2023 MERCER COUNTY HEALTH DEPARTMENT COMMUNITY HEALTH ASSESSMENT

PREPARED BY

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Viking Emergency Preparedness Consultants LLC

"We have you covered"

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NOTE FROM THE CONSULTANT

The last three years have been challenging for public health and healthcare professionals worldwide. The SARS-CoV-2 (COVID-19) pandemic has unprecedentedly challenged, stressed, and impacted the world population. While the pandemic has been determined to be endemic in the US, public health and healthcare professionals are still dealing with variants and sub-variants of the virus that will continue to impact our community populations. The silver lining is that the public health and the healthcare communities have stood firm in the face of distrust, anger, vitriol, and resistance from the public. The medical and research communities have rapidly developed safe vaccines and anti-viral therapeutics to aid in reducing the impacts of the pandemic. This Community Health Assessment (CHA) differs from prior years, as it contains COVID-19 data but will also contain priority health issue (PHI) data for Mercer County. The vision is that this data will provide a foundation for the health department to guide the revision of future strategic plans, program development, community projects, and resource allocation to best serve the population and conduct a Community Health Improvement Plan (CHIP) in the future.

Viking Emergency Preparedness Consultants, LLC thanks the Mercer County Health Department Board of Directors, Administration, and staff for trusting in our services to complete the 2023 CHA. We hope the CHA provides an overview of the population health in Mercer County, specifically as it relates to emerging infectious diseases, population health, and the top priority health issues in the county, as the Health Department moves forward into a challenging time for public health in Missouri and the United States. A special thanks go to Administrator Gina Finney and her staff for their help organizing community focus groups, picking up hard-copy surveys, and providing an internal review team during the CHA development process.

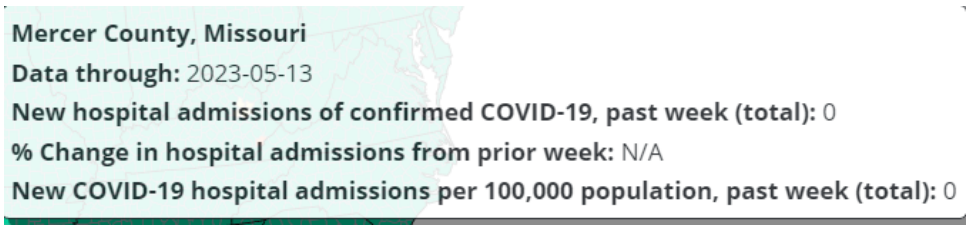
INTRODUCTION

SARS-CoV-2 (COVID-19)

In late 2019, atypical pneumonia (respiratory illness) of unknown etiology was discovered in the Hubei Province in Wuhan, China (Centers for Disease Control and Prevention (CDC), 2022a; CDC; 2022b; World Health Organization (WHO), 2022). The typical treatment of these patients with pneumonia or lower respiratory illnesses was ineffective. This virus was identified by genome sequencing as a variant of the original version of the severe acute respiratory syndrome (SARS) in January 2020 and was announced by the WHO as an outbreak of the 2019 Novel Coronavirus (2019-nCoV), later named SARS-CoV-2 (COVID-19) (CDC, 2022a; CDC; 2022b; WHO, 2022). In a few short days, the WHO determined that human-to-human transmission via respiratory aerosolization was occurring. Due to the globalization of our society, the virus spread rapidly around the globe. The US had the first diagnosed case of the 2019 Novel Coronavirus on January 20, 2020 (CDC, 2022a).

As of May 11, 2023, the public health emergency in the United States has ended. This has reduced the surveillance and reporting of COVID-19 cases in the United States. However, based on current data from the WHO, there have been 766,440,796 cases of COVID-19, with 6,932,591 fatalities from the virus worldwide (WHO, 2023). There have been 103,436,829 cases in the US, with 1,127,152 deaths (WHO, 2023). As of May 10, 2022, the weekly total of cases is 93,260 (WHO, 2023). Due to the current surveillance and case count methods, it is impossible to determine the accurate number of cases in Missouri due to a lack of data and case reporting through May 13, 2023 (See, Figure 1).

Figure 1.



Mercer County Missouri COVID-19 Data. CDC, 2023

The 2023 CHA addressed priority health issues in several areas, overall health, education, safe and healthy homes, access to transportation, access to physical activity, access to nutritious foods (fruits and vegetables), diet, access to healthcare, mental/behavioral health, and chronic diseases. Additionally, there were opinion items on health education needs, top substances of abuse, and access to prescription medications (See Appendix A).

One hundred ninety-five people (*n=195*) began the electronic survey. Two persons did not consent to the survey, and nine self-identified as non-Mercer County residents (*n=184*). Three survey responses were deleted during the data analysis for either incorrect zip codes or zip codes outside Mercer County (*n=181*). Fourteen participants completed the survey via hard copy, with only six surveys qualifying for quantitative analysis (*n=187*). One of the hard-copy surveys lacked consent to complete the survey and was destroyed. Two hard-copy surveys were destroyed due to not providing a zip code that correlated to Mercer County residents. Five hard copies were destroyed as they were incomplete. Two people participated in the four focus groups conducted in the county. This resulted in a total sample size of 189 participants (*n=189*) for quantitative and qualitative analysis. The CHA reflects the reality, perceptions, beliefs, values, and understanding of 189 residents in Mercer County from data collected via electronic survey, hard copy survey, and focus groups conducted from January 17, 2023, to February 17, 2023.

***NOTE*:** Quantitative analysis *n=187*. Qualitative analysis *n=2*.

Facts at a Glance

- The CHA had a representative sample of 189 residents participate in the CHA survey and focus groups, equating to an approximate 5.5% completion rate based on the 2020 US census population of Mercer County (3,437) (United States Census Bureau, 2021). Survey methodology literature indicates that 5% to 50% provides a valid sample for analysis.
- All areas of the county were represented in the survey (identified by provided zip code), with the highest percentage of participants completing the survey residing in Princeton (72.7%*), followed by Mercer (13.9%*).
- Females accounted for most participants, with an 80.2%* participation rate, and males 19.8%*.
- Persons aged 35-44 had the highest completion percentage at 24.1%*.
- A holistic overview of the sample demographic indicated they were in good health 41.7%*, and 28.3%* indicated they were in very good health.
- Participants predominately choose a primary care physician or clinic when seeking health care (86.1%*). The participants visit the county urgent care clinic 2.7%* of the time, and 7.5%* do not seek medical attention when needed.
- Participants indicated 52.9%* had full-time employment, with 12.3%* earning between $30,000 to $39,999 annually.
- The participants identified the top three priority health issues in Mercer County as 1) Alcohol (169*), 2) Tobacco Products (145*), and 3) Other illicit drugs (86*).

Note: **The focus groups are not accounted for in these percentages/counts, as well as any missing data points not provided by participants.*

PURPOSE

Soriano (2013) indicates that assessments are "*conducted by organizations to determine the nature of problems affecting them and to seek ways that problems can be overcome*" (p. 5). A CHA provides the foundation for improving and promoting the community's health by identifying and describing factors that affect the health of a population in correlation with available resources within the community to address health concerns and disparities. The 2023 CHA survey focused on the priority health needs (PHI) identified by the sample participants of Mercer County.

UNDERSTANDING RURAL VERSE URBAN AREAS

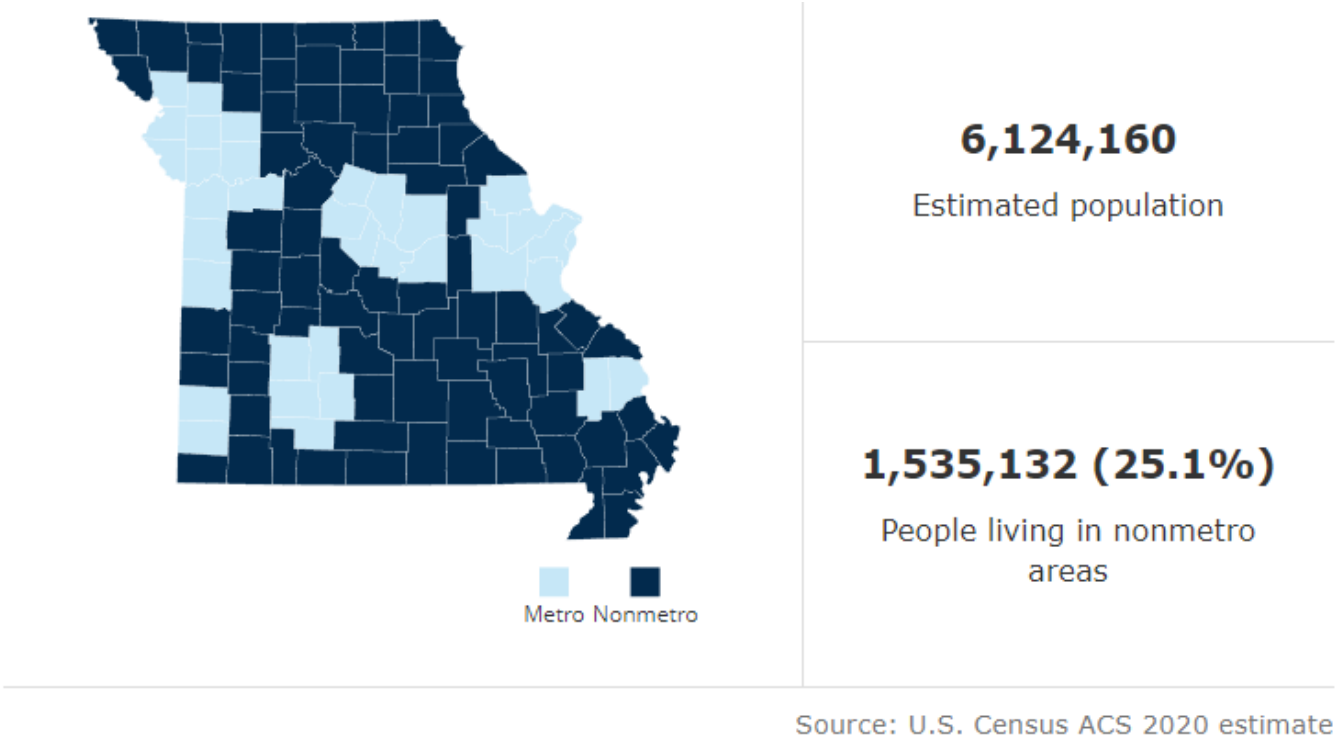
An understanding of rural and urban areas is essential when conducting a CHA. However, the definition varies across local, state, and federal agencies. The consultant chose to use federal guidance to delineate the two populations. Federal agencies do not have a standard definition of "rural." The definitions differ across the spectrum of agencies as it is applied to their data use. For example, some agencies apply minimum population thresholds delineating rural versus urban (fewer than 2,500 people, 5,000 people, or 10,000 people) and geographic blocks, such as census blocks, tracts, zip does, places, or counties. The Census Bureau does not actually define "rural." Instead, rural areas include all geographic areas not classified as urban (United States Department of Commerce, 2020).

