

Community Health Needs Assessment 2019

OSF ST. FRANCIS HOSPITAL & MEDICAL GROUP

DELTA COUNTY

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Community Health Needs Assessment

2019

Collaboration for sustaining health equity

Executive Summary

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

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

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

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

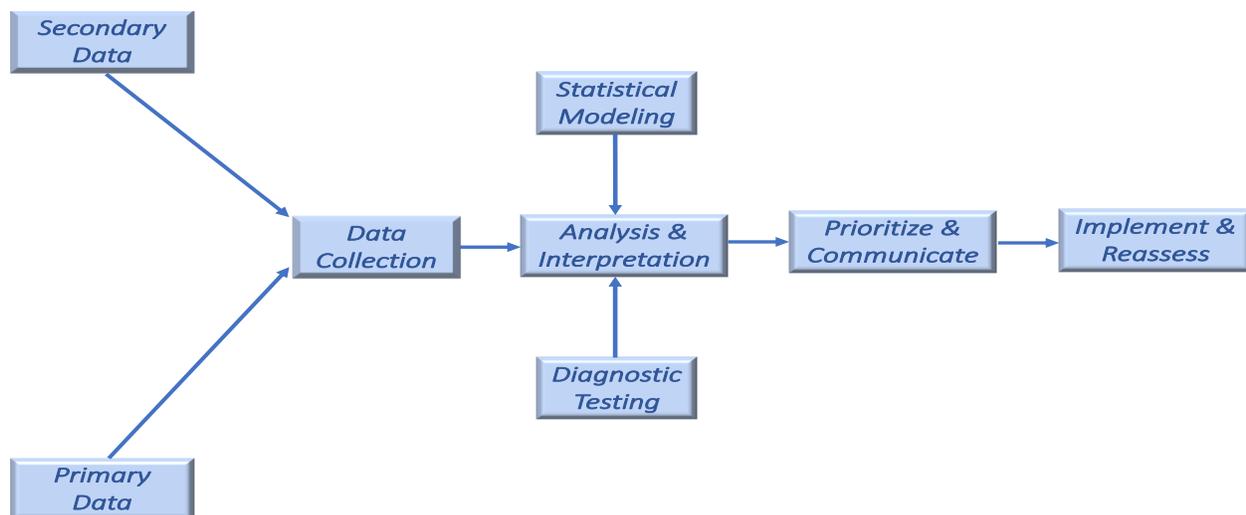
- **Healthy Behaviors** – *defined as active living and healthy eating, and their impact on obesity*
- **Behavioral Health** – *including mental health and substance abuse*
- **Aging Issues** – *defined as population over 65*

I. INTRODUCTION

Background

The Patient Protection and Affordable Care Act (Affordable Care Act), enacted March 23, 2010, added new requirements for tax-exempt hospitals to conduct community health-needs assessments and to adopt implementation strategies to meet the community health needs identified through the assessments. This community health-needs assessment (CHNA) takes into account input from specific individuals who represent the broad interests of the community served by OSF Saint Francis Hospital and Medical Group including those with special knowledge of or expertise in public health. For this study, a community health-needs assessment is defined as a systematic process involving the community, to identify and analyze community health needs and assets in order to prioritize these needs, create a plan, and act upon unmet community health needs. Results from this assessment will be made widely available to the public. This CHNA Report was approved by the OSF Healthcare System's Board of Directors on July 29, 2019.

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



Collaborative Team and Community Engagement

In order to engage the entire community in the CHNA process, a collaborative team of health-professional experts and key community advocates was created. Members of the collaborative team were carefully selected to ensure representation of the broad interests of the community. Specifically, team members included representatives from OSF Saint Francis Hospital and Medical Group, members of the Delta County Health Department, and administrators from key community partner organizations. Engagement occurred throughout the entire process, resulting in shared ownership of the assessment. The entire collaborative team met in first and second quarters of 2018 and in the first quarter of 2019.

Additionally, numerous meetings were held between the facilitators and specific individuals during the process.

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

Definition of the Community

In order to determine the geographic boundaries for OSF Saint Francis Hospital and Medical Group, analyses were completed to identify what percentage of inpatient and outpatient activity was represented by Delta County. Data show that Delta County alone represents 85.6% of all patients for the hospital.

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

Purpose of the Community Health-Needs Assessment

In the initial meeting, the collaborative committee identified the purpose of this study. Specifically, this study has been designed to provide necessary information to health-care organizations, including hospitals, clinics and health departments, in order to create strategic plans in program design, access and delivery. Results of this study will act as a platform that allows health-care organizations to orchestrate limited resources to improve management of high-priority challenges. By working together, hospitals, clinics, agencies and health departments will use this CHNA to improve the quality of healthcare in Delta County. When feasible, data are assessed longitudinally to identify trends and patterns by comparing with results from the 2016 CHNA and benchmarked with State of Michigan averages.

Community Feedback from Previous Assessments

The 2016 CHNA was made widely available to the community to allow for feedback. Specifically, the hospital posted both a full version and a summary version of the 2016 CHNA on its website. While no written feedback was received by individuals from the community via the available mechanism, verbal feedback was provided by key stakeholders from community-service organizations and incorporated as part of the collaborative process.

2016 CHNA Health Needs and Implementation Plans

The 2016 CHNA for Delta County identified two significant health needs. These included: Healthy Behaviors, defined as healthy eating and active living, and their impact on obesity; and Behavioral Health, including mental health and substance abuse. Specific actions were taken to address these needs. Detailed discussions of goals and strategies to improve these health needs can be seen in Appendix 2.

II. METHODS

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

Secondary Data Collection

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

Based on several retreats, a separate OSF Collaborative Team used COMP data to identify six primary categories of diseases, including: age related, cardiovascular, respiratory, cancer, diabetes and infections. In order to define each disease category, we used modified definitions developed by Sg2. Sg2 specializes in consulting for healthcare organizations. Their team of experts includes MDs, PhDs, RNs and healthcare leaders with extensive strategic, operational, clinical, academic, technological and financial experience.

Primary Data Collection

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

Survey Instrument Design

Initially, all publicly available health-needs assessments in the U.S. were assessed to identify common themes and approaches to collecting community health-needs data. By leveraging best practices from these surveys, we created our own pilot survey in 2018, designed for use with both the general population and the at-risk community. To ensure that all critical areas were being addressed, the entire collaborative team was involved in survey design/approval through several fact-finding sessions. Additionally, several focus groups were used to collect the qualitative information necessary to design survey items. Specifically, for the community health-needs assessment, eight specific sets of items were included:

Ratings of health issues in the community – to assess the importance of various community health concerns. Survey items included assessments of topics such as cancer, diabetes and obesity.

Ratings of unhealthy behaviors in the community – to assess the importance of various unhealthy behaviors. Survey items included assessments of topics such as violence, drug abuse and smoking.

Ratings of issues concerning well-being – to assess the importance of various issues relating to well-being in the community. Survey items included assessments of topics such as access to healthcare, safer neighborhoods and effective public transportation.

Accessibility to healthcare – to assess the degree to which residents could access healthcare when needed. Survey items included assessments of topics such as access to medical, dental and mental-healthcare, as well as access to prescription medications.

Healthy behaviors – to assess the degree to which residents exhibited healthy behaviors. The survey items included assessments of topics such as exercise, healthy eating habits and cancer screenings.

Behavioral health – to assess community issues related to areas such as anxiety and depression.

Food security – to assess access to healthy food alternatives.

Social determinants of health – to assess the impact that social determinants may have on the above-mentioned areas.

Finally, demographic information was collected to assess background information necessary to segment markets in terms of the eight categories discussed above.

After the initial survey was designed, a pilot study was created to test the psychometric properties and statistical validity of the survey instrument. A total of 230 surveys were collected in Peoria, IL in May and June 2018. Results from the pilot survey revealed specific items to be included/excluded in the final survey instrument. Item selection criteria for the final survey included validity, reliability and frequency measures based on responses from the pilot sample. A copy of the final survey is included in Appendix 3.

Sample Size

In order to identify our potential population, we first identified the percentage of the Delta County population that was living in poverty. Specifically, we multiplied the population of the county by its respective poverty rate to identify the minimum sample size to study the at-risk population. The poverty rate for Delta County was 14.4 percent in 2017. The population used for the calculation was 36,395 yielding a total of 5,241 residents living in poverty in the Delta County area.

We assumed a normal approximation to the hypergeometric distribution given the targeted sample size.

$$n = (Nz^2pq)/(E^2 (N-1) + z^2 pq)$$

where:

n = the required sample size

N = the population size

pq = population proportions (set at .05)

z = the value that specified the confidence interval (use 90% CI)

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

For the total Delta County area, the minimum sample size for *aggregated* analyses (combination of at-risk and general populations) was 381. The data collection effort for this CHNA yielded a total of 570 usable responses. This exceeded the threshold of the desired 90% confidence interval.

To provide a representative profile when assessing the aggregated population for the Delta County region, the general population was combined with a portion of the at-risk population. To represent the at-risk population as a percentage of the aggregate population, a random-number generator was used to select at-risk cases to include in the general sample. Additionally, efforts were made to ensure that the demography of the sample was aligned with population demographics according to U.S. Census data. This provided a total usable sample of 507 respondents for analyzing the aggregate population. Sample characteristics can be seen in Appendix 4.

Data Collection

Survey data were collected in the 3rd quarter of 2018. To collect data in this study, two techniques were used. First, an online version of the survey was created. Second, a paper version of the survey was distributed. In order to be sensitive to the needs of respondents, surveys stressed assurance of complete anonymity. Note that versions of both the online survey and paper survey were translated into Spanish.

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

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

Data Integrity

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

Analytic Techniques

To ensure statistical validity, we used several different analytic techniques. Specifically, frequencies and descriptive statistics were used for identifying patterns in residents' ratings of various health concerns.

Additionally, appropriate statistical techniques were used for identification of existing relationships between perceptions, behaviors and demographic data. Specifically, we used Pearson correlations, χ^2 tests and tetrachoric correlations when appropriate, given characteristics of the specific data being analyzed.

CHAPTER 1 OUTLINE

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

CHAPTER 1

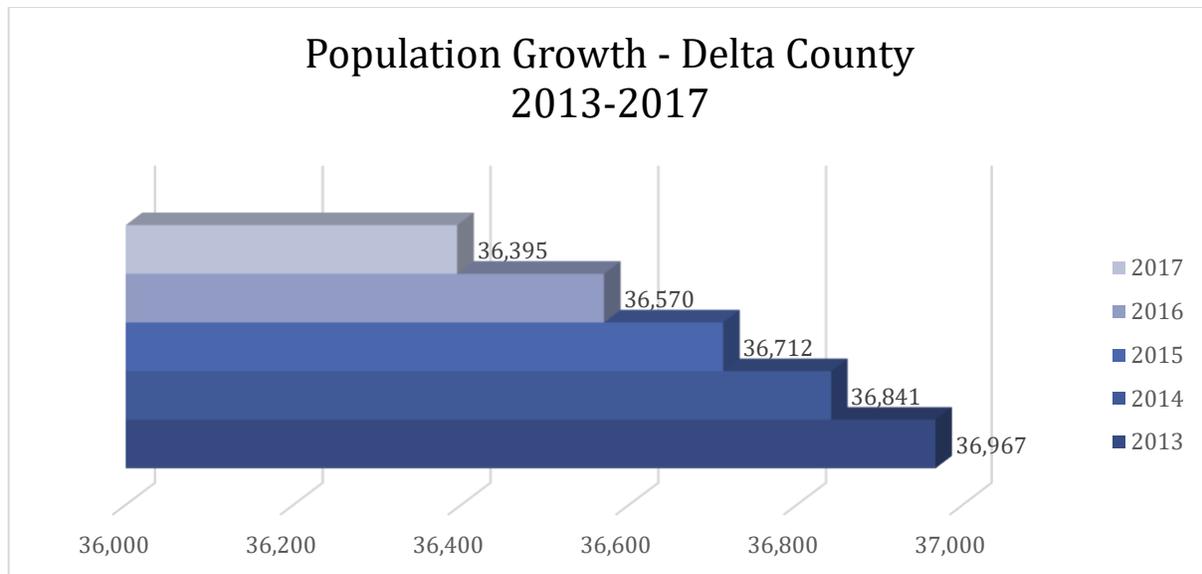
DEMOGRAPHY AND SOCIAL DETERMINANTS

1.1 Population

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

Population Growth

Data from the last census indicate the population of Delta County has slightly decreased (1.5%) between 2013 and 2017.



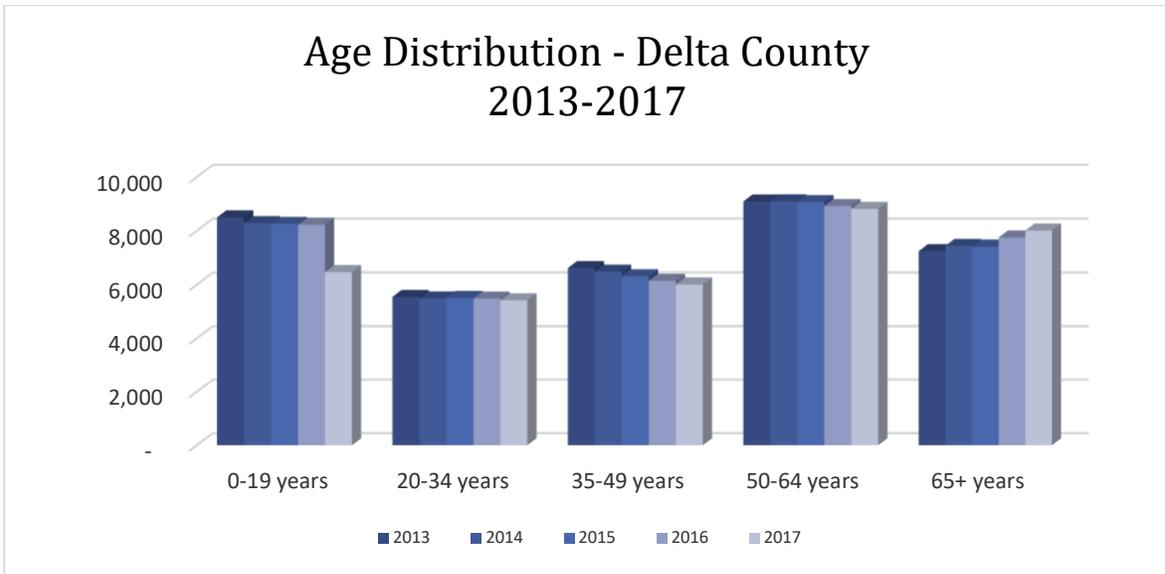
Source: US Census

1.2 Age, Gender and Race Distribution

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

Age

As indicated in the graph below, the percentage of individuals in Delta County aged 50-64 declined 3.0% between 2013 and 2017, and the percentage of individuals aged 65 and older increased 10.6% between 2013 and 2017.



Age	2013	2014	2015	2016	2017
0-19 years	8,502	8,289	8,260	8,228	6,468
20-34 years	5,545	5,489	5,507	5,486	5,420
35-49 years	6,617	6,484	6,314	6,144	6,007
50-64 years	9,094	9,100	9,068	8,923	8,819
65+ years	7,246	7,442	7,416	7,753	8,011

Source: US Census

Gender

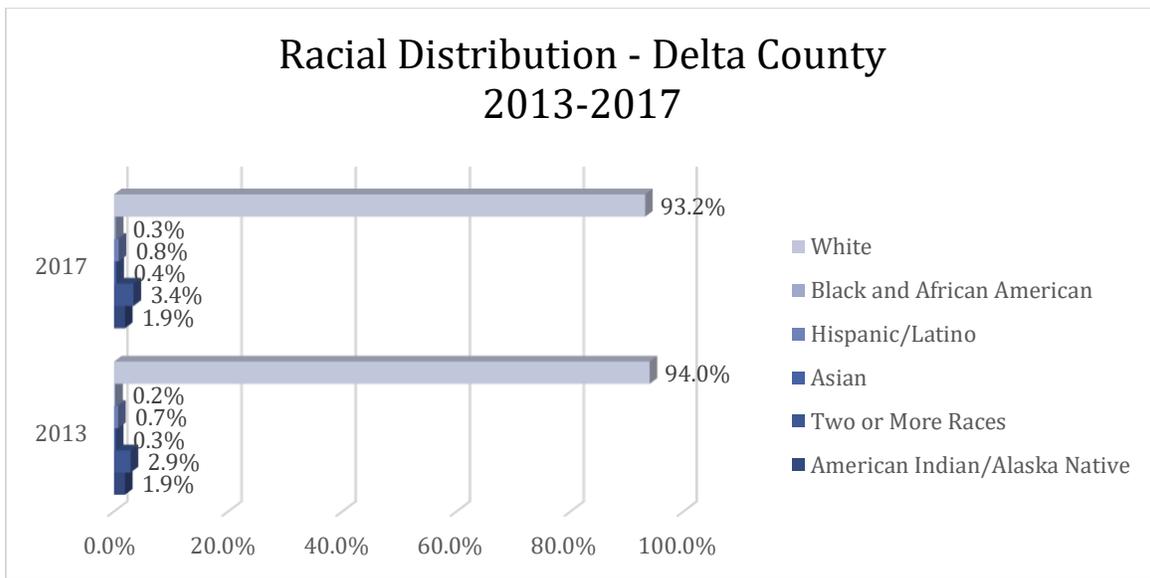
The gender distribution of Delta County residents has remained relatively consistent between 2013 and 2017.



Source: US Census

Race

With regard to race and ethnic background, Delta County is largely homogenous, yet in recent years, the county is becoming more diverse. Data from 2017 suggest that White ethnicity comprises 93.2% of the population in Delta County. However, the non-White population of Delta County has been increasing (from 6.0% to 6.8% in 2017), with Black ethnicity comprising 0.3% of the population, multi-racial ethnicity comprising 3.4% of the population and Hispanic/Latino ethnicity comprising 0.8% of the population.

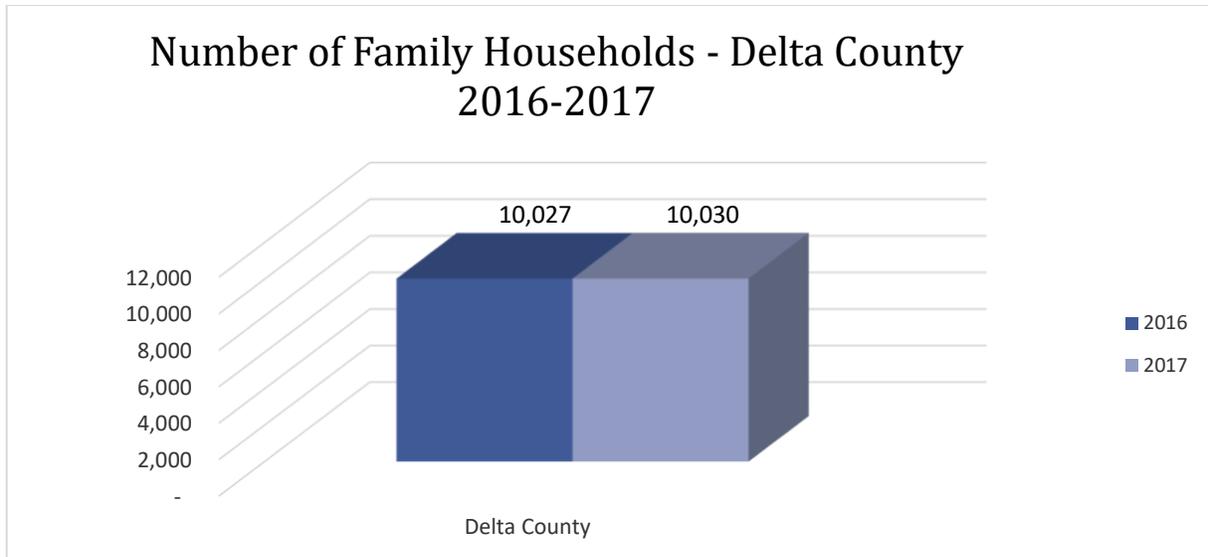


Source: US Census

1.3 Household/Family

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

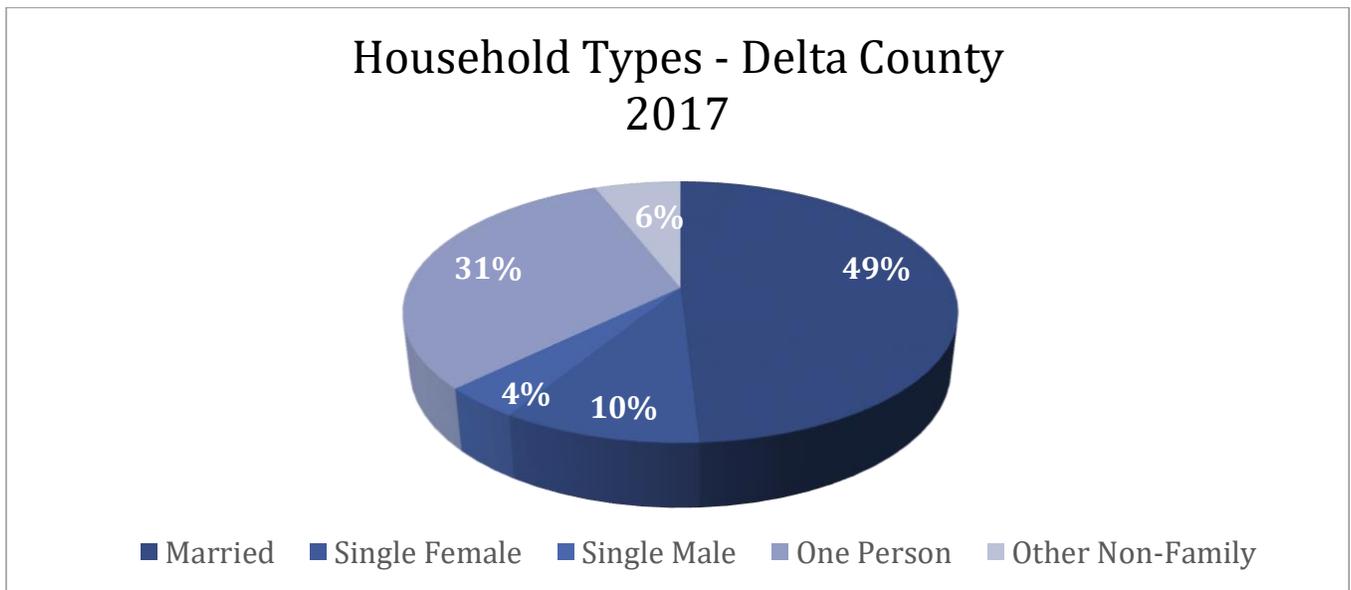
As indicated in the graph below, the number of family households in Delta County increased slightly from 2016 to 2017.



Source: US Census

Family Composition

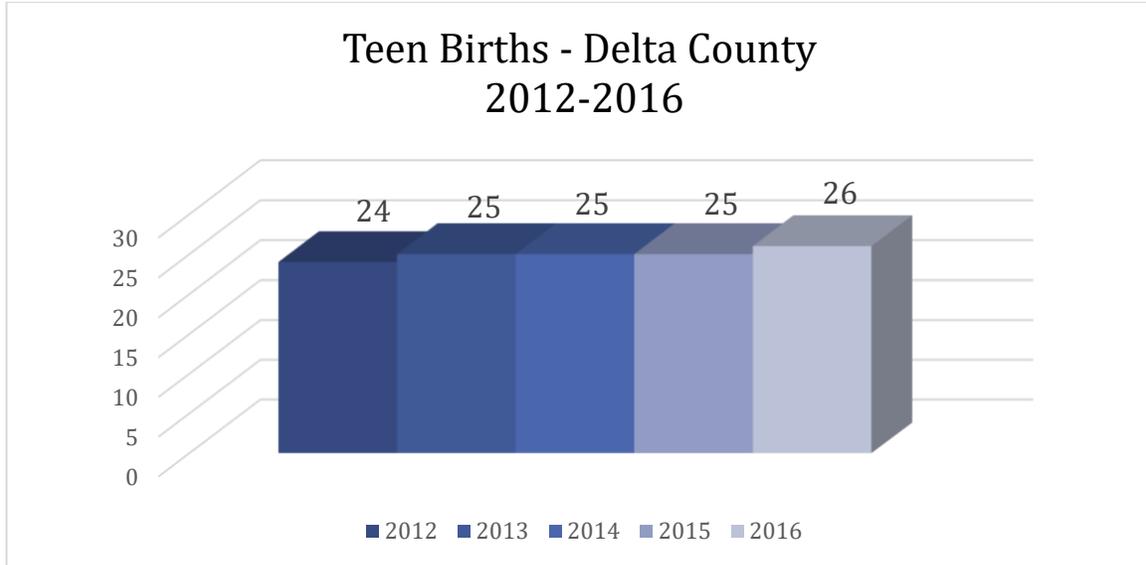
In Delta County, data from 2017 suggest the percentage of two-parent families in Delta County is 49%. One-person households represent 31% of the county population, and single-female households represent 10%.



Source: US Census

Early Sexual Activity Leading to Births from Teenage Mothers

Delta County has experienced a slight fluctuation in teenage birth count. The teen birth count steadily increased from 2012-2016.



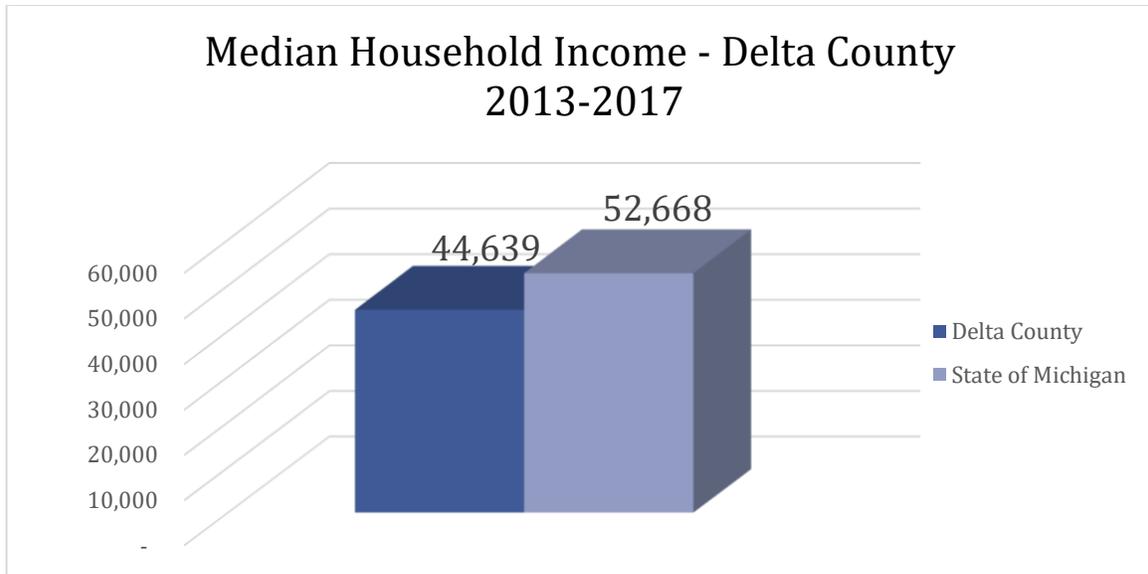
Source: Michigan Department of Public Health

1.4 Economic Information

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

Median Income Level

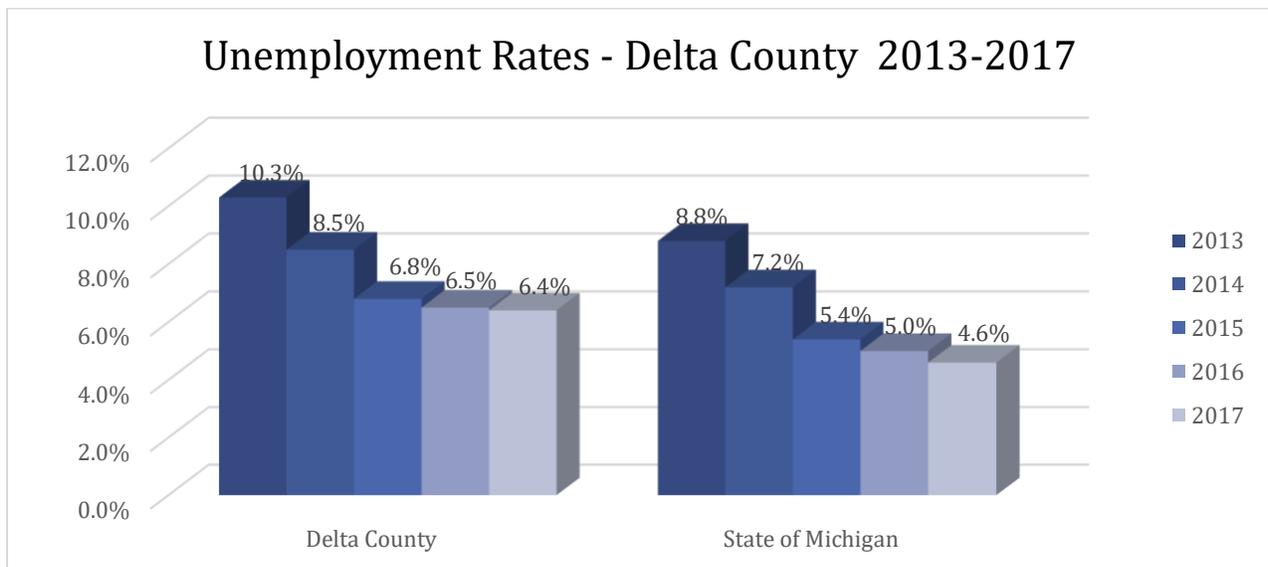
For 2013-2017, the median household income in Delta County was lower than the State of Michigan.



Source: US Census

Unemployment

For the years 2013 to 2017, the Delta County unemployment rate was higher than the State of Michigan unemployment rate. Overall, between 2013 and 2017, unemployment in Delta County decreased by 3.9%.

