8-2022

Examining Mental Health Disparities in a Rural County: A Community Health Needs Assessment Analysis

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Abstract

Over 20% of adults in the United States experience some form of mental illness each year. Those residing in rural areas can see increased prevalence of mental illness, and typically face disparities in access and availability of services for mental health. The goal of this project was to examine the impact of mental health in Woodford County, Illinois using data collected through the 2022 Community Health Needs Assessment (CHNA) process, with the intent of identifying areas of improvement that could be implemented at the local level. Analysis of the CHNA data was conducted using frequency analysis in SAS 9.4 through descriptive statistics. Supplementary local data from the Healthy Communities Institute was used to compare CHNA survey priorities with morbidity and mortality information that is available locally. The results show that mental health is the top community health concern for the past two survey cycles. The data indicates that prevalence of mental illness is increasing among the CHNA survey sample with a decrease in overall mental health status and an increase in the frequency of depression. Additionally, fewer individuals report talking to anyone about their mental health during the past year, and the list of reasons for being unable to seek treatment is extensive. The discussion summarizes the key findings of the survey data and lays out a variety of recommendations to improve mental health outcomes for Woodford County.

Chapter 1 – Introduction

Problem Statement

Mental illness is one of the most commonly diagnosed categories of health conditions among the United States population, with approximately 50% of individuals expected to receive a diagnosis at some point in their lifetime (Centers for Disease Control and Prevention, 2021). According to the National Alliance on Mental Illness (NAMI), over 20% of adults and over 16% of youth in the United States experience mental illness or mental disorder each year (National Alliance on Mental Illness, 2022a). Mental health in the United States has a long history of stigma surrounding both the acknowledgment of illness and seeking care for treatment (Stewart, Jameson, & Curtin, 2015). Mental health stigma can take many forms and can come from individuals that we often confide in for advice and guidance. Friends, family, work colleagues, and medical professionals can all be sources of stigma that may impact someone's willingness or ability to receive help for a treatable mental illness. To make matters worse, rural Americans often face increased rates of mental health illness such as depression and anxiety when compared to their urban counterparts, and they are less likely to seek treatment (Stewart et al., 2015). Rural areas are frequently lacking in mental health providers with experience in treating mental health conditions, and the small size of many communities can also increase treatment stigma (Morales, Barksdale, & Beckel-Mitchener, 2020).

This report focused on Woodford County, a rural community of approximately 38,000 residents located in central Illinois. The county is situated between two major population centers of Peoria (pop. 181,000) and Bloomington-Normal (pop. 170,000) which are home to a combined five hospitals. Woodford County contains one critical access hospital, outpatient physician offices in some towns, and minimal mental health services. While Woodford County is

underserved when it comes to medical providers, those services are available just outside its borders. Data collected at the local level through community and healthcare sources consistently rank mental health as a leading health issue in the community when residents are asked to identify their primary health concerns.

This project aimed to detail the state of mental health as it pertains to a rural county in central Illinois, based on the information collected through Community Health Needs Assessment (CHNA) survey, and other supplementary data sources that are available at the local level. Additional aims include examining how the public perception of mental health compares to the available data and exploring how mental health conditions and care can be better addressed in the future.

Chapter 2 – Background and Literature Review

Background

A Community Health Needs Assessment (CHNA) is a systematic process in which the community and health stakeholders work together to help identify unmet community health needs (Partnership for a Healthy Community, 2022). The primary data collection tool of the CHNA is the community assessment that is completed by residents and analyzed by health stakeholders. After completion of the community assessment, the identified needs are prioritized, and a plan is created to track progress throughout the cycle. Jurisdictional needs assessments are typically conducted every three years to satisfy funding and regulatory requirements for both hospitals and local health departments. Tax exempt hospitals in the United States are required to participate in a CHNA every three years as instructed by the Internal Revenue Service (IRS). Local health departments are required by Illinois law to conduct an Illinois Project for Local Assessment of Needs (IPLAN) of which the CHNA is a part, and to complete a Community Health Improvement Plan (CHIP).

The CHNA is an important tool for prioritizing health care goals in a community based on feedback from the public and key stakeholders. These assessments should not be overlooked as they provide valuable feedback on how programs and funding can be allocated at the local level for the most effective implementation. Support for public health can be particularly scarce for local jurisdictions, especially those who serve rural communities. Studies have shown that when high quality CHNA surveys are conducted they can help focus resources where they are needed most (Beverly, Mcatee, Costello, Chernoff, & Casteel, 2005). Additionally, assessments completed in conjunction with further data analysis often show that the feedback received from

the community is consistent with the leading causes of morbidity and mortality at the local and state level (Beverly et al., 2005).

The Woodford County CHNA is conducted as a Tri-County collaboration that also includes the counties of Peoria and Tazewell. This partnership is a multi-sector approach to improving population health within the region that includes healthcare, public health, academia, non-governmental organizations, and other supportive services. The goal of the partnership is to use primary and secondary data to identify health needs and priorities which also consider health disparities, inequities, and the social determinants of health (SDOH). The CHNA survey is distributed within each of the three counties by the local health department and community partners. The data that are collected as part of the CHNA are presented as a Tri-County initiative which includes the development and implementation of the CHIP. While the final report emphasizes the results through a Tri-County lens, the data for individual counties are also available for analysis. The counties work together through the planning cycle to make progress on the selected priorities by pooling resources and coordinating efforts. The three counties are home to approximately 352,000 residents who travel throughout the area for employment, business, and leisure. The first question of the Tri-County Peoria, Tazewell, and Woodford CHNA survey from 2019 and 2022 asks, “What would you say are the three biggest health issues in our community?” (Partnership for a Healthy Community, 2022). The assessment results show that both as a region, and as an individual county, residents have identified mental health as a top priority by frequency for the 2022 survey cycle (Partnership for a Healthy Community, 2022). This follows a trend dating back to both the 2016 and 2019 CHNA assessment cycles.

The priorities for the upcoming project cycle were selected by the Partnership for Healthy Communities (PFHC) stakeholders on May 24, 2022. Stakeholders included representatives from

a variety of local agencies including public health, healthcare, academia, law enforcement, social services, and nonprofit groups. A previous steering committee was asked to narrow down the list of priorities to the six most critical areas that needed to be addressed, based on data from the CHNA survey, Healthy Communities Institute, and Healthy People 2030 objectives. At the prioritization meeting, smaller groups were led by a facilitator to discuss the overall impact of each priority issue. Following a short discussion on the issue, each person was asked to rank the priority based on its size, seriousness, and effectiveness using a scale from one to ten. Size was predetermined based on the prevalence of the issue within the Tri-County area. Seriousness was a measure of the overall morbidity and mortality of the issue with ten being the most serious (e.g., heart disease) and one being the least serious (e.g., acne). Effectiveness is an estimate of the impact of the available interventions on preventing the health problem with ten being the most effective, and one being almost entirely ineffective. After each priority was completed, the overall scores were calculated using a formula. The priorities of Mental Health, Healthy Eating/Active Living (HEAL) and Obesity emerged as the top three priorities for the upcoming planning cycle, which will begin on January 1, 2023.

Following the prioritization process where the partnership members concluded that the CHNA survey data appropriately identified mental health as a critical need, it becomes the responsibility of the implementation team to identify programs and resources to help address the unmet needs of the community. The development and implementation of evidence-based programs is an essential part of the CHNA process and public health practice (Grant, Ramos, Davis, & Lee Green, 2015). Allowing underserved populations to have a voice in the assessment helps stakeholders address health disparities that exist at the local level (Grant et al., 2015).