Data from the United States Census Bureau, American Community Survey (2020) (ACS) indicate that about 61 million people, or 19 percent of the population, lived in rural areas of the United States in 2016. Although less than one-fifth of the US population lives in rural areas, these areas encompass about 97 percent of the total land area in the United States" (United States Department of Commerce, 2020, p. 2). For the Mercer County CHA, the Office of Management and Budget (OMB) definition was applied, with rural being all counties outside metropolitan areas (based on 2020 census data). Holistically, this definition in the US encompasses 48.8 million people, 17% of the US population, and 75% of the US land area (United States Department of Commerce, 2020; Missouri Census Data Center, 2022b).

In Missouri, 97.4% of the land area is classified as rural and is inhabited by 30.6% of the Missouri population. About 70% of the population lives on about 2.6% of the land in Missouri. In comparison, in the US, 97.4% of the land areas are classified as rural, with only 21% of the population living in these rural areas (Missouri Census Data Center, 2022a; United States Census Bureau, 2021a; United States Census Bureau, 2021b). This population distribution presents diverse and often complex public health challenges in determining priority health issues based on health disparities and differences in the lifestyles of rural populations (See figure 2).

Figure 2.

Missouri Nonmetro Population – 2020 Estimate



Source: Rural Information Hub. (2022).

ETHICS

Ethical considerations were made to ensure that research participants were respected and that their confidentiality was kept during the surveys and focus group interviews. The risks of the study included the potential for a breach of confidentiality, feelings of embarrassment, and loss of privacy. An informed consent form was outlined and explained the confidentiality of the participants before the interviews (Berg & Lune, 2012; Bloomberg & Volpe, 2016; Merriam & Tisdell, 2016; Patton, 2015).

Before the interviews, the pre-signed informed consent form and an overview of the CHA were reviewed with the participants. The confidentiality of the participants was explained by the consultant's use of pseudonyms anonymously naming the participants (Patton, 2015). An explanation of how the collected data applied to the study, as well as the benefits of the study, was reviewed. Before beginning the survey and focus group interviews, this information was explained to the participants, allowing for questions and confirmation for the consultant that the participant was informed and voluntarily taking part in the CHA. The consultant and participant discussion allowed for the participant's rights to be reviewed, as found in the informed consent form, and verification of the signature on the informed consent was the participant's authentic signature (Berg & Lune, 2012; Bloomberg & Volpe, 2016; Merriam & Tisdell, 2016; Patton, 2015). In addition, no Internet Protocol (IP) address was collected via the Qualtrics survey platform as another element to maintain the anonymity of the participants.

METHODOLOGY

SAMPLING

Convenience sampling was the primary sampling method for the CHA. The form of sampling applied to the CHA was non-purposive, with no intention or guarantee of all population elements in the CHA represented. "Convenience sampling makes no pretense of identifying a representative subset of the population. It takes people or other readily available units to participate" (Leedy & Ormrod, 2019, p. 177). This is quantified by the solicitation of participants, with no guarantee of participation, by Mercer County residents in the electronic survey, hard copy survey, and/or the focus groups arranged by the consultant and the health department.

In addition to collecting primary data, secondary data for analysis was obtained from the State of Missouri Department of Health and Senior Services (DHSS), including the Missouri Public Health Information Management System (MOPHIMS) and Missouri Kids. Additional secondary data was obtained from Datausa.io, USAFacts, the United States Census Bureau, and the American Community Survey (ACS). Gray literature was also examined for data for the CHA.

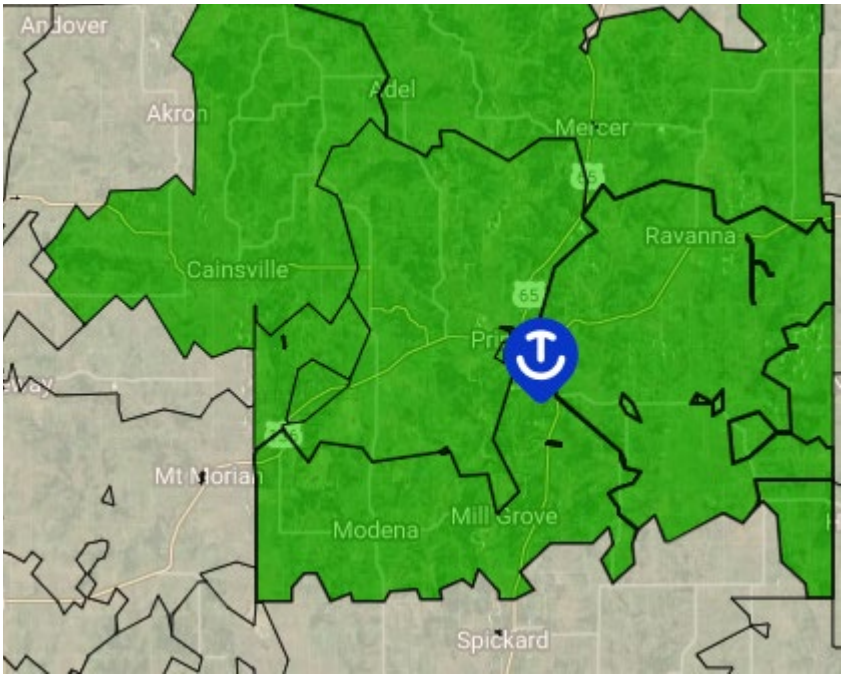
DATA COLLECTION

During the late winter of 2023, an electronic survey was distributed by the Mercer County Health Department via the Internet, social media, message boards, and hard copies within Mercer County (See Appendix A). The surveys were distributed in English and Spanish to include the county's diverse population. The survey questions were developed by an internal team at the health department and approved for CHA use. The survey did not need a pilot test as it was developed, pilot tested, and applied on another regional CHA in 2022. Once the health department had confirmed the question format and organization of the survey, it was entered into the Qualtrics platform and launched for the participation of Mercer County residents (English and Spanish languages).

In addition to the electronic survey, 1,802 United States Postal Service (USPS) mailers were sent to the zip codes with primary residences in Mercer County in the dark green shaded areas (See Figure 3). This mailer provided a link to the electronic survey and a QR code that directed the participant to the online survey. The mailer also contained locations where hard copies of the survey could be picked up if the participant lacked Internet access. To maintain data integrity, the zip codes where most residences fell in adjacent counties were not included in the USPS mailers profile.

Figure 3.

Map of Every Day Direct Mail Delivery Locations in Mercer County for the CHA



Dark green areas are where the mailer was delivered. Source: Taradel: United States Postal Service Ever Day Direct Mail Provider. (2022).

FOCUS GROUPS

A semi-structured interview guide was used during the focus groups. Participant interviews were digitally audio-recorded and later transcribed. Trint computer transcription software aided the consultant in transcribing the digitally collected data (Trint, 2022). Data cleaning continued during transcription, where the consultant compared the transcription and recordings with a stop-and-review process of the digital recorder and transcription software interpretation to ensure accurate transcription of the digitally recorded data (Jacobsen, 2017; Van den Broeck et al., 2005). Following transcription, the consultant listened to the digital recordings again and correlated the recordings with the software transcription to ensure validity between the recordings and transcription. During data cleaning, significant errors, inconsistencies, inaccuracies, and noise were removed from the digitally recorded data (Jacobsen, 2017; Van den Broeck et al., 2005). The number of errors, inconsistencies, inaccuracies, and noise removed was documented, and the process was applied to clean the data. Data cleaning was a continual process during analysis to remove all errors, inconsistencies, inaccuracies, and noise (Jacobsen, 2017; Van den Broeck et al., 2005). Once transcription was completed, the transcriptions were imported into Microsoft Word. The digital recordings were destroyed once the consultant was confident that the data transcription was correct and accurate.

