



2022

SHIAWASSEE COUNTY

**COMMUNITY
HEALTH** 

NEEDS ASSESSMENT



Foreword

December 2022

Dear Resident of Shiawassee County:

Memorial Healthcare, in collaboration with the Shiawassee County Health Department and the Shiawassee Community Health Needs Assessment Team, conducted this community health survey for our county this year. We are pleased to publish the results of the survey and we are indebted to our community partners for their work in making this project happen.

This report is based upon data obtained from responses to written surveys that were conducted in April 2022 through July 2022. These surveys focused on adults ages 18 and older. In addition, this Community Health Needs Assessment contains youth data from a sample of 7th, 9th, and 11th grade students in Shiawassee County using the Michigan Profile for Healthy Youth survey (MiPHY).

We are grateful to the several hundred community residents who took the time to give thoughtful responses to this survey. These results will assist local agencies to identify health problems and assess them to address the needs of Shiawassee County residents.

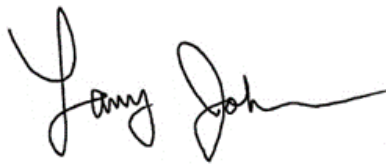
It has been three years since the last comprehensive community assessment was conducted. We encourage you to use this report in your planning process and to collaborate with other community agencies to address the identified issues in order to improve the health of our community.

If you have any questions or concerns, please feel free to contact Becky Dahlke, Memorial Healthcare Community Resource Manager at (989) 729-4856 or email her at RDahlke@MemorialHealthcare.org.

Sincerely,



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President & CEO
Memorial Healthcare



Larry Johnson, RS, MS
Director & Health Officer
Shiawassee County Health Department

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Respite Volunteers of Shiawassee County

SafeCenter

Shiawassee Council on Aging

Shiawassee County Health Department

Shiawassee Family YMCA

Shiawassee Great Start Initiative

Shiawassee Health and Human Services Council

Shiawassee Health and Wellness

2022 Shiawassee CHNA is available on the following website:

www.MemorialHealthcare.org

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This report provides an overview of health-related data for Shiawassee County adults (ages 18 and older) who participated in a county-wide health assessment survey from April 2022 to July 2022. The findings are based on self-administered surveys using a structured questionnaire. The questions were modeled after the survey instruments used by the Centers for Disease Control and Prevention (CDC) for their national and state Behavioral Risk Factor Surveillance System (BRFSS). Memorial Healthcare collected the data, guided the health assessment process, and integrated sources of primary and secondary data into the final report with the assistance of the Shiawassee County Health Department.

Primary Data Collection Methods

DESIGN

This community health assessment was cross-sectional in nature and included a written survey of adults within Shiawassee County. From the beginning, community leaders were actively engaged in the planning process and helped define the content, scope, and sequence of the study. Active engagement of community members throughout the planning process is regarded as an important step in completing a valid needs assessment.

This project included one main workgroup, which consists of our county's hospital system and representatives from local agencies and nonprofits. This group provided guidance to project staff, as well as to assist with project visioning, indicator selection, identification of key focus group populations, promotion, communications, and media. Two stakeholder meetings were held in December 2021 and January 2022 to provide community organizations and partners the opportunity to provide suggestions and feedback on the survey. These meetings were critical to engaging stakeholders in the community health assessment process. From these meetings, the project coordinator composed a draft of the survey containing ninety nine items.

SAMPLING

The sampling frame for the adult survey consisted of adults ages 18 and older living in Shiawassee County. There were 53,590 persons ages 18 and older living in Shiawassee County. The investigators conducted a power analysis to determine what sample size was needed to ensure a 95% confidence level with a corresponding margin of error of 5% (i.e., we can be 95% sure that the "true" population responses are within a 5% margin of error of the survey findings). A sample size of at least 383 was needed to ensure this level of confidence.

PROCEDURE

In order to gather input about the community's health needs from the general public, both an online survey and a paper survey were administered April through July 2022. This survey was for any Shiawassee County resident 18 years of age or older. Paper surveys were distributed in sealable white envelopes for confidentiality and also included a letter introducing the county health assessment

project, explaining the respondents' confidentiality would be protected, and providing a QR code if the individual preferred to take the survey online. Paper surveys were available at the Owosso and Durand branches of the Shiawassee District Library, the Durand and Owosso locations of the Shiawassee Council on Aging, the Shiawassee County Health Department, the Shiawassee Family YMCA, Catholic Charities of Shiawassee County, and the Shiawassee County Department of Health and Human Services. Paper surveys were also distributed at two Saturday Downtown Owosso Farmers' Markets, a mobile food pantry held at the Shiawassee Family YMCA, and at an event hosted by Shiawassee Hope at Pleasant Valley Trailer Park. A QR code that took individuals to the SurveyMonkey platform was used in two different ad campaigns in both The Argus Press and the Meridian Weekly. The QR code was also utilized in a social media campaign that was shared by many of the agencies in the workgroup. Flyers and table tents with an explanation of the survey and the QR code were distributed throughout Memorial Healthcare, including waiting areas for Diagnostic Imaging, the laboratory, and several physician practices.

Surveys were made available to the public via QR codes and paper surveys ($n=285$; $CI=\pm 5.8$). This return rate and sample size means that the responses in the health assessment should be representative of the entire county within the given confidence interval. Prior to reviewing the surveys, via a power analysis, it was concluded that 383 responses would be required to achieve the standard $\pm 5\%$ confidence interval (CI). However, only 285 responses were received. As such, the power level was reduced and the confidence level was broadened to $\pm 5.8\%$.

DATA ANALYSIS

All responses were anonymous, thus only group data is available. Data was analyzed using SPSS Statistics and Microsoft Excel. Cross tabulations were used to generate the descriptive statistics presented in this report. To be representative of Shiawassee County, the adult data collected was weighted by age, race, income, education, and sex using 2020 Census data. Multiple weightings were created based on this information to account for different types of analyses. *(For more information on how the weightings were created and applied, see Appendix I.)*

LIMITATIONS

As with any survey or assessment, it is important to consider possible limitations. The Shiawassee County adult assessment had an adequate response rate for the given confidence interval. If any important differences existed between the respondents and the non-respondents regarding the questions asked, this would represent a threat to the external validity of the results (the generalizability of the results to the population of Shiawassee County). If there were few to no differences between respondents and non-respondents, then this would not be a limitation.

Upon reviewing the demographics of the respondents, it was found that there were multiple sample characteristics that would have to be accounted for in the analyses and comparisons. The vast majority of respondents in the sample were female (81%), much different from the proportion of female residents in Shiawassee County. It was also observed that respondents in higher-income households (\$75,000+) (84 of the 223 income responses), as well as those with a bachelor's degree or more (4+ years), were overrepresented in the sample (93 of the 236 education responses). Conversely, respondents with high school degrees or lower were underrepresented (62 of the 236 education responses). While weightings are applied during calculations to help account for this sort of variation, it still presents a potential

limitation (to the extent that the responses from these individuals are substantively different from most Shiawassee County residents).

It is important to note that although several questions were asked using the same wording as the Centers for Disease Control and Prevention (CDC) questionnaires, the data collection method differed. The CDC adult data was collected using a set of questions from the total question bank, and participants were asked the questions over the telephone rather than through a mailed survey.

Lastly, caution should be used when interpreting subgroup results as the margin of error for any subgroup is higher than that of the overall survey.

RESOURCE OVERVIEW

This report provides an overview of health-related data for Shiawassee County adults (ages 18 and older) who participated in a county-wide health assessment survey from April 2022 to July 2022. The findings are based on self-administered surveys using a structured questionnaire. The questions were created by the Shiawassee Community Health Needs Assessment Planning Committee and modeled after the survey instruments used by the Centers for Disease Control and Prevention (CDC) for their national and state Behavioral Risk Factor Surveillance System (BRFSS). Memorial Healthcare collected the data, guided the health assessment process, and integrated sources of primary and secondary data into the final report with the assistance of the Shiawassee County Health Department.

The **BRFSS** is the nation's premier system of health-related telephone surveys that collects state data about U.S. residents regarding their health-related risk behaviors, chronic health conditions, and use of preventive services. Established in 1984 with 15 states, BRFSS now collects data in all 50 states as well as the District of Columbia and three U.S. territories. BRFSS completes more than 400,000 adult interviews each year, making it the largest continuously conducted health survey system in the world. The survey is administered by the Division of Behavioral Surveillance in CDC's Public Health Surveillance and Informatics Program Office; Office of Surveillance, Epidemiology, and Laboratory Services.

The **Michigan Profile for Healthy Youth** (MiPHY) is an online student health survey offered by the Michigan Departments of Education and Health and Human Services. Youth in grades 7, 9, and 11 in Michigan school districts were used as the sampling frame for the youth survey. The results in this report reflect student survey responses from schools that voluntarily participated in Shiawassee County and may not be representative of all middle and high school students in the county. The MiPHY survey is the source for our youth data within this report.

The **Youth Risk Behavior Surveillance System** (YRBSS) monitors six categories of health-related behaviors that contribute to the leading causes of death and disability among youth and adults, including: behaviors that contribute to unintentional injuries and violence; alcohol and other drug use; tobacco use; unhealthy dietary behaviors; and inadequate physical activity. The YRBSS also measures the prevalence of obesity and asthma and other health-related behaviors in addition to sexual identity and gender of sexual contacts. YRBSS is a system of surveys that includes a national school-based survey conducted by the CDC and state, territorial, and tribal governments, and local surveys conducted by state, territorial, and local education and health agencies and tribal governments.

County Health Rankings & Roadmaps (CHR&R) is a program of the University of Wisconsin Population Health Institute. The CHR&R program provides data, evidence, guidance, and examples to build awareness of the multiple factors that influence health and support leaders in growing community power to improve health equity. The rankings are unique in their ability to measure the health of nearly every county in all 50 states.

With this compilation of adult and youth data, Memorial Healthcare and local agencies can better create programs, services, and educational opportunities to help combat health and wellness issues in the community including mental and physical health access and utilization of treatment and preventive care, as well as obesity and substance misuse.

Adult Trend Summary						
Adult Variables	Shiawassee County 2012	Shiawassee County 2016	Shiawassee County 2019	Shiawassee County 2022	Michigan 2022	U.S. 2022
Health Care Coverage						
Uninsured	14%	6%	7%	4%	7%	11%
Access and Utilization						
Had one or more person they thought of as their personal health care provider	83%	85%	87%	84%	82%	71%
Visited a doctor for a routine checkup (in the past 12 months)	58%	70%	79%	84%	77%	76%
Preventive Medicine						
Had a pneumonia vaccine (age 65 and older)	66%	73%	76%	N/A	N/A	N/A
Had a flu vaccine in the past year (age 65 and older)	N/A	77%	80%	76%	72%	68%
Ever had a shingles or zoster vaccine	N/A	11%	25%	N/A	N/A	N/A
Women's Health						
Had a clinical breast exam in the past two years (age 40 and older)	78%	72%	70%	78%	N/A	N/A
Had a mammogram in the past two years (age 40 and older)	77%	78%	77%	78%	73%	72%
Had a Pap smear in the past three years (age 21-65)	79%	66%	79%	67%	79%	78%
Oral Health						
Adults who have visited a dentist or dental clinic in the past year	65%	68%	76%	66%	69%	67%
Weight Status						
Obese	33%	41%	42%	38%	35%	32%
Overweight	36%	34%	35%	37%	35%	35%
Tobacco Use						
Current smoker (smoked on some or all days)	19%	16%	17%	10%	18%	16%
Former smoker (smoked 100 cigarettes in lifetime and now do not smoke)	24%	27%	30%	39%	27%	25%
Adults who used e-Cigarettes or other electronic vaping products (in the past year)	3%	9%	9%	8%	5%	5%
Tried to quit smoking	57%	59%	60%	23%	N/A	N/A

Adult Variables	Shiawassee County 2012	Shiawassee County 2016	Shiawassee County 2019	Shiawassee County 2022	Michigan 2022	U.S. 2022
Alcohol Consumption						
Current drinker (drank alcohol at least once in the past 30 days)	50%	54%	57%	53%	56%	53%
Binge drinker (males having five or more drinks on one occasion, females having four or more drinks on one occasion)	20%	23%	16%	19%	17%	16%
Drug Use						
Adults who used recreational marijuana or hashish in the past six months	9%	9%	11%	19%	N/A	N/A
Adults who misused prescription drugs in the past six months	9%	16%	6%	2%	N/A	N/A
Adults who used other recreational drugs in the past six months	1%	4%	6%	5%	N/A	N/A
Sexual Behavior						
Had more than one sexual partner in the past year	6%	4%	5%	4%	N/A	N/A
Mental Health						
Considered attempting suicide in the past year	3%	3%	2%	4%	N/A	N/A
Attempted suicide in the past year	1%	0%	0%	<1%	N/A	N/A
Cardiovascular Disease						
Had high blood pressure	29%	33%	36%	32%	35%	32%
Had high blood cholesterol	37%	43%	38%	21%	35%	33%
Asthma, Arthritis, and Diabetes						
Had been diagnosed with asthma	16%	19%	15%	14%	15%	14%
Had been diagnosed with arthritis	33%	36%	37%	31%	30%	25%
Had been diagnosed with diabetes, pre-diabetes, or borderline diabetes	11%	15%	21%	18%	14%	12%

The **Michigan Profile for Healthy Youth** (MiPHY) is an online student health survey offered by the Michigan Departments of Education and Health and Human Services. Youth in grades 7, 9, and 11 in Michigan school districts were used as the sampling frame for the youth survey. The results in this report reflect student survey responses from schools that voluntarily participated in Shiawassee County and may not be representative of all middle and high school students in the county.

Youth Variables	Shiawassee County 2017-2018 (7th grade)	Shiawassee County 2021-2022 (7th grade)	Shiawassee County 2017-2018 (9th and 11th grade)	Shiawassee County 2021-2022 (9th and 11th grade)	Michigan 2019 BRFS	U.S. 2019 BRFS
Weight Status and Nutrition						
Obese	18%	19%	21%	21%	15%	16%
Overweight	15%	18%	16%	14%	16%	16%
Described themselves as slightly or very overweight	31%	30%	37%	37%	32%	32%
Tried to lose weight	49%	48%	52%	50%	46%	48%
Ate five or more servings per day of fruits and vegetables (during the past seven days)	27%	25%	22%	23%	N/A	N/A
Drank three or more glasses of milk per day during the past week	18%	10%	11%	11%	N/A	N/A
Drank a can, bottle, or glass of pop or soda one or more times per day (during the past seven days)	21%	17%	24%	21%	14%	15%
Had breakfast every day (in the past seven days)	39%	26%	29%	25%	N/A	N/A
Did not eat breakfast (in the past seven days)	10%	15%	17%	11%	19%	17%

Youth Variables	Shiawassee County 2017-2018 (7th grade)	Shiawassee County 2021-2022 (7th grade)	Shiawassee County 2017-2018 (9th and 11th grade)	Shiawassee County 2021-2022 (9th and 11th grade)	Michigan 2019 BRFs	U.S. 2019 BRFS
Physical Activity						
Physically active at least 60 minutes per day on five or more days (in the past seven days)	55%	51%	58%	58%	45%	44%
Attended physical education (PE) classes on one or more days (in an average week when in school)	56%	69%	46%	44%	31%	26%
Mental Health						
Felt sad or hopeless (almost every day for two weeks or more in a row so that they stopped doing some usual activities during the past 12 months)	N/A	41%	45%	39%	36%	37%
Seriously considered attempting suicide (during the past 12 months)	N/A	39%	28%	22%	19%	19%
Made a plan about how they would attempt suicide (during the past 12 months)	N/A	24%	19%	20%	15%	16%
Attempted suicide (one or more times during the past 12 months)	N/A	23%	14%	15%	8%	9%
Suicide attempt that resulted in an injury, poisoning, or overdose that had to be treated by a doctor or nurse (during the past 12 months)	N/A	4%	2%	7%	3%	3%

Youth Variables	Shiawassee County 2017-2018 (7th grade)	Shiawassee County 2021-2022 (7th grade)	Shiawassee County 2017-2018 (9th and 11th grade)	Shiawassee County 2021-2022 (9th and 11th grade)	Michigan 2019 BRFS	U.S. 2019 BRFS
Tobacco Use						
Ever tried cigarette smoking (even one or two puffs)	N/A	N/A	30%	18%	21%	24%
First tried cigarette smoking before the age of 13 (even one or two puffs)	N/A	N/A	12%	9%	7%	8%
Currently smoked cigarettes (during the past 30 days)	3%	2%	6%	1%	5%	6%
Currently frequently smoked cigarettes (on 20 or more days during the past 30 days)	0%	30%	2%	0%	1%	1%
Used chewing tobacco, snuff, dip, snus, or dissolvable tobacco products (during the past 30 days)	2%	1%	5%	1%	3%	4%
Smoked cigars, cigarillos, or little cigars (during the past 30 days)	2%	1%	5%	<1%	<1%	6%
Had been told they had asthma and still have asthma (of those ever diagnosed with asthma)	68%	71%	58%	62%	N/A	N/A
Ever been told by a doctor or nurse they had asthma	18%	16%	23%	21%	24%	22%
Used an electronic vapor product during the past month	16%	9%	35%	14%	21%	33%
Usually got their own electronic vapor products by buying them in a store (among students who used electronic vapor products recently)	0%	11%	20%	25%	10%	8%

Youth Variables	Shiawassee County 2017-2018 (7th grade)	Shiawassee County 2021-2022 (7th grade)	Shiawassee County 2017-2018 (9th and 11th grade)	Shiawassee County 2021-2022 (9th and 11th grade)	Michigan 2019 BRFS	U.S. 2019 BRFS
Alcohol Use						
Ever drank alcohol (at least one drink of alcohol, on at least one day during their life)	N/A	N/A	50%	32%	N/A	N/A
Had their first drink of alcohol before the age of 13 (other than a few sips)	N/A	N/A	13%	11%	14%	15%
Current drinker (at least one drink of alcohol during the past 30 days)	2%	3%	21%	10%	25%	29%
Binge drinker (drank four or more drinks of alcohol in a row [for females] or five or more drinks of alcohol in a row [for males] within a couple of hours during the past 30 days)	<1%	N/A	13%	5%	11%	14%
Rode in a car or other vehicle driven by someone who had been drinking alcohol (one or more times during the past 30 days)	N/A	22%	13%	9%	15%	17%
Drove a car or other vehicle when they had been drinking alcohol (one or more times during the past 30 days)	N/A	N/A	2%	<1%	4%	5%
Usually got the alcohol they drank by someone giving it to them (of current drinkers)	N/A	N/A	38%	31%	N/A	N/A

Youth Variables	Shiawassee County 2017-2018 (7th grade)	Shiawassee County 2021-2022 (7th grade)	Shiawassee County 2017-2018 (9th and 11th grade)	Shiawassee County 2021-2022 (9th and 11th grade)	Michigan 2019 BRFS	U.S. 2019 BRFS
Drug Use						
Ever used marijuana (one or more times during their life)	N/A	N/A	33%	23%	38%	37%
Tried marijuana for the first time before age 13 years	N/A	N/A	5%	5%	5%	6%
Tried marijuana for the first time before age 11 years	1%	2%	N/A	N/A	N/A	N/A
Currently used marijuana (one or more times during the past 30 days)	4%	4%	17%	12%	22%	22%
Ever used synthetic marijuana (one or more times during their life)	8%	7%	9%	8%	8%	7%
Ever used cocaine (any form of cocaine, such as powder, crack, or freebase, one or more times during their life)	8	6%	N/A	N/A	3%	4%
Currently used cocaine (any form of cocaine, such as powder, crack, or freebase, one or more times during the past 30 days)	N/A	N/A	<1%	<1%	N/A	N/A
Ever used inhalants (sniffed glue, breathed the contents of aerosol spray cans, or inhaled any paints or sprays to get high, one or more times during their life)	3%	N/A	N/A	N/A	8%	6%
Currently used inhalants (sniffed glue, breathed the contents of aerosol spray cans, or inhaled any paints or sprays to get high, one or more times during the past 30 days)	N/A	2%	2%	<1%	N/A	N/A
Currently used heroin (one or more times during the past 30 days)	N/A	N/A	<1%	<1%	N/A	N/A

Youth Variables	Shiawassee County 2017-2018 (7th grade)	Shiawassee County 2021-2022 (7th grade)	Shiawassee County 2017-2018 (9th and 11th grade)	Shiawassee County 2021-2022 (9th and 11th grade)	Michigan 2019 BRFS	U.S. 2019 BRFS
Ever used methamphetamines (one or more times during their life)	8%	6%	N/A	N/A	3%	2%
Currently used methamphetamines (one or more times during the past 30 days)	N/A	N/A	<1%	<1%	N/A	N/A
Ever injected any illegal drug (used a needle to inject any illegal drug into their body, one or more times during their life)	7%	5%	N/A	N/A	2%	2%
Currently injected any illegal drug (used a needle to inject any illegal drug into their body, one or more times during the past 30 days)	N/A	N/A	<1%	<1%	N/A	N/A
Took a prescription drug such as Ritalin, Adderall, or Xanax without a doctor's prescription (during the past month)	4%	2%	5%	4%	N/A	N/A
Were offered, sold, or given an illegal drug on school property (during the past 12 months)	4%	7%	14%	13%	25%	22%

Youth Variables	Shiawassee County 2017-2018 (7th grade)	Shiawassee County 2021-2022 (7th grade)	Shiawassee County 2017-2018 (9th and 11th grade)	Shiawassee County 2021-2022 (9th and 11th grade)	Michigan 2019 BRFS	U.S. 2019 BRFS
Safety, Bullying, Danger, and Violence						
Texted or emailed while driving a car or other vehicle (on at least one day during the past 30 days)	N/A	N/A	38%	32%	39%	39%
Bullied on school property (in the past 12 months)	49%	40%	36%	23%	21%	20%
Electronically bullied (in the past 12 months)	28%	24%	26%	20%	18%	16%
Carried a weapon (such as a gun, knife, or club on at least one day during the past 30 days)	N/A	N/A	19%	12%	14%	13%
Ever carried a weapon (such as a gun, knife, or club in their lifetime)	48%	40%	N/A	N/A	N/A	N/A
Carried a weapon on school property (such as a gun, knife, or club on at least one day during the past 30 days)	N/A	N/A	2%	2%	3%	3%
Ever carried a weapon on school property (such as a gun, knife, or club in their lifetime)	2%	<1%	N/A	N/A	N/A	N/A
Did not go to school because they felt unsafe at school or on their way to or from school (on at least one day during the past 30 days)	17%	26%	11%	15%	9%	9%
Threatened or injured with a weapon on school property (such as a gun, knife, or club one or more times during the past 12 months)	N/A	N/A	11%	9%	7%	7%
Were in a physical fight (one or more times during the past 12 months)	N/A	N/A	19%	13%	20%	22%
Ever in a physical fight (one or more times in their lifetime)	41%	39%	N/A	N/A	N/A	N/A

Youth Variables	Shiawassee County 2017-2018 (7th grade)	Shiawassee County 2021-2022 (7th grade)	Shiawassee County 2017-2018 (9th and 11th grade)	Shiawassee County 2021-2022 (9th and 11th grade)	Michigan 2019 BRFS	U.S. 2019 BRFS
Were in a physical fight on school property (one or more times during the past 12 months)	N/A	19%	9%	6%	7%	8%
Experienced physical dating violence (physically hurt on purpose by someone they were dating or going out with during the past 12 months)	N/A	N/A	15%	12%	6%	8%
Experienced sexual dating violence (forced to do sexual things they did not want to do by someone they were dating or going out with in the past 12 months)	N/A	N/A	14%	13%	6%	8%
Sexual Behavior						
Ever had sexual intercourse	N/A	11%	37%	18%	35%	38%
Had sexual intercourse before age 13 (of all youth)	N/A	N/A	2%	2%	3%	3%
Had four or more sexual partners (of all youth)	N/A	N/A	7%	2%	7%	9%
Used a condom during last sexual intercourse (of sexually active youth)	N/A	40%	69%	80%	55%	54%
Drank alcohol or used drugs before last sexual intercourse (of sexually active youth)	N/A	0%	15%	N/A	22%	21%
Ever physically forced to have sexual intercourse (when they did not want to)	N/A	N/A	10%	10%	10%	7%