Literature Review

Delivering mental health care can be challenging in rural settings. There are several factors that exist in the rural setting that are prohibitive for both the provider and patient when compared to mental health care focused on an urban environment. The barriers that prevent individuals from accessing mental health services that exist in the rural setting are often broken down into three distinct categories: availability, accessibility, and acceptability (Stewart et al., 2015).

Availability of mental health services continues to be a major concern for communities across the United States but is especially prevalent in rural areas. In Woodford County there are 29 mental health providers per 100,000 population, which is extremely low. In Illinois the rate is 245 per 100,000 and in the United States as of 2018 there were 229 per 100,000 (Conduent Healthy Communities Institute, 2021). In rural areas like Woodford County, the lack of mental health care providers might require individuals to seek care through their primary care provider, who may lack specialized training to diagnose or detect the symptoms associated with mental illness (Hayslip, Maiden, Thomison, & Temple, 2010). Rural primary care providers also experience constraints when treating mental health patients including a lack of time for counseling and related therapies (Gamm, Stone, & Pittman, 2010). The COVID-19 pandemic has accelerated the use of technology in medical care in the form of telehealth. Implementation of telehealth services in rural communities could help with the lack of availability and encourage individuals to seek care without fear of stigma (Myers, 2019). While telehealth services are expanding, their impact in rural areas may be decreased due to lack of reliable internet services in those areas (Myers, 2019).

Barriers to mental health care accessibility include financial burdens such as out of pocket payment or insurance coverage, lack of transportation, long wait times, and limited mobility due

to disability. Among non-institutionalized elderly residents, it is estimated that 15-25% suffer from at least one mental disorder (Gamm et al., 2010). Furthermore, when an individual resides in a long term care facility (LTCF) prevalence jumps to a staggering 66%, even though less than 5% of institutionalized individuals receive mental health related care on a monthly basis (Gamm et al., 2010). Woodford County has a growing number of elderly residents (65+) that represent 18.6% of the total population as of 2021, compared to only 16% of the United States (U.S Census Bureau, 2021). The combination of available mental health resources and decreased accessibility due to other factors is an area of great concern. Rural areas typically have higher rates of unemployment which can impact insurance options and financial considerations (Hastings & Cohn, 2013). Transportation options are typically limited to personal vehicles, and increased travel times to see providers outside of the residents' home town/city can make continued care a challenge as well (Hastings & Cohn, 2013).

Acceptability is the final category of common barriers that keep individuals from seeking the mental health care that they need. While prevalence of mental illness is slightly higher for rural compared to urban communities, rural residents are far less likely to seek care (Gamm et al., 2010). Stigma surrounding mental health care in rural areas can also be exacerbated by the lack of anonymity that comes with living in a small community (Gamm et al., 2010). Despite providers being bound by ethics and patient confidentiality laws, there is a perception among rural communities that mental health services are not private, which can lead to decreased counseling and treatment adherence (Stewart et al., 2015). It is important that individuals are encouraged to seek care when they begin experiencing a mental health challenge. If people are scared to seek help for fear that they may be judged or cast out from their social group, then the

ability to provide adequate care and properly treat the condition decreases (Corrigan, Druss, & Perlick, 2014).

When left untreated, mental health disorders can also contribute to adverse physical conditions. Studies have shown that mental illness is not only a contributor to suicide, but also physical comorbidities and an individual's ability to pay and address health problems (Gamm et al., 2010). Depressed adults in rural areas are more likely to attempt suicide than those who live in urban areas, and individuals with multiple mental health diagnoses have been shown to have an increased risk of suicide (Gamm et al., 2010). In Woodford County between 2016-2018 the rate of suicide was 17.7 per 100,000 population, which is of particular concern (Conduent Healthy Communities Institute, 2021). During that same timeframe the Illinois rate was 11.1 and the overall United States rate was 13.9. (Conduent Healthy Communities Institute, 2021).

Rationale

In Woodford County, mental illness prevalence has been steadily increasing over the past 10 years, despite indicators showing that it is lower than the average Illinois county (Conduent Healthy Communities Institute, 2021). The data collected through the CHNA is a key part of initiating change at the local level through a proven process that can bring resources to unmet needs. It is a chance for individuals in the community to voice their opinion on the health status of the county in which they reside and inform community stakeholders about what they feel are the top health priorities. Disparities in rural mental health exist, including higher rates of suicide, depression, and increasing rates of substance abuse that are all impacted by limited services (Carpenter-Song & Snell-Rood, 2017). Outlining the three main barriers that keep rural residents from seeking mental health services highlights the need for change and innovation in this space.

This project used community driven data to identify areas for improvement and innovation for mental health services within Woodford County.

Limitations and gaps in existing literature

The primary limitation to existing literature on mental health is the lack of local data on mental health conditions and available services. Outside of community assessments like the CHNA, the most reliable data often comes from hospital systems, who are sometimes reluctant or unable to share their data with researchers.

Chapter 3 – Methods

Study Design, Setting and Population

This project utilized data from the CHNA that was conducted for the Illinois counties of Peoria, Tazewell, and Woodford by the PFHC. The study population for the CHNA were the combined populations of Peoria, Tazewell, and Woodford Counties. The surveys were available in both online and paper form and all respondents were anonymous. Both versions of the survey were available in English and Spanish. Online surveys were collected through social media posts within the jurisdictions. In-person surveys were collected at various locations throughout the community including grocery stores, community events, and county and municipal offices. For purposes of the survey, the at-risk population was defined as individuals or households that live below the federal poverty line. These at-risk populations were targeted for data collection by distributing the survey at homeless shelters, food pantries and soup kitchens. This was considered during data collection and is detailed in the analytic plan. The collected data was then used for analysis at both the county level and regionally between all three counties. After data analysis, evidence-based interventions can be established and implemented throughout the region based on the identified priority areas.

Data Sources and Measurement

As previously mentioned, this project utilized secondary data collected through the Tri-County CHNA (see Appendix for full survey). The survey serves as the main data source for this project, with surveys collected between July and October 2021 for analysis during the 2022 CHNA planning cycle. The survey was designed to measure impacts to both the general population and at-risk community members. A collaborative group of healthcare stakeholders

came together to develop the survey by reviewing assessments from across the United States. The eight priority areas that the survey focused on were as follows: ratings of health issues in the community, ratings of unhealthy behaviors in the community, ratings of issues concerning well-being, accessibility to healthcare, healthy behaviors, behavioral health, food security, and social determinants of health. The minimum sample size for the survey was determined based on the poverty rate of each county in comparison to the overall population. Data collection yielded 1,649 total responses between the three counties, which was higher than the minimum sample size needed for aggregate analysis. The final Tri-County sample was 1,286 survey responses that would allow for analysis of both general and at-risk populations. Woodford County accounted for 372 survey responses or 28.9% of the total survey sample, while containing approximately 11% of the Tri-County population.

The Healthy Communities Institute (HCI) data was provided to the PFHC data team through Conduent. This report consists of summary information on a wide range of metrics including alcohol use, health care access, and mental health. Each metric shows the corresponding rate or percentage of the problem specific to Woodford County, the Illinois rate and its relation to other counties, and the United States rate if available. This data was used to provide additional context to the CHNA survey data. No additional statistical analyses were performed.

Variables

The CHNA demographic and socioeconomic variables included age, sex, race, education level, household income level, and housing status. Health variables included: perception of community health issues, unhealthy behaviors, quality of life, prescription medication and mental health. A

variety of mental health questions focused on individual experiences, including if respondents had feelings of depression, stress, or anxiety in the past 30 days, if they had any mental health support over the past year, if they have discussed their mental health with anyone in the past year, if there was a time when they needed mental health support and could not get it, and how they felt about their overall mental health level.