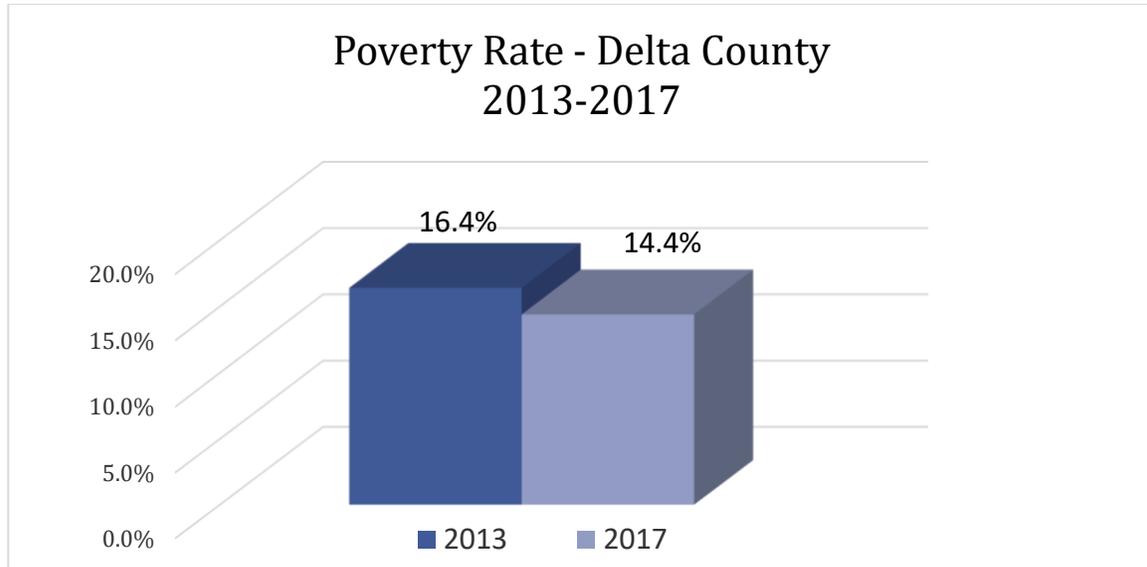


Source: Bureau of Labor Statistics

Individuals in Poverty

In Delta County, the percentage of individuals living in poverty between 2013 and 2017 decreased by 2.0%. The poverty rate for individuals is 14.4%, which is higher than the State of Illinois

individual poverty rate of 13.5%. Poverty has a significant impact on the development of children and youth. In 2017 the poverty rate for families living in Delta County (10.2%) was higher than the State of Illinois family poverty rate (9.8%).



Source: US Census

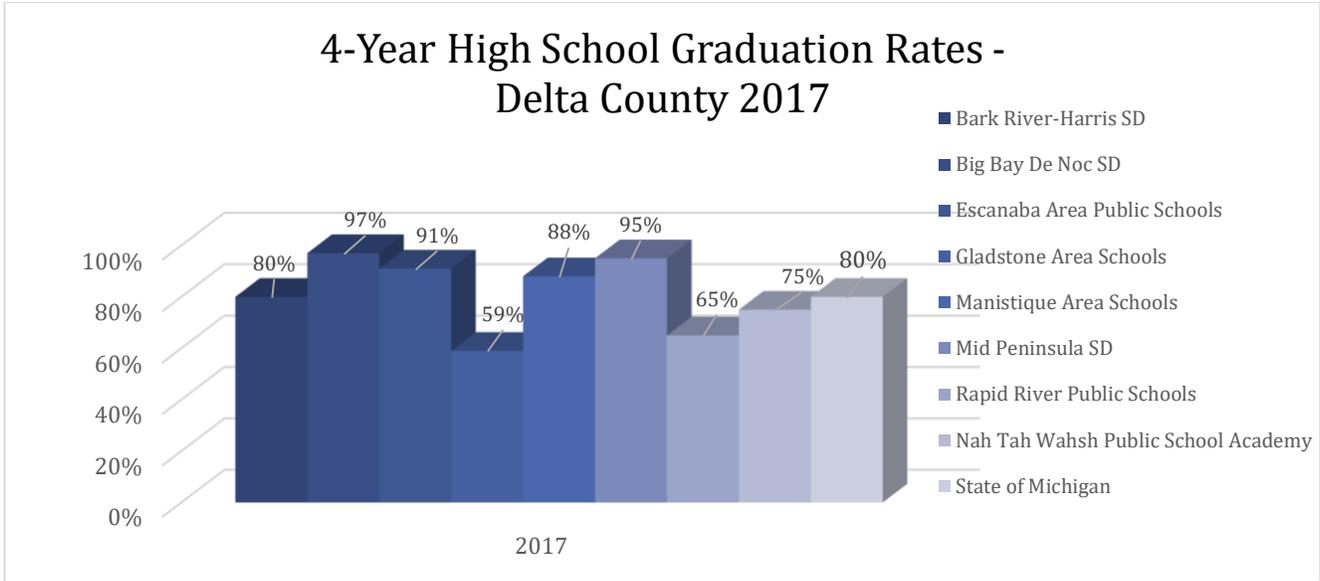
1.5 Education

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

High School Graduation Rates

In 2017, Bark River-Harris SD, Gladstone Area Schools, Rapid River Public Schools, and Nah Tah Wahsh Public School Academy in Delta County reported high school graduation rates that were at or below the State average of 80%.

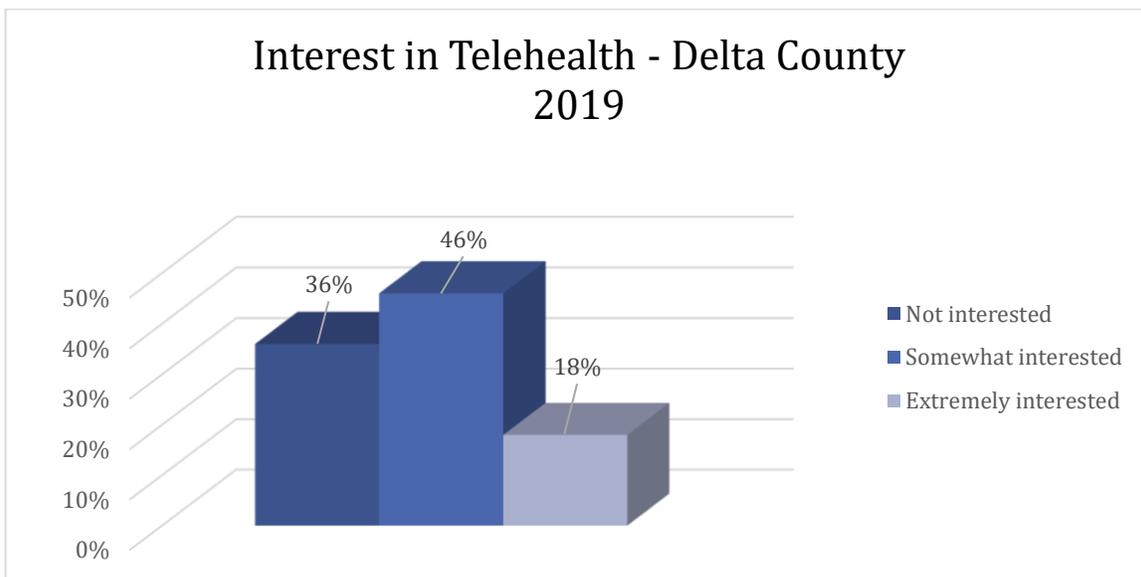
¹ NCES 2005



Source: Michigan Department of Education

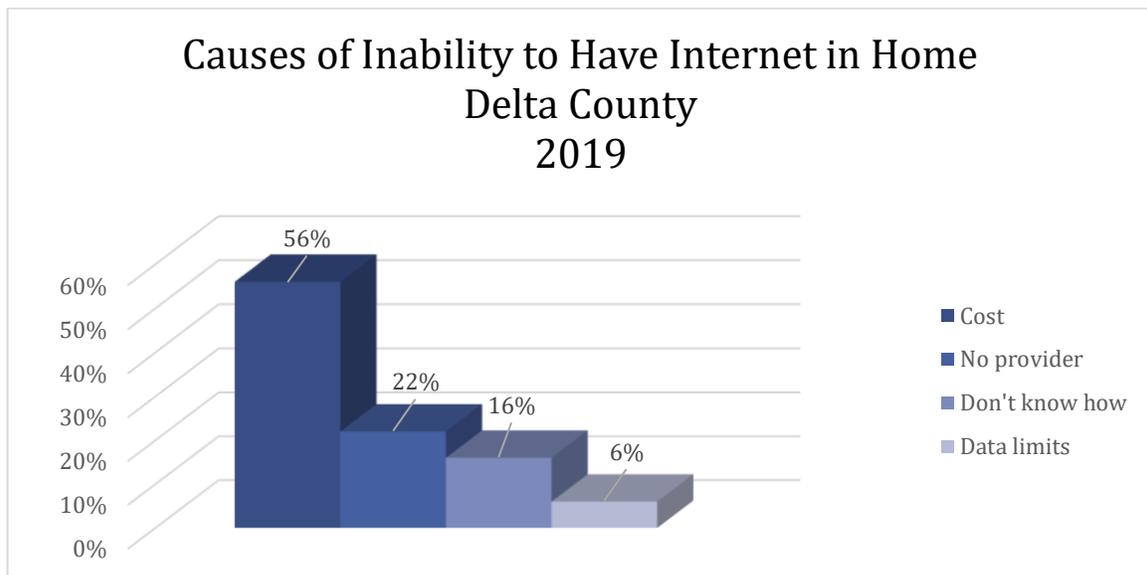
1.6 Telehealth Interest and Internet Accessibility

Survey respondents were asked *How interested would you be in health services provided through Internet or phone?* Of respondents, 64% indicated they would be either somewhat or extremely interested.



Source: CHNA Survey

In terms of accessibility, 85% of respondents indicated they had access to free public Internet, and 89% indicated they had Internet in their homes. For those that did not have Internet in their home, cost was the most frequently cited reason.



Source: CHNA Survey

Social Determinants Related to Telehealth and Internet Access

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

Interest in telehealth tends to be rated higher by younger people, and those with higher education.

Access to Internet tends to be higher for younger people, those with higher education and those with higher income.

1.7 Key Takeaways from Chapter 1

- ✓ POPULATION OVER AGE 65 IS INCREASING.
- ✓ SINGLE FEMALE HEAD-OF-HOUSE-HOUSEHOLD REPRESENTS 10% OF THE POPULATION. HISTORICALLY, THIS DEMOGRAPHIC INCREASES THE LIKELIHOOD OF FAMILIES LIVING IN POVERTY.
- ✓ UNEMPLOYMENT HAS DECREASED SLIGHTLY BUT IS HIGHER THAN THE STATE OF MICHIGAN.
- ✓ HALF OF DELTA COUNTY SCHOOL DISTRICTS HAVE GRADUATION RATES AT OR BELOW THE STATE AVERAGE.
- ✓ APPROXIMATELY 2/3 OF THE POPULATION IS INTERESTED IN TELEHEALTH SERVICES.

CHAPTER 2 OUTLINE

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

CHAPTER 2

PREVENTION BEHAVIORS

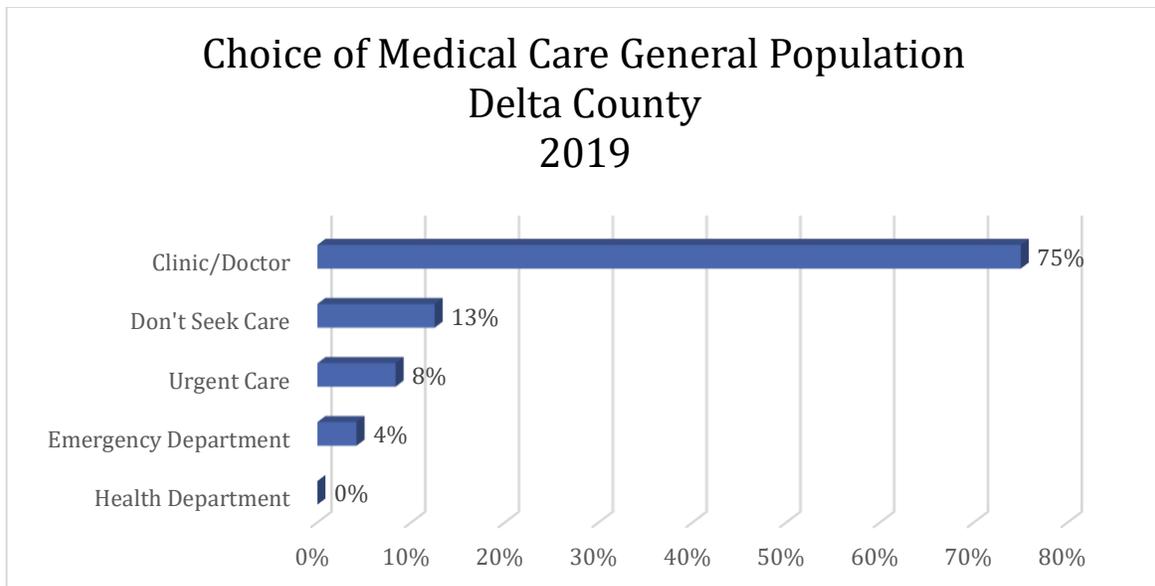
2.1 Accessibility

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

Choice of Medical Care

Survey respondents were asked to select the type of healthcare facility used when sick. Six different alternatives were presented, including clinic or doctor's office, emergency department, urgent-care facility, health department, no medical treatment, and other.

The most common response for source of medical care was clinic/doctor's office, chosen by 75% of survey respondents. This was followed by not seeking medical attention (13%), urgent care (8%), the emergency department at a hospital (4%), and the health department (0%).



Source: CHNA Survey

Comparison to 2016 CHNA

While most of the choices for medical care remained steady, Clinic/doctor's office increased from 70% in 2016 to 75% in 2019. Note that the percentage of the population that does not seek medical care (13%) is relatively higher than other OSF communities.

Social Determinants Related to Choice of Medical Care

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

Clinic/Doctor's Office tends to be used more often by White people and those with higher education and income.

Urgent Care did not have any significant correlates.

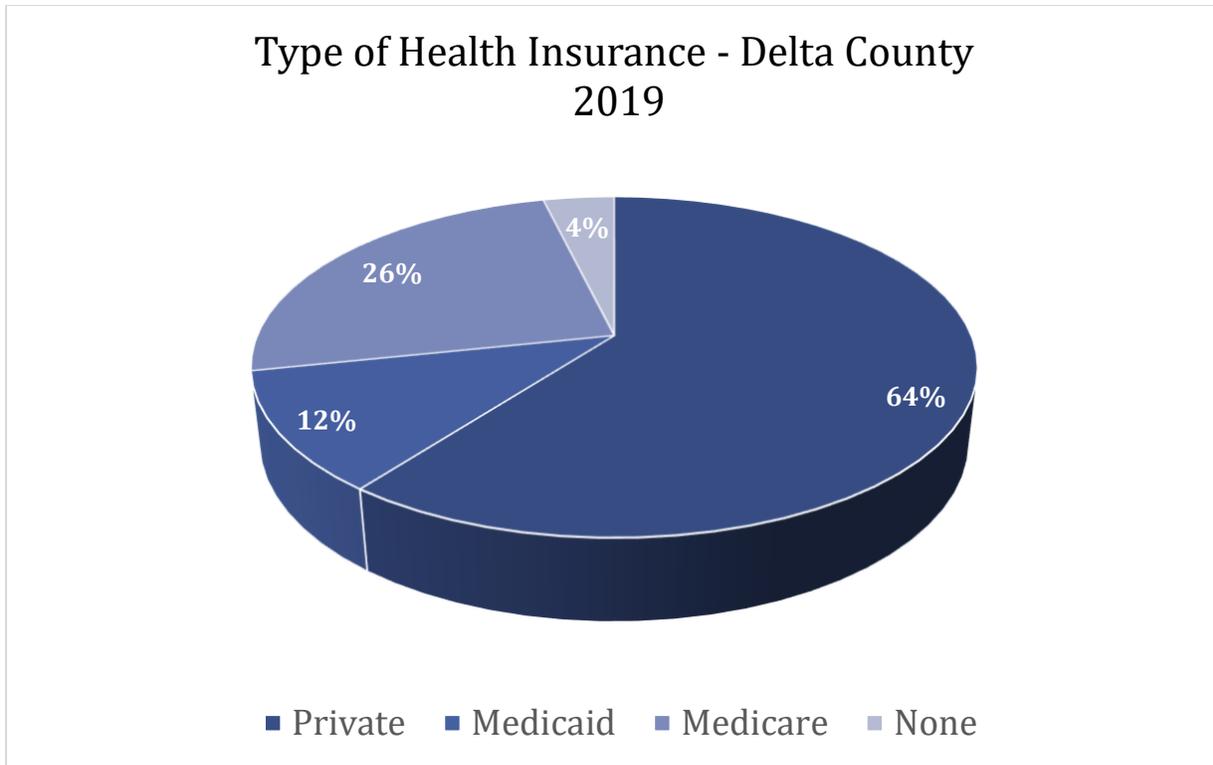
Emergency Department did not have any significant correlates.

Do Not Seek Medical Care tends to be rated higher by younger people.

Health Department did not have any significant correlates.

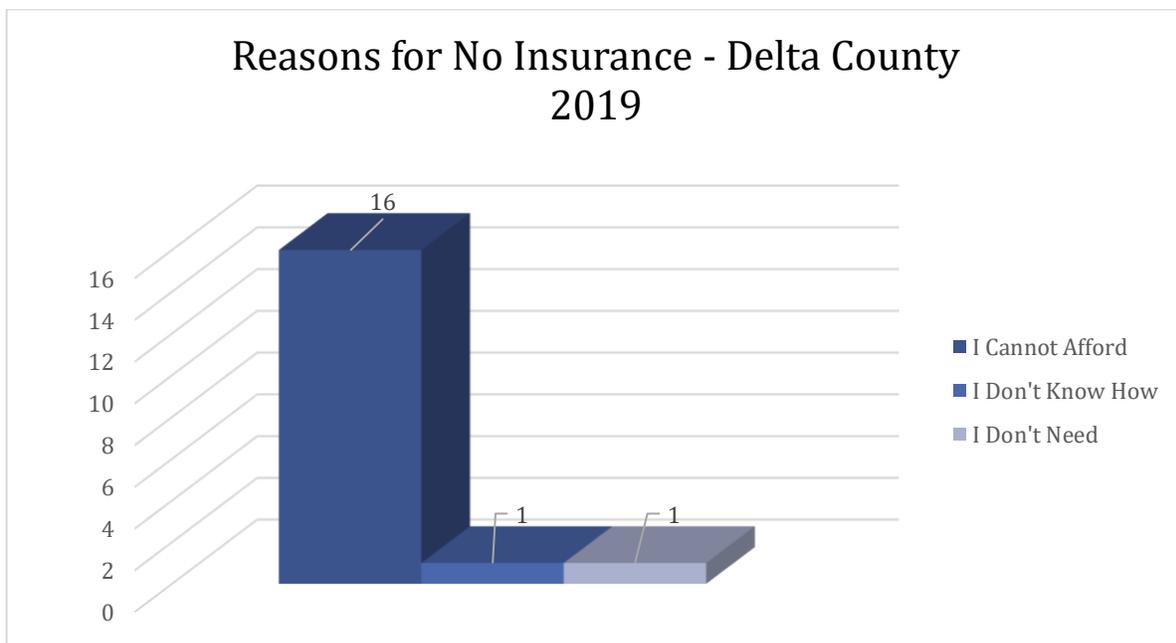
Insurance Coverage

According to survey data, 64% of the residents are covered by private insurance, followed by Medicare (26%), and Medicaid (12%). Only 4% of respondents indicated they did not have any health insurance.



Source: CHNA Survey

Data from the survey show that for the 4% of individuals who do not have insurance, the most common reason was cost. Note that these data are displayed in frequencies rather than percentages given the low number of responses.



Source: CHNA Survey

Comparison to 2016 CHNA

Compared to survey data from the 2016 CHNA, there has been a decrease in the percentage of the population with Medicare from 29% to 26% resulting in a small increase in the percentage of individuals who have no insurance, from 3% to 4%. There was no change in private insurance; it remains at 30%.

Social Determinants Related to Type of Insurance

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

Medicare tends to be used more frequently by older people and those with lower income.

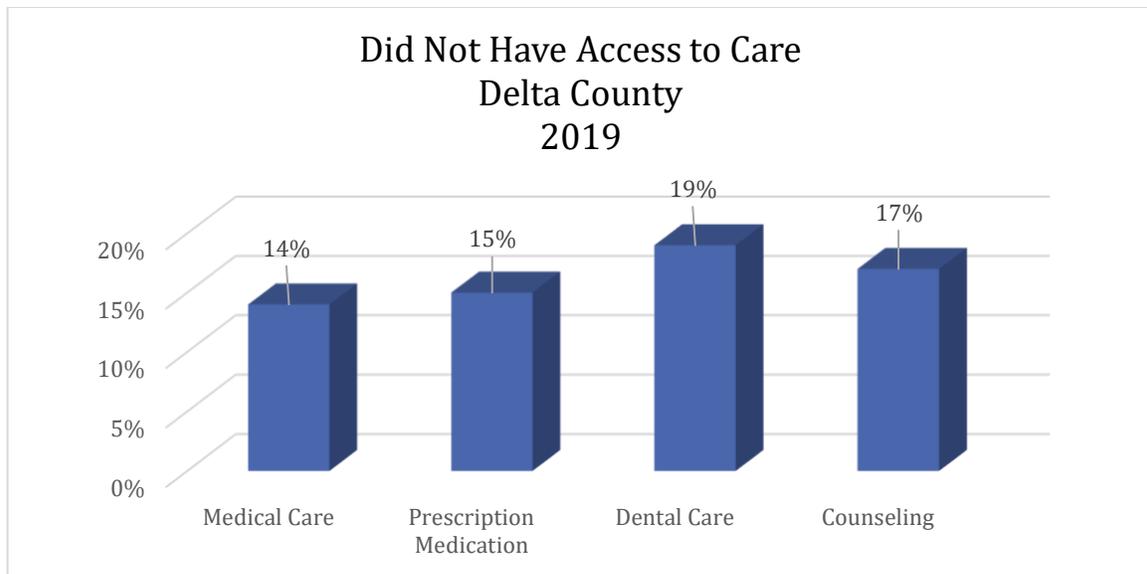
Medicaid tends to be used more frequently by Latino people (note given the small number of Latino responses, this should be interpreted with caution), those with lower income, and those with lower education.

Private Insurance is used more often by White people, those with higher education, those with higher income and those with a stable housing environment.

No Insurance tends to be reported more often by those with lower education.

Access to Care

In the CHNA survey, respondents were asked, "Was there a time when you needed care but were not able to get it?" Access to four types of care were assessed: medical care, prescription medications, dental care and counseling. Survey results show that 14% of the population did not have access to medical care when needed; 15% of the population did not have access to prescription medications when needed; 19% of the population did not have access to dental care when needed; and 17% of the population did not have access to counseling when needed.



Source: CHNA Survey

Social Determinants Related to Access to Care

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

Access to medical care tends to be higher for those with higher education and those with higher income.

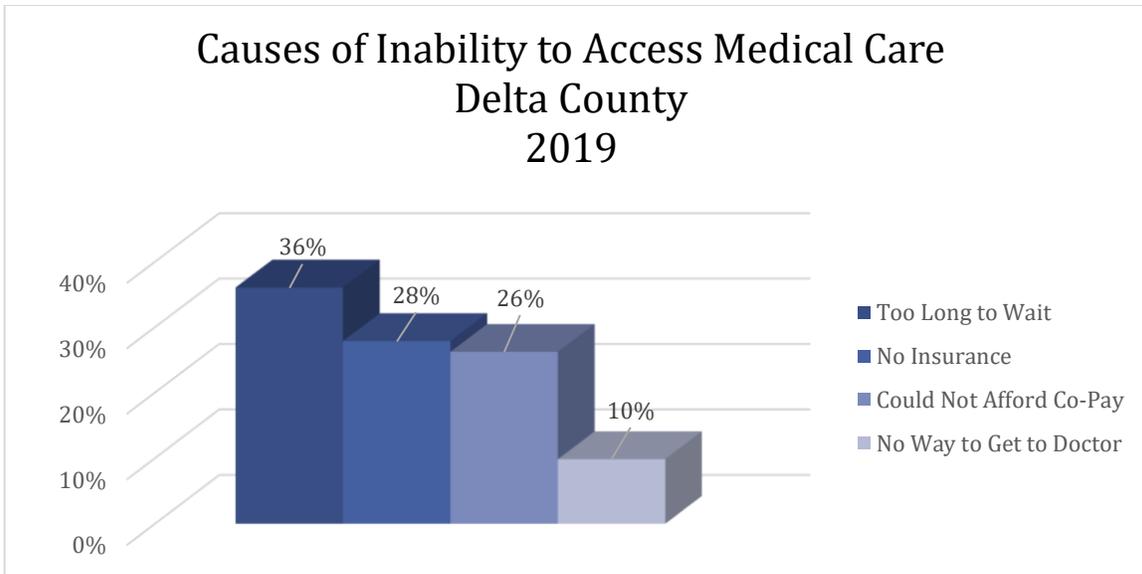
Access to prescription medications tends to be higher for White people, those with higher income, and those with higher income.

Access to dental care tends to be higher for older people, those with higher education, those with higher income and those with a stable housing environment.

Access to counseling had no significant correlates.

Reasons for No Access – Medical Care

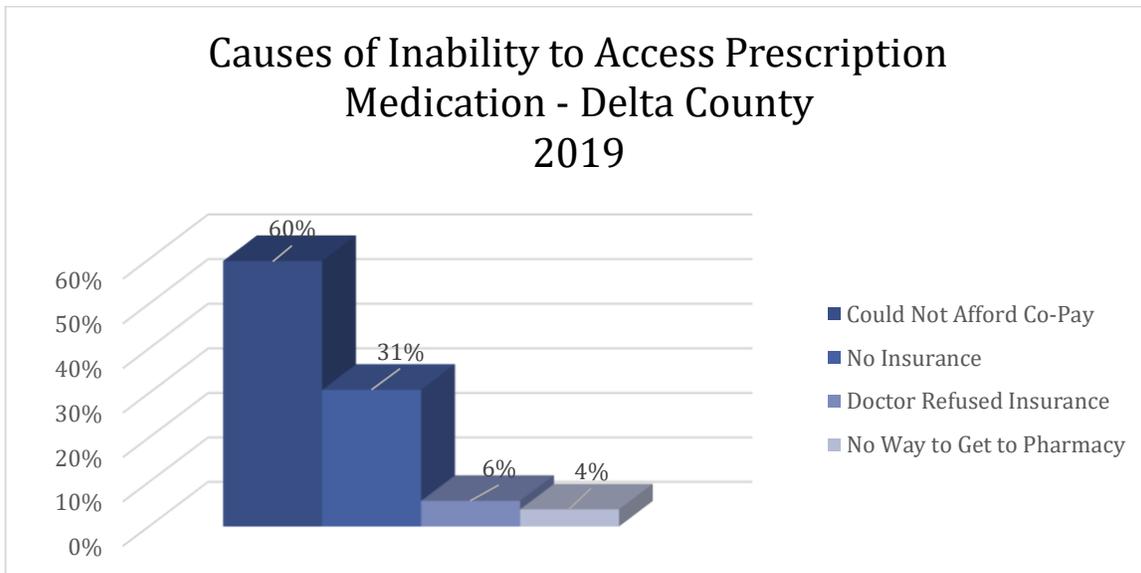
Survey respondents who reported they were not able to get medical care when needed were asked a follow-up question. The leading causes of the inability to gain access to medical care were too long to wait for an appointment (36%), no insurance (28%), and the inability to afford a copay (26%).



Source: CHNA Survey

Reasons for No Access – Prescription Medication

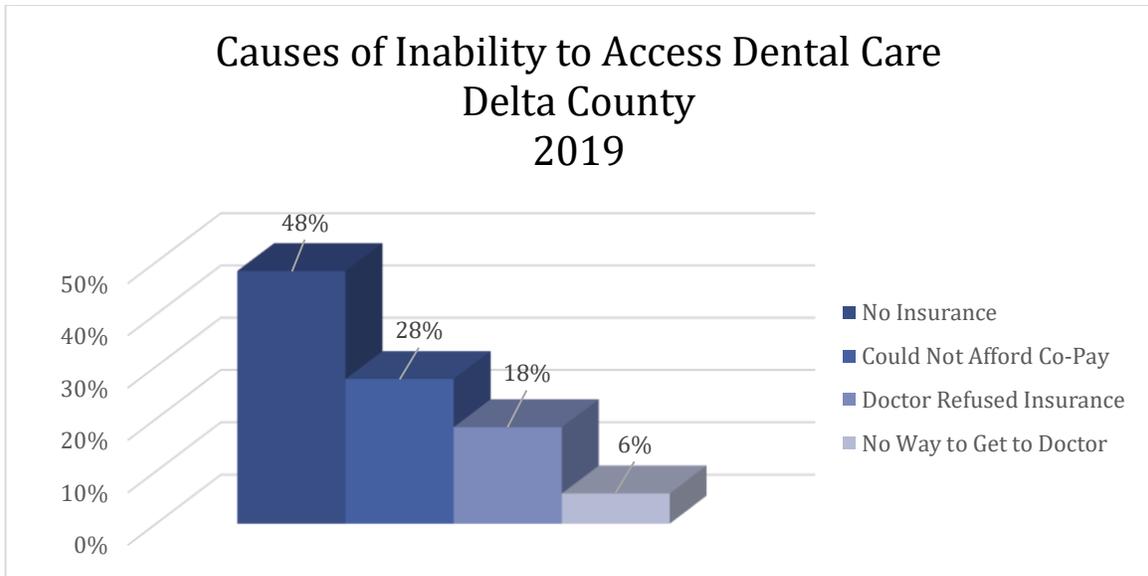
Survey respondents who reported they were not able to get prescription medications when needed were asked a follow-up question. In Delta County, the leading causes were the inability to afford copayments or deductibles (60%) and no insurance (31%).



Source: CHNA Survey

Reasons for No Access – Dental Care

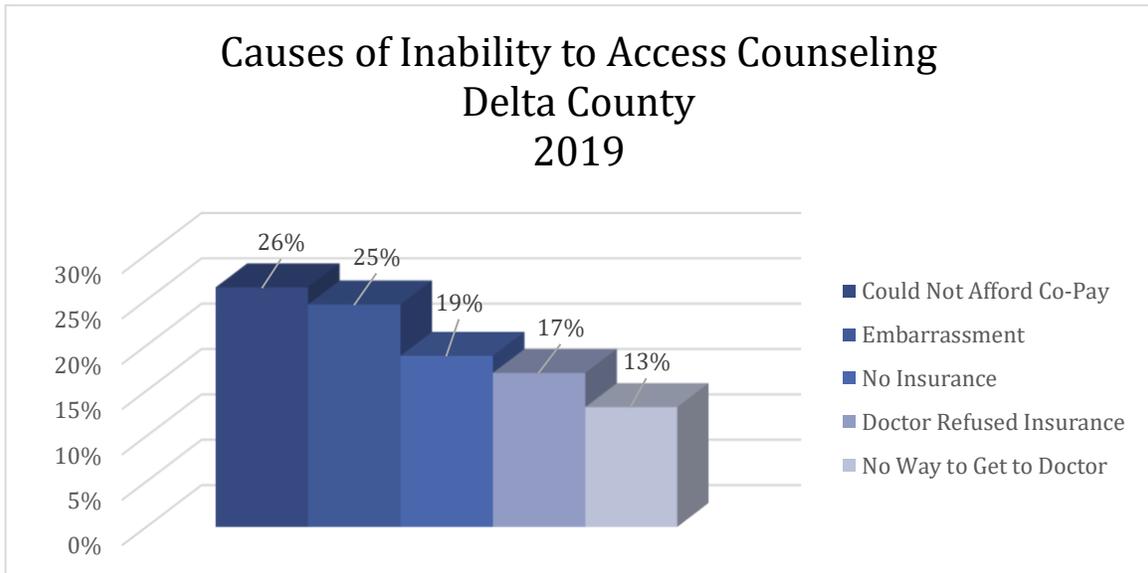
Survey respondents who reported they were not able to get dental care when needed were asked a follow-up question. The leading causes of inability to gain access to dental care were no insurance (48%), the inability to afford copayments or deductibles (28%) and the dentist’s refusal of insurance (18%).