DATA ANALYSIS

Quantitative

Quantitative data collected from the electronic survey and hard copies were coded and entered into SPSS, a statistical software analysis package, for data analysis. Each data point from the electronic and hard copy surveys was imported, reviewed, cleaned, and coded. Once the consultant was sure the data was entered correctly into the SPSS software for analysis, the electronic survey data was deleted, and the hard copies were shredded. The primary quantitative data analysis that occurred was descriptive statistics, including frequencies, percentages, measures of tendency, and standard deviation. Each data collected via electronic and hard copy survey was entered into SPSS and provided a specific variable name. Each

variable, some with multiple choices, was coded via a Likert scale (labeled with a number) to provide for quantitative analysis (Trochim et al., 2012). Any qualitative data found within the surveys were analyzed via the qualitative data methods found in this document.

Qualitative

Self-transcription allowed for continued participant confidentiality, reflection by the consultant on the data collected, and the labeling of the transcriptions for later recall and analysis (Bloomberg & Volpe, 2016; Merriam & Tisdell, 2016; Miles et al., 1994; Patton, 2015; Rubin & Rubin, 2012; Saldana, 2016). The consultant also wrote a research journal that allowed the recording of non-verbal behavior, interruptions, or other noise during the interviews for contextual analysis (Bloomberg & Volpe, 2016; Patton, 2015). This journal was destroyed following data analysis to maintain data integrity and participant confidentiality.

Coding began with open coding (broad) and memos, with the second round of coding being in vivo to aid in confirmability (Patton, 2015; Saldana, 2016; Tavakol & Sandars, 2014). The transcribed interviews were imported into Atlas.ti version 22 for analysis (Friese, 2019). Once imported, categories and subcategories were identified. The categories and subcategories aided in determining if any common elements were present in the data (Friese, 2019; Saldana, 2016; Patton, 2015; The University of Southern California, 2019).

The research's inferences, results, and conclusions derive from theme development (Miles et al. 2014). The data were coded under conceptual headings derived from the survey questions (Friese, 2019; Saldana, 2016). As the data was coded into categories and subcategories, themes emerged for the consultant. The emergent themes were identified and created additional thematic categories and subcategories (Friese, 2019; Saldana, 2016). All themes were combined until a complete set of themes emerged from the data. The inductive analysis allowed the consultant to collect vibrant and vivid descriptions of the health needs of Mercer County, aiding in a better understanding of the needs and

disparities in the county (Bloomberg & Volpe, 2016; Miles et al., 2014; Merriam & Tisdell, 2016; Patton, 2015; Saldana, 2016; The University of Southern California, 2019).

Descriptors developed as data immersion occurred, along with developing categories and subcategories from the themes and patterns. The original focus of category development was linking the data analysis process of the collected data to the meaning of the participants (Bloomberg & Volpe, 2016; Merriam & Tisdell, 2016; Patton, 2015; Saldana, 2016). Descriptors developed as data immersion occurred, along with developing categories and subcategories from the themes and patterns. Linking the data in the analysis process ensured the consultant collected the correct types and amounts of data and identified any new, unexpected, and emergent themes. The items were noted or highlighted during the first reading or analysis of the collected data. This allowed the consultant to understand the storyline and develop the meaning of the data gathered related to the study. The broader categories eventually led to a single silo for data and the development of investigation findings and areas of future health department focus (Bloomberg & Volpe, 2016; Merriam & Tisdell, 2016; Miles et al., 1994; Patton, 2015; Saldana, 2016).

The interview transcripts were broken into segments by question responses. Specific categories and themes were defined to reflect essential concepts. Each segment was coded for all applicable categories and themes. In Vivo, coding provided the coding structure for the research using the words of the participants from data collection and allowed for emergent descriptors from the data. The method allowed the initial descriptors and coding to fit within the consultant's conceptual framework from developed community needs assessments without forcing the data to fit into pre-determined criteria. Saldana (2016) also referred to this approach as first-cycle coding. Second-cycle coding is a focused coding method allowing the consultant to organize and prioritize the data set (Saldana, 2016). This allowed the consultant to develop the abstract framework and conceptualization of the focused dataset. The data synthesis began in the second coding cycle (Saldana, 2016). The consultant began with 20-30 codes organized into 10 to 15 categories and developed into five to seven central concepts in the broader

research dataset. Central concepts critically linked the data to the meaning as presented by the participants in the study (Saldana, 2016).

The codes from all interviews were continuously compared to identify consistencies and differences between theme and pattern emergence. Once data were coded, they were organized into cluster/theme tables and word clouds to display the data and help identify themes visually. The process continued until the consultant had reached code and meaning saturation (Hennink et al. 2017). The data analysis ended with code and meaning saturation achievement. The findings were detailed enough to show that the consultant's findings and conclusions were credible and valid (Merriam & Tisdell, 2016). Once this occurred, all data was destroyed to protect participant confidentiality.

COMMUNITY OVERVIEW

DEMOGRAPHICS OF MERCER COUNTY

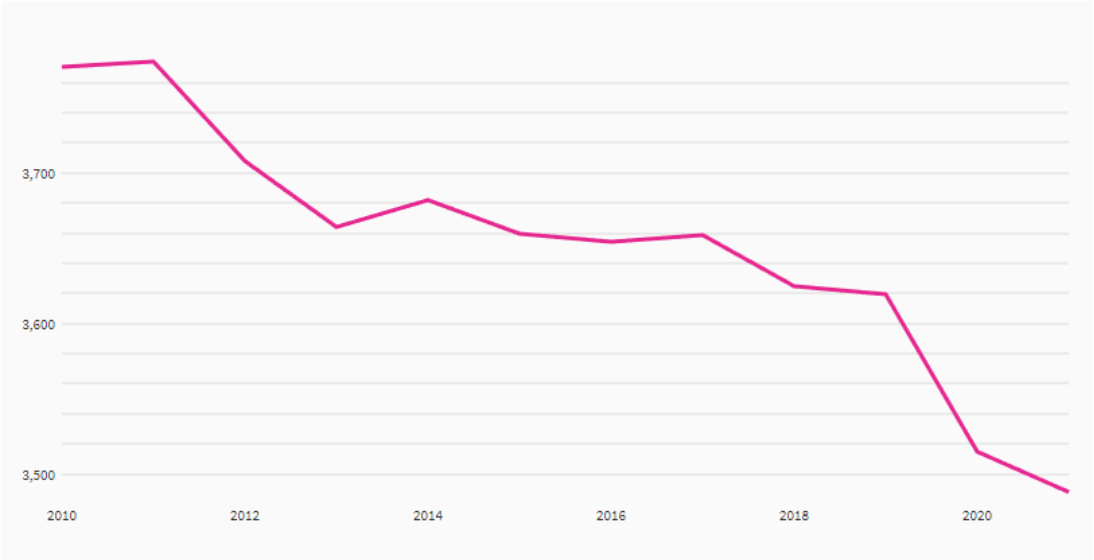
Mercer County is located in the northcentral region of the State of Missouri. The county was organized on February 14, 1845, and named for General Hugh Mercer of the Revolutionary War. Initially, it was an incorporated portion of Grundy County in 1841. The county seat is Princeton, named after the battle where General Mercer lost his life. According to the 2020 US Census, the population of Mercer County is 3,437, making it the second-least populous county in Missouri. The county encompasses approximately 453.84 square miles (United States Census Bureau, 2022). Mercer County is ranked number 21 in health outcomes and 40 in health factors out of the 115 counties in Missouri (County Health Rankings, 2022). Counties bordering Mercer County include Harrison to the west, Grundy to the south, Putnam to the east, and Wayne and Appanoose, Iowa, to the north. Harrison County's diversified economy is based on various business applications, agriculture, healthcare, light industry, and retail sales.

The 2020 population density is 7.8 persons per square mile, down from 8.3 persons per square mile in 2010. Incorporated subdivisions in Mercer County include Princeton, the largest city in the

county, Mercer, Ravanna, and Modena (United States Census Bureau, 2021; datausa.io, n.d.). The overall trend is a decrease in the total population of Mercer County since 2010 (See Figure 4).

Figure 4.

Mercer County Population Trend – 2010 to 2021



Source: USAFacts. (2022)

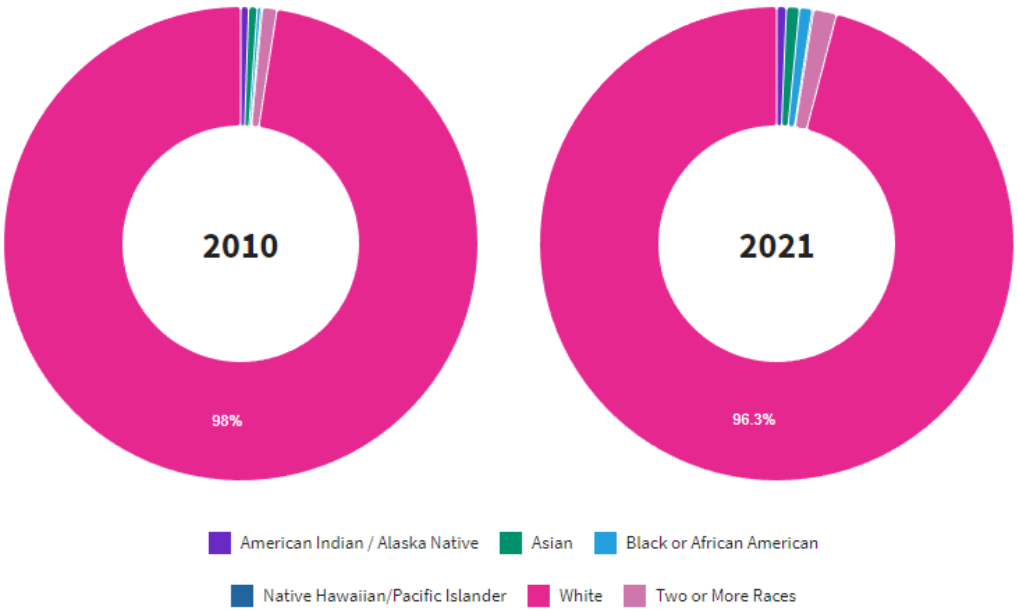
The demographics researched for the overview included age, gender, marital status, race/ethnicity, the geographic distribution of the population, the increase or decrease in numbers for the county, socioeconomic status (SES), social determinants of health (SDOH), and the poverty rate (United States Census Bureau, 2020a).