Youth Variables	Shiawassee County 2017-2018 (7th grade)	Shiawassee County 2021-2022 (7th grade)	Shiawassee County 2017-2018 (9th and 11th grade)	Shiawassee County 2021-2022 (9th and 11th grade)	Michigan 2019 BRFS	U.S. 2019 BRFS
School Domain						
Felt unsafe or very unsafe at school	14%	8%	17%	12%	N/A	N/A
Felt assigned schoolwork was never or seldom meaningful and important	23%	25%	37%	41%	N/A	N/A
Often or almost always hated being at school during the past year	42%	40%	50%	46%	N/A	N/A
Never or seldom tried to do their best work at school during the past year	6%	7%	10%	15%	N/A	N/A
Reported not at all or a little true that they do interesting activities at school	53%	56%	59%	58%	N/A	N/A
Reported not at all or a little true that they make a difference at school	62%	69%	71%	77%	N/A	N/A
Had seen students get pushed, hit, or punched one or more times during the past year	77%	69%	61%	50%	N/A	N/A
Heard students get called mean names or get "put down" during the past year	84%	76%	73%	65%	N/A	N/A
Heard rumors or lies being spread about other students during the past year	91%	81%	80%	73%	N/A	N/A
Have seen students left out of activities or games on purpose during the past year	73%	62%	55%	46%	N/A	N/A
Heard students threaten to hurt other students during the past year	69%	59%	61%	50%	N/A	N/A
Have seen students wreck or damage other students' things during the past year	63%	53%	47%	38%	N/A	N/A

Youth Variables	Shiawassee County 2017-2018 (7th grade)	Shiawassee County 2021-2022 (7th grade)	Shiawassee County 2017-2018 (9th and 11th grade)	Shiawassee County 2021-2022 (9th and 11th grade)	Michigan 2019 BRFS	U.S. 2019 BRFS
Have read email or website messages that spread rumors about other students during the past year	31%	24%	35%	24%	N/A	N/A
Read email or website messages that contained threats to other students during the past year	22%	20%	22%	18%	N/A	N/A
Had lots of chances to get involved in sports, clubs, and other school activities outside of class	88%	92%	89%	86%	N/A	N/A
Teachers notice when they are doing a good job and let them know about it	58%	60%	49%	50%	N/A	N/A
Teachers praise them when they work hard in school	46%	47%	34%	39%	N/A	N/A
Individual and Peer Domain						
Youth who reported smoking one or more packs of cigarettes per day to be a moderate or great risk	75%	79%	79%	71%	N/A	N/A
Youth who reported having five or more drinks of alcohol once or twice each weekend to be a moderate or great risk	63%	67%	66%	61%	N/A	N/A
Youth who reported they thought none of their friends had smoked cigarettes recently	82%	82%	61%	76%	N/A	N/A
Youth who reported they thought none of their friends had been drunk recently	84%	86%	43%	60%	N/A	N/A
Youth who reported they thought none of their friends had used marijuana recently	83%	82%	42%	56%	N/A	N/A

Youth Variables	Shiawassee County 2017-2018 (7th grade)	Shiawassee County 2021-2022 (7th grade)	Shiawassee County 2017-2018 (9th and 11th grade)	Shiawassee County 2021-2022 (9th and 11th grade)	Michigan 2019 BRFS	U.S. 2019 BRFS
Family Domain						
Youth who reported their parents felt cigarette use to be wrong or very wrong	97%	97%	94%	96%	N/A	N/A
Youth who reported their parents felt marijuana use to be wrong or very wrong	97%	95%	85%	87%	N/A	N/A
Youth whose parents ask whether their homework is done	25%	25%	31%	32%	N/A	N/A
Youth who could ask their mom or dad for help with personal problems	80%	76%	75%	73%	N/A	N/A
Community Domain						
Felt unsafe or very unsafe in their neighborhood	5%	4%	5%	4%	N/A	N/A
Youth who reported sort of easy or very easy to get cigarettes	29%	23%	54%	35%	N/A	N/A
Youth who reported sort of easy or very easy to get alcohol	33%	29%	61%	53%	N/A	N/A
Youth who reported sort of easy or very easy to get marijuana	17%	16%	52%	43%	N/A	N/A
Know adults in the neighborhood they could talk to about something important	53%	48%	44%	47%	N/A	N/
Neighbors notice when they are doing a good job and let them know	21%	25%	21%	24%	N/A	N/A
Know people in their neighborhood who encourage them to do their best	39%	38%	34%	32%	N/A	N/A
Know people in their neighborhood who are proud when youth do something well	37%	40%	34%	33%	N/A	N/A

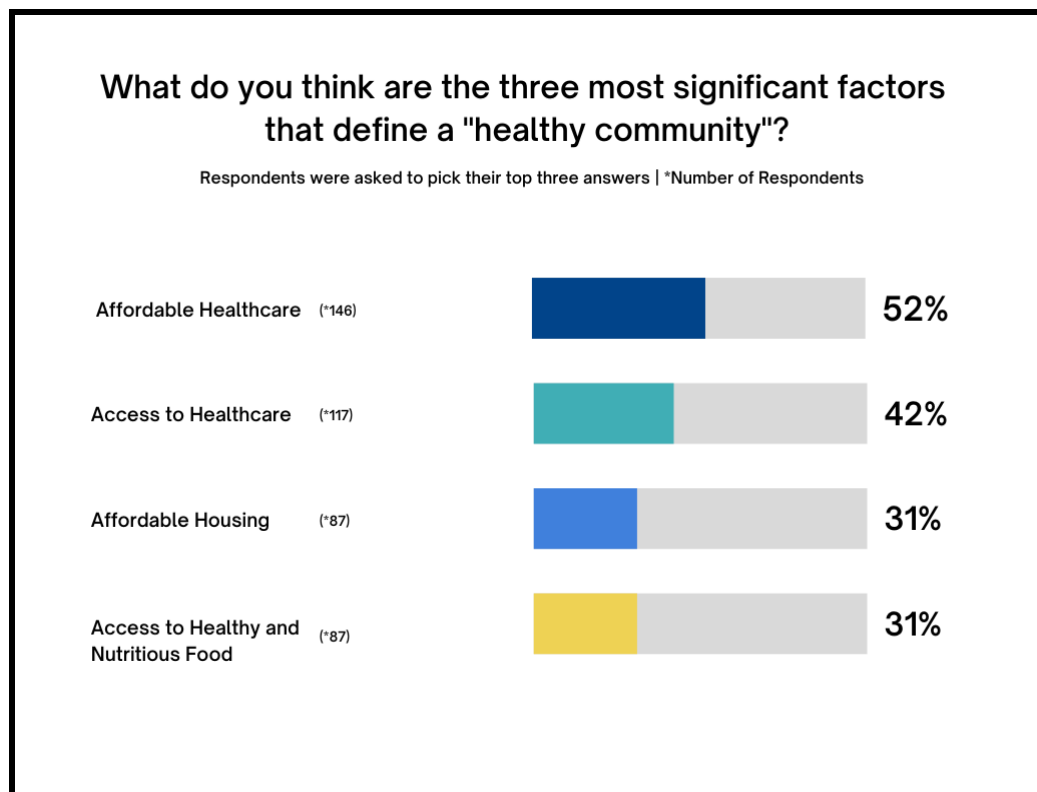
Community Health Perception

Adult Key Findings

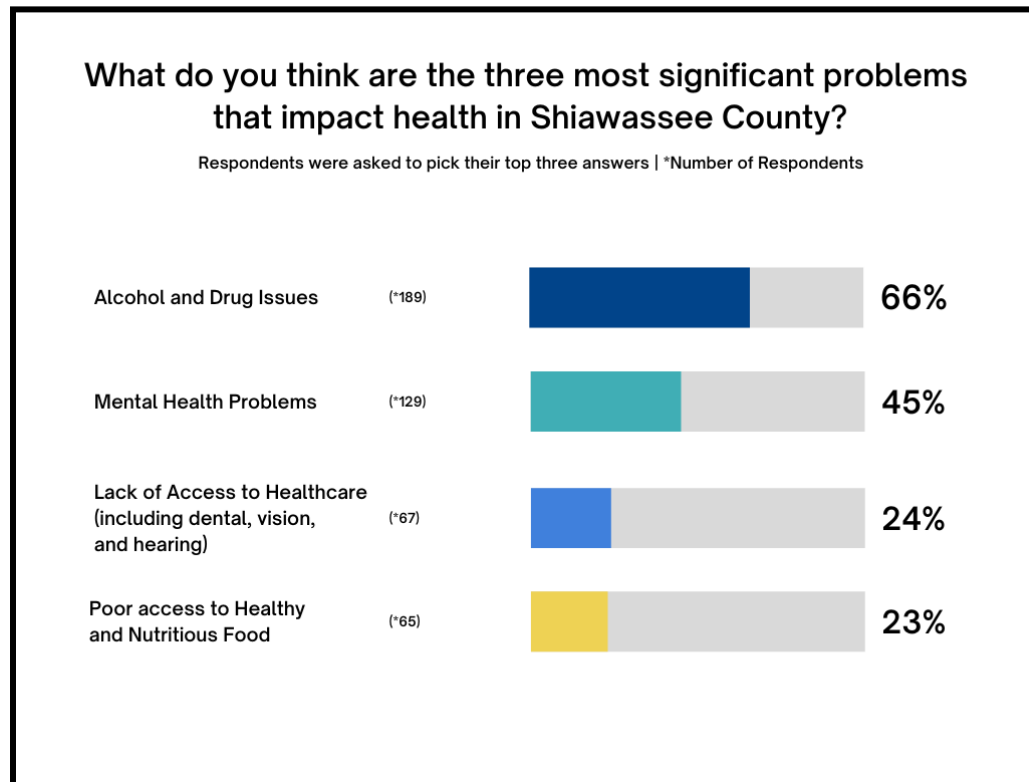
Affordable healthcare is what respondents believe is the most significant factor in defining a healthy community. They also responded that alcohol and drug issues are making a significant impact on the health of Shiawassee County residents.

The 2022 Community Health Needs Assessment (CHNA) sought input from the residents of Shiawassee County on two new questions that asked them to consider what defines a healthy community and what is impacting health here. Below are the two questions along with the responses provided. The tables below illustrate the top four answers to each question and the percent and number of total respondents that identified each of the needs as one of the top three. (See Appendix II for a complete list of answers respondents could select). Questions on diversity and community initiatives were also asked.

- Survey respondents were asked what they believe are the three most significant factors that define a healthy community from a list of options.



- Survey respondents were asked what they believe are the three most significant problems that impact health in Shiawassee County.



- "Shiawassee County is a place that welcomes and embraces diversity in general."

Adult Variables	Total	Male	Female	Under 35	35-64	65+	<\$25K	\$25K+
Strongly agree	14%	17%	12%	14%	11%	16%	25%	10%
Agree somewhat	43%	40%	46%	39%	43%	58%	45%	43%
Disagree somewhat	25%	24%	27%	30%	26%	22%	15%	30%
Strongly disagree	17%	19%	15%	16%	20%	4%	15%	17%

*(57% of adults strongly/somewhat agreed with this statement compared to 79% in 2019)

- "Shiawassee County is a place that welcomes and embraces racially and ethnically diverse people."

Adult Variables	Total	Male	Female	Under 35	35-64	65+	<\$25K	\$25K+
Strongly agree	13%	14%	11%	14%	10%	14%	27%	10%
Agree somewhat	42%	43%	41%	29%	39%	62%	35%	40%
Disagree somewhat	25%	21%	29%	38%	27%	20%	18%	31%
Strongly disagree	20%	21%	19%	18%	24%	4%	19%	19%

*(55% of adults strongly/somewhat agreed with this statement compared to 70% in 2019)

- Which community improvement initiatives would you support?

Adult Variables	Total	Male	Female	Under 35	35-64	65+	<\$25K	\$25K+
More locally grown foods or farmers' markets	55%	47%	63%	69%	63%	45%	37%	61%
Community gardens	39%	36%	43%	41%	47%	25%	25%	44%
Neighborhood safety	43%	38%	49%	46%	55%	25%	27%	51%
Safe roadways	39%	38%	40%	32%	43%	36%	27%	42%
Sidewalk accessibility	32%	24%	40%	47%	42%	21%	33%	39%
Bike/walking trail accessibility or connectivity	38%	31%	46%	41%	51%	22%	18%	45%
New and/or updated parks	45%	44%	45%	60%	46%	25%	27%	47%
New and/or updated recreation centers	39%	38%	39%	45%	42%	23%	27%	41%
Local agencies partnering with grocery stores to provide healthier low-cost food items	44%	36%	53%	48%	55%	37%	35%	51%
None of the above	13%	20%	6%	4%	8%	15%	19%	5%

Mental Health

Adult Key Findings

In 2022, 59% of Shiawassee County residents felt sad, hopeless, or depressed in the last 12 months, 5% of females reported they had seriously considered attempting suicide, 39% of residents stated that their job causes them stress or anxiety, followed closely by their finances, 40% shared that they or a family member had been diagnosed with or treated for anxiety or emotional problems in the past year.

Adult Variables	2012	2016	2019	2022
Considered attempting suicide	3%	3%	2%	4%
Reported feeling worthless and/or hopeless nearly every day for two weeks or more in a row	12%	10%	16%	19%
Ever diagnosed or treated for depression	N/A	47%	26%	39%
Ever diagnosed or treated for anxiety	N/A	39%	28%	40%
Binge drinker	20%	23%	16%	21%
Looked for a program for mental health issues	18%	21%	15%	26%
Cause of anxiety/stress/depression is current political climate	N/A	N/A	14%	28%
Cause of anxiety/stress/depression is social media	N/A	N/A	2%	9%
Use of recreational drugs (cocaine, synthetic marijuana/K2, heroin, LSD, inhalants, Ecstasy, bath salts, and methamphetamines)	1%	4%	6%	5%

- At any time in the last 12 months, have you felt sad, hopeless, or depressed?
 Yes: **59%** (Weighted: Female 65%, Male: 52%)
 No: **41%** (Weighted: Female: 35%, Male: 48%)

During the past 12 months, when you felt sad, hopeless, or depressed, did you also have a period of at least two weeks when you experienced any of the following?

- Felt fatigued/no energy (43%)
- Had trouble sleeping or slept too much (40%)
- Had trouble thinking or concentrating (29%)
- Woke up before they wanted (26%)
- Lost interest in most things (24%)
- Felt extremely restless/slowed down (22%)
- Felt worthless or hopeless (19%)
- Had a weight/appetite change (17%)
- Thought about death and suicide (6%)

- When broken down by income:

Income	Felt fatigued or had no energy	Had trouble sleeping or slept too much	Woke up before you wanted	Had trouble thinking or concentrating	Felt worthless or hopeless	Felt extremely restless or slowed down	Lost interest in most things	Had a weight/appetite change	Thought about death and suicide
<\$25K	39%	43%	20%	27%	21%	22%	23%	14%	9%
\$25K+	53%	47%	30%	35%	23%	28%	25%	27%	7%

- During the past 12 months, did you ever seriously consider attempting suicide?

- Median: Yes: **3.5%** No: **96.5%**

- Broken down by gender and income:

Gender	Yes	No
Female	4.8%	95.2%
Male	2.3%	97.7%

Income	Yes	No
<\$25K	11%	89%
≥\$25K	2%	98%

- During the past 12 months, how many times did you actually attempt suicide?

- Two respondents attempted suicide (1 respondent once, another respondent 2-3 times)

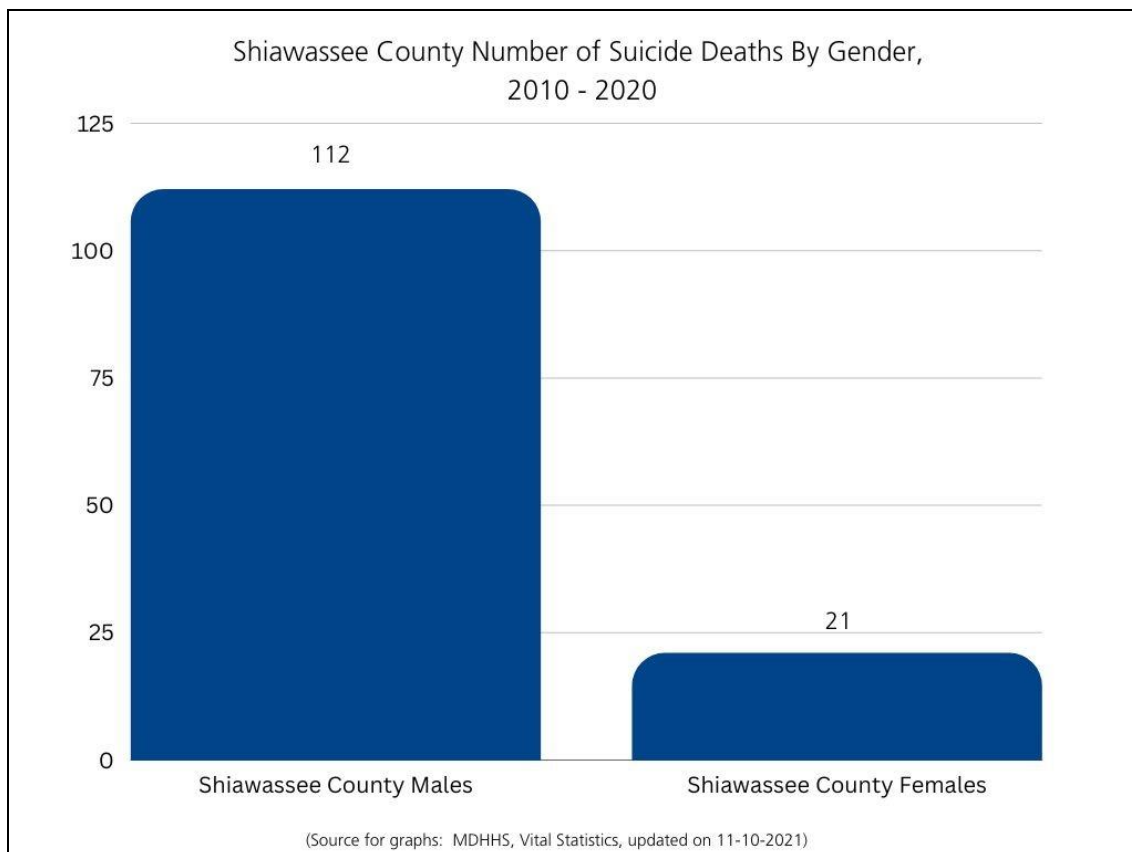
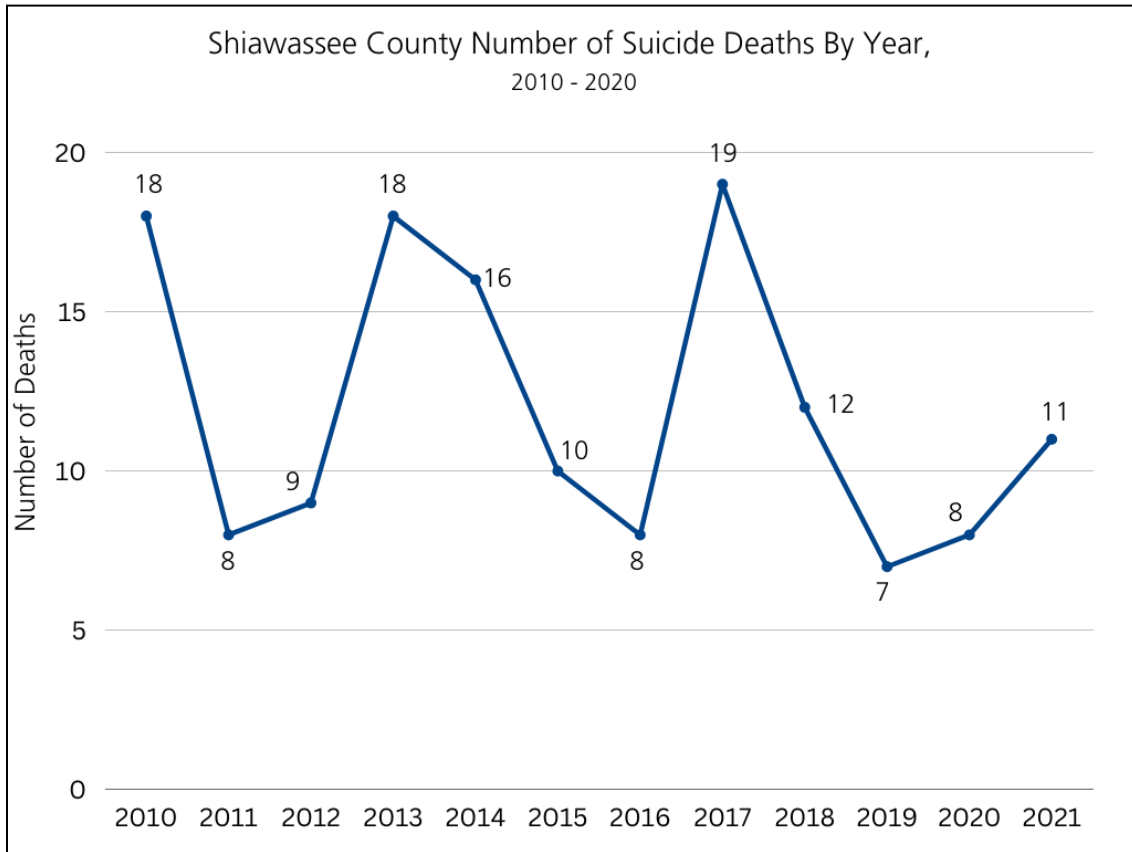
- What causes you anxiety, stress, or depression?
 - Job stress (39%)
 - Financial stress (32%)
 - Living through a pandemic (30%)
 - Current news/political environment (28%)
 - Poverty/no money (19%)
 - Death of close family member or friend (18%)
 - Raising/caring for children (15%)
 - Marital/dating relationship (14%)
 - Other stress at home (14%)
 - Sick family member (13%)
 - Fighting at home (13%)
 - Social media (9%)
 - Family member with mental illness (9%)
 - Caring for a parent (7%)
 - Isolation (7%)
 - Not having enough to eat (6%)
 - Not feeling safe at home (5%)
 - Unemployment (4%)
 - Not having a place to live (4%)
 - Divorce/separation (3%)
 - Not feeling safe in the community (1%)
 - Sexual orientation/gender identity (<1%)
 - Other causes (7%)
 - I do not have anxiety, stress, or depression (18%)

- Shiawassee County adults dealt with stress in the following ways:
 - Talked to someone they trust (17%)
 - Worked on a hobby (11%)
 - Exercised (9%)
 - Ate more or less than normal (7%)
 - Slept (7%)
 - Prayer/meditation (6%)
 - Worked (4%)
 - Used prescription drugs as prescribed (4%)
 - Listened to music (3%)
 - Drank alcohol (2%)
 - Smoked tobacco (3%)
 - Took it out on others (2%)
 - Talked to a professional (2%)
 - Used illegal drugs (1%)
 - Other ways (5%)

- Shiawassee County adults received the social and emotional support they needed from the following:
 - Family (63%)
 - Friends (54%)
 - God/prayer (26%)
 - Church (19%)
 - A professional (10%)
 - Neighbors (6%)
 - Internet (4%)
 - Community (3%)
 - Online support group (2%)
 - Self-help group (<1%)
 - Text crisis line (<1%)
 - Other (2%)
 - I do not get the social and emotional support I need (6%)
 - I do not need support (15%)

- Shiawassee County adults reported they or a family member were diagnosed with, or treated for, the following mental health issues in the past year:
 - Anxiety or emotional problems (40%)
 - Depression (39%)
 - An anxiety disorder (e.g., panic attacks, phobia, obsessive compulsive disorder) (32%)
 - Post-traumatic stress disorder (PTSD) (13%)
 - Attention deficit disorder (ADD/ADHD) (11%)
 - Bipolar disorder (7%)
 - Life-adjustment disorder/issue (6%)
 - Other trauma (6%)
 - Autism spectrum (5%)
 - Eating disorder (5%)
 - Alcohol and/or illicit drug abuse (4%)
 - Psychotic disorder (e.g., schizophrenia, schizoaffective disorder) (4%)
 - Developmental disability (cognitive/intellectual) (3%)
 - Problem gambling (2%)
 - Some other mental health disorder (8%)

- Reasons for not using a program or service to help with depression, anxiety, or other emotional issues for you or a loved one included:
 - Taking too long to see a doctor (8%)
 - Not considering it (7%)
 - Inability to find a mental health doctor/healthcare provider (7%)
 - Fear (5%)
 - Lack of transportation (4%)
 - Affordability (4%)
 - Concerns of stigma (4%)
 - High co-pay/deductible (3%)
 - Being unaware of a program (3%)
 - Having other priorities (3%)
 - Being unable to find a program (2%)
 - Lacking mental health insurance coverage (1%)
 - Other reasons (6%)
 - I did use a program for myself or a loved one (26%)
 - Program not needed (42%)



Youth Key Findings

While the number of middle and high school students who reported that they felt sad or hopeless decreased in 2021-2022, it still remains higher than the state and national average. The number of students that reported they had made a plan about how they would attempt suicide trended up as well as the students that claimed they attempted suicide.

