and physical activity*. BioMed Central. Retrieved from https://ijbnpa.biomedcentral.com/articles/10.1186/s12966-021-01164-1

[49] Guiné, R. de P. F., Pato, M. L. de J., Costa, C. A. da, Costa, D. de V. T. A. da, Silva, P. B. C. da, & Martinho, V. J. P. D. (2021, November 8). *Food security and sustainability: Discussing the four pillars to encompass other dimensions*. MDPI. Retrieved from https://www.mdpi.com/2304-8158/10/11/2732/htm

and/or education on healthiness in relation to food consumption as particular issues for food insecurity in the community.

The Community Food Assessment Toolkit was developed by the USDA ERS to assist local stakeholder organizations and public officials in promoting food security in their communities.[50] This toolkit breaks down community food security into six factors of focus for policymakers: community socioeconomic and demographics characteristics, community food resources, household food security, access to food, availability and affordability of food, and community food production resources. For more information on community interventions for food insecurity, see the *Rural Hunger and Access to Healthy Food* webpage in the Rural Health Information Hub.

Access to Obstetric and Women's Healthcare

"With hospital closures, inflation and COVID-19 limiting access to care, the compounding issues of our time are bearing down on families, forcing them to extend themselves in new ways to find the care they need and ways to afford it."

– March of Dimes

The fifth most endorsed community health improvement suggestion in the survey was an increase in access to obstetric care in the community. Specifically, an addition of a birthing center in the community was recommended by respondents. In 2010, the Putnam County Hospital birthing center closed due to a lack of hospital funding available for the center. This has led to a gap in crucial service delivery in Putnam County, which is a prevalent issue in other rural communities as well. This section outlines barriers rural communities face in obstetric care access and resources for more information.

[50] Barbara Cohen, Margaret Andrews. "Community Food Security Assessment Toolkit." *USDA ERS*, July 2002, https://www.ers.usda.gov/publications/pub-details/?pubid=43179.

More than half of all rural areas lack access to hospital obstetric services and about half of rural women live about a 30 minutes drive from the nearest hospital offering perinatal services.[51] [52] Proportionately fewer rural women receive a cervical cancer screening and a mammogram than their urban counterparts.[48] In the community health needs survey, only 54% of applicable respondents reported having a pap smear and 82% of applicable respondents reported having a mammogram performed in the last 2 years. This reflects in the kinds of medical interventions providers engage in for patients with breast cancer. Additionally, rural women were 30% more likely to receive invasive surgery for breast cancer and 17% less likely to receive radiotherapy as a first line treatment than urban women.[48] In this same report, African American patients were 57% less likely to have surgery than white patients. The expansion of these screening services and its equitable distribution are key to reducing overall maternal health disparities found in rural communities.

In some rural areas, family physicians provide all of the obstetric services in an area with routine deliveries declining among these providers each year.[48] Even with family physicians bearing most of the responsibility in rural communities, only 30.2% of the nation's rural counties have consistent access to obstetric services.[53] Rural hospital closures have been a significant reason behind this dramatic gap in providing this service, with many of these closures occurring since the pandemic began. Since 2005, 170 rural hospital closures have taken place with over 600 in danger of closing altogether.[54] In order to stay afloat financially, remaining hospitals have been

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[51] Hung, P., Henning-Smith, C. E., Casey, M. M., & Kozhimannil, K. B. (2017, September). *Access to obstetric services in rural counties still ... - health affairs*. HealthAffairs. Retrieved from https://www.healthaffairs.org/doi/10.1377/hlthaff.2017.0338

[52] Committee on Health Care for Underserved Women. (2014, February). *Health disparities in rural women*. ACOG. Retrieved from https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2014/02/health-disparities-in-rural-women

[53] Bathija P. Improving access to maternal care in rural communities: AHA News. American Hospital Association | AHA News. https://www.aha.org/news/blog/2020-11-17-improving-access-maternal-care-rural-communities. Published November 17, 2020.

[54] Cullen J. A worsening crisis: Obstetric Care in rural america. Primary Care Review. https://info.primarycare.hms.harvard.edu/review/obstetric-care-rural-america. Published March 25, 2021.

forced to close their maternity units, like Putnam County Hospital. These financial constraints were exacerbated once the pandemic began.