Source: CHNA Survey

Reasons for No Access – Counseling

Survey respondents who reported they were not able to get counseling when needed were asked a follow-up question. The leading causes of the inability to gain access to counseling were inability to afford co-pay (26%), embarrassment (25%), the lack of insurance (19%), refused insurance (17%) and no way to get to the counselor (13%).



Source: CHNA Survey

Comparison to 2016 CHNA

Access to Medical Care – Compared to 2016, survey results were similar.

Access to Prescription Medications – Compared to 2016, results were similar.

Access to Dental Care – Compared to 2016, results show an increase (4%) in those that were not able to get dental care when needed.

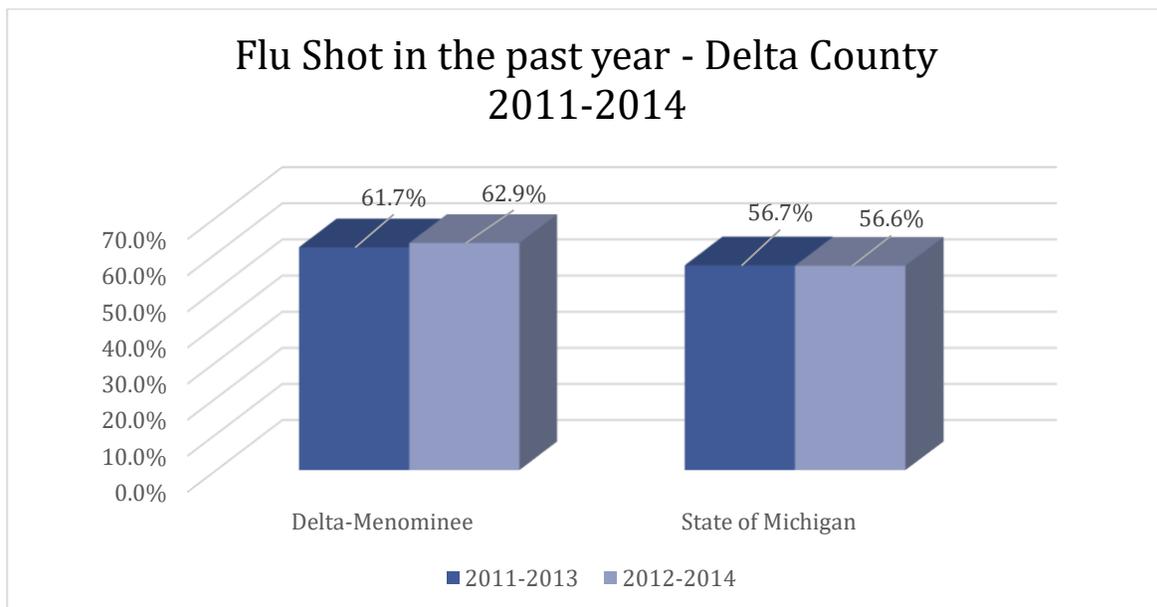
Access to Counseling – Compared to 2016, results show a significant increase (8%) in those that were not able to get counseling when needed.

2.2 Wellness

Importance of the measure: Preventative healthcare measures, including getting a flu shot, engaging in a healthy lifestyle, and undertaking screenings for diseases are essential to combating morbidity and mortality while reducing healthcare costs.

Frequency of Flu Shots

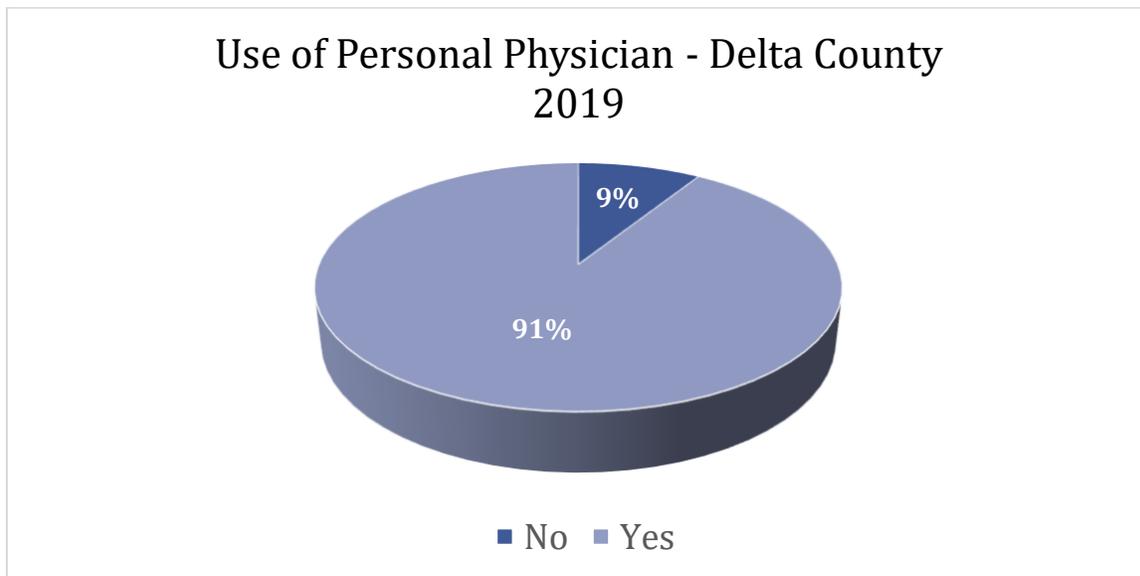
The overall health of a community is impacted by preventative measures including immunizations and vaccinations. The chart below shows that the percentage of people who have had a flu shot in the past year is 61.7% for Delta County in 2011-2013 compared to 62.9% for 2012-2014. During the same timeframe, the State of Michigan held steady. Note that data have not been updated by the Michigan Department of Public Health.



Source: Michigan Behavioral Risk Factor Surveillance System

Personal Physician

The CHNA survey asked respondents if they had a personal physician. Having a personal physician suggests that individuals are more likely to get wellness check-ups and less likely to use an emergency department as a primary healthcare service. According to survey data, 91% of residents have a personal physician.



Source: CHNA Survey

Comparison to 2016 CHNA

The 2019 CHNA survey results for having a personal physician are similar compared to the 2016 CHNA. Specifically, 90% of residents reported a personal physician in 2016 and 91% report the same in 2019.

Social Determinants Related to Having a Personal Physician

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

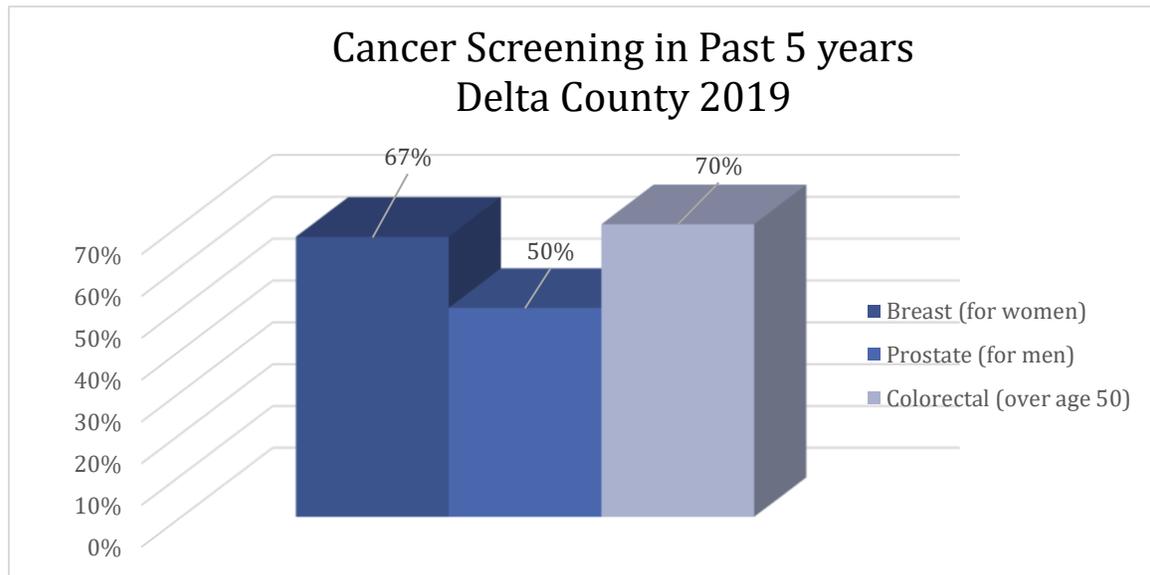
Having a personal physician tends to be more likely for older people, those with higher education and those with higher income. Native Americans tend to be less likely to have a personal physician.

Cancer Screening

Early detection of cancer may greatly improve the probability of successful treatment. In the case of colorectal cancer, early detection of precancerous polyps can prevent cancer. **Cancer screening is a**

new section to the 2019 CHNA. Specifically, three types of cancer screening were measured: breast, prostate and colorectal.

Results from the CHNA survey show that 67% of women had a breast screening in the past five years. For men, 50% had a prostate screening in the past five years. For women and men over the age of 50, 70% had a colorectal screening in the last five years.



Source: CHNA Survey

Social Determinants Related to Cancer Screenings

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

Breast screening tends to be more likely for women.

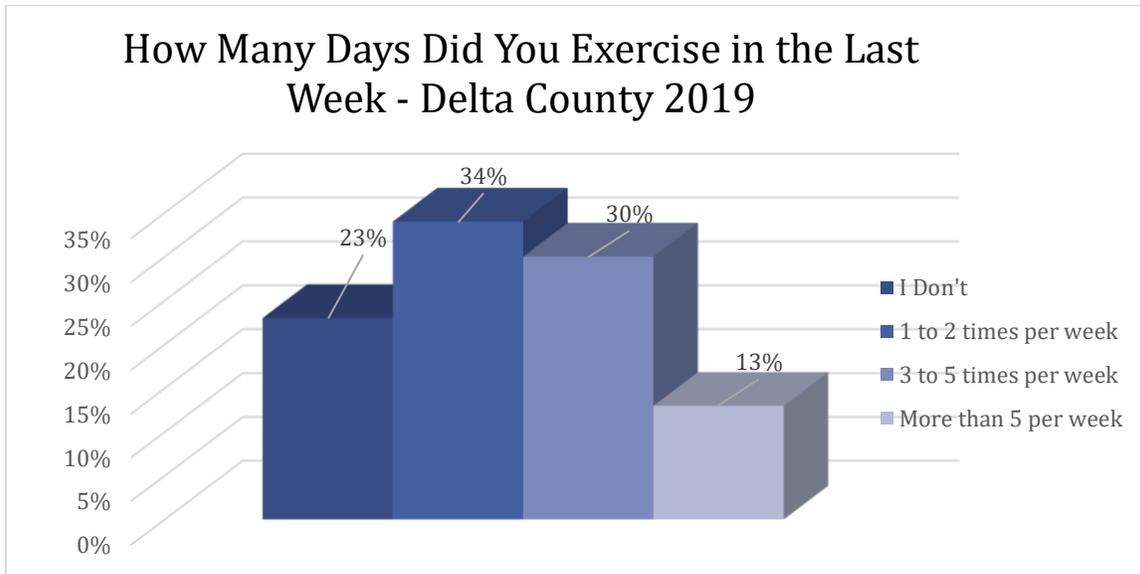
Prostate screening tends to be more likely for White men and those with a higher education.

Colorectal screening shows no significant correlates.

Physical Exercise

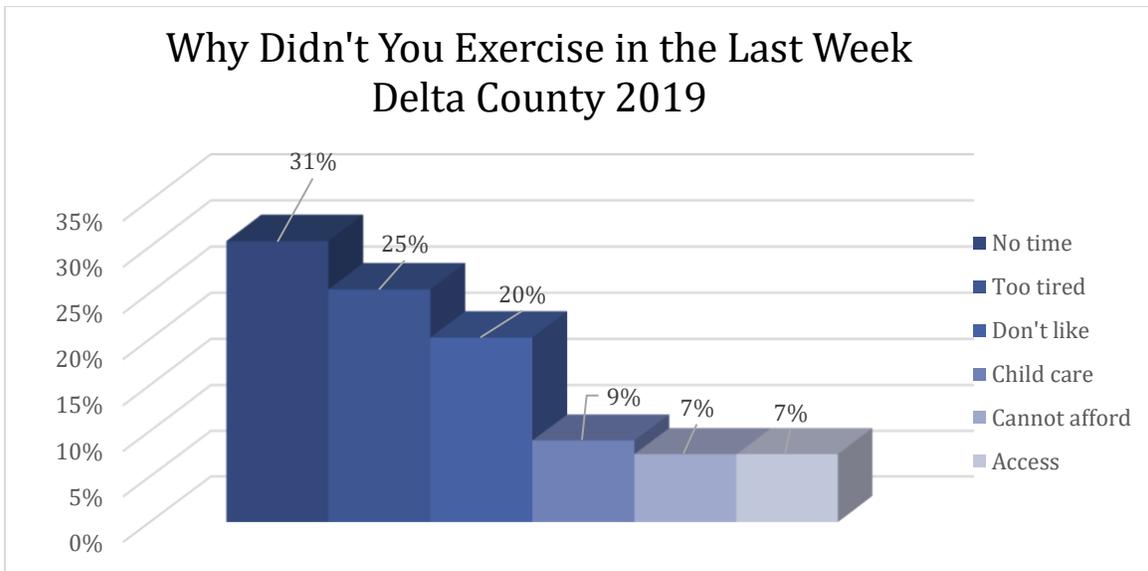
A healthy lifestyle, comprised of regular physical activity, has been shown to increase physical, mental, and emotional well-being.

Specifically, 23% of respondents indicated that they do not exercise at all, while the majority (64%) of residents exercise 1-5 times per week.



Source: CHNA Survey

To find out why some residents do not exercise at all, a follow up question was asked. Similar to the 2016 CHNA, the most common reasons for not exercising are not having enough time (31%) or energy (25%) and a dislike of exercise (20%).



Source: CHNA Survey

Comparison to 2016 CHNA

There has been a moderate improvement compared to data from the 2016 CHNA. In 2016, 29% of residents indicated they did not exercise at all and only 23% indicated they did not exercise in 2019.

Social Determinants Related to Exercise

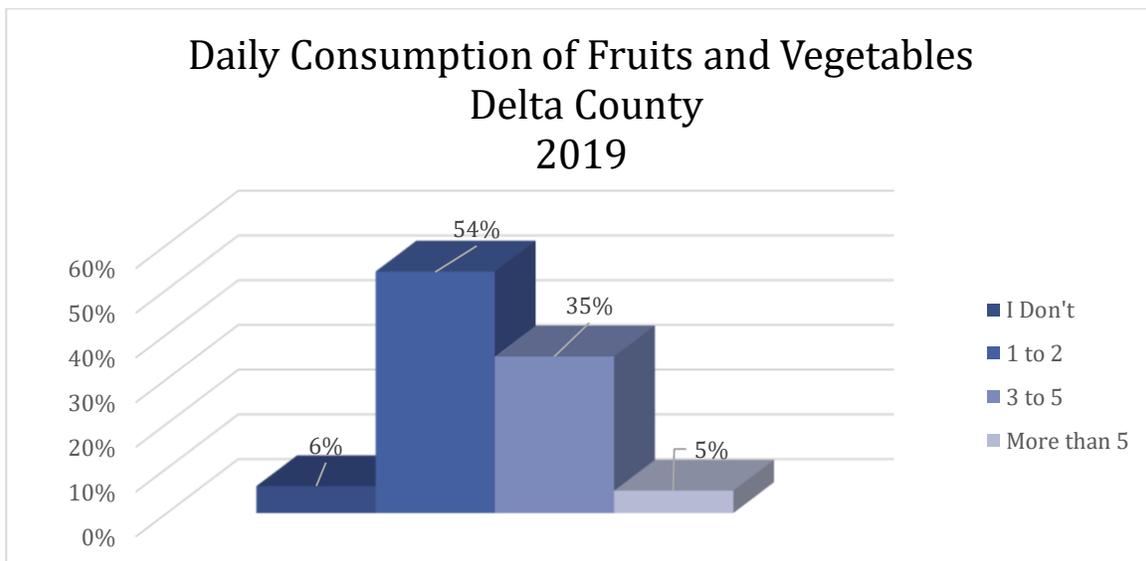
Multiple characteristics show significant relationships with frequency of exercise. The following relationships were found using correlational analyses:

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

Healthy Eating

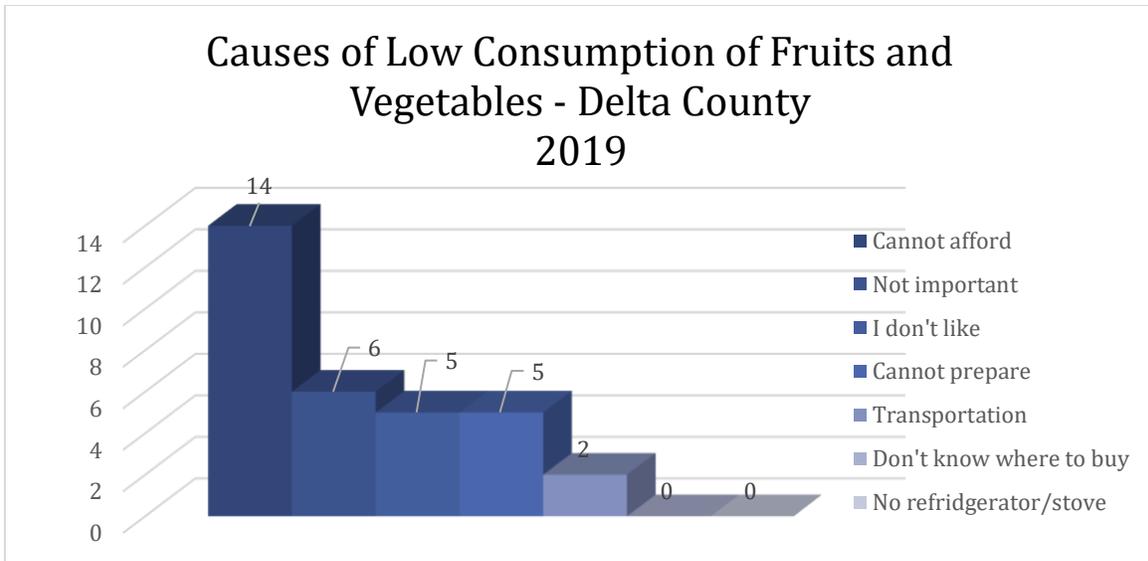
A healthy lifestyle, comprised of a proper diet, has been shown to increase physical, mental, and emotional well-being. Consequently, nutrition and diet are critical to preventative care.

Almost two-thirds (60%) of residents report no consumption or low consumption (1-2 servings per day) of fruits and vegetables per day. Note that the percentage of residents who consume five or more servings per day is only 5%.



Source: CHNA Survey

Those individuals who indicated they do not eat any fruits or vegetables were asked a follow up question. The most prevalent reason for failing to eat more fruits and vegetables was the expense involved (14). Note that these data are displayed in frequencies rather than percentages given the low number of responses.



Source: CHNA Survey

Comparison to 2016 CHNA

Results of the 2019 CHNA show improvement compared to the 2016 CHNA, where 65% of respondents indicated they had two or fewer servings of fruits and vegetables per day in 2016 compared to 60% in 2019.

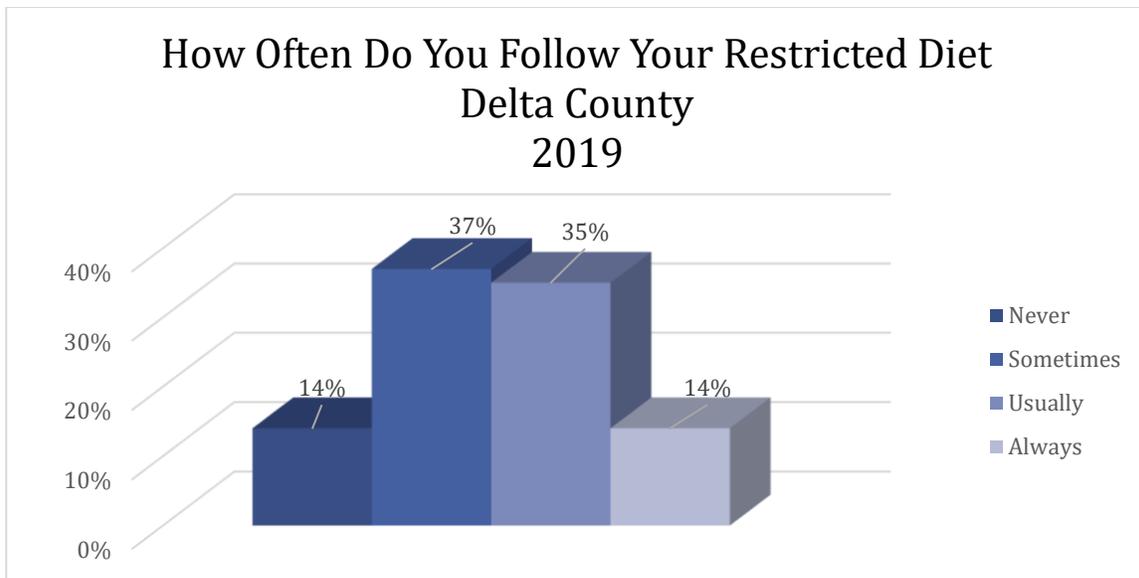
Social Determinants Related to Healthy Eating

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

Consumption of fruits and vegetables tends to be more likely for women, those with a higher level of education and those with higher income.

Restricted Diet

Respondents were also asked if they followed a restricted diet if recently diagnosed with a morbidity. Of respondents, 49% usually or always follow a restricted diet. **This is a new question to the 2019 CHNA.**



Source: CHNA 2019

Morbidities related to following a restricted diet

Individuals with certain morbidities show significant relationships with following a restricted diet. The following relationships were found using correlational analyses:

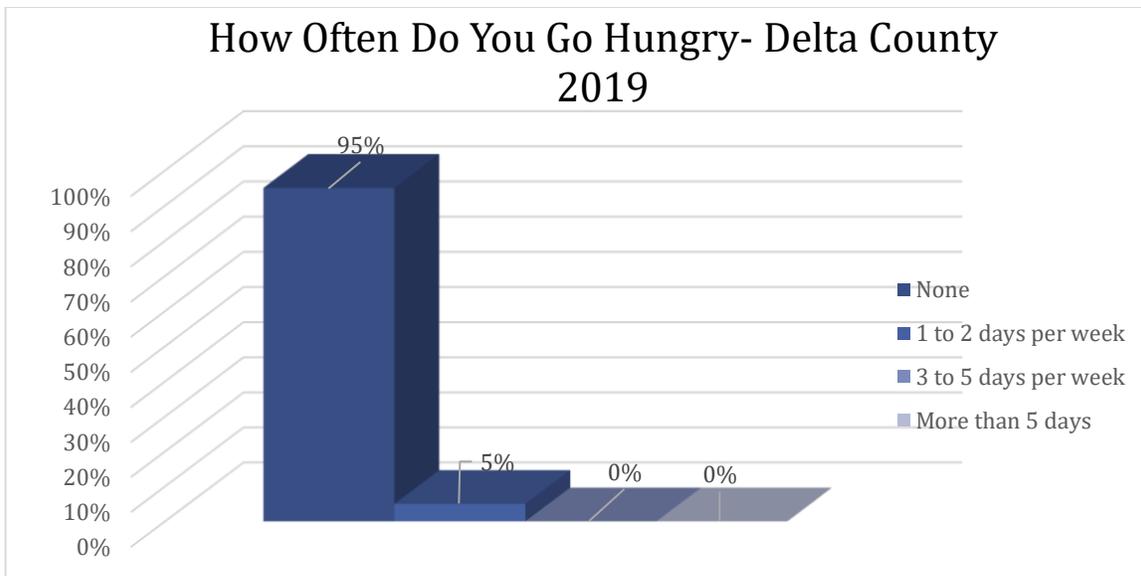
Following a restricted diet tends to be more likely for those diagnosed with diabetes.

2.3 Understanding Food Insecurity

Importance of the measure: It is essential that everyone has access to food and drink necessary for living healthy lives. Food insecurity exists when people don't have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs for a healthy life. **This is a new section to the 2019 CHNA.**

Prevalence of Hunger

Respondents were asked, "How many days a week do you or your family members go hungry?" The vast majority of respondents indicated they do not go hungry, however, 5% indicated they go hungry 1-to-2 days per week.



Source: CHNA Survey

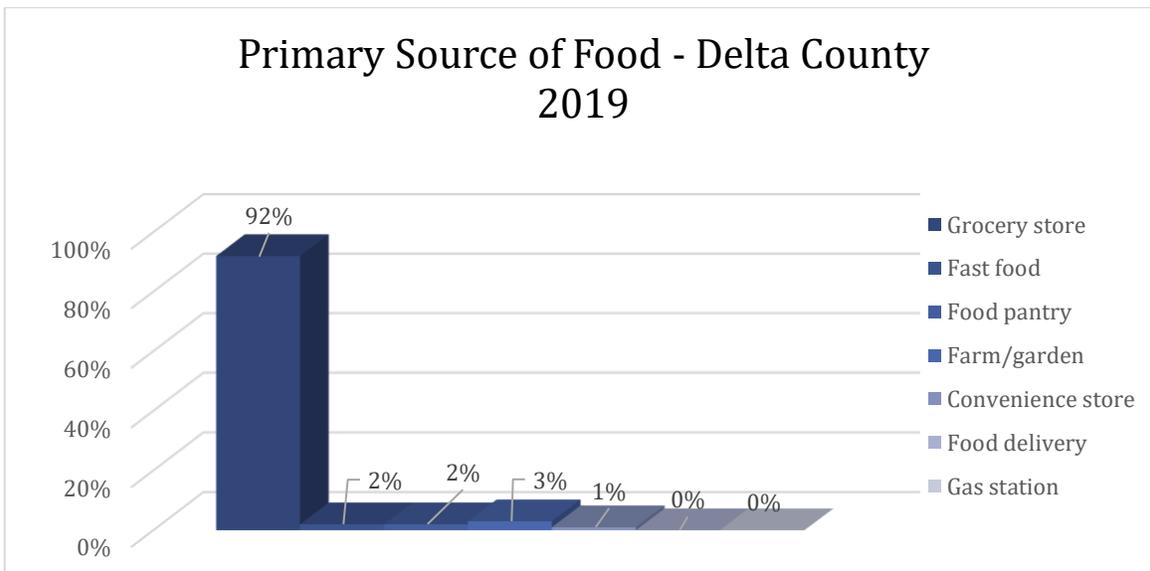
Social Determinants Related to Prevalence of Hunger

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

Prevalence of Hunger tends to be more likely for younger people, those with less education, less income and those in an unstable (e.g., homeless) housing environment.