Analytic Plan

While the partnership prioritization efforts focused on the analysis of survey results for the Tri-County, this project will examine results and make conclusions based on the Woodford County responses alone. The analysis of the CHNA survey data was carried out using the SAS 9.4 statistical software package. The original dataset that was provided to the health department for analysis by the survey administrator was in SPSS format. A permanent SAS dataset was then created from which to run all further analysis on the Woodford County data. Descriptive statistics were obtained for all demographic and socioeconomic variables. This data is important to assist in summarizing the variables of interest and indicating frequency of responses. Survey questions were presented as dichotomous, multiple choice, or select all that apply. Mental health variables were summarized using frequencies and percentages as well as bar charts for visual representation. Where applicable, responses to questions from the 2019 and 2022 CHNA surveys were compared to measure changes in prevalence and demographic factors. All tables and figures were created in Microsoft Excel for formatting and styling.

The survey authors note that the targeting of at-risk populations created a stratified sample, since no other groups were targeted for data collection. To combat any potential convenience bias by online respondents, the committee also created a control group of random

patients at local hospitals. T-tests were used to compare the control group to the community sample to ensure that no significant patterns of bias were found. No additional bias testing was conducted during this analysis.

Chapter 4 – Results

Demographic Data

The Woodford County CHNA survey sample included 372 total survey responses. Table 1 shows many of the demographic characteristics that were asked to each respondent. Among the respondents, 25% were male and 73% were female. Respondents represented a wide range of age categories, although most (>88%) were 36 years or older. Most individuals (86.6%) identified as heterosexual, and over 96% identified race as White/Caucasian. In Woodford County, 96.8% of the population is White/Caucasian, females account for 49.9% of the population, and individuals over the age of 65 represent nearly 19% of the population. There is no official information available on sexual orientation at the county level, but recent data suggests that approximately 7% of the adult population identifies as LGBTQ+ in the United States.

Table 2 displays information relating to socio-economic status among survey respondents. There was a wide variety of education levels among respondents with over 50% obtaining at least a bachelor's degree. When asked about housing status, nearly 90% of individuals stated that they have housing and are not worried about losing it, but approximately 8% identified as homeless or have housing that they may lose. Household income also saw a wide range of responses with “Over $100,000” accounting for 34% of the sample population.

Table 1 - Respondent Characteristics

Variable	Frequency	Percent
Total Respondents	372	100.0%
Gender		
Male	91	25.0%
Female	265	72.8%
Prefer not to answer	8	2.2%
Total	364	97.8%
Age		
Under 20	1	0.3%
21-35	41	11.0%
36-50	118	31.7%
51-65	109	29.3%
Over 65	95	25.5%
Total	364	97.8%
Sexual Orientation		
Heterosexual	322	86.6%
LGBTQ+	10	2.6%
Prefer not to answer	23	6.2%
Total	355	95.4%
Race/Ethnicity		
White/Caucasian	358	96.2%
Black/African American	0	0.0%
Hispanic/LatinX	2	0.5%
Pacific Islander	1	0.3%
Native American	1	0.3%
Asian/South Asian	1	0.3%
Multiracial	3	0.8%
Total	366	98.4%

Source: Woodford County CHNA 2022

Table 2 - Respondent Socioeconomic Characteristics

Variable	Frequency	Percent
Total Respondents	372	100.0%
Education Level		
Grade/Junior High School	1	0.3%
Some high school	3	0.8%
High school degree/GED	47	12.6%
Some college (no degree)	56	15.1%
Associates degree	41	11.0%
Certificate/technical degree	15	4.0%
Bachelor's degree	107	28.8%
Graduate or professional degree	95	25.5%
Total	365	98.1%
Housing Status		
Do Not Have	6	1.6%
Have Housing, but worried about losing	24	6.5%
Have Housing, but not worried about losing	334	89.8%
Total	364	97.9%
Household Income		
Less than $20,000	24	6.5%
$20,001 to $40,000	39	10.5%
$40,001 to $60,000	42	11.3%
$60,001 to $80,000	55	14.8%
$80,001 to $100,000	65	17.5%
More than $100,000	127	34.1%
Total	352	94.7%

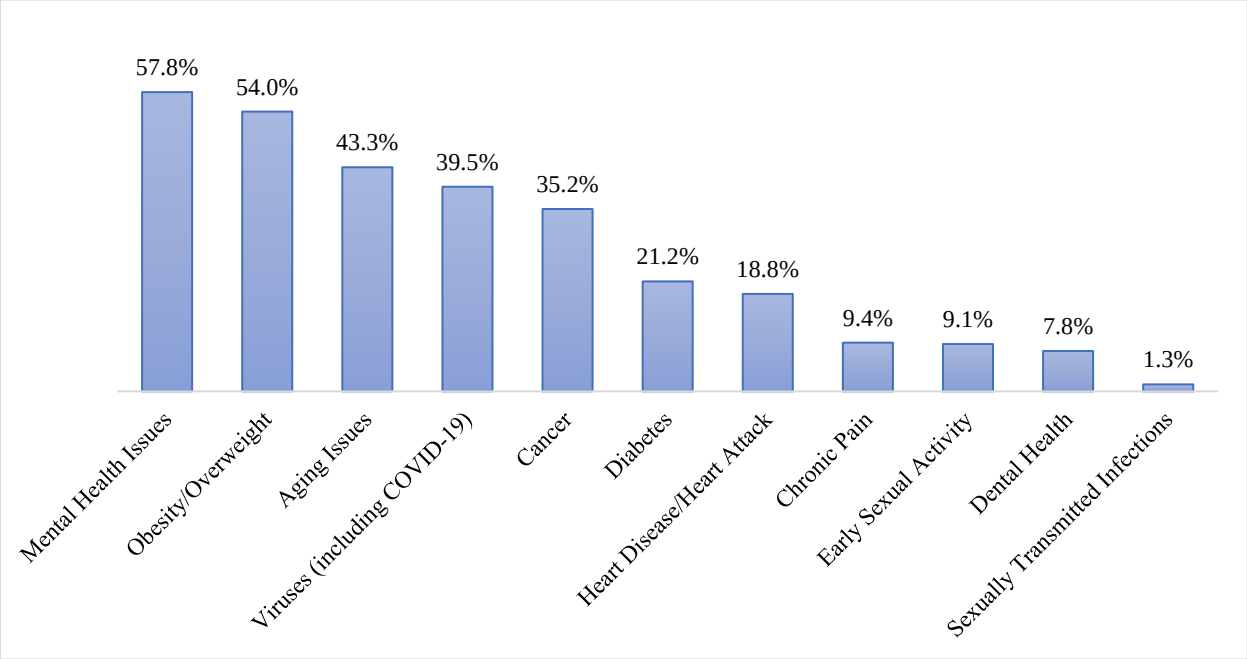
Source: Woodford County CHNA 2022

Mental Health Data Analysis

Respondents identified the three biggest health issues that are impacting their community from a list of eleven options. The participant's choices were not ranked based on priority, so only the frequency of each issue was collected. As shown in Figure 1, mental health was identified as

the top health issue cited by 58% of respondents. During the previous survey cycle in 2019, mental health was also identified as the top community health issue, selected by 65% of respondents.

