

2017



Lenawee County

Community Health Assessment

Examining the health of Lenawee County

Released on April 30, 2018

Foreword

Dear Community Member:

The Lenawee Health Network is pleased to present to you the 2017 Lenawee County Community Health Assessment. Data contained in this report will be invaluable to community agencies and businesses as they prioritize the needs and incorporate action plans into their strategy to improve the health of our community.

This report is based upon data obtained from responses to written surveys that were conducted from September through November 2017. The surveys focused on two age groups:

- Adults ages 19 and over
- Youth ages 0 to 11 (with parents providing responses for this age group)

This report also includes results from the 2016 Lenawee County middle school and high school survey, Michigan Profile for Healthy Youth (MiPHY).

We wish to thank all of the community members who responded to the surveys and school districts in Lenawee County for supporting the process of the youth MiPHY survey. This report would not be possible without this level of participation.

The last comprehensive community assessment of this kind was conducted in 2014. To address the need for an updated study and evaluate our progress, ProMedica Bixby Hospital funded the assessment. The Lenawee Community Mental Health Authority contributed funds raised by the E-Race Stigma 5k event to the assessment. Lenawee Health Network provided input to the content of the assessment tool. (The membership of the network is listed in the acknowledgements). In order to maintain complete objectivity throughout the survey process, the network engaged the expert services of the Hospital Council of NW Ohio to administer the survey and compile the results. The Lenawee Health Network (LHN) uses this data for their strategic focus. LHN represents health in the community as part of Lenawee's community collaborative structure (see next page).

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.

Sincerely,



Julie K. Yaroch, DO
President
ProMedica Bixby Hospital
ProMedica Herrick Hospital



Frank Nagle
Chairperson Lenawee Health Network
Project Coordinator
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Acknowledgements

Member Organizations of the Lenawee Health Network (LHN):

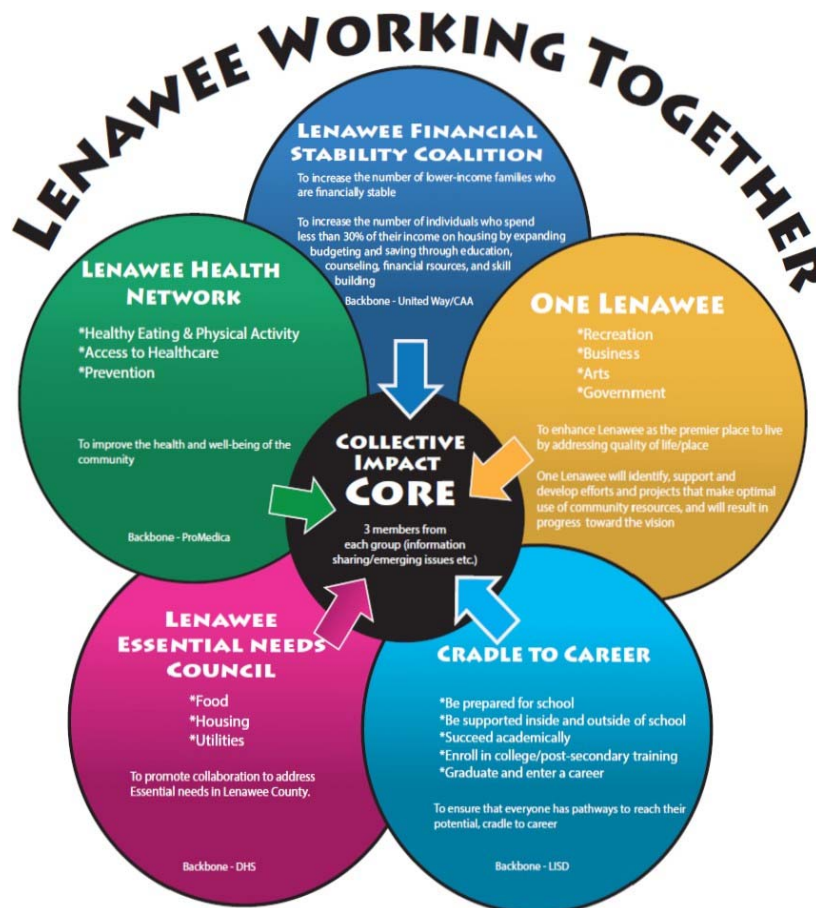
Adrian College
 Adrian Farmer's Market
 Boys & Girls Club
 Care Pregnancy Center of Lenawee
 Catholic Charities
 Community Action Agency
 Country Market Pharmacy #11
 Family Counseling and Children's Services
 Family Medical Center
 Goodwill Industries
 Hope Community Center
 Inter-Connections Drop In Center
 Lenawee Community Foundation
 Lenawee Community Mental Health Authority
 Lenawee County Health Department

Lenawee Department on Aging
 Lenawee Great Start
 Lenawee Department of Human Services
 Lenawee Intermediate School District
 Lenawee Substance Abuse Prevention Coalition
 McCullough, Vargas & Associates
 MHP Salud
 MSU Extension
 One Lenwee
 ProMedica Bixby Hospital
 ProMedica Herrick Hospital
 Region 2 Area Agency on Aging
 Siena Heights
 The Centre
 YMCA of Lenawee

Participating Schools in the MiPHY survey

Addison Middle and High Schools
 Adrian Middle and High Schools
 Blissfield Middle and High Schools
 Clinton Middle and High School
 Hudson Middle and High School

Madison Middle and High School
 Morenci Middle and High Schools
 Onsted Middle and High Schools
 Sand Creek Middle and High Schools
 Tecumseh Middle and High Schools



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To see Lenawee County data compared to other counties, please visit the Hospital Council of Northwest Ohio's Data Link website at:

<http://www.hcno.org/community/data-indicator.html>

The 2017 Lenawee County Health Assessment is available on the following website:

Hospital Council of Northwest Ohio

<http://www.hcno.org/community/reports.html>

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Executive Summary

This executive summary provides an overview of health-related data for Lenawee County adults (ages 19 and older) and children (ages 0-11) who participated in a county-wide health assessment survey from September 2017 through November 2017. 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 for their national and state Behavioral Risk Factor Surveillance System (BRFSS), as well as the National Survey of Children's Health (NSCH) developed by the Child and Adolescent Health Measurement Initiative. The Hospital Council of Northwest Ohio (HCNO) collected the data, guided the health assessment process and integrated sources of primary and secondary data into the final report.

Primary Data Collection Methods

DESIGN

This community health assessment was cross-sectional in nature and included a written survey of adults and parents within Lenawee 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.

INSTRUMENT DEVELOPMENT

Two survey instruments were designed and pilot tested for this study: one for adults and one for parents of children ages 0-11. As a first step in the design process, health education researchers from the University of Toledo and staff members from HCNO met to discuss potential sources of valid and reliable survey items that would be appropriate for assessing the health status and health needs of adults and children. The investigators decided to derive the majority of the adult survey items from the BRFSS and the majority of the survey items for parents of children ages 0-11 from the NSCH. This decision was based on being able to compare local data with state and national data.

The project coordinator from the Hospital Council of NW Ohio conducted a series of meetings with the planning committee from Lenawee County. During these meetings, HCNO and the planning committee reviewed and discussed banks of potential survey questions from the BRFSS and NSCH surveys. Based on input from the Lenawee County planning committee, the project coordinator composed drafts of surveys containing 117 items for the adult survey and 77 items for the child survey. Health education researchers from the University of Toledo reviewed and approved the drafts.

SAMPLING | Adult Survey

The sampling frame for the adult survey consisted of adults ages 19 and older living in Lenawee County. There were 75,137 persons ages 19 and older living in Lenawee 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 382 adults was needed to ensure this level of confidence. The random sample of mailing addresses of adults from Lenawee County was obtained from Melissa Data Corporation in Rancho Santa Margarita, California.

SAMPLING | 0-11 Survey

Children ages 0-11 residing in Lenawee County were used as the sampling frames for the surveys. Using U.S. Census Bureau data, it was determined that 14,592 children ages 0-11 resided in Lenawee County. The investigators conducted a power analysis to determine what sample size was needed to ensure a 95% confidence level with 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). Because many of the items were identical between the 0-5 and 6-11 surveys, the responses were combined to analyze data for children 0-11. The sample size required to generalize to children aged 0-11 was 374. The random sample of mailing addresses of parents from Lenawee County was obtained from Melissa Data Corporation in Rancho Santa Margarita, California.

PROCEDURE | Adult Survey

Prior to mailing the survey to adults, an advance letter was mailed to 1,200 adults in Lenawee County. This advance letter was personalized; printed on Lenawee Health Network stationery; and signed by Julie Yaroch, D.O., President, ProMedica Bixby Hospital and ProMedica Herrick Hospital and Martha Hall, Health Officer, Lenawee County Health Department. The letter introduced the county health assessment project and informed the readers that they may be randomly selected to receive the survey. The letter also explained that the respondents' confidentiality would be protected and encouraged the readers to complete and return the survey promptly if they were selected.

Three weeks following the advance letter, a three-wave mailing procedure was implemented to maximize the survey return rate. The initial mailing included a personalized hand signed cover letter describing the purpose of the study, a questionnaire printed on white paper, a self-addressed stamped return envelope, and a \$2 incentive. Approximately three weeks after the first mailing, a second wave mailing included another personalized cover letter encouraging the participants to reply, another copy of the questionnaire on white paper, and another reply envelope. A third wave postcard was sent three weeks after the second wave mailing. Surveys returned as undeliverable were not replaced with another potential respondent.

The response rate for the mailing was 36% (n=409; CI=± 4.83). This return rate and sample size means that the responses in the health assessment should be representative of the entire county.

PROCEDURE | Children 0-5 and 6-11

Prior to mailing the survey to parents of 0-11-year-olds, an advance letter was mailed to 2,400 parents in Lenawee County. This advance letter was personalized; printed on Lenawee Health Network stationery; and signed by Julie Yaroch, D.O., President, ProMedica Bixby Hospital and ProMedica Herrick Hospital and Martha Hall, Health Officer, Lenawee County Health Department. The letter introduced the county health assessment project and informed the readers that they may be randomly selected to receive the survey. The letter also explained that the respondents' confidentiality would be protected and encouraged the readers to complete and return the survey promptly if they were selected.

Three weeks following the advance letter, a three-wave mailing procedure was implemented to maximize the survey return rate. The initial mailing included a personalized hand signed cover letter describing the purpose of the study, a questionnaire printed on white paper, a self-addressed stamped return envelope, and a \$2 incentive. Approximately three weeks after the first mailing, a second wave mailing included another personalized cover letter encouraging the participants to reply, another copy of the questionnaire on white paper, and another reply envelope. A third wave postcard was sent three weeks after the second wave mailing. Surveys returned as undeliverable were not replaced with another potential respondent. Additionally, the three-wave mailing procedure included a QR code on the letters and postcard to give the recipient the option of taking the survey online via Survey Monkey. The response rate was 12% (n=227; CI=± 6.45).

DATA ANALYSIS

Individual responses were anonymous. Only group data was available. All data was analyzed by health education researchers at the University of Toledo using SPSS 23.0. Crosstabs were used to calculate descriptive statistics for the data presented in this report. To be representative of Lenawee County, the adult data collected was weighted by age, gender, race, and income using 2015 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 III.

LIMITATIONS

As with all county assessments, it is important to consider the findings in light of all possible limitations. First, the Lenawee County adult assessment had a high response rate. However, 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 Lenawee County). If there were little to no differences between respondents and non-respondents, then this would not be a limitation.

It is important to note that although several questions were asked using the same wording as the CDC questionnaires and the NSCH questionnaire, the adult and parent data collection method differed. CDC adult data and NSCH child data were collected using a set of questions from the total question bank, and adults were asked the questions over the telephone rather than as a mail survey.

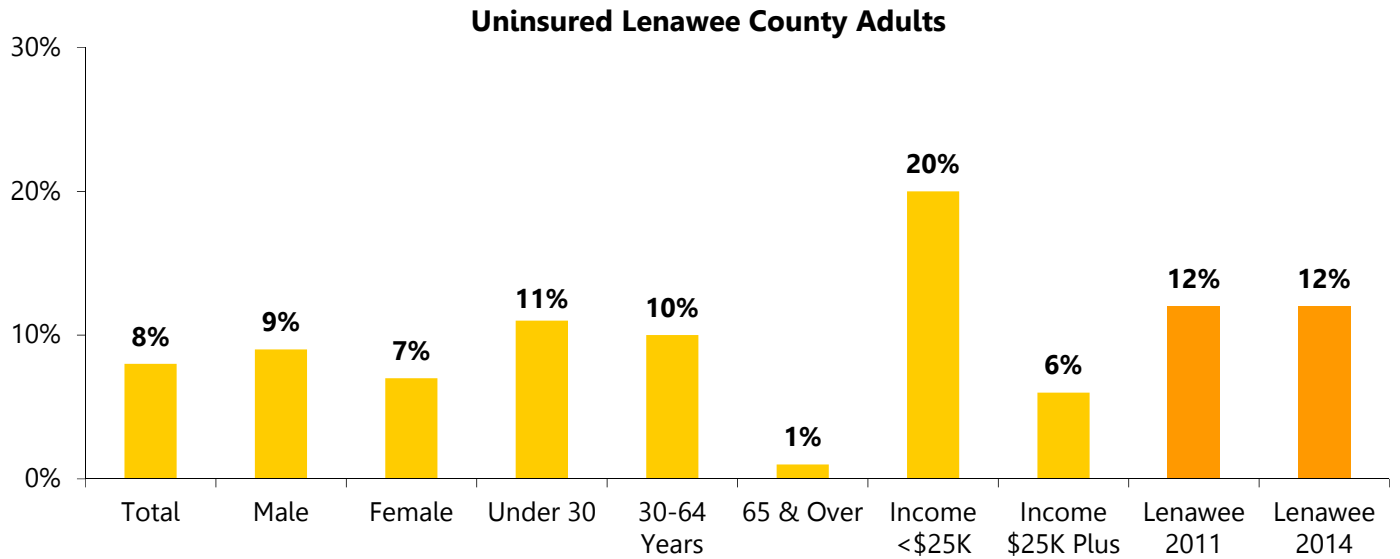
This survey asked parents questions regarding their young children. Should enough parents have felt compelled to respond in a socially desirable manner which is inconsistent with reality, this would represent a threat to the internal validity of the results.

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.

Data Summary | Healthcare Access

HEALTHCARE COVERAGE

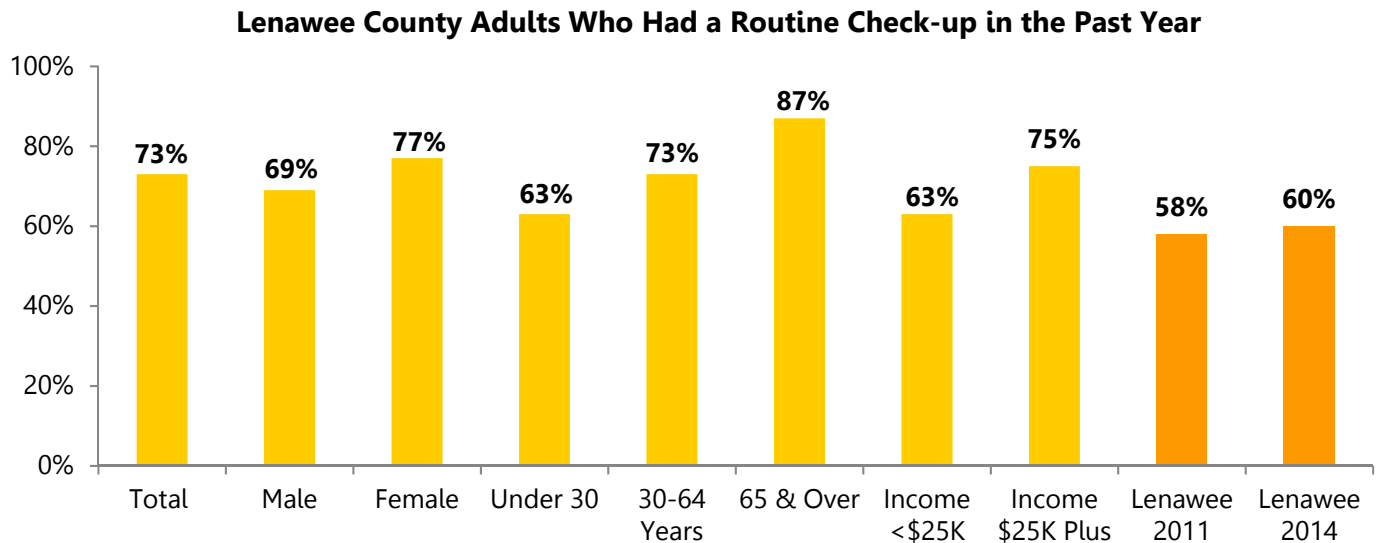
In 2017, 8% of Lenawee County adults were without health care coverage. Those most likely to be uninsured were adults with an income level under \$25,000. In Lenawee County, 14.4% of residents live below the poverty level (Source: U.S. Census, American Community Survey 5 Year Estimate, 2012-2016).



Note: Caution should be used when interpreting subgroup results as the margin of error for any subgroup is higher than that of the overall survey.

ACCESS AND UTILIZATION

Seventy-three percent (73%) of Lenawee County adults had visited a doctor for a routine checkup in the past year. Sixty percent (60%) of adults went outside of Lenawee County for health care services in the past year.



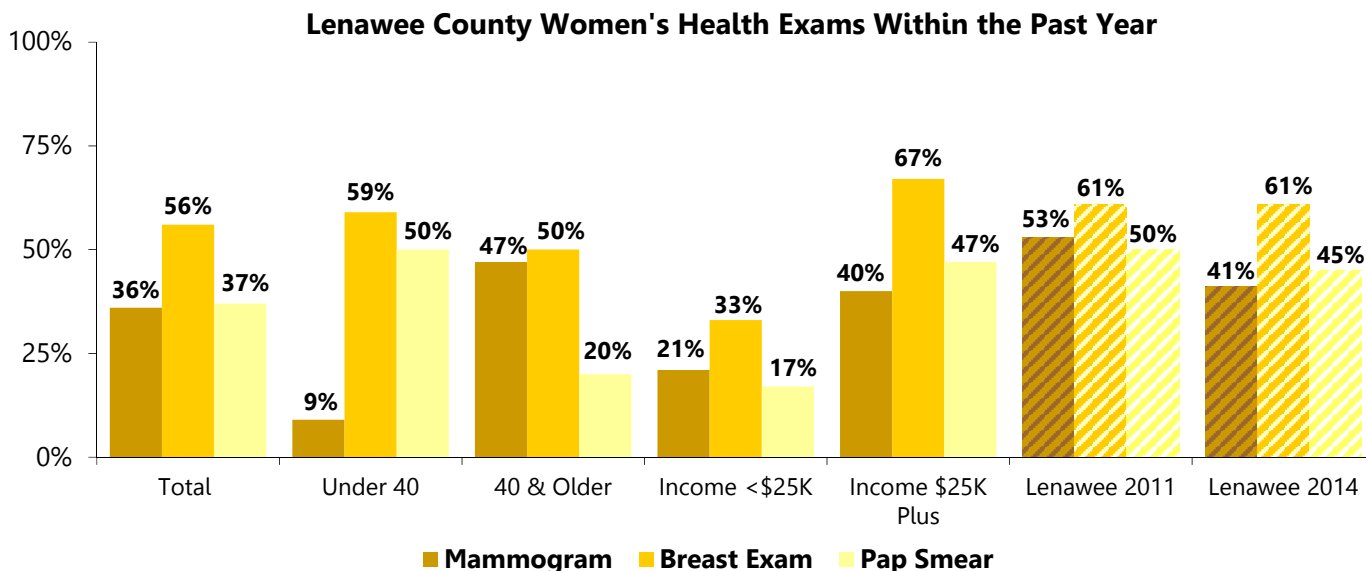
Note: Caution should be used when interpreting subgroup results as the margin of error for any subgroup is higher than that of the overall survey.

PREVENTIVE MEDICINE

Eighty-one percent (81%) of adults ages 65 and over had a pneumonia vaccination at some time in their life. More than three-fifths (65%) of adults ages 50 and over had a colonoscopy or sigmoidoscopy in the past five years.

WOMEN'S HEALTH

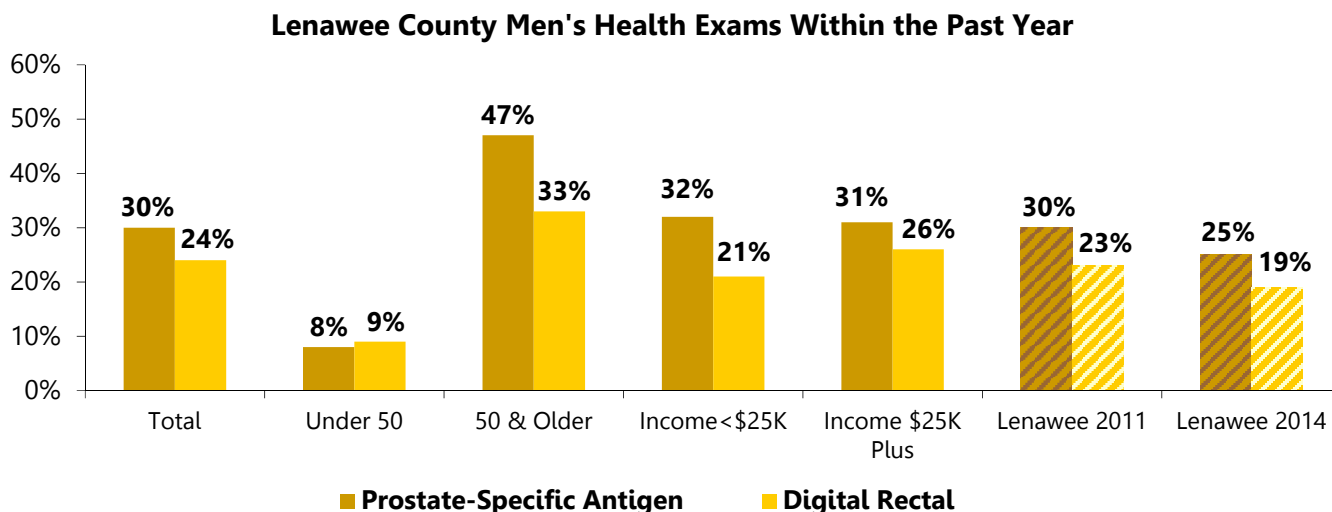
In 2017, nearly half (47%) of Lenawee County women over the age of 40 reported having a mammogram in the past year. Over half (56%) of Lenawee County women ages 19 and over had a clinical breast exam, and 37% had a Pap smear to detect cancer of the cervix in the past year. Seven percent (7%) of women survived a heart attack and 4% survived a stroke at some time in their life. Over two-fifths (41%) were obese, 38% had high blood cholesterol, 33% had high blood pressure, and 13% were identified as smokers, known risk factors for cardiovascular diseases.



Note: Caution should be used when interpreting subgroup results as the margin of error for any subgroup is higher than that of the overall survey.

MEN'S HEALTH

In 2017, 80% of Lenawee County males over the age of 50 had a Prostate-Specific Antigen (PSA) test in their life. More than two-fifths (41%) of men had been diagnosed with high blood pressure, 31% had high blood cholesterol, and 15% were identified as smokers, which, along with obesity (35%), are known risk factors for cardiovascular diseases.

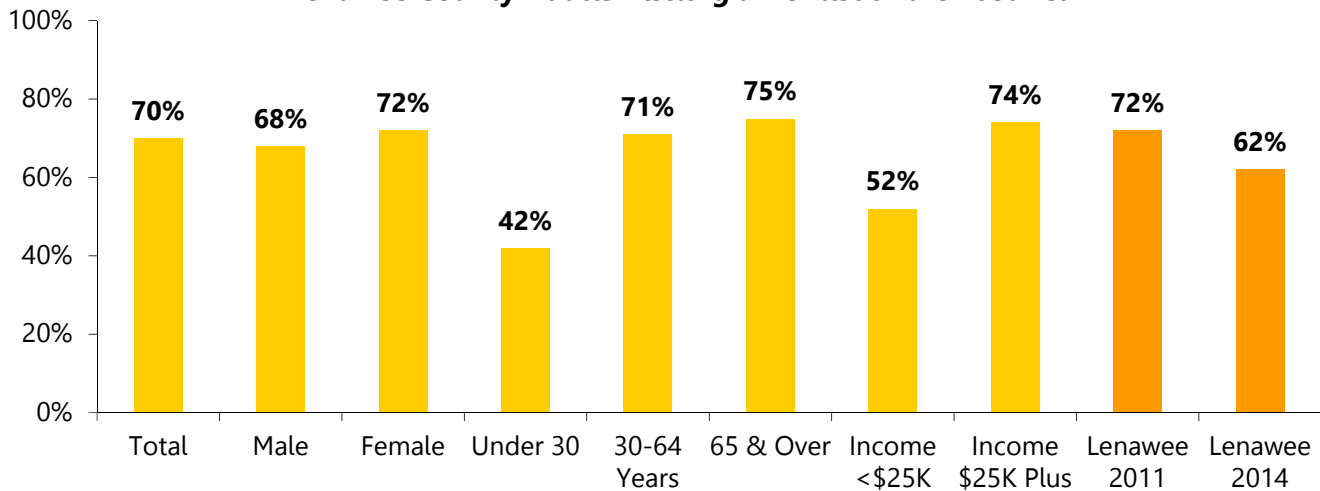


Note: Caution should be used when interpreting subgroup results as the margin of error for any subgroup is higher than that of the overall survey.

ORAL HEALTH

Seventy percent (70%) of Lenawee County adults had visited a dentist or dental clinic in the past year. The 2016 BRFSS reported that 70% of Michigan adults and 66% of U.S. adults had visited a dentist or dental clinic in the previous twelve months.

Lenawee County Adults Visiting a Dentist in the Past Year*



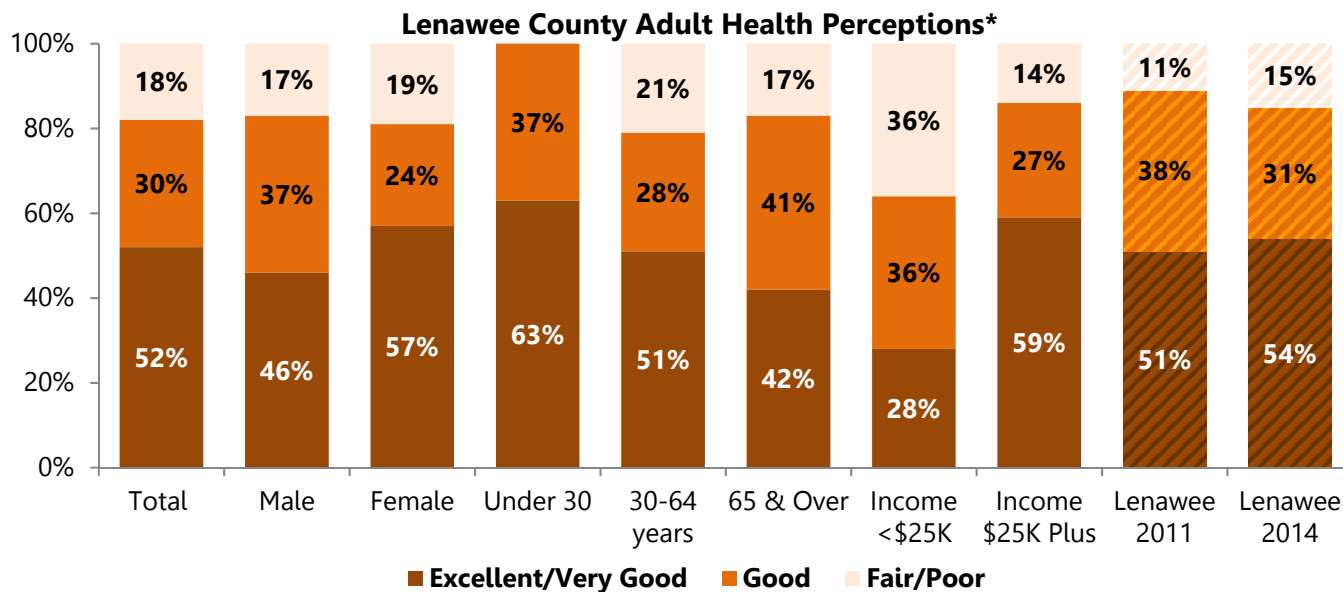
**Totals may not equal 100% as some respondents answered do not know.*

Note: Caution should be used when interpreting subgroup results as the margin of error for any subgroup is higher than that of the overall survey.

Data Summary | Health Behaviors

HEALTH STATUS PERCEPTIONS

In 2017, more than half (52%) of Lenawee County adults rated their health status as excellent or very good. Conversely, 18% of adults, increasing to 36% of those with incomes less than \$25,000, described their health as fair or poor.

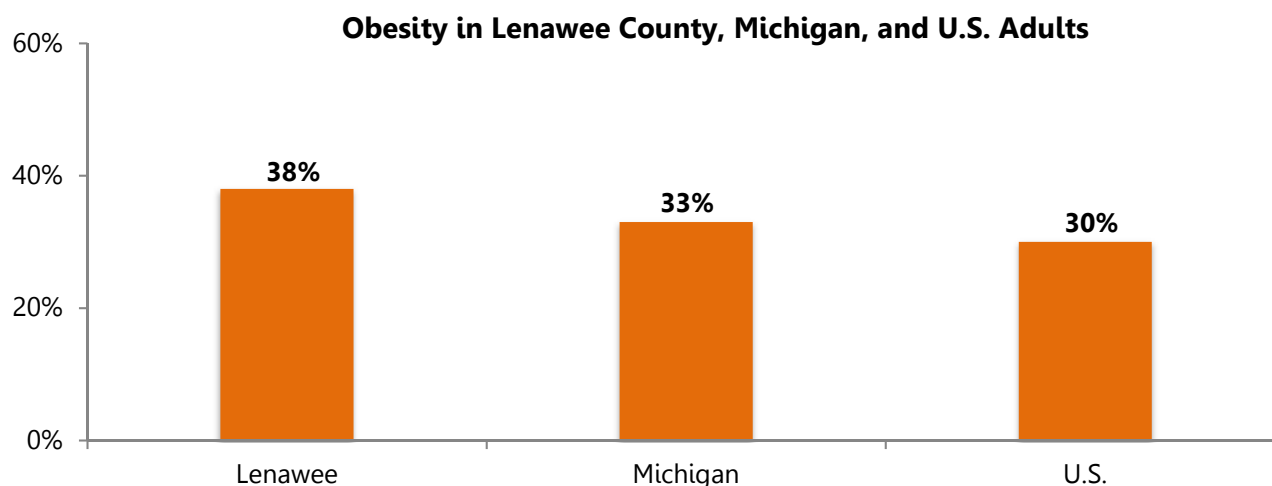


**Respondents were asked: "Would you say that in general your health is excellent, very good, good, fair or poor?"*

Note: Caution should be used when interpreting subgroup results as the margin of error for any subgroup is higher than that of the overall survey.

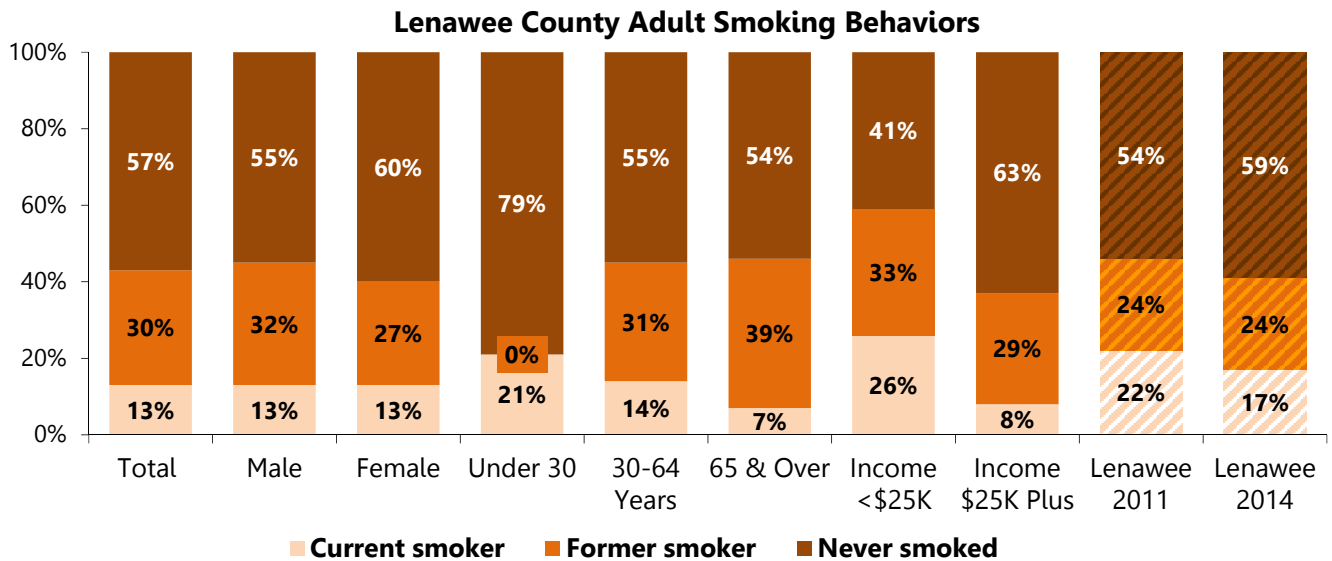
ADULT WEIGHT STATUS

Seventy-six percent (76%) of Lenawee County adults were overweight or obese based on Body Mass Index (BMI). The 2016 BRFSS indicates that 33% of Michigan and 30% of U.S. adults were obese by BMI. Fifty-six percent (56%) of adults engaged in some type of physical activity or exercise for at least 30 minutes three or more days per week.



ADULT TOBACCO USE

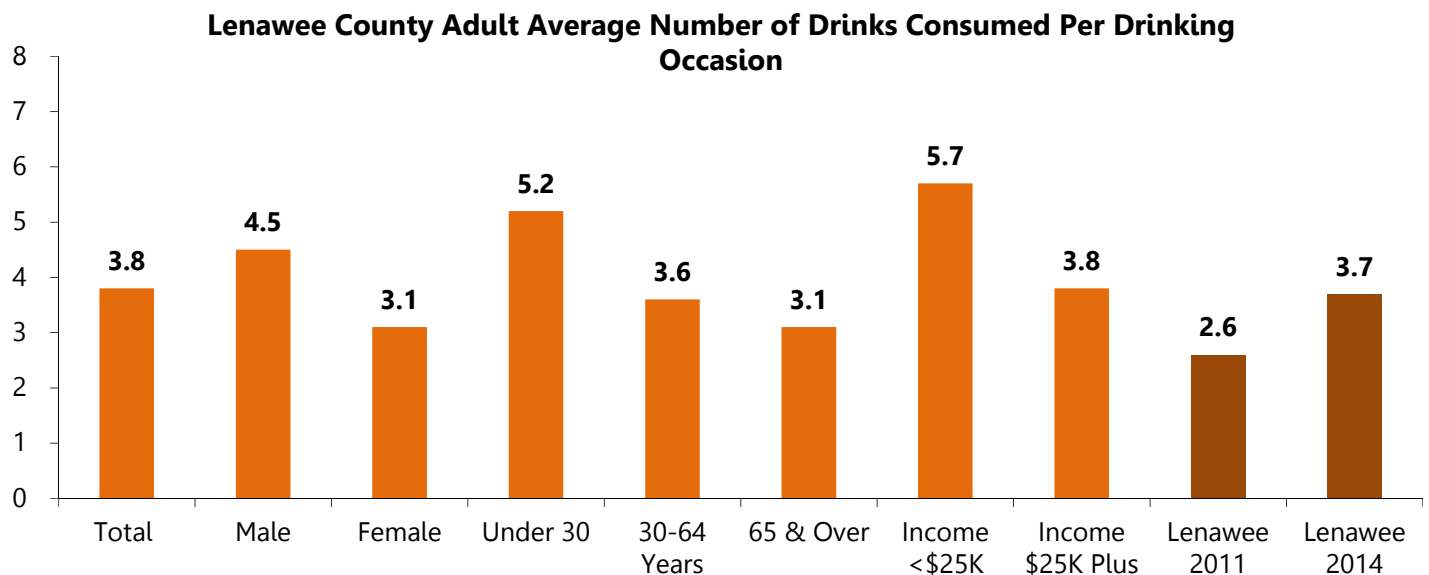
In 2017, 13% of Lenawee County adults were current smokers, and 30% were considered former smokers. Two percent (2%) of adults used e-cigarettes in the past year. More than half (52%) of adults did not know if e-cigarette vapor was harmful.



Note: Caution should be used when interpreting subgroup results as the margin of error for any subgroup is higher than that of the overall survey.

ADULT ALCOHOL USE

In 2017, 58% of Lenawee County adults had at least one alcoholic drink in the past month. Nearly one-fifth (17%) of all Lenawee County adults were binge drinkers.

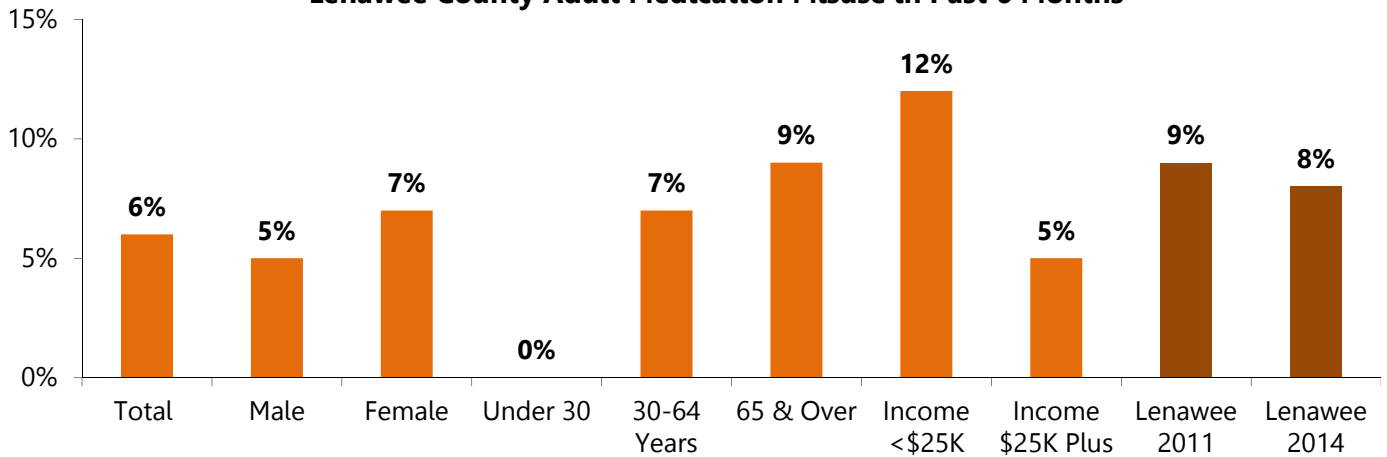


Note: Caution should be used when interpreting subgroup results as the margin of error for any subgroup is higher than that of the overall survey.

ADULT DRUG USE

In 2017, 3% of Lenawee County adults had used marijuana during the past 6 months. Six percent (6%) of adults had used medication not prescribed for them or took more than prescribed to feel good or high and/or more active or alert during the past 6 months.

Lenawee County Adult Medication Misuse in Past 6 Months

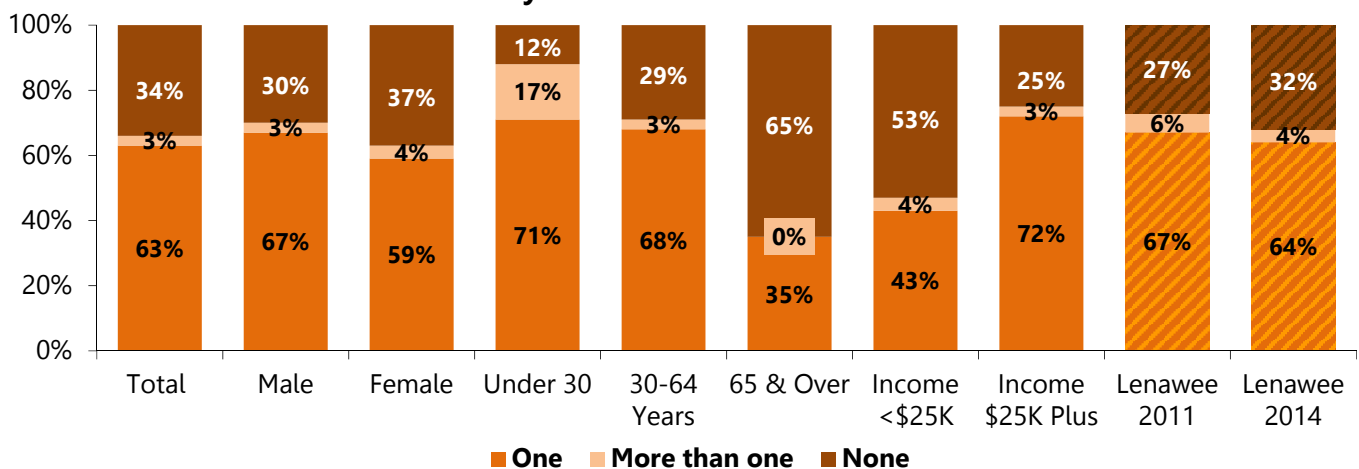


Note: Caution should be used when interpreting subgroup results as the margin of error for any subgroup is higher than that of the overall survey.

ADULT SEXUAL BEHAVIOR

In 2017, 66% of Lenawee County adults had sexual intercourse. Three percent (3%) percent of adults had more than one partner. Nine percent (9%) of adults had been forced into unwanted sexual activity.

Lenawee County Number of Sexual Partners in the Past Year*



**Respondents were asked: "During the past 12 months, with how many different people have you had sexual intercourse?"*

Note: Caution should be used when interpreting subgroup results as the margin of error for any subgroup is higher than that of the overall survey.

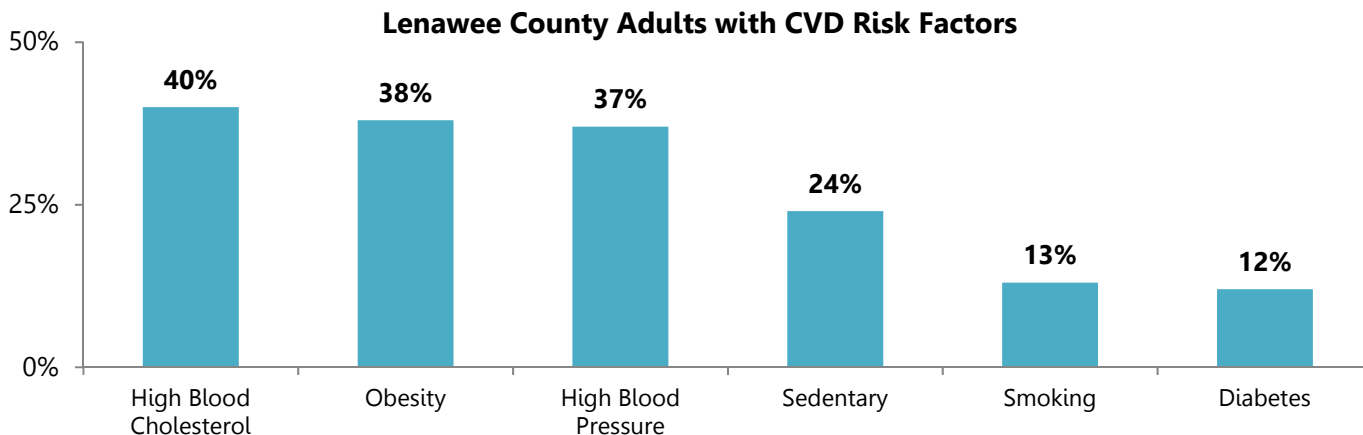
ADULT MENTAL HEALTH

In 2017, 3% of Lenawee County adults considered attempting suicide. Thirty-nine percent (39%) of adults reported they or a family member were diagnosed with, or treated for, depression.

Data Summary | Chronic Disease

CARDIOVASCULAR HEALTH

In 2017, 7% of adults had survived a heart attack and 4% had survived a stroke at some time in their life. Forty percent (40%) of Lenawee County adults had high blood cholesterol, 38% of adults were obese, 37% had high blood pressure, and 13% were current smokers, four known risk factors for heart disease and stroke.

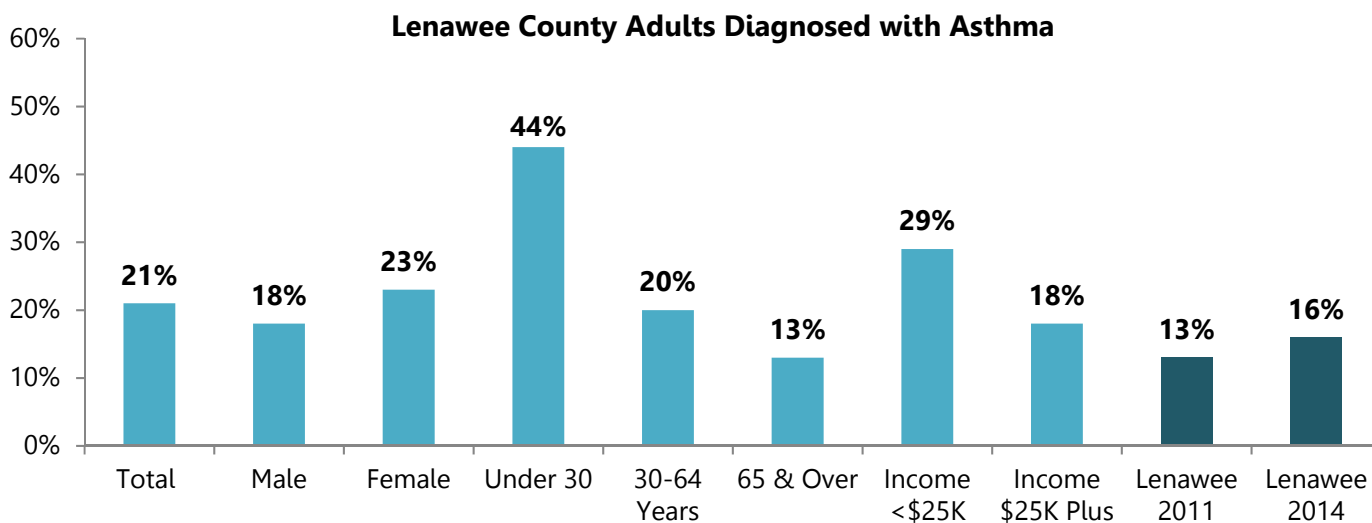


CANCER

In 2017, 13% of Lenawee County adults had been diagnosed with cancer at some time in their life. The Centers for Disease Control and Prevention (CDC) indicates that from 2013-2015, a total of 706 Lenawee County residents died from cancer, the second leading cause of death in the county (*Source: CDC Wonder, 2013-2015*). The American Cancer Society advises that not using tobacco products, maintaining a healthy weight, adopting a physically active lifestyle, eating more fruits and vegetables, limiting alcoholic beverages, and early detection may reduce overall cancer deaths.

ASTHMA

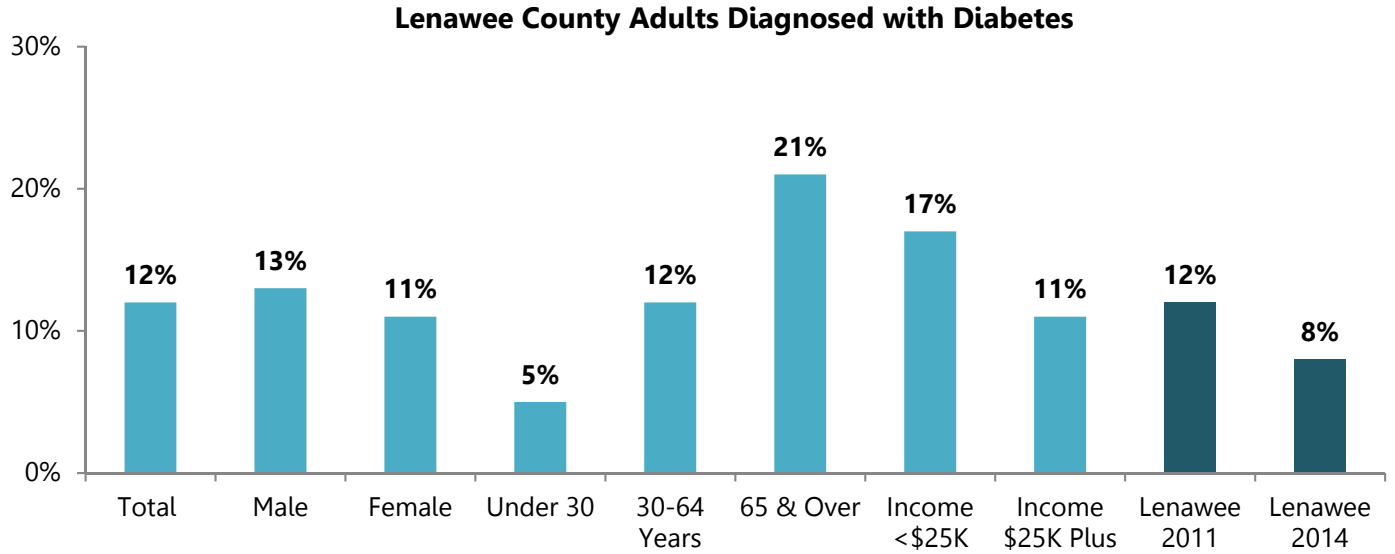
Twenty-one percent (21%) of adults had been diagnosed with asthma.