Primary Source of Food

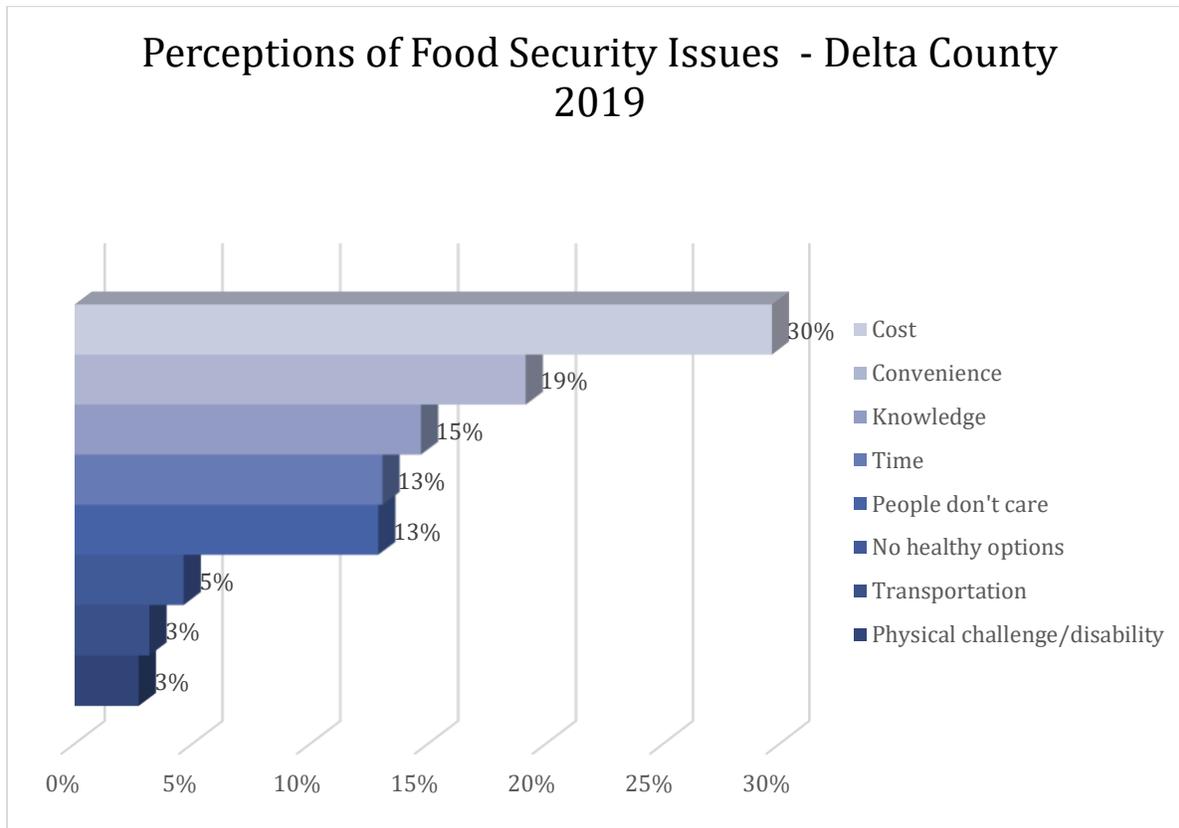
Respondents were asked to identify their primary source of food. It can be seen that the majority (92%) identified a grocery store. **This is a new section in the 2019 CHNA.**



Source: CHNA Survey

Community Perceptions of Causes for Food Insecurity

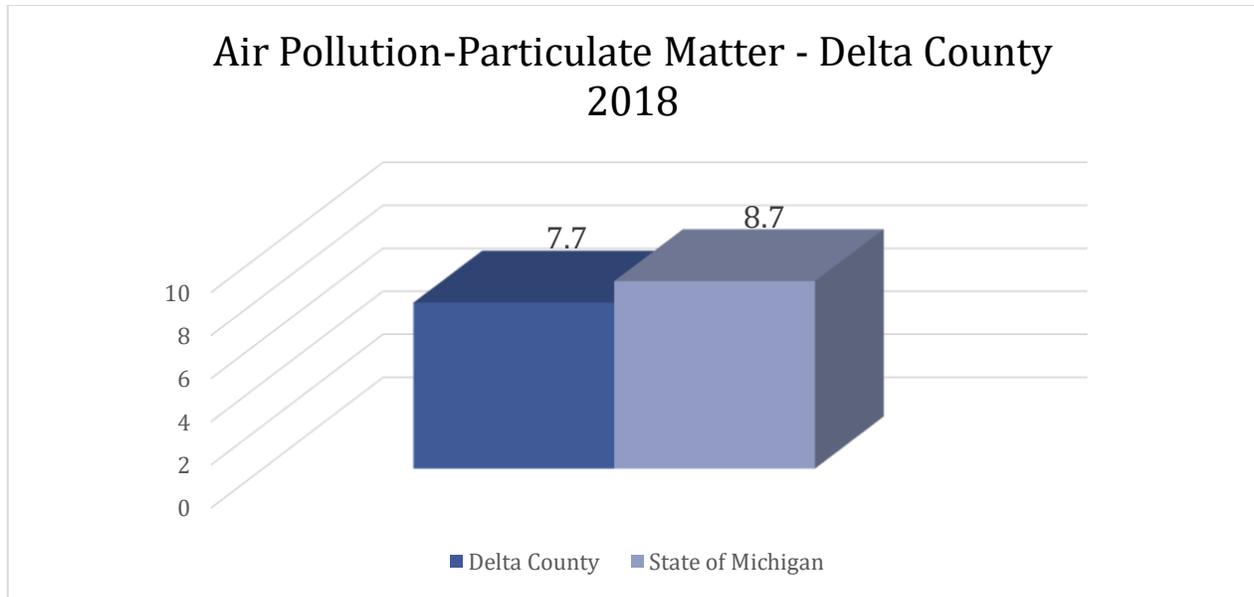
Respondents were asked to identify issues with food insecurity. The most prevalent answer was cost (30%), followed by convenience (19%). **This is a new section to the 2019 CHNA.**



Source: CHNA Survey

2.4 Physical Environment

Importance of the measure: According to the County Health Rankings, Air Pollution - Particulate Matter (APPM) is the average daily density of fine particulate matter in micrograms per cubic meter (PM2.5) in a county. Fine particulate matter is defined as particles of air pollutants with an aerodynamic diameter less than 2.5 micrometers. These particles can be directly emitted from sources such as forest fires, or they can form when gases are emitted from power plants, manufacturing facilities and automobiles. The relationship between elevated air pollution, particularly fine particulate matter and ozone, and compromised health has been well documented. Negative consequences of ambient air pollution include decreased lung function, chronic bronchitis, asthma, and other adverse pulmonary effects. The APPM for Delta County (7.7) is lower than the State average of 8.7.



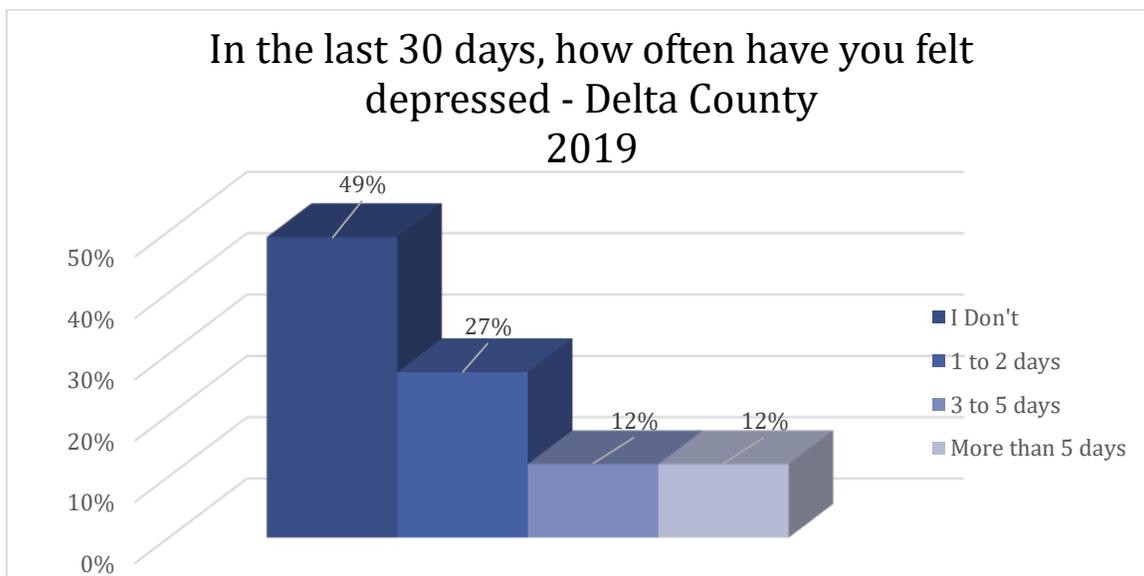
Source: County Health Rankings 2018 Data

2.5 Health Status

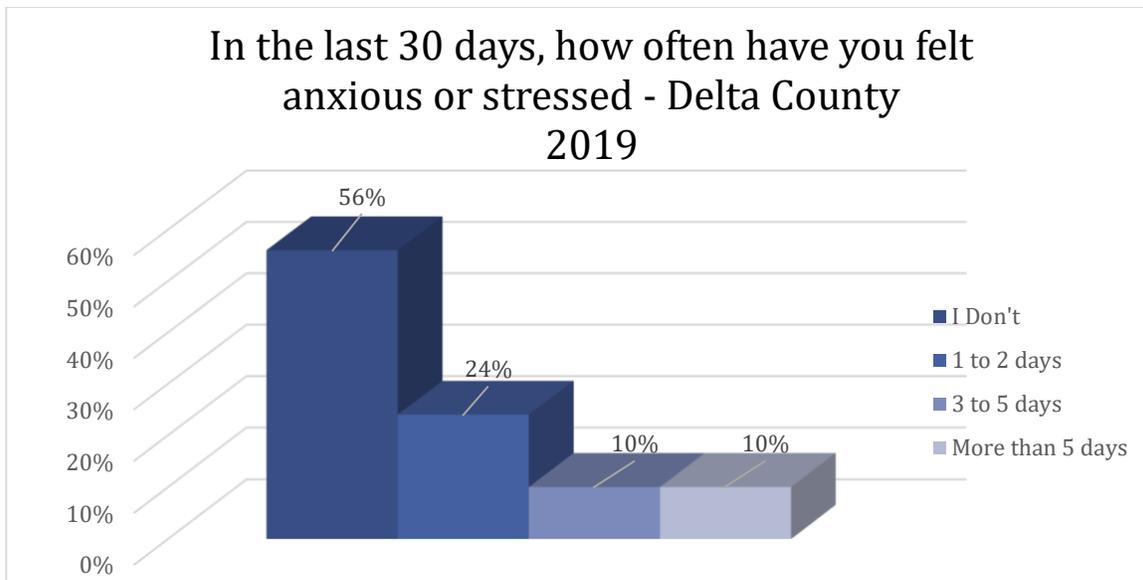
Importance of the measure: Self-perceptions of health can provide important insights to help manage population health. Not only do self-perceptions provide benchmarks regarding health status, but they can also provide insights into how accurately people perceive their own health.

Mental Health

The survey asked respondents to indicate specific issues, such as depression and stress/anxiety. Of respondents, 49% indicated they did not feel depressed in the last 30 days and 56% indicated they did not feel anxious or stressed. **This is a new section to the 2019 CHNA.**



Source: CHNA Survey



Source: CHNA Survey

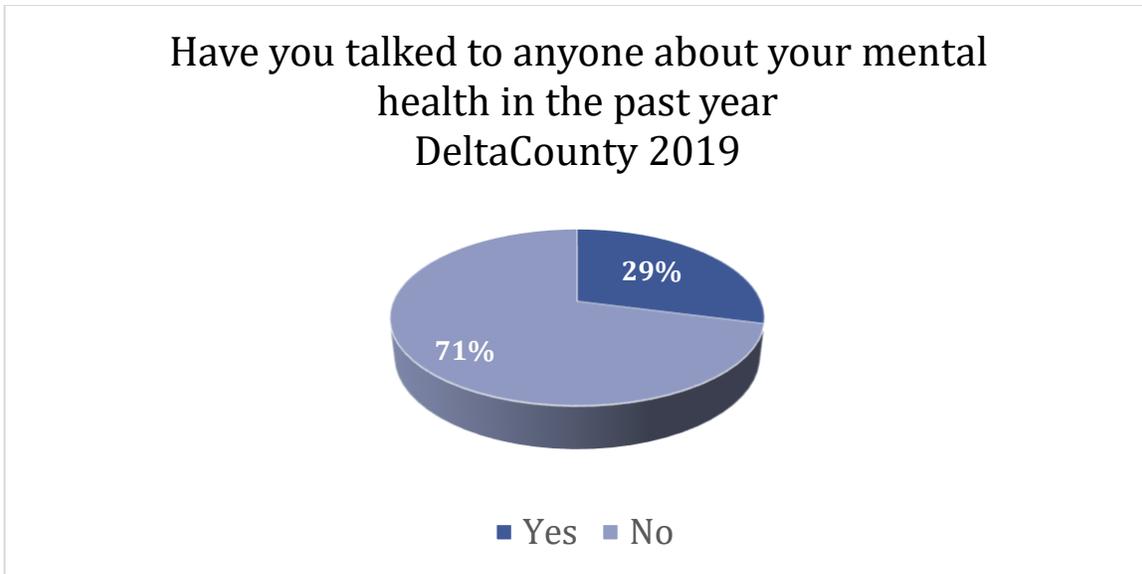
Social Determinants Related to Behavioral Health

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

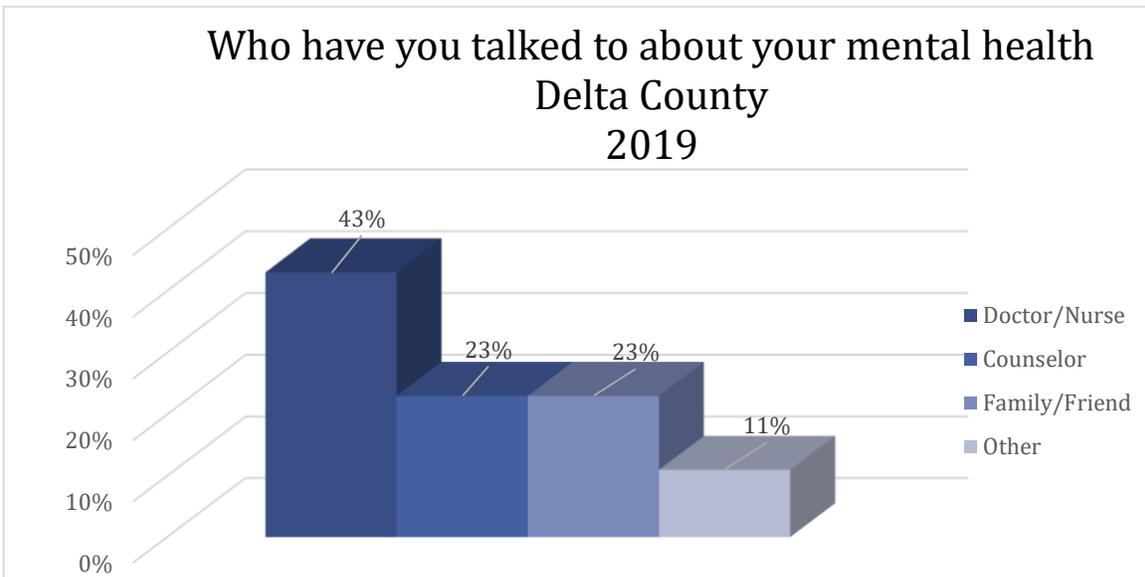
Depression tends to be rated higher for those with less income and those with less education. Depression also tends to be rated higher by Latino people (given the low response rate, this result should be interpreted with caution).

Stress and anxiety tends to be rated higher for younger people and those with less. Stress and anxiety also tends to be rated higher by Latino people (given the low response rate, this result should be interpreted with caution).

Respondents were also asked if they spoke with anyone about their mental health in the past year. Of respondents 29% indicated that they spoke to someone, the most common response was a doctor/nurse (43%).



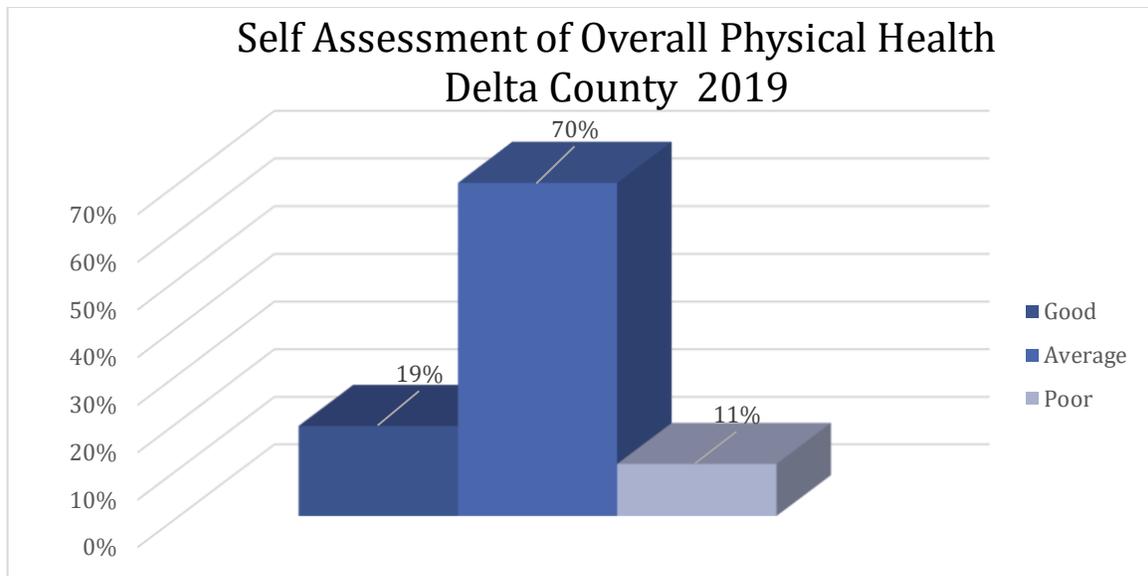
Source: CHNA Survey



Source: CHNA Survey

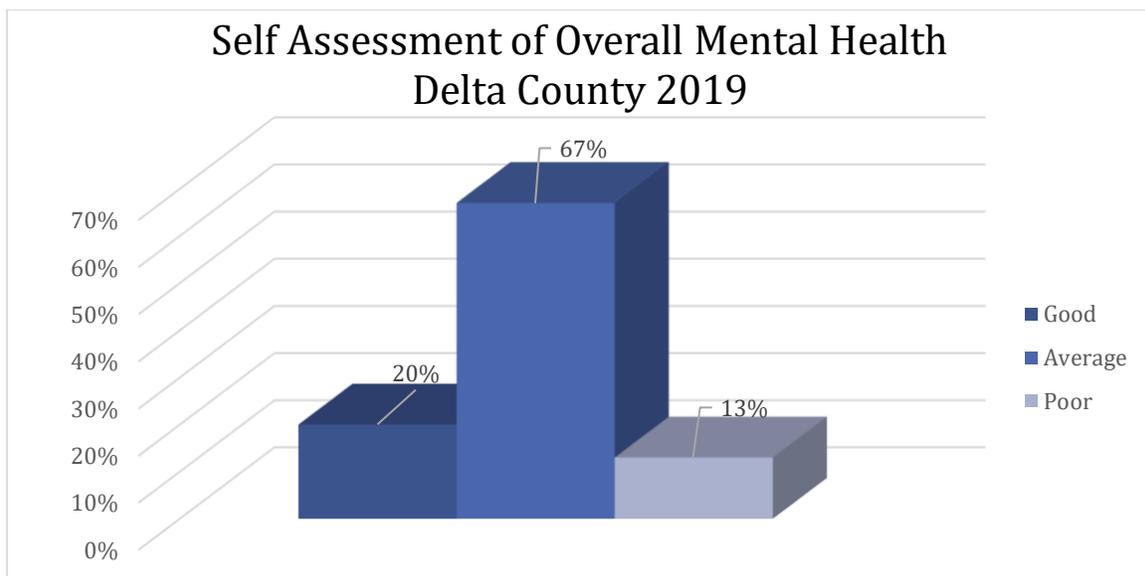
Self-Perceptions of Overall Health

In regard to self-assessment of overall physical health, 11% of respondents report having poor overall physical health.



Source: CHNA Survey

In regard to self-assessment of overall mental health, 13% of respondents stated they have poor overall mental health.



Source: CHNA Survey

Comparison to 2016 CHNA

With regard to physical health, more people see themselves in poor physical and mental health in 2019 (11% and 13% respectively), compared to single-digit ratings in 2016.

Social Determinants Related to Self-Perceptions of Health

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

Perceptions of physical health tend to be higher for those with higher education and those with higher income.

Perceptions of mental health tend to be higher for older people and those with higher education and higher income.

2.6 Key Takeaways from Chapter 2

- ✓ A RELATIVELY HIGH PERCENTAGE OF RESIDENTS (13%) DO NOT SEEK MEDICAL CARE.
- ✓ ACCESS TO COUNSELING HAS DECREASED.
- ✓ PROSTATE SCREENING IS RELATIVELY LOW COMPARED TO BREAST AND COLORECTAL SCREENING.
- ✓ WHILE IMPROVING, THE MAJORITY OF PEOPLE EXERCISE LESS THAN 2 TIMES PER WEEK AND CONSUME 2 OR FEWER SERVINGS OF FRUITS/VEGETABLES PER DAY.
- ✓ APPROXIMATELY 1/2 OF RESPONDENTS EXPERIENCED DEPRESSION OR STRESS IN THE LAST 30 DAYS.

CHAPTER 3 OUTLINE

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

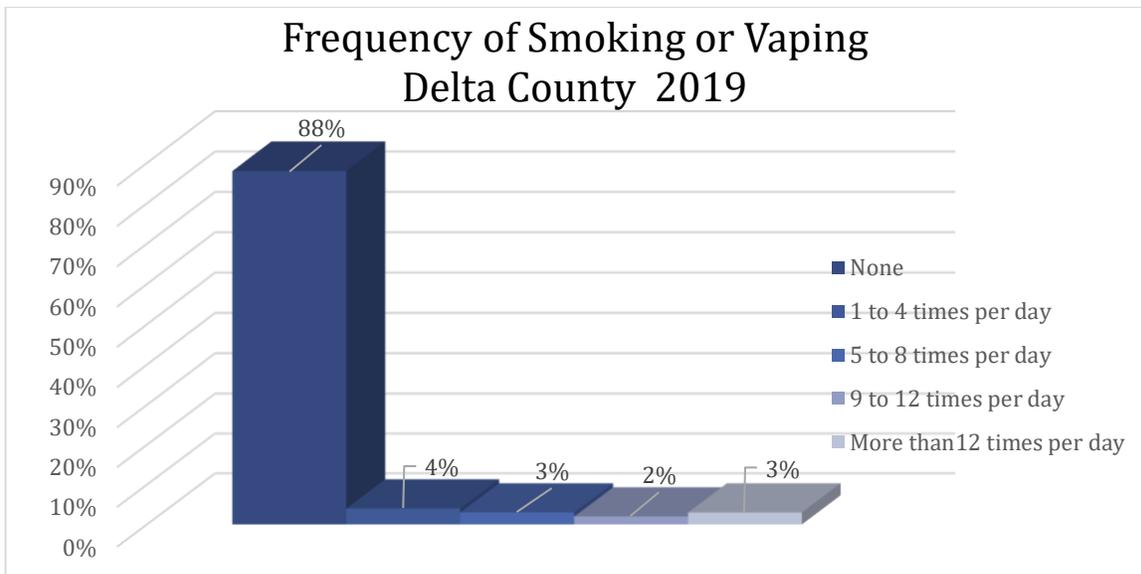
CHAPTER 3

SYMPTOMS AND PREDICTORS

3.1 Tobacco Use

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

CHNA survey data show 88% of respondents do not smoke and only 3% state they smoke or vape more than 12 times per day.



Source: CHNA Survey

Comparison to 2016 CHNA

Results between 2016 and 2019 have held relatively steady, where 87% of people did not smoke/vape in 2016 and 88% do not smoke/vape in 2019.

Social Determinants Related to Smoking or Vaping

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

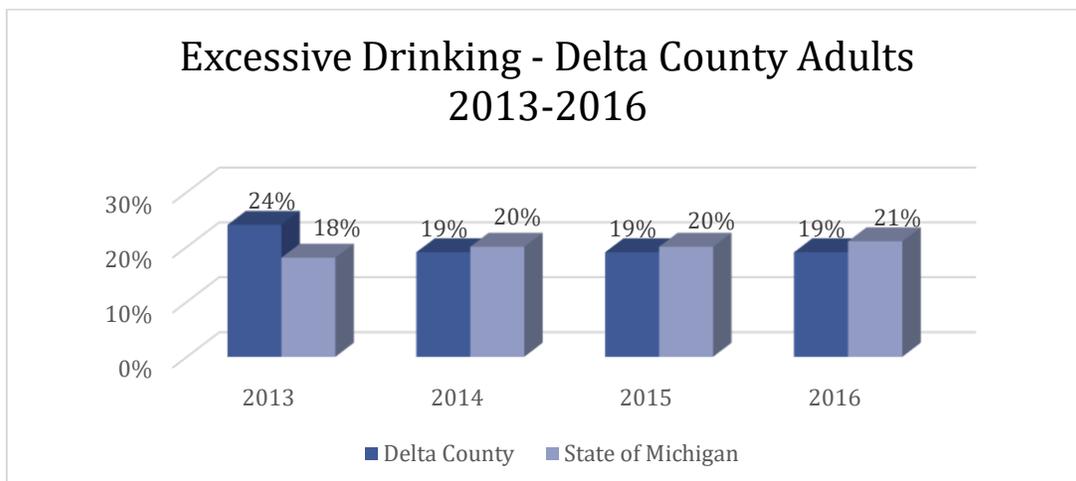
Smoking/vaping tends to be rated higher those with less education and a lower income.

3.2 Drug and Alcohol Abuse

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

Excessive Drinking

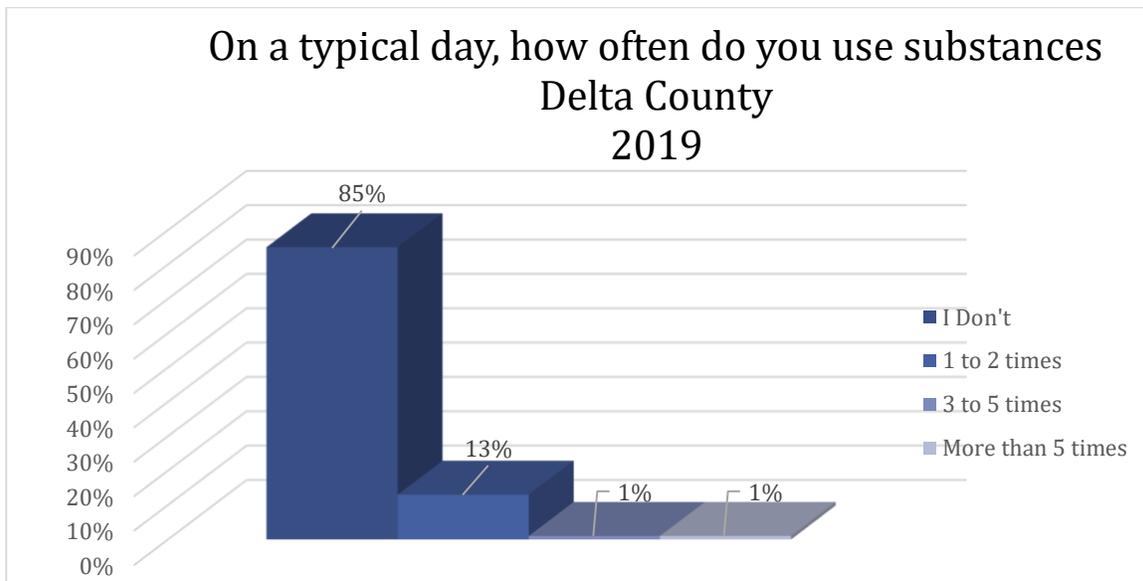
Data from the 2016 County Health Rankings measures excessive drinking in Delta County as the percentage of the county's adult population that reports binge or heavy drinking in the past 30 days. Binge drinking is defined as a woman consuming more than four alcoholic drinks during a single occasion or a man consuming more than five alcoholic drinks during a single occasion. Heavy drinking is defined as a woman drinking more than one drink on average per day or a man drinking more than two drinks on average per day. Excessive drinking is calculated as the sum of both behaviors. In 2013, Delta County reported higher rates of excessive drinking than the state of Michigan. However, for years 2014-2016, Delta County reported lower rates of excessive drinking compared to the state of Michigan.



Source: County Health Rankings

Adult Substance Abuse

Respondents were asked “On a typical DAY, how often to do you use substances (either legal or illegal) to make yourself feel better?” Note given the increase in opioid abuse, use of legal drugs was included in the question. Of respondents, 85% indicated they do not use substances to make themselves feel better. **This is a new section to the 2019 CHNA.**



Source: CHNA Survey

Social Determinants Related to Substance Abuse

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

Use of substances tends to be rated higher by those with less education and those with lower income.

3.3 Overweight and Obesity

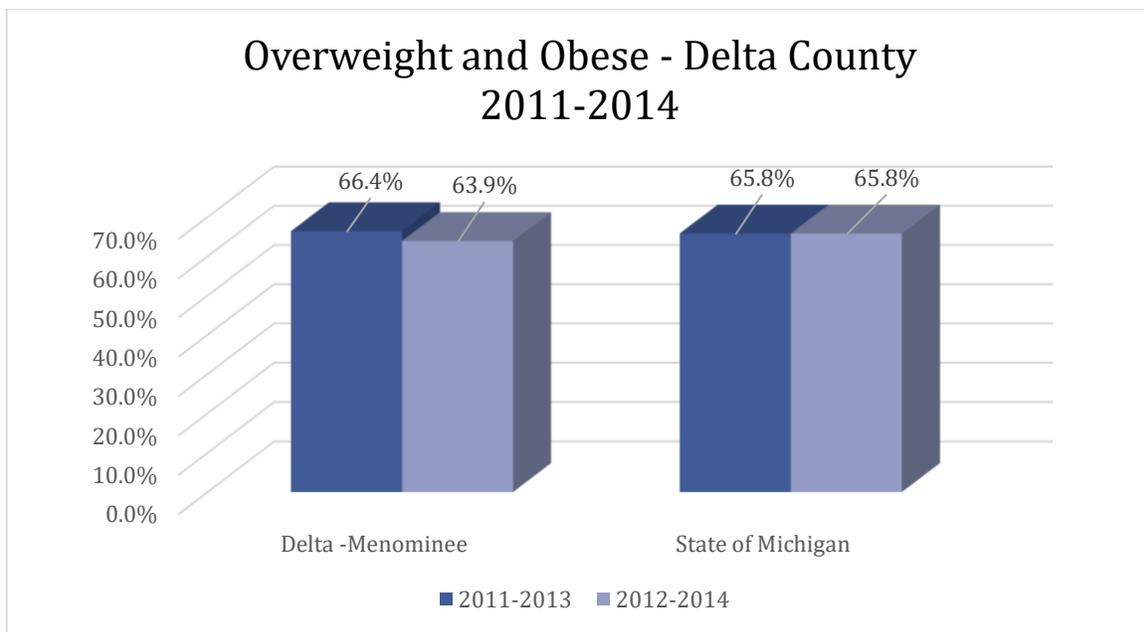
Importance of the measure: Individuals who are overweight and obese place greater stress on their internal organs, thus increasing the propensity to utilize health services. Research strongly suggests that obesity is a significant problem facing youth and adults nationally, in Michigan, and within DELTA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

With children, research has linked obesity to numerous chronic diseases including Type II diabetes, hypertension, high blood pressure and asthma. Adverse physical health side effects of obesity include

orthopedic problems due to weakened joints and lower bone density. Detrimental mental health side effects include low self-esteem, poor body image, symptoms of depression and suicide ideation. Obesity impacts educational performance as well; studies suggest school absenteeism of obese children is six times higher than that of non-obese children.

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

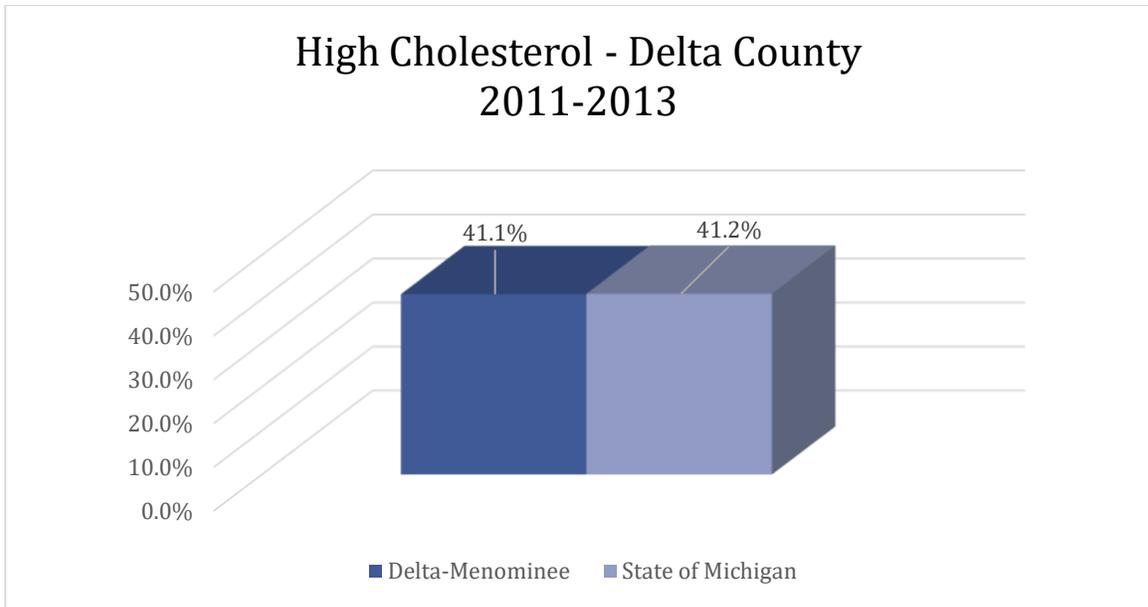
In Delta County, the number of people diagnosed with obesity and being overweight has decreased from 2011-2013 to 2012-2014. Note specifically that the percentage of obese and overweight people has decreased from 66.4% in 2013 to 63.9% in 2014. Overweight and obesity rates in Michigan have remained consistent from 2011-2013 to 2012-2014 (65.8%). Note that data have not been updated by the Michigan Department of Public Health. However, note in the 2019 CHNA survey, respondents indicated that being overweight was their most prevalently diagnosed health condition.



