## 2020-2022

BARRY COUNTY BEHAVIORAL RISK FACTOR SURVEY (BRFS) REPORT

Measures of the health status, risk behaviors, screening rates, and chronic diseases of adults in Barry County.

Authors: Sydney Nicholl, MPH Community Health Promotion Specialist

Aurelia Hocquard, MPH Epidemiologist

Published: November 2023



## ACKNOWLEDGEMENTS

The Barry-Eaton District Health Department wishes to thank the members of the community who graciously participated in this survey.

Additional thanks go to Public Sector Consultants, the Ingham County Health Department, and the Mid-Michigan District Health Department for technical consultation on survey design, data analysis, and interpretation. Other collaborative partners include the Eaton County Substance Abuse Advisory Group (ECSAAG), the Capital Area United Way, the Ingham County Health Department, and the Mid-Michigan District Health Department.

We are grateful for their ongoing support of local data collection efforts.

## FOR MORE INFORMATION

Please contact Sydney Nicholl, Community Health Promotion Specialist at (517) 541-2623 or email <u>SNicholl@bedhd.org</u>. Visit: <u>www.barryeatonhealth.org/community-health-statistics</u> for links to other local data and data sources.

The data presented here represents the highlights of the dataset, but is not comprehensive of all of the available data or question items. Please contact Sydney for more information about the extent of other data available from this survey, as well as to request customized data extractions or raw data files.

# TABLE OF CONTENTS

# LETTER TO RESIDENTS



Barry County: 330 W. Woodlawn Ave., Hastings MI 49058 Phone: 269-945-9516 Fax: 517-543-7737

Eaton County: 1033 Health Care Dr., Charlotte, MI 48813 Phone: 517-543-2430 Fax: 517-543-7737

November 30, 2023

Dear Residents:

On behalf of the Barry-Eaton District Health Department (BEDHD) and a group of community partners, I am pleased to share the 2020-2022 Barry-Eaton Behavioral Risk Factor Survey for Barry and Eaton counties. As a public health agency, BEDHD is responsible for monitoring the health status of our counties to identify and solve community health problems. This survey measures the health status, risk behaviors, clinical preventive care practices, and chronic disease outcomes of Barry and Eaton county residents.

This undertaking is an important local tool that provides crucial data to identify priority health issues in the community – and in our populations at greatest risk for health problems. Our local Barry-Eaton Behavioral Risk Factor Survey contributes to multiple strategic planning efforts and the effective targeting of resources towards key health problems. The survey assists in monitoring the effectiveness of current initiatives and collaborative efforts. Further, the data supports the development of health policy changes to improve community health across the population.

BEDHD would like to thank the collaborative partners that made this survey and its analysis possible – including Public Sector Consultants, Eaton County Substance Awareness Advisory Group (ECSAAG), Capital Area United Way, Ingham County Health Department, and Mid-Michigan District Health Department.

We welcome the utilization of this data by the community and community organizations and invite inquiries for more detailed analysis and breakouts of the data. Please contact Sydney Nicholl, BEDHD Community Health Promotion Specialist, at SNicholl@bedhd.org for more information on this opportunity. Please visit <u>https://barryeatonhealth.org/health-data-reports/</u> to view other sources of data about the community's health and the collaborative efforts to improve health.

We would like to thank again the citizens of Barry and Eaton counties who agreed to participate in the survey – understanding the health of the community depends on reliable, consistent measurement of many people over time.

Collos

Colette Scrimger Health Officer, Barry-Eaton District Health Department

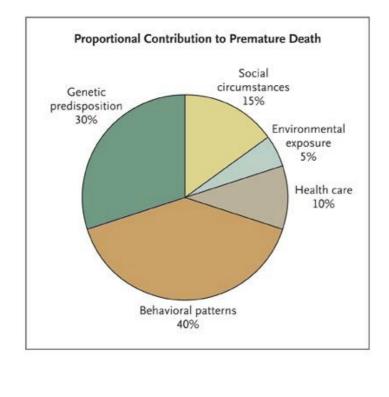
# INTRODUCTION

## Background

Health is influenced by factors in five domains—behavioral patterns, social circumstances, environmental exposures, genetics, and health care. Behavioral patterns are the single greatest cause of premature death in the United States, accounting for nearly 40% of all deaths. Smoking, obesity, and inactivity are the top behavioral causes of premature death.<sup>1</sup>

In 2020, Capital Area United Way, Barry-Eaton District Health Department, Ingham County Health Department, and Mid-Michigan District Health Department contracted for a survey of the adult population in their jurisdictions (Barry, Eaton, Ingham, Clinton, Gratiot, and Montcalm counties) on various health related behaviors, medical conditions, and preventative health care practices.

The survey was conducted using the Capital Area Behavioral Risk Factor Survey (BRFS) instrument, using questions from the Centers for Disease Control and Prevention's (CDC) Behavioral Risk Factor Surveillance System questionnaire, as well as specific questions developed by the health departments to collect information of interest to the communities. Adults must be 18 years of age or older to participate in the survey. This survey continues a long tradition at the Barry-Eaton District Health Department of locally collected data on behavioral health factors.



#### Figure 1. Determinants of Health and Their Contribution to Premature Death<sup>1</sup>

## **Survey Design**

The Barry-Eaton Behavioral Risk Factor Survey (Barry-Eaton BRFS), part of the Capital Area Behavioral Risk Factor Survey, utilizes a disproportionate stratified random sample methodology. This approach was used to ensure a sufficient sample size in each county. Households were contacted through random-digit-dialed methodology (RDD) to ensure that all possible telephone numbers in a working block with at least one directory-listed number have an equal probability of selection. Telephone numbers where no contact was made were called up to 10 times before being taken out of the calling rotation. When this occurred, the telephone number was replaced by a replicate telephone number (i.e., one within the same working block as the one that was removed) to ensure parity.

Over the past decade, the proportion of U.S. adults who live in cell phone-only households has increased dramatically. As a result of this increase in cell phone-only households, it has become necessary to add cell phones to telephone survey samples, including the Barry-Eaton BRFS. Adding cell phones to the survey sample is important because research shows that adults from cell phone-only households are different from adults who live within landline-only households. Cell phone-only adults tend to be younger, unmarried, have lower household incomes, and are more frequently Hispanic or African American. Adults from cell phone-only households also tend to have different health-related attitudes and behaviors, so, in previous survey years, the Barry-Eaton BRFS landline-only telephone survey was not able to obtain a truly representative sample of the adult population in Barry and Eaton counties. For the 2020-2022 Barry-Eaton BRFS, using the industry standard of the time, a minimum of 70% of the samples in each county were collected through calls to cell phones.

A total of 3,690 adults in all six counties responded to the telephone survey, and the overall survey response rate was 10.49% across all six counties. This rate is computed using the American Association for Public Opinion Research definitions, which compute the number of completed interviews as a proportion of the total number of eligible households contacted. In the Barry-Eaton District, 711 interviews were completed—393 in Eaton County and 318 in Barry County. The survey utilized a rolling sample survey design, which allows for reliable multi-year estimates for small areas. The rolling sample design called for collection of approximately one-third of the survey sample in each of three years—2020, 2021, and 2022.

## **Survey Analysis**

The Barry-Eaton BRFS data were analyzed using SPSS 24 for Windows, Release 24.0.0.0 (2016), Copyright SPSS, Inc.

## Weighting

Since random sampling assumes an equal probability of selection into the final sample, it is important to adjust sample estimates when this assumption is not met to allow for subgroup analysis. No matter how carefully a population is sampled, bias can be introduced into a sample due to non-response and non-coverage of particular subgroups (e.g., age, education, race, and Hispanic origin). Therefore, weighting is employed to adjust for the known differences between fixed characteristics of the sample and the population. Cases in the 2020–2022 BRFS data set were weighted based on the population distribution in the county.

For 2020-2022, a weighting procedure called iterative proportional fitting, or "raking," was used to decrease the potential for bias, increase the representativeness of Barry-Eaton BRFS data, and align with Michigan's BRFS process. A description of this methodology and differences from the previous post-stratification method can be found at <u>https://goo.gl/RtMNPz</u>. Michigan's BRFS raking methodology adjusts data based on these variables: telephone source (landline vs. cell phone), detailed race/ethnicity, education level, marital status, age by gender, gender by race/ethnicity, age by race/ethnicity, and home renter/owner status.

Barry-Eaton's BRFS raking methodology does not exactly follow Michigan's BRFS methodology due to the smaller sample size of the population; data were unable to be weighted by the gender by race/ethnicity or age by race/ethnicity variables, and race/ethnicity had to be aggregated to make a sufficient sample size. In addition, home renter/owner status was not asked of Barry-Eaton BRFS respondents, and telephone source could not be used, as county-level estimates of cell phone prevalence are not available.

## **Data Interpretation Notes**

The data presented in the following charts are weighted as described above including prevalence estimate percentages and the N values. The N value is a weighted number of participants reporting that response. When the weighted number (N) is five or fewer responses, the N value and the percentage are suppressed (or not reported). Readers should examine the N values when looking at subgroups such as age, education, and income. The smaller the N value, the greater the chance that the prevalence estimate does not have a statistically significant difference from the other groups.

Note that due to missing values, question refusal, and data weighting, the sum of the N values of all responses in a particular measure, or the sum of the N values of respondents in a particular subgroup, will not typically equal the total number of interviews conducted. The prevalence estimates exclude missing data from the percentages reported.

In the summary table, "N/A" indicates that the data are insufficient to make either a comparison to the state or to determine a trend pattern. For individual indicators, the use of \*\* means that the number of responses or the percentage for specific subgroups were too small to be shared, and the data were suppressed (not reported).

