

# Ohio 2013 BRFSS Annual Report





*To protect and improve the health of all Ohioans by preventing disease, promoting good health and assuring access to quality health care.*

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## Introduction

The Ohio Behavioral Risk Factor Surveillance System (BRFSS), an annual telephone survey conducted by the Ohio Department of Health (ODH) and supported by the Centers for Disease Control and Prevention (CDC), is the primary source of information regarding diseases, injuries and health risk behaviors among Ohio residents 18 years or older. The collection of Ohio BRFSS data allows ODH, local health departments and other public health stakeholders to monitor health trends and develop and evaluate public health programs and policies designed to improve the health of Ohio residents.

The *Ohio 2013 BRFSS Annual Report* provides an overview of the health status and health-related risk behaviors of adult Ohio residents. The results of this report are based on 11,972 telephone surveys conducted in 2013 on both landline phones and cell phones. The survey sample consists of non-institutionalized adults 18 years or older. The data are weighted to ensure that estimates are representative of the Ohio adult population.

## Methodology

### *Sample Design*

Since 2011, the BRFSS conducts both landline telephone- and cellular telephone-based surveys using Random-Digit-Dialing (RDD) techniques. In conducting the BRFSS landline telephone survey, data are collected from a randomly selected adult in a household. In conducting the cellular telephone version of the BRFSS survey, data are collected from an adult who participates by using a cellular telephone. In 2013, the Ohio BRFSS oversampled 10 regions and six individual counties in Ohio (Cuyahoga, Franklin, Hamilton, Lucas, Montgomery and Summit) in order to produce regional and county estimates for key indicators.

### *Questionnaire*

The BRFSS questionnaire is designed by a working group of BRFSS state coordinators and CDC staff. Currently, the questionnaire has three parts: 1) the core component questions, which must be asked by all states without modification in wording; 2) optional modules, which are supported by CDC but not required to be asked in all states; and 3) state-added questions not offered as core or optional modules. The Ohio BRFSS implements a two-way split survey design to allow for larger coverage of optional modules and state-added questions, while maintaining a sufficient sample size for each split.

### *Weighting*

The Ohio BRFSS data are weighted to known proportions of age, race, ethnicity, sex and geographic region in Ohio to ensure that estimates are representative of the Ohio adult population. In 2011, the BRFSS moved to a new weighting methodology known as iterative proportional fitting or raking to allow for the incorporation of telephone ownership (landline and/or cellular telephone), as well as education level, marital status and renter vs. owner status, into the BRFSS weighting methodology.

### *Statistical Significance*

The results presented in this report provide a broad overview of the health status of Ohioans, and the degree to which health behaviors and outcomes can vary among different demographic groups within Ohio. For the purpose of this report, group differences are considered statistically significant when 95 percent confidence intervals of the estimates are not overlapping.

# Methodology

## Limitations

When reading this report, the following data limitations should be considered:

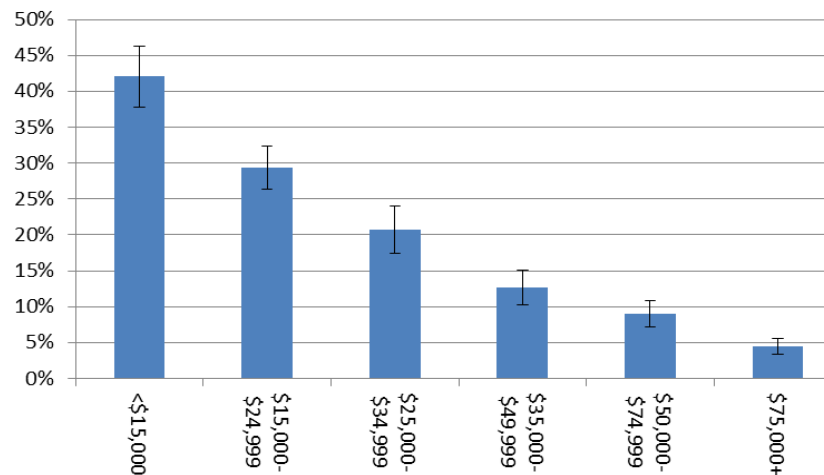
- Because of the shift from post stratification weighting to iterative proportional raking in 2011, estimates through 2010 should not be compared with estimates from 2011 and beyond. For this reason, trend data are excluded from this report.
- Data estimates for fewer than 50 respondents are considered statistically unreliable by the CDC and are not included in this report. Respondents who answered that they did not know or refused to answer a question were excluded from the calculation of prevalence estimates related to that question. Therefore, the sample sizes used to calculate the estimates in this report are different for each indicator.
- The BRFSS only surveys adults living in households. Therefore, individuals living in a group setting such as a nursing home, the military or prison are not surveyed. In addition, adults who live in households without a telephone are not included in the sample.
- BRFSS prevalence estimates are based solely on respondents' self-reported answers to survey questions. Respondents may be uncomfortable sharing private health information, or conversely, may exaggerate particular feelings or experiences. Others may be tempted to provide responses that are more socially desirable. In some cases, information provided by respondents may be subject to recall bias. Thus, results should be interpreted with caution.

## Key Findings

### General Health Status

In 2013, an estimated 18.1 percent of Ohio adults reported that their health was fair or poor. Older adults, blacks and Hispanics, and those with low levels of education and household income were significantly more likely to report fair or poor health. An estimated 42.1 percent of respondents with a household income less than \$15,000 reported fair or poor health, compared with only 4.5 percent of respondents with a household income of \$75,000 or more (Figure 1).

**Figure 1. Prevalence of Fair or Poor Health by Household Income, Ohio, 2013**

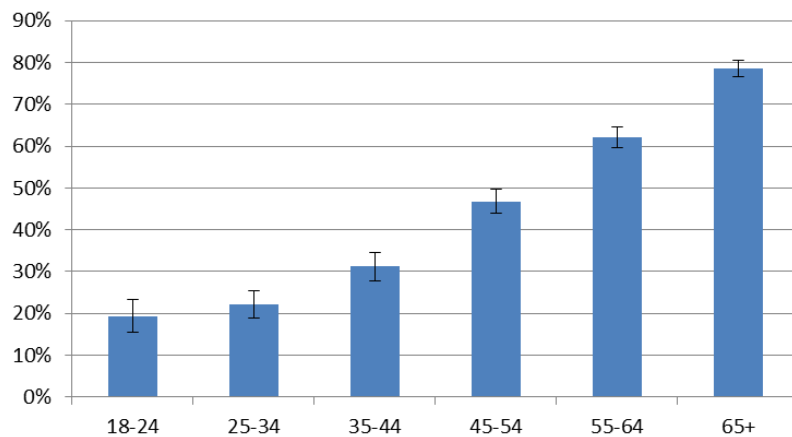


## Key Findings

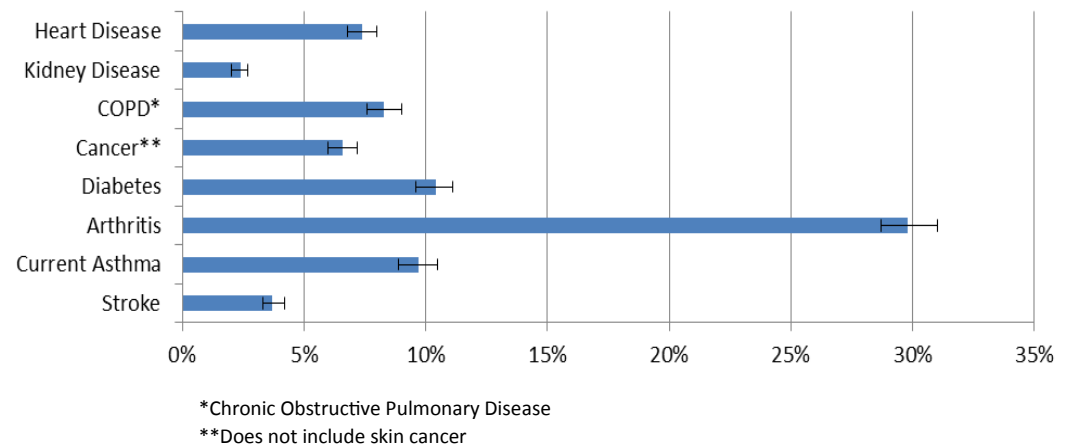
### Chronic Diseases and Conditions

In 2013, an estimated 45.9 percent of Ohio adults reported that they had at least one of the following chronic diseases or conditions: diabetes, heart disease, stroke, current asthma, chronic obstructive pulmonary disease (COPD), cancer, arthritis and/or kidney disease; 20.1 percent reported two or more chronic diseases or conditions. Among adults 65 years and older, 78.6 percent had at least one chronic disease or condition and 45.4 percent had two or more chronic diseases or conditions (Figure 2). The most common chronic disease or condition among Ohio adults was arthritis (29.8 percent), followed by diabetes (10.4 percent) and current asthma (9.7 percent) (Figure 3).

**Figure 2. Prevalence of Any Chronic Disease or Condition by Age, Ohio, 2013**



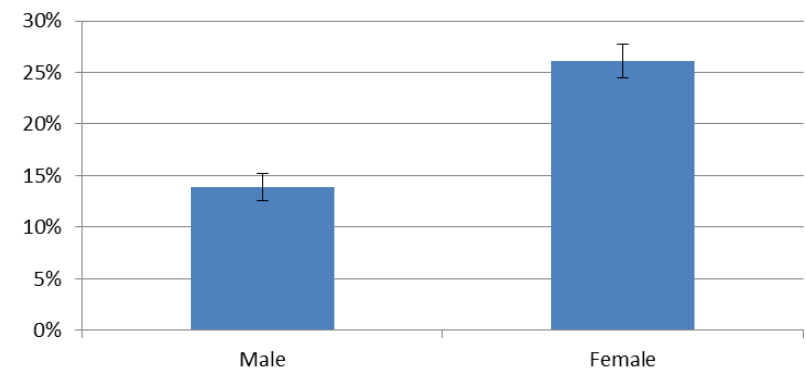
**Figure 3. Prevalence of Chronic Diseases and Conditions, Ohio, 2013**



### Depression/Mental Health

In 2013, an estimated 20.2 percent of Ohio adults reported ever being told by a doctor, nurse or other health professional that they had a depressive disorder and 12.1 percent of Ohio adults reported fair or poor mental health. Respondents with low levels of education and household income, females and adults less than 65 years of age were more likely to report fair/poor mental health and depression. Females were nearly twice as likely to report having been told that they had a depressive disorder, compared with males (Figure 4). Although black, non-Hispanic respondents were significantly more likely than white, non-Hispanic respondents to report fair/poor mental health (16.5 percent vs. 11.4 percent, respectively), they were less likely to report that they had been told by a doctor, nurse or other health professional that they suffer from depression (14.6 percent) compared with white non-Hispanic respondents (20.8 percent).

**Figure 4. Prevalence of Depression by Gender, Ohio, 2013**



## Key Findings

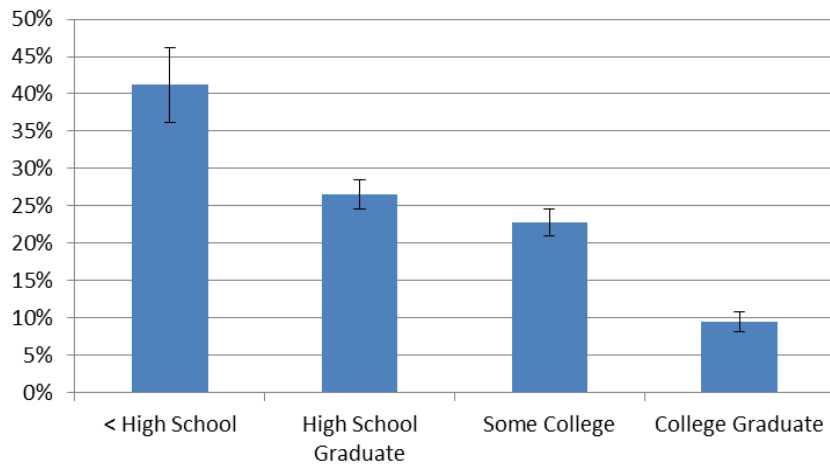
### Current Smoking

In 2013, an estimated 23.4 percent of Ohio adults reported that they currently smoke cigarettes. Respondents with lower levels of education and household income were significantly more likely to be current smokers. An estimated 41.2 percent of respondents with less than a high school education were current smokers, compared with 9.5 percent of college graduates (Figure 5).

