COMMUNITY HEALTH NEEDS ASSESSMENT

OSF Saint Clare Medical Center

Bureau County

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CHNA 2022 | Bureau County



Community Health Needs Assessment

2022

Collaboration for sustaining health equity

EXECUTIVE SUMMARY

The Bureau County Community Health Needs Assessment is a collaborative undertaking by OSF Saint Clare Medical Center to highlight the health needs and well-being of residents in Bureau County. Through this needs assessment, collaborative community partners have identified numerous health issues impacting individuals and families in the Bureau County region. Several themes are prevalent in this health needs assessment – the demographic composition of the Bureau County region, the predictors for and prevalence of diseases, leading causes of mortality, accessibility to health services and healthy behaviors.

Results from this study can be used for strategic decision-making purposes as they directly relate to the health needs of the community. The study was designed to assess issues and trends impacting the communities served by the collaborative, as well as perceptions of targeted stakeholder groups.

This study includes a detailed analysis of secondary data to assess information regarding the health status of the community. In order to perform these analyses, information was collected from numerous secondary sources, including publicly available sources as well as private sources of data. Additionally, primary data were collected for the general population and the at-risk or economically disadvantaged population. Areas of investigation included perceptions of the community health issues, unhealthy behaviors, issues with quality of life, healthy behaviors and access to medical care, dental care, prescription medication and mental-health counseling. Additionally, social determinants of health were analyzed to provide insights into why certain segments of the population responded differently.

Ultimately, the identification and prioritization of the most important health-related issues in the Bureau County region were identified. The collaborative team considered health needs based on: (1) magnitude of the issue (i.e., what percentage of the population was impacted by the issue); (2) severity of the issue in terms of its relationship with morbidities and mortalities; (3) potential impact through collaboration. Using a modified version of the Hanlon Method, two significant health needs were identified and determined to have equal priority:

> Behavioral Health – including mental health and substance abuse

Healthy Behaviors – defined as active living and healthy eating, and their impact on obesity

I. INTRODUCTION

Background

The Patient Protection and Affordable Care Act (Affordable Care Act), enacted March 23, 2010, added new requirements for tax-exempt charitable hospital organizations to conduct community health needs assessments and to adopt implementation strategies to meet the community health needs identified through the assessments. This community health needs assessment (CHNA) takes into account input from specific individuals who represent the broad interests of the community served by OSF Saint Clare Medical Center including those with special knowledge of or expertise in public health. For this study, a community health-needs assessment is defined as a systematic process involving the community, to identify and analyze community health needs and assets in order to prioritize these needs, create a plan, and act upon unmet community health needs. Results from this assessment will be made widely available to the public. This CHNA Report was approved by the OSF HealthCare System's Board of Directors on July 25, 2022.

The structure of the CHNA is based on standards used by the Internal Revenue Service to develop Form 990, Schedule H–Hospitals, designated solely for tax-exempt charitable hospital organizations. The fundamental areas of the community health needs assessment are illustrated below (Figure 1).

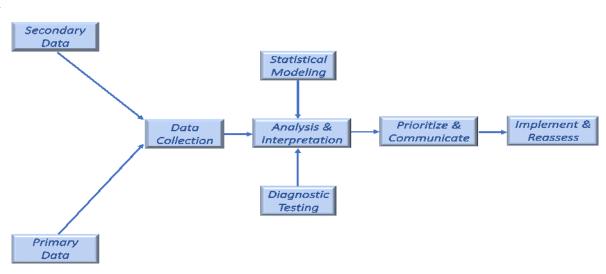


Figure 1

Collaborative Team and Community Engagement

In order to engage the entire community in the CHNA process, a collaborative team of health-professional experts and key community advocates was created. Members of the collaborative team were carefully selected to ensure representation of the broad interests of the community. Specifically, team members included representatives from OSF Saint Clare Medical Center, members of the Bureau County Health Department, and administrators from key community partner organizations. Engagement occurred throughout the entire process, resulting in shared ownership of the assessment. The entire collaborative team met in in the first and second quarter of 2022. Additionally, numerous meetings were held between the facilitators and specific individuals during the process.

Specifically, members of the **Collaborative Team** consisted of individuals with special knowledge of and expertise in the healthcare of the community. Note that the collaborative team provided input for all sections of the CHNA. Individuals, affiliations, titles and expertise can be found in APPENDIX 1: Members of Collaborative Team.

Definition of the Community

In order to determine the geographic boundaries for OSF Saint Clare Medical Center, analyses were completed to identify what percentage of inpatient and outpatient activity was represented by Bureau County. Data show that Bureau County alone represents 82% of all patients for the hospital.

In addition to defining the community by geographic boundaries, this study targets the at-risk population as an area of potential opportunity to improve the health of the community. Note that the at-risk population was defined as those individuals who were eligible to receive Medicaid based on the state of Illinois guidelines using household size and income level.

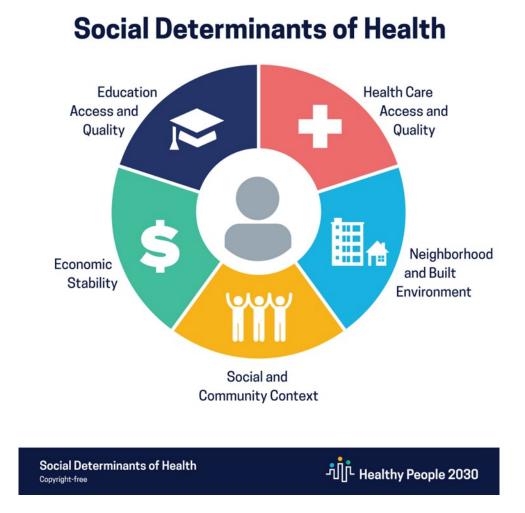
Purpose of the Community Health-Needs Assessment

In the initial meeting, the collaborative team identified the purpose of this study. Specifically, this study has been designed to provide necessary information to health-care organizations, including hospitals, clinics and health departments, in order to create strategic plans in program design, access and delivery. Results of this study will act as a platform that allows health-care organizations to orchestrate limited resources to improve management of high-priority challenges. By working together, hospitals, clinics, agencies and health departments will use this CHNA to improve the quality of healthcare in Bureau County. When feasible, data are assessed longitudinally to identify trends and patterns by comparing with results from the 2019 CHNA and benchmarked with State of Illinois averages.

🙊 Social Determinants of Health

This CHNA incorporates important factors associated with Social Determinants of Health (SDOH). SDOH are important environmental factors, such as where people are born, live, work and play, that affect people's well-being, physical and mental health, and quality of life. According to research conducted by the U.S. Department of Health and Human Services, *Healthy People 2030* has identified five SDOH that should be included in assessing community health (Figure 2).

Figure 2



Healthy People 2030, U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. Retrieved January 15, 2022, from <u>https://health.gov/healthypeople/objectives-and-data/social-determinants-health</u>

Assessment of SDOH is included in the CHNA, as social determinants help contribute to health inequities and disparities. Simply creating interventions without incorporating SDOH will have limited impact on improving community health for people living in underserved or at-risk areas.

II. METHODS

To complete the comprehensive community health-needs assessment, multiple sources were examined. Secondary statistical data were used to assess the community profile, morbidity rates and causes of mortality. Additionally, a study was completed to examine perceptions of the community health-related issues, healthy behaviors, behavioral health, food security, social determinants of health and access to healthcare.

Secondary Data Collection

Existing secondary statistical data were first used to develop an overall assessment of health-related issues in the community. Within each section of the report, there are definitions, importance of categories, data and interpretations. At the end of each chapter, there is a section on key takeaways.

Based on several retreats, a separate OSF Collaborative Team used COMPdata Informatics (affiliated with Illinois Health and Hospital Association (IHA)) to identify six primary categories of diseases, including: age related, cardiovascular, respiratory, cancer, diabetes and infections. In order to define each disease category, modified definitions developed by Sg2 were used. Sg2 specializes in consulting for health-care organizations. Their team of experts includes MDs, PhDs, RNs and health-care leaders with extensive strategic, operational, clinical, academic, technological and financial experience.

Primary Data Collection

In addition to existing secondary data sources, primary survey data were also collected. This section describes the research methods used to collect, code, verify and analyze primary survey data. Specifically, the research design used for this study: survey design, data collection and data integrity.

Survey Instrument Design

Initially, all publicly available health needs assessments in the U.S. were assessed to identify common themes and approaches to collecting community health-needs data. By leveraging best practices from these surveys, a new survey in 2021 was designed for use with both the general population and the atrisk community. To ensure that all critical areas were being addressed, the entire collaborative team was involved in survey design/approval through several fact-finding sessions. Additionally, several focus groups were used to collect the qualitative information necessary to design survey items. Specifically, for the community health needs assessment, eight specific sets of items were included:

- Ratings of health issues in the community to assess the importance of various community health concerns. Survey items included assessments of topics such as cancer, diabetes and obesity.
- Ratings of unhealthy behaviors in the community to assess the importance of various unhealthy behaviors. Survey items included assessments of topics such as violence, drug abuse and smoking.
- Ratings of issues concerning well-being to assess the importance of various issues relating to well-being in the community. Survey items included assessments of topics such as access to healthcare, safer neighborhoods and effective public transportation.
- Accessibility to healthcare to assess the degree to which residents could access healthcare when needed. Survey items included assessments of topics such as access to medical, dental and mentalhealthcare, as well as access to prescription medication.
- Healthy behaviors to assess the degree to which residents exhibited healthy behaviors. The survey items included assessments of topics such as exercise, healthy eating habits and cancer screenings.

- **Behavioral health** to assess community issues related to areas such as anxiety and depression.
- **Food security** to assess access to healthy food alternatives.
- Social determinants of health to assess the impact that social determinants may have on the above-mentioned areas.

Finally, demographic information was collected to assess background information necessary to segment markets in terms of the eight categories discussed above. A copy of the final survey is included in APPENDIX 2: Survey.

Sample Size

In order to identify our potential population, we first identified the percentage of the Bureau County population that was living in poverty. Specifically, we multiplied the population of the county by its respective poverty rate to identify the minimum sample size to study the at-risk population. The poverty rate for Bureau County was 12.4 percent. The population used for the calculation was 31,966 yielding a total of 3,964 residents living in poverty in the Bureau County area.

A normal approximation to the hypergeometric distribution was assumed given the targeted sample size.

n = (Nz2pq)/(E2 (N-1) + z2 pq)

where:

n = the required sample size

N = the population size

z = the value that specified the confidence interval (use 95% CI)

pq = population proportions (set at .05)

E =desired accuracy of sample proportions (set at +/- .05)

For the total Bureau County area, the minimum sample size for *aggregated* analyses (combination of atrisk and general populations) was 380. The data collection effort for this CHNA yielded a total of 689 usable responses. This exceeded the threshold of the desired 95% confidence interval.

To provide a representative profile when assessing the aggregated population for the Bureau County region, the general population was combined with a portion of the at-risk population. To represent the at-risk population as a percentage of the aggregate population, a random-number generator was used to select at-risk cases to include in the general sample. Additionally, efforts were made to ensure that the demography of the sample was aligned with population demographics according to U.S. Census data. This provided a total usable sample of 559 respondents for analyzing the aggregate population. Sample characteristics can be seen in APPENDIX 3: Characteristics of Survey Respondents.

Data Collection

Survey data were collected in the 3rd and 4th quarter of 2021. To collect data in this study, two techniques were used. First, an online version of the survey was created. Second, a paper version of the survey was distributed. In order to be sensitive to the needs of respondents, surveys stressed assurance

of complete anonymity. Note that versions of both the online survey and paper survey were translated into Spanish.

To specifically target the at-risk population, surveys were distributed at homeless shelters, food pantries and soup kitchens. Since the at-risk population was specifically targeted as part of the data collection effort, this became a stratified sample, as other groups were not specifically targeted based on their socio-economic status.

Note that use of electronic surveys to collect community-level data may create a potential for bias from convenience sampling error. To recognize for potential bias in the community sample, a second control sample of data was collected. Specifically, the control sample consisted of random patients surveyed at the hospital, assuming that patients receiving care represent an unbiased representation of the community. All questions on the patient version of the survey pertaining to access to healthcare were removed, as these questions were not relevant to current patients. Data from the community sample and the control sample were compared using t-tests and tetrachoric correlations when appropriate. Results show that the community sample did not exhibit any significance patterns of bias. If specific relationships exhibited a potential for bias between the community sample and the control sample, they are identified in the social-determinants sections of the analyses within each chapter.

Data Integrity

Comprehensive analyses were performed to verify the integrity of the data for this research. Without proper validation of the raw data, any interpretation of results could be inaccurate and misleading if used for decision-making. Therefore, several tests were performed to ensure that the data were valid. These tests were performed before any analyses were undertaken. Data were checked for coding accuracy, using descriptive frequency statistics to verify that all data items were correct. This was followed by analyses of means and standard deviations and comparison of primary data statistics to existing secondary data.

Analytic Techniques

To ensure statistical validity, several different analytic techniques were used. Specifically, frequencies and descriptive statistics were used for identifying patterns in residents' ratings of various health concerns. Additionally, appropriate statistical techniques were used for identification of existing relationships between perceptions, behaviors and demographic data. Specifically, Pearson correlations, X^2 tests and tetrachoric correlations were used when appropriate, given characteristics of the specific data being analyzed.

CHAPTER 1 OUTLINE

- 1.1 Population
- 1.2 Age, Gender and Race Distribution
- 1.3 Household/Family
- 1.4 Economic Information
- 1.5 Education
- 1.6 Internet Accessibility
- 1.7 Key Takeaways from Chapter 1

CHAPTER 1: Demography and Social Determinants

1.1 Population

Importance of the measure: Population data characterize individuals residing in Bureau County. Population data provide an overview of population growth trends and build a foundation for additional analysis of data.

Population Growth

Data from the last census indicate the population of Bureau County has decreased (3.5%) between 2017 and 2021 (Figure 3).

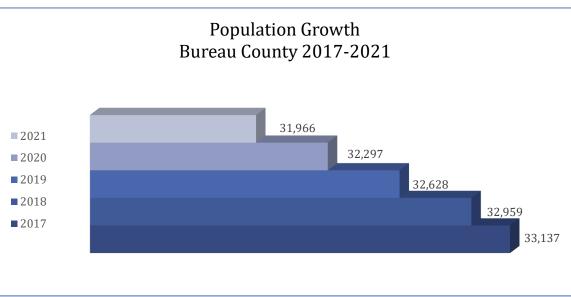


Figure 3

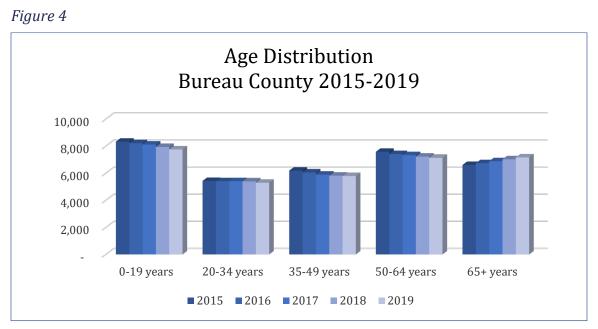
Source: US Census

1.2 Age, Gender and Race Distribution

Importance of the measure: Population data broken down by age, gender, and race groups provide a foundation to analyze the issues and trends that impact demographic factors including economic growth and the distribution of health-care services. Understanding the cultural diversity of communities is essential when considering health-care infrastructure and service delivery systems.

Age

As illustrated in the following graph, the percentage of individuals in Bureau County in each age group (with the exception of residents aged 65+ years) has declined. Of note, the elderly population (residents aged 65+ years) increased 8.5% between 2015 and 2019 (Figure 4).

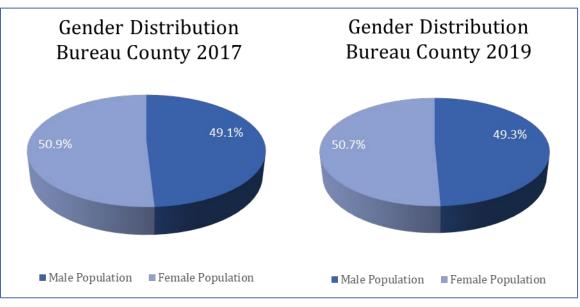


Source: US Census

Gender

The gender distribution of Bureau County residents has remained relatively consistent between 2017 and 2019 (Figure 5).

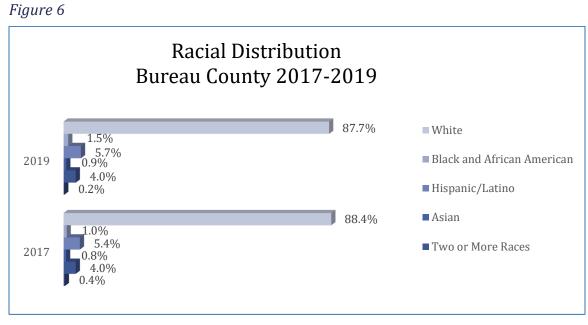




Source: US Census

Race

With regard to race and ethnic background, Bureau County is largely homogenous, yet in recent years, the county is becoming more diverse. Data from 2019 suggest that White ethnicity comprises 87.7% of the population in Bureau County. However, the non-White population of Bureau County has been increasing (from 11.6% to 12.3% in 2019), with Black ethnicity comprising 1.5% of the population, multi-racial ethnicity comprising 4% of the population, and Hispanic/Latino (LatinX) ethnicity comprising 5.7% of the population in 2019 (Figure 6).



Source: US Census

1.3 Household/Family

Importance of the measure: Families are an important component of a robust society in Bureau County, as they dramatically impact the health and development of children and provide support and well-being for older adults.