## **Results and Comparisons to Other Data**

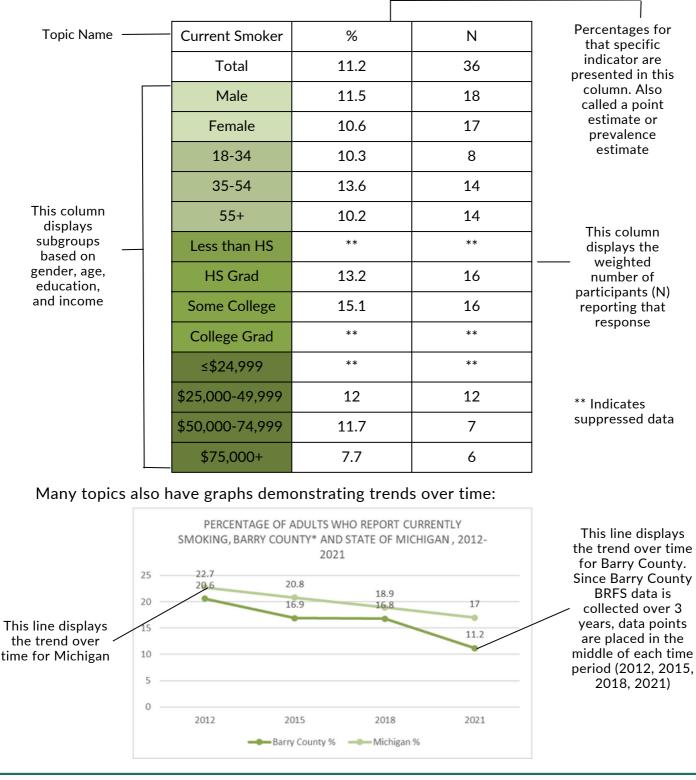
This report presents estimates from the 2020-2022 Barry-Eaton BRFS. It is the only source of county-specific, population-based estimates of the prevalence of various health behaviors, medical conditions, and preventive health care practices among Barry County adults. Results presented in this report can be interpreted as prevalence estimates among Barry County's adult population.

Due to differences in the weighting methodologies used in the 2011-2013 and 2017-2019 Barry-Eaton BRFS surveys, caution should be exercised when comparing Barry County BRFS data from 2011-2013 and earlier to 2017-2019 data. Also, while every effort was made to match the Michigan BRFS methodology, an exact replication was not possible due to differences in population size (differences described above) and the percentage of cell phone samples collected. Therefore, while data from both surveys is presented within this report, comparisons of Barry County BRFS data and Michigan BRFS data should be interpreted with caution.

Due to Michigan BRFS (MiBRFS) methodology changes in 2011, any MiBRFS data from 2011 and later should not be compared to prior data (indicated on graphs by a dashed grey line). More information on the MiBRFS is available at <u>https://goo.gl/EYshRF</u>.

## **Understanding the Data Display**

Each topic has data points highlighted in a box that looks like this:



2020-2022 Behavioral Risk Factor Survey

# SUMMARY

## Background

A number of trends are noted in the 2020-2022 Barry County BRFS that impact important public health topics.

#### Prevalence of cigarette smoking and vaping use decreased.

The prevalence of Barry County adults who were current cigarette smokers decreased from 16.8% in 2017-2019 to 11.2% in 2020-2022 and was slightly less than Michigan (17% in 2021). Barry County adults reporting ever using electronic cigarettes decreased from 25.6% in 2017-2019 to 6.1% in 2020-2022. This significant decrease could be due to limited responses to this question in the survey. Nearly 43.1% of electronic cigarette users stated that the main reason they started using was to quit smoking. Additional resources are needed to decrease smoking in Barry County's population.

#### Access to health care and health care coverage improved.

In Barry County, 8% of adults reported being unable to see a doctor due to cost during the past year, which was lower than the 9.7% reported in 2017-2019 and 8.9% in the 2014-2016 cycle. For adults who reported being unable to see a dentist, the trend has decreased to 10.7% in 2020-2022 compared to 11.5% in 2017-2019 and 10.4 in 2014-2016. The percentage of Barry County adults who reported not having health insurance coverage improved from 13.9% in 2014-2016, to 7.1% in 2017-2019, to 5.3% in 2020-2022, and was similar to Michigan data (6.2% in 2021). These decreases may have reflected increases in coverage due to the Affordable Care Act and the Healthy Michigan Plan and may be affected by the Medicaid work requirements heading in to the next survey cycle.

#### Low levels of nutrition and physical activity continue to result in obesity.

Only about one-quarter of Barry County adults (27.6%) routinely ate the recommended five or more servings of fruit and vegetables per day, which was a decrease from 28.2 in 2017-2019 and 32.4% in 2014-2016. In addition, 41.3% of Barry County adults reported no leisure-time physical activity, which was a substantial increase from 26.3% in 2017-2019. Low levels of daily fruit and vegetable consumption and physical activity are potential contributing factors to the continuing high prevalence of obesity among Barry County adults.

Between 2020 and 2022, fewer Barry County adults were considered overweight (35.5%) than during 2017-2019 (38.5%). Furthermore, the prevalence of obesity remained relatively steady over the last four BRFS cycles, from 32.4% in 2011-2013 to 33.4% in 2020-2022. Barry County adults (33.4%) were slightly less likely to be obese than adults in Michigan (34.4%). Being overweight or obese can contribute to other chronic diseases and poor health outcomes. More than one in four adults (26.7%) in Barry County was considered to be a healthy weight.

## SUMMARY CONT.

## Background

#### For many indicators, educational and financial disparities exist.

Household income and level of education are social determinants of health, meaning that disparities in these areas can lead to short- and long-term differences in health outcomes for individuals. Less educational attainment or income resulted in worse results for the following indicators and outcomes:

#### **Education**:

- Worried about paying rent/mortgage
- Worried about paying for nutritious food
- Binge drinking
- Have ever used e-cigarettes
- Fruit and vegetable consumption
- Any kind of health care coverage
- Couldn't see a dentist because of cost
- Having a colorectal cancer screening
- Disability
- Poor mental health
- Obese
- High blood pressure

#### Income:

- Worried about paying rent/mortgage
- Worried about paying for nutritious food
- Binge drinking
- Current smoker
- Have ever used e-cigarettes
- Fruit and vegetable consumption
- Disability
- Poor physical health
- Obese
- High blood pressure
- Diabetes

# SUMMARY TABLE

#### **BARRY COUNTY BEHAVIORAL RISK FACTOR SURVEY** 2020-2022

		2020-2022		
	INDICATORS /	AND MEASURES	Barry County	Michigan
FCONOMIC		Worried about Paying Mortgage/Rent	25.9%	N/A
ECONOMIC INDICATORS	Financial Stability	Worried about Paying for Nutritious Food	21.0%	N/A
	Substance Use	Binge Drinking in the Past Month	12.9%	16.1%*
		Marijuana Use in the Past Month	7.0%	N/A
RISK BEHAVIOR	Tobacco Use	Current Smoker	11.2%	17%*
INDICATORS	TODACCO USE	Ever Used Electronic Cigarettes	6.1%	N/A
	Nutrition	Five or More Daily Fruit or Vegetable Servings	27.6%	N/A
	Physical Activity	No Physical Activity in the Past Month	41.3%	23.1%*
	Access to Healthcare	No Personal Health Care Provider	7.9%	10.9%*
		No Health Care Coverage	5.0%	6.2%*
CLINICAL		Could Not See Doctor due to Cost	8.0%	7.9%*
PREVENTION INDICATORS		Could Not See Dentist due to Cost	10.7%	N/A
INDICATORS		Ever Had a Mammogram (Women 40+)	94.1%	92.8%**
	Cancer Screening	Ever Had Colon Cancer Screening (Adults 50+)	77.8%	79.4%**
	Disability	Limited in Any Activity	11.7%	28.7%*
	Health Status	Poor Physical Health	9.3%	11.9%*
HEALTH STATUS INDICATORS	Health Status	Poor Mental Health	8.9%	15.5%*
	Maisht Status	Obese	33.4%	34.4%*
	Weight Status	Overweight	35.5%	34.2%*
		Ever Had High Blood Pressure	37.2%	35.3%*
	Chronic Disease	Ever Had Diabetes	12.8%	10.8%*
DISEASE OUTCOMES	Chronic Disease	Ever Had Asthma	13.6%	16.3%*
		Ever Had High Cholesterol	35.4%	36.8%*

\*Note: Based on 2021 BRFSS of Michigan Residents \*\*Note: Based on 2020 BRFSS of Michigan Residents

Items marked in red fall below the statewide figures and may require the County's attention.

Items marked in green indicate areas where the County is outperforming the state.

## FINANCIAL STABILITY

Financial stability is a key social determinant of health, which means it can affect a wide range of health, functioning, and quality-of-life outcomes and risks.<sup>1</sup> Financial stability contributes to physical health; for example, more disposable income could allow one to buy higherquality food or a gym membership. Also, financial stability can contribute to mental health via the presence or absence of chronic stress.

78.1% of Barry County adults reported being "never" worried about paying their rent or mortgage during the past year. A small gender difference was noted with males worrying less about paying rent or a mortgage. Adults aged 55+ years were most likely to report never being worried about paying their rent or mortgage (84.7%). Adults with a college graduate education were more likely to report never worrying than adults in other education brackets. The highest prevalence of never worrying about paying rent or mortgage was seen in adults with an annual income of \$75,000.

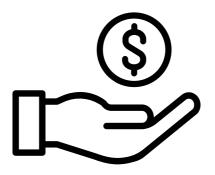
In Barry County, 79.8% of adults reported being "never" worried about paying for nutritious food during the past year. The prevalence for males was higher than females. Adults with less than a high school education were less likely to report never worrying than adults in other education brackets. Adults with annual incomes over \$75,000 had a higher prevalence of never worrying about paying for nutritious food than adults with lower incomes.

Due to differences in survey methodology, no comparison to state-level data is available.