Note: Caution should be used when interpreting subgroup results as the margin of error for any subgroup is higher than that of the overall survey.

DIABETES

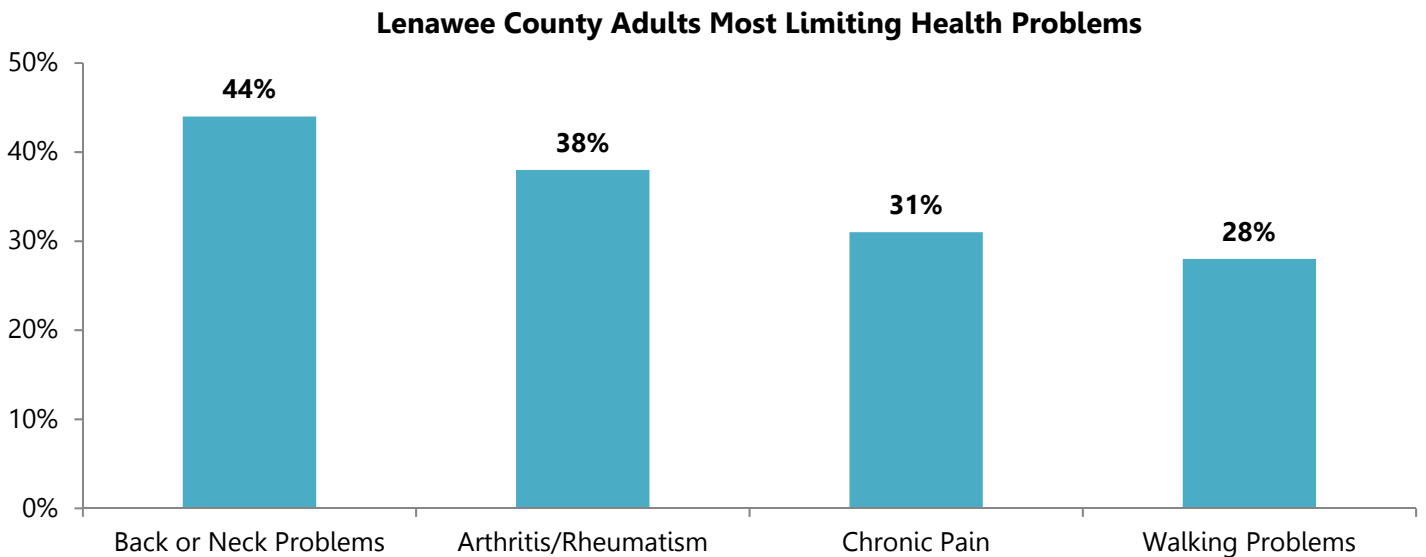
In 2017, 12% of Lenawee County adults had been diagnosed with diabetes.



Note: Caution should be used when interpreting subgroup results as the margin of error for any subgroup is higher than that of the overall survey.

QUALITY OF LIFE

In 2017, 23% of Lenawee County adults were limited in some way because of a physical, mental or emotional problem. The most limiting health problems were back or neck problems (44%), arthritis/rheumatism (38%), and chronic pain (31%).



Data Summary | Social Conditions

SOCIAL DETERMINANTS OF HEALTH

In 2017, 7% of Lenawee County adults were abused in the past year (including physical, sexual, emotional, financial, or verbal abuse). Fifteen percent (15%) of Lenawee County adults had experienced four or more Adverse Childhood Experiences (ACEs) in their lifetime. Nine percent (9%) of adults had experienced at least one issue related to food insecurity in the past year.

Behaviors of Lenawee County Adults
Experienced 4 or More ACEs vs. Did Not Experience Any ACEs

Adult Behaviors	Experienced 4 or More ACEs	Did Not Experience Any ACEs
Classified as overweight or obese by BMI	83%	73%
Current drinker (had at least one alcoholic beverage in the past month)	73%	48%
Binge drinker (drank 5 or more drinks for males and 4 or more for females on an occasion)	35%	32%
Had an income less than \$25,000	33%	21%
Current smoker (currently smoke on some or all days)	15%	8%
Used recreational drugs in the past 6 months	11%	2%
Medication misuse in the past 6 months	11%	4%
Contemplated suicide in the past 12 months	7%	2%

ENVIRONMENTAL HEALTH

The top three environmental health issues reported by Lenawee County adults were insects (14%), mold (7%) and agricultural chemicals (6%). Eighty-two percent (82%) of adults had a working flashlight and working batteries in preparation for a disaster.

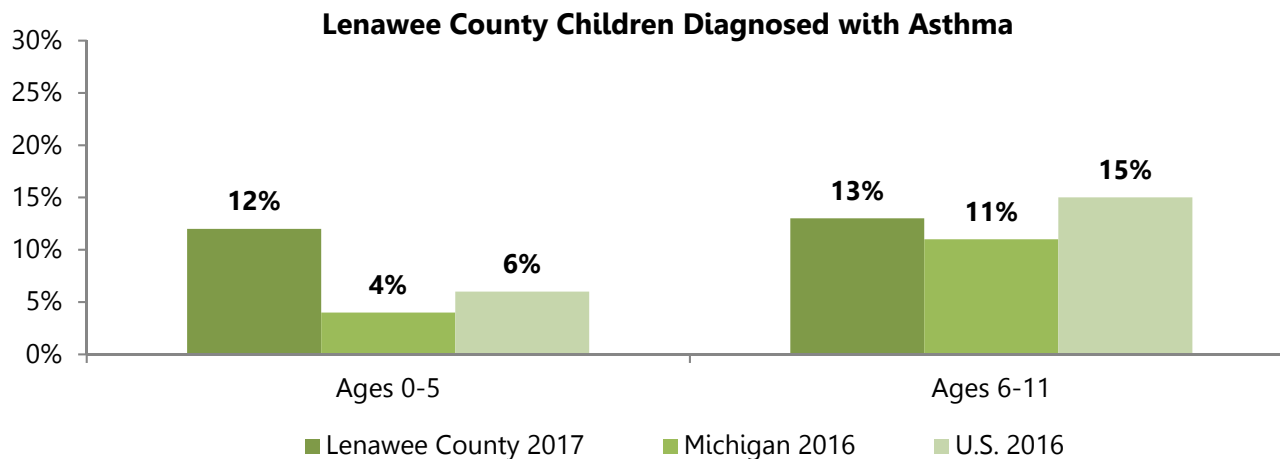
PARENTING

In 2017, 71% of Lenawee County parents talked to their 12 to 17-year-old about their career plan in the past year.

Data Summary | Child Health

HEALTH AND FUNCTIONAL STATUS

In 2017, 23% of children were classified as obese by Body Mass Index (BMI) calculations. Thirteen percent (13%) of Lenawee County parents reported their child had been diagnosed with asthma. Twelve percent (12%) of parents reported their child had been diagnosed with ADD/ADHD.



HEALTH CARE ACCESS

In 2017, 12% of parents reported their child received mental health treatment or counseling in the past 12 months. Six percent (6%) of parents reported their child did not get all of the medical care they needed in the past year. Eighty-two percent (82%) of Lenawee County parents had taken their child to the dentist in the past year.

EARLY CHILDHOOD (0-5 YEARS OLD)

The following information was reported by parents of 0-5 year olds. Eighty-two percent (82%) of parents put their child to sleep on his/her back. Fourteen percent (14%) of mothers never breastfed their child.

MIDDLE CHILDHOOD (6-11 YEARS OLD)

The following information was reported by parents of 6-11 year olds. In 2017, half (50%) of parents reported their child was bullied in the past year. The top three topics parents talked to their child about were bullying/violence (82%), screen time (80%), and eating habits (71%).

FAMILY AND COMMUNITY CHARACTERISTICS

Nine percent (9%) of Lenawee County parents had experienced at least one issue related to food insecurity in the past year. Twelve percent (12%) of parents reported they received benefits from the SNAP/food stamps program in the past year.

PARENT HEALTH

In 2017, forty-seven percent (47%) of parents missed work due to their child being ill or injured.

Adult Trend Summary

Adult Variables	Lenawee County 2011	Lenawee County 2014	Lenawee County 2017	Michigan 2016	U.S. 2016
Health Status					
Rated health as excellent or very good	51%	54%	52%	48%	52%
Rated general health as fair or poor	11%	15%	18%	18%	17%
Rated their mental health as not good on four or more days in the previous month	22%	26%	28%	N/A	N/A
Average days that physical health not good in past month	N/A	3.6	4.4	4.0†	3.8†
Average days that mental health not good in past month	N/A	3.7	4.7	3.9†	3.8†
Healthcare Coverage, Access, and Utilization					
Uninsured	12%	12%	8%	8%	10%
Had at least one person they thought of as their personal doctor or healthcare provider	83%	83%	85%	85%	77%
Visited a doctor for a routine checkup in the past year	58%	60%	73%	73%	71%
Diabetes & Asthma					
Had been diagnosed with diabetes	12%	8%	12%	11%	11%
Had been diagnosed with asthma	13%	16%	21%	16%	14%
Cardiovascular Health					
Had angina or coronary heart disease	N/A	4%	6%	5%	4%
Had a heart attack	6%	3%	7%	5%	4%
Had a stroke	3%	2%	4%	4%	3%
Had been diagnosed with high blood pressure	28%	33%	37%	33%*	31%*
Had been diagnosed with high blood cholesterol	36%	35%	40%	38%*	36%*
Had blood cholesterol checked within the past 5 years	81%	80%	84%	79%*	78%*
Weight Status					
Overweight	35%	35%	38%	35%	35%
Obese	37%	38%	38%	33%	30%
Alcohol Consumption					
Current drinker (drank alcohol at least once in the past month)	60%	48%	58%	57%	54%
Binge drinker (defined as consuming more than four [women] or five [men] alcoholic beverages on a single occasion in the past 30 days)	22%	20%	17%	19%	17%
Tobacco Use					
Current smoker (currently smoke some or all days)	22%	17%	13%	20%	17%
Former smoker (smoked 100 cigarettes in lifetime & now do not smoke)	24%	24%	30%	26%	25%
Tried to quit smoking	49%	49%	57%	N/A	N/A

N/A - not available

†2015 BRFSS data as compiled by 2017 County Health Rankings

*2015 BRFSS Data

Adult Variables	Lenawee County 2011	Lenawee County 2014	Lenawee County 2017	Michigan 2016	U.S. 2016
Drug Use					
Adults who used marijuana in the past 6 months	6%	7%	3%	N/A	N/A
Adults who misused prescription drugs in the past 6 months	9%	8%	6%	N/A	N/A
Adults who used other recreational drugs in the past 6 months	0%	<1%	5%	N/A	N/A
Sexual Behavior					
Had more than one sexual partner in past year	6%	4%	3%	N/A	N/A
Preventive Medicine					
Had a pneumonia vaccine (age 65 and older)	N/A	60%	81%	72%	73%
Had a flu vaccine in the past year (age 65 and over)	71%	71%	76%	56%	58%
Had a clinical breast exam in the past two years (age 40 and older)	78%	79%	67%	N/A	N/A
Had a mammogram in the past two years (age 40 and older)	81%	79%	71%	74%	72%
Had a Pap smear in the past three years	N/A	77%	67%	81% [‡]	80% [‡]
Had a PSA test within the past two years (age 40 & over)	N/A	N/A	60%	43%	40%
Had a digital rectal exam in the past year	23%	19%	24%	N/A	N/A
Had a sigmoidoscopy/colonoscopy in the past 5 years (age 50 and over)	57%	59%	65%	75%**	69%**
Quality of Life					
Limited in some way because of physical, mental or emotional problem	26%	22%	23%	N/A	N/A
Mental Health					
Considered attempting suicide in the past year	4%	6%	3%	N/A	N/A
Oral Health					
Adults who have visited the dentist in the past year	72%	62%	70%	70%	66%

N/A - not available

**2014 BRFSS data

[‡]BRFSS for both Michigan and U.S. reports for women ages 21-65

Child Trend Summary

Child Variables	Lenawee County 2011 Ages 0-5	Lenawee County 2017 Ages 0-5	Michigan 2016 Ages 0-5	U.S. 2016 Ages 0-5	Lenawee County 2011 Ages 6-11	Lenawee County 2017 Ages 6-11	Michigan 2016 Ages 6-11	U.S. 2016 Ages 6-11
Health and Functional Status								
Rated health as excellent or very good	97%	98%	96%	93%	98%	93%	90%	89%
Diagnosed with autism	1%	0%	N/A	2%*	3%	5%	N/A	3%
Diagnosed with asthma	17%	12%	4%	6%	18%	13%	11%	15%
Diagnosed with ADHD/ADD	3%	0%	N/A	3%*	9%	17%	11%	9%
Diagnosed with behavioral or conduct problems	2%	0%	N/A	5%*	7%	8%	9%	11%
Diagnosed with epilepsy	0%	0%	N/A	1%	2%	1%	N/A	1%
Diagnosed with a head injury, brain injury or concussion	0%	0%	N/A	1%	2%	2%	N/A	2%
Diagnosed with diabetes	0%	0%	N/A	N/A	1%	0%	N/A	<1%
Diagnosed with depression	1%	0%	N/A	N/A	2%	1%	N/A	2%
Diagnosed with developmental delay	6%	2%	N/A	6%*	7%	8%	8%	5%
Diagnosed with anxiety problems	1%	2%	N/A	1%*	4%	8%	7%	7%
Did not engage in any physical activity during the past week	2%	3%	N/A	N/A	3%	2%	N/A	5%
Health Care Access								
Dental care visit in the past year	59%	57%	54%**	59%**	93%	92%	91%	91%
Had public insurance	23%	22%	32%	34%	14%	19%	26%	34%
Received all the medical care they needed	86%	96%	94%	91%	88%	93%	87%	84%
Been to the doctor for preventive care in the past year	94%	98%	92%	89%	81%	95%	82%	79%
Have a personal doctor or nurse	83%	78%	78%	74%	87%	88%	80%	72%
Child received treatment or counseling from a mental health professional in the past year	N/A	5%	N/A	3%	N/A	14%	14%	10%
Early Childhood (Ages 0-5)								
Never breastfed their child	28%	14%	16%	21%	N/A	N/A	N/A	N/A
Family read to child every day in the past week	34%	32%	39%	38%	N/A	N/A	N/A	N/A
Spent 4 or more hours watching TV	15%	14%	N/A	5%	N/A	N/A	N/A	N/A

*Ages 3-5 years old

**Ages 1-5 years old

N/A – Not Available

Child Variables	Lenawee County 2011 Ages 0-5	Lenawee County 2017 Ages 0-5	Michigan 2016 Ages 0-5	U.S. 2016 Ages 0-5	Lenawee County 2011 Ages 6-11	Lenawee County 2017 Ages 6-11	Michigan 2016 Ages 6-11	U.S. 2016 Ages 6-11
Middle Childhood (Ages 6-11)								
Child participated in 1 or more activities	N/A	N/A	N/A	N/A	87%	86%	80%	76%
Child did not miss any days of school because of illness or injury	N/A	N/A	N/A	N/A	18%	25%	25%	29%
Parent definitely agreed that their child was safe at school	N/A	N/A	N/A	N/A	N/A	72%	81%	79%
Family and Community Characteristics								
Family eats a meal together every day of the week	47%	44%	52%	53%	36%	40%	42%	45%
Child never attends religious services	45%	51%	N/A	N/A	37%	49%	22% [‡]	18% [‡]
Parent definitely agreed that their child lived in a safe neighborhood	N/A	81%	66%	63%	N/A	83%	63%	62%
2 or more Adverse Childhood Experiences	N/A	7%	11%	12%	N/A	8%	23%	23%
Parent Health								
Mother's mental or emotional health is fair/poor	7%	7%	N/A	5%	5%	6%	N/A	6%
Father's mental or emotional health is fair/poor	2%	0%	N/A	3%	1%	3%	N/A	3%

N/A – Not Available

[‡]2011/2012 NSCH Data

Healthcare Access: Healthcare Coverage

Key Findings

In 2017, 8% of Lenawee County adults were without health care coverage. Those most likely to be uninsured were adults with an income level under \$25,000. In Lenawee County, 14.4% of residents live below the poverty level (Source: U.S. Census, American Community Survey 5 Year Estimate, 2012-2016).

General Health Coverage

- In 2017, 92% Lenawee County adults had health care coverage.
- In the past year, 8% of adults were uninsured, increasing to 20% of those with incomes less than \$25,000. The 2016 BRFSS reported prevalence rates as 8% for Michigan and 10% for the U.S.
- Eleven percent (11%) of adults with children did not have healthcare coverage, compared to 8% of those who did not have children living in their household.
- The following types of health care coverage were used: employer (44%); Medicare (18%); multiple, including private sources (11%); someone else’s employer (10%); Medicaid or medical assistance (8%); self-paid plan (3%); multiple, including government sources (3%); military or VA (2%) and Health Insurance Marketplace (2%).

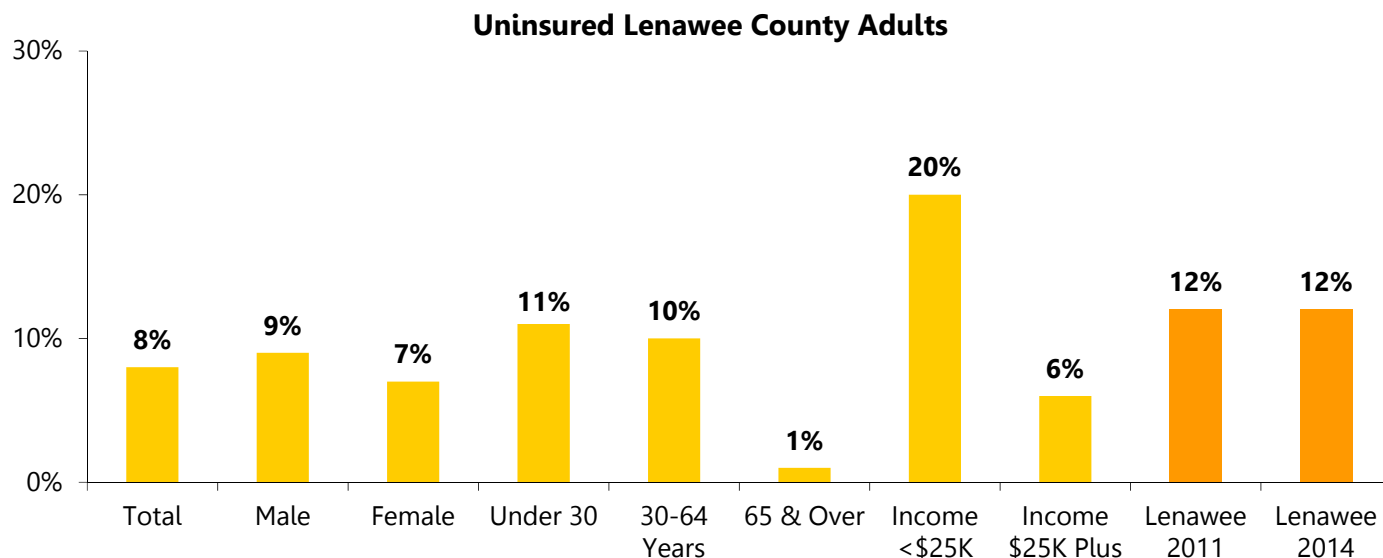
8% of Lenawee County adults were uninsured.

- Lenawee County adult health care coverage included the following: medical (95%), prescription coverage (94%), immunizations (81%), preventive health (80%), outpatient therapy (79%), Lenawee County Physicians (76%), dental (69%), mental health (65%), vision/eyeglasses (64%), durable medical equipment (50%), alcohol and drug treatment (42%), home care (35%), hospice (31%), skilled nursing/assisted living (29%), and transportation (11%).
- Lenawee County adults had the following issues regarding their healthcare coverage: cost (36%), opted out of certain coverage because they could not afford it (11%), could not understand their insurance plan (6%), difficulty working with their insurance company (6%), service was no longer covered (4%), service not deemed medically necessary (3%), provider was no longer covered (3%), limited visits (3%), opted out of certain coverage because they did not need it (2%), and pre-existing conditions (2%).
- Nearly one-third (30%) of adults did not get prescriptions from their doctor filled in the past year.
- Of those who did not get their prescriptions filled, they gave the following reasons: no prescriptions to be filled (49%), cost (38%), there was no generic equivalent (14%), no insurance (11%), they stretched their prescription by taking less than prescribed (9%), they did not think they needed it (6%), they were taking too many medications (8%), side effects (8%), transportation (2%), and fear of addiction (1%).
- The top reasons uninsured adults gave for being without health care coverage were because they:
 - Lost their job or changed employers (46%)
 - Could not afford to pay the premiums (43%)
 - Became a part-time or temporary employee (15%)
 - Became ineligible (15%)
 - Did not think they needed it (7%)
 - Became separated or divorced (7%)

*Percentages do not equal 100% because respondents could select more than one reason

Adult Comparisons	Lenawee County 2011	Lenawee County 2014	Lenawee County 2017	Michigan 2016	U.S. 2016
Uninsured	12%	12%	8%	8%	10%

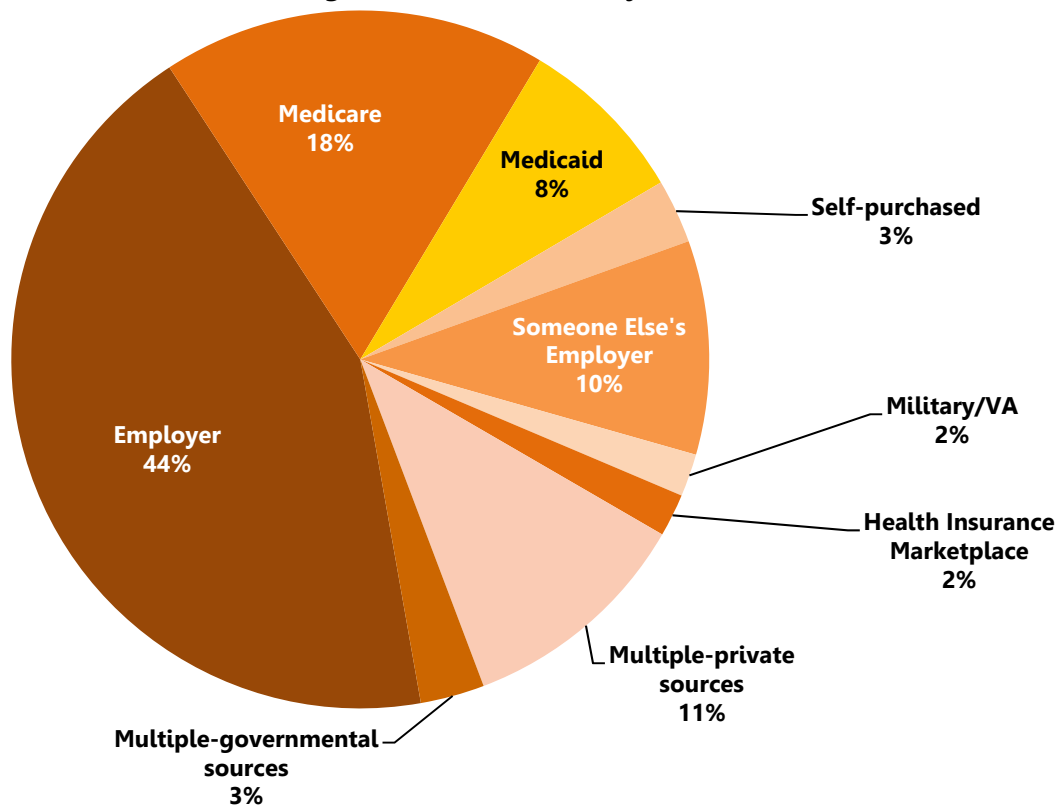
The following graph shows the percentages of Lenawee County adults who were uninsured. Examples of how to interpret the information in the graph include: 8% of all Lenawee County adults were uninsured, including 20% of those with an income less than \$25,000 and 11% of those under age 30. The pie chart shows sources of Lenawee County adults' health care coverage.



Note: Caution should be used when interpreting subgroup results as the margin of error for any subgroup is higher than that of the overall survey.

20% of Lenawee County adults with incomes less than \$25,000 were uninsured.

Source of Health Coverage for Lenawee County Adults



The following chart shows what was included in Lenawee County adults' insurance coverage.

Health Coverage Includes:	Yes	No	Don't Know
Medical	95%	1%	4%
Prescription Coverage	94%	4%	2%
Immunizations	81%	3%	16%
Preventive Health	80%	2%	18%
Outpatient Therapy	79%	1%	20%
Lenawee County Physicians	76%	5%	19%
Dental	69%	26%	5%
Mental Health	65%	2%	33%
Vision/Eyeglasses	64%	29%	7%
Durable Medical Equipment	50%	4%	46%
Alcohol and Drug Treatment	42%	6%	52%
Home Care	35%	9%	56%
Hospice	31%	8%	61%
Skilled Nursing/Assisted Living	29%	9%	62%
Transportation	11%	23%	66%

**Healthy People 2020
Access to Health Services (AHS)**

Objective	Lenawee County 2017	Michigan 2016	U.S. 2016	Healthy People 2020 Target
AHS-1.1: Persons under age of 65 years with health care insurance	100% age 20-24 87% age 25-34 91% age 35-44 86% age 45-54 92% age 55-64	88% age 18-24 87% age 25-34 89% age 35-44 92% age 45-54 93% age 55-64	85% age 18-24 84% age 25-34 87% age 35-44 90% age 45-54 93% age 55-64	100%

*U.S. baseline is age-adjusted to the 2000 population standard
Note: Caution should be used when interpreting subgroup results as the margin of error for any subgroup is higher than that of the overall survey.
(Sources: Healthy People 2020 Objectives, 2016 BRFSS, 2017 Lenawee County Health Assessment)*

Healthcare Access: Access and Utilization

Key Findings

Seventy-three percent (73%) of Lenawee County adults had visited a doctor for a routine checkup in the past year. Sixty percent (60%) of adults went outside of Lenawee County for health care services in the past year.

Health Care Access

- Seventy-three percent (73%) of Lenawee County adults visited a doctor for a routine checkup in the past year, increasing to 87% of those over the age of 65. The 2016 BRFSS reported prevalence rates as 73% for Michigan and 71% for the U.S.
- Adults with health care coverage were more likely to have visited a doctor for a routine checkup in the past year (75%), compared to 39% of those without health care coverage.
- Over half (58%) of adults reported they had one person they thought of as their personal doctor or healthcare provider. Twenty-seven percent (27%) of adults had more than one person they thought of as their personal healthcare provider, and 14% did not have one at all.
- Adults visited the following places for health care services or advice: doctor's office (68%); internet (5%); family and friends (5%); public health clinic or community health center (3%); chiropractor (3%); urgent care center (3%); multiple places, including a doctor's office (2%); Department of Veteran's Affairs (VA) (2%); alternative therapies (2%); multiple places, not including a doctor's office (1%); hospital emergency room (1%); and some other place (1%). Six percent (6%) of adults indicated they had no usual place for health care services.
- Lenawee County adults had the following problems when they needed health care in the past year: did not have enough money to pay for health care (9%), could not get appointments when they wanted them (8%), healthcare plan did not allow them to see doctors in Lenawee County (6%), had to change doctors because of their healthcare plan (6%), did not have insurance (5%), could not find a doctor they were comfortable with (5%), could not find a doctor to take them as a patient (5%), too busy to get the healthcare they needed (5%), did not have transportation (2%), too embarrassed to seek help (1%), did not have child care (1%), did not get health services because they were concerned about their confidentiality (<1%), and other problems that prevented them from getting health care (1%).
- The following might prevent Lenawee County adults from seeing a doctor if they were sick, injured, or needed some kind of health care: cost (37%), difficult to get an appointment (16%), doctor would not take their insurance (12%), hours not convenient (11%), could not get time off work (7%), difficult to find/no transportation (4%), worried they might find something wrong (3%), do not trust or believe doctors (2%), frightened of the procedure or doctor (1%), could not find child care (1%), and some other reason (3%).
- Sixty percent (60%) of adults went outside of Lenawee County for the following health care services in the past year: specialty care (33%), primary care (25%), dental services (18%), female health services (11%), obstetrics/gynecology (10%), cardiac care (9%), orthopedic care (6%), mental health care/counseling services (5%), cancer care (5%), pediatric care (5%), pediatric therapies (1%), addiction services (1%), and other services (11%).
- Adults went outside of Lenawee County for mental health services for the following reasons: better quality program (7%), used to live there (4%), insurance restrictions (4%), word of mouth (3%), did not like the local program (2%), confidentiality/anonymity (<1%), work there (<1%), and wait list too long (<1%).

Adult Comparisons	Lenawee County 2011	Lenawee County 2014	Lenawee County 2017	Michigan 2016	U.S. 2016
Had at least one person they thought of as their personal doctor or healthcare provider	83%	83%	85%	85%	77%
Visited a doctor for a routine checkup in the past year	58%	60%	73%	73%	71%

Availability of Services

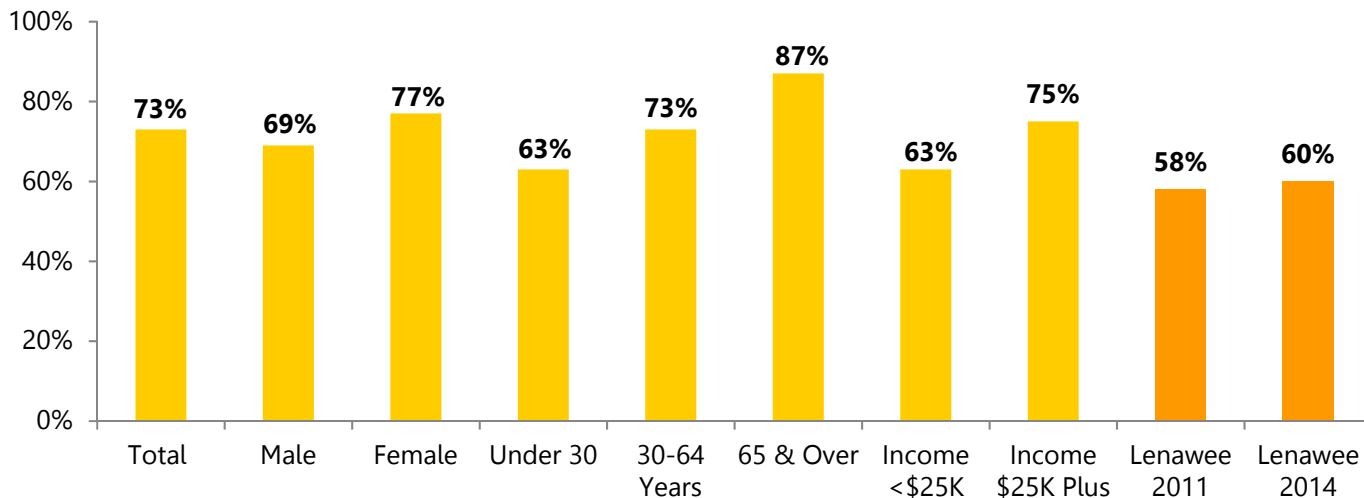
- Lenawee County adults reported they had looked for the following programs for themselves: depression, anxiety, or mental health (12%); disability (7%); weight problems (6%); elderly care (5%); marital/family problems (4%); end-of-life/hospice care (4%); tobacco cessation (3%); cancer support group/counseling (2%); family planning (1%); alcohol abuse (1%); drug abuse (1%); detoxification of opiates/heroin (1%); and gambling abuse (<1%).
- Lenawee County adults gave the following reasons for not using a program or service to help with depression, anxiety, or emotional problems: could not afford to go (7%), co-pay/deductible was too high (4%), had not thought of it (3%), stigma of seeking mental health services (3%), did not feel the services they had received were good (3%), transportation (3%), other priorities (3%), fear (2%), did not know how to find a program (2%), could not get to the office or clinic (1%), and other reasons (2%). Seventy-five percent (75%) of adults did not need a program or service to help with depression, anxiety, or emotional problems.

Lenawee County Adults Able to Access Assistance Programs/Services

Types of Programs (% of all adults who looked for the programs)	Lenawee County adults who have looked but have <u>NOT</u> found a specific program	Lenawee County adults who have looked and have found a specific program
Depression or Anxiety (12% of all adults looked)	27%	73%
Disability (7% of all adults looked)	55%	45%
Weight Problems (6% of all adults looked)	39%	64%
Elderly Care (5% of all adults looked)	50%	50%
Marital/Family Problems (4% of all adults looked)	39%	61%
End-of-Life/Hospice (4% of all adults looked)	6%	94%
Tobacco Cessation (3% of all adults looked)	50%	50%
Cancer Support Group/Counseling (2% of all adults looked)	33%	67%
Family Planning (1% of all adults looked)	20%	80%

The following graph shows the percentage of Lenawee County adults who had a routine checkup in the past year. Example of how to interpret the information include: 73% of all Lenawee County adults had a routine check-up in the past year, including 69% of males and 77% of females.

Lenawee County Adults Who Had a Routine Check-up in the Past Year



Note: Caution should be used when interpreting subgroup results as the margin of error for any subgroup is higher than that of the overall survey.

Key Facts about the Uninsured Population

- Studies repeatedly demonstrate that the uninsured are less likely than those with insurance to receive preventive care and services for major health conditions and chronic diseases.
- Part of the reason for poor access among uninsured is that 50% do not have a regular place to go when they are sick or need medical advice.
- One in five (20%) nonelderly adults without coverage say that they went without care in the past year because of cost compared to 3% of adults with private coverage and 8% of adults with public coverage.
- In 2016, uninsured nonelderly adults were three times as likely as adults with private coverage to say that they postponed or did not get a needed prescription drug due to cost.
- Because people without health coverage are less likely than those with insurance to have regular outpatient care, they are more likely to be hospitalized for avoidable health problems and to experience declines in their overall health.

(Source: The Henry Kaiser Family Foundation, Key Facts about the Uninsured Population, 2017)

Healthcare Access: Preventive Medicine

Key Findings

Eighty-one percent (81%) of adults ages 65 and over had a pneumonia vaccination at some time in their life. More than three-fifths (65%) of adults ages 50 and over had a colonoscopy or sigmoidoscopy in the past five years.

Preventive Medicine

- Over half (53%) of Lenawee County adults had a flu vaccine during the past 12 months.
- Seventy-six percent (76%) of Lenawee County adults ages 65 and over had a flu vaccine in the past 12 months. The 2016 BRFSS reported that 56% of Michigan and 58% of U.S. adults ages 65 and over had a flu vaccine in the past year.
- More than one-third (37%) of adults had a pneumonia vaccine in their life, increasing to 81% of those ages 65 and over. The 2016 BRFSS reported that 72% of Michigan and 73% of U.S. adults ages 65 and over had a pneumonia vaccine in their life.
- Lenawee County adults had the following vaccines: MMR in their lifetime (69%), tetanus booster (including Tdap) in the past 10 years (68%), chicken pox in their lifetime (49%), pertussis vaccine in the past 10 years (21%), Zoster (shingles) vaccine in their lifetime (18%), and human papillomavirus (HPV) vaccine in their lifetime (11%).

Preventive Health Screenings and Exams

- Sixty-five percent (65%) of adults ages 50 and over had a colonoscopy or sigmoidoscopy in the past five years.
- In the past year, 47% of Lenawee County women ages 40 and over had a mammogram.
- Nearly half (47%) of men ages 50 and over had a PSA test in the past year.
- See the Women and Men’s Health Sections for further prostate, mammogram, clinical breast exam, and Pap smear screening test information for Lenawee County adults.
- Lenawee County adults reported they were at risk for the following based on family history: heart disease (54%), high blood pressure (52%), diabetes (45%), cancer (43%), high blood cholesterol (32%), alcohol addiction (15%), Alzheimer’s disease (14%), mental illness (12%), drug addiction (3%), other addictions (e.g., gambling, sex) (2%), unexplained sudden death (2%), and suicide (1%).

Adult Comparisons	Lenawee County 2011	Lenawee County 2014	Lenawee County 2017	Michigan 2016	U.S. 2016
Had a pneumonia vaccination (age 65 and over)	N/A	60%	81%	72%	73%
Had a flu vaccine in the past year (age 65 and over)	71%	71%	76%	56%	58%
Had a sigmoidoscopy/colonoscopy in the past 5 years (age 50 and over)	57%	59%	65%	75%**	69%**

N/A-not available

***2014 BRFSS data*

**Lenawee County Adults Having Discussed Healthcare Topics
With Their Healthcare Professional in the Past 12 Months**

Healthcare Topics	Total 2014	Total 2017
Immunizations	26%	44%
Weight control including diet and physical activity	N/A	43%
Family history	17%	36%
Safe use of prescription medication	N/A	22%
Depression, anxiety, or emotional problems	19%	24%
Bone density	N/A	16%
Falls	N/A	14%
Tobacco use	N/A	12%
Safe use of opiate-based pain medication	N/A	10%
Injury prevention such as safety belt use, helmet use & smoke detectors	7%	9%
Self-testicular exams	N/A	8%
Family planning	N/A	8%
Sexually transmitted diseases (STDs)	8%	7%
Alcohol use	9%	7%
Domestic violence	2%	3%
Illicit drug abuse	4%	3%
Firearm safety	N/A	3%
Substance abuse treatment options	N/A	1%

N/A-Not available

**Healthy People 2020
Immunization and Infectious Diseases (IID)**

Objective	Lenawee County 2017	Michigan 2016	U.S. 2016	Healthy People 2020 Target
IID-13.1: Increase the percentage of non-institutionalized high-risk adults aged 65 years and older who are vaccinated against pneumococcal disease	81%	72%	73%	90%

**U.S. baseline is age-adjusted to the 2000 population standard
(Sources: Healthy People 2020 Objectives, 2016 BRFSS, 2017 Lenawee County Health Assessment)*

Healthcare Access: Women's Health

Key Findings

In 2017, nearly half (47%) of Lenawee County women over the age of 40 reported having a mammogram in the past year. Over half (56%) of women age 19 and over had a clinical breast exam and 37% had a Pap smear to detect cancer of the cervix in the past year. Seven percent (7%) of women survived a heart attack and 4% survived a stroke at some time in their life. Over two-fifths (41%) were obese, 38% had high blood cholesterol, 33% had high blood pressure, and 13% were identified as smokers, known risk factors for cardiovascular diseases.

Women's Health Screenings

- In 2017, 66% of women had a mammogram at some time in their life, and over one-third (36%) had this screening in the past year.
- Nearly half (47%) of women age 40 and over had a mammogram in the past year, and 71% had one in the past two years. The 2016 BRFSS reported that 74% of women 40 and over in Michigan and 72% in the U.S. had a mammogram in the past two years.
- Most (94%) Lenawee County women had a clinical breast exam at some time in their life, and 56% had one within the past year. Sixty-seven percent (67%) of women age 40 and over had a clinical breast exam in the past two years.
- Eighty-one percent (81%) of Lenawee County women had a Pap smear in their life, and 37% reported having had the exam in the past year. Sixty-seven percent (67%) of women had a Pap smear in the past three years. The 2016 BRFSS indicated that 81% of Michigan and 80% of U.S. women had a Pap smear in the past three years.

Pregnancy

- Thirty-four percent (34%) of Lenawee County women had been pregnant in the past five years.
- During their last pregnancy within the past five years, Lenawee County women got a prenatal appointment in the first three months (64%), took a multi-vitamin with folic acid during pregnancy (52%), took a multi-vitamin with folic acid pre-pregnancy (40%), got a dental exam (38%), took folic acid during pregnancy (28%), received WIC services (22%), experienced depression (18%), took folic acid pre-pregnancy (14%), and consumed alcoholic beverages (2%).

Women's Health Concerns

- Women used the following as their usual source of services for female health concerns: private gynecologist (38%), general or family physician (45%), health department clinic (4%), nurse practitioner or physician assistant (1%), midwife (1%), community health center (1%), and some other kind of place (1%). Nine percent (9%) indicated they did not have a usual source of services for female health concerns.
- In 2017, 7% of women had survived a heart attack and 4% had survived a stroke at some time in their life.
- From 2013 to 2015, major cardiovascular diseases (heart disease and stroke) accounted for 32% of all female deaths in Lenawee County (Source: CDC Wonder, Underlying Cause of Death).

Lenawee County Female Leading Causes of Death, 2013 – 2015

1. Heart Diseases (26% of all deaths)
2. Cancers (22%)
3. Chronic Lower Respiratory Diseases (7%)
4. Stroke (6%)
5. Alzheimer's Disease (5%)

(Source: CDC Wonder, 2013-2015)

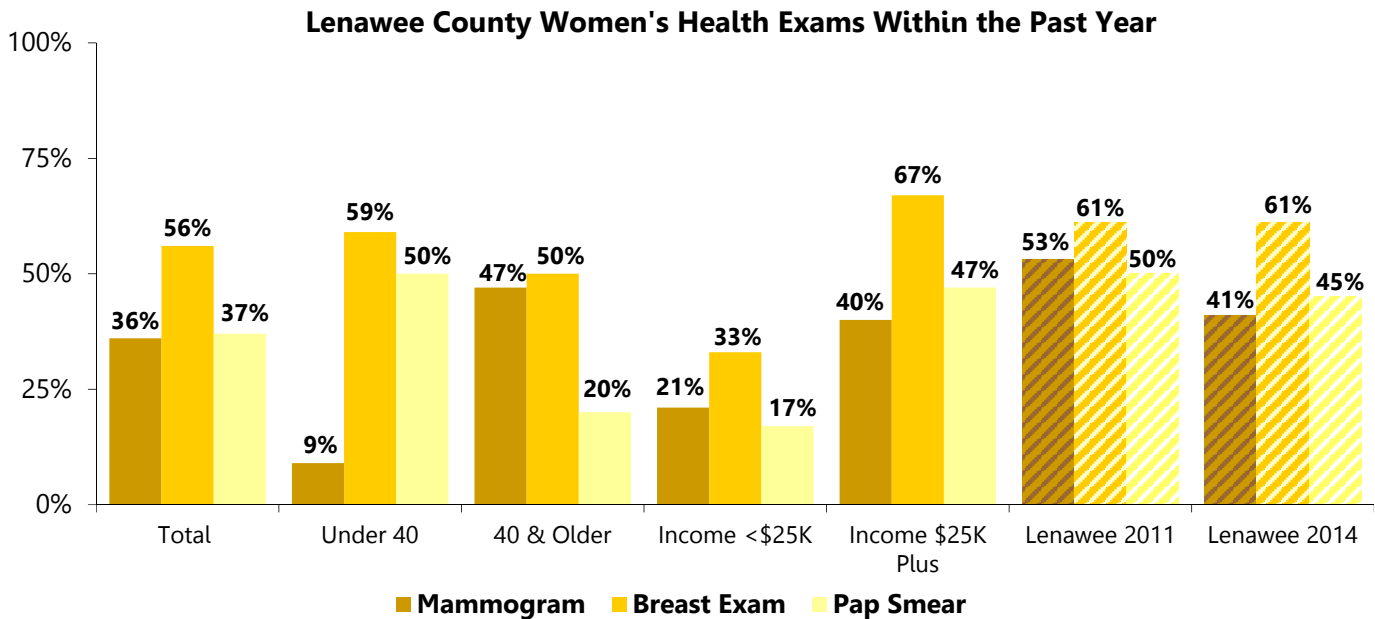
Michigan Female Leading Causes of Death, 2013 – 2015

1. Heart Diseases (25% of all deaths)
2. Cancers (21%)
3. Chronic Lower Respiratory Diseases (6%)
4. Stroke (6%)
5. Alzheimer's disease (5%)

(Source: CDC Wonder, 2013-2015)

- Major risk factors for cardiovascular disease include smoking, obesity, high blood cholesterol, high blood pressure, physical inactivity, and diabetes. In Lenawee County, the 2017 health assessment has identified that:
 - 73% of women were overweight or obese (2016 BRFSS reports 63% for Michigan and 59% for the U.S.)
 - 33% were diagnosed with high blood pressure (2015 BRFSS reports 32% for Michigan and 30% for the U.S.)
 - 38% were diagnosed with high blood cholesterol (2015 BRFSS reports 38% for Michigan and 35% for the U.S.)
 - 13% of all women were current smokers (2016 BRFSS reports 19% for Michigan and 14% for the U.S.)
 - 11% had been diagnosed with diabetes (2016 BRFSS reports 11% for Michigan and 11% for the U.S.)

The following graph shows the percentage of Lenawee County females that had various health exams in the past year. Examples of how to interpret the information shown on the graph include: 36% of Lenawee County females had a mammogram within the past year, 56% had a clinical breast exam, and 37% had a Pap smear.



Note: Caution should be used when interpreting subgroup results as the margin of error for any subgroup is higher than that of the overall survey.

Adult Comparisons	Lenawee County 2011	Lenawee County 2014	Lenawee County 2017	Michigan 2016	U.S. 2016
Had a clinical breast exam in the past two years (age 40 & over)	78%	79%	67%	N/A	N/A
Had a mammogram in the past two years (age 40 & over)	81%	79%	71%	74%	72%
Had a Pap smear in the past three years	N/A	77%	67%	81% [‡]	80% [‡]

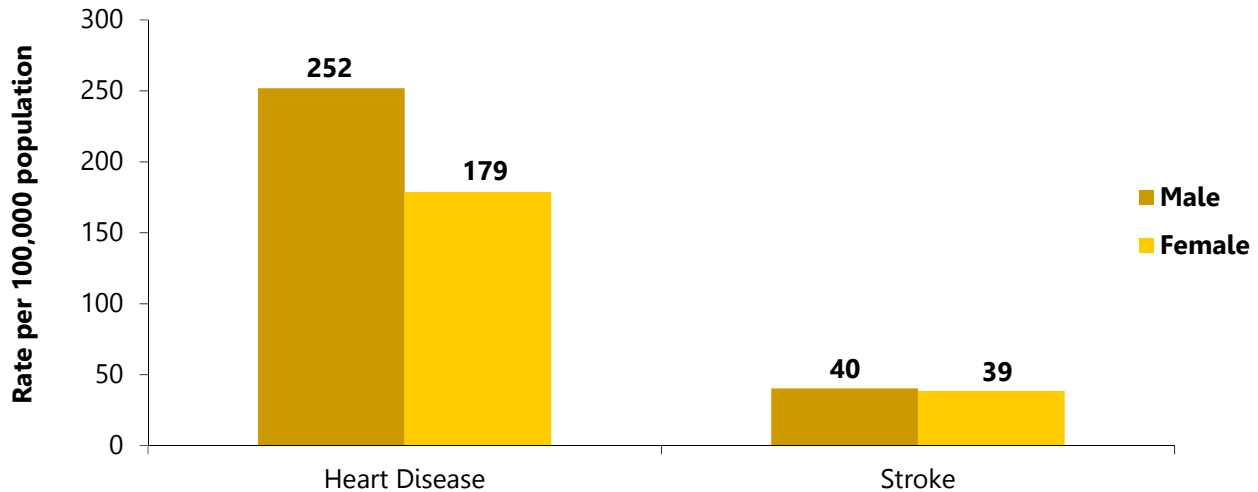
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[‡]BRFSS for both Michigan and U.S. reports for women ages 21-65

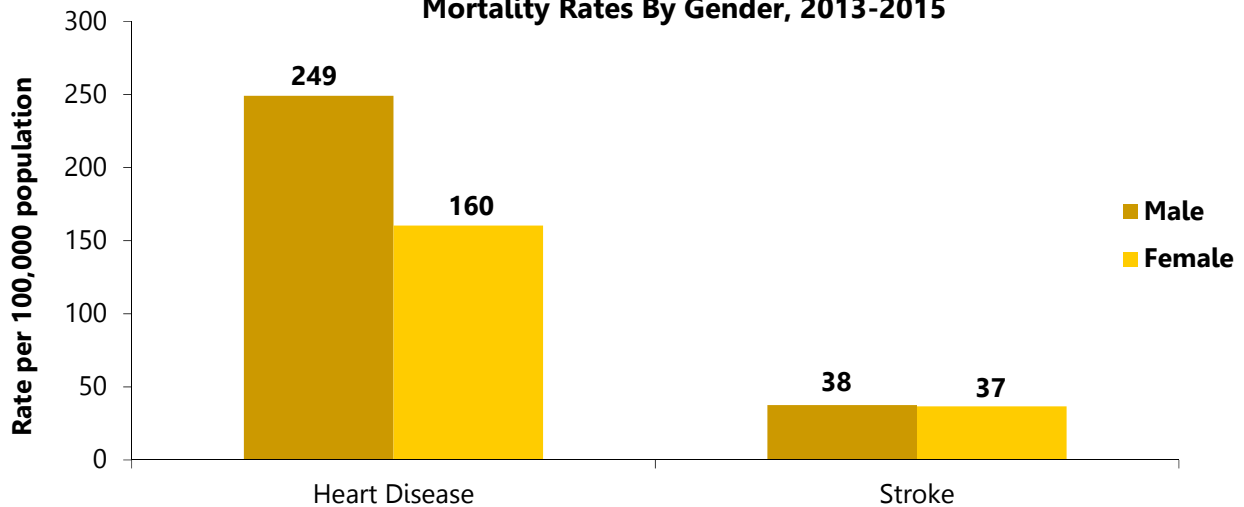
The following graphs show the Lenawee County and Michigan age-adjusted mortality rates per 100,000 population for cardiovascular diseases. The graphs show:

- From 2013 to 2015, the Lenawee County and Michigan female age-adjusted mortality rates were lower than the male rates for heart disease.
- The Lenawee County female heart disease mortality rate was higher than the Michigan female rate from 2013 to 2015.

