



**2015**

***Behavioral Risk Factor Surveillance System  
Annual Prevalence Report***

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**MISSISSIPPI STATE DEPARTMENT OF HEALTH**

# **Mississippi Behavioral Risk Factor Surveillance Survey**

## **2015 Prevalence Report**

**October 10, 2016**



**MISSISSIPPI STATE DEPARTMENT OF HEALTH**

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## Introduction

Among health care professionals there is a general consensus that certain health conditions and behavior patterns have a strong correlation with disease, injury and death. Some examples are cigarette smoking, physical inactivity, obesity, and alcohol consumption. The Behavioral Risk Factor Surveillance System (BRFSS) is a telephone surveillance system designed to estimate the prevalence of these along with other health risk factors in every state and some territories in the United States. The results provide a tool for evaluating health trends, assessing the risk of chronic disease, and measuring the effectiveness of policies, programs, intervention strategies and awareness campaigns.

The BRFSS is a cooperative agreement between the Centers for Disease Control and Prevention (CDC) and the Mississippi State Department of Health (MSDH). The first survey was done in 1984 when the data was collected at one given point in time. The survey was repeated in 1988 using the same methodology. Beginning in 1990 there has been an annual survey with the data being collected monthly.

The BRFSS survey contains a set of core questions provided by the CDC to gather comprehensive standard information nationwide. The questions are related to health status, access to health care, health awareness, lifestyles, and preventive health. Individual states may include questions addressing specific risk factors that are of particular concern to that state.

# Methodology

## A. SAMPLING DESIGN

The Mississippi BRFSS is a random sample telephone survey. Utilizing a disproportionate stratified sample (DSS) design with random digit dialing and the Computer Assisted Telephone Interviewing (CATI) system, the survey has the potential to represent all households in Mississippi that have telephones. A sample size of 6,035 interviews over a 12-month period was obtained to produce a 95 percent confidence interval of  $\pm 2.5\%$  on risk factor prevalence estimates in the adult population. Prevalence estimates by individual demographic variables, comprising smaller sample sizes, do not achieve the same level of accuracy as the total sample.

Until the 2011 survey, the BRFSS has relied exclusively on interviews of households with only landline phones; but the number of households having only cell phones increased by more than 700 percent between 2003 and 2009. The CDC reports that as of December 2015, almost half (47 percent) of the households in the U.S. have only cell phones. In Mississippi the rate is 57.7 percent. This trend has been especially strong among younger adults and those in social and ethnic minority groups. The 2015 Mississippi BRFSS has approximately 61 percent landline and 39 percent cell phone households in the survey.

For landline surveys, interviewers, contracted by the MSDH, contact the residences during weekdays between 9:00 a.m. and 9:00 p.m. and Saturdays between 10:00 a.m. and 4:30 p.m. After a residence has been contacted, one adult (18 years of age or older) is randomly selected to be interviewed from all adults residing in the household. The majority of interviews are collected over a two-week period each month of the survey year.

For cell phone surveys, the same protocol is followed except that the interviewer establishes that the person answering the phone is at least 18 years old, that it is safe for the respondent to be interviewed and that the person uses the cell phone for at least 90 percent of their telephone service. Also for cell phone surveys no random adult is selected.

## B. QUESTIONNAIRE

The questionnaire, designed through cooperative agreements with the CDC, is divided into three sections. The first section contains questions on health conditions and behavior; the second section contains demographic information; and the third contains optional modules covering topics of interest to the state.

## **C. DATA ANALYSIS**

Since 2011 the BRFSS has utilized a different weighting method called iterative proportional fitting, also known as “raking.” The procedure, while not new, has been made feasible through the development of ultra-fast computer processors. In addition to the standard age, gender, race and ethnicity variables, the use of raking allows for consideration of demographic variables such as education level, marital status, renter or owner status, and phone source. By including these additional variables into the weighting process the survey will more accurately reflect Mississippi’s adult population. The data collected by the MSDH Office of Public Health Statistics was edited and weighted by the CDC. Weighted counts were based on the 2014 Mississippi population estimates to accurately reflect the population demographics.

Therefore, the estimated prevalence of any risk factor from the survey represents the total population of Mississippi residents very well. The reader should be aware that the numbers presented in the tables of this report reflect the actual, non-weighted observations for each cell while the percentages in each cell represent the weighted prevalence.

This report presents the weighted percentages of high-risk behaviors, conditions and certain chronic diseases by gender, age group, race, education level, annual household income, and employment status. Respondents who either refused to answer or did not know the answer to the questions on demographics were excluded from the tables. For this reason the total for each of the demographic sections may not be equal to the total for the entire table.

## **D. LIMITATIONS OF THE DATA**

All data collection systems are subject to error, and records may be incomplete or contain inaccurate information. All information in this survey is self-reported; people may not remember essential information, a question may not mean the same thing to different respondents, and some individuals may not respond at all. It is not always possible to measure the magnitude of these errors or their impact on the data. The user must be the final arbiter in evaluating the accuracy of the data.

## **E. SAMPLE SIZE**

In the 2015 BRFSS, 6,035 people were sampled: 3,703 landline surveys and 2,332 cell phone surveys. The reader should note that sample sizes by question and response category may vary because of non-response and skip patterns within the survey instrument. Overall estimates generally have relatively small sampling errors, but estimates for certain population subgroups may be based on small numbers and have relatively large sampling errors. Interpreting estimates that are based on small numbers can mislead the reader into believing that a given finding is more precise than it really is. When the number of events is small and the probability of such an event is small, considerable caution should be observed in interpreting the estimates or differences among groups. The BRFSS recommends not interpreting percentages where the

denominator is based upon fewer than 50 non-weighted respondents. In the tables of the present report, such results are marked with an asterisk that indicates a sample size less than 50.

## Definition of Terms and Risk Factors

### Alcohol Consumption

*Binge Drinking Risk Factor* – Respondents who report that they have had at least five drinks on one or more occasion during the past thirty days.

*Heavy Drinking Risk Factor* – Male respondents who report having more than fourteen drinks per week and female respondents who report having more than seven drinks per week.

### Arthritis

*Arthritis Awareness* – Respondents who have been told by a doctor or other health professional that they have some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia.

*Limited Activity* – Respondents who report that their usual activities are limited because of joint pain caused by arthritis.

*Limited Work* – Respondents whose joint symptoms because of arthritis affect whether they can work or affects the amount and type of work they do.

***The reader should note that in 2003 the definition of “arthritis” was changed. Before 2003, it included respondents who not only had been diagnosed with arthritis but also those who reported pain or stiffness in the joints for at least thirty days during the previous year.***

### Asthma

*Asthma Awareness* – Respondents who report being told they have asthma by a doctor, nurse or other health professional.

*Current Asthma* - Respondents who report that being told they have asthma by a doctor, nurse or other health professional and who still suffer from the condition.

### Cancer

*Skin Cancer Awareness* – Respondents who report that they have been told by a doctor or other health professional that they had skin cancer.

*Other Cancer Awareness* – Respondents who report that they have been told by a doctor or other health professional that they had cancer other than skin cancer.

### Cardiovascular Disease

*Heart Attack* – Respondents who report that they have ever been diagnosed with a heart attack.

*Stroke* – Respondents who report that they have ever been diagnosed with a stroke.



*Coronary Heart Disease* – Respondents who have ever been diagnosed with angina or coronary heart disease.

### **Cholesterol Awareness**

*Cholesterol Checked* – Respondents who report that they have ever had their blood cholesterol checked.

*Cholesterol Checked in Past Five Years* – Respondents who report having their blood cholesterol checked within the past five years.

*Cholesterol High* – Respondents who report their blood cholesterol checked and who have been told that their blood cholesterol is high by a doctor, nurse, or other health professional.

### **COPD**

*COPD Awareness* – Respondents who report that they have been diagnosed by a health professional with Chronic Obstructive Pulmonary Disease (COPD).

### **Diabetes**

*Diabetes Awareness* – Respondents who report they have ever been told by a doctor that they have diabetes. Female respondents diagnosed with diabetes only during pregnancy are not included.

*At Risk for Diabetes* – Respondents age 18 to 44 who are obese and report no exercise in the past 30 days, or respondents age 45 to 64 who are either obese or report no exercise in the past 30 days, or respondents age 65 and older who are obese.

### **Disability**

*Limited Activity* – Respondents who report that their activity is limited in any way because of physical, mental or emotional problems.

*Special Equipment Requirements* – Respondents who report having health problems that require the use of special equipment such as a cane, wheelchair, special bed or special telephone.

### **Exercise**

*Exercise in Last 30 Days* – Respondents who report that, excluding their regular job, in the past 30 days they participated in any physical activity or exercise such as running, walking, calisthenics, golf, or gardening.

### **Health Insurance**

*Health Care Coverage* – Respondents who report they have no health care coverage, including health insurance, Health Maintenance Organizations, or Medicare.

*Unable to See a Doctor* – Respondents who report they needed to see a doctor within the past 12 months but were unable because of the cost.

### **Health Status**

*Self-Reported Health Status* – Respondents who report that their general health status is fair or poor.

### **Healthy Days**

*Physical Health* – Respondents who report more than seven days during the past month when their physical health was not good.

*Mental Health* – Respondents who report more than seven days during the past month when their mental health was not good.

*Activities Limited* – Respondents who report more than seven days during the past month when they could not perform their normal activities because of poor physical or mental health.

### **HIV/AIDS**

*Ever Tested for HIV* – Respondents age 18 to 64 who report that they have ever been tested for HIV, excluding tests done as part of a blood donation.

*High Risk Behavior* – Respondents age 18 to 64 who report that they have used intravenous drugs, have been treated for a sexually transmitted or venereal disease, have given or received drugs or money in exchange for sexual favors, or have had anal intercourse without a condom during the past year.

### **Hypertension**

*Hypertension Awareness* – Respondents who have ever been told they have high blood pressure by a doctor, nurse or other health professional.

*Taking Blood Pressure Medicine* – Respondents who have been told they have high blood pressure by a doctor, nurse or other health professional and who are taking medication to control it.

### **Immunization**

*Flu Shots* – Respondents who report receiving a flu shot or the flu spray vaccine within the last twelve months.

*Pneumonia Shots* – Respondents who report ever receiving a vaccination for pneumonia.

## **Kidney Disease**

*Kidney Disease* – Respondents who have been diagnosed by a healthcare professional with kidney disease.

## **Mental Health**

*Depression Awareness* – Respondents who report they have been diagnosed by a health professional with depression.

## **Physical Activity**

*Highly Active* – Respondents who report doing enough physical activity to meet the 300-minute per week (or vigorous equivalent) aerobic recommendation.

*Active* – Respondents who report doing 150 - 300 minutes per week (or vigorous equivalent) of physical activity.

*Insufficiently Active* – Respondents who report doing insufficient physical activity (11–149 minutes per week).

*Inactive* – Respondents who report doing no physical activity.

## **Seat Belts Usage**

Respondents who report that they always or nearly always wear seat belts.

## **Tobacco Use**

*Cigarette Smoker* – Respondents who have ever smoked 100 cigarettes in their lifetime and report currently smoking every day or some days. This relates to *Healthy People 2020* Objective 27 – Target  $\leq 12\%$ .

## **Weight Based on Body Mass Index (BMI)**

*Body Mass Index (BMI)* – Weight in kilograms divided by height in meters squared ( $\text{kg}/\text{m}^2$ ).

*Healthy Weight* – Respondents with a BMI  $18.5 \leq \text{BMI} \leq 24.9$ . This measures *Healthy People 2020* Objective 19.1 – Target  $\geq 60\%$ .

*Overweight* – Respondents with a BMI  $25.0 \leq \text{BMI} \leq 29.9$ .

*Obese* – Respondents with a BMI  $\geq 30.0$ . This measures *Healthy People 2020* Objective 19.2 – Target  $\leq 15\%$ .