As illustrated, the number of family households in Bureau County was 13,698 in 2019, this is down from 2017 at 13,816 (Figure 7).

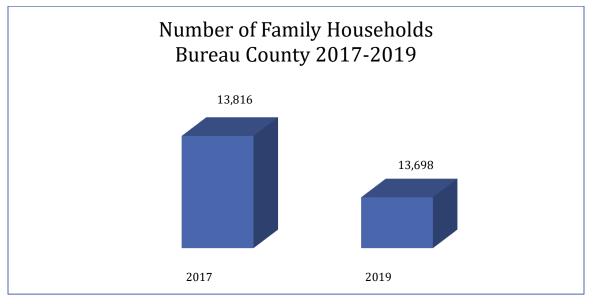


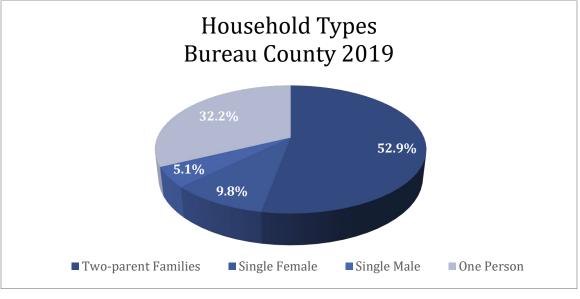
Figure 7

Source: US Census

Family Composition

In Bureau County, data from 2019 suggest the percentage of two-parent families in Bureau County is over 50%. One-person households represent 32.2% of the county population, single-female represent 9.8%, and single-male households represent 5.1% (Figure 8).

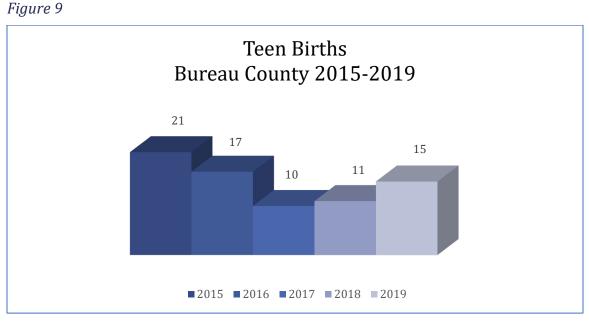
Figure 8



Source: US Census

Early Sexual Activity Leading to Births from Teenage Mothers

Bureau County has experienced a fluctuation in teenage birth count. The teen birth count dropped to its lowest level in 2017 but experienced an increase in 2018 followed by another increase in 2019 (Figure 9).



Source: Illinois Department of Public Health

1.4 Economic Information

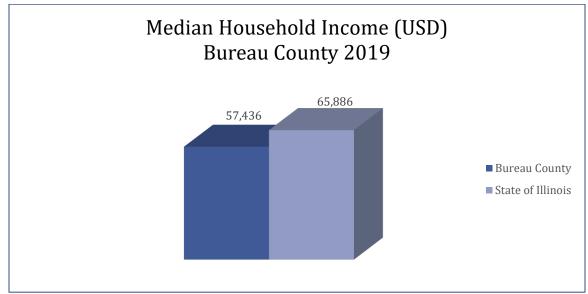
Importance of the measure: Median income divides households into two segments with one-half of households earning more than the median income and the other half earning less. Because median income is not significantly impacted by unusually high or low-income values, it is considered a more reliable indicator than average income. To live in poverty means to lack sufficient income to meet one's basic needs. Accordingly, poverty is associated with numerous chronic social, health, education and employment conditions.

Economic Climate

Economic climate is a measure of a community's financial resources and resiliency. Key risk influencers include income, cost of living and opportunity. For Bureau County, 21% of the population is at elevated risk for economic climate. This is lower than the State of Illinois average of 35% (SocialScape® powered by SociallyDetermined®, 2022).

Median Income Level

For 2019, the median household income in Bureau County (\$57,436) was lower than the State of Illinois (\$65,886) (Figure 10).



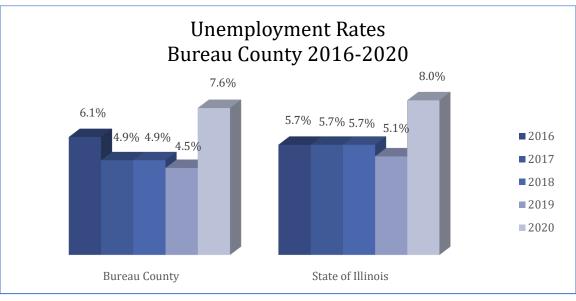


Source: US Census

Unemployment

For the years 2016 thru 2020, the Bureau County unemployment rate remained lower than the State of Illinois unemployment rate except for 2016. In 2020, the rate significantly increased and did remain lower than State of Illinois (Figure 11). Some of the increase in unemployment in 2020 may be attributed to the COVID-19 pandemic.

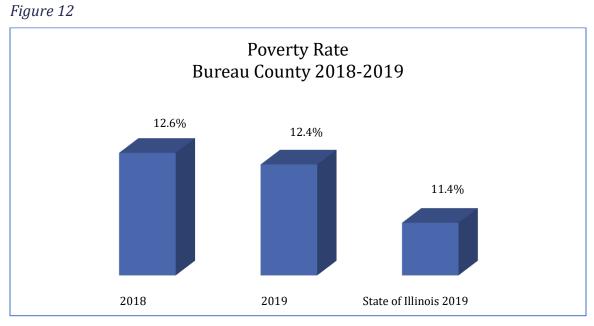


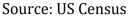


Source: Bureau of Labor Statistics

Individuals in Poverty

In Bureau County, the percentage of individuals living in poverty between 2018 and 2019 decreased by 0.2%. Poverty has a significant impact on the development of children and youth. In 2019 the poverty rate for families living in Bureau County (12.4%) was higher than the State of Illinois family poverty rate (11.4%) (Figure 12).





1.5 Education

Importance of the measure: According to the National Center for Educational Statistics¹, "The better educated a person is, the more likely that person is to report being in 'excellent' or 'very good' health, regardless of income." Research suggests that the higher the level of educational attainment and the more successful one is in school, the better one's health will be and the greater likelihood of one selecting healthy lifestyle choices. Accordingly, years of education is strongly related to an individual's propensity to earn a higher salary, gain better employment, and foster multifaceted success in life.

High School Graduation Rates

Students who entered 9th grade in 2017 in Bureau County school districts, reported high school graduation rates that were lower than the State average of 86% (Figure 13).

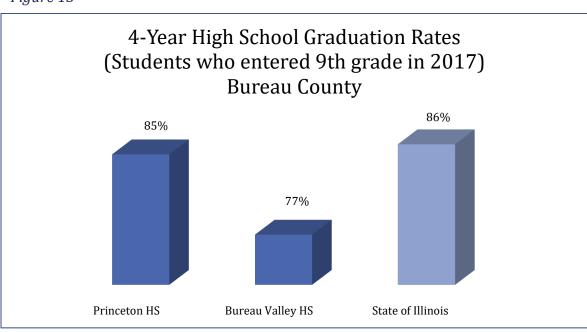


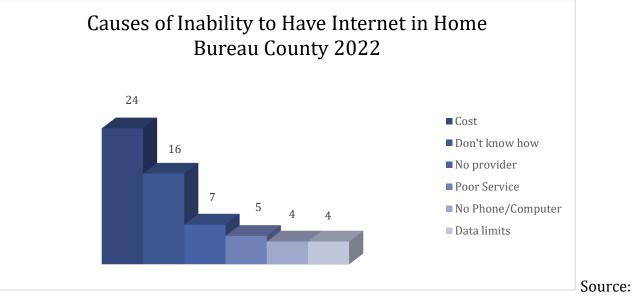
Figure 13

Source: Illinois Report Card

1.6 Internet Accessibility

In terms of accessibility, 91% of survey respondents indicated they had access to Internet in their homes. For those who did not have Internet in their home, cost was the most frequently cited reason (Figure 14).





CHNA Survey

Social Determinants Related to Telehealth and Internet Access

Several factors show significant relationships with an individual's Internet access. The following relationships were found using correlational analyses:

Access to Internet tends to be rated higher for those with higher education and those with higher income. Access to Internet is rated lower by people with an unstable (e.g., homeless) housing environment.

Digital Landscape

Digital landscape is a community's access to digital tools and the digital literacy to use them. Key risk influencers include affordability, accessibility and digital literacy. For Bureau County, 20% of the population is at elevated risk for digital landscape. This is higher than the State of Illinois average of 9% (SocialScape® powered by SociallyDetermined®, 2022).

1.7 Key Takeaways from Chapter 1

- ✓ POPULATION DECREASED OVER THE LAST 5 YEARS
- ✓ POPULATION OVER AGE 65 IS INCREASING
- ✓ SINGLE FEMALE HEAD-OF-HOUSEHOLD REPRESENTS 9.8% OF THE POPULATION. HISTORICALLY, THIS DEMOGRAPHIC INCREASES THE LIKELIHOOD OF FAMILIES LIVING IN POVERTY.
- ✓ NON-WHITE POPULATION IS INCREASING.
- ✓ UNEMPLOYMENT INCREASED.

CHAPTER 2 OUTLINE

- 2.1 Accessibility
- 2.2 Wellness
- 2.3 Access to Information
- 2.4 Physical Environment
- 2.5 Health Status
- 2.6 Key Takeaways from Chapter 2

CHAPTER 2: Prevention Behaviors

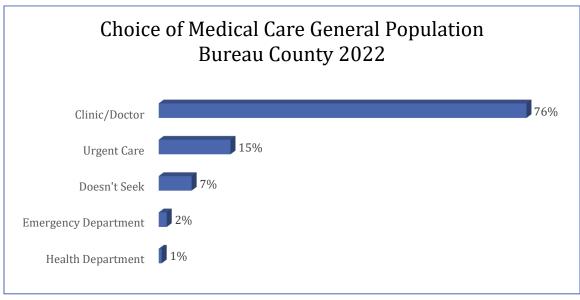
2.1 Accessibility

Importance of the measure: It is critical for health-care services to be accessible. Therefore, accessibility to healthcare must address both the associated financial costs and the supply and demand of medical services.

Choice of Medical Care

Survey respondents were asked to select the type of health-care facility used when sick. Six different alternatives were presented, including clinic or doctor's office, emergency department, urgent-care facility, health department, no medical treatment and other. The most common response for source of medical care was clinic/doctor's office, chosen by 76% of survey respondents. This was followed by urgent care (15%), not seeking medical attention (7%), the emergency department at a hospital (2%) and the health department (1%) (Figure 15).





Source: CHNA Survey

Social Determinants Related to Choice of Medical Care

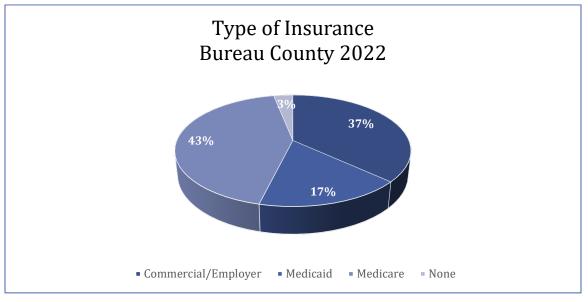
Several factors show significant relationships with an individual's choice of medical care. The following relationships were found using correlational analyses:

- > Clinic/Doctor's Office tends to be used more often by older people.
- > **Urgent Care** tends to be used more those with a higher education and income.
- > Emergency Department did not have any significant correlates.
- Do Not Seek Medical Care tends to be rated higher by younger people, Black people, LatinX people, and those with lower education. Do not seek medical care tends to be rated lower by White people.
- Health Department did not have any significant correlates.

Insurance Coverage

According to survey data, 43% of the residents are covered by Medicare, followed by commercial/employer insurance (37%), and Medicaid (17%). Only 3% of respondents indicated they did not have any health insurance (Figure 16).

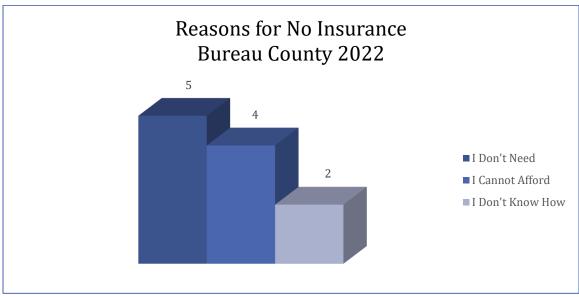




Source: CHNA Survey

Data from the survey show that for those individuals who do not have insurance, the reason was no perceived need and cost (Figure 17). Note that these data are displayed in frequencies rather than percentages given the low number of responses.





Source: CHNA Survey

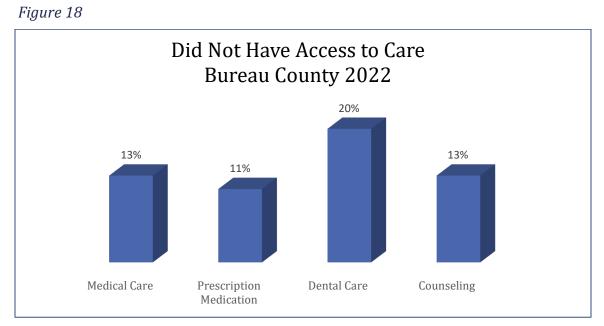
Social Determinants Related to Type of Insurance

Several characteristics show significant relationships with an individual's type of insurance. The following relationships were found using correlational analyses:

- > Medicare tends to be used more frequently by older people and those with lower income.
- Medicaid tends to be used more frequently by younger people, those with lower education and income and people with an unstable (e.g., homeless) housing environment.
- Private Insurance is used more often by younger people, White people and those with higher education and income. Private insurance is used less by people with an unstable (e.g., homeless) housing environment.
- No Insurance tends to be reported more often by younger people, Black people, those with lower education and income and people with an unstable (e.g., homeless) housing environment. No insurance is reported less often by White people.

Access to Care

In the CHNA survey, respondents were asked, "Was there a time when you needed care but were not able to get it?" Access to four types of care were assessed: medical care, prescription medication, dental care and counseling. Survey results show that 13% of the population did not have access to medical care when needed; 11% of the population did not have access to prescription medication when needed; 20% of the population did not have access to dental care when needed; and 13% of the population did not have access to counseling when needed (Figure 18).



Source: CHNA Survey

Social Determinants Related to Access to Care

Several characteristics show a significant relationship with an individual's ability to access care when needed. The following relationships were found using correlational analyses:

Access to medical care had no significant correlations.

- Access to prescription medication tends to be higher for older people, White people, and those with higher income. LatinX people and those with an unstable (e.g., homeless) housing environment are less likely to have access to prescription medication.
- Access to dental care tends to be higher for older people, and those with higher income. Those with an unstable (e.g., homeless) housing environment are less likely to have access to dental care.
- Access to counseling tends to be higher for older people, White people and those with higher income. Those with an unstable (e.g., homeless) housing environment are less likely to have access to counseling.

Reasons for No Access – Medical Care

Survey respondents who reported they were not able to get medical care when needed were asked a follow-up question. The leading causes of the inability to gain access to medical care were too long to wait for an appointment (41), the inability to afford the copay (15), no insurance (8) and no trust (8) (Figure 19).

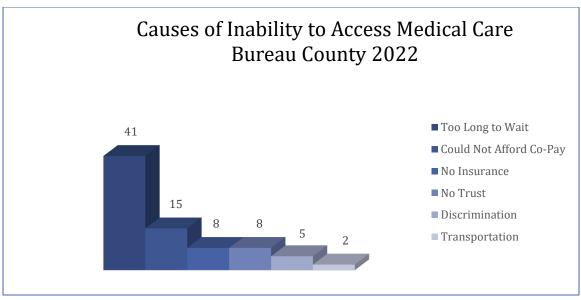


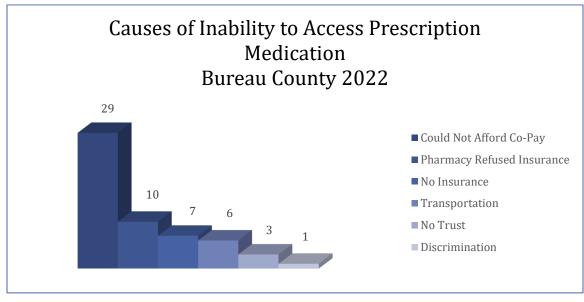
Figure 19

Source: CHNA Survey

Reasons for No Access – Prescription Medication

Survey respondents who reported they were not able to get prescription medication when needed were asked a follow-up question. The leading causes of the inability to gain access to prescription medicine were the inability to afford copayments or deductibles (29) and pharmacy refused insurance (10) (Figure 20).



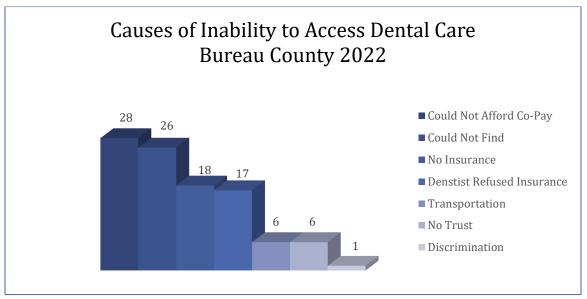


Source: CHNA Survey

Reasons for No Access – Dental Care

Survey respondents who reported they were not able to get dental care when needed were asked a follow-up question. The leading causes of inability to gain access to dental care were the inability to afford copayments or deductibles (28), could not find (26), no insurance (18), and refusal of insurance (17) (Figure 21).