Lenawee County Age-Adjusted Heart Disease and Stroke Mortality Rates By Gender, 2013-2015



Michigan Age-Adjusted Heart Disease and Stroke Mortality Rates By Gender, 2013-2015



(Source: CDC Wonder, 2013-2015)

What Can I Do to Reduce My Risk of Breast Cancer?

Many factors can influence your breast cancer risk, and most women who develop breast cancer do not have any known risk factors or a history of the disease in their families. However, you can help lower your risk of breast cancer in the following ways:

- Keep a healthy weight.
- Exercise regularly (at least four hours a week).
- Get enough sleep.
- Don't drink alcohol, or limit alcohol drinks to no more than one per day.
- Avoid exposures to chemicals that can cause cancer (carcinogens).
- Try to reduce your exposure to radiation during medical tests like mammograms, X-rays, CT scans, and PET scans.
- If you are taking, or have been told to take, hormone replacement therapy or oral contraceptives (birth control pills), ask your doctor about the risks and find out if it is right for you.
- Breastfeed your babies, if possible.

If you have a family history of breast cancer or inherited changes in your BRCA1 and BRCA2 genes, you may have a higher breast cancer risk. Talk to your doctor about these ways of reducing your risk:

- Anti-estrogens or other medicines that block or decrease estrogen in your body.
- Surgery to reduce your risk of breast cancer:
 - Prophylactic (preventive) mastectomy (removal of breast tissue).
 - Prophylactic (preventive) salpingo-oophorectomy (removal of the ovaries and fallopian tubes).

(Source: Centers for Disease Control and Prevention, What Can I Do to Reduce My Risk of Breast Cancer? Updated September 27, 2017)

Excessive Alcohol Use and Risks to Women's Health

Although men are more likely to drink alcohol and drink in larger amounts, gender differences in body structure and chemistry cause women to absorb more alcohol, and take longer to break it down and remove it from their bodies (i.e., to metabolize it). In other words, upon drinking equal amounts, women have higher alcohol levels in their blood than men, and the immediate effects of alcohol occur more quickly and last longer in women than men. These differences also make it more likely that drinking will cause long-term health problems in women than men.

Women are more likely than men to experience the following as a result of drinking alcohol:

- **Liver Disease:** The risk of cirrhosis and other alcohol-related liver diseases is higher for women than for men.
- **Impact on the Brain:** Excessive drinking may result in memory loss and shrinkage of the brain. Research suggests that women are more vulnerable than men to the brain damaging effects of excessive alcohol use, and the damage tends to appear with shorter periods of excessive drinking for women than for men.
- **Impact on the Heart:** Studies have shown that women who drink excessively are at increased risk for damage to the heart muscle than men even for women drinking at lower levels.
- **Cancer:** Alcohol consumption increases the risk of cancer of the mouth, throat, esophagus, liver, colon, and breast among women. The risk of breast cancer increases as alcohol use increases.
- **Sexual Assault:** Binge drinking is a risk factor for sexual assault, especially among young women in college settings. Each year, about 1 in 20 college women are sexually assaulted. Research suggests that there is an increase in the risk of rape or sexual assault when both the attacker and victim have used alcohol prior to the attack.

(Source: Centers for Disease Control and Prevention, Excessive Alcohol Use and Risks to Women's Health, March 7, 2016)

Healthcare Access: Men's Health

Key Findings

In 2017, 80% of Lenawee County males over the age of 50 had a Prostate-Specific Antigen (PSA) test in their life. More than two-fifths (41%) of men had been diagnosed with high blood pressure, 31% had high blood cholesterol, and 15% were identified as smokers, which, along with obesity (35%), are known risk factors for cardiovascular diseases.

Men's Health Screenings and Concerns

- Over half (52%) of Lenawee County males had a Prostate-Specific Antigen (PSA) test at some time in their life, and 30% had one in the past year.
- Eighty percent (80%) of males age 50 and over had a PSA test at some time in their life, and 47% had one in the past year.
- Seventy-six percent (76%) of males age 40 and over had a PSA test at some time in their life, and 60% had one in the past two years.
- Sixty percent (60%) of men had a digital rectal exam in their lifetime, and 24% had one in the past year.
- Major risk factors for cardiovascular disease include smoking, obesity, high blood cholesterol, high blood pressure, physical inactivity, and diabetes. In Lenawee County, the 2017 health assessment identified that:
 - 74% of men were overweight or obese (2016 BRFSS reports 72% for Michigan and 71% for the U.S.)
 - 41% were diagnosed with high blood pressure (2015 BRFSS reports 34% for Michigan and 34% for the U.S.)
 - 31% were diagnosed with high blood cholesterol (2015 BRFSS reports 39% for Michigan and 38% for the U.S.)
 - 15% of all men were current smokers (2016 BRFSS reports 22% for Michigan and 19% for the U.S.)
 - 9% had been diagnosed with diabetes (2016 BRFSS reports 12% for Michigan and 11% for the U.S.)
- From 2013 to 2015, major cardiovascular diseases (heart disease and stroke) accounted for 31% of all male deaths in Lenawee County (Source: CDC Wonder).
- From 2013 to 2015, the leading cancer deaths for males in both Lenawee County and Michigan were lung, prostate, and pancreatic cancers (Source: CDC Wonder).

Lenawee County Male Leading Causes of Death, 2013 – 2015

- Heart Diseases (27% of all deaths)
- Cancers (24%)
- Chronic Lower Respiratory Diseases (7%)
- Accidents, Unintentional Injuries (6%)
- Stroke (4%)

(Source: CDC Wonder, 2013-2015)

Michigan Male Leading Causes of Death, 2013 – 2015

- Heart Diseases (27% of all deaths)
- Cancers (23%)
- Accidents, Unintentional Injuries (6%)
- Chronic Lower Respiratory Diseases (6%)
- Stroke (4%)

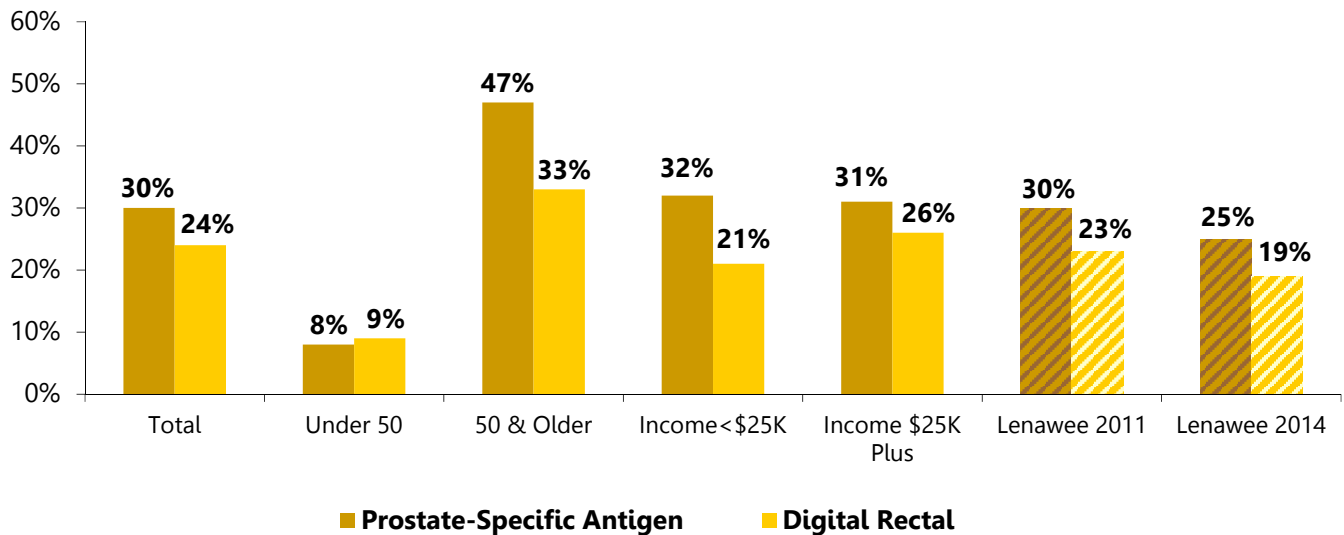
(Source: CDC Wonder, 2013-2015)

Adult Comparisons	Lenawee County 2011	Lenawee County 2014	Lenawee County 2017	Michigan 2016	U.S. 2016
Had a PSA test within the past two years (age 40 & over)	N/A	N/A	60%	43%	40%
Had a digital rectal exam in the past year	23%	19%	24%	N/A	N/A

N/A-Not available

The following graph shows the percentage of Lenawee County male adults that had various exams in the past year. Examples of how to interpret the information shown on the graph include: 30% of Lenawee County males had a prostate-specific antigen test in the past year, and 24% had a digital rectal exam.

Lenawee County Men's Health Exams Within the Past Year



Note: Caution should be used when interpreting subgroup results as the margin of error for any subgroup is higher than that of the overall survey.

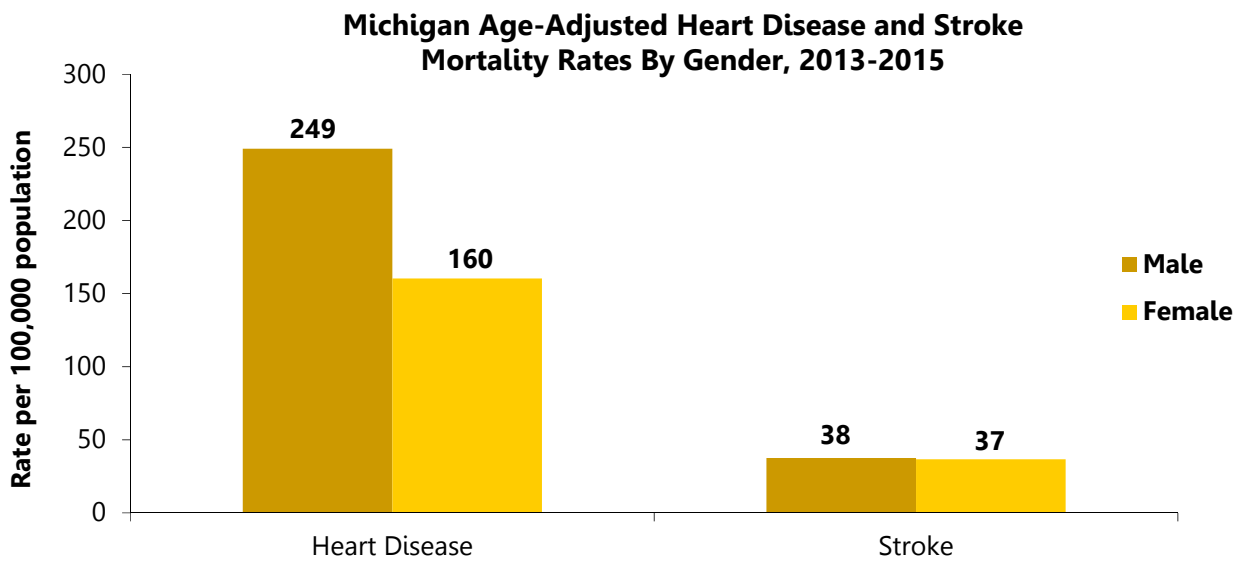
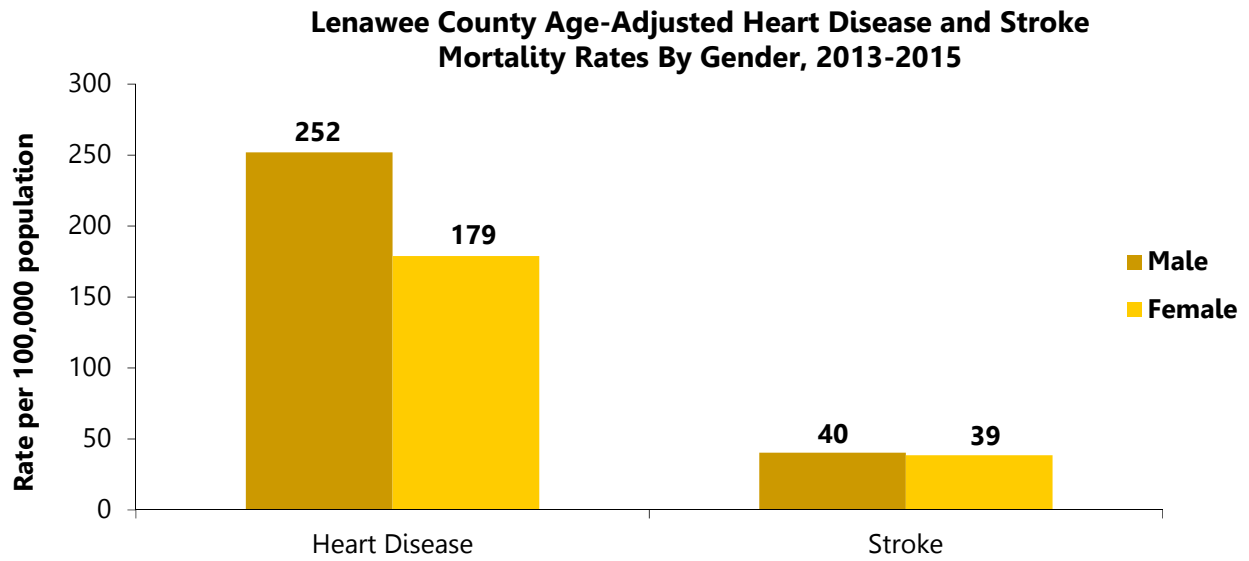
Prostate Cancer Awareness

- Prostate cancer is the most common cancer among American men. Most prostate cancers grow slowly and don't cause any health problems in men who have them.
- Men can have different symptoms for prostate cancer. Some men do not have symptoms at all. Some symptoms of prostate cancer are difficulty starting urination, frequent urination (especially at night), weak or interrupted flow of urine, and blood in the urine or semen.
- There is no way to know for sure if you will get prostate cancer. Men have a greater chance of getting prostate cancer if they are 50 years old or older, are African-American, or have a father, brother, or son who has had prostate cancer.
- Two tests are commonly used to screen for prostate cancer:
 - **Digital rectal exam (DRE):** A doctor, nurse, or other health care professional places a gloved finger into the rectum to feel the size, shape, and hardness of the prostate gland.
 - **Prostate specific antigen test (PSA):** PSA is a substance made by the prostate. The PSA test measures the level of PSA in the blood, which may be higher in men who have prostate cancer. However, other conditions such as an enlarged prostate, prostate infection and certain medical procedures also may increase PSA levels.

(Source: Center for Disease Control and Prevention, Prostate Cancer Awareness, September 21, 2017)

The following graphs show the Lenawee County and Michigan age-adjusted mortality rates per 100,000 population for cardiovascular diseases by gender. The graphs show:

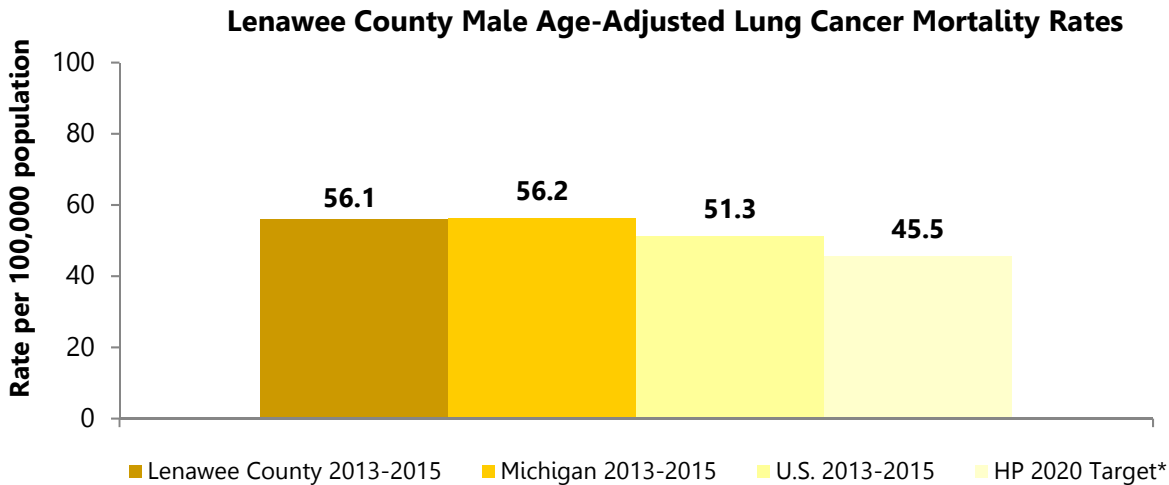
- From 2013 to 2015, the Lenawee County and Michigan male age-adjusted mortality rate were significantly higher than the female rate for heart disease.
- The Lenawee County male age-adjusted stroke mortality rate was slightly higher than the Michigan male rate.



(Source: CDC Wonder, 2013-2015)

The following graph shows the Lenawee County and Michigan age-adjusted lung cancer mortality rates per 100,000 population for men with comparison to the Healthy People 2020 objective. The graph shows:

- From 2013 to 2015, the Lenawee County and Michigan age-adjusted mortality rates for male lung cancer were higher than the Healthy People 2020 objective.



**Note: The Healthy People 2020 target rates are not gender specific.
(Source: CDC Wonder 2013-2015 and Healthy People 2020)*

Healthcare Access: Oral Health

Key Findings

Seventy percent (70%) of Lenawee County adults had visited a dentist or dental clinic in the past year. The 2016 BRFSS reported that 70% of Michigan adults and 66% of U.S. adults had visited a dentist or dental clinic in the previous 12 months.

Access to Dental Care

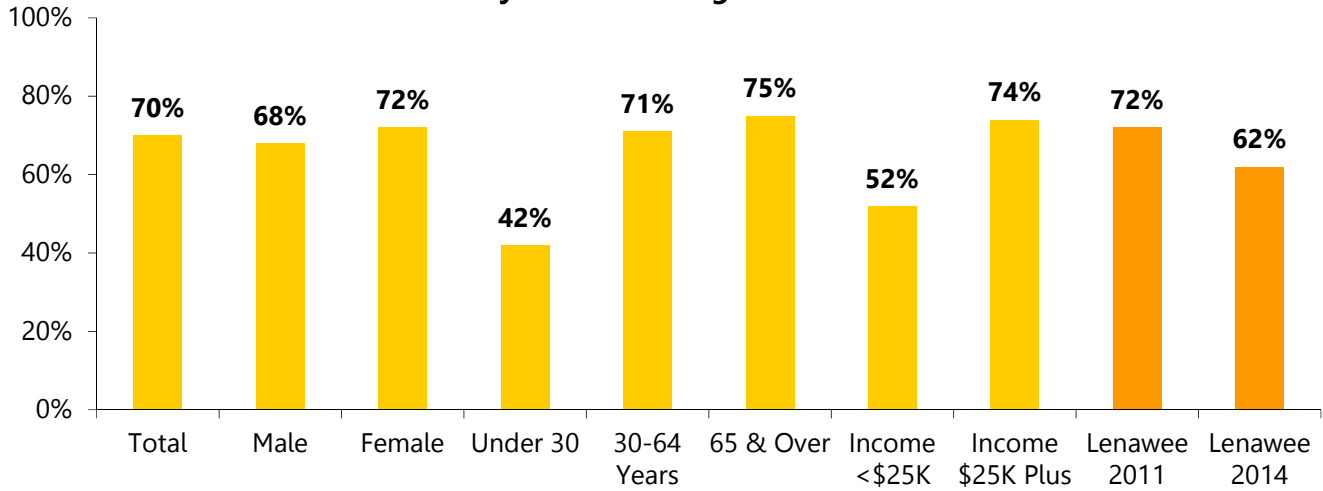
- In the past year, 70% of Lenawee County adults had visited a dentist or dental clinic, decreasing to 52% of those with incomes less than \$25,000.
- The 2016 BRFSS reported that 70% of Michigan adults and 66% of U.S. adults had visited a dentist or dental clinic in the previous 12 months.
- Nearly three-fourths (74%) of Lenawee County adults with dental insurance had been to the dentist in the past year, compared to 64% of those without dental insurance.
- When asked the main reason for not visiting a dentist in the past year, 30% said cost; 20% said no reason to go/had not thought of it; 8% said fear, apprehension, nervousness, pain, and dislike going; 5% had dentures; 3% did not have/know a dentist; 2% said their dentist did not accept their medical insurance; and 1% said they cannot get into a dentist. Fourteen percent (14%) of adults reported multiple reasons, including cost, for not visiting a dentist in the past year.

Adult Oral Health	Within the Past Year	Within the Past 2 Years	Within the Past 5 Years	5 or More years	Never
Time Since Last Visit to Dentist/Dental Clinic					
Males	68%	10%	10%	12%	0%
Females	72%	13%	7%	8%	0%
Total	70%	11%	8%	11%	0%

Adult Comparisons	Lenawee County 2011	Lenawee County 2014	Lenawee County 2017	Michigan 2016	U.S. 2016
Adults who had visited the dentist in the past year	72%	62%	70%	70%	66%

The following graph provides information about the frequency of Lenawee County adult dental visits. Examples of how to interpret the information on the first graph include: 70% of all Lenawee County adults had been to the dentist in the past year, including 42% of those under the age of 30 and 52% of those with incomes less than \$25,000.

Lenawee County Adults Visiting a Dentist in the Past Year*



**Totals may not equal 100% as some respondents answered "do not know"*

Note: Caution should be used when interpreting subgroup results as the margin of error for any subgroup is higher than that of the overall survey.

Facts About Adult Oral Health

- The baby boomer generation is the first where most people will keep their natural teeth over their entire lifetime. This is largely because of the benefits of water fluoridation and fluoride toothpaste. However, threats to oral health, including tooth loss, continue throughout life.
- The major risks for tooth loss are tooth decay and gum disease that may increase with age because of problems with saliva production; receding gums that expose "softer" root surfaces to decay-causing bacteria; or difficulties flossing and brushing because of poor vision, cognitive problems, chronic disease, and physical limitations.
- Although more adults are keeping their teeth, many continue to need treatment for dental problems. This need is even greater for members of some racial and ethnic groups—about 3 in 4 Hispanics and non-Hispanic black adults have an unmet need for dental treatment, as do people who are poor. These individuals are also more likely to report having poor oral health.
- In addition, some adults may have difficulty accessing dental treatment. For every adult aged 19 years or older without medical insurance, there are three who don't have dental insurance.
- Oral health problems include the following: untreated tooth decay, gum disease, tooth loss, oral cancer, and chronic diseases such as arthritis, heart disease, and strokes.

(Source: Centers for Disease Control and Prevention, Division of Oral Health, Adult Oral Health, October 23, 2017)

Health Behaviors: Health Status Perceptions

Key Findings

In 2017, more than half (52%) of Lenawee County adults rated their health status as excellent or very good. Conversely, 18% of adults, increasing to 36% of those with incomes less than \$25,000, described their health as fair or poor.

Adults Who Rated General Health Status Excellent or Very Good

- Lenawee County 52% (2017)
- Michigan 48% (2016)
- U.S. 52% (2016)

(Source: BRFSS 2016 for Michigan and U.S.)

General Health Status

- In 2017, more than half (52%) of Lenawee County adults rated their health as excellent or very good. Lenawee County adults with higher incomes (59%) were most likely to rate their health as excellent or very good, compared to 28% of those with incomes less than \$25,000.
- Eighteen percent (18%) of adults rated their health as fair or poor. The 2016 BRFSS has identified that 18% of Michigan and 17% of U.S. adults self-reported their health as fair or poor.
- Lenawee County adults were most likely to rate their health as fair or poor if they:
 - Had been diagnosed with diabetes (43%)
 - Had an annual household income under \$25,000 (36%)
 - Had high blood pressure (30%)
 - Were widowed (24%)
 - Had high blood cholesterol (20%)
 - Were 65 years of age or older (17%)

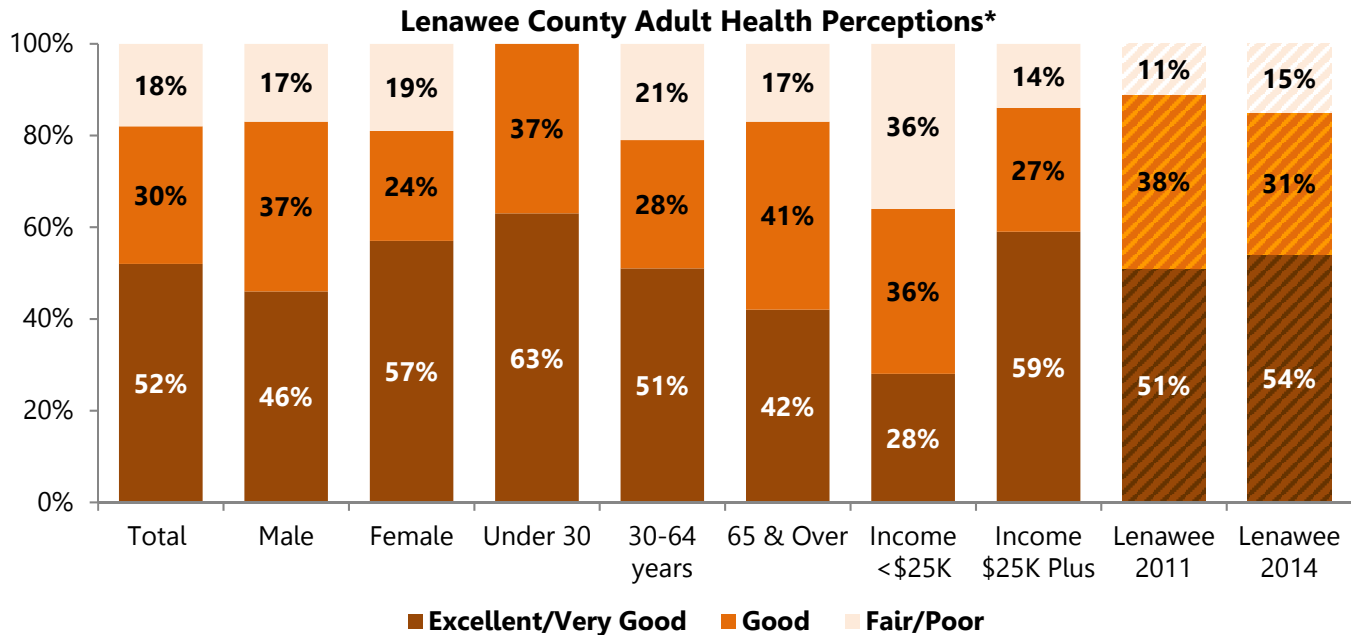
Physical Health Status

- In 2017, 25% of Lenawee County adults rated their physical health as not good on four or more days in the previous month.
- Lenawee County adults reported their physical health as not good on an average of 4.4 days in the previous month. Michigan and U.S. adults reported their physical health as not good on an average of 4.0 days and 3.8 days, respectively, in the previous month (Source: 2015 BRFSS as compiled by 2017 County Health Ranking).
- Lenawee County adults were most likely to rate their physical health as not good if they:
 - Had an annual household income under \$25,000 (55%)
 - Were 65 years of age or older (34%)

Mental Health Status

- In 2017, 28% of Lenawee County adults rated their mental health as not good on four or more days in the previous month.
- Lenawee County adults reported their mental health as not good on an average of 4.7 days in the previous month. Michigan and U.S. adults reported their mental health as not good on an average of 3.9 days and 3.8 days, respectively, in the previous month (Source: 2015 BRFSS as compiled by 2017 County Health Ranking).
- About one-quarter (24%) of adults reported that poor mental or physical health kept them from doing usual activities such as self-care, work, or recreation.
- Lenawee County adults were most likely to rate their mental health as not good if they:
 - Were under the age of 30 (67%)
 - Had an annual household income under \$25,000 (60%)

The following graph shows the percentage of Lenawee County adults who described their personal health status as excellent/very good, good, and fair/poor. Examples of how to interpret the information include: 52% of all Lenawee County adults, 63% of those under age 30, and 57% of females rated their health as excellent or very good. The table shows the percentage of adults with poor physical and mental health in the past 30 days.



*Respondents were asked: "Would you say that in general your health is excellent, very good, good, fair or poor?"

Note: Caution should be used when interpreting subgroup results as the margin of error for any subgroup is higher than that of the overall survey.

Health Status	No Days	1-3 Days	4-5 Days	6-7 Days	8 or More Days
Physical Health Not Good in Past 30 Days*					
Males	65%	6%	6%	3%	16%
Females	54%	11%	9%	1%	18%
Total	60%	9%	7%	2%	16%
Mental Health Not Good in Past 30 Days*					
Males	61%	6%	8%	0%	17%
Females	54%	15%	5%	2%	21%
Total	58%	11%	6%	1%	19%

*Totals may not equal 100% as some respondents answered, "Don't know/Not sure".

Adult Comparisons	Lenawee County 2011	Lenawee County 2014	Lenawee County 2017	Michigan 2016	U.S. 2016
Rated health as excellent or very good	51%	54%	52%	48%	52%
Rated health as fair or poor	11%	15%	18%	18%	17%
Rated their mental health as not good on four or more days in the previous month	22%	26%	28%	N/A	N/A
Average days that physical health not good in past month	N/A	3.6	4.4	4.0‡	3.8‡
Average days that mental health not good in past month	N/A	3.7	4.7	3.9‡	3.8‡

‡2015 BRFSS data as compiled by 2017 County Health Rankings

N/A – Not Available

Health Behaviors: Adult Weight Status

Key Findings

Seventy-six percent (76%) of Lenawee County adults were overweight or obese based on Body Mass Index (BMI). The 2016 BRFSS indicates that 33% of Michigan and 30% of U.S. adults were obese by BMI. Fifty-six percent (56%) of adults engaged in some type of physical activity or exercise for at least 30 minutes three or more days per week.

Adult Weight Status

- In 2017, two-thirds (76%) of Lenawee County adults were either overweight (38%) or obese (38%) by Body Mass Index (BMI). This puts them at elevated risk for developing a variety of diseases.
- More than two-fifths (44%) of adults were trying to lose weight, 34% were trying to maintain their current weight or keep from gaining weight, and 1% were trying to gain weight.
- Lenawee County adults did the following to lose weight or keep from gaining weight: ate less food, fewer calories, or foods low in fat (46%); drank more water (45%); exercised (36%); ate a low-carb diet (18%); used a weight loss program (4%); went without eating 24 or more hours (4%); took prescribed medications (2%); smoked cigarettes (1%); had bariatric surgery (1%); took diet pills; powders or liquids without a doctor's advice (1%); health coaching (1%); participated in a prescribed dietary or fitness program (1%); and took laxatives (<1%).
- Lenawee County adults reported the following reasons for weight gain in the past year: lack of exercise (22%), ate unhealthy foods (19%), medication they take (4%), issues with thyroid (3%), kidney disease (1%), and other reasons (20%).

38% of Lenawee County adults were obese.

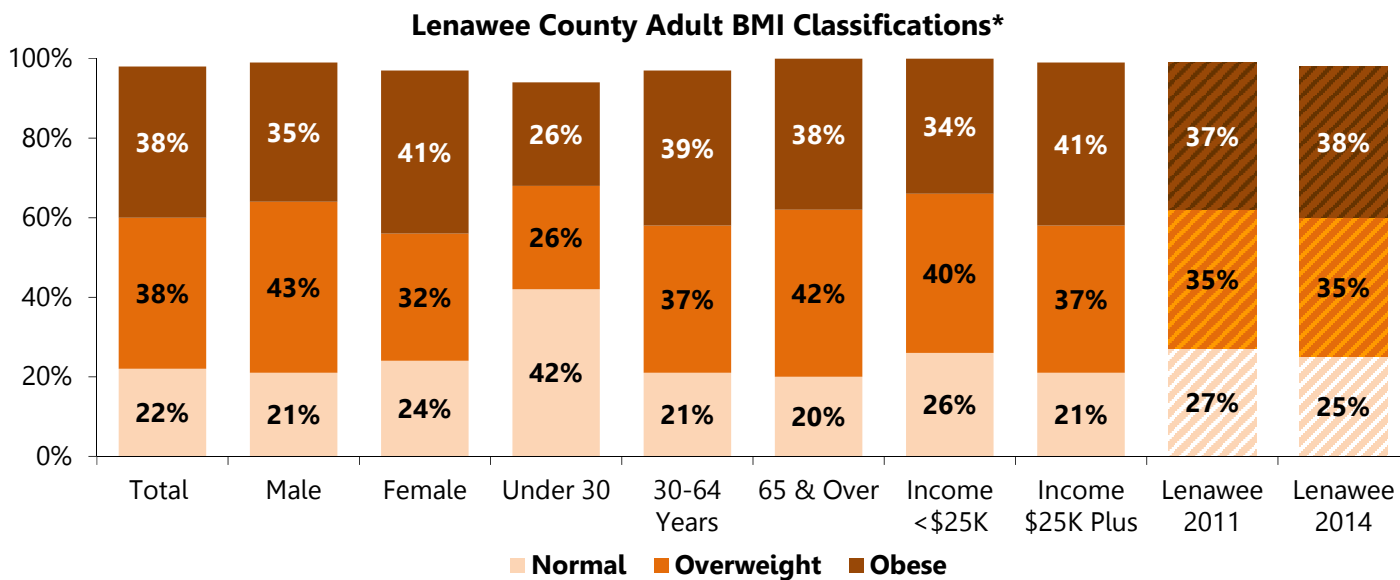
Physical Activity

- In Lenawee County, 56% of adults engaged in some type of physical activity or exercise for at least 30 minutes three or more days per week. Thirty-four percent (34%) of adults exercised five or more days per week. About one-fourth (24%) of adults did not participate in any physical activity in the past week, including 4% who were unable to exercise.
- The CDC recommends that adults participate in moderate exercise for at least two hours and 30 minutes every week or vigorous exercise for at least one hour and 15 minutes every week. Whether participating in moderate or vigorous exercise, the CDC also recommends muscle-strengthening activities that work all major muscle groups on two or more days per week (*Source: CDC, Physical Activity Basics 2015*).
- Lenawee County adults spent the most time doing the following physical activities in the past year: walking (33%), exercise machines (3%), strength training (2%), occupational exercise (2%), group exercise classes (1%), cycling (1%), and other activities (4%). Fifteen percent (15%) of adults did not exercise at all, including 3% who were unable to do so. Thirty-nine percent (39%) of adults participated in multiple types of physical activity.
- Reasons for not exercising included the following: time (34%); weather (22%); pain or discomfort (22%); too tired (21%); laziness (18%); did not like to exercise (10%); could not afford a gym membership (7%); no exercise partner (6%); no gym available (4%); no child care (4%); poorly maintained/no sidewalks (4%); no walking trails, biking trails, or parks (3%); did not know what activities to do (2%); lack of opportunities for people with physical impairments or challenges (2%); neighborhood safety (1%); doctor advised them not to exercise (1%); and transportation (1%).

Nutrition

- In 2017, 1% of Lenawee County adults ate 5 or more servings of fruit per day. Seventeen percent (17%) ate 3 to 4 servings of fruit per day, and 71% ate 1 to 2 servings per day. Eleven percent (11%) of adults did not eat any fruits.
- Three percent (3%) of Lenawee County adults ate 5 or more servings of vegetables per day. Twenty-three (23%) ate 3 to 4 servings of vegetables per day, and 69% ate 1 to 2 servings per day. Five percent (5%) of adults did not eat any vegetables
- Lenawee County adults consumed an average of 2.6 servings of fruit and 3.0 servings of vegetables on an average day.
- The American Cancer Society recommends that adults eat at least 2½ cups (five servings) of fruits and vegetables per day to reduce the risk of cancer and to maintain good health (*Source: American Cancer Society, 2017*).
- Four percent (4%) of adults consumed 5 or more servings of sugar-sweetened beverages per day. Five percent (5%) drank 3 to 4 servings per day, 38% consumed 1 to 2 servings per day, and 54% consumed 0 servings per day.
- Eleven percent (11%) of adults consumed 5 or more servings of caffeinated beverages per day. Nearly one-fourth (24%) consumed 3 to 4 servings per day, 44% consumed 1 to 2 servings of per day, and 20% drank 0 servings per day.
- Lenawee County adults consumed an average of 1.9 servings of sugar-sweetened beverages and 3.1 servings of caffeinated beverages on an average day.
- Eighty-five percent (85%) of adults ate out in a restaurant or brought home take-out at least once in a typical week, 7% of whom did so for five or more meals.
- Lenawee County adults reported the following reasons they chose the types of food they ate: taste/enjoyment (67%), healthiness of food (52%), ease of preparation/time (51%), cost (49%), food they were used to (41%), what their family prefers (36%), nutritional content (35%), availability (34%), calorie content (23%), if it is organic (14%), artificial sweetener content (11%), if it is genetically modified (11%), health care provider's advice (6%), if it is gluten free (6%), if it is lactose free (3%), other food sensitivities (2%), limitations set by WIC (1%), and other reasons (2%).
- Lenawee County adults purchased their fruits and vegetables from the following places: large grocery store (80%), farmers market (38%), grow their own/garden (33%), local grocery store (32%), corner/convenience store (2%), Veggie Mobile (2%), Dollar General/dollar store (1%), food pantry (1%), Group Purchasing/Community Supported Agriculture (CSA) (1%), Mobile Produce Market (bus) (1%), community garden (1%), mail order food service (<1%), and other places (5%).
- Adults reported the following barriers to consuming fruits and vegetables: too expensive (11%), did not like the taste (6%), did not know how to prepare (3%), no variety (2%), no access (2%), transportation (1%), stores do not take Electronic Benefit Transfer (EBT) (<1%), and other barriers (4%). Eighty percent (80%) of adults reported they did not have any barriers in consuming fruits and vegetables.
- Lenawee County adults had access to a wellness program through their employer or spouse's employer with the following features: free/discounted gym membership (13%), health risk assessment (10%), lower insurance premiums for participation in wellness program (9%), on-site fitness facility (9%), on-site health screenings (6%), gift cards or cash for participation in wellness program (6%), healthier food options in vending machines or cafeteria (6%), free/discounted smoking cessation program (6%), lower insurance premiums for positive changes in health status (5%), free/discounted weight loss program (4%), on-site health education classes (4%), and gift cards or cash for positive changes in health status (2%). Twenty-two percent (22%) of Lenawee County adults did not have access to any wellness programs.

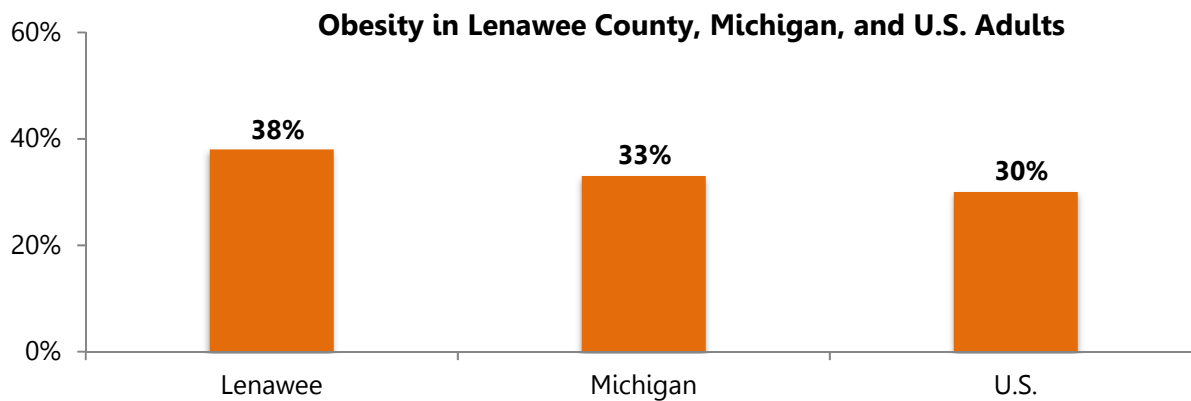
The following graph shows the percentage of Lenawee County adults who were normal weight, overweight or obese by Body Mass Index (BMI). Examples of how to interpret the information include: 22% of all Lenawee County adults were classified as normal weight, 38% were overweight, and 38% were obese.



*Percentages may not equal 100% due to the exclusion of data for those who were classified as underweight

Note: Caution should be used when interpreting subgroup results as the margin of error for any subgroup is higher than that of the overall survey.

The following graph shows the percentage of Lenawee County adults who were obese compared to Michigan and the U.S.

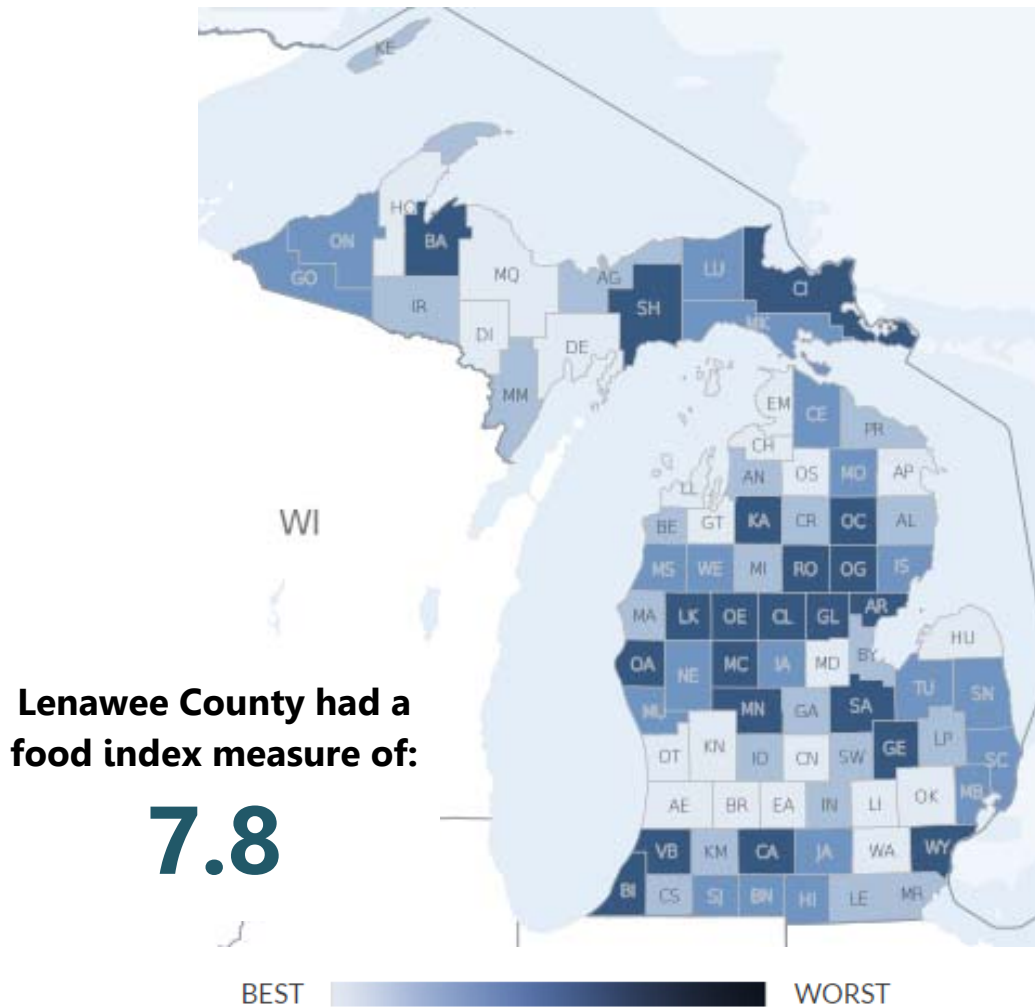


(Source: 2017 Lenawee County Health Assessment and 2016 BRFSS)

Adult Comparisons	Lenawee County 2011	Lenawee County 2014	Lenawee County 2017	Michigan 2016	U.S. 2016
Obese	37%	38%	38%	33%	30%
Overweight	35%	35%	38%	35%	35%

The Food Environment Index measures the quality of the food environment in a county on a scale from 0 to 10 (zero being the worst value in the nation, and 10 being the best). The two variables used to determine the measure are limited access to healthy foods & food insecurity.

- The food environment index in Lenawee County is 7.8
- The food environment index in Michigan is 7.2



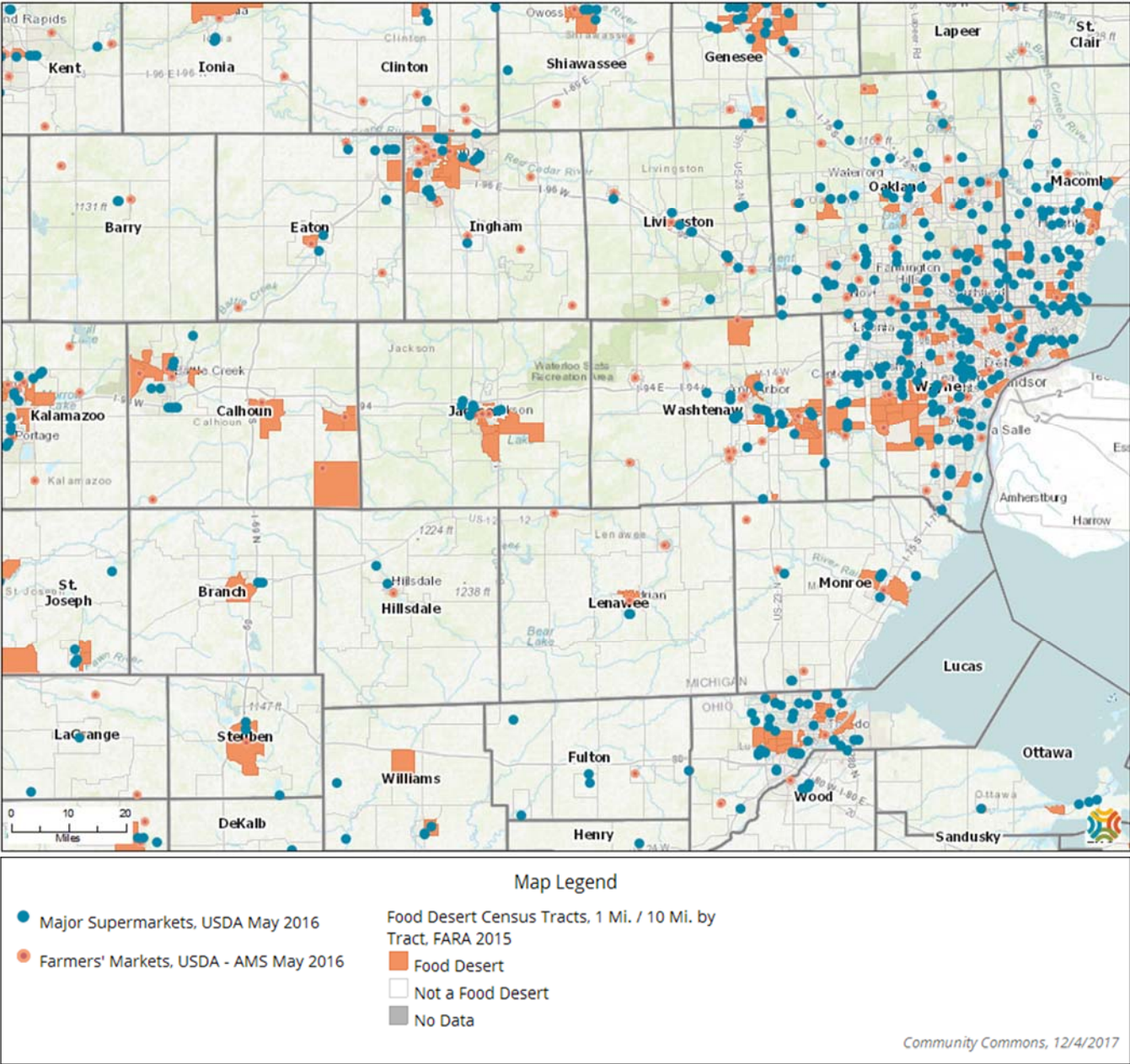
(Source: USDA Food Environment Atlas, as compiled by County Health Rankings 2017)

Obesity Facts

- Obesity-related conditions include heart disease, stroke, type 2 diabetes and certain types of cancer, some of the leading causes of preventable death.
- The estimated annual medical cost of obesity in the U.S. was \$147 billion in 2008 U.S. dollars; the medical costs for people who are obese were \$1,429 higher than those of normal weight.
- Non-Hispanic blacks have the highest age-adjusted rates of obesity (48.1%) followed by Hispanics (42.5%), non-Hispanic whites (34.5%), and non-Hispanic Asians (11.7%).
- Obesity is higher among middle age adults, 40-59 years old (40.2%) than among younger adults, age 20-39 (32.3%) or adults over 60 or above (37%) adults.