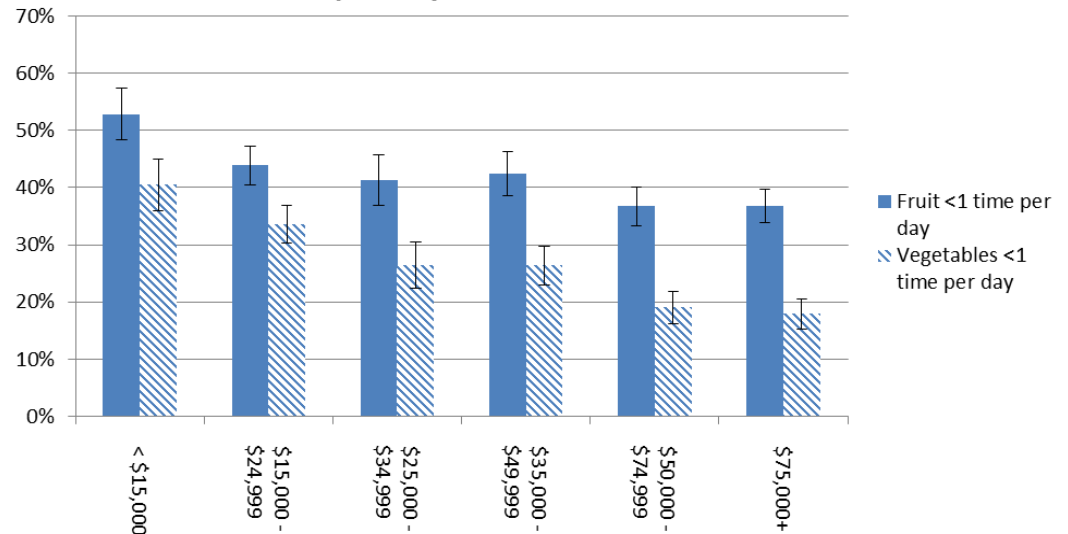
### Obesity/Physical Activity/Fruit and Vegetable Consumption

In 2013, an estimated 30.4 percent of Ohio adults, based on reported height and weight, were obese. Only 18.1 percent of Ohio adults met aerobic and muscle strengthening physical activity guidelines; 41.6 percent consumed fruit less than once per day and 26.3 percent consumed vegetables less than once per day. Insufficient fruit and vegetable consumption decreases with increasing income (Figure 6).

**Figure 5. Prevalence of Current Smoking by Education Level, Ohio, 2013**



**Figure 6. Prevalence of Insufficient Fruit and Vegetable Consumption by Household Income, Ohio, 2013**



## General Health Status

Self-assessed health status is based on a respondent's perceived general health. Self-rated health can reflect the state of both the body and the mind, and its association with mortality is well documented.<sup>1</sup>

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

- In 2013, 18.1 percent of Ohio adults reported that their general health was fair or poor.
- The prevalence of fair or poor health increases as age increases.
- The prevalence of fair or poor health decreases as household income increases.
- The prevalence of fair or poor health decreases as education level increases.
- White, non-Hispanic adults (16.8 percent) reported a significantly lower prevalence of fair or poor health compared with black, non-Hispanic adults (22.7 percent) and Hispanic adults (27.0 percent).
- The prevalence of fair or poor health does not significantly differ by gender.

**Table 1. Prevalence of Fair or Poor Health by Demographic Characteristics, Ohio, 2013**

Demographic Characteristics	General Health, Fair or Poor <sup>1</sup>	
	Prevalence (%)	95% Confidence Interval
<b>Total</b>	<b>18.1</b>	<b>17.1 - 19.1</b>
<b>Age</b>		
18 - 24	10.2	6.9 - 13.6
25 - 34	12.9	10.3 - 15.6
35 - 44	12.2	9.8 - 14.6
45 - 54	18.9	16.6 - 21.2
55 - 64	24.0	21.6 - 26.3
65+	26.1	24.0 - 28.2
<b>Gender</b>		
Male	18.0	16.4 - 19.5
Female	18.3	16.9 - 19.6
<b>Race/Ethnicity</b>		
White, Non-Hispanic	16.8	15.7 - 17.8
Black, Non-Hispanic	22.7	18.8 - 26.5
Hispanic	27.0	17.9 - 36.1
Other, Non-Hispanic	20.8	14.4 - 27.2
Multi-Racial	N/A <sup>2</sup>	N/A <sup>2</sup>
<b>Annual Household Income</b>		
< \$15,000	42.1	37.8 - 46.3
\$15,000 - \$24,999	29.3	26.3 - 32.3
\$25,000 - \$34,999	20.7	17.4 - 24.0
\$35,000 - \$49,999	12.7	10.3 - 15.1
\$50,000 - \$74,999	9.0	7.2 - 10.8
\$75,000+	4.5	3.4 - 5.6
<b>Education</b>		
Less than High School	39.3	34.6 - 44.0
High School Diploma	20.3	18.6 - 21.9
Some College	15.4	13.6 - 17.1
College Graduate	6.7	5.7 - 7.8

<sup>1</sup>Among adults, the proportion who reported that their health, in general, was either fair or poor.

<sup>2</sup>Estimate does not meet the reliability criteria for reporting set by the CDC.



# High Blood Pressure

Untreated high blood pressure puts one at higher risk of developing heart disease, stroke, kidney disease and many other health conditions.<sup>ii</sup>

Respondents were asked, “Have you ever been told by a doctor, nurse or other health professional that you have high blood pressure?”

- In 2013, 33.5 percent of Ohio adults reported ever being told by a doctor, nurse or other health professional that they had high blood pressure.
- The prevalence of high blood pressure increases as age increases.
- The prevalence of high blood pressure decreases as household income increases.
- The prevalence of high blood pressure decreases as education level increases.
- Hispanic adults (19.7 percent) reported a significantly lower prevalence of high blood pressure compared with black, non-Hispanic adults (39.7 percent) and white, non-Hispanic adults (33.4 percent).
- The prevalence of high blood pressure is significantly higher among males (35.6 percent) than among females (31.6 percent).

**Table 2. Prevalence of High Blood Pressure by Demographic Characteristics, Ohio, 2013**

Demographic Characteristics	High Blood Pressure <sup>1</sup>	
	Prevalence (%)	95% Confidence Interval
<b>Total</b>	<b>33.5</b>	<b>32.3 - 34.7</b>
<b>Age</b>		
18 - 24	6.6	4.3 - 8.9
25 - 34	12.1	9.7 - 14.5
35 - 44	20.9	18.1 - 23.8
45 - 54	34.9	32.2 - 37.7
55 - 64	48.7	46.1 - 51.4
65+	63.1	60.8 - 65.4
<b>Gender</b>		
Male	35.6	33.7 - 37.5
Female	31.6	30.0 - 33.1
<b>Race/Ethnicity</b>		
White, Non-Hispanic	33.4	32.1 - 34.6
Black, Non-Hispanic	39.7	35.4 - 43.9
Hispanic	19.7	13.0 - 26.5
Other, Non-Hispanic	23.2	16.6 - 29.8
Multi-Racial	N/A <sup>2</sup>	N/A <sup>2</sup>
<b>Annual Household Income</b>		
< \$15,000	40.8	36.6 - 45.0
\$15,000 - \$24,999	39.8	36.7 - 42.8
\$25,000 - \$34,999	37.3	33.4 - 41.1
\$35,000 - \$49,999	35.1	31.8 - 38.4
\$50,000 - \$74,999	32.3	29.2 - 35.5
\$75,000+	23.2	21.0 - 25.4
<b>Education</b>		
Less than High School	42.3	37.6 - 47.0
High School Diploma	37.7	35.7 - 39.8
Some College	29.9	27.8 - 32.0
College Graduate	27.2	25.3 - 29.0

<sup>1</sup>Among adults, the proportion who reported ever being told by a doctor, nurse or other health professional that they had high blood pressure (non-gestational).

<sup>2</sup>Estimate does not meet the reliability criteria for reporting set by the CDC.

# High Cholesterol

High cholesterol is a major risk factor for heart disease and stroke. Age, gender, family history and diet all affect the likelihood of developing high cholesterol.<sup>iii</sup>

Respondents were asked, “Have you ever been told by a doctor, nurse or other health professional that your blood cholesterol is high?”

- In 2013, 37.5 percent of Ohio adults reported ever being told by a doctor, nurse or other health professional that they had high cholesterol.
- The prevalence of high cholesterol increases as age increases.
- The prevalence of high cholesterol decreases as household income increases.
- The prevalence of high cholesterol decreases as education level increases; 46.2 percent of adults with less than a high school education had high cholesterol, compared with 32.6 percent of college graduates.
- The prevalence of high cholesterol does not significantly differ by race/ethnicity.
- The prevalence of high cholesterol does not significantly differ by gender.

**Table 3. Prevalence of High Cholesterol by Demographic Characteristics, Ohio, 2013**

Demographic Characteristics	High Cholesterol <sup>1</sup>	
	Prevalence (%)	95% Confidence Interval
<b>Total</b>	37.5	36.2 - 38.8
<b>Age</b>		
18 - 24	8.4	4.4 - 12.5
25 - 34	15.8	12.3 - 19.4
35 - 44	26.2	22.8 - 29.6
45 - 54	35.4	32.6 - 38.3
55 - 64	50.1	47.4 - 52.9
65+	54.8	52.4 - 57.3
<b>Gender</b>		
Male	39.1	37.0 - 41.2
Female	36.1	34.3 - 37.8
<b>Race/Ethnicity</b>		
White, Non-Hispanic	37.9	36.4 - 39.3
Black, Non-Hispanic	35.0	30.3 - 39.6
Hispanic	33.4	23.3 - 43.5
Other, Non-Hispanic	41.8	31.8 - 51.7
Multi-Racial	N/A <sup>2</sup>	N/A <sup>2</sup>
<b>Annual Household Income</b>		
< \$15,000	44.3	39.4 - 49.3
\$15,000 - \$24,999	42.0	38.5 - 45.5
\$25,000 - \$34,999	41.3	36.9 - 45.6
\$35,000 - \$49,999	40.0	36.2 - 43.7
\$50,000 - \$74,999	34.2	31.0 - 37.6
\$75,000+	31.4	28.9 - 34.0
<b>Education</b>		
Less than High School	46.2	40.7 - 51.7
High School Diploma	40.2	37.9 - 42.5
Some College	35.2	32.8 - 37.7
College Graduate	32.6	30.5 - 34.7

<sup>1</sup>Among adults, the proportion who reported ever being told by a doctor, nurse or other health professional that their blood cholesterol was high.

<sup>2</sup>Estimate does not meet the reliability criteria for reporting set by the CDC.

# Heart Disease

Heart disease is the leading cause of death in Ohio and the United States. In 2012, heart disease killed more than 26,000 Ohioans, which accounts for nearly a quarter of all resident deaths in Ohio. Heart disease includes coronary heart disease, myocardial infarction (MI or heart attack) and heart failure.

Heart disease is caused by a complex set of risk factors that include genetics, environment, clinical risk factors and individual behavior. Individuals are more likely to have heart disease if they have high blood pressure, high cholesterol or other chronic diseases such as diabetes or kidney disease, are obese, use tobacco, drink alcohol in excess, eat a poor diet or are not physically active.

Respondents were asked two questions related to heart attack and coronary heart disease which were combined to create one heart disease indicator:

- "Has a doctor, nurse or other health professional ever told you that you had a heart attack also called myocardial infarction?"
- "Has a doctor, nurse or other health professional ever told you that you had angina or coronary heart disease?"