The change in population from the 2010 census (3,785) to the 2020 census (3,437) is a decrease of 348 persons (a 9.2% decrease over ten years). For comparison, the US population grew by 7.3%, and Missouri's population grew by 2.9% during that period (USAFacts.org, 2023). The population of Mercer County is predominantly white, at 96.3%. Hispanic members of the county represent 3.1% of the population. The remainder of the race/ethnic backgrounds in the county are below 1%, not causing a racial, ethnic, immigrant, or refugee problem (USAFacts.org, 2023; United States Census Bureau, 2023) (See Figure 5). The median age of Mercer County residents is 41.2 years old (39.2 in Missouri (datausa.io, n.d., US Census Bureau, 2023). The population under 18 years is 23.9%, and the percentage

of people 65 and older is 23.1% (Missouri Census Data Center, 2022; United States Census Bureau, 2023). The remainder of the age demographic is dispersed throughout the county (See Table 1).

Figure 5.

The racial makeup of Mercer County – 2010 to 2021



Source USAFacts.org. (2022)

Table 1.

Mercer County Age Range Demographic Trend

Year	Under 15	15 to 24	25 to 44	45 to 64	65+
2016	18.65%	12.49%	19.06%	27.90%	21.90%
2017	19.33%	12.51%	19.14%	27.81%	21.21%
2018	19.34%	12.03%	19.10%	27.38%	22.05%
2019	19.82%	12.22%	19.19%	26.26%	22.50%
2020	19.65%	12.21%	19.17%	27.08%	22.19%

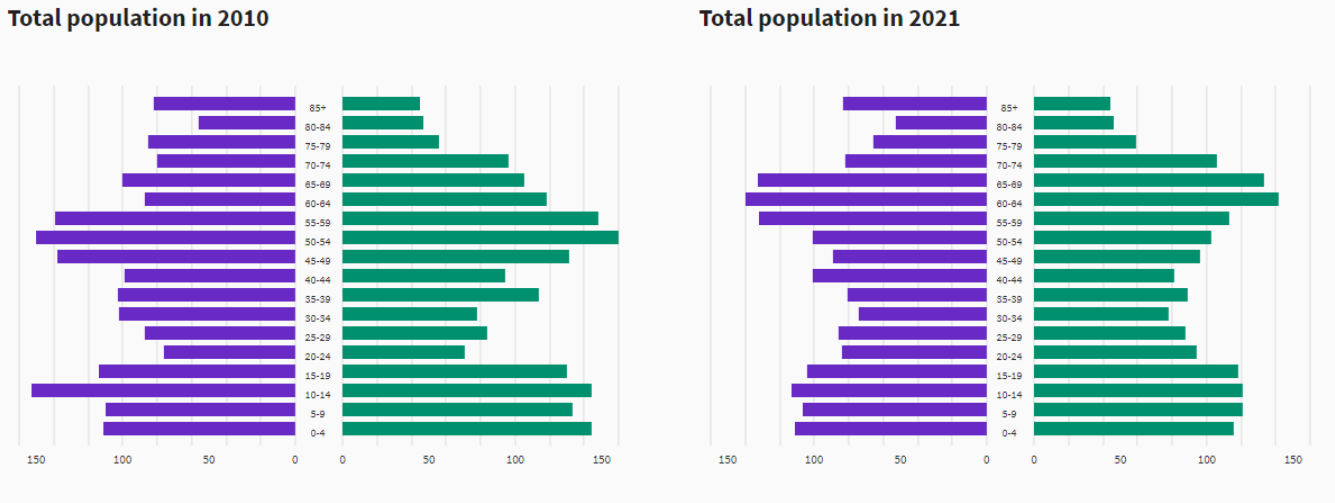
Source: US Census Bureau. (2022b). Missouri DHSS. (2022).

The population of Mercer County has remained relatively stable, even with a decrease, over the past five years (See Figure 6). There has been a slight increase in the 65+ population since 2016. An aging population remains a public health concern, and the decrease in population density makes transportation access to critical resources essential for county residents (datausa.io, n.d.; United States Census Bureau,

2020). However, the COVID-19 pandemic is gradually beginning to appear in the data analysis, but additional data will be required to determine the overall impact on Mercer County.

Figure 6.

Population Pyramids 2010 and 2021 for Mercer County



SOCIOECONOMIC

Mercer County is well below the state for average household income. The median income for a household in the county was $52,105* when compared to the State of Missouri and the United States, $61,847* and $69,021*, respectively (Missouri Census Data Center, 2022; United States Census Bureau, 2022). The per capita income for the past 12 months was $24,614* (Missouri Census Data Center, 2022). Males had a median income of $41,563* in Mercer County compared to males in Missouri and the United States, $53,655* and $57,803*, respectively. Females had a median income of $41,250* in Mercer County compared to females in Missouri and the United States, $42,273 and $46,823, respectively (United Census Bureau, 2022). The poverty rate in Mercer County is 13.5% (United States Census Bureau, 2022).

NOTE: *The COVID-19 pandemic is beginning in the 2020 data, but additional data will be needed to determine the net effect on median incomes.*

The top three areas of employment in Mercer County are 1) agriculture, forestry, fishing, hunting, and mining at 20.3%, 2) educational services, healthcare, and social assistance at 18,8%, and 3) manufacturing at 18.6% (Missouri Census Data Center, 2023). The 2020 unemployment rate was 4.2%

compared to the Missouri unemployment rate of 4.5% (United States Census Bureau, 2020b). The socioeconomic status of Mercer County is significant, with households having income inadequate to meet basic needs. This leads to inevitable concessions that contribute to poor life choices, poor health, inadequate diet, and inadequate cognitive/emotional development of children.

HOUSING

There were approximately 1,897 housing units in Mercer County in July 2022. Of these 1,897 housing units, 1,126 (59.4%) were owner-occupied, 307 (16.2%) were renter-occupied, and 464 (24.5%) were vacant housing units (Missouri Census Data Center, 2022; United States Census Bureau, 2022). The median home value in Mercer County is $98,370 as of July 1, 2022 (United States Census Bureau, 2022).

Figure 7.

Property Values in Mercer County for 2020

Figure 7 displays the households distributed between a series of property value buckets compared to the national averages for each bucket. In Mercer County, the largest share of households has a property value in the $50k - $60k range.

PUBLIC SAFETY

Mercer County enjoys being a rural county with low community crime rates, providing county residents with a safe place to live. 100% of the CHA participants indicated they felt Mercer County was a safe place to live. The county and law enforcement efforts result in reduced crimes per person based on population (See Table 2).

Table 2.

NIBRS Crimes and Rates by County per 100,000 Persons - Last 3 Years for Mercer County

	2020	2021	2022
Person Crimes	X	56.53	367.44
Property Crimes	X	28.26	339.17
Society Crimes	X	X	169.59

Source: Missouri State Highway Patrol. (2023). X=Missing data. **Note:** *Crime data may be inaccurate based on reporting methods of the Mercer County Sheriff's Department to the Missouri State Highway Patrol.*

In 2019 Mercer County had six DWI arrests, zero liquor law violations, and two drug-related arrests. There were zero methamphetamine laboratory seizures (s) in Mercer County in 2018. Alcohol-related traffic crashes increased from zero in 2017 to two in 2019. Alcohol-related crashes are more likely to produce fatalities and injuries than non-alcohol-related crashes.

SUBSTANCE USE/MENTAL HEALTH

Like many areas of the US, Mercer County struggles with substance abuse and mental/behavioral health issues, as indicated by the data collected via surveys and focus groups. In 2018, Mercer County residents had zero alcohol-related hospitalizations and four drug-related hospitalizations. Additionally, there were 0 alcohol-related and five drug-related ER visits that did not include a hospital stay. In 2020, 14 individuals were admitted into Substance Abuse Treatment Programs. Four were due to alcohol, three were due to marijuana, and zero were due to prescription drugs (DMH, 2023).

The 2022 Missouri Student Survey data for Mercer County were unavailable for this CHA due to the small sample size or because it is a single district (Missouri Department of Mental Health, 2023). From a local perspective, the dataset provided concerns over alcohol use, tobacco use, and use of other

illicit drugs as priority health issues in Mercer County. Abuse of prescription drugs was just outside the top three priority health issues in the local data set.