Youth Variables	Shiawassee County 2017-2018 (9th and 11th grade)	Shiawassee County 2021-2022 (7th grade)	Shiawassee County 2021-2022 (9th and 11th grade)	Michigan YRBS 2019	U.S. YRBS 2019
Felt sad or hopeless (almost every day for two weeks or more in a row so that they stopped doing some usual activities during the past 12 months)	45%	41%	39%	36%	37%
Seriously considered attempting suicide (during the past 12 months)	28%	39%	22%	19%	19%
Made a plan about how they would attempt suicide (during the past 12 months)	19%	24%	20%	15%	16%
Attempted suicide (one or more times during the past 12 months)	14%	23%	15%	8%	9%
Suicide attempt that resulted in an injury, poisoning, or overdose that had to be treated by a doctor or nurse (during the past 12 months)	2%	4%	7%	3%	3%

Suicide Rising Across the U.S.

- Suicide rates increased 30% between 2000–2018 and declined in 2019 and 2020. Provisional data from CDC’s National Center for Health Statistics indicate that both the number and the rate of suicides in the United States increased 4 percent from 2020 to 2021, after two consecutive years of decline..
- Suicide is a leading cause of death in the United States, with 45,979 deaths in 2020. This is about one death every 11 minutes. The number of people who think about or attempt suicide is even higher. In 2020, an estimated 12.2 million American adults seriously thought about suicide, 3.2 million planned a suicide attempt, and 1.2 million attempted suicide.
- Suicide affects all ages. In 2020, suicide was among the top 9 leading causes of death for people ages 10-64. Suicide was the second leading cause of death for people ages 10-14 and 25-34.
- Some groups have higher suicide rates than others. Suicide rates vary by race/ethnicity, age, and other factors, such as where someone lives. By race/ethnicity, the groups with the highest rates were:
 - non-Hispanic American Indian/Alaska Native
 - non-Hispanic White populations.
- Other Americans with higher-than-average rates of suicide are:
 - veterans
 - people who live in rural areas
 - workers in certain industries and occupations like mining and construction
- Young people who identify as lesbian, gay, or bisexual have higher rates of suicidal thoughts and behavior compared to their peers who identify as heterosexual.

(Sources: CDC/National Center for Health Statistics press release “Suicide Increases in 2021 After Two Years of Decline”, released on September 20, 2022; CDC Facts About Suicide, updated on October 24, 2022.)

Obesity, Nutrition, and Physical Activity

Adult Key Findings

While the self-reported obesity rate is trending down for Shiawassee County residents, the rate continues to remain higher than the state and national average. The rate of overweight trended higher and is now also above the state and national average.

20,364 Shiawassee County adults were obese.

Obesity is serious because it is associated with poorer mental health outcomes and reduced quality of life. In the United States and worldwide, obesity is also associated with the leading causes of death, including deaths from diabetes, heart disease, stroke, and some types of cancer.

Adult Variables	Shiawassee County 2012	Shiawassee County 2016	Shiawassee County 2019	Shiawassee County 2022	Michigan BRFSS 2021	U.S BRFSS 2021
Obese	33%	41%	42%	38%	34%	34%
Overweight	36%	34%	35%	37%	34%	34%

- BMI broken down by income:

Adult Variables	Income less than \$10,000	\$10,000 - 14,999	\$15,000 - 19,999	\$20,000 - 24,999	\$25,000 - 34,999	\$35,000 - 49,999	\$50,000 - 74,999	\$75,000 - 99,999	\$100,000 - 149,999	\$150,000 or more
Underweight	0%	0%	0%	0%	0%	0%	0%	0%	6%	0%
Normal Weight	14%	13%	25%	6%	9%	27%	26%	23%	30%	17%
Overweight	29%	27%	50%	44%	32%	17%	17%	10%	21%	28%
Obese	57%	60%	25%	50%	59%	57%	57%	67%	42%	56%

- BMI broken down by age:

Adult Variables	18-24	25-34	35-44	45-54	55-64	65-74	75-84	85+
Underweight	0%	0%	0%	5%	0%	0%	0%	0%
Normal	38%	38%	12%	21%	18%	21%	8%	0%
Overweight	23%	24%	31%	11%	20%	14%	42%	100%
Obese	38%	38%	57%	63%	62%	66%	50%	0%

- BMI broken down by gender:

Adult Variables	Female	Male
Underweight	1%	2%
Normal	23%	14%
Overweight	22%	26%
Obese	54%	57%

- How Shiawassee County residents describe their weight:

Adult Variables	Female	Male
Very Underweight	0%	0%
Underweight	2%	0%
Just About the Right Weight	26%	37%
Overweight	44%	49%
Very Overweight	10%	7%
Obese	17%	7%

- During the past 30 days, did you do any of the following to lose weight?

Adult Variable	Percent
Eat less food, fewer calories, or foods low in fat	44%
Drink more water	38%
I did not do anything to lose weight or keep from gaining weight	37%
Exercise	37%
Eat a low carb diet	23%
Take medications prescribed by a health professional	5%
Use a weight loss program (e.g., Weight Watchers, Jenny Craig)	4%
Smoke cigarettes	2%
Health Coaching	2%
Bariatric surgery (preparation or maintenance)	1%
Participate in a dietary or fitness program prescribed by a health professional	1%
Go without eating for 24 hours	1%
Take any diet pills, powders, or liquids without a doctor/healthcare provider's advice	1%
Take laxatives	0%
Vomit after eating	0%
Other	0%

- On an average day, how many servings do you have of the following items?

Adult Variables	Fruit (1 cup = 1 serving)	Vegetables (1 cup = 1 serving)	Sugar-sweetened Beverages	Caffeinated Beverages
0 Servings	14%	6%	55%	19%
1 Serving	49%	40%	24%	22%
2 Servings	25%	34%	13%	29%
3 Servings	9%	13%	7%	15%
4 Servings	3%	6%	1%	5%
5+ Servings	0%	0%	0%	9%

- In a typical week, how many meals do you eat out in a restaurant?

I do not eat out/bring takeout home	1 to 2 meals per week	3 to 4 meals per week	5 or more meals per week
35%	54%	8%	3%

- What determines what type of food you eat?

Adult Variable	Total
Taste/enjoyment	62%
Cost	53%
Ease of preparation/time	40%
Healthiness of food	37%
What my family prefers	33%
Food that I am used to	30%
Availability/location	23%
Calorie content	19%
Nutritional content (reading labels)	18%
Artificial sweetener content	6%
Health care provider's advice	6%
Food allergies	5%
Availability of food at the food pantry	5%
Gluten-free	4%
Lactose-free	4%
Other food sensitivities	4%
Is it genetically modified (GMOs)	3%
If it is organic	3%
Limitations due to dental issues	2%
Limitations set by WIC	0%
Don't know	7%

- Where do you purchase/obtain your fresh fruits and vegetables?

Adult Variables	Total
Large grocery store (e.g., Wal-Mart, Kroger)	80%
Farmers' market	47%
Local grocery store (e.g., VGs)	46%
Grow your own/garden	28%
Food pantry	10%
I do not consume fruits or vegetables	3%
Dollar General/Dollar Store	2%
Group purchasing/Community Supported Agriculture (CSA)	1%
Mail order food services	1%
Corner/convenience store	1%
Community garden	0%
Other	1%

- On an average day, how many hours do you spend doing the following activities:

Adult Variables	TV	Video Games	Computer/Tablet (outside of work)	Cell Phone (talk, text, internet)
0 Hours	4%	74%	34%	3%
Less than 1 Hour	13%	11%	19%	25%
1 Hour	13%	2%	18%	21%
2 Hours	27%	4%	13%	21%
3 Hours	15%	3%	5%	11%
4 Hours	11%	2%	5%	6%
5 Hours	5%	0%	2%	5%
6+ Hours	12%	3%	5%	8%

- During the past 7 days, how many days did you engage in some type of exercise?

Adult Variables	0 Days	1 Day	2 Days	3 Days	4 Days	5 Days	6 Days	7 Days	Unable to Exercise
Total	10%	5%	16%	27%	13%	8%	4%	14%	2%

- For what reasons do you not exercise?

Reason	Total
Time	31%
Weather	23%
Pain/discomfort	22%
Self-motivation or willpower	20%
Too tired	17%
Lazy	14%
I do not like to exercise	11%
Cannot afford a gym membership	8%
I choose not to exercise	5%
Ill or otherwise physically unable	5%
I do not have childcare	4%
I do not have an exercise partner	3%
No sidewalks or poorly maintained sidewalks	2%
I do not know what activity to do	2%
Too expensive	2%
No walking, biking trails, or parks	1%
Neighborhood safety	1%
Doctor advised me not to exercise	1%
Afraid of injury	1%
Lack of opportunities for those with physical impairments or challenges	1%
Gym is not available	0%
No transportation to a gym or other exercise opportunity	0%
Other	2%

Youth Key Findings

The obesity rate in Shiawassee County youth remains stable, however, it is currently above the state and national average. The rate of overweight youth is trending down and is currently below both the state and national average. High school students reported eating more fruits and vegetables and drinking less pop or soda than they did four years ago. They also responded that they were getting more physical activity than both the state and national averages.

Youth Variables	Shiawassee County 2017-2018 (7th grade)	Shiawassee County 2021-2022 (7th grade)	Shiawassee County 2017-2018 (9th and 11th grade)	Shiawassee County 2021-2022 (9th and 11th grade)	Michigan YRBS 2019	U.S. YRBS 2019
Obese	18%	19%	21%	21%	15%	16%
Overweight	15%	18%	16%	14%	16%	16%
Described themselves as slightly or very overweight	31%	30%	37%	37%	32%	32%
Tried to lose weight	49%	48%	52%	50%	46%	48%
Ate five or more servings per day of fruits and vegetables (during the past seven days)	27%	25%	22%	23%	N/A	N/A
Drank three or more glasses of milk per day during the past week	18%	10%	11%	11%	N/A	N/A
Drank a can, bottle, or glass of pop or soda one or more times per day (during the past seven days)	21%	17%	24%	21%	14%	15%
Physically active at least 60 minutes per day on five or more days (in the past seven days)	55%	51%	58%	58%	45%	44%
Attended physical education (PE) classes on one or more days (in an average week when in school)	56%	69%	46%	44%	31%	26%

American Cancer Society (ACS) Guidelines on Nutrition and Physical Activity

- **Achieve and maintain a healthy weight throughout life.**
 - Keep your weight within the healthy range
 - Avoid weight gain in adult life
- **Be physically active**
 - Adults: Get 150-300 minutes of moderate intensity or 75-150 minutes of vigorous intensity activity each week (or a combination of these). Getting to or exceeding the upper limit of 300 minutes is ideal.
 - Children and teens: Get at least 1 hour of moderate or vigorous intensity activity each day.
 - Limit sedentary behavior such as sitting, lying down, watching TV, and other forms of screen-based entertainment.
- **Follow a healthy eating pattern at all ages.**
 - A healthy eating pattern includes:
 - Foods that are high in nutrients in amounts that help you get to and stay at a healthy body weight
 - A variety of vegetables – dark green, red and orange, fiber-rich legumes (beans and peas), and others
 - Fruits, especially whole fruits in a variety of colors
 - Whole grains
 - A healthy eating pattern limits or does not include:
 - Red and processed meats
 - Sugar-sweetened beverages
 - Highly processed foods and refined grain products
- **It is best not to drink alcohol.**
 - People who do choose to drink alcohol should have no more than one drink per day for women or two drinks per day for men.

(Source: American Cancer Society; ACS Guideline for Diet and Physical Activity; Revised on June 9, 2020.)

Alcohol Use

Adult Key Findings

Fifty-six percent (56%) of Shiawassee County adults had at least one alcoholic drink in the past month and would be considered current drinkers. Twenty one percent (21%) of all adults reported they had five or more alcoholic drinks (for males) or four or more drinks (for females) on an occasion in the last month and would be considered binge drinkers.

*The definition of a drink for this survey is a 12-ounce beer, a 5-ounce glass of wine, or a drink with 1 shot of liquor.

Adult Variables	Shiawassee County 2012	Shiawassee County 2016	Shiawassee County 2019	Shiawassee County 2022	Michigan BRFSS 2021	U.S BRFSS 2021
Current drinker (drank alcohol at least once in the past 30 days)	50%	54%	57%	56%	54%	53%
Binge drinker (males having five or more drinks on one occasion, females having four or more drinks on one occasion)	20%	23%	16%	21%	16%	15%

Adult Variables	Total	Male	Female
During the past 30 days, how many days per month did you have at least one drink of any alcoholic beverage such as beer, wine, a malt beverage, or liquor?	3.8 days	4.1 days	3.5 days
During the past 30 days, on the days when you drank, about how many drinks did you drink on average?	1.9 drinks	2.1 drinks	1.7 drinks
Considering all types of alcoholic beverages, how many times during the past 30 days did you have (for males) five or more drinks on an occasion, or (for females) four or more drinks on an occasion?	.73 days	.78 days	.69 days

- During the past 30 days, how many days per month did you have at least one drink of any alcoholic beverage such as beer, wine, a malt beverage, or liquor?

Adult Variables	Male	Female	Under 35	35-64	65+	<\$25K	\$25K+	Shia. CHNA 2012	Shia. CHNA 2016	Shia. CHNA 2019	Shia. CHNA 2022
Did not drink any	40%	48%	18%	52%	66%	66%	41%	40%	43%	41%	44%
1-2 days	23%	20%	40%	17%	12%	21%	22%	12%	16%	18%	21%
3 or more days	37%	32%	42%	31%	22%	13%	37%	45%	38%	39%	35%

- One drink is equivalent to a 12-ounce beer, a 5-ounce glass of wine, or a drink with 1 shot of liquor. During the past 30 days, on the days when you drank, about how many drinks did you drink on average?

Adult Variable	Male	Female	Under 35	35-64	65+	<\$25K	\$25K+	Shia. CHNA 2012	Shia. CHNA 2016	Shia. CHNA 2019	Shia. CHNA 2022
Number of Drinks per drinking occasion	2.1	1.7	2.8	1.6	1.3	.94	1.9	2.9	3.3	3.2	1.9

- During the past 30 days, did you drive any of the following motor vehicles during or within a couple of hours after having 5 or more drinks?

Adult Variables	Total	Male	Female	Under 35	35-64	65+	<\$25K	\$25K+
I did not drive within a couple of hours after having 5 or more drinks	92%	90%	95%	95%	94%	95%	89%	95%
Car or truck	2%	3%	2%	4%	2%	0%	6%	2%
Watercraft	0%	0%	0%	0%	0%	0%	0%	0%
Boat	0%	0%	1%	0%	1%	0%	0%	1%
Snowmobile	0%	0%	0%	0%	0%	0%	0%	0%
Motorcycle/moped	0%	0%	0%	0%	0%	0%	0%	0%
ATV	0%	0%	0%	0%	0%	0%	0%	0%
Farm machinery	0%	0%	0%	0%	0%	0%	0%	0%
Gator or other utility vehicle	0%	0%	0%	0%	0%	0%	0%	0%
Golf cart	0%	0%	1%	0%	1%	0%	0%	1%
Other	5%	8%	2%	2%	3%	5%	5%	2%

- During the past six months, have you or a family member experienced any of the following due to alcohol use?

Adult Variables	Total	Male	Female	Under 35	35-64	65+	<\$25K	\$25K+
Had to drink more to get same effect	1%	0%	1%	1%	1%	2%	2%	1%
Drove vehicle or other equipment after having any alcoholic beverage	2%	0%	4%	1%	3%	5%	2%	4%
Used prescription drugs while drinking	1%	0%	2%	6%	1%	0%	2%	2%
Drank more than you expected	4%	2%	6%	8%	5%	7%	4%	6%
Gave up other activities to drink	1%	0%	1%	1%	1%	2%	0%	2%
Spent a lot of time drinking	3%	2%	2%	2%	3%	3%	3%	3%
Tried to quit or cut down (but could not)	1%	0%	2%	3%	1%	2%	0%	2%
Continued to drink despite problems caused by drinking	2%	2%	3%	3%	2%	3%	6%	2%
Drank to ease withdrawal symptoms	0%	0%	1%	1%	1%	0%	0%	1%
Failed to fulfill duties at work, home, or school	1%	0%	2%	3%	1%	2%	0%	2%
Placed yourself or your family in harm	0%	0%	1%	0%	1%	2%	0%	1%
Had legal problems	0%	0%	0%	0%	1%	0%	0%	0%
None of the above	83%	93%	74%	69%	82%	74%	82%	76%

Youth Key Findings

According to the National Institute on Alcohol Abuse and Alcoholism, although youth drink less often than adults, when they do drink, they drink more. More than 90 percent of all alcohol drinks consumed by youth are consumed through binge drinking. While reported drinking by students in Shiawassee County was lower than previous years and the state and national averages, earlier alcohol use is associated with a higher likelihood of a variety of alcohol-related consequences.

Youth Variables	Shiawassee County 2017-2018 (7th grade)	Shiawassee County 2021-2022 (7th grade)	Shiawassee County 2017-2018 (9th and 11th grade)	Shiawassee County 2021-2022 (9th grade)	Shiawassee County 2021-2022 (11th grade)	Michigan YRBS 2019	U.S. YRBS 2019
Current drinker (at least one drink of alcohol during the past 30 days)	2%	3%	21%	4%	18%	25%	29%
Binge drinker (drank four or more drinks of alcohol in a row [for females] or five or more drinks of alcohol in a row [for males] within a couple of hours during the past 30 days)	<1%	N/A	13%	3%	8%	11%	14%
Rode in a car or other vehicle driven by someone who had been drinking alcohol (one or more times during the past 30 days)	N/A	22%	13%	9%	9%	15%	17%
Drove a car or other vehicle when they had been drinking alcohol (one or more times during the past 30 days)	N/A	N/A	2%	<1%	0%	4%	5%
Usually got the alcohol they drank by someone giving it to them (of current drinkers)	N/A	N/A	38%	33%	30%	N/A	N/A

Health Effects of Excessive Alcohol Use

- **Chronic Health Effects:** Over time, excessive alcohol use can lead to chronic diseases and other serious problems, including alcohol use disorder and problems with learning, memory, and mental health. Other chronic health conditions linked to excessive alcohol use include:
 - High blood pressure, heart disease, and stroke
 - Liver disease
 - Excessive alcohol use takes a toll on the liver and can lead to fatty liver disease (steatosis), hepatitis, fibrosis, and cirrhosis.
 - Cancer
 - Drinking alcoholic beverages of any kind, including wine, beer, and liquor, can contribute to cancers of the mouth and throat, larynx (voice box), esophagus, colon and rectum, liver, and breast (in women).
 - For some cancers, even less than one drink in a day can increase risk. The less alcohol a person drinks, the lower the risk of these types of cancer.
- **Immediate Health Effects:** excessive alcohol use has immediate effects that increase the risk of many harmful health conditions, including the following:
 - Injuries, violence and poisonings
 - Drinking too much alcohol increases the risk of injuries, including those from motor vehicle crashes, falls, drownings, and burns.
 - It increases the risk of violence, including homicide, suicide, and sexual assault.
 - Alcohol also contributes to poisonings or overdoses from opioids and other substances.
 - Unintended pregnancy and sexually transmitted infections
 - People who binge drink are more likely to have unprotected sex and multiple sex partners.
 - These activities increase the risk of unintended pregnancy and sexually transmitted infections, including HIV.
 - Poor pregnancy outcomes
 - There is no known safe amount of alcohol use during pregnancy.
 - Alcohol use during pregnancy can cause fetal alcohol spectrum disorders. It may also increase the risk of miscarriage, premature birth, stillbirth, and sudden infant death syndrome.

(Source: CDC; Excessive Alcohol Use; Revised on July 11, 2022)

Tobacco Use

Adult Key Findings

Smoking rates of Shiawassee County adults are trending higher and remain slightly above the state and national rates, which continue to decline. Use of e-cigarettes by Shiawassee County residents saw an increase. Of those that use tobacco products, 61% smoke cigarettes and 26% use e-cigarettes.

10,182 Shiawassee County adults were current smokers.

Adult Variables	Shiawassee County 2012	Shiawassee County 2016	Shiawassee County 2019	Shiawassee County 2022	Michigan BRFSS 2021	US BRFSS 2021
Current Smoker	19%	16%	17%	19%	17%	14%
Former Smoker	24%	27%	30%	23%	N/A	N/A
Never Smoked	57%	59%	53%	58%	N/A	N/A

- During the past 12 months, if you are a smoker, have you stopped smoking for one day or longer because you were trying to quit smoking?

Adult Variables	Total	Male	Female	Under 35	35-64	65+	<\$25K	\$25K+
Yes	47%	46%	50%	44%	25%	80%	52%	55%
No	53%	54%	50%	56%	75%	20%	48%	45%

- If you are a smoker, which forms of tobacco have you used in the past 12 months?

Adult Variables	Total	Male	Female	Under 35	35-64	65+	<\$25K	\$25K+
Cigarettes	59%	60%	56%	17%	65%	100%	69%	52%
E-cigarettes or other electronic vaping device	25%	20%	36%	73%	20%	0%	18%	37%
Chewing tobacco, snuff, or snus	7%	10%	0%	0%	5%	0%	7%	0%
Cigars (e.g. Black & Milds)	5%	5%	5%	10%	5%	0%	0%	9%
Other	4%	5%	3%	0%	5%	0%	7%	2%

- If you have used e-cigarettes or other electronic vaping products in the past 12 months, what did you put in it?

Adult Variables	Total	Male	Female	Under 35	35-64	65+	<\$25K	\$25K+
E-liquid or e-juice with nicotine	25%	17%	38%	33%	41%	0%	32%	25%
E-liquid or e-juice without nicotine	0%	0%	0%	0%	0%	0%	0%	0%
Homemade e-liquid or e-juice	0%	0%	0%	0%	0%	0%	0%	0%
Marijuana or THC in your e-liquid	5%	0%	13%	0%	8%	1%	18%	5%
Pre-packaged e-cigarettes with nicotine	48%	50%	44%	53%	42%	0%	50%	51%
Pre-packaged e-cigarettes without nicotine	23%	33%	6%	15%	8%	0%	0%	19%

- Do you believe e-cigarettes or other electronic product vapor is harmful to any of the following?

Adult Variables	Total	Male	Female	Under 35	35-64	65+	<\$25K	\$25K+
You	42%	39%	44%	56%	42%	33%	31%	44%
Others	38%	36%	41%	38%	40%	41%	28%	41%
Not harmful to anyone	1%	2%	1%	0%	1%	1%	1%	0%
Don't know	19%	23%	14%	6%	16%	24%	39%	15%

- What are your practices about smoking inside your home or car?

Adult Variables	Total	Male	Female	Under 35	35-64	65+	<\$25K	\$25K+
Smoking is allowed anywhere inside our home.	9%	13%	4%	7%	7%	7%	20%	2%
Smoking is allowed, but only in certain rooms of our home.	2%	3%	2%	2%	3%	1%	1%	2%
No one is allowed to smoke inside our home when children are present.	7%	8%	6%	7%	7%	5%	5%	6%
No one is allowed to smoke inside our home at any time.	38%	33%	42%	41%	39%	41%	31%	42%
Smoking is allowed inside our car.	2%	3%	2%	2%	2%	3%	5%	2%
Smoking is allowed, but only with one or more of the windows open in the car.	2%	3%	2%	3%	2%	1%	1%	2%
Smoking is allowed, but only if the children are not in the car.	3%	4%	1%	1%	2%	2%	1%	2%
No one is allowed to smoke inside our car at any time.	38%	35%	41%	39%	38%	41%	35%	41%

Youth Key Findings

Cigarette smoking and the reported use of vaping products or e-cigarettes continues to see a downward trend among Shiawassee County youth.