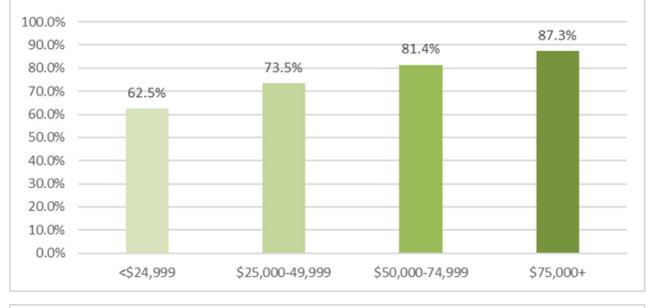
Never worried about paying rent/mortgage in the past year	%	N
Total	78.1	248
Male	82.3	130
Female	73.5	119
18-34	63.3	50
35-54	79.6	82
55+	84.7	116
Less than HS	65.2	15
HS Grad	70.5	86
Some College	84	89
College Grad	86.6	58
≤\$24,999	62.5	20
\$25,000-49,999	73.5	72
\$50,000-74,999	81.4	48
\$75,000+	87.3	69

Never worried about paying for nutritious food in the past year	%	N
Total	79.8	254
Male	82.3	130
Female	78	124
18-34	63.6	49
35-54	81.9	86
55+	87.6	120
Less than HS	66.7	16
HS Grad	73.6	89
Some College	82.9	87
College Grad	91.2	62
≤\$24,999	58.1	18
\$25,000-49,999	74.7	74
\$50,000-74,999	86.2	50
\$75,000+	92.2	71

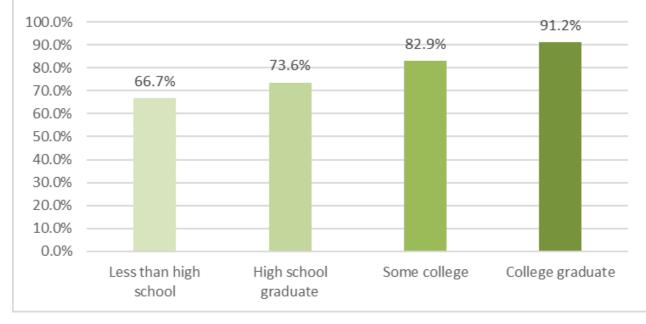
## FINANCIAL STABILITY CONT.



PERCENTAGE OF BARRY COUNTY ADULTS REPORTING "NEVER" WORRIED ABOUT HAVING MONEY FOR MORTGAGE OR RENT DURING THE PAST YEAR, BY INCOME LEVEL, 2020-2022



PERCENTAGE OF BARRY COUNTY ADULTS REPORTING "NEVER" WORRIED ABOUT HAVING MONEY FOR NUTRITIOUS FOOD DURING THE PAST YEAR, BY EDUCATION LEVEL, 2020-2022



## ALCOHOL CONSUMPTION

Excessive alcohol use, including underage drinking and binge drinking (drinking five or more drinks on an occasion for men or four or more drinks on an occasion for women) has been associated with serious health problems, such as cirrhosis of the liver, high blood pressure, stroke, and some types of cancer, and can increase the risk for motor vehicle accidents, injuries, violence, and suicide.<sup>2</sup>

Less than half (37.1%) of the surveyed adults in Barry County reported having at least one alcoholic drink in the past 30 days, and 12.9% reported binge drinking at least once in the past 30 days. Males were more likely than females to have reported any recent drinking and recent binge drinking. A higher percentage of the population aged 18-34 reported binge drinking than the population aged over 35. Binge drinking prevalence was highest among high school graduates and was highest among income levels  $\leq$  \$24,999. The prevalence of having a drink in the past 30 days was highest among those with an income higher than \$75,000.

In 2021, Barry County (12.9%) has a lower prevalence of binge drinking than the state of Michigan (16.1%).



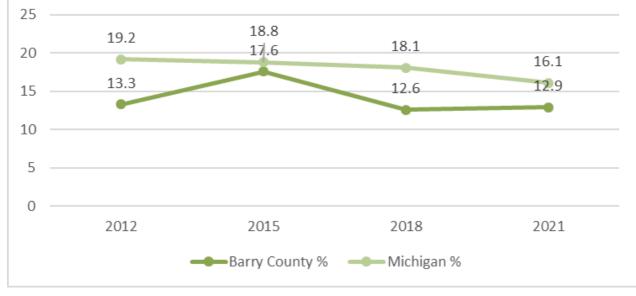
Drank in Past 30 Days	%	Ν
Total	37.1	118
Male	40.8	64
Female	33.8	54
18-34	40.3	31
35-54	39.4	41
55+	33.6	46
Less than HS	**	**
HS Grad	31.4	38
Some College	40.6	43
College Grad	50.7	34
≤\$24,999	34.4	11
\$25,000-49,999	36	36
\$50,000-74,999	27.1	16
\$75,000+	64.1	50

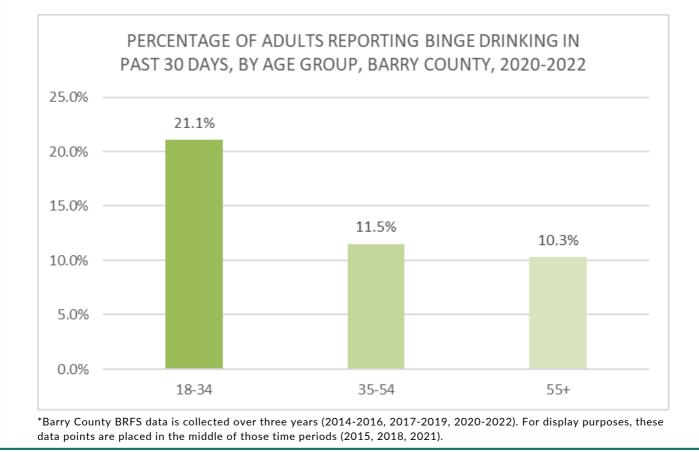
Binge Drinking Past 30 Days	%	N
Total	12.9	41
Male	12.8	20
Female	12.7	20
18-34	21.1	16
35-54	11.5	12
55+	10.3	14
Less than HS	**	**
HS Grad	18.3	22
Some College	12.4	13
College Grad	7.4	5
≤\$24,999	19.4	6
\$25,000-49,999	18.2	18
\$50,000-74,999	8.5	5
\$75,000+	13	10

## ALCOHOL CONSUMPTION CONT.



PERCENTAGE OF ADULTS REPORTING BINGE DRINKING IN PAST 30 DAYS, BARRY COUNTY\* AND STATE OF MICHIGAN, 2012-2021





2020-2022 Behavioral Risk Factor Survey

## MARIJUANA

Marijuana is the most commonly used federally illegal drug in the United States, with an estimated 48.2 million people using it in 2019.<sup>3</sup> Marijuana use may have a wide range of health effects on the body and brain. There is strong evidence that marijuana use may lead to addiction, breathing problems, short-term declines in memory, attention, and learning, increased risk of poisoning among children, increased risk for low birth weight in babies when a mother uses during her pregnancy, and increased risk for psychosis or schizophrenia.<sup>3</sup>

The percentage of Barry County adults who reported using marijuana everyday, for any reason, during the past month was 7%. More males reported using marijuana (9.5%) than females (4.4%).

#### **Data by Demographics**

Used Marijuana Everyday for the Past 30 Days	%	N
Total	7	21
Male	9.5	14
Female	4.4	7
18-34	11.6	8
35-54	6.9	7
55+	5.1	7
Less than HS	**	**
HS Grad	12.8	14
Some College	**	**
College Grad	**	**
≤\$24,999	**	**
\$25,000-49,999	16	15
\$50,000-74,999	**	**
\$75,000+	**	**

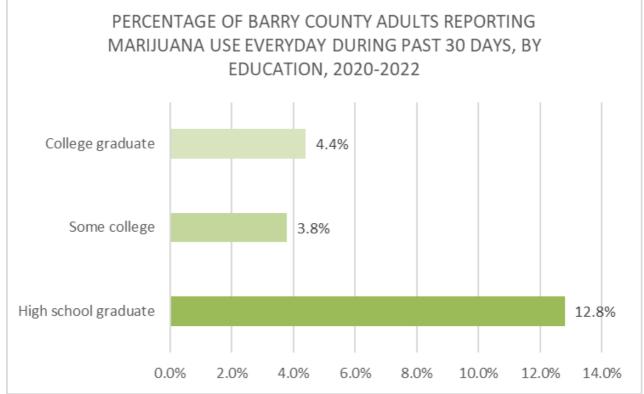
Few adults aged 55 years and older reported using marijuana (5.1%) compared with younger age groups (11.6% for ages 18-34 and 6.9% for ages 35-54). Adults with a high school education were more likely to have used marijuana everyday for the past month than adults in other education categories. 16% of adults with an income level of \$25,000-49,999 reported using marijuana everyday, for any reason, during the past month.

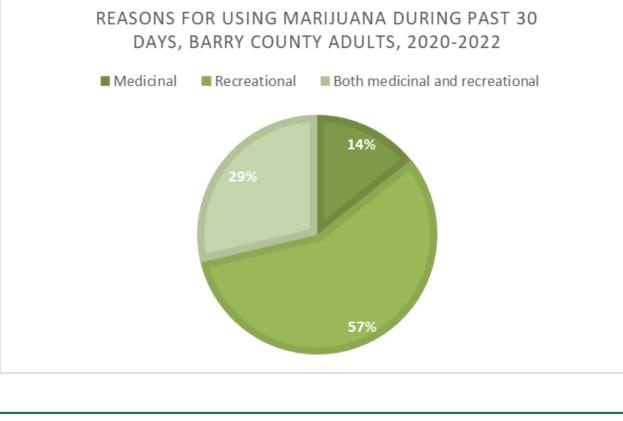
During 2020-2022, the percentage of Barry County adults who reported recent marijuana use (7%) decreased from 2017-2019 (10.2%) (data not shown). Due to differences in survey methodology, no comparison to state level data is available.

The majority of recent adult marijuana users (57%) in Barry County reported that they used marijuana for only recreational reasons, compared to both recreational and medicinal (28.7%) or only medicinal (14.3%) reasons.









## **SMOKING**

Cigarette smoking remains the leading cause of preventable disease, disability, and death in the United States.<sup>4</sup> Smoking is harmful to almost every organ in the body, and causes disease and disability.<sup>4</sup> For the purposes of this report, smoking is defined as cigarette smoking.

The proportion of Barry County adults who reported being a current smoker was 11.2%. Males were slightly more likely to report being a current smoker (11.5%) compared to females (10.6%). Adults in middle age groups had a higher prevalence of current smoking (13.6% in adults aged 35-54) than younger adults (10.3% in adults aged 18-34) and older adults (10.2% in adults aged 55+). The percentage of adults who currently smoke was highest among those with some college education (15.1%). The percentage of adults who currently smoke was highest among those with an income of \$25,000-49,999 (12%).

Compared to Michigan (17% for 2021), Barry County has a slightly lower prevalence of adults who reported being a current smoker (11.2% for 2020-2022). The percentage of the adult population who reported being a current smoker has decreased in Barry County since 2017-2019.