- In 2013, 7.4 percent of Ohio adults reported ever being told by a doctor, nurse or other health professional that they had a heart attack, angina or coronary heart disease.
- The prevalence of heart disease increases as age increases.
- The prevalence of heart disease decreases as household income increases.
- The prevalence of heart disease decreases as education level increases.
- White, non-Hispanic adults (7.7 percent) reported a significantly higher prevalence of heart disease compared with black, non-Hispanic adults (5.2 percent) and Hispanic adults (4.1 percent).
- The prevalence of heart disease is significantly higher among males (9.2 percent) than among females (5.8 percent).

**Table 4. Prevalence of Heart Disease by Demographic Characteristics, Ohio, 2013**

Demographic Characteristics	Heart Disease <sup>1</sup>	
	Prevalence (%)	95% Confidence Interval
<b>Total</b>	7.4	6.8 - 8.0
<b>Age</b>		
18 - 24	0.2	0.0 - 0.5
25 - 34	0.6	0.1 - 1.0
35 - 44	1.7	0.9 - 2.4
45 - 54	6.6	5.0 - 8.1
55 - 64	9.1	7.6 - 10.6
65+	21.5	19.5 - 23.6
<b>Gender</b>		
Male	9.2	8.2 - 10.2
Female	5.8	5.1 - 6.5
<b>Race/Ethnicity</b>		
White, Non-Hispanic	7.7	7.0 - 8.4
Black, Non-Hispanic	5.2	3.6 - 6.8
Hispanic	4.1	1.5 - 6.7
Other, Non-Hispanic	9.0	4.7 - 13.4
Multi-Racial	13.1	5.9 - 20.3
<b>Annual Household Income</b>		
< \$15,000	11.3	9.0 - 13.5
\$15,000 - \$24,999	11.4	9.5 - 13.4
\$25,000 - \$34,999	9.5	7.4 - 11.5
\$35,000 - \$49,999	7.3	5.8 - 8.9
\$50,000 - \$74,999	5.1	3.7 - 6.4
\$75,000+	3.0	2.1 - 3.8
<b>Education</b>		
Less than High School	13.2	10.5 - 15.9
High School Diploma	9.1	8.0 - 10.2
Some College	5.7	4.8 - 6.7
College Graduate	4.1	3.4 - 4.8

<sup>1</sup>Among adults, the proportion of those who reported ever being told by a doctor, nurse or other health professional that they had a heart attack (or myocardial infarction), angina or coronary heart disease.

# Stroke

In the United States, nearly 800,000 people experience stroke and 135,000 die from stroke every year. It is the fifth leading cause of death in the United States and one of the leading causes of serious disability among adults. A person's risk of stroke varies with many factors, including age and race. Lifestyle behaviors such as smoking, poor diet and lack of exercise also increase an individual's risk of stroke. In addition, certain clinical risk factors—high blood pressure, high cholesterol, diabetes, obesity and atrial fibrillation—increase risk of stroke dramatically when not controlled.

Respondents were asked, "Has a doctor, nurse or other health professional ever told you that you had a stroke?"

- In 2013, 3.7 percent of Ohio adults reported ever being told by a doctor, nurse or other health professional that they had suffered a stroke.
- The prevalence of stroke increases as age increases.
- The prevalence of stroke decreases as household income increases.
- The prevalence of stroke decreases as education level increases; 7.5 percent of adults with less than a high school education have had a stroke, compared with 1.9 percent of college graduates.
- The prevalence of stroke does not significantly differ by race/ethnicity.
- The prevalence of stroke does not significantly differ by gender.

**Table 5. Prevalence of Stroke by Demographic Characteristics, Ohio, 2013**

Demographic Characteristics	Stroke <sup>1</sup>	
	Prevalence (%)	95% Confidence Interval
<b>Total</b>	3.7	3.3 - 4.2
<b>Age</b>		
18 - 24	0.3	0.0 - 0.6
25 - 34	0.8	0.3 - 1.4
35 - 44	1.8	0.9 - 2.6
45 - 54	3.5	2.4 - 4.6
55 - 64	4.5	3.4 - 5.5
65+	9.2	7.7 - 10.7
<b>Gender</b>		
Male	3.6	2.9 - 4.3
Female	3.8	3.2 - 4.4
<b>Race/Ethnicity</b>		
White, Non-Hispanic	3.6	3.1 - 4.1
Black, Non-Hispanic	3.3	2.1 - 4.6
Hispanic	2.2	0.0 - 4.8
Other, Non-Hispanic	6.5	2.7 - 10.4
Multi-Racial	8.9	2.7 - 15.2
<b>Annual Household Income</b>		
< \$15,000	6.5	4.8 - 8.2
\$15,000 - \$24,999	6.2	4.8 - 7.5
\$25,000 - \$34,999	4.9	3.1 - 6.6
\$35,000 - \$49,999	3.1	1.8 - 4.3
\$50,000 - \$74,999	1.9	1.0 - 2.7
\$75,000+	1.1	0.5 - 1.6
<b>Education</b>		
Less than High School	7.5	5.5 - 9.5
High School Diploma	3.8	3.1 - 4.4
Some College	3.4	2.5 - 4.2
College Graduate	1.9	1.4 - 2.5

<sup>1</sup>Among adults, the proportion who reported ever being told by a doctor, nurse or other health provider that they had suffered a stroke.

# Asthma

Almost 40 million people have been diagnosed with asthma in their lifetime in the United States, with over 10 million of those being children. There is no cure for asthma, but it can be controlled through appropriate medical care and by avoiding known exposures that can trigger an attack.<sup>iv</sup>

Adult respondents were asked, “Has a doctor, nurse or other health professional ever told you that you had asthma?” If yes, “Do you still have asthma?”

- In 2013, 14.2 percent of Ohio adults reported ever being told by a doctor that they had asthma; 9.7 percent of Ohio adults reported that they currently have asthma.
- The prevalence of lifetime asthma among adults decreases as age increases.
- The prevalence of lifetime and current asthma among adults decreases as household income increases.
- The prevalence of lifetime and current asthma among adults is significantly higher among respondents with less than a high school education compared with all other levels of education.
- The prevalence of lifetime and current asthma is significantly higher among black, non-Hispanic respondents (18.4 percent and 14.8 percent, respectively) compared with white, non-Hispanic respondents (13.6 percent and 9.0 percent, respectively).
- The prevalence of lifetime and current asthma among adults is significantly higher among females (16.5 percent and 12.4 percent respectively) compared with males (11.8 percent and 6.8 percent, respectively).

**Table 6. Prevalence of Asthma (Lifetime and Current) by Demographic Characteristics, Ohio, 2013**

Demographic Characteristics	Ever Had Asthma <sup>1</sup>		Current Asthma <sup>2</sup>	
	Prevalence (%)	95% Confidence Interval	Prevalence (%)	95% Confidence Interval
<b>Total</b>	14.2	13.3 - 15.2	9.7	8.9 - 10.5
<b>Age</b>				
18 - 24	21.1	17.1 - 25.1	12.8	9.4 - 16.2
25 - 34	17.1	14.2 - 20.0	9.6	7.3 - 11.9
35 - 44	14.1	11.6 - 16.6	9.3	7.3 - 11.4
45 - 54	13.4	11.5 - 15.3	10.3	8.6 - 12.0
55 - 64	11.8	10.1 - 13.6	9.3	7.7 - 10.8
65+	10.5	9.1 - 11.9	8.0	6.8 - 9.3
<b>Gender</b>				
Male	11.8	10.5 - 13.1	6.8	5.9 - 7.8
Female	16.5	15.2 - 17.9	12.4	11.1 - 13.6
<b>Race/Ethnicity</b>				
White, Non-Hispanic	13.6	12.6 - 14.6	9.0	8.2 - 9.8
Black, Non-Hispanic	18.4	14.8 - 22.1	14.8	11.4 - 18.3
Hispanic	15.5	9.1 - 21.9	11.3	5.8 - 16.8
Other, Non-Hispanic	11.2	6.3 - 16.1	6.6	3.3 - 9.8
Multi-Racial	N/A <sup>3</sup>	N/A <sup>3</sup>	N/A <sup>3</sup>	N/A <sup>3</sup>
<b>Annual Household Income</b>				
< \$15,000	23.4	19.6 - 27.2	18.1	14.7 - 21.6
\$15,000 - \$24,999	18.2	15.6 - 20.8	13.3	11.0 - 15.5
\$25,000 - \$34,999	12.5	9.6 - 15.5	9.4	6.7 - 12.1
\$35,000 - \$49,999	11.0	8.9 - 13.1	7.3	5.6 - 9.0
\$50,000 - \$74,999	11.4	9.3 - 13.5	7.0	5.5 - 8.5
\$75,000+	11.1	9.3 - 12.9	6.3	4.9 - 7.7
<b>Education</b>				
Less than High School	21.4	17.4 - 25.3	17.0	13.4 - 20.5
High School Diploma	12.5	11.0 - 14.0	8.5	7.3 - 9.7
Some College	15.2	13.4 - 17.1	10.2	8.7 - 11.8
College Graduate	11.5	10.2 - 12.9	6.7	5.8 - 7.7

<sup>1</sup>Among adults, the proportion who reported ever being told by a doctor, nurse or other health professional that they have asthma.

<sup>2</sup>Among adults, the proportion of those who reported they still have asthma.

<sup>3</sup>Estimate does not meet the reliability criteria for reporting set by the CDC.

## Child Asthma

Asthma is the third leading cause of hospitalization among children younger than 15. An asthma attack may be triggered by respiratory infections, cigarette smoke, allergies, air pollutants, exposure to cold air/temperature changes, excitement/stress or exercise.<sup>v</sup>

Respondents were asked, “Has a doctor, nurse or other health professional ever said that the child has asthma?” If yes, “Does the child still have asthma?”

- In 2013, an estimated 14.4 percent of Ohio children ages 0-17 were ever told by a doctor that they had asthma; an estimated 10.0 percent of Ohio children currently have asthma.
- The prevalence of current asthma is significantly higher among children ages 10 and older compared with children ages four and younger.
- The prevalence of lifetime and current asthma among children does not significantly differ by gender.
- The prevalence of lifetime and current asthma among children cannot be compared by household income or race/ethnicity due to insufficient sample size.

**Table 7. Prevalence of Child Asthma (Lifetime and Current) by Demographic Characteristics, Ohio, 2013**

Demographic Characteristics	Ever Had Asthma <sup>1</sup>		Current Asthma <sup>2</sup>	
	Prevalence (%)	95% Confidence Interval	Prevalence (%)	95% Confidence Interval
<b>Total</b>	14.4	11.8 - 17.2	10.0	7.6 - 12.3
<b>Age</b>				
0 - 4	4.0	0.0 - 7.9	3.7	0.0 - 7.6
5 - 9	15.6	9.2 - 21.9	10.3	5.0 - 15.6
10 - 14	24.1	17.7 - 30.5	15.8	10.2 - 21.5
15 - 17	20.4	14.3 - 26.5	13.8	8.7 - 19.0
<b>Gender</b>				
Male	12.4	8.4 - 16.5	7.5	4.1 - 10.9
Female	15.5	12.0 - 19.0	11.2	8.2 - 14.3
<b>Race/Ethnicity</b>				
White, Non-Hispanic	12.0	9.5 - 14.5	7.9	5.7 - 10.0
Black, Non-Hispanic	N/A <sup>3</sup>	N/A <sup>3</sup>	N/A <sup>3</sup>	N/A <sup>3</sup>
Hispanic	N/A <sup>3</sup>	N/A <sup>3</sup>	N/A <sup>3</sup>	N/A <sup>3</sup>
Other, Non-Hispanic	N/A <sup>3</sup>	N/A <sup>3</sup>	N/A <sup>3</sup>	N/A <sup>3</sup>
<b>Annual Household Income</b>				
< \$15,000	N/A <sup>3</sup>	N/A <sup>3</sup>	N/A <sup>3</sup>	N/A <sup>3</sup>
\$15,000 - \$24,999	20.4	10.8 - 29.9	18.0	8.6 - 27.3
\$25,000 - \$34,999	N/A <sup>3</sup>	N/A <sup>3</sup>	N/A <sup>3</sup>	N/A <sup>3</sup>
\$35,000 - \$49,999	13.2	5.1 - 21.2	6.3	2.3 - 10.3
\$50,000 - \$74,999	11.0	5.0 - 16.9	9.1	3.3 - 14.8
\$75,000+	11.1	7.5 - 14.6	6.0	3.4 - 8.6

<sup>1</sup>Estimated proportion of Ohio children ages 0-17 years who were ever told by a doctor, nurse or other health professional that they had asthma, using proxy information from the adult respondent.