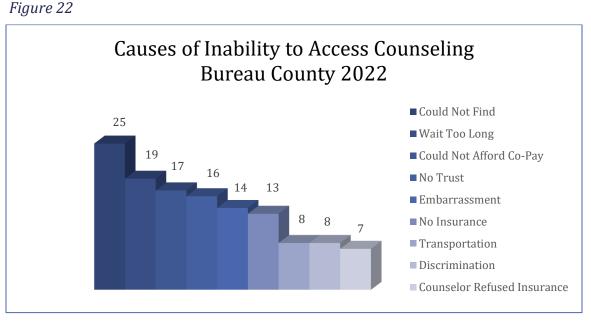




Source: CHNA Survey

Reasons for No Access – Counseling

Survey respondents who reported they were not able to get counseling when needed were asked a follow-up question. The leading causes of the inability to gain access to counseling were could not find (25), wait too long (19), couldn't afford copay or deductible (17), no trust (16), embarrassment (14) and no insurance (13) (Figure 22).



Source: CHNA Survey

Transportation Network

Transportation network is a measure of the adequacy of the transportation network to facilitate access to care. Key risk influencers include access and proximity to resources. While survey data indicate transportation was not a leading cause of inaccessibility for Bureau County, 35% of the population is at elevated risk for transportation network. This is higher than the State of Illinois average of 6% (SocialScape® powered by SociallyDetermined®, 2022).

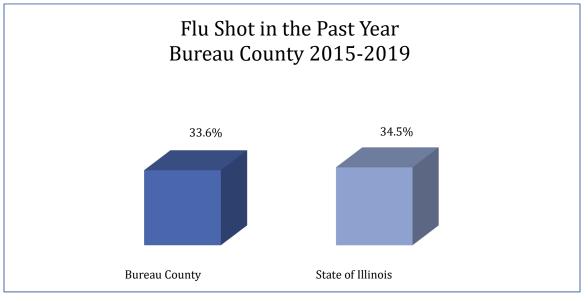
2.2 Wellness

Importance of the measure: Preventative health-care measures, including getting a flu shot, engaging in a healthy lifestyle, and undertaking screenings for diseases are essential to combating morbidity and mortality while reducing health-care costs. The overall health of a community is impacted by preventative measures including immunizations and vaccinations.

Frequency of Flu Shots

Figure 23 shows that the percentage of people who have had a flu shot in the past year is 33.6% for Bureau County in 2015-2019, compared to the State of Illinois, which was higher at 34.5%.

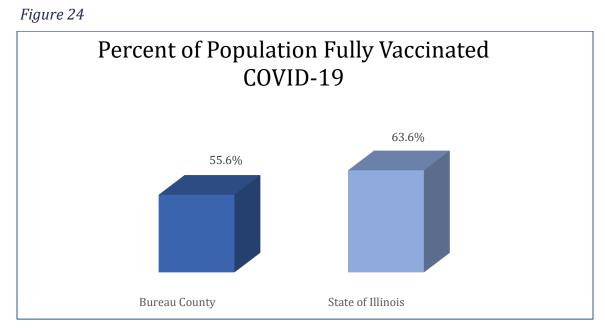




Source: Illinois Behavioral Risk Factor Surveillance System

COVID-19 Vaccinations

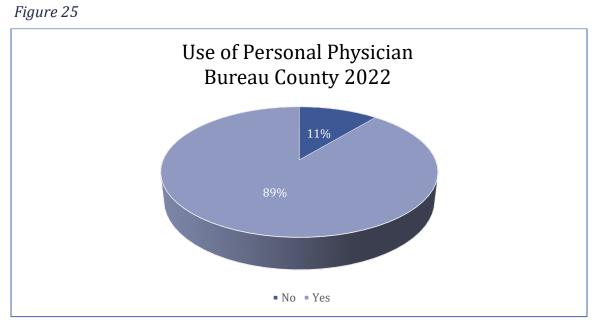
Figure 24 shows the percentage of people who have been fully vaccinated from the COVID-19 virus as of January 3, 2022. Although Bureau County remains above half with 52.0%, they remain under the rate for the State of Illinois at 60.1% and counting. COVID-19 data is recent and will increase. Additionally, given the recency of the COVID-19 virus, no historical comparison are made at this time.



Source: Illinois Department of Public Health

Personal Physician

The CHNA survey asked respondents if they had a personal physician. Having a personal physician suggests that individuals are more likely to get wellness check-ups and less likely to use an emergency department as a primary health-care service. According to survey data, 89% of residents have a personal physician (Figure 25).



Source: CHNA Survey

Social Determinants Related to Having a Personal Physician

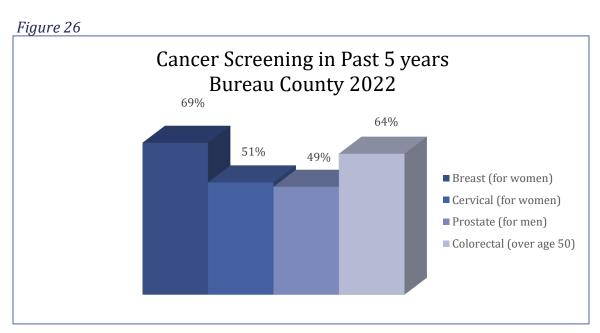
The following characteristics show significant relationships with having a personal physician. The following relationships were found using correlational analyses:

Having a personal physician tends to be more likely for older people, White people and those with higher education. LatinX people, those with lower education, and those in an unstable (e.g., homeless) housing environment are less likely to report having a personal physician.

Cancer Screening

Early detection of cancer may greatly improve the probability of successful treatment. In the case of colorectal cancer, early detection of precancerous polyps can prevent cancer. Specifically, four types of cancer screening were measured: breast, cervical, prostate and colorectal.

Results from the CHNA survey show that 69% of women had a breast screening in the past five years and 51% of women had a cervical screening in the past five years. For men, 49% had a prostate screening in the past five years. For women and men over the age of 50, 64% had a colorectal screening in the last five years (Figure 26).



Source: CHNA Survey

Social Determinants Related to Cancer Screenings

Multiple characteristics show significant relationships with cancer screening. The following relationships were found using correlational analyses:

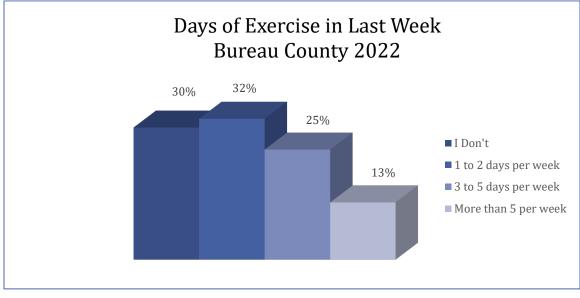
- Breast screening tends to be more likely for older women, White people, those with a higher level of education and higher income. LatinX women were less likely to have a breast screening.
- Cervical screening tends to be more likely for women with a higher level of education and higher income.
- Prostate screening tends to be more likely for older men with higher education and income. Those in an unstable (e.g., homeless) housing environment are less likely to have a prostate screening.
- Colorectal screening tends to be more likely for older people, White people and those with a higher education.

Physical Exercise

A healthy lifestyle, comprised of regular physical activity, has been shown to increase physical, mental, and emotional well-being.

Specifically, 30% of respondents indicated that they do not exercise at all, while the majority (57%) of residents exercise 1-5 times per week (Figure 27).

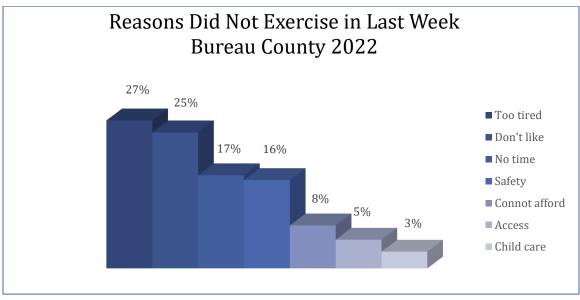




Source: CHNA Survey

To find out why some residents do not exercise at all, a follow up question was asked. The most common reasons for not exercising are not having enough energy (27%) or a dislike of exercise (25%) (Figure 28). Note this information is reported in percentage format as there was a sufficient sample size to do so.





Source: CHNA Survey

Social Determinants Related to Exercise

Multiple characteristics show significant relationships with frequency of exercise. The following relationships were found using correlational analyses:

Frequency of exercise tends to be more likely for men, those with a higher level of education and higher income.

Healthy Eating

A healthy lifestyle, comprised of a proper diet, has been shown to increase physical, mental and emotional well-being. Consequently, nutrition and diet are critical to preventative care.

Almost two-thirds (63%) of residents report no consumption or low consumption (1-2 servings per day) of fruits and vegetables per day. Note that the percentage of residents who consume five or more servings per day is only 5% (Figure 29).

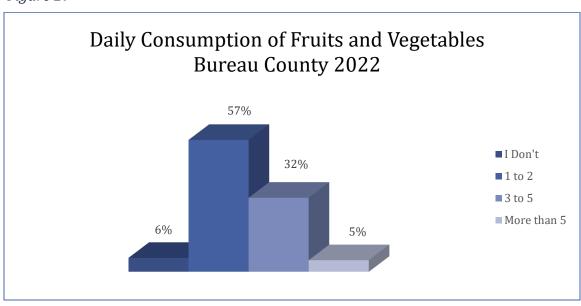
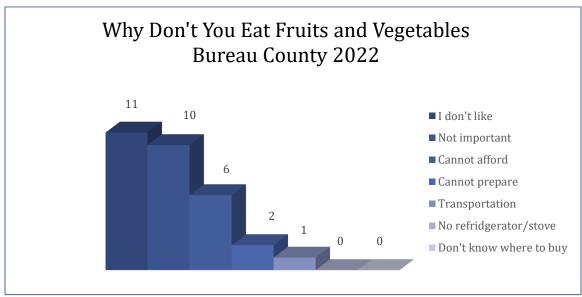


Figure 29

Those individuals who indicated they do not eat any fruits or vegetables were asked a follow up question. Reasons most frequently given for failing to eat more fruits and vegetables are a lack of desire (11) and lack of importance (10) (Figure 30). Note that these data are displayed in frequencies rather than percentages given the low number of responses.

Source: CHNA Survey





Source: CHNA Survey

👻 Social Determinants Related to Healthy Eating

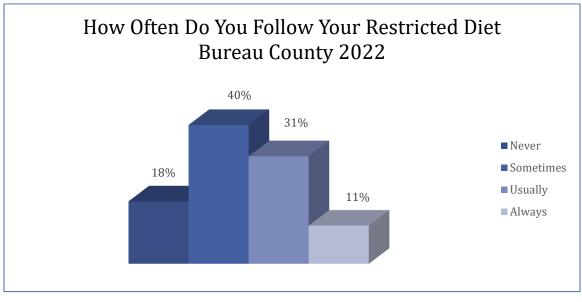
Multiple characteristics show significant relationships with healthy eating. The following relationships were found using correlational analyses:

> Consumption of fruits and vegetables tends to be more likely for White people.

Restricted Diet

Respondents were also asked if they followed a restricted diet if recently diagnosed with a morbidity. Of respondents, 42% usually or always follow a restricted diet (Figure 31).





Source: CHNA Survey

Health Literacy

Health literacy is a measure of factors in the community that impact healthcare access, navigation and adherence. Key risk influencers include culture, demographics and education. For Bureau County, 17% of the population is at elevated risk for health literacy. This is lower than the State of Illinois average of 34% (SocialScape® powered by SociallyDetermined®, 2022).

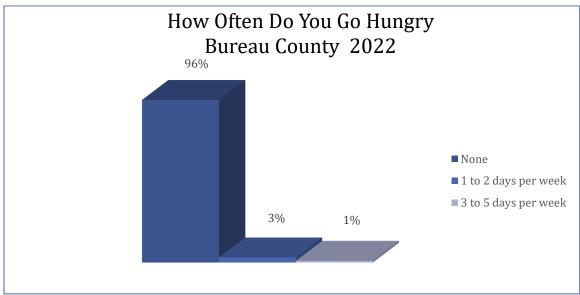
2.3 Understanding Food Insecurity

Importance of the measure: It is essential that everyone has access to food and drink necessary for living healthy lives. Food insecurity exists when people don't have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs for a healthy life.

Prevalence of Hunger

Respondents were asked, "How many days a week do you or your family members go hungry?" The vast majority of respondents indicated they do not go hungry, however, 4% indicated they go hungry 1-to-5 days per week (Figure 32).





Source: CHNA Survey

Social Determinants Related to Prevalence of Hunger

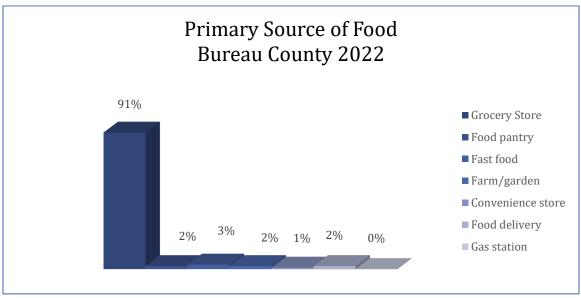
Multiple characteristics show significant relationships with hunger. The following relationships were found using correlational analyses:

Prevalence of Hunger tends to be more likely for LatinX people, those with less income and those in an unstable (e.g., homeless) housing environment. White people are less likely to go hungry.

Primary Source of Food

Respondents were asked to identify their primary source of food. It can be seen that the majority (91%) identified a grocery store (Figure 33).





Source: CHNA Survey

Food Landscape

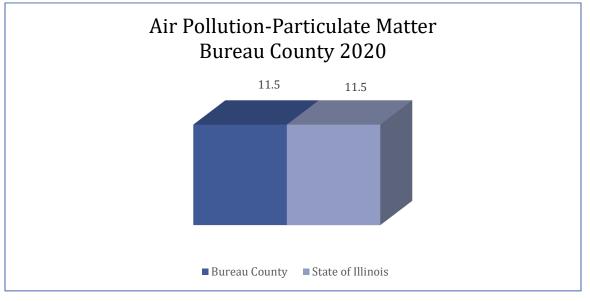
Food landscape is a measure of a community's access to sufficient, affordable and nutritious food. Key risk influencers include accessibility, affordability and literacy. Bureau County, 33% of the population is at elevated risk for food landscape. This is higher than the State of Illinois average of 25% (SocialScape® powered by SociallyDetermined®, 2022).

2.4 Physical Environment

Importance of the measure: According to the County Health Rankings, Air Pollution - Particulate Matter (APPM) is the average daily density of fine particulate matter in micrograms per cubic meter (PM2.5) in a county. Fine particulate matter is defined as particles of air pollutants with an aerodynamic diameter less than 2.5 micrometers. These particles can be directly emitted from sources such as forest fires, or they can form when gases are emitted from power plants, manufacturing facilities and automobiles.

The relationship between elevated air pollution, particularly fine particulate matter and ozone, and compromised health has been well documented. Negative consequences of ambient air pollution include decreased lung function, chronic bronchitis, asthma and other adverse pulmonary effects. The APPM for Bureau County (11.5) in 2020 is equal to the State average of 11.5 (Figure 34).





Source: County Health Rankings 2021

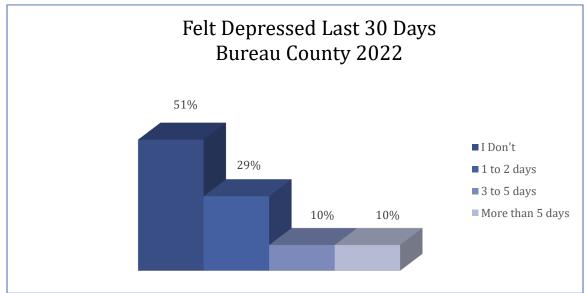
2.5 Health Status

Importance of the measure: Self-perceptions of health can provide important insights to help manage population health. Not only do self-perceptions provide benchmarks regarding health status, but they can also provide insights into how accurately people perceive their own health.

Mental Health

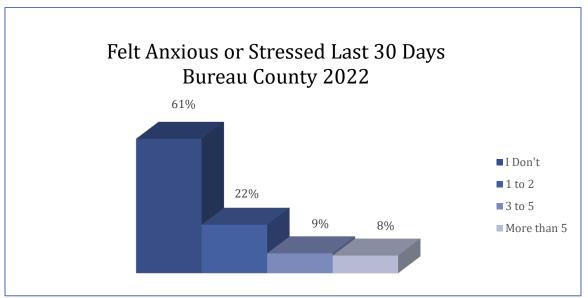
The survey asked respondents to indicate specific issues, such as depression and stress/anxiety. Of respondents, 51% indicated they did not feel depressed in the last 30 days (Figure 35) and 61% indicated they did not feel anxious or stressed (Figure 36).





Source: CHNA Survey

Figure 36



Source: CHNA Survey

Social Determinants Related to Behavioral Health

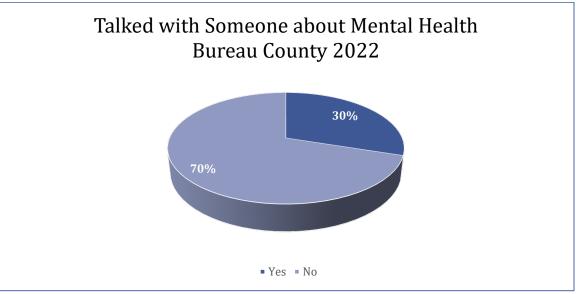
Multiple characteristics show significant relationships with behavioral health. The following relationships were found using correlational analyses:

Depression tends to be rated higher for younger people, those with less income and those in an unstable (e.g., homeless) housing environment.

Stress and anxiety tends to be rated higher for younger people, those with less income and those in an unstable (e.g., homeless) housing environment. White people tend to rate stress and anxiety lower.