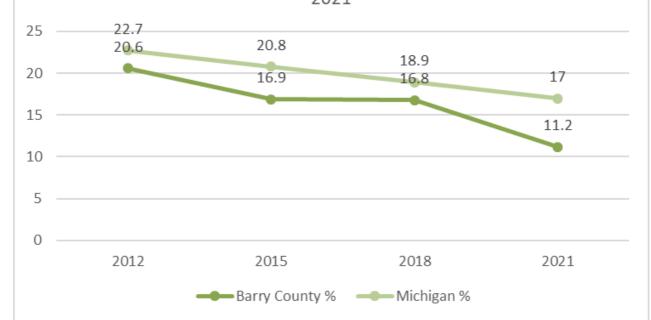
Current Smoker	%	N
Total	11.2	36
Male	11.5	18
Female	10.6	17
18-34	10.3	8
35-54	13.6	14
55+	10.2	14
Less than HS	**	**
HS Grad	13.2	16
Some College	15.1	16
College Grad	**	**
≤\$24,999	**	**
\$25,000-49,999	12	12
\$50,000-74,999	11.7	7
\$75,000+	7.7	6

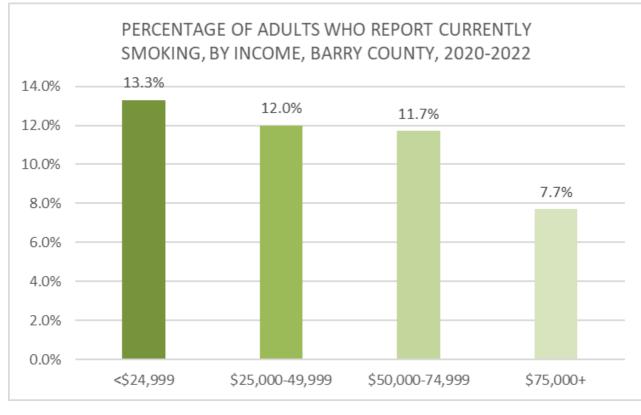






#### PERCENTAGE OF ADULTS WHO REPORT CURRENTLY SMOKING, BARRY COUNTY\* AND STATE OF MICHIGAN , 2012-2021





## ELECTRONIC CIGARETTES

Electronic cigarettes, or e-cigarettes, are a popular method of smoking, especially among young smokers. While e-cigarettes do not contain tobacco, they still provide the user with nicotine. E-cigarettes claim to be a healthier alternative to tobacco, however, the contents of an e-cigarette can include cancer-causing chemicals, heavy metals such as nickel and lead, diacetyl in the flavoring compounds, and ultrafine particles that can enter the lungs.<sup>5</sup>

In Barry County, 6.1% of adults reported ever using e-cigarettes or other electronic "vaping" products in their lifetime. Current use among Michigan adults was at 7.6% of the 2021 population (data not shown).

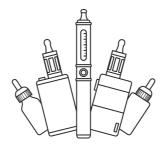
Adult males in Barry County reported using e-cigarettes more often than females. Those aged 18-34 were much more likely to have ever used e-cigarettes (13%) than older adults. Those with a high school education had the highest prevalence of lifetime use (9.2%) among education levels. Prevalence of lifetime ecigarette use was highest with an income level ≤\$24,999 (16.1%).

While there were a variety of reasons why Barry County adults start using ecigarettes, the most common reason was to quit smoking (43.1%) in 2017-2019.

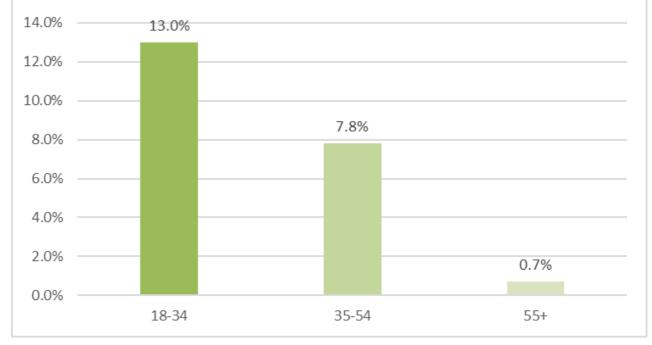
Any Lifetime Use of E- Cigarettes	%	N
Total	6.1	19
Male	7.6	12
Female	4.4	7
18-34	13	10
35-54	7.8	8
55+	**	**
Less than HS	**	**
HS Grad	9.2	11
Some College	5.7	6
College Grad	**	**
≤\$24,999	16.1	5
\$25,000-49,999	8.1	8
\$50,000-74,999	**	**
\$75,000+	**	**



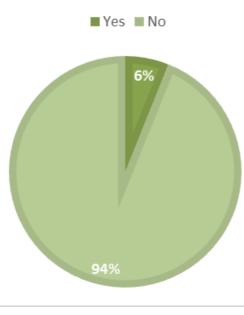
## ELECTRONIC CIGARETTES CONT.



# PERCENTAGE OF BARRY COUNTY ADULTS REPORTING ANY LIFETIME USE OF E-CIGARETTES, BY AGE GROUP, 2020-2022



#### PERCENTAGE OF BARRY COUNTY ADULTS REPORTING EVER USING AN E-CIGARETTE OR OTHER ELECTRONIC 'VAPING' PRODUCT IN THEIR LIFETIME, 2020-2022



# FRUITS & VEGETABLES

Consuming fruits and vegetables regularly can reduce the risk of some chronic diseases and types of cancer, and can help with weight management.<sup>6</sup> The U.S. Department of Agriculture recommends that fruits and vegetables fill half of your plate during a meal.<sup>7</sup>

In Barry County, 38% of adults had two or less servings of fruits or vegetables per day. Males had two or less fruit or vegetable servings per day more frequently (38.8%) than females (36.9%). The 55+ age group had the lowest consumption of fruits or vegetables. College graduates were less likely to report consuming two or less servings of fruits or vegetables per day than adults with lower income and education levels.

27.6% of adults had five or more servings of fruits or vegetables per day. The proportion of adults consuming five or more servings of fruits or vegetables per day decreased as age increased. Females were more likely to report five or more servings of fruits or vegetables per day (30.6%) than males (24.5%).

Due to differences in survey methodology, no comparison to state level data is available.



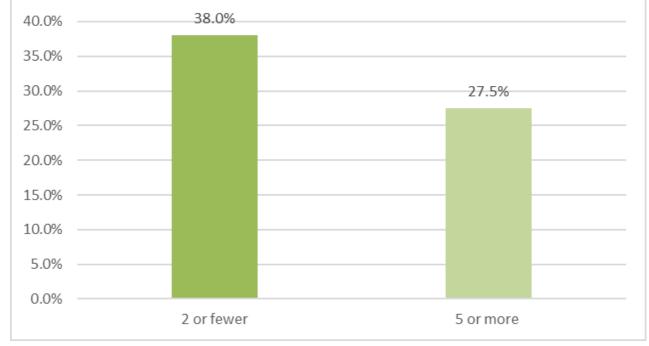
≤2 Servings of Fruits or Vegetables/Day	%	N
Total	38	116
Male	38.8	57
Female	36.9	58
18-34	43.7	31
35-54	35.3	36
55+	30.5	40
Less than HS	57.1	12
HS Grad	46.9	53
Some College	41.6	42
College Grad	10.6	7
≤\$24,999	44.8	13
\$25,000-49,999	45.8	44
\$50,000-74,999	33.3	19
\$75,000+	30.3	23

≥5 Servings of Fruits or Vegetables/Day	%	N
Total	27.6	84
Male	24.5	36
Female	30.6	48
18-34	39.4	28
35-54	23.5	24
55+	25.2	33
Less than HS	**	**
HS Grad	20.4	23
Some College	25.7	26
College Grad	47	31
≤\$24,999	**	**
\$25,000-49,999	26	25
\$50,000-74,999	40.4	23
\$75,000+	26.3	20

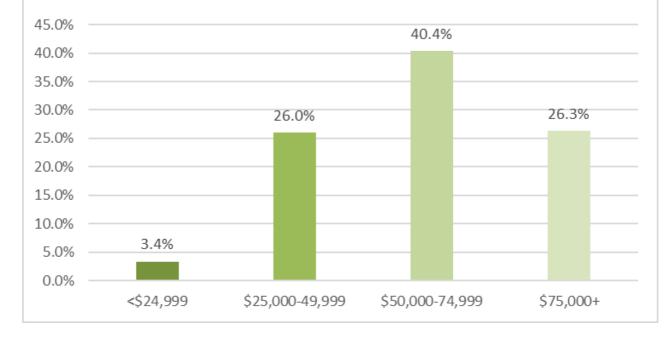
## FRUITS & VEGETABLES CONT.



#### PERCENTAGE OF ADULTS REPORTING ≥5 OR ≤2 SERVINGS OF FRUITS OR VEGETABLES PER DAY, BARRY COUNTY, 2020-2022



#### PERCENTAGE OF ADULTS REPORTING FIVE OR MORE SERVINGS OF FRUITS OR VEGETABLES PER DAY, BY INCOME, BARRY COUNTY, 2020-2022



## PHYSICAL ACTIVITY

Regular physical activity can help to improve health and reduce the risk of many chronic diseases. Adults should be physically active for at least 30 minutes a day. Keeping physically active also helps to control weight, maintain healthy bones, muscles, and joints, and can relieve symptoms of depression.<sup>8</sup> No leisure time physical activity was defined as other than their regular job, no participation in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise in the past month.

In Barry County, 41.3% of surveyed adults reported no leisure-time physical activity during the past month. 36.3% of females and 46.5% of males reported no leisuretime physical activity during the past month. Adults in younger age groups were more likely to report no leisure-time physical activity during the past month (59.2% for 18-34 years of age) than older adults (32% for those aged 35-54). Adults with lower education and income levels had a higher prevalence of reporting no leisure-time physical activity during the past month than those with higher education and income levels. College grads and income levels of \$75,000+ reported a lower percentage of no leisuretime physical activity during the past month.

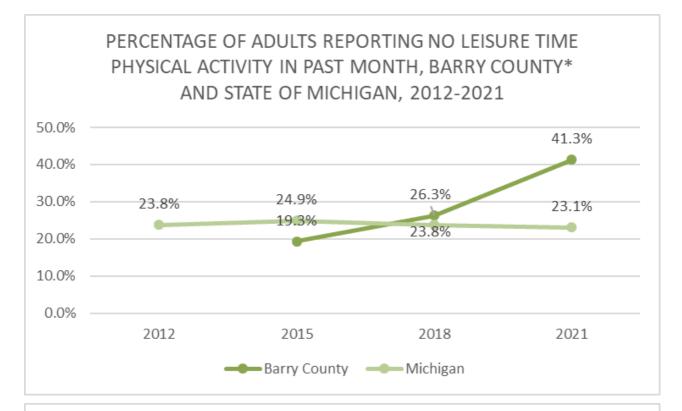
Due to changes in survey questions between BRFS cycles, no data were available to assess physical activity trends in Barry County prior to 2014-2016.