Source: Michigan Behavioral Risk Factor Surveillance System

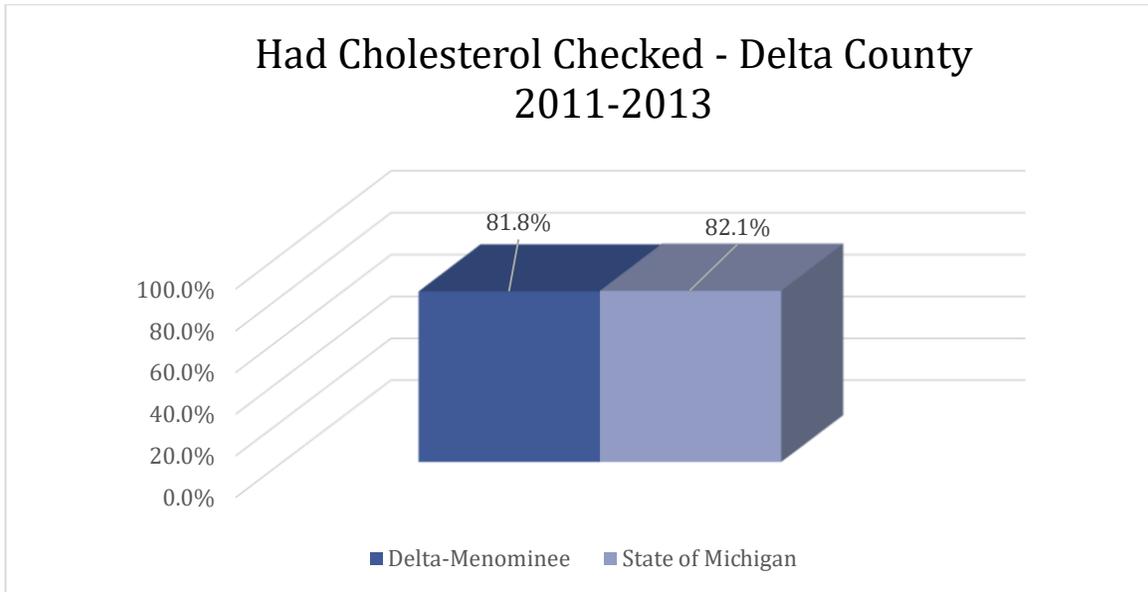
3.4 Predictors of Heart Disease

Residents in Delta County report a prevalence of high cholesterol equal to the State average. The percentage of residents who report they have high cholesterol is relatively equal in Delta County (41.1%) to the State of Michigan average of 41.2%. Note that data have not been updated by the Michigan Department of Public Health.



Source: Michigan Behavioral Risk Factor Surveillance System

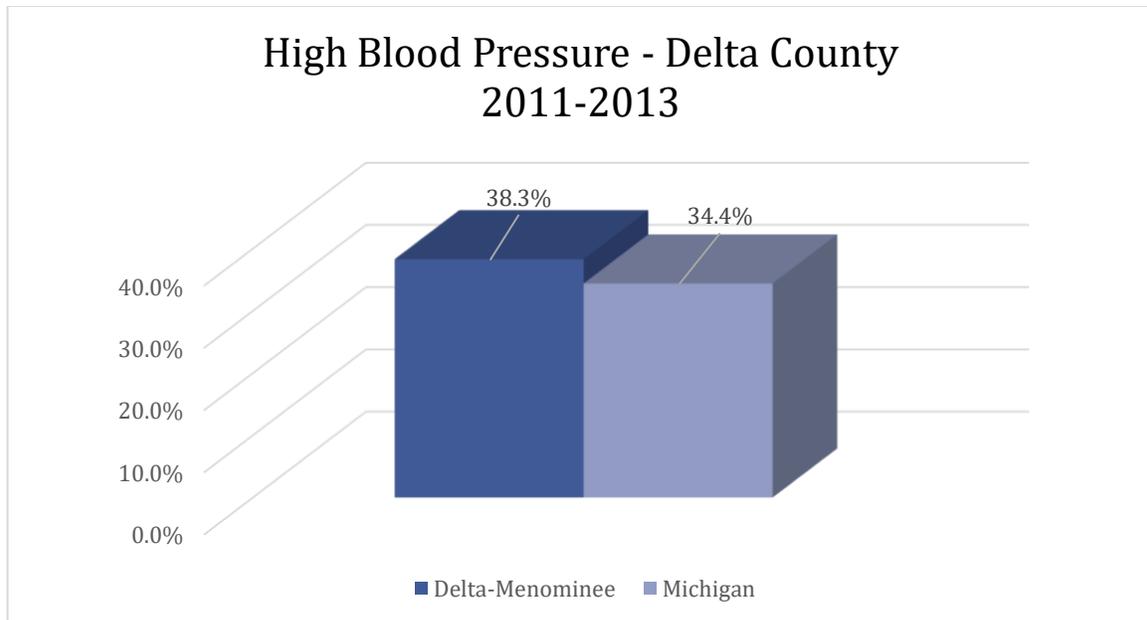
However, most residents of Delta County report having their cholesterol checked recently. Note that data have not been updated by the Michigan Department of Public Health.



Source: Michigan Behavioral Risk Factor Surveillance System

With regard to high blood pressure, Delta County has a higher percentage of residents with high blood pressure than residents do in the State of Michigan as a whole. The percentage of Delta County residents

reporting they have high blood pressure in 2013 was 38.3%. Note that data have not been updated by the Michigan Department of Public Health.



Source: Michigan Behavioral Risk Factor Surveillance System

3.5 Key Takeaways from Chapter 3

- ✓ THE PERCENTAGE OF PEOPLE WHO ARE OVERWEIGHT AND OBESE HAS INCREASED.
- ✓ EXCESSIVE DRINKING HAS DECREASED.
- ✓ RISK FACTORS FOR HEART DISEASE ARE INCREASING.

CHAPTER 4 OUTLINE

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

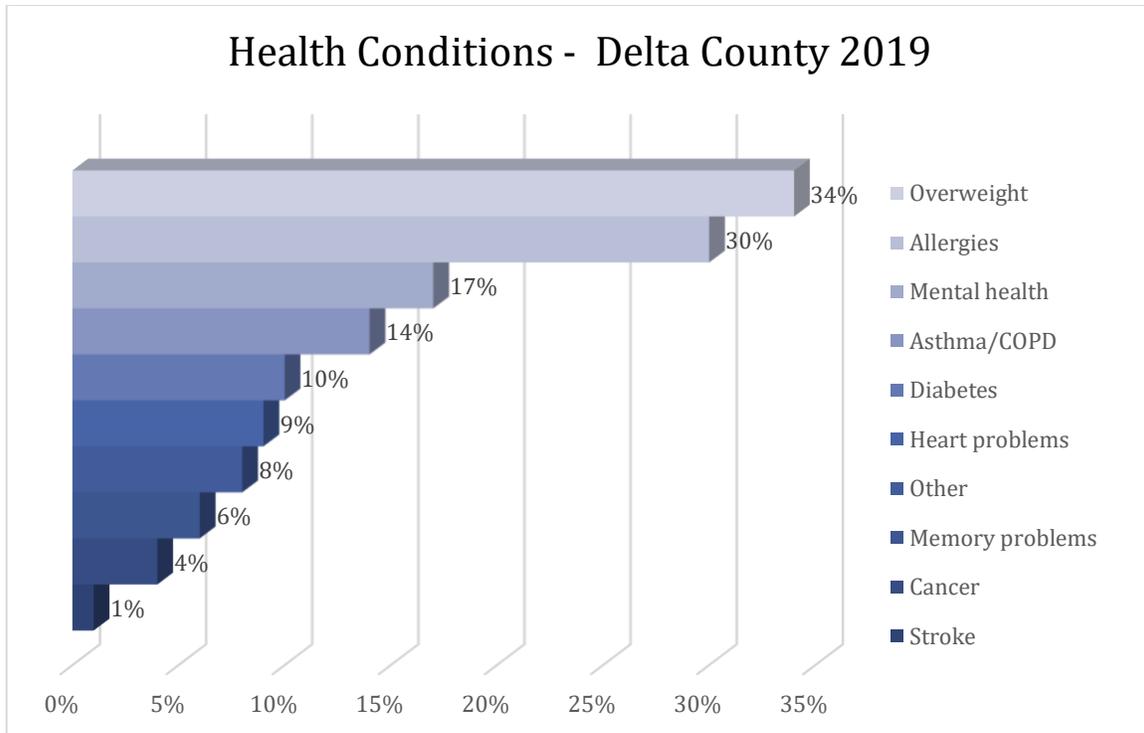
CHAPTER 4

MORBIDITY AND MORTALITY

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

4.1 Self-Identified Health Conditions

Survey respondents were asked to self-identify any health conditions. Note that being overweight (34%) was significantly higher than any other health conditions. This percentage is significantly lower than secondary sources. Specifically, BRFSS data indicate that roughly two-thirds of the population is overweight or obese. Most other self-identified morbidities reflected existing sources of secondary data accurately (e.g., diabetes 10% and cancer 4%). **This is a new section to the 2019 CHNA.**



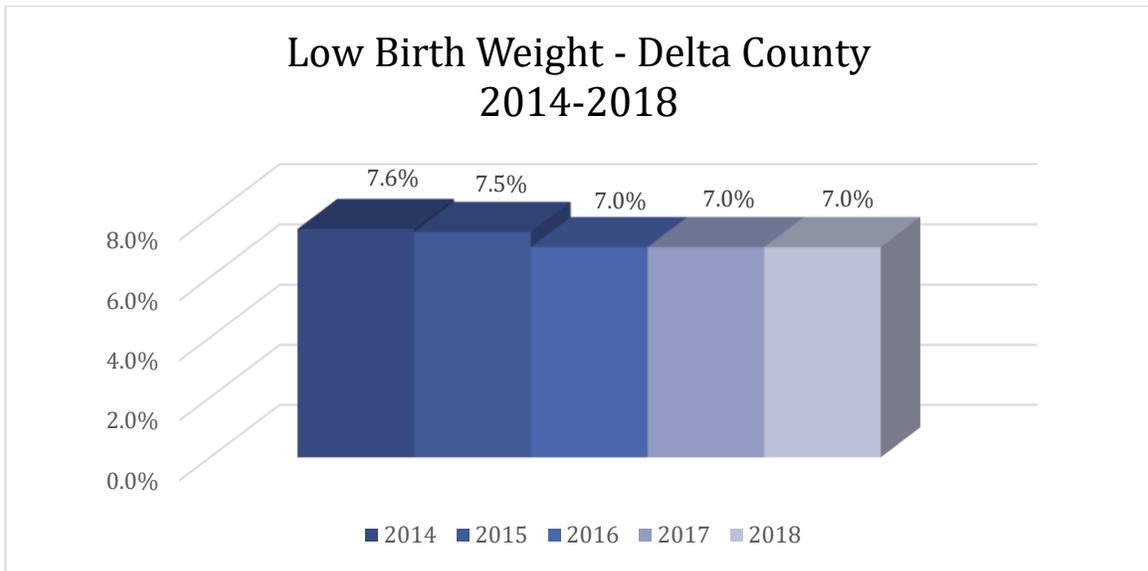
Source: CHNA Survey

4.2 Healthy Babies

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

Low Birth Weight Rates

Low birth weight rate is defined as the percentage of infants born below 2,500 grams or 5.5 pounds. Very low birth weight rate is defined as the percentage of infants born below 1,500 grams or 3.3 pounds. In contrast, the average newborn weighs about 7 pounds. The percentage of babies born with low birth weight in Delta County decreased from 2014 (7.6%) to 2018 (7.0%).



Source: <http://www.countyhealthrankings.org>

4.3 Cardiovascular Disease

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

Coronary Atherosclerosis

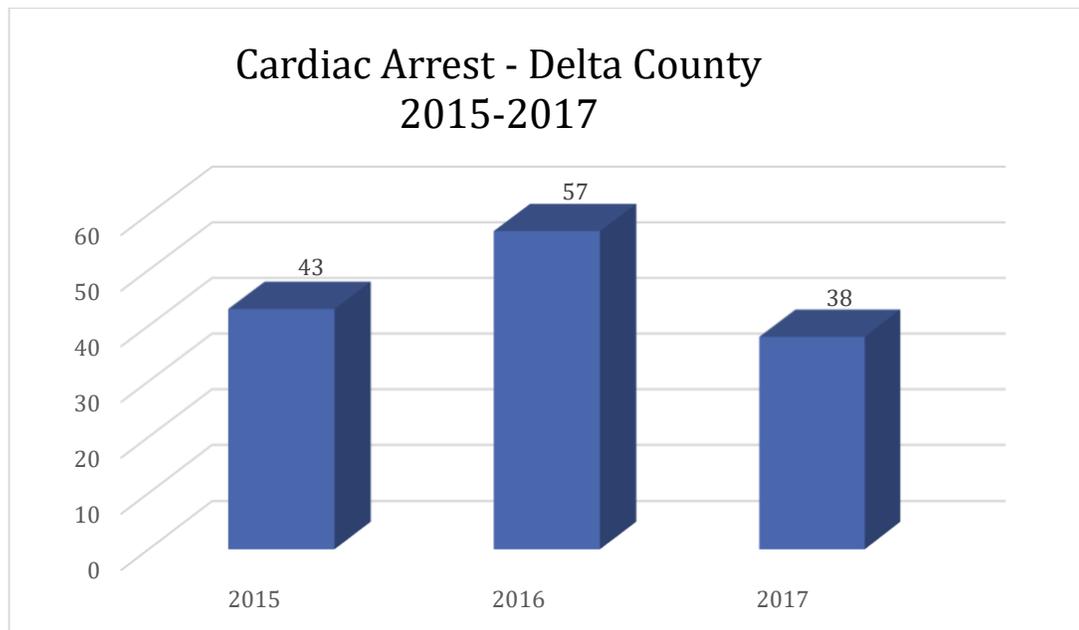
Coronary Atherosclerosis, sometimes-called hardening of the arteries, can slowly narrow and harden the arteries throughout the body. When atherosclerosis affects the arteries of the heart, it is called coronary artery disease.

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

The number of cases of coronary atherosclerosis complication at Delta County area hospitals has been low, with 1 case reported in 2015 and 2 cases reported in both 2016 and 2017. Note that hospital-level data only show hospital admissions and do not reflect out-patient treatments and procedures.

Cardiac Arrest

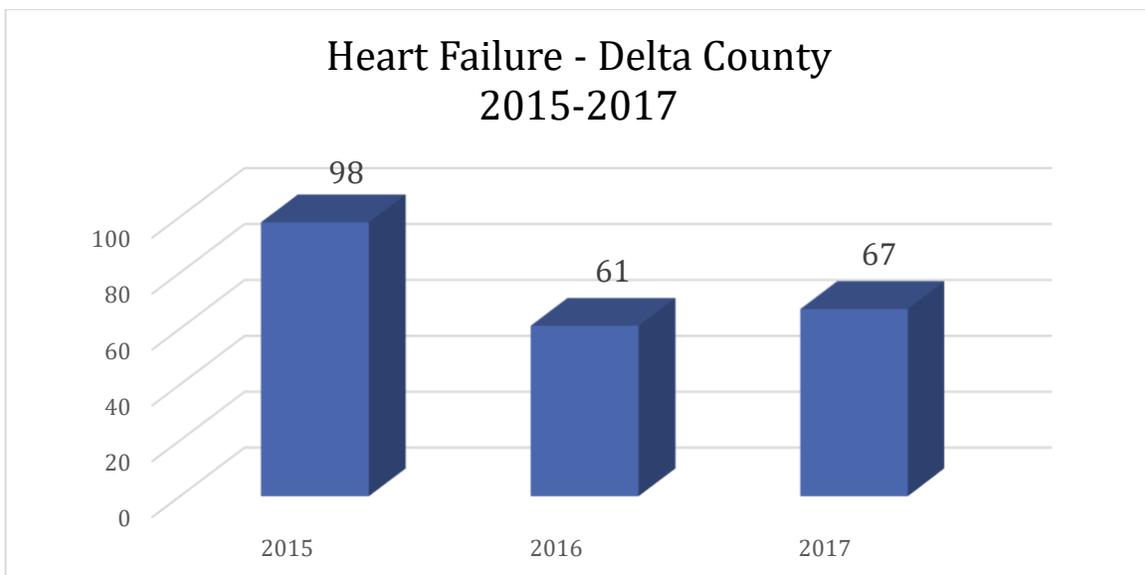
Cases of dysrhythmia and cardiac arrest at Delta County area hospitals increased by 14 cases between FY15 and FY16. However, cases of dysrhythmia and cardiac arrest decreased by 19 cases between FY16 and FY17. Note that hospital-level data only show hospital admissions.



Source: COMPdata 2017

Heart Failure

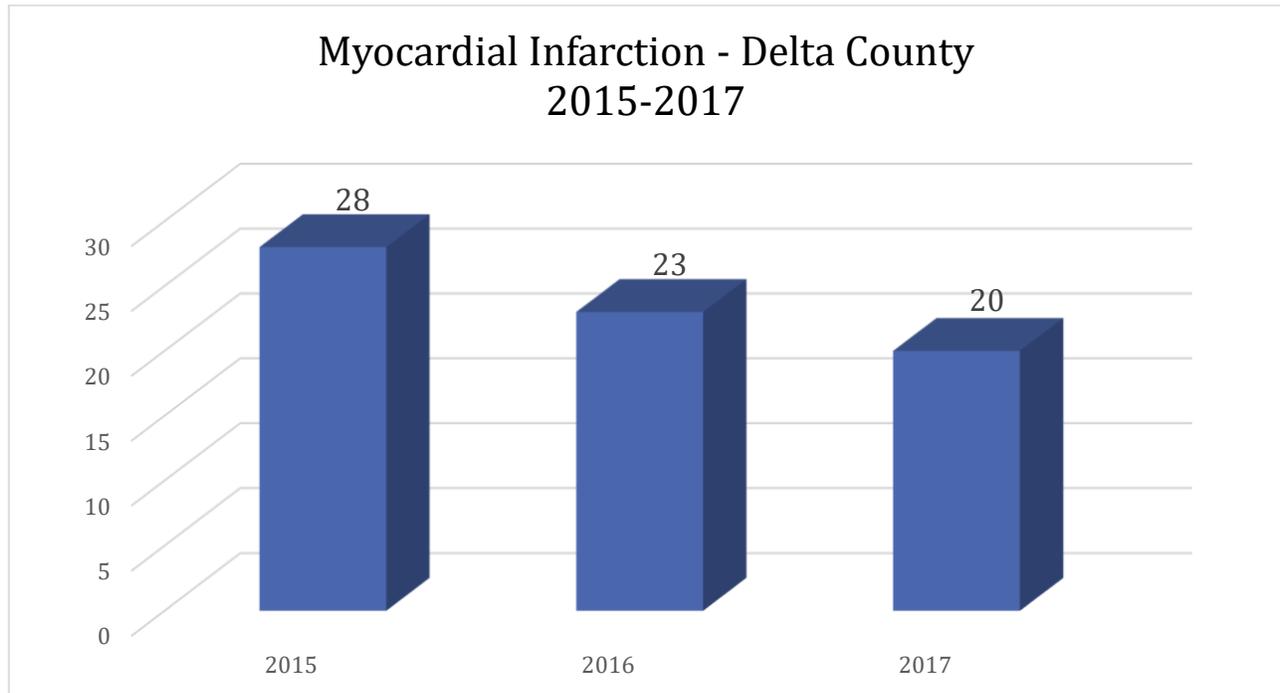
The number of treated cases of heart failure at Delta County area hospitals decreased. In FY 2015, 98 cases were reported, and in FY 2017, there were 67 cases reported. Note that hospital-level data only show hospital admissions.



Source: COMPdata 2017

Myocardial Infarction

The number of treated cases of myocardial infarction at area hospitals in Delta County decreased from 28 in 2015 to 20 in 2017. Note that hospital-level data only show hospital admissions.



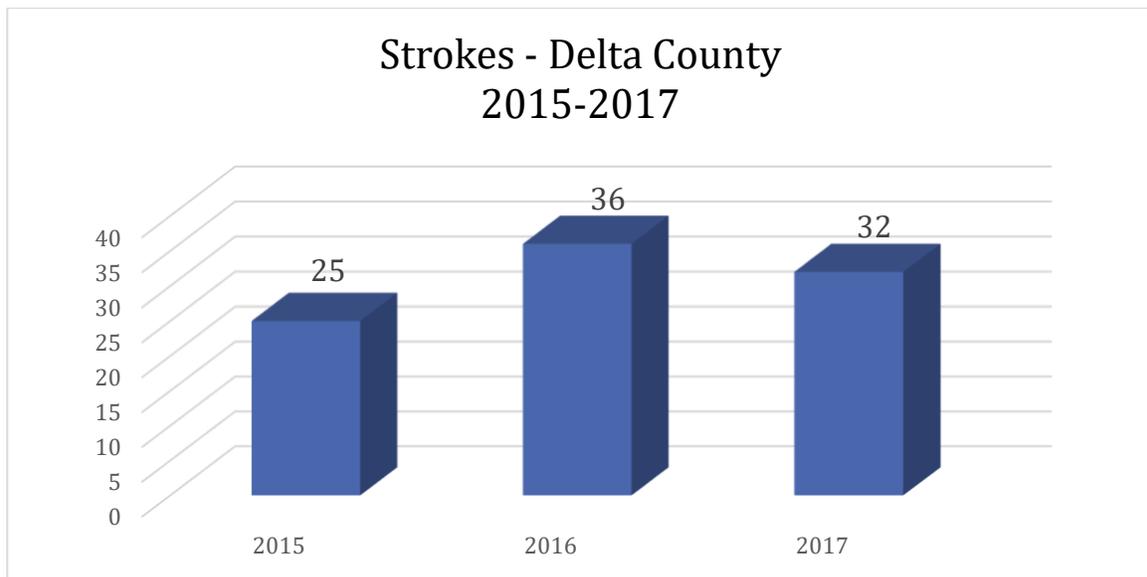
Source: COMPdata 2017

Arterial Embolism

There was 1 treated case of arterial embolism at Delta County area hospitals in 2015. Note that hospital-level data only show hospital admissions.

Strokes

The number of treated cases of stroke at Delta County area hospitals increased between FY 2015 and FY 2016 (from 25 to 36 cases), and then slightly decreased from FY 2016 to FY 2017 (from 36 to 32 cases). Note that hospital-level data only show hospital admissions and do not reflect outpatient treatments and procedures.



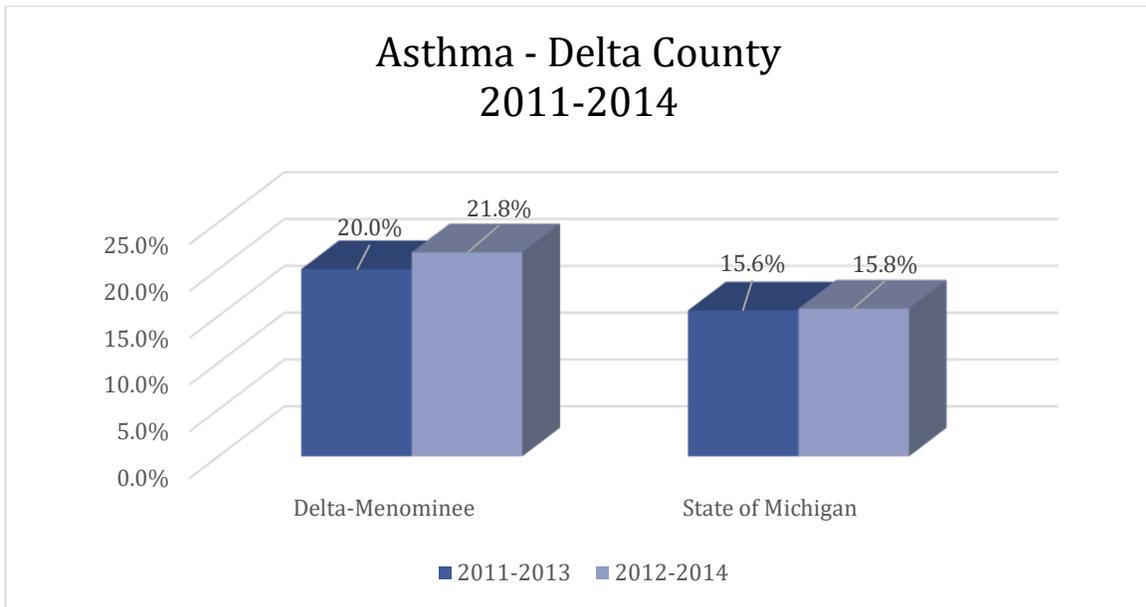
Source: COMPdata 2017

4.4 Respiratory

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

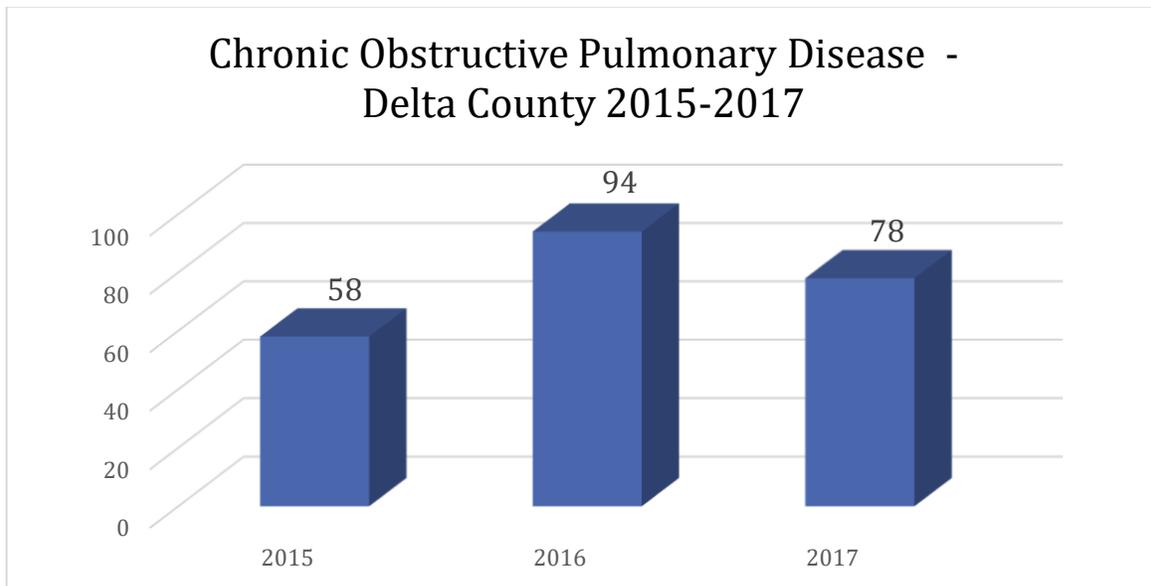
Asthma

The percentage of residents that have asthma in Delta County has increased between 2011-2013 and 2012-2014, while State averages have held steady. According to the Michigan BRFSS, asthma rates in Delta County (21.8%) are significantly higher than the State of Michigan (15.8%). Note that data have not been updated by the Michigan Department of Public Health.



Source: Michigan Behavioral Risk Factor Surveillance System

Treated cases of COPD at Delta County area hospitals fluctuated between FY 2015 and FY 2017, with a significant incline in FY16. Note that hospital-level data only show hospital admissions and do not reflect out-patient treatments and procedures.

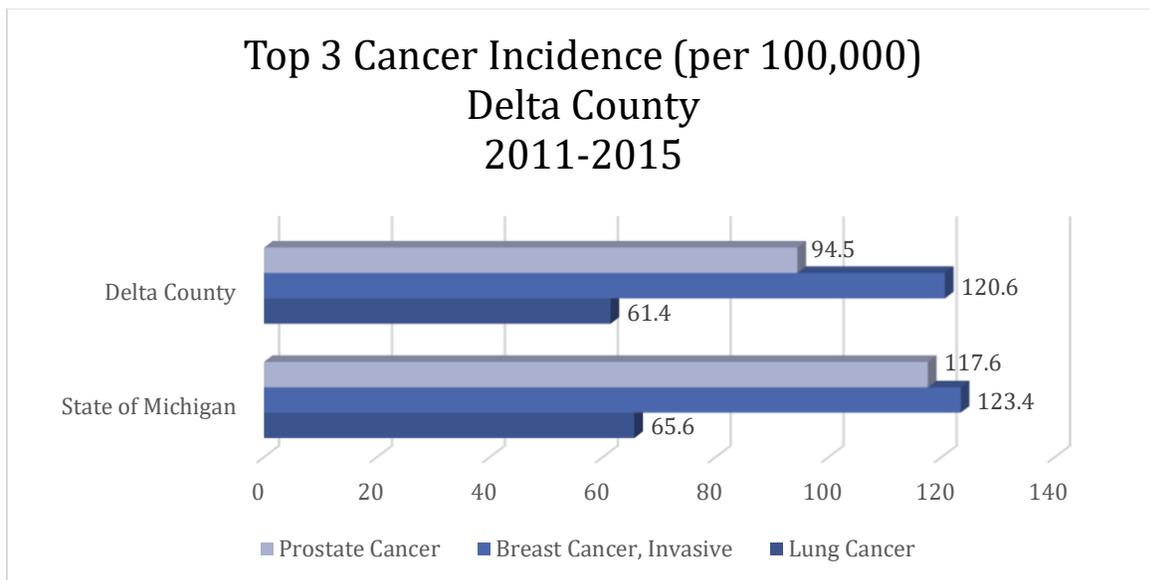


Source: COMPdata 2017

4.5 Cancer

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

For the top three prevalent cancers in Delta County, comparisons can be seen below. Specifically, prostate cancer, breast cancer, and lung cancer are lower than the State of Michigan.