Rural hospital closures have eliminated the availability of many essential services in rural areas, including birthing centers. Low patient volume and high reliance on government funding have been long standing challenges for rural hospitals to stay financed.[55] The American Hospital Association (AHA) published a 2019 Rural Report stating that rural hospitals also face critical issues in remaining open, such as expensive pharmaceutical drug prices, shifts to in-patient to out-patient care, and regulatory burdens.[56] Increasing state and federal funding to rural hospitals, offering broad scope training for family physicians, and fostering telemedicine technologies to expand service availability are some of the recommendations made in the AHA Rural Report and by the Center for Medicare & Medicaid Services.[52] [57] For more information on barriers and strategies for expanding rural maternity care and birthing centers, please visit the Rural Maternal Health Toolkit provided by the Rural Health Information Hub.[58]

Conclusion

The community health needs survey identified several community health improvement suggestions and health trends that can be grouped into the five major needs provided above. Those needs advocate for increasing access to the following: recreational outlets, general healthcare, mental healthcare, healthy food, and obstetric services. Each need was examined in relation to survey findings, academic publications, and public health resources that specialize in rural community health. For recreational outlets, the YMCA community center was

[55] Rural Hospital closures hit record high in 2019 - here's why. Becker's Hospital Review. https://www.beckershospitalreview.com/finance/rural-hospital-closures-hit-record-high-in-2019-here-s-why.html. Published February 7, 2020.

[56] Rural report 2019: AHA. American Hospital Association. https://www.aha.org/guidesreports/2019-02-04-rural-report-2019.

[57] Rural Health. CMS. https://www.cms.gov/about-cms/agency-information/omh/health-equity-programs/rural-health.

[58] Rural Maternal Health Toolkit - RHIhub. https://www.ruralhealthinfo.org/toolkits/maternal-health.

overwhelmingly supported as a specific suggestion that would meet this need. Affordability and accessibility to a wide range of services was the second most supported improvement suggestion. Combating stigma of and increasing the accessibility of mental healthcare broadly was the third most endorsed improvement suggestion. The fourth most supported improvement suggestion was increasing the available restaurants and markets that offer healthy food alternatives to fast food. Finally, the fifth most recommended improvement was adding a birth center in Putnam County. While not every suggestion was accounted for in the survey, trends were deduced from responses to provide a general overview of the needs identified for the assessment to have focus on health needs.

COMMUNITY STAKEHOLDER INTERVIEWS REPORT

Executive Summary

As part of the collection of primary data for the community health needs assessment, Putnam County Hospital held multiple stakeholder interviews over the four month period of the assessment. The goals of the interviews were to identify and discuss community health issues with stakeholders who represented different sectors of the community. Identifying these issues allowed themes to emerge, the top five of which will be detailed in this section of the assessment. Key findings from the interviews were (1.) a need for more accessibility and affordability of health services, (2.) overcoming mental health stigma and expanding mental health resources, (3.) more representation and bias training in health service personnel, (4.) increased access to transport to health services, and (5.) stronger communication of health resources to patients from providers.

Discussion Purpose

Stakeholder discussions were designed to elucidate health issues that may not be apparent in quantitative data presented earlier in this assessment from national county health databases and the community health needs survey. These interviews are designed to be open-ended and allow for participants to thoroughly explore health topics beyond answering the question being asked by the facilitator. Soliciting direct input from community stakeholders also allows for increased visibility of the assessment and a strengthened partnership between the hospital and community members that supports dissemination and potential solutions for the assessment.

Methodology

Stakeholder interviews were scheduled and facilitated by the same interviewer for each meeting. The question set found in Appendix B was adapted from the National Center for Rural Health Works.[59] Stakeholders were recruited from a convenience sample available from Putnam County Hospital and DePauw University. The facilitator recorded notes during each discussion in a Word

[59] "Meeting #1." *National Center for Rural Health Works*, ruralhealthworks.org/tools-templates/community-health-needs-assessment/meeting-1/.

document, which was reviewed following interviews to summarize trends. These health trends were ranked based on the number of stakeholder interviews where the health concern was raised.

Procedure

Seven, hour-long stakeholder interviews that included leadership or members of organizations from different sectors of the community were conducted over the four month period by the facilitator. Interviews consisted of as many as fifteen participants and as few as one. The facilitator also acted as the notetaker for the discussion, asking a question until all participants were given a chance to provide input. Locations for the discussions were at either an available Putnam County Hospital office or DePauw University office or public space.

Stakeholder interviews were directed to all community members who attended the initial August kick-off meeting outlining the purpose and structure of the assessment. Other stakeholders were sought through community connections to Putnam County Hospital and DePauw University. Stakeholders were organized into representatives of sectors in the community that included the following: education, first responders, substance and drug abuse support, mental health support, elderly care, business, medicine, recreation, and nonprofit organizations. Appendix C provides a list of all stakeholder organizations who were invited to participate in a stakeholder interview.

Following the final stakeholder interview, the notes recorded over the seven interviews were analyzed and general themes around community health needs were identified and ranked based on how often the topic was raised. Quotes from the interviews are provided in spaces under each thematic trend. A summary of each key finding is provided along with specific examples of the theme cited from the interview notes. Where academic citations were not provided for the health theme earlier in the assessment, such as transportation and representation in healthcare, a brief literature review was written to provide national context to the theme.