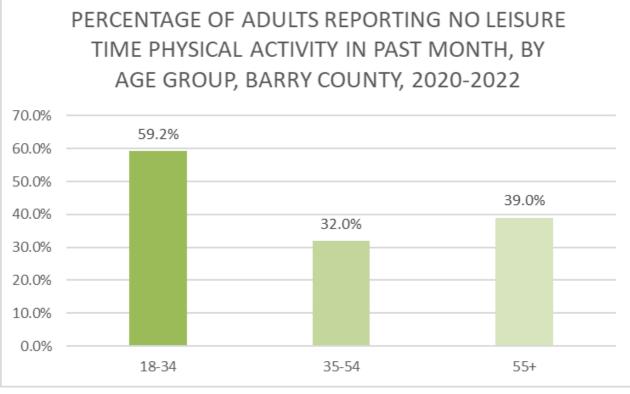
No Leisure Time Physical Activity in Past Month	%	N
Total	41.3	131
Male	46.5	73
Female	36.3	58
18-34	59.2	45
35-54	32	33
55+	39	53
Less than HS	25	6
HS Grad	50.4	61
Some College	42.9	45
College Grad	29.9	20
≤\$24,999	37.5	12
\$25,000-49,999	47.5	47
\$50,000-74,999	44.1	26
\$75,000+	21.5	17











## HEALTH CARE COVERAGE

Adults who do not have health care coverage are less likely to access health care services and more likely to delay needed medical attention. The uninsured are less likely to get routine preventive care and therefore more likely to be hospitalized for avoidable conditions.<sup>9</sup> Many uninsured Americans gained health care coverage between 2013 and 2014 due to the Affordable Care Act. Still, many people are uninsured or cannot access health care due to cost concerns. About 1 in 10 people in the United States don't have health insurance.<sup>10</sup>

A great amount (93.9%) of Barry County adults reported having any kind of health care coverage, including health insurance, or prepaid plans (such as HMOs, or government plans such as Medicare, Medicaid, or a County Health Plan). Adults 55 years and older reported having the highest prevalence of health care coverage (93.4%), most likely via Medicare. Those with a college graduate education had the highest prevalence of having health care coverage (97%), as were persons earning ≤\$24,999 per year (100%).

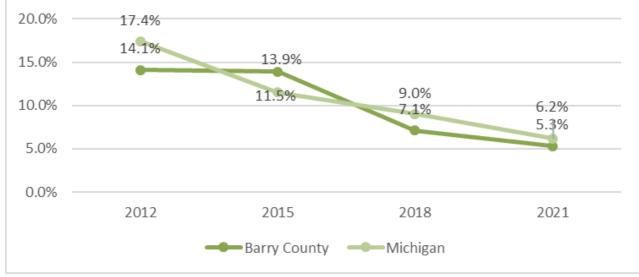
Any Kind of Health Care Coverage	%	N
Total	93.9	298
Male	92.4	145
Female	95.7	154
18-34	92.3	72
35-54	96.1	98
55+	93.4	128
Less than HS	91.7	22
HS Grad	91.7	110
Some College	96.2	101
College Grad	97	65
≤\$24,999	100	31
\$25,000-49,999	92.9	92
\$50,000-74,999	93.2	55
\$75,000+	98.7	77



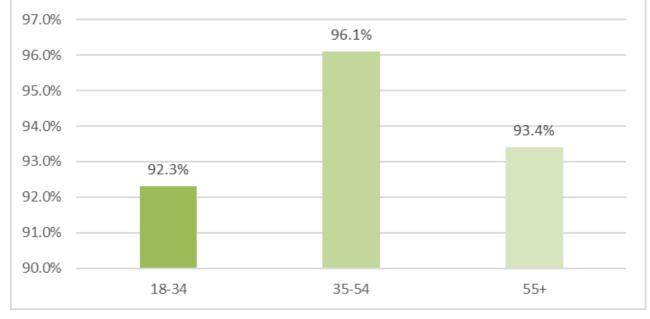
## HEALTH CARE COVERAGE CONT.



PERCENTAGE OF ADULTS 18-64 YEARS OF AGE REPORTING NO HEALTH CARE COVERAGE, BARRY COUNTY\* AND STATE OF MICHIGAN, 2012-2021



PERCENTAGE OF ADULTS REPORTING HAVING ANY KIND OF HEALTH CARE COVERAGE, BY AGE GROUP, BARRY COUNTY, 2020-2022



# ACCESS TO CARE

Access to health care services is important to maintaining good health. Many people in the United States lack access to quality and affordable health care due to the high cost of care, inadequate or no insurance coverage, limited or no availability of services, and absence of culturally competent care. Not having access to health care services can lead to unmet health needs, delays in care, inability to get preventive services, financial burdens, and preventable hospitalizations.<sup>10</sup>

In Barry County, 8% of adults were unable to see a doctor or other health professional in the past year, because of cost. In addition, 10.7% of adults were unable to see a dentist in the past year, because of cost. Males reported not being able to see a doctor more often than females. While females reported not being able to see a dentist more often than males. Those aged 18-34 years reported not being able to see a doctor or dentist more often than other age groups. The proportion of adults who could not see a doctor did not correlate with education level; however, a trend between higher education level and being able to access a dentist was noted. Adults with an annual income of less than \$75,000 were more likely to not have been able to see a doctor or a dentist than those with higher incomes.

The percentage of Barry County adults who were unable to see a doctor or a dentist within the past year has slightly decreased since 2017-2019. Due to differences in survey methodology, no comparison to state-level data is available. However, 7.9% of Michigan adults reported no healthcare access during the past 12 months due to cost.

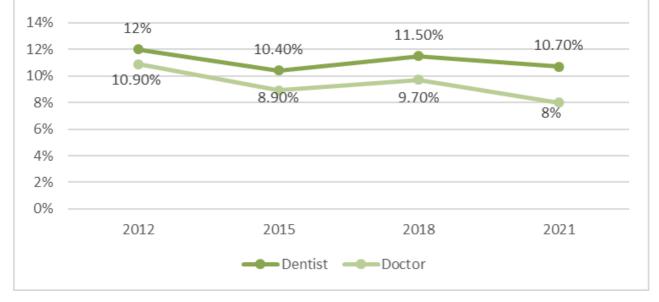
Couldn't see a Doctor	%	N
Total	8	25
Male	8.9	14
Female	7.5	12
18-34	78	8
35-54	10.7	11
55+	5.1	7
Less than HS	**	**
HS Grad	6.6	8
Some College	4.8	5
College Grad	13.2	9
≤\$24,999	**	**
\$25,000-49,999	8.1	8
\$50,000-74,999	16.9	10
\$75,000+	**	**

Couldn't see a Dentist	%	N
Total	10.7	34
Male	7	11
Female	14.3	23
18-34	15.4	12
35-54	12.6	13
55+	6.6	9
Less than HS	32	8
HS Grad	11.7	14
Some College	7.6	8
College Grad	**	**
≤\$24,999	25.8	8
\$25,000-49,999	11.1	11
\$50,000-74,999	13.6	8
\$75,000+	**	**





#### PERCENTAGE OF ADULTS REPORTING THAT THEY COULD NOT SEE A DENTIST OR A DOCTOR DURING THE PAST YEAR, BECAUSE OF COST, BARRY COUNTY, 2012-2021\*





## CANCER SCREENING

Regular cancer screenings can lead to early detection and treatment of cancers, increasing one's chances of survival. Adults aged 45 and older should be screened regularly for colorectal cancer.<sup>11</sup> Women who are aged 50-74 and are at average risk for breast cancer should get a mammogram every 2 years; women who are 40 to 49 years old should talk to their doctor about when to start and how often to get a mammogram.<sup>12</sup>

In Barry County, 77.8% of adults 50 years and older reported ever having a colorectal cancer screening. Females were more likely than males to have had a colorectal screening. The proportion of adults who have been screened was highest among those aged 55-64. Those with some college education and above were more likely to have been screened for colorectal cancer than adults with a high school education or less. Adults making less than \$25,000 annually had the highest prevalence of screening (93.8%).

Over nine in 10 women (94.1%) over 40 years of age reported ever having a mammogram. The proportion was lower for 40 to 54-year-olds compared to those 55 years and older. Screening prevalence was 92.6% and above for all income brackets.

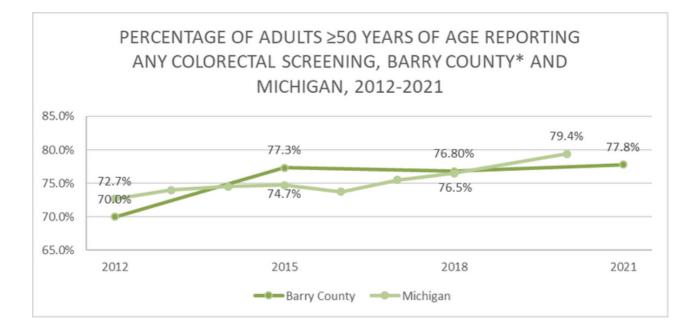
The percentage of Barry County adults aged 50 and older who have had a colorectal screening was slightly lower than Michigan's percentage (79.4% in 2020). The percentage of Barry County women 40 or older who have had a mammogram slightly increased across all BRFS three-year cycles while Michigan's was a scattered, overall decline.