<sup>2</sup>Estimated proportion of Ohio children ages 0-17 years who still have asthma, using proxy information from the adult respondent.

<sup>3</sup>Estimate does not meet the reliability criteria for reporting set by the CDC.

# Cancer

In Ohio in 2013, the American Cancer Society (ACS) estimated that 66,610 new cases of invasive cancer would be diagnosed. ACS also estimated that 25,130 cancer deaths would occur in Ohio in 2013.<sup>vi</sup> Regular screening examinations by a health care professional can result in the detection of cancers at earlier stages, when treatment is more likely to be successful.

Respondents were asked:

- “Has a doctor, nurse or other health professional ever told you that you had skin cancer?”

- “Has a doctor, nurse or other health professional ever told you that you had any other type of cancer?”

- In 2013, 5.5 percent of Ohio adults reported ever being told by a doctor, nurse or other health professional that they had skin cancer; 6.6 percent of adults reported ever being told by a doctor that they had any other type of cancer.
- The prevalence of skin cancer and other types of cancer increases as age increases.
- The prevalence of skin cancer is significantly higher among those with an annual household income of \$25,000 or more compared with those earning \$15,000 or less.
- The prevalence of skin cancer is significantly lower among adults with less than a high school education compared with those with a high school diploma and above; the prevalence of other types of cancer does not significantly differ by education level.
- The prevalence of skin cancer is significantly higher among white, non-Hispanic adults compared with adults of other races/ethnicities; the prevalence of other types of cancer does not significantly differ by race/ethnicity.
- The prevalence of skin cancer does not significantly differ by gender; the prevalence of other types of cancer is significantly higher among females (8.2 percent) compared with males (4.9 percent).

**Table 8. Prevalence of Cancer by Demographic Characteristics, Ohio, 2013**

Demographic Characteristics	Skin Cancer <sup>1</sup>		Other Cancer <sup>2</sup>	
	Prevalence (%)	95% Confidence Interval	Prevalence (%)	95% Confidence Interval
<b>Total</b>	5.5	5.0 - 6.0	6.6	6.0 - 7.2
<b>Age</b>				
18 - 24	0.6	0.0 - 1.5	0.2	0.0 - 0.5
25 - 34	0.6	0.2 - 1.0	2.5	1.0 - 4.0
35 - 44	2.4	1.5 - 3.3	2.9	1.6 - 4.2
45 - 54	4.5	3.3 - 5.7	5.2	3.9 - 6.6
55 - 64	6.6	5.4 - 7.8	9.0	7.4 - 10.6
65+	14.9	13.3 - 16.4	16.2	14.5 - 17.9
<b>Gender</b>				
Male	5.1	4.5 - 5.8	4.9	4.2 - 5.6
Female	5.8	5.1 - 6.5	8.2	7.3 - 9.2
<b>Race/Ethnicity</b>				
White, Non-Hispanic	6.5	5.9 - 7.1	6.9	6.2 - 7.5
Black, Non-Hispanic	0.2	0.0 - 0.5	5.7	3.6 - 7.8
Hispanic	0.4	0.0 - 0.9	5.8	0.8 - 10.8
Other, Non-Hispanic	2.0	0.4 - 3.6	4.1	0.5 - 7.7
Multi-Racial	4.6	0.0 - 9.5	9.6	3.2 - 15.9
<b>Annual Household Income</b>				
< \$15,000	3.0	2.1 - 3.9	6.8	4.4 - 9.2
\$15,000 - \$24,999	5.0	3.9 - 6.0	9.5	7.7 - 11.3
\$25,000 - \$34,999	7.8	5.6 - 10.0	7.0	5.3 - 8.6
\$35,000 - \$49,999	5.8	4.4 - 7.1	7.2	5.6 - 8.8
\$50,000 - \$74,999	5.6	4.2 - 6.9	5.2	3.7 - 6.6
\$75,000+	5.6	4.6 - 6.6	4.4	3.4 - 5.5
<b>Education</b>				
Less than High School	3.1	2.0 - 4.3	8.6	6.0 - 11.2
High School Diploma	5.6	4.8 - 6.4	7.4	6.4 - 8.5
Some College	5.4	4.4 - 6.4	6.0	4.9 - 7.0
College Graduate	6.8	5.9 - 7.8	5.2	4.4 - 6.1

<sup>1</sup>Among adults, the proportion who reported ever being told by a doctor, nurse or other health professional that they had skin cancer.

<sup>2</sup>Among adults, the proportion who reported ever being told by a doctor, nurse or other health professional that they had any type of cancer other than skin cancer.

# Arthritis

Arthritis—an umbrella term that includes multiple conditions affecting the joints and connective tissues—is the leading cause of disability in the United States. Arthritis commonly occurs with other chronic conditions and can complicate the treatment of those conditions.<sup>vii</sup>

Respondents were asked, “Has a doctor, nurse or other health professional ever told you that you had arthritis, rheumatoid arthritis, gout, lupus or fibromyalgia?”

- In 2013, 29.8 percent of Ohio adults reported ever being told by a doctor, nurse or other health professional that they had arthritis
- The prevalence of arthritis increases as age increases.
- The prevalence of arthritis decreases as household income increases.
- The prevalence of arthritis decreases as education level increases.
- The prevalence of arthritis is significantly higher among white, non-Hispanic adults (30.6 percent) compared with Hispanic adults (19.1 percent).
- The prevalence of arthritis is significantly higher among females (33.9 percent) compared with males (25.5 percent).

**Table 9. Prevalence of Arthritis by Demographic Characteristics, Ohio, 2013**

Demographic Characteristics	Arthritis <sup>1</sup>	
	Prevalence (%)	95% Confidence Interval
<b>Total</b>	29.8	28.7 - 31.0
<b>Age</b>		
18 - 24	5.1	2.9 - 7.3
25 - 34	11.6	9.1 - 14.1
35 - 44	17.9	15.2 - 20.6
45 - 54	29.5	26.8 - 32.1
55 - 64	44.6	41.9 - 47.3
65+	57.2	54.8 - 59.5
<b>Gender</b>		
Male	25.5	23.8 - 27.2
Female	33.9	32.3 - 35.5
<b>Race/Ethnicity</b>		
White, Non-Hispanic	30.6	29.4 - 31.9
Black, Non-Hispanic	27.0	23.3 - 30.7
Hispanic	19.1	11.9 - 26.2
Other, Non-Hispanic	25.4	17.7 - 33.1
Multi-Racial	N/A <sup>2</sup>	N/A <sup>2</sup>
<b>Annual Household Income</b>		
< \$15,000	40.3	36.2 - 44.5
\$15,000 - \$24,999	36.3	33.2 - 39.4
\$25,000 - \$34,999	32.2	28.6 - 35.9
\$35,000 - \$49,999	33.2	29.8 - 36.5
\$50,000 - \$74,999	25.2	22.5 - 28.0
\$75,000+	19.4	17.3 - 21.4
<b>Education</b>		
Less than High School	39.9	35.2 - 44.6
High School Diploma	32.6	30.7 - 34.6
Some College	28.8	26.7 - 31.0
College Graduate	21.3	19.6 - 23.0

<sup>1</sup>Among adults, the proportion who reported ever being told by a doctor, nurse or other health professional that they have some form of arthritis, rheumatoid arthritis, gout, lupus or fibromyalgia.

<sup>2</sup>Estimate does not meet the reliability criteria for reporting set by the CDC.



# Kidney Disease

CDC estimates that more than 10 percent of adults in the United States may have chronic kidney disease. Diabetes and high blood pressure increase the risk of developing kidney disease; approximately 1 in 3 adults with diabetes and 1 in 5 adults with high blood pressure has chronic kidney disease.<sup>viii</sup>

Respondents were asked, “Has a doctor, nurse or other health professional ever told you that you had kidney disease?”

- In 2013, 2.4 percent of Ohio adults reported ever being told by a doctor, nurse or other health professional that they had kidney disease.
- The prevalence of kidney disease increases as age increases.
- The prevalence of kidney disease decreases as household income increases.
- The prevalence of kidney disease does not significantly differ by education level.
- The prevalence of kidney disease is significantly lower among Hispanic adults (0.6 percent) compared with black, non-Hispanic adults (2.5 percent) and white, non-Hispanic adults (2.4 percent).
- The prevalence of kidney disease is significantly higher among females (2.9 percent) compared with males (1.7 percent).

**Table 10. Prevalence of Kidney Disease by Demographic Characteristics, Ohio, 2013**

Demographic Characteristics	Kidney Disease <sup>1</sup>	
	Prevalence (%)	95% Confidence Interval
<b>Total</b>	2.4	2.0 - 2.7
<b>Age</b>		
18 - 24	0.3	0.0 - 0.7
25 - 34	0.7	0.1 - 1.2
35 - 44	1.2	0.5 - 1.9
45 - 54	2.3	1.4 - 3.2
55 - 64	2.9	2.1 - 3.7
65+	5.5	4.4 - 6.5
<b>Gender</b>		
Male	1.7	1.3 - 2.2
Female	2.9	2.4 - 3.4
<b>Race/Ethnicity</b>		
White, Non-Hispanic	2.4	2.0 - 2.7
Black, Non-Hispanic	2.5	1.5 - 3.6
Hispanic	0.6	0.0 - 1.4
Other, Non-Hispanic	2.4	0.0 - 4.8
Multi-Racial	2.9	0.0 - 7.3
<b>Annual Household Income</b>		
< \$15,000	4.3	2.9 - 5.7
\$15,000 - \$24,999	3.1	2.2 - 3.9
\$25,000 - \$34,999	2.6	1.5 - 3.7
\$35,000 - \$49,999	2.4	1.5 - 3.4
\$50,000 - \$74,999	1.3	0.6 - 2.0
\$75,000+	1.1	0.5 - 1.8
<b>Education</b>		
Less than High School	2.8	1.7 - 3.9
High School Diploma	2.9	2.2 - 3.6
Some College	2.0	1.5 - 2.6
College Graduate	1.7	1.2 - 2.2

<sup>1</sup>Among adults, the proportion who reported ever being told by a doctor, nurse or other health professional that they have kidney disease (not including kidney stones, bladder infection or incontinence).

# Diabetes

Diabetes can result in serious complications such as heart disease, stroke, kidney disease, blindness and death. Age, obesity, family history, history of gestational diabetes, impaired glucose metabolism, physical inactivity and race/ethnicity can contribute to one's risk of developing diabetes.<sup>ix</sup>

Respondents were asked, "Has a doctor, nurse or other health professional ever told you that you had diabetes?"

- In 2013, 10.4 percent of Ohio adults reported ever being told by a doctor, nurse or other healthcare professional that they had diabetes.
- The prevalence of diabetes increases as age increases.
- The prevalence of diabetes decreases as household income increases; 14.6 percent of adults with a household income less than \$15,000 have diabetes, compared with 5.5 percent of those with a household income of \$75,000 or more.
- The prevalence of diabetes decreases as education level increases.
- The prevalence of diabetes does not significantly differ by race/ethnicity.
- The prevalence of diabetes is the same for males and females.