Youth Variables	Shiawassee County 2017-2018 (7th grade)	Shiawassee County 2021-2022 (7th grade)	Shiawassee County 2017-2018 (9th and 11th grade)	Shiawassee County 2021-2022 (9th and 11th grade)	Michigan YRBS 2019	U.S. YRBS 2019
Ever tried cigarette smoking (even one or two puffs)	N/A	N/A	30%	18%	21%	24%
First tried cigarette smoking before the age of 13 (even one or two puffs)	N/A	N/A	12%	9%	7%	8%
Currently smoked cigarettes (during the past 30 days)	3%	2%	6%	1%	5%	6%
Currently frequently smoked cigarettes (on 20 or more days during the past 30 days)	0%	<1%	2%	0%	1%	1%
Used chewing tobacco, snuff, dip, snus, or dissolvable tobacco products (during the past 30 days)	2%	1%	5%	1%	3%	4%
Used an electronic vapor product during the past month	16%	9%	35%	14%	21%	33%
Usually got their own electronic vapor products by buying them in a store (among students who used electronic vapor products recently)	0%	11%	20%	25%	10%	8%

E-Cigarette Health Effects

- **Most e-cigarettes contain nicotine, which has known health effects.**
 - Nicotine is highly addictive.
 - Nicotine is toxic to developing fetuses.
 - Nicotine can harm adolescent brain development, which continues into the early to mid-20s.
 - Nicotine is a health danger for pregnant women and their developing babies.
- **Besides nicotine, e-cigarette aerosol can contain substances that harm the body.**
 - This includes cancer-causing chemicals and tiny particles that reach deep into lungs. However, e-cigarette aerosol generally contains fewer harmful chemicals than smoke from burned tobacco products.
- **E-cigarettes can cause unintended injuries.**
 - Defective e-cigarette batteries have caused fires and explosions, some of which have resulted in serious injuries. Most explosions happened when the e-cigarette batteries were being charged.
 - Acute nicotine exposure can be toxic. Children and adults have been poisoned by swallowing, breathing, or absorbing e-cigarette liquid through their skin or eyes.

(Source: CDC; About Electronic Cigarettes (E-Cigarettes); reviewed on November 10, 2022.)

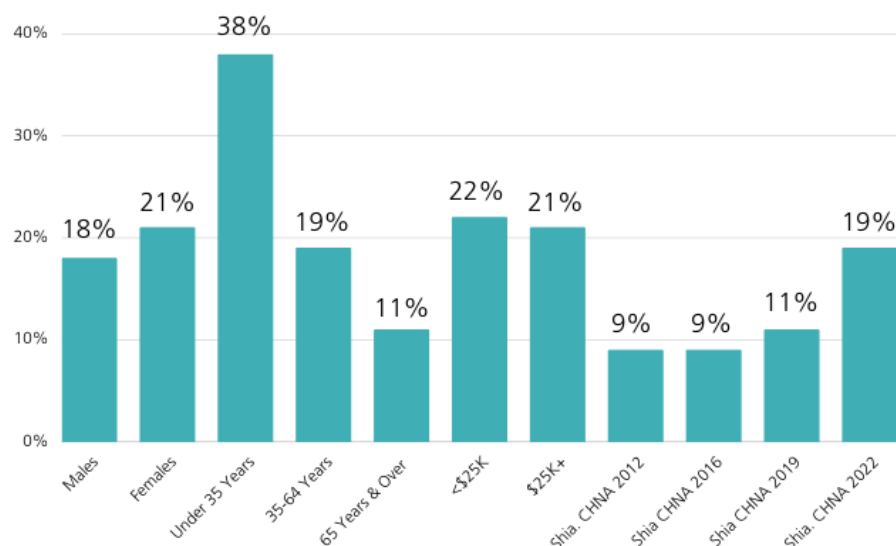
Marijuana, Prescription Drug Misuse, and Other Recreational Drug Use

Adult Key Findings

Nineteen percent (19%) of Shiawassee County adults had used recreational marijuana during the past six months. Two percent (2%) of adults had used medication not prescribed for them or took more than prescribed to feel good or high and/or more active during the past six months.

Adult Variables	Male	Female	Under 35	35-64	65+	<\$25K	\$25K+	Shia. CHNA 2012	Shia. CHNA 2016	Shia. CHNA 2019	Shia. CHNA 2022
Percent of residents who have misused prescription drugs within the past six months	3%	<1%	0%	1%	4%	4%	2%	9%	16%	6%	2%
Percent of residents who have used recreational marijuana within the past six months	18%	21%	38%	19%	11%	22%	21%	9%	9%	11%	19%
Percent of residents who have used other recreational drugs within the past six months	5%	4%	7%	3%	4%	6%	4%	1%	4%	6%	4%

Shiawassee County Adult Recreational Marijuana Use in Past 6 Months



- If you used medications during the past six months that were either not prescribed for you, or you took more than was prescribed to feel good, high, or more active or alert, how did you obtain these medications?

93% of Shiawassee County residents reported not using medications during the past six months that were either not prescribed to feel good, high, or more alert and active. Of the 7% that reported doing so, they reported obtaining them in the following ways:

Adult Variables	Total	Male	Female	Under 35	35-64	65+	<25K	25K+
From my primary care provider	70%	50%	81%	69%	85%	80%	70%	100%
From multiple doctors/providers	8%	0%	13%	31%	0%	0%	19%	0%
From an ER or urgent care doctor/provider	4%	0%	6%	0%	0%	20%	6%	0%
Free from a friend or family member	17%	50%	0%	0%	15%	0%	6%	0%
Bought from a friend or family member	0%	0%	0%	0%	0%	0%	0%	0%
Stole from a friend or family member	0%	0%	0%	0%	0%	0%	0%	0%
Bought from a drug dealer	0%	0%	0%	0%	0%	0%	0%	0%

- During the past 30 days, on how many days did you use marijuana or cannabis?

Total Days	Male	Female	Under 35	35-64	65+	<\$25K	\$25K+
2.6	3.2	1.9	3.5	2.4	0.6	5.8	1.3

- What do you do with unused prescription medications?

Adult Variables	Total	Male	Female	Under 35	35-64	65+	<25K	25K≥
Take them to a medication collection program	30%	19%	38%	30%	35%	42%	40%	37%
Throw it in the trash	17%	19%	15%	7%	20%	15%	12%	15%
Keep them	14%	16%	13%	12%	15%	11%	10%	12%
Flush it down the toilet	13%	16%	11%	18%	12%	7%	6%	13%
Take them in on Drug Take Back Day(s)	9%	10%	8%	11%	6%	8%	10%	8%
Keep it in a locked cabinet	7%	10%	5%	16%	2%	2%	6%	6%
Take them to sheriff's office	6%	3%	8%	5%	7%	12%	15%	6%
Mail back to pharmacy	3%	6%	0%	0%	1%	2%	0%	1%
Use Drug Deactivation Pouches (Detera)	1%	0%	1%	2%	1%	0%	2%	1%
Trade them	0%	0%	0%	0%	0%	0%	0%	0%
Give them away	0%	0%	1%	0%	1%	0%	0%	1%
Sell them	0%	0%	0%	0%	0%	0%	0%	0%
Drugs were stolen	0%	0%	0%	0%	0%	0%	0%	0%
Other (please specify)	0%	0%	0%	0%	0%	0%	0%	0%

- Have you, an immediate family member, or someone in your household used any of the following medications during the past six months, that were either not prescribed for you, or you took more than was prescribed to feel good or high, more active, or alert?

Adult Variables	Total	Male	Female	Under 35	35-64	65+	<\$25K	\$25K +
Codeine, Demerol, Morphine, Percocet, Dilaudid, or Fentanyl - Yes	3%	5%	1%	0%	2%	0%	2%	2%
Codeine, Demerol, Morphine, Percocet, Dilaudid, or Fentanyl - Immediate family member or someone in my household	0%	0%	1%	0%	0%	2%	0%	1%
Codeine, Demerol, Morphine, Percocet, Dilaudid, or Fentanyl - No/Not applicable	97%	95%	98%	100%	98%	98%	98%	98%
Neurontin - Yes	3%	7%	0%	0%	2%	2%	2%	0%
Neurontin - Immediate family member or someone in my household	0%	0%	1%	0%	0%	0%	0%	0%
Neurontin - No/Not applicable	96%	93%	99%	100%	98%	98%	98%	99%
OxyContin - Yes	1%	2%	0%	0%	1%	0%	0%	0%
OxyContin - Immediate family member or someone in my household	0%	0%	0%	0%	0%	0%	0%	0%
OxyContin - No/Not applicable	99%	98%	100%	100%	99%	100%	100%	100%
Ritalin, Adderall, Concerta or other ADHD medications - Yes	1%	0%	1%	0%	1%	0%	0%	1%
Ritalin, Adderall, Concerta or other ADHD medications - Immediate family member or someone in my household	1%	0%	1%	0%	1%	2%	6%	0%
Ritalin, Adderall, Concerta or other ADHD medications - No/Not applicable	99%	100%	98%	100%	98%	98%	94%	99%
Steroids - Yes	1%	0%	2%	0%	1%	2%	0%	2%
Steroids - Immediate family member or someone in my household	0%	0%	1%	0%	1%	0%	0%	0%
Steroids - No/Not applicable	99%	99%	98%	100%	98%	98%	100%	98%
Suboxone or Methadone - Yes	0%	0%	0%	0%	0%	0%	0%	0%
Suboxone or Methadone - Immediate family member or someone in my household	1%	2%	0%	0%	1%	0%	0%	1%
Suboxone or Methadone - No/Not applicable	99%	98%	100%	100%	99%	100%	100%	99%
Tramadol/ULtram - Yes	3%	5%	2%	0%	5%	0%	4%	1%
Tramadol/ULtram - Immediate family member or someone in my household	1%	2%	1%	2%	1%	0%	0%	1%
Tramadol/ULtram - No/Not applicable	95%	93%	97%	98%	95%	100%	96%	98%
Tranquilizers (e.g., Valium or Xanax), sleeping pills, barbiturates, Seconal, Ativan, or Klonopin - Yes	7%	9%	5%	2%	6%	8%	14%	4%
Tranquilizers (e.g., Valium or Xanax), sleeping pills, barbiturates, Seconal, Ativan, or Klonopin - Immediate family member or someone in my household	1%	0%	1%	2%	1%	0%	0%	1%
Tranquilizers (e.g., Valium or Xanax), sleeping pills, barbiturates, Seconal, Ativan, or Klonopin - No/Not applicable	92%	91%	94%	96%	94%	92%	86%	95%
Vicodin - Yes	3%	5%	1%	0%	2%	2%	4%	1%
Vicodin - Immediate family member or someone in my household	1%	0%	1%	2%	0%	2%	0%	1%

- What are your reasons for not seeking a program or service to help with an alcohol or drug problem for you or a loved one?

93% of Shiawassee County respondents reported not needing to seek a program or service to help with an alcohol or drug problem for themselves or a loved one. Of the 7% of those that sought a program but were unable to find one, the following reasons were given:

Adult Variables	Total	Male	Female	Under 35	35-64	65+	<\$25K	\$25K+
Stigma of seeking drug addiction services	26%	50%	13%	18%	0%	21%	0%	9%
Fear	21%	50%	6%	11%	18%	0%	100%	5%
Have not thought about it	16%	0%	25%	18%	48%	0%	0%	19%
Do not know how to find a program	8%	0%	13%	0%	19%	58%	0%	5%
Stigma of seeking alcohol addiction services	8%	0%	13%	11%	0%	21%	0%	8%
Cannot afford to go	4%	0%	6%	0%	15%	0%	0%	5%
Did not have any openings (wait-listed)	4%	0%	6%	11%	0%	0%	0%	6%
Insurance does not cover it	4%	0%	6%	11%	0%	0%	0%	6%
Wait time	4%	0%	6%	11%	0%	0%	0%	6%
Do not want to miss work	4%	0%	6%	11%	0%	0%	0%	6%
Transportation	0%	0%	0%	0%	0%	0%	0%	0%
Cannot get to the office or clinic	0%	0%	0%	0%	0%	0%	0%	0%
A program was not available	0%	0%	0%	0%	0%	0%	0%	0%
Do not want to get in trouble	0%	0%	0%	0%	0%	0%	0%	0%
Other (please specify)	0%	0%	0%	0%	0%	0%	0%	26%

Youth Key Findings

Twenty-three percent (23%) of Shiawassee youth in 9th and 11th grades reported that they have tried marijuana and twelve percent (12%) are current users.

Youth Variables	Shiawassee County 2017-2018 (7th grade)	Shiawassee County 2021-2022 (7th grade)	Shiawassee County 2017-2018 (9th and 11th grade)	Shiawassee County 2021-2022 (9th and 11th grade)	Michigan YRBS 2019	U.S. YRBS 2019
Ever used marijuana (one or more times during their life)	N/A	N/A	33%	23%	38%	37%
Tried marijuana for the first time before age 13 years	N/A	N/A	5%	5%	5%	6%
Currently use marijuana (one or more times during the past 30 days)	4%	4%	17%	12%	22%	22%
Ever used synthetic marijuana (one or more times during their life)	8%	7%	9%	8%	8%	7%
Ever used cocaine (any form of cocaine, such as powder, crack, or freebase, one or more times during their life)	8%	6%	N/A	N/A	3%	4%
Currently use cocaine (any form of cocaine, such as powder, crack, or freebase, one or more times during the past 30 days)	N/A	N/A	<1%	<1%	N/A	N/A
Currently use inhalants (sniffed glue, breathed the contents of aerosol spray cans, or inhaled any paints or sprays to get high, one or more times during the past 30 days)	N/A	2%	2%	<1%	N/A	N/A
Currently use heroin (one or more times during the past 30 days)	N/A	N/A	<1%	<1%	N/A	N/A
Ever used methamphetamines (one or more times during their life)	8%	6%	N/A	N/A	3%	2%

Youth Variables	Shiawassee County 2017-2018 (7th grade)	Shiawassee County 2021-2022 (7th grade)	Shiawassee County 2017-2018 (9th and 11th grade)	Shiawassee County 2021-2022 (9th and 11th grade)	Michigan YRBS 2019	U.S. YRBS 2019
Currently use methamphetamines (one or more times during the past 30 days)	N/A	N/A	<1%	<1%	N/A	N/A
Ever injected any illegal drug (used a needle to inject any illegal drug into their body, one or more times during their life)	7%	5%	N/A	N/A	2%	2%
Currently inject any illegal drug (used a needle to inject any illegal drug into their body, one or more times during the past 30 days)	N/A	N/A	<1%	<1%	N/A	N/A
Took a prescription drug such as Ritalin, Adderall, or Xanax without a doctor's prescription (during the past month)	4%	2%	5%	4%	N/A	N/A
Were offered, sold, or given an illegal drug on school property (during the past 12 months)	4%	7%	14%	13%	25%	22%

How Marijuana Can Impact a Teen's Life:

- **Increased risk of mental health issues.**
 - Marijuana use has been linked to a range of mental health problems, such as depression and social anxiety.
 - People who use marijuana are more likely to develop temporary psychosis (not knowing what is real, hallucinations, and paranoia) and long-lasting mental disorders, including schizophrenia (a type of mental illness where people might see or hear things that aren't there). The association between marijuana and schizophrenia is stronger in people who start using marijuana at an earlier age and use marijuana more frequently.
- **Impaired driving.**
 - Driving while impaired by any substance, including marijuana, is dangerous and illegal.
 - Marijuana negatively affects several skills required for safe driving, such as reaction time, coordination, and concentration.
- **Potential for addiction.**
 - Approximately 3 in 10 people who use marijuana have marijuana use disorder.
 - Some signs and symptoms of marijuana use disorder include:
 - trying but failing to quit using marijuana
 - giving up important activities with friends and family in favor of using marijuana.
 - The risk of developing marijuana use disorder is stronger in people who start using marijuana during youth or adolescence and who use marijuana more frequently.

(Source: CDC; What You Need to Know About Marijuana Use and Teens; reviewed on September 8, 2021.)

Sexual Behavior

Adult Key Findings

Seventy percent (70%) of Shiawassee County adults had sexual intercourse in the past year. Four percent (4%) had more than one partner during that time.

Number of sexual partners within the past year	Total	Male	Female	Under 35	35-64	65+	<\$25K	\$25K+
One	66%	75%	62%	71%	74%	19%	30%	71%
2+	4%	<1%	6%	17%	4%	0%	7%	5%
None	30%	25%	32%	12%	22%	81%	63%	24%

- What did you or your partner do the last time you had sex to keep from getting pregnant?

Adult Variables	Total	Male	Female	Under 35	35-64	65+	<\$25K	\$25K+
Use a form of birth control (permanent or temporary--e.g.: vasectomy, tubes tied, birth control pill, IUD, condoms, etc)	37%	33%	38%	52%	41%	4%	17%	42%
No partner/not sexually active	22%	27%	20%	12%	15%	57%	39%	19%
My partner or myself is too old to get pregnant	21%	16%	22%	0%	26%	33%	14%	21%
My partner or myself is infertile	7%	9%	7%	2%	10%	2%	9%	7%
Not currently using birth control	4%	4%	4%	13%	3%	0%	0%	6%
Don't know	3%	9%	4%	7%	3%	0%	11%	2%
I am gay or a lesbian	2%	0%	3%	9%	1%	0%	6%	2%
Practicing abstinence	1%	0%	2%	0%	1%	4%	3%	1%
Currently pregnant	1%	2%	1%	5%	0%	0%	2%	1%
My partner and I are trying to get pregnant	0%	0%	0%	0%	0%	0%	0%	0%

- In the past year, have any of the following happened to you?

Adult Variables	Total	Male	Female	Under 35	35-64	65+	<\$25K	\$25K+
Injected or took drugs not prescribed to me	0%	0%	0%	0%	0%	0%	0%	0%
Treated for a sexually transmitted disease (STD)	1%	2%	1%	2%	1%	0%	0%	1%
Tested positive for HIV	0%	0%	0%	0%	0%	0%	0%	0%
Tested positive for Hepatitis C	0%	0%	0%	0%	0%	0%	0%	0%
Tested positive for HPV	1%	0%	2%	0%	0%	0%	1%	1%
Had anal sex without a condom	1%	0%	3%	6%	2%	0%	4%	1%
Had sex with someone of the same gender	1%	0%	1%	6%	0%	0%	0%	1%
Had sex without a condom	16%	16%	17%	32%	15%	4%	11%	22%
Following alcohol or drug use, engaged in sexual activity that you would not have done if sober	0%	0%	1%	2%	0%	0%	0%	1%
Know someone involved in sex trafficking	0%	0%	0%	0%	0%	0%	0%	0%
None of the above	79%	82%	76%	53%	80%	96%	91%	74%

- Have you ever been forced or manipulated to do any of the following?

Adult Variables	Total	Male	Female	Under 35	35-64	65+	<\$25K	\$25K+
Have sex	4%	0%	8%	19%	5%	4%	11%	7%
Have sex with someone you did not know	1%	0%	2%	6%	1%	0%	0%	2%
Have sex with someone you met on social media	0%	0%	1%	0%	1%	0%	0%	1%
Engage in sexual activity in exchange for something of value such as food, shelter or money	1%	0%	1%	2%	1%	0%	4%	0%
Sell sex and give money to someone else	0%	0%	0%	0%	0%	0%	0%	0%
None of the above	94%	100%	88%	74%	92%	96%	85%	91%

- If you have ever been forced into having sex, did you report it?

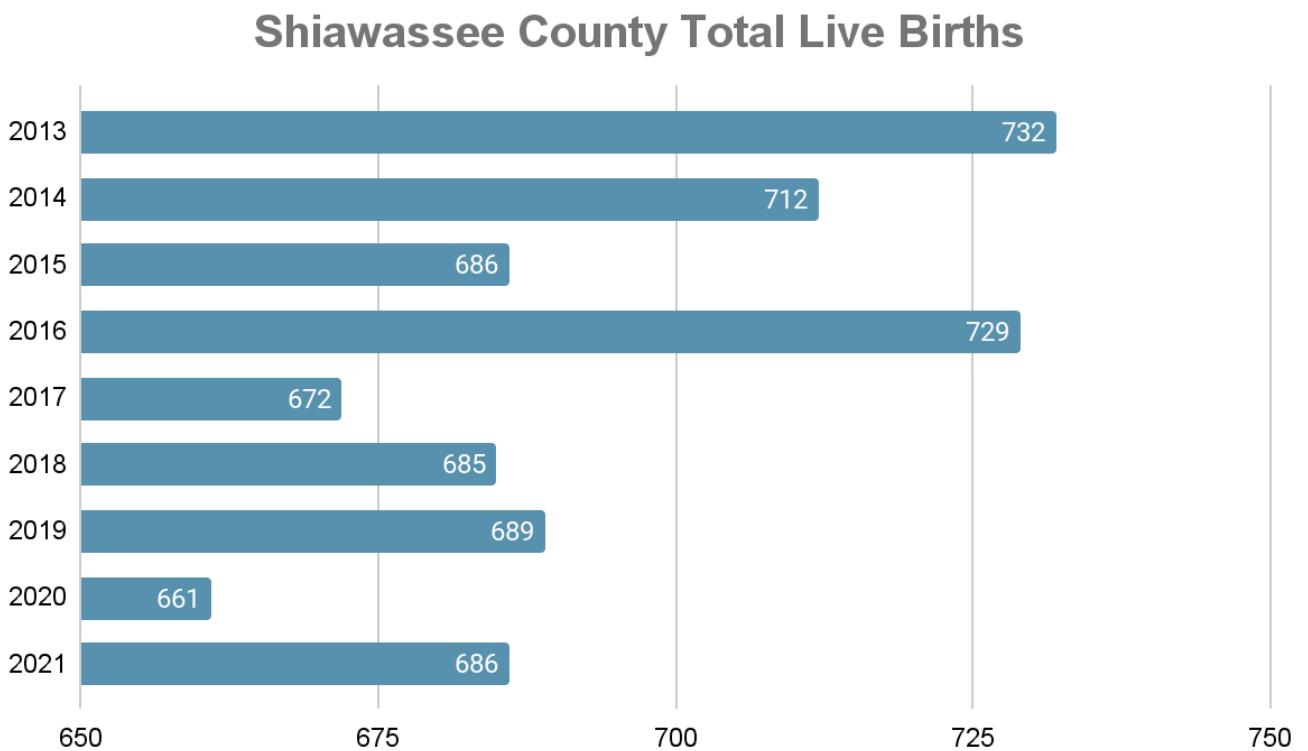
82% of Shiawassee County residents have never been forced into having sex. Of those that have, reporting was as follows:

	Total	Male	Female	Under 35	35-64	65+	<\$25K	\$25K≥
Yes	15%	10%	20%	17%	20%	18%	24%	18%
No	85%	90%	80%	83%	80%	82%	76%	82%

- Why did you not report your sexual assault?

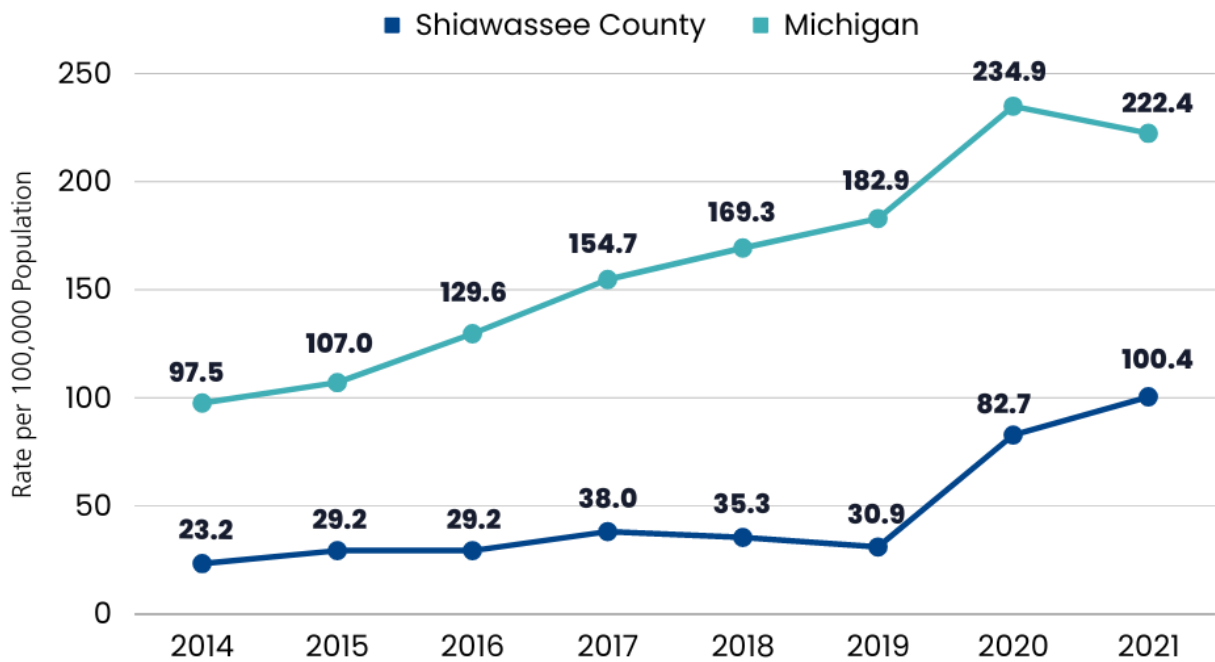
	Total	Male	Female	Under 35	35-64	65+	<\$25K	\$25K+
I was scared	30%	100%	22%	21%	22%	35%	0%	28%
I was in a relationship with the offender	27%	0%	30%	25%	34%	17%	33%	25%
The stigma	22%	0%	24%	27%	23%	17%	7%	24%
Other	10%	0%	11%	14%	0%	31%	60%	7%
I feared the offender	7%	0%	8%	7%	11%	0%	0%	10%
I did not know how	5%	0%	5%	7%	11%	0%	0%	6%

Note: “None of the above” responses were indistinguishable from responses that would indicate that the question does not apply, so they were excluded. The table shows all other responses.