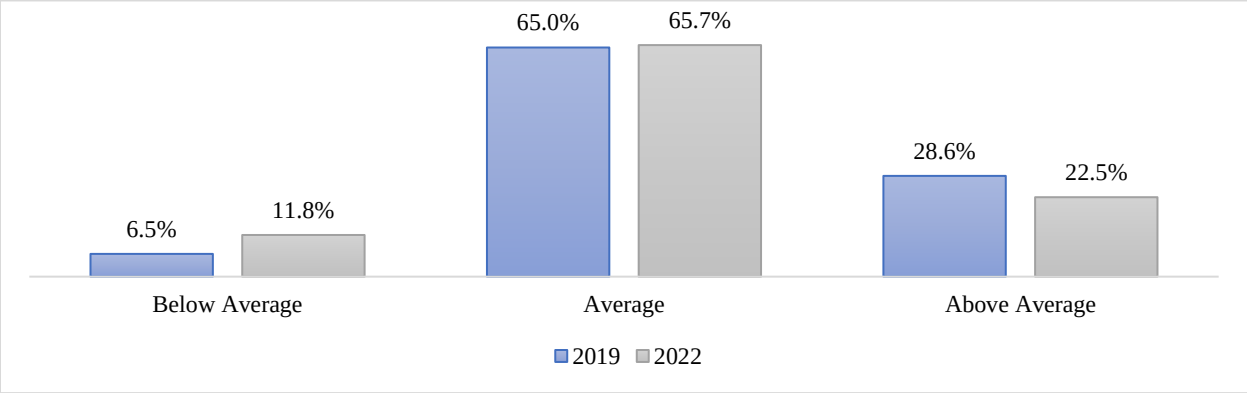
Figure 1 - Community Perception of Top Health Issues



Source: Woodford County CHNA 2022

Respondents were asked to rate their overall mental health status (Figure 2). Between the 2019 and 2022 survey cycles, the percentage of respondents who indicated that their mental health status was below average nearly doubled from 6.5% to 11.8%, an 81% increase. While the average status stayed the same, those who indicated that their mental health status was above average fell from 28.6% to 22.5%.

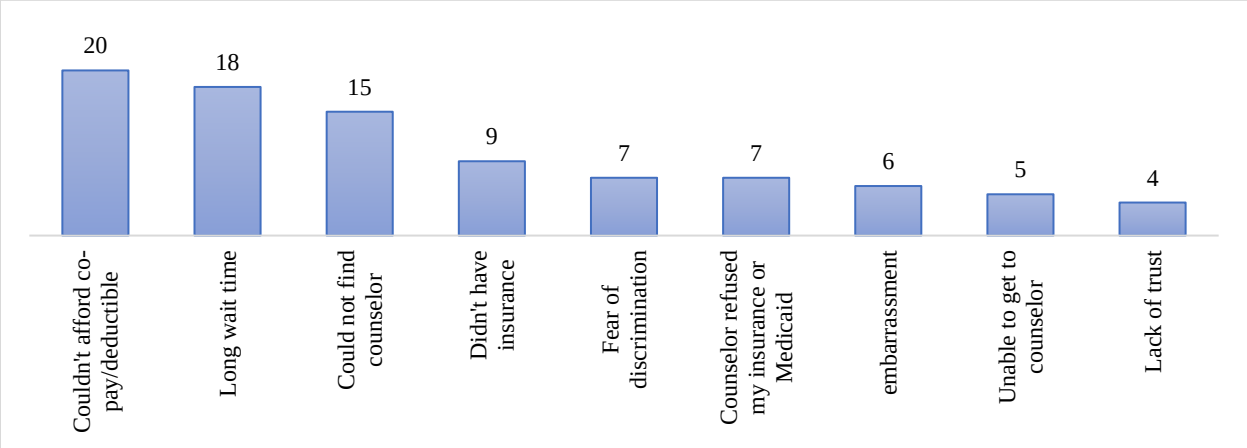
Figure 2 - Overall Mental Health Status 2019 and 2022



Source: Woodford County CHNA 2019 and 2022

In the past year, nearly 13% of the individuals surveyed were unable to get the mental health counseling that they needed (n=48). During follow-up, respondents were asked to list all the reasons why they were unable to get mental health counseling. Figure 3 shows the breakdown, with the top three choices reflecting a lack of affordability, long wait times, and trouble finding a provider. Among those who could not get the mental health counseling they needed, 41% couldn't afford the co-pay. The selected responses reflect a range of accessibility, availability, and acceptability issues with mental health coverage.

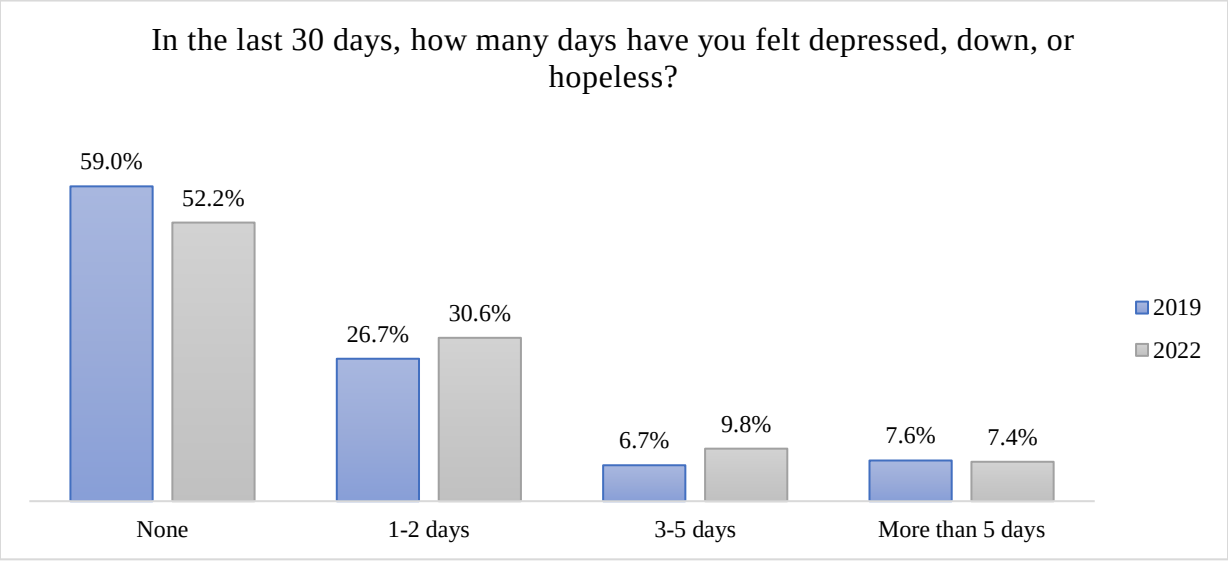
Figure 3 - Reasons for being unable to receive Mental Health Counseling



Note: respondents could select multiple answers
Source: Woodford County CHNA 2022

When respondents were asked about the number of days over the past month that they had felt depressed, down, or hopeless, the data showed that nearly 50% experienced depressive symptoms during that time frame. Figure 4 shows the comparison between the 2019 and 2022 data. There was a decrease in individuals that experienced no depressive symptoms from 59% in 2019 to 52% in 2022. Additionally, there was an increase in frequency of depressive symptoms in the 1-2 day category at 30.6% and the 3-5 day category at 9.8%. There was no noticeable change between the two surveys in individuals who suffered from depressive symptoms for more than 5 days during the month.