**Table 11. Prevalence of Diabetes by Demographic Characteristics, Ohio, 2013**

Demographic Characteristics	Diabetes <sup>1</sup>	
	Prevalence (%)	95% Confidence Interval
<b>Total</b>	10.4	9.6 - 11.1
<b>Age</b>		
18 - 24	0.7	0.0 - 1.5
25 - 34	1.9	1.0 - 2.8
35 - 44	5.5	3.7 - 7.2
45 - 54	9.6	7.9 - 11.3
55 - 64	14.6	12.8 - 16.5
65+	24.0	22.0 - 26.1
<b>Gender</b>		
Male	10.3	9.3 - 11.5
Female	10.3	9.4 - 11.3
<b>Race/Ethnicity</b>		
White, Non-Hispanic	10.1	9.3 - 10.9
Black, Non-Hispanic	11.7	9.3 - 14.0
Hispanic	8.1	4.0 - 12.2
Other, Non-Hispanic	13.4	7.9 - 18.9
Multi-Racial	9.2	3.7 - 14.6
<b>Annual Household Income</b>		
< \$15,000	14.6	12.0 - 17.2
\$15,000 - \$24,999	13.8	11.8 - 15.8
\$25,000 - \$34,999	13.2	10.7 - 15.7
\$35,000 - \$49,999	10.9	8.8 - 13.0
\$50,000 - \$74,999	8.8	7.0 - 10.6
\$75,000+	5.5	4.2 - 6.8
<b>Education</b>		
Less than High School	15.2	12.1 - 18.2
High School Diploma	11.9	10.7 - 13.2
Some College	9.5	8.2 - 10.8
College Graduate	6.5	5.5 - 7.4

<sup>1</sup>Among adults, the proportion who reported ever being told by a doctor, nurse or other health professional that they have diabetes (non-gestational).

# Prediabetes

Prediabetes is a condition in which blood glucose or hemoglobin A1C levels are elevated but not high enough to be classified as diabetes. People with prediabetes have an increased risk of developing type 2 diabetes, heart disease and stroke, but not everyone with prediabetes will progress to diabetes.<sup>x</sup>

Respondents were asked, “Have you ever been told by a doctor, nurse or other health professional that you have prediabetes or borderline diabetes?”

- In 2013, 7.2 percent of Ohio adults reported being told by a doctor that they had prediabetes.
- The prevalence of prediabetes increases as age increases through 55-64 years of age.
- The prevalence of prediabetes is significantly higher among adults with a household income less than \$25,000 compared with adults with a household income of \$25,000 to \$74,999.
- The prevalence of prediabetes is significantly higher among adults with less than a high school education compared with adults with a high school diploma and a college degree.
- The prevalence prediabetes does not significantly differ by race/ethnicity.
- The prevalence of prediabetes does not significantly differ by gender.

**Table 12. Prevalence of Prediabetes by Demographic Characteristics, Ohio, 2013**

Demographic Characteristics	Prediabetes <sup>1</sup>	
	Prevalence (%)	95% Confidence Interval
<b>Total</b>	7.2	6.3 - 8.0
<b>Age</b>		
18 - 24	3.7	1.3 - 6.1
25 - 34	4.0	1.6 - 6.3
35 - 44	5.3	3.5 - 7.0
45 - 54	8.7	6.5 - 10.9
55 - 64	10.8	8.7 - 13.0
65+	9.3	7.5 - 11.0
<b>Gender</b>		
Male	6.9	5.6 - 8.1
Female	7.5	6.3 - 8.6
<b>Race/Ethnicity</b>		
White, Non-Hispanic	6.9	6.1 - 7.8
Black, Non-Hispanic	7.9	5.1 - 10.8
Hispanic	10.7	1.5 - 19.9
Other, Non-Hispanic	7.8	2.0 - 13.5
Multi-Racial	6.4	1.1 - 11.8
<b>Annual Household Income</b>		
< \$15,000	11.4	7.5 - 15.2
\$15,000 - \$24,999	10.9	8.2 - 13.5
\$25,000 - \$34,999	5.5	3.6 - 7.4
\$35,000 - \$49,999	5.6	4.0 - 7.3
\$50,000 - \$74,999	5.1	3.6 - 6.6
\$75,000+	6.4	4.6 - 8.2
<b>Education</b>		
Less than High School	12.2	8.2 - 16.3
High School Diploma	6.0	4.7 - 7.3
Some College	7.4	5.8 - 8.9
College Graduate	6.2	4.9 - 7.6

<sup>1</sup>Among adults, the proportion who reported ever being told by a doctor, nurse or other health professional that they have prediabetes or borderline diabetes.

# Chronic Obstructive Pulmonary Disease

Chronic Obstructive Pulmonary Disease (COPD), which includes emphysema and chronic bronchitis, is a disease where inflammation of the airways and destruction of lung tissue results in shortness of breath. COPD can cause long-term disability and is the third leading cause of death in the United States.<sup>xi</sup>

Respondents were asked, “Have you ever been told by a doctor, nurse or other health professional that you have Chronic Obstructive Pulmonary Disease or COPD, emphysema or chronic bronchitis?”

- In 2013, 8.3 percent of Ohio adults reported being told by a doctor, nurse or other health professional that they have Chronic Obstructive Pulmonary Disease (COPD).
- The prevalence of COPD increases as age increases.
- The prevalence of COPD decreases as household income increases; 18.3 percent of adults with a household income less than \$15,000 have COPD, compared with 2.2 percent of those with a household income of \$75,000 or more.
- The prevalence of COPD decreases as education level increases; 16.9 percent of adults with less than a high school education have COPD, compared with 3.2 percent of those with a college degree.
- The prevalence COPD does not significantly differ by race/ethnicity.
- The prevalence of COPD does not significantly differ by gender.

**Table 13. Prevalence of Chronic Obstructive Pulmonary Disease by Demographic Characteristics, Ohio, 2013**

Demographic Characteristics	COPD <sup>1</sup>	
	Prevalence (%)	95% Confidence Interval
<b>Total</b>	8.3	7.6 - 9.0
<b>Age</b>		
18 - 24	2.7	1.2 - 4.2
25 - 34	4.3	2.5 - 6.1
35 - 44	4.6	3.2 - 6.0
45 - 54	9.5	7.8 - 11.2
55 - 64	11.6	9.8 - 13.3
65+	14.2	12.6 - 15.9
<b>Gender</b>		
Male	7.7	6.7 - 8.8
Female	8.9	8.0 - 9.8
<b>Race/Ethnicity</b>		
White, Non-Hispanic	8.5	7.7 - 9.2
Black, Non-Hispanic	7.7	5.6 - 9.8
Hispanic	4.8	1.1 - 8.4
Other, Non-Hispanic	7.2	3.2 - 11.2
Multi-Racial	N/A <sup>2</sup>	N/A <sup>2</sup>
<b>Annual Household Income</b>		
< \$15,000	18.3	15.2 - 21.4
\$15,000 - \$24,999	12.5	10.4 - 14.5
\$25,000 - \$34,999	9.1	7.1 - 11.1
\$35,000 - \$49,999	7.6	5.7 - 9.6
\$50,000 - \$74,999	6.3	4.6 - 8.0
\$75,000+	2.2	1.4 - 3.0
<b>Education</b>		
Less than High School	16.9	13.5 - 20.3
High School Diploma	9.2	8.1 - 10.2
Some College	7.7	6.5 - 8.9
College Graduate	3.2	2.6 - 3.9

<sup>1</sup>Among adults, the proportion who reported ever being told by a doctor, nurse or other health professional that they have Chronic Obstructive Pulmonary Disease or COPD, emphysema or chronic bronchitis.

<sup>2</sup>Estimate does not meet the reliability criteria for reporting set by the CDC.

# Depression

Depression is a serious, life-long condition that affects thoughts, feelings, behavior, mood and physical health. It is estimated that 25 million adults are affected by major depression every year in the United States.<sup>xii</sup>

Respondents were asked, “Have you ever been told by a doctor, nurse or other health professional that you have a depressive disorder, including depression, major depression, dysthymia or minor depression?”

- In 2013, 20.2 percent of Ohio adults reported ever being told by a doctor, nurse or other health professional that they had a depressive disorder.
- The prevalence of depression is significantly lower among adults 65 and older compared with adults 25-64 years of age.
- The prevalence of depression decreases as household income increases.
- The prevalence of depression decreases as education level increases.
- The prevalence of depression is significantly higher among white, non-Hispanic adults (20.8 percent) compared with black, non-Hispanic adults (14.6 percent).
- The prevalence of depression is significantly higher among females (26.1 percent) compared with males (13.9 percent).

**Table 14. Prevalence of Depression by Demographic Characteristics, Ohio, 2013**

Demographic Characteristics	Depression <sup>1</sup>	
	Prevalence (%)	95% Confidence Interval
<b>Total</b>	20.2	19.1 - 21.3
<b>Age</b>		
18 - 24	20.3	16.3 - 24.4
25 - 34	20.7	17.7 - 23.8
35 - 44	22.2	19.3 - 25.2
45 - 54	21.9	19.6 - 24.1
55 - 64	22.2	20.1 - 24.4
65+	14.8	13.2 - 16.4
<b>Gender</b>		
Male	13.9	12.6 - 15.2
Female	26.1	24.5 - 27.7
<b>Race/Ethnicity</b>		
White, Non-Hispanic	20.8	19.7 - 22.0
Black, Non-Hispanic	14.6	11.5 - 17.7
Hispanic	22.7	14.2 - 31.2
Other, Non-Hispanic	20.0	12.4 - 27.6
Multi-Racial	N/A <sup>2</sup>	N/A <sup>2</sup>
<b>Annual Household Income</b>		
< \$15,000	41.9	37.6 - 46.3
\$15,000 - \$24,999	25.9	23.1 - 28.7
\$25,000 - \$34,999	20.8	17.4 - 24.1
\$35,000 - \$49,999	15.2	12.8 - 17.7
\$50,000 - \$74,999	15.9	13.6 - 18.2
\$75,000+	12.0	10.3 - 13.7
<b>Education</b>		
Less than High School	29.7	25.3 - 34.1
High School Diploma	19.5	17.8 - 21.2
Some College	20.6	18.7 - 22.6
College Graduate	15.5	14.0 - 17.1

<sup>1</sup>Among adults, the proportion who reported ever being told by a doctor, nurse or other health professional that they have a depressive disorder, including depression, major depression, dysthymia or minor depression.

<sup>2</sup>Estimate does not meet the reliability criteria for reporting set by the CDC.

## Mental Health

Mental illness is defined as health conditions that are characterized by alterations in thinking, mood and behavior associated with distress and/or impaired functioning. Mental disorders, especially depressive disorders, are strongly related to many chronic diseases including diabetes, cancer, cardiovascular disease, asthma and obesity.<sup>xiii</sup>

Respondents were asked, “Now thinking about your mental health, which includes stress, depression and problems with emotions, for how many days during the past 30 days was your mental health not good?”

- In 2013, 12.1 percent of Ohio adults reported that their mental health was not good on 14 or more of the last 30 days.
- The prevalence of poor mental health is significantly lower among adults 65 and older compared with adults less than 65 years of age.
- The prevalence of poor mental health decreases as household income increases.
- The prevalence of poor mental health decreases as education level increases.
- The prevalence of poor mental health is higher among black, non-Hispanic adults (16.5 percent) compared with white, non-Hispanic adults (11.4 percent) and adults of other races (8.2 percent).
- The prevalence of poor mental health is significantly higher among females (14.7 percent) compared with males (9.2 percent).

**Table 15. Prevalence of Poor Mental Health by Demographic Characteristics, Ohio, 2013**

Demographic Characteristics	Poor Mental Health <sup>1</sup>	
	Prevalence (%)	95% Confidence Interval
<b>Total</b>	12.1	11.2 - 13.0
<b>Age</b>		
18 - 24	14.5	10.9 - 18.2
25 - 34	13.4	10.9 - 15.9
35 - 44	12.5	10.1 - 14.9
45 - 54	14.5	12.4 - 16.5
55 - 64	12.1	10.4 - 13.7
65+	6.8	5.6 - 8.1
<b>Gender</b>		
Male	9.2	8.0 - 10.4
Female	14.7	13.4 - 16.1
<b>Race/Ethnicity</b>		
White, Non-Hispanic	11.4	10.5 - 12.4
Black, Non-Hispanic	16.5	12.9 - 20.1
Hispanic	17.3	10.2 - 24.3
Other, Non-Hispanic	8.2	4.2 - 12.1
Multi-Racial	13.9	6.8 - 21.1
<b>Annual Household Income</b>		
< \$15,000	31.0	26.8 - 35.2
\$15,000 - \$24,999	17.7	15.2 - 20.2
\$25,000 - \$34,999	11.7	9.0 - 14.3
\$35,000 - \$49,999	8.7	6.4 - 11.0
\$50,000 - \$74,999	7.4	5.6 - 9.2
\$75,000+	4.5	3.4 - 5.6
<b>Education</b>		
Less than High School	22.6	18.4 - 26.8
High School Diploma	12.3	10.9 - 13.7
Some College	12.1	10.5 - 13.7
College Graduate	5.7	4.7 - 6.8

<sup>1</sup>Among adults, the proportion who reported that their mental health was not good in 14 or more of the last 30 days.