Data was collected from the 2023 Behavioral Health Profile for Mercer County from the Missouri Department of Mental Health (DMH, 2023). In 2022, 19 persons were treated for anxiety, fear, and phobias, six persons were treated for attention deficit disorders, 17 were treated for bipolar disorders, and 20 were treated for depressive mood (DMH 2023). The primary age demographic seeking treatment in 2022 was 12 from 18-25 and ten from 46-65 (DMH, 2023). This data trend was stable from 2020 to 2021 (DMH, 2023). From a regional perspective (Northwest Missouri), 21.4% of persons over 18 reported having a mental illness in 2020, and 5.2% had a severe mental illness. Also, in 2020 9.2% of residents in Northwest Missouri reported a major depressive disorder in the last year, with females typically reporting this behavioral health challenge (DMH, 2020; DMH, 2021).

Note*: The general population's mental health data is limited and exacerbated post-COVID-19 pandemic locally, and trends will need to be monitored for additional mental and behavioral health challenges*.

UNINTENTIONAL INJURIES, HOSPITALIZATIONS, AND ER VISITS

Mercer County had a lower incidence rate of unintentional injury deaths, 39.70*, compared to the Missouri rate of 52.44* based on 2009-2019 data. One thing to note about the unintentional injury data is that the count for Mercer County was 18, below the rate of 20 for data reliability. Hospitalization rates for unintentional injuries were 42.30, and the State of Missouri rate was 51.23 per 10,000 persons based on 2005-2015 data. Unintentional emergency room visit rates were 56.98 compared to the State of Missouri rate of 83.27 per 1,000 persons from 2005 through 2015*.

Traffic accident data indicated Mercer County was higher in deaths, 22.21*, compared to the State of Missouri rate of 13.78 per 100,000 persons based on 2009-2019 data. Drug and alcohol rates were lower than the state rate at zero compared to the State of Missouri rate of 17.70* from 2009-2015. Fire and burn deaths, hospitalizations, and emergency room visits were below the state rate (See Table 3).

NOTE: * *denotes the latest Missouri Department of Health and Senior Services dataset.*

Table 3.

Injury Comparison Table for Mercer County and the State of Missouri

Injury Category		Incidents	Rate	MO Rate	Significance
Unintentional Injuries	Deaths	18	39.70	52.44	N/S
	Hospitalizations	221	42.30	51.23	L
	ER Visits	2,241	56.97	83.27	L
Traffic Accidents	Deaths	11	29.32	13.78	H
	Hospitalizations	31	8.16	9.05	N/S
	ER Visits	182	5.07	8.96	L
Drugs/Alcohol	Deaths	0	0.00	17.70	L
	Hospitalizations	6	0.92	3.65	L
	ER Visits	12*	0.31	0.68	N/S
Fire/Burn	Deaths	0	0.00	1.28	
	Hospitalizations	4*	0.98	1.44	N/S
	ER Visit	30	0.82	1.44	L

Source: Missouri Department of Health and Senior Services. (2022c)
Note: The table shows the total incidents rate per 100,000 persons for death rates, rate per 10,000 persons for hospitalizations, and rates per 1,000 for emergency room visits. Significance is ranked as N/S=not significant, H-higher then the state rate - Lower than the state rate.

Maternal and Child Health

Maternal health is women's health during pregnancy, childbirth, and postpartum. It encompasses the healthcare dimensions of family planning, preconception, prenatal, and postnatal care to reduce maternal morbidity (the state of being diseased or unhealthy in a population) and mortality (the number of people who die within a population). The health department provides or partners with community stakeholders regarding the women, infants, and children (WIC) program, the child fatality review panel, certified car seat fitting, safe kids coalition, child health consultation, nicotine testing, aback-to-school health fair, and emergency preparedness programs.

The Missouri DHSS Women's Health Profile, age-adjusted rates, for Mercer County from 2009-2019 indicates all reported diseases are below or near the state levels. The Mercer County age-adjusted heart disease death rate is 137.87 per 100,000, and the state rate for the same demographic is 154.03 (DHSS, 2022c). The same profile indicates pneumonia and influenza death rates were 27.79* compared to the state rate of 15.53 per 100,000 persons. This data is potentially inaccurate, as it falls below the 20-

count threshold for statistical significance (Mercer County count is 14). Hospitalizations for pneumonia and influenza were nearly the same as the state rate (no statistical significance), with a rate of 36.04 in Mercer County compared to the state rate of 36.83 (Missouri DHSS, 2022c). The teen pregnancy (19 and under) rate is lower in Mercer County than in the state. The county rate is 9.95*, and the state rate is 19.52 (Missouri DHSS, 2022c). This data is potentially inaccurate, as it falls below the 20-count threshold for statistical significance (Mercer County count is 2).

EMERGING INFECTIOUS DISEASE

Disease prevention and control is a cooperative effort involving healthcare providers, local and state health department personnel, and community members. Successful communicable disease surveillance enhances control efforts, such as developing prevention/intervention strategies and policies and responding to events involving potential exposure to communicable diseases. Missouri has over 100 reportable communicable (or infectious) diseases and conditions of public health significance (Missouri DHSS, n.d.). This number will continue to rise due to emerging and recurring zoonotic infectious diseases that the population has not experienced or the disease has been latent (Clements & Casani, 2016). This is due to population density, a transient society, technology and industry, microbial adaptation, urban sprawl, consumption of bush meat, land use, and, more importantly, a breakdown of public health measures and systems (CDC, 2022a, CDC, 2022b, Clements & Casani, 2016, WHO, 2022).

Mercer County experienced a significant pandemic from 2020 through 2023, SARS-CoV-2. This pandemic significantly strained public health resources in Mercer County, the US, and the world. At the local level during the pandemic, other communicable and infectious diseases occurred, including, but not limited to, hepatitis C, Rocky Mountain Spotted Fever, Chlamydia, influenza, and animal bites.

Influenza is another reportable communicable/infectious disease. Influenza season begins after the first week in October of each year. Influenza symptoms include fever, cough, sore throat, runny or stuffy nose, body aches, headache, chills, and fatigue. The best way to prevent influenza is to get an influenza vaccine annually when the vaccine is available to the public. During the 2022-2023 flu season (week May

19, 7-13, 2023), the Northwest Region of the state, including Mercer County, had 30,076 cases of influenza, equaling a season-to-date rate of 1,326.23 cases per 100,000 persons, according to the Missouri Weekly Influenza Surveillance Report (2023). Mercer has had no reported cases of influenza as of May 22, 2023 (G. Finney, personal communication, May 22, 2023).

People in the United States continue to get vaccine-preventable diseases. Communities with pockets of unvaccinated and under-vaccinated populations are at increased risk for outbreaks of vaccine-preventable diseases.

> According to the Department of Health and Human Services (DHHS) Health People 2030 initiative, "measles, pertussis, flu, and hepatitis A and B vaccinations are key to preventing infections. In addition, increasing awareness of chronic infections like hepatitis B and C can help more people get diagnosed and treated. For diseases that can't be prevented by vaccines, like hepatitis C, early diagnosis and treatment can help improve health outcomes. Infection control interventions at hospitals can also help reduce healthcare-associated infections like C. diff (Clostridioides difficile) and MRSA (Methicillin-resistant Staphylococcus aureus) (DHHS, 2022).

CHRONIC DISEASE

Numerous deaths from cancer, heart disease, stroke, and other chronic diseases occur annually. Heart disease and stroke are among the most widespread and costly health problems facing the nation today, accounting for more than $500 billion in healthcare expenditures and related expenses in 2010 alone. Studies have shown that both genetic and lifestyle components affect these diseases. To decrease the prevalence of chronic diseases, prevention through lifestyle changes and early detection needs to occur. Local public health agencies must monitor mortality trends closely to measure chronic diseases' impact on the community.

From a system's theoretical perspective, the built environment critically impacts lifestyle behaviors that influence health. Several factors affect a person's ability to eat healthily, stay physically

active, and achieve or maintain a healthy weight. These environmental factors are compounded by social and individual factors—gender, age, race and ethnicity, education level, socioeconomic status, and disability status—that influence nutrition, physical activity, and obesity. A sedentary lifestyle also contributes to many health problems. In some communities, there may be limited access to affordable, fresh fruit and vegetables or safe areas to be active or play.

A 95% confidence interval means that if we were to take 100 different samples and compute a 95% confidence interval for each sample, then approximately 95 of the 100 confidence intervals will contain the actual mean value. According to a 2016 county-level health study for Mercer County, 372 people surveyed reported no leisure time for physical activity 95% confidence interval [30.69, 44.86]. In this survey, 356 people were surveyed and reported consuming less than five fruits and vegetables per day 95% confidence interval [85.42, 94.01] (DHSS, 2022c).

From 2009 to 2019, the top three causes of death for Mercer County residents were heart disease, with a case count of 131 and a rate of 178.80 per 100,000 persons compared to the state rate of 193.95 per 100,000 persons. Risk factors for heart disease amongst adults 18 years or older are high blood pressure, diabetes, obesity, high cholesterol, smoking, physical inactivity, and low intake of fruits and vegetables. Although a few of these risk factors can be caused by genetics, most can be prevented by healthy lifestyle changes. Cancer was second, with a case count of 120 and a rate of 184.09 per 100,000 persons and above the state rate of 173.88 during the same data collection period. For 2020, COVID-19 deaths were beginning to appear in the dataset with 20 deaths, equating to 860.37 per 100,000 persons compared to the state rate of 868.15. This data is potentially incomplete as all COV ID-19 deaths were not accounted for when the data were compiled.

HEALTHCARE SYSTEM

Mercer County residents can access various local health and medical services in and around the county. The Mercer County Health Department provides essential nursing services, certified car seat fitting, public health home visiting services, and home health services via Servelink Home Care.