KEY FINDINGS

Financial Constraints to Healthcare Accessibility

"Care is more often acute than preventative. We need to emphasize health before it becomes an emergency."

Every stakeholder interview included some discussion of socioeconomic status and its effects on healthcare accessibility. Stakeholders cited the need for more healthcare providers in general, specialty care, dentists, and the need for more affordable care. As a whole, participants felt that currently available services were out of reach of community members due to financial barriers.

"The health insurance marketplace is a nightmare. If you make an inquiry, you are overwhelmed with marketing people driven by profit rather than providing care."

Conversation about a patients' access to transport for appointments or emergencies, affordable housing availability, and insurance coverage for seeing a provider and receiving treatments were central to stakeholder discussions on community health needs. Navigating insurance, both for health providers and patients, was a pressing concern for stakeholders. When healthcare is available, the provider may not accept coverage of services from patients with insurance companies that do not have agreements with the hospital or individual provider. This complication, in addition to unaffordable health care costs regardless of insured status, was a concern across each stakeholder discussion.

Mental Health Stigma and Mental Health Care Availability

"Mental health is that silent problem in the background that is very difficult to address, on all levels."

Six of the seven stakeholder interviews included mention of poor access and weak utilization of mental health resources in the county. Community members self medicating through the use of drugs was also a concern highlighted by several stakeholders in relation to mental health. Mental health was the top community health issue identified in the community health needs survey and

expansion of mental health resources was the top factor chosen to improve community health overall. It was also the third top community health improvement suggestion in the free response prompt.

"Raising awareness, providing education, and overcoming stigmas are all part of making mental health resources utilizable, even if they are available in abundance."

Stakeholders specifically mentioned a need for education and awareness of mental health challenges. While the expansion of resources was a welcome improvement suggestion, stakeholders in community mental health work advocated strongly for strategies to mitigate stigma surrounding mental health itself. Specific recommendations for synergistic connections, like that of different age groups in a mentoring program, were suggested as a means for addressing some mental health challenges. Others included arranging workshops for educating community members on how to prevent and deal with mental health crises. Several suggestions on partnership formations with other community partners, like schools, law enforcement and mental health organizations were provided in discussions.

"Indiana has less than 20 long-term state hospital beds for adolescent females. They are like rearranging deck chairs on a sinking ship."

The availability of mental health resources and care at a state level is severely limited according to stakeholders working in this sector of the community. Stakeholders advocated for more mental health professionals, clinics and community resources in Putnam county. Specific concerns were long appointment wait times for clinics, little to no access to mental health professionals in the county, and high costs associated with seeing a provider and/or receiving treatment.

Representation, Bias Training and Cultural Humility in Healthcare

Discussion on bias and cultural sensitivity in healthcare were primary discussion points in several interviews. Having a diverse workforce, implementing ongoing bias awareness training, and ensuring education on cultural humility are some solutions to social health barriers. Citations of poor treatment or unpleasant experiences with providers or medical personnel on the basis of

identity were made by some stakeholders. This can decrease the likelihood a patient will return to or consider pursuing care and contributes to a poor perception of local providers. In healthcare, diversity refers to inclusion of healthcare professionals, medical students, educators, researchers, and patients of varied race, ethnicity, age, disability, socioeconomic status, sexual orientation, gender identity, spoken language, and geographic region.[60] Bias can be either implicit or explicit, with explicit bias referring to overtly racist, homophobic, or sexist practices. Implicit bias influences judgment and can tacitly lead to discriminatory behavior, despite the best intentions. Stakeholders emphasized the need for providers to understand how bias influences their ability to treat and receive marginalized patients under their care.

"There is a stigma issue surrounding LGBTQ+ identifying individuals that act as barriers to healthcare. The relationship that they have with providers is indicative of whether they are able to pursue care. From the jump, their access to resources is struck down if that relationship is negative."

Within several stakeholder interviews, discussion on LGBTQ+ patient experiences in healthcare in the community identified stigma in healthcare as a primary barrier to treatment. LGBTQ+ patients are more likely to experience stigma in the medical environment than their non-LGBTQ+ counterparts. As a result, they are less likely to seek care or disclose their sexual identity to providers that may lead to withholding of crucial health information.[61,62] This is significant due to this demographic group experiencing elevated negative health outcomes measured by substance misuse, homelessness, depression, suicidal ideation, co-curricular disengagement, obesity, and other health issues as compared to non-LGBTQ+ patients.[63] Health

[60] Togioka BM, Duvivier D, Young E. Diversity and discrimination in healthcare - NCBI bookshelf. National Library of Medicine. https://www.ncbi.nlm.nih.gov/books/NBK568721/. Published August 22, 2022.