(Source: CDC, Adult Obesity Facts, updated August 29, 2017)

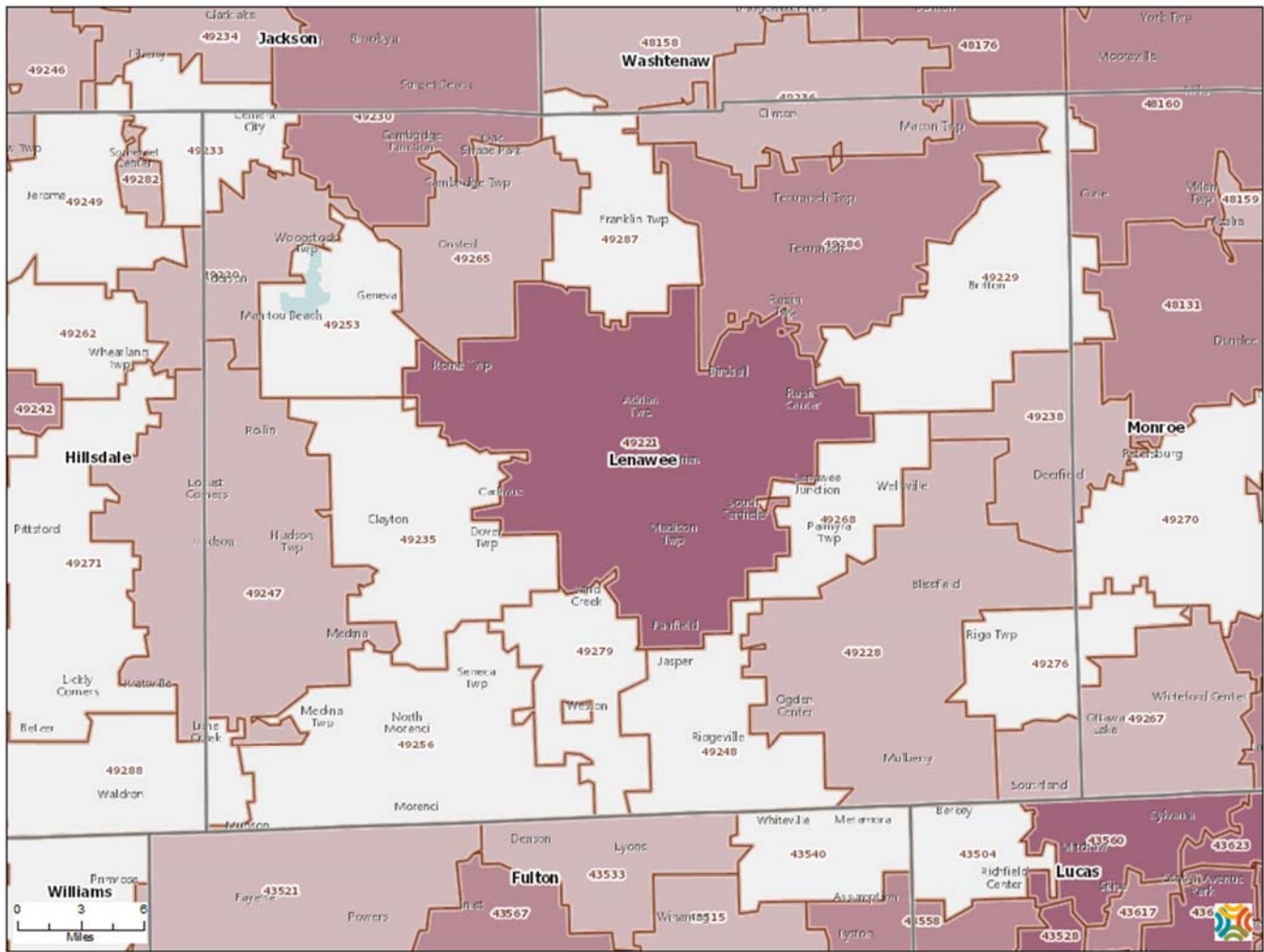
Food Desert Census Tracts, Major Supermarkets and Farmer's Markets



(Sources: U.S. Department of Agriculture, Food and Nutrition Service and Agricultural Marketing Service, May 2016 and U.S. Department of Agriculture, Economic Research Service, USDA – Food Access Research Atlas: 2015, as compiled by Community Commons)

Description of indicator: This indicator displays the location of Food Deserts across the United States based on conditions in 2015. The Healthy Food Financing Initiative (HFFI) Working Group considers a food desert as a low-income census tract where a substantial number or share of residents has low access to a supermarket or large grocery store. Furthermore, to qualify as a food desert tract, at least 33 percent of the tract's population or a minimum of 500 people in the tract must have low access to a supermarket or large grocery store. A low-income census tract is defined as any census tract where the poverty rate for that tract is at least 20 percent, or for tracts not located within a metropolitan area, the median family income for the tract does not exceed 80 percent of statewide median family income. Some census tracts that contain supermarkets or large grocery stores may meet the criteria of a food desert if a substantial number or share of people within that census tract is more than 1 mile (urban areas) or 10 miles (rural areas) from the nearest supermarket. Furthermore, some residents of food desert census tracts may live within 1 or 10 miles of a supermarket; these residents are not counted as low access and thus not counted in the total.

Fast Food Restaurants, Total Establishments by Zip Code Tract Area, 2015



Map Legend

Fast Food Restaurants, Total Establishments by ZCTA, CBP 2015

- Over 100
- 21 - 100
- 6 - 20
- 1 - 5
- No Fast Food Restaurants

Community Commons, 12/4/2017

(Source: U.S. Census Bureau, County Business Patterns: 2015, as compiled by Community Commons)

Description of indicator: This indicator provides information about select businesses and establishments across the United States. Data are from the US Census Bureau's County Business Patterns data series, which classifies businesses using the North American Industry Classification System (NAICS). Map layers include county-level establishment totals and establishment rates per 100,000 population. The population figures used in this analysis are from the US 2010 Decennial Census.

Health Behaviors: Adult Tobacco Use

Key Findings

In 2017, 13% of Lenawee County adults were current smokers, and 30% were considered former smokers. Two percent (2%) of adults used e-cigarettes in the past year. More than half (52%) of adults did not know if e-cigarette vapor was harmful.

In 2017, 13% of Lenawee County adults were current smokers.

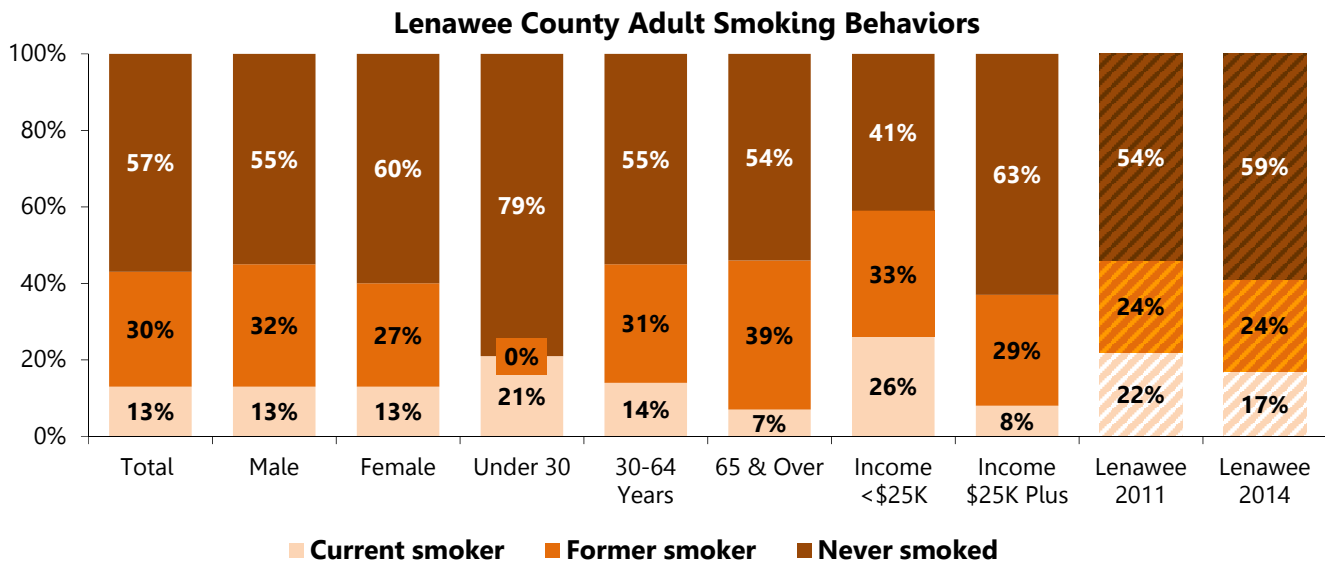
Adult Tobacco Use Behaviors

- More than one-in-eight (13%) Lenawee County adults were current smokers (those who indicated smoking at least 100 cigarettes in their lifetime and currently smoked some or all days). The 2016 BRFSS reported current smoker prevalence rates of 20% for Michigan and 17% for the U.S.
- Nearly one-third (30%) of adults indicated that they were former smokers (smoked 100 cigarettes in their lifetime and now do not smoke). The 2016 BRFSS reported former smoker prevalence rates of 26% for Michigan and 25% for the U.S.
- Over half (57%) of current smokers responded that they had stopped smoking for at least one day in the past year because they were trying to quit smoking.
- Lenawee County adult smokers were more likely to have:
 - Been divorced (27%)
 - Rated their overall health as poor (26%)
 - Incomes less than \$25,000 (26%)
 - Been diagnosed with asthma (12%)
- Lenawee County adults used the following tobacco products in the past year: cigarettes (26%), cigars (5%), chewing tobacco (4%), Swishers (3%), little cigars (3%), e-cigarettes (2%), roll-your-own (2%), pipes (2%), cigarillos (1%), snuff (1%), pouch (1%), hookah (<1%), bidis (<1%) and Black and Milds (<1%). and Seven percent (7%) of adults used more than one tobacco product.
- Lenawee County adults would support an ordinance to ban smoking in the following places: vehicle with a minor present (74%), multi-unit housing (55%), college/university campuses (54%), park or ball field (54%), and fairgrounds (49%).
- Thirteen percent (13%) of adults reported that someone had smoked cigarettes, cigars, or pipes inside their home in the past month, increasing to 48% of current smokers.
- One-fifth (20%) of adults reported that someone had smoked cigarettes, cigars, or pipes inside their car in the past month, increasing to 83% of current smokers.
- Two-fifths (40%) of adults believed e-cigarette vapor was harmful to themselves, and 34% believed it was harmful to others. Five percent (5%) of adults did not believe e-cigarette vapor was harmful to anyone. Fifty-two percent (52%) of adults did not know if e-cigarette vapor was harmful.

Adult Comparisons	Lenawee County 2011	Lenawee County 2014	Lenawee County 2017	Michigan 2016	U.S. 2016
Current smoker (currently smoke some or all days)	22%	17%	13%	20%	17%
Former smoker (smoked 100 cigarettes in lifetime & now do not smoke)	24%	24%	30%	26%	25%
Tried to quit smoking	49%	49%	57%	N/A	N/A

N/A – not available

The following graph shows the percentage of Lenawee County adults smoking behaviors. Examples of how to interpret the information include: 13% of all Lenawee County adults were current smokers, 30% of all adults were former smokers, and 57% had never smoked.



Respondents were asked: "Have you smoked at least 100 cigarettes in your entire life?
If yes, do you now smoke cigarettes every day, some days or not at all?"

Note: Caution should be used when interpreting subgroup results as the margin of error for any subgroup is higher than that of the overall survey.

57% of current smokers responded that they had stopped smoking for at least one day in the past year because they were trying to quit smoking.

Smoke-Free Living: Benefits and Milestones

According to the American Heart Association and the U.S. Surgeon General:

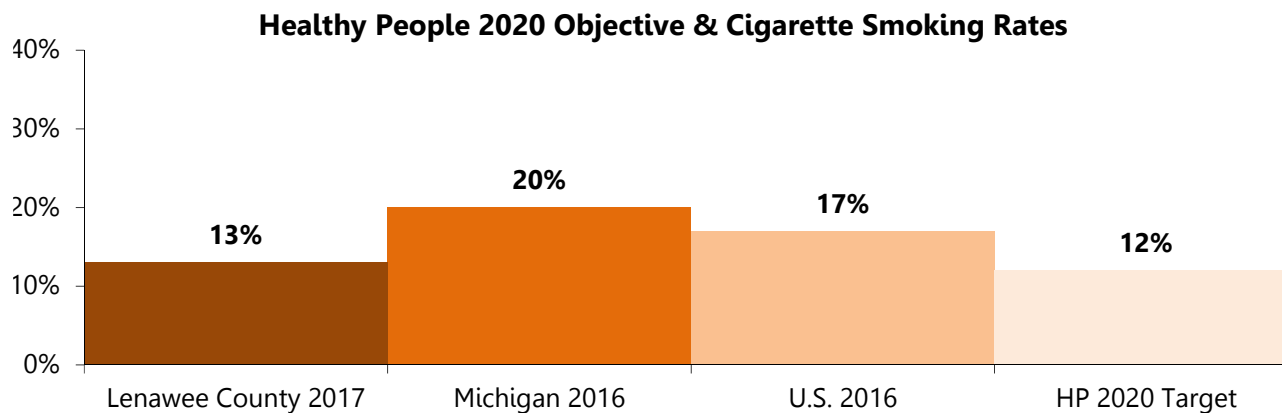
- In your first 20 minutes after quitting: your blood pressure and heart rate recover from the cigarette-induced spike.
- After 12 hours of smoke-free living: the carbon monoxide levels in your blood return to normal.
- After two weeks to three months of smoke-free living: your circulation and lung function begin to improve.
- After one to nine months of smoke-free living: clear and deeper breathing gradually returns as coughing and shortness of breath diminishes; you regain the ability to cough productively instead of hacking, which cleans your lungs and reduce your risk of infection.
- After 5 years: Your risk of cancer of the mouth, throat, esophagus, and bladder are cut in half. Your risk of cervical cancer and stroke return to normal.
- After 10 years: You are half as likely to die from lung cancer. Your risk of larynx or pancreatic cancer decreases.
- After 15 years: Your risk of coronary heart disease is the same as a non-smoker's.

(Source: American Heart Association (AHA), *Your Non-Smoking Life*, June 2015)

30% of Lenawee County adults indicated that they were former smokers.

The following graph shows Lenawee County, Michigan, and U.S. adult cigarette smoking rates. The BRFSS rates shown for Michigan and the U.S. were for adults 18 years and older. This graph shows:

- The Lenawee County adult cigarette smoking rate was lower than the Michigan and U.S. rates and slightly higher than the Healthy People 2020 target objective.

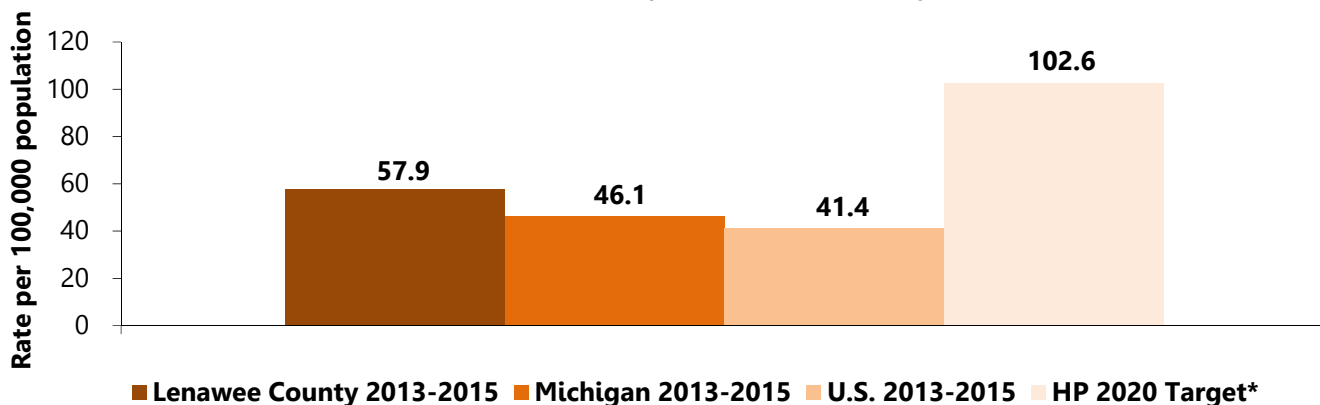


(Source: 2017 Lenawee County Health Assessment, 2016 BRFSS and Healthy People 2020)

The following graphs show Lenawee County, Michigan, and U.S. age-adjusted mortality rates per 100,000 populations for chronic lower respiratory diseases (formerly COPD) and lung cancer in comparison with the Healthy People 2020 objective. These graphs show:

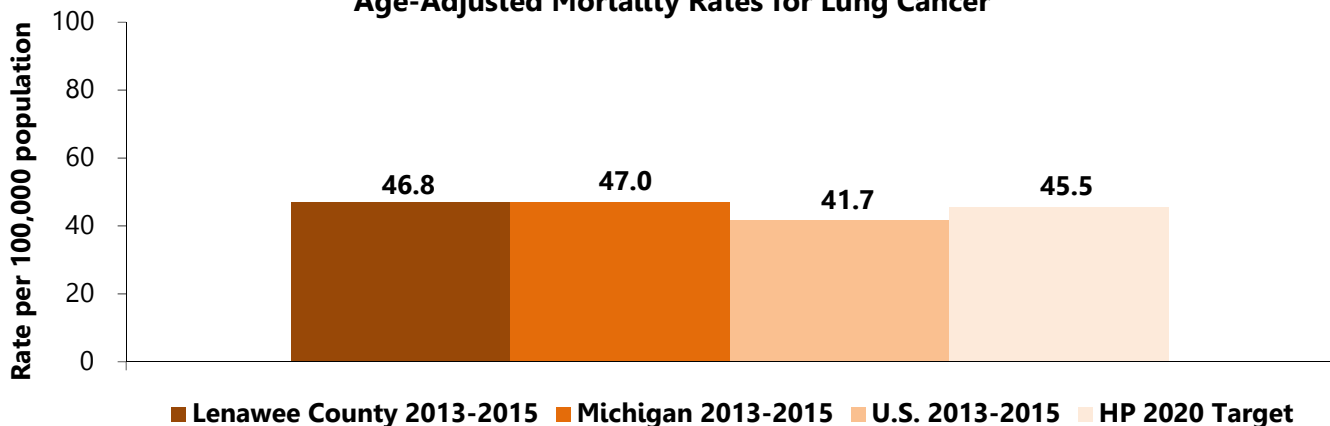
- From 2013 to 2015, Lenawee County’s age-adjusted mortality rate for Chronic Lower Respiratory Disease was higher than the Michigan and U.S. rates but lower than the Healthy People 2020 target objective.
- The Lenawee County age-adjusted lung cancer mortality rate was slightly lower than the Michigan rate but higher than the U.S. rate and the Healthy People 2020 target objective.

Age-Adjusted Mortality Rates for Chronic Lower Respiratory Diseases (Formerly COPD)



(Sources: CDC Wonder, 2013-2015 and Healthy People 2020 retrieved on December 15, 2017)
 *Healthy People 2020’s target rate and the U.S. rate is for adults aged 45 years and older.

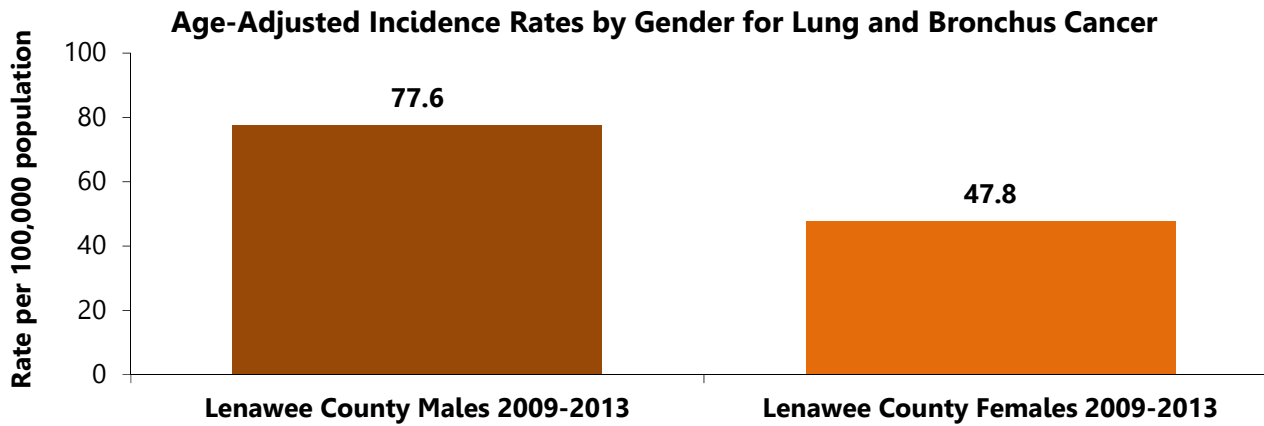
Age-Adjusted Mortality Rates for Lung Cancer



(Sources: CDC Wonder, 2013-2015 and Healthy People 2020. Retrieved on December 15, 2017)

The following graph shows Lenawee County incidence rates by gender for lung and bronchus cancer. The graph shows:

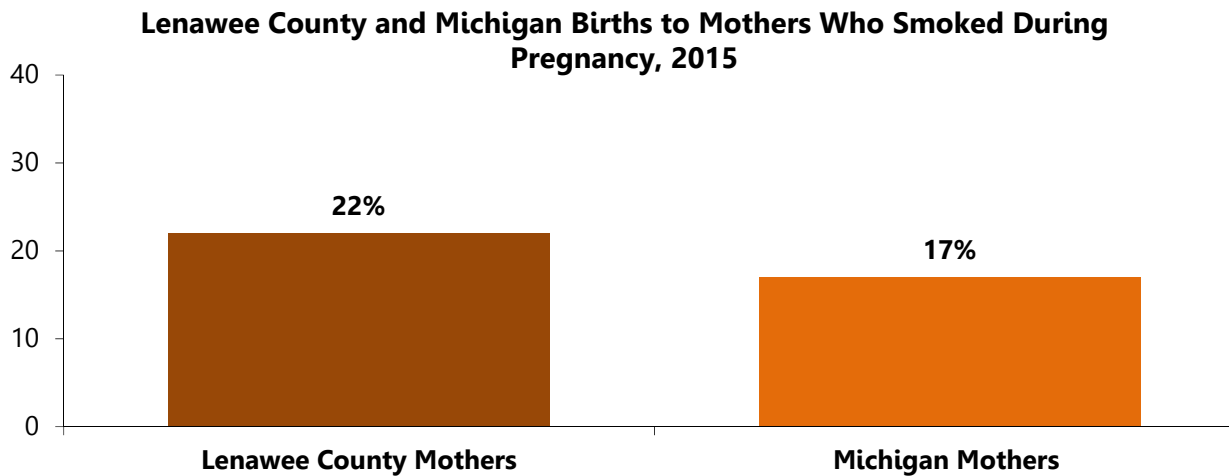
- From 2009 to 2013, the Lenawee County male age-adjusted lung and bronchus cancer incidence rate was significantly higher than the female age-adjusted lung and bronchus cancer incidence rate.



(Source: MDHSS, Vital Statistics, updated on November 1, 2016 and retrieved on November 21, 2017)

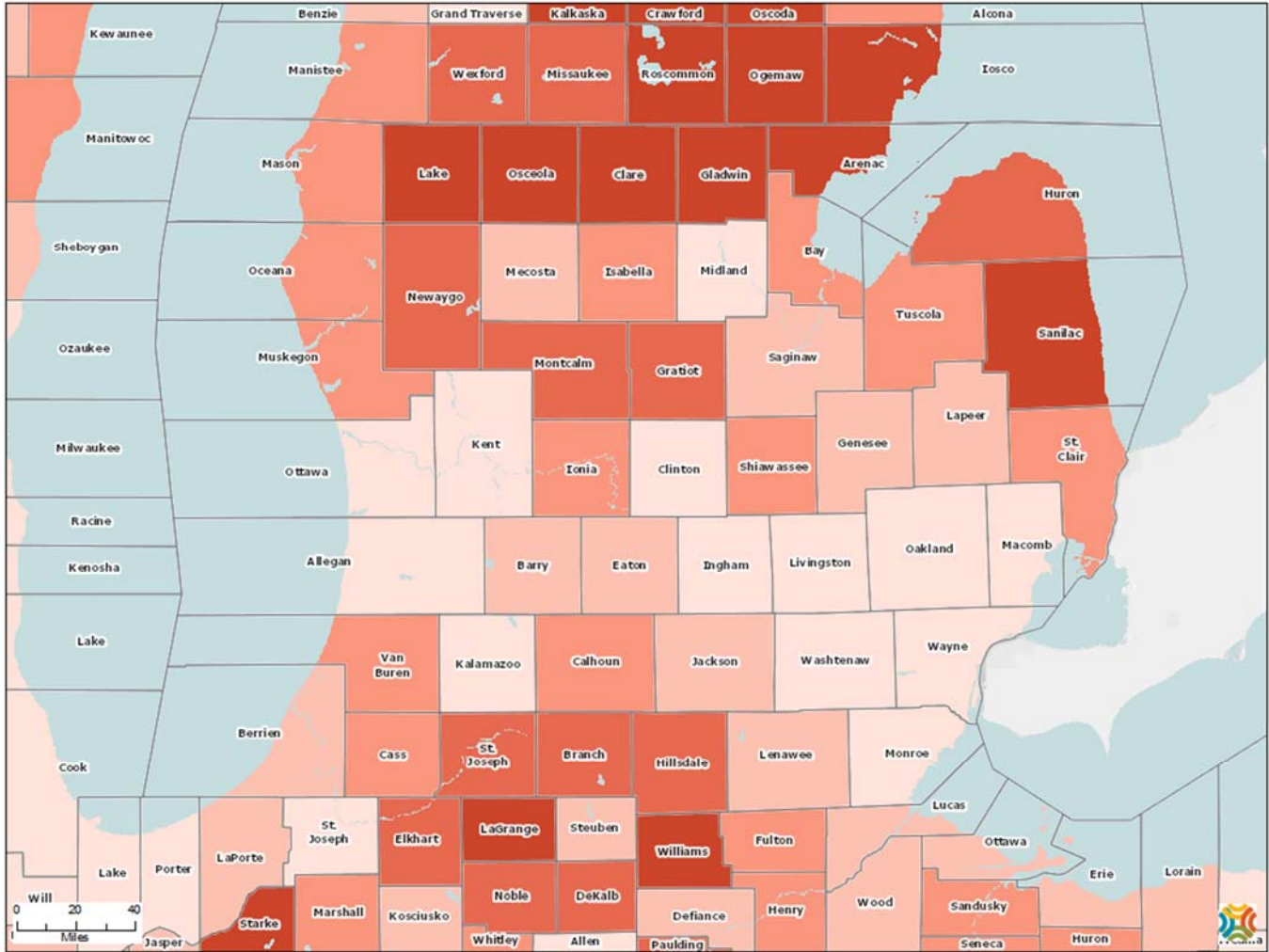
The following graph shows the percentage of Lenawee County and Michigan mothers who smoked during pregnancy. The graph shows:

- In 2015, the percentage of Lenawee County mothers who smoked during pregnancy was higher than the percentage of Michigan mothers who smoked during pregnancy.



(Source: MDHSS, Vital Statistics, 2015 retrieved on November 22, 2017)

Cigarette Expenditures, Percent of Total Expenditures, State Rank by County, Nielsen 2014



Map Legend

Cigarette Expenditures, Percent of Total Expenditures, State Rank by County, Nielsen 2014

- 1st Quintile (Highest Expenditures)
- 2nd Quintile
- 3rd Quintile
- 4th Quintile
- 5th Quintile (Lowest Expenditures)
- No Data or Data Suppressed

Community Commons, 11/22/2017

(Source: Community Commons, Nielsen, Nielsen SiteReports: 2014, as compiled by Community Commons)

Description of indicator: To generate acceptable map output in compliance with the Nielsen terms of use agreement, percent expenditures for each tract were sorted and ranked; quintiles were assigned to each tract based on national rank and symbolized within the map.

**Tobacco expenditures indicate cigarettes only; cigars and other tobacco products are not included*

Smoking and Other Health Risks

- Smoking can make it harder for a woman to become pregnant and can affect her baby's health before and after birth. Smoking increases risks for:
 - Preterm (early) delivery
 - Stillbirth (death of the baby before birth)
 - Low birth weight
 - Sudden infant death syndrome (known as SIDS or crib death)
 - Ectopic pregnancy
 - Orofacial clefts in infants
- Smoking can also affect men's sperm, which can reduce fertility and increase risks for birth defects and miscarriage (loss of the pregnancy).
- Smoking can affect bone health.
 - Women past childbearing years who smoke have lower bone density (weaker bones) than women who never smoked and are at greater risk for broken bones.
- Smoking affects the health of your teeth and gums and can cause tooth loss.
- Smoking can increase your risk for cataracts (clouding of the eye's lens that makes it hard for you to see) and age-related macular degeneration (damage to a small spot near the center of the retina, the part of the eye needed for central vision).
- Smoking is a cause of type 2 diabetes mellitus and can make it harder to control. The risk of developing diabetes is 30-40% higher for active smokers than nonsmokers.
- Smoking causes general adverse effects on the body, including inflammation and decreased immune function.
- Smoking is a cause of rheumatoid arthritis.

(Source: CDC, Effects of Cigarette Smoking, Smoking and Other Health Risks, updated May 15, 2017)

Health Behaviors: Adult Alcohol Use

Key Findings

In 2017, 58% of Lenawee County adults had at least one alcoholic drink in the past month. Nearly one-fifth (17%) of all Lenawee County adults were binge drinkers.

Adult Alcohol Use

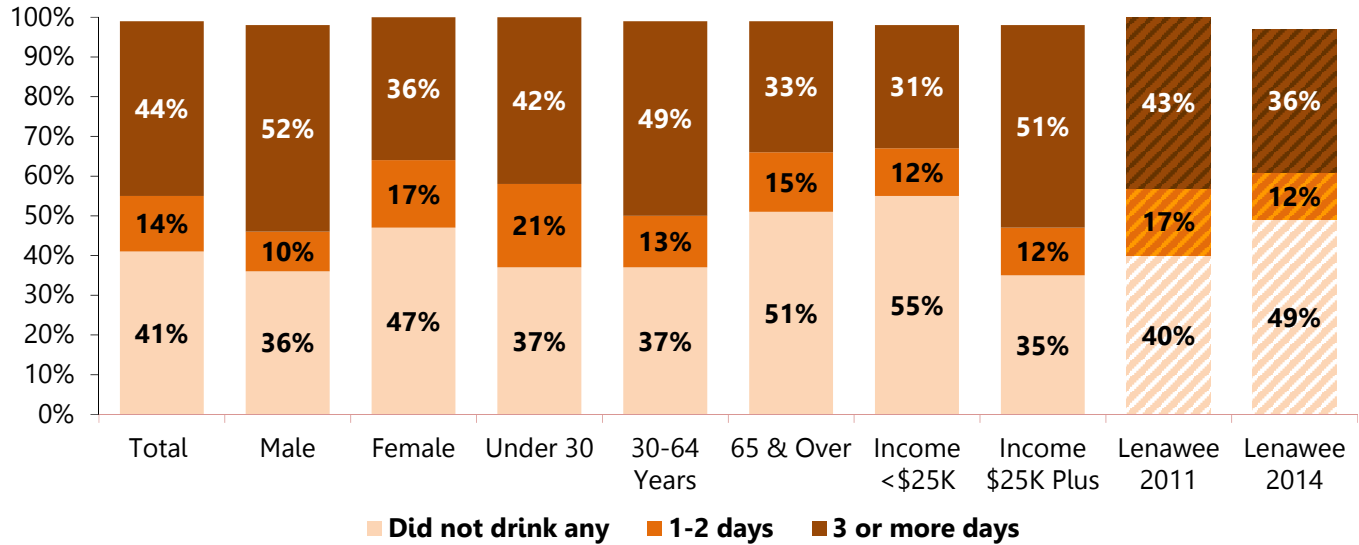
- In 2017, 58% of Lenawee County adults had at least one alcoholic drink in the past month, increasing to 64% of males and 63% of those under the age of 30. The 2016 BRFSS reported current drinker prevalence rates of 57% for Michigan and 54% for the U.S.
- Of those who drank, Lenawee County adults drank 3.8 drinks on average, increasing to 4.5 drinks for males.
- One-in-six (17%) Lenawee County 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 2016 BRFSS reported binge drinking rates of 19% for Michigan and 17% for the U.S.). Of current drinkers, 31% were considered binge drinkers.
- Lenawee County adults experienced the following in the past six months: drove a vehicle or other equipment after having any alcoholic beverages (10%); drank more than they expected (7%); used prescription drugs while drinking (6%); drank more to get the same effect (3%); continued to drink despite problems caused by drinking (2%); gave up other activities to drink (2%); failed to fulfill duties at work, home, or school (2%); spent a lot of time drinking (2%); tried to quit or cut down but could not (2%); had legal problems (2%); drank to ease withdrawal symptoms (1%); and placed themselves or their family in harm (1%).

Adult Comparisons	Lenawee County 2011	Lenawee County 2014	Lenawee County 2017	Michigan 2016	U.S. 2016
Current drinker (drank alcohol at least once in the past month)	60%	48%	58%	57%	54%
Binge drinker (defined as consuming more than four [women] or five [men] alcoholic beverages on a single occasion in the past 30 days)	22%	20%	17%	19%	17%

58% of Lenawee County adults had at least one alcoholic drink in the past month.

The following graphs show the percentage of Lenawee County adults consuming alcohol and the amount consumed on average. Examples of how to interpret the information shown on the first graph include: 41% of all Lenawee County adults did not drink alcohol, including 36% of males and 47% of females.

Lenawee County Average Number of Days Drinking Alcohol in the Past Month

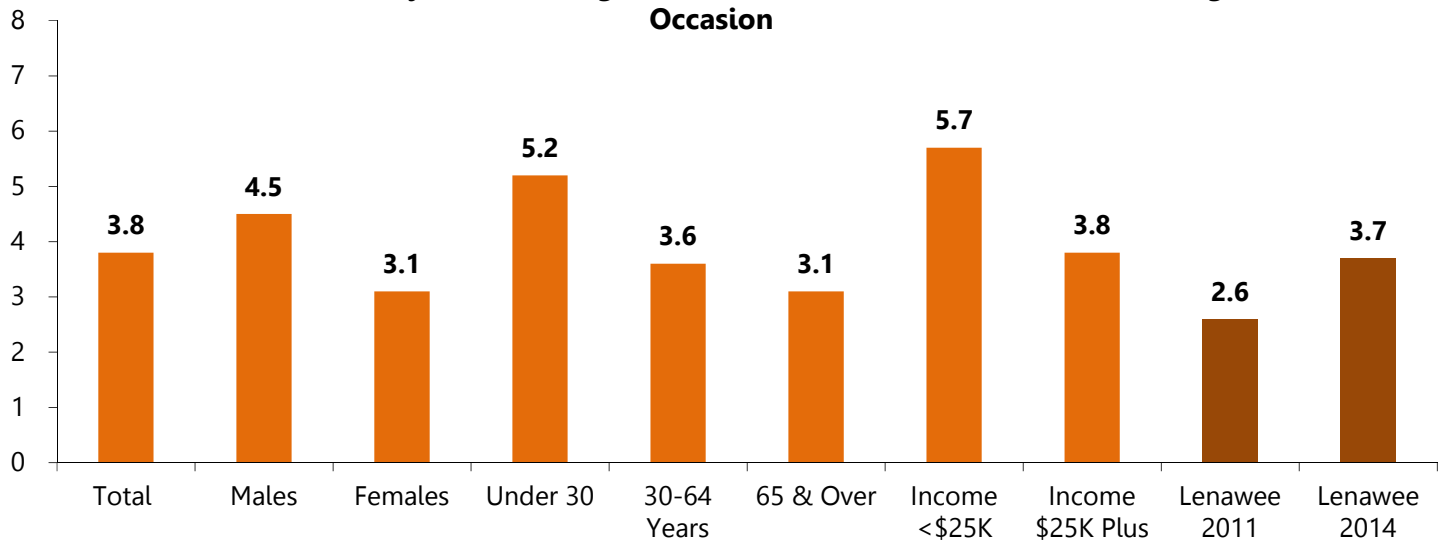


*Percentages may not equal 100% as some respondents answered "don't know"

Note: Caution should be used when interpreting subgroup results as the margin of error for any subgroup is higher than that of the overall survey.

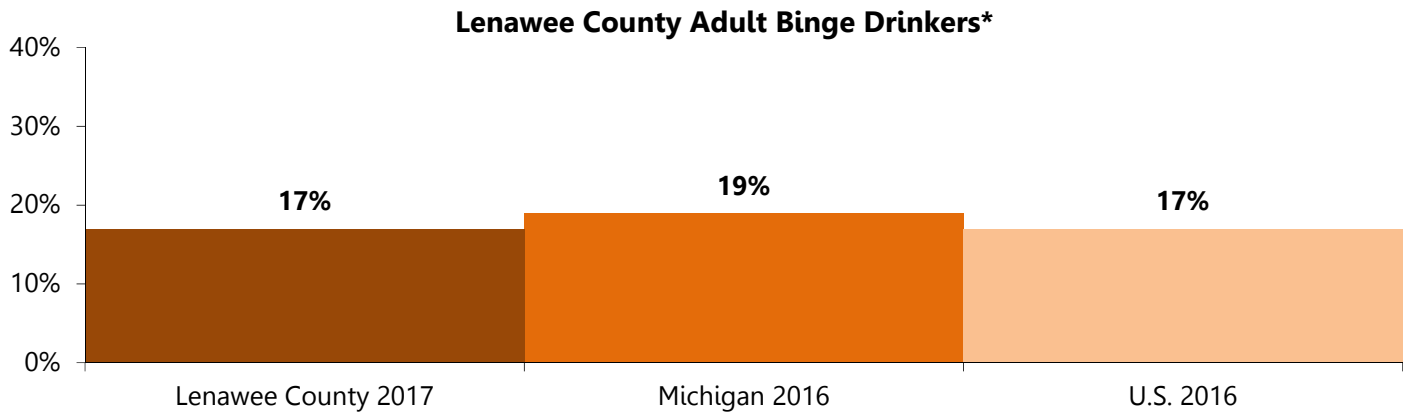
17% of Lenawee County adults were binge drinkers

Lenawee County Adult Average Number of Drinks Consumed Per Drinking Occasion



Note: Caution should be used when interpreting subgroup results as the margin of error for any subgroup is higher than that of the overall survey.

The following graph shows a comparison of Lenawee County binge drinkers with Michigan and U.S. binge drinkers.



(Source: 2016 BRFSS, 2017 Lenawee County Health Assessment)

**Based on all adults. Binge drinking is defined as males having five or more drinks on an occasion, females having four or more drinks on one occasion.*

Economic Costs of Excessive Alcohol Use

- Excessive alcohol consumption cost the United States \$249 billion in 2010. This cost amounts to about \$2.05 per drink, or about \$807 per person.
- Costs due to excessive drinking largely resulted from losses in workplace productivity (72% of the total cost), health care expenses (11%), and other costs due to a combination of criminal justice expenses, motor vehicle crash costs, and property damage.
- Excessive alcohol use cost states and DC a median of 3.5 billion in 2010, ranging from \$488 million in North America to \$35 billion in California.
 - Excessive alcohol consumption cost Michigan \$8.5 billion in 2010. This cost amounts to \$2.10 per drink or \$739 per person.
- Binge drinking, defined as consuming 4 or more drinks per occasion for women or 5 or more drinks per occasion for men, was responsible for 77% of the cost of excessive alcohol use in all states and DC.
- About \$2 of every \$5 of the economic costs of excessive alcohol use were paid by federal, state, and local governments.

(Source: CDC, Alcohol and Public Health – Excessive Drinking, updated June 15, 2017)

The following table shows the City of Adrian, Lenawee County, and Michigan motor vehicle accident statistics. The table shows:

- In 2016, 3% of the total crashes in both Lenawee County and Michigan were alcohol-related.
- Of the total number of alcohol-involved crashes (75) in Lenawee County, 55% were property damage only and 45% were non-fatal injury.
- There were 9,769 alcohol-involved crashes in Michigan in 2016. Of those crashes, 57% were property damage only, 41% were non-fatal injury, and 3% were fatal injury.

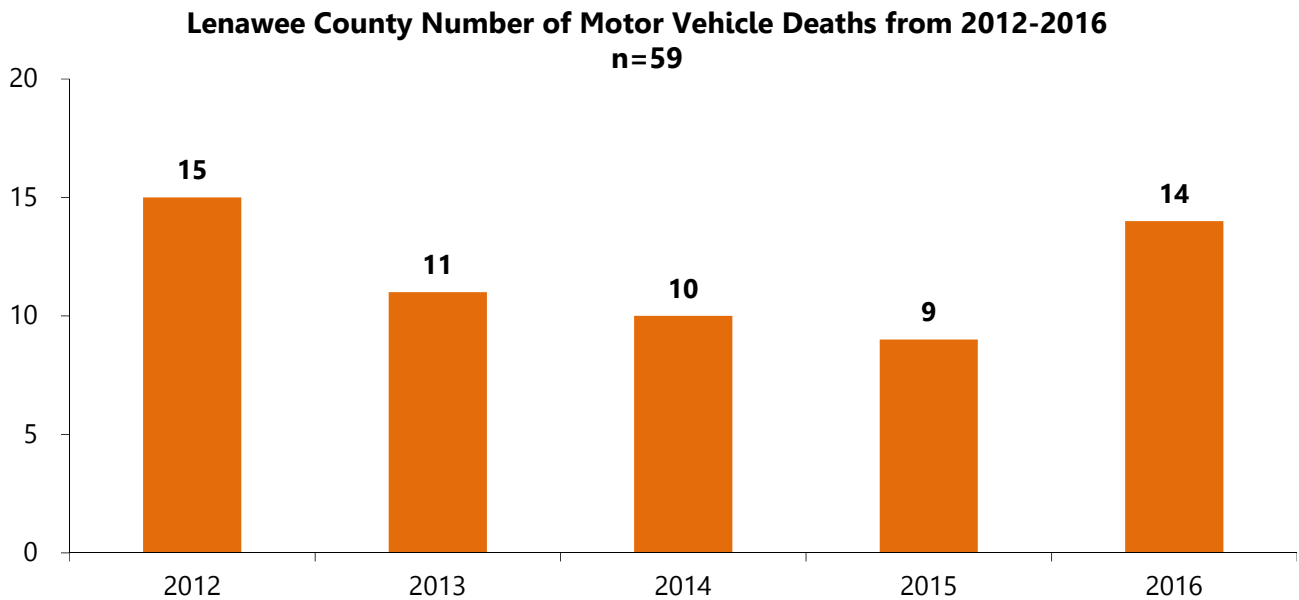
	City of Adrian 2016	Lenawee County 2016	Michigan 2016
Total Crashes	643	2,413	312,172
Fatal Crashes	2	14	980
Injury Crashes	122	477	57,964
Property Damage Only	519	1,922	253,228
Deaths	2	16	1,064
Total Non-Fatal Injuries	166	648	79,724
Interstate Crashes	N/A	0	39,662
State Route Crashes	N/A	572	90,194
Local Street Crashes	N/A	1,317	181,827
Alcohol-Involved Total Crashes	18	75	9,769
Alcohol-Related Fatal Crashes	0	0	254
Alcohol-Related Injury Crashes	9	34	3,962
Alcohol-Related Property Damage Only	9	41	5,553
Alcohol-Related Deaths	0	0	274
Alcohol-Related Injuries	10	43	5,507
Deer-Involved Total Crashes	17	553	46,870

N/A – Data is not available

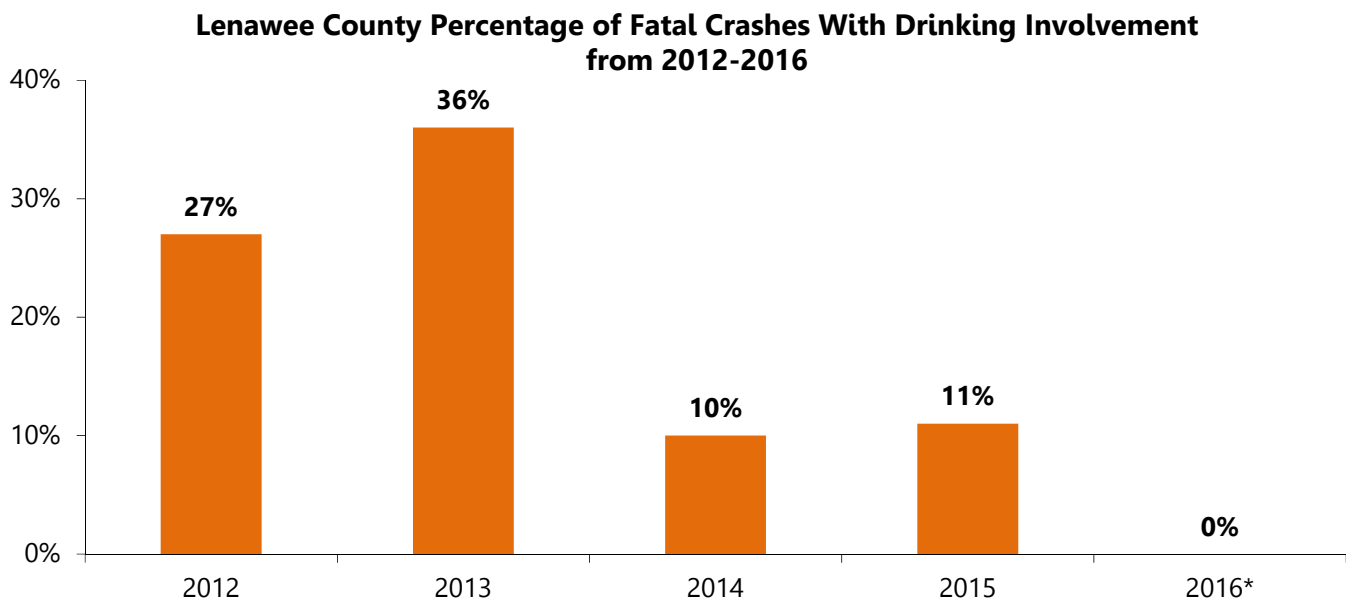
(Source: Michigan Traffic Crash Facts, County/Community Summary and Statewide Reports, 2016)

The following graphs show the number of Lenawee County deaths due to motor vehicle accidents and the Lenawee County percentage of total crashes with drinking involvement.

- From 2012 to 2016, there were a total of 59 motor vehicle deaths.