# Smoking

Smoking increases the risk of heart disease, stroke, COPD (including emphysema and chronic bronchitis) and cancer and is the leading preventable cause of death in the United States. Nearly every organ of the body is harmed by smoking. Quitting smoking has been shown to reduce the risk of heart attack, stroke and cancer.<sup>xiv</sup>

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?”

- In 2013, an estimated 23.4 percent of Ohio adults were current cigarette smokers.
- The prevalence of cigarette smoking is significantly lower among adults 65 and older compared with other age groups.
- The prevalence of cigarette smoking decreases as household income increases.
- The prevalence of cigarette smoking decreases as education level increases; 41.2 percent of adults with less than a high school education are current smokers, compared with 9.5 percent of those with a college degree.
- The prevalence of cigarette smoking does not significantly differ by race/ethnicity.
- The prevalence of cigarette smoking does not significantly differ by gender.

**Table 16. Prevalence of Current Cigarette Smoking by Demographic Characteristics, Ohio, 2013**

Demographic Characteristics	Current Smoking <sup>1</sup>	
	Prevalence (%)	95% Confidence Interval
<b>Total</b>	23.4	22.2 - 24.6
<b>Age</b>		
18 - 24	24.6	20.1 - 29.0
25 - 34	30.3	26.8 - 33.7
35 - 44	30.0	26.5 - 33.4
45 - 54	26.6	24.0 - 29.2
55 - 64	22.6	20.2 - 24.9
65+	9.7	8.3 - 11.0
<b>Gender</b>		
Male	24.1	22.3 - 26.0
Female	22.6	21.1 - 24.2
<b>Race/Ethnicity</b>		
White, Non-Hispanic	22.8	21.6 - 24.1
Black, Non-Hispanic	25.6	21.6 - 29.6
Hispanic	24.1	15.3 - 32.9
Other, Non-Hispanic	24.3	16.0 - 32.6
Multi-Racial	N/A <sup>2</sup>	N/A <sup>2</sup>
<b>Annual Household Income</b>		
< \$15,000	37.2	33.0 - 41.5
\$15,000 - \$24,999	33.6	30.5 - 36.8
\$25,000 - \$34,999	24.9	21.2 - 28.7
\$35,000 - \$49,999	22.6	19.4 - 25.7
\$50,000 - \$74,999	18.7	15.9 - 21.6
\$75,000+	12.5	10.4 - 14.5
<b>Education</b>		
Less than High School	41.2	36.2 - 46.2
High School Diploma	26.5	24.5 - 28.5
Some College	22.8	20.7 - 24.9
College Graduate	9.5	8.1 - 10.8

<sup>1</sup>Among adults, the proportion who reported having smoked at least 100 cigarettes in their life and that they currently smoke, either every day or some days.

<sup>2</sup>Estimate does not meet the reliability criteria for reporting set by the CDC.

## Binge Drinking

About 90 percent of alcohol consumption among youth under age 21 and more than half of alcohol consumption among adults is in the form of binge drinking. Binge drinking is associated with multiple health problems such as unintentional injury (crashes, falls, burns, drowning), intentional injury and violence, alcohol poisoning and many others.<sup>xv</sup>

Respondents were asked, “Considering all types of alcoholic beverages, how many times during the past 30 days did you have (5 for men, 4 for women) or more drinks on an occasion?”

- In 2013, 17.1 percent of Ohio adults reported binge drinking in the past month.
- The prevalence of binge drinking decreases as age increases.
- The prevalence of binge drinking is significantly higher among respondents with a household income of \$75,000 or more compared with those respondents with a household income less than \$35,000.
- The prevalence of binge drinking does not significantly differ by education level.
- The prevalence of binge drinking does not significantly differ by race/ethnicity.
- The prevalence of binge drinking is significantly higher among males (22.5 percent) compared with females (12.1 percent).

**Table 17. Prevalence of Binge Drinking by Demographic Characteristics, Ohio, 2013**

Demographic Characteristics	Binge Drinking <sup>1</sup>	
	Prevalence (%)	95% Confidence Interval
<b>Total</b>	17.1	16.0 - 18.2
<b>Age</b>		
18 - 24	29.8	25.2 - 34.4
25 - 34	25.8	22.4 - 29.1
35 - 44	21.9	18.8 - 25.0
45 - 54	15.9	13.8 - 17.9
55 - 64	12.1	10.3 - 13.9
65+	3.9	3.0 - 4.9
<b>Gender</b>		
Male	22.5	20.7 - 24.3
Female	12.1	10.8 - 13.4
<b>Race/Ethnicity</b>		
White, Non-Hispanic	17.3	16.2 - 18.5
Black, Non-Hispanic	13.0	9.6 - 16.4
Hispanic	N/A <sup>2</sup>	N/A <sup>2</sup>
Other, Non-Hispanic	12.5	7.1 - 18.0
Multi-Racial	19.1	9.8 - 28.5
<b>Annual Household Income</b>		
< \$15,000	14.4	11.4 - 17.5
\$15,000 - \$24,999	14.9	12.3 - 17.4
\$25,000 - \$34,999	15.6	12.3 - 18.8
\$35,000 - \$49,999	17.9	14.9 - 21.0
\$50,000 - \$74,999	17.4	14.7 - 20.1
\$75,000+	22.7	20.2 - 25.2
<b>Education</b>		
Less than High School	15.1	11.0 - 19.2
High School Diploma	16.1	14.3 - 17.9
Some College	17.8	15.8 - 19.8
College Graduate	18.8	16.9 - 20.6

<sup>1</sup>Among adults, the proportion who reported consuming five or more drinks per occasion (males) or four or more drinks per occasion (females) at least once in the past month.

<sup>2</sup>Estimate does not meet the reliability criteria for reporting set by the CDC.



## Fruit and Vegetable Consumption

Fruit and vegetable consumption recommendations are based on one's age, sex and activity level. A diet rich in fruits and vegetables may reduce the risk of cancer and other chronic diseases.<sup>xvi</sup>

Respondents were asked how many times per day, week or month they consumed the following: 100 percent pure fruit juice; fruit (not juiced); beans (not long green beans); dark green vegetables; orange vegetables; and other vegetables. Responses were combined to create each fruit and vegetable indicator.

- In 2013, 41.6 percent of Ohio adults reported consuming fruit less than once per day; 26.3 percent reported consuming vegetables less than once per day.
- Consuming fruit less than once per day decreases as age increases; adults ages 18-24 are significantly more likely to consume vegetables less than once per day compared with those ages 35 and older.
- Consuming vegetables less than once per day decreases as household income increases.
- Consuming fruits and vegetables less than once per day decreases as education level increases.
- Black, non-Hispanic adults are more likely to consume vegetables less than once per day (34.3 percent) compared with white, non-Hispanic adults (25.2 percent).
- Males are significantly more likely to consume fruits and vegetables less than once per day (46.0 percent and 29.5 percent, respectively) compared with females (37.6 percent and 23.4 percent, respectively).

**Table 18. Prevalence of Insufficient Fruit and Vegetable Consumption by Demographic Characteristics, Ohio, 2013**

Demographic Characteristics	Consume Fruits Less Than Once Per Day <sup>1</sup>		Consume Vegetables Less Than Once Per Day <sup>2</sup>	
	Prevalence (%)	95% Confidence Interval	Prevalence (%)	95% Confidence Interval
<b>Total</b>	41.6	40.3 - 43.0	26.3	25.0 - 27.6
<b>Age</b>				
18 - 24	49.1	43.7 - 54.5	37.6	32.3 - 43.0
25 - 34	44.7	40.7 - 48.6	29.7	25.9 - 33.5
35 - 44	44.6	40.9 - 48.3	23.7	20.5 - 26.8
45 - 54	44.9	41.9 - 47.9	23.9	21.2 - 26.5
55 - 64	39.7	37.0 - 42.4	22.8	20.5 - 25.0
65+	31.0	28.7 - 33.2	24.3	22.1 - 26.5
<b>Gender</b>				
Male	46.0	43.9 - 48.1	29.5	27.5 - 31.5
Female	37.6	35.8 - 39.4	23.4	21.7 - 25.1
<b>Race/Ethnicity</b>				
White, Non-Hispanic	41.4	39.9 - 42.9	25.2	23.8 - 26.6
Black, Non-Hispanic	45.2	40.3 - 50.1	34.3	29.6 - 39.1
Hispanic	N/A <sup>3</sup>	N/A <sup>3</sup>	26.7	17.6 - 35.8
Other, Non-Hispanic	35.2	26.8 - 43.5	22.5	13.9 - 31.0
Multi-Racial	N/A <sup>3</sup>	N/A <sup>3</sup>	N/A <sup>3</sup>	N/A <sup>3</sup>
<b>Annual Household Income</b>				
< \$15,000	52.8	48.3 - 57.3	40.5	35.9 - 45.0
\$15,000 - \$24,999	43.9	40.5 - 47.2	33.6	30.2 - 36.9
\$25,000 - \$34,999	41.3	36.9 - 45.8	26.4	22.3 - 30.4
\$35,000 - \$49,999	42.4	38.6 - 46.2	26.4	22.9 - 29.8
\$50,000 - \$74,999	36.7	33.3 - 40.1	19.0	16.2 - 21.8
\$75,000+	36.8	33.9 - 39.7	17.9	15.3 - 20.5
<b>Education</b>				
Less than High School	48.0	42.8 - 53.2	38.7	33.5 - 43.9
High School Diploma	46.4	44.0 - 48.8	31.7	29.4 - 34.0
Some College	41.7	39.1 - 44.2	23.7	21.4 - 25.9
College Graduate	31.2	29.1 - 33.3	15.5	13.8 - 17.3

<sup>1</sup>Among adults, the proportion who reported consuming fresh, frozen or canned fruit or 100 percent fruit juice less than once per day.

<sup>2</sup>Among adults, the proportion who reported consuming vegetables or vegetable juice less than once per day.

<sup>3</sup>Estimate does not meet the reliability criteria for reporting set by the CDC.

## Physical Activity

Regular physical activity reduces one's risk for many adverse health outcomes. The *2008 Physical Activity Guidelines for Americans* recommends for adults at least 150 minutes of moderate-intensity physical activity per week and muscle-strengthening activities 2 or more days a week.<sup>xvii</sup>

Respondents were asked about the types of physical activities they participated in, how often they participated in those activities and for how long they participated to determine whether they met the 2008 physical activity guidelines.

- In 2013, an estimated 19.0 percent of Ohio adults met physical activity guidelines.
- The prevalence of meeting physical activity guidelines decreases as age increases.
- The prevalence of meeting physical activity guidelines increases as education increases.
- The prevalence of meeting physical activity guidelines is higher among respondents with a household income \$50,000 or more compared with those respondents with a household income less than \$35,000.
- The prevalence of meeting physical activity guidelines does not significantly differ by race/ethnicity.
- Males (21.7 percent) are significantly more likely to meet physical activity guidelines compared with females (16.4 percent).