[61] Hadland, S. E., Yehia, B. R., & Makadon, H. J. (2016, December). *Caring for lesbian, gay, bisexual, transgender, and questioning youth in inclusive and affirmative environments*. Pediatric clinics of North America. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5119916/

[62] Hatzenbuehler, M. L. (2009, September). *How does sexual minority stigma "get under the skin"? A psychological mediation framework*. Psychological bulletin. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2789474/

[63] McDonough, M. (2021, September 21). *The Jed Foundation Launches Proud and thriving project to support the emotional well-being and mental health of LGBTQ+ youth*. The Jed Foundation. Retrieved from

of LGBTQ+ community members, especially youth, are impacted by increased incidence of bullying, family rejection of their sexual identity, body image and identity expression concerns compared to non-LGBTQ+ community members.[64,65] These issues are especially compounded in transgender patients, who must also contend with barriers to gender affirming care and sociolegal stressors that increase experiences of fear and vulnerability to violence.[66] This does not illustrate the whole picture of LGBTQ+ patients' experiences in healthcare and increased vulnerability to health issues that is necessary to addressing this theme. Stakeholders suggested implementing bias awareness training of LGBTQ+ and gender expansive patients to decrease stigmatization from providers. Additionally, expanding access to health resources, such as PrEP and contraceptives, and education, such as information on gender identity and expression, were suggested by stakeholders.

"Nationally, the data bears out that people of color fare disproportionately worse than white people across measures of health and experience with health professionals. Putnam county doesn't have a 'diversity shield' protecting itself from medical apartheid. We need to ensure advocacy around solutions to these issues at home, too."

There is a critical need to increase awareness around implicit bias that leads to poorer health outcomes for patients of color. A 2016 study found that a false belief about biological differences between White and Black people persists in medical students. This inaccurate view has negatively influenced the way students perceive pain perception and led to poor treatment of

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https://jedfoundation.org/news-views/the-jed-foundation-launches-proud-and-thriving-project-to-support-the-emotional-well-being-and-mental-health-of-lgbtq-youth/

[64] Earnshaw, V. A., Bogart, L. M., Poteat, V. P., Reisner, S. L., & Schuster, M. A. (2016, December). *Bullying among lesbian, gay, bisexual, and transgender youth*. Pediatric clinics of North America. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8941671/

[65] Katz-Wise, S. L., Rosario, M., & Tsappis, M. (2016, December). *Lesbian, gay, bisexual, and Transgender Youth and family acceptance*. Pediatric clinics of North America. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5127283/

[66] Lauren S. H. Chong, M. D. (2021, November 1). *Experiences and perspectives of transgender youths in accessing health care*. JAMA Pediatrics. Retrieved from https://jamanetwork.com/journals/jamapediatrics/article-abstract/2782148

Black patients.[67] According to the 2022 National Healthcare Quality and Disparities Report, when disparities exist, racial and ethnic minority communities exhibit worse outcomes than White communities on a larger number of measures than better outcomes. For example, American Indian and Alaska Native communities have worse quality of care than White communities on 43% of measures and better outcomes on only 12% of measures.[68] As highlighted earlier, stakeholders once again suggest bias awareness training and education on race and ethnicity in relation to health outcomes and stigma experienced in healthcare.

Transportation to Health Services

"We've had to push [residents] across the street and sidewalks on wheelchairs because the bus was out somewhere else."

A lack of accessible and affordable transportation was cited as a barrier to health by multiple stakeholders. This was also a top barrier identified in the community health needs survey, demonstrating a need for improved public transportation at a local level to health providers. Transportation is a requirement for carrying out essential activities for community members outside of arriving at healthcare providers, such as employment, school, shopping, and community events.

"Sometimes my neighbor calls an ambulance just to get to an appointment."

Specific concerns were provided by several different stakeholders. For retirement communities, the obligations they have to their residents to transport them to providers is strained when transit buses are not available. DePauw University students who lack a personal vehicle are not able to pursue care outside of the limited services offered by the wellness clinic on campus. Other

[67] Hoffman KM, Trawalter S, Axt JR, Oliver MN. Racial bias in pain assessment and treatment recommendations, and false beliefs about biological differences between blacks and whites. Proceedings of the National Academy of Sciences of the United States of America. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4843483/. Published April 19, 2016.

[68] National Healthcare Quality & Disparities Reports. AHRQ. https://www.ahrq.gov/research/findings/nhqrdr/index.html.

stakeholders also voiced concern about those in the community who do not have access to personal vehicles either for themselves or from someone they know and supported a form of public transportation.