Figure 4 - Depression in Past 30 Days

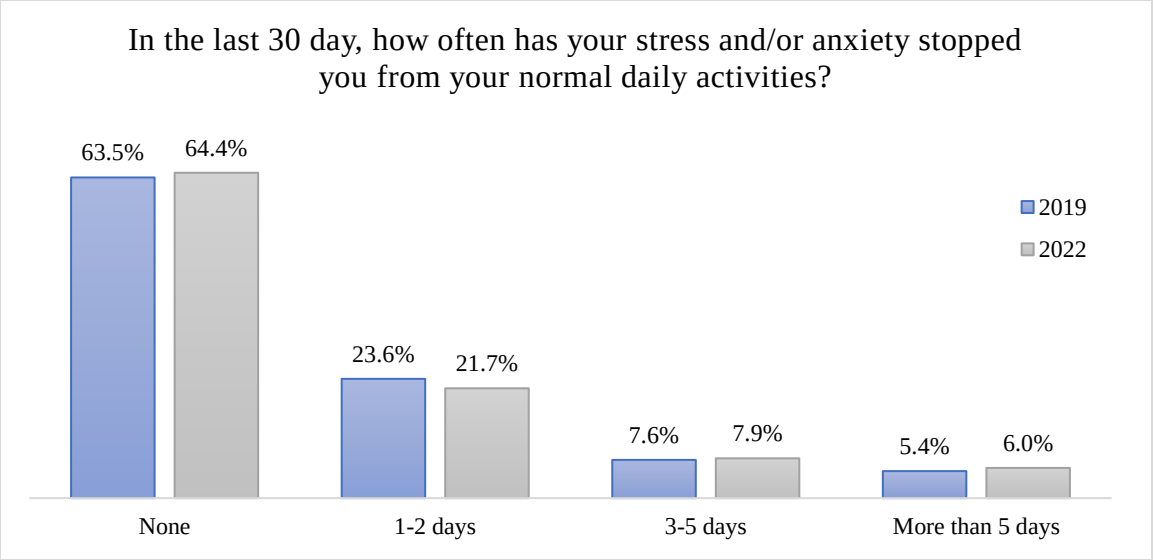


Source: Woodford County CHNA 2019 and 2022

Figure 5 illustrates the prevalence of stress and anxiety on the sample population over the last 30 days between the 2019 and 2022 data. Specifically, it asks if stress or anxiety has stopped the participant from completing normal daily activities in the past 30 days. Nearly 22% indicated that they experienced this level of stress or anxiety 1-2 days in the previous month, 7.9% said this happened 3-5 days a month, and 6% said it occurred more than 5 days out of the month.

There was relatively little change in the frequency of stress and anxiety between the two survey cycles.

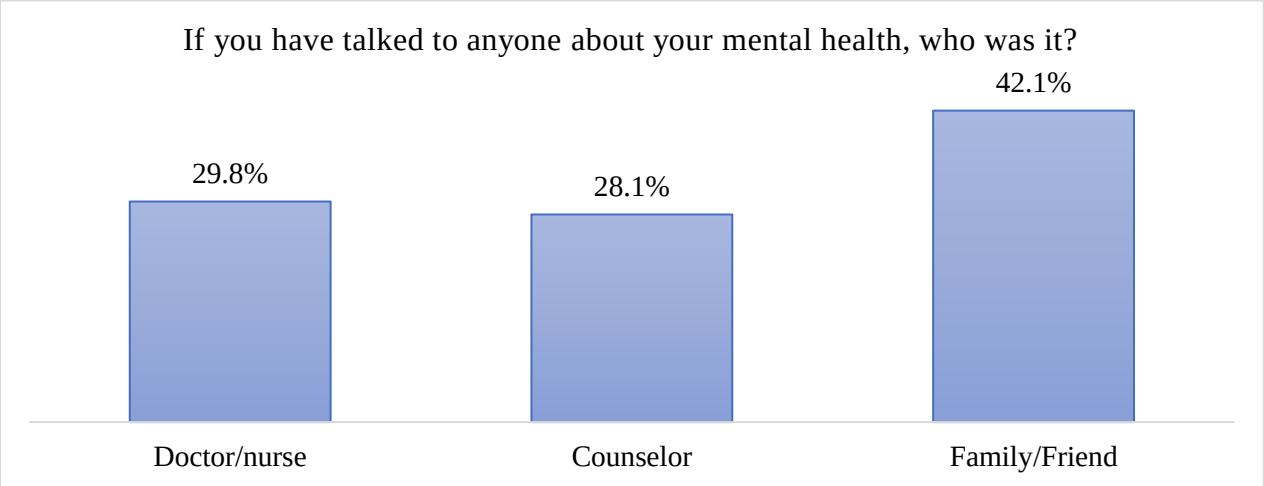
Figure 5 - Stress/Anxiety in Past 30 Days



Source: Woodford County CHNA 2019 and 2022

In the past year, 30.8% of the sample population specified that they had spoken with someone about their mental health. Among those that responded yes, they were presented with a follow-up question asking who it was that they talked to about their mental health. Figure 6 shows that responses were split between the three options, with 42% selecting friend or family member, nearly 30% selecting doctor or nurse, and 28% indicated counselor. Respondents were only able to select one option for this question. Among the respondents who indicated that there was a time when they needed mental health counseling but could not get it, 51% said that they had talked about their mental health with someone during the past year.

Figure 6 - Talked About Mental Health in Past Year

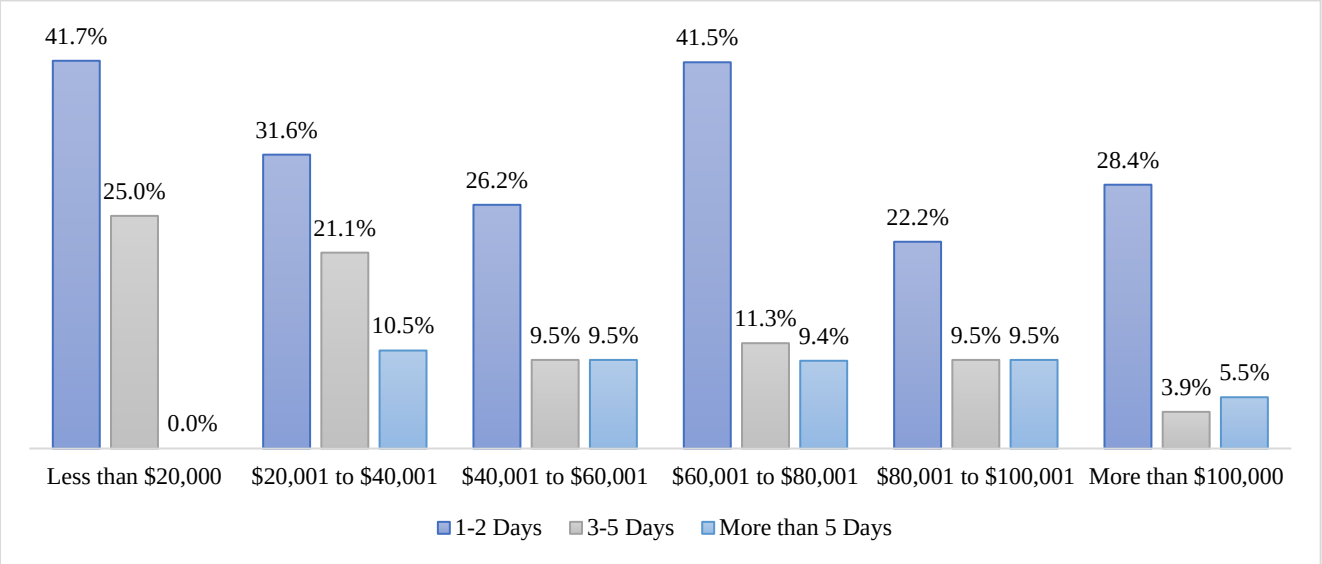


Note: Respondents were only able to select one option
Source: Woodford County CHNA 2022

Demographic Comparisons

In the Woodford County sample, men were much less likely to talk about their mental health with anyone during the past year, with only 17% compared to 35% of women. Additionally, the younger the individual, the more likely they were to have talked to someone about their mental health over the past year. Examining education by depression and stress over the past month showed no indication of a pattern between those with higher education levels and those who did not. Respondents with higher household income levels experienced lower levels of depression.