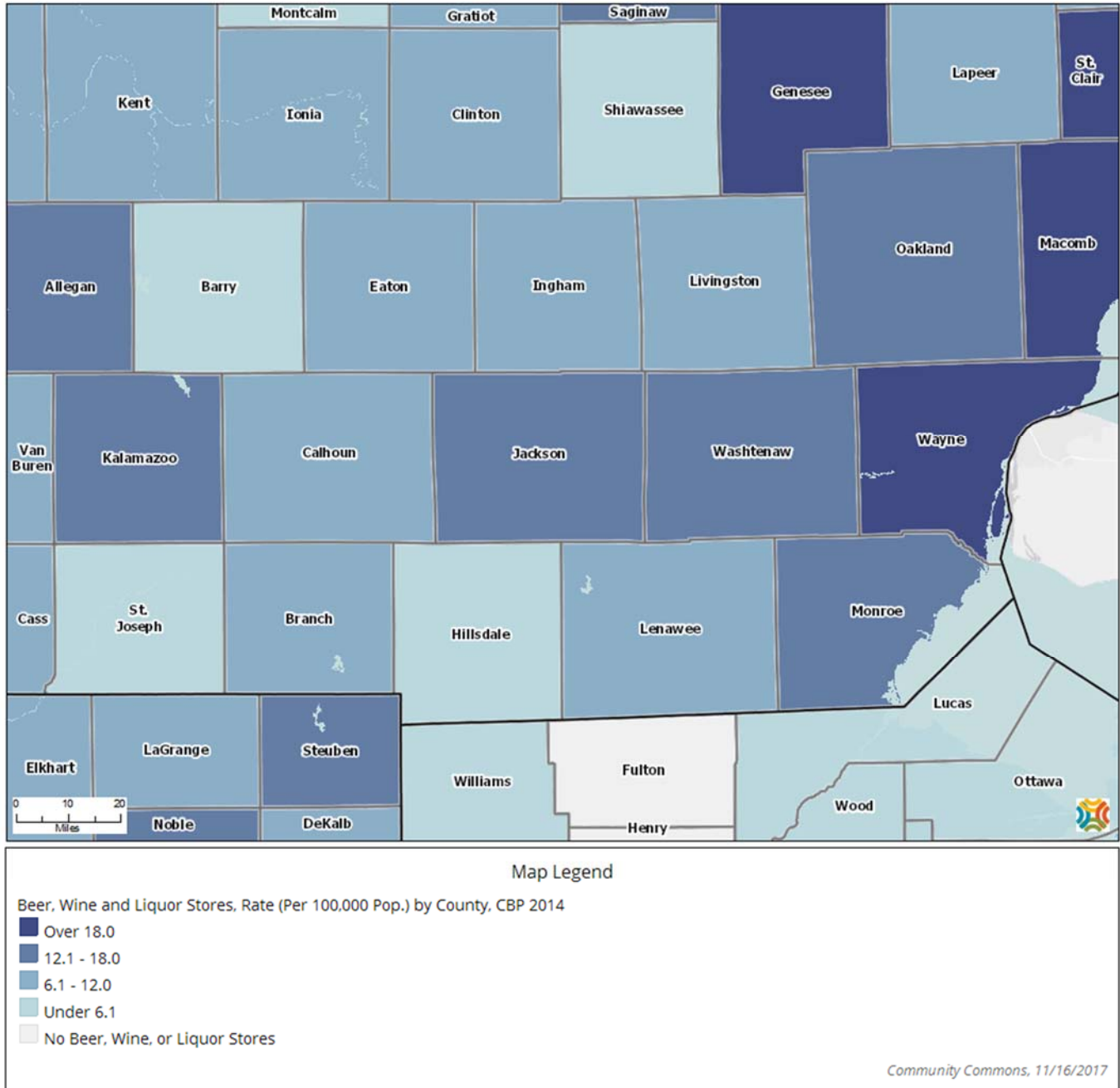


(Source: Michigan Traffic Crash Facts, 5-year Trend – Crashes by Month, 2016)



*Indicates that the most recent year is the lowest percentage reported in the 5-year period
(Source: Michigan Traffic Crash Facts, 5-year Trend – Crashes Involving Alcohol, 2016)

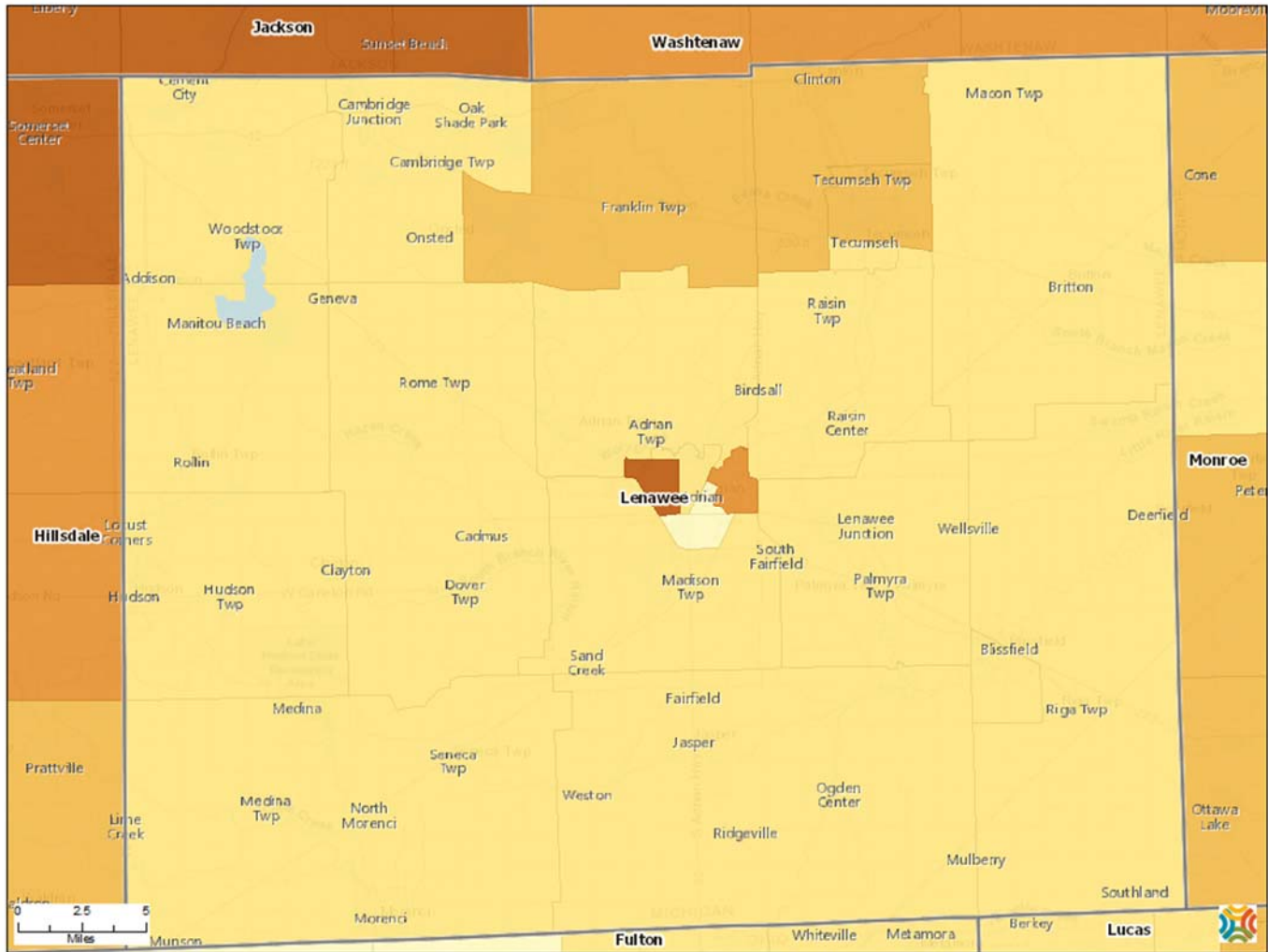
Beer, Wine and Liquor Stores, Rate (Per 100,000 Pop.) by County, Census Business Patterns (CBP), 2014



(Source: U.S. Census Bureau, County Business Patterns: 2014 as compiled by Community Commons)

Description of indicator: This layer provides information about select businesses and establishments across the United States. Data are from the US Census Bureau's County Business Patterns data series, which classifies businesses using the North American Industry Classification System (NAICS). Map layers include county-level establishment totals and establishment rates per 100,000 population. The population figures used in this analysis are from the US 2010 Decennial Census.

Alcohol Beverage Expenditures, Percent of Food-At-Home Expenditures, State Rank by Tract, Nielsen 2014



Map Legend

Alcoholic Beverage Expenditures, Percent of Food-At-Home Expenditures, State Rank by Tract, Nielsen 2014

- 1st Quintile (Highest Expenditures)
- 2nd Quintile
- 3rd Quintile
- 4th Quintile
- 5th Quintile (Lowest Expenditures)
- No Data or Data Suppressed

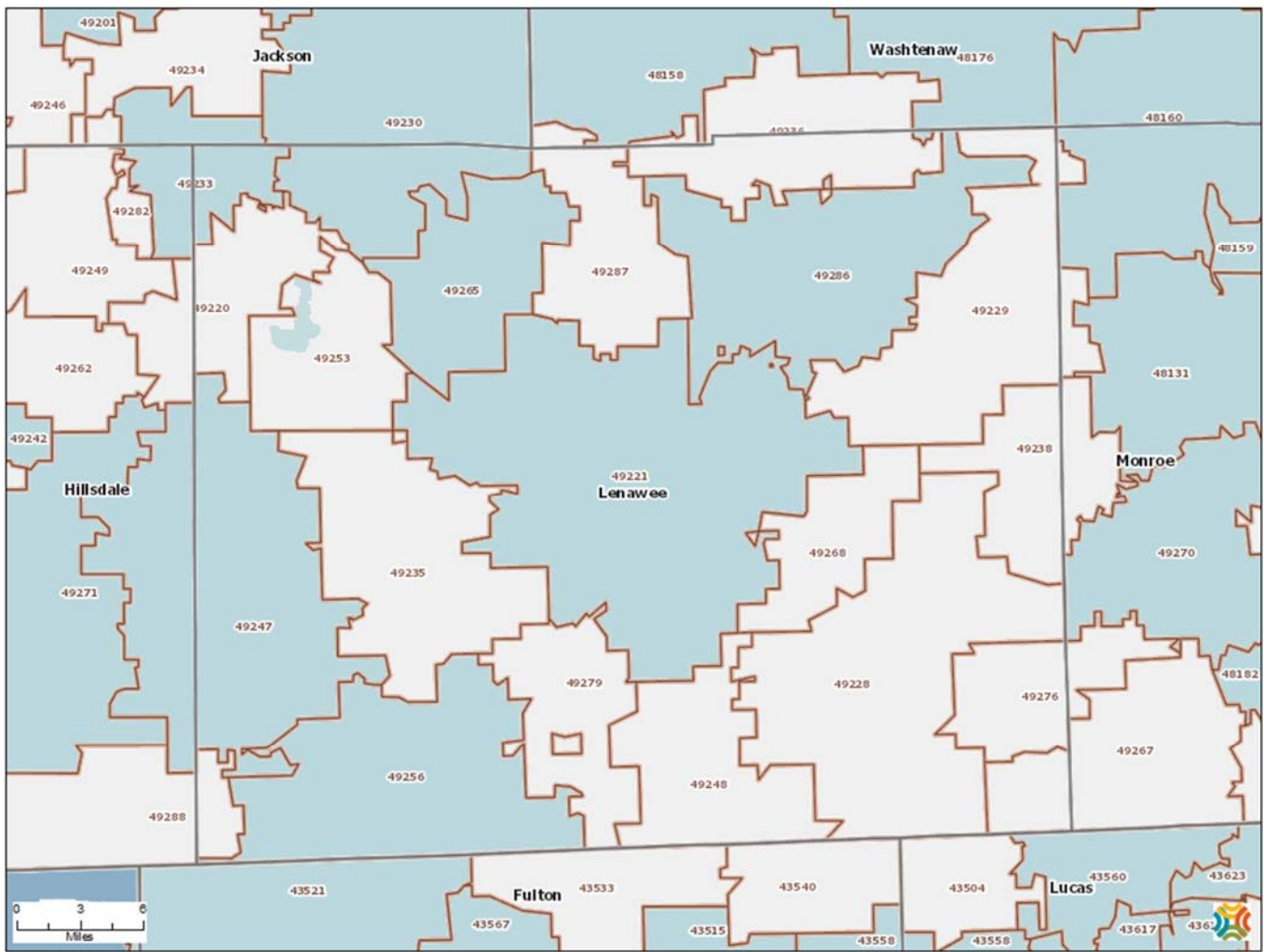
Community Commons, 12/5/2017

(Source: Nielsen, Nielsen SiteReports: 2014 as compiled by Community Commons)

Description of indicator: Census tract level average and aggregated total household expenditures and category expenditures were acquired from the 2011 Nielsen Consumer Buying Power (CBP) SiteReports. To generate acceptable map output in compliance with the Nielsen terms of use agreement, percent expenditures for each tract were sorted and ranked; quintiles were assigned to each tract based on national rank and symbolized within the map. Additional attributes include each tract's within-state rank and quintile.

**Alcohol expenditures included in this category are any beer, wine, and liquor purchased for consumption at home. Alcohol purchased at restaurants and bars is not included.*

Bars and Drinking Establishments, Rate (Per 100,000 Pop.) ZCTA, CBP 2015



Map Legend

Bars and Drinking Establishments, Rate (Per 100,000 Pop.) by ZCTA, CBP 2015

- Over 32.0
- 16.1 - 32.0
- 8.1 - 16.0
- Under 8.1
- No Bars or Drinking Establishments

Community Commons, 12/4/2017

(Source: U.S. Census Bureau, County Business Patterns: 2015 as compiled by Community Commons)

Description of indicator: This map provides information about select businesses and establishments across the United States. Data are from the US Census Bureau's County Business Patterns data series, which classifies businesses using the North American Industry Classification System (NAICS). Map layers include county-level establishment totals and establishment rates per 100,000 population. The population figures used in this analysis are from the US 2010 Decennial Census.

Health Behaviors: Adult Drug Use

Key Findings

In 2017, 3% of Lenawee County adults had used marijuana during the past 6 months. Six percent (6%) of adults had used medication not prescribed for them or took more than prescribed to feel good or high and/or more active or alert during the past 6 months.

Adult Drug Use

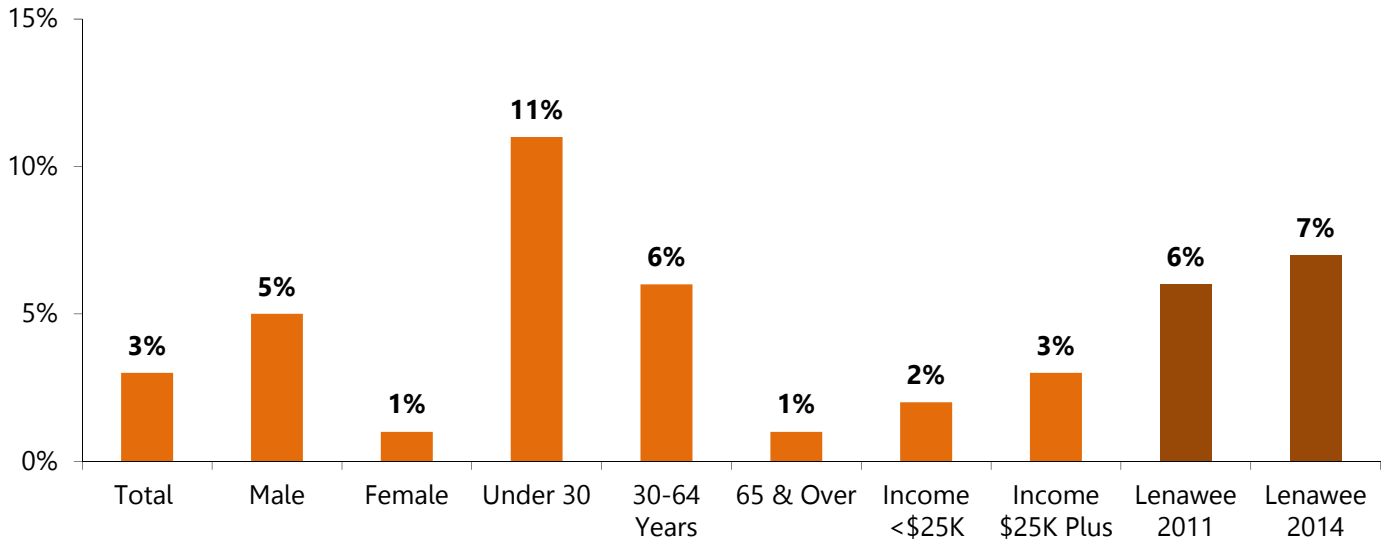
- Three percent (3%) of Lenawee County adults had used marijuana in the past 6 months, increasing to 11% of those under the age of 30.
- Five percent (5%) of Lenawee County adults reported using other recreational drugs in the past 6 months such as cocaine, synthetic marijuana/K2, heroin, LSD, inhalants, Ecstasy, bath salts, and methamphetamines.
- When asked about their frequency of marijuana and other recreational drug use in the past 6 months, 35% of Lenawee County adults who used drugs did so almost every day, and 35% did so less than once a month.
- Six percent (6%) of adults had used medication not prescribed for them or they took more than prescribed to feel good or high and/or more active or alert during the past 6 months, increasing to 12% of those with incomes less than \$25,000.
- When asked about their frequency of medication misuse in the past 6 months, 60% of Lenawee County adults who used these drugs did so almost every day, and 15% did so less than once a month.
- Lenawee County adults who misused prescription medication obtained their medication from the following: primary care physician (86%), free from friend or family member (12%), from multiple doctors (4%), from ER or urgent care doctor (4%), and bought from a drug dealer (4%).
- Lenawee County adults took the following over-the-counter drugs in a way not intended in the past 6 months: cough and cold medicine (11%), sleeping pills (3%), weight loss or diet pills (1%), and motion sickness pills (<1%).

Adult Comparisons	Lenawee County 2011	Lenawee County 2014	Lenawee County 2017	Michigan 2016	U.S. 2016
Adults who used marijuana in the past 6 months	6%	7%	3%	N/A	N/A
Adults who used other recreational drugs in the past 6 months	0%	<1%	5%	N/A	N/A
Adults who misused prescription drugs in the past 6 months	9%	8%	6%	N/A	N/A

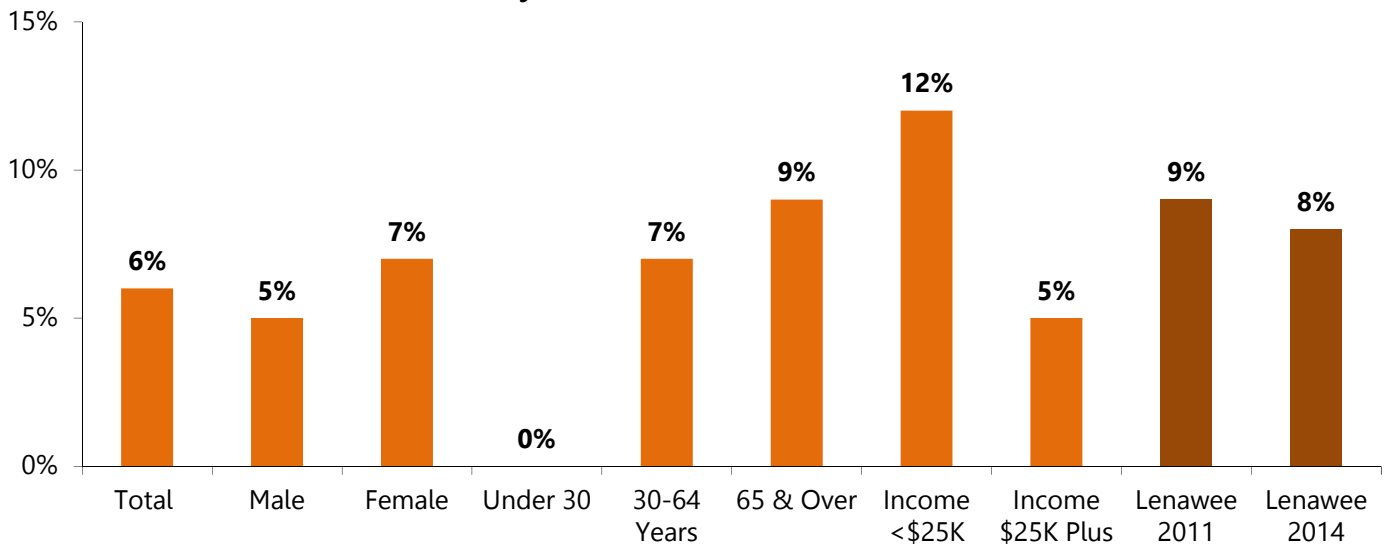
N/A – Not available

The following graphs show adult marijuana and medication misuse in the past six months. Examples of how to interpret the information include: 3% of all Lenawee County adults used marijuana in the past six months, including 11% of those under the age of 30.

Lenawee County Adult Marijuana Use in Past 6 Months



Lenawee County Adult Medication Misuse in Past 6 Months



Note for graphs: Caution should be used when interpreting subgroup results as the margin of error for any subgroup is higher than that of the overall survey.

Heroin

- Heroin is an opioid drug that is synthesized from morphine, a naturally occurring substance extracted from the seed pod of the Asian opium poppy plant.
- Nearly 80% of Americans using heroin (including those in treatment) reported misusing prescription opioids prior to using heroin.
- Heroin overdoses frequently involve a suppression of breathing. This can affect the amount of oxygen that reaches the brain, a condition called hypoxia.
- Heroin abuse is associated with a number of serious health conditions, including fatal overdose, spontaneous abortion, and infectious diseases like hepatitis and HIV.
- Chronic users may develop collapsed veins, infection of the heart lining and valves, abscesses, constipation and gastrointestinal cramping, and liver or kidney disease.
- A range of treatments including medicines and behavioral therapies are effective in helping people stop heroin use.

(Source: National Institute on Drug Abuse, Drug Facts: Heroin, July 2017)

Health Behaviors: Adult Sexual Behavior

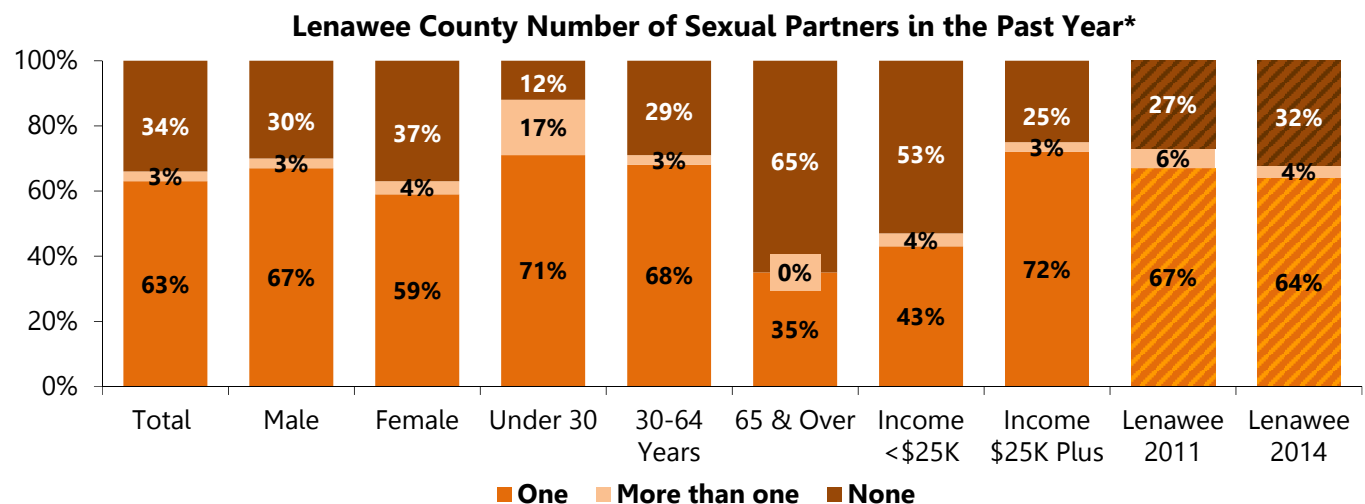
Key Findings

In 2017, 66% of Lenawee County adults had sexual intercourse. Three percent (3%) percent of adults had more than one partner. Nine percent (9%) of adults had been forced into sexual activity when they did not want to.

Adult Sexual Behavior

- Three percent (3%) of adults reported they had intercourse with more than one partner in the past year, increasing to 17% of those under the age of 30.
- Lenawee County adults used the following methods of birth control: they or their partner were too old (25%), vasectomy (22%), tubes tied (14%), hysterectomy (11%), condoms (7%), infertility (7%), birth control pill (7%), IUD (6%), withdrawal (5%), ovaries or testicles removed (4%), abstinence (2%), not needed due to sexual orientation (2%), and the rhythm method (1%).
- Nine percent (9%) of Lenawee County adults did not use any method of birth control.
- Nine percent (9%) of adults had been forced into sexual activity when they did not want to, increasing to 17% of females and 20% of those with incomes less than \$25,000. Of those forced into sexual activity, 22% reported it.
- Lenawee County adults have been diagnosed with the following sexually transmitted diseases (STDs) in the past 5 years: human papilloma virus (HPV) (1%), genital herpes (1%), and HIV/AIDS (<1%).
- The following situations applied to Lenawee County adults: treated for an STD in the past year (1%), tested positive for HPV (1%), had sex with someone they did not know (1%), gave or received money or drugs in exchange for sex (1%), engaged in sexual activity that they would not have done if sober (1%), knew someone involved in sex trafficking (<1%), had four or more sexual partners in the past year (<1%), tested positive for Hepatitis C (<1%), and tested positive for HIV (<1%).

The following graph shows the sexual activity of Lenawee County adults. Examples of how to interpret the information in the graph include: 63% of all Lenawee County adults had one sexual partner in the past 12 months, and 3% had more than one; additionally, 67% of males had one partner in the past year.



*Respondents were asked: "During the past 12 months, with how many different people have you had sexual intercourse?"

Note: Caution should be used when interpreting subgroup results as the margin of error for any subgroup is higher than that of the overall survey.

Adult Comparisons	Lenawee County 2011	Lenawee County 2014	Lenawee County 2017	Michigan 2016	U.S. 2016
Had more than one sexual partner in past year	6%	4%	3%	N/A	N/A

N/A – Not available

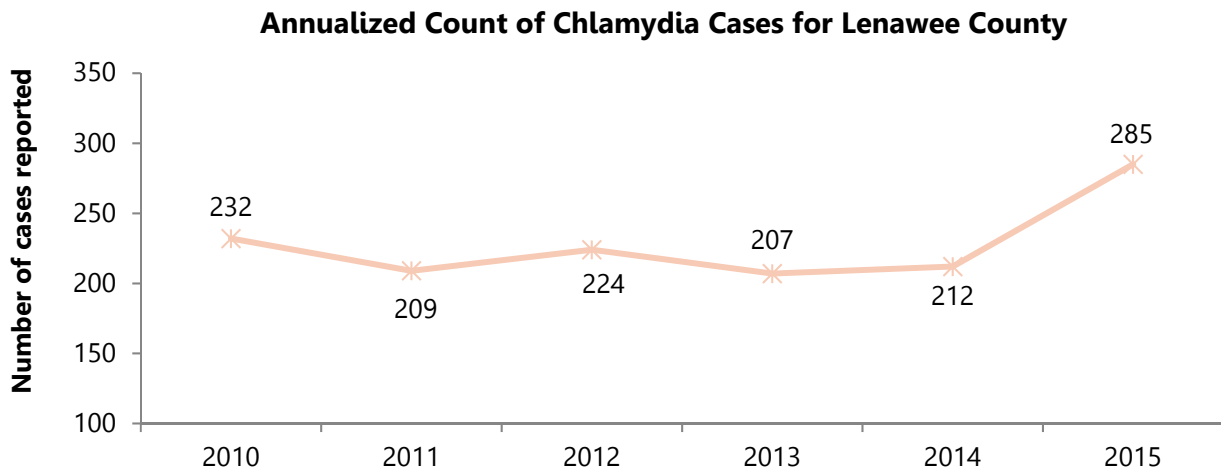
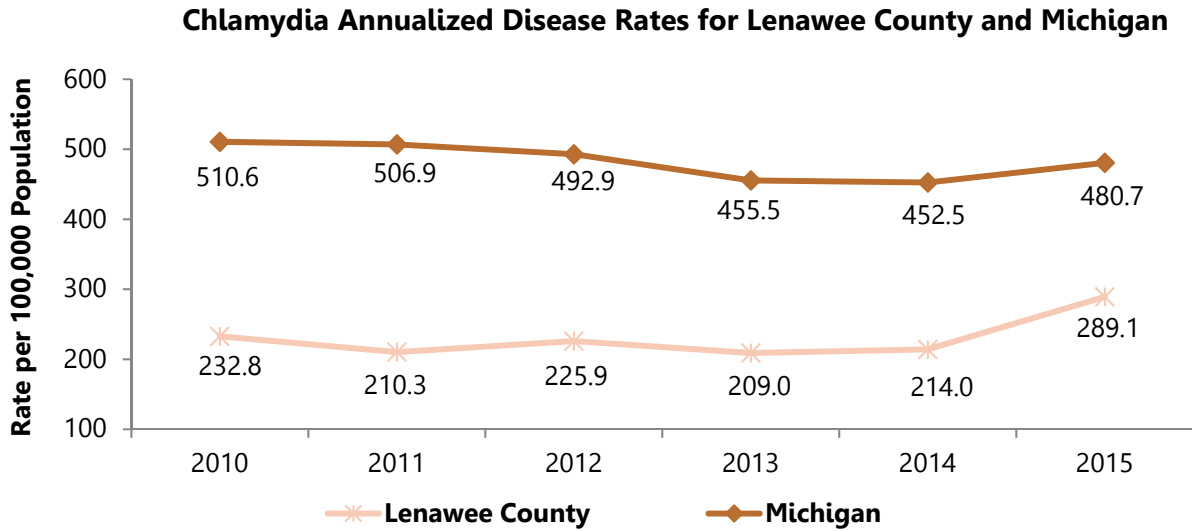
Understanding Sexual Violence

- Sexual violence is a very serious public health that affects millions of women and men. In the United States, 1 in 5 women have experienced completed or attempted rape, and about 1 in 15 men have been made to penetrate someone in their lifetime. Most victims first experienced sexual violence before the age of 25.
- Statistics underestimate the problem because many victims do not tell the police, family, or friends about the violence.
- Sexual violence is any sexual activity where consent is not freely given. This includes completed or attempted sex acts that are against the victims will or involve a victim who is unable to consent. Sexual violence also includes:
 - Unwanted sexual contact or
 - Non-contact, unwanted sexual experiences (such as verbal sexual harassment)
- Sexual violence can be committed by anyone including:
 - A current or former intimate partners
 - A family member
 - A person in position of power or trust
 - A friend or acquaintance
 - A stranger, or someone known only by sight
- Sexual violence impacts health in many ways and can lead to long-term physical and mental health problems. For example, victims may experience chronic pain, headaches, and sexually transmitted diseases. They are often fearful or anxious and may have problems trusting others. Anger and stress can lead to eating disorders, depression, and even suicidal thoughts.

(Source: CDC, Sexual Violence, last updated April 4, 2017)

The following graphs show Lenawee County and Michigan chlamydia disease rates per 100,000 population and the Lenawee County annualized chlamydia counts. The graphs show:

- Lenawee County chlamydia rates increased significantly from 2014 to 2015.
- The number of chlamydia cases in Lenawee County fluctuated from 2010 to 2015.

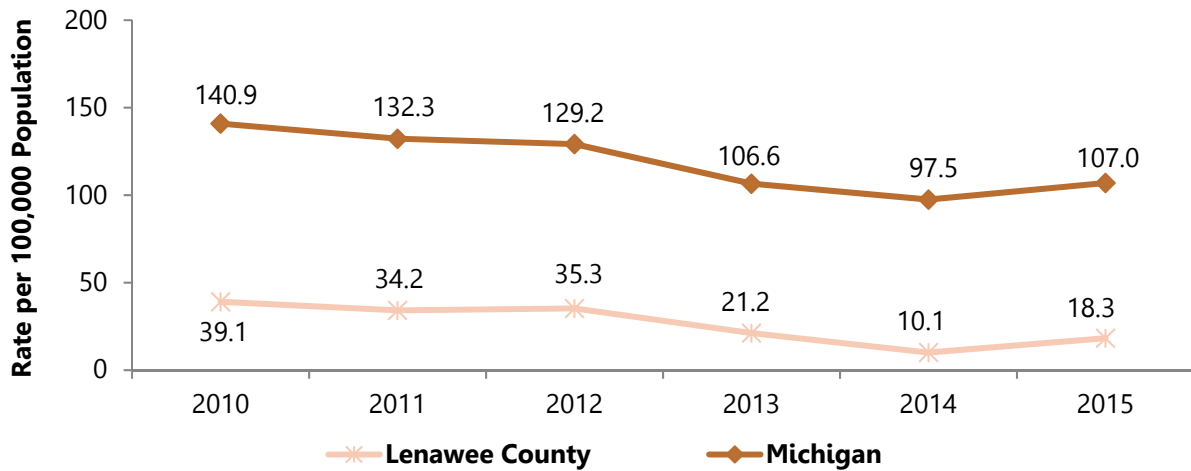


(Source for graphs: MDHHS, Michigan Sexually Transmitted Diseases Database, STD & HIV Prevention Section updated on June 6, 2016 and retrieved on November 21, 2017)

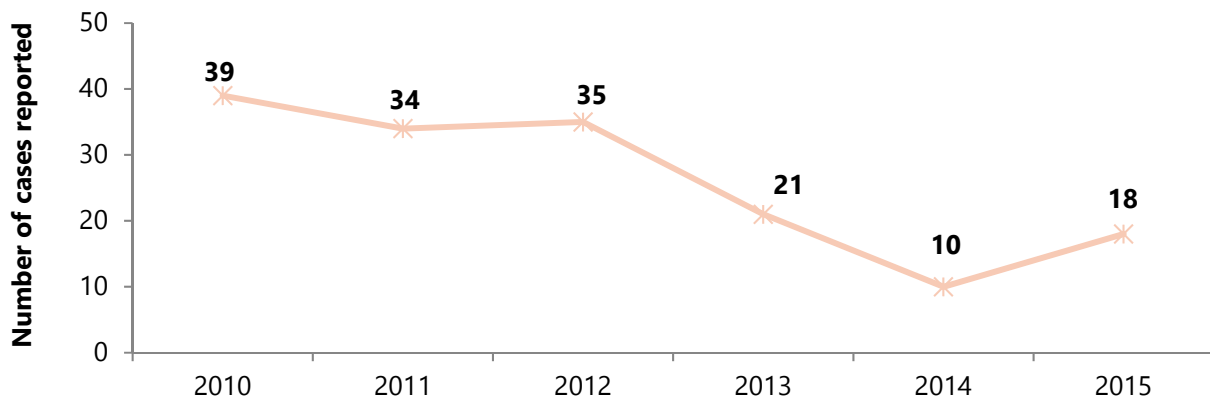
The following graphs show Lenawee County and Michigan gonorrhea disease rates per 100,000 population and Lenawee County annualized gonorrhea counts. The graphs show:

- The Michigan gonorrhea rate decreased significantly from 2012 to 2013, while the Lenawee County gonorrhea rate significantly increased from 2014 to 2015.
- The number of gonorrhea cases in Lenawee County decreased greatly from 2012 to 2014 and increased slightly from 2014 to 2015.

Gonorrhea Annualized Disease Rates for Lenawee County and Michigan



Annualized Count of Gonorrhea Cases for Lenawee County

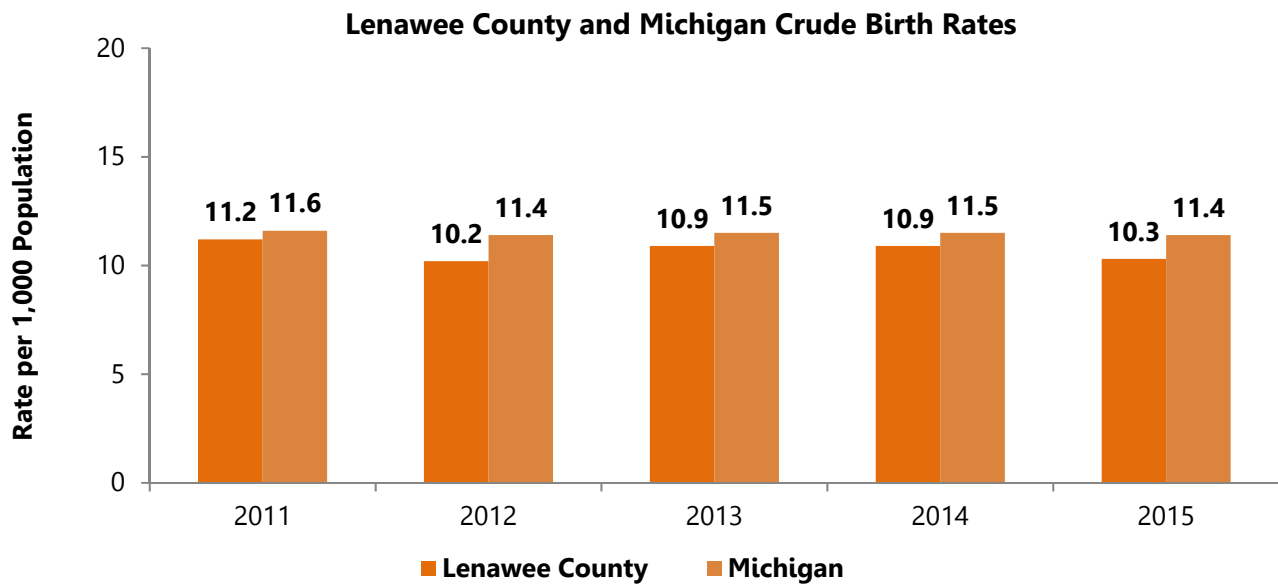
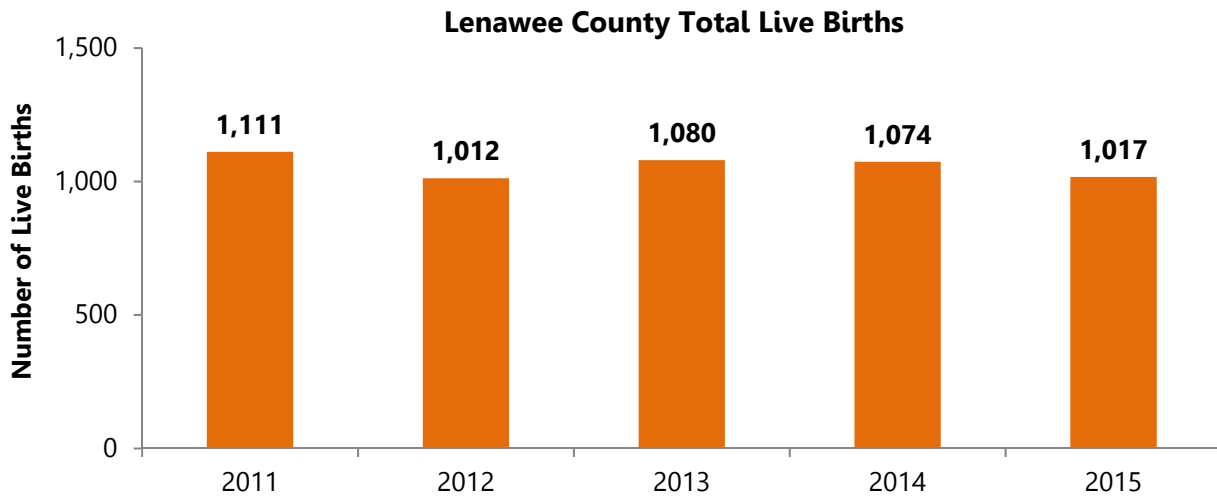


(Source for graphs: MDHHS, Michigan Sexually Transmitted Diseases Database, STD & HIV Prevention Section updated on June 6, 2016 and retrieved on November 21, 2017)

Pregnancy Outcomes

Please note that the pregnancy outcomes data includes all births to adults and adolescents.

- From 2011 to 2015, there was an average of 1,059 live births per year in Lenawee County.



(Source for graphs: MDHHS, Vital Statistics: Natality, Pregnancy and Abortion Statistics, updated August 2014)

Health Behaviors: Adult Mental Health

Key Findings

In 2017, 3% of Lenawee County adults considered attempting suicide. Thirty-nine percent (39%) of adults reported they or a family member were diagnosed with, or treated for, depression.

Adult Mental Health

- Lenawee County adults reported having a period of two or more weeks when they were feeling sad, blue or depressed and experienced the following: felt fatigued, no energy (24%); trouble sleeping or slept too much (21%); trouble thinking or concentrating (19%); woke up before they wanted (14%); lost interest in most things (13%); felt worthless or hopeless (11%); felt extremely restless or slowed down (10%); weight/appetite change (9%); thought about death or suicide (3%); and attempted suicide (1%).
- Three percent (3%) of Lenawee County adults considered attempting suicide in the past year.
- One percent (1%) of adults reported attempting suicide in the past year.
- Lenawee County adults reported they or a family member were diagnosed with, or treated for, the following mental health issues: depression (39%); anxiety or emotional problems (35%); an anxiety disorder (i.e. panic attacks, phobia, obsessive compulsive disorder) (32%); attention deficit disorder (ADD/ADHD) (19%); alcohol and illicit drugs abuse (14%); bipolar (13%); post-traumatic stress disorder (PTSD) (10%); other trauma (7%); developmental disability (7%); eating disorder (5%); autism spectrum (5%); life-adjustment disorder (3%); psychotic disorder (2%); problem gambling (<1%); and some other mental health disorder (4%). Twenty percent (20%) of adults indicated they or a family member had taken medication for one or more mental health issues.
- Lenawee County adults indicated the following caused them anxiety, stress or depression: financial stress (30%), job stress (27%), poverty/no money (18%), death of close family member or friend (16%), marital/dating relationship (11%), other stress at home (10%), fighting at home (9%), unemployment (8%), sick family member (6%), caring for a parent (4%), family member with mental illness (4%), not having a place to live (3%), divorce/separation (2%), not having enough to eat (1%), not feeling safe at home (1%), sexual orientation/gender identity (1%), not feeling safe in the community (<1%), and other causes (12%).
- Lenawee County adults dealt with stress in the following ways: talked to someone they trust (44%), prayer/meditation (37%), listened to music (33%), worked on a hobby (32%), exercised (30%), ate more or less than normal (24%), slept (20%), worked (18%), drank alcohol (10%), took it out on others (7%), smoked tobacco (7%), talked to a professional (6%), used prescription drugs as prescribed (3%), misused prescription drugs (<1%), used illegal drugs (<1%), and other ways (12%).

Mental Health in the U.S.

- In 2016, 3.6% of adults aged 18 and over experienced serious psychological distress in the past 30 days.
- There were 65.9 million visits to physicians' offices with mental disorders as the primary diagnosis in 2014.
- There were 5.0 million visits to emergency departments with mental disorders as the primary diagnosis in 2014.
- In 2014, there were 42,773 suicide deaths.

(Source: CDC, National Center for Health Statistics, Mental Health, Depression, last updated 5/3/2017)

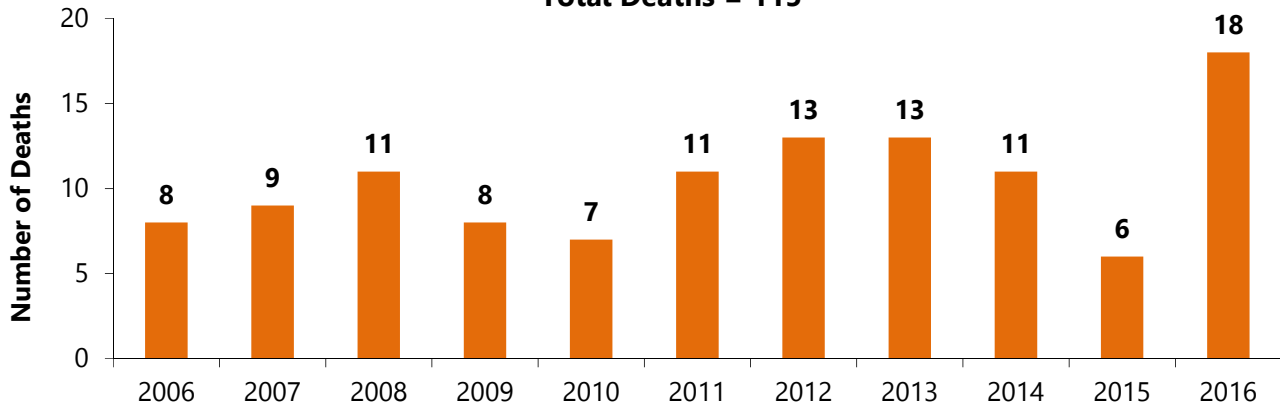
Adult Comparisons	Lenawee County 2011	Lenawee County 2014	Lenawee County 2017	Michigan 2016	U.S. 2016
Considered attempting suicide in the past year	4%	6%	3%	N/A	N/A

N/A – Not available

The following graphs show the Lenawee County suicide counts by year and the Michigan and Lenawee County age-adjusted suicide mortality rate per 100,000 population.

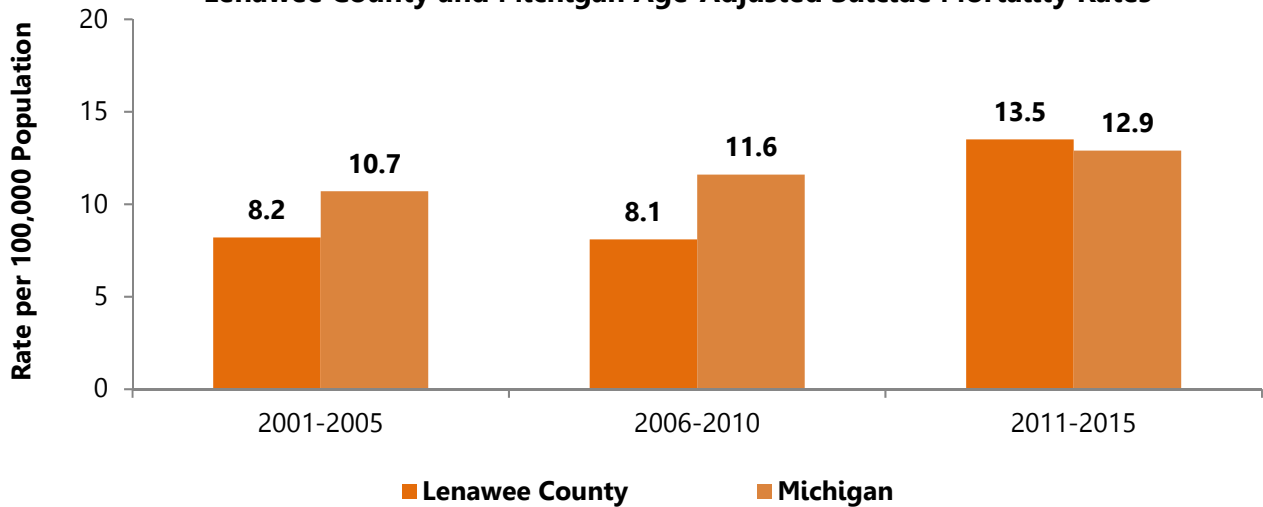
Lenawee County Number of Suicide Deaths 2006-2016

Total Deaths = 115



(Source: Lenawee County Suicide Prevention Task Force, Planning Data Report: Lenawee County Medical Examiner, November 2017)

Lenawee County and Michigan Age-Adjusted Suicide Mortality Rates



(Source: MDHHS, Vital Statistics, updated on 4/4/17)

National Suicide Statistics

- 44,965 people in the U.S. died from suicide, and 1,124,125 people attempted suicide in 2016.
- An average of one person killed themselves every 11.7 minutes
- Suicide is the 10th ranking cause of death in the U.S.
- For every female death by suicide, there are 3.4 male deaths.
- In 2016, there were 1,364 suicide deaths in Michigan.
- The leading suicide methods included:
 - Firearm suicides (51.0%)
 - Suffocation/Hanging (25.9%)
 - Poisoning (14.9%)
 - Cutting/Piercing (1.9%)
 - Drowning (1.1%)

(Sources: American Association of Suicidology, Facts & Statistics, 2016 retrieved on January 2018)

Chronic Disease: Cardiovascular Health

Key Findings

In 2017, 7% of adults had survived a heart attack and 4% had survived a stroke at some time in their life. Forty percent (40%) of Lenawee County adults had high blood cholesterol, 38% of adults were obese, 37% had high blood pressure, and 13% were current smokers, four known risk factors for heart disease and stroke.

Heart Disease and Stroke

- In 2017, 7% of Lenawee County adults reported they had survived a heart attack or myocardial infarction, increasing to 17% of those over the age of 65.
- Five percent (5%) of Michigan and 4% of U.S. adults reported they had a heart attack or myocardial infarction in 2016 (Source: 2016 BRFSS).
- Four percent (4%) of Lenawee County adults reported they had survived a stroke, increasing to 8% of those over the age of 65.
- Four percent (4%) of Michigan and 3% of U.S. adults reported having had a stroke in 2016 (Source: 2016 BRFSS).
- Six percent (6%) of adults reported they had angina or coronary heart disease, increasing to 11% of those over the age of 65.
- Five percent (5%) of Michigan and 4% of U.S. adults reported having had angina or coronary heart disease in 2016 (Source: 2016 BRFSS).
- Two percent (2%) of adults reported they had congestive heart failure, increasing to 5% of those over the age of 65.
- Adults reported the following as symptoms of a heart attack: chest pain or discomfort (92%); pain or discomfort in the arms or shoulders (80%); shortness of breath (78%); pain or discomfort in the jaw, neck or back (68%); feeling weak, lightheaded or faint (61%); and sudden trouble seeing in one or both eyes (30%).
- Adults reported the following as symptoms of a stroke: sudden numbness or weakness of face, arm, or leg, especially on one side (89%); sudden confusing or trouble speaking (89%); sudden trouble walking, dizziness, or loss of balance (80%); sudden trouble seeing in one or both eyes (64%); severe headache with no known cause (54%); and sudden chest pain or discomfort (22%).

High Blood Pressure (Hypertension)

- More than one-third (37%) of adults had been diagnosed with high blood pressure. The 2015 BRFSS reports hypertension prevalence rates of 33% for Michigan and 31% for the U.S.
- Eight percent (8%) of adults were told they were pre-hypertensive/borderline high.
- Eighty-nine percent (89%) of adults had their blood pressure checked within the past year.

Lenawee County Leading Causes of Death 2013-2015

Total Deaths: 3,083

- Heart Disease (27% of all deaths)
- Cancers (23%)
- Chronic Lower Respiratory Diseases (7%)
- Stroke (5%)
- Accidents, Unintentional Injuries (4%)

(Source: CDC Wonder, 2013-2015)

Michigan Leading Causes of Death 2013-2015

Total Deaths: 281,462

- Heart Disease (26% of all deaths)
- Cancers (22%)
- Chronic Lower Respiratory Diseases (6%)
- Stroke (5%)
- Accidents, Unintentional Injuries (5%)

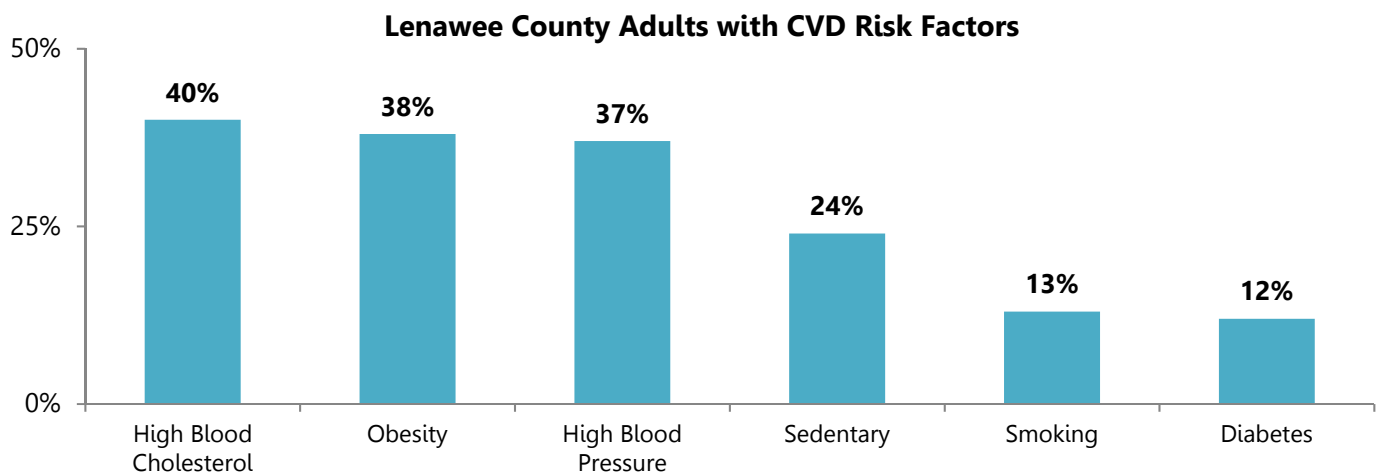
(Source: CDC Wonder, 2013-2015)

- Lenawee County adults diagnosed with high blood pressure were more likely to have:
 - Been ages 65 years or older (62%)
 - Rated their overall health as fair or poor (61%)
 - Been classified as obese by Body Mass Index-BMI (54%)
 - Incomes less than \$25,000 (45%)

High Blood Cholesterol

- Forty percent (40%) of adults had been diagnosed with high blood cholesterol. The 2015 BRFSS reported that 38% of Michigan and 36% U.S. adults had been told they have high blood cholesterol.
- Eighty-four percent (84%) of adults had their blood cholesterol checked within the past five years. The 2015 BRFSS reported 79% of Michigan and 78% of U.S. adults had their blood cholesterol checked within the past five years.
- Lenawee County adults with high blood cholesterol were more likely to have:
 - Been ages 65 years or older (62%)
 - Been classified as obese by Body Mass Index-BMI (49%)
 - Rated their overall health as fair or poor (45%)
 - Incomes less than \$25,000 (36%)

The following graph demonstrates the percentage of Lenawee County adults who had major risk factors for developing cardiovascular disease (CVD).