In 2017, a study found that 5.8 million people had medical care delayed because they lacked transportation to a provider.[69] Each year, the American Hospital Association estimates 3.6 million Americans do not receive medical care at all due to transportation access issues.[70] Community members lacking transportation access are disproportionately female, poorer, possess a disability, are members of a minority group, less educated, veterans, and of older age.[71] The American Rural Transportation Association reports that 9% of all rural transit riders are arriving at medical provider destinations.[72] Barriers to transportation can lead to missed appointments, delayed care, and missed treatments that result in worsened health outcomes in patients.[73] Hospitals can engage in several strategies to minimize the impact transportation has on delayed or missed care. Expanding telemedicine access, investing in mobile health clinics, and partnering with transit companies or purchasing hospital transit vehicles are suggestions provided by the Rural Health Information Hub.[74]

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[69] Wolfe MK, McDonald NC, Holmes GM. Transportation barriers to health care in the United States: Findings from the National Health Interview Survey, 1997–2017. American Journal of Public Health. https://ajph.aphapublications.org/doi/10.2105/AJPH.2020.305579. Published May 6, 2020.

[70] Social Determinants of Health Series: Transportation and the role of Hospitals: AHA. American Hospital Association. https://www.aha.org/ahahret-guides/2017-11-15-social-determinants-health-series-transportation-and-role-hospitals. Published November 15, 2017.

[71] Wallace R, Hughes-Cromwick P, Khasnabis S, Mull H. Access to health care and nonemergency medical ... - sage journals. https://journals.sagepub.com/doi/abs/10.1177/0361198105192400110. Published January 2005.

[72] Rural communities: Expanding horizons - american public transportation ... https://www.apta.com/wp-content/uploads/Resources/resources/reportsandpublications/Documents/Rural-Communities-APTA-White-Paper.pdf.

[73] Syed ST, Gerber BS, Sharp LK. Traveling towards disease: Transportation Barriers to Health Care Access. Journal of community health. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4265215/. Published October 2013.

[74] Rural Transportation Toolkit – Rural Health Information Hub. Rural Transportation Toolkit –. https://www.ruralhealthinfo.org/toolkits/transportation.

Communication of Health Resource Availability

"My job isn't to be the busiest person in the clinic, but rather, help physicians become effective at their job, which includes providing resources and knowledge to primary care physicians so they can transfer that to their patients."

Discussion participants highlighted the need for broader health education and awareness of community resources. A particular concern that stakeholders noted from the education and medical sectors of the community was a lack of accessibility and knowledge of health resources. Stakeholders in the medical field emphasized informing providers about community resources, like financial assistance, health screenings, mental health resources, and nutrition education, so that they may relay that information to patients. In some cases, resources are only available by primary care physician referrals, such as access to a psychologist. Effective dissemination of community resources through multiple channels in the community is critical for its utilization by community members.

"Coordinating entities for addressing health concerns is something we've noted in the past as a significant barrier to implementing solutions."

An all-encompassing concern raised for initiating any community health intervention by some stakeholders was the coordination and cooperation of relevant health entities. Partners in education and partners in healthcare need consistent communication in order to effectively address a health concern, such as reducing the prevalence of vaping in schools. Strategies for forming partnerships and maintaining open lines of communication are key to ensuring the success of any community health improvement plan. Cohesion, consistent communication and coordination through meetings and committees were endorsed by stakeholders.

Limitations

Stakeholder interviews were not conducted with all of the available stakeholder contacts from the convenience sample. Complications in scheduling, low response counts to email invitations, and lack of contact information on certain stakeholders led to limitations on who in the community was represented in the report.

Limitations and Gaps of Information in Primary Data

The objective of this document is to provide a comprehensive assessment of community health needs in Putnam county. Limitations to the extent of knowledge that could be provided in this assessment are listed below.

Online Community Survey Limitations

A forty-eight question Google form survey was developed to solicit demographic, health behavior, health engagement, health perception, and community health information and input. The results of this survey were used to identify health trends in the community that apply to the community at large. However, the respondents were collected from a convenience sample, leveraging community connections of Putnam County Hospital and DePauw University. The sample size and demographic was not representative of the population highlighted in the *quantitative data* section. The sample population was disproportionately reported being female, white, a higher household income level, and a higher education level than county demographic data. Not every individual could access the survey due to smartphone incompatibility, unavailability, or difficulty using a camera to scan the QR code.

Stakeholder Interview Limitations

A list of seven questions was developed to generate discussion about community health needs from the perspective of key community partners. Every effort was made to include representation from as many sectors of the community as possible. However, challenges with scheduling, available contact information, and low response rates impacted representation of community partners in the report.

APPENDIX A: Community Health Needs Assessment Survey

The 2022 Community Health Needs Assessment Survey is both anonymous and voluntary. This survey is conducted by both the Putnam County Hospital and Putnam County Health Department and serves as an evaluation of the health needs of our community every three years. This survey may lead to the improvement of community health in Putnam County.

What age range do you fall under?

A. Under 20
B. 20-30
C. 31-40
D. 41-50
E. 51-60
F. 61-70
G. 71 or older

What gender do you identify with?

A. Male
B. Female
C. I prefer not to say
D. Other:

What is your race?