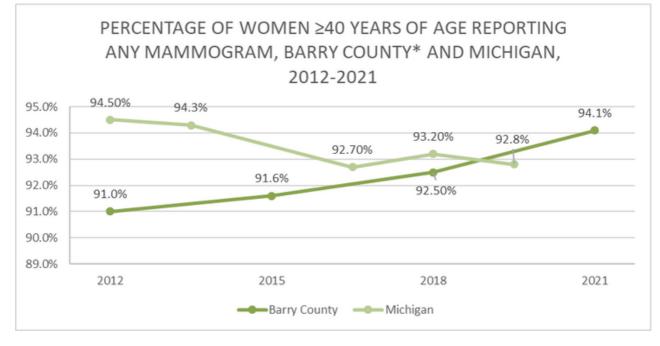
Adults > 50 Years Old Who Have Had a Colorectal Cancer Screening	%	N
Total	77.8	130
Male	75.0	63
Female	81.7	67
50-54	70.0	21
55-64	83.6	51
65+	77.3	58
Less than HS	64.7	11
HS Grad	66.1	41
Some College	94.0	47
College Grad	83.8	31
≤\$24,999	93.8	15
\$25,000-49,999	78.9	45
\$50,000-74,999	73.7	14
\$75,000 +	89.2	33

Women > 40 Years Old Who Have Received a Mammogram	%	N
Total	94.1	101
40-54	90.6	29
55-64	96.8	30
65+	97.2	35
Less than HS	100	8
HS Grad	97.1	33
Some College	94.7	36
College Grad	89.5	17
≤\$24,999	100	17
\$25,000-49,999	93.1	27
\$50,000-74,999	92.9	13
\$75,000 +	92.6	25

## CANCER SCREENING CONT.







## DISABILITY

There are many ways a disability could affect a person, including movement, vision, learning, and mental health. About 26% of U.S. adults have some type of disability.<sup>13</sup> People with disabilities are diverse, with a wide range of abilities and needs. A disability can be described as any condition of the mind or body that causes difficulty for the person with that condition to do certain activities and interact in their environment. Disabilities can be caused by genetics, injuries, or other chronic diseases.<sup>13</sup>

In Barry County, 11.7% of adults reported being limited in any activity due to physical, mental, or emotional problems. The prevalence of disability was higher in those 55 years of age and older compared to those 18-54 years of age. Those with lower income and education levels were more likely to report having a limitation due to disability compared to those with higher income and education levels.

Barry County had an equivalent prevalence of reported disability compared to Michigan (28.7% in 2021). However, the disability prevalence in Barry County has been increasing over time (22.2% in 2015, 26% in 2018) and recently has decreased (11.7% in 2021). Michigan's prevalence has remained mostly stable over time.

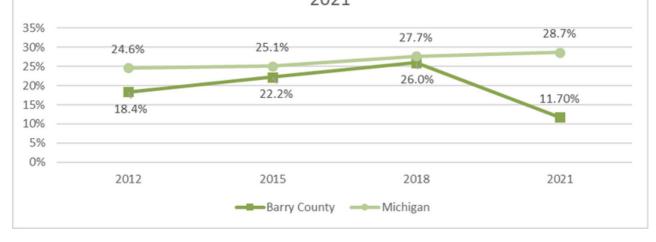
Limited in Any Activity	%	N
Total	11.7	37
Male	11.5	18
Female	11.9	19
18-34	6.5	5
35-54	7.7	8
55 +	17.8	24
Less than HS	16.7	4
HS Grad	10.0	12
Some College	14.3	15
College Grad	9.0	6
≤\$24,999	25.0	8
\$25,000-49,999	9.1	9
\$50,000-74,999	8.5	5
\$75,000 +	5.2	4







PERCENTAGE OF ADULTS REPORTING ANY LIMITATION IN ACTIVITY, BARRY COUNTY\* AND STATE OF MICHIGAN, 2012-2021



## PERCENTAGE OF ADULTS REPORTING ANY LIMITATION IN ACTIVITY, BY INCOME, BARRY COUNTY, 2020-2022



## **HEALTH STATUS**

The concept of health-related quality of life refers to perceived physical or mental health. For this report, poor physical health is defined as the proportion of adults who reported two weeks or more (at least 14 days) of poor physical health within the past month (30 days)—including physical illness and/or injury. Limitation due to poor mental health is defined as the proportion of adults who reported two weeks or more (at least 14 days) of being unable to do work or other usual activities due to a mental health condition or emotional problem within the past month (30 days).

Poor physical health was reported by 9.3% of Barry County adults, which was lower than the percentage reported during 2020-2022. Poor mental health was reported by 8.9% of Barry County adults, which was higher than in previous survey cycles.

For 2020-2021, females reported more instances of poor physical and mental health than males. Older adults reported being in poor physical health more often than younger adults, while the percentage of adults who reported poor mental health was higher for those aged 35-54.

The lowest income bracket had a higher proportion of adults with poor physical health (21.9%) and poor mental health (25%) than adults in the highest income bracket (5.1% and 7.8%, respectively).

Compared to Michigan (11.9 in 2021), Barry County had a slightly lower prevalence of poor physical health among adults (9.3%). Barry County adults had a lower prevalence of poor mental health than adults across the state (8.9% vs 15.5% in 2021, respectively).

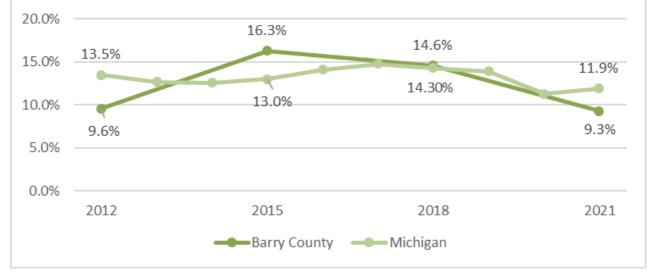
Poor Physical Health	%	N
Total	9.3	29
Male	5.9	9
Female	12.6	20
18-34	9.1	7
35-54	8.7	9
55 +	9.9	13
Less than HS	18.2	4
HS Grad	7.6	9
Some College	8.7	9
College Grad	10.4	7
≤\$24,999	21.9	7
\$25,000-49,999	9.2	9
\$50,000-74,999	13.6	8
\$75,000 +	5.1	4

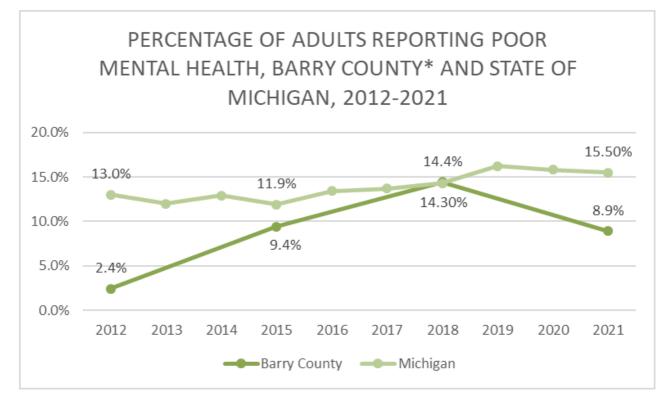
Poor Mental Health	%	N
Total	8.9	28
Male	6.5	10
Female	11.3	18
18-34	7.9	6
35-54	12.6	13
55 +	6.7	9
Less than HS	12.5	3
HS Grad	11.8	14
Some College	4.8	5
College Grad	7.6	5
≤\$24,999	25.0	8
\$25,000-49,999	6.1	6
\$50,000-74,999	11.9	7
\$75,000 +	7.8	6

## HEALTH STATUS CONT.



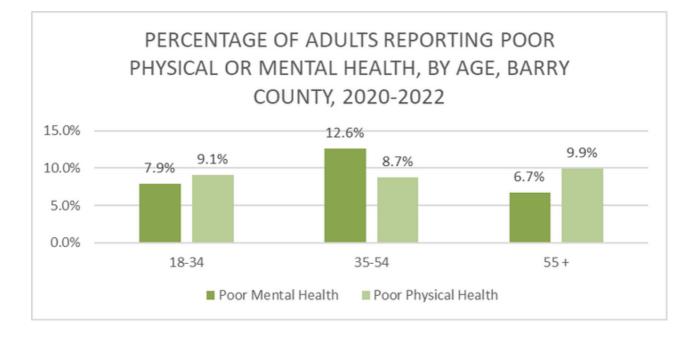
## PERCENTAGE OF ADULTS REPORTING POOR PHYSICAL HEALTH, BARRY COUNTY\* AND STATE OF MICHIGAN, 2012-2021

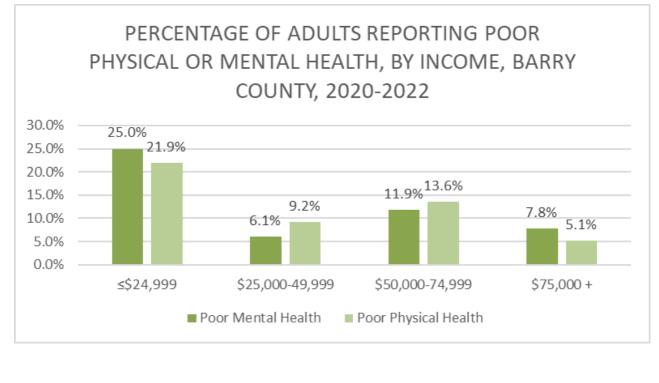




# HEALTH STATUS CONT.







# WEIGHT STATUS

Overweight and obesity are labels for ranges of weight that are greater than what is generally considered healthy for a given height. Obesity increases the risk of many diseases and health conditions, such as high blood pressure, diabetes, coronary heart disease, stroke, sleep apnea, arthritis, high cholesterol, and some cancers.<sup>14</sup> Behavior, environment, and genetic factors can affect a person's weight status.<sup>14</sup>

Overweight and obesity status are determined by using self-reported weight and height to calculate a number called the body mass index (BMI). An adult with a BMI between 25 and 29.9 is considered overweight, and an adult with a BMI of 30 or higher is considered obese.<sup>14</sup> Some people tend to underestimate their weight when self-reporting in a phone survey.<sup>14</sup> 35.5% of Barry County adults were overweight, and another third were obese (33.4%). Combined, 73.3% of adults in Barry County were considered to be at an unhealthy weight.

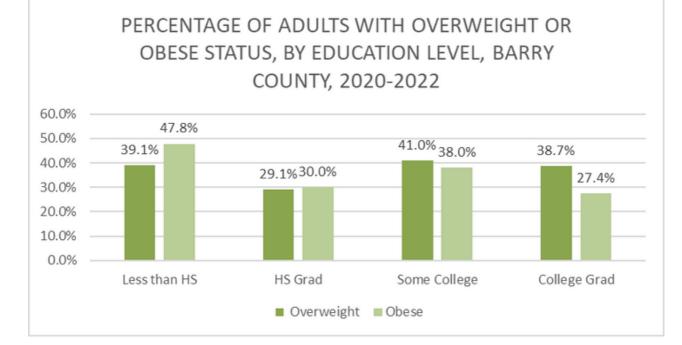
Males were more likely to be overweight while females were more likely to be obese. The proportion of adults who were overweight was highest among those aged 35-54. Conversely, the proportion of adults who were obese steadily increased with age. There was no particular trend noted based on educational attainment or income. However, the lowest rate of obesity was seen in persons making \$75,000 or more.