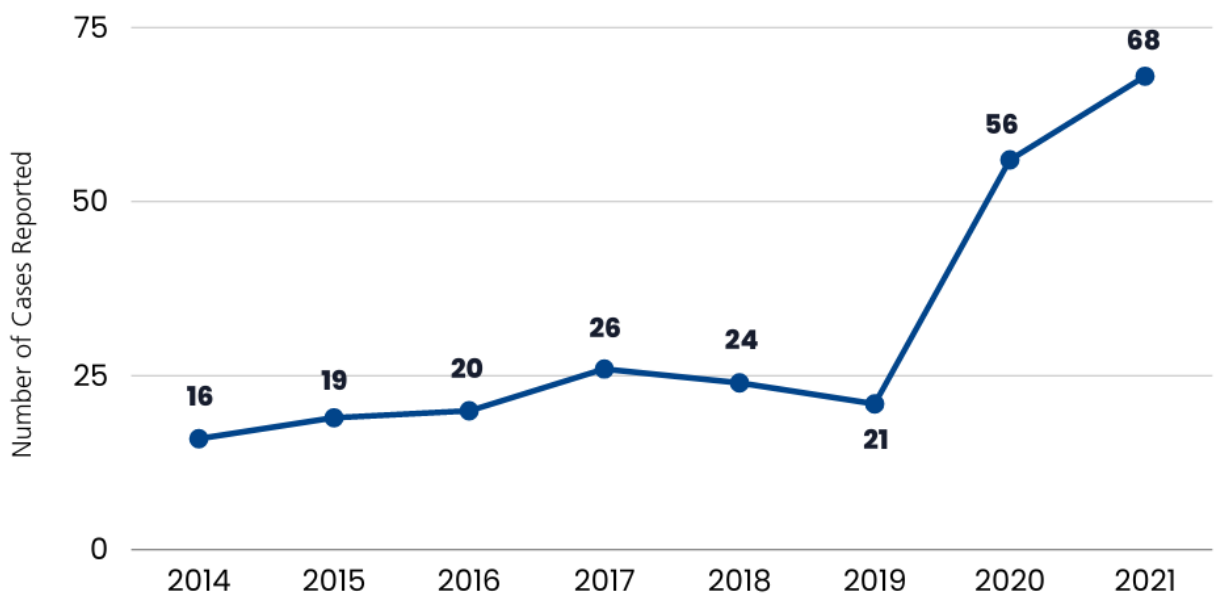


(Source for graphs: MDHHS, Vital Statistics: Natality, Pregnancy and Abortion Statistics, retrieved on December 22, 2022.)

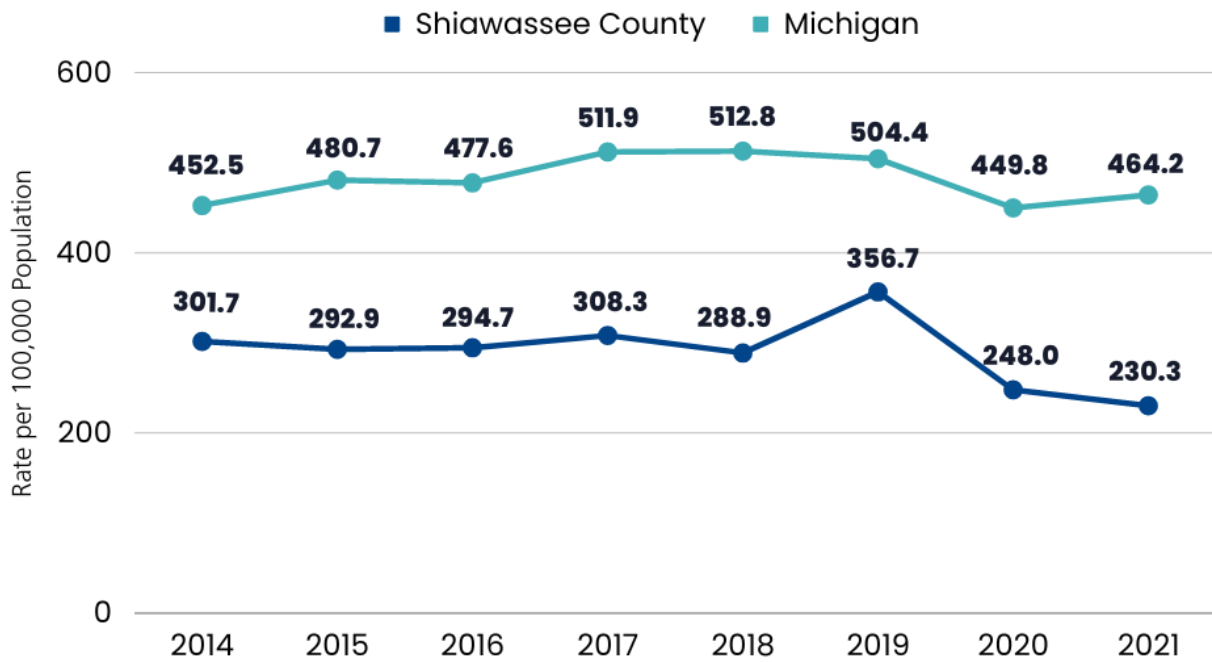
Gonorrhea Annualized Disease Rates for Shiawassee County and Michigan



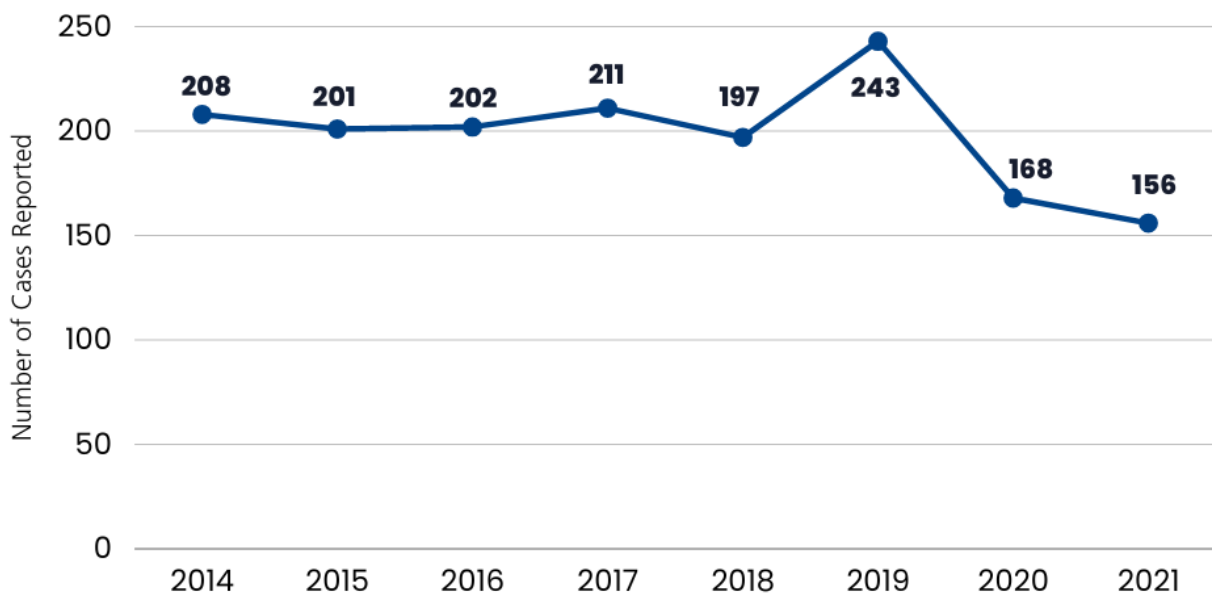
Annualized Count of Gonorrhea Cases for Shiawassee County



Chlamydia Annualized Disease Rates for Shiawassee County and Michigan



Annualized Count of Chlamydia Cases for Shiawassee County



(Source for graphs: MDHHS, Michigan Sexually Transmitted Infections Databases, HIV and STI Diagnosis Trend Report updated on July 1, 2022.)

Understanding Sexual Violence

- **Sexual violence affects millions of people each year in the United States.**
 - Researchers know the numbers underestimate this problem because many cases are unreported.
 - Survivors may be ashamed, embarrassed, or afraid to tell the police, friends, or family about the violence. Victims may also keep quiet because they have been threatened with further harm if they tell anyone or do not think anyone will help them.
- **Sexual violence is common.**
 - Over half of women and almost 1 in 3 men have experienced sexual violence involving physical contact during their lifetimes.
 - 1 in 4 women and about 1 in 26 men have experienced completed or attempted rape.
 - 1 in 3 women and about 1 in 9 men experienced sexual harassment in a public place.
- **Sexual violence starts early.**
 - More than 4 in 5 female rape survivors reported that they were first raped before age 25 and almost half were first raped as a minor (i.e., before age 18).
 - Nearly 8 in 10 male rape survivors reported that they were made to penetrate someone before age 25 and about 4 in 10 were first made to penetrate as a minor.
- **Sexual violence disproportionately affects some groups.**
 - Women and racial and ethnic minority groups experience a higher burden of sexual violence.
 - More than 2 in 5 non-Hispanic American Indian or Alaska Native and non-Hispanic multiracial women were raped in their lifetime.
- **Consequences of sexual violence can be:**
 - Physical
 - Bruising
 - Genital injuries
 - Sexually transmitted infection
 - Pregnancy
 - Psychological
 - Depression
 - Anxiety
 - Suicidal thoughts
 - Chronic issues:
 - Post-traumatic stress disorder (PTSD)
 - Reproductive, gastrointestinal, cardiovascular, and sexual health problems
 - Sexual violence survivors are more likely to:
 - Smoke
 - Abuse alcohol
 - Use drugs
 - Engage in risky sexual activity

(Source: CDC; Fast Facts: Preventing Sexual Violence; reviewed on June 22, 2022.)

Youth Key Findings

Shiawassee County students reported a decrease in sexual activity and an increase in condom usage.

Youth Variables	Shiawassee County 2021-2022 (7th grade)	Shiawassee County 2017-2018 (9th and 11th grade)	Shiawassee County 2021-2022 (9th and 11th grade)	Michigan YRBS 2019	U.S. YRBS 2019
Ever had sexual intercourse	11%	37%	18%	35%	38%
Had sexual intercourse before age 13 (of all youth)	N/A	2%	2%	3%	3%
Had four or more sexual partners (of all youth)	N/A	7%	2%	7%	9%
Used a condom during last sexual intercourse (of sexually active youth)	40%	69%	80%	55%	54%
Ever physically forced to have sexual intercourse (when they did not want to)	N/A	10%	10%	10%	7%
Experienced physical dating violence (physically hurt on purpose by someone they were dating or going out with during the past 12 months)	N/A	15%	12%	6%	8%
Experienced sexual dating violence (forced to do sexual things they did not want to do by someone they were dating or going out with in the past 12 months)	N/A	14%	13%	6%	8%

- Breakdown of youth MiPHY respondents who have had sex by grade and gender:

Youth Variable	Shiawassee County 2022 Total	Shiawassee County 2022 9th Grade	Shiawassee County 2022 11th Grade	Shiawassee County 2022 Male	Shiawassee County 2022 Female
Percent of student respondents who have had sex	18%	10%	32%	24%	14%

Women's Health

Adult Key Findings

- If you have been pregnant in the past 5 years, during your last pregnancy, did you?

79% of Shiawassee County's female residents were not pregnant within the last 5 years.

Those who reported a pregnancy within the last 5 years did the following:

Adult Variables	Total	Under 35	35-64	65+	<\$25K	\$25K+
Get prenatal care within the first 3 months	45%	25%	15%	0%	7%	22%
Get a dental exam during pregnancy	35%	16%	18%	0%	0%	18%
Receive WIC services	23%	13%	7%	0%	7%	11%
Take a multivitamin with folic acid	40%	22%	15%	0%	0%	20%
Smoke cigarettes or use other tobacco products	5%	0%	7%	0%	7%	2%
Use e-cigarettes or other electronic vaping products	0%	0%	0%	0%	0%	0%
Consume alcoholic beverages	3%	0%	4%	0%	0%	1%
Use marijuana	3%	2%	0%	0%	7%	0%
Use any drugs not prescribed	0%	0%	0%	0%	0%	0%
Use opioids (prescription painkillers)	0%	0%	0%	0%	0%	0%
Experience depression (during or after pregnancy)	30%	19%	7%	0%	7%	15%
Experience domestic violence	0%	0%	0%	0%	0%	0%
Look for options for an unwanted pregnancy	0%	0%	0%	0%	0%	0%
Receive opiate replacement therapy (suboxone)	0%	0%	0%	0%	0%	0%
Receive a COVID-19 vaccine	8%	3%	4%	0%	0%	3%
Do none of these things	38%	0%	23%	0%	67%	8%

- A mammogram is an x-ray of each breast to look for breast cancer. How long has it been since your last mammogram?

Adult Variables	Total	Under 35	35-64	65+	<\$25K	\$25K+
Have never had a mammogram	28%	89%	16%	0%	24%	31%
Within the past year	48%	7%	57%	65%	31%	52%
Within the past 2 years (more than 1 year but less than 2 years ago)	10%	2%	15%	5%	5%	10%
More than 2 years	9%	2%	7%	24%	20%	6%
Breasts were removed	1%	0%	1%	0%	0%	0%
Don't know	3%	0%	4%	6%	20%	1%

Shiawassee County Female Leading Causes of Death 2021

Total female deaths: 824

1. Cancer (156 deaths, 19%)
2. Heart Disease (150 deaths, 18%)
3. COVID-19 (99 deaths, 12%)
4. Alzheimer's Disease (61 deaths, 7%)
5. Stroke (48 deaths, 6%)

(Source: MDHHS, 2021 Geocoded Michigan Death Certificate Registry, Division for Vital Records & Health Statistics, updated: 11/14/2022.)

Michigan Female Leading Causes of Death 2021

Total female deaths: 55,544

1. Heart disease (12,065 deaths, 22%)
2. Cancer (10,051 deaths, 18%)
3. COVID-19 (5,916 deaths, 11%)
4. Stroke (3,375 deaths, 6%)
5. Alzheimer's (2,910 deaths, 5%)

(Source: Vitalstats, Major Categories of Causes Of Death, by Gender Michigan Residents, 2021.)

Oral Health

Adult Key Findings

- How long has it been since you last visited a dentist or a dental clinic for any reason? Include visits to dental specialists, such as orthodontists.

Adult Variables	Total	Male	Female	Under 35	35-64	65+	<\$25K	\$25K+
Within the past year (anytime less than 12 months ago)	62%	56%	69%	65%	63%	70%	21%	76%
Within the past 2 years (more than 1 year but less than 2 years ago)	7%	4%	9%	8%	10%	6%	22%	7%
Within the past 5 years (more than 2 years but less than 5 years ago)	16%	22%	10%	16%	14%	4%	19%	10%
5 or more years ago	14%	18%	11%	11%	12%	21%	34%	8%
Don't know	0%	0%	0%	0%	0%	0%	0%	0%
Never	0%	0%	1%	0%	0%	0%	3%	0%

- What has caused you to not visit the dentist in the last year?

Adult Variables	Total	Male	Female	Under 35	35-64	65+	<\$25K	\$25K+
Cost	28%	30%	26%	5%	36%	14%	9%	38%
I have dentures	16%	15%	17%	0%	12%	53%	34%	17%
No reason to go/have not thought of it	15%	20%	9%	22%	12%	22%	16%	7%
Other (please specify)	13%	10%	17%	22%	10%	22%	7%	12%
I do not have/know a dentist	10%	15%	2%	0%	7%	0%	7%	5%
Fear, apprehension, nervousness, pain, or dislike going	8%	0%	19%	22%	16%	0%	8%	17%
My dentist does not accept my insurance	7%	10%	2%	10%	2%	0%	8%	0%
Cannot find a dentist that takes Medicaid	3%	0%	9%	19%	4%	0%	11%	3%
Transportation	0%	0%	0%	0%	0%	0%	0%	0%
I cannot get into a dentist	0%	0%	0%	0%	0%	0%	0%	0%
I use the Emergency Room for dental issues	0%	0%	0%	0%	0%	0%	0%	0%

Disparities in Oral Health

The nation's oral health has greatly improved since the 1960s, but not all Americans have equal access to these improvements. Some racial/ethnic and socioeconomic groups have worse oral health as a result of the social determinants of health—conditions in the places where people are born, live, learn, work, and play. For example, some groups of people:

- Can't afford to pay out of pocket for dental care, do not have private or public dental insurance, or can't get time off from work to get to dental care.
- Live in communities where they don't have access to fluoridated water and school sealant programs, healthy foods, and public transportation to get to dental appointments.

Regular preventive dental care is essential for good oral health so one can find problems earlier when they are easier to treat, but many don't get the care they need. More people are unable to afford dental care than other types of health care. In 2015, the percentage of people in the United States with no dental insurance was 29% overall and 62% for older adults. Traditional Medicare does not cover routine dental care; therefore many lose their benefits upon retirement.

In addition, many low-income adults do not have public dental insurance. Medicaid programs are not required to provide dental benefits to adult enrollees, so dental coverage varies widely from state to state. Currently, 15 states provide no coverage or only emergency coverage.

Among working-age US adults, over 40% of low-income and non-Hispanic Black adults have untreated tooth decay. Untreated oral disease has a large impact on quality of life and productivity:

- Over 34 million school hours were lost in the United States in 2008 because of unplanned urgent dental care.
- Over \$45 billion is lost in productivity in the United States each year because of untreated oral disease.
- Nearly 18% of all working-age adults, and 29% of those with lower incomes, report that the appearance of their mouth and teeth affects their ability to interview for a job.

(Source: CDC; Disparities in Oral Health; reviewed on February 5, 2021.)

Preventive Health Response

Adult Key Findings

- Have you had a colonoscopy in the last 5 years (45+): Yes: 49% No: 51%
- Have you had a vision screening in the past two years (18+): Yes: 80% No: 20%
- Have you had a FIT/blood stool test in the past year (45+): Yes: 28% No: 72%

Adult Variables	Female 55+	Female 65+	Male 55+
Has had a DEXA/bone density test within the last two years	45%	56%	5%

Adult Variable	Within the last year	Within the last two years	Within the last three years	Within the last five years
Percent of respondents 18 years and up who have had a Pap Smear	39%	75%	91%	100%

Adult Variable	Never Had	Within the past year	Within the past two years	More than two years ago	Breasts were removed
Percent of respondents 45 years and up who have had a mammogram	3%	69%	15%	12%	1%

Adult Variable	Never Had	Within the past year	Within the past two years	More than two years ago	Breasts were removed
Percent of respondents 18 years and up who have had a clinical breast exam	7%	53%	23%	16%	0%

Adult Variable	Shiawassee CHNA 2012	Shiawassee CHNA 2016	Shiawassee CHNA 2019	Shiawassee CHNA 2022
Uninsured Shiawassee County Adults	14%	6%	7%	8%

- The main reason adults gave for being without health care coverage in 2022 was cost (40%) or because they lost their job or changed employers (40%).

- Why did you not get the flu shot?

Adult Variables	Total	Male	Female	Under 35	35-64	65+	<\$25K	\$25K+
I did get the flu shot	72%	71%	73%	69%	73%	77%	59%	76%
Don't need it	11%	13%	9%	12%	9%	6%	12%	10%
Get sick from it	5%	4%	6%	9%	7%	2%	13%	5%
Flu shot was not effective	3%	4%	1%	0%	2%	2%	0%	2%
Religious beliefs	2%	2%	2%	2%	2%	2%	4%	2%
Transportation	1%	2%	0%	0%	0%	2%	0%	0%
It does not work	1%	0%	2%	3%	1%	4%	2%	2%
Time	1%	0%	1%	2%	1%	0%	0%	1%
Flu shot is not available	0%	0%	0%	0%	0%	0%	0%	0%
Cost	0%	0%	1%	0%	1%	0%	4%	0%
Insurance will not pay for it	0%	0%	0%	0%	0%	0%	0%	0%
Other	4%	2%	5%	4%	5%	6%	6%	3%

- Do you have access to a wellness program through your employer or your spouse's employer that includes any of the following?

Adult Variables	Total	Male	Female	Under 35	35-64	65+	<\$25K	\$25K+
I do not have access to any wellness programs	21%	24%	18%	20%	21%	11%	13%	21%
My spouse or I are not employed	17%	18%	15%	6%	11%	38%	39%	10%
Free/discounted gym membership	15%	16%	14%	18%	13%	14%	7%	18%
On-site fitness facility	11%	11%	10%	18%	11%	1%	2%	12%
Health risk assessment	4%	2%	6%	6%	5%	7%	1%	7%
Gift cards or cash for participation in wellness program	3%	4%	3%	3%	2%	4%	2%	3%
Free/discounted weight loss program (e.g., Weight Watchers)	2%	2%	2%	1%	2%	1%	3%	2%
On-site health education classes	2%	2%	2%	1%	3%	2%	6%	2%
Lower insurance premiums for participation in wellness program	1%	0%	2%	4%	2%	0%	1%	2%
Gift cards or cash for positive changes in health status	1%	0%	1%	0%	1%	1%	0%	1%
Free/discounted smoking cessation program	1%	2%	0%	0%	1%	1%	0%	1%
I do not have access to any wellness programs	21%	24%	18%	20%	21%	11%	13%	21%
On-site health screenings	1%	2%	1%	1%	1%	0%	0%	1%
Healthier food options in vending machines or cafeteria	3%	2%	4%	5%	4%	1%	1%	4%
None of the above	15%	15%	15%	12%	18%	12%	16%	12%

Health and Economic Costs of Chronic Diseases

Chronic diseases have significant health and economic costs in the United States. Preventing chronic diseases, or managing symptoms when prevention is not possible, can reduce these costs.

- **Heart Disease and Stroke**
 - Nothing kills more Americans than heart disease and stroke. More than 877,500 Americans die of heart disease or stroke every year—that's one-third of all deaths.
 - These diseases take an economic toll, as well, costing our health care system \$216 billion per year and causing \$147 billion in lost productivity on the job.
- **Cancer**
 - Each year in the United States, more than 1.7 million people are diagnosed with cancer, and almost 600,000 die from it, making it the second leading cause of death.
 - The cost of cancer care continues to rise and is expected to reach more than \$240 billion by 2030.
- **Diabetes**
 - More than 37 million Americans have diabetes, and another 96 million adults in the United States have a condition called prediabetes, which puts them at risk for type 2 diabetes.
 - Diabetes can cause serious complications, including heart disease, kidney failure, and blindness. In 2017, the total estimated cost of diagnosed diabetes was \$327 billion in medical costs and lost productivity.
- **Obesity**
 - Obesity affects 20% of children and 42% of adults, putting them at risk of chronic diseases such as type 2 diabetes, heart disease, and some cancers. Over 25% of young people 17 to 24 are too heavy to join the US military.
 - Obesity costs the US healthcare system nearly \$173 billion a year.
- **Arthritis**
 - Arthritis affects 58.5 million adults in the United States, which is about 1 in 4 adults.
 - It is a leading cause of work disability in the United States, one of the most common chronic conditions, and a common cause of chronic pain.
 - The total cost attributable to arthritis and related conditions was about \$303.5 billion in 2013. Of this amount, nearly \$140 billion was for medical costs and \$164 billion was for indirect costs associated with lost earnings.
- **Alzheimer's Disease**
 - Alzheimer's disease, a type of dementia, is an irreversible, progressive brain disease that affects about 5.7 million Americans, including 1 in 10 adults aged 65 and older.
 - It is the sixth leading cause of death among all adults and the fifth leading cause for those aged 65 or older.
 - In 2020, the estimated cost of caring for and treating people with Alzheimer's disease was \$305 billion. By 2050, these costs are projected to be more than \$1.1 trillion.

(Source: CDC; Health and Economic Costs of Chronic Disease; reviewed on September 8, 2022.)

Health Care Access and Utilization

Adult Key Findings

- How long has it been since you last visited a doctor for a routine checkup? A routine checkup is a general physical exam, not an exam for a specific injury, illness, or condition.