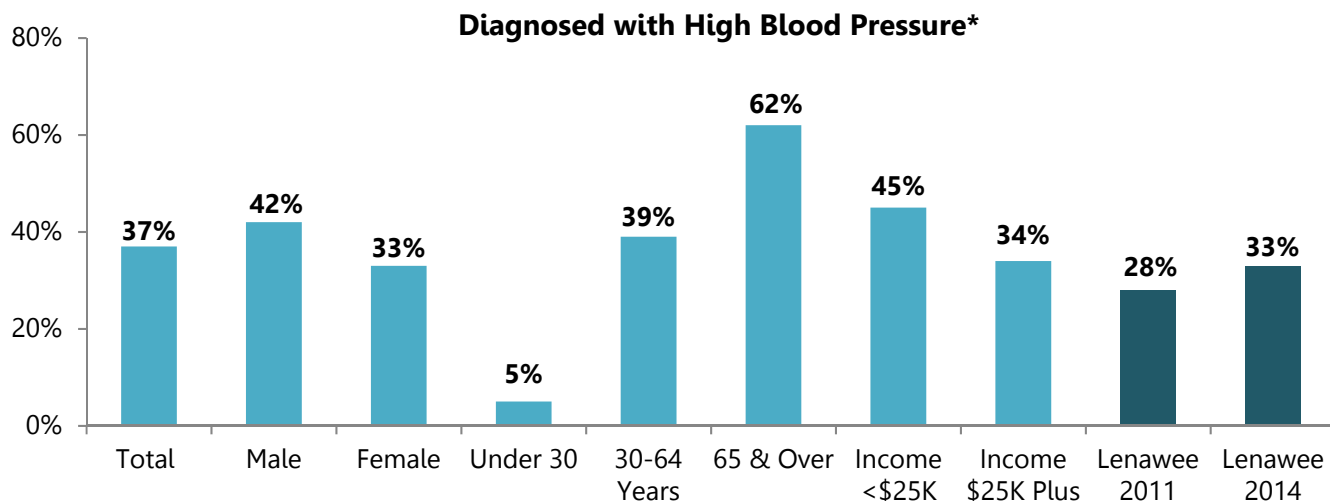
(Source: 2017 Lenawee County Health Assessment)

Adult Comparisons	Lenawee County 2011	Lenawee County 2014	Lenawee County 2017	Michigan 2016	U.S. 2016
Had angina or coronary heart disease	N/A	N/A	6%	5%	4%
Had a heart attack	6%	3%	7%	5%	4%
Had a stroke	3%	2%	4%	4%	3%
Had high blood pressure	28%	33%	37%	33%*	31%*
Had high blood cholesterol	36%	35%	40%	38%*	36%*
Had blood cholesterol checked within past 5 years	81%	80%	84%	79%*	78%*

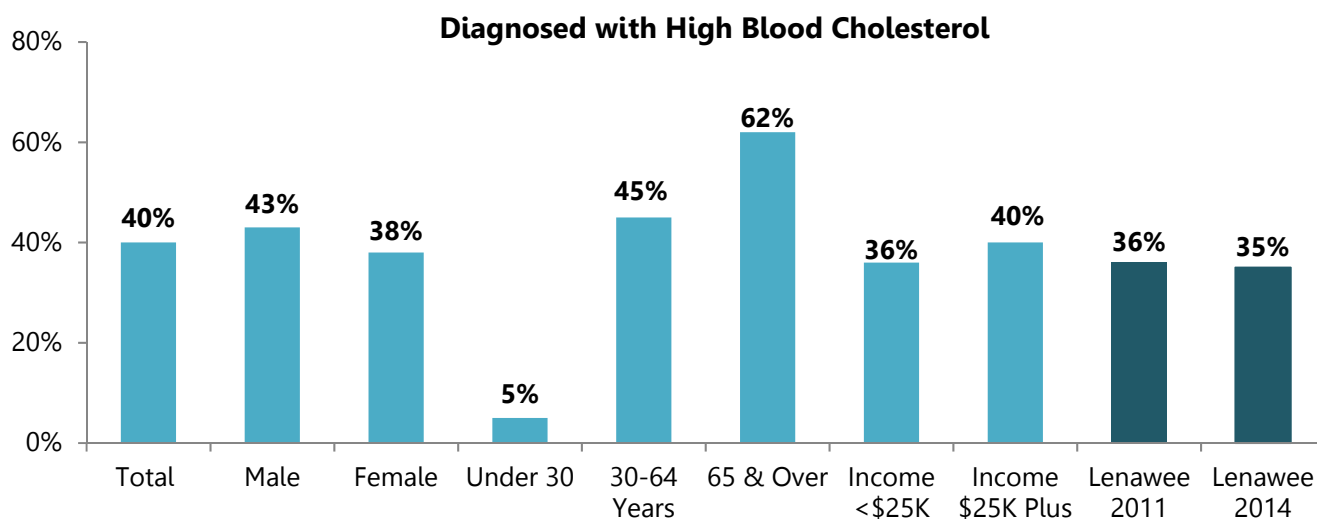
N/A-Not available

*2015 BRFSS Data

The following graphs show the percentage of Lenawee County adults who had been diagnosed with high blood pressure and high blood cholesterol. Examples of how to interpret the information on the first graph include: 37% of all Lenawee County adults had been diagnosed with high blood pressure, including 42% of males and 33% of females.



*Does not include respondents who indicated high blood pressure during pregnancy only.



Note for graphs: Caution should be used when interpreting subgroup results as the margin of error for any subgroup is higher than that of the overall survey.

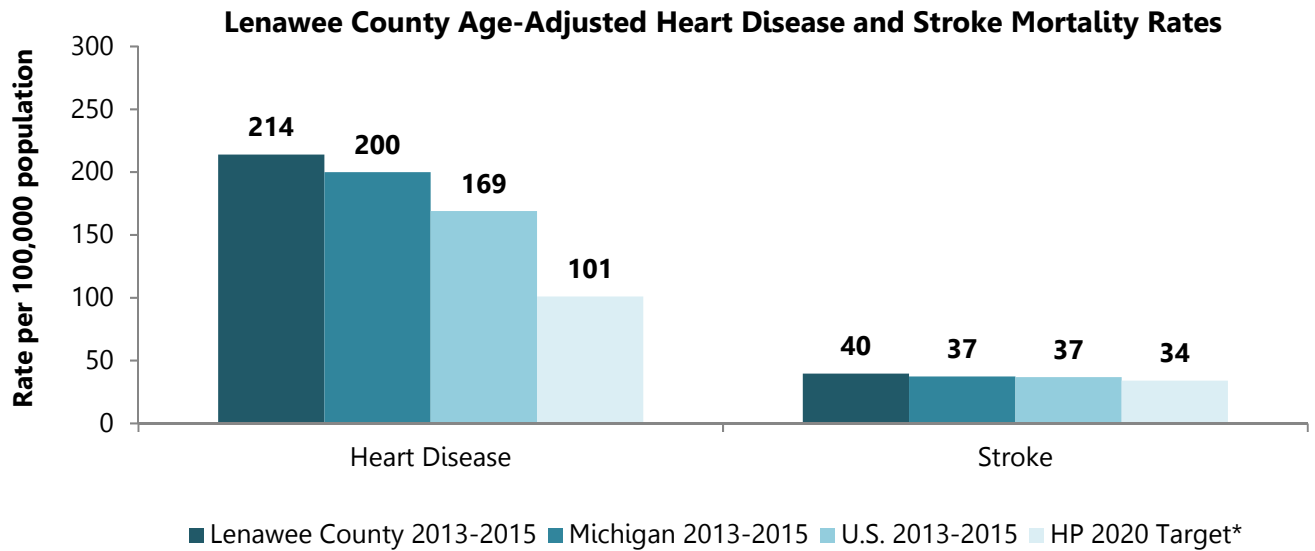
Lenawee County Adult Health Screening Results*

General Screening Results	Total
Diagnosed with High Blood Cholesterol	40%
Diagnosed with High Blood Pressure	37%
Diagnosed with Diabetes	12%
Survived a Heart Attack	7%
Survived a Stroke	4%

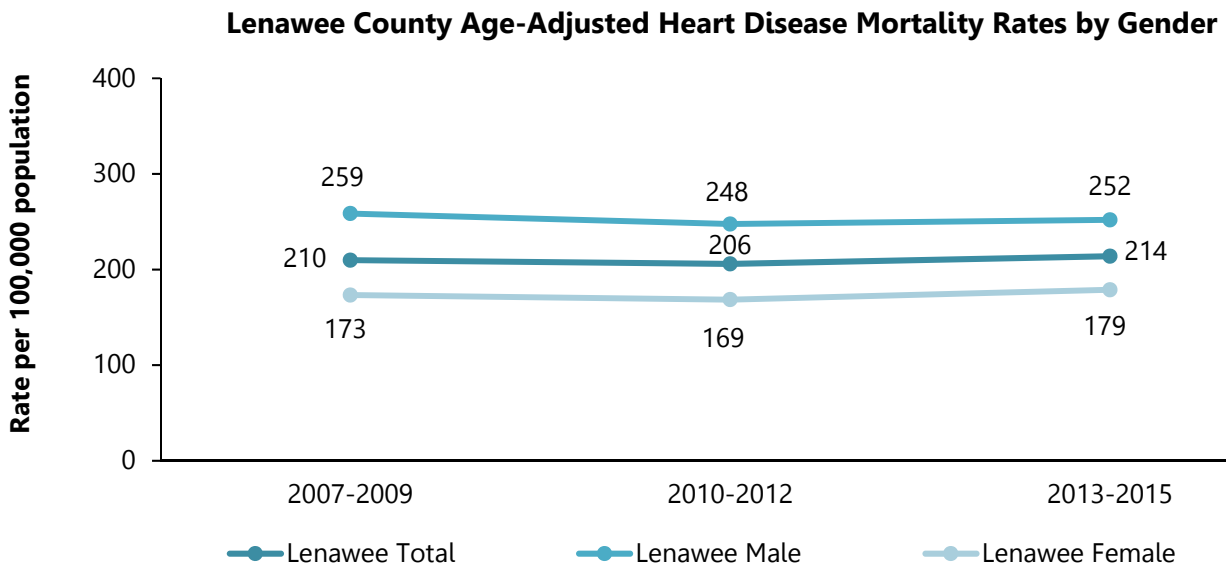
*Note: Percentages based on all Lenawee County adults surveyed

The following graphs show the age-adjusted mortality rates per 100,000 population for heart disease and stroke.

- When age differences are accounted for, the statistics indicate that from 2013 to 2015, the Lenawee County heart disease mortality rate was higher than the state and U.S. rates, as well as the Healthy People 2020 target.
- The Lenawee County age-adjusted stroke mortality rate from 2013 to 2015 was higher than the state and U.S. rate, as well as the Healthy People 2020 target objective.
- From 2007 to 2015, the total Lenawee County age-adjusted heart disease mortality rate as well as the male and female age-adjusted heart disease mortality rate fluctuated.



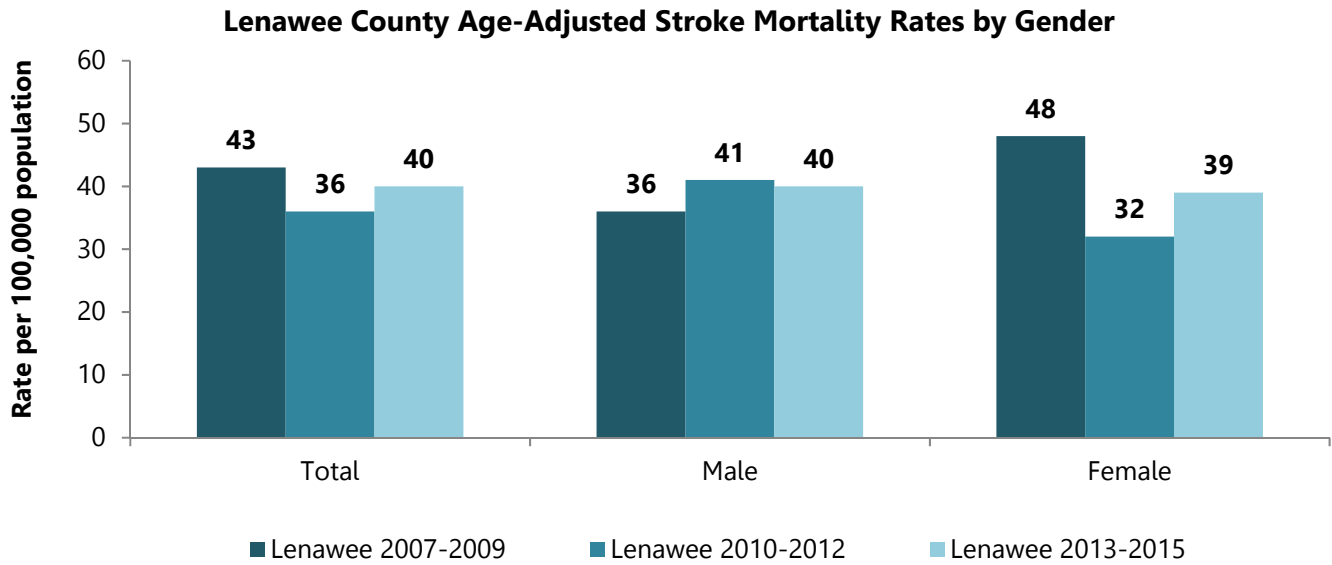
**The Healthy People 2020 Target objective for Coronary Heart Disease is reported for heart attack mortality.
(Source: CDC Wonder, Healthy People 2020)*



(Source: CDC Wonder, Underlying Cause of Death, 2007-2015)

The following graph shows the age-adjusted mortality rates per 100,000 population stroke by gender.

- From 2013 to 2015, the Lenawee County stroke mortality rate was slightly higher for males than for females.



(Source: CDC Wonder, 2007-2015)

Healthy People 2020 Objectives Heart Disease and Stroke

Objective	Lenawee Survey Population Baseline	2015 U.S. Baseline	Healthy People 2020 Target
HDS-5: Reduce proportion of adults with hypertension	37% (2017)	31% Adults age 18 and up	27%
HDS-6: Increase proportion of adults who had their blood cholesterol checked within the preceding 5 years	84% (2017)	78% Adults age 18 & up	82%
HDS-7: Decrease proportion of adults with high total blood cholesterol (TBC)	40% (2017)	36% Adults age 20+ with TBC > 240 mg/dl	14%

Note: All U.S. figures age-adjusted to 2000 population standard.
(Source: Healthy People 2020, 2015 BRFSS, 2017 Lenawee County Health Assessment)

Chronic Disease: Cancer

Key Findings

In 2017, 13% of Lenawee County adults had been diagnosed with cancer at some time in their life. The Centers for Disease Control and Prevention (CDC) indicates that from 2013-2015, a total of 706 Lenawee County residents died from cancer, the second leading cause of death in the county (Source: CDC Wonder, 2013-2015). The American Cancer Society advises that not using tobacco products, maintaining a healthy weight, adopting a physically active lifestyle, eating more fruits and vegetables, limiting alcoholic beverages, and early detection may reduce overall cancer deaths.

Adult Cancer

- Thirteen percent (13%) of Lenawee County adults were diagnosed with cancer at some point in their lives, increasing to 31% of those over the age of 65.

Cancer Facts

- Thirteen percent (13%) of Lenawee County adults were current smokers, a cause of heart attacks and cancer. A current smoker is defined as someone who has smoked over 100 cigarettes in their lifetime and currently smokes some or all days.
- The American Cancer Society reports that smoking tobacco is associated with cancers of the mouth, lips, nasal cavity (nose) and sinuses; larynx (voice box); pharynx (throat); and esophagus (swallowing tube). Also, smoking has been associated with the following types of cancer: lung, colorectal, stomach, pancreas, kidney, bladder, uterine, ovarian (mucinous) and acute myeloid leukemia.
- The Centers for Disease Control and Prevention (CDC) indicates that from 2013-2015, cancers caused 23% (706 of 3,083 total deaths) of all Lenawee County resident deaths. The largest percent (26%) of cancer deaths were from lung and bronchus cancers (Source: CDC Wonder, 2013-2015).

13% of Lenawee County adults had been diagnosed with cancer at some time in their life.

Lung Cancer

- In Lenawee County, 13% of males were current smokers, and 57% had stopped smoking for one or more days in the past 12 months because they were trying to quit.
- The CDC reports that lung cancer (n=96) was the leading cause of male cancer deaths from 2013-2015 in Lenawee County, followed by prostate cancer (n=42) and pancreatic cancer (n=29) (Source: CDC Wonder, 2013-2015).
- The CDC reports that lung cancer was the leading cause of female cancer deaths (n=89) in Lenawee County from 2013-2015, followed by breast (n=59), colon (n=25) and ovarian (n=23) cancers (Source: CDC Wonder, 2013-2015).
- Approximately 13% of females in the county were current smokers, and 59% had stopped smoking for one or more days in the past 12 months because they were trying to quit.

Lenawee County Incidence of Cancer, 2009-2013

All Types: 510 cases

- Lung and Bronchus: 74 cases (15%)
- Breast: 74 cases (15%)
- Prostate: 66 cases (13%)
- Colon and Rectum: 49 cases (10%)

From 2013-2015, there were 706 cancer deaths in Lenawee County

(Source: CDC Wonder, 2013-2015 and Division for Vital Records & Health Statistics, MDHHS)

- According to the American Cancer Society, smoking causes 80% of lung cancer deaths in the U.S. Men and women who smoke are about 25 times more likely to develop lung cancer than nonsmokers (*Source: American Cancer Society, Facts & Figures 2017*).

Breast Cancer

- In 2017, 56% of Lenawee County females reported having had a clinical breast examination in the past year.
- Forty-seven percent (47%) of Lenawee County females over the age of 40 had a mammogram in the past year.
- The 5-year relative survival for women diagnosed with localized breast cancer (cancer that has not spread to lymph nodes or other locations outside the breast) is 99% (*Source: American Cancer Society, Facts & Figures 2017*).
- For women at average risk of breast cancer, recently updated American Cancer Society screening guidelines recommended that those 40 to 44 years of age have the choice of annual mammography; those 45 to 54 have annual mammography; and those 55 years of age and older have biennial or annual mammography, continuing as long as their overall health is good and life expectancy is 10 or more years. For some women at high risk of breast cancer, annual screening using magnetic resonance imaging (MRI) in addition to mammography is recommended, typically starting at age 30 (*Source: American Cancer Society, Facts & Figures 2017*).

Prostate Cancer

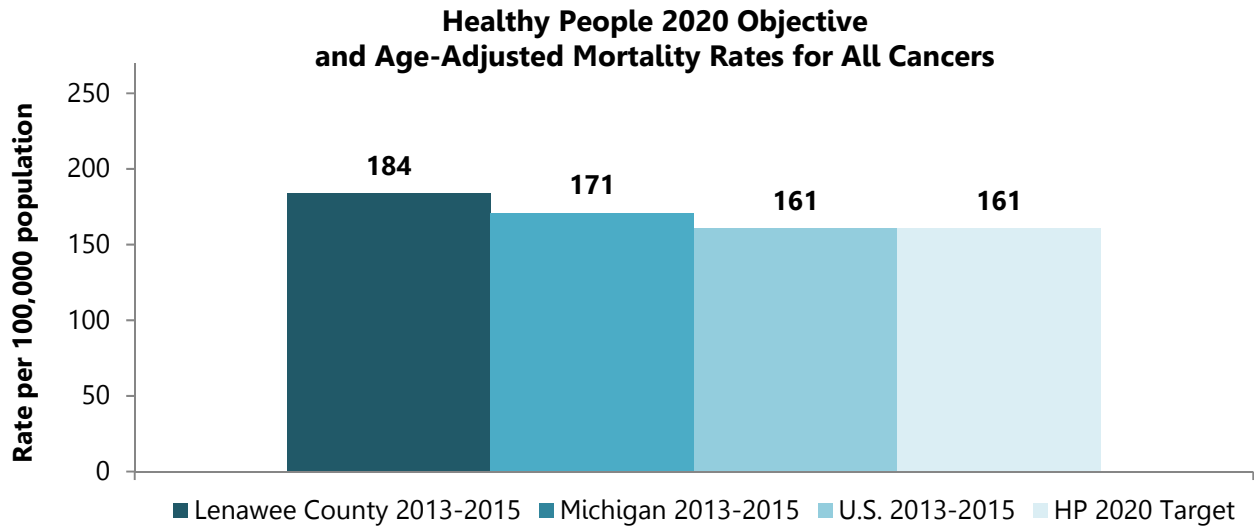
- About half (52%) of Lenawee County males had a Prostate-Specific Antigen (PSA) test at some time in their life, and 30% had one in the past year. Eighty percent (80%) of males age 50 and over had a PSA test at some time in their life, and 47% had one in the past year.
- Sixty percent (60%) of Lenawee County men had a digital rectal exam in their lifetime, and 24% had one in the past year.
- CDC statistics indicate that prostate cancer deaths accounted for 12% of all male cancer deaths from 2013-2015 in Lenawee County (*Source: CDC Wonder, 2013-2015*).
- Incidence rates for prostate cancer are 74% higher in African Americans than in whites, and they are twice as likely to die of prostate cancer. Other risk factors include strong familial predisposition, diet high in processed meat or dairy foods, and obesity. African American men and Caribbean men of African descent have the highest documented prostate cancer incidence rates in the world (*Source: American Cancer Society, Facts & Figures 2017*).

Colon and Rectum Cancers

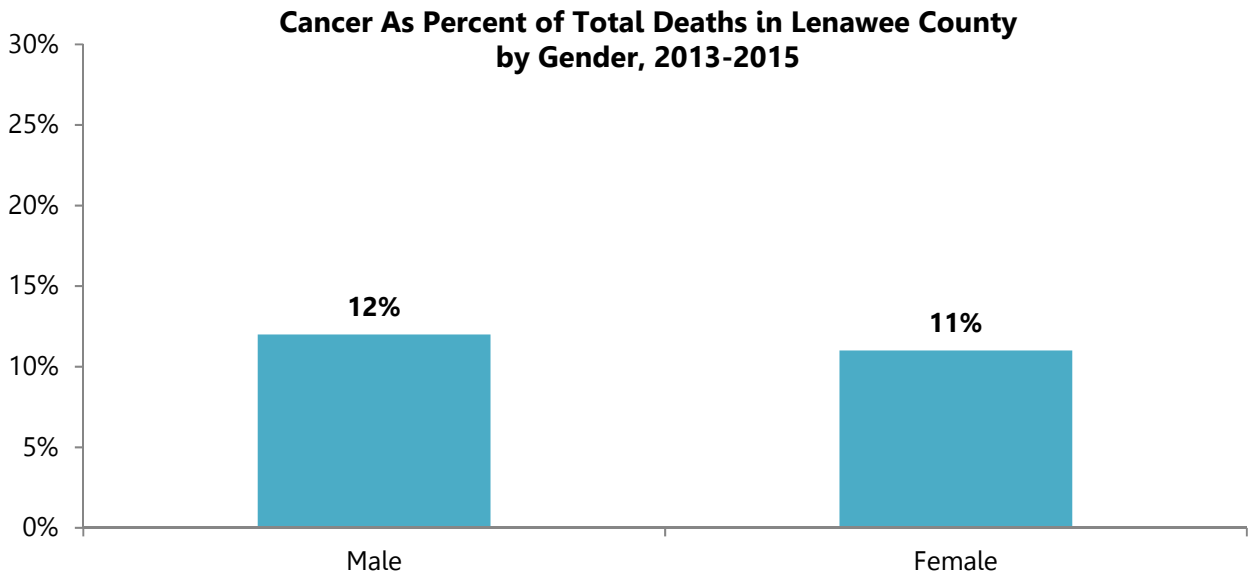
- In 2017, sixty-five percent (65%) of Lenawee County adults ages 50 and over had a colonoscopy or sigmoidoscopy in the past 5 years.
- The CDC statistics indicate that colon cancer deaths accounted for 7% of all male and female cancer deaths from 2013-2015 in Lenawee County (*CDC Wonder, 2013-2015*).
- The American Cancer Society reports several risk factors for colorectal cancer, including age; personal or family history of colorectal cancer, polyps, or inflammatory bowel disease; obesity; physical inactivity; a diet high in red or processed meat; alcohol use; and long-term smoking. Very low intake of fruits and vegetables is also potentially a risk factor for colorectal cancer.
- In the U.S., 90% of colon cancers occur in individuals over the age of 50. Because of this, the American Cancer Society suggests that every person over the age of 50 have regular colon cancer screenings (*Source: American Cancer Society, Facts & Figures 2017*).

The following graphs show the Lenawee County, Michigan and U.S. age-adjusted mortality rates (per 100,000 population, 2000 standard) for all types of cancer in comparison to the Healthy People 2020 objective, as well as cancer as a percent of total deaths in Lenawee County. The graphs show:

- When age differences were accounted for, Lenawee County had a higher cancer mortality rate than in Michigan and the U.S., as well as the Healthy People 2020 target objective.
- The percentage of Lenawee County males who died from all cancers is slightly higher than the percentage of Lenawee County females who died from all cancers.



(Source: CDC Wonder, 2013-2015; Healthy People 2020)



(Source: CDC Wonder, 2013-2015)

2017 Cancer Estimates

- In 2017, about 1,688,780 new cancer cases are expected to be diagnosed.
- The World Cancer Research Fund estimates that about twenty percent of the new cancer cases expected to occur in the U.S. in 2017 will be related to overweight or obesity, physical inactivity, and poor nutrition, and thus could be prevented.
- About 600,920 Americans are expected to die of cancer in 2017.
- In 2017, about 158,870 cancer deaths will be caused by tobacco use.
- In 2017, estimates predict that there will be 68,160 new cases of cancer and 25,430 cancer deaths in Michigan.
- Of the new cancer cases, approximately 10,660 (16%) will be from lung and bronchus cancers and 5,510 (8%) will be from colon and rectum cancers.
- About 9,430 new cases of female breast cancer are expected in Michigan.
- New cases of male prostate cancer in Michigan are expected to be 5,840 (9%).

(Source: American Cancer Society, Facts and Figures 2017)

The following tables show the number of Lenawee County cancer cases and cancer deaths from 2005 to 2015.

Lenawee County Number of Cancer Cases 2005-2015

Year	All Sites	Colon & Rectum	Lung
2015	N/A	N/A	N/A
2014	545	56	88
2013	506	41	65
2012	564	62	82
2011	540	45	84
2010	522	49	68
2009	522	56	81
2008	483	42	78
2007	570	49	79
2006	379	33	58
2005	511	54	76

N/A-Not available

Lenawee County Number of Cancer Deaths 2005-2015

Year	All Sites	Colon & Rectum	Lung
2015	231	21	61
2014	238	20	74
2013	222	21	48
2012	228	17	63
2011	223	17	73
2010	205	24	49
2009	208	13	66
2008	205	25	58
2007	228	20	73
2006	230	19	78
2005	195	15	47

(Source for tables: MDHHS, Cancer Statistics updated 1-2-18)

The following tables show the Lenawee County 5-year average incidence and mortality trends for prostate cancer and breast cancer from 2005 to 2015.

Lenawee County 5-year Average Invasive Prostate Cancer Incidence and Mortality Trends for Males, 2005-2015

Year	Cancer Cases		Cancer Deaths	
	Average	Age-adjusted Rate	Average	Age-adjusted Rate
2011-2015	N/A	N/A	12	23.0
2010-2014	66	106.0	11	22.8
2009-2013	70	115.1	11	23.1
2008-2012	67	113.7	12	24.7
2007-2011	71	122.2	12	26.3
2006-2010	63	112.9	12	27.4
2005-2009	67	124.7	12	26.8

N/A-Not available

Lenawee County 5-year Average Invasive Breast Cancer Incidence and Mortality Trends for Females, 2005-2015

Year	Cancer Cases		Cancer Deaths	
	Average	Age-adjusted Rate	Average	Age-adjusted Rate
2011-2015	N/A	N/A	17	25.3
2010-2014	79	121.5	16	22.8
2009-2013	78	123.6	16	24.1
2008-2012	73	117.2	15	21.6
2007-2011	71	113.5	14	21.0
2006-2010	66	107.2	15	22.7
2005-2009	64	105.4	16	25.5

N/A-Not available

(Source for tables: MDHHS, Cancer Statistics updated 1-2-18)

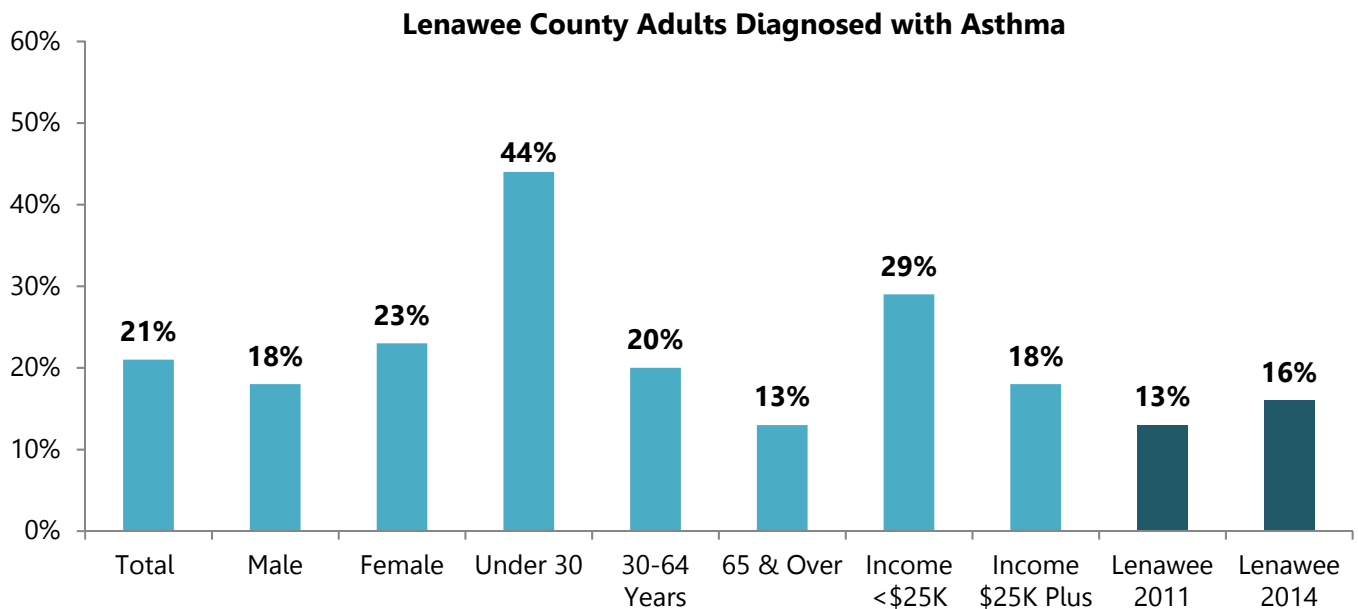
Chronic Disease: Asthma

Key Findings

Twenty-one percent (21%) of Lenawee County adults had been diagnosed with asthma.

Asthma and Other Respiratory Disease

- In 2017, 21% of Lenawee County adults had been diagnosed with asthma.
- Sixteen percent (16%) of Michigan and 14% of U.S. adults had been diagnosed with asthma (Source: 2016 BRFSS).
- There are several important factors that may trigger an asthma attack. Some of these triggers are tobacco smoke, dust mites, outdoor air pollution, cockroach allergens, pets, mold, smoke from burning wood or grass, infections linked to the flu, colds, and respiratory viruses (Source: CDC, 2013).
- Chronic lower respiratory disease was the third leading cause of death in Lenawee County and Michigan from 2013 to 2015 (Source: CDC Wonder, 2013-2015).



Note: Caution should be used when interpreting subgroup results as the margin of error for any subgroup is higher than that of the overall survey.

Adult Comparisons	Lenawee County 2011	Lenawee County 2014	Lenawee County 2017	Michigan 2016	U.S. 2016
Had been diagnosed with asthma	13%	16%	21%	16%	14%

Chronic Disease: Diabetes

Key Findings

In 2017, 12% of Lenawee County adults had been diagnosed with diabetes.

Diabetes

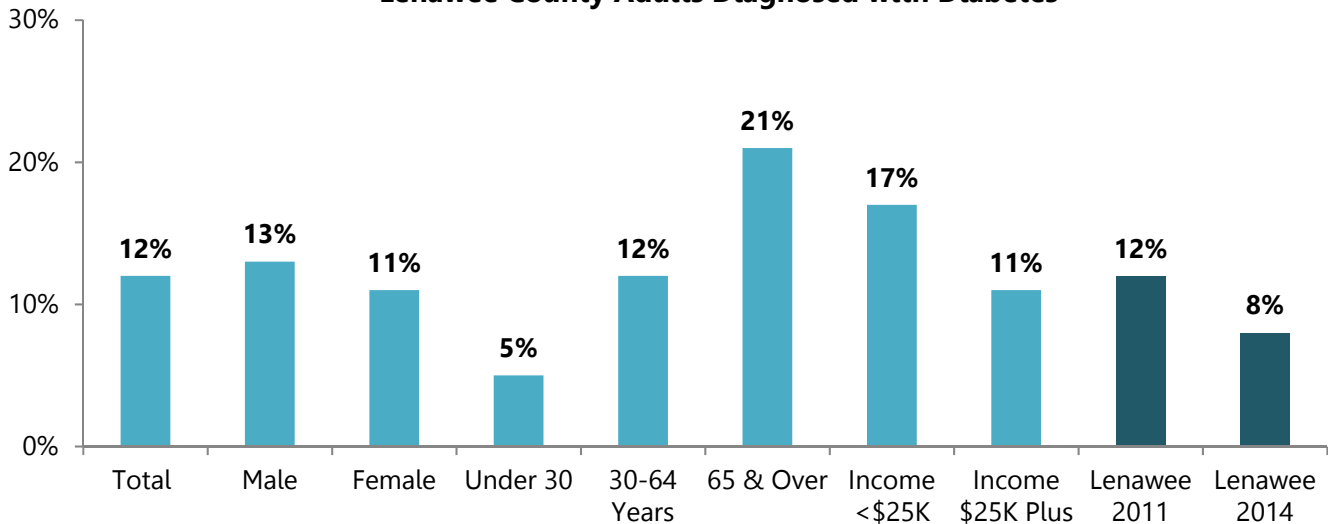
- Twelve percent (12%) of Lenawee County adults had been diagnosed with diabetes, increasing to 21% of those over the age of 65. The 2016 BRFSS reports a Michigan and U.S. prevalence of 11%.
- Six percent (6%) of adults had been diagnosed with pre-diabetes.
- The average age of diagnosis was 47.8 years old.
- Diabetics were using the following to treat their diabetes: diet control (74%), diabetes pills (74%), checking blood sugar (71%), checking A1C annually (70%), 6-month checkup with provider (63%), annual vision exam (59%), checking their feet (55%), exercise (43%), dental exam (27%), insulin (20%), taking a class (20%), and using injectables (4%).
- More than one-fourth (28%) of adults with diabetes rated their health as fair or poor.
- Lenawee County adults diagnosed with diabetes also had one or more of the following characteristics or conditions:
 - 93% were obese or overweight
 - 78% had been diagnosed with high blood pressure
 - 71% had been diagnosed with high blood cholesterol

Diabetes by the Numbers

- **30.3 million** US adults have diabetes, and 1 in 4 of them don't know they have it.
- Diabetes is the **seventh leading cause** of death in the US.
- Diabetes is the **No. 1** cause of kidney failure, lower-limb amputations, and adult-onset blindness.
- In the last **20 years**, the number of adults diagnosed with diabetes has more than **tripled** as the American population has aged and become more overweight or obese.

(Source: CDC, Diabetes by the Numbers, Updated: July 1, 2017)

Lenawee County Adults Diagnosed with Diabetes



Note: Caution should be used when interpreting subgroup results as the margin of error for any subgroup is higher than that of the overall survey.

Adult Comparisons	Lenawee County 2011	Lenawee County 2014	Lenawee County 2017	Michigan 2016	U.S. 2016
Had been diagnosed with diabetes	12%	8%	12%	11%	11%

Types of Diabetes

Diabetes is a chronic disease that affects how your body turns food into energy. There are three main types of diabetes: type 1, type 2 and gestational diabetes (diabetes while pregnant).

Type 1 diabetes is caused by an autoimmune reaction (the body attacks itself by mistake) that stops your body from making insulin. About 5% of the people who have diabetes have type 1. Symptoms of type 1 diabetes often develop quickly. It's usually diagnosed in children, teens, and young adults. If you have type 1 diabetes, you'll need to take insulin every day to survive. Currently, no one knows how to prevent type 1 diabetes.

Type 2 diabetes is when the body doesn't use insulin well and is unable to keep blood sugar at normal levels. Most people with diabetes—9 in 10—have type 2 diabetes. It develops over many years and is usually diagnosed in adults (though increasingly in children, teens, and young adults). Symptoms sometimes go unnoticed. Type 2 diabetes can be prevented or delayed with healthy lifestyle changes, such as losing weight if you're overweight, healthy eating, and getting regular physical activity.

Gestational diabetes develops in pregnant women who have never had diabetes. Babies born to women with gestational diabetes could be at higher risk for health complications. Gestational diabetes usually goes away after the baby is born but increases the mothers risk for type 2 diabetes later in life. The baby is more likely to become obese as a child or teen, and more likely to develop type 2 diabetes later in life too.

(Source: CDC, About Diabetes, Updated: July 1, 2017)

Chronic Disease: Quality of Life

Key Findings

In 2017, 23% of Lenawee County adults were limited in some way because of a physical, mental or emotional problem. The most limiting health problems were back or neck problems (44%), arthritis/rheumatism (38%), and chronic pain (31%).

Impairments and Health Problems

- In 2017, nearly one-fourth (23%) of Lenawee County adults were limited in some way because of a physical, mental or emotional problem, increasing to 40% of those with incomes less than \$25,000.
- Lenawee County adults needed help with the following because of an impairment or health problem: household chores (8%), shopping (5%), getting around for other purposes (4%), doing necessary business (2%), getting around the house (1%), dressing (1%), bathing (1%), and eating (<1%).
- Among those who were limited in some way, the following most limiting problems or impairments were reported: back or neck problems (44%); arthritis/rheumatism (38%); chronic pain (31%); walking problems (28%); stress, depression, anxiety, or emotional problems (21%); sleep problems (21%); lung/breathing problems (20%); chronic illness (20%); fitness level (13%); hearing problems (12%); eye/vision problems (12%); fractures, bone/joint injuries (10%); memory loss (9%); dental problems (4%); mental health illness/disorder (4%); confusion (4%); learning disability (2%); and a developmental disability (1%).

Adult Comparisons	Lenawee County 2011	Lenawee County 2013	Lenawee County 2017	Michigan 2015	U.S 2015
Limited in some way because of a physical, mental, or emotional problems	26%	22%	23%	N/A	N/A

N/A-Not Available

Healthy People 2020

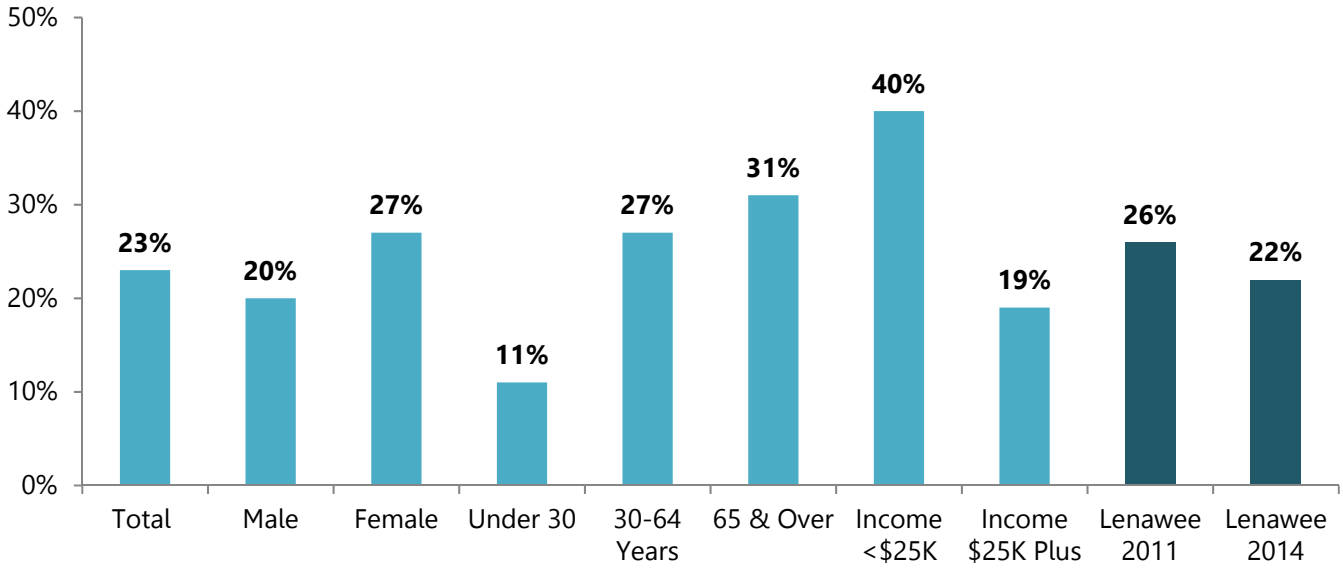
Arthritis, Osteoporosis, and Chronic Back Conditions (AOCBC)

Objective	Lenawee County 2017	Healthy People 2020 Target
AOCBC-2: Reduce the proportion of adults with doctor-diagnosed arthritis who experience a limitation in activity due to arthritis or joint symptoms	38%	36%

Note: U.S. baseline is age-adjusted to the 2000 population standard
(Sources: Healthy People 2020 Objectives, 2017 Lenawee County Health Assessment)

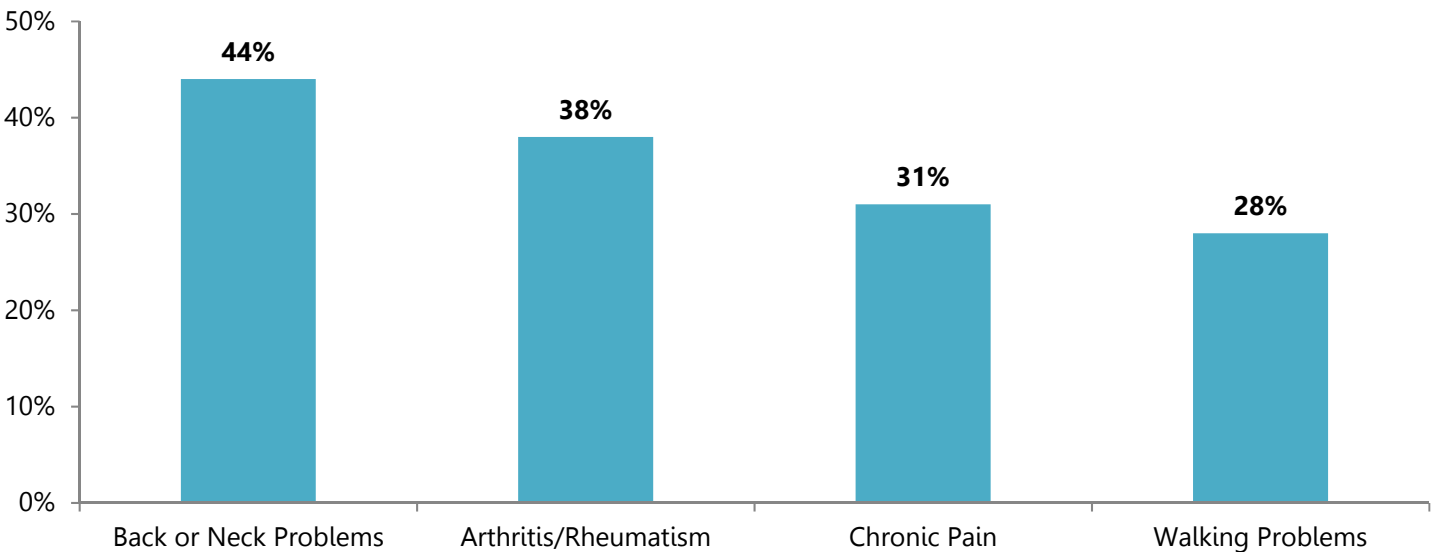
The following graphs show the percentage of Lenawee County adults that were limited in some way and the most limiting health problems. Examples of how to interpret the information shown on the graph include: 23% of Lenawee County adults were limited in some way, including 31% of those 65 and older and 40% of those with incomes less than \$25,000.

Lenawee County Adults Limited in Some Way



Note: Caution should be used when interpreting subgroup results as the margin of error for any subgroup is higher than that of the overall survey.

Lenawee County Adults' Most Limiting Health Problems



Social Conditions: Social Determinants of Health

Key Findings

In 2017, 7% of Lenawee County adults were abused in the past year (including physical, sexual, emotional, financial, or verbal abuse). Fifteen percent (15%) of Lenawee County adults had experienced four or more Adverse Childhood Experiences (ACEs) in their lifetime. Nine percent (9%) of adults had experienced at least one issue related to food insecurity in the past year.

Healthy People 2020

- Healthy People 2020 developed five key determinants as a “place-based” organizing framework. These five determinants include:
 - Economic stability
 - Education
 - Social and community context
 - Health and health care
 - Neighborhood and built environment



Economic Stability

- Thirteen percent (13%) of Lenawee County adults needed help meeting their general daily needs such as food, clothing, shelter or paying for utilities in the past month, increasing to 40% of those with incomes less than \$25,000.
- Lenawee County adults received assistance for the following in the past year: healthcare (13%), food (12%), Medicare (12%), prescription assistance (11%), dental care (11%), mental illness issues (9%), home repair (6%), legal aid services (5%), rent/mortgage (4%), employment (3%), free tax preparation (3%), utilities (2%), affordable child care (2%), clothing (2%), credit counseling (2%), transportation (1%), diapers (1%), drug or alcohol addiction (1%), unplanned pregnancy (1%), and post incarceration transition issues (<1%).
- Nine percent (9%) of adults had experienced at least one food insecurity issue in the past year. They experienced the following: had to choose between paying bills and buying food (10%), their food assistance was cut (8%), worried food might run out (6%), loss of income led to food insecurity issues (5%), did not eat because they did not have enough money for food (3%), and went hungry/ate less to provide more food for their family (3%).
- The median household income in Lenawee County in 2016 was \$49,300. The U.S. Census Bureau reports median income levels of \$50,803 for Michigan and \$55,332 for the U.S. (Source: U.S. Census Bureau, 2012-2016 American Community Survey 5-year Estimates)
- Fourteen percent (14.4%) of all Lenawee County residents were living in poverty, and 21% of children and youth ages 0-17 were living in poverty (Source: U.S. Census Bureau, 2012-2016 American Community Survey 5-year Estimates).
- The unemployment rate for Lenawee County was 5.2, as of February 2018 (Sources: Michigan Bureau of Labor Market Information and Strategic Initiatives).
- There were 43,456 housing units. The occupied housing unit rate was 87%. Rent in Lenawee County cost an average of \$754 per month (Source: U.S. Census Bureau, 2012-2016 American Community Survey 5-year Estimates).
- Seventy-eight percent (78%) of occupied housing units in Lenawee County were owner-occupied and 22% were renter-occupied (Source: U.S. Census Bureau, 2012-2016 American Community Survey 5-year Estimates).

Education

- Ninety percent (90%) of Lenawee County adults 25 years and over had a high school diploma or higher, leaving 10% that had less than a high school diploma (Source: U.S. Census Bureau, American Community Survey, 2012-2016).
- One-fifth (20%) of Lenawee County adults 25 years and over had at least a bachelor's degree (Source: U.S. Census Bureau, American Community Survey, 2012-2016).

Health and Health Care

- In the past year, 8% of adults were uninsured, increasing to 20% of those with incomes less than \$25,000.
- See the Health Perceptions, Health Care Coverage, and Health Care Access sections for further health and health care information for Lenawee County adults.

Social and Community Context

- Six percent (6%) of Lenawee County adults were threatened to be abused in the past year. They were threatened by the following: another person outside their home (33%), a spouse or partner (33%), a child (29%), a parent (13%), another family member living in the home (4%), and someone else (21%). Two percent (2%) of adults were threatened by more than one person in the past year.
- Seven percent (7%) of Lenawee County adults were abused in the past year. They were abused by the following individuals: a spouse or partner (41%), another person outside their home (26%), a child (19%), a parent (11%), another family member in the household (4%), and someone else (26%).
- Adults who were abused were abused in the following ways: verbally (80%), emotionally (76%), financially (28%), through electronic methods (12%), and physically (12%).
- Nine percent (9%) of Lenawee County adults had the following transportation issues: could not afford gas (4%), did not feel safe to drive (4%), no car (3%), no car insurance (3%), limited public transportation available or accessible (2%), no public transportation available or accessible (2%), disabled (2%), suspended/no driver's license (<1%), and other car issues/expenses (5%).
- In the past year, Lenawee County adults felt they were treated the same as other races (51%), better than other races (9%), worse than other races (5%), and worse than some races/better than others (3%).
- 2-1-1 is a non-emergency information referral telephone number. Fifty-nine percent (59%) of adults had never heard of 2-1-1. Three percent (3%) had called 2-1-1 and received information that assisted them. Two percent (2%) had called 2-1-1 and received information, but it did not help them with their needs.