# *Survey Results*

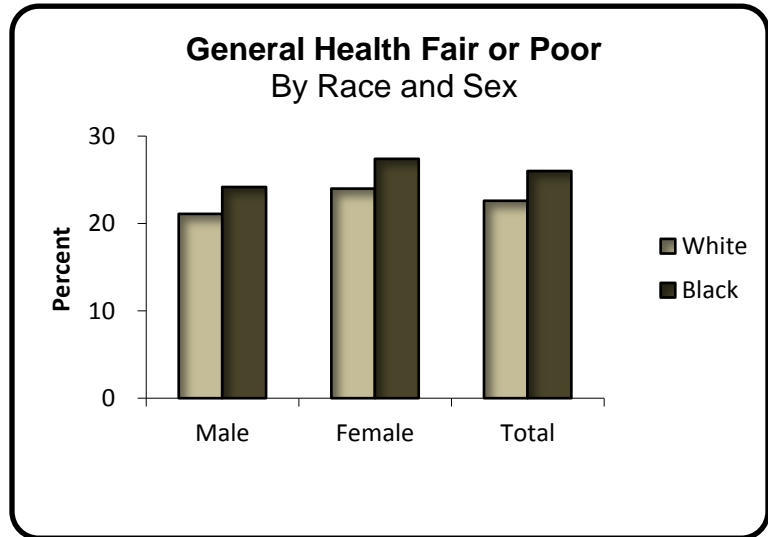
## Health Status

*Survey Question:*

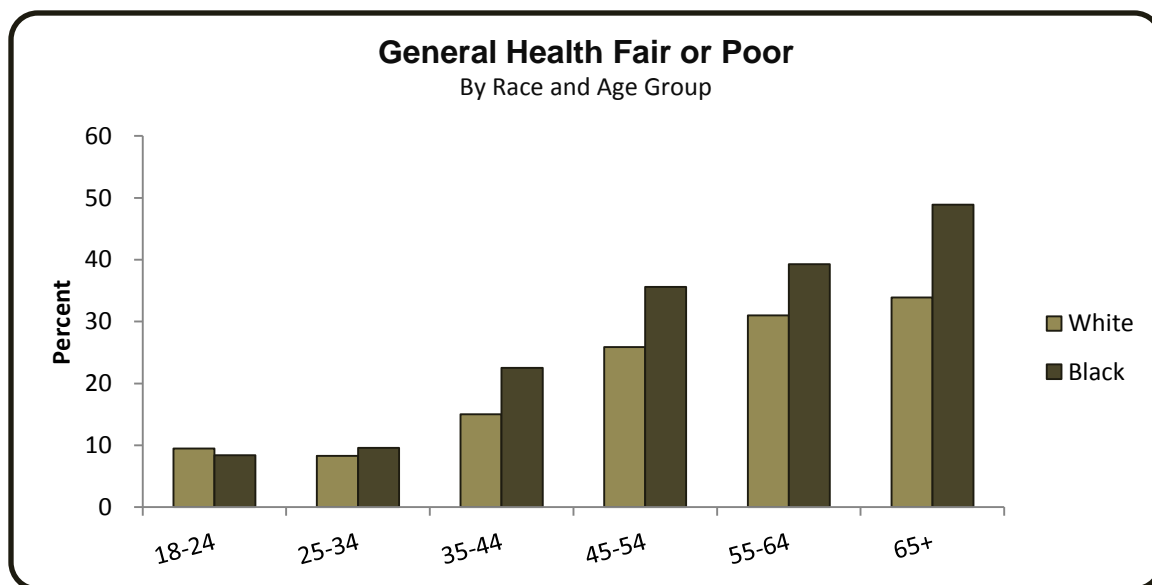
***Would you say that in general your health is excellent, very good, good, fair, or poor?***

This part of the survey attempts to determine how people look at their personal health and how well they function physically, psychologically and socially while engaged in normal, daily activities. The questions are important because they may indicate dysfunction and disability not measured in standard morbidity and mortality data.

With respect to race and gender, black females reported the highest percentage of health that was fair or poor with a rate of 27.4 percent (Figure 1). Black respondents overall report their health as worse than whites. Black respondents reported



**Figure 1**



**Figure 2**

fair or poor health at a rate of 26.0 percent compared to 22.6 percent for whites.

Not surprisingly reported fair or poor health tended to increase with age. Persons in the 18 to 24 age group reported a rate of only 8.6 percent while those more than 65 years of age reported a rate of 37.4 percent (Figure 2 and Table 1).

**Table 1: General Health Fair or Poor**

Groups	White		Black		Total	
	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
<b>Sex</b>						
Male	356	21.1	205	24.2	567	22.0
Female	628	24.0	476	27.4	1,122	25.4
<b>Age Group</b>						
18-24	13	9.5	8	8.4	21	8.6
25-34	23	8.3	24	9.6	49	9.3
35-44	52	15.0	50	22.5	105	18.3
45-54	120	25.9	106	35.6	229	29.6
55-64	224	31.0	213	39.3	445	34.1
65+	547	33.9	276	48.9	831	37.4
<b>Education</b>						
< High School Graduate	174	41.1	223	46.1	403	42.8
High School Graduate or GED	403	27.4	255	24.2	667	26.0
Some College or Technical School	243	18.0	132	18.7	381	18.3
College Graduate	158	10.9	71	13.0	232	11.2
<b>Income</b>						
< \$15,000	214	49.4	270	44.9	493	46.8
\$15-\$24,999	238	33.8	173	24.8	417	29.1
\$25-\$34,999	114	25.8	55	16.9	170	21.0
\$35-\$49,999	81	13.7	24	8.2	107	12.2
\$50-\$74,999	55	9.7	24	12.5	79	10.1
\$75,000+	72	8.4	12	10.7	85	9.0
<b>Employment Status</b>						
Employed	156	10.6	90	9.7	249	10.1
Not Employed	24	14.4	42	21.6	67	18.2
Student/Homemaker	70	10.9	14	11.8	88	11.8
Retired/Unable to Work	731	46.3	533	57.6	1,280	50.5
<b>Total</b>	<b>984</b>	<b>22.6</b>	<b>681</b>	<b>26.0</b>	<b>1,689</b>	<b>23.7</b>

<sup>1</sup>Unweighted

<sup>2</sup>Weighted

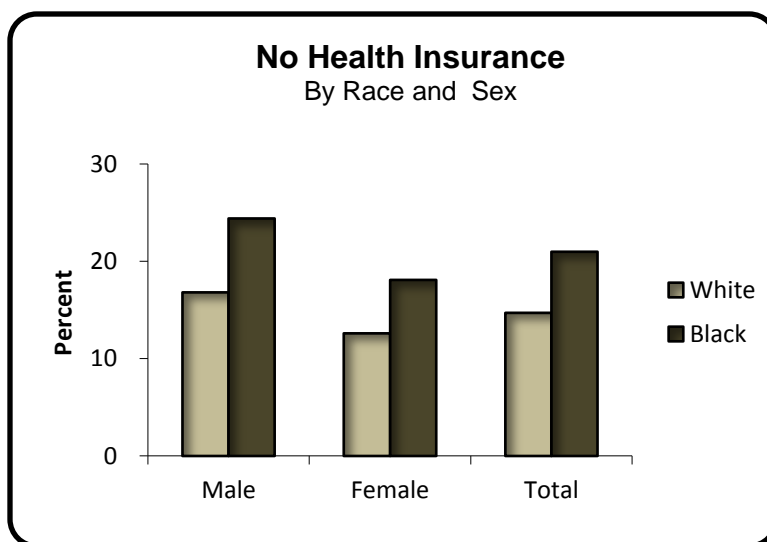
## Health Care Coverage

*Survey Question:*

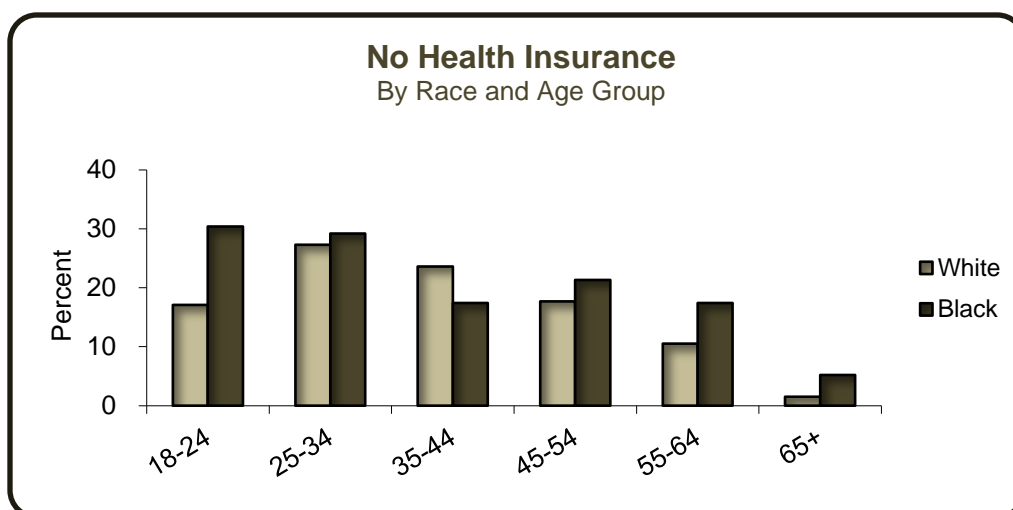
***Do you have any kind of health care coverage, including health insurance, prepaid plans such as HMOs, or government plans such as Medicare?***

The questions in this section are designed to estimate the number of people who cannot obtain the health care they need because they are not covered by a health care plan or other health insurance. People at risk are those without any coverage.

In 2015, 17.5 percent of the respondents indicated they had no health care plan compared to 23.1 percent in 2014. According to the survey, black males continue to have the highest rate of non-coverage at 24.4 percent; black females were next at 18.1 percent (Figure 3).



**Figure 3**



**Figure 4**

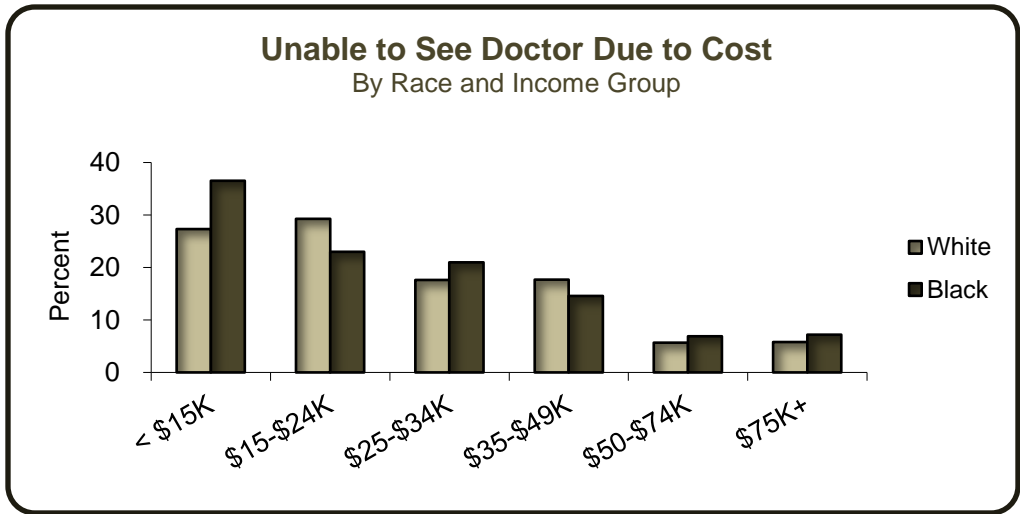
According to age categories, blacks from the age of 25 to 34 reported the highest prevalence of no health care coverage at 28.4 percent (Figure 4).

Another factor that adversely affects the

health status is access to medical care and in 2015, 21.8 percent of Mississippians said they were unable to see a doctor at some point in the prior twelve months because of cost. Blacks (23.4



percent) were almost and one-half times more likely to have not seen a doctor due to cost as whites (15.7 percent). Also females of both races were much more likely to experience this phenomenon than males: 24.9 percent for



**Figure 5**

black females to 21.5 percent males. The rate for white females was 16.5 percent; white males reported a rate of 15.0 percent.

Those in the lower income ranges reported the greatest difficulty in gaining access to care (Figure 4).

Those in the lower income ranges reported the greatest difficulty in gaining access to care (Figure 4).