**Table 19. Prevalence of Meeting Physical Activity Guidelines, Ohio, 2013**

Demographic Characteristics	Physical Activity <sup>1</sup>	
	Prevalence (%)	95% Confidence Interval
<b>Total</b>	19.0	17.8 - 20.1
<b>Age</b>		
18 - 24	28.2	23.1 - 33.3
25 - 34	21.9	18.6 - 25.2
35 - 44	17.5	14.9 - 20.2
45 - 54	17.6	15.3 - 19.9
55 - 64	17.2	15.0 - 19.4
65+	15.1	13.4 - 16.8
<b>Gender</b>		
Male	21.7	19.9 - 23.5
Female	16.4	15.0 - 17.9
<b>Race/Ethnicity</b>		
White, Non-Hispanic	19.1	17.9 - 20.4
Black, Non-Hispanic	19.4	15.4 - 23.4
Hispanic	13.2	7.5 - 19.0
Other, Non-Hispanic	19.0	11.7 - 26.3
Multi-Racial	N/A <sup>2</sup>	N/A <sup>2</sup>
<b>Annual Household Income</b>		
< \$15,000	13.9	10.6 - 17.1
\$15,000 - \$24,999	15.1	12.6 - 17.7
\$25,000 - \$34,999	13.6	10.7 - 16.6
\$35,000 - \$49,999	19.8	16.6 - 23.0
\$50,000 - \$74,999	21.3	18.3 - 24.4
\$75,000+	26.2	23.5 - 28.9
<b>Education</b>		
Less than High School	9.9	6.7 - 13.2
High School Diploma	16.8	14.7 - 19.0
Some College	19.9	17.8 - 22.0
College Graduate	25.8	23.7 - 27.8

<sup>1</sup>Among adults, the proportion who reported that they meet both the aerobic and muscle strengthening guidelines established in the *2008 Physical Activity Guidelines for Americans*.

<sup>2</sup>Estimate does not meet the reliability criteria for reporting set by the CDC.

# Obesity

More than one-third of American adults are obese. Conditions associated with obesity include heart disease, stroke, type 2 diabetes and some cancers.<sup>xviii</sup>

Overweight and obesity are determined by calculating a body mass index (BMI) based on one's height and weight. A BMI of 30 or above is considered to be obese, which for a 5'9" adult would be a weight of 203 pounds or more. BRFSS height and weight data are self-reported. A previous study found that female BRFSS participants, on average, under-report their weight, while male participants over-report their height.<sup>xix</sup> This bias should be considered when interpreting BRFSS obesity prevalence estimates.

- In 2013, 30.4 percent of Ohio adults were classified as obese.
- The prevalence of obesity is significantly higher among adults ages 35-64 compared with adults ages 18-34 and 65 and older.
- The prevalence of obesity is significantly lower among adults with a household income of \$75,000 or more compared with adults with a household income less than \$25,000 and \$35,000-\$49,999.
- The prevalence of obesity decreases as education level increases.
- The prevalence of obesity is significantly lower among other, non-Hispanics compared with white, non-Hispanics and black, non-Hispanics.
- The prevalence of obesity does not significantly differ by gender.

**Table 20. Prevalence of Obesity by Demographic Characteristics, Ohio, 2013**

Demographic Characteristics	Obesity <sup>1</sup>	
	Prevalence (%)	95% Confidence Interval
<b>Total</b>	30.4	29.1 - 31.6
<b>Age</b>		
18 - 24	17.8	14.0 - 21.6
25 - 34	24.8	21.4 - 28.2
35 - 44	35.3	31.8 - 38.8
45 - 54	35.0	32.2 - 37.8
55 - 64	37.4	34.7 - 40.1
65+	28.6	26.4 - 30.8
<b>Gender</b>		
Male	30.0	28.2 - 31.8
Female	30.8	29.1 - 32.5
<b>Race/Ethnicity</b>		
White, Non-Hispanic	30.0	28.6 - 31.3
Black, Non-Hispanic	34.4	30.2 - 38.7
Hispanic	32.5	23.1 - 41.9
Other, Non-Hispanic	18.1	12.1 - 24.1
Multi-Racial	N/A <sup>2</sup>	N/A <sup>2</sup>
<b>Annual Household Income</b>		
< \$15,000	35.6	31.4 - 39.9
\$15,000 - \$24,999	35.8	32.6 - 39.0
\$25,000 - \$34,999	28.8	25.2 - 32.5
\$35,000 - \$49,999	32.6	29.3 - 35.9
\$50,000 - \$74,999	30.9	27.7 - 34.1
\$75,000+	26.1	23.7 - 28.5
<b>Education</b>		
Less than High School	36.0	31.2 - 40.7
High School Diploma	31.7	29.6 - 33.7
Some College	30.9	28.7 - 33.2
College Graduate	24.6	22.7 - 26.6

Note: Body mass index (BMI) is defined as weight (in kilograms) divided by height (in meters) squared [weight in kg/(height in meters)<sup>2</sup>]. Weight and height were self-reported. Pregnant women were excluded from the calculation.

<sup>1</sup>Among adults, the proportion of respondents whose BMI was greater than or equal to 30.0.

<sup>2</sup>Estimate does not meet the reliability criteria for reporting set by the CDC.

# Disability

Disability is a general term that can include limitations related to vision, movement, thinking, learning, remembering, hearing, communicating, mental health and social relationships.

Respondents were asked, “Are you limited in any way in any activities because of physical, mental or emotional problems?”

- In 2013, 20.6 percent of Ohio adults reported a physical, mental or emotional limitation or disability.
- The prevalence of disability increases as age increases until age 65 and older.
- The prevalence of disability decreases as household income increases.
- The prevalence of disability decreases as education level increases; 31.6 percent of adults with less than a high school education have a disability, compared with 13.7 percent of those with a college degree.
- The prevalence of disability does not significantly differ by race/ethnicity.
- The prevalence of disability does not significantly differ by gender.

**Table 21. Prevalence of Disability by Demographic Characteristics, Ohio, 2013**

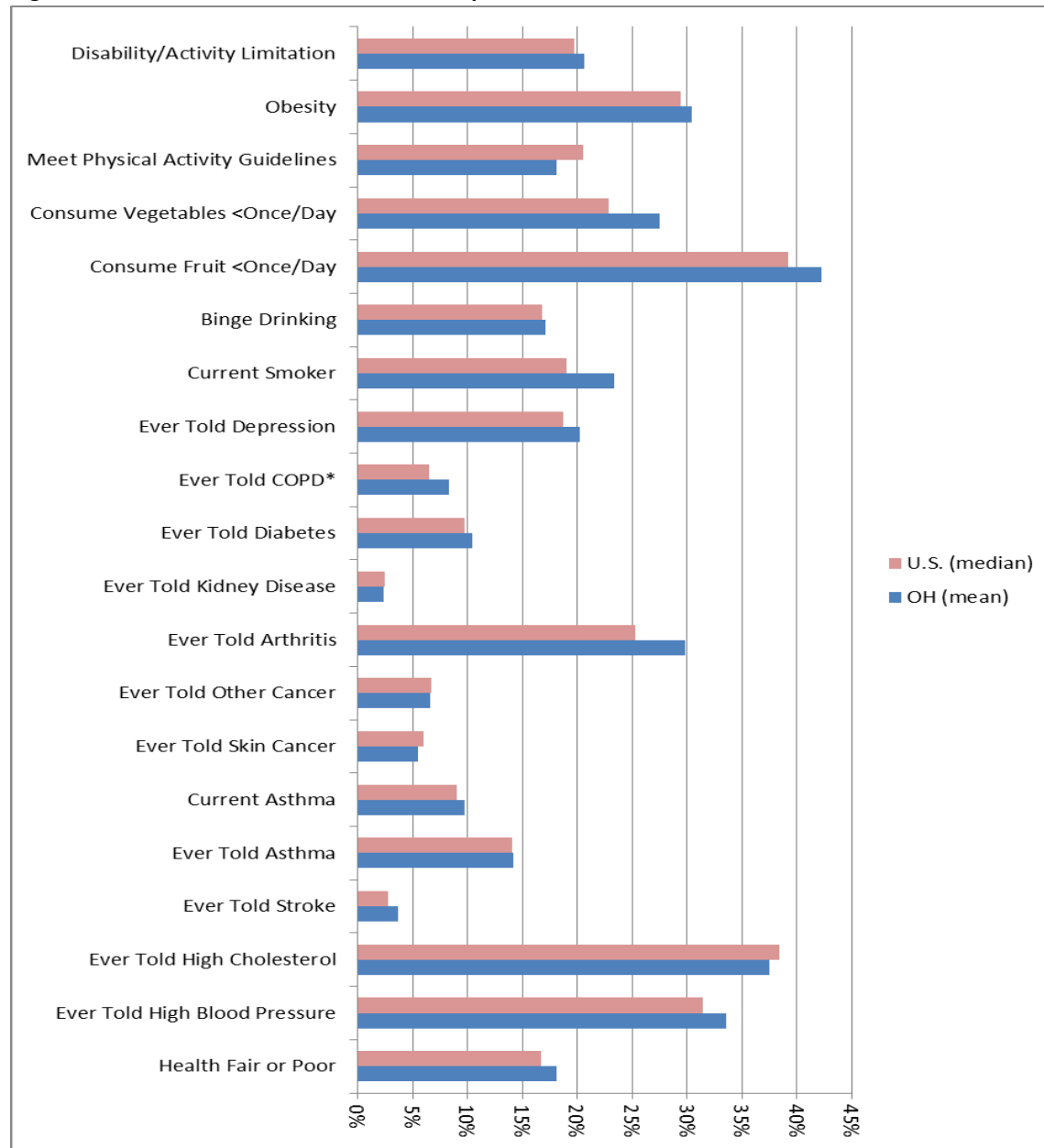
Demographic Characteristics	Disability <sup>1</sup>	
	Prevalence (%)	95% Confidence Interval
<b>Total</b>	20.6	19.5 - 21.6
<b>Age</b>		
18 - 24	10.7	7.6 - 13.9
25 - 34	12.8	10.3 - 15.3
35 - 44	15.7	13.0 - 18.3
45 - 54	24.4	21.8 - 27.0
55 - 64	27.9	25.5 - 30.3
65+	26.8	24.7 - 28.9
<b>Gender</b>		
Male	19.8	18.3 - 21.4
Female	21.2	19.8 - 22.6
<b>Race/Ethnicity</b>		
White, Non-Hispanic	20.9	19.7 - 22.0
Black, Non-Hispanic	19.2	15.7 - 22.7
Hispanic	15.3	8.4 - 22.3
Other, Non-Hispanic	16.2	10.1 - 22.2
Multi-Racial	N/A <sup>2</sup>	N/A <sup>2</sup>
<b>Annual Household Income</b>		
< \$15,000	42.2	37.9 - 46.5
\$15,000 - \$24,999	29.4	26.4 - 32.3
\$25,000 - \$34,999	21.8	18.5 - 25.1
\$35,000 - \$49,999	16.7	14.2 - 19.3
\$50,000 - \$74,999	14.3	12.1 - 16.6
\$75,000+	10.5	8.8 - 12.2
<b>Education</b>		
Less than High School	31.6	27.2 - 36.0
High School Diploma	21.9	20.1 - 23.6
Some College	19.8	17.9 - 21.6
College Graduate	13.7	12.2 - 15.1

<sup>1</sup>Among adults, the proportion who reported that they were limited in any way in any activities because of physical, mental or emotional problems.

<sup>2</sup>Estimate does not meet the reliability criteria for reporting set by the CDC.

## Appendix A—Ohio/U.S. BRFSS Data

**Figure A1. BRFSS Health Indicators: Ohio compared with the United States, 2013**



\*COPD = Chronic Obstructive Pulmonary Disease.