Social Determinants of Health

- Social determinants of health are conditions in the environments in which 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.
- Conditions (e.g., social, economic, and physical) in these various environments and settings (e.g., school, church, workplace, and neighborhood) have been referred to as "place." In addition to the more material attributes of "place," the patterns of social engagement and sense of security and well-being are also affected by where people live.
- Resources that enhance quality of life can have a significant influence on population health outcomes. Examples of these resources include safe and affordable housing, access to education, public safety, availability of healthy foods, local emergency/health services, and environments free of life-threatening toxins.
- Understanding the relationship between how population groups experience "place" and the impact of "place" on health is fundamental to the social determinants of health—including both social and physical determinants.

(Source: HealthyPeople2020, Retrieved May 19 2016)

- Lenawee County adults experienced the following adverse childhood experiences (ACEs): their parents became separated or were divorced (25%); a parent or adult in their home swore at, insulted, or put them down (20%); lived with someone who was a problem drinker or alcoholic (18%); lived with someone who was depressed, mentally ill, or suicidal (16%); someone at least five years older than them or an adult touched them sexually (13%); a parent or adult in their home hit, beat, kicked, or physically hurt them (9%); their parents or adults in their home slapped, hit, kicked, punched, or beat each other up (9%); someone at least 5 years older than them or an adult tried to make them touch them sexually (9%); lived with someone who used illegal street drugs, or who abused prescription medications (7%); someone at least 5 years older than them or an adult forced them to have sex (7%); lived with someone who served time or was sentenced to serve time in prison, jail or other correctional facility (6%); their family did not look out for each other, feel close to each other, or support each other (5%); they did not have enough to eat, had to wear dirty clothes, and had no one to protect them (2%); and their parents were not married (2%).
- Fifteen percent (15%) of Lenawee County adults had 4 or more ACEs in their lifetime, increasing to 33% of those with incomes less than \$25,000.

Adverse Childhood Experiences (ACEs)

- Childhood abuse, neglect, and exposure to other traumatic stressors which we term adverse childhood experiences (ACE) are common. The most common are separated or divorced parents, verbal, physical or sexual abuse, witness of domestic violence, and having a family member with depression or mental illness.
- According to the CDC, 59% of people surveyed in five states in 2009 reported having had at least one ACE while 9% reported five or more ACEs.
- The short and long-term outcomes of these childhood exposures include a multitude of health and social problems such as:
 - Depression
 - Fetal death
 - Illicit drug use
 - Liver disease
 - STDs
 - Multiple sexual partners
 - Alcoholism and alcohol abuse
 - COPD
 - Unintended pregnancies
 - Suicide attempts
 - Early initiation of smoking
 - Risk for intimate partner violence
- Given the high prevalence of ACEs, additional efforts are needed at the state and local level to reduce and prevent childhood maltreatment and associated family dysfunction in the US.
- Studies are finding that there is a repetitive dose-response relationship between ACE and levels of exposure. A dose-response means that as the dose of the stressor increases, the intensity of the outcome will increase as well. As the number of ACEs increase so does the risk for the following:
 - Myocardial Infarction
 - Mental Distress
 - Unemployment
 - Diabetes
 - Asthma
 - Disability
 - Stroke
 - Lowered educational attainment

(Source: Centers for Disease Control and Prevention. Behavioral Risk Factor Surveillance System Survey ACE Data, 2009-2014. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention; 2015)

Behaviors of Lenawee County Adults

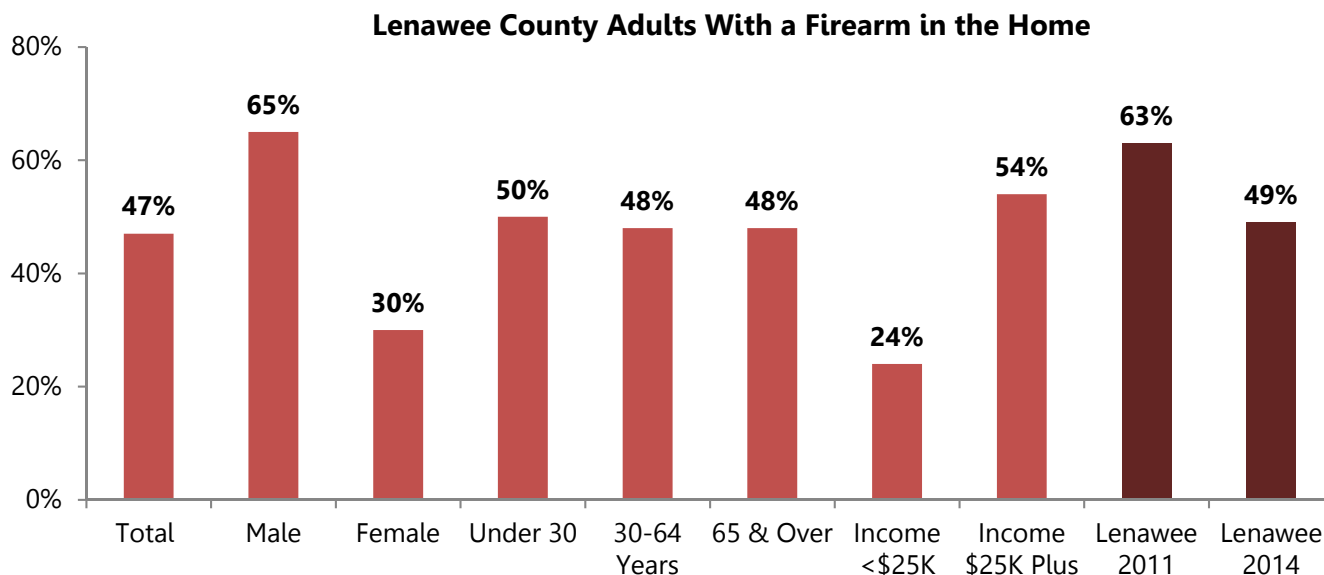
Experienced 4 or More ACEs vs. Did Not Experience Any ACEs

Adult Behaviors	Experienced 4 or More ACEs	Did Not Experience Any ACEs
Classified as overweight or obese by BMI	83%	73%
Current drinker (had at least one alcoholic beverage in the past month)	73%	48%
Binge drinker (drank 5 or more drinks for males and 4 or more for females on an occasion)	35%	32%
Had an income less than \$25,000	33%	21%
Current smoker (currently smoke on some or all days)	15%	8%
Used recreational drugs in the past 6 months	11%	2%
Medication misuse in the past 6 months	11%	4%
Contemplated suicide in the past 12 months	7%	2%

Neighborhood and Built Environment

- Lenawee County adults reported doing the following while driving: eating (41%), talking on hand-held cell phone (30%), talking on hands-free cell phone (27%), texting (8%), using internet on their cell phone (7%), not wearing a seatbelt (4%), being under the influence of alcohol (3%), reading (2%), being under the influence of prescription drugs (2%), being under the influence of recreational drugs (1%), and other activities (such as applying makeup, shaving, etc.) (1%).
- Nearly half (47%) of Lenawee County adults kept a firearm in or around their home. Seven percent (7%) of adults reported they were unlocked and loaded.
- Lenawee County residents reported the following concerns about their community: drug abuse (49%); opiate/prescription drug abuse (45%); distracted driving (40%); unemployment (31%); lack of affordable healthcare (30%); homelessness (30%); bullying (29%); senior/elder care (28%); violence (28%); underemployment (26%); school funding (24%); lack of affordable housing (24%); healthy eating (23%); nutrition (21%); DUI (20%); physical fitness (19%); suicide prevention (18%); teenage pregnancy (17%); tobacco use (16%); traffic (15%); discrimination based on race, ethnicity, or sexual orientation (15%); lack of affordable transportation (13%); disaster preparedness (11%); sexting (9%); and other (4%). Seventy-eight percent (78%) of adults had more than one community concern.

The following graph shows the percentage of Lenawee County adults that had a firearm in or around the home. Examples of how to interpret the information shown on the first graph include: 47% of all Lenawee County adults had a firearm in or around the home, including 65% of males, and 54% of those with incomes more than \$25,000.



Note: Caution should be used when interpreting subgroup results as the margin of error for any subgroup is higher than that of the overall survey.

Victims of Gun Violence in America

- More than 100,000 people are shot in murders, assaults, suicides & suicide attempts, accidents or by police intervention in America in an average year.
 - 33,880 people die from gun violence and 81,114 people survive gun injuries.
- Every day, an average of 315 people is shot in America. Of those 315 people, 93 people die and 222 are shot, but survive.
 - Of the 315 people who are shot every day, an average of 46 are children and teens.
 - Of the 93 people who die, 32 are murdered, 58 are suicides, 1 die accidentally, 1 with an unknown intent and 1 by legal intervention.
 - Of the 222 people who are shot but survive, 164 are from assault, 45 are shot accidentally, 10 are suicide attempts, and 3 are police interventions.

(Source: Brady Campaign to Prevent Gun Violence, "There Are Too Many Victims of Gun Violence" Fact Sheet, June 2017)

Veterans' Affairs

- One-third (33%) of Lenawee County adults reported that someone in their immediate family had served in the military in the past 10-20 years.
- As a result of their military service, adults reported their immediate family members were affected by the following: post-traumatic stress disorder (PTSD) (10%), major health problems due to injury (8%), access to medical care at a VA facility (4%), marital problems (4%), problems getting information on VA eligibility and applying (3%), problems getting VA benefits (2%), access to medical care at a non-VA facility (2%), access to mental health treatment (2%), suicide attempt (1%), and access to substance/drug abuse treatment (1%). Ninety percent (90%) did not have any problems listed.

Social Conditions: Environmental Health

Key Findings

The top three environmental health issues reported by Lenawee County adults were insects (14%), mold (7%), and agricultural chemicals (6%). Eighty-two percent (82%) of adults had a working flashlight and working batteries in preparation for a disaster.

Environmental Health

- Lenawee County adults thought the following threatened their health in the past year.
 - Insects (14%)
 - Mold (7%)
 - Agricultural chemicals (6%)
 - Rodents (5%)
 - Moisture issues (5%)
 - Unsafe water supply/wells (4%)
 - Air quality (3%)
 - Temperature regulation (3%)
 - Chemicals found in products (3%)
 - Radon (3%)
 - Plumbing problems (1%)
 - Sewage/waste water problems (1%)
 - Bed bugs (1%)
 - Lice (1%)
 - Safety hazards (1%)
 - Radiation (1%)
 - Lead paint (1%)
 - Asbestos (1%)
 - Cockroaches (<1%)

Disaster Preparedness

- Lenawee County households had the following disaster preparedness supplies: cell phone (88%), working smoke detector (84%), cell phone with texting (83%), working flashlight and working batteries (82%), computer/tablet (69%), 3-day supply of prescription medication for each person who takes prescribed medicines (50%), 3-day supply of nonperishable food for everyone in the household (48%), working battery-operated radio and working batteries (47%), home land-line telephone (42%), 3-day supply of water for everyone in the household (1 gallon of water per person per day) (39%), generator (36%), communication plan (17%), disaster plan (11%), and a family disaster plan (9%).
- Lenawee County adults indicated the following as their main method or way of getting information from authorities in a large-scale disaster or emergency: television (85%), radio (79%), internet (69%), Emergency Alert System (65%), friends/family (65%), neighbors (48%), Facebook (42%), newspaper (38%), other social media (15%), Twitter (10%), and other methods (8%).

Basic Disaster Supplies Kit

A basic emergency supply kit could include the following recommended items:

- One gallon of water per person per day for at least three days, for drinking and sanitation.
- At least a three-day supply of non-perishable food.
- A working battery-operated radio and working batteries.
- Flashlight and extra batteries.
- First aid kit.
- Whistle to signal for help.
- Dust mask to help filter contaminated air.
- Moist towelettes, garbage bags and plastic ties for personal sanitation.
- Wrench or pliers to turn off utilities.
- Cell phone with chargers, inverter or solar charger.
- Manual can opener for food.
- Local maps

(Source: Federal Emergency Management Agency (FEMA), Ready: Prepare. Basic Disaster Supplies Kit, updated 6/10/14)

Social Conditions: Parenting

Key Findings

In 2017, seventy-one percent (71%) of Lenawee County parents talked to their 12 to 17-year-old about their career plan in the past year.

Parenting

- Parents discussed the following topics with their 12 to 17-year-old in the past year:
 - Career plan (71%)
 - Bullying (58%)
 - Dating and relationships (56%)
 - Social media issues (53%)
 - Negative effects of alcohol, tobacco, illegal drugs or misusing prescription drugs (51%)
 - School/legal consequences of using tobacco/alcohol/other drugs (51%)
 - Weight status (eating habits, physical activity, and screen time) (46%)
 - Volunteering (44%)
 - Birth control/condom use/safer sex/STD prevention (42%)
 - Abstinence/how to refuse sex (38%)
 - Refusal skills/peer pressure (32%)
 - Depression/anxiety/suicide (29%)
 - Body image (28%)
 - Energy drinks (24%)

Child Health: Health and Functional Status

Key Findings

In 2017, 23% of children were classified as obese by Body Mass Index (BMI) calculations. Thirteen percent (13%) of Lenawee County parents reported their child had been diagnosed with asthma. Twelve percent (12%) of parents reported their child had been diagnosed with ADD/ADHD.

Health of Children Ages 0-11

- Twenty-three percent (23%) of children were classified as obese by Body Mass Index (BMI) calculations. Nineteen percent (19%) of children were classified as overweight, 48% were normal weight, and 10% were underweight.
- More than half (58%) of Lenawee County parents of 0-11 year olds rated their child's health as excellent. Five percent (5%) rated their child's health as fair or poor.
- Ninety-two percent (92%) of parents reported their child was physically active for at least 60 minutes on three or more days per week. Seventy-six percent (76%) reported their child was physically active on five or more days, and 41% reported at least 60 minutes every day per week. No parent reported their child was unable to be physically active.
- Lenawee County children ate breakfast at the following frequencies in the past week: 1 to 2 days (2%), 3 to 4 days (4%), and 5 or more days (94%).
- Four percent (4%) of Lenawee County children ate 5 or more servings of fruit per day. Twenty-six percent (26%) ate 3 to 4 servings per day, 66% ate 1 to 2 servings per day, and 4% ate 0 servings per day.
- Four percent (4%) of children ate 5 or more servings of vegetables per day. Almost one-fifth (18%) ate 3 to 4 servings per day, 72% ate 1 to 2 servings per day, and 6% ate 0 servings per day.
- One percent (1%) of children consumed 5 or more servings of sugar-sweetened beverages per day. Four percent (4%) drank 3 to 4 servings per day, 45% consumed 1 to 2 servings per day, and 50% consumed 0 servings per day.
- Less than one percent (<1%) of children consumed 5 or more servings of caffeinated beverages per day. One percent (1%) consumed 3 to 4 servings per day, 9% consumed 1 to 2 servings of per day, and 89% drank 0 servings per day.
- Lenawee County children spent an average of 1.9 hours watching TV, 0.7 hours playing video games, 0.7 hours on a cell phone, and 0.6 hours on the computer.
- Parents reported their child had the following allergies: environmental allergies (19%), animal allergies (8%), other food allergies (4%), milk (4%), red dye (3%), wheat (1%), peanuts (1%), eggs (1%), bees (1%), gluten (1%), and other (4%). Of parents who had children with allergies, 3% had an Epi-pen.
- Almost one-third (32%) of parents reported their child had been tested for lead poisoning, and the results were within normal limits. Two percent (2%) reported the levels were elevated and medical follow-up was needed. One percent (1%) reported the levels were elevated, but no medical follow-up was needed. Half (50%) of parents had not had their child tested for lead poisoning, and 16% of parents did not know if their child had been tested for lead.
- Twenty-seven percent (27%) of Lenawee County parents thought that their child had difficulties with one or more of the following: emotions (20%), concentration (16%), behavior (13%), and being able to get along with people (1%).

2016 National Survey of Children's Health

- Four percent (4%) of Michigan children ages 0-5 were diagnosed with asthma, increasing to 11% of 6-11 year olds.
- Eleven percent (11%) of Michigan children ages 6-11 were diagnosed with ADD/ADHD.

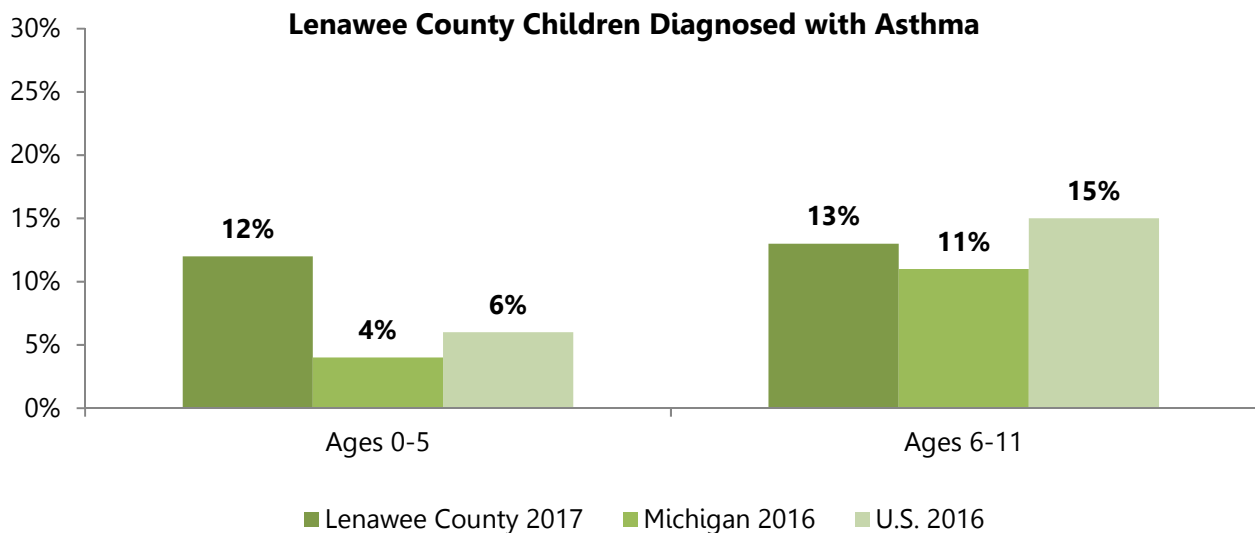
(Source: National Survey of Children's Health, 2016)

- The above difficulties were being managed in the following ways: family and friends take care of it (46%), professional help (46%), and schools or day care (20%). Fourteen percent (14%) reported they do not need help.
- Sixteen percent (16%) of parents reported their child had an emotional, developmental, or behavioral problem that required treatment or counseling, increasing to 27% of those with incomes less than \$25,000.
- A doctor told Lenawee County parents their 0-11-year-old child had the following conditions:
 - Asthma (13%)
 - ADD/ADHD (12%)
 - Speech and language problems (10%)
 - Anxiety problems (6%)
 - Learning disability (6%)
 - Developmental delay (6%)
 - Behavioral/conduct problem (6%)
 - Genetic or inherited condition (5%)
 - Autism/Autism Spectrum Disorder (ASD) (4%)
 - Intellectual disability or mental retardation (1%)
 - Brain injury, concussion or head injury (1%)
 - Cerebral palsy (1%)
 - Cancer (1%)
 - Epilepsy (1%)
 - Depression (1%)
 - Diabetes (0%)
 - Eating disorder (0%)
- Fourteen percent (14%) of Lenawee County children ages 0-11 years old had more than one health condition.

Asthma

The following graph shows the percent of Lenawee County, Michigan and U.S. children who had been diagnosed with asthma.

- Lenawee County has a higher percentage of children ages 0-5 who were diagnosed with asthma, compared to both Michigan and the U.S.



(Source: 2016 National Survey of Children's Health & 2017 Lenawee County Health Assessment)

Child Comparisons	Lenawee County 2011 Ages 0-5	Lenawee County 2017 Ages 0-5	Michigan 2016 Ages 0-5	U.S. 2016 Ages 0-5	Lenawee County 2011 Ages 6-11	Lenawee County 2017 Ages 6-11	Michigan 2016 Ages 6-11	U.S. 2016 Ages 6-11
Rated health as excellent or very good	97%	98%	96%	93%	98%	93%	90%	89%
Diagnosed with autism	1%	0%	N/A	2%*	3%	5%	N/A	3%
Diagnosed with asthma	17%	12%	4%	6%	18%	13%	11%	15%
Diagnosed with ADHD/ADD	3%	0%	N/A	3%*	9%	17%	11%	9%
Diagnosed with behavioral or conduct problems	2%	0%	N/A	5%*	7%	8%	9%	11%
Diagnosed with epilepsy	0%	0%	N/A	1%	2%	1%	N/A	1%
Diagnosed with a head injury, brain injury or concussion	0%	0%	N/A	1%	2%	2%	N/A	2%
Diagnosed with diabetes	0%	0%	N/A	N/A	1%	0%	N/A	<1%
Diagnosed with depression	1%	0%	N/A	N/A	2%	1%	N/A	2%
Diagnosed with developmental delay	6%	2%	N/A	6%*	7%	8%	8%	5%
Diagnosed with anxiety problems	1%	2%	N/A	1%*	4%	8%	7%	7%
Did not engage in any physical activity during the past week	2%	3%	N/A	N/A	3%	2%	N/A	5%

*Age 3-5

N/A – Not Available

Asthma and Children

- Asthma is the most common chronic conditions among children, currently affecting an estimated 6.2 million children under years old, of which 3.1 million suffered from an asthma attack or episode in 2015.
- An asthma episode is a series of events that results in constricted airways. These include swelling of the airway lining, tightening of the muscle around the airways and increased secretion of mucus inside the airway. This narrowed airway causes difficulty breathing with the familiar “wheeze.”
- When a child has asthma, their lungs are extra sensitive to certain “triggers.” Each child reacts differently to the factors that may trigger asthma, including:
 - Excitement/stress
 - Indoor and outdoor air pollutants
 - Exposure to cold air or sudden temperature change
 - Allergic reactions to allergens such as pollen, dust, or mold
 - Respiratory infections and colds
 - Cigarette smoke
- Secondhand smoke can cause serious harm to children. An estimated 400,000 to one million children with asthma have their condition worsened due to secondhand smoke.
- Asthma can be life-threatening if not properly managed. In 2014, 161 children under 15 years old died from asthma.
- Asthma is the third leading cause of hospitalization among children under the age of 15.
- Asthma is one of the leading causes of school absenteeism. In 2013, asthma accounted for 13.8 million lost school days in school-aged children with an asthma episode in the previous year.

(Source: American Lung Association, Asthma & Children Fact Sheet, 2017)

Child Health: Health Care Access

Key Findings

In 2017, 12% of parents reported their child received mental health treatment or counseling in the past 12 months. Six percent (6%) of parents reported their child did not get all of the medical care they needed in the past year. Eighty-two percent (82%) of Lenawee County parents had taken their child to the dentist in the past year.

Access and Utilization

- One percent (1%) of parents reported that their child did not currently have health insurance.
- Lenawee County children had the following types of health insurance: insurance through current or former employer or union (70%); Medicaid, Buckeye, Paramount, Molina, United, Care Source, or State Children's Health Insurance Program (S-CHIP) (20%); insurance purchased directly from an insurance company (3%); Medicare (2%); the Insurance Marketplace/Exchange (2%); TRICARE or other military health care (1%); and some other source of insurance (1%).
- Parents reported their child's health insurance covered the following: well child visits (98%), immunizations (98%), doctor visits (97%), prescription coverage (96%), hospital stays (94%), dental (92%), vision (86%), mental health (75%), and therapies (speech, occupational therapy, physical therapy, etc.) (66%).
- Twelve percent (12%) of parents reported their child received mental health treatment or counseling in the past 12 months, increasing to 17% of those with incomes less than \$25,000.
- Six percent (6%) of parents reported their child did not get all of the medical care they needed in the past year. They reported the following reasons: cost (3%), inconvenient times/could not get an appointment (2%), too long of a wait for an appointment (2%), could not find a doctor who accepted child's insurance (1%), treatment is ongoing (1%), no insurance (1%), not available in area/transportation problems (1%), dissatisfaction with doctor (1%), vaccine shortage (1%), did not know where to go for treatment (1%), and other reasons (2%).
- Eight percent (8%) of parents reported their child did not get all of the prescription medications they needed in the past year for the following reasons: their child was not prescribed medication (5%), cost (1%), no insurance (1%), treatment is ongoing (1%), and other (1%).
- Eighty-five percent (85%) of Lenawee County children received all the routine preventive dental care they needed in the past year.
- Eighty-two percent (82%) of children had been to the dentist in the past year, increasing to 92% of 6-11 year olds.
- Parents gave the following reasons for not getting dental care for their child: child was not old enough to go to the dentist/dentist would not see child because of age (10%), no insurance (4%), cost (3%), treatment was ongoing (2%), could not find a dentist who accepted their insurance (1%), did not know where to go for treatment (1%), child refused to go (1%), not available in area/transportation problems (1%), missed an appointment and not allowed to go back (1%), no referral (1%), dissatisfaction with dentist (1%), and other (4%).
- Over half (52%) of children diagnosed with autism/ASD or developmentally delayed have received therapy services such as early intervention, occupational therapy, or behavioral therapy.

2016 National Survey of Children's Health

- Thirty-two percent (32%) of Michigan 0-5 year olds and 26% of Michigan 6-11 year olds had public insurance.
- Ninety-two percent (92%) of Michigan 0-5 year olds and 82% of Michigan 6-11 year olds had been to the doctor for preventive care in the past year.

(Source: National Survey of Children's Health, 2016)

- Nine percent (9%) of children did not get all their recommended vaccinations for the following reasons: child had received some, but not all recommended vaccinations (5%); parents chose to not vaccinate their child (4%); religious or cultural beliefs (3%); fear of negative effects (2%); doctor advised against it (1%); vaccine not available at doctor's office (1%); alternate vaccination schedule used (1%); and other reasons (2%). No one reported that it was too expensive.

Medical Home

- Eighty-five percent (85%) of parents reported they had one or more people they think of as their child's personal doctor or nurse, decreasing to 70% of those with incomes less than \$25,000.
- Ninety-six percent (96%) of children had visited their health care provider for preventive care in the past year.
- In 2017, 100% of Lenawee County parents reported that their child had one particular place they usually went if they were sick or needed advice about their health. They reported the following places: a doctor's office (87%), Family Medical Center (4%), an urgent care center (2%), clinic or health center (1%), and some other kind of place (1%). Five percent (5%) of parents reported multiple places including a doctor's office.
- One-fifth (20%) of Lenawee County parents reported their child needed the following special services in the past year: speech therapy (9%); counseling (8%); special education (5%); medical equipment, such as a wheelchair (4%); occupational therapy (2%); psychiatry (2%), respite care (1%); out of home care (1%); and physical therapy (1%).
- Lenawee County children had been referred to the following specialists: ophthalmologist (eye doctor) (23%); ear, nose, and throat (ENT) doctor (22%); psychiatrist/mental health provider (11%); allergist (10%); dermatologist (skin doctor) (7%); cardiologist (heart doctor) (5%); pulmonologist (lung doctor) (4%); developmental pediatrician (4%); neurologist (3%); oncologist (cancer doctor) (2%); endocrinologist (diabetes doctor) (1%); and other specialist (8%).

Child Comparisons	Lenawee County 2011 Ages 0-5	Lenawee County 2017 Ages 0-5	Michigan 2016 Ages 0-5	U.S. 2016 Ages 0-5	Lenawee County 2011 Ages 6-11	Lenawee County 2017 Ages 6-11	Michigan 2016 Ages 6-11	U.S. 2016 Ages 6-11
Dental care visit in the past year	59%	57%	54%**	59%**	93%	92%	91%	91%
Had public insurance	23%	22%	32%	34%	14%	19%	26%	34%
Received all the medical care they needed	86%	96%	94%	91%	88%	93%	87%	84%
Been to the doctor for preventive care in the past year	94%	98%	92%	89%	81%	95%	82%	79%
Have a personal doctor or nurse	83%	78%	78%	74%	87%	88%	80%	72%
Child received treatment or counseling from a mental health professional in the past year	N/A	5%	N/A	3%	N/A	14%	14%	10%

**Ages 1-5 years old
N/A – Not Available

Children's Mental Health

- **What are mental health disorders?**
 - Mental health disorders among children are described as serious changes in the way children usually learn, behave, or handle their emotions, which cause distress and problems getting through the day.
- **What are the symptoms of mental disorders?**
 - Symptoms may change over time as a child grows and may include difficulties with the way children play, learn, speak, and act or how the child handles their emotions. Diagnosis often occurs in the school years, however, some children with a disorder may not be recognized or diagnosed as having one.
- **How are mental health disorders treated?**
 - Childhood mental health disorders can be treated and managed. There are many treatment options based on the most current medical evidence and doctors should work closely with everyone involved in the child's treatment (teachers, coaches, therapists, family members, etc.)
 - Early diagnosis and appropriate treatment can make a huge difference in the lives of children with mental health disorders.

(Source: Centers for Disease Control and Prevention, Children's Mental Health, Updated March 2017)

Child Health: Early Childhood (Ages 0-5)

Key Findings

The following information was reported by parents of 0-5 year olds. Eighty-two percent (82%) of parents put their child to sleep on his/her back. Fourteen percent (14%) of mothers never breastfed their child.

Early Childhood

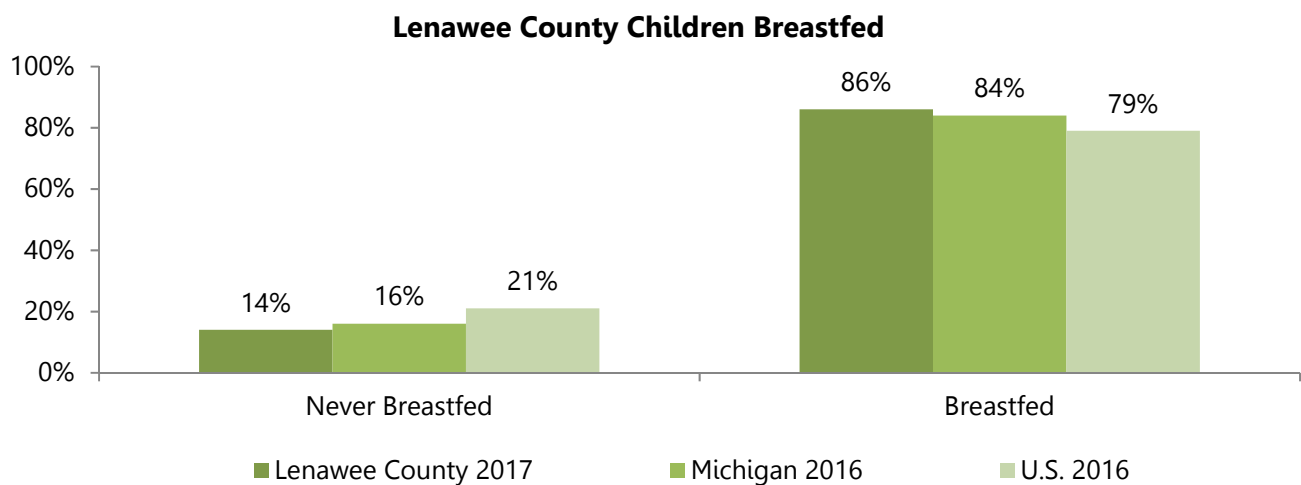
- Nearly one-third (32%) of Lenawee County parents reported they read to their child every day in the past week. Two percent (2%) of parents reported they did not read to their child in the past week.
- When asked how parents put their child to sleep as an infant, 82% said on their back, 7% said on their stomach, 7% said in bed with them or another person, and 4% said on their side.
- Children were put to sleep in the following places: crib/bassinette without bumper, blankets, or stuffed animals (79%); pack n' play (56%); swing (39%); in bed with parent or another person (32%); car seat (21%); crib/bassinette with bumper, blankets, or stuffed animals (18%); floor (11%); and couch or chair (7%).
- Mothers breastfed their child at the following frequencies: less than 3 months (29%), 4-6 months (13%), 7-9 months (9%), 10-12 months (13%), more than one year (20%), still breastfeeding (4%), and never breastfed (14%).
- During their last pregnancy within the past 5 years, mothers did the following: received prenatal care within the first 3 months (89%), took a multi-vitamin with folic acid during pregnancy (81%), took a multi-vitamin with folic acid pre-pregnancy (64%), received a dental exam (57%), took folic acid during pregnancy (33%), took folic acid pre-pregnancy (24%), received WIC services (19%), experienced depression during or after pregnancy (13%), smoked cigarettes or other tobacco products (8%), used e-cigarettes (2%), used marijuana (2%), used opioids (2%), experienced domestic violence (2%). Two percent (2%) of mothers did none of these things.
- Ten percent (10%) of parents were concerned that their child may not be developing similarly to other children his or her age.
- Lenawee County parents reported their child regularly attended the following: nursery school, pre-school or kindergarten (53%); child care outside of their home provided by a relative other than a parent/guardian (26%); child care in their home provided by a relative other than a parent/guardian (23%); elementary school (21%); child care center (21%); family-based child care outside of home (19%); child care in their home provided by a baby sitter (10%); and Head Start or Early Start program (9%).
- Lenawee County parents reported the following influenced their childcare decisions: trust in staff (64%), cost (57%), location/environment/facilities (51%), hours of operation (43%), kids-to-teacher ratio (43%), childcare facility is licensed (39%), flexibility of days/hours (34%), Quality Star ratings (28%), Early Head Start availability (7%), and before and after school transportation (5%).
- Children 0-5 years old were more likely than children 6-11 years old to have:
 - Their health described as excellent or very good (98% compared to 93% of 6-11).
 - Public insurance (22% compared to 19% of 6-11).
 - Received all the medical care they needed (96% compared to 93% of 6-11).

Child Comparisons	Lenawee County 2011 0-5 years	Lenawee County 2017 0-5 years	Michigan 2016 0-5 years	U.S. 2016 0-5 years
Never breastfed their child	28%	14%	16%	21%
Family read to child every day in the past week	34%	32%	39%	38%
Spent 4 or more hours watching TV	15%	14%	N/A	5%

Breastfeeding

The following graph shows the percent of infants who had been breastfed or given breast milk for Lenawee County, Michigan, and U.S.

- Lenawee County has a larger percent of children who had been breastfed for any length of time, compared to Michigan and the U.S.



(Source: National Survey of Children's Health & 2017 Lenawee County Health Assessment)

Breastfeeding Benefits

- Breastfeeding has numerous health benefits for not only babies, but the mothers as well. The cells, hormones, and antibodies in breastmilk help protect babies from illness. This protection is unique and changes every day to meet your baby's growing needs. Research shows that breastfed babies have lower risk of:
 - Asthma
 - Leukemia (during childhood)
 - Obesity (during childhood)
 - Ear infections
 - Eczema
 - Diarrhea and vomiting
 - Lower respiratory infections
 - Sudden infant death syndrome (SIDS)
 - Type 2 diabetes
- Breastfeeding helps a mother's health and healing following childbirth. Breastfeeding leads to a lower risk of these health problems in mothers:
 - Type 2 diabetes
 - Certain types of breast cancer
 - Ovarian cancer

(Source: WomensHealth.gov, Breastfeeding, updated January 12, 2018)

Child Health: Middle Childhood (Ages 6-11)

Key Findings

The following information was reported by Lenawee County parents of 6-11 year olds. In 2017, half (50%) of parents reported their child was bullied in the past year. The top three topics parents talked to their child about were bullying/violence (82%), screen time (80%), and eating habits (71%).

Middle Childhood

- Parents reported the following kinds of schools their child was attending: public (94%), private (5%), and home-schooled (1%).
- Seventy-two percent (72%) of Lenawee County parents definitely agreed their child was safe at school. Twenty-eight percent (27%) somewhat agreed, and 1% somewhat disagreed.
- Children missed school due to the following in the past year: illnesses or injuries (75%), school suspension (1%), and being bullied (1%). No child missed school due to babysitting siblings.
- Parents reported their child participated in the following activities in the past year: sports team/sports lessons (67%); club or organization after school or on the weekend (40%); some other organized activity such as music, dance, language or other arts (34%); community service or volunteer work at school, church or in the community (27%); and paid work including regular jobs, babysitting or cutting grass (7%). Fifty-three percent (53%) of children participated in more than one activity in the past year.
- Reasons for not participating in extracurricular activities include: child had no interest (14%), could not afford it (9%), programs not available (6%), parent was too busy (5%), transportation (5%), child was too busy (3%), and other reasons (8%).
- Parents discussed the following topics with their 6-11 year old child in the past year: bullying/violence (82%), screen time (80%), eating habits (71%), body image (56%), cyber/internet safety (54%), negative effects of tobacco (53%), alcohol use (52%), cultural sensitivity (46%), negative effects of alcohol (41%), tobacco use (37%), respect for gender identity/sexual orientation (37%), negative effects of marijuana and other drugs (30%), marijuana and other drugs (27%), dating and positive relationships (24%), depression/suicide (21%), negative effects of heroin/opiates (21%), refusal skills (19%), prescription drug misuse (18%), abstinence and how to refuse sex (8%), birth control (3%), and condoms/safe sex/STD prevention (2%). Five percent (5%) of parents did not discuss any of these topics with their 6-11 year old child.
- Nearly one-fifth (18%) of parents of 6-11 year olds reported their child had a social media or virtual network account. Of those children who had an account, their parents reported the following: they had their child's password (79%), their child's account was checked private (66%), they knew all the people in their child's "friends" (66%), their child's friend had their password (3%), and 14% of parents reported they did not know.
- When not in school, Lenawee County parents reported their child read at the following amounts: almost every day (65%); a few times a week (22%); a few times a month (6%); almost never, child cannot read (2%); a few times a year (1%); and almost never, child has no interest (4%).
- Parents reported that their child spent the following amount of time unsupervised after school on the average school day: less than one hour (11%), 1 to 2 hours (7%), and 3 to 4 hours (1%). Eighty percent (80%) of parents reported that their child was never unsupervised after school.

2016 National Survey of Children's Health

- One-fourth (25%) of Michigan and 29% of U.S. parents of 6-11 year olds reported their child did not miss any days of school because of illness or injury.
- Eighty percent (80%) of Michigan and 76% of U.S. parents of 6-11 year olds reported their child participated in one or more organized activities outside of school.

(Source: National Survey of Children's Health, 2016)

- Half (50%) of parents reported their child was bullied in the past year. The following types of bullying were reported:
 - 34% were verbally bullied (teased, taunted or called harmful names)
 - 16% were indirectly bullied (spread mean rumors about or kept out of a “group”)
 - 16% were physically bullied (they were hit, kicked, punched or people took their belongings)
 - 1% were cyber bullied (teased, taunted or threatened by e-mail or cell phone)
 - No child was sexually bullied (using nude or semi-nude pictures to blackmail, intimidate, or exploit another person, or to pressure someone to have sex who does not want to)
- Two percent (2%) of parents reported they did not know if their child was bullied.
- Over half (57%) of parents reported that they thought the topic of the reproductive system should be covered with their child when they were in grades 6-8. Thirty-four percent (34%) thought it should be covered when their child was in grades 3-5. One percent (1%) thought it should never be discussed.
- Sixty-nine percent (69%) of parents reported that they thought the topic of abstinence and refusal skills should be covered with their child when they were in grades 6-8. Nearly one-fifth (18%) thought it should be covered in Grades 3-5, and 8% preferred grades 9-12. One percent (1%) thought it should never be discussed.
- Fifty-four percent (54%) of parents reported that they thought the topic of birth control and the use of condoms should be covered with their child when they were in grades 6-8. Over one-third (36%) thought it should be covered in grades 9-12. Three percent (3%) thought it should never be discussed.
- Children 6-11 years old were more likely than children 0-5 years old to have:
 - Gone to the dentist in the past year (92% compared to 57% of 0-5).
 - ADD or ADHD (17% compared to 0% of 0-5).
 - A personal doctor or nurse (88% compared to 78% of 0-5).

Child Comparisons	Lenawee County 2011 6-11 years	Lenawee County 2017 6-11 years	Michigan 2016 6-11 years	U.S. 2016 6-11 years
Child participated in 1 or more activities	87%	86%	80%	76%
Child did not miss any days of school because of illness or injury	18%	25%	25%	29%
Parent definitely agreed that their child was safe at school	N/A	72%	81%	79%

How to Help Increase Your School-Aged Child's Social Ability

Consider the following as ways to foster your school-aged child's social abilities:

- Set and provide appropriate limits, guidelines, and expectations and consistently enforce using appropriate consequences.
- Model appropriate behavior.
- Offer compliments for your child being cooperative and for any personal achievements.
- Help your child choose activities that are appropriate for your child's abilities.
- Encourage your child to talk with you and be open with his or her feelings.
- Encourage your child to read and read with your child.
- Encourage your child to get involved with hobbies and other activities.
- Encourage physical activity.
- Encourage self-discipline; expect your child to follow rules that are set.
- Teach your child to respect and listen to authority figures.
- Encourage your child to talk about peer pressure and help set guidelines to deal with peer pressure.
- Spend uninterrupted time together—giving full attention to your child.
- Limit television, video, and computer time.

(Source: Stanford Children's Health, The Growing Child: School Age (6 to 12 Years), 2017)

Child Health: Family and Community Characteristics

Key Findings

Nine percent (9%) of Lenawee County parents had experienced at least one issue related to food insecurity in the past year. Twelve percent (12%) of parents reported they received benefits from the SNAP/food stamps program in the past year.

Family Functioning

- Nine percent (9%) of Lenawee County parents had experienced at least one issue related to food insecurity in the past year. They experienced the following: had to choose between paying bills and buying food (9%), their food assistance was cut (8%), worried food might run out (7%), loss of income led to food insecurity issues (5%), went hungry/ate less to provide more food for their family (3%), and did not eat because they did not have enough money for food (2%).
- Forty-one percent (41%) of parents reported that every family member who lived in their household ate a meal together every day of the week, increasing to 44% of parents of 0-5 year olds. Families ate a meal together an average of 5.2 times per week.
- One-fourth (25%) of parents reported their child attended religious service 1 to 3 times per month, and 25% reported 4 or more times per month. Fifty percent (50%) reported their child has never attended a religious service.
- Parents reported their child got the following amounts of sleep on an average weeknight: 8 hours or less (23%), 9 hours (37%), 10 hours (27%), and 11 hours or more (13%).
- Parents used the following forms of discipline with their child: take away privileges (84%), time out (57%), grounding (37%), yell (36%), spanking (20%), wash mouth out (2%), and other (12%). Two percent (2%) of parents reported their child had not been disciplined.
- Parents were very concerned about the following: having enough time for their child (12%); child's academic achievement (10%); relationship with child (7%); learning difficulties (6%); child's self-esteem (6%); how child copes with stress (6%); child's anxiety (6%); cell phone and technology use (5%); Internet use (4%); bullied by classmates (3%); getting along with others (1%); violence in home, school, or neighborhood (1%); child's depression (1%); risky behaviors (1%); substance abuse (1%); child crawling/walking/running (1%); and child talking (1%).

2016 National Survey of Children's Health

- Fifty-two percent (52%) of Michigan and 53% of U.S. parents of 0-5 year olds reported their family ate a meal together every night of the week.
- Eleven percent (11%) of 0-5 year old and 23% of 6-11 year old Michigan children experienced 2 or more Adverse Childhood Experiences (ACEs) in their lifetime.

(Source: National Survey of Children's Health, 2016)

Child Safety Characteristics

- Eighty-two percent (82%) of Lenawee County parents definitely agreed their child was safe in their neighborhood. Sixteen percent (16%) somewhat agreed, and 2% somewhat disagreed.
- Parents reported their child always wore a helmet when riding the following: bike (23%), a scooter/dirt bike (21%), rollerblades/skates (8%), and a skateboard (7%).
- Parents reported their child never wore a helmet when riding the following: bike (18%), rollerblades/skates (10%), a scooter/dirt bike (9%), and a skateboard (5%).
- Lenawee County parents had the following rules about smoking in their home: no one is allowed to smoke in their home at any time (81%), smoking is allowed inside their home if children are not present (7%), smoking is allowed anywhere inside their home (5%), and smoking is allowed only in certain rooms of their home (3%).

- Lenawee County parents had the following rules about smoking in their car: no one is allowed to smoke in their car at any time (84%), smoking is allowed in their car if children are not present (11%), smoking is allowed only with one or more windows open in their car (3%), and smoking is allowed anywhere in their car (2%).

Neighborhood and Community Characteristics

- In the past year, parents reported that someone in the household received the following: free or reduced cost breakfast or lunches at school (29%), SNAP/food stamps (12%), benefits from WIC program (9%), mental health or substance abuse treatment (5%), cash assistance from a welfare program (1%), subsidized childcare through JFS (1%), and Help Me Grow (1%).
- Lenawee County parents reported their child experienced the following adverse childhood experiences (ACEs): their parents became separated or were divorced (17%); lived with someone who was mentally ill, suicidal, or severely depressed (5%); lived with someone who had a problem with alcohol or drugs (5%); seen or heard any parents or adults in their home slap, hit, kick, or punch each other (2%); been the victim of violence or witnessed violence in their neighborhood (2%); parent/guardian served time jail (1%); lived with a parent/guardian who died (1%); and were treated or judged unfairly because his/her ethnic group (1%).
- Eight percent (8%) of Lenawee County parents reported their child had two or more Adverse Childhood Experiences (ACEs), increasing to 20% of those with income less than \$25,000.
- Parents reported the following sources of information about current health issues in their community: doctor/health care provider (59%), websites (48%), school notification system (48%), local newspaper (32%), neighbor/friend (29%), local radio station (24%), health department (10%), cable channel announcements (9%), church bulletin (6%), 2-1-1 (3%), and other sources (11%).
- Parents reported they had the following safety items in their home: working smoke alarm/detector (98%), carbon monoxide detector (76%), fire extinguisher (66%), gun lock/safe (38%), poison control number by the phone (31%), and medication safe (17%).

Child Comparisons	Lenawee County 2011 0-5 Years	Lenawee County 2017 0-5 Years	Michigan 2016 0-5 Years	U.S. 2016 0-5 Years	Lenawee County 2011 6-11 Years	Lenawee County 2017 6-11 Years	Michigan 2016 6-11 Years	U.S. 2016 6-11 Years
Family eats a meal together every day of the week	47%	44%	52%	53%	36%	40%	42%	45%
Child never attends religious services	45%	51%	N/A	N/A	37%	49%	22%*	18%*
Parent definitely agreed that their child lived in a safe neighborhood	N/A	81%	66%	63%	N/A	83%	63%	62%
2 or more Adverse Childhood Experiences	N/A	7%	11%	12%	N/A	8%	23%	23%

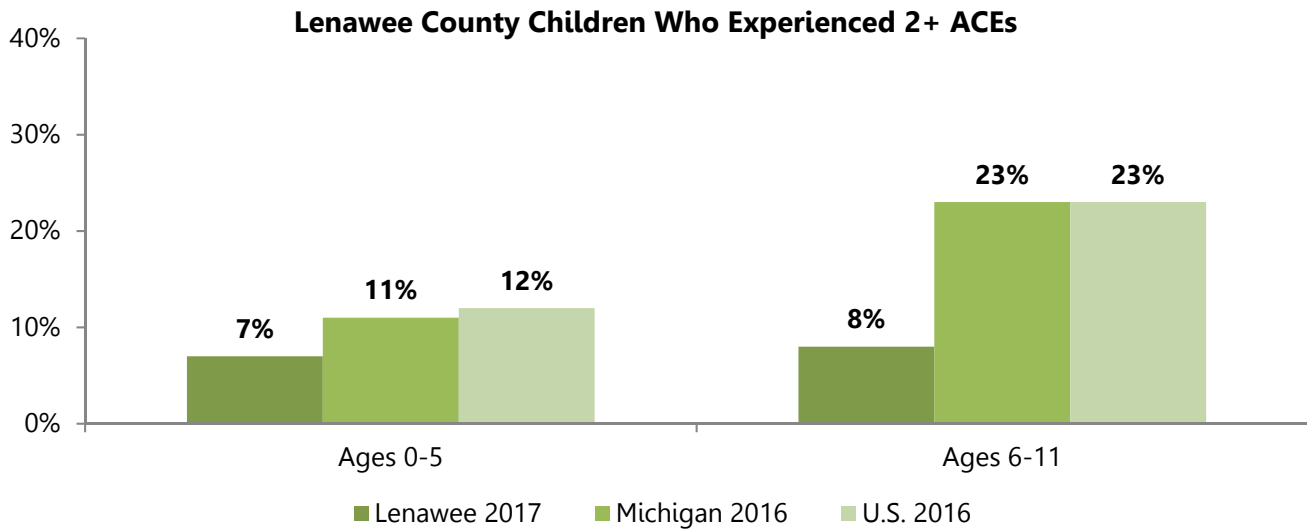
N/A – Not Available

*2011/2012 NSCH Data

Adverse Childhood Experiences (ACEs)

The following graph shows the percent of Lenawee County, Michigan, and U.S. children who experienced two or more ACEs in their lifetime.