Overweight	%	Ν
Total	35.5	106
Male	39.9	59
Female	31.8	47
18-34	29.6	21
35-54	45.8	44
55 +	32.6	42
Less than HS	39.1	9
HS Grad	29.1	32
Some College	41.0	41
College Grad	38.7	24
≤\$24,999	27.6	8
\$25,000-49,999	34.0	33
\$50,000-74,999	32.8	19
\$75,000 +	48.6	35

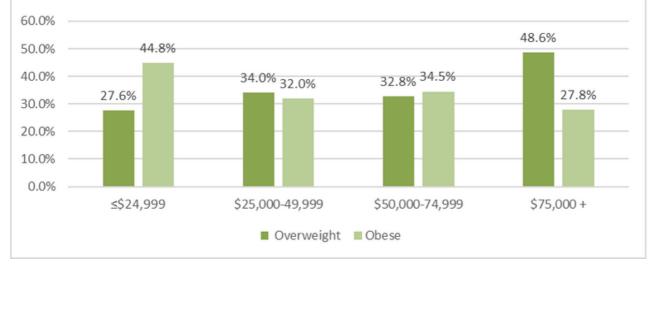
Obese	%	N
Total	33.4	99
Male	29.1	43
Female	37.8	56
18-34	25.4	18
35-54	31.3	30
55 +	38.8	50
Less than HS	47.8	11
HS Grad	30.0	33
Some College	38.0	38
College Grad	27.4	17
≤\$24,999	44.8	13
\$25,000-49,999	32.0	31
\$50,000-74,999	34.5	20
\$75,000 +	27.8	20

# WEIGHT STATUS CONT.





#### PERCENTAGE OF ADULTS WITH OVERWEIGHT OR OBESE STATUS, BY INCOME, BARRY COUNTY, 2020-2022



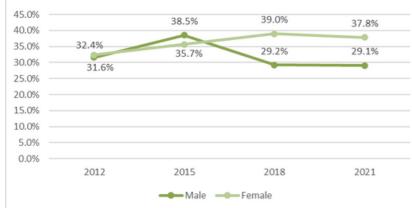
# WEIGHT STATUS CONT.

Barry County adults, when compared to adults in Michigan, were slightly less likely to be obese (33.4% vs. 34.4% in 2021). The Michigan adult obesity prevalence also remained fairly steady since 2012, with a slight increase in 2019. Obesity prevalence for Barry County adults has steadily decreased since 2015 and is now below the Michigan prevalence.

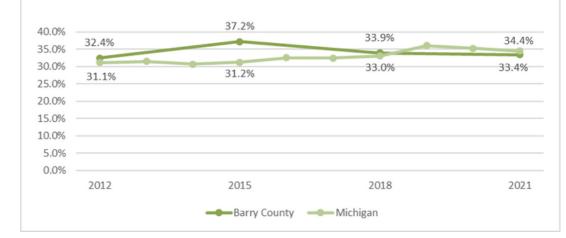
### **Data by Demographics**

Healthy Weight	%	Ν
Total	26.7	79
Male	24.3	36
Female	29.1	43
18-34	31.0	22
35-54	21.9	21
55 +	27.9	36
Less than HS	13.0	3
HS Grad	26.4	29
Some College	20.0	20
College Grad	25.8	16
≤\$24,999	27.6	8
\$25,000-49,999	28.9	28
\$50,000-74,999	24.1	14
\$75,000 +	20.8	15

#### PERCENTAGE OF ADULTS WITH OBESE STATUS, BY GENDER, BARRY COUNTY, 2012-2021



#### PERCENTAGE OF ADULTS WITH OBESE STATUS, BARRY COUNTY\* AND STATE OF MICHIGAN, 2012-2021



## HIGH BLOOD PRESSURE

High blood pressure, or hypertension, affects almost 120 million adults in the United States.<sup>15</sup> Unmanaged high blood pressure can contribute to serious conditions such as stroke, heart attack, heart failure, kidney failure, and vision loss. If blood pressure is too high for too long it can damage the artery walls, increasing one's risk for more lifethreatening conditions. Lifestyle changes such as a low-sodium diet and adding physical activity can help lower blood pressure.<sup>15</sup>

Over one-third (37.2%) of adults in Barry County reported ever having high blood pressure. In Barry County, males (37.2%) reported having high blood pressure about the same as females (37.3%). Older adults more often reported high blood pressure (55.1% for 55 years and older) than younger adults (10.3% for 18-34 year olds). Barry County adults with lower education and income levels had a higher prevalence of high blood pressure than those with higher education and income levels.

The prevalence of Barry County adults with high blood pressure is slightly higher compared to Michigan adults (35.3% in 2021). While the statewide prevalence has remained steady since 2011, Barry County's prevalence slightly declined from 2012-2018 before increasing in the 2020-2022 cycle.

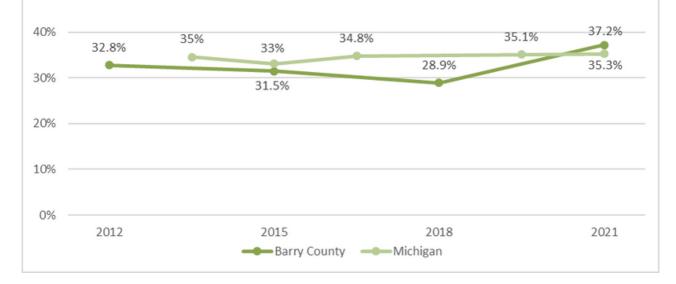
Ever Told High Blood Pressure	%	N
Total	37.2	118
Male	37.2	58
Female	37.3	60
18-34	10.3	8
35-54	33.0	34
55 +	55.1	76
Less than HS	58.3	14
HS Grad	35.5	43
Some College	36.2	38
College Grad	34.3	23
≤\$24,999	41.9	13
\$25,000-49,999	32.7	32
\$50,000-74,999	37.3	22
\$75,000 +	35.9	28



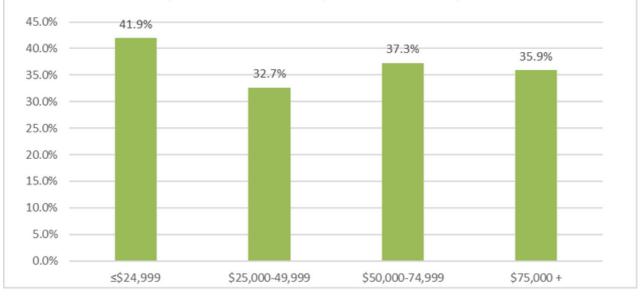
## HIGH BLOOD PRESSURE CONT.



#### PERCENTAGE OF ADULTS REPORTING LIFETIME HIGH BLOOD PRESSURE, BARRY COUNTY\* AND STATE OF MICHIGAN, 2012-2021



PERCENTAGE OF ADULTS REPORTING LIFETIME HIGH BLOOD PRESSURE, BY INCOME LEVEL, BARRY COUNTY, 2020-2022



# DIABETES

Type II Diabetes is the more common form of diabetes, affecting more than 37 million people in the United States.<sup>16</sup> In this type of diabetes, the body does not use insulin properly as it has become resistant to its biological effects. The pancreas must make more insulin to keep blood sugar at a normal and safe level. Many people can maintain their blood glucose levels with proper diet and exercise, but others may need the help of diabetes medication and prescription insulin.<sup>16</sup>

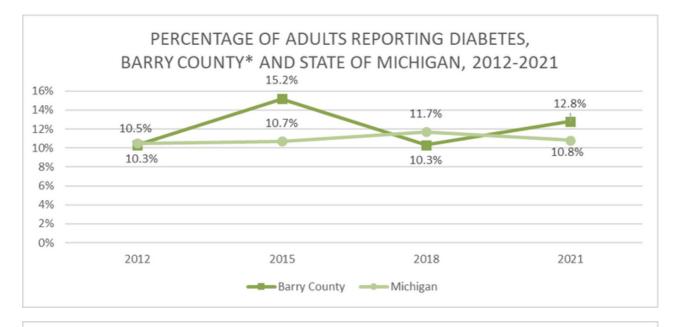
Based on survey responses, 12.8% of Barry County adults reported ever having diabetes. Males and females had a similar prevalence of diabetes. Adults in younger age groups reported having diabetes less frequently than older adults. People in Barry County with higher education and lower income levels were more likely to report having diabetes than those with lower education or higher income levels.

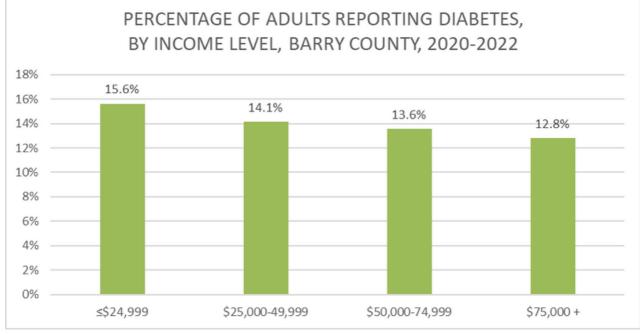
Barry County (12.8%) had a slightly higher prevalence of adult diabetes than Michigan (10.8% in 2015). The proportion of Barry County adults with diabetes has decreased from 2015-2018 but then increased in 2021.

Ever Told Diabetes (excluding only during pregnancy)	%	N
Total	12.8	41
Male	13.4	21
Female	12.5	20
18-34	10.4	8
35-54	11.7	12
55 +	14.7	20
Less than HS	8.3	2
HS Grad	9.2	11
Some College	18.7	20
College Grad	11.9	8
≤\$24,999	15.6	5
\$25,000-49,999	14.1	14
\$50,000-74,999	13.6	8
\$75,000 +	12.8	10









# ASTHMA

Asthma is a condition that causes swelling and narrowing of the airways. Symptoms include shortness of breath, wheezing, coughing, and difficulty breathing.<sup>17</sup> For some, asthma is mild and symptoms are merely a discomfort. But for others, asthma is much more serious. Asthma can be life-threatening and interfere with dayto-day activities. Asthma can be the result of genetic factors, environmental factors, or a combination of both.<sup>17</sup>

Of the surveyed adults in Barry County, 13.6% reported that they have or have had asthma. Females reported asthma more (18.1%) than males (8.9%). Lower percentages of reported asthma were seen in those with high school or lower educational attainment and income levels of \$25,000-\$49,999. Of those who earn less than \$25,000 per year, 31.1% had ever been told that they have asthma. Adults with incomes of \$25,000 or more per year had much lower percentages of ever being told one has asthma (9.1% -13.6%).