A. White/Caucasian
B. Black/African American
C. Hispanic/Latino
D. Asian (Indian, Japanese, Chinese, Korean, Vietnamese, Filipino)
E. Pacific Islander (Native Hawaiian, Samoan, Guamanian/Chamorro)
F. Other:

What is your highest level of education?

A. Less than high school
B. Some high school
C. High school degree (or GED/equivalent)
D. Some college (no degree)
E. Associate's degree
F. Bachelor's degree
G. Graduate or professional degree
H. Other:

What was your total household income last year, before taxes?

A. Less than $20,000
B. $20,001 - $40,000
C. $40,001 - $60,000
D. $60,001 - $80,000
E. $80,001 - $100,000
F. Over $100,000
G. I am a dependent

Marital Status?

A. Married / Cohabiting
B. Not Married / Single
C. Divorced / Widowed

Do you rent or own the household where you live?

A. Rent
B. Own
C. Other:

How many people live in your household?

your answer:_____

What is your job status?

A. Full-time
B. Part-time
C. Unemployed
D. Homemaker
E. Retired
F. Armed Forces
G. Student

What would you say your general health is?

A. Excellent
B. Very Good
C. Good
D. Fair
E. Poor

What would you say your mental health is?

A. Excellent
B. Very Good
C. Good
D. Fair
E. Poor

How long has it been since you visited a doctor for a routine check-up?

A. Within the last year
B. 2 years ago
C. 3 years ago
D. 4 years ago
E. 5 or more years ago

Have you seen a primary physician in the last 12 months?

A. Yes
B. No
C. I do not have a primary physician
D. Other:

What is the primary source of your healthcare coverage?

A. A plan purchased through an employer or union (including plans purchased through another person's employer)
B. A plan that you or another family member buys on your own or Medicare
C. Medicaid or other state program
D. TRICARE (formerly CHAMPUS), VA, or Military
E. None (no coverage)
F. Other:

How often do you exercise or get physical activity (30 minutes or more of activity)?

A. Everyday
B. A few times a week
C. Once a week
D. A few times a month
E. Once a month
F. Less than once a month

What would you consider your eating habits?

A. Very healthy
B. Somewhat healthy
C. Neither healthy or unhealthy
D. Somewhat unhealthy
E. Very unhealthy

Do you believe that Putnam County restaurant and grocery stores offer selections sufficient enough for a healthy diet?

Select:

Insufficient 1 2 3 4 5 Sufficient

How often do you eat fast food?

A. Everyday
B. A few times a week
C. Once a week
D. A few times a month
E. Once a month
F. Less than once a month

How often do you smoke cigarettes?

A. Everyday
B. A few times a week
C. Once a week
D. A few times a month
E. Once a month
F. Less than once a month
G. Never

How often do you vape?

A. Everyday
B. A few times a week
C. Once a week
D. A few times a month
E. Once a month
F. Less than once a month
G. Never

Have you taken action in the last 12 months to quit smoking?

A. Yes
B. No
C. N/A

Do you use other tobacco products (chewing tobacco)?

A. Yes
B. No

How often do you use chewing tobacco?

A. Everyday
B. A few times a week
C. Once a week
D. A few times a month
E. Once a month
F. Less than once a month
G. Never

How often do you drink alcoholic beverages?

A. Everyday
B. A few times a week
C. Once a week
D. A few times a month
E. Once a month
F. Less than once a month
G. Never

In the past 30 days have you had 5 or more drinks in one sitting?

A. Yes
B. No

Have you used drugs other than those required for medical reasons?

A. Yes
B. No

Have you gone to anyone for help for a drug problem?

A. Yes
B. No

If you are a female 45 years and older have you had a mammogram in the last 2 years?

A. Yes
B. No
C. N/A

If you are a female have you had a pap smear in the last 3 years?

A. Yes
B. No
C. N/A

If you are 50 years or older have you had a Colonoscopy/ Sigmoidoscopy?

A. Yes
B. No
C. N/A

Has a doctor ever told you that you have high blood pressure?

A. Yes
B. No

Has a doctor ever told you that you have high cholesterol?

A. Yes
B. No

Has a doctor ever told you that you are overweight?

A. Yes
B. No

Please identify the three most important health issues in our community (select three options below)

A. Aging issues, such as Alzheimer's disease, hearing loss, memory loss or arthritis
B. Cancer
C. Chronic Pain
D. Dental health (including tooth pain)
E. Diabetes
F. Early sexual activity
G. Heart disease/heart attack
H. HIV/AIDS
I. Infectious/contagious disease, such as flu, pneumonia, food poisoning
J. Injuries
K. Lung disease (asthma, COPD)
L. Mental health issues such as depression, hopelessness, anger, etc.
M. Obesity/overweight
N. Sexually transmitted infections
O. Stroke
P. Other:

What do you think needs to be improved upon in the community to improve the overall health of Putnam County? (Select three options below)

A. Recreation Centers
B. Clinics / Increased access to hospitals
C. Healthy grocery store and restaurant options
D. Access to affordable housing
E. Drug intervention programs
F. Transportation options
G. Educational programs
H. Early childhood resources
I. Reproductive healthcare resources
J. Mental health resources
K. Elderly care resources
L. Other:

Would access to telemedicine increase the chance that you would seek medical care?