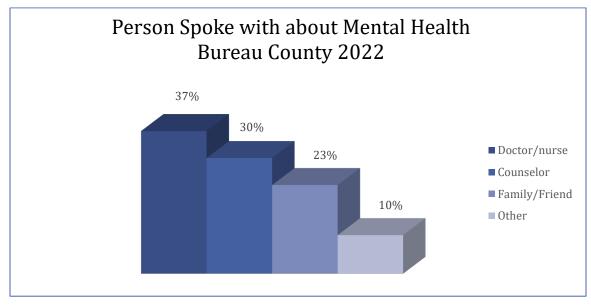
Respondents were also asked if they spoke with anyone about their mental health in the past year. Of respondents 30% indicated that they spoke to someone (Figure 37), the most common response was a doctor/nurse (37%) (Figure 38).





Source: CHNA Survey

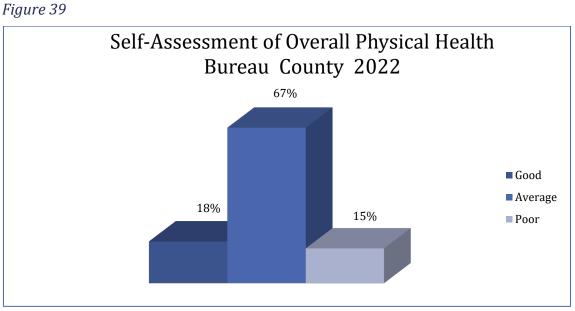
Figure 38



Source: CHNA Survey

Self-Perceptions of Overall Health

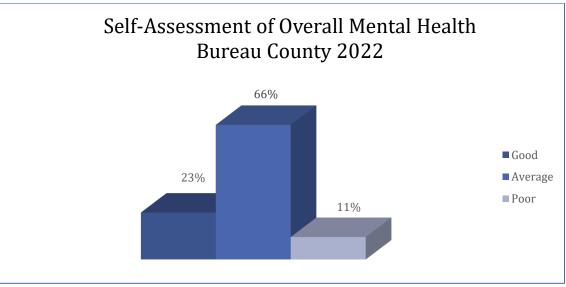
In regard to self-assessment of overall physical health, 15% of respondents report having poor overall physical health (Figure 39).





In regard to self-assessment of overall mental health, 11% of respondents stated they have poor overall mental health (Figure 40).





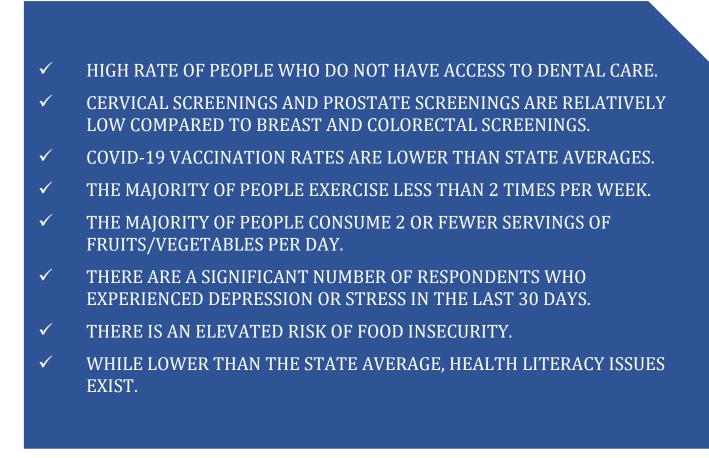
Source: CHNA Survey

Social Determinants Related to Self-Perceptions of Health

Multiple characteristics show significant relationships with self-perceptions of health. The following relationships were found using correlational analyses:

- > Perceptions of physical health tend to be higher for those with higher income.
- Perceptions of mental health tend to be higher for men, older people, White people and those with higher income. LatinX people and those with an unstable (e.g., homeless) housing environment tend to be lower for mental health.

2.6 Key Takeaways from Chapter 2



CHAPTER 3 OUTLINE

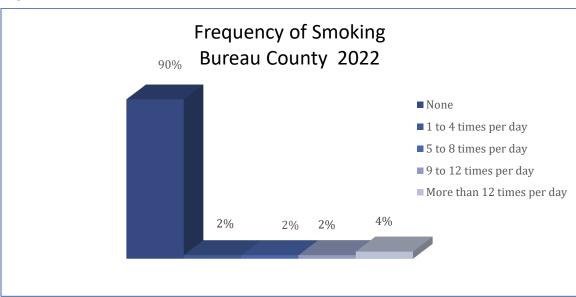
- 3.1 Tobacco Use
- 3.2 Drug and Alcohol Use
- 3.3 Overweight and Obesity
- 3.4 Predictors of Heart Disease
- 3.5 Key Takeaways from Chapter 3

CHAPTER 3: Symptoms and Predictors

3.1 Tobacco Use

Importance of the measure: In order to appropriately allocate health-care resources, a thorough analysis of the leading indicators regarding morbidity and disease must be conducted. In this way, health-care organizations can target affected populations more effectively. Research suggests tobacco use facilitates a wide variety of adverse medical conditions.

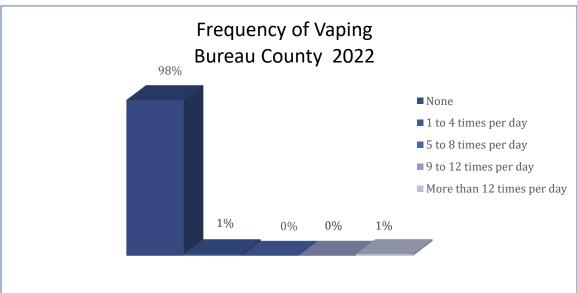
CHNA survey data show 90% of respondents do not smoke (Figure 41) and only 4% state they smoke more than 12 times per day. With regard to vaping, survey results indicate that 98% of respondents do not vape (Figure 42).





Source: CHNA Survey





Source: CHNA Survey

Social Determinants Related to Smoking or Vaping

Multiple characteristics show significant relationships with smoking or vaping. The following relationships were found using correlational analyses:

- > Smoking tends to be rated higher by women, those with less education and lower income.
- Vaping tends to be rated higher by younger people, LatinX people, those with less education and a lower income and those in an unstable (e.g., homeless) housing environment. Vaping tends to be rated lower by White people.

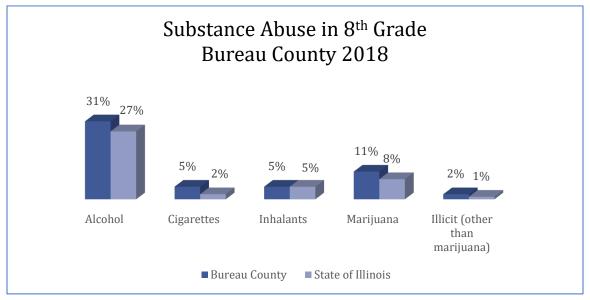
3.2 Drug and Alcohol Abuse

Importance of the measure: Alcohol and drugs impair decision-making, often leading to adverse consequences and outcomes. Research suggests that alcohol is a gateway drug for youth, leading to increased usage of controlled substances in adult years. Accordingly, the substance abuse values and behaviors of high school students is a leading indicator of adult substance abuse in later years.

Youth Substance Abuse

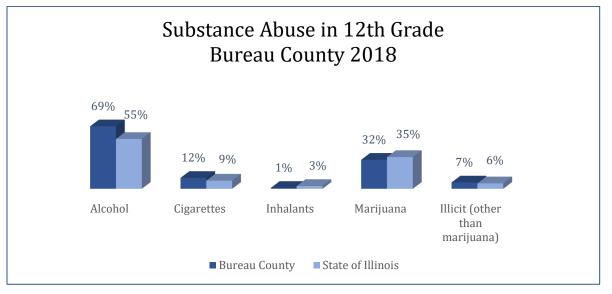
Data from the Illinois Youth Survey measures illegal substance use (alcohol, tobacco and other drugs – including inhalants) among adolescents. For 8th graders, Bureau County is higher than the State of Illinois averages in all categories, except inhalants, which was equal to State averages (Figure 43). For 12th graders, Bureau County is higher than the State of Illinois averages in all categories, except inhalants and Marijuana (Figure 44). Note the most recent data available Bureau County and State of Illinois is 2018.





Source: University of Illinois Center for Prevention Research and Development

Figure 44

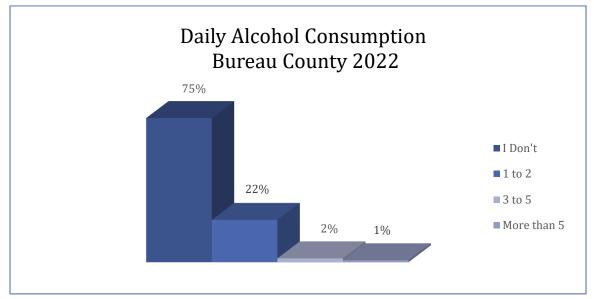


Source: University of Illinois Center for Prevention Research and Development

Adult Substance Abuse

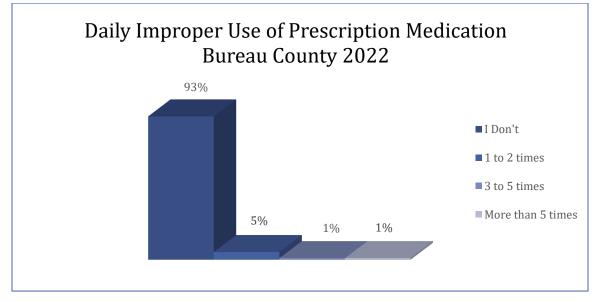
The CHNA survey asked respondents to indicate usage of several substances. Of respondents, 75% indicated they did not consume alcohol on a typical day (Figure 45), 93% indicated they do not take prescription medication improperly including opioids on a typical day (Figure 46), 95% indicated they do not use marijuana on a typical day (Figure 47) and 99% indicated they do not use illegal substances on a typical day (Figure 48).





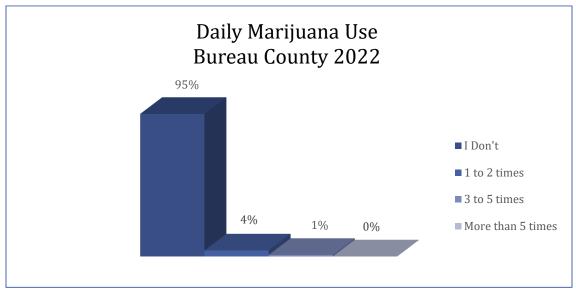
Source: CHNA Survey

Figure 46



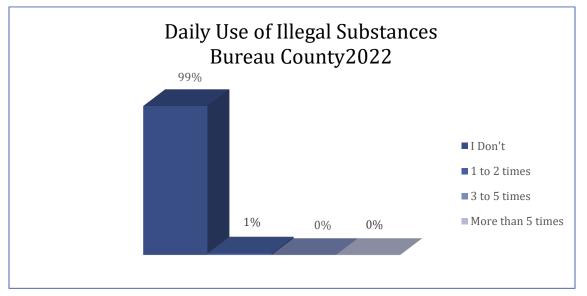
Source: CHNA Survey





Source: CHNA Survey

Figure 48



Source: CHNA Survey

Social Determinants Related to Substance Abuse

Multiple characteristics show significant relationships with substance abuse. The following relationships were found using correlational analyses:

Use of alcohol tends to be rated higher by White people, those with higher education and those with higher income.

- Misuse of prescription medication including opioids tends to be rated higher by those with lower education and income and those in an unstable (e.g., homeless) housing environment.
- Use of marijuana tends to be rated higher by younger people, those with lower income and those in an unstable (e.g., homeless) housing environment.
- Use of illegal drugs tends to be rated higher by men, LatinX people, those with lower income, and those in an unstable (e.g., homeless) housing environment. Use of illegal drugs tends to be rated lower by White people.

3.3 Overweight and Obesity

Importance of the measure: Individuals who are overweight and obese place greater stress on their internal organs, thus increasing the propensity to utilize health services. Research strongly suggests that obesity is a significant problem facing youth and adults nationally, in Illinois, and within Bureau County. The US Surgeon General has characterized obesity as "the fastest-growing, most threatening disease in America today." According to the Obesity Prevention Initiative from the Illinois General Assembly, 20% of Illinois children are obese. The financial burden of overweight and obese individuals is staggering, as the estimated annual medical costs attributed to obesity in Illinois for 1998-2000 exceeded \$3.4 billion, ranking Illinois 6th in the nation for obesity-attributed medical costs.

With children, research has linked obesity to numerous chronic diseases including Type II diabetes, hypertension, high blood pressure and asthma. Adverse physical health side effects of obesity include orthopedic problems due to weakened joints and lower bone density. Detrimental mental health side effects include low self-esteem, poor body image, symptoms of depression and suicide ideation. Obesity impacts educational performance as well; studies suggest school absenteeism of obese children is six times higher than that of non-obese children.

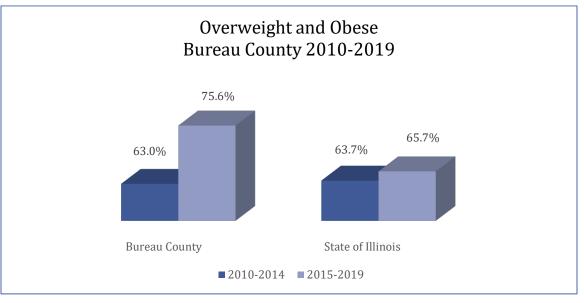
With adults, obesity has far-reaching consequences. Testimony to the Illinois General Assembly indicated that obesity-related illnesses contribute to worker absenteeism, slow workflow, and high worker compensation rates. A Duke University study on the effects of obesity in the workforce noted 13 times more missed workdays by obese employees than non-obese employees. Nationwide, lack of physical activity and poor nutrition contribute to an estimated 300,000 preventable deaths per year.

In Bureau County, the number of people diagnosed with obesity and being overweight has increased over the years from 2010-2014 to 2015-2019. Note specifically that the percentage of obese and overweight people has increased from 63.0% to 75.6% (Figure 49).

Overweight and obesity rates in Illinois have increased from 2014 (63.7%) to 2019 (65.7%). Note that data have not been updated by the Illinois Department of Public Health.

Additionally, in the 2019 CHNA survey, respondents indicated that being overweight was their most prevalently diagnosed health condition.

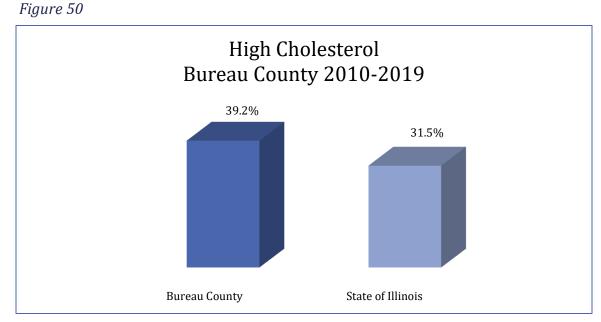




Source: Illinois Behavioral Risk Factor Surveillance System

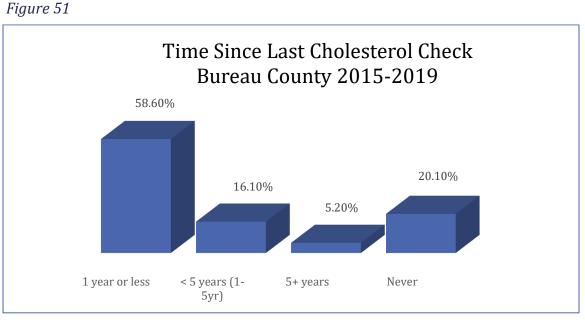
3.4 Predictors of Heart Disease

Residents in Bureau County report a higher than State average prevalence of high cholesterol. The percentage of residents who report they have high cholesterol in Bureau County (39.2%) is higher compared to the State of Illinois average of 31.5% (see Figure 50). Note that data have not been updated past 2019 by the Illinois Department of Public Health.



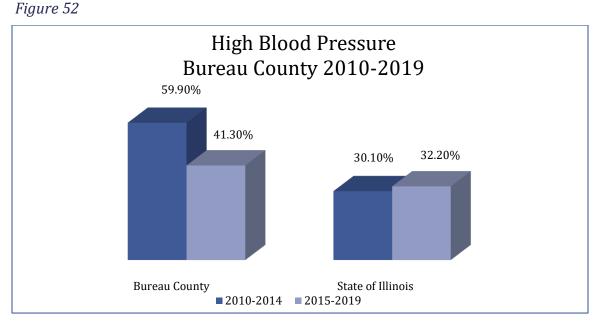
Source: Illinois Behavioral Risk Factor Surveillance System

However, most (58.6%) residents of Bureau County report having their cholesterol checked recently, whereas 20.1% report never having their cholesterol checked (Figure 51). Note that data have not been updated by the Illinois Department of Public Health.



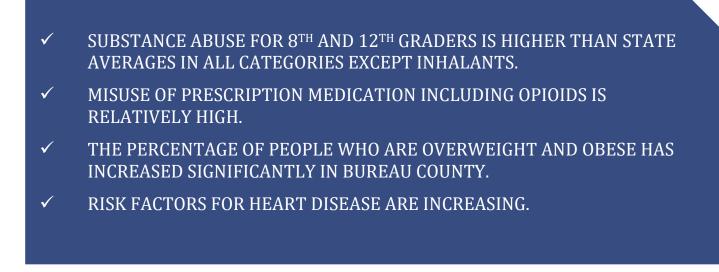
Source: Illinois Behavioral Risk Factor Surveillance System

With regard to high blood pressure, Bureau County has a higher percentage of residents with high blood pressure than residents in the State of Illinois as a whole. The percentage of Bureau County residents reporting they have high blood pressure from 2015–2019 was 41.3% (Figure 52). Note that data have not been updated past 2019 by the Illinois Department of Public Health.