Figure 7 - Depression by Income Level



Source: Woodford County CHNA 2022

Chapter 5 – Discussion

Summary

This project explored a range of mental health metrics as they were presented to community members for the 2022 Tri-County CHNA of Peoria, Tazewell, and Woodford counties. Ultimately the interest of this project was to identify how respondents viewed the overall problem of mental health in the community and explore issues related to mental health access and availability among the Woodford County sample population.

The primary data analysis for the project was conducted on the Woodford County sample population for the 2022 CHNA survey of 372 participants. While many respondents (58%) selected mental health as a top concern for the community, there continues to be an increasing prevalence of mental illness among the sample population between the 2019 and 2022 survey years. Individuals experienced a decline in overall mental health status between 2019 and 2022, and nearly twice as many people categorized their status as "below average". The CHNA data and metrics from the Healthy Communities Institute show that minimal improvements are being made to increase access or availability to mental health care in the county. The Health Resources and Services Administration (HRSA) has designated Woodford County as a health professional shortage area where the scarcity of mental health providers has proven to be prohibitive in allowing individuals to obtain the care that they need (Health Resources & Services Administration, 2022).

Nearly half of all survey respondents indicated that they had felt depressed at least once during the previous 30 days. Between 2019 and 2022, individuals that experienced depression increased from 41% to 47.8%. Those who were depressed for 1-2 days saw an increase of nearly

15% between the survey cycles, and that impacted 30.6% of the sample population in 2022. Those who experienced 3-5 days of depressive symptoms increased from 6.7% in 2019 to 9.8% in 2022. There were no major changes in the number of individuals who experienced stress or anxiety over the previous 30 days between the 2019 and 2022 surveys. Individuals in rural areas are more likely to wait until later in the illness course to seek care than those who live in urban settings (Myers, 2019). The increase in the prevalence of depression and the decrease in overall mental health status could put further strain on the mental health system and cause undue financial burdens for residents. Individuals who are diagnosed with both a mental illness and a chronic health condition can see healthcare costs up to 75% higher than those without a mental health condition (Myers, 2019).

Nearly 31% of survey respondents indicated that they had talked with someone about their mental during the last year. Upon further analysis, that same group identified that less than 58% had talked to a medical professional, such as a physician, nurse, or counselor. Healthy People 2030 has identified a goal to increase the proportion of adults with depression who get treatment to 69.5% (Office of Disease Prevention and Health Promotion, n.d.). Based on the available information, Woodford County does not currently meet that goal.

When survey respondents were asked why they were not able to access mental health services, the answers varied widely. The top three responses accounted for nearly 60% of the total. In addition to being unable to afford the co-pay or deductible, long wait times for providers, and inability to find a local provider can be tied directly to the low mental health provider rate in Woodford County. Based on the most recent information, the county has fewer than 10 mental health providers, with the rate per capita of 29 providers per 100,000 population. For comparison, Illinois has an average of 245 per 100,000, and the United States has 229 per

100,000 population (Conduent Healthy Communities Institute, 2021). As of 2019 it was estimated that 60% individuals living in rural areas do not have mental health services available (Morales et al., 2020).

Recommendations

Decreasing mental health disparities in Woodford County is a priority based on the CHNA survey data and the most recent mental health metrics that are available at the local level. The recommendations outlined in this section are actionable items that have been developed based on previously published research in conjunction with the needs identified in the CHNA. Some of the recommendations have been aligned with objectives from the Healthy People 2030 initiative for further accountability in future local planning efforts. Additionally, they all revolve around the three categories that were previously identified during the literature review: availability, accessibility, and acceptability. The CHIP for the 2023-25 planning cycle is currently being developed and will be implemented on January 1, 2023.

The first recommendation is to increase screening for depression among all age groups at primary care offices. With the prevalence of depression increasing among the CHNA sample population, this would assist in identifying depressive symptoms early to get individuals the assistance they need. This would also align with the Healthy People 2030 goal of increasing the proportion of adults that have depression who get treatment (Office of Disease Prevention and Health Promotion, n.d.).

Increasing the availability of mental health services through an increase of qualified mental health providers is critical to addressing many of the issues that are facing Woodford

County. Making agreements with mental health providers from surrounding counties to see patients in local physician offices several times per week would help to alleviate the shortage of providers within the county and increase availability. Woodford County is served by UnityPlace (formerly Tazwood Center for Wellness) a nonprofit organization which helps connect patients with mental health services throughout the Tri-County area. Further collaboration between UnityPlace and local providers could serve as way to bring in additional mental health resources. With Woodford's designation as a health professional shortage area from the HRSA, incentives for providers could serve as another route to increasing availability. Making progress to address the provider shortage would help address the two top complaints of respondents who could not find providers and those that expressed concern over the length of the wait time to see a provider.

To increase the acceptability surrounding mental illness treatment in rural areas it is important to address stigma. There is evidence to suggest that mental health stigma is more prevalent in rural compared to urban populations, both in the form of public and self-stigma (Stewart et al., 2015). This would coincide with the notion of rural communities having a greater sense of independence and associating mental health diagnosis and treatment as a weakness (Stewart et al., 2015). The CHNA data show that 15% of individuals who were unable to receive the mental health care that they needed were discouraged because of fear of discrimination from the public, or from embarrassment. Over 40% of individuals who talked to someone about their mental health in the past year talked to family or friends, which could indicate that they did not feel comfortable discussing their health with a qualified provider. Outreach and promotional materials from trusted health providers such as local physician offices, and public health departments would be one method to help reduce stigma in the area. Another way to reduce stigma in the community is to develop a school program where students and parents can be

educated and have contact with individuals who have experience with mental illness. Studies have shown that when members of a majority group have met and had contact with members of the minority group, they are less likely to stigmatize against that group (Rüsch, Angermeyer, & Corrigan, 2005). If properly facilitated this could lead to reduced stigma among both the younger and older generation of residents.

Even when mental health resources are available, individuals living in rural areas still encounter barriers to accessing them. There are a variety of factors that have been previously discussed which can impact accessibility including transportation, insurance coverage, and out of pocket co-pays. NAMI has a variety of policy priorities that can help increase access to mental health services that would be particularly effective for rural areas. Illinois could join the other ten states that have established Certified Community Behavioral Health Centers that help expand access and availability of mental health services at the local level (National Alliance on Mental Illness, 2022b). Policy could also be used to increase insurance coverage and expand access to mental health services through the Affordable Care Act or Medicaid (NAMI, 2022b). Aside from policy changes that would require implementation at the state or federal level, there are still options for increasing accessibility locally. Utilizing telehealth services would be beneficial in alleviating several problems that were identified during the CHNA process. For rural areas, telehealth can serve as a bridge to educate patients and initiate contact with health professionals for those who may otherwise be unable to access them (Myers, 2019). Lack of transportation, severe mobility and health concerns, and limited schedules due to work or caregiving duties may impact an individual's ability to schedule appointments for both physical and mental health care. Telehealth is particularly useful for mental health assessment since most services do not require physical examination for successful implementation (Myers, 2019). There are certain limitations

that need to be considered when advocating for virtual mental health services. Limited access to reliable internet can impact the ability of individuals to receive the care within their home and may require costly upgrades and installation. Additionally, insurance and reimbursement may factor into how telehealth visits are covered under certain health plans, and could limit the type of services that can be offered virtually (Myers, 2019).