A. Yes
B. No

Please identify the three (3) most important factors that negatively impact your well-being in our community (select three options below)

A. Angry behavior/violence
B. Alcohol abuse
C. Child abuse
D. Domestic violence
E. Drug abuse
F. Elder abuse (physical, emotional, financial, sexual)
G. Lack of exercise
H. Not able to get a routine checkup
I. Poor eating habits
J. Reckless driving
K. Risky sexual behavior
L. Smoking
M. Other:

When you get sick, where do you go?

A. Clinic/doctor's office
B. Urgent care
C. Emergency Department (ER)
D. Health Department
E. I don't seek medical attention.
F. Other:

In the last year, was there a time when you needed medical care but were not able to get it?

A. Yes
B. No

If you answered "yes" to the previous question, why weren't you able to get medical care? Choose all that apply.

A. I didn't have insurance
B. I couldn't afford to pay my copay or deductible
C. I didn't have any way to get to a counselor
D. The counselor refused to take my insurance or Medicaid
E. I didn't know how to find a counselor
F. Too long to wait for an appointment
G. Fear
H. Embarrassment
I. Does not apply to me

Where do you get most of your medical information?

A. Doctor/physician
B. Friends/family
C. Internet
D. Pharmacy
E. Medical professional I am familiar with
F. Other:

What type of transportation do you use to seek medical services?

A. Car
B. Bus/ Van Service
C. Walk
D. Other:

How accessible is obtaining a COVID-19 test for you?

Select:

Easy 1 2 3 4 5 Difficult

How accessible is receiving a COVID-19 vaccination for you?

Select:

Easy 1 2 3 4 5 Difficult

How satisfied are you with Putnam County school systems or education?

Select:

Easy 1 2 3 4 5 Difficult

How safe do you feel living in Putnam County?

Select:

Easy 1 2 3 4 5 Difficult

What are the things that make it difficult for you to find and/or keep work? (check all that apply)

A. Nothing
B. Need affordable Childcare
C. Caring for a family member who is sick or disabled
D. Do not speak English well
E. Need Transportation
F. Need job experience
G. Need job training
H. No job opportunities
I. Do not have a high school diploma or GED
J. Do not have a college degree
K. Disability
L. Criminal record
M. Child Care
N. Transportation
O. Don't Know
P. None
Q. Other:

What do you think needs to be in the community that would improve your health?

your answer:_____

APPENDIX B: Community Stakeholder Discussion Questions

The following seven questions were used to facilitate discussion about community health with stakeholders.

1. What is your vision for a healthy community? What is healthy about your community and what is unhealthy from your perspective?
2. What is your perception of the most serious health issues facing this community? (Specific examples preferred)
3. What is your perception of the most beneficial health resources or services in this community? (Specific examples preferred)
4. What is your perception of the hospital overall and of specific programs and services?
5. What can the hospital do to improve health and quality of life in the community?
6. What barriers do you think exist to implementing some of the interventions we've discussed?
7. Are there any issues that we have not talked about yet that you would like to address? Are there any solutions that you would like to highlight that have been completed or are in the process of being completed to address health in the community?

APPENDIX C: Community Stakeholder List

List of community stakeholders invited to participate in the community health needs assessment.

Education

North Putnam School Corporation, South Putnam Community Schools, Cloverdale Community Schools, Greencastle Community School Corporation, Purdue Extension, DePauw University.

First Responders

Putnam County EMS, Greencastle Fire Department, Greencastle Police Department, Putnam County Sheriff

Mental Health

Cummins Behavioral Health, Mental Health America of Putnam County, Putnam County Youth Commission, Putnam County Behavioral Health, Family Support Services of West Central Indiana, Ethan's Legacy Project

Retirement Facility

Asbury Towers, Autumn Glen, Mill Pond, Valyrian Place

Non-Profit Organization

Circles/Bridges out of Poverty, Putnam County Community Foundation, Phil the Need, NAACP

Business and Industry

Ascena, Endeavor, Walmart, Phoenix Closure, Chiyoda, Main Street Greencastle, Small Business Group, Buzzi, First Financial Bank, Crown, Conspire

Medical

Greencastle Internal Medicine, Putnam County Hospital, Putnam County Health Department

City of Greencastle

City council, Parks Department

APPENDIX D: Community Health Needs Assessment Introduction Letter

Dear Putnam County Community Members,

The 2022 Community Health Needs Assessment will examine ways Putnam County healthcare providers can improve its ability and expand its capacity to deliver high quality healthcare services. The Putnam County Health Department and Putnam County Hospital are partnering together to complete this assessment. We ask for your participation and relaying of our needs assessment with the fulfillment of our survey. Additionally, we ask you to voice your opinion, concerns, and any relevant health information through this survey and by sharing this survey with colleagues, family members, and friends in the community. Thank you very much for helping our community become a healthier place to live, work and play!