Source: Illinois Behavioral Risk Factor Surveillance System

3.5 Key Takeaways from Chapter 3



CHAPTER 4 OUTLINE

- 4.1 Self-Identified Health Conditions
- 4.2 Healthy Babies
- 4.3 Cardiovascular disease
- 4.4. Respiratory
- 4.5 Cancer
- 4.6 Diabetes
- 4.7 Infectious Disease
- 4.8 Injuries
- 4.9 Mortality
- 4.10 Key Takeaways from Chapter 4

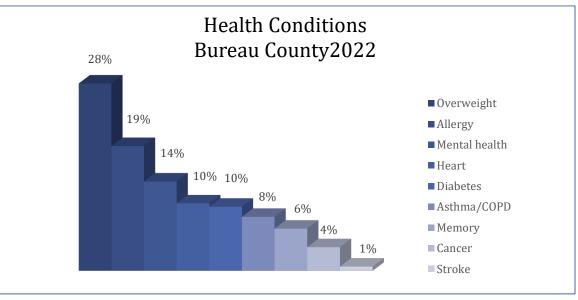
CHAPTER 4: Morbidity and Mortality

Given the lack of recent disease/morbidity data from existing secondary data sources, much of the data used in this chapter was manually gathered from Bureau County hospitals using COMPdata Informatics. Note that hospital-level data only show hospital admissions and do not reflect outpatient treatments and procedures.

4.1 Self-Identified Health Conditions

Survey respondents were asked to self-identify any health conditions. Note that being overweight (89%) was significantly higher than any other health conditions. This percentage is significantly lower than secondary sources. Specifically, Behavioral Risk Factor Surveillance System (BRFSS) data indicate that roughly two-thirds of the population is overweight or obese. Most other self-identified morbidities reflected existing sources of secondary data accurately (e.g., cancer 4%).





Source: CHNA Survey

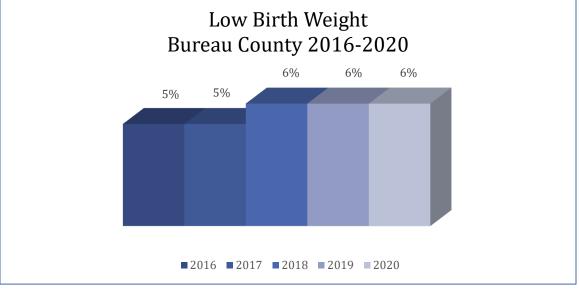
4.2 Healthy Babies

Importance of the measure: Regular prenatal care is a vital aspect in producing healthy babies and children. Screening and treatment for medical conditions as well as identification and interventions for behavioral risk factors associated with poor birth outcomes are important aspects of healthy babies. Research suggests that women who receive adequate prenatal care are more likely to have better birth outcomes, such as full term and normal weight babies.

Low Birth Weight Rates

Low birth weight rate is defined as the percentage of infants born below 2,500 grams or 5.5 pounds. Very low birth weight rate is defined as the percentage of infants born below 1,500 grams or 3.3 pounds. In contrast, the average newborn weighs about 7 pounds. The percentage of babies born with low birth weight in Bureau County has remained constant with a slight increase in 2018 (6.0%) (see Figure 54).





Source: County Health Rankings 2020

4.3 Cardiovascular Disease

Importance of the measure: Cardiovascular disease is defined as all diseases of the heart and blood vessels, including ischemic (also known as coronary) heart disease, cerebrovascular disease, congestive heart failure, hypertensive disease and atherosclerosis.

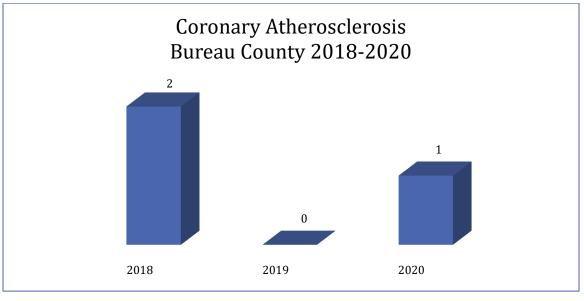
Coronary Atherosclerosis

Coronary Atherosclerosis, sometimes-called hardening of the arteries, can slowly narrow and harden the arteries throughout the body. When atherosclerosis affects the arteries of the heart, it is called coronary artery disease.

Coronary artery disease is a leading cause of death for Americans. Most of these deaths are from heart attacks caused by sudden blood clots in the heart's arteries.

The number of cases of coronary atherosclerosis complication at Bureau County area hospitals has been low, with 2 cases in 2018 and 1 case reported in 2020 (see Figure 55). Note that hospital-level data only show hospital admissions and do not reflect out-patient treatments and procedures.

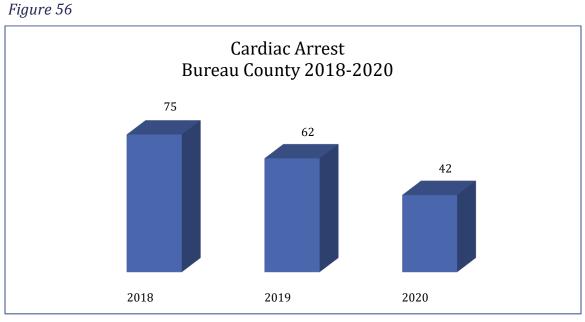




Source: COMPdata Informatics 2021

Cardiac Arrest

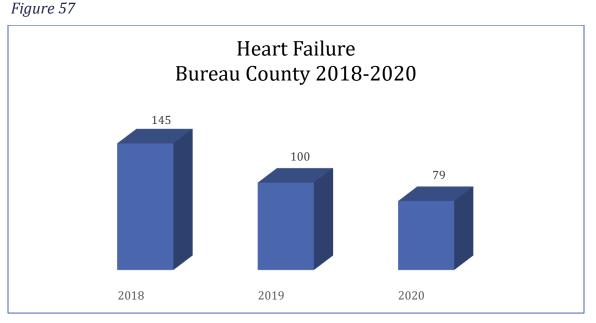
Cases of dysrhythmia and cardiac arrest at Bureau County area hospitals decreased by 33 from 2018 and 2020 (see Figure 56). Note that hospital-level data only show hospital admissions.



Source: COMPdata Informatics 2021

Heart Failure

The number of treated cases of heart failure at Bureau County area hospitals decreased in 2020. In 2018, 145 cases were reported, and in 2020, there were 79 cases reported (Figure 57). Note that hospital-level data only show hospital admissions.

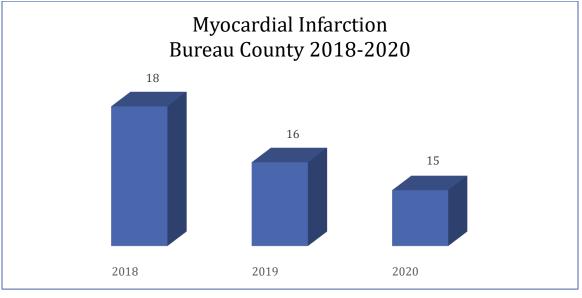


Source: COMPdata Informatics 2021

Myocardial Infarction

The number of treated cases of myocardial infarction at area hospitals in Bureau County decreased from 2018 (18) and 2020 (15) (Figure 58). Note that hospital-level data only show hospital admissions.





Source: COMPdata 2021

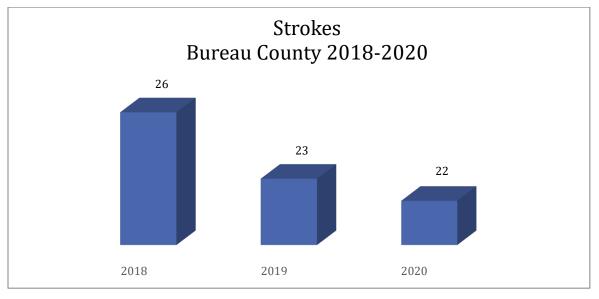
Arterial Embolism

There was 1 (2019) treated case of arterial embolism at Bureau County area hospitals from 2018 - 2020. Note that hospital-level data only show hospital admissions.

Strokes

The number of treated cases of stroke at Bureau County area hospitals decreased between 2018 and 2020 from 26 to 22 cases (Figure 59). Note that hospital-level data only show hospital admissions and do not reflect outpatient treatments and procedures.





Source: COMPdata Informatics 2021

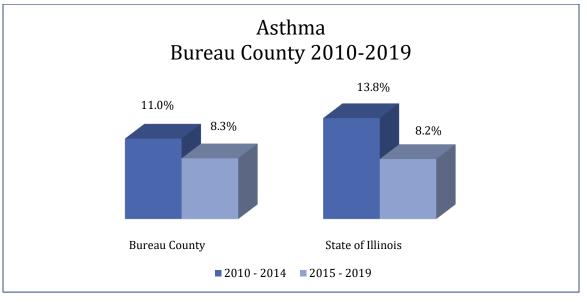
4.4 Respiratory

Importance of the measure: Disease of the respiratory system includes acute upper respiratory infections such as influenza, pneumonia, bronchitis, asthma, emphysema and Chronic Obstructive Pulmonary Disease (COPD). These conditions are characterized by breathlessness, wheezing, chronic coughing, frequent respiratory infections and chest tightness. Many respiratory conditions can be successfully controlled with medical supervision and treatment. However, children and adults who do not have access to adequate medical care are likely to experience repeated serious episodes, trips to the emergency room and absences from school and work. Hospitalization rates illustrate the worst episodes of respiratory diseases and are a proxy measure for inadequate treatment.

Asthma

The percentage of residents who have asthma in Bureau County (8.3%) is slightly higher than State averages of 8.2% (Figure 60). Note that data has not been updated past 2019 by the Illinois Department of Public Health.

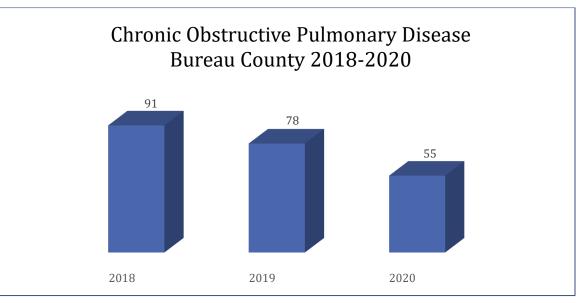




Source: Illinois Behavioral Risk Factor Surveillance System

Treated cases of COPD at Bureau County area hospitals decreased between 2018 and 2020 from 91 to 55 (Figure 61). Note that hospital-level data only show hospital admissions and do not reflect out-patient treatments and procedures.





Source: COMPdata 2021

4.5 Cancer

Importance of the measure: Cancer is caused by the abnormal growth of cells in the body and many causes of cancer have been identified. Generally, each type of cancer has its own symptoms, outlook for cure, and methods for treatment. Cancer is one of the leading causes of death in Bureau County.

For the top three prevalent cancers in Bureau County, comparisons can be seen below. Specifically, breast cancer and prostate cancer are lower than the State of Illinois, but lung cancer is higher than state averages (Figure 62). Note that 2018 is the most recent year of data.

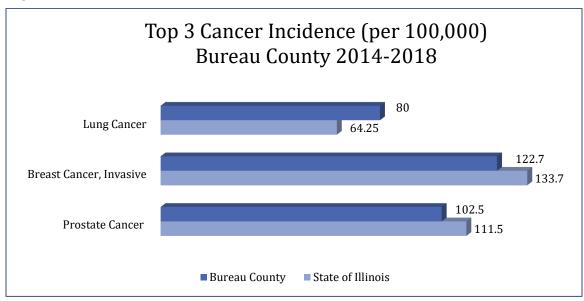


Figure 62

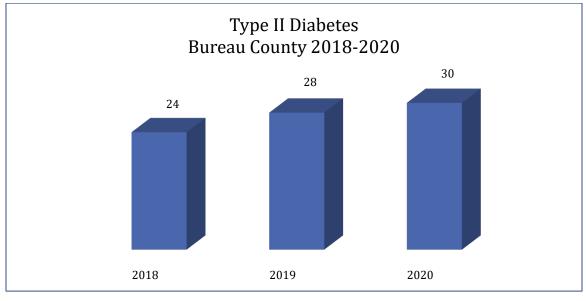
Source: Illinois Department of Public Health – Cancer in Illinois

4.6 Diabetes

Importance of the measure: Diabetes is the leading cause of kidney failure, adult blindness and amputations and is a leading contributor to strokes and heart attacks. It is estimated that 90-95% of individuals with diabetes have Type II diabetes (previously known as adult-onset diabetes). Only 5-10% of individuals with diabetes have Type I diabetes (previously known as juvenile diabetes).

Inpatient cases of Type II diabetes from Bureau County increased between 2018 (24) and 2020 (30) (Figure 63). Note that hospital-level data only show hospital admissions and do not reflect out-patient treatments and procedures.

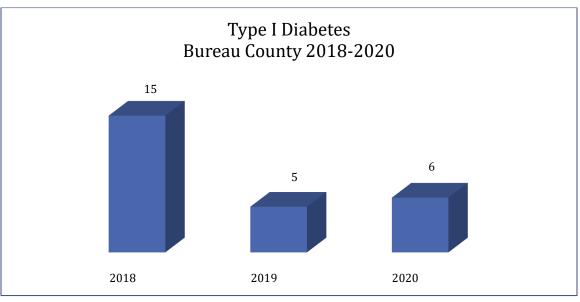




Source: COMPdata Informatics 2021

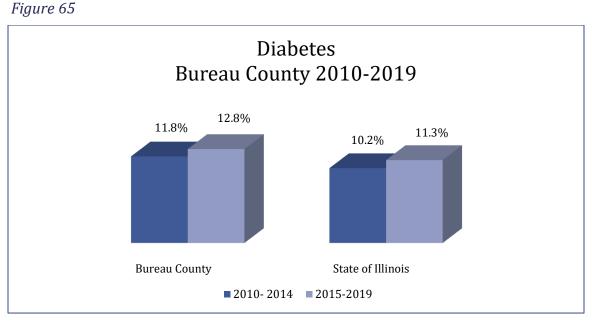
Inpatient cases of Type I diabetes show a decrease from 2018 (15) to 2019 (5) followed by an increase in 2020 (6) for Bureau County (Figure 64). Note that hospital-level data only show hospital admissions and do not reflect out-patient treatments and procedures.





Source: COMPdata 2021

Data from the Illinois BRFSS indicate that 12.8% of Bureau County residents have diabetes (Figure 65). Trends are concerning, as the prevalence of diabetes is increasing in the State of Illinois. Note that data have not been updated past 2019 by the Illinois Department of Public Health.



Source: Illinois Behavioral Risk Factor Surveillance System

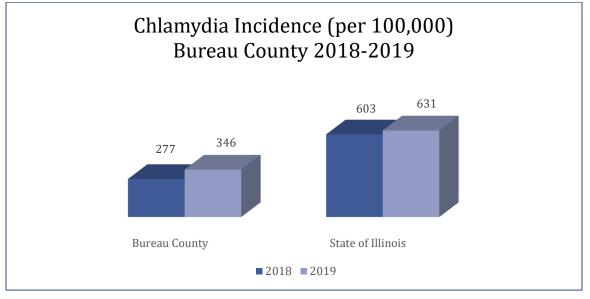
4.7 Infectious Diseases

Importance of the measure: Infectious diseases, including sexually transmitted infections and hepatitis, are related to high-risk sexual behavior, drug and alcohol abuse, limited access to healthcare, and poverty. It would be highly cost-effective for both individuals and society if more programs focused on prevention rather than treatment of infectious diseases.

Chlamydia and Gonorrhea Cases

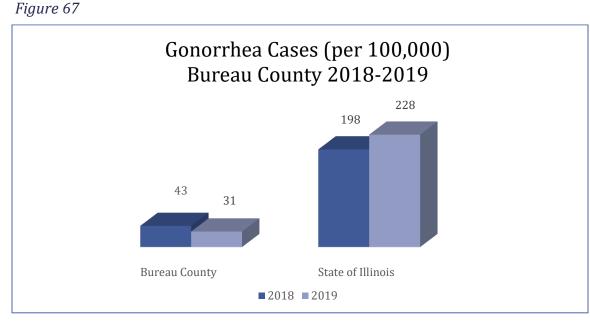
The data for the number of infections of chlamydia in Bureau County from 2018-2019 indicate an increase. There is also an increase of incidence of chlamydia across the State of Illinois. Rates of chlamydia in Bureau County are lower than State averages (Figure 66).





Source: Illinois Department of Public Health

The data for the number of infections of gonorrhea in Bureau County are low and have decreased. The State of Illinois did experience an increase from 2018-2019 (Figure 67).



Source: Illinois Department of Public Health

Vaccine Preventable Diseases

A vaccine-preventable disease is an infectious disease for which an effective preventive vaccine exists. If a person acquires a vaccine-preventable disease and dies, the death is considered a vaccine-preventable death. According to the Illinois Public Health Department, the most common and serious vaccinepreventable diseases are: Varicella (chickenpox), Tetanus (lockjaw), Pertussis (whooping cough), Poliomyelitis (Polio), Measles (Rubeola), Mumps, Rubella (German measles), Diphtheria, Hepatitis B, and Hemophilic Influenza Type B (HIB) Infections. These diseases used to strike thousands of children each year. Today there are relatively few cases, but outbreaks still occur each year because some babies are not immunized. Bureau County has shown no significant outbreaks compared to state statistics, but there are limited data available (Table 1 and Table 2). Note: Data has not been updated past years indicated in table. Also note that COVID-19 vaccine rates are presented in Chapter 2 of the CHNA.