Adult Variable	Total	Male	Female	Under 35	35-64	65+	<\$25K	\$25K+
Within the past year (anytime less than 12 months ago)	83%	80%	86%	83%	84%	92%	80%	86%
Within the past 2 years (more than 1 year but less than 2 years ago)	9%	14%	5%	17%	5%	4%	8%	6%
Within the past 5 years (more than 2 years but less than 5 years ago)	4%	2%	6%	6%	7%	0%	4%	5%
5 or more years ago	3%	5%	2%	0%	3%	4%	4%	2%
Never	0%	0%	1%	0%	1%	0%	3%	0%

- Which place do you usually go when you are sick or need advice about your health?

Adult Variables	Total	Male	Female	Under 35	35-64	65+	<\$25K	\$25K+
A doctor/health care provider's office	83%	79%	88%	81%	85%	91%	69%	89%
Urgent care center	13%	14%	11%	12%	13%	9%	20%	11%
A hospital emergency room	3%	5%	1%	2%	2%	0%	8%	0%
A public health clinic or community health center	1%	2%	1%	5%	0%	0%	4%	0%

- Has cost interfered with your ability to get any of the following services:

Adult Variables	Total	Male	Female	Under 35	35-64	65+	<\$25K	\$25K+
I have gotten the recommended care	46%	47%	44%	50%	43%	46%	27%	49%
Medications	10%	8%	11%	11%	12%	9%	9%	11%
Weight loss program	8%	6%	10%	10%	9%	10%	8%	10%
Mental health services	8%	6%	9%	8%	10%	5%	9%	9%
Surgery	7%	9%	6%	3%	6%	8%	11%	6%
Other	6%	8%	4%	1%	6%	2%	7%	3%
Lab testing	5%	4%	6%	6%	4%	9%	9%	4%
Colonoscopy	4%	6%	2%	2%	3%	2%	3%	2%
Prostate Specific Antigen (PSA) test	2%	4%	0%	2%	1%	0%	1%	1%
Mammogram	1%	0%	2%	4%	1%	2%	3%	2%
Pap smear test	1%	0%	2%	0%	2%	2%	4%	1%
Smoking cessation	1%	2%	0%	0%	1%	2%	3%	0%
Alcohol and/or drug treatment	1%	2%	1%	0%	1%	3%	3%	0%
Family planning services	1%	0%	1%	4%	1%	0%	3%	1%
Immunizations	0%	0%	0%	0%	0%	2%	0%	0%

- What might prevent you from seeing a doctor or health care provider if you were sick, injured, or needed some type of health care?

Adult Variables	Total	Male	Female	Under 35	35-64	65+	<\$25K	\$25K+
Nothing	26%	26%	25%	14%	28%	35%	34%	25%
Difficult to get an appointment	18%	15%	21%	22%	16%	29%	18%	19%
Cost/no insurance	12%	12%	12%	14%	13%	7%	14%	12%
Doctor/health care provider will not take my insurance	10%	10%	9%	7%	11%	8%	13%	8%
Hours not convenient	10%	11%	9%	14%	9%	7%	3%	11%
Cannot get time off from work	8%	7%	8%	16%	7%	0%	2%	10%
Worried they might find something wrong	6%	8%	3%	1%	5%	7%	4%	4%
Cannot find childcare	3%	1%	4%	10%	1%	0%	0%	5%
COVID-19	3%	4%	3%	2%	3%	3%	1%	4%
No transportation or difficult to find transportation	3%	4%	2%	0%	4%	3%	6%	0%
Other	2%	1%	3%	0%	3%	1%	4%	3%

- How many times have you personally visited the Emergency Room (ER) in the past 12 months for care?

Adult Variables	Total	Male	Female	Under 35	35-64	65+	<\$25K	\$25K+
0 times	64%	60%	67%	61%	64%	73%	35%	76%
1 or 2 times	31%	36%	26%	33%	27%	26%	46%	23%
3 to 5 times	3%	2%	3%	0%	5%	2%	5%	1%
6 or more times	3%	2%	3%	6%	5%	0%	14%	0%

- Why do you use the Emergency room (ER) for your health care?

Adult Variables	Total	Male	Female	Under 35	35-64	65+	<\$25K	\$25K+
Serious illness/injury	37%	34%	39%	39%	43%	24%	26%	41%
I do not use the Emergency Room for my health care	29%	27%	31%	30%	26%	40%	23%	32%
My doctor/health care provider told me to go there	17%	19%	15%	18%	16%	15%	13%	16%
I could not get in to see my primary care provider because of time of day/too long of a wait	11%	15%	7%	11%	7%	11%	15%	7%
None of the above	3%	2%	4%	2%	4%	6%	5%	3%
I do not have a primary care provider	2%	2%	2%	0%	1%	5%	10%	0%
What I have always done/what I am used to	1%	2%	0%	0%	1%	0%	2%	0%
COVID-19	1%	0%	1%	0%	1%	0%	3%	0%
Mental health crisis	0%	0%	0%	0%	1%	0%	3%	0%

- In the past 12 months, have you chosen to go outside of Shiawassee County for any of the following health care services?

Adult Variables	Total	Male	Female	Under 35	35-64	65+	<\$25K	\$25K+
I do not use any health care services outside of Shiawassee County	27%	38%	19%	20%	21%	21%	31%	21%
Specialty care	20%	23%	18%	16%	16%	17%	13%	17%
Primary care (family doctor)	9%	7%	10%	9%	10%	12%	11%	9%
Dental services	7%	5%	8%	9%	9%	4%	2%	9%
Cardiac care	6%	7%	5%	0%	6%	10%	11%	4%
Mental health care/counseling services	5%	4%	6%	9%	5%	3%	3%	6%
Pediatric care	3%	5%	2%	7%	1%	0%	1%	3%
Obstetrics/gynecology	3%	0%	5%	4%	5%	1%	1%	4%
Dermatological (skin) care	3%	0%	5%	4%	4%	3%	3%	4%
Ear, nose, throat care	3%	2%	4%	6%	3%	4%	2%	4%
Orthopedic care	2%	0%	3%	1%	2%	5%	1%	3%
Cancer care	2%	2%	2%	0%	2%	5%	2%	2%
Female health services	2%	0%	3%	4%	3%	0%	0%	3%
Podiatry (foot/ankle) care	2%	2%	2%	2%	2%	5%	7%	1%
Other (please specify)	2%	2%	3%	6%	5%	9%	5%	7%
Hospice/palliative care	1%	2%	0%	0%	0%	0%	1%	0%
Adult therapies (e.g., physical therapy, occupational therapy, speech therapy)	1%	0%	2%	1%	2%	2%	5%	2%
Bariatric (obesity) care	1%	0%	2%	2%	2%	0%	0%	2%
Skilled nursing rehabilitation	1%	2%	0%	0%	0%	0%	1%	0%
Pediatric therapies (e.g., physical therapy, occupational therapy, speech therapy)	0%	0%	1%	0%	1%	0%	0%	1%
Addiction services	0%	0%	0%	0%	0%	0%	0%	0%

- In the past 12 months, why have you gone outside of Shiawassee County for health care services?

Adult Variables	Total	Male	Female	Under 35	35-64	65+	<\$25K	≥\$25K
I did not go outside of Shiawassee County for health care services	35%	44%	27%	22%	30%	44%	48%	29%
Services was not available locally	15%	13%	16%	19%	14%	10%	7%	18%
There was a better quality of program	13%	13%	13%	18%	13%	8%	10%	14%
I did not like local services/providers	8%	4%	12%	9%	11%	5%	3%	11%
I went there because I used to live there	6%	6%	7%	5%	6%	12%	9%	5%
Had a bad experience locally	6%	2%	4%	6%	6%	5%	8%	5%
Other (please specify)	5%	10%	7%	7%	6%	5%	8%	5%
I had insurance restrictions	3%	2%	4%	0%	4%	5%	3%	3%
Word of mouth	3%	4%	2%	4%	2%	2%	2%	3%
Confidentiality/anonymity	2%	2%	2%	0%	4%	0%	1%	2%
The wait list was too long in Shiawassee County	2%	0%	4%	8%	3%	2%	2%	4%
I work there	1%	0%	2%	2%	1%	2%	0%	2%
Hours not convenient	0%	0%	0%	0%	0%	0%	0%	0%

- Availability of services for Shiawassee County adults

Types of Programs	Shiawassee County adults who have looked for the program and found one	Shiawassee County adults who have looked but have NOT found a specific program
Alcohol Abuse	4%	3%
Assistance with in-home care or an elderly or disabled adult	17%	9%
Assistance with out-of-home placement for an elderly or disabled adult	8%	4%
Assisted living program for an elderly or disabled adult	5%	3%
Cancer support group/counseling	1%	2%
Day care for an elderly or disabled adult	2%	5%
Depression, anxiety, or some other mental health issue	38%	16%
Detoxification for opiates/heroin	0%	2%
Disability	5%	6%
Disabled adult program	3%	3%
Drug abuse	2%	3%
End-of-life care or Hospice care	14%	0%
Family planning	4%	3%
Gambling abuse	0%	1%
Marital or family issue	3%	3%
Respite/overnight care for an elderly or disabled adult	1%	6%
Tobacco cessation	5%	6%
Nutrition counseling/dietician	6%	11%
Weight management	11%	12%

- During the past 12 months, were there any barriers to you taking all of your prescribed medication or getting your prescriptions filled?

Adult Variables	Total	Male	Female	Under 35	35-64	65+	<\$25K	\$25K+
I had all prescriptions filled/no barriers	71%	76%	67%	61%	73%	71%	66%	69%
Prescription was too expensive to fill	11%	9%	12%	14%	11%	6%	11%	11%
Side effects	7%	9%	5%	12%	2%	7%	7%	5%
My doctor did not prescribe me any medications	3%	2%	4%	5%	2%	4%	1%	4%
There was no generic equivalent of what was prescribed	3%	0%	5%	6%	3%	4%	3%	5%
I stretched my current prescription by taking less than what was prescribed	3%	2%	3%	0%	4%	4%	3%	3%
I did not think I needed it	2%	2%	2%	0%	2%	4%	4%	2%
I am taking too many medications	1%	0%	2%	0%	2%	2%	2%	1%
I have no insurance	0%	5	0%	0%	0%	0%	0%	0%
Transportation	0%	0%	1%	0%	1%	0%	3%	0%
Fear of addiction	0%	0%	0%	3%	0%	0%	0%	1%

Chronic Disease

Adult Key Findings

- Are you currently being treated or receiving any education for any of the following?

Adult Variables	Total	Male	Female	Under 35	35-64	65+	<\$25K	\$25K+
High Blood Pressure	33%	33%	32%	4%	37%	47%	43%	28%
High Cholesterol	32%	35%	31%	2%	24%	37%	22%	19%
Arthritis	31%	24%	35%	9%	27%	51%	26%	12%
Pre-diabetes/Diabetes	19%	20%	18%	8%	24%	21%	32%	17%
Asthma	13%	11%	15%	5%	19%	9%	8%	14%
Congestive Heart Failure	6%	9%	3%	0%	5%	6%	4%	3%

- What major impairments or health issues limit your activities?

Adult Variables	Total	Male	Female	Under 35	35-64	65+	<\$25K	\$25K+
I am not limited by any impairments or health issues	15%	11%	21%	38%	15%	11%	11%	23%
Arthritis/rheumatism	11%	10%	13%	7%	10%	19%	17%	11%
Back or neck problem	11%	11%	11%	7%	11%	14%	13%	9%
Chronic pain	9%	9%	8%	3%	11%	7%	8%	8%
Stress, anxiety depression, or other emotional problems	8%	7%	9%	14%	10%	2%	8%	9%
Fitness level	7%	6%	8%	11%	6%	8%	4%	8%
Lung/breathing problem	6%	8%	4%	0%	5%	6%	4%	4%
Walking problem	5%	6%	4%	0%	4%	11%	4%	5%
Chronic illness (e.g., diabetes, cancer, stroke related problems, high blood pressure)	5%	6%	5%	1%	5%	8%	8%	5%
Sleep problems	5%	6%	4%	7%	4%	2%	4%	4%
Eye/vision problem	4%	5%	3%	0%	4%	4%	4%	3%
Fractures/bone/joint injury	2%	1%	3%	1%	2%	4%	0%	3%
Hearing problem	2%	2%	1%	0%	2%	2%	1%	1%
Dental problems	2%	2%	1%	1%	2%	2%	5%	1%
Mental health illness or disorder	2%	2%	2%	3%	3%	0%	2%	2%
Other physical disability	2%	2%	1%	2%	2%	1%	3%	1%
Learning disability	1%	1%	0%	0%	1%	1%	0%	0%
Confusion	1%	2%	0%	0%	1%	0%	0%	1%
Memory loss	1%	2%	0%	0%	1%	0%	0%	1%
Other	1%	0%	1%	3%	1%	1%	2%	1%
Drug addiction	0%	1%	0%	0%	0%	0%	0%	0%
Substance dependency	0%	1%	0%	0%	0%	0%	0%	0%

Chronic Disease: Quality of Life

Adult Key Findings

- Are you responsible for providing regular care or assistance to any of the following?

Adult Variables	Total	Male	Female	Under 35	35-64	65+	<\$25K	\$25K+
None of the above	54%	77%	38%	63%	42%	42%	39%	44%
Multiple children	15%	14%	16%	24%	16%	1%	5%	18%
A friend, family member, or spouse who has a health problem	8%	2%	12%	6%	10%	15%	14%	8%
Elderly parent or loved one	7%	5%	8%	3%	10%	3%	5%	7%
A friend, family member, or spouse with a mental health issue	4%	0%	7%	0%	5%	11%	7%	7%
Grandchildren	4%	2%	5%	0%	5%	8%	3%	4%
An adult child	3%	0%	6%	4%	5%	8%	20%	3%
A friend, family member, or spouse with memory loss or dementia	3%	0%	5%	0%	4%	11%	6%	5%
Someone with special needs	1%	0%	2%	0%	2%	1%	0%	2%
Children with discipline issues	0%	0%	1%	0%	1%	1%	1%	1%
Foster children	0%	0%	0%	0%	0%	0%	0%	0%
Children whose parent(s) use drugs and are unable to care for their children	0%	0%	0%	0%	0%	0%	0%	0%
Children whose parent(s) lost custody due to other reasons	0%	0%	0%	0%	1%	0%	0%	1%

- Including yourself, how many adults ages 18 and older, living in your household, have experienced any of the following in the past 12 months?

Adult Variables	Total	Male	Female	Under 35	35-64	65+	<\$25K	\$25K+
Experienced confusion or memory loss more often or is getting worse - 0 adults	82%	79%	85%	93%	83%	79%	81%	85%
Experienced confusion or memory loss more often or is getting worse - 1 adult	12%	14%	10%	5%	12%	13%	15%	10%
Experienced confusion or memory loss more often or is getting worse - 2 adults	5%	7%	3%	2%	3%	6%	3%	4%
Experienced confusion or memory loss more often or is getting worse - 3 or more adults	1%	0%	2%	0%	2%	2%	1%	1%
Was diagnosed with Alzheimer's disease by a health professional - 0 adults	97%	95%	99%	100%	98%	98%	100%	99%
Was diagnosed with Alzheimer's disease by a health professional - 1 adult	1%	2%	0%	0%	1%	0%	0%	1%
Was diagnosed with Alzheimer's disease by a health professional - 2 adults	0%	0%	0%	0%	0%	0%	0%	0%
Was diagnosed with Alzheimer's disease by a health professional - 3 or more adults	1%	2%	1%	0%	1%	2%	0%	1%
Was diagnosed with some other form of dementia by a health professional - 0 adults	96%	95%	97%	100%	98%	89%	89%	97%
Was diagnosed with some other form of dementia by a health professional - 1 adult	4%	5%	3%	0%	2%	9%	11%	2%
Was diagnosed with some other form of dementia by a health professional - 2 adults	0%	0%	0%	0%	0%	0%	0%	0%
Was diagnosed with some other form of dementia by a health professional - 3 or more adults	0%	0%	1%	0%	0%	2%	0%	1%

- Do you or an immediate family member have any of the following literacy needs?

Adult Variables	Total	Male	Female	Under 35	35-64	65+	<\$25K	\$25K+
None of the above	79%	87%	83%	92%	81%	71%	65%	84%
Learning computer skills	9%	9%	8%	2%	8%	13%	11%	7%
Help with reading and understanding instructions	4%	2%	5%	5%	5%	7%	17%	3%
Help with reading a map, signs, food ingredient labels, etc.	4%	2%	3%	2%	4%	4%	5%	4%
Help with completing a job application	2%	0%	3%	0%	3%	5%	2%	3%

- In the past 12 months, how many times have you fallen?

Adult Variables	Total	Male	Female	Under 35	35-64	65+	<\$25K	\$25K+
0 times	68%	64%	72%	87%	68%	52%	50%	76%
1 time	14%	14%	15%	4%	15%	29%	19%	13%
2 or 3 times	16%	20%	11%	6%	14%	19%	19%	11%
4 or 5 times	2%	2%	2%	3%	2%	0%	9%	0%
6 or more times	1%	0%	1%	0%	2%	0%	3%	0%

Preventing Chronic Disease

- **Prevention is key.**
 - Although chronic diseases are among the most common and costly of all health problems, they are also among the most preventable.
 - To be effective, chronic disease prevention must occur in multiple sectors and across individuals' entire life spans.
 - Prevention encompasses health promotion activities that encourage healthy living and limit the initial onset of chronic diseases.
 - Prevention also embraces early detection efforts, such as screening at-risk populations, as well as strategies for appropriate management of existing diseases and related complications.
- **Quit smoking.**
 - Stopping smoking (or never starting) lowers the risk of serious health problems, such as heart disease, cancer, type 2 diabetes, and lung disease, as well as premature death—even for longtime smokers.
- **Eat healthy**
 - Eating healthy helps prevent, delay, and manage heart disease, type 2 diabetes, and other chronic diseases.
 - A balanced, healthy dietary pattern includes a variety of fruits, vegetables, whole grains, lean protein, and low-fat dairy products and limits added sugars, saturated fats, and sodium. Healthy eating can work for everyone's tastes, traditions, culture, and budget.
 - If you are overweight, losing 5% to 7% of your starting weight can help prevent or delay type 2 diabetes.
- **Get regular physical activity**
 - Regular physical activity can help you prevent, delay, or manage chronic diseases.
 - Aim for moderate intensity physical activity (like brisk walking or gardening) for at least 150 minutes a week, with muscle-strengthening activities 2 days a week.
- **Instilling healthy behaviors and practices during youth, particularly in school settings, is far more cost-effective than waiting until unhealthy behaviors are entrenched.**
 - A study of the Toward No Tobacco program, which was designed to prevent cigarette use among middle and high school students, found that for every dollar invested in school tobacco prevention programs, almost \$20 in future medical care costs would be saved.
- **Avoid drinking too much alcohol**
 - Over time, excessive drinking can lead to high blood pressure, various cancers, heart disease, stroke, and liver disease. By not drinking too much, you can reduce these health risks.
- **Mammograms can save lives.**
 - For women aged 40 years or older, mammograms every 12–33 months significantly reduce mortality from breast cancer.
 - For women who have been sexually active and have a cervix, screening with a Pap test reduces incidence of, and mortality from, cervical cancer.

(Sources: CDC; How You Can Prevent Chronic Disease; reviewed on September 1, 2022; CDC, *The Power of Prevention: Chronic disease... The Public Health Challenge of the 21st Century*; 2009.)

Social Conditions: Social Determinants of Health

Adult Key Findings

- Have you experienced any of the following in the past 12 months?

Adult Variables	Total	Male	Female	Under 35	35-64	65+	<\$25K	\$25K+
I did not experience any of these things in the past 12 months	65%	61%	71%	64%	61%	87%	52%	76%
I had to choose between paying bills and buying food	9%	9%	10%	12%	11%	4%	7%	2%
I was worried food would run out	7%	7%	7%	6%	8%	6%	14%	4%
My food assistance was cut	5%	7%	3%	4%	4%	2%	7%	2%
Loss of income led to food insecurity issues	5%	7%	4%	9%	5%	0%	8%	4%
I went hungry/ate less to provide more food for my family	4%	4%	4%	1%	6%	2%	8%	2%
I was hungry, but did not eat because I did not have money for food	4%	5%	2%	4%	4%	0%	4%	2%

- In the past 12 months, have you or a loved one received assistance for any of the following?

Adult Variables	Total	Male	Female	Under 35	35-64	65+	<\$25K	\$25K+
Acquiring disability benefits - Received assistance	10%	14%	5%	3%	11%	5%	12%	4%
Acquiring disability benefits - Did not know where to look	1%	0%	2%	3%	1%	0%	4%	1%
Affordable child care - Received assistance	0%	0%	1%	0%	1%	0%	0%	0%
Affordable child care - Did not know where to look	2%	3%	2%	6%	2%	0%	1%	2%
Clothing - Received assistance	2%	2%	1%	2%	2%	0%	0%	2%
Clothing - Did not know where to look	2%	2%	1%	0%	2%	0%	2%	1%
Credit counseling - Received assistance	0%	0%	1%	3%	0%	0%	0%	1%
Credit counseling - Did not know where to look	3%	3%	3%	3%	4%	0%	2%	4%
Dental care - Received assistance	3%	3%	3%	2%	3%	2%	4%	2%
Dental care - Did not know where to look	3%	3%	3%	3%	5%	0%	11%	1%

Adult Variables	Total	Male	Female	Under 35	35-64	65+	<\$25K	\$25K+
Diapers - Received assistance	1%	0%	1%	2%	0%	3%	2%	1%
Diapers - Did not know where to look	3%	5%	1%	4%	1%	0%	0%	1%
Drug or alcohol addiction - Received assistance	2%	3%	2%	0%	3%	2%	1%	2%
Drug or alcohol addiction - Did not know where to look	0%	0%	0%	0%	0%	0%	0%	0%
Electric, gas, or water bills - Received assistance	6%	2%	9%	11%	7%	9%	19%	4%
Electric, gas, or water bills - Did not know where to look	1%	0%	3%	0%	4%	0%	0%	3%
Employment - Received assistance	1%	0%	1%	0%	2%	0%	1%	1%
Employment - Did not know where to look	1%	0%	1%	0%	1%	0%	0%	1%
Food - Received assistance	13%	10%	17%	18%	16%	17%	42%	10%
Food - Did not know where to look	2%	0%	3%	3%	4%	0%	2%	3%
Free tax preparation - Received assistance	3%	0%	6%	0%	4%	14%	13%	3%
Free tax preparation - Did not know where to look	2%	3%	2%	2%	3%	0%	5%	1%
Gambling addiction - Received assistance	1%	2%	0%	0%	1%	0%	0%	0%
Gambling addiction - Did not know where to look	0%	0%	0%	0%	0%	0%	0%	0%
Health care - Received assistance	9%	8%	9%	12%	10%	7%	12%	9%
Health care - Did not know where to look	1%	0%	1%	0%	2%	0%	2%	1%
Home care - Received assistance	1%	3%	0%	0%	2%	0%	4%	0%
Home care - Did not know where to look	0%	0%	1%	0%	1%	0%	0%	1%
Home repair - Received assistance	4%	5%	5%	0%	2%	10%	0%	3%
Home repair - Did not know where to look	5%	5%	5%	4%	8%	0%	5%	6%
Legal aid services - Received assistance	2%	2%	2%	2%	3%	0%	5%	2%
Legal aid services - Did not know where to look	2%	2%	2%	0%	4%	0%	5%	2%
Medicare - Received assistance	11%	7%	14%	7%	9%	33%	24%	9%
Medicare - Did not know where to look	0%	0%	0%	0%	0%	0%	0%	0%
Mental illness issues (including depression) - Received assistance	14%	12%	16%	20%	17%	5%	17%	17%

Adult Variables	Total	Male	Female	Under 35	35-64	65+	<\$25K	\$25K+
Mental illness issues (including depression) - Did not know where to look	4%	5%	3%	6%	4%	0%	5%	3%
Other utilities - Received assistance	1%	0%	1%	0%	2%	3%	1%	1%
Other utilities - Did not know where to look	1%	0%	2%	2%	2%	0%	0%	2%
Post incarceration transition issues - Received assistance	1%	3%	0%	0%	1%	0%	0%	1%
Post incarceration transition issues - Did not know where to look	0%	0%	0%	0%	0%	0%	0%	0%
Prescription assistance - Received assistance	8%	7%	9%	4%	8%	19%	18%	6%
Prescription assistance - Did not know where to look	1%	0%	2%	0%	3%	0%	0%	3%
Rent/mortgage - Received assistance	5%	5%	4%	4%	4%	7%	12%	2%
Rent/mortgage - Did not know where to look	3%	0%	6%	10%	4%	3%	0%	6%
Septic/well repairs - Received assistance	0%	0%	0%	0%	0%	0%	0%	0%
Septic/well repairs - Did not know where to look	1%	0%	2%	0%	3%	0%	2%	2%
Transportation - Received assistance	4%	5%	3%	0%	4%	9%	18%	1%
Transportation - Did not know where to look	1%	0%	2%	0%	2%	0%	0%	1%
Unplanned pregnancy - Received assistance	0%	0%	1%	0%	1%	0%	0%	0%
Unplanned pregnancy - Did not know where to look	0%	0%	0%	0%	0%	0%	0%	0%
Sexual/reproductive health services - Received assistance	0%	0%	1%	0%	1%	0%	0%	0%
Sexual/reproductive health services - Did not know where to look	1%	3%	0%	0%	1%	0%	2%	0%
WIC - Received assistance	2%	0%	5%	9%	2%	0%	2%	4%
WIC - Did not know where to look	0%	0%	0%	0%	0%	0%	0%	0%

- Have you experienced any of the following in the past 12 months?