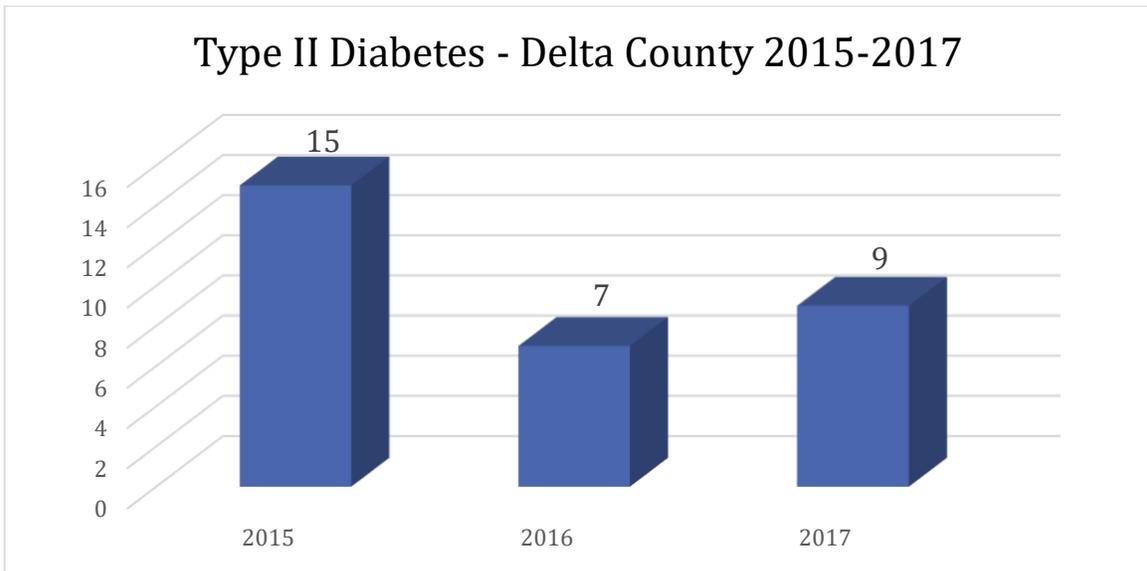


Source: National Cancer Institute

4.6 Diabetes

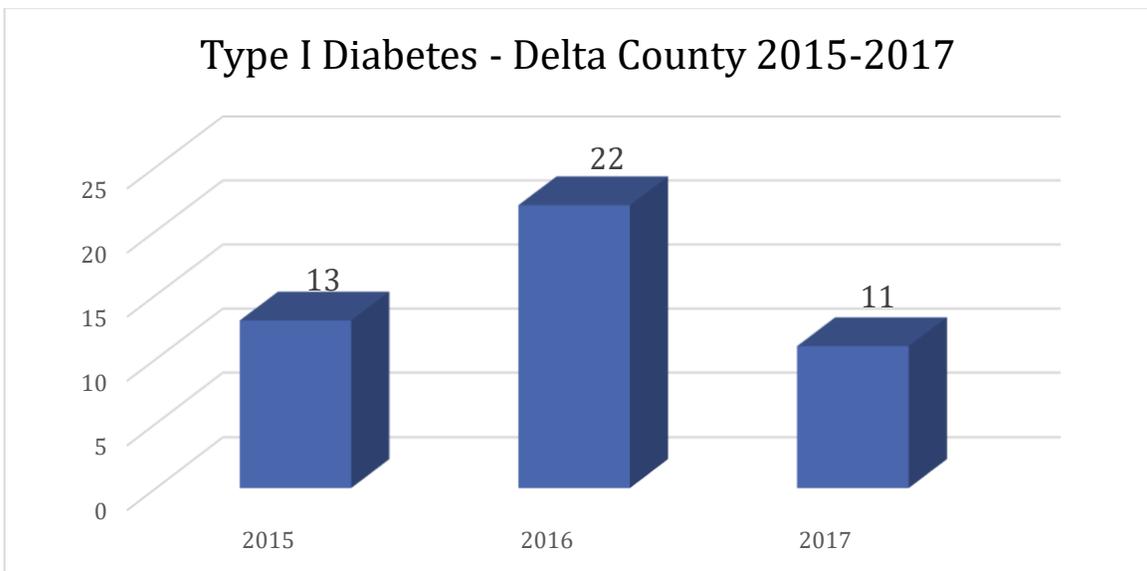
Importance of the measure: Diabetes is the leading cause of kidney failure, adult blindness and amputations and is a leading contributor to strokes and heart attacks. It is estimated that 90-95% of individuals with diabetes have Type II diabetes (previously known as adult-onset diabetes). Only 5-10%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

Inpatient cases of Type II diabetes from Delta County decreased between FY 2015 (15 cases) and FY 2016 (7 cases). Inpatient cases then experienced a slight increase from FY 2016 (7 cases) to FY 2017 (9 cases). Note that hospital-level data only show hospital admissions and do not reflect out-patient treatments and procedures.



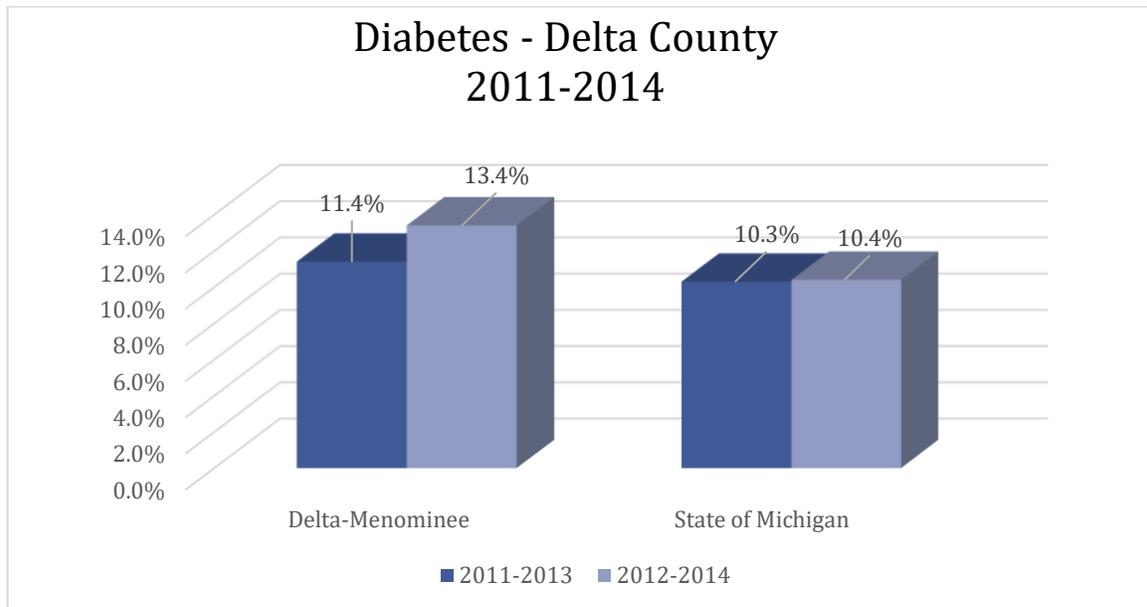
Source: COMPdata 2017

Inpatient cases of Type I diabetes show an increase from 2015 (13) to 2016 (22) followed by a decrease in 2017 (11) for Delta County. Note that hospital-level data only show hospital admissions and do not reflect out-patient treatments and procedures.



Source: COMPdata 2017

Data from the Michigan BRFSS indicate that 13.4% of Delta County residents have diabetes. Delta County has higher rates of diabetes than the State of Michigan (10.4%). Note that data have not been updated by the Michigan Department of Public Health.



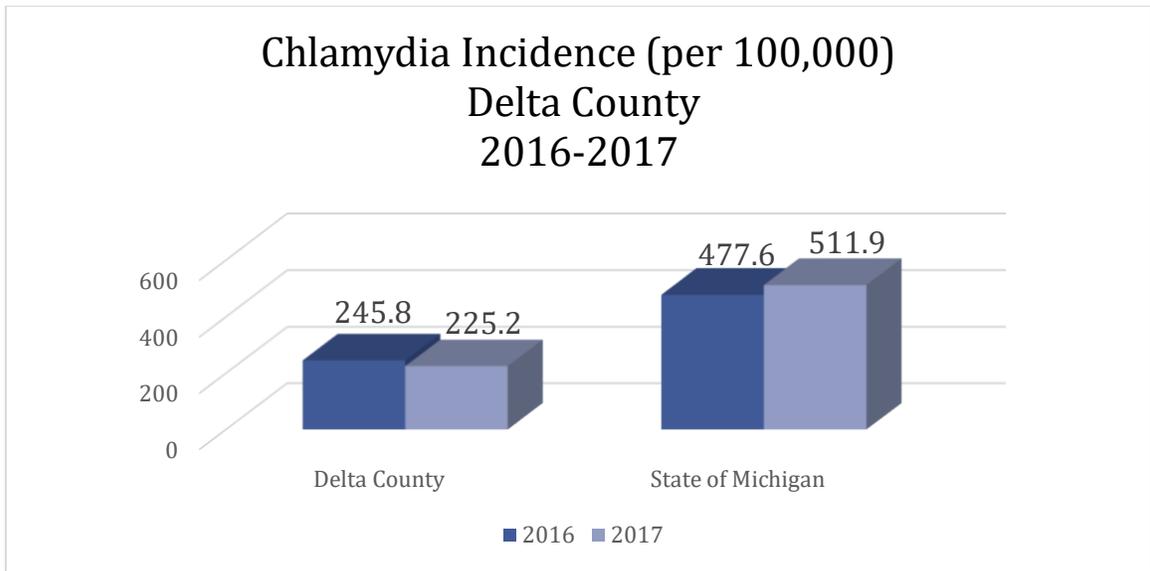
Source: Michigan Behavioral Risk Factor Surveillance System

4.7 Infectious Diseases

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

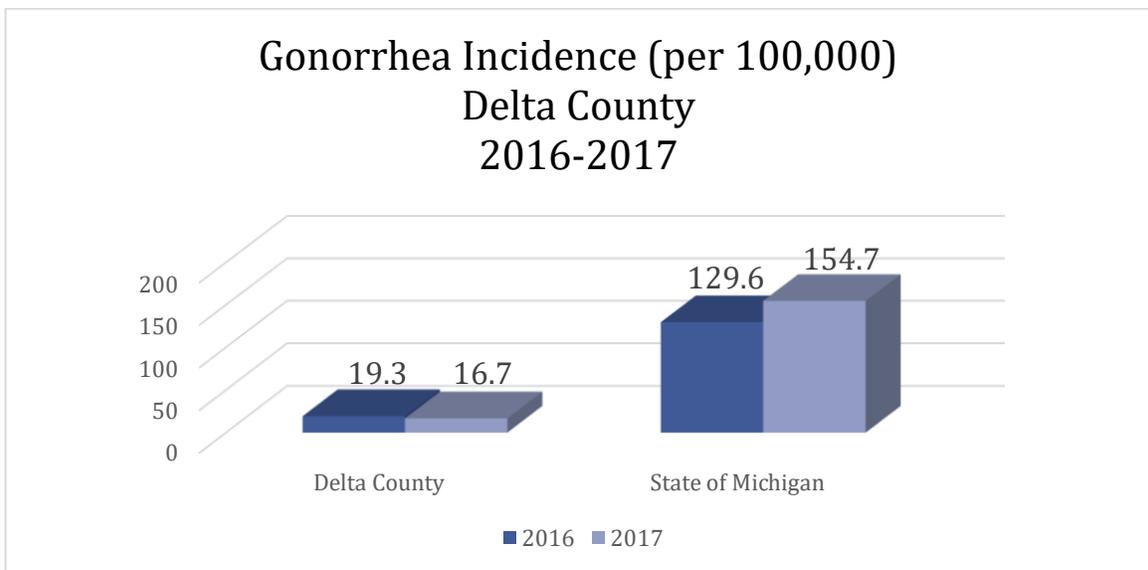
Chlamydia and Gonorrhea Cases

The data for the number of infections of chlamydia in Delta County from 2016-2017 indicate a decrease. However, there is an increase of incidence of chlamydia across the State of Michigan. Rates of chlamydia in Delta County are lower than State averages.



Source: Michigan Department of Health and Human Services

The data for the number of infections of gonorrhea in Delta County indicate a decrease from 2016-2017, while the State of Michigan experienced a significant increase from 2016-2017.



Source: Michigan Department of Health and Human Services

Vaccine preventable diseases

A vaccine-preventable disease is an infectious disease for which an effective preventive vaccine exists. If a person acquires a vaccine-preventable disease and dies, the death is considered a vaccine-preventable death. According to the Michigan Public Health Department, the most common and serious vaccine-preventable diseases are: Varicella (chickenpox), Tetanus (lockjaw), Pertussis (whooping cough), Poliomyelitis (Polio), Measles (Rubeola), Mumps, Rubella (German measles), Diphtheria, Hepatitis B, and Hemophilic Influenza Type B (HIB) Infections. These diseases used to strike thousands of children each year. Today there are relatively few cases, but outbreaks still occur each year because some babies are not immunized. Delta County has shown no significant outbreaks compared to state statistics, but there are limited data available.

Vaccine Preventable Diseases 2013-2016 Delta County Region

Mumps	2013	2014	2015	2016
Delta County	0	0	NA	NA
State of Michigan	15	42	18	38

Pertussis	2013	2014	2015	2016
Delta County	1	0	NA	NA
State of Michigan	995	1424	496	389

Varicella	2013	2014	2015	2016
Delta County	NA	NA	NA	NA
State of Michigan	719	726	548	567

Source: <http://iquery.Michigan.gov/DataQuery/Default.aspx>

Tuberculosis 2014-2017 Delta County Region

Tuberculosis	2014	2015	2016	2017
Delta County	0	0	0	0
State of Michigan	105	131	133	133

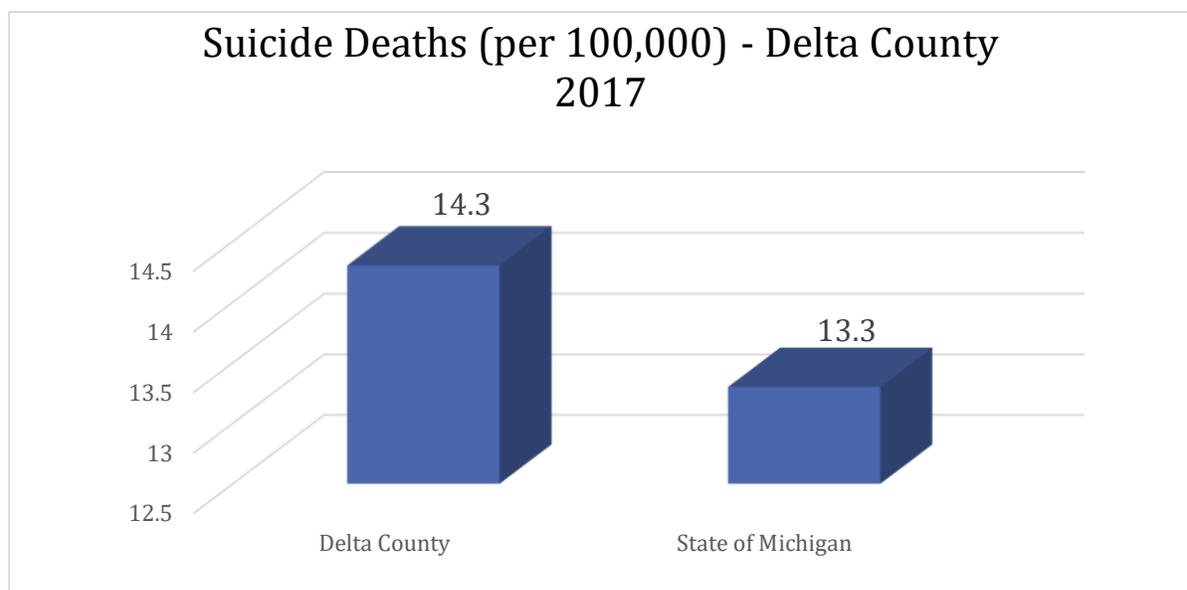
Source: <http://iquery.Michigan.gov/DataQuery/Default.aspx>

4.8 Injuries

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

Suicide

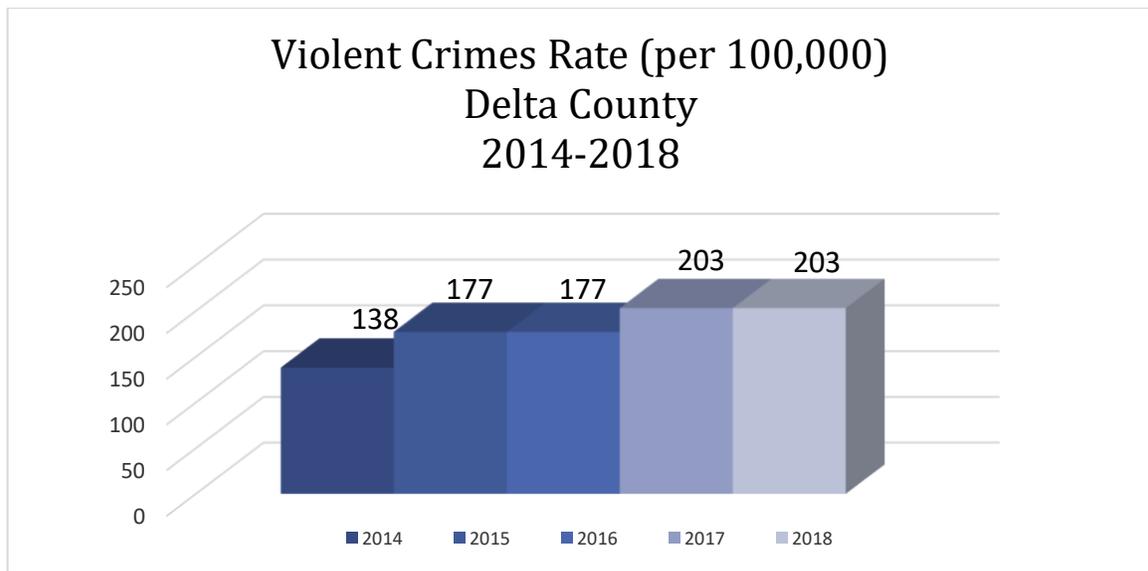
The number of suicides in Delta County indicate higher incidence than State of Michigan averages, as there were approximately 14.3 per 100,000 people in Delta County in 2017.



Source: Michigan Department of Health and Human Services

Violent Crimes

Violent crimes are defined as offenses that involve face-to-face confrontation between the victim and the perpetrator, including homicide, forcible rape, robbery and aggravated assault. Violent crime is represented as an annual rate per 100,000 people. The number of violent crimes has increased significantly for 2014-2018 in Delta County.



Source: Michigan County Health Rankings and Roadmaps

4.9 Mortality

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

The top two leading causes of death in the State of Michigan and Delta County are similar as a percentage of total deaths in 2015. Cancer is the cause of 27.2% of deaths and Diseases of the Heart are the cause of 20.2% of deaths in Delta County.

Top 5 Leading Causes of Death for all Races by County, 2015		
Rank	Delta County	State of Michigan
1	Malignant Neoplasm (27.2%)	Diseases of Heart
2	Diseases of Heart (20.2%)	Malignant Neoplasm
3	Chronic Lower Respiratory Disease (5.8%)	Chronic Lower Respiratory Disease
4	Accidents (4.6%)	Stroke
5	Stroke (4.1%)	Accidents

Source: Michigan Department of Health and Human Services

4.10 Key Takeaways from Chapter 4

- ✓ **CANCER AND HEART DISEASE ARE THE LEADING CAUSES OF MORTALITY.**
- ✓ **VIOLENT CRIMES HAVE INCREASED IN THE PAST FIVE YEARS.**

CHAPTER 5 OUTLINE

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

CHAPTER 5

PRIORITIZATION OF HEALTH-RELATED ISSUES

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

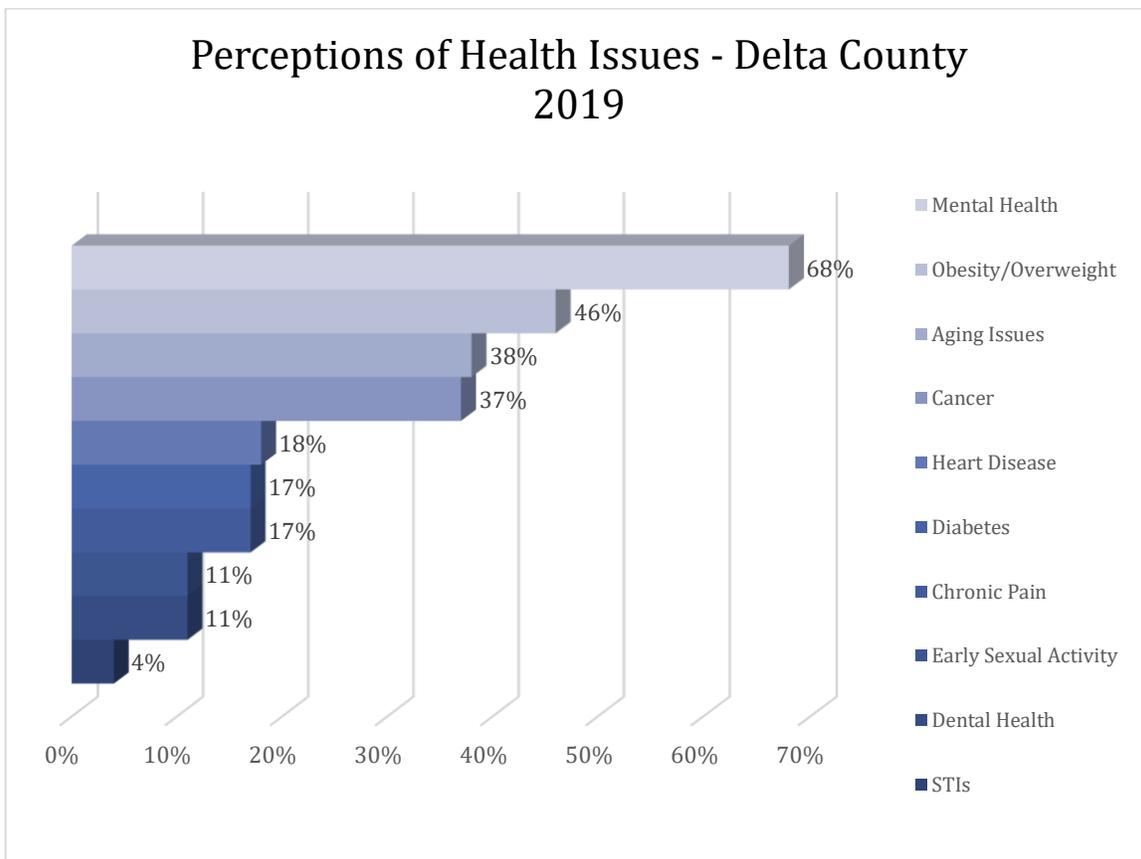
Specific criteria used to identify these issues included: (1) magnitude in the community; (2) severity in the community; (3) potential for impact to the community.

5.1 Perceptions of Health Issues

The CHNA survey asked respondents to rate the three most important health issues in the community. Respondents had a choice of 10 different options. Note that respondents could choose up to three health issues, so total percentages are greater than 100.

The health issue that rated highest was mental health (68%), followed by obesity/overweight (46%), aging issues (38%) and cancer (37%). These four factors were significantly higher than other categories based on *t-tests* between sample means.

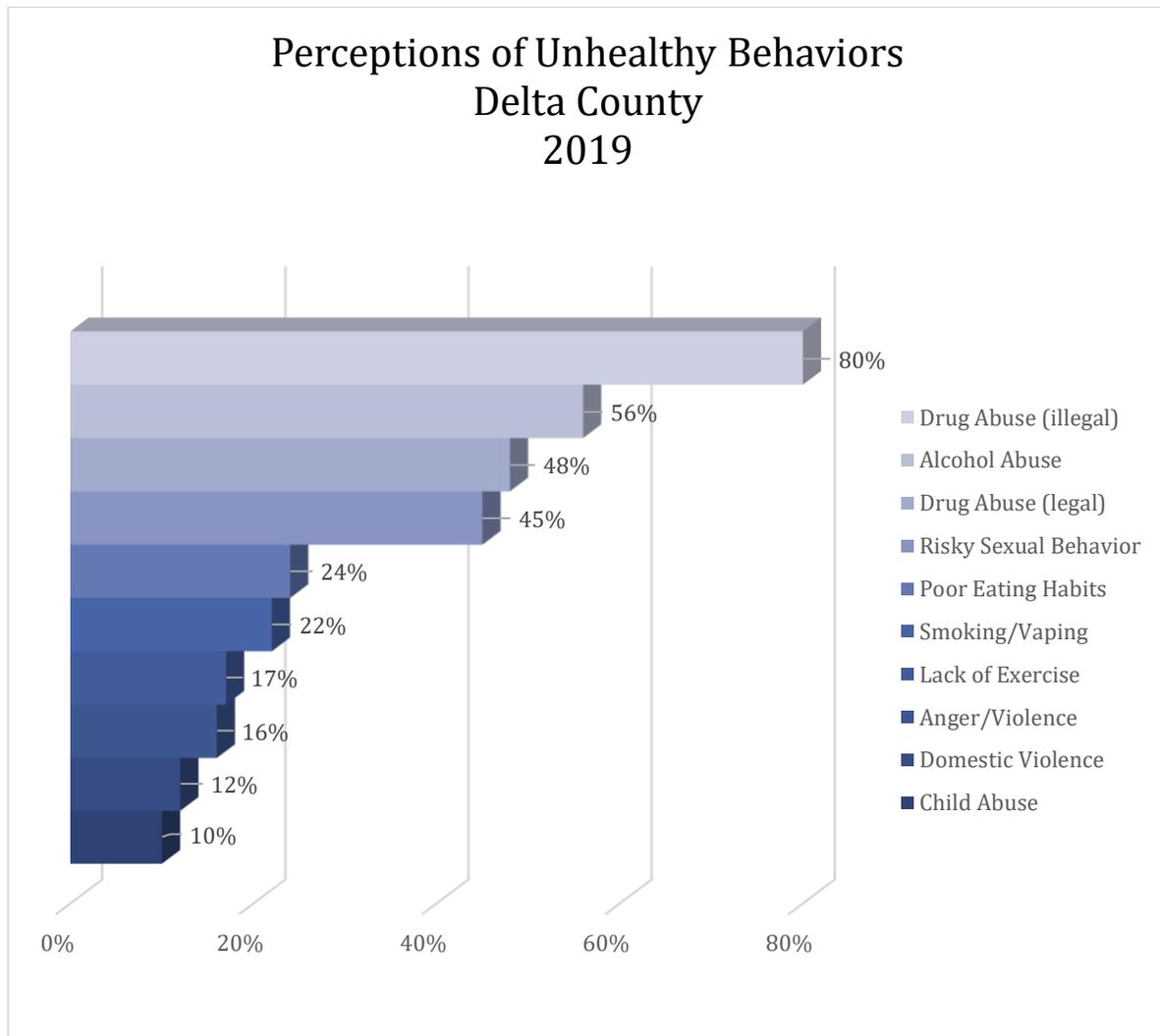
Note that perceptions of the community were accurate in some cases. For example, cancer is a leading cause of mortality. Also, mental obesity and obesity are important concerns and the survey respondents accurately identified these as important health issues. However, some perceptions were inaccurate.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



Source: CHNA Survey

5.2 Perceptions of Unhealthy Behaviors

Respondents were asked to select the three most important unhealthy behaviors in the community out of a total of 10 choices. The two unhealthy behaviors that rated highest were drug abuse (illegal) at 80% and alcohol abuse at 56%. Note that drug abuse (legal) rated relatively high (48%) given the increase, in part, of opioid abuse.

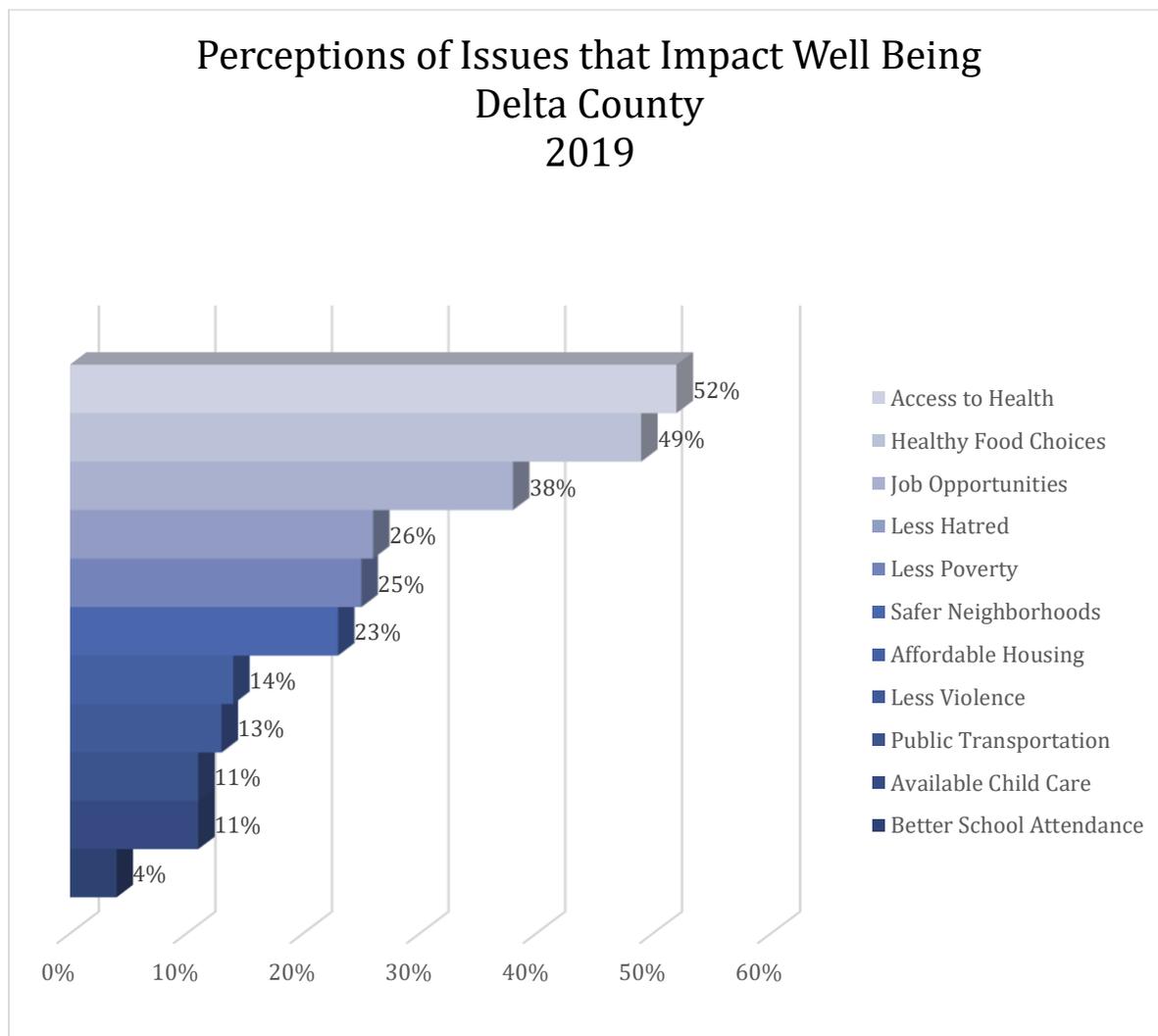


Source: CHNA Survey

5.3 Perceptions of Issues Impacting Well Being

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

The issue impacting well-being that rated highest was access to health (52%). It was followed by healthy food choices (49%) and job opportunities (38%). These three factors were significantly higher than other categories based on *t-tests* between sample means.