Table 2: Have No Kind of Health Insurance

Groups	White		Black		Total	
	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
<b>Sex</b>						
Male	141	16.8	108	24.4	261	20.3
Female	169	12.6	197	18.1	374	15.0
<b>Age Group</b>						
18-24	22	17.1	28	30.4	53	24.8
25-34	59	27.3	52	29.2	116	28.4
35-44	61	23.6	48	17.4	116	21.7
45-54	83	17.7	63	21.3	148	19.4
55-64	69	10.5	88	17.4	158	12.9
65+	16	1.5	23	5.2	41	2.5
<b>Education</b>						
< High School Graduate	48	27.4	72	24.3	126	27.1
High School Graduate or GED	111	15.9	117	23.6	236	19.6
Some College or Technical School	92	12.5	79	20.2	174	15.5
College Graduate	57	7.6	36	10.0	96	8.3
<b>Income</b>						
< \$15,000	60	23.4	107	25.9	170	24.9
\$15-\$24,999	91	26.6	100	27.1	198	27.1
\$25-\$34,999	38	16.5	27	16.3	68	18.5
\$35-\$49,999	33	17.6	15	15.6	50	17.5
\$50-\$74,999	19	6.9	8	10.6	30	9.1
\$75,000+	21	5.6	3	1.1	24	4.9
<b>Employment Status</b>						
Employed	150	15.6	123	20.8	283	18.2
Not Employed	64	51.0	78	48.2	145	50.3
Student/Homemaker	40	17.7	25	26.9	68	20.6
Retired/Unable to Work	55	6.0	77	9.4	136	7.3
<b>Total</b>	<b>310</b>	<b>14.7</b>	<b>305</b>	<b>21.0</b>	<b>635</b>	<b>17.5</b>

<sup>1</sup>Unweighted

<sup>2</sup>Weighted

**Table 3: Unable to See Doctor in Past 12 Months Due to Cost**

Groups	White		Black		Total	
	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
<b>Sex</b>						
Male	156	15.0	121	21.5	286	17.8
Female	273	16.5	307	24.9	590	19.7
<b>Age Group</b>						
18-24	20	16.1	25	26.5	46	21.4
25-34	46	16.2	41	19.1	90	17.6
35-44	72	24.0	57	22.6	132	23.5
45-54	112	24.4	108	31.1	223	27.1
55-64	114	15.1	129	27.6	250	19.8
65+	64	5.0	63	11.5	129	6.6
<b>Education</b>						
< High School Graduate	59	23.1	106	29.0	170	26.4
High School Graduate or GED	144	16.1	144	22.4	293	18.8
Some College or Technical School	130	15.5	122	24.7	257	18.9
College Graduate	94	10.6	55	12.5	153	11.2
<b>Income</b>						
< \$15,000	83	27.3	171	36.5	260	32.8
\$15-\$24,999	132	29.3	114	23.0	251	26.2
\$25-\$34,999	54	17.6	40	21.0	96	20.0
\$35-\$49,999	44	17.7	25	14.6	73	17.4
\$50-\$74,999	28	5.7	11	6.9	40	6.1
\$75,000+	29	5.8	7	7.2	36	5.9
<b>Employment Status</b>						
Employed	184	15.2	144	19.0	335	16.8
Not Employed	42	33.0	70	37.4	116	36.4
Student/Homemaker	48	14.6	26	28.3	76	18.8
Retired/Unable to Work	154	14.1	186	23.0	346	17.3
<b>Total</b>	<b>429</b>	<b>15.7</b>	<b>428</b>	<b>23.4</b>	<b>876</b>	<b>18.8</b>

<sup>1</sup>Unweighted

<sup>2</sup>Weighted

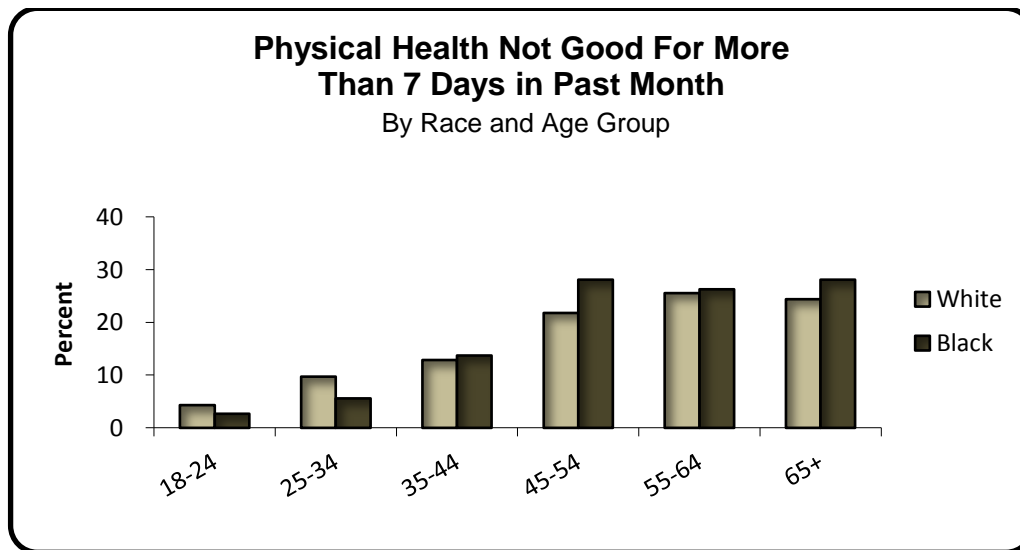
## Healthy Days

### *Survey Question:*

**1. Now thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health not good?**

**2. 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 both public and private medicine, the concept of health-related quality of life refers to the physical and mental health perceived by a person or a group of persons. Health care professionals use health-related quality of life to measure the effects of chronic illness in patients and to better understand how an illness interferes with the day-to-day life activities of an individual. Similarly, health professionals use health-related quality of life to measure the effects of numerous disorders, short-term and long-term disabilities, and diseases in different populations. Tracking health-related quality of life in different populations can aid in identifying subgroups with poor physical or mental health and can help in developing policies or interventions to improve their health.

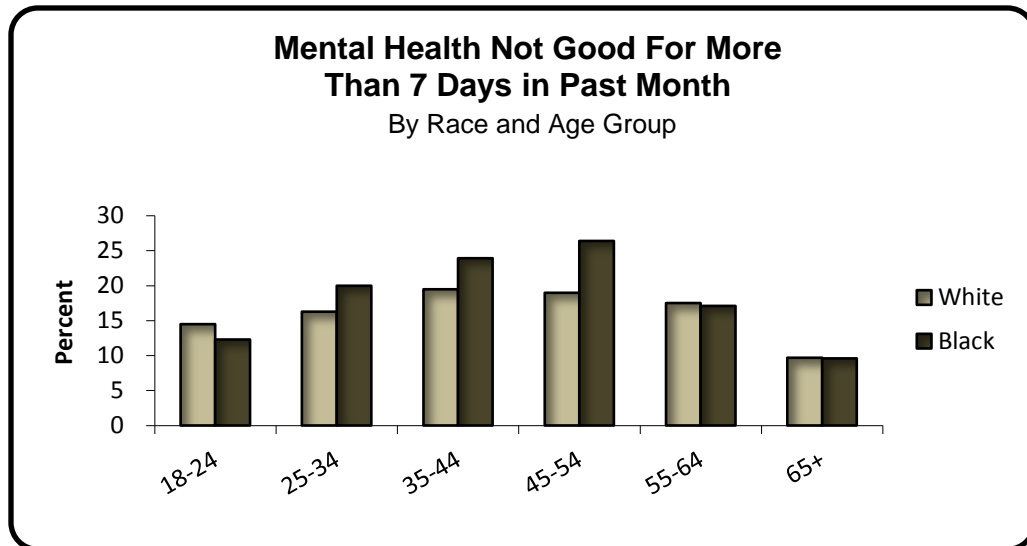


**Figure 6**

In Mississippi, the 2015 BRFSS survey showed that days of poor physical health tends to increase with age while days of poor mental health were more evenly distributed among age groups. Figure 6 shows that people age 55-64 reported the highest percentage (25.9) of more than seven days when their physical health was not good. Respondents age 65 and older

reported a slightly lower rate of 25.2 percent. In the 55 to 64 group, white respondents had a rate of 25.6 percent compared to 26.3 percent for blacks. For those 65 and older, whites reported a rate of 24.48 percent compared to 28.1 percent for blacks.

Those in the 35 to 44 year age group along with those 45 to 54 years old age had the highest percentage of seven or more days when their mental health was not good with a rate of 21.8 percent. Table 5 contains the details for both age groups.



**Figure 7**

The group with the highest rate for days of poor mental health was people whose annual income is less than \$15,000 per year with a rate of 33.5 percent: 37.1 percent for whites and 30.3 percent for blacks (Figure 7). The second highest category is the unemployed who report a rate of 24.8 percent. White respondents in this category had a rate of 22.8 percent; blacks a rate of 25.5 percent.

**Table 4: Poor Physical Health for More Than 7 Days in Past Month**

Groups	White		Black		Total	
	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
<b>Sex</b>						
Male	255	15.9	132	15.9	392	15.6
Female	493	19.7	294	17.0	798	18.6
<b>Age Group</b>						
18-24	7	4.3	3	2.7	10	3.4
25-34	26	9.7	11	5.6	37	7.6
35-44	45	12.9	29	13.7	76	13.5
45-54	100	21.8	88	28.1	190	24.0
55-64	189	25.6	132	26.3	327	25.9
65+	377	24.4	160	28.1	543	25.2
<b>Education</b>						
< High School Graduate	115	27.5	139	30.1	259	28.1
High School Graduate or GED	293	23.0	152	15.9	451	20.0
Some College or Technical School	191	14.5	92	11.4	286	13.4
College Graduate	146	9.9	43	7.2	191	9.0
<b>Income</b>						
< \$15,000	154	39.0	159	27.3	321	32.2
\$15-\$24,999	175	25.8	113	17.9	289	21.4
\$25-\$34,999	79	21.5	37	11.1	117	16.3
\$35-\$49,999	77	12.7	19	10.2	97	11.9
\$50-\$74,999	57	10.4	13	7.4	70	9.4
\$75,000+	58	5.8	9	2.4	68	5.6
<b>Employment Status</b>						
Employed	109	7.9	55	5.8	165	6.9
Not Employed	25	13.6	32	15.3	57	14.0
Student/Homemaker	52	9.7	10	3.4	63	8.2
Retired/Unable to Work	560	36.9	329	38.7	903	37.6
<b>Total</b>	<b>748</b>	<b>17.8</b>	<b>426</b>	<b>16.5</b>	<b>1,190</b>	<b>17.2</b>

<sup>1</sup>Unweighted

<sup>2</sup>Weighted

**Table 5: Poor Mental Health for More Than 7 Days in Past Month**

Groups	White		Black		Total	
	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
<b>Sex</b>						
Male	167	14.3	97	17.3	269	15.4
Female	396	20.5	226	20.1	629	20.1
<b>Age Group</b>						
18-24	24	17.6	14	17.2	39	17.3
25-34	54	19.0	38	21.1	92	19.3
35-44	68	22.5	43	20.8	113	21.8
45-54	106	21.0	68	23.2	176	21.8
55-64	148	19.0	90	18.4	242	18.9
65+	161	9.7	70	10.0	234	9.8
<b>Education</b>						
< High School Graduate	83	26.7	89	29.1	176	27.4
High School Graduate or GED	186	17.9	108	17.0	300	17.7
Some College or Technical School	165	16.4	80	15.0	246	15.6
College Graduate	126	12.5	46	15.4	173	13.0
<b>Income</b>						
< \$15,000	120	37.1	119	30.3	245	33.5
\$15-\$24,999	116	23.3	94	20.5	213	21.7
\$25-\$34,999	70	21.7	31	14.0	102	18.1
\$35-\$49,999	51	11.5	20	19.9	71	14.1
\$50-\$74,999	49	12.6	9	7.3	58	11.0
\$75,000+	70	10.3	12	10.4	82	10.2
<b>Employment Status</b>						
Employed	179	14.0	88	16.1	269	14.6
Not Employed	31	22.8	33	25.5	66	24.8
Student/Homemaker	50	17.7	13	9.6	64	15.0
Retired/Unable to Work	302	22.0	189	24.2	498	22.7
<b>Total</b>	<b>563</b>	<b>17.5</b>	<b>323</b>	<b>18.8</b>	<b>898</b>	<b>17.9</b>