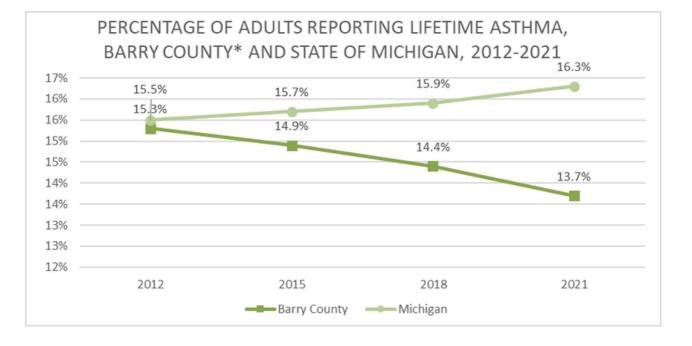
Barry County's lifetime asthma prevalence was lower than Michigan's lifetime asthma prevalence (16.3% in 2021). The prevalence of lifetime asthma in Barry County adults decreased from 14.4% during 2017-2019 to 13.6% in 2020-2022.

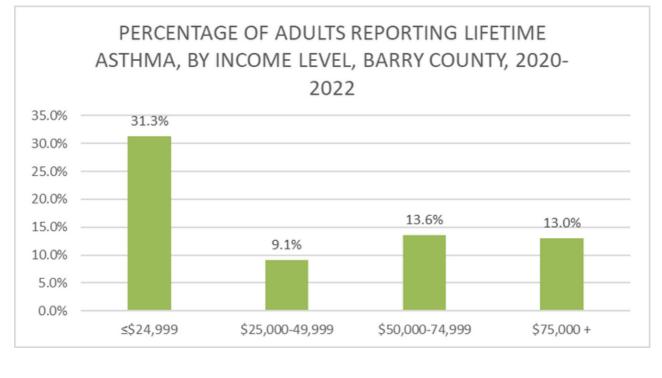
Ever Told Asthma	%	Ν
Total	13.6	43
Male	8.9	14
Female	18.1	29
18-34	15.6	12
35-54	12.7	13
55 +	13.1	18
Less than HS	12.5	3
HS Grad	11.7	14
Some College	13.3	14
College Grad	16.4	11
≤\$24,999	31.3	10
\$25,000-49,999	9.1	9
\$50,000-74,999	13.6	8
\$75,000 +	13.0	10











## HIGH CHOLESTEROL

High cholesterol is often the result of unhealthy lifestyle choices, such as diets high in fat and physical inactivity. Being overweight, smoking, and having diabetes can increase the risk of high cholesterol. About 86 million U.S. adults age 20 or older have total cholesterol levels above 200 mg/dL. Cholesterol, specifically LDL (or bad) cholesterol, can build up in the blood vessels and cause narrowing or hardening and reduce the blood flow to and from the heart.<sup>18</sup> Having high cholesterol can lead to life-threatening conditions such as heart attack and stroke.<sup>18</sup>

The proportion of Barry County adults with high cholesterol was 35.4%. Males reported having been told they have high cholesterol more than females. Older adults reported high cholesterol more frequently (55.1% for 55 years and older) than younger adults (26.2% for 35-54year-olds). 45.2% of adults who make an income of less than \$25,000 have high cholesterol.

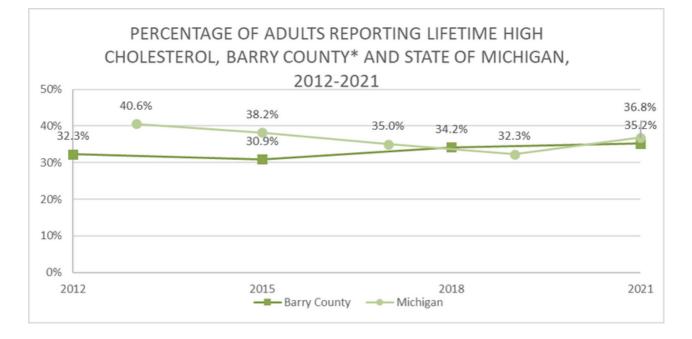
Barry County had a slightly lower proportion of adults with reported high cholesterol (35.4%) than the state of Michigan (36.8%). The proportion of adults with high cholesterol in Michigan has slowly decreased since 2013, then increased in 2021. While Barry County has remained relatively steady since 2012.

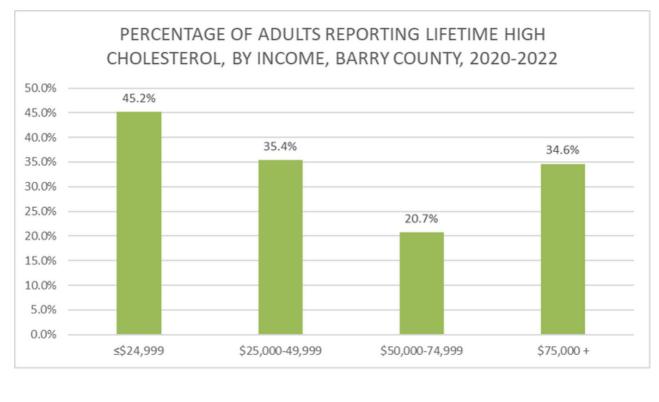
Ever Told High Cholesterol	%	Ν
Total	35.4	112
Male	37.6	59
Female	32.9	53
18-34	12.8	10
35-54	26.2	27
55 +	55.1	76
Less than HS	41.7	10
HS Grad	28.9	35
Some College	37.7	40
College Grad	40.3	27
≤\$24,999	45.2	14
\$25,000-49,999	35.4	35
\$50,000-74,999	20.7	12
\$75,000 +	34.6	27



## HIGH CHOLESTEROL CONT.







# REFERENCES

- 1. Schroeder, S. A. (2007). We can do better improving the health of the American people. New England Journal of Medicine, 357(12), 1221–1228. <u>https://doi.org/10.1056/nejmsa073350</u>
- 2. Centers for Disease Control and Prevention. (2022, July 11). Excessive alcohol use. Centers for Disease Control and Prevention.
- <u>https://www.cdc.gov/chronicdisease/resources/publications/factsheets/alcohol.htm</u> 3.Centers for Disease Control and Prevention. (2021, June 2). Health effects of marijuana. Centers
- for Disease Control and Prevention. <u>https://www.cdc.gov/marijuana/health-effects/index.html</u> 4. Centers for Disease Control and Prevention. (2022a, June 27). Basic information - Smoking. Centers for Disease Control and Prevention.
- <u>https://www.cdc.gov/tobacco/basic information/index.htm</u>
  5. Centers for Disease Control and Prevention. (2023, May 4). About electronic cigarettes (e-cigarettes). Centers for Disease Control and Prevention.
- <u>https://www.cdc.gov/tobacco/basic\_information/e-cigarettes/about-e-cigarettes.html</u>
   Centers for Disease Control and Prevention. (2022a, June 3). How to use fruits and vegetables to help manage your weight. Centers for Disease Control and Prevention.
   <u>https://www.cdc.gov/healthyweight/healthy\_eating/fruits\_vegetables.html</u>
- 7.U.S. Department of Agriculture and U.S. Department of Health and Human Services. Dietary Guidelines for Americans, 2020-2025. 9th Edition. December 2020. Available at <u>DietaryGuidelines.gov</u>.
- 8. Centers for Disease Control and Prevention. (2022a, May 20). Physical activity. Centers for Disease Control and Prevention. <u>https://www.cdc.gov/physicalactivity/index.html</u>
- 9. Rachel Garfield, K. O. (2020, May 13). The uninsured and the ACA: A Primer key facts about health insurance and the uninsured amidst changes to the Affordable Care Act. KFF. <u>https://www.kff.org/uninsured/report/the-uninsured-and-the-aca-a-primer-key-facts-about-health-insurance-and-the-uninsured-amidst-changes-to-the-affordable-care-act/</u>
- 10. Health Care Access and Quality. Health Care Access and Quality Healthy People 2030. (n.d.). <u>https://health.gov/healthypeople/objectives-and-data/browse-objectives/health-care-access-and-quality</u>
- 11. Centers for Disease Control and Prevention. (2023a, February 23). What can I do to reduce my risk of colorectal cancer?. Centers for Disease Control and Prevention. https://www.cdc.gov/cancer/colorectal/basic\_info/prevention.htm
- 12. Centers for Disease Control and Prevention. (2023c, July 25). What is breast cancer screening? Centers for Disease Control and Prevention. <u>https://www.cdc.gov/cancer/breast/basic\_info/screening.htm</u>
- 13. Centers for Disease Control and Prevention. (2020, September 16). Disability and health overview. Centers for Disease Control and Prevention. <u>https://www.cdc.gov/ncbddd/disabilityandhealth/disability.html</u>
- 14. Centers for Disease Control and Prevention. (2023d, September 21). Overweight & obesity. Centers for Disease Control and Prevention. <u>https://www.cdc.gov/obesity/</u>
- 15. Centers for Disease Control and Prevention. (2023c, July 6). Facts about hypertension. Centers for Disease Control and Prevention. <u>https://www.cdc.gov/bloodpressure/facts.htm</u>
- 16. Centers for Disease Control and Prevention. (2023b, April 18). Type 2 diabetes. Centers for Disease Control and Prevention. <u>https://www.cdc.gov/diabetes/basics/type2.html</u>
- 17. Centers for Disease Control and Prevention. (2023d, May 22). Asthma. Centers for Disease Control and Prevention. <u>https://www.cdc.gov/asthma/</u>
- 18. Centers for Disease Control and Prevention. (2023d, May 15). High cholesterol facts. Centers for Disease Control and Prevention. <u>https://www.cdc.gov/cholesterol/facts.htm</u>