Source: CHNA Survey

5.4 Summary of Community Health Issues

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

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

- Population over age 65 increased
- Single female head-of-household represents 10% of the population
- Telehealth

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

- Prostate screening is relatively low
- Exercise and healthy eating behaviors
- Depression and stress/anxiety
- Low income population does not seek medical attention
- Access to counseling services

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

- Overweight and obesity
- Risk factors for heart disease

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

- Cancer
- Heart disease
- Violent crime

Potential Health-Related Needs Considered for Prioritization

Before the prioritization of significant community health-related needs was performed, results were aggregated into 7 potential categories. Based on similarities and duplication, the 7 potential areas considered are:

- **Not seeking healthcare when needed**
- **Aging issues**
- **Healthy behaviors – nutrition & exercise**
- **Behavioral health**
- **Overweight/Obesity**
- **Access – counseling**
- **Cancer screening**

5.5 Community Resources

After summarizing potential categories for prioritization in the Community Health Needs Assessment, a comprehensive analysis of existing community resources was performed to identify the efficacy to which these 7 health-related areas were being addressed. A resource matrix can be seen in Appendix 5 relating to the 7 health-related issues.

There are numerous forms of resources in the community. They are categorized as recreational facilities, county health departments, community agencies and area hospitals/clinics. A detailed list of community resources and descriptions appears in Appendix 6.

5.6 Significant Needs Identified and Prioritized

In order to prioritize the previously identified dimensions, the collaborative team considered health needs based on: (1) magnitude of the issues (e.g., what percentage of the population was impacted by the issue); (2) severity of the issues in terms of their relationship with morbidities and mortalities; (3) potential impact through collaboration. Using a modified version of the Hanlon Method (as seen in Appendix 7), the collaborative team identified three significant health needs and considered them equal priorities:

- **Healthy Behaviors** – *defined as active living and healthy eating, and their impact on obesity*
- **Behavioral Health** – *including mental health and substance abuse*
- **Aging Issue** – *defined as population over 65*

HEALTHY BEHAVIORS – ACTIVE LIVING, HEALTHY EATING AND SUBSEQUENT OBESITY

ACTIVE LIVING. A healthy lifestyle, comprised of regular physical activity and balanced diet, has been shown to increase physical, mental and emotional well-being. Note that 23% of respondents indicated that they do not exercise at all, while the majority (64%) of residents exercise 1-5 times per week. The most common reasons for not exercising are not having enough time (31%) or energy (25%) and a dislike of exercise (20%). Frequency of exercise tends to be more likely for those with a higher level of education and higher income. There has been a moderate improvement compared to data from the

2016 CHNA. In 2016, 29% of residents indicated they did not exercise at all and only 23% indicated they did not exercise in 2019.

HEALTHY EATING. Almost two-thirds (60%) of residents report no consumption or low consumption (1-2 servings per day) of fruits and vegetables per day. Note that the percentage of residents who consume five or more servings per day is only 5%. The most prevalent reason for failing to eat more fruits and vegetables was the expense involved according to survey respondents. Consumption of fruits and vegetables tends to be more likely for women, those with a higher level of education and those with higher income.

OBESITY. In Delta County, nearly two-thirds (63.9%) of residents were diagnosed with obesity and being overweight. In the 2019 CHNA survey, respondents indicated that being overweight was the second most important health issue and was rated as the most prevalently diagnosed health condition. Research strongly suggests that obesity is a significant problem facing youth and adults nationally, in Michigan and within Delta County. The U.S. Surgeon General has characterized obesity as “the fastest-growing, most threatening disease in America today.” With children, research has linked obesity to numerous chronic diseases including Type II diabetes, hypertension, high blood pressure, and asthma. Adverse physical health side effects of obesity include orthopedic problems due to weakened joints and lower bone density. Detrimental mental health side effects include low self-esteem, poor body image, symptoms of depression, and suicide ideation. Obesity impacts educational performance as well; studies suggest school absenteeism of obese children is six times higher than that of non-obese children. With adults, obesity has far-reaching consequences. Testimony to the Michigan General Assembly indicated that obesity-related illnesses contribute to worker absenteeism, slow workflow and high worker compensation rates. A Duke University study on the effects of obesity in the workforce noted 13 times more missed workdays by obese employees than non-obese employees.

BEHAVIORAL HEALTH – MENTAL HEALTH AND SUBSTANCE ABUSE

MENTAL HEALTH. The CHNA survey asked respondents to indicate prevalence of specific issues, namely depression and stress/anxiety. Of respondents, 51% indicated they felt depressed in the last 30 days and 44% indicated they felt anxious or stressed. Depression tends to be rated higher for those with less income and those with less education. Stress and anxiety tend to be rated higher for younger people and those with less income. Respondents were also asked if they spoke with anyone about their mental health in the last 30 days. Of respondents 29% indicated that they spoke to someone, the most common response was to a doctor/nurse (43%). In regard to self-assessment of overall mental health, 13% of respondents stated they have poor overall mental health. In the 2019 CHNA survey, respondents indicated that mental health was the most important health issue.

SUBSTANCE ABUSE. Survey respondents were asked “On a typical DAY, how often to do you use substances (either legal or illegal) to make yourself feel better?” Of respondents, 15% indicated they use substances to make themselves feel better. According to the 2016 County Health Rankings measures, 19% of Delta County residents engaged in binge or heavy drinking in the past 30 days. In the 2019 CHNA survey, respondents rated drug abuse (illegal) as the most prevalent unhealthy behavior (80%), followed by alcohol abuse (56%). Note that drug abuse (legal) rated relatively high (48%) given the increase, in part, of opioid abuse.

AGING ISSUES

In the CHNA survey, respondents rated aging issues (38%) as the third most important health issue. The percentage of individuals aged 65 and older increased 10.6% between 2013 and 2017. Deaths related to Alzheimer's in Michigan have recently surpassed the U.S. average. Delta County has the 4th highest Alzheimer's death rate in Michigan in 2017.

APPENDIX 1. MEMBERS OF COLLABORATIVE TEAM

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

Gail Brazeau is the Health and Disabilities Manager for the Menominee, Delta, Schoolcraft Early Childhood Program. She oversees the health, nutrition, and disability services for the program. She received her bachelor's degree in Social Work from Northern Michigan University and began working with Early Head Start in 1999 as a Home Visitor serving pregnant women, infants and toddlers and their families. She also serves on a Parent Advisory Board for Patient and Family Centered Care for Mott Children's Hospital at the University of Michigan.

Sarah Cantrell is the new Menominee, Delta and Schoolcraft Community Action Agency and Human Resources Authority, Inc. Retired and Senior Volunteer Program Director. She replaces Theresa Nelson, who's retiring in May after 39 years with the agency. Cantrell joins the MDS Community Action Agency after spending 3 ½ years as Assistant Manager at the Goodwill Store in Escanaba. RSVP recruits residents 55 years old and older in Menominee, Delta and Schoolcraft counties, along with Marinette County in Wisconsin, to provide a host of volunteer activities, including but not limited to, Reading Buddies in local schools, medical rides, medical facilities, and bloodmobiles. The program's goal is "to improve lives, strengthen communities, and foster civic engagement through service and volunteering. RSVP Volunteers share their life experiences and skills." Cantrell received an Associate's Degree from Bay College after studying Business Administration. She also received a Certificate in Accounting. She went on to receive her Bachelor's Degree in Business Administrative – Management and Marketing. She also received a Certificate in Photography from Bay College's M-TEC.

Executive Director (currently recruiting), Tri-County Safe Harbor serves men, women, and children who are victims of intimate partner, domestic violence. Our services also extend to victims of sexual assault by any perpetrator. Tri-County Safe Harbor operates a temporary, emergency shelter in Escanaba and outreach offices in Schoolcraft and Menominee Counties. Our services include supportive counseling, a 24-hour help line, emergency shelter and assistance, information and referrals, and advocacy. Support groups are also available for women and children. Abuse can be physical, emotional, verbal, or sexual. All services are free and confidential. Visit our website for more information, www.safe3c.com. Call our 24-hour help line at 906-789-1166 for assistance.

Sandra L. Guenette, SW, OSF Saint Francis Hospital, is the Lead Social Worker/Case Manager at OSF St. Francis Hospital. She received her Bachelor's degree in Social Work from Northern Michigan University in 1980. She began her medical social work career in skilled nursing facilities. She became employed by OSF St. Francis Hospital in 1983 and in March of 2015 her employment was transitioned into the Case Management Division of OSF Health Care System, Peoria, Ill. Her main areas of focus in case management is assisting patients through the continuum of care which includes: assessment of needs, information and referral, financial assistance, palliative care, and discharge coordination. She works closely with physicians and other interdisciplinary team members in all units of the hospital, with community physician's groups, home health care agencies and other local service agencies to aid the patient's hospital experience and transition of care.

Lindsey Stearns, Community Relations Specialist for OSF HealthCare St. Francis Hospital & Medical Group. She received a Bachelor of Science degree with a dual major in Health Care Management and Business Administration from Franklin University in Columbus, Ohio and an associate's degree in Human Services from Bay College in Escanaba, MI. She has been with OSF HealthCare since 2012. She began as an administrative assistant to the hospital president and assisted in the medical staff and marketing and communications departments. In 2016, she began her role as the community relations specialist, overseeing public relations, internal communications, and marketing for OSF St. Francis. She is a Delta Force graduate and is a member of the Delta County Communities that Care and Upper Edge of Delta County.

Joy Hopkins is OSF Saint Francis Hospital, Vice President of Patient Care Services-Chief Nursing Officer, serving in this role since 2012. Joy has a Masters in Health Administration from Eastern Michigan University and a Bachelors in Nursing from George Mason University. At OSF, Joy is the accountable executive for the Community Health Needs. Additionally, she serves on several OSF Saint Francis Hospital and OSF Healthcare Ministry Committees and projects. Joy is on the Board of Trustees at Bay College. Joy is married to Dennis Hopkins, retired Naval Captain and high school teacher. They have two adult daughters. Joy likes spending time in nature hiking and with her family (including four legged ones).

Kelly Jefferson, Vice President, Chief Operating Officer OSF Saint Francis Hospital. Kelly has worked for OSF Healthcare since 1998, progressing from a registered nurse at the bedside to vice president of operations. Kelly has worked in several areas across the OSF Healthcare System including OSF Saint Francis Medical Center in Peoria, IL as a registered nurse on general pediatrics and in neonatal intensive care and as a registered nurse and 6 sigma black belt for OSF Medical Group in Peoria, IL. In 2007, Kelly accepted a master black belt position at St. Francis Hospital & Medical Group and moved her family to Escanaba, MI. "Prior to moving here, my family and I had vacationed in the Upper Peninsula for many years and had fallen in love with the area. When the opportunity presented itself, we jumped at the chance to make the move. We consider it a tremendous blessing to live here." A native of Canton, Ill., she received her nursing diploma from Graham Hospital School of Nursing in Canton, IL. After working several years in healthcare, Kelly recognized the importance of obtaining an advanced degree to continue her professional development. In 2011, she received her Master of Science in Nursing from Walden University. Experience in working in clinical care and performance improvement has enabled her to develop an in-depth understanding of many aspects of the healthcare delivery system. This knowledge has contributed to her ability to plan and effectively execute on key systems and processes. "I enjoy learning new things and taking on new challenges. This job provides endless opportunities for both. I love what I do and consider it a privilege to serve with the Sisters in providing healthcare in our community." Kelly lives in Gladstone, MI with her husband, Brett, daughter, Olivia, and two dogs. When not working, she enjoys engaging in outdoor recreations with her family including hiking, backpacking, kayaking, biking and snowshoeing. Kelly is also active in her local church and enjoys volunteering at various fund raising events and local charities.

Matt Krause, Director of Physician Practices: A native of the Upper Peninsula, Matt was raised in Cedarville, MI. After graduating from high school, he moved to Big Rapids, MI to pursue a degree in Medical Radiography from Ferris State University. His healthcare career began in 1998, as a radiologic technologist at Spectrum Health in Grand Rapids, MI. He quickly realized his interest in the operations

of healthcare. While working as a CT Technologist, he returned to Ferris State University and completed his Bachelor of Science in Business Administration in 2004. Matt spent the next nine years at Spectrum Health in positions such as Technology Manager and Technical Operation Manager. As Matt worked in different leadership roles, he chose to pursue a Master of Business Administration degree in International Business. When an opportunity arose to move his family to the Upper Peninsula, it was an easy decision. Shortly after he received his MBA from Cornerstone University, he accepted a position as Regional Director of Operations at UP Health System - Marquette in July of 2012. He spent the next four years working collaboratively with clinicians and administration. "I enjoy working with clinicians to solve challenges which improve the care of our patients and the community we serve. It makes it all the more special to do this with such a great organization and in the community that much of my family lives in." Matt lives in Gladstone with his wife, Kellie and three sons, Noah, Jacob and Mason. Matt enjoys spending time outdoors and engaging in all the activities the U.P. has to offer.

Linda Klope is the a retires Registered Dietitian/Certified Diabetic Educator. She received her Bachelor's degree from Michigan State University in 1976, worked with Kraft Foods and at St. Francis Hospital in Waterloo, IA before coming to OSF HealthCare St. Francis Hospital in 1981. She retired in 2018, but continues work as a volunteer with diabetes prevention education and Fuel Up/Play 60 with area schools. She received her Master's degree from Northern Michigan University in Community College Education in 1981. For seven years Linda has worked with several of the local schools as a Fuel Up to Play 60 program coordinator and as the outreach coordinator for health fairs where she provides glucose and cholesterol testing. Her hobbies include being a Swim Official for the YMCA, sewing, knitting, swimming, walking and taking care of her chickens. Her husband is employed as an engineer. Both of her daughters are also in the health care field.

Connie LeBoeuf, Senior Financial Analyst, OSF St. Francis Hospital & Medical Group. She received her bachelor's degree in Business Administration Management with a minor in Accounting from Lake Superior State University in Sault Ste. Marie, MI and her associate's degree in Business Administration from Bay College in Escanaba, MI. She has been with OSF since 1990 having working in various positions within Finance & Accounting and IT both Escanaba and Peoria.

Dave Lord assumed the role of President of OSF HealthCare St. Francis Hospital & Medical Group in 2012. Born at OSF St. Francis Hospital and raised in Escanaba, he is a graduate of Escanaba Area High School. He received his undergraduate degree from Northern Michigan University, where he also has completed coursework toward a Master of Public Administration degree. Dave began his career in 1996 in the Information Technology Department. He later served as manager of planning and decision support before being named vice president of operations in 2004, overseeing laboratory, medical imaging, respiratory therapy, rehabilitation services, dietary services, plant operations, community relations, development and IT. He is a member of the board of directors for Catholic Social Services of the Upper Peninsula, the Delta County Economic Development Alliance and the Northern Lights YMCA. He is a founding member of the Bay College Technology Degree Program and serves as a volunteer for various youth sports.

Julie Mallard, Executive Director, United Way of Delta County. Julie holds a Bachelor's Degree in Public Relations from the University of Florida. She started her career with the Girl Scout council in her hometown of Tampa, Florida before moving to the U.P. in 1994. For the next 11 years she did marketing and volunteer coordination at North Woods, promoting their home nursing and hospice, outpatient therapy, private duty nursing and assisted living services in a four-county area. In 2005 she became the Executive Director of the United Way of Delta County. Her work includes fundraising, special events, marketing, volunteer coordination, administration, community collaboration and working with local nonprofit agencies. She is on the executive committees for Delta County Communities That Care and Delta-Schoolcraft Great Start and is a member of the Delta County Homeless Coalition and Bay College's Human Services Advisory Board. She also is secretary of the Escanaba Noon Kiwanis Club.

Micki Murray is the Director, Employee Relations at OSF St. Francis Hospital and Medical Group. She received her Bachelor's degree from Northern Michigan University and her Master's in Education, Human Resources Performance and Change Management, from Colorado State University. She was hired into Human Resources in 1995 and was promoted to her current position in the fall of 2014.

Mark A. Povich, DO-Director of Physician Practices, OSF Medical Group & Family Physician. Dr. Mark Povich has a B.S. degree in Biology, a M.S. in Fisheries and Wildlife, and attended Michigan State University College of Osteopathic Medicine. He also served in the USAF 1987-1994. Dr. Povich has been the active Medical Director for OSF St. Francis Hospital Medical group since 2004. He has been board certified in Family Medicine since 1988 and Diplomate-Anti-Aging/Regenerative Medicine 2010, also a member of the Michigan Association of Osteopathic Family Physicians and the Institute of Functional Medicine. He is married to Carol, and they have nine children together.

Amy Fudala, Health and Wellness Coordinator, Personal Trainer abs group exercise instructor for the Northern Lights YMCA-Delta Center. She has worked for the YMCA since 2002. She is responsible for all aspects of personal training, group exercises, maintaining of the fitness center and creating and maintaining multiple outreach locations. These responsibilities include: budget management, implementing and establishing community partnerships and increasing community wellness with programs that are evidence based and proven effective. Amy has experience with fundraising and is a captain for the YMCA annual campaign.

Kyle Rambo began serving as the Executive Director of Catholic Social Services of the Upper Peninsula (CSSUP) in August of 2013. Kyle has been married to the former Kay Young for the past 24 years. Together they have two sons, Lance and Luke. Lance is a student athlete at Michigan State University and Luke is a student athlete at Saginaw Valley State University. Kyle is a native of Essexville, Michigan, and earned his undergraduate degree from the University of Tennessee and has a master's of public administration from Ball State University. Rambo earned his commission through the Army's Reserve Officer Training Corps at the University of Tennessee. Rambo retired from military service as a Lieutenant Colonel in 2013 with 24 years as an Airborne, Ranger, Infantry Officer in the United States Army, including four combat tours. Rambo's military education includes basic and advanced officer courses and the Command and General Staff College. His awards and decorations include the Bronze Star and numerous awards for meritorious service and achievement. Prior to joining CSSUP, Rambo served as a professor of military science at Northern Michigan University and at Michigan Technological University. Rambo enjoys coaching high school cross country skiing and pole vault. He also enjoys

watching his sons compete in college athletics. He cross country skis, runs, or bikes daily and is an avid bow hunting. He has significant experience in coaching track and field and cross country, and finds it personally rewarding to encourage others to reach their fitness potential. Rambo volunteers at Saint Michael's Catholic Church as an usher. He also serves as an advisor or board member for several non-profit organizations including the Michigan Federation for Children and Families, the Michigan Catholic Conference Policy Committee, and the Marquette County Mental Health Advisory Committee.

Kathy Ryno, MSN, BSN, RN Delta-Schoolcraft Intermediate School district. Health Occupation Instructor 1993-Present, HOSA Advisor, CNA Instructor, Learning Center School Nurse, BLS and Heartsaver CPR/First Aid Instructor, as well as a YMCA Volunteer and Fitness Instructor 2003-Present. Kathy also is a Bay College, Allied Health and Nursing Adjunct Faculty member 2003-Present, Nursing Advisory Committee Member, Bay Alumni Board Member with current memberships to the MHOEA Board, YAP Board, Eagles Auxiliary, and the Delta-Menominee Family Planning Advisory.

Caron Salo, Senior Program / Fund Development Director for the Northern Lights YMCA – Delta Center. She has worked for the YMCA since 1996. She is responsible for all aspects of program development and administration including budget management, marketing, community partnerships and strategic planning. On the Fund Development side, she is responsible for grant writing and all major fundraising efforts including the YMCA Annual Campaign and special events. Caron is a member of the Escanaba Rotary Club, a Jaycee and a past member of the OSF St. Francis Advisory Board member.

Mike Snyder RS, Health Officer, Public Health Delta & Menominee Counties, Michael Snyder is the Health Officer for Public Health Delta & Menominee Counties. He received his Bachelor degree in Conservation and Master's Degree in Public Administration from Northern Michigan University. He also received a Certificate in the Foundation of Public Health from the University of Michigan. Michael has been employed at Public Health since 1994 and has been the Health Officer since 2012.

Elsie Stafford, Administrator, Bishop Noa Home. Elsie is a Registered Nurse, graduating with an AS degree from Jamestown Community College in New York. She has worked in many capacities over the past 40 years: from hospital pre/post- surgical nursing to nursing home care and for eight years was a Director of Nursing in long term care. In 2001, Elsie became certified in the State of Michigan as a Licensed Nursing Home Administrator and has served in that role ever since. In 2008, she was appointed as the Administrator at Bishop Noa Home; her specialty is skilled care and long term care Medicare certification, and in 2010 Bishop Noa Home became Medicare certified. Elsie and her family moved to the UP in 1994 and have loved being a part of the UP culture. As a Nursing Home Administrator, she is passionate about Resident Rights and providing quality care to our aging population. She hopes that delivery of care at every level continues to meet the need of the patient/resident while encouraging and attracting young professionals to join the health care profession. Elsie serves on the UPCAP ADRC coalition, HCAM member, and is a Certified Dementia Practitioner (CDP). Her husband is retired and most of all, they enjoy four amazing grand- children. Walking and gardening allow her to keep her head clear and also allow her to truly appreciate the beautiful UP.

Fred Wagner, Chief Financial Officer, OSF St. Francis Hospital & Medical Group. Fred began his career with OSF St. Francis Hospital & Medical Group in 1989, progressing from manager of accounting to CFO. He developed a passion for numbers and accounting in his first year of college and says he enjoys

budgeting and forecasting “more than any sane person should.” But the best part of his job, he maintains, is helping others. Born in Lower Michigan, Fred moved to the Upper Peninsula as a senior in high school and graduated from Escanaba Area High School. He attended Bay College before transferring to Northern Michigan University, where he received a Bachelor of Science degree in accounting. He worked in the community mental health field in Monroe and Schoolcraft counties before finding his way to OSF in 1989. His mother, Ruth Wagner, had also worked for OSF, retiring as the manager of surgical services in 1990. The health care industry also led Fred to his wife, Mary, who works at St. Francis as manager of the business office. Together they enjoy traveling, antiques, watching movies, camping and spending time with their children, grandchildren and dogs. Fred is active in his church and volunteers his time at various fundraising events that have supported the OSF Foundation, the American Red Cross and other local charities. He said he enjoys working for the Sisters and finds his job as rewarding, challenging and complex as he did 29 years ago.

Jennifer Ware, RN, Pathways-Employed with Pathways Mental Health for over 18 years, Infection Control Chair, Integrated Health Care Committee Member. Prior to working at Pathways worked Home Health in Escanaba and Medical/Oncology Unit St. Lawrence Hospital, Lansing. Community involvement includes Youth Group Leader and member of Days River Area Lions Club.

Kayla West, Central Upper Peninsula Planning and Development Regional Commission (CUPPAD) has 23 years of executive, program development and consulting experience in population health. Her work engages diverse audiences by sharing research on demographic and population health, convening focus groups, designing and facilitating interactive presentations and summits, and promoting community-based innovations that improve population health. She has worked at the state, national and community level with federally qualified health centers, rural health clinics, hospitals, health departments and clinicians in medicine, oral health and mental health, as well as with civic-minded private citizens. Kayla holds a Bachelor’s Degree from Stanford University and an MBA from Cornell University. Kayla is assisting in a project to compare community health needs assessments conducted by nonprofit hospitals across the U.P., identifying common themes, and creating space for regional planning and collaboration on next steps.

Darren Young, Manager of Business and Community Relations for the Upper Peninsula Commission for Area Progress (UPCAP), as well as a Quality Assurance Specialist for the Area Agency on Aging for the entire Upper Peninsula. He also is the Administrator for Senior Community Service Employment Program and the Kinship Care Program at UPCAP. Darren has been employed at UPCAP since October of 2013 where he has been implementing outreach events as part of the “Aging and Disability Resource Coalition” and the “Michigan Voices for Better Health” to bring awareness to the MMAP (Michigan Medicare/Medicaid Assistance Program). He also plays an intricate part in the marketing and promotion of UPCAP’s evidence-based Health and Wellness programs.

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

Michelle A. Carrothers (Coordinator) is currently the Vice President of Strategic Reimbursement for OSF Healthcare System, a position she has served in since 2014. She serves as a Business Leader for the Ministry Community Health Needs Assessment process. Michelle has over 35 years of health care

experience. Michelle obtained both a Bachelor of Science Degree and Masters of Business Administration Degree from Bradley University in Peoria, IL. She attained her CPA in 1984 and has earned her Fellow of the Healthcare Financial Management Association Certification in 2011. Currently she serves on the National Board of Examiners for HFMA. Michelle serves on various Peoria Community Board of Directors and Michigan Hospital Association committees.

Dawn Tuley (Coordinator) is a Strategic Reimbursement Senior Analyst at OSF Healthcare System. She has worked for OSF Healthcare System since 2004 and has acted as the coordinator for 13 Hospital Community Health Need Assessments. In addition, she has coordinated the submission of the Community Benefit Attorney General report and the filing of the IRS Form 990 Schedule H since 2008. Dawn has been a member of the McMahon-Illini Chapter of Healthcare Financial Management Association for over ten years. Dawn served as the Vice President, President-Elect and two terms as a Chapter President on the board of Directors with the McMahon-Illini HFMA Chapter. She currently serves as a Director on the board.

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

APPENDIX 2. ACTIVITIES RELATED TO 2016 CHNA PRIORITIZED NEEDS

Two major health needs were identified and prioritized in the Delta County 2016 CHNA. Below are the activities, measures and impact during the last three years to address these needs.

1. Healthy Behaviors Including Active Living, Healthy Eating and Obesity

Goal: *Manage and prevent the onset of obesity with a goal of reducing obesity among children ages 10-17 and adults. Encouraging healthy behaviors among the citizens of Delta County.*

Healthy Behaviors Measurement and Impact

“Fuel Up” programs tracking of schools who participate.

- Program has five schools participating in Fuel Up. This program offers healthy behaviors to Delta county children.

Nutritional counseling tracking of sessions per patient.

- Provided over 350 patients with nutritional consults.

Nutritional class tracking offering patients with diabetes program.

- Hosted over 22 sessions per year of an intense diabetes, prevention program serving three participants per session.

Participation of sponsorship within community activities that support active lifestyles.

- Participated in over 20 Health Fairs annually. These included glucose, cholesterol and blood pressure screenings.
- Provided physician speakers for three YMCA, Ask an Expert Series. Provided administrative and material support to First Aid stations at the Upper Peninsula State Fair and Symetra Professional Golf Tournaments.
- In addition, sponsored 17 yearly activities including: Delta County Suicide Prevention Task force - End the Silence walk/run to name a few.

2. Behavioral Health defined as – Mental Health and Substance Abuse

Goal: *Improve access to mental health and substance abuse services in Delta County*

Behavioral Health Measurement and Impact

Partnership with Pathways to maintain mental health services in Delta County.

- Collaborated with Pathways to provide crisis mental health services for uninsured and Medicaid patients. Filled a void by hiring three independent LMSW to provide crisis mental health services in the hospital. These services averages 3000 per month to support 12-14 patients per month. We

also established a contract with General Security Services Corporation (GSSC) for secure transportation of patients to treatment facilities. OSF provides the cost of these services.

Completed business case for provision of mental health services within the OSF Physician Enterprise Group in Delta County.

- Mental Health Services within the Multi-Specialty Group achieved with support of the OSF Physician Enterprise Services. Hired an APP who is dual board certified in family medicine and psychiatry. Hired an LMSW who is now embedded in the primary care practices that will provide brief therapeutic interventions. This LMSW provides diagnosis and treatment for behavioral health conditions and works with patients on behavioral change such as smoking cessation, weight loss, etc.

Established substance agreements with patients identified as chronic opioid users who have obtained prescriptions from multiple providers (3 or more providers) in one calendar year.

- Established a substance agreement with patients who identified as chronic opioid users (see above). Completed over 1600 substance agreements. In addition, recent changes in Michigan prescribing laws will assist in effort to reduce opioid use disorders.

Worked with local Public Safety Department to plan semi-annual opioid recovery and medication take back events.

- Local semi-annual opioid recovery and medication take back program events occurred. St Francis Hospital also participated in two statewide drug recovery programs through Michigan Open in 2018. St Francis Hospital has now installed its own Drug Take back collection box.

St. Francis Hospital to continue active participation in Drug Abuse Prevention Task Force.

- Active participation in Drug Abuse Prevention Task Force kept annually, with SAVE Council and Communities that Care Council.

St. Francis Hospital provided “Liferides” on New Year’s Eve. This program has been in effect for over 6 years.

- The program offers a ride to Delta county residents on New Year’s Eve. These “Liferides” provided annually have helped over 1500 community members stay safe in the past three years.

APPENDIX 3. SURVEY



OSF[®] HEALTHCARE

COMMUNITY HEALTH-NEEDS ASSESSMENT SURVEY

INSTRUCTIONS

We want to know how you view our community, so we are inviting you to participate in a research study about community health needs. Your opinions are important! This survey will take about 10 minutes to complete. All of your individual responses are confidential. We will use the survey results to better understand and address health needs in our community.

This survey was reviewed by the Committee on the Use of Human Subjects and Research, Bradley University Institutional Review Board (IRB) in June, 2018
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COMMUNITY PERCEPTIONS

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

- | | |
|--|--|
| <input type="checkbox"/> Aging issues, such as Alzheimer’s disease, hearing loss, memory loss, arthritis | <input type="checkbox"/> Early sexual activity |
| <input type="checkbox"/> Cancer | <input type="checkbox"/> Heart disease/heart attack |
| <input type="checkbox"/> Chronic pain | <input type="checkbox"/> Mental health issues, such as depression, hopelessness, anger |
| <input type="checkbox"/> Dental health (including tooth pain) | <input type="checkbox"/> Obesity/overweight |
| <input type="checkbox"/> Diabetes | <input type="checkbox"/> Sexually transmitted infections |
| <input type="checkbox"/> Other _____ | |

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

- | | |
|---|---|
| <input type="checkbox"/> Angry behavior/violence | <input type="checkbox"/> Drug abuse (legal drugs) |
| <input type="checkbox"/> Alcohol abuse | <input type="checkbox"/> Lack of exercise |
| <input type="checkbox"/> Child abuse | <input type="checkbox"/> Poor eating habits |
| <input type="checkbox"/> Domestic violence | <input type="checkbox"/> Risky sexual behavior |
| <input type="checkbox"/> Drug abuse (illegal drugs) | <input type="checkbox"/> Smoking |
| <input type="checkbox"/> Other _____ | |

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

- | | |
|---|---|
| <input type="checkbox"/> Access to health services | <input type="checkbox"/> Job opportunities |
| <input type="checkbox"/> Affordable clean housing | <input type="checkbox"/> Less hatred & more social acceptance |
| <input type="checkbox"/> Availability of child care | <input type="checkbox"/> Less poverty |
| <input type="checkbox"/> Better school attendance | <input type="checkbox"/> Less violence |
| <input type="checkbox"/> Good public transportation | <input type="checkbox"/> Safer neighborhoods/schools |
| <input type="checkbox"/> Healthy food choices | <input type="checkbox"/> Other _____ |

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).