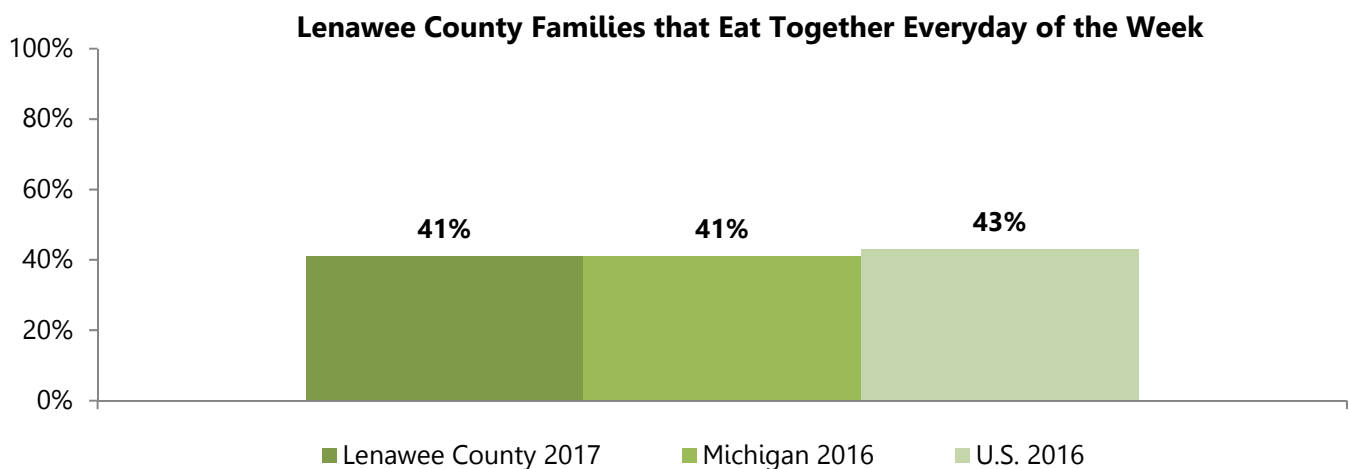
- Lenawee County had a lower percentage of children who experienced two or more ACEs as compared to Michigan and U.S. children.



Family Dinners

The following graph shows the percent of Lenawee County families that eat a meal together every day of the week compared to Michigan and U.S. families.

- U.S. families ate a meal together every day of the week slightly more frequently than Lenawee County and Michigan families.



(Source: National Survey of Children's Health & 2017 Lenawee County Health Assessment)

Five Ways That Family Meals Keep Kids Healthy

1. Family meals prevent excessive weight gain: Eating 3 or more family meals (meaning at least one parent is present and the meal is prepared at home) results in a 12% lower likelihood of children being overweight.

2. Family meals teach healthy food choices: The eating habits of childhood often last a lifetime. Families that ate at least three meals together each had a 20% decrease in unhealthy food choices. Teaching your children to enjoy healthy foods rather than junk foods is a gift that will stay with them through adulthood.

3. Family meals prevent eating disorders: Children and adolescents who ate family meals at least three times per week had a 35% reduction in disordered eating habits such as anorexia and bulimia.

4. Family dinner improves social-emotional health, too: The ability to understand emotions, express empathy, demonstrate self-regulation, and form positive relationships with peers and adults is called social-emotional health. Young children with high social-emotional health adapt well to the school environment and perform well academically, even in long term studies. Guess which kids had the best social-emotional health? The ones who ate family dinner together regularly and talked about their day, told stories, etc.

5. Family dinner can help kids deal with cyberbullying: About one-fifth of adolescents are victims of cyberbullying, putting them at risk for depression, substance abuse, and a host of other concerns. But adolescents who eat regular family dinners handle cyberbullying better and are less likely to engage in substance abuse or develop psychiatric health concerns, even after their involvement in face-to-face bullying is taken into account.

(Source: The Benefits & Tricks to Having a Family Dinner, HealthyChildren.org, 2015)

Child Health: Parent Health

Key Findings

In 2017, forty-seven percent (47%) of parents missed work due to their child being ill or injured.

Parent Health

- Those filling out the survey had the following relationship to the child: mother (74%), father (23%), grandparent (1%), aunt/uncle (<1%), and other relative (<1%).
- Seventy-one percent (71%) of parents rated their health as excellent or very good, decreasing to 60% of parents with incomes less than \$25,000. Twenty-seven percent (27%) of parents rated their health as good, and 2% rated their health as fair or poor.
- Seventy percent (70%) of parents rated their mental and emotional health as excellent or very good, decreasing to 57% of parents with incomes less than \$25,000. About one-fourth (24%) of parents rated their mental and emotional health as good, and 7% of parents rated their mental and emotional health as fair or poor.
- Seven percent (7%) of mothers and 0% of fathers of 0-5 year olds rated their mental and emotional health as fair or poor. Six percent (6%) of mothers and 3% of fathers of 6-11 year olds rated their mental or emotional health as fair or poor.
- Seven percent (7%) of parents reported that they or someone in their family had to quit a job, not take a job, or greatly change their job because of problems with child care for their child, increasing to 14% of those with incomes less than \$25,000.
- In the past year, nearly half (47%) of parents missed work due to their child's illnesses or injuries. Thirty-seven percent (37%) missed work due to their child's medical appointments, 7% missed work due to lack of or unreliable child care, 3% missed work due to their child's chronic illness, and 2% missed work due to their child's behavioral/emotional problems.
- Parents reported the following challenges they face regarding the day-to-day demands of parenthood/raising children: demands of multiple children (47%), financial burdens (25%), working long hours (21%), managing child's behavior (15%), being a single parent (11%), child has special needs (8%), lack of parental support (5%), mental health (4%), affordable housing (3%), difficulty with lifestyle changes (3%), unemployment (3%), loss of freedom (2%), lack of transportation (2%), post-partum depression (1%), and move a lot (<1%).
- Ninety-one percent (91%) of parents reported having health care coverage.

Child Comparisons	Lenawee County 2011 0-5 Years	Lenawee County 2017 0-5 Years	Michigan 2016 0-5 Years	U.S. 2016 0-5 Years	Lenawee County 2011 6-11 Years	Lenawee County 2017 6-11 Years	Michigan 2016 6-11 Years	U.S. 2016 6-11 Years
Mother's mental or emotional health is fair/poor	7%	7%	N/A	5%	5%	6%	N/A	6%
Father's mental or emotional health is fair/poor	2%	0%	N/A	3%	1%	3%	N/A	3%

N/A – Not Available

Appendix I: Health Assessment Information Sources

Source	Data Used	Website
American Cancer Society, Cancer Facts and Figures 2017	<ul style="list-style-type: none"> 2017 Cancer Facts, Figures, and Estimates 	www.cancer.org/research/cancer-facts-statistics/all-cancer-facts-figures/cancer-facts-figures-2017.html
American Association of Suicidology	<ul style="list-style-type: none"> National Suicide Statistics 	www.suicidology.org/portals/14/docs/resources/factsheets/2015/2015datapgs_v1.pdf?ver=2017-01-02-220151-870
American Heart Association, 2017	<ul style="list-style-type: none"> Smoke-Free Living: Benefits and Milestones 	www.heart.org/HEARTORG/HealthyLiving/QuitSmoking/YourNon-SmokingLife/Smoke-free-Living-Benefits-Milestones_UCM_322711_Article.jsp#
Behavioral Risk Factor Surveillance System, National Center for Chronic Disease Prevention and Health Promotion, Behavioral Surveillance Branch, Centers for Disease Control	<ul style="list-style-type: none"> 2009 - 2016 Adult Michigan and U.S. Correlating Statistics 	www.cdc.gov
Brady Campaign to Prevent Gun Violence	<ul style="list-style-type: none"> Victims of Gun Violence 	www.bradycampaign.org/sites/default/files/Brady-Campaign-5Year-Gun-Deaths-Injuries-Stats_June2017.pdf
CDC, About Diabetes	<ul style="list-style-type: none"> Types of Diabetes Diabetes by the Numbers 	https://www.cdc.gov/diabetes/basics/diabetes.html
CDC, Alcohol and Public Health, Excessive Drinking	<ul style="list-style-type: none"> Economic Costs of Excessive Alcohol Use 	www.cdc.gov/alcohol/data-stats.htm
CDC, Alcohol and Public Health, Fact Sheets – Excessive Alcohol Use and Risks to Women’s Health	<ul style="list-style-type: none"> Excessive Alcohol Use and Risks to Women’s Health 	www.cdc.gov/alcohol/factsheets/womens-health.htm
CDC, Breast Cancer, 2017	<ul style="list-style-type: none"> What Can I do to Reduce My Risk of Breast Cancer? 	www.cdc.gov/cancer/breast/basic_info/prevention.htm
CDC, Cancer Prevention and Control	<ul style="list-style-type: none"> Prostate Cancer Awareness 	www.cdc.gov/cancer/dcpc/resources/features/prostatecancer/index.htm
CDC, National Center for Health Statistics, Mental Health	<ul style="list-style-type: none"> Mental Health in the U.S. 	www.cdc.gov/nchs/fastats/mental-health.htm
CDC, Oral Health, 2017	<ul style="list-style-type: none"> Facts About Adult Oral Health 	www.cdc.gov/oralhealth/basics/adult-oral-health/index.html
CDC, Overweight & Obesity	<ul style="list-style-type: none"> Adult Obesity Facts 	www.cdc.gov/obesity/data/adult.html
CDC, Smoking and Tobacco Use, 2017	<ul style="list-style-type: none"> Smoking and Other Health Risks 	www.cdc.gov/tobacco/data_statistics/fact_sheets/health_effects/effects_cig_smoking/index.htm
CDC, Violence Prevention, Sexual Violence	<ul style="list-style-type: none"> Understanding Sexual Violence 	www.cdc.gov/violenceprevention/pdf/SV-Factsheet.pdf
CDC, Violence Prevention	<ul style="list-style-type: none"> Adverse Childhood Experiences 	www.cdc.gov/violenceprevention/acestudy/ace_brfs.html
CDC Wonder	<ul style="list-style-type: none"> Lenawee Underlying Cause of Death, 2009-2015 Lenawee County and Michigan Leading Causes of Death Lenawee County and Michigan Mortality Statistics 	http://wonder.cdc.gov/ucd-icd10.html

Source	Data Used	Website
Community Commons	<ul style="list-style-type: none"> • Beer, Wine and Liquor Stores • Alcoholic Beverage Expenditures • Bars and Drinking Establishments • Cigarette Expenditures • Food Deserts Census Tracts, Supermarkets and Farmers Markets • Fast Food Restaurants • Population Below Poverty Level in Michigan 	www.communitycommons.org/
Federal Emergency Management Agency (FEMA)	<ul style="list-style-type: none"> • Basic Disaster Supplies Kit 	www.ready.gov/kit
HealthyChildren.org, The Benefits and Tricks to Having a Family Dinner	<ul style="list-style-type: none"> • Five Ways That Family Meals Keep Kids Healthy 	www.healthychildren.org/English/family-life/family-dynamics/Pages/Mealtime-as-Family-Time.aspx
Healthy People 2020: U.S. Department of Health & Human Services	<ul style="list-style-type: none"> • All Healthy People 2020 Target Data Points • Some U.S. Baseline Statistics • Predictors of Access to Health Care 	www.healthypeople.gov/2020/topicsobjectives2020
	<ul style="list-style-type: none"> • Social Determinants of Health 	www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-of-health
The Henry Kaiser Family Foundation	<ul style="list-style-type: none"> • Key Facts about the Uninsured Population 	www.kff.org/report-section/the-uninsured-a-primer-2013-4-how-does-lack-of-insurance-affect-access-to-health-care/
National Institute on Drug Abuse, July 2017	<ul style="list-style-type: none"> • Heroin 	www.drugabuse.gov/publications/drugfacts/heroin
Michigan Department of Health & Human Services	<ul style="list-style-type: none"> • Michigan Health Statistics 	www.michigan.gov/mdhhs/0,5885,7-339-73970_2944---,00.html
	<ul style="list-style-type: none"> • Natality, Pregnancy, and Abortion Statistics • Chlamydia and Gonorrhea statistics 	http://www.michigan.gov/mdhhs/0,5885,7-339-71550_2955_2982_46012---,00.html
Michigan Department of Technology, Management & Budget	<ul style="list-style-type: none"> • Michigan Bureau of Labor Market and Information and Strategic Initiatives 	http://milmi.org/datasearch/unemployment-by-county
Michigan Traffic Crash Stats (MTCS), 2016	<ul style="list-style-type: none"> • Statewide Reports 	http://publications.michigantrafficcrashacts.org/2016/MTCFVol1.pdf
	<ul style="list-style-type: none"> • County/Community profile 	http://publications.michigantrafficcrashacts.org/2016/MTCFVol2.pdf
Michigan Traffic Crash Facts (MTCF), 2016 Traffic Crash Data & 2012-2016 5-year Trends	<ul style="list-style-type: none"> • Lenawee County Number of Motor Vehicle Deaths from 2012-2016 • Lenawee County Percentage of Fatal Crashes with Drinking Involvement from 2012-2016 	http://publications.michigantrafficcrashacts.org/2016/Lenawee+County.pdf

Source	Data Used	Website
Stanford Children’s Health, The Growing Child: School-Age (6-12), 2017	<ul style="list-style-type: none"> • How to Help Increase Your School-Aged Child’s Social Ability 	www.stanfordchildrens.org/en/topic/default%3Fid%3Dthe-growing-child-school-age-6-to-12-years-90-P02278&sa=U&ei=eMq7VNe218_4yQSX-oCwAw&ved=0CEIQFjAI&usg=AFQjCNFn5tO-78ISMzUno4_7cO4dCvft1Q
U. S. Department of Commerce, Census Bureau; Bureau of Economic Analysis	<ul style="list-style-type: none"> • American Community Survey 5-year estimate, 2012-2016 	www.census.gov/programs-surveys/acs/
	<ul style="list-style-type: none"> • Federal Poverty Thresholds 	www.census.gov/data/tables/time-series/demo/income-poverty/historical-poverty-thresholds.html
	<ul style="list-style-type: none"> • Michigan and Lenawee County 2015 Census Demographic Information 	factfinder.census.gov/faces/nav/jsf/pages/index.xhtml
	<ul style="list-style-type: none"> • Small Area Income and Poverty Estimates 	www.census.gov/did/www/saipe/

Appendix II: Acronyms and Terms

AHS	Access to Health Services , Topic of Healthy People 2020 objectives
Adult	Defined as 19 years of age and older.
Age-Adjusted Mortality Rates	Death rate per 100,000 adjusted for the age distribution of the population.
Adult Binge Drinking	Consumption of five alcoholic beverages or more (for males) or four or more alcoholic beverages (for females) on one occasion.
AOCBC	Arthritis, Osteoporosis, and Chronic Back Conditions
BMI	Body Mass Index is defined as the contrasting measurement/relationship of weight to height.
BRFSS	Behavior Risk Factor Surveillance System , an adult survey conducted by the CDC.
CDC	Centers for Disease Control and Prevention .
Current Smoker	Individual who has smoked at least 100 cigarettes in their lifetime and now smokes daily or on some days.
CY	Calendar Year
FY	Fiscal Year
HCNO	Hospital Council of Northwest Ohio
HDS	Heart Disease and Stroke , Topic of Healthy People 2020 objectives
HP 2020	Healthy People 2020 , a comprehensive set of health objectives published by the Office of Disease Prevention and Health Promotion, U.S. Department of Health and Human Services.
Health Indicator	A measure of the health of people in a community, such as cancer mortality rates, rates of obesity, or incidence of cigarette smoking.
High Blood Cholesterol	240 mg/dL and above
High Blood Pressure	Systolic \geq 140 and Diastolic \geq 90
IID	Immunizations and Infectious Diseases , Topic of Healthy People 2020 objectives
N/A	Data is not available.
NSCH	National Survey of Children's Health
Race/Ethnicity	Census 2010: U.S. Census data consider race and Hispanic origin separately. Census 2010 adhered to the standards of the Office of Management and Budget (OMB), which define Hispanic or Latino as "a person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin regardless of race." Data are presented as "Hispanic or Latino" and "Not Hispanic or Latino." Census 2010 reported five race categories including: White, Black or African American, American Indian & Alaska Native, Asian, Native Hawaiian and Other Pacific Islander. Data reported, "White alone" or "Black alone", means the respondents reported only one race.
YPLL/65	Years of Potential Life Lost before age 65. Indicator of premature death.

Appendix III: Methods for Weighting The 2017 Lenawee 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 needs to be weighted so that the proportioned characteristics of the sample accurately reflect the proportioned characteristics of the population. In the 2017 Lenawee County survey, a weighting was applied prior to the analysis that weighted the survey respondents to reflect the actual distribution of Lenawee County based on age, sex, race, and income.

Weightings were created for each category within sex (male, female), race (White, Non-White), Age (8 different age categories), and income (6 different income categories). The numerical value of the weight for each category was calculated by taking the percent of Lenawee 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 2017 Lenawee County Survey and the 2015 Census estimates.

<u>Sex</u>	<u>2017 Lenawee Survey</u>		<u>2015 Census estimates</u>		<u>Weight</u>
	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>	
Male	232	57.85536	50,231	50.78866	0.877856
Female	169	42.14464	48,671	49.21134	1.167677

In this example, it shows that there was a slightly larger portion of females in the sample compared to the actual portion in Lenawee County. The weighting for males was calculated by taking the percent of males in Lenawee County (based on Census information) (50.78866%) and dividing that by the percent found in the 2017 Lenawee County sample (57.85536%) [$50.78866/57.85536 =$ weighting of 0.877856 for males]. The same was done for females [$49.21134/42.14464 =$ weighting of 1.167677 for females]. Thus males' responses are weighted less by a factor of 0.877856 and females' responses weighted heavier by a factor of 1.167677.

This same thing was done for each of the 18 specific categories as described above. For example, a respondent who was female, White, in the age category 45-54, and with a household income in the \$50-\$75k category would have an individual weighting of 2.76097 [1.167677 (weight for females) \times 0.97224 (weight for White) \times 1.93581 (weight for age 45-54) \times 1.25633 (weight for income \$50-\$75k)]. Thus, each individual in the 2017 Lenawee County sample has their own individual weighting based on their combination of age, race, sex, 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 in the statistical software package (SPSS 23.0) when calculating frequencies. For analyses done for the entire sample and analyses done based on subgroups other than age, race, sex, or income – the weightings that were calculated based on the product of the four weighting variables (age, race, sex, income) for each individual. When analyses were done comparing groups within one of the four weighting variables (e.g., smoking status by race/ethnicity), that specific variable was not used in the weighting score that was applied in the software package. In the example smoking status by race, the weighting score that was applied during analysis included only age, sex, and income. Thus a total of eight weighting scores for each individual were created and applied depending on the analysis conducted. The weight categories were as follows:

1. **Total weight** (product of 4 weights) – for all analyses that did not separate age, race, sex, or income.
2. **Weight without sex** (product of age, race, and income weights) – used when analyzing by sex.
3. **Weight without age** (product of sex, race, and income weights) – used when analyzing by age.
4. **Weight without race** (product of age, sex, and income weights) – used when analyzing by race.
5. **Weight without income** (product of age, race, and sex weights) – used when analyzing by income.
6. **Weight without sex or age** (product of race and income weights) – used when analyzing by sex and age.
7. **Weight without sex or race** (product of age and income weights) – used when analyzing by sex and race.
8. **Weight without sex or income** (product of age and race weights) – used when analyzing by sex and income.

Category	Lenawee Sample	%	2015 Census*	%	Weighting Value
Sex:					
Male	232	57.85536	50,231	50.78866	0.877856
Female	169	42.14464	48,671	49.21134	1.167677
Age:					
20-34	28	7.07071	6,784	10.73384	1.51807
35-44	19	4.79798	12,133	19.19718	4.00110
45-54	46	11.61616	14,212	22.48663	1.93581
55-59	44	11.11111	7,281	11.52021	1.03682
60-64	52	13.13131	6,785	10.73542	0.81754
65-74	100	25.25253	9,146	14.47106	0.57305
75-84	79	19.94949	4,898	7.74975	0.38847
85+	28	7.07071	1,963	3.10591	0.43927
Race:					
White	350	87.71930	84,348	85.28442	0.97224
Non-White	49	12.28070	14,554	14.71558	1.19827
Household Income:					
Less than \$25k	91	24.46237	8,971	23.63028	0.96599
\$25k-\$50k	111	29.83871	10,747	28.30840	0.94871
\$50k-\$75k	61	16.39785	7,821	20.60110	1.25633
\$75k-\$100k	37	9.94624	4,915	12.94648	1.30165
\$100k-\$150k	46	12.36559	4,142	10.91034	0.88231
\$150k or more	17	4.56989	1,368	3.60341	0.78851

Note: The weighting ratios are calculated by taking the ratio of the proportion of the population of Lenawee County in each subcategory by the proportion of the sample in the Lenawee County survey for that same category.

*Lenawee County population figures taken from the 2015 Census estimates.

Appendix IV: Lenawee County Sample Demographic Profile*

Variable	2017 Survey Sample	Lenawee County Census 2012-2016 (5-year estimates)	Michigan Census 2016 (1-year estimates)
Age			
20-29	7.4%	12.3%	13.7%
30-39	16.8%	11.5%	11.9%
40-49	17.0%	13.1%	12.3%
50-59	22.5%	14.6%	14.4%
60 plus	36.3%	23.9%	22.9%
Race/Ethnicity			
White	91.8%	92.5%	78.4%
Black or African American	0.4%	2.9%	13.7%
American Indian and Alaska Native	1.0%	0.4%	0.5%
Asian	1.0%	0.2%	2.9%
Other	4.8%	1.2%	1.1%
Hispanic Origin (may be of any race)	7.2%	7.6%	4.9%
Marital Status†			
Married Couple	51.4%	49.3%	47.5%
Never been married/member of an unmarried couple	15.7%	30.8%	33.4%
Divorced/Separated	20.6%	14.2%	13.1%
Widowed	8.9%	5.7%	6.0%
Education†			
Less than High School Diploma	2.7%	9.5%	9.6%
High School Diploma	26.8%	36.9%	29.3%
Some college/ College graduate	68.1%	53.7%	61.2%
Income (Families)			
\$14,999 and less	10.8%	6.1%	6.9%
\$15,000 to \$24,999	11.1%	8.2%	7.3%
\$25,000 to \$49,999	23.3%	24.8%	21.4%
\$50,000 to \$74,999	12.8%	23.4%	19.7%
\$75,000 or more	32.1%	37.4%	44.6%

* The percents reported are the actual percent within each category who responded to the survey. The data contained within the report however are based on weighted data (weighted by age, race, sex, and income). Percents may not add to 100% due to missing data (non-responses).

† The Michigan and Lenawee County Census percentages are slightly different than the percent who responded to the survey. Marital status is calculated for those individuals 15 years and older. Education is calculated for those 25 years and older.

Appendix V: Demographics and Household Information

Lenawee County Population by Age Groups and Gender 2010 U.S. Census

Age	Total	Males	Females
Lenawee County	99,892	50,458	49,434
0-4 years	5,689	2,958	2,731
1-4 years	4,619	2,398	2,221
< 1 year	1,070	560	610
1-2 years	2,216	1,142	1,074
3-4 years	2,403	1,256	1,147
5-9 years	6,227	3,182	3,045
5-6 years	2,413	1,228	1,185
7-9 years	3,814	1,954	1,860
10-14 years	6,785	3,458	3,327
10-12 years	4,065	2,116	1,949
13-14 years	2,720	1,342	1,378
12-18 years	10,163	5,326	4,837
15-19 years	7,676	4,088	3,588
15-17 years	4,427	2,370	2,057
18-19 years	3,249	1,718	1,531
20-24 years	6,217	3,324	2,893
25-29 years	5,391	2,935	2,456
30-34 years	5,645	3,016	2,629
35-39 years	6,248	3,240	3,008
40-44 years	6,737	3,513	3,224
45-49 years	7,428	3,787	3,681
50-54 years	7,773	3,989	3,784
55-59 years	7,189	3,557	3,632
60-64 years	6,267	3,100	3,167
65-69 years	4,605	2,212	2,393
70-74 years	3,242	1,541	1,701
75-79 years	2,592	1,094	1,498
80-84 years	2,175	840	1,335
85-89 years	1,331	459	872
90-94 years	502	140	362
95-99 years	116	23	93
100-104 years	15	2	13
105-109 years	1	0	1
110 years & over	1	0	1
Total 85 years and over	1,966	624	1,342
Total 65 years and over	14,580	6,311	8,269
Total 19 years and over	75,137	37,602	37,535

LENAWEE COUNTY PROFILE

General Demographic Characteristics (Source : U.S. Census Bureau, Census 2016)

2012-2016 ACS 5-year estimate

Total Population

2016 Total Population	98,673
2000 Total Population	98,890

Largest City-Adrian

2016 Total Population	20,800	100%
2000 Total Population	21,574	100%

Population By Race/Ethnicity

Total Population	98,673	100%
White Alone	91,338	92.6%
Hispanic or Latino (of any race)	7,567	7.7%
African American	2,891	2.9%
Two or more races	2,444	2.5%
Other	1,238	1.3%
American Indian and Alaska Native	443	0.4%
Asian	264	0.3%

Population By Age 2010

Under 5 years	5,689	5.7%
5 to 17 years	17,439	17.5%
18 to 24 years	9,466	9.5%
25 to 44 years	24,021	24.0%
45 to 64 years	28,697	28.7%
65 years and more	14,580	14.6%
Median age (years)	40.0	

Household By Type

Total Households	37,856	100%
Family Households (families)	25,028	66.1%
With own children <18 years	9,877	26.1%
Married-Couple Family Households	19,088	50.4%
With own children <18 years	6,414	16.9%
Female Householder, No Husband Present	4,208	11.1%
With own children <18 years	2,542	6.7%
Non-family Households	12,828	33.9%
Householder living alone	10,967	29.0%
Householder 65 years and >	4,126	10.9%
Households With Individuals < 18 years	10,978	29.0%
Households With Individuals 60 years and >	15,369	40.6%

General Demographic Characteristics, Continued
(Source : U.S. Census Bureau, Census 2016)

2012-2016 ACS 5-year estimate

Median Value of Owner-Occupied Units	\$119,400
Median Monthly Owner Costs (With Mortgage)	\$1,160
Median Monthly Owner Costs (Not Mortgaged)	\$439
Median Gross Rent for Renter-Occupied Units	\$754
Median Rooms Per Housing Unit	6.1
Total Housing Units	43,456
No Telephone Service	1,164
Lacking Complete Kitchen Facilities	196
Lacking Complete Plumbing Facilities	28

Selected Social Characteristics
(Source : U.S. Census Bureau, Census 2016)

2011-2016 ACS 5-year estimates

School Enrollment

Population 3 Years and Over Enrolled In School	24,179	100%
Nursery & Preschool	1,272	5.3%
Kindergarten	1,285	5.3%
Elementary School (Grades 1-8)	9,727	40.2%
High School (Grades 9-12)	5,535	22.9%
College or Graduate School	6,360	26.4%

Educational Attainment

Population 25 Years and Over	67,537	100%
< 9 th Grade Education	2,064	3.1%
9 th to 12 th Grade, No Diploma	4,334	6.4%
High School Graduate (Includes Equivalency)	24,933	36.9%
Some College, No Degree	16,924	25.1%
Associate Degree	5,820	8.6%
Bachelor's Degree	8,828	13.1%
Graduate Or Professional Degree	4,634	6.9%

Percent High School Graduate or Higher	*(X)	90.5%
Percent Bachelor's Degree or Higher	*(X)	19.9%

*(X) – Not available

Selected Social Characteristics, Continued
(Source : U.S. Census Bureau, Census 2016)

2012-2016 ACS 5-year estimate

Marital Status

Population 15 Years and Over	81,122	100%
Never Married	24,986	30.8%
Now Married, Excluding Separated	39,993	49.3%
Separated	1,136	1.4%
Widowed	4,624	5.7%
Female	417	0.5%
Divorced	10,384	12.8%
Female	1,454	1.8%

Veteran Status

Civilian Veterans 18 years and over	7,234	9.4%
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Disability Status of the Civilian Non-institutionalized Population

Total Civilian Noninstitutionalized Population	95,524	100%
With a Disability	14,876	15.6%
Under 17 years old	21,464	22.5%
With a Disability	1,368	1.4%
18 to 64 years old	58,122	60.8%
With a Disability	7,698	8.1%
65 Years and Over	15,938	16.7%
With a Disability	5,810	6.1%

Selected Economic Characteristics
(Source: U.S. Census Bureau, Census 2016)

2012-2016 ACS 5-year estimates

Employment Status

Population 16 Years and Over	79,830	100%
In Labor Force	46,751	58.6%
Not In Labor Force	33,079	41.4%
Females 16 Years and Over	39,557	100%
In Labor Force	22,234	56.2%

Population Living With Own Children <6 Years	6,156	100%
All Parents In Family In Labor Force	4,432	75.7%

Class of Worker

Employed Civilian Population 16 Years and Over	43,293	100%
Private Wage and Salary Workers	35,589	82.2%
Government Workers	5,264	12.2%
Self-Employed Workers in Own Not Incorporated Business	2,360	5.5%
Unpaid Family Workers	80	0.2%

Median Earnings

Male, Full-time, Year-Round Workers	\$45,693
Female, Full-time, Year-Round Workers	\$34,292

Selected Economic Characteristics, Continued
 (Source: U.S. Census Bureau, Census 2016)

2012-2016 ACS 5-year estimate

Income In 2016

Households	37,856	100%
< \$10,000	2,164	5.7%
\$10,000 to \$14,999	2,055	5.4%
\$15,000 to \$24,999	4,424	11.7%
\$25,000 to \$34,999	4,401	11.6%
\$35,000 to \$49,999	6,139	16.2%
\$50,000 to \$74,999	7,734	20.4%
\$75,000 to \$99,999	4,802	12.7%
\$100,000 to \$149,999	4,449	11.8%
\$150,000 to \$199,999	1,004	2.7%
\$200,000 or more	684	1.8%

Median Household Income **\$49,300**

Income In 2016

Families	25,028	100%
< \$10,000	867	3.5%
\$10,000 to \$14,999	663	2.6%
\$15,000 to \$24,999	2,051	8.2%
\$25,000 to \$34,999	2,298	9.2%
\$35,000 to \$49,999	3,910	15.6%
\$50,000 to \$74,999	5,867	23.4%
\$75,000 to \$99,999	3,915	15.6%
\$100,000 to \$149,999	3,935	15.7%
\$150,000 to \$199,999	906	3.6%
\$200,000 or more	616	2.5%

Median Household Income (families) **\$61,381**

Per Capita Income In 2012-2016 **\$24,512**

Poverty Status In 2016

		% Below Poverty Level
Families	*(X)	9.8%
Individuals	*(X)	14.4%

*(X) – Not available

Selected Economic Characteristics, Continued
(Source: U.S. Census Bureau, Census 2016)

2012-2016 ACS 5-year estimate

Occupations

Employed Civilian Population 16 Years and Over	43,293	100%
Management, business, science, and art occupations	12,570	29.0%
Sales and Office Occupations	10,285	23.8%
Production, Transportation, and Material Moving	8,373	19.3%
Service Occupations	8,026	18.5%
Natural Resources, Construction, and Maintenance	4,039	9.3%

Leading Industries

Employed Civilian Population 16 Years and Over	43,293	100%
Educational services, and health care and social assistance	11,067	25.6%
Manufacturing	8,913	20.6%
Retail trade	4,939	11.4%
Arts, entertainment, and recreation, and accommodation and food services	3,290	7.6%
Professional, scientific, and management, and administrative and waste management services	2,882	6.7%
Other services, except public administration	2,325	5.4%
Construction	2,142	4.9%
Finance and insurance, and real estate and rental and leasing	1,985	4.6%
Transportation and warehousing, and utilities	1,684	3.9%
Public Administration	1,652	3.8%
Agriculture, forestry, fishing and hunting, and mining	1,027	2.4%
Wholesale trade	821	1.9%
Information	566	1.3%

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

	Income	Rank of Michigan Counties
BEA Per Capita Personal Income 2016	\$36,918	42 nd of 83 counties
BEA Per Capita Personal Income 2015	\$35,652	41 st of 83 counties
BEA Per Capita Personal Income 2014	\$33,982	44 th of 83 counties
BEA Per Capita Personal Income 2013	\$32,971	42 nd of 83 counties
BEA Per Capita Personal Income 2012	\$32,611	41 st of 83 counties
BEA Per Capita Personal Income 2011	\$31,827	42 nd of 83 counties

(BEA PCPI figures are greater than Census figures for comparable years due to deductions for retirement, Medicaid, Medicare payments, and the value of food stamps, among other things)

Employment Statistics

Category	Lenawee	Michigan
Labor Force	47,679	4,889,000
Employed	45,181	4,634,000
Unemployed	2,498	254,000
Unemployment Rate* in February 2018	5.2	5.2
Unemployment Rate* in January 2018	5.6	5.3
Unemployment Rate* in February 2017	5.7	5.4

*Rate equals unemployment divided by labor force.

(Source: Michigan Bureau of Labor Market Information and Strategic Initiatives, March 2018, <http://www.milmi.org/>)

Estimated Poverty Status in 2016

Age Groups	Number	90% Confidence Interval	Percent	90% Confidence Interval
Lenawee County				
All ages in poverty	11,641	10,072 to 13,210	12.5%	10.8 to 14.2
Ages 0-17 in poverty	3,400	2,727 to 4,073	16.5%	13.2 to 19.8
Ages 5-17 in families in poverty	2,275	1,770 to 2,780	15.0%	11.7 to 18.3
Median household income	\$52,738	\$49,477 to \$55,999		
Michigan				
All ages in poverty	1,449,683	1,430,043 to 1,469,323	14.9%	14.7 to 15.1
Ages 0-17 in poverty	444,100	433,082 to 455,118	20.7%	20.2 to 21.2
Ages 5-17 in families in poverty	297,400	287,719 to 307,081	18.9%	18.3 to 19.5
Median household income	52,436	\$52,038 to \$52,834		
United States				
All ages in poverty	44,268,996	44,022,086 to 44,515,906	14.0	13.9 to 14.1
Ages 0-17 in poverty	14,115,713	13,976,345 to 14,255,081	19.5	19.3 to 19.7
Ages 5-17 in families in poverty	9,648,486	9,548,767 to 9,748,205	18.3	18.1 to 18.5
Median household income	\$57,617	\$57,502 to \$57,732		

(Source: U.S. Census Bureau, Small Area Income and Poverty Estimates, updated January 2018, https://www.census.gov/data-tools/demo/saipe/saipe.html?s_appName=saipe&map_yearSelector=2016&map_geoSelector=aa_c&s_state=&s_measures=aa_snc&menu=grid_proxy&s_county=26091)

Federal Poverty Thresholds in 2015 by Size of Family and Number of Related Children Under 18 Years of Age

Size of Family Unit	No Children	One Child	Two Children	Three Children	Four Children	Five Children
1 Person < 65 years	\$12,486					
1 Person 65 and >	\$11,511					
2 people Householder < 65 years	\$16,072	\$16,543				
2 People Householder 65 and >	\$14,507	\$16,480				
3 People	\$18,774	\$19,318	\$19,337			
4 People	\$24,755	\$25,160	\$24,339	\$24,424		
5 People	\$29,854	\$30,288	\$29,360	\$28,643	\$28,205	
6 People	\$34,337	\$34,473	\$33,763	\$33,082	\$32,070	\$31,470
7 People	\$39,509	\$39,756	\$38,905	\$38,313	\$37,208	\$35,920
8 People	\$44,188	\$44,578	\$43,776	\$43,072	\$42,075	\$40,809
9 People or >	\$53,155	\$53,413	\$52,702	\$52,106	\$51,127	\$49,779

(Source: U. S. Census Bureau, Poverty Thresholds 2016, <http://www.census.gov/hhes/www/poverty/data/threshld/index.html>)

Appendix VI: County Health Rankings

	Lenawee County	Michigan	U.S.
Health Outcomes			
Premature death. Years of potential life lost before age 75 per 100,000 population (age-adjusted) (2011-2013)	7,100	7,200	6,600
Overall health. Percentage of adults reporting fair or poor health (age-adjusted) (2014)	15%	17%	15%
Physical health. Average number of physically unhealthy days reported in past 30 days (age-adjusted) (2014)	3.8	4.0	3.6
Mental health. Average number of mentally unhealthy days reported in past 30 days (age-adjusted) (2014)	3.7	3.9	3.7
Maternal and infant health. Percentage of live births with low birthweight (< 2500 grams) (2007-2013)	7%	8%	8%
Health Behaviors			
Tobacco. Percentage of adults who are current smokers (2014)	17%	21%	18%
Obesity. Percentage of adults that report a BMI of 30 or more (2012)	31%	31%	28%
Food environment. Index of factors that contribute to a healthy food environment, 0 (worst) to 10 (best) (2013)	7.8	7.2	7.3
Physical activity. Percentage of adults aged 20 and over reporting no leisure-time physical activity (2012)	22%	23%	22%
Active living environment. Percentage of population with adequate access to locations for physical activity (2010 & 2014)	71%	84%	84%
Drug and alcohol abuse. Percentage of adults reporting binge or heavy drinking (2014)	21%	20%	18%
Drug and alcohol abuse and injury. Percentage of driving deaths with alcohol involvement (2010-2014)	25%	29%	30%
Infectious disease. Number of newly diagnosed chlamydia cases per 100,000 population (2013)	209.7	447.2	456.1
Sexual and reproductive health. Teen birth rate per 1,000 female population, ages 15-19 (2007-2013)	31	28	32

(Source: 2017 County Health Rankings for Lenawee County, Michigan and U.S. data)

	Lenawee County	Michigan	U.S
Clinical Care			
Coverage and affordability. Percentage of population under age 65 without health insurance (2013)	9%	10%	14%
Access to health care/medical care. Ratio of population to primary care physicians (2013)	3,670:1	1,240:1	1,320:1
Access to dental care. Ratio of population to dentists (2014)	2,350:1	1,420:1	1,520:1
Hospital utilization. Number of hospital stays for ambulatory-care sensitive conditions per 1,000 Medicare enrollees (2013)	48	56	50
Diabetes. Percentage of diabetic Medicare enrollees ages 65-75 that receive HbA1c monitoring (2013)	87%	86%	85%
Cancer. Percentage of female Medicare enrollees ages 67-69 that receive mammography screening (2013)	65%	64%	63%
Social and Economic Environment			
Education. Percentage of ninth-grade cohort that graduates in four years (2012-2013)	86%	81%	83%
Education. Percentage of adults ages 25-44 years with some post-secondary education (2010-2014)	62%	67%	64%
Employment, poverty, and income. Percentage of population ages 16 and older unemployed but seeking work (2014)	4.8%	5.4%	5.3%
Employment, poverty, and income. Percentage of children under age 18 in poverty (2014)	21%	22%	21%
Employment, poverty, and income. Ratio of household income at the 80th percentile to income at the 20th percentile (2010-2014)	4.1	4.8	5.0
Family and social support. Percentage of children that live in a household headed by single parent (2010-2014)	36%	34%	34%
Family and social support. Number of membership associations per 10,000 population (2013)	12.4	10.1	9
Violence. Number of reported violent crime offenses per 100,000 population (2010-2012)	217	444	380
Injury. Number of deaths due to injury per 100,000 population (2009-2013)	63	65	62

(Source: 2017 County Health Rankings for Lenawee County, Michigan and U.S. data)

	Lenawee County	Michigan	U.S.
Physical Environment			
Air, water, and toxic substances. Average daily density of fine particulate matter in micrograms per cubic meter (PM2.5) (2011)	10.3	8.7	8.7
Air, water, and toxic substances. Indicator of the presence of health-related drinking water violations. 1 - indicates the presence of a violation, 0 - indicates no violation (FY 2013-2014)	Yes	N/A	N/A
Housing. Percentage of households with at least 1 of 4 housing problems: overcrowding, high housing costs, or lack of kitchen or plumbing facilities (2008-2012)	15%	17%	19%
Transportation. Percentage of the workforce that drives alone to work (2010-2014)	83%	83%	76%
Transportation. Among workers who commute in their car alone, the percentage that commute more than 30 minutes (2010-2014)	41%	32%	34%

(Source: 2017 County Health Rankings for Lenawee County, Michigan and U.S. data)

N/A – Data is not available

Appendix VII: Youth MiPHY Summary

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 sampling frame for the youth survey. The results in this report reflect student survey responses from schools that voluntarily participated in your county and may not be representative of all middle and high school students in the county.

MiPHY Variables	Lenawee County Middle Schools 2013-2014	Lenawee County Middle Schools 2015-2016	Lenawee County High Schools 2013-2014	Lenawee County High Schools 2015-2016	Michigan YRBS 2015 (9 th -12 th)
Weight Status and Nutrition					
Obese	13%	16%	16%	18%	14%
Overweight	19%	17%	15%	19%	16%
Described themselves as slightly or very overweight	29%	30%	32%	32%	33%
Trying to lose weight	48%	50%	46%	49%	48%
Went without eating for 24 hours or more	13%	N/A	12%	N/A	N/A
Took diet pills, powders, or liquids without a doctor's advice	3%	N/A	5%	N/A	N/A
Vomited or took laxatives	3%	N/A	4%	5%	N/A
Ate 5 or more servings per day of fruits and vegetables in the past week	30%	33%	23%	23%	N/A
Drank three or more glasses of milk per day during the past week	20%	20%	16%	15%	N/A
Drank pop or soda one or more times per day during the past week	24%	22%	22%	22%	19%
Ate breakfast every day during the past week	45%	43%	38%	35%	33%
Did not eat breakfast in the past week	9%	9%	11%	11%	17%
Physical Activity					
Physically active at least 60 minutes per day on 5 or more days in past week	29%	64%	27%	61%	46%
Youth who play on any sports team	69%	69%	63%	66%	N/A
Watched TV 3 or more hours per day	24%	28%	24%	22%	22%
Played video ore computer games or use a computer, not for school work for 3 or more hours per day on average school day	31%	32%	30%	31%	41%

N/A – Not available

MiPHY Variables	Lenawee County Middle Schools 2013-2014	Lenawee County Middle Schools 2015-2016	Lenawee County High Schools 2013-2014	Lenawee County High Schools 2015-2016	Michigan YRBS 2015 (9 th -12 th)
Alcohol and Other Drugs					
Ever drank alcohol	N/A	N/A	48%	45%	59%
Drank alcohol in during the past month	6%	8%	23%	21%	26%
Had 5 or more drinks of alcohol in a row, that is, within a couple of hours, during the past month (of all youth)	2%	4%	14%	12%	13%
Rode with someone who was drinking	26%	25%	12%	11%	19%
Drank and drove (of youth drivers)	N/A	N/A	4%	4%	5%
Obtained the alcohol they drank by someone giving it to them (of drinkers)	42%	38%	44%	43%	38%
Ever tried marijuana	N/A	N/A	28%	31%	34%
Used marijuana in the past month	3%	5%	16%	17%	19%
Ever used cocaine	5%	8%	N/A	N/A	4%
Ever used steroids	6%	8%	N/A	N/A	3%
Used inhalants to get high during the past month	4%	5%	2%	2%	N/A
Took a prescription drug such as Ritalin, Adderall, or Xanax without a doctor's prescription during the past month	3%	3%	5%	5%	N/A
Took painkillers such as OxyContin, Codeine, Vicodin, or Percocet without a doctor's prescription during the past month	4%	6%	8%	7%	N/A
Ever been offered, sold, or given an illegal drug by someone on school property in the past year	7%	6%	16%	15%	25%
Tobacco Use					
Ever smoked a cigarette	N/A	N/A	22%	21%	33%
Smoked cigarettes during the past month	3%	5%	8%	9%	10%
Smoked a whole cigarette for the first time before the age of 13	N/A	N/A	N/A	7%	8%
Smoked cigarettes on 20 or more days during the past month (of all youth)	0%	1%	3%	2%	3%
Exposed to second hand smoke in the past week	41%	41%	48%	46%	N/A
Had been told they had asthma and still have asthma	60%	60%	56%	47%	N/A

N/A – Not available

MiPHY Variables	Lenawee County Middle Schools 2013-2014	Lenawee County Middle Schools 2015-2016	Lenawee County High Schools 2013-2014	Lenawee County High Schools 2015-2016	Michigan YRBS 2015 (9 th -12 th)
Unintentional Injuries and Violence					
Carried a weapon in the past month	N/A	43%	24%	20%	17%
Carried a weapon on school property in the past month	N/A	4%	7%	4%	4%
Had been in a physical fight in the past year	N/A	44%	17%	17%	20%
Had been in a physical fight on school property in the past year	N/A	24%	8%	9%	7%
Threatened or injured with a weapon on school property in past year	11%	N/A	6%	7%	7%
Had property stolen or deliberately damaged on school property in past year	30%	N/A	17%	17%	N/A
Did not go to school because felt unsafe in the past month	10%	14%	4%	7%	6%
Electronically/cyber bullied in past year	18%	23%	19%	19%	19%
Bullied on school property in past year	40%	44%	28%	25%	26%
Never or rarely wore a seatbelt when riding in a car driven by someone else	5%	7%	8%	8%	7%
Texted or emailed while driving a car in the past month	N/A	N/A	57%	55%	39%
Mental Health					
Youth who felt sad or hopeless almost every day for 2 or more weeks in a row	28%	28%	32%	37%	32%
Youth who had ever seriously considered attempting suicide	22%	23%	18%	21%	17%
Had ever made a plan to attempt suicide	16%	16%	N/A	N/A	N/A
Made a plan to attempt suicide in the past year	N/A	N/A	15%	17%	15%
Youth who had ever tried to kill themselves	6%	9%	N/A	N/A	N/A
Attempted suicide in the past year	N/A	N/A	8%	9%	9%
Sexual Behavior					
Ever had sexual intercourse	7%	7%	36%	34%	36%
Used a condom at last intercourse (of youth who had sexual intercourse in the past three months)	44%	N/A	N/A	59%	57%
Had four or more sexual partners (of all youth)	N/A	N/A	8%	8%	9%
Had sexual intercourse before age 13 (of all youth)	N/A	N/A	4%	3%	3%

N/A – Not available

MiPHY Variables	Lenawee County Middle Schools 2013-2014	Lenawee County Middle Schools 2015-2016	Lenawee County High Schools 2013-2014	Lenawee County High Schools 2015-2016	Michigan YRBS 2015 (9 th -12 th)
Individual and Peer Domain					
Youth who reported regular cigarette use to be a moderate or great risk	81%	78%	83%	85%	N/A
Youth who reported regular alcohol use to be a moderate or great risk	72%	64%	70%	71%	N/A
Youth who reported they thought none of their friends had smoked cigarettes recently	84%	80%	54%	61%	N/A
Youth who reported they thought none of their friends had been drunk recently	86%	84%	44%	48%	N/A
Youth who reported they thought none of their friends had used marijuana recently	82%	80%	43%	44%	N/A
Family Domain					
Youth who reported their parents felt cigarette use to be wrong or very wrong	98%	98%	95%	95%	N/A
Youth who reported their parents felt marijuana use to be wrong or very wrong	98%	97%	91%	89%	N/A
Youth whose parents ask whether their homework is done	11%	13%	25%	25%	N/A
Youth who could ask their mom or dad for help with personal problems	82%	81%	76%	78%	N/A
Community Domain					
Felt unsafe or very unsafe in their neighborhood	3%	4%	4%	3%	N/A
Youth who reported sort of easy or very easy to get cigarettes	29%	27%	58%	54%	N/A
Youth who reported sort of easy or very easy to get alcohol	35%	33%	66%	62%	N/A
Youth who reported sort of easy or very easy to get marijuana	15%	17%	55%	53%	N/A
Know adults in the neighborhood they could talk to about something important	57%	52%	44%	48%	N/A
Neighbors notice when they are doing a good job and let them know	28%	29%	21%	23%	N/A
Know people in their neighborhood who encourage them to do their best	45%	43%	37%	36%	N/A
Know people in their neighborhood who are proud when youth do something well	47%	43%	39%	39%	N/A

N/A – Not available

MiPHY Variables	Lenawee County Middle Schools 2013-2014	Lenawee County Middle Schools 2015-2016	Lenawee County High Schools 2013-2014	Lenawee County High Schools 2015-2016	Michigan YRBS 2015 (9 th -12 th)
School Domain					
Felt unsafe or very unsafe at school	5%	8%	6%	5%	N/A
Felt assigned school work was never or seldom meaningful and important	19%	20%	35%	34%	N/A
Youth who often or almost always hated being at school during the past year	38%	36%	46%	47%	N/A
Youth who never or seldom tried to do their best work at school during the past year	6%	5%	12%	8%	N/A
Youth who reported not at all or a little true that they do interesting activities at school	48%	44%	63%	59%	N/A
Youth who reported not at all or a little true that they make a difference at school	64%	61%	74%	72%	N/A
Had seen students get pushed, hit, or punched one or more times during the past year	65%	70%	61%	55%	N/A
Heard students get called mean names or get “put down” during the past year	86%	85%	78%	77%	N/A
Heard rumors or lies being spread about other students during the past year	87%	88%	85%	82%	N/A
Have seen students left out of activities or games on purpose during the past year	65%	66%	54%	52%	N/A
Heard students threaten to hurt other students during the past year	60%	62%	64%	58%	N/A
Have seen students wreck or damage other students’ things during the past year	51%	52%	47%	41%	N/A
Have read email or website messages that spread rumors about other students during the past year	26%	30%	35%	35%	N/A
Have read email or website messages that contained threats to other students during the past year	16%	21%	20%	22%	N/A
Have lots of chances to get involved in sports, clubs, and other school activities outside of class	92%	88%	90%	91%	N/A
Teachers notice when they are doing a good job and let them know about it	66%	65%	55%	57%	N/A
Teachers praise them when they work hard in school	58%	51%	45%	44%	N/A

N/A – Not available