Saint Luke's Mercer County Clinic gives Princeton and the surrounding communities accessible, convenient, high-quality primary care. All providers offer family medicine, a primary care specialty devoted to diagnosing, managing, and treating patients from birth through geriatrics. Basic medical care for patients of all ages, including:

- Physical exams (well child, well woman, job placement, school physicals, and annual physicals)
- Care of acute and chronic illnesses
- Minor procedures

These clinics are affiliated with the St. Luke's Healthcare System. Some residents may visit a Federally Qualified Health Center in Cainsville, Missouri, in Harrison County. Mercer County has no dental care, and 1 Chiropractor is practicing in the county. Additionally, Mercer County has zero Hearing or Eye Care Centers. In addition to these healthcare systems, many residents indicated they sought healthcare at the Harrison County Community Hospital District in Bethany, Missouri, to the west, the Wayne County, Iowa Hospital and Healthcare Clinics to the north, Wright Memorial Medical Center in Trenton to the south, and Putnam County Memorial Hospital in Unionville to the east. Other participants indicated they sought specialist care in Des Moines, Iowa, and Kansas City, Missouri, if there were no outpatient services locally. One caveat to this was the military veteran demographics who visited medical facilities and clinics in Des Moines, Kansas City, and Cameron.

COMMUNITY HEALTH RESOURCES

The health department provides most of the county's health education, prevention, and wellness programs. Our public health stakeholders include the communities in the county, the MU Extension Center, St. Luke's Health System, Greenhill's, the local Senior Center, local civic groups (4-H), Area Development Corp, and the Local Emergency Planning Commission (LEPC). Several participants

indicated they were pleased with the health department, local clinic, emergency medical services, and first responders. One participant said, "No amount of education, laws, money, or assistance will overcome the lack of common sense, compassion, and respect for others."

QUANTITATIVE ANALYSIS

Sample Participants

Most participants (80.1%) were female (SD=0.399). The age demographic who completed the survey the most was 35-44 (SD=1.425). 70.1% (SD=1.295) of the participants were married. Concerning employment status, participants most frequently reported being employed full-time (52.9%) (SD=4.10). The average income of the participants was $30,000 to $39,999 (12.3%), with an SD=3.281. Most participants (41.7%) perceived their health to be good (SD=.985) (See tables 4 through 8). Also, 41.7% indicated their mental health was very good, and 33.7% indicated average, with an SD=1.86.

Table 4.

Gender (n=187)

	Male	Female	Prefer Not to Say	Std. Deviation
Gender	37 (19.8%)	150 (80.2%)	0 (0.0%)	0.399

Table 5.

Age (*n=187*)

Age	Percentage
Under 18	0.0
18-24	2.7
25-34	9.6
35-44	24.1
45-54	18.7
55-64	21.4
65+	23.5
Total	100.00%

Table 6.

Mercer County CHA Participant Employment Status (n=187)

Employment status	Frequency	Percent
Working (paid employee)	99	52.9
Working (self-employed)	23	12.3
Armed Forces (Active)	0	0.0
Not working (Temporary layoff)	1	0.5
Not working (looking for work)	5	2.7
Armed Forces (Retired)	0	0.0
Retired (Public/Private)	45	24.1
Retired/Disabled)	11	5.
Missing Data	3	1.6
Total	187	100

Table 7.

Overall health rating (n=187)

Overall health status	Frequency	Percent
Excellent	14	7.5
Very good	53	28.3
Good	78	41.7
Fair	34	18.2
Poor	6	3.2
Unsure	2	1.1
Total	187	100

Table 8.

2022 Mercer County CHA Participants Income Before Taxes (n=187)

	N	%
Less than $10,000	10	5.3%
$10,000 to $19,999	6	3.2%
$20,000 to $29,999	18	9.6%
$30,000 to $39,999	23	12.3%
$40,000 to $49,999	20	10.7%
$50,000 to $59,999	21	11.2%
$60,000 to $69,999	17	9.1%
$70,000 to $79,999	17	9.1%
$80,000 to $89,999	8	4.3%
$90,000 to $99,999	8	4.3%
$100,000 to $149,999	20	10.7%
$150,000 or more	19	10.2%
Total	187	100

Quality of Life Priorities of CHA Participants

When asked about the services available in the county, the CHA participants ranked safe and healthy homes and quality education (80%) as very important in the community regarding their quality of life in Mercer County. The second and third very important rankings for quality of life were quality and affordable healthcare (76%) and access to adequate employment (70%). 56.7% (SD=0.50) of the CHA participants indicated they had access to fresh fruits and vegetables, and 70.1% (SD=.552) consumed one to two servings daily. Unfortunately, 37.4% (SD=1.02) do not vigorously exercise during the week leading to a sedentary lifestyle. 31% of participants exercised vigorously one to two days a week. Statistical testing on the access to a place to vigorously exercise (dependent variable) and vigorous exercising (independent variable) among the CHA participants were below statistical significance (p=0.05), suggesting no association between the two variables. The lack of statistical significance does not mean exercise and low consumption of daily fruits and vegetables do not affect the overall population's health.

CHA participants seek medical care when ill at a clinic or doctor's office (86.1%) SD=1.31). Fourteen participants (7.5%) said they do not seek medical care when sick. Most CHA participants have commercial health insurance through their employer (58.3%), with the second highest being a Medicare Supplemental Plan (16.0%). Only 7% of the participants indicated they were uninsured (See Table 9).

Table 9.

CHA Participant Healthcare Coverage (n=187)

	N	%
Medicare with a supplemental plan (such as AARP, Bankers Life, Old Surety)	30	16.0
Medicare replacement plans (such as United Healthcare, Blue Cross Blue Shield, Humana, and Aetna)	24	12.8
Medicaid	8	4.3
Medicare and Medicaid	6	3.2
Commercial Health Insurance (Private or via your employer)	109	58.3
I do not have health insurance	7	3.7
Other (please list)	3	1.6
	187	99.9

Priority Health Issues/Substances of Abuse

The perceived concerns of Mercer County residents involving priority health issues and substances of abuse were 1) alcohol (90.4%), (2) tobacco products (77.5%), and other illicit drugs (46.0%) (See Table 10). Many of the participants who participated in the electronic survey and focus groups were concerned with the lack of health insurance, the inability to get pre-authorization from

insurance for a test or procedure, busy clinic schedules, a lack of transportation, and a lack of physicians/clinic hours in Mercer County.

Table 10.

Top Three Priority Health Issues (PHI) of Mercer County 2022

PHI	Frequency	Percentage
Alcohol	169	90.4
Tobacco Products	145	77.5
Other Illicit Drugs	86	46.0

QUALITATIVE ANALYSIS

Two people participated in the four focus groups held in the county. A semi-structured interview guide was applied to the focus groups (See Appendix B). A member of the health department was present at all focus group meetings. Upon analysis of focus group data, themes, categories, and subcategories emerged. Most participants enjoyed the quiet, safe life and good neighbors in Mercer County. The county provides some services for residents, but additional services for healthcare and goods/services are needed. Specialty healthcare was a significant issue for residents driving to Des Moines or Kansas City to see specialists. The participants added that with the rising cost of living, they could not afford to see a doctor, let alone drive to Des Moines or Kansas City to see a specialist.

The dominant themes identified were access to goods and services, the comfortable life of a rural social county, an overwhelming patient load of local physician(s), lack of access to specialty health services, rising crime rate (stealing/thieving), lack of willingness to work and remain unemployed, diversification of the county, transportation, unhealthy behaviors of alcohol abuse, illicit drugs, and failure to wear seat belts. Specific in vivo comments from the focus groups are listed below and are listed as they were presented during the focus groups.

Focus Group In Vivo Coding (R1=Ravanna and M1=Mercer)

How do you feel the healthcare, including public health, in Mercer County?

R1: "*I mean, our things are very good. Our local doctor, nurse practitioners, and I think they're very good here, our health department, I think it's a wonderful health department. Everything else we really don't have here. But you have to go, like I said, another 30 miles to a hospital or things to get a, podiatrist or dentist or any of those extra things. And even after that, if you have to have a specialist, you got to go 2 hours away.*"

M1: "*I think it's limited. There is a doctor's office in Princeton, which isn't too far away, but. If somebody has a problem with that office, then they're driving 20 to 30 miles somewhere. There isn't any like site sliding scale fee. There isn't any emergency emergent care or anything like that available. And. I don't*

know whether they accept all insurance in this area or not. I do know we have a very, very good ambulance service there. Almost an emergency room on wheels. But I know they are also limited on staff, too, and they're not always there."

Do you use any of the following in Mercer: Sidewalks, Work out room at the school, School playground/gym, City Park, or Ball Fields? If so, how can the facilities be improved? Options include accessibility, lighting, security, hours of operation, ease of use, and others.

M1: "*Pieces here and there. Well, and maybe a little bit of sidewalk. And then nothing. And another little bit of sidewalk and nothing then.*"

Are you able to visit your family doctor when you need to? If not, why? How long do you wait to see your doctor if you can? Do you feel there are enough doctors in Mercer County? If so, why? If not, why?