<sup>1</sup>Unweighted

<sup>2</sup>Weighted

**Table 6: Activity Limited for More Than 7 Days Due to Poor Physical or Mental Health<sup>3</sup>**

Groups	White		Black		Total	
	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
<b>Sex</b>						
Male	166	24.7	93	26.6	265	25.8
Female	292	24.4	177	20.8	477	23.0
<b>Age Group</b>						
18-24	7	7.7*	3	7.9	11	8.3
25-34	19	17.7	10	8.5	30	14.0
35-44	28	16.8	26	26.6	57	21.9
45-54	89	36.4	57	31.2	148	34.3
55-64	132	33.4	93	37.7	228	34.8
65+	179	25.0	80	29.4	262	26.0
<b>Education</b>						
< High School Graduate	75	39.5	88	32.7	167	35.9
High School Graduate or GED	171	27.5	95	22.0	273	25.7
Some College or Technical School	120	20.3	63	19.2	185	20.2
College Graduate	89	15.0	24	11.6	114	14.0
<b>Income</b>						
< \$15,000	108	43.6	123	37.8	239	41.3
\$15-\$24,999	104	32.0	69	20.6	175	26.5
\$25-\$34,999	52	29.2	15	14.2	68	23.1
\$35-\$49,999	50	19.6	10	11.5	60	16.5
\$50-\$74,999	38	15.8	7	11.2*	45	14.6
\$75,000+	29	6.4	5	5.1	35	7.1
<b>Employment Status</b>						
Employed	74	12.7	31	10.0	106	11.7
Not Employed	23	22.1	24	19.0	49	22.3
Student/Homemaker	28	11.6	9	13.9	39	13.4
Retired/Unable to Work	333	42.5	206	39.8	548	41.6
<b>Total</b>	<b>458</b>	<b>24.5</b>	<b>270</b>	<b>23.1</b>	<b>742</b>	<b>24.2</b>

<sup>1</sup>Unweighted

<sup>2</sup>Weighted

<sup>3</sup>Denominator is those reporting more than 7 days of poor physical or mental health for the past month

\* Sample Size<50

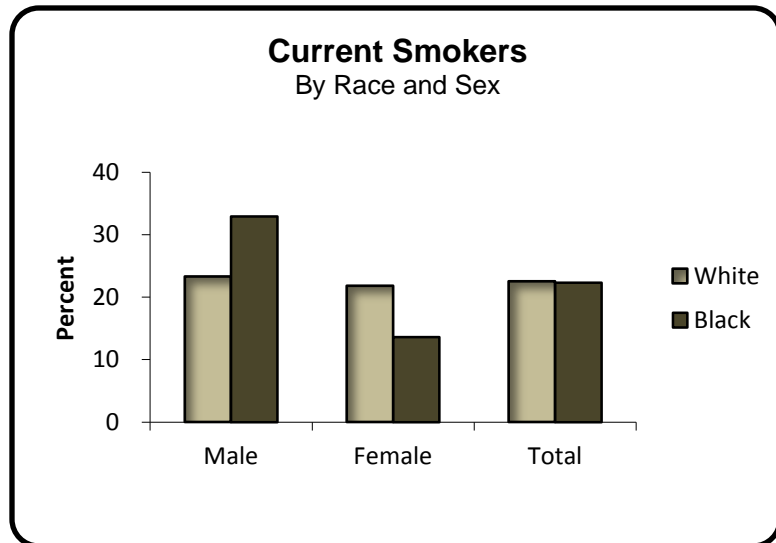


## Tobacco Use

*Survey Question:*

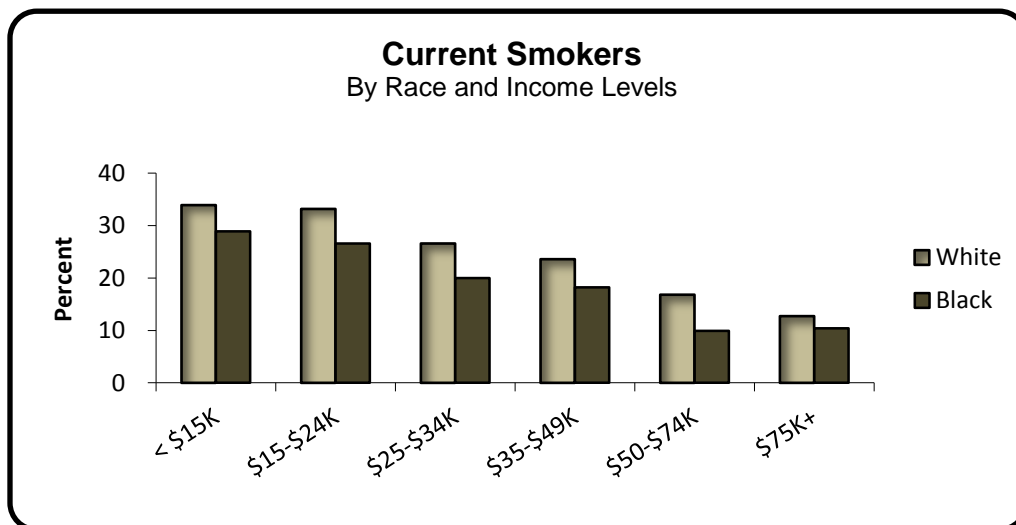
***Have you smoked at least 100 cigarettes in your entire life and do you now smoke cigarettes every day, some days, or not at all?***

Tobacco use is the single leading preventable cause of death in Mississippi and the United States. Each year, about one-fifth of the deaths in Mississippi are from tobacco-related causes. Health problems related to tobacco use include cancers, lung disease, and heart disease. Over the past decade the percentage of current adult smokers has not changed significantly. During the same period smokeless tobacco and cigar use among adults has increased.



**Figure 8**

Mississippi was the first state to reach a settlement with the tobacco industry. The MSDH has drafted a state tobacco plan that includes strategies to prevent initiation of tobacco use among youth, promote cessation among



**Figure 9**

youth and adults, and eliminate exposure to environmental tobacco smoke.

According to the 2015 BRFSS report, the group with the highest percentage of current smokers is black males at 32.9 percent followed by white males at 23.3 percent and white females at 21.8 percent. The group with the lowest percentage of current smokers is black females at 13.6 percent (Figure 8).

Overall, the rate of current smoking in Mississippi is 22.6 percent. The *Healthy People 2020* objective is 12 percent.

**Table 7: Current Smokers**

Groups	White		Black		Total	
	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
<b>Sex</b>						
Male	254	23.3	172	32.9	440	27.1
Female	364	21.8	184	13.6	556	18.4
<b>Age Group</b>						
18-24	32	25.3	9	13.6	43	20.3
25-34	65	29.9	35	23.9	103	27.1
35-44	78	25.0	63	27.1	145	26.1
45-54	137	32.0	83	30.4	224	31.5
55-64	145	21.9	100	22.8	249	22.2
65+	160	9.4	65	13.8	229	10.6
<b>Education</b>						
< High School Graduate	98	36.7	93	31.4	197	34.2
High School Graduate or GED	212	24.8	127	24.2	346	25.0
Some College or Technical School	189	21.0	87	18.6	280	20.0
College Graduate	118	12.1	49	10.4	172	11.6
<b>Income</b>						
< \$15,000	98	33.9	124	28.9	229	31.6
\$15-\$24,999	144	33.2	108	26.6	258	30.2
\$25-\$34,999	81	26.6	38	20.0	123	24.0
\$35-\$49,999	69	23.6	28	18.2	99	21.7
\$50-\$74,999	63	16.8	10	9.9	74	15.0
\$75,000+	76	12.7	13	10.4	91	12.4
<b>Employment Status</b>						
Employed	252	23.6	137	22.2	401	23.1
Not Employed	48	44.4	45	36.0	94	39.5
Student/Homemaker	49	18.7	7	9.1	58	15.8
Retired/Unable to Work	268	19.0	165	21.1	440	20.0
<b>Total</b>	<b>618</b>	<b>22.5</b>	<b>356</b>	<b>22.3</b>	<b>996</b>	<b>22.6</b>

<sup>1</sup>Unweighted

<sup>2</sup>Weighted

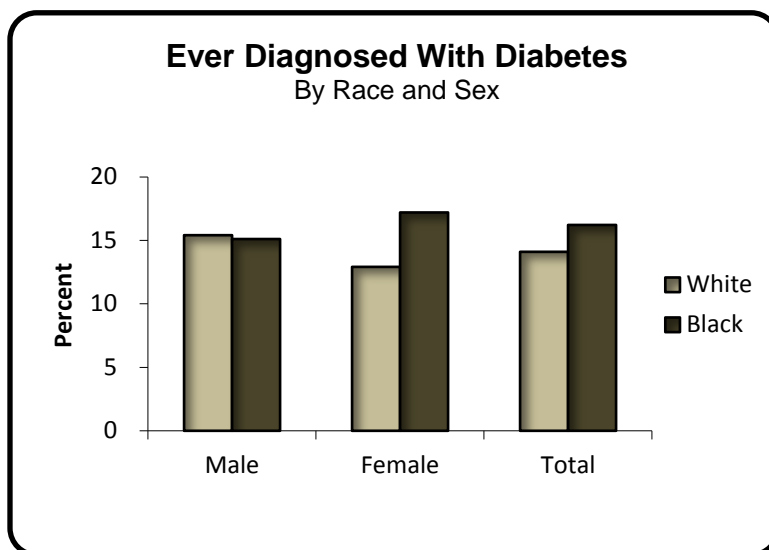
## Diabetes

*Survey Question:*

***Have you ever been told by a doctor that you have diabetes?  
(Females diagnosed only while pregnant are excluded.)***

Diabetes was the sixth leading cause of death in Mississippi for the year 2014 with a death rate of 33.9 per 100,000 population. According to the 2015 BRFSS survey, 14.8 percent of all respondents reported being told by a doctor that they have diabetes.

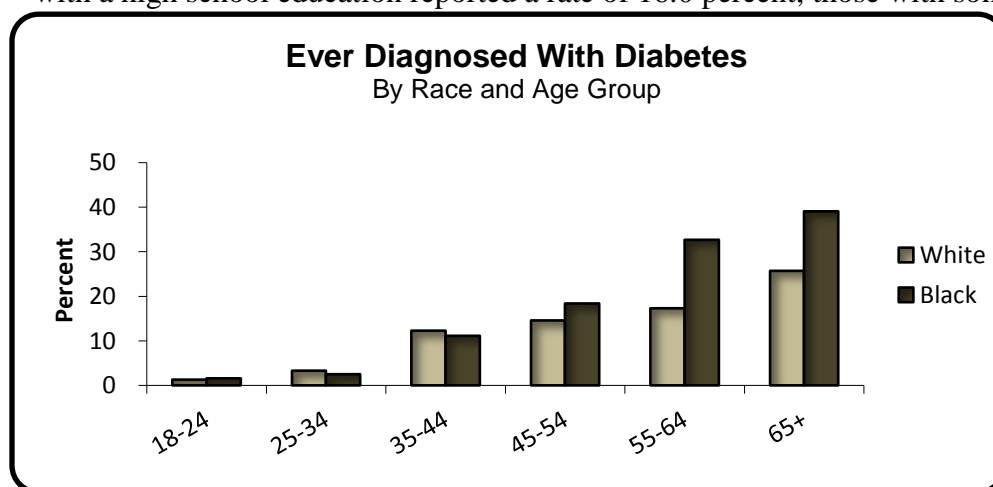
Black females continue to comprise the largest group having a rate of 17.2 percent followed by white males with a rate of 15.4 percent. Black males reported a rate of 15.1 percent while white females reported a rate of 12.9 percent (Figure 10).



**Figure 10**

The rate of diabetes continues to show a pronounced difference by categories of education.

Respondents who did not complete high school reported rates of 22.9 percent which is more than 30 percent higher than the next highest education category. Those with a high school education reported a rate of 16.0 percent; those with some college work, a rate of 11.5 percent; and college graduates a rate of 10.4 percent (Table 8).



**Figure 11**

There are also obvious differences seen by age of the respondent in the rate of diabetes. Only 1.4 percent

There are also obvious differences seen by age of the respondent in the rate of diabetes. Only 1.4 percent

of respondents under age 24 reported having diabetes while those age 65 and above reported a rate of 29.2 percent: 25.7 percent for whites and 39.1 percent for blacks (Figure 11).