Adult Variables	Total	Male	Female	Under 35	35-64	65+	<\$25K	\$25K+
A close family member had to go into the hospital	17%	19%	16%	15%	17%	14%	13%	17%
I did not experience any of these things in the past 12 months	22%	23%	22%	19%	22%	23%	19%	22%
A close family member had to go into the hospital	17%	19%	16%	15%	17%	14%	13%	17%
Death of a family member or close friend	16%	17%	16%	12%	14%	24%	12%	16%
I had bills I could not pay	7%	6%	8%	11%	8%	3%	9%	7%
Decline in my own health	7%	4%	9%	1%	9%	10%	15%	7%
Someone in my household lost their job/had their hours at work reduced	5%	4%	5%	8%	5%	4%	3%	5%
I was a caregiver	5%	1%	8%	4%	7%	9%	6%	8%
I moved to a new address	4%	4%	3%	8%	4%	1%	2%	3%
Someone close to me had a problem with drinking or drugs	4%	6%	3%	3%	4%	4%	1%	4%
Due to unforeseen circumstances, our household income has been cut by 50%	3%	1%	4%	4%	4%	2%	11%	3%
I was homeless	2%	3%	1%	2%	1%	0%	1%	1%
I had someone homeless living with me and/or sleeping on my couch	2%	3%	2%	5%	2%	1%	4%	1%
I know someone who lives in a hotel	2%	4%	0%	2%	0%	1%	0%	1%
My family was at risk for losing their home	2%	1%	2%	5%	1%	1%	4%	1%
I witnessed someone in my family being hit or slapped	1%	1%	0%	0%	0%	0%	0%	0%
I was threatened or abused by someone physically, emotionally, sexually, and/or verbally	1%	1%	0%	0%	1%	0%	0%	1%
My child was threatened or abused by someone physically, emotionally, sexually, and/or verbally	1%	0%	1%	0%	1%	1%	0%	1%
I became separated or divorced	0%	0%	1%	1%	0%	0%	1%	0%

- What transportation issues do you have?

Adult Variables	Total	Male	Female	Under 35	35-64	65+	<\$25K	\$25K+
I do not have any transportation issues	70%	66%	75%	76%	69%	77%	32%	88%
No car	6%	10%	2%	2%	6%	2%	15%	0%
Cannot afford gas	5%	4%	7%	5%	5%	9%	8%	5%
No car insurance	4%	6%	1%	3%	2%	0%	5%	1%
Other car issues or expenses	4%	2%	7%	10%	6%	5%	14%	4%
No driver's license or suspended license	3%	4%	1%	2%	3%	0%	4%	1%
Disabled	3%	4%	1%	0%	3%	2%	4%	1%
Limited public transportation available or accessible	2%	2	2%	0%	4%	3%	11%	0%
Do not feel safe to drive	2%	2%	2%	3%	2%	2%	6%	1%
No public transportation available or accessible	0%	0%	0%	0%	1%	0%	0%	0%
Cost of public or private transportation	0%	0%	0%	0%	1%	0%	1%	0%

- Are any firearms now kept in or around your home? Include those kept in a garage, outdoor storage area, car, truck, or other motor vehicle.

Adult Variables	Total	Male	Female	Under 35	35-64	65+	<\$25K	\$25K+
No	45%	45%	46%	34%	51%	44%	70%	43%
Yes, but they are locked	26%	24%	26%	29%	21%	21%	17%	27%
Yes, but they are unloaded	13%	8%	17%	21%	12%	20%	6%	15%
Yes, and they are unlocked	9%	12%	6%	12%	5%	10%	4%	8%
Yes, and they are loaded	7%	10%	5%	4%	6%	6%	4%	6%

- Did any of the following happen to you as a child (under the age of 18)? (Adverse Childhood Experiences–ACEs)

Adult Variables	Total	Male	Female	Under 35	35-64	65+	<\$25K	\$25K+
Lived with someone who was depressed, mentally ill or suicidal	9%	5%	13%	15%	12%	8%	8%	13%
Lived with someone who was a problem drinker or alcoholic	13%	15%	11%	14%	12%	10%	7%	12%
Lived with someone who used illegal street drugs, or who misused prescription medications	4%	4%	4%	3%	5%	0%	3%	4%
Lived with someone who served time or was sentenced to serve time in a prison, jail, or other correctional facility	2%	2%	2%	3%	3%	0%	3%	2%
Your parents became separated or were divorced	11%	13%	9%	13%	10%	6%	7%	10%
Your parents were not married	1%	1%	1%	4%	1%	0%	2%	1%
Your parents or adults in your home slapped, hit, kicked, punched, or beat each other up	5%	6%	4%	2%	5%	6%	9%	3%
A parent or adult in your home, hit, beat, kicked, or physically hurt you in any way (not including spanking)	6%	7%	6%	3%	7%	8%	10%	5%
A parent or adult in your home swore at you, insulted you, or put you down	11%	12%	10%	13%	9%	10%	10%	10%
Someone at least 5 years older than you or an adult touched you sexually	5%	3%	7%	4%	7%	8%	7%	6%
Someone at least 5 years older than you or an adult tried to make you touch them sexually	4%	3%	5%	3%	5%	7%	5%	5%
Someone at least 5 years older than you or an adult forced you to have sex	2%	1%	2%	2%	3%	2%	2%	2%
Your family did not look out for each other, feel close to each other, or support each other	5%	5%	5%	7%	5%	4%	4%	5%
You didn't have enough to eat, had to wear dirty clothes, and had no one to protect you	2%	3%	2%	1%	2%	5%	5%	2%
None of the above has happened to me	19%	21%	18%	14%	17%	26%	17%	18%

- During the past 12 months, were you abused by any of the following? Include physical, sexual, emotional, financial, and verbal abuse.

Adult Variables	Total	Male	Female	Under 35	35-64	65+	<\$25K	\$25K+
I was not abused in the past 12 months	95%	98%	93%	93%	92%	98%	89%	97%
A spouse or partner	1%	0%	2%	0%	2%	2%	4%	1%
A parent	1%	0%	2%	2%	2%	0%	6%	1%
Another person from outside the home	1%	0%	3%	5%	2%	0%	1%	2%
Someone else	1%	2%	1%	0%	2%	0%	0%	0%
A paid caregiver	0%	0%	0%	0%	0%	0%	0%	0%
Child	0%	0%	0%	0%	0%	0%	0%	0%
Another family member living in the home	0%	0%	0%	0%	0%	0%	0%	0%

- How were you abused?

Adult Variables	Total	Male	Female	Under 35	35-64	65+	<\$25K	\$25K+
I was not abused in the past 12 months	85%	83%	87%	90%	83%	93%	73%	93%
Verbally abused	4%	4%	3%	2%	4%	4%	8%	1%
Emotionally abused	4%	4%	3%	2%	5%	2%	8%	1%
Physically abused	3%	4%	2%	2%	3%	0%	5%	1%
Sexually abused	2%	2%	3%	5%	3%	0%	2%	2%
Financially abused	2%	2%	2%	0%	3%	0%	2%	1%
Any of the above through electronic methods (e.g., texts, social media, etc.)	1%	0%	1%	0%	0%	0%	1%	1%

- In the past 12 months, how frequently did you engage in the following types of gambling?

Adult Variables	Total	Male	Female	Under 35	35-64	65+	<\$25K	\$25K+
Betting pools or office pools at work - Daily	0%	0%	0%	0%	0%	0%	0%	0%
Betting pools or office pools at work - Weekly	0%	0%	0%	0%	0%	0%	0%	0%
Betting pools or office pools at work - Monthly	0%	0%	0%	0%	0%	0%	0%	0%
Betting pools or office pools at work - 1 or 2 times a year	12%	17%	8%	7%	11%	9%	1%	11%
Betting pools or office pools at work - Never	88%	83%	92%	93%	89%	91%	99%	89%
Bingo - Daily	0%	0%	0%	0%	0%	0%	0%	0%
Bingo - Weekly	0%	0%	1%	0%	0%	2%	0%	0%
Bingo - Monthly	1%	0%	1%	0%	1%	2%	3%	0%
Bingo - 1 or 2 times a year	6%	5%	6%	8%	6%	4%	1%	7%
Bingo - Never	94%	95%	92%	92%	93%	91%	96%	92%

Adult Variables	Total	Male	Female	Under 35	35-64	65+	<\$25K	\$25K+
Casino gambling - Daily	0%	0%	0%	0%	0%	0%	0%	0%
Casino gambling - Weekly	0%	0%	1%	2%	0%	0%	0%	1%
Casino gambling - Monthly	1%	0%	1%	0%	1%	2%	1%	1%
Casino gambling - 1 or 2 times a year	19%	19%	19%	29%	17%	17%	8%	22%
Casino gambling - Never	80%	81%	79%	69%	82%	81%	91%	77%
Fantasy sports gambling - Daily	0%	0%	0%	0%	0%	0%	0%	0%
Fantasy sports gambling - Weekly	0%	0%	0%	0%	0%	0%	0%	0%
Fantasy sports gambling - Monthly	0%	0%	0%	0%	0%	0%	0%	0%
Fantasy sports gambling - 1 or 2 times a year	1%	2%	1%	4%	0%	0%	0%	1%
Fantasy sports gambling - Never	99%	98%	99%	96%	100%	100%	100%	99%
Horse/dog racing track - Daily	0%	0%	0%	0%	0%	0%	0%	0%
Horse/dog racing track - Weekly	0%	0%	0%	0%	0%	0%	0%	0%
Horse/dog racing track - Monthly	0%	0%	0%	0%	0%	0%	0%	0%
Horse/dog racing track - 1 or 2 times a year	1%	2%	0%	2%	0%	0%	0%	0%
Horse/dog racing track - Never	99%	98%	100%	98%	100%	100%	100%	100%
Lottery games (e.g., scratch offs, drawings) - Daily	0%	0%	0%	0%	0%	0%	0%	0%
Lottery games (e.g., scratch offs, drawings) - Weekly	4%	5%	3%	3%	3%	7%	5%	3%
Lottery games (e.g., scratch offs, drawings) - Monthly	8%	7%	8%	5%	9%	9%	0%	9%
Lottery games (e.g., scratch offs, drawings) - 1 or 2 times a year	28%	21%	34%	38%	32%	20%	16%	33%
Lottery games (e.g., scratch offs, drawings) - Never	61%	67%	55%	55%	56%	64%	79%	55%
Online gambling - Daily	0%	0%	1%	2%	0%	0%	0%	1%
Online gambling - Weekly	1%	0%	2%	2%	1%	2%	3%	1%
Online gambling - Monthly	0%	0%	1%	0%	1%	0%	0%	0%
Online gambling - 1 or 2 times a year	3%	5%	1%	8%	1%	0%	0%	2%
Online gambling - Never	95%	95%	96%	89%	97%	98%	97%	96%
Poker or other card games, dice, or craps (not at a casino) - Daily	0%	0%	0%	0%	0%	0%	0%	0%
Poker or other card games, dice, or craps (not at a casino) - Weekly	0%	0%	1%	0%	1%	0%	0%	1%

Adult Variables	Total	Male	Female	Under 35	35-64	65+	<\$25K	\$25K+
Poker or other card games, dice, or craps (not at a casino) - Monthly	0%	0%	1%	0%	0%	2%	0%	1%
Poker or other card games, dice, or craps (not at a casino) - 1 or 2 times a year	3%	5%	1%	2%	2%	2%	0%	2%
Poker or other card games, dice, or craps (not at a casino) - Never	97%	95%	98%	98%	98%	95%	100%	96%
Sports betting - Daily	0%	0%	0%	0%	0%	0%	0%	0%
Sports betting - Weekly	0%	0%	0%	0%	0%	0%	0%	0%
Sports betting - Monthly	1%	2%	1%	2%	1%	0%	0%	1%
Sports betting - 1 or 2 times a year	3%	5%	2%	3%	4%	0%	0%	3%
Sports betting - Never	95%	93%	97%	95%	95%	100%	100%	96%

- The following problems are sometimes associated with poor health. In or around your household, which of the following do you think have threatened you or your family's health in the past year?

Adult Variables	Total	Male	Female	Under 35	35-64	65+	<\$25K	\$25K≥
My or my family's health has not been threatened in the past year	66%	67%	64%	65%	61%	79%	57%	66%
Insects (mosquitoes, ticks, flies)	4%	6%	3%	4%	4%	0%	8%	2%
Air quality	4%	4%	3%	3%	4%	3%	3%	3%
Mold	4%	2%	5%	4%	5%	4%	5%	5%
Cockroaches	3%	4%	1%	1%	3%	0%	5%	1%
Plumbing problems	3%	4%	1%	1%	3%	0%	4%	1%
Temperature regulation (heating and air conditioning)	3%	4%	2%	1%	3%	1%	5%	3%
Unsafe water supply/wells	2%	0%	4%	5%	3%	0%	3%	3%
Safety hazards (structural problems)	2%	2%	2%	3%	2%	3%	3%	1%
Bed bugs	1%	2%	1%	1%	1%	0%	5%	0%
Sewage/wastewater problems	1%	0%	1%	0%	2%	0%	0%	1%
Lead paint	1%	0%	1%	0%	1%	0%	0%	2%
Chemicals found in household products (cleaning agents, pesticides, automotive products)	1%	2%	1%	0%	1%	0%	0%	1%
Agricultural chemicals (pesticides, insecticides, fertilizers)	1%	2%	1%	1%	1%	1%	0%	1%
Asbestos	1%	0%	1%	0%	1%	0%	0%	2%
Moisture issues	1%	0%	3%	3%	2%	3%	0%	3%

Adult Variables	Total	Male	Female	Under 35	35-64	65+	<\$25K	\$25K≥
Bats	1%	0%	2%	3%	1%	3%	0%	2%
Rodents	0%	0%	1%	3%	0%	0%	2%	0%
Sanitation issues	0%	0%	0%	0%	0%	0%	0%	0%
Radiation	0%	0%	0%	0%	0%	0%	0%	0%
Radon	0%	0%	1%	0%	0%	0%	0%	1%
Lyme disease	0%	0%	0%	0%	0%	0%	0%	0%
Excess medication in the home	0%	0%	1%	1%	1%	1%	0%	1%

- In the past 30 days, did you do any of the following while driving?

Adult Variables	Total	Male	Female	Under 35	35-64	65+	<\$25K	\$25K+
Talk on hands-free cell phone	27%	27%	28%	26%	27%	28%	15%	29%
Eat	25%	25%	26%	26%	26%	33%	35%	25%
Talk on hand-held cell phone	17%	14%	19%	18%	18%	18%	16%	19%
Text	14%	14%	13%	14%	14%	10%	6%	14%
Drive without a seatbelt	6%	10%	2%	5%	3%	7%	14%	3%
Use Internet on phone	6%	5%	6%	6%	6%	4%	11%	6%
Read	2%	3%	2%	1%	3%	0%	4%	2%
Other (apply makeup, shave)	2%	1%	2%	2%	2%	0%	0%	2%
Drive under the influence of alcohol	0%	0%	0%	1%	0%	0%	0%	0%
Drive under the influence of recreational drugs	0%	1%	1%	0%	0%	0%	0%	0%
Drive under the influence of prescription drugs	0%	0%	0%	0%	0%	0%	0%	0%

- There were 30,287 housing units in Shiawassee County. (Source: U.S. Census Bureau, Population Estimates Program, 2021.)
- The owner-occupied housing unit rate was 77%. Rent in Shiawassee County cost an average of \$781 per month. (Source: U.S. Census Bureau, American Community Survey, 2017-2021.)
- The median household income in Shiawassee County was \$51,959. The U.S. Census Bureau reports median income levels of \$64,488 for Michigan and \$70,784 for the U.S. (Source: U.S. Census Bureau, Current Population Survey, 2021.)
- Eleven percent (11%) of all Shiawassee County residents were living in poverty, and 12% of children and youth ages 0-17 were living in poverty. (Source: U.S. Census Bureau, Current Population Survey, 2017-2021.)
- The unemployment rate for Shiawassee County was 4% as of October 2022. (Source: Michigan Department of Technology, Management and Budget, retrieved December 26, 2022.)

Social Determinants of Health

- **Social determinants of health (SDOH)** are the conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks.
- **SDOH can be grouped into 5 domains:**
 - Economic stability
 - Education access and quality
 - Health care access and quality
 - Neighborhood and built environment
 - Social and community context
- **SDOH have a major impact on people's health, well-being, and quality of life. Examples of SDOH include:**
 - Safe housing, transportation, and neighborhoods
 - Racism, discrimination, and violence
 - Education, job opportunities, and income
 - Access to nutritious foods and physical activity opportunities
 - Polluted air and water
 - Language and literacy skills
- **SDOH also contribute to wide health disparities and inequities.**
 - People who don't have access to grocery stores with healthy foods are less likely to have good nutrition. That raises their risk of health conditions like heart disease, diabetes, and obesity — and even lowers life expectancy relative to people who do have access to healthy foods.
- **Just promoting healthy choices won't eliminate these and other health disparities.**
 - Public health organizations and their partners in sectors like education, transportation, and housing need to take action to improve the conditions in people's environments.

Source: Healthy People 2030, retrieved December 26, 2022.)

Social Conditions: Parenting

Adult Key Findings

- What did you discuss with your 12-17-year-old in the past year?

Adult Variables	Total	Male	Female	Under 35	35-64	65+	<\$25K	\$25K+
Career plan/post-secondary education	12%	17%	11%	4%	12%	0%	4%	11%
Dating and relationships	11%	8%	11%	12%	11%	0%	7%	11%
Social media issues	10%	17%	9%	12%	9%	14%	7%	9%
Bullying (cyber, indirect, physical, verbal)	8%	8%	8%	16%	7%	14%	7%	8%
Depression, anxiety, suicide	8%	8%	8%	8%	8%	14%	11%	8%
Weight status (eating habits, physical activity, and screen time)	7%	0%	9%	16%	7%	14%	11%	8%
Negative effects of alcohol, tobacco, vaping, marijuana, illegal drugs, or misusing prescription drugs	7%	8%	7%	8%	7%	0%	4%	8%
Birth control/condoms/safer sex/STD prevention (age appropriate)	6%	0%	7%	4%	7%	14%	11%	6%
Volunteering	6%	8%	5%	0%	6%	14%	7%	5%
Abstinence and how to refuse sex (age appropriate)	5%	0%	6%	0%	7%	0%	4%	6%
Body image	5%	0%	7%	8%	6%	0%	4%	7%
Refusal skills/peer pressure	5%	8%	4%	8%	4%	0%	4%	4%
Energy drinks	4%	8%	3%	0%	4%	0%	4%	4%
School/legal consequences of using alcohol, tobacco, or other drugs	3%	0%	4%	4%	4%	0%	4%	3%
Did not discuss any of these	2%	8%	1%	0%	1%	14%	15%	1%

Note: Did not include responses indicating that the respondent does not have any children under 18 years of age.

- Where did your child sometimes sleep as an infant?

Adult Variables	Total	Male	Female	Under 35	35-64	65+	<\$25K	\$25K+
Crib/bassinet (without bumper pads, blankets, and toys)	22%	19%	23%	34%	21%	0%	0%	25%
Crib/bassinet (with bumper pads, blankets, and toys)	19%	29%	14%	14%	13%	36%	36%	13%
Pack n' play	15%	10%	18%	20%	18%	9%	15%	17%
In bed with you or another person	15%	19%	14%	18%	13%	9%	6%	16%
Car seat	12%	10%	14%	7%	16%	9%	15%	13%
Swing	11%	10%	11%	5%	13%	18%	15%	11%
Floor	4%	5%	4%	0%	5%	9%	6%	3%
Couch or chair	1%	0%	2%	2%	1%	9%	6%	1%
Other	0%	0%	0%	0%	0%	0%	0%	0%

Appendix I: Methods for Weighting The 2022 Shiawassee County Assessment Data

Data from sample surveys have the potential for bias if there are different rates of response for different segments of the population. In other words, some subgroups of the population may be more represented in the completed surveys than they are in the population from which those surveys are sampled. If a sample has 25% of its respondents being male and 75% being female, then the sample is biased towards the views of females (if females respond differently than males). This same phenomenon holds true for any possible characteristic that may alter how an individual responds to the survey items.

In some cases, the procedures of the survey methods may purposefully over-sample a segment of the population in order to gain an appropriate number of responses from that subgroup for appropriate data analysis when investigating them separately (this is often done for minority groups). Whether the over-sampling is done inadvertently or purposefully, the data should be weighted so that the proportioned characteristics of the sample accurately reflect the proportioned characteristics of the population. In the 2022 Shiawassee County survey, a weighting was applied prior to the analysis that weighted the survey respondents to reflect the actual distribution of Shiawassee County based on age, sex, race, and income.

Weightings were created for each category within sex (Male, Female), race (White, Non-White), education (four different education categories), age (eight different age categories), and income (seven different income categories). The numerical value of the weight for each category was calculated by taking the percent of Shiawassee County within the specific category and dividing that by the percent of the sample within that same specific category. Using sex as an example, the following represents the data from the 2022 Shiawassee County Survey and the 2020 Census estimates.

	2022 Shiawassee County Survey		2020 Census Estimates		Weight
Sex	Number	Percent	Number	Percent	
Male	45	0.189873418	33,858	0.498814031	2.627087231
Female	192	0.810126582	34,019	0.501185969	0.61865143

In this example, the proportion of female respondents in this sample is much greater than the proportion that would be observed in Shiawassee County. The weighting for female respondents was calculated by taking the percentage of females in Shiawassee County (based on Census information) (50.11859%) and dividing that by the percentage found in the 2022 Shiawassee County sample (81.01265%) [$50.11859/81.01265 =$ weighting of 0.6186514 for females]. The same was done for males [$0.49881/0.18987 =$ weighting of 2.62708 for males]. Thus, female responses are weighted less by a factor of 0.61865 and male responses weighted heavier by a factor of 2.62708.

To further illustrate, a respondent who was female, white, in the age category of 45-54, with a bachelor's degree or higher, and with a household income between \$50,000-\$74,999 would have an individual weighting of 0.31192 [0.61865 (weight for females) \times 0.97067 (weight for White) \times 0.93624 (weight for age 45-54) \times 0.443514 (weight for Bachelor's degree or more) \times 1.250915 (weight for income \$50,000-\$74,999)]. Thus, each respondent in the 2022 Shiawassee County sample has their own individual weighting based on their combination of age, race, sex, education, and income (see next page for each specific weighting and the numbers from which they were calculated). Multiple sets of weightings were created and used when calculating frequencies. The weight categories were as follows:

Category	Shiawassee County Sample	%	2020 Census	%	Weighting Value
Sex:					
Male	45	18.9873	33,858	49.8814	2.62708
Female	192	81.10127	34,019	50.1186	0.61865
Age:					
18-24	13	5.627705	5,298	9.886173	1.756697
25-34	35	15.151515	8,389	15.65404	1.033167
35-44	44	19.04761	7,598	14.178018	0.744346
45-54	40	17.31601	8,688	16.211978	0.936242
55-64	49	21.21212	10,446	19.49244	0.918929
65-74	33	14.28571	8,107	15.12782	1.0589476
75-84	14	6.06060	3,740	6.97891	1.151521
85+	3	1.29870	1,324	2.47061	1.902369
Race:					
White	234	98.7432	63,132	95.4362	0.96659
Non-White	3	1.2658	3,019	4.5638	3.60540
Household Income:					
Less than \$10,000	8	3.5874	1,378	4.882	1.360864
\$10,000-14,999	15	6.7265	1,425	5.0485	0.750549
\$15,000-19,999	4	1.7937	1,379	4.8856	2.723703
\$20,000-24,999	18	8.0717	920	3.2594	0.403804
\$25,000-34,999	24	10.7623	2,083	7.3797	0.68569
\$35,000-49,999	34	15.2466	5,743	20.3465	1.334490
\$50,000-74,999	36	16.1435	5,700	20.1941	1.250915
\$75,000-99,999	31	13.9013	3,759	13.3175	0.958001
\$100,000-149,999	35	15.6951	4,107	14.5504	0.927069
\$150,000 or more	18	8.0717	1,732	6.1362	0.760205

Category	Shiawassee County Sample	%	2020 Census	%	Weighting Value
Education:					
Less Than High School	12	5.0847	5078	9.4758	1.863578968
High School Graduate/GED/ Equivalent	50	21.1864	19296	36.0074	1.699548788
Some College or Associate degree	81	34.322	19849	37.0393	1.079170246
Bachelor's Degree or Higher	93	39.4068	9366	17.4775	0.443514226
Note: The weighting ratios are calculated by taking the ratio of the proportion of the population of Shiawassee County in each subcategory by the proportion of the sample in the Shiawassee County survey for that same category. *Shiawassee County population figures taken from the 2020 Census estimates.					