R1: "*Usually, you can get in within a couple of days unless there's like the COVID outbreak or, you know, what, the flu and whatever. Otherwise, you can usually get in within and sometimes you get in the same day you go." "Probably less than 10 minutes anymore. They have they have really worked on that. I can tell I don't go to the doctor a lot, but the last few times I've had to go once for my over six-month checkup, I'm hardly I hardly go check in and sit down before they're the nurses coming, getting me. And then she's coming, doing all that, the vitals and all that stuff. And then it's probably maybe another 10 minutes before the doctor's there. So, I mean, if you want to count from the time you walk in the door, maybe 15 minutes.*"

M1: "*Not immediately, but within a week. Because you call down in and say, you know, I'd like to get in to have this checked out. I imagine if it they think it's an emergency they put in, but otherwise it's they make an appointment for you." "Usually never more than half an hour, sometimes not very long. Anywhere from 5 to 30 minutes. Yeah.*"

What services does the Mercer County Health Department offer to the citizens?

R1: "*I know that they are outreach to the home health. I know that they do the immunizations. I know they will get lab work done there. They have a what used to be called the weight loss challenge or whatever, but it's more healthy now. And I'm sure there's more things that they have WIC for, for the children, because when mine were young I did get to go there.*"

M1: "*I know they do work. They do a health thing every year, which has been different each year or somewhat different each year. You can go there for immunizations and they do health screenings at the school. That's all I can think of.*"

Name three top unhealthy behaviors in Mercer County. Why do you feel these are the top three? Do you have ideas on solutions for these unhealthy behaviors? How can the health department be a part of this solution as we move forward?

R1: "*I do think we have drug issues. I mean, the drug issues, and I don't know how much in Mercer County, but I know surrounding it effects Mercer County. People driving using their cell phones? I guess you call it the careless and imprudent driving. I mean, you go down the highway and you can tell they're on their phone because they're swerving in and out or going slow or they're going fast. And. I feel it's getting better, but I feel there's not. We need, like, a YMCA or something. I mean, we have the Stacey Center, and you can use it. I just. I don't know why I don't think it's convenient enough because I'm not always in Princeton. And but we have walking trails now and things are things are improving from when I was younger. It's just a point of giving and using them.*"

M1: "*Number one, I think there's a big drug problem that would have it. If we could get rid of the drug problem, we wouldn't have half of the other problems. But again, not getting the health care like they should.*"

SUMMARY OF FINDINGS

The health priorities identified through the community health assessment process impact many residents of Mercer County (Mercer County CNA, 2017). The previous CNA for Mercer County, completed in 2017, found sidewalk maintenance and repair, general repair and improvements in the county, access to a workout facility in Mercer, and cost associated with the Stacy Center,

In the 2023 CHA, many chronic conditions, such as diabetes and cancer, can be decreased in the county by addressing tobacco use and overweight/obesity problems. Unintentional injury prevention includes many areas of concern, including child and family safety issues, teen driving, seatbelt usage, safe sleeping, self-inflicted injury, and others (Mercer County CHNA, 2017).

Substance abuse prevention has moved to the forefront of our nation with the increased Opioid use and abuse. Mercer County is no exception. A drug monitoring program is a local and state-wide priority to address this issue. Addressing the need for ongoing mental health assistance is included in the substance abuse prevention priority (Mercer County CHNA, 2017).

Economic barriers exist, especially in rural Missouri. The data presented in the 2017 CHA indicated that barriers exist in Mercer County for economically-disadvantaged residents. A look at both per capita and median household income in Mercer County reveals it significantly lags behind Missouri and the nation. Data shows that over 55% of students in Princeton and 62% in Mercer are on free and reduced school meals. Poverty impacts certain community members more than others, particularly children and the elderly, and poverty is a risk factor with all the priority health issues. Access to healthy, affordable food in rural Missouri can be difficult and a factor in the county's high obesity rates, thus attributing to high rates of many chronic conditions. The Mercer County Health Department will continue to work with community partners to strengthen or implement needed local programs. Additionally, the community health assessment process will continue as this updated information is provided to increase awareness, encourage discussion, and gather feedback (Mercer County CHNA, 2017).

The 2023 CHA contains many of the same challenges found in 2017. The one significant difference between the 2017 and 2023 CHA is the COVID-19 pandemic and mental/behavioral health challenges affecting county residents. In addition, unintentional injuries, ongoing chronic diseases, and emerging/recurring infectious diseases must be at the forefront of the health department as they look to the future and develop programs, initiatives, and a strategic plan. Economic barriers, especially the poverty level and the lack of transportation for county residents, are an underlying concern relating to the holistic health of the county residents. As expressed by the participants, the lack of public transportation, specialty physicians, and medical doctors in the county will exacerbate the ongoing health issues of the aging county population. Focused service advertising is needed in all areas serviced by the health department. Additionally, the participants indicated a lack of understanding of the health department's role

and the available services. This could have been a lack of understanding of the participants answering the question or a lack of outreach advertising reaching the rural areas of the community.

RECOMMENDATIONS/PRIORITY HEALTH ISSUES

The results of the 2023 CHA indicate that the health priorities for Mercer County should be:

1) Alcohol,
2) Tobacco Products,
3) Other Illicit Drug Use.

The consultant understands the scope of the health department, and many of the participant requests are beyond this scope. However, partnering with community stakeholders and improving the outreach of health and community services (including the public and private sector) of all organizations in the county is needed. The following are only recommendations for the health department to use in revising its strategic plan.

- Continue ongoing work identified in the 2017 CHA.
- Conduct a Community Health Improvement Plan (CHIP) as the next step in addressing determinants.
- Prioritize a focus on the three top-priority health issues in the county by partnering with law enforcement organizations and mental health organizations to increase enforcement and the prevalence of services provided in the county.
- Stay abreast of the literature and data on emerging and recurring infectious disease outbreaks that may affect Mercer County medical professionals' diagnoses.
- Form a working group of county organizations (public and private) to find a solution for public transportation issues in the county.
- Develop programs within the scope of the health department to provide services identified in the CHA.
    - Partner with other organizations in the county to provide services outside the scope of the health department.

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Appendix A: Needs Assessment Survey

2023 Mercer County Community Health Assessment

Welcome to the 2023 Mercer County Health Department Community Health Assessment (CHA). The Mercer Health Department is conducting a county-wide CHA. The CHA will assist the health department in identifying health needs and health disparities in Mercer County. This survey will aid the health department in identifying gaps and disparities in public health services and allow staff to address these gaps with added, increased, or focused services.

You will be presented with 28 questions (depending on your answers to specific questions) about your demographics (employment status, income, gender, age range), general health status, effects the COVID-19 pandemic had on you and your family, and generalized public health information/impact questions that will assist the health department in identifying public health gaps and community needs for the citizens of our county. Your response to this survey will help us help you with public health and community services as we move forward together.

Please be assured that your responses will be kept confidential, and we are not collecting personal information or computer IP addresses. You will not be asked to provide your name. The request for your zip code is to aid us in identifying specific gaps and health disparities in public health services in particular communities/areas of the county.

The survey should take you less than 10 minutes to complete, and you will not receive any incentive for your participation. Your participation in this research is voluntary. You have the right to withdraw during the survey for any reason and without any prejudice. If you would like to contact the Health Department Administrator regarding the CHNA to discuss the survey, please email gina.finney@lpha.mo.gov or call the Health Department at (660) 748-3630, Monday through Friday 8 am to 4:30 pm.

By clicking the button below, you acknowledge that your participation in the study is voluntary. You are 18 years of age. You are aware that you may choose to terminate your participation in the survey at any time and for any reason. This survey will be best displayed on a laptop or desktop computer. Some features may need to be more compatible for use on mobile devices.

- ○ I consent to participate in this survey.
- ○ I do not consent to participate in this survey.

Q1 1. Are you a Mercer County resident?

- ○ Yes
- ○ No

Q2 Enter your Mercer County postal zip code:

_____

Q3 What is your gender?

- ○ Male
- ○ Female

Q4 Choose one or more races that you consider yourself to be:

- ☐ White
- ☐ Black or African American
- ☐ American Indian or Alaska Native
- ☐ Asian
- ☐ Native Hawaiian or Pacific Islander
- ☐ Other

Q5 Are you of Spanish, Hispanic, or Latino origin?

- ○ Yes
- ○ No

Q6 How old are you?

- ○ Under 18
- ○ 18-24 years old
- ○ 25-34 years old
- ○ 35-44 years old
- ○ 45-54 years old
- ○ 55-64 years old
- ○ 65+ years old

Q7 What is your current marital status?

- ○ Married
- ○ Widowed
- ○ Divorced
- ○ Separated
- ○ Never Married

Q8 What is the highest level of school you have completed?

- ○ Less than high school degree
- ○ High school graduate (high school diploma or equivalent including GED)
- ○ Some college but no degree
- ○ Associate degree in college (2-year)
- ○ Bachelor's degree in college (4-year)
- ○ Master's degree
- ○ Doctoral degree
- ○ Professional degree (JD, MD)

Q9 Which statement best describes your current employment status?

- ☐ Working (paid employee)
- ☐ Working (self-employed)
- ☐ Armed Forces
- ☐ Not working (temporary layoff from a job)
- ☐ Not working (looking for work)
- ☐ Retired (Armed Forces)
- ☐ Retired (Public/Private employer)
- ☐ Retired (Disabled)

Q10 How far do you travel to get to work?

- 0-5 miles
- 6-10 miles
- 11-20 miles
- 21-30 miles
- 31+ miles

Q10 Income information is important in understanding public health gaps and disparities.Please indicate the answer that estimates (best guess is appropriate) your entire household income in the past calendar year (2022) before taxes.