**Table 8: Diagnosed With Diabetes**

Groups	White		Black		Total	
	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
<b>Sex</b>						
Male	264	15.4	131	15.1	400	15.0
Female	361	12.9	378	17.2	753	14.5
<b>Age Group</b>						
18-24	2	1.3	1	1.6	3	1.4
25-34	8	3.3	6	2.5	14	2.8
35-44	35	12.3	26	11.1	62	11.6
45-54	72	14.6	65	18.4	138	15.9
55-64	130	17.3	173	32.7	310	22.9
65+	375	25.7	236	39.1	620	29.2
<b>Education</b>						
< High School Graduate	76	19.1	140	28.0	221	22.9
High School Graduate or GED	230	16.1	184	16.3	418	16.0
Some College or Technical School	171	12.9	94	9.1	272	11.5
College Graduate	145	9.9	90	12.5	238	10.4
<b>Income</b>						
< \$15,000	80	18.5	164	20.6	251	19.8
\$15-\$24,999	143	18.8	133	18.7	280	18.6
\$25-\$34,999	72	15.3	36	10.6	111	12.8
\$35-\$49,999	77	14.8	31	10.0	108	13.1
\$50-\$74,999	60	12.7	29	9.2	89	11.6
\$75,000+	82	8.2	26	8.8	108	8.2
<b>Employment Status</b>						
Employed	148	9.6	84	7.2	235	8.5
Not Employed	15	7.7	20	6.9	35	7.0
Student/Homemaker	35	6.3	17	7.5	55	6.7
Retired/Unable to Work	424	24.9	388	36.3	825	29.2
<b>Total</b>	<b>625</b>	<b>14.1</b>	<b>509</b>	<b>16.2</b>	<b>1,153</b>	<b>14.8</b>

<sup>1</sup>Unweighted

<sup>2</sup>Weighted

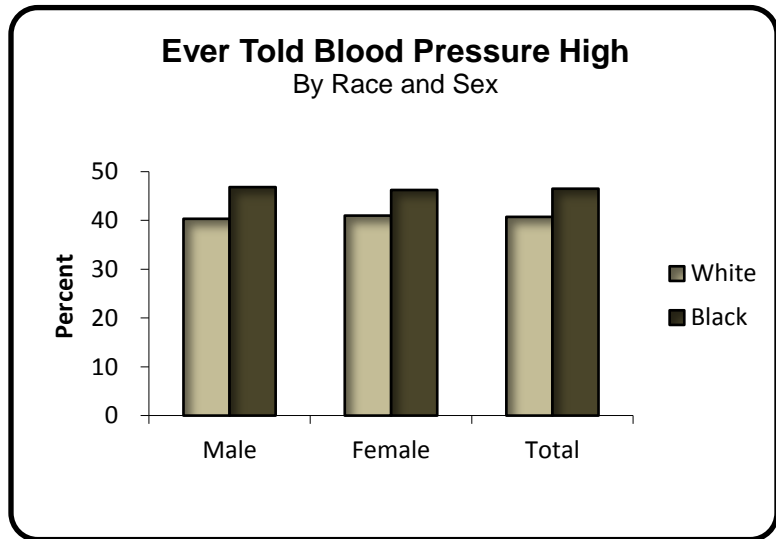
## Hypertension Awareness

*Survey Question:*

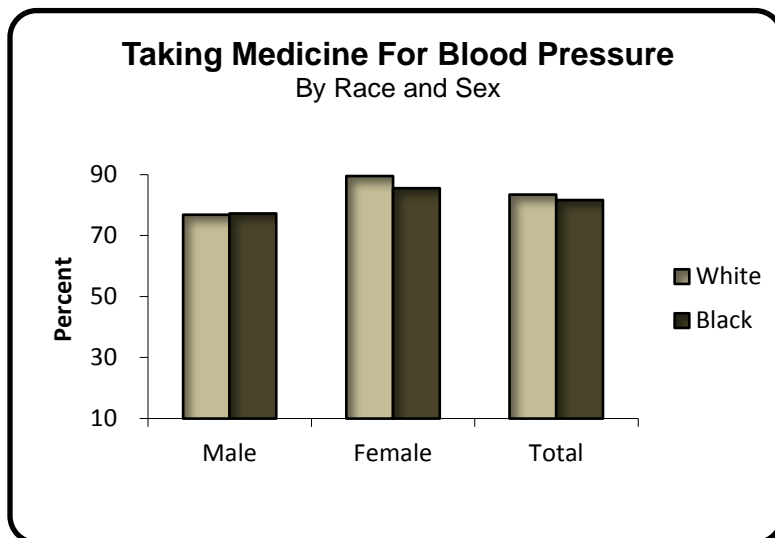
***Have you ever been told by a doctor, nurse or other health professional that you have high blood pressure? (Females reporting hypertension only during pregnancy are excluded.)***

Early detection of high blood pressure allows treatment that can prevent many complications of the disease. Untreated high blood pressure increases the risk of stroke, heart attack and kidney failure. High blood pressure can be controlled by losing weight, taking medication, exercising, not smoking, managing stress and lowering sodium and alcohol intake.

Two indicators of hypertension in Mississippi are available in this report: a) respondents who have ever been told they have high blood pressure by a health care professional and b) respondents who are taking medication to control high blood pressure.



**Figure 12**



**Figure 13**

The 2015 BRFSS survey indicates that approximately 42.5 percent of the people surveyed in Mississippi have been told they have high blood pressure by a health care professional.

Blacks were more likely to be hypertensive than whites. The overall rate of hypertension among blacks in Mississippi was 46.5 percent compared to 40.7 for whites. Black females in the survey reported a rate of 46.2 percent rate for hypertension compared to 41.0 percent of the white females (Figure 12). Black

males, on the other hand, reported a rate of 46.8 percent compared to a rate of 40.3 percent for black males.



**Table 9: Ever Told Blood Pressure High**

Groups	White		Black		Total	
	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
<b>Sex</b>						
Male	723	40.3	369	46.8	1,105	42.4
Female	1,219	41.0	951	46.2	2,191	42.6
<b>Age Group</b>						
18-24	12	9.8	9	11.5	22	10.6
25-34	38	14.5	38	20.8	78	17.5
35-44	87	29.0	110	43.0	198	34.2
45-54	222	45.5	213	62.2	438	51.6
55-64	429	54.3	407	73.6	846	61.2
65+	1,150	66.9	532	81.2	1,697	70.5
<b>Education</b>						
< High School Graduate	227	49.4	331	68.1	568	57.9
High School Graduate or GED	676	45.1	469	42.6	1,152	43.5
Some College or Technical School	520	37.9	274	36.6	804	37.2
College Graduate	512	33.3	245	42.1	764	35.1
<b>Income</b>						
< \$15,000	255	55.0	392	57.8	657	56.9
\$15-\$24,999	380	47.0	334	46.6	723	46.5
\$25-\$34,999	201	40.0	123	39.9	328	39.0
\$35-\$49,999	228	43.0	98	41.0	328	42.0
\$50-\$74,999	194	30.4	80	42.9	274	32.6
\$75,000+	317	33.5	73	41.7	390	34.2
<b>Employment Status</b>						
Employed	520	31.0	348	32.4	875	31.0
Not Employed	43	29.2	72	38.2	117	33.8
Student/Homemaker	154	26.3	45	22.2	201	24.8
Retired/Unable to Work	1,220	63.1	850	78.7	2,092	68.9
<b>Total</b>	1,942	40.7	1,320	46.5	3,296	42.5

<sup>1</sup>Unweighted

<sup>2</sup>Weighted

**Table 10: Taking Blood Pressure Medication<sup>3</sup>**

Groups	White		Black		Total	
	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
<b>Sex</b>						
Male	613	76.8	318	77.3	940	76.5
Female	1,115	89.5	880	85.5	2,013	87.8
<b>Age Group</b>						
18-24	4	28.6*	0	0.0*	4	13.8
25-34	15	42.5*	25	57.5*	41	50.0
35-44	56	62.2	84	77.9	141	70.4
45-54	186	82.0	187	84.3	376	83.2
55-64	380	90.0	375	89.6	762	89.8
65+	1,083	95.2	516	96.8	1,612	95.4
<b>Education</b>						
< High School Graduate	208	84.7	307	83.9	522	82.9
High School Graduate or GED	615	87.4	428	84.4	1,048	86.2
Some College or Technical School	452	79.2	237	73.2	699	77.3
College Graduate	447	82.5	225	86.9	677	83.9
<b>Income</b>						
< \$15,000	221	81.5	349	78.4	578	79.1
\$15-\$24,999	346	81.8	302	84.9	655	83.2
\$25-\$34,999	187	89.7	112	81.2	302	84.8
\$35-\$49,999	199	79.9	86	68.2	287	76.2
\$50-\$74,999	170	88.4	77	96.6	247	91.0
\$75,000+	276	82.1	68	69.0	344	79.9
<b>Employment Status</b>						
Employed	429	75.6	292	74.4	727	75.0
Not Employed	29	49.6*	54	50.2	85	51.2
Student/Homemaker	137	82.6	39	61.2*	178	77.0
Retired/Unable to Work	1,128	91.8	809	93.1	1,953	91.8
<b>Total</b>	<b>1,728</b>	<b>83.4</b>	<b>1,198</b>	<b>81.7</b>	<b>2,953</b>	<b>82.4</b>

<sup>1</sup>Unweighted

<sup>2</sup>Weighted

\* Sample Size<50

<sup>3</sup> Denominator is those who have been told that their blood pressure is high

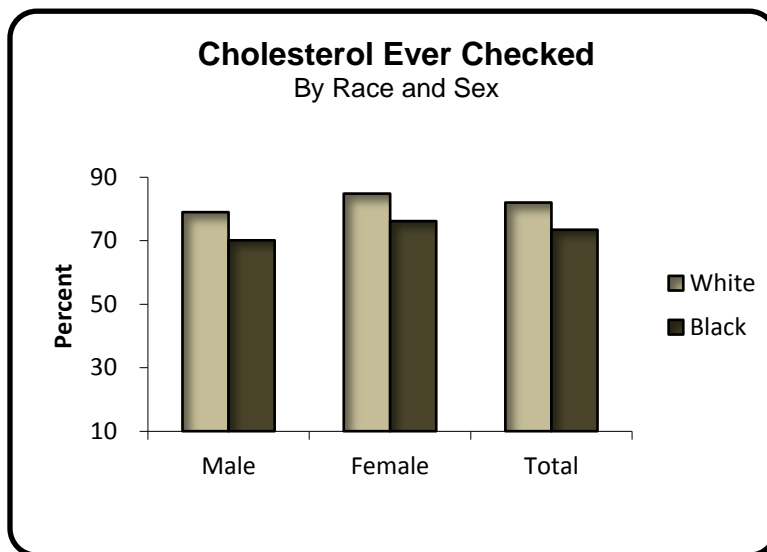
## Cholesterol Awareness

*Survey Question:*

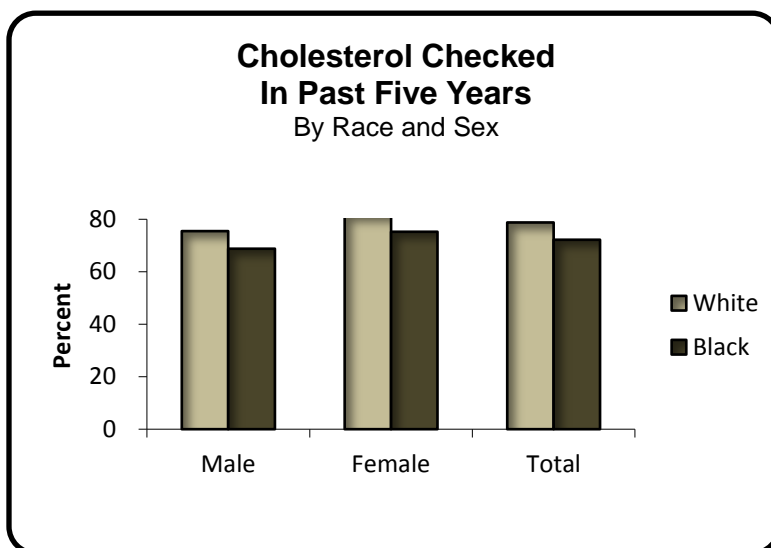
***Have you ever had your blood cholesterol checked?***

Persons having elevated blood cholesterol levels experience twice the risk of developing coronary heart disease. Studies reveal that small reductions in cholesterol levels are effective in reducing risks.