## Appendix B—Regional/County Disease Prevalence

Table B1. Disease Prevalence by Region/County, Ohio, 2013

Ohio BRFSS Region	High Blood Pressure	Heart Disease	High Cholesterol	Stroke	Adult Current Asthma	Child Current Asthma	Skin Cancer	Other Cancer
	Prevalence (95% CI)	Prevalence (95% CI)	Prevalence (95% CI)	Prevalence (95% CI)	Prevalence (95% CI)	Prevalence (95% CI)	Prevalence (95% CI)	Prevalence (95% CI)
<b>Region 1<sup>a</sup></b>	32.4 (27.6 - 37.3)	9.2 (6.1 - 12.3)	37.8 (32.1 - 43.4)	4.7 (2.1 - 7.3)	8.8 (5.7 - 11.9)	8.8 (2.0 - 15.6)	4.9 (3.2 - 6.7)	8.5 (5.9 - 11.1)
<b>Region 2<sup>b</sup></b>	37.2 (32.8 - 41.7)	9.1 (6.6 - 11.5)	40.1 (35.3 - 44.9)	3.9 (2.2 - 5.5)	9.9 (6.9 - 12.9)	6.5 (0.4 - 12.5)	4.5 (2.9 - 6.1)	7.6 (5.5 - 9.7)
<b>Region 3<sup>c</sup></b>	35.1 (30.2 - 39.9)	8.6 (5.8 - 11.4)	41.2 (35.7 - 46.8)	4.0 (1.7 - 6.3)	9.2 (6.2 - 12.1)	4.3 (0.0 - 10.9)	6.6 (4.7 - 8.5)	6.1 (3.8 - 8.3)
<b>Region 4<sup>d</sup></b>	30.6 (27.0 - 34.1)	7.9 (5.9 - 9.9)	33.6 (29.7 - 37.5)	3.7 (2.3 - 5.2)	9.0 (6.6 - 11.3)	12.5 (3.7 - 21.4)	4.8 (3.4 - 6.3)	6.9 (5.0 - 8.9)
<b>Region 5<sup>e</sup></b>	35.2 (31.0 - 39.5)	8.0 (5.8 - 10.1)	36.6 (32.0 - 41.2)	5.8 (4.0 - 7.6)	9.4 (6.9 - 11.9)	10.8 (3.0 - 18.6)	7.1 (4.9 - 9.3)	6.3 (4.5 - 8.1)
<b>Region 6<sup>f</sup></b>	36.8 (32.0 - 41.7)	7.0 (4.8 - 9.2)	36.2 (31.2 - 41.2)	4.0 (2.1 - 6.0)	9.2 (5.9 - 12.4)	2.5 (0.0 - 5.3)	7.0 (4.9 - 9.1)	6.7 (4.2 - 9.2)
<b>Region 7<sup>g</sup></b>	34.3 (30.3 - 38.3)	6.7 (4.9 - 8.5)	35.4 (31.0 - 39.8)	3.0 (1.8 - 4.2)	9.2 (6.7 - 11.8)	14.3 (3.6 - 25.0)	6.3 (4.7 - 7.8)	7.0 (5.2 - 8.9)
<b>Region 8<sup>h</sup></b>	38.8 (34.5 - 43.1)	11.2 (8.4 - 14.0)	48.3 (43.3 - 53.3)	4.4 (2.7 - 6.2)	9.4 (6.8 - 12.1)	9.4 (2.0 - 16.9)	7.0 (4.9 - 9.1)	8.6 (6.3 - 10.9)
<b>Region 9<sup>i</sup></b>	39.2 (34.7 - 43.8)	11.5 (8.7 - 14.3)	48.1 (43.0 - 53.2)	4.4 (2.6 - 6.2)	10.4 (7.6 - 13.1)	8.3 (0.0 - 16.9)	6.9 (4.8 - 9.0)	11.1 (8.3 - 13.9)
<b>Region 10<sup>j</sup></b>	39.5 (35.0 - 44.1)	10.8 (7.9 - 13.3)	42.0 (37.0 - 47.0)	5.3 (3.5 - 7.2)	11.8 (8.4 - 15.1)	13.6 (3.8 - 23.5)	5.6 (3.9 - 7.3)	7.6 (5.6 - 9.7)
<b>Cuyahoga</b>	35.9 (31.4 - 40.3)	6.1 (4.0 - 8.3)	39.1 (34.1 - 44.0)	2.7 (1.4 - 4.0)	8.3 (5.6 - 10.9)	13.1 (4.7 - 21.5)	3.7 (2.4 - 5.0)	7.3 (4.9 - 9.6)
<b>Franklin</b>	33.2 (29.3 - 37.0)	7.0 (5.1 - 8.9)	41.1 (36.7 - 45.5)	3.3 (1.9 - 4.8)	10.3 (7.9 - 12.7)	6.1 (1.5 - 10.6)	6.4 (4.6 - 8.3)	4.3 (2.7 - 6.0)
<b>Hamilton</b>	32.9 (28.4 - 37.3)	7.3 (5.0 - 9.5)	36.8 (32.0 - 41.7)	3.1 (1.6 - 4.5)	10.8 (7.2 - 14.4)	9.3 (0.0 - 19.3)	4.0 (2.7 - 5.2)	5.5 (3.6 - 7.4)
<b>Lucas</b>	33.1 (28.1 - 38.1)	7.9 (5.5 - 10.3)	35.5 (30.3 - 40.7)	2.7 (1.5 - 3.9)	13.5 (9.4 - 17.6)	9.0 (2.5 - 15.5)	4.4 (2.8 - 6.0)	6.5 (4.3 - 8.7)
<b>Montgomery</b>	36.9 (31.6 - 42.2)	6.9 (4.9 - 9.0)	41.5 (35.6 - 47.3)	4.1 (2.2 - 6.1)	11.0 (7.4 - 14.6)	9.5 (2.3 - 16.7)	7.9 (5.3 - 10.4)	8.8 (6.2 - 11.3)
<b>Summit</b>	35.2 (29.7 - 40.6)	6.5 (4.2 - 8.8)	39.8 (33.9 - 45.7)	4.7 (2.8 - 6.6)	9.3 (6.1 - 12.6)	16.7 (4.5 - 29.0)	5.6 (3.6 - 7.6)	4.7 (3.1 - 6.3)

<sup>a</sup>Region 1 contains Defiance, Fulton, Henry, Paulding, Williams and Wood counties.

<sup>b</sup>Region 2 contains Crawford, Erie, Huron, Ottawa, Richland, Sandusky, Seneca and Wyandot counties.

<sup>c</sup>Region 3 contains Allen, Auglaize, Hancock, Hardin, Mercer, Putnam and Van Wert counties.

<sup>d</sup>Region 4 contains Ashland, Ashtabula, Columbiana, Geauga, Holmes, Lake, Lorain, Mahoning, Medina, Portage, Stark, Trumbull and Wayne counties.

<sup>e</sup>Region 5 contains Adams, Brown, Champaign, Clark, Darke, Fayette, Greene, Highland, Logan, Miami, Pike, Preble, Ross, Scioto and Shelby counties.

<sup>f</sup>Region 6 contains Butler, Clermont, Clinton and Warren counties.

<sup>g</sup>Region 7 contains Delaware, Fairfield, Knox, Licking, Madison, Marion, Morrow, Pickaway and Union counties.

<sup>h</sup>Region 8 contains Coshocton, Guernsey, Morgan, Muskingum, Noble, Perry and Tuscarawas counties.

<sup>i</sup>Region 9 contains Belmont, Carroll, Harrison, Jefferson, Monroe and Washington counties.

<sup>j</sup>Region 10 contains Athens, Gallia, Hocking, Jackson, Lawrence, Meigs and Vinton counties.

## Appendix B—Regional/County Disease Prevalence (continued)

**Table B1. Disease Prevalence by Region/County, Ohio, 2013 (continued)**

Ohio BRFSS Region	Arthritis	Depression	Kidney Disease	Diabetes	Prediabetes	COPD
	Prevalence (95% CI)	Prevalence (95% CI)	Prevalence (95% CI)	Prevalence (95% CI)	Prevalence (95% CI)	Prevalence (95% CI)
<b>Region 1<sup>a</sup></b>	29.6 (25.0 - 34.2)	22.5 (17.7 - 27.4)	3.0 (1.5 - 4.5)	11.9 (8.8 - 15.1)	6.4 (3.2 - 9.5)	7.9 (5.1 - 10.8)
<b>Region 2<sup>b</sup></b>	30.4 (26.2 - 34.5)	20.6 (16.5 - 24.7)	2.4 (1.1 - 3.7)	11.2 (8.6 - 13.9)	9.9 (6.0 - 13.7)	9.8 (7.1 - 12.5)
<b>Region 3<sup>c</sup></b>	30.1 (25.5 - 34.8)	19.5 (15.0 - 24.1)	1.9 (0.6 - 3.2)	8.8 (6.3 - 11.2)	6.1 (3.6 - 8.6)	7.4 (5.0 - 9.8)
<b>Region 4<sup>d</sup></b>	32.4 (28.8 - 36.1)	17.4 (14.5 - 20.3)	2.0 (1.0 - 3.0)	10.1 (8.0 - 12.3)	6.2 (4.0 - 8.5)	7.9 (5.9 - 9.9)
<b>Region 5<sup>e</sup></b>	33.2 (29.0 - 37.4)	19.2 (15.6 - 22.9)	3.5 (2.0 - 5.0)	10.4 (8.0 - 12.8)	5.9 (3.4 - 8.4)	9.4 (6.9 - 12.0)
<b>Region 6<sup>f</sup></b>	29.9 (25.4 - 34.3)	18.5 (14.6 - 22.3)	3.4 (1.8 - 5.0)	10.5 (7.7 - 13.3)	10.2 (5.4 - 15.1)	8.1 (5.6 - 10.6)
<b>Region 7<sup>g</sup></b>	26.8 (23.2 - 30.4)	19.3 (15.9 - 22.7)	1.8 (0.7 - 2.8)	10.0 (7.5 - 12.6)	5.9 (3.5 - 8.3)	9.7 (6.8 - 12.5)
<b>Region 8<sup>h</sup></b>	32.4 (28.4 - 36.4)	24.7 (20.8 - 28.6)	2.6 (1.5 - 3.7)	11.6 (8.9 - 14.2)	7.0 (4.0 - 10.1)	11.1 (8.3 - 13.9)
<b>Region 9<sup>i</sup></b>	34.6 (30.2 - 38.9)	24.9 (20.5 - 29.2)	2.9 (1.5 - 4.4)	17.8 (14.0 - 21.6)	6.7 (3.8 - 9.7)	12.9 (9.8 - 15.9)
<b>Region 10<sup>j</sup></b>	37.1 (32.5 - 41.7)	25.9 (21.6 - 30.1)	3.1 (1.7 - 4.5)	15.1 (11.9 - 18.4)	8.7 (5.3 - 12.1)	16.1 (12.3 - 19.9)
<b>Cuyahoga</b>	33.3 (28.8 - 37.8)	18.3 (14.4 - 22.2)	2.4 (1.2 - 3.6)	12.3 (9.4 - 15.3)	6.3 (3.2 - 9.4)	8.4 (5.6 - 11.2)
<b>Franklin</b>	27.2 (23.7 - 30.7)	25.8 (22.1 - 29.4)	2.6 (1.3 - 3.9)	10.5 (7.7 - 13.2)	7.4 (4.8 - 9.9)	5.4 (3.7 - 7.2)
<b>Hamilton</b>	23.8 (20.0 - 27.5)	21.0 (16.8 - 25.2)	1.4 (0.5 - 2.2)	8.2 (6.0 - 10.4)	8.9 (5.2 - 12.7)	6.8 (4.4 - 9.2)
<b>Lucas</b>	29.9 (25.2 - 34.5)	19.2 (15.1 - 23.2)	3.7 (2.0 - 5.3)	8.7 (6.1 - 11.4)	8.8 (5.3 - 12.4)	10.5 (7.2 - 13.8)
<b>Montgomery</b>	29.9 (24.7 - 35.0)	21.1 (16.1 - 26.1)	2.6 (1.3 - 3.9)	10.4 (7.6 - 13.1)	7.5 (4.5 - 10.6)	8.7 (6.1 - 11.2)
<b>Summit</b>	31.6 (26.6 - 36.7)	21.1 (16.3 - 26.0)	2.1 (1.0 - 3.2)	9.7 (6.7 - 12.6)	6.5 (3.0 - 10.1)	8.4 (5.4 - 11.4)

<sup>a</sup>Region 1 contains Defiance, Fulton, Henry, Paulding, Williams and Wood counties.

<sup>b</sup>Region 2 contains Crawford, Erie, Huron, Ottawa, Richland, Sandusky, Seneca and Wyandot counties.

<sup>c</sup>Region 3 contains Allen, Auglaize, Hancock, Hardin, Mercer, Putnam and Van Wert counties.

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<sup>h</sup>Region 8 contains Coshocton, Guernsey, Morgan, Muskingum, Noble, Perry and Tuscarawas counties.

<sup>i</sup>Region 9 contains Belmont, Carroll, Harrison, Jefferson, Monroe and Washington counties.

<sup>j</sup>Region 10 contains Athens, Gallia, Hocking, Jackson, Lawrence, Meigs and Vinton counties.

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