For future research on this topic, it is recommended that a more standardized mental health survey is adopted that would allow comparison to national data, such as the Patient Health Questionnaire 9 (PHQ9). Many studies use a two-week timeframe for measuring depressive symptoms instead of the 30 days that were used for the CHNA.

COVID-19 Impact

It may prove difficult to make comparisons between the 2019 and 2022 CHNA mental health data without acknowledging the impact that the COVID-19 pandemic has had on mental health prevalence in the United States since its start in early 2020. In a Centers for Disease Control and Prevention Morbidity and Mortality Weekly Report released in early 2021, it was found that there was a significant increase in depression and anxiety among adults over the age of 18 during the pandemic (Anjel Vahratian, Stephen J. Blumberg, Emily P. Terlizzi, & Jeannine S. Schiller, 2021). This study reported a 5% increase in prevalence among adults from 36.4% to 41.5% between August 2020 and February 2021. While there is currently no local data to measure the impact in Woodford County, it would be reasonable to expect a similar increase.

Strengths and limitations

The Community Health Needs Assessment, while an inherently valuable tool, is not without its limitations. A limitation that prevents further exploratory analysis of community needs assessments, by projects like this one, is the lack of quantitative data. The survey is structured so that it is easy to complete with the inclusion of multiple choice or "select all that apply" options, that also allow for easier coding during analysis. This means that many statistical methods are unable to be utilized due to the absence of continuous variables, and multilevel categorical variables in the dataset. Qualitative data was collected through mental health focus groups conducted in each county, but that data was not available in time to be included as part of this project. Additional limitations include the lack of diversity in the Woodford County sample population. The sample is skewed heavily with female participants and participants who are white, and therefore, the results of this project cannot be generalized to other populations. Finally, this survey relies on individuals to self-report information and could be subject to bias, although the anonymous nature of the data collection may limit this.

Conclusion

Mental health is a critical part of a person's wellbeing and can also play an important role in their physical health. Untreated mental illness is often attributed as a co-morbidity among existing chronic conditions and can even complicate treatment of these physical illnesses (Gamm et al., 2010). Identifying and treating mental health illness in rural areas often faces disparities that are not present in more metropolitan areas. Rural areas have fewer mental health providers and specialists, and residents are less likely to seek treatment due to social and community stigma (Hastings & Cohn, 2013)

The goal of this project was to examine the overall status of mental health in a small rural county through the CHNA survey data, with the intent of identifying areas of improvement that could be implemented at the local level. CHNA survey respondents have identified mental health as the top community health priority for both the 2019 and 2022 assessment cycles. Overall mental health status and depression among the sample population have increased, but 15% of individuals were unable to get mental health counseling when they needed it during the past year citing barriers related to both access and availability of services.

To work toward improved outcomes for mental health I have outlined four recommendations. In alignment with Healthy People 2030, depression screenings should be conducted at primary care offices to catch depressive symptoms and have a better understanding of depression prevalence in the county. To increase availability of mental health services, agreements with providers from surrounding jurisdictions can be made to offer services at local physician offices. Decreasing stigma within the community is also a priority and can be impacted by outreach and promotion of mental health as a fundamental part of our overall health. Finally, expanding telehealth services to increase access to those who may be unable to make appointments at traditional offices, or travel long distances. This method has the potential to increase treatment and medication adherence.

This project has shown that there is sufficient evidence to support mental health as a top community priority in Woodford County. Prevalence of mental health illness is on the rise in the United States, and over 50% of the population is expected to experience a mental illness in their lifetime. It is time to begin addressing the disparities in rural mental health that lead to poor outcomes and increased morbidity and mortality. The recommendations laid out in this paper are the start of that process.

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Appendix A – CHNA Survey

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.

COMMUNITY PERCEPTIONS

1. What would you say are the three (3) biggest **HEALTH ISSUES** in our community?

- ☐ Aging issues, such as Alzheimer's disease, hearing issues, memory loss, arthritis, falls
- ☐ Cancer
- ☐ Chronic pain
- ☐ Dental health (including tooth pain)
- ☐ Diabetes
- ☐ Early sexual activity
- ☐ Heart disease/heart attack
- ☐ Mental health issues (including depression, anger)
- ☐ Obesity/overweight
- ☐ Sexually transmitted infections
- ☐ Viruses (including COVID-19)

2. What would you say are the three (3) most **UNHEALTHY BEHAVIORS** in our community?

- ☐ Angry behavior/violence
- ☐ Alcohol abuse
- ☐ Child abuse
- ☐ Domestic violence
- ☐ Drug abuse (illegal drugs)
- ☐ Drug abuse (legal drugs)
- ☐ Lack of exercise
- ☐ Poor eating habits
- ☐ Risky sexual behavior
- ☐ Smoking/vaping (tobacco use)

3. What would you say are the three (3) most important factors that would improve your **WELL-BEING**?

- ☐ Access to health services
- ☐ Affordable healthy housing
- ☐ Availability of child care
- ☐ Better school attendance
- ☐ Good public transportation
- ☐ Healthy food choices
- ☐ Job opportunities
- ☐ Less hatred & more social acceptance
- ☐ Less poverty
- ☐ Less violence
- ☐ Safer neighborhoods/schools

ACCESS TO CARE

The following questions ask about your own health and health choices. Remember, this survey will not be linked to you in any way.

Medical Care

1. When you get sick, where do you go? (Please choose only one answer).

☐ Clinic/Doctor's office ☐ Emergency Department ☐ I don't seek medical attention
☐ Urgent Care Center ☐ Health Department ☐ Other

If you don't seek medical attention, why not?
☐ Fear of Discrimination ☐ Lack of trust ☐ Cost ☐ I have experienced bias ☐ Do not need

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

☐ Yes (please answer #3) ☐ No (please go to #4: Prescription Medicine)

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3. If you were not able to get medical care, why not? (Please choose all that apply).

- ☐ Didn't have health insurance.
- ☐ Couldn't afford to pay my co-pay or deductible.
- ☐ Fear of discrimination.
- ☐ 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 needed prescription medicine but were not able to get it?

☐ Yes (please answer #5) ☐ No (please go to #6: Dental Care)

5. If you were not able to get prescription medicine, why not? (Please choose all that apply).

- ☐ Didn't have health insurance.
- ☐ Couldn't afford to pay my co-pay or deductible.
- ☐ Fear of discrimination.
- ☐ 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 needed dental care but were not able to get it?

☐ Yes (please answer #7) ☐ No (please go to #8: Mental-Health Counseling)

7. If you were not able to get dental care, why not? (Please choose all that apply).

- ☐ 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
- ☐ The dentist refused my insurance/Medicaid
- ☐ Didn't have a way to get to the dentist.
- ☐ Lack of trust.

Mental-Health Counseling

8. In the last YEAR, was there a time when you needed mental-health counseling but could not get it?

☐ Yes (please answer #9) ☐ No (please go to next section – HEALTHY BEHAVIORS)

9. If you were not able to get mental-health counseling, why not? (Please choose all that apply).

- ☐ 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.
- ☐ 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 health choices. Remember, this survey will not be linked to you in any way.

Exercise

1. In the last WEEK how many times did you participate in exercise, (such as jogging, walking, weight-lifting, fitness classes) that lasted for at least 30 minutes?

☐ None (please answer #2) ☐ 1 – 2 times ☐ 3 - 5 times ☐ More than 5 times

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2. If you answered "none" to the question about exercise, why didn't you exercise in the past week? (Please choose all that apply).