For those with high cholesterol readings, changes in diet along with increasing physical activity will reduce the level approximately 75 percent of the time. The National Cholesterol Education Program recommends that healthy adults more than twenty years old have their blood cholesterol levels checked at least once every five years.



**Figure 14**



**Figure 15**

The 2015 survey revealed that 78.5 percent of the respondents reported that they have had their blood cholesterol checked (Figure 14) and 76.0 percent reported that it had been checked in the past five years (Figure 15). White respondents were more likely to have had their cholesterol checked within five years reporting a rate of 78.7 percent than blacks who reported a rate of 72.2 percent (Table 12).

Black male respondents reported the lowest rate for examinations within the past

five years with a rate of 68.8 percent. Of those who have ever had their cholesterol checked, 38.9 percent said they have been told their blood cholesterol is high but for the age group 65 and above, the rate was 57.6 percent.

Table 11: Ever Had Cholesterol Checked

Groups	White		Black		Total	
	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
<b>Sex</b>						
Male	1,222	79.0	510	70.1	1,758	75.6
Female	2,122	84.8	1,266	76.2	3,429	81.1
<b>Age Group</b>						
18-24	56	43.7	35	39.4	95	42.5
25-34	173	66.2	123	58.8	304	62.9
35-44	277	83.1	204	77.6	489	80.5
45-54	448	86.4	301	84.8	756	85.4
55-64	749	92.4	493	91.7	1,259	92.2
65+	1,626	96.3	606	93.5	2,252	95.6
<b>Education</b>						
< High School Graduate	298	68.3	352	74.1	664	71.6
High School Graduate or GED	1,002	83.3	576	66.6	1,591	75.7
Some College or Technical School	951	82.2	423	72.9	1,392	78.9
College Graduate	1,082	89.2	420	90.8	1,524	88.9
<b>Income</b>						
< \$15,000	320	73.9	442	68.0	774	70.5
\$15-\$24,999	546	74.9	441	71.6	1,001	73.1
\$25-\$34,999	340	85.4	195	73.7	543	79.8
\$35-\$49,999	405	83.8	156	81.9	567	83.0
\$50-\$74,999	397	83.5	131	84.8	532	82.9
\$75,000+	716	87.4	135	88.8	859	87.7
<b>Employment Status</b>						
Employed	1,188	80.7	622	68.9	1,838	76.0
Not Employed	80	51.4	104	55.4	186	52.5
Student/Homemaker	309	73.2	76	58.2	392	68.4
Retired/Unable to Work	1,755	91.9	967	91.0	2,751	91.6
<b>Total</b>	<b>3,344</b>	<b>82.0</b>	<b>1,776</b>	<b>73.4</b>	<b>5,187</b>	<b>78.5</b>

<sup>1</sup>Unweighted

<sup>2</sup>Weighted

**Table 12: Cholesterol Checked in Past 5 Years**

Groups	White		Black		Total	
	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
<b>Sex</b>						
Male	1,164	75.5	496	68.8	1,685	72.8
Female	2,029	81.8	1,240	75.2	3,306	78.9
<b>Age Group</b>						
18-24	51	40.8	33	36.8	88	39.9
25-34	155	60.3	121	58.3	283	59.5
35-44	263	78.5	199	76.1	470	77.2
45-54	418	82.6	295	83.9	719	82.4
55-64	716	90.3	484	91.4	1,216	90.8
65+	1,575	94.7	591	92.6	2,184	94.2
<b>Education</b>						
< High School Graduate	281	63.6	342	73.7	636	69.0
High School Graduate or GED	956	80.3	557	65.3	1,524	73.4
Some College or Technical School	907	78.6	419	71.5	1,343	76.0
College Graduate	1,039	86.7	414	89.4	1,474	86.8
<b>Income</b>						
< \$15,000	301	71.3	428	67.4	741	69.0
\$15-\$24,999	518	71.7	434	70.7	965	70.9
\$25-\$34,999	327	82.6	190	72.8	525	77.9
\$35-\$49,999	382	78.4	154	81.1	541	79.1
\$50-\$74,999	384	80.2	131	84.8	519	80.5
\$75,000+	696	84.5	134	87.8	838	85.2
<b>Employment Status</b>						
Employed	1,134	77.2	613	68.0	1,773	73.5
Not Employed	71	47.4	101	54.2	173	49.5
Student/Homemaker	292	69.1	73	53.5	371	64.0
Retired/Unable to Work	1,686	89.6	942	90.5	2,656	90.0
<b>Total</b>	<b>3,193</b>	<b>78.7</b>	<b>1,736</b>	<b>72.2</b>	<b>4,991</b>	<b>76.0</b>

<sup>1</sup>Unweighted

<sup>2</sup>Weighted

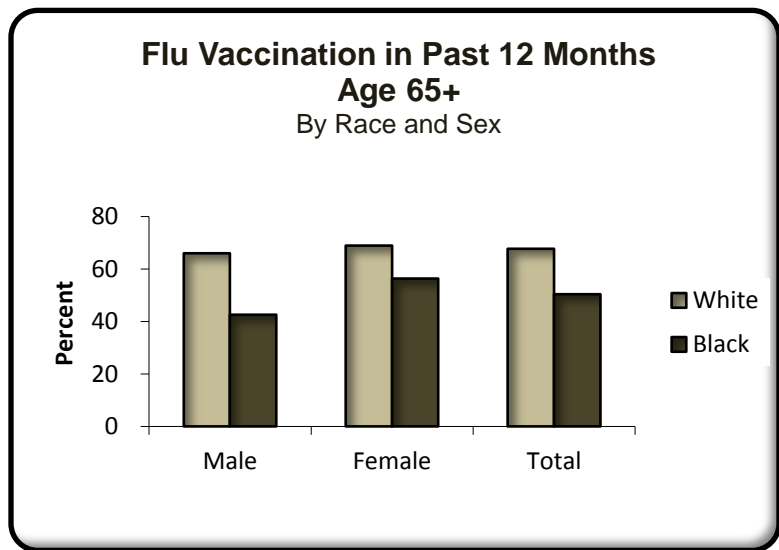
## Immunization

*Survey Question:*

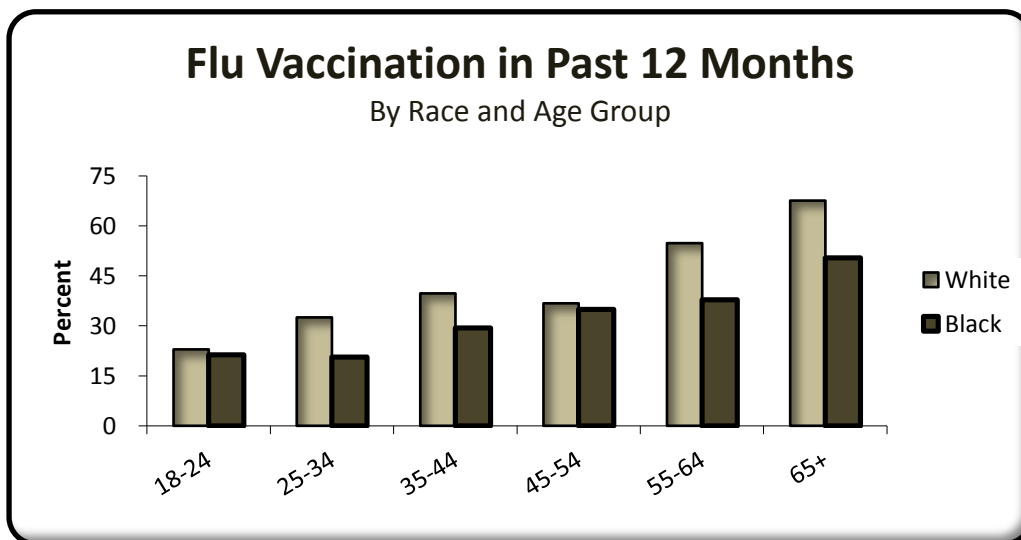
***A flu shot is an influenza vaccine injected in your arm. During the past 12 months, have you had a flu shot or have you had a flu vaccine that was sprayed in your nose?***

Influenza and pneumonia was the eighth leading cause of death in Mississippi for 2014 producing a death rate of 25.5 per 100,000 population.

The *Healthy People 2020* goal for influenza vaccinations is that 90 percent of the non-institutionalized people age 65 and older have been vaccinated in the preceding twelve months. The target for those in the 18 to 64 age group who are not institutionalized is 80 percent. Influenza vaccine can prevent the disease and its complications. In the elderly, the vaccine is less effective in disease prevention but reduces severity of disease and the incidence of complications and death. Vaccination is an important intervention to reduce hospitalizations due to complications of



**Figure 16**



**Figure 17**

influenza. Influenza vaccine is recommended for all persons 65 years of age and older, and for those with chronic health problems which put them at risk for complications.

In the 2015 BRFSS survey, 63.4 percent of the respondents age 65 and older reported they had received the influenza vaccine in the last 12 months. The proportion vaccinated in this age group reflected a marked difference according to race: 67.6 percent of whites reported having been vaccinated compared to only 50.4 percent for blacks (Figure 17). For the total population, females reported higher vaccination in the past twelve months with a rate of 43.1 percent compared to 37.3 percent for males (Figure 16).

Only 29.3 percent of the respondents said that they had ever received a pneumonia vaccination. Respondents over the age of 65 reported a vaccination rate of 65.4 percent. As with influenza vaccinations rates on those 65 years of age and older, there was a marked difference with respect to race for pneumonia vaccinations: 69.7 percent for whites but only 52.6 percent for blacks (Table 15).



Table 13: Flu Vaccination in Past 12 Months

Groups	White		Black		Total	
	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
<b>Sex</b>						
Male	681	41.7	218	28.7	910	37.3
Female	1,327	49.4	587	33.5	1,936	43.1
<b>Age Group</b>						
18-24	34	22.9	21	21.3	58	23.8
25-34	98	32.5	40	20.6	141	27.7
35-44	132	39.7	71	29.4	207	35.4
45-54	191	36.7	122	34.9	313	35.5
55-64	425	54.8	222	37.8	654	48.7
65+	1,120	67.6	327	50.4	1,462	63.4
<b>Education</b>						
< High School Graduate	185	35.8	164	32.0	354	34.1
High School Graduate or GED	606	45.3	272	31.8	884	39.8
Some College or Technical School	534	44.4	179	27.1	724	38.6
College Graduate	676	54.3	190	39.9	877	50.4
<b>Income</b>						
< \$15,000	203	40.2	202	28.6	410	33.2
\$15-\$24,999	315	42.6	184	29.7	505	36.6
\$25-\$34,999	205	42.9	92	35.1	300	40.4
\$35-\$49,999	246	44.9	64	28.0	315	39.5
\$50-\$74,999	228	45.2	67	32.6	297	41.3
\$75,000+	429	51.1	70	44.9	502	50.5
<b>Employment Status</b>						
Employed	637	42.2	237	27.9	888	37.3
Not Employed	27	15.1	29	15.7	56	14.9
Student/Homemaker	163	32.3	31	19.2	197	28.3
Retired/Unable to Work	1,177	60.9	505	46.0	1,698	55.3
<b>Total</b>	<b>2,008</b>	<b>45.6</b>	<b>805</b>	<b>31.4</b>	<b>2,846</b>	<b>40.3</b>