- Less than $10,000
- $10,000 to $19,999
- $20,000 to $29,999
- $30,000 to $39,999
- $40,000 to $49,999
- $50,000 to $59,999
- $60,000 to $69,999
- $70,000 to $79,999
- $80,000 to $89,999
- $90,000 to $99,999
- $100,000 to $149,999
- $150,000 or more

Q11 How would you describe your overall physical health?

- ○ Excellent
- ○ Very Good
- ○ Good
- ○ Fair
- ○ Poor
- ○ Unsure

Q12 Do you feel Mercer County is safe to live and raise a family?

- ○ Yes
- ○ No

Q13 From the following list, please rate all eight choices from very important or not important on the scale provided.

	Very Important	Important	Moderately Important	Slightly Important	Not Important
Quality Education	☐	☐	☐	☐	☐
Safe and Healthy Homes	☐	☐	☐	☐	☐
Access to Adequate Employment	☐	☐	☐	☐	☐
Access to Transportation (Public or Private)	☐	☐	☐	☐	☐
Physical Activity/Access to Recreational Areas	☐	☐	☐	☐	☐
Nutrition/Access to Health Foods	☐	☐	☐	☐	☐
Quality and Affordable Healthcare	☐	☐	☐	☐	☐
Mental/Behavioral Health Services	☐	☐	☐	☐	☐

Q14 From the following list, please choose **ONLY THREE** topics you would like health education on in Mercer County.

- [ ] Chronic diseases
- [ ] Injury and Violence prevention
- [ ] Trauma Awareness/Response
- [ ] Mental/Behavioral Health Services
- [ ] Unintended pregnancy
- [ ] Oral Health/Dental Services
- [ ] Tobacco/Alcohol Use
- [ ] Substance/Opioid Abuse
- [ ] Nutrition/Access to Health Foods
- [ ] Physical Activity/Access to recreational areas (Biking trails, walking trails, safe sidewalks, etc.)
- [ ] Obesity

Q15 Do you have access to an area where you can exercise at least 30 to 60 minutes daily?

- ○ Yes
- ○ No

Q16 How many days per week do you average in moderate of vigorous exercise for at least 30 minutes per day?

Moderate Exercise examples include: brisk walking, line dancing, doubles tennis, swimming leisurely, easy jogging, bicycling under ten mph, using elliptical/treadmill, yoga, etc.

Vigorous Exercise examples include: swimming laps, running, playing softball/basketball/football/soccer/volleyball, heavy weightlifting, hiking uphill, jumping rope, etc.

- ○ 0 days per week
- ○ 1 to 2 days per week
- ○ 3 to 4 days per week
- ○ 5 to 7 days per week

Q17 On a typical day, how many servings of fruits and/or vegetables do you consume?

- ○ 0
- ○ 1-2
- ○ 3-5
- ○ 6+

Q18 Do you have access to fresh fruits and vegetables near you?

- ○ Yes
- ○ No

Q19 How would you describe your overall mental health?

- ○ Excellent
- ○ Very good
- ○ Average
- ○ Poor
- ○ Very poor
- ○ Unsure

Q20 If needed, are mental/behavioral health services easily accessible to you?

- ○ Yes
- ○ No
- ○ Unsure

Q21 Please choose the **TOP THREE** substances and/or drugs used in Mercer County.

- ☐ Alcohol
- ☐ Tobacco products
- ☐ E-cigarettes/vaping
- ☐ Opioids
- ☐ Prescription drugs
- ☐ Other illicit drugs

Q22 When you get sick, where do you go? (Please choose only one)

- ○ Clinic or doctor's office
- ○ Urgent care center
- ○ Hospital emergency room
- ○ Health department
- ○ I do not see medical attention when needed
- ○ Other (Please specify)

_____

Q23 In the last year, was there a time when you needed medical care but could not get it? If yes, please explain why.

- ○ Yes
- ○ If yes, please explain why?

_____

- ○ No

Q24 How far do you have to travel to get to your primary care physician/provider?

- ○ 0-5 miles
- ○ 6-10 miles
- ○ 11-20 miles
- ○ 21-30 miles
- ○ 31+ miles

Q25 What type of healthcare coverage do you have?

- ○ Medicare with a supplemental plan (such as AARP, Bankers Life, Old Surety)
- ○ Medicare replacement plans (such as United Healthcare, Blue Cross Blue Shield, Humana, Aetna)
- ○ Medicaid
- ○ Medicare and Medicaid
- ○ Commercial Health Insurance (Private or via your employer)
- ○ I do not have health insurance
- ○ Other (please list)

Q26 Within the past year, were you able to receive needed healthcare?

- ○ Yes
- ○ No
- ○ I have not needed healthcare in the past year

Q27 If you are prescribed prescription medication by your doctor, can you get it?

- ○ Yes, same day
- ○ Yes, 1 to 2 days
- ○ Yes, 3 days or more
- ○ No, greater than 3 days
- ○ I am not able to receive prescription medications (no doctor, no insurance, cannot afford it)

Q28 Please share any additional health priorities and/or comments you may have.

_____

_____

_____

Appendix B: Focus Group Semi-Structured Interview Guide

2023 MERCER COUNTY COMMUNITY HEALTH ASSESSMENT

SEMI-STRUCTURED INTERVIEW GUIDE

I. Introduction

- Who am I?
    - Self-introduction of Mercer County LPHA staff in attendance.
- What is a community health assessment?
- How does it help the health department?
- How long will the focus group last?
- Will the responses be anonymous?
- How will you keep my information anonymous?

II. Informed consent – Reasoning.

- You understand your possible risks and agree to participate in the focus group. The risk includes a breach of confidentiality, feelings of embarrassment, and loss of privacy. You understand that if side effects or discomforts occur, Leslie C. Sloan will try to minimize and treat these by using a pseudonym (fictitious identifier) for all research participants. This will be audio-recorded and transcribed. Furthermore, electronic data collected will be stored on the PI's biometric computer, which is also password protected, to ensure participant data confidentiality and privacy.
- Hard copy data collected will be held in a locked file cabinet in *Leslie C. Sloan's* office.
- You understand that the PI may terminate your participation without your consent under certain circumstances or when it is in your interest to do so in the investigator's judgment.
- You also understand that your participation in this research is voluntary and that refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled.
- You also understand that you may withdraw from the research study without penalty or prejudice. You understand that the focus group results may be published but that your name or identity will not be revealed and that your records will remain confidential. So that confidentiality can be maintained, *Leslie C. Sloan* will use a pseudonym (fictitious identifier) for all participants. Furthermore, electronic data collected is stored on the PI's biometric computer, which is password-protected, ensuring participant confidentiality and privacy.
- You understand that the possible benefits of your participation in the focus group are to guide the Mercer County Health Department in various ways, such as their strategic plan and program and initiative development to meet the needs of the county residents.
- Participation will not benefit you directly but may help the health department identify gaps and health disparities in the county.
- You understand that there are alternatives to this procedure. I know that the only option for this research is non-participation.
- There are no risks or benefits to your non-participation in this research. You also understand that your participation in this research is voluntary and that refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled.
- Any questions concerning your participation in the research study will be answered by *Leslie C. Sloan*, who can be reached at 816.284.5368 or vikingprepllc@gmail.com.

III. SIGNED CONSENT FORM – SAME AS ELECTRONIC SURVEY

IV. RULES OF THE FOCUS GROUP

- Only one person speaks at a time.
- Do not use names in your answers
- The goal is to collect data on how you feel about the question
- Feel free to expand on the question – there is no right or wrong answer
- I will serve as the facilitator and will not agree or disagree with your answer
- REMEMBER that this is being recorded for transcription, so please speak loud enough for the recording device to hear you.

V. QUESTIONS

Question One

Are you a Mercer County Resident? Can you tell me for how long? Can you tell me what it is like to live in Mercer County? What are the pros and cons? What are the challenges?

Question Two

How do you feel the healthcare, including public health, is in Mercer County? Why? What is the essential reason for how you answered this question?

Question Three (Mercer residents only)

Do you use any of the following in Mercer: Sidewalks, Work out room at the school, School playground/gym, City Park, or Ball Fields? If so, how can the facilities be improved? *Options include accessibility, lighting, security, hours of operation, ease of use, and others.*

Question Four

Are you able to visit your family doctor when you need to? If now, why? How long do you wait to see your doctor if you can? Do you feel there are enough doctors in Mercer County? If so, why? If not, why?

Question Five

What services does the Mercer County Health Department offer to the citizens? Have you ever visited the health department? What about their website? What about social media? What services do you wish the health department offered that they do not offer?

Question Six (Princeton residents only)

Do you currently use any of the following in Princeton: Sidewalks, MCHD, Stacy Center, School Track, City Park, Ball Fields, Tennis Court, or City Pool? If so, how can the facilities be improved for your use? *Options include accessibility, lighting, security, hours of operation, ease of use, and others.*

Question Seven

Name three top unhealthy behaviors in Mercer County. Why do you feel these are the top three? Do you have ideas on solutions for these unhealthy behaviors? How can the health department be a part of this solution as we move forward?

8 pm HARD STOP

Thank you for your time this evening. Your confidentiality is of the utmost importance. Please do not talk to your family or friends about the focus group; we have more to do in the county. All data will be aggregated and analyzed for a final report. As a reminder, an electronic survey is available online, and we encourage you to complete the survey. You will be getting mailers in the mail in the weeks ahead. We also have hard copies of the survey if you want to take one and return it to the health department. Have a great evening, be safe, be well, and be healthy.