Table 1 Vaccine Preventable Diseases 2015-2016 Bureau County Region

Mumps	2015	2016
Bureau County	0	0
State of Illinois	430	333

Pertussis	2015	2016
Bureau County	0	0
State of Illinois	718	1034

Varicella	2015	2016
Bureau County	3	0
State of Illinois	443	469

Source: Illinois Department of Public Health

Table 2 Tuberculosis 2015-2016 Bureau County Region

Tuberculosis	2015	2016
Bureau County	0	1
State of Illinois	336	319

Source: Illinois Department of Public Health

4.8 Injuries

Importance of the measure: Suicide is intentional self-harm resulting in death. These injuries are often indicative of serious mental health problems requiring the treatment of other trauma-inducing issues. Unintentional injuries can occur, in part, from violent crimes.

Suicide

The number of suicides in Bureau County indicate lower incidence than State of Illinois averages, as there were approximately 8.6 per 100,000 people in Bureau County from 2016-2018 (Figure 68).

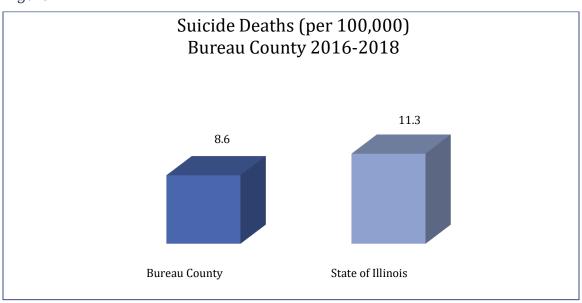


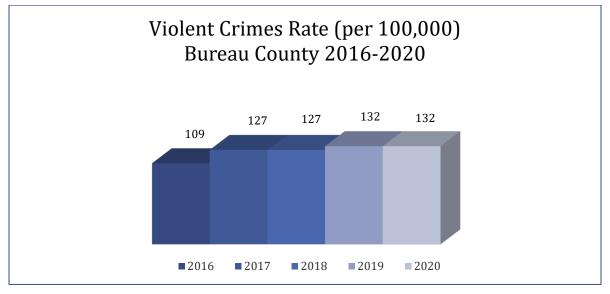
Figure 68

Source: Illinois Department of Public Health

Violent Crimes

Violent crimes are defined as offenses that involve face-to-face confrontation between the victim and the perpetrator, including homicide, forcible rape, robbery and aggravated assault. Violent crime is represented as an annual rate per 100,000 people. The number of violent crimes has increased since 2016 in Bureau County (see Figure 69).





Source: Illinois County Health Rankings 2020 data

4.9 Mortality

Importance of the measure: Presenting data that focuses on causes of mortality provides an opportunity to define and quantify which diseases are causing the most deaths.

The top three leading causes of death in the State of Illinois and Bureau County are similar as a percentage of total deaths in 2020. Diseases of the Heart are the cause of 21.6% of deaths, cancer is the cause of 19.1% of deaths, and COVID-19 is the cause of 12% of deaths in Bureau County (Table 3).

Top 5 Leading Causes of Death for all Races by County and State (2020)			
Rank	Bureau County	State of Illinois	
1	Diseases of Heart (21.6%)	Diseases of Heart (20.7%)	
2	Malignant Neoplasm (19.1%)	Malignant Neoplasm (18.1%)	
3	COVID-19 (12%)	COVID-19 (11.8%)	
4	Cerebrovascular Disease (8%)	Cerebrovascular Disease (5.4%)	
5	Accidents (4.6%)	Accidents (5.1%)	

Table 3

Source: Illinois Department of Public Health

4.10 Key Takeaways from Chapter 4

- ✓ LUNG CANCER RATES IN BUREAU COUNTY ARE HIGHER THAN STATE AVERAGES.
- ✓ ASTHMA HAS SEEN A REDUCTION IN BUREAU COUNTY AND IS SIMILAR TO STATE AVERAGES.
- ✓ WHILE STATE AVERAGES HAVE ONLY SEEN A SLIGHT INCREASE, DIABETES IS TRENDING UPWARD IN BUREAU COUNTY AND IS HIGHER THAN STATE AVERAGES.
- ✓ CANCER, HEART DISEASE AND COVID-19 ARE THE LEADING CAUSES OF MORTALITY IN BUREAU COUNTY.

CHAPTER 5 OUTLINE

- 5.1 Perceptions of Health Issues
- 5.2 Perceptions of Unhealthy Behavior
- 5.3 Perceptions of Issues with Well Being
- 5.4 Summary of Community Health Issues
- 5.5 Community Resources
- 5.6 Significant Needs Identified and Prioritized

CHAPTER 5: Prioritization of Health-Related Issues

In this chapter, we identify the most critical health-related needs in the community. To accomplish this, we first consider community perceptions of health issues, unhealthy behaviors and issues related to well-being. Using key takeaways from each chapter, we then identify important health-related issues in the community. Next, we complete a comprehensive inventory of community resources; and finally, we prioritize the most significant health needs in the community.

Specific criteria used to identify these issues included: (1) magnitude in the community; (2) severity in the community; (3) potential for impact to the community.

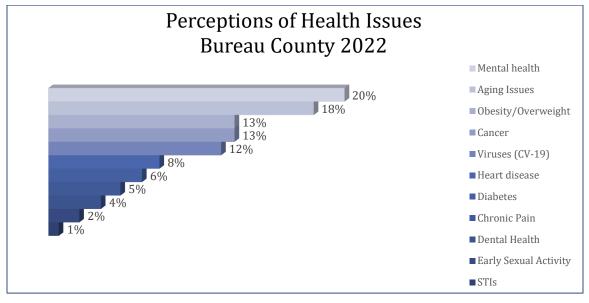
5.1 Perceptions of Health Issues

The CHNA survey asked respondents to rate the three most important health issues in the community. Respondents had a choice of 11 different options.

The health issue that rated highest was mental health (20%), followed by aging issues (18%). Additionally, obesity (13%), cancer (13%) and viruses (12%) were rated relatively high (Figure 70). These five factors were significantly higher than other categories based on *t-tests* between sample means.

Note that perceptions of the community were accurate in some cases. For example, issues such as mental health, obesity and cancer are commonly identified issues. Survey respondents accurately identified these as important health issues. However, some perceptions were inaccurate. For example, while heart disease is a leading cause of mortality, it is ranked relatively low.



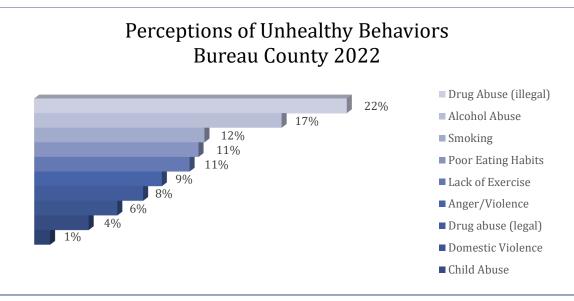


Source: CHNA Survey

5.2 Perceptions of Unhealthy Behaviors

Respondents were asked to select the three most important unhealthy behaviors in the community out of a total of 10 choices. The two unhealthy behaviors that rated highest were drug abuse(illegal) at 22% and alcohol abuse at 17% (Figure 71).



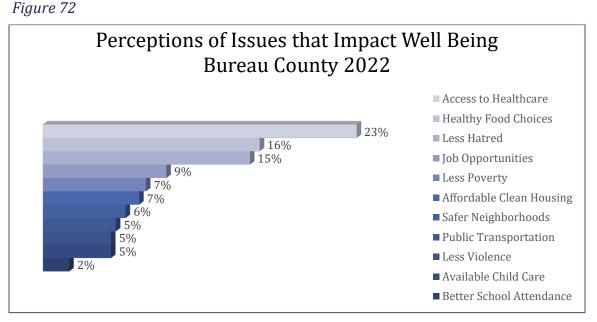


Source: CHNA Survey

5.3 Perceptions of Issues Impacting Well Being

Respondents were asked to select the three most important issues impacting well-being in the community out of a total of 11 choices.

The issue impacting well-being that rated highest was access to health (23%). It was followed by healthy food choices (16%) and less hatred (15%). These three factors were significantly higher than other categories based on *t-tests* between sample means (Figure 72).



Source: CHNA Survey

5.4 Summary of Community Health Issues

Based on findings from the previous analyses, a chapter-by-chapter summary of key takeaways is used to provide a foundation for identification of the most important health-related issues in the community. Considerations for identifying key takeaways include magnitude in the community, strategic importance to the community, existing community resources and potential for impact and trends and future forecasts.

Demographics (Chapter 1) – Four factors were identified as the most important areas of impact from the demographic analyses:

- Population decreased
- Population over age 65 increased
- Single female head-of-house-household represents 9% of the population
- Higher unemployment

Prevention Behaviors (Chapter 2) – Seven factors were identified as the most important areas of impact from the chapter on prevention behaviors:

- Access to dental care
- Prostate and cervical screening are relatively low
- COVID-19 vaccination rates
- Exercise and healthy eating behaviors
- Depression and stress/anxiety
- Food insecurity
- Health literacy

Symptoms and Predictors (Chapter 3) – Four factors were identified as the most important areas of impact from the chapter on symptoms and predictors:

- Substance abuse among youth
- Overweight and obesity
- Misuse of prescription medication
- Risk factors for heart disease

Morbidity and Mortality (Chapter 4) – Three factors were identified as the most important areas of impact from the chapter on morbidity/mortality behaviors:

- Lung cancer
- Diabetes is trending upward
- Cancer, heart disease and COVID-19 are the leading causes of mortality

Potential Health-Related Needs Considered for Prioritization

Before the prioritization of significant community health-related needs was performed, results were aggregated into 10 potential categories. Based on similarities and duplication, the 10 potential areas considered are:

≻Aging issues

> Healthy behaviors – including both nutrition & exercise

> Behavioral health – including both depression and anxiety

> Overweight/Obesity

> Substance abuse

>Access - dental

- ≻ Cancer lung
- ➤ Cancer screening
- **COVID-19 vaccination rates**

≻Health literacy

5.5 Community Resources

After summarizing potential categories for prioritization in the Community Health Needs Assessment, a comprehensive analysis of existing community resources was performed to identify the efficacy to which these 10 health-related areas were being addressed. A resource matrix can be seen in APPENDIX 4: Resource Matrix relating to the 10 health-related issues.

There are numerous forms of resources in the community. They are categorized as recreational facilities, county health departments, community agencies and area hospitals/clinics. A detailed list of community resources and descriptions appears in APPENDIX 5: Description of Community Resources.

5.6 Significant Needs Identified and Prioritized

In order to prioritize the previously identified dimensions, the collaborative team considered health needs based on: (1) magnitude of the issues (e.g., what percentage of the population was impacted by the issue); (2) severity of the issues in terms of their relationship with morbidities and mortalities; (3) potential impact through collaboration. Using a modified version of the Hanlon Method (as seen in APPENDIX 6: Prioritization Methodology), the collaborative team identified two significant health needs and considered them equal priorities:

- Behavioral Health including mental health and substance abuse
- > Healthy Behaviors defined as active living and healthy eating, and their impact on obesity

Behavioral Health - Mental Health and Substance Abuse

MENTAL HEALTH. The CHNA survey asked respondents to indicate prevalence of specific issues, namely depression and stress/anxiety. Of respondents, 49% indicated they felt depressed in the last 30 days and 39% indicated they felt anxious or stressed. Depression tends to be rated higher by younger people, those with less income and those living in an unstable (e.g., homeless) housing environment. Stress and anxiety tend to be rated higher for younger people, those with less income and those living in an unstable (e.g., homeless) housing environment. Stress and anxiety tend to be rated higher for younger people, those with less income and those living in an unstable (e.g., homeless) housing environment. Respondents were also asked if they spoke with anyone about their mental health in the last year. Of respondents 30% indicated that they spoke to someone, the most common response was to a doctor/nurse (37%). In regard to self-assessment of overall mental health, 11% of respondents stated they have poor overall mental health. In the 2022 CHNA survey, respondents indicated that mental health was the most important health issue.

SUBSTANCE ABUSE. Of survey respondents, 25% indicated they consume at least one alcoholic drink each day. Alcohol consumption tends to be rated higher by White people, those with higher income and those with higher education. Of survey respondents, 7% indicated they improperly use prescription medications each day to feel better and 5% indicated the use marijuana each day. Note that misuse of prescription medication (oftentimes opioid use) tends to be rated higher by those with lower education, those with less income and those living in an unstable (e.g., homeless) living environment. Marijuana use

tends to be rated higher by younger people, those with lower education, those with less income and those living in an unstable (e.g., homeless) living environment. Finally, of survey respondents, 1% indicated they use illegal drugs on a daily basis

In the 2022 CHNA survey, respondents rated drug abuse (illegal) as the most prevalent unhealthy behavior (22%) in Bureau County, followed by alcohol abuse (17%).

Healthy Behaviors – Healthy Eating, Active Living and Subsequent Obesity

HEALTHY EATING. Almost two-thirds (63%) of residents report no consumption or low consumption (1-2 servings per day) of fruits and vegetables per day. Note that the percentage of residents who consume five or more servings per day is only 5%. The most prevalent reasons for failing to eat more fruits and vegetables were the lack of desire and lack of importance.

ACTIVE LIVING. A healthy lifestyle, comprised of regular physical activity and balanced diet, has been shown to increase physical, mental and emotional well-being. Note that 30% of respondents indicated that they do not exercise at all, while the majority (57%) of residents exercise 1-5 times per week. The most common reasons for not exercising are not having enough energy (27%) or a dislike of exercise (25%).

OBESITY. In Bureau County, over three-quarters (75.6%) of residents were diagnosed with obesity and being overweight. In the 2022 CHNA survey, respondents indicated that being overweight was the third most important health issue and was rated as the most prevalently diagnosed health condition. Research strongly suggests that obesity is a significant problem facing youth and adults nationally, in Illinois, and within Bureau County. The U.S. Surgeon General has characterized obesity as "the fastest-growing, most threatening disease in America today." According to the Obesity Prevention Initiative from the Illinois General Assembly, 20% of Illinois children are obese. With children, research has linked obesity to numerous chronic diseases including Type II diabetes, hypertension, high blood pressure and asthma. Adverse physical health side effects of obesity include orthopedic problems due to weakened joints and lower bone density. Detrimental mental health side effects include low self-esteem, poor body image, symptoms of depression and suicide ideation. Obesity impacts educational performance as well; studies suggest school absenteeism of obese children is six times higher than that of non-obese children. With adults, obesity has far-reaching consequences. Testimony to the Illinois General Assembly indicated that obesity-related illnesses contribute to worker absenteeism, slow workflow, and high worker compensation rates. A Duke University study on the effects of obesity in the workforce noted 13 times more missed workdays by obese employees than non-obese employees. Nationwide, lack of physical activity and poor nutrition contribute to an estimated 300,000 preventable deaths per year.

APPENDICES

APPENDIX 1: Members of Collaborative Team

Members of the **Collaborative Team** consisted of individuals with special knowledge of and expertise in the healthcare of the community. Individuals, affiliations, titles and expertise are as follows:

Jackie Kernan serves as President of OSF HealthCare Saint Luke Medical Center, formerly Kewanee Hospital since 2017, and President of OSF HealthCare Saint Clare Medical Center, formerly Perry Memorial Hospital since July 2021. Prior to her current role, she served as Chief Nursing officer and has been at OSF HealthCare since 2009. She has been a Registered Nurse since 1987 and has held a variety of nursing and leadership roles during her career. She holds an MSN in Nursing Leadership from Saint Francis Medical Center College of Nursing. Jackie led the Perry Memorial Hospital integration into the OSF HealthCare system and was a key leader for the implementation of EPIC at OSF HealthCare Saint Clare Medical Center. Her focus has been on championing a culture around Mission Partner and Patient Engagement and she enjoys achieving improved patient outcomes by leading and collaborating with multidisciplinary teams of Mission Partners, leaders, and providers.

Marcia Hartwig serves as Education Coordinator of OSF HealthCare Saint Clare Medical Center, formerly Perry Memorial Hospital. She has served in this role since 1999; prior to her current role, she has served in many supervisory nursing roles including interim Vice President of Nursing. She has been a Certified BLS Instructor since 1991. She has worked with many organizations throughout the Bureau County area in providing quality wellness education to individuals and groups. She has facilitated a variety of health fairs, wellness presentations and support groups over the years and currently coordinates a Grief and Loss group, Diabetes group, Caregiver group and Senior Wellness group. She has served as Vice President of the Pink Ribbon Club of the Illinois Valley since 2019 and a founding member of this same group since 2013. She was recognized as a 2018 Illinois Valley Woman of Distinction. She is currently the Clinical Education Site Lead for EPIC implementation at OSF Saint Clare Medical Center. Her passion for health and wellness for our community has guided her vision for education throughout her career. Marcia resides in Princeton with her husband and has two grown daughters.

Stefanie Morris is the Community Health Educator for OSF Saint Clare. She has worked for Perry Memorial/OSF Healthcare System since 2018. Stefanie has a Bachelor of Science degree in Criminal Justice and has 20 years of education/teaching experience. Stefanie's experience spans early childhood education, health and nutrition advising, case management for those experiencing addiction, parental coaching services for low-income children and their families, as well as school-based presentations to children and adults regarding safe relationships, boundaries, coping strategies, sexual abuse prevention and a variety of other topics regarding healthy behaviors. She is a certified trainer for Mental Health First Aid, Mental Health First Aid for Youth, Signs of Suicide, Applied Suicide Intervention Skills Training, CPR AED and First Aid, and Non-Violent Crisis Intervention. Stefanie and her husband Josh reside in Malden and have two daughters, Kiyrra and Kaizly and son Austyn.