- | | | |
|---|---|---|
| <input type="checkbox"/> Clinic/Doctor's office | <input type="checkbox"/> Emergency Department | <input type="checkbox"/> I don't seek medical attention |
| <input type="checkbox"/> Urgent Care Center | <input type="checkbox"/> Health Department | <input type="checkbox"/> Other _____ |

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)

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

- Didn't have health insurance. Too long to wait for appointment.
 Couldn't afford to pay my co-pay or deductible. Didn't have a way to get to the doctor.

Are there any other reasons why you could not access medical care?

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. The pharmacy refused to take my insurance or Medicaid.
 Couldn't afford to pay my co-pay or deductible. Didn't have a way to get to the pharmacy.

Are there any other reasons why you could not access prescription medicine?

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. The dentist refused my insurance/Medicaid
 Couldn't afford to pay my co-pay or deductible. Didn't have a way to get to the dentist.

Are there any other reasons why you could not access a dentist?

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. The counselor refused to take my insurance/Medicaid
 Couldn't afford to pay my co-pay or deductible. Embarrassment.
 Didn't have a way to get to a counselor.

Are there any other reasons why you could not access a mental-health counselor?

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, golf, 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

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. Don’t like to exercise.
 Can’t afford the fees to exercise. Don’t have child care while I exercise.
 Don’t have access to an exercise facility. Too tired.

Are there any other reasons why you could not exercise in the last week?

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 3 - 5 More than 5

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 Don’t like fruits/vegetables
 It is not important to me Can’t afford fruits/vegetables
 Don’t know how to prepare fruits/vegetables Don’t have a refrigerator/stove
 Don’t know where to buy fruits/vegetables

Are there any other reasons why you do not eat fruits/vegetables?

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 Other _____

6. What are the biggest challenges to eating healthy in our community? (Please choose all that apply).

- Knowledge Convenience People don’t care Physical challenge/Disability
 Cost Time No healthy options Transportation Other

7. Please check the box next to any of the 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 #9: Smoking.

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

8. If you identified any conditions in Question #7, how often do you follow an eating plan to manage your condition(s)? Never Sometimes Usually Always Not applicable

Smoking

9. On a typical DAY, how many cigarettes do you smoke, or 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 medical information? (Please choose only one answer).

- Doctor Friends/family Internet Pharmacy Nurse at my church

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. On a typical DAY, how often to do you use substances (either legal or illegal) to make yourself feel better?

None 1–2 times 3–5 times More than 5 times

18. When you were a child, did a parent or other adult often swear at you, insult you or make you feel afraid?

Yes No

19. Do you feel safe where you live? Yes No

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

Breast/mammography exam	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Not applicable
Prostate exam	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Not applicable
Colonoscopy/colorectal cancer screening	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> 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. How interested would you be in health services provided through Internet or phone?

1 2 3
 Not interested Somewhat interested Extremely interested

2. Can you get free wi-fi in public locations? Yes No

3. Do you have Internet in your home (or where you live)? For example, can you watch Youtube?
 Yes (please go to next section – BACKGROUND INFORMATION) No (please answer #4)

4. If don't have Internet, why not? Cost No available Internet provider Data limits
 I don't know how Other _____

BACKGROUND INFORMATION

1. What county do you live in?

Delta Other

2. What is your Zip Code? _____

3. What type of health insurance do you have? (Please choose all that apply).

Medicare Medicaid Private/Commercial None (Please answer #4)

4. If you answered “none” 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

6. What is your age? Under 20 21-35 36-50 51-65 Over 65

7. What is your racial or ethnic identification? (Please choose only one answer).

White/Caucasian Black/African American Hispanic/Latino
 Pacific Islander Native American Asian/South Asian
 Multiracial Other: _____

8. 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 Bachelor’s degree
 Graduate or professional degree Other: _____

9. 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

10. What is your housing status?

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

11. How many people live with you? _____

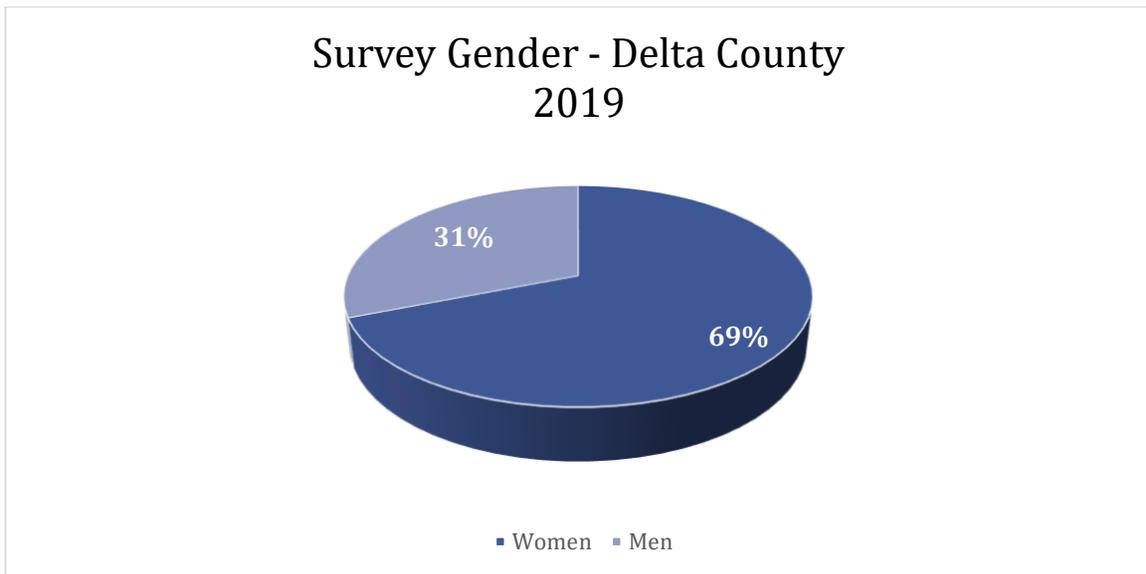
12. What is your job status? (Please choose only one answer).

Full-time Part-time Unemployed Homemaker
 Retired Disabled Student Armed Forces

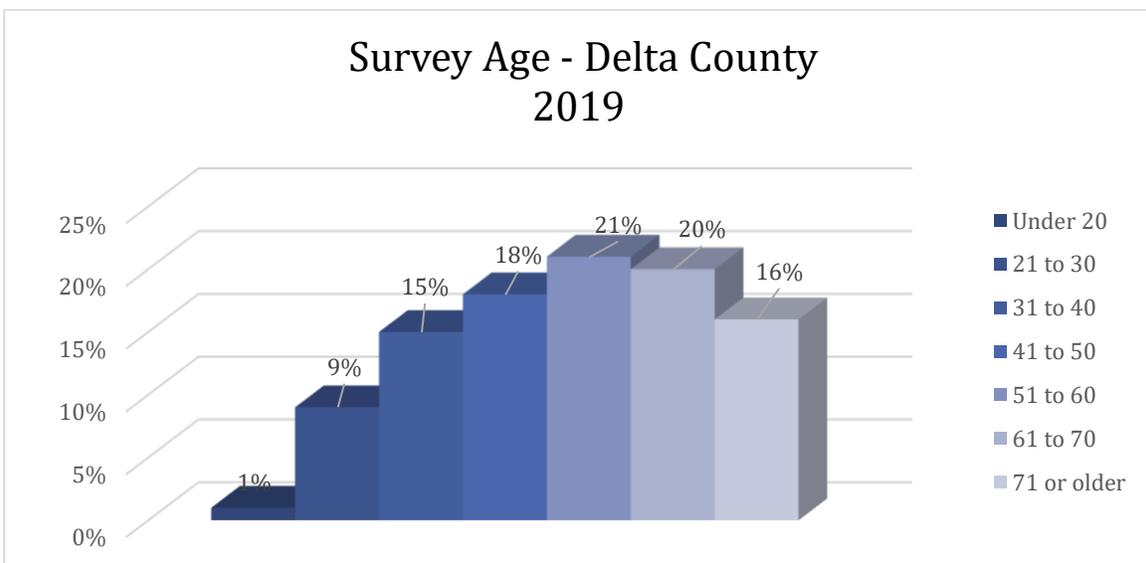
Is there anything else you’d like to share about your own health goals or health issues in our community?

Thank you very much for sharing your views with us!

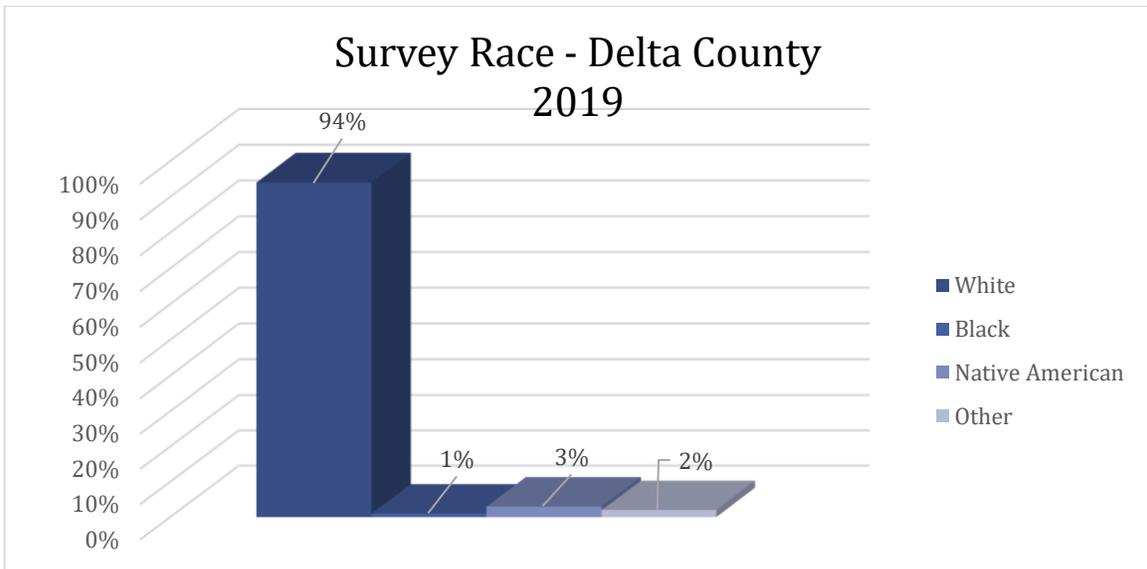
APPENDIX 4. CHARACTERISTICS OF SURVEY RESPONDENTS



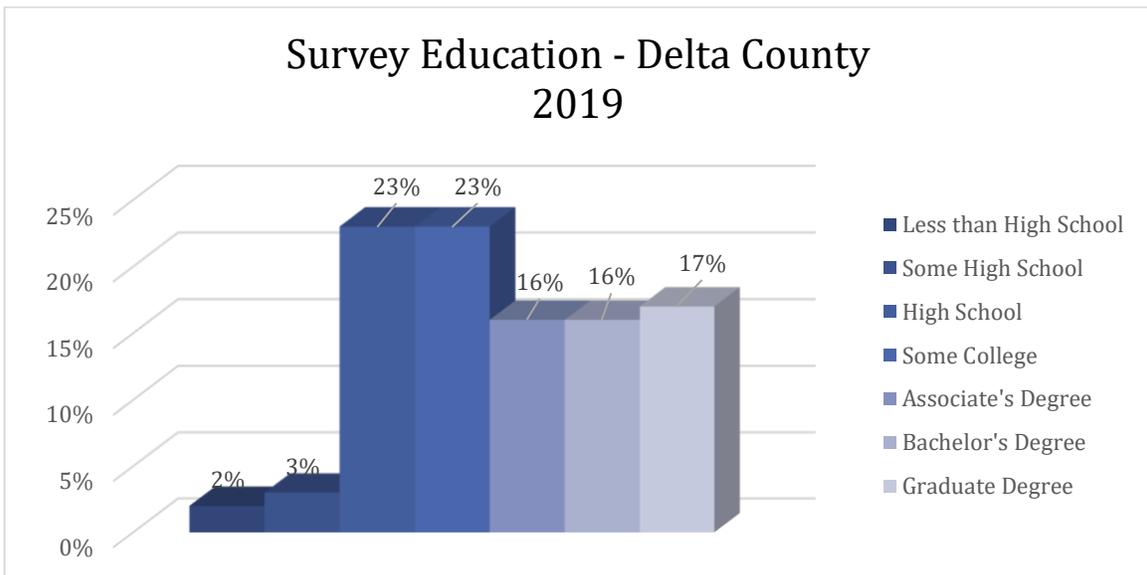
Source: CHNA Survey



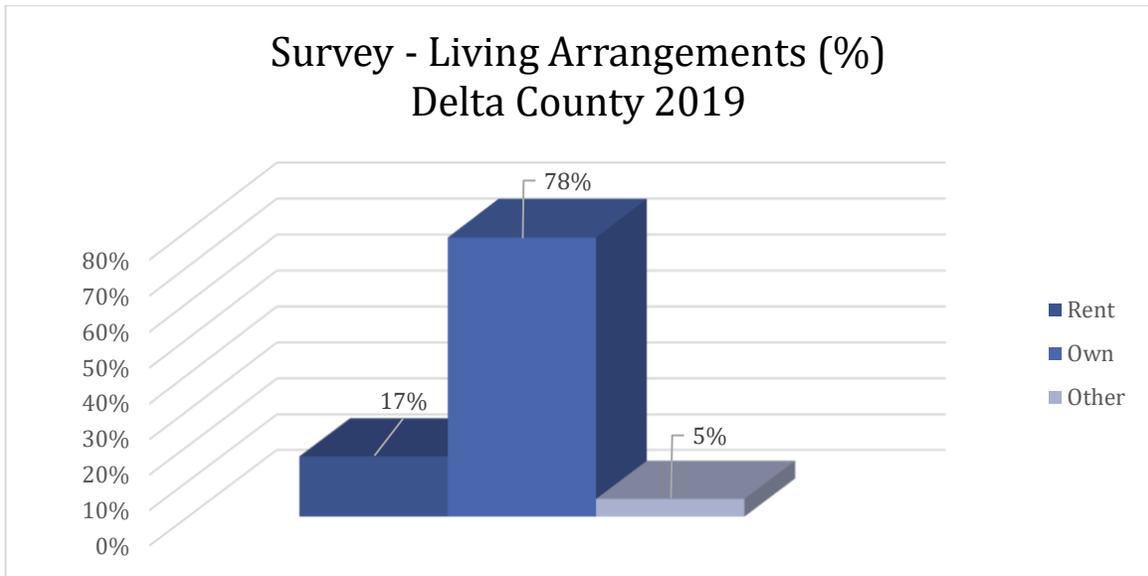
Source: CHNA Survey



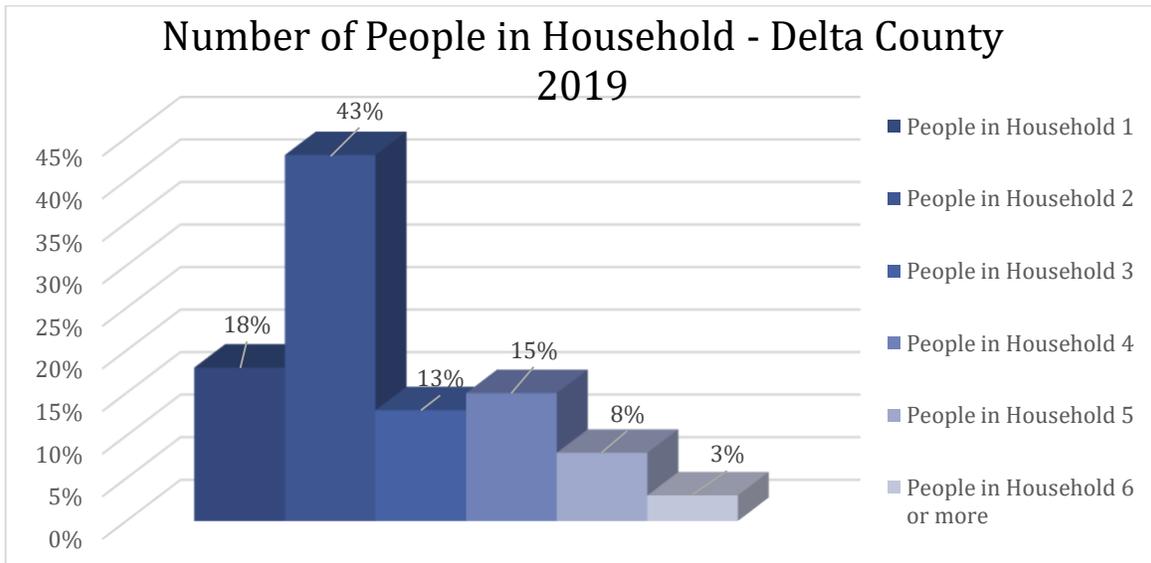
Source: CHNA Survey



Source: CHNA Survey



Source: CHNA Survey



Source: CHNA Survey

APPENDIX 5. RESOURCE MATRIX*

	Aging Issues	Healthy Behaviors/ Eating & Exercise	Behavioral Health	Access to Counseling	Obesity	Not Seeking Medical Care	Cancer Screening
Recreational Facilities							
Northern Lights YMCA	2	3			2		
City of Escanaba Parks and Facilities		1			1		
City of Gladstone Parks and Facilities		1			1		
Health Departments							
Public Health Delta & Menominee Counties	1	3	2	1	3	1	1
Community Agencies							
United Way of Delta County	1	1	1		1		
Pathways Community Mental Health	1	2	3	3			
Central Upper Peninsula Planning & Development		2	1		2		
Tri-County Safe Harbor			2				
Community Action Agency	3	2		1	2	1	
Bishop Noa Home for Senior Citizens	3						
Catholic Social Services	1		2	2		1	
Child & Family Services of the Upper Peninsula			3			1	
Delta County Dept of Human Services				1			
Great Lakes Recovery Centers-Outpt Services				1			
Lutheran Social Services of WI and Upper MI		2	2	1			
Salvation Army-Escanaba		2	3	1			
Society of St. Vincent de Paul		2	3				
Upper Peninsula Commission for Area Progress		3					
Communities that Care/ISD Task Force	2	1	1	2	1	1	

	Aging Issues	Healthy Behaviors/ Eating & Exercise	Behavioral Health	Access to Counseling	Obesity	Not Seeking Medical Care	Cancer Screening
Alcoholics Anonymous		1					
Narcotics Anonymous		1					
Delta County Cancer Alliance							3
MSU Extension Family Nutrition and Food Safety		3			3		
Teaching Family Homes of Upper Michigan			1				
MSU Extension-Welcome Newborn		2				1	
Hospitals / Clinics							
St. Francis Hospital and Medical Group	1	3	3	1	3	2	3
UP Health Systems	1	3	3	1	2	1	2
Carefree Dental Clinic						1	
Bellin Health	1			1		1	2
Schools							
Delta Schoolcraft Intermediate School District		2	2		2		
MDS Early Childhood Program		2					

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

APPENDIX 6. DESCRIPTION OF COMMUNITY RESOURCES

Recreational Facilities (3)

City of Escanaba Parks and Facilities

Obesity, Healthy Behaviors, Cardiovascular Disease

The City of Escanaba offers a variety of programs for infants, toddlers, early childhood, youth, adults, and seniors at the Catherine Bonifas Civic Center.

City of Gladstone Parks and Facilities

Obesity, Healthy Behaviors, Cardiovascular Disease

Provide the best possible quality of life in our community by involving our citizens and maximizing our natural resources. Never settling for past accomplishments, always striving to improve. Resources available to the community include recreational activities and special events, year-long to include: sports-park, ski-park, beach/harbor, bike paths, and a farmer's market.

Northern Lights YMCA

Healthy Behaviors, Obesity, Cardiovascular Disease, Diabetes

The Northern Lights YMCA is a community based service organization dedicated to building the mind, body and spirit for members of the Delta County community. By offering value-based programs emphasizing education, health and recreation for individuals regardless of sex, race or socio-economic status the YMCA is increasing the quality of life in Delta County.

Health Departments (1)

Public Health, Delta and Menominee Counties

Obesity, Addiction, Healthy Behaviors, Access to Health Services, Cardiovascular Disease, Cancer, Diabetes, Mental Health, Substance Abuse

The goal of the Delta-Menominee County Health Department is to protect and promote health and prevent disease, illness and injury. Public health interventions range from preventing diseases to promoting healthy lifestyles and from providing sanitary conditions to ensuring safe food and water. Specific programs of interest include the Wisewoman Program (*Diabetes, Addiction, and Healthy Behaviors*).

Community Agencies/Private Practices (21)

Delta County Communities That Care

Delta County Communities That Care shall utilize the CTC model with fidelity as a prevention framework to promote healthy youth development and reduce adolescent problem behaviors, such as; substance abuse, depression/anxiety/suicide, violence, delinquency, school drop-out and teen pregnancy.

Tri-County Safe Harbor (formerly Alliance Against Violence and Abuse)

Mental Health

The Alliance Against Violence and Abuse offers services for all people who are abused. Services include a 24 hour crisis line, an emergency shelter, support groups, individual counseling, therapy, court advocacy, and referrals for legal, medical, financial, and housing.

Alcoholics Anonymous/Narcotics Anonymous

Substance Abuse-Alcohol, Healthy Behaviors

Alcoholics Anonymous is a fellowship of men and women who share their experience, strength and hope with each other that they may solve their common problem and help others recover from alcoholism.

Bishop Noa Home for Senior Citizens

Cardiovascular Disease, Cancer, Diabetes

The Bishop Noa Home for Senior Citizens provides a safe, healthy environment that promotes physical, emotional and spiritual well-being to residents, families and employees.

Care Free Dental Clinic

Dental Issues – Not seeking medical care

The Care Free Dental Clinic provides free dental care for Delta Country residents on a first come/first serve basis. The clinic specifically serves individuals who do not have any dental or medical insurance coverage.

Catholic Social Services of the Upper Peninsula

Substance Abuse-Alcohol, Mental Health, Not seeking health care

Catholic Social Services has a large mental health and substance abuse outpatient-counseling ministry. Last year it served over 2,000 UP residents with 12,000 appointments. Counseling offices are in Marquette, Escanaba, and Iron Mountain. The agency has recently taken over the Keenagers Home in Wakefield. This home is on the site of the former Divine Infant Hospital and is home to 42 residents in either adult foster care, assisted living, or independent living. Catholic Social Services offers a general assessment for substance abuse and assesses the risk factors for the person's involvement in substance abuse, and will make treatment recommendations and/or refer individuals to the inpatient, outpatient or residential treatment services they need.

Central Upper Peninsula Planning and Development Regional Commission (CUPPAD)

CUPPAD regularly assists communities with the daunting task of finding sources of funding for projects that do not qualify for a government grant. In addition to regularly notifying local units of government about funding opportunities, CUPPAD maintains information on various foundations that may provide funds, promotional items for fund-raising activities, and technical assistance. If you are seeking a funding source for a specific project, or would like to be placed, at no cost, on the list of communities receiving grant information as opportunities are announced, contact CUPPAD.

Child and Family Services of the Upper Peninsula

Mental Health

Child and Family Services is a private, non-profit, non-sectarian agency dedicated to strengthening children and families by providing high-quality programs structured around five major themes:

counseling services, child welfare services, home-based services, homeless prevention services, and community-based services.

Community Action Agency and Human Resource Authority

Obesity, Access to Health Services, Healthy Behaviors

The Community Action Agency provides programs to negate the causes and symptoms of poverty. Specific programs of interest include the Senior Nutrition Services (*Obesity*), and RSVP (*Access to Health Services*).

Delta County Department of Human Services

Access to Health Services, Emergency Department Misuse

DCDHS provides health care coverage to individuals who meet certain eligibility requirements. All programs have an income test and some look at assets, these tests vary with each program. Some may have a medical spend down amount, where the individual will be required to pay a set amount per month towards medical expenses before the coverage will be available.

Delta County Cancer Alliance

Access to Health Services, Cancer

DCCA provides wheelchairs, commodes, canes, lift chairs, hospital beds and various other equipment and supplies that are available to cancer patients free of charge.

Family Nutrition and Food Safety Program

Obesity, Healthy Behaviors, Diabetes

The Family Nutrition and Food Safety program, offered through the **Michigan State University Extension** provides information concerning the basic principles of healthy eating, food handling and preparation, and shopping skills.

Great Lakes Recovery Centers – Escanaba Outpatient Services

Addictions, Mental Health

GLRC offers comprehensive outpatient drug abuse treatment services to families and individuals of all ages recovering from substance abuse. These services may include but are not limited to assessment, group therapy and relapse prevention.

Pathways Community Mental Health

Mental Health, Substance Abuse-Alcohol, Tobacco Usage, Healthy Behaviors, Access to Health Care, Emergency Department Misuse

Pathways Community Mental Health primarily addresses mental health care. Pathways provides integrated substance abuse services for those individuals with a primary mental health, development disability, or severe emotional disturbance who also have a secondary substance use disorder. Case management services are provided to eligible consumers who need assistance in gaining access to health and dental services, financial assistance, housing, employment, education, social services, and other services and natural supports.

United Way of Delta County

Access to Health Care, Healthy Behaviors, Addiction, Mental Health

The United Way of Delta County brings together people from business, labor, government, health and human services to address community's needs. Money raised through the United Way of Delta County campaign stays in community funding programs and services in Delta County.

Lutheran Social Services of Wisconsin and Upper Michigan

Mental Health, Access to Health Care, Healthy Behaviors, Substance Abuse-Alcohol, Tobacco Usage

Lutheran Social Services provides behavioral health services (counseling, substance abuse, mental health and developmental disabilities), children's community services (adoption, foster care, pregnancy counseling, residential services and Head Start), nursing and community services (long-term care and rehabilitation, home care services, adult day services, respite services for caregivers and retirement communities), prisoner and family ministry (support for children of incarcerated parents and their caregivers, re-entry programs, on-site prison programs, and justice education), and senior housing services (affordable housing for low-income seniors and people with disabilities).

Salvation Army - Escanaba

Mental Health, Healthy Behaviors, Access to Health Care, Substance Abuse-Alcohol, Tobacco Usage

The Salvation Army provides individual and family trauma counseling and emotional support.

Society of St. Vincent de Paul

Mental Health, Healthy Behaviors, Access to Services

The Society of St. Vincent de Paul offers tangible assistance to those in need on a person-to-person basis. It is this personalized involvement that makes the work of the Society unique. This aid may take the form of intervention, consultation, or often through direct dollar or in-kind service.

Teaching Family Homes of Upper Michigan

Mental Health

Teaching Family Homes offer programs for children and youth including residential care, group homes, foster care and adoption, supervised independent living, private school, crisis intervention, mental health assessment, homeless services, in-home counseling and family preservation.

Upper Peninsula Commission for Area Progress

Healthy Behaviors, Diabetes, Access to Health Care

The UPCAP is responsible for development, coordination, and provision of human, social, and community resources within the 15 counties of the Upper Peninsula of Michigan. Specific programs of interest include the 2-1-1 Information and Resource Center (*Access to Health Services*) and UP Diabetes Outreach Network (*Diabetes*).

Welcome Newborns Program

Healthy Behaviors, Tobacco Usage

The Welcome Newborn program, offered through the Michigan State University Extension, provides every family with a newborn a tote bag full of information on the development of their baby, the need

for immunizations, parenting, the importance of reading to your baby, the affects of second hand smoke on children, and available community resources for the family in Delta County.

Hospitals/Clinics (3)

Upper Peninsula Health Systems

Asthma, Cancer, Cardiovascular Disease, Diabetes, Healthy Behaviors, Mental Health, Access to Health Care, Obesity, Substance Abuse-Alcohol, Tobacco Usage

Upper Peninsula Health Systems is a 315-bed specialty care hospital that provides care in 65 specialties and subspecialties. With a medical staff of more than 200 doctors, the hospital cares for approximately 12,000 inpatients and more than 350,000 outpatients a year.

OSF St. Francis Hospital and Medical Group

Asthma, Cancer, Cardiovascular Disease, Diabetes, Emergency Department Misuse, Healthy Behaviors, Mental Health, Access to Health Care, Obesity, Substance Abuse-Alcohol, Tobacco Usage

With a medical staff of more than 100 physician and 700 employees, OSF St. Francis Hospital and Medical Group is a fully-integrated health delivery system offering hospital-based, home care, and physician clinical services. Specific centers of interest include the Diabetes and Nutrition Education Center (*Diabetes*) and Cardiac Diagnostic Services (*Cardiovascular Disease*).

Bellin Health

Access to Health Care, Emergency Department Misuse

Clinic Associated with Bellin Health System (Primarily in Wisconsin). Has Primary Care and Specialty Services. Post-Acute hospitalization care team partners with U.P. medical facilities to prevent re-admissions by access to appropriate follow up care.

Schools (2)

Delta Schoolcraft I.S.D. Career Tech Center

Mental Health, Healthy Behaviors, Access to Health Services, Obesity, Substance Abuse-Alcohol, Tobacco Usage

DSISD provides career technical education courses designed to develop basic skills required for specific vocations, specifically Health Occupations.

Menominee-Delta-Schoolcraft Early Childhood Program

Access to Health Care, Healthy Behaviors

MDS CAA ECP offers comprehensive preschool services for children ages 3-5 as well as infant/toddler services for pregnant moms and children up to age 3. All services are free of charge. Transportation is provided to classrooms whenever possible.

APPENDIX 7. PRIORITIZATION METHODOLOGY

5-STEP PRIORITIZATION OF COMMUNITY HEALTH ISSUES

Step 1. Review Data for Potential Health Issues

Step 2. Briefly Discuss Relationships Among Issues

Step 3. Apply “PEARL” Test from Hanlon Method²

Screen out health problems based on the following feasibility factors:

Propriety – Is a program for the health problem appropriate?

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

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

Resources – Is funding available for a program?

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

Step 4. Use Voting Technique to Narrow Potential Issues

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

1. Magnitude – size of the issue in the community. Considerations include, but are not limited to:

- *Percentage of general population impacted*
- *Prevalence of issue in low-income communities*
- *Trends and future forecasts*

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

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

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

Considerations include, but are not limited to:

- *Availability and efficacy of solutions*
- *Feasibility of success*

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