- ☐ Don't have any time to exercise.
- ☐ Can't afford the fees to exercise.
- ☐ Don't have access to an exercise facility.
- ☐ Safety issues.
- ☐ Don't like to exercise.
- ☐ Don't have child care while I exercise.
- ☐ Too tired.

Healthy Eating

3. On a typical DAY, how many **servings/separate portions** of fruits and/or vegetables did you have? An example would be a banana (but not banana flavored pudding).

☐ None (please answer #4) ☐ 1 - 2 servings ☐ 3 - 5 servings ☐ More than 5 servings

4. If you answered "none" to the questions about fruits and vegetables, why didn't you eat fruits/vegetables? (Please choose all that apply).

- ☐ Don't have transportation to get fruits/vegetables
- ☐ It is not important to me
- ☐ Don't know how to prepare fruits/vegetables
- ☐ Don't know where to buy fruits/vegetables
- ☐ Don't like fruits/vegetables
- ☐ Can't afford fruits/vegetables
- ☐ Don't have a refrigerator/stove

5. Where is your primary source of food? (Please choose only one answer).

☐ Grocery store ☐ Fast food ☐ Gas station ☐ Food delivery program
☐ Food pantry ☐ Farm/garden ☐ Convenience store

6. Please check the box next to any health conditions that you have. (Please choose all that apply).
If you don't have any health conditions, please check the first box and go to question #8: Smoking.

- ☐ I do not have any health conditions
- ☐ Allergy
- ☐ Asthma/COPD
- ☐ Cancer
- ☐ Diabetes
- ☐ Heart problems
- ☐ Overweight
- ☐ Memory problems
- ☐ Mental-health conditions
- ☐ Stroke

7. If you identified any conditions in Question #6, how often do you follow an eating plan to manage your condition(s)?

☐ Never ☐ Sometimes ☐ Usually ☐ Always

Smoking

8. On a typical DAY, how many cigarettes do you smoke?

☐ None ☐ 1 - 4 ☐ 5 - 8 ☐ 9 - 12 ☐ More than 12

Vaping

9. On a typical DAY, how many times do you use electronic vaping?

☐ None ☐ 1 - 4 ☐ 5 - 8 ☐ 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.). _____

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11. Do you have a personal physician/doctor? ☐ Yes ☐ No

12. How many days a week do you or your family members go hungry?
☐ None ☐ 1–2 days ☐ 3-5 days ☐ More than 5 days

13. In the last 30 DAYS, how many days have you felt depressed, down, hopeless?
☐ None ☐ 1–2 days ☐ 3 – 5 days ☐ More than 5 days

14. In the last 30 DAYS, how often has your stress and/or anxiety stopped you from your normal daily activities?
☐ None ☐ 1–2 days ☐ 3 - 5 days ☐ More than 5 days

15. In the last YEAR have you talked with anyone about your mental health?
☐ Yes (please answer #16) ☐ No (please go to #17)

16. If you talked to anyone about your mental health, who was it?
☐ Doctor/nurse ☐ Counselor ☐ Family/friend ☐ Other _____

17. How often do you use prescription medications (not prescribed to you or used differently than how the doctor instructed) on a typical DAY?
☐ None ☐ 1–2 times ☐ 3-5 times ☐ More than 5 times

18. How many alcoholic drinks do you have on a typical DAY?
☐ None ☐ 1–2 drinks ☐ 3-5 drinks ☐ More than 5 drinks

19. How often do you use marijaunia on a typical DAY?
☐ None ☐ 1–2 times ☐ 3-5 times ☐ More than 5 times

20. How often do you use substances such as inhalants, ecstasy, cocaine, meth or heroin on a typical DAY?
☐ None ☐ 1–2 times ☐ 3-5 times ☐ More than 5 times

21. Do you feel safe where you live? ☐ Yes ☐ No

22. In the past 5 years, have you had a:

Breast/mammography exam	☐ Yes	☐ No	☐ Not applicable
Prostate exam	☐ Yes	☐ No	☐ Not applicable
Colonoscopy/colorectal cancer screening	☐ Yes	☐ No	☐ Not applicable
Cervical cancer screening/pap smear	☐ Yes	☐ No	☐ Not applicable

Overall Health Ratings

21. My overall physical health is: ☐ Below average ☐ Average ☐ Above average
22. My overall mental health is: ☐ Below average ☐ Average ☐ Above average

INTERNET

1. Do you have Internet at home? For example, can you watch Youtube at home?

☐ Yes (please go to next section – BACKGROUND INFORMATION) ☐ No (please 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?
☐ Peoria ☐ Tazewell ☐ Woodford ☐ 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? ☐ Heterosexual ☐ Lesbian ☐ Gay ☐ Bisexual ☐ Queer ☐ Prefer 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 ☐ $80,001 to $100,000 ☐ More than $100,000

11. During the COVID pandemic, how important have financial stimulus payments been to provide stability for your family, such as stimulus checks, SNAP benefits, unemployment benefits, loan/mortage deferment, eviction protections?
☐ Not important ☐ Neutral ☐ Very important

12. What is your housing status?

☐ Do not have ☐ Have housing, but worried about losing it ☐ Have housing, **NOT** worried about losing it

13. If you answered that you have housing, does your house have:
☐ leaking roof ☐ mold ☐ heat ☐ air conditiing
☐ running water ☐ rodents ☐ lead ☐ electicity ☐ Internet

14. How many people live with you? _____

15. 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

16. Prior to the age of 18, which of the following did you experience (check all that apply):

☐ Emotional abuse ☐ Physical abuse ☐ Sexual abuse
☐ Substance use in household ☐ Mental illness in household ☐ Parental separation or divorce
☐ Emotional neglect ☐ Physical neglect ☐ Incarcerated household member
☐ Mother treated violently

Is there anything else you'd like to share about your own health goals or health issues in our community?

_____

Thank you very much for sharing your views with us!

Application of Public Health Competencies

This project was primarily focused on public health data analysis of a Community Health Needs Assessment surveys, as well as the supplemental summary data that was available at the local level. Foundational competencies #4 and #7 have been selected, which look to interpret results of data analysis and assess population needs that affect community health. SAS was utilized to conduct statistical analysis on the available data. This incorporated epidemiology concentration competency #3, for analyzing datasets using computer software. Following analysis with the statistical software, the results of the data analysis will be used to summarize the state of mental health in the county and provide recommendations on how to improve access and reduce disparities. This portion of the project will be used to meet epidemiology concentration competency #4.

Foundational Competencies

- MPHF4 - Interpret results of data analysis for public health research, policy, or practice
- MPHF7 - Assess population needs, assets and capacities that affect communities' health

Epidemiology Concentration Competencies

- EPIMPH3 - Analyze datasets using computer software.
- EPIMPH4 - Utilize analytical approaches to describe, summarize and interpret epidemiologic data

Biography

Dustin Schulz is a Master of Public Health student at the University of Nebraska Medical Center. His studies have focused on epidemiology and infectious disease. Dustin obtained his Bachelor of Science in Public Health from Northern Illinois University in 2012.

In his profession role, Dustin is the Emergency Response Coordinator and Epidemiologist for the Woodford County Health Department in Eureka, Illinois. Prior to the pandemic, he worked to maintain emergency plans for medical countermeasure dispensing at the local level. During the COVID-19 response, he worked on contact tracing, disease surveillance, and data visualization to provide a clear picture to the community. When vaccines became available, Dustin helped coordinate over 300 clinics for the county's mass vaccination efforts. He is also the coordinator for the Woodford County Medical Reserve Corps which has volunteered over 2500 hours in response to the COVID-19 pandemic.