<sup>1</sup>Unweighted

<sup>2</sup>Weighted

Table 14: Flu Vaccination in Past 12 Months Age 65+

Groups	White		Black		Total	
	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
<b>Sex</b>						
Male	355	65.9	86	42.5	446	60.0
Female	765	68.9	241	56.3	1,016	65.9
<b>Education</b>						
< High School Graduate	139	68.0	101	47.2	243	58.6
High School Graduate or GED	404	65.7	104	52.2	511	62.9
Some College or Technical School	289	69.3	53	55.1	346	67.6
College Graduate	284	68.1	69	57.7	358	66.7
<b>Income</b>						
< \$15,000	124	64.6	101	47.5	227	57.0
\$15-\$24,999	220	65.7	71	44.2	295	59.4
\$25-\$34,999	134	72.0	32	55.3	166	68.0
\$35-\$49,999	150	71.9	25	50.9*	177	69.6
\$50-\$74,999	105	66.2	20	67.7*	126	66.4
\$75,000+	128	67.8	15	66.3*	143	67.7
<b>Employment Status</b>						
Employed	116	63.0	11	29.0*	128	59.3
Not Employed	1	7.8*	7	62.5*	8	39.9
Student/Homemaker	87	71.9	10	41.6*	97	68.5
Retired/Unable to Work	915	68.3	299	51.6	1,228	63.8
<b>Total</b>	<b>1,120</b>	<b>67.6</b>	<b>327</b>	<b>50.4</b>	<b>1,462</b>	<b>63.4</b>

<sup>1</sup>Unweighted

<sup>2</sup>Weighted

\*Sample size <50

**Table 15: Ever Had Pneumonia Vaccination**

Groups	White		Black		Total	
	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
<b>Sex</b>						
Male	530	30.9	166	21.5	705	27.3
Female	1,074	36.5	432	22.6	1,526	31.1
<b>Age Group</b>						
18-24	21	19.5	8	13.0	29	16.0
25-34	34	15.4	18	7.9	54	12.3
35-44	38	13.4	29	11.8	68	12.9
45-54	109	23.2	79	27.9	191	25.2
55-64	243	33.4	145	25.9	396	30.9
65+	1,155	69.7	311	52.6	1,480	65.4
<b>Education</b>						
< High School Graduate	185	39.3	147	28.2	335	33.3
High School Graduate or GED	556	39.1	202	21.2	767	31.7
Some College or Technical School	432	30.1	121	18.0	562	26.0
College Graduate	424	29.0	127	21.9	559	27.0
<b>Income</b>						
< \$15,000	199	45.3	190	24.9	395	33.7
\$15-\$24,999	309	36.2	137	22.8	454	29.9
\$25-\$34,999	192	41.7	51	16.1	244	29.5
\$35-\$49,999	192	31.6	46	16.7	241	26.8
\$50-\$74,999	158	30.3	40	15.4	200	26.1
\$75,000+	227	23.1	33	23.8	262	23.3
<b>Employment Status</b>						
Employed	285	18.2	97	10.4	387	15.1
Not Employed	26	25.3	26	20.2	54	22.9
Student/Homemaker	129	28.1	19	17.6	151	25.1
Retired/Unable to Work	1,160	59.2	454	41.5	1,633	53.0
<b>Total</b>	<b>1,604</b>	<b>33.8</b>	<b>598</b>	<b>22.1</b>	<b>2,231</b>	<b>29.3</b>

<sup>1</sup>Unweighted

<sup>2</sup>Weighted

**Table 16: Ever Had Pneumonia Vaccination: Age 65+**

Groups	White		Black		Total	
	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
<b>Sex</b>						
Male	364	65.2	83	47.1	450	60.4
Female	791	72.9	228	56.7	1,030	69.1
<b>Education</b>						
< High School Graduate	141	68.8	99	51.5	242	60.8
High School Graduate or GED	432	71.4	100	53.8	536	68.0
Some College or Technical School	298	69.1	49	54.9	352	67.6
College Graduate	279	67.2	62	53.5	344	64.9
<b>Income</b>						
< \$15,000	130	74.1	109	61.4	241	68.4
\$15-\$24,999	240	67.0	62	47.2	307	61.2
\$25-\$34,999	147	78.1	27	47.8	174	71.2
\$35-\$49,999	152	68.0	26	61.5*	179	66.9
\$50-\$74,999	90	55.5	22	60.7*	113	56.1
\$75,000+	128	67.5	11	41.0*	139	65.5
<b>Employment Status</b>						
Employed	104	50.0	10	21.9*	114	46.5
Not Employed	3	54.3*	6	61.3*	9	58.4
Student/Homemaker	85	70.7	8	45.1*	94	68.7
Retired/Unable to Work	962	72.8	287	54.4	1,262	67.8
<b>Total</b>	<b>1,155</b>	<b>69.7</b>	<b>311</b>	<b>52.6</b>	<b>1,480</b>	<b>65.4</b>

<sup>1</sup>Unweighted

<sup>2</sup>Weighted

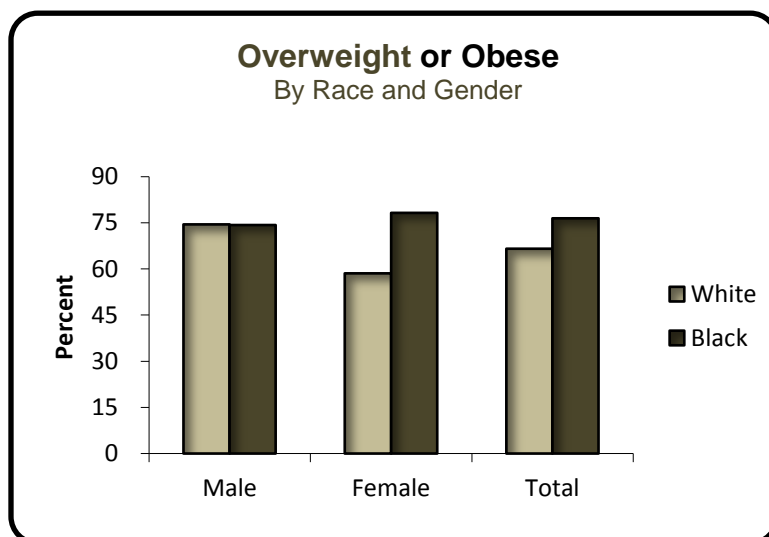
\*Sample size <50

## Overweight and Obesity

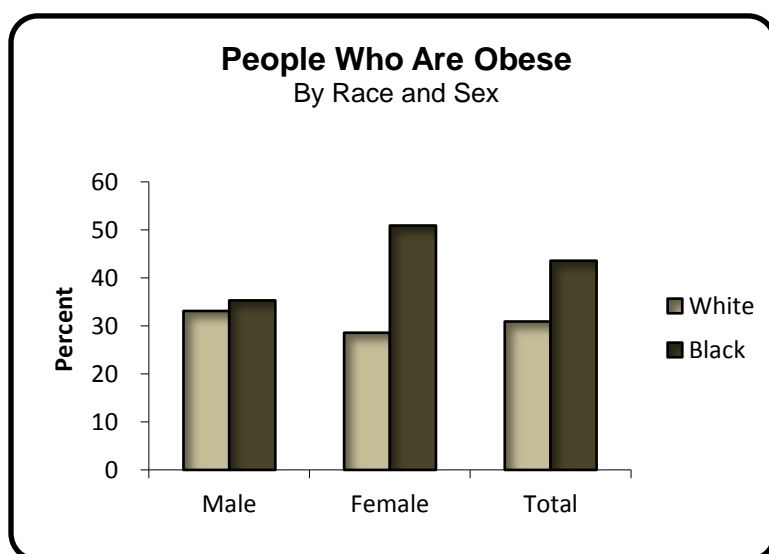
### Survey Question:

***There is no survey question that solicits the respondent to provide his body mass index (BMI) rather it is calculated from the self-reported height and weight. (See the “Definitions” section for the formula)***

The proportion of overweight persons has increased substantially during the past twenty years. Morbidity related to being overweight is the second leading cause of death in the United States and causes approximately 300,000 deaths each year. Overweight persons substantially increase their risk of illness from hypertension, high cholesterol, Type 2 diabetes, heart disease and stroke, gall bladder disease, cancer of the endometrium, breast, prostate and colon as well as arthritis. Overweight people may also suffer from social stigmatization, discrimination and low self-esteem.



**Figure 18**



**Figure 19**

Weight may be controlled by dietary changes such as decreasing caloric intake and by increasing physical activity. According to the 2015 BRFSS study, 70.1 percent of those surveyed reported themselves as being either overweight (BMI  $\geq$  25) or obese (BMI  $\geq$  30). The rate for whites was 66.6 percent compared to 76.4 percent for blacks (Table 17).

The total obesity rate for 2015 was 35.6 percent: 30.9 for whites and 43.6 for blacks (Table 18). Black females reported the highest rate of obesity at 50.9 percent and black males reported the second highest

rate at 35.3 percent. Black respondents in the 35 to 44 age group have the highest rate of obesity at 50.7 percent compared to a rate of 41.6 for whites in the same age category.

**Table 17: People Who Are Overweight or Obese**

Groups	White		Black		Total	
	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
<b>Sex</b>						
Male	1,061	74.5	466	74.3	1,549	74.3
Female	1,289	58.6	1,116	78.2	2,428	66.0
<b>Age Group</b>						
18-24	68	51.4	50	58.1	122	54.7
25-34	147	59.6	145	74.0	297	66.4
35-44	225	75.4	209	85.1	439	78.5
45-54	365	75.9	268	80.6	638	77.3
55-64	533	69.4	420	81.0	962	73.6
65+	1,008	64.4	484	79.2	1,507	68.1
<b>Education</b>						
< High School Graduate	223	68.4	298	73.7	531	71.3
High School Graduate or GED	714	66.5	547	76.5	1,272	70.0
Some College or Technical School	671	66.7	397	76.9	1,077	70.2
College Graduate	735	65.2	337	79.6	1,087	68.7
<b>Income</b>						
< \$15,000	244	67.9	407	72.6	659	70.3
\$15-\$24,999	395	66.5	420	80.5	827	73.3
\$25-\$34,999	249	66.7	168	71.7	422	69.3
\$35-\$49,999	293	69.2	145	86.7	443	75.0
\$50-\$74,999	295	68.2	112	75.5	410	68.9
\$75,000+	518	69.4	116	85.9	637	71.3
<b>Employment Status</b>						
Employed	941	69.8	596	78.1	1,556	72.8
Not Employed	80	66.1	108	69.4	191	66.8
Student/Homemaker	201	57.1	72	65.3	276	58.9
Retired/Unable to Work	1,121	65.4	803	79.0	1,944	70.4
<b>Total</b>	<b>2,350</b>	<b>66.6</b>	<b>1,582</b>	<b>76.4</b>	<b>3,977</b>	<b>70.1</b>

<sup>1</sup>Unweighted

<sup>2</sup>Weighted

Table 18: People Who Are Obese

Groups	White		Black		Total	
	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
<b>Sex</b>						
Male	443	33.1	215	35.3	664	33.8
Female	600	28.6	688	50.9	1,300	37.3
<b>Age Group</b>						
18-24	36	27.6	31	37.4	70	32.8
25-34	66	24.7	87	41.2	156	32.6
35-44	116	41.6	130	50.7	247	44.5
45-54	172	33.6	165	46.0	337	37.7
55-64	247	31.9	233	44.4	485	36.5
65+	405	27.2	257	42.7	667	30.9
<b>Education</b>						
< High School Graduate	105	31.9	181	42.7	292	38.1
High School Graduate or GED	325	31.4	309	41.2	641	35.0
Some College or Technical School	311	31.4	236	48.1	550	37.3
College Graduate	297	28.4	175	39.6	474	30.7
<b>Income</b>						
< \$15,000	120	34.2	268	49.3	393	43.0
\$15-\$24,999	207	35.3	236	46.0	446	40.3
\$25-\$34,999	115	32.6	87	39.7	204	36.5
\$35-\$49,999	129	32.8	82	41.4	213	35.7
\$50-\$74,999	134	33.0	59	44.4	194	35.0
\$75,000+	195	27.6	63	51.8	258	30.4
<b>Employment Status</b>						
Employed	417	31.0	331	41.9	756	35.2
Not Employed	41	39.6	66	39.6	107	38.2
Student/Homemaker	90	25.3	47	44.1	139	31.0
Retired/Unable to Work	493	31.3	457	46.8	958	37.0
<b>Total</b>	1,043	30.9	903	43.6	1,964	35.6