Appendix II: List of Responses to Community Perception Questions

What do you think are the three most significant factors that define a “healthy community”?

- Access to healthcare
- Access to healthy and nutritious food
- Affordable healthcare (including dental, vision, and hearing)
- Affordable housing
- Arts and cultural events
- Clean environment
- Community involvement
- disease/illness prevention
- Financially healthy households
- Good jobs and healthy economy
- Good schools
- Healthy lifestyles
- Immunizations
- Low crime/safe neighborhoods
- Low disease rate and death rate
- Low levels of child abuse
- Parks and recreation
- Religious or spiritual values
- Strong family life
- Tolerance for diversity

What do you think are the three most significant problems that impact health in Shiawassee County?

- Aging problems
- Alcohol and drug issues
- Child abuse and neglect
- Chronic disease
- Domestic violence
- Homelessness
- Housing risks and hazards
- Infectious disease
- Lack of access to healthcare (including dental, vision, and hearing)
- Lack of physical activity
- Mental health problems
- Motor vehicle crashes
- Obesity
- Poor access to healthy and nutritious food (e.g., too expensive or store is too far away)
- Poor dietary habits
- Rape/sexual assault
- Sexually transmitted infections
- Suicide
- Teen pregnancy
- Tobacco use
- Other

Appendix III: Shiawassee County Demographics and Household Information

Variable	Shiawassee County Census 2021	Michigan Census 2021
Age		
20-29	12%	13%
30-39	12%	13%
40-49	11%	12%
50-59	14%	13%
60+	27%	25%
Race/Ethnicity (2020 data)		
White	94%	74%
Black or African American	0.80%	13.50%
American Indian and Alaska Native	0.20%	0.40%
Asian	0.30%	3.20%
Other	0.20%	0.30%
Hispanic Origin (may be of any race)	2.90%	5.20%
Marital Status		
Married Couple	51%	49%
Never Been Married	28.05%	33.95%
Divorced/Separated	19.55%	11.50%
Widowed	6.75%	5.65%
Education		
Less than High School Diploma	8.70%	9%
High School Diploma	35.10%	28.70%
Some College/College Graduate	50.75%	57.69%
Income (Household)		
Less than \$50,000	45.80%	39.60%
\$50,000 to \$100,000	33.50%	31.30%
\$100,000 to \$200,000	18.70%	22.40%
Over \$200,000	2%	6.80%

Shiawassee County Population by Age Groups and Gender in the 2021 Census			
Age	Total	Females	Males
Shiawassee County	67,877	34,019	33,858
Under 5 years	3,610	1,724	1,886
5 to 9 years	4,023	2,095	1,928
10 to 14 years	4,053	1,843	2,210
15 to 17 years	2,601	1,193	1,408
18 and 19 years	1,512	755	757
20 years	593	298	295
21 years	825	370	455
22 to 24 years	2,368	1,184	1,184
25 to 29 years	4,144	1,983	2,161
30 to 34 years	4,245	1,944	2,301
35 to 39 years	3,629	1,788	1,841
40 to 44 years	3,969	2,088	1,881
45 to 49 years	3,769	1,871	1,898
50 to 54 years	4,919	2,422	2,497
55 to 59 years	4,771	1,995	2,776
60 and 61 years	1,762	1,057	705
62 to 64 years	3,913	2,182	1,731
65 and 66 years	1,289	569	720
67 to 69 years	2,865	1,641	1,224
70 to 74 years	3,953	2,080	1,873
75 to 79 years	2,414	1,090	1,324
80 to 84 years	1,326	1,008	318
85 years and older	1,324	839	485
Total 18 years and over	53,590	27,164	26,426
Total 65 years and over	13,171	7,227	5,944

Appendix IV: Shiawassee County Profile (Source: U.S. Census Reporter, ACS 2021 1-year unless noted)

	Number	Percent (%)
Total Population		
2021 Total Population	67,877	100%
Largest City - Owosso		
2021 Total Population	14,476	100%
Population by Race/Ethnicity (2020 data)		
Total Population	68,176	100%
White	63,879	94%
Hispanic or Latino (of any race)	2,001	2.90%
Black or African American	515	0.80%
Two or more races	1,333	2%
Asian	178	0.30%
American Indian or Alaska Native	132	0.20%
Other	138	0.20%
Population by Age Range		
0 to 9 years	7,633	11.30%
10 to 19 years	8,166	12%
20 to 29 years	7,930	11.70%
30 to 39 years	7,874	11.60%
40 to 49 years	7,738	11.40%
50 to 59 years	9,690	14.30%
60 to 69 years	9,829	14.50%
70 to 79 years	6,367	9.40%
80 years and older	2,650	3.90%
Median Age (years)	43.3	N/A

	Number	Percent (%)
<i>Household by Type</i>		
Average Persons Per Household	2	N/A
Total Households	28,226	100%
Female Household	7,783	11.60%
Non-family Household	11,797	17.50%
In Family Households:	55,581	82.50%
In Married Couple Family:	40,645	60.30%
Relatives	40,130	59.60%
Nonrelatives	515	0.80%
In Male Householder, No Spouse Present, Family:	7,153	10.60%
Relatives	6,154	9.10%
Nonrelatives	999	1.50%
In Female Householder, No Spouse Present, Family:	7,783	11.60%
Relatives	6,983	10.40%
Nonrelatives	800	1.20%
In Non-family Households	11,797	17.50%
<i>Housing Occupancy</i>		
Number of Housing Units	30, 287	100%
Occupied	28, 226	93.20%
Vacant	2, 061	6.80%
Ownership of Occupied Units		
Owner Occupied	21, 810	77.30%
Renter Occupied	6, 416	22.70%
Median Value of Owner-Occupied Housing Units	\$146,400	N/A
<i>Types of Housing Structures</i>		
Single Unit	24,490	80.90%
Multi-Unit	4,294	14.20%
Mobile Home	1,493	4.90%
Boat, RV, Van, etc.	10	0%

	Number	Percent (%)
<i>School Enrollment</i>		
Population 3 years and Older Enrolled in School	16,575	N/A
Preschool	844	1.26%
Kindergarten	711	1.07%
Elementary School (Grades 1-4)	3,410	5.11%
Elementary School (Grades 5-8)	3,633	5.44%
High School	4,026	6.03%
Undergraduate	3,585	5.37%
Graduate School	366	0.55%
<i>Educational Attainment (Population 25 years and older)</i>		
Total Population	48,292	100.00%
No Schooling Completed	390	0.80%
Nursery to 4th Grade	276	0.60%
5th and 6th Grade	4	0%
7th and 8th Grade	185	0.40%
9th Grade	82	0.20%
10th Grade	656	1.30%
11th Grade	1,120	2.40%
12th Grade, No Diploma	1,489	3.10%
High School Graduate (Includes Equivalency)	16,931	35.10%
Some College, Less than 1 Year	4,182	8.70%
Some College, 1 or More Years, No Degree	8,185	17%
Associate Degree	5,607	11.60%
Bachelor's Degree	6,522	13.50%
Master's Degree	2,042	4.20%
Professional School Degree	200	0.40%
Doctorate Degree	421	0.90%

	Number	Percent (%)
<i>Marital Status</i>		
Married	28,479	51%
Single	27,712	49%
Never Married Female	6,654	23.50%
Never Married Male	9,077	32.60%
Divorced Female	4,219	14.90%
Divorced Male	3,963	14.20%
Widowed Female	2,692	9.50%
Widowed Male	1,107	4.00%
<i>Veteran Status (ACS 2020 5-year Data)</i>		
Total Veterans (Civilian Veterans who served during wartime only)	4,456	100%
Male	3,872	87 %
Female	584	0.13%
<i>Veterans By Wartime Service (ACS 2020 5-year Data)</i>		
WWII	125	0.04%
Korea	299	0.08%
Vietnam	1,698	0.47%
Gulf (1990's)	893	0.25%
Gulf (2001-)	566	0.16%
<i>Disability Status of the Civilian Non-Institutionalized Population (2020 Data)</i>		
Total Civilian Non-Institutionalized Population	68,206	100.00%
Civilian With a Disability	10,539	15.50%
Under 18 Years Old	15,038	22.00%
Under 18 Years Old With a Disability	882	8.90%
18 to 64 Years Old	41,791	61.30%
18 to 64 Years Old With a Disability	5,494	23.40%
65 Years and Over	11,377	16.70%
65 Years and Over With a Disability	4,163	77%

	Number	Percent (%)
Median Earnings (2020 Annual Average)		
Female, Full-Time, Year-Round Workers	\$46,64	N/A
Male, Full-Time, Year-Round Workers	\$57,876	N/A
Occupations (2020 Data)	31,816	N/A
Management Business, Science and Art Occupations	8,990	28%
Sales and Office Occupations	6,802	21%
Production, Transportation, and Material Moving Occupations	6,516	20.51%
Service Occupations	6,005	18%
Natural Resources, Construction and Maintenance Occupations	3,503	10%
Leading Industries (2020 Data)		
Educational, Healthcare and Social Assistance Services	7,458	23%
Manufacturing	5,581	18%
Retail Trade	3,725	12%
Arts, Entertainment, Recreation, Accommodation and Food Services	2,583	7.19%
Construction	2,560	8%
Professional, Scientific, Management, Administrative, and Waste Management Services	2,109	7%
Other Services, Except Public Administration	1,807	6%
Transportation, Warehousing and Utilities	1,645	4%
Finance, Insurance, Real Estate, Rental and Leasing	1,337	3%
Public Administration	1,326	4%
Wholesale Trade	637	2%
Agriculture, Forestry, Fishing, Hunting, and Mining	541	2%
Information	442	1%

	Number	Percent (%)
<i>Income (Household)</i>	28,226	100%
Less than \$10,000	1,378	4.90%
\$10,000 to \$14,999	1,425	5.00%
\$15,000 to \$19,999	1,379	4.90%
\$20,000 to \$24,999	920	3%
\$25,000 to \$29,999	1,220	4%
\$30,000 to \$34,999	863	3.10%
\$35,000 to \$39,999	2,596	9.20%
\$40,000 to \$44,999	1,597	5.70%
\$45,000 to \$49,999	1,550	5.50%
\$50,000 to \$59,999	2,809	10%
\$60,000 to \$74,999	2,891	10.20%
\$75,000 to \$99,999	3,759	13.30%
\$100,000 to \$124,999	2,290	8.10%
\$125,000 to \$149,999	1,817	6.40%
\$150,000 to \$199,999	1,164	4.10%
\$200,000 or more	568	2%
Median Household Income	\$51,959	N/A
Per Capita Income	\$28,495	N/A

Bureau of Economic Analysis (BEA) Per Capita Personal Income (PCPI) Figures

<i>Personal Income by County and Metropolitan Area 2020</i>		
	Income	Rank in State
BEA Per Capita Personal Income 2018	\$39,215	N/A
BEA Per Capita Personal Income 2019	\$40,589	N/A
BEA Per Capita Personal Income 2020	\$44,855	46th out of 83 counties
Employment Statistics		
Category	Shiawassee County	Michigan
Labor Force 2021	31, 704	4,776,166
Employed 2021	29, 908	4,495,583
Unemployed 2021	1, 796	280,583
Labor Force in September 2022	31,212	4,868,000
Employed in September 2022	32,550	4,688,000
Unemployed in September 2022	1,293	179,000
Unemployment Rate in September 2022	4%	3.70%
Unemployment Rate 2021	5.70%	5.90%
Unemployment Rate 2020	9.50%	10%
Unemployment Rate 2019	4.30%	4.10%

<i>Estimated Poverty Status in 2021</i>						
Poverty Status	Shiawassee County Number	Shiawassee County Percent	Michigan Number	Michigan Percent	U.S. Number	U.S. Percent
<i>Children (Under 18)</i>	14,016	100%	2,117,472	100%	72,297,129	100%
Poverty	1,642	11.70%	376,831	17.80%	12,243,219	16.90%
Non-Poverty	12,374	88.30%	1,740,641	82.20%	60,053,910	83.10%
<i>Seniors (65 and Over)</i>	13,010	100%	1,787,295	100%	54,741,794	100%
Poverty	918	7.10%	165,605	9.30%	5,623,616	10.3
Non-Poverty	12,092	92.90%	1,621,690	90.70%	49,118,178	89.7

Poverty Status	Shiawassee County Number	Shiawassee County Percent	Michigan Number	Michigan Percent	U.S. Number	U.S. Percent
Children (Under 18)	14,016	100%	2,117,472	100%	72,297,129	100%
Poverty	1,642	11.70%	376,831	17.80%	12,243,219	16.90%
Non-Poverty	12,374	88.30%	1,740,641	82.20%	60,053,910	83.10%
Seniors (65 and Over)	13,010	100%	1,787,295	100%	54,741,794	100%
Poverty	918	7.10%	165,605	9.30%	5,623,616	10.3
Non-Poverty	12,092	92.90%	1,621,690	90.70%	49,118,178	89.7
Income in the Past 12 Months Below Poverty Level:	6,969	10.40%	1,286,329	13.10%	41,393,176	12.80%
Under 5 years	714	1%	106,139	1.10%	3,349,149	1%
5 years	38	0.10%	19,294	0.20%	682,908	0.20%
6 to 11 years	506	0.80%	126,149	1.20%	4,180,449	1.30%
12 to 14 years	94	0.20%	65,626	0.70%	2,094,410	0.60%
15 years	0	0%	20,727	0.20%	690,152	0.20%
16 and 17 years	290	0.40%	38,896	0%	1,246,151	0.40%
18 to 24 years	863	1.20%	167,688	1.70%	5,134,411	1.60%
25 to 34 years	734	1.10%	165,882	1.70%	5,393,310	1.70%
35 to 44 years	782	1.20%	139,653	1.40%	5,650,067	1.40%
45 to 54 years	1,264	1.80%	113,818	1.10%	3,744,651	1.10%
55 to 64 years	766	1.10%	156,852	1.60%	4,603,929	1.50%
65 to 74 years	566	0.80%	94,282	0.90%	3,166,968	1%
75 years and over	352	0.50%	71,323	0.70%	2,456,648	0.70%

Poverty Status	Shiawassee County Number	Shiawassee County Percent	Michigan Number	Michigan Percent	U.S. Number	U.S. Percent
<i>Income in the Past 12 Months At or Above Poverty Level:</i>	60,212	89.60%	8,561,074	86.90%	282,779,900	87.20%
Under 5 years	2,865	4.30%	431,851	4.40%	14,964,040	4.70%
5 years	719	1.10%	92,654	0.90%	3,170,464	1%
6 to 11 years	4,184	6.20%	579,753	5.90%	19,909,296	6.10%
12 to 14 years	2,295	3.40%	311,237	3.10%	11,072,505	3.40%
15 years	705	1%	109,549	1.10%	3,631,671	1.10%
16 and 17 years	1,606	2.40%	215,597	2%	7,305,844	2.30%
18 to 24 years	4,294	6.40%	682,213	7.00%	21,928,106	6.80%
25 to 34 years	7,581	11.30%	1,130,473	11.50%	38,904,232	12%
35 to 44 years	6,816	10.10%	1,057,956	10.70%	38,426,556	11.80%
45 to 54 years	7,418	11.10%	1,098,999	11.20%	36,513,314	11.20%
55 to 64 years	9,637	14.50%	1,229,102	12.40%	37,835,614	11.60%
65 to 74 years	7,482	11.20%	1,011,753	10.30%	30,256,233	9.30%
75 years and over	4,610	6.90%	609,937	6.20%	18,861,945	5.80%

Federal Poverty Thresholds by Size of Family and Number or Related Children Under 18 Years Old: 2021 Data						
<i>Related Children Under 18 Years Old</i>						
Size of Family Unit	No Children	One Child	Two Children	Three Children	Four Children	Five Children
One Person (Unrelated Individual):	-	-	-	-	-	-
Under Age 65	\$14,097	-	-	-	-	-
Aged 65 and Over	\$12,996	-	-	-	-	-
Two People:	-	-	-	-	-	-
Householder Under Age 65	\$18,148	\$18,677	-	-	-	-
Householder Aged 65 and Over	\$16,379	\$18,606	-	-	-	-
Three People	\$21,196	\$21,811	\$21,831	-	-	-
Four People	\$27,949	\$28,406	\$27,479	\$27,575	-	-
Five People	\$33,705	\$34,195	\$33,148	\$32,338	\$31,843	-
Six People	\$38,767	\$38,921	\$38,119	\$37,350	\$36,207	\$35,529
Seven People	\$44,606	\$44,885	\$43,925	\$43,255	\$42,009	\$40,554
Eight People	\$49,888	\$50,329	\$49,423	\$48,629	\$47,503	\$46,073
Nine or More People	\$60,012	\$60,303	\$59,501	\$58,828	\$57,722	\$56,201

Appendix V: County Health Rankings

	Shiawassee County 2022	Michigan 2022	U.S. 2022
Health Outcomes			
Premature Death. Years of potential life lost before age 75 per 100,000 population (age-adjusted). (2018-2020)	7,200	7,900	7,300
Poor or Fair Health. Percentage of adults reporting fair or poor health (age-adjusted). (2019)	17%	18%	17%
Poor Physical Health Days. Average number of physically unhealthy days reported in the past 30 days (age-adjusted). (2019)	4.3	4.2	3.9
Poor Mental Health Days. Average number of mentally unhealthy days reported in the past 30 days (age-adjusted). (2019)	5.3	5.2	4.5
Low Birthweight. Percentage of live births with low birthweight (< 2,500 grams). (2014-2020)	8%	9%	8%
Clinical Care			
Uninsured. Percentage of population under age 65 without health insurance. (2019)	6%	7%	11%
Primary Care Physicians. Ratio of population to primary care physicians. (2019)	2,200:1	1,250:1	1,310:1
Dentists. Ratio of population to dentists. (2020)	2,420:1	1,290:1	1,400:1
Mental Health Providers. Ratio of population to mental health providers. (2021)	580:1	330:1	350:1
Preventable Hospital Stays. Rate of hospital stays for ambulatory-care sensitive conditions per 100,000 Medicare enrollees. (2019)	3,571	4,357	3,767
Mammography Screening. Percentage of female Medicare enrollees ages 65-74 that received an annual mammography screening. (2019)	45%	45%	43%
Flu Vaccinations. Percentage of fee-for-service (FFS) Medicare enrollees that had an annual flu vaccination. (2019)	49%	47%	48%
Alcohol-Impaired Driving Deaths. Percentage of driving deaths with alcohol involvement. (2016-2020)	36%	29%	27%
Sexually Transmitted Infections. Number of newly diagnosed chlamydia cases per 100,000 population. (2019)	356.7	501.7	551
Teen Births. Number of births per 1,000 female population ages 15-19. (2014-2020)	19	17	19

	Shiawassee County 2022	Michigan 2022	U.S. 2022
Social & Economic Factors			
High School Completion. Percentage of adults ages 25 and over with a high school diploma or equivalent. (2016-2020)	92%	91%	89%
Some College. Percentage of adults ages 25-44 with some post-secondary education. (2016-2020)	64%	69%	67%
Unemployment. Percentage of population ages 16 and older unemployed but seeking work. (2020)	9.20%	9.90%	8.10%
Children in Poverty. Percentage of people under age 18 in poverty. (2020)	17%	17%	16%
Income Inequality. Ratio of household income at the 80th percentile to income at the 20th percentile. (2016-2020)	3.9	4.60%	4.9
Children in Single-Parent Households. Percentage of children that live in a household headed by a single parent. (2016-2020)	20%	26%	25%
Social Associations. Number of membership associations per 10,000 population. (2019)	10.7	9.7	9.2
Violent Crime. Number of reported violent crime offenses per 100,000 population. (2014 & 2016)	264	443	386
Injury Deaths. Number of deaths due to injury per 100,000 population. (2016-2020)	77	81	76
Physical Environment			
Air Pollution - Particulate Matter. Average daily density of fine particulate matter in micrograms per cubic meter (PM2.5). (2018)	8.6	7.4	7.5
Drinking Water Violations. Indicator of the presence of health-related drinking water violations. 'No' indicates no violation. (2020)	No	N/A	N/A

Appendix VI: Health Assessment Information Sources

Source	Data Used	Website
Behavioral Risk Factor Surveillance System, National Center for Chronic Disease Prevention and Health Promotion, Behavioral Surveillance Branch, Centers for Disease Control	2021 Adult Shiawassee, Michigan, and U.S. Correlating Statistics	https://www.cdc.gov/brfss/index.html
CDC, Alcohol, Excessive Drinking	Health Effects of Excessive Alcohol Use	https://www.cdc.gov/chronicdisease/resources/publications/factsheets/alcohol.htm
CDC, Chronic Disease	Health and Economic Costs of Chronic Disease	https://www.cdc.gov/chronicdisease/about/costs/index.htm
CDC, Chronic Disease	Preventing Chronic Disease	https://www.cdc.gov/chronicdisease/pdf/2009-power-of-prevention.pdf
CDC, Chronic Disease	Preventing Chronic Disease	https://www.cdc.gov/chronicdisease/about/prevent/index.htm
CDC, Marijuana	How Marijuana Can Impact a Teen's Life	https://www.cdc.gov/marijuana/health-effects/teens.html
CDC, Oral Health	Disparities in Oral Health	https://www.cdc.gov/oralhealth/oral_health_disparities/index.htm
CDC, Smoking and Tobacco Use	Electronic Cigarette Health Effects	https://www.cdc.gov/tobacco/basic_information/e-cigarettes/about-e-cigarettes.html
CDC, Suicide	Suicide Rising Across the U.S.	https://www.cdc.gov/nchs/pressroom/nchs_press_releases/2022/20220930.htm
CDC, Violence Prevention, Sexual Violence	Understanding Sexual Violence	https://www.cdc.gov/violenceprevention/sexualviolence/fastfact.html
County Health Rankings, 2022	County Health Rankings	https://www.countyhealthrankings.org/
Healthy People 2030: U.S. Department of Health and Human Services	Social Determinants of Health	https://health.gov/healthypeople/priority-areas/social-determinants-health
Michigan Department of Health and Human Services	Shiawassee County Total Live Births	https://www.mdch.state.mi.us/osr/nativity/BirthsTrends.asp
	Shiawassee County Number of Suicide Deaths by Year	https://vitalstats.michigan.gov/osr/chi/FATAL2/frame.asp
	Shiawassee County Number of Suicide Deaths by Gender	https://vitalstats.michigan.gov/osr/chi/FATAL2/frame.asp

Source	Data Used	Website
Michigan Department of Health and Human Services	Shiawassee County Female Leading Causes of Death	https://www.mdch.state.mi.us/osr/chi/Deaths/leadadj/AgeAdjustedRatesOfDeathsBySexObject.asp?AreaCode=44&AreaTyble
	Michigan Female Leading Causes of Death	https://vitalstats.michigan.gov/osr/deaths/DXCause113.asp
	Shiawassee Chlamydia and Gonorrhea Statistics	https://www.michigan.gov/mdhhs/keep-mi-healthy/chronicdiseases/hivsti/data-and-statistics
	Michigan Chlamydia and Gonorrhea Statistics	https://www.michigan.gov/mdhhs/keep-mi-healthy/chronicdiseases/hivsti/data-and-statistics
Michigan Department of Technology, Management and Budget	Unemployment Rates	https://milmi.org/datasetsearch/unemployment-by-county
Michigan Profile for Healthy Youth	2021-2022 Youth Shiawassee and Michigan risk and protective factors	https://mdoe.state.mi.us/schoolhealthsurveys/externalreports/countyreportgeneration.aspx
U.S. Department of Commerce, Census Bureau; Bureau of Economic Analysis	American Community Survey 1-year estimate, 2021	https://www.census.gov/programs-surveys/acs
	American Community Survey 5-year estimate, 2017-2021	https://www.census.gov/programs-surveys/acs
	Community Population Survey	https://www.census.gov/programs-surveys/cps.html
	Population and Housing Unit Estimates	https://www.census.gov/programs-surveys/popest.html