Samantha Rux is the Community Relations Coordinator for OSF Saint Clare. Sam holds a bachelor's degree in Health Administration and Planning from the University of Illinois at Urbana-Champaign, and has been working in health care marketing for most of her professional career. She enjoys interdepartmental collaboration with fellow Mission Partners and has been excited to integrate into the Princeton community. Sam resides in Kewanee with her husband and two young sons.

John Bowser is Director of Finance for OSF Saint Luke Medical Center (Kewanee, IL) and OSF Saint Clare Medical Center (Princeton, IL), serving in the Director role since 2018; CFO from 2013-2018. John has over 20 years of healthcare experience beginning his healthcare career with OSF in 2000 at OSF Saint Joseph Medical Center in Bloomington, IL and then the OSF Multispecialty Group in Peoria, IL. John has a Bachelor's degree from Western Illinois University and a Master of Business Administration from Illinois State University. He is accountable for the financial leadership at both entities and participates in many committees and projects locally and ministry wide. John is also a member of the Kewanee Rotary Club and the University of Illinois Unit 7 Extension Advisory Council.

Jerry Neumann: I have been active in civic committees, government and leadership organizations for almost 50 years. I served as president of the local school board for 7 years and high school parent groups for 8. I continued my public service in 2001 when I served as mayor in Manlius, Illinois for 4 years. We moved to Princeton in 2008 and volunteered for the Chamber of Commerce. In 2014, I was elected to the Princeton city council and I continue to serve in that capacity today. As part of my duties as a city council member, I am the city liaison to the Princeton Public Library and the Lovejoy Homestead historic site in Princeton. I am honored to be part of the OSF Saint Clare Medical Center Community Council and look forward to working with the hospital leadership team and the community.

Thomas G. Tester is the Plant Manager of MTM Recognition in Princeton, Illinois. Tom has held this position since 2001. He is a graduate of Carthage College and has a degree in Business Administration. Tom had been a board member for the Perry Memorial Hospital Board of Directors for 24 years, during which time he served as Board Chairman and chaired various board committees. Tom is a current member of the OSF St. Clare Medical Center Community Council. Tom is also a Senior Examiner for Illinois Performance Excellence, which advances the application of the Malcolm Baldrige Quality framework for Illinois businesses. Tom is also the President of Zearing Child Enrichment Center board of directors, a member of the fund-raising committee for the W.D. Boyce Council-Boy Scouts of America, and a member of the steering committee for the Z-Tour bicycling fundraiser.

Gary Bruce: Gary resides in Princeton, his hometown, where he owns and manages the third generation business, Bruce Jewelers. Gary attended Gem City College, Quincy, IL and received an Associate in Technology Degree with a major in Jewelry Store Management. Gary joined the staff of the College for a short time before returning to Princeton and the family business. In 1973, he was granted the title of Certified Master Watchmaker. In 1979, Gary became a partner in the business and in 1987 sole owner. Gary served as President of the Illinois Jewelers Association 1989-1991. He served as a Board Member to the Perry Memorial Hospital beginning in 2003 and now serves on Princeton's, OSF St. Clare Community Advisory Board. He is a past Council Member and served four years as Council President at St. Matthews Lutheran Church in Princeton. Gary was a founding member of the Princeton High School Foundation became the Princeton Public Schools Foundation where Gary completed nine years of service with seven years as Board Chair. Gary and his wife Diane have a daughter Sarah, Son-in-law, Duane and four grandchildren.

Deb Madsen has held various positions in the banking industry over many years. She served on the Perry Memorial Hospital Board of Director's starting in 2016 and is now on the OSF Healthcare Saint Clare Medical Center Community Council.

Tony Sorcic was in the banking industry for over 30 years. He retired as President of CFNB and PNBC in 2010. Tony holds a B.S. in Finance and Management from Illinois State University, and received his MBA, also from Illinois State, in 1976. He has been a Rotary member for over 42 years having served as President and Board Member and has been Secretary for the past 16 years. Tony also served as Assistant Governor of Rotary District 6420. He has been a Board Member at Perry Memorial Hospital for 19 years.

In addition to collaborative team members, the following **facilitators** managed the process and prepared the Community Health Needs Assessment. Their qualifications and expertise are as follows:

Michelle A. Carrothers (Coordinator) is currently the Vice President of Strategic Reimbursement for OSF Healthcare System, a position she has served in since 2014. She serves as a Business Leader for the Ministry Community Health Needs Assessment process. Michelle has over 35 years of health care experience. Michelle obtained both a Bachelor of Science Degree and Masters of Business Administration Degree from Bradley University in Peoria, IL. She attained her CPA in 1984 and has earned her Fellow of the Healthcare Financial Management Association Certification in 2011. Currently she serves on the National Board of Examiners for HFMA. Michelle serves on various Peoria Community Board of Directors and Illinois Hospital Association committees.

Dawn Tuley (Coordinator) is a Strategic Reimbursement Senior Analyst at OSF Healthcare System. She has worked for OSF Healthcare System since 2004 and acts as the coordinator for 15 Hospital Community Health Need Assessments. In addition, she coordinates the submission of the Community Benefit Attorney General report and the filing of the IRS Form 990 Schedule H since 2008. Dawn holds a Master's in Healthcare Administration from Purdue University and is certified in Community Benefit. Dawn has been a member of the McMahon-Illini Chapter of Healthcare Financial Management Association for over twelve years. She has served as the Vice President, President-Elect and two terms as the Chapter President on the board of Directors. She has earned a silver, bronze, gold and Metal of Honor from her work with the McMahon-Illini HFMA Chapter. She is currently serving as a Director on the board.

Dr. Laurence G. Weinzimmer, Ph.D. (Principal Investigator) is the Caterpillar Inc. Professor of Strategic Management in the Foster College of Business at Bradley University in Peoria, IL. An internationally recognized thought leader in organizational strategy and leadership, he is a sought-after consultant to numerous *Fortune 100* companies and not-for-profit organizations. Dr. Weinzimmer has authored over 100 academic papers and four books, including two national best sellers. His work appears in 15 languages, and he has been widely honored for his research accomplishments by many prestigious organizations, including the Academy of Management. Dr. Weinzimmer has served as principal investigator for numerous community assessments, including the United Way, Economic Development Council and numerous hospitals. His approach to Community Health Needs Assessments was identified by the Healthcare Financial Management Association (HFMA) as a Best-in-Practice methodology. Dr. Weinzimmer was contracted for assistance in conducting the CHNA.

APPENDIX 2: Survey

Bureau County

2021 COMMUNITY HEALTH-NEEDS ASSESSMENT SURVEY

INSTRUCTIONS

We want to know how you view our community, and other factors that may impact your health. We are inviting you to participate in a research study about community health needs. Your opinions are important! This survey will take about 12 minutes to complete. All of your individual responses are anonymous and confidential. We will use the survey results to better understand and address health needs in our community.

COI	MMUNITY PERCEPTIONS		
	hat would you say are the three (3) biggest $\operatorname{H\!E}$		
	Aging issues, such as Alzheimer's disease,		Early sexual activity
	hearing loss, memory loss, arthritis, falls		Heart disease/heart attack
	Cancer		Mental health issues (including depression, anger)
	Chronic pain		Obesity/overweight
	Dental health (including tooth pain)		Sexually transmitted infections
	Diabetes		Viruses (including COVID-19)
2 12	That would you say are the three (3) most UNH	FAT	THY BEHAVIORS in our community?
<u> </u>	Angry behavior/violence		Drug abuse (legal drugs)
\Box	Alcohol abuse	\Box	Lack of exercise
$\overline{\Box}$	Child abuse	$\overline{\Box}$	Poor eating habits
\square	Domestic violence	\square	Risky sexual behavior
	Drug abuse (illegal drugs)		Smoking/vaping (tobacco use)
	8	_	
3. W	hat would you say are the three (3) most impor	tant f	actors that would improve your WELL-BEING?
	Access to health services		Job opportunities
	Affordable healthy housing		Less hatred & more social acceptance
	Availability of child care		Less poverty
\square	Better school attendance	\Box	Less violence
$\overline{\Box}$	Good public transportation	$\overline{\Box}$	Safer neighborhoods/schools
	Healthy food choices	_	-
_	2		
ACC	CESS TO CARE		
		ndhe	alth choices. Remember, this survey will not be linked to
you i	n any way.		
Med	lical Care		
1. W	hen you get sick, where do you go? (Please cl	hoose	only one answer).
_	linic/Doctor's office Emergency De rgent Care Center Health Depart:	-	ent I don't seek medical attention
	a don't seek medical attention, why not? ear of Discrimination 🛛 Lack of trust 🗌 C	ost	🗌 I have experienced bias 🛛 🗋 Do not need
2. I n	the last YEAR, was there a time when you nee	eded n	nedical care but were not able to get it?
□ Y	es (please answer #3)	И []	o (please go to #4: Prescription Medicine)

 3. If you were not able to get medical care, why not? Didn't have health insurance. Couldn't afford to pay my co-pay or deductible. Fear of discrimination. 	(Please choose all that apply). Too long to wait for appointment. Didn't have a way to get to the doctor. Lack of trust.
Prescription Medicine 4. In the last YEAR, was there a time when you need ☐ Yes (please answer #5)	led prescription medicine but were not able to get it?] No (please go to #6: Dental Care)
 5. If you were not able to get prescription medicine, Didn't have health insurance. Couldn't afford to pay my co-pay or deductible. Fear of discrimination. 	why not? (Please choose all that apply). Pharmacy refused to take my insurance or Medicaid. Didn't have a way to get to the pharmacy. Lack of trust.
Dental Care	
6. In the last YEAR, was there a time when you need	led dental care but were not able to get it?] No (please go to #8: Mental-Health Counseling)
 7. If you were not able to get dental care, why not? (Didn't have dental insurance. Couldn't afford to pay my co-pay or deductible. Fear of discrimination. Not sure where to find available dentist 	Please choose all that apply). The dentist refused my insurance/Medicaid Didn't have a way to get to the dentist. Lack of trust.
Montal Hoalth Counceling	
Mental-Health Counseling 8. In the last YEAR, was there a time when you need Yes (please answer #9)	ledmental-health counseling but could not get it?] No (please go to next section – HEALTHY BEHAVIORS)
 9. If you were not able to get mental-health counselin Didn't have insurance. Couldn't afford to pay my co-pay or deductible Didn't have a way to get to a counselor. Fear of discrimination. Long wait time. 	ng, why not? (Please choose all that apply). The counselor refused to take insurance/Medicaid. Embarrassment. Cannot find counselor. Lack of trust.
HEALTHY BEHAVIORS The following questions ask about your own health and you in any way.	l health choices. Remember, this survey will not be linked to
Exercise 1. In the last WEEK how many times did you particip fitness classes) that lasted for at least 30 minutes?	pate in exercise, (such as jogging, walking, weight-lifting,
□ None (please answer #2) □ 1 - 2 times [3 - 5 times More than 5 times

Can't afford the fees to exercise.	e, why didn't you exercise in the past week? (Please Oon't like to exercise. Oon't have child care while I exercise. 'oo tired.
Healthy Eating 3. On a typical DAY, how many servings/separate port example would be a banana (but not banana flavored puo None (please answer #4) 1 - 2 servings 3 - 5	Iding).
It is not important to me	ind vegetables, why didn't you eat fruits/vegetables? Oon't like fruits/vegetables Can't afford fruits/vegetables Oon't have a refrigerator/stove
5. Where is your primary source of food? (Please choose Grocery store Fast food Gas station Food pantry Farm/garden Convenience	Food delivery program
 6. Please check the box next to any health conditions tha If you don't have any health conditions, please check to I do not have any health conditions Diabetes Allergy Heart problems Asthma/COPD Overweight Cancer Memory problem 	the first box and go to question #8: Smoking. Mental-health conditions Stroke
7. If you identified any conditions in Question #6, how o condition(s)? Never Sometimes Usually	ften do you follow an eating plan to manage your — Always
Smoking 8. On a typical DAY, how many cigarettes do you smoke None 1 - 4	2? 9 - 12 More than 12
Vaping 9. On a typical DAY, how many times do you use electro None 1 - 4	onic vaping? 9 - 12 More than 12

GENERAL HEALTH

10. Where do you get most of your health information and how would you like to get health information in the future? (For example, do you get health information from your doctor, from the Internet, etc.).

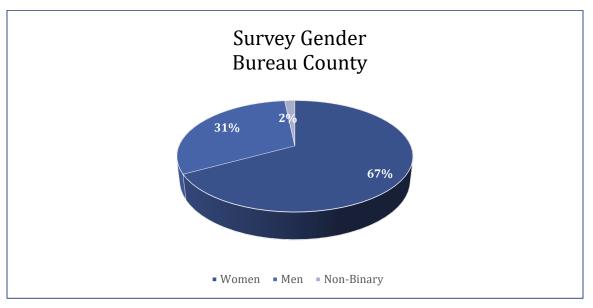
11. Do you have a	personal physician/de	octor?	Yes 🗌	No	
12. How many day None	ys a week do you or y □ 1-2 days	our family me 3-5 days		gry? :han 5 days	
13. In the last 30 I None)AYS, how many day □1-2 days	s have you fel 3 – 5 days		-	s?
	AYS, how often has	your stress and	d∕oran xiety s	topped you fr	om your normal daily
activities?	□ 1-2 days	🗌 3 - 5 days	🗌 More t	ihan 5 days	
15. In the last YEA	AR have you talked w ver #1δ) □ No (ple	ith anyone abo ase go to #17)	out your ment	al health?	
16. If you talked to	o anyone about your n Counselor	nental health, Family/fr		Other	
doctor instructed)	you use prescription n on a typical DAY? 1–2 times	nedications (n		to you or used e than 5 times	differently than how the
	oholic drinks do you l 1—2 drinks		cal DAY?] More than 5	drinks	
	you use marijaunia on 1—2 times	a typical DAT		e than 5 times	
20. How often do y	you use substances su 1–2 times		s, ecstasy, coo] 3-5 times	· _	heroin on a typical DAY? are than 5 times
21. Do you feel sat	fe where you live?] Yes	🗌 No	
Breast/mam Prostate exa Colonoscop	ears, have you had a: mography exam am y/colorectal cancer scre ncer screening/pap smea	~ =] Yes] Yes] Yes] Yes	☐ No ☐ No ☐ No ☐ No	 Not applicable Not applicable Not applicable Not applicable
Overall Health 21. My overall ph 22. My overall me	ysical health is:] Below averag] Below averag	=	• =	ove average ove average
INTERNET 1. Do you have Int	ternet at home? For e	xample, can ye	ou watch You	tube at home	?
🗌 Yes (please go to	o next section – BACK	GROUND INF	ORMA T ION)	🗌 No (please	e answer #2)

2. If don't have Internet, why not? Cost No available Internet provider I don't know how Data limits Poor Internet service No phone or computer
BACKGROUND INFORMATION
1. What county do you live in?
Bureau Other
2. What is your Zip Code?
3. What type of health insurance do you have? (Please choose all that apply).
Medicare Medicaid/State insurance Commercial/Employer
Don't have (Please answer #4)
4. If you answered "don't have" to the question about health insurance, why don't you have insurance? (Please choose all that apply).
Can't afford health insurance Don't need health insurance Don't know how to get health insurance Other
5. What is your gender? 🛛 Male 📄 Female 🗌 Non-binary 🗌 Transgender 📄 Prefer not to answer
6. What is your sexual orientation? Queer Defer not to answer
7. What is your age? Under 20 21-35 36-50 51-65 Over 65
8. What is your racial or ethnic identification? (Please choose only one answer).
White/Caucasian Black/African American Hispanic/LatinX Pacific Islander Native American Asian/South Asian Multiracial Other:
9. What is your highest level of education? (Please choose only one answer).
Grade/Junior high school Some high school High school degree (or GED) Some college (no degree) Associate's degree Certificate/technical degree Bachelor's degree Graduate degree Other:
10. What was your household/total income last year, before taxes? (Please choose only one answer).
Less than \$20,000 \$20,001 to \$40,000 \$40,001 to \$60,000 \$60,001 to \$80,000 \$30,001 to \$100,000 More than \$100,000
11. What is your housing status?
Do not have Have housing, but worried about losing it Have housing, NOT worried about losing it
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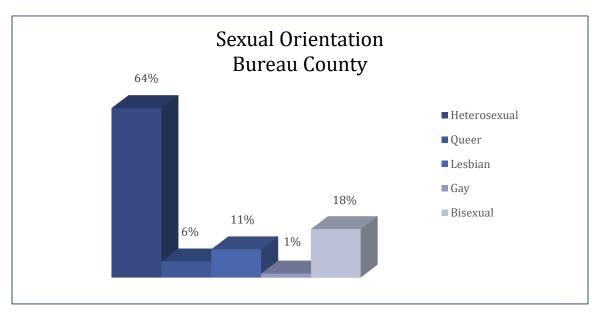
12. If you answered that you have housing, does your house have: leaking roof mold heat air conditioning running water rodents lead electricity Internet
13. How many people live with you?
14. How often do you communicate with people you care about and feel close to? (For example, talking, texting, meeting with friends/family?) Less than once per week 1-2 times per week 3 - 5 times per week More than 5 times per week
Is there anything else you'dlike to share about your own health goals or health issues in our community?

Thank you very much for sharing your views with us!