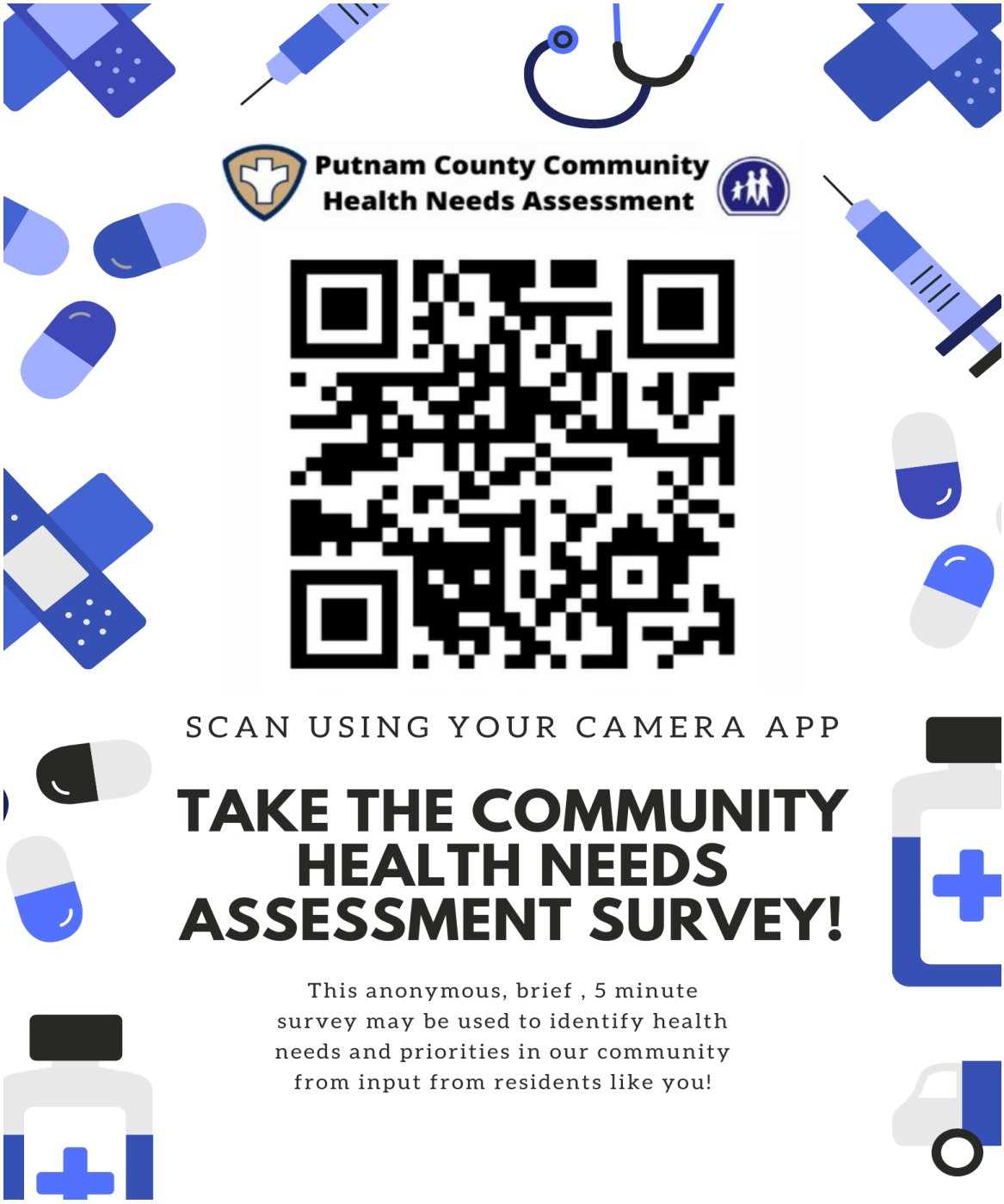
Dennis Weatherford, CEO

Adam Amos, Public Health Officer

To schedule a meeting or fill out our survey, please refer to our contact and link listed below:

Email: pcchna2022@gmail.com
Survey: https://forms.gle/EcaKC4q3rjACNSiW9

APPENDIX E: Community Health Needs Survey QR Code Flyer



APPENDIX F: References

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