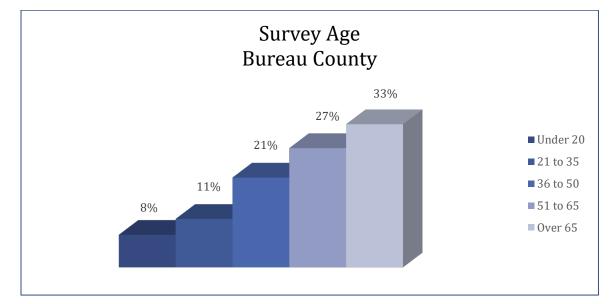
APPENDIX 3: Characteristics of Survey Respondents



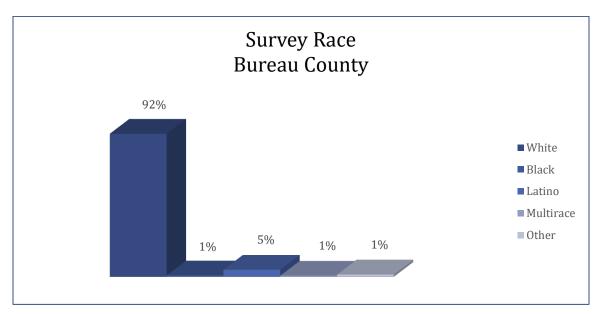
Source: CHNA Survey



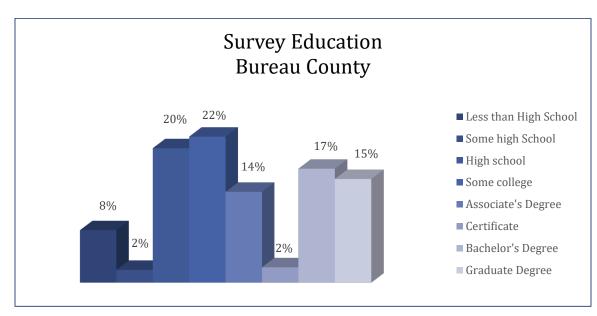
Source: CHNA Survey



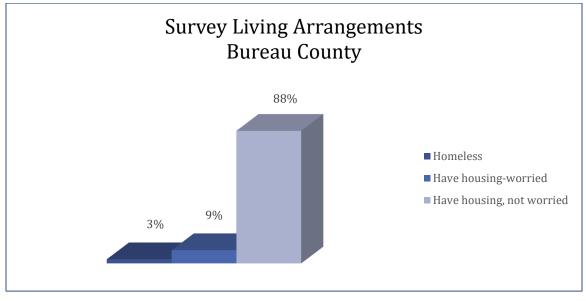
Source: CHNA Survey



Source: CHNA Survey



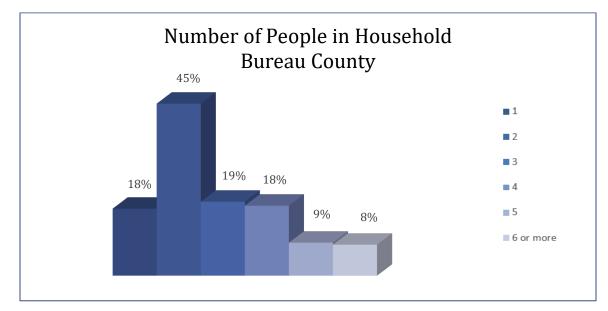
Source: CHNA Survey



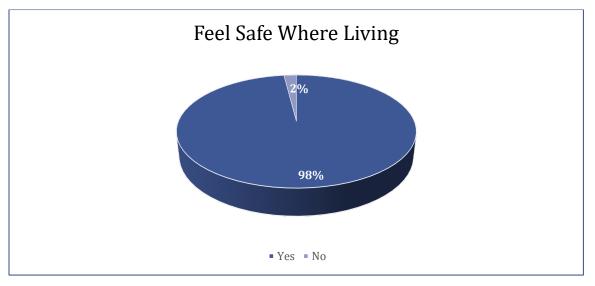
Source: CHNA Survey

Housing Environment

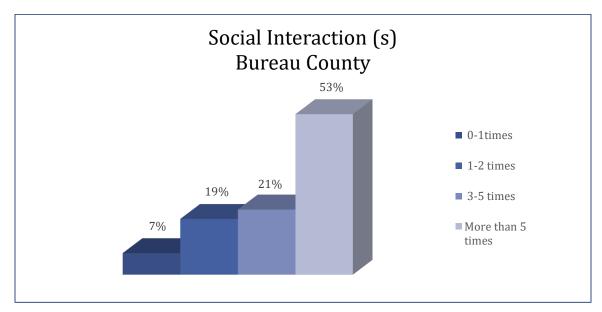
Housing environment is a measure of the housing-related standard of living in a community. Key risk influencers include affordability, crowding and quality. For Bureau County, 25% of the population is at elevated risk for housing environment. This is lower than the State of Illinois average of 33% (SocialScape® powered by SociallyDetermined®, 2022).



Source: CHNA Survey



Source: CHNA Survey



Source: CHNA Survey

APPENDIX 4: Resource Matrix

	Aging Issues	Dental Access	Covid- 19 Issues	Lung Cancer	Healthy Behaviors / Nutrition & Exercise	Behaviora l Health	Obesit y	Substanc e Abuse	Cancer Screenin g	Health Literacy
Recreational Facilities										
Bureau County Metro Center	3				3	2	3			
Princeton Park District	3				3	2	3			
Senior Citizen Center										
Anytime Fitness	3				3	2	3			
Health Departments	`									
Bureau County Health Department/WIC			3		3				3	1
Community Agencies										
Alcoholics Anonymous						1		3		
ARUKAH	1		2		3	3	3	3		
BPart Transportation	3	2			2	3				
Braveheart						3				
Bureau County Youth Services Bureau			2			2	1	1		
Bureau County Food Pantry	3		2		3					
Bureau County Senior Center	3		2		3	1				3
Bureau-Henry Stark Regional Office of Education					2	2	2			

	Aging Issues	Dental Access	Covid- 19 Issues	Lung Cancer	Healthy Behaviors / Nutrition & Exercise	Behaviora l Health	Obesit y	Substanc e Abuse	Cancer Screenin g	Health Literacy
Cornerstone Wellness in Sheffield	2		2		3	2		2		
CPASA			2		3			3		
C5 Rural			2			3		3		
Freedom House					2	3				
Gateway/Open Doors Services	2	1	2		2	3	1			
Housing Authority of Bureau County	3				2			2		
Our Table			1		1		1			
Perfectly Flawed			2			2		3		
Second Story Teen Center			1		2	2				
Spring Valley Project Success					2					
University of Illinois Extension	2				2		2			
Tri County opportunities										
Hospitals / Clinics										
OSF Saint Clare Medical Center (Princeton)	3	1	3	3	3	3	3	3	3	2
OSF Prompt Care (Princeton)	2	1	3		2	3	1	3		2
OSF Medical Group (Princeton)	3	1	3	3	3	3	3	3	3	2
OSF Medical Group (Sheffield)		1	3	3	3	2	3	2	3	2
OSF Medical Group - Internal Medicine (Princeton)	3	1	3	3	3	3	3	3	3	2

	Aging Issues	Dental Access	Covid- 19 Issues	Lung Cancer	Healthy Behaviors / Nutrition & Exercise	Behaviora l Health	Obesit y	Substanc e Abuse	Cancer Screenin g	Health Literacy
OSF Home Care and Hospice	3		3	3						2
St Margaret's Hospital (Spring Valley)	3	1	3	3	3	3	3	3	3	2
St. Margaret's Family Health Center (Spring Valley)	3	1	3	3	3	3	3	3	3	2
St. Margaret's Hospice (Spring Valley)	3		3	3	3	2		3	3	2
St. Margaret's Orthopedic Center (Spring Valley)	3		3		2		1			2
St. Margaret's Women's Health Center (Spring Valley)	3		3		3	2	2		3	22
Dentistry										
Dr. Daniel Fuertges (Walnut)		3								
Eckberg Dental (Wyanet)		3								
Elvin Krabill Dentistry (Princeton)		3								
Granville Dental		3								
Mueller Dental Care (Princeton)		3								
Princeton Dental Care (Princeton)		3								
Safransky Dentistry Services (Spring Valley)		3								
Timothy Puhr Dental Care (Princeton)		3								

*(1)= low; (2)= moderate; (3) = high, in terms of degree to which the need is being addressed

APPENDIX 5: Description of Community Resources

RECREATIONAL FACILITIES (3)

Bureau County Metro Center

The Bureau County Metro Center is a 50,000 square-foot recreation center with full size gymnasium; 25yard indoor swimming pool with wading pool and observation balcony; racquetball courts; weight room; cardio-vascular room, elevated running/walking track above the gym; and locker rooms.

Princeton Park District

Created in 1946, the Princeton Park District maintains over 200 acres of parks, the Bureau County Metro Center, and the outdoor Alexander Swimming Pool. It is our mission to provide leisure and recreation services to our communities and to provide safe, inviting and family-oriented activities for all residents.

Anytime Fitness

A total fitness experience designed around your abilities, your body, and your goals.

HEALTH DEPARTMENTS (1)

Bureau County Health Department

The Bureau County Health Department offers clinic services, Women's Health, Family Planning, Physicals, Well-child, Immunization, STD, WIC/Breastfeeding, Community and Group Presentations, Home Health-skilled nursing and homecare services, and Environmental Health Services in the Bureau County area.

COMMUNITY AGENCIES (20)

Alcoholics Anonymous

Alcoholics Anonymous is a fellowship of people who come together to solve their drinking problem. It doesn't cost anything to attend A.A. meetings. There are no age or education requirements to participate. Membership is open to anyone who wants to do something about their drinking problem.

ARUKAH

The Arukah Institute provides client-centered, complementary health and counseling services to foster prevention wellness, and mental health in rural communities. Arukah's method involves a variety of approaches including novel video-based programs, mind-body therapies as well as more conventional individual and group therapies. We journey with clients long-term and help them build a healthy view of self as well as healthy relationships with others. Our method is data-driven and validated by our research program.

BPart Transportation Bureau-Putnam Area Rural Transit (BPART)

BPART is a demand response, curb-to-curb transportation service for Bureau and Putnam Counties.

Braveheart

Braveheart CAC is a fully Accredited Member of the National Children's Alliance (NCA) which is a professional membership organization dedicated to helping local communities respond to allegations of child abuse in ways that are effective and efficient – and put the needs of child victims first.

Bureau County Youth Services Bureau

As a community-based agency, YSB responds to the changing needs of children and families in the Illinois Valley through a variety of programs. YSB's board, staff, and donors strive to improve the quality of life for the people the agency serves, and by doing so improve the Illinois Valley community.

Bureau County Food Pantry

Providing emergency food to those in need.

Bureau County Senior Center

The Bureau County Senior Center is a Community Focal Point serving all seniors of the county since 1981. They are a designated focal point by the Western Area Agency on Aging, providing certain core services to senior citizens age 60 or older. Services include information and assistance, outreach, fitness program, transportation, free loan of assistive devices, and activities at the center. The goal of the Senior Center is to make life just a little better for as many seniors as they possibly can.

Bureau-Henry Stark Regional Office of Education

The vision of the Bureau, Henry and Stark County Regional Office of Education is to be a proactive intermediate educational agency serving the learning community through innovative and collaborative leadership.

Cornerstone Wellness in Sheffield

Cornerstone Community Wellness is a nonprofit that exists to promote physical, emotional and spiritual health. We aim to faithfully serve our neighbors out of obedience to Jesus Christ.

Community Partners Against Substance Abuse (CPASA)

CPASA is a community organization with over 140 active members from all areas of the Bureau County and Putnam County community. It is our mission to reduce substance abuse among youth in Bureau and Putnam counties, and, over time, among adults by addressing the factors in our community that increase the risk of substance abuse and promoting the factors that minimize the risk of substance abuse. CPASA's overall vision is to work together to help our youth stay healthy, safe, and substance free.

C5 Rural

C5-Rural is a new collaborative healthcare network with members from Lasalle, Bureau, Marshall and Putnam counties in the state of Illinois with the purpose of bringing together primary care providers, mental health providers, complementary care and community-based providers in order to develop integrative care strategies that bridge gaps in rural mental health and substance use prevention, treatment and recovery in new and innovative ways.

Freedom House

Freedom House provides compassionate, confidential, free services to victims of domestic violence and sexual assault, as well as awareness and prevention education in our community.

Gateway/Open Doors Services

Gateway Services, Inc. is a 501(c)(3) non-profit organization that provides services to adults with intellectual and/or developmental disabilities. We aim to provide supports tailored to individuals' choices in order for them to live the lives they dream of. Our mission statement is "Empowering People ~ Enriching Community."

Housing Authority of Bureau County

The Bureau County Housing Authority provides stable, quality affordable housing opportunities for lowand moderate-income families throughout the local community. Through the provision of public housing apartments and the management of Section 8 Housing Choice Vouchers, the Bureau County Housing Authority serves more than 71 low-income families and individuals, while supporting healthy communities.

Our Table

Area churches and organizations provide a full, hot meal for the community, free of charge.

Perfectly Flawed

The Perfectly Flawed Foundation is a grassroots 501(c)3 community-based harm reduction and recovery community organization that provides services and support to individuals and families in North Central Illinois related to substance use, mental health and addiction.

2nd Story Teen Center

This organization operates as a teen drop-in center two nights per week. The Center provides afterschool programs and distributes basic-needs items to 50-150 youth per night- 8,000 visits annually.

Spring Valley Project Success

Offers activities to strengthen family units. Annually we participate in family-oriented programs such as Santa's Workshop, Stamp Out Hunger, Teen Showcase, Santa's On the Run and National Night Out

University of Illinois Extension

As part of the Land Grant system, the University of Illinois was established not only to provide world class education and pioneer research and discovery, but to put learning and discovery into practice, to benefit the health and wellbeing of residents and communities in every part of Illinois. Extension is the university's statewide network of educators, faculty experts, and staff dedicated to that mission.

Tri Count Opportunities

Tri-County Opportunities Council will investigate the impact of poverty throughout our nine-county service area and will work, in partnership with individuals, families and communities to provide opportunities that support movement toward stability and self-sufficiency.

HOSPITALS/CLINICS (13)

OSF Saint Clare Medical Center (Princeton)

OSF Prompt Care (Princeton)

OSF Medical Group (Princeton)

OSF Medical Group (Sheffield)

OSF Medical Group - Internal Medicine (Princeton)

OSF Home Care and Hospice

In the spirit of Christ and the example of Francis of Assisi, the Mission of **OSF HealthCare** is to serve persons with the greatest care and love in a community that celebrates the Gift of Life.

St Margaret's Hospital (Spring Valley)

St. Margaret's Family Health Center (Spring Valley)

St. Margaret's Hospice (Spring Valley)

St. Margaret's Orthopedic Center (Spring Valley)

St. Margaret's Women's Health Center (Spring Valley)

St. Margaret's Health Care

A premier provider of health care in the Illinois Valley since 1903. Their sponsors, the Sisters of Mary of the Presentation, the board of directors, administration, medical staff, and everyone at St. Margaret's are unified in their focus to provide high quality, compassionate care in an environment of healing hospitality.

Denistry (8)

Dr. Daniel Fuertges (Walnut)

Dr. Daniel Fuertges DDS is a male health care provider in <u>Walnut with General Practice Dentist</u> listed as his primary medical specialization. His credentials are: DDS (Doctor of Dental Surgery).

Eckberg Dental (Wyanet) Gary Edmund Eckberg, DDS

A health care provider primarily located in Wyanet, IL, with another office in Wyanet, IL. Their specialties include General Dentistry.

Elvin Krabill Dentistry (Princeton) Dr. Elvin Krabill and Dr. Laura Krabill Kheshgi

Dedicated to providing comfortable, quality dental care for your entire family.

Granville Dental Dr. Dawe

Dr. Dawe and his friendly, highly qualified staff, most of whom have been at our office for over twenty years, work hard to provide quality dental care and treatments.

96

Mueller Dental Care (Princeton)

Offer a range of comprehensive dental services that will benefit you and your family, and allow you to improve both your oral health and appearance.

Princeton Dental Care (Princeton)

At Princeton Dental Care LTD, we value our patient relationships, making it our priority to deliver gentle compassionate care that you deserve from a dentist in Princeton.

Safransky Dentistry Services (Spring Valley)

Dr. Safranski works in Spring Valley, IL and specializes in General Dentistry.

Timothy Puhr Dental Care (Princeton)

General Dentistry with the most current technology. Our office is completely digital which means low radiation and high efficiency!

APPENDIX 6: Prioritization Methodology

5-Step Prioritization of Community Health Issues

<u>Step 1</u>. Review Data for Potential Health Issues

Step 2. Briefly Discuss Relationships Among Issues

Step 3. Apply "PEARL" Test from Hanlon Method²

Screen out health problems based on the following feasibility factors:

Propriety – Is a program for the health problem appropriate?

Economics – Does it make economic sense to address the problem?

Acceptability – Will a community accept the program? Is it wanted?

Resources – Is funding available for a program?

Legality - Do current laws allow program activities to be implemented?

Step 4. Use Voting Technique to Narrow Potential Issues

Prioritize Issues. Use a weighted-scale approach (1-5 scale) to rate remaining issues based on:

- **1. Magnitude** size of the issue in the community. Considerations include, but are not limited to:
 - Percentage of general population impacted
 - Prevalence of issue in low-income communities
 - Trends and future forecasts

2. Severity – importance of issue in terms of relationships with morbidities, comorbidities and mortality. Considerations include, but are not limited to:

- Does an issue lead to serious diseases/death
- Urgency of issue to improve population health

3. Potential for impact through collaboration – can management of the issue make a difference in the community?

Considerations include, but are not limited to:

- Availability and efficacy of solutions
- Feasibility of success

² "Guide to Prioritization Techniques." National Connection for Local Public Health (NACCHO)