<sup>1</sup>Unweighted

<sup>2</sup>Weighted

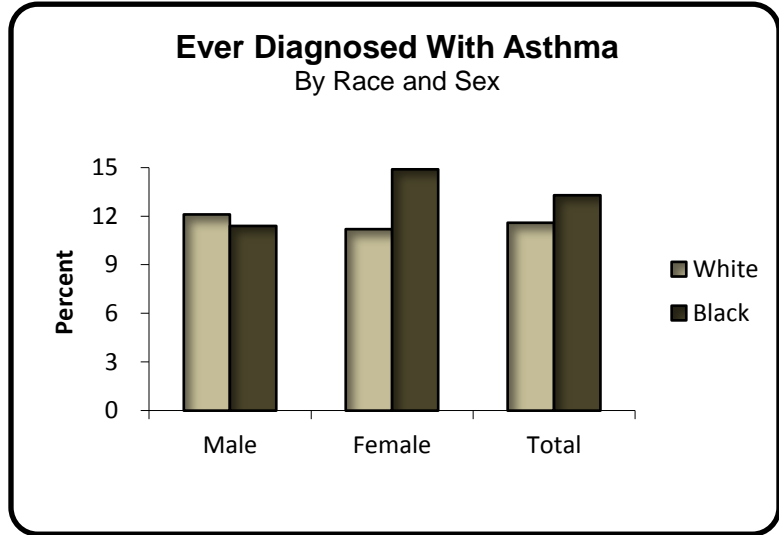


# Asthma

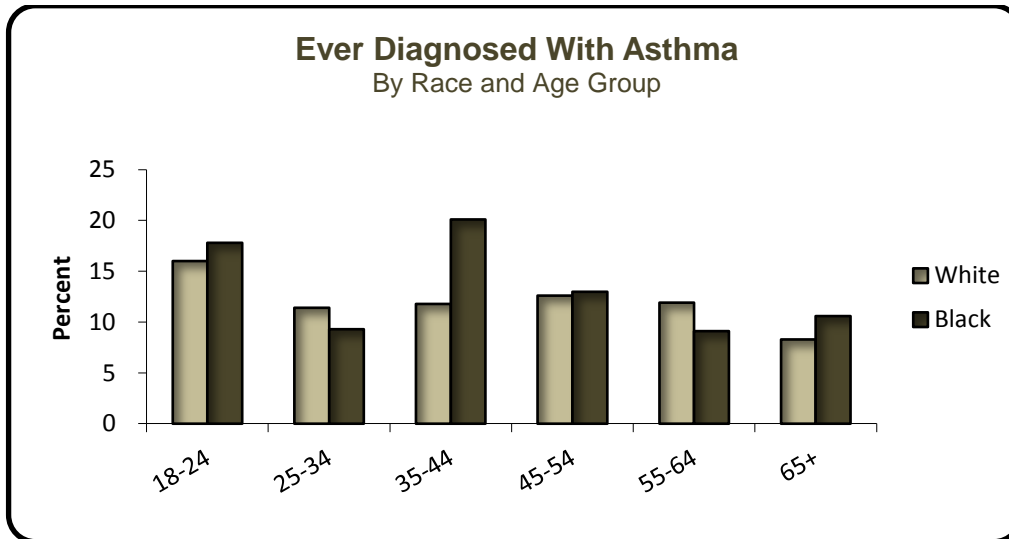
**Survey Question:**

***Have you ever been told by a doctor, nurse, or other health professional that you had asthma? If yes: Do you still have asthma?***

According to the U. S. Department of Health and Human Services, *Healthy People 2020* publication, asthma is a serious and growing health problem. Asthma is a chronic inflammatory disorder of the airways characterized by episodes of reversible breathing problems due to airway narrowing and obstruction. These episodes can range in severity from mild to life threatening. Symptoms of asthma include wheezing, coughing, chest tightness, and shortness of breath. In some cases, the breathing may be so labored that an asthma attack becomes life-threatening.



**Figure 20**



**Figure 21**

Most of the problems caused by asthma could be averted if persons with asthma and their health care providers managed the disease according to established guidelines. Effective management of asthma comprises four major components: controlling exposure to factors that trigger asthma episodes, adequately managing asthma with medicine, monitoring the disease by using objective measures of lung function and educating asthma patients to become partners in their own care. Such prevention efforts are essential to interrupt the progression from disease to functional limitation and disability and to improve the quality of life for persons with asthma.

In Mississippi, the 2015 BRFSS survey revealed that 12.3 percent of the respondents said that they had ever had asthma. As has been true in recent years, blacks reported a higher rate of asthma, 13.3 percent, than whites who had a rate of 11.6 percent. Women reported a higher rate (12.5 percent) than men (12.1 percent).

Table 19 contains the rates for the various categories.

**Table 19: Ever Diagnosed With Asthma**

Groups	White		Black		Total	
	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
<b>Sex</b>						
Male	130	12.1	58	11.4	193	12.1
Female	260	11.2	197	14.9	464	12.5
<b>Age Group</b>						
18-24	20	16.0	14	17.8	35	17.5
25-34	31	11.4	18	9.3	49	10.0
35-44	35	11.8	38	20.1	75	15.1
45-54	65	12.6	48	13.0	116	13.0
55-64	95	11.9	66	9.1	162	10.8
65+	142	8.3	71	10.6	218	8.9
<b>Education</b>						
< High School Graduate	50	15.0	54	13.8	108	15.1
High School Graduate or GED	125	11.9	104	16.3	232	13.5
Some College or Technical School	105	10.8	67	12.3	175	11.3
College Graduate	107	10.3	30	7.2	139	9.4
<b>Income</b>						
< \$15,000	61	19.6	92	18.2	156	18.6
\$15-\$24,999	82	14.5	64	11.5	148	13.0
\$25-\$34,999	51	14.3	22	13.1	76	15.0
\$35-\$49,999	39	11.6	15	11.0	55	11.4
\$50-\$74,999	40	9.4	18	16.1	58	10.8
\$75,000+	49	6.8	13	10.6	63	7.3
<b>Employment Status</b>						
Employed	120	8.9	77	12.9	200	10.6
Not Employed	18	22.9	12	10.0	31	16.0
Student/Homemaker	38	12.3	12	16.1	51	13.3
Retired/Unable to Work	211	13.4	154	14.4	372	13.8
<b>Total</b>	<b>390</b>	<b>11.6</b>	<b>255</b>	<b>13.3</b>	<b>657</b>	<b>12.3</b>

<sup>1</sup>Unweighted

<sup>2</sup>Weighted

Table 20: Presently Have Asthma

Groups	White		Black		Total	
	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
<b>Sex</b>						
Male	78	6.5	31	4.9	112	5.8
Female	201	8.5	156	11.9	362	9.7
<b>Age Group</b>						
18-24	9	5.8	8	9.9	17	7.4
25-34	15	5.6	10	5.1	25	5.2
35-44	21	7.1	27	13.6	49	9.7
45-54	52	10.2	36	8.9	89	9.6
55-64	67	8.5	50	7.0	118	7.9
65+	114	6.8	56	7.9	175	7.1
<b>Education</b>						
< High School Graduate	44	10.6	51	11.9	98	10.9
High School Graduate or GED	91	8.0	77	10.8	170	9.0
Some College or Technical School	76	6.8	39	5.9	117	6.4
College Graduate	66	5.9	20	4.4	87	5.4
<b>Income</b>						
< \$15,000	49	16.2	78	14.8	129	15.2
\$15-\$24,999	62	9.0	49	9.0	112	8.8
\$25-\$34,999	34	8.2	16	7.4	51	7.6
\$35-\$49,999	25	6.2	8	3.0	34	5.2
\$50-\$74,999	26	5.8	11	8.5	37	6.3
\$75,000+	36	4.4	7	4.4	44	4.4
<b>Employment Status</b>						
Employed	82	5.4	48	7.5	131	6.1
Not Employed	9	6.2	9	9.3	18	7.6
Student/Homemaker	20	6.4	4	3.3	24	5.4
Retired/Unable to Work	167	11.3	126	12.1	300	11.6
<b>Total</b>	<b>279</b>	<b>7.5</b>	<b>187</b>	<b>8.7</b>	<b>474</b>	<b>7.8</b>

<sup>1</sup>Unweighted

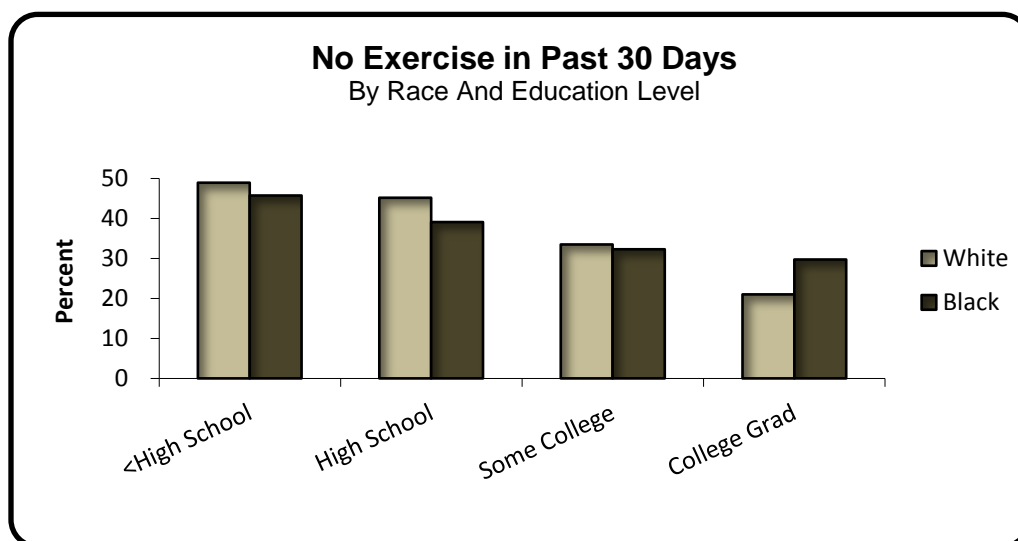
<sup>2</sup>Weighted

## Exercise and Physical Activity

### *Survey Question:*

***During the past month, other than your regular job, did you participate in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise?***

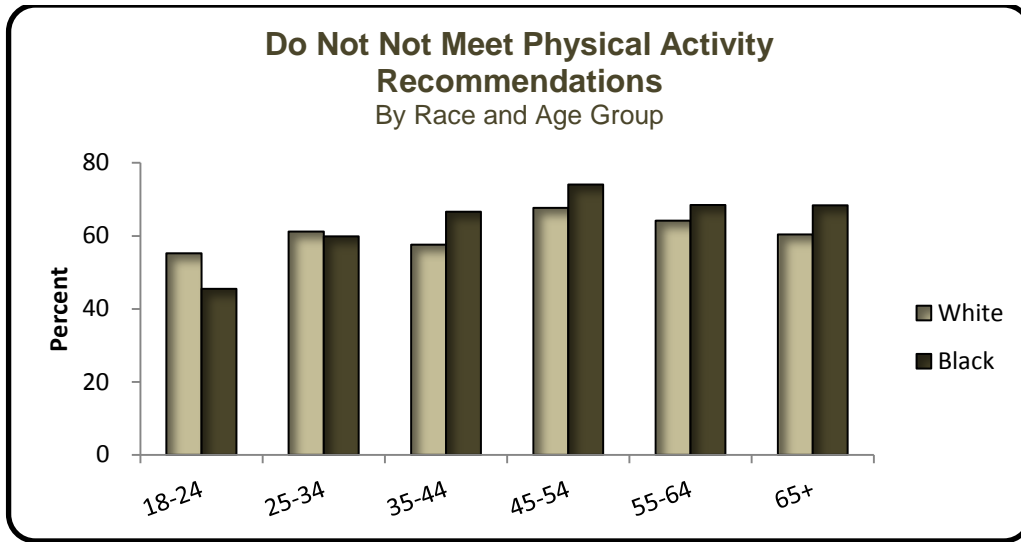
On average, physically active people outlive those who are inactive. Regular physical activity helps to maintain the functional independence of older adults and enhances the quality of life for people of all ages. The role of physical activity in preventing coronary heart disease (CHD) is of particular importance, given that CHD is the leading cause of death and disability in the United States and in Mississippi. Physically inactive people are almost twice as likely to develop CHD as persons who engage in regular physical activity. The risk posed by physical inactivity is almost as high as several well-known CHD risk factors such as cigarette smoking, high blood pressure and high blood cholesterol. Physical inactivity is more prevalent than any of these other risk factors.



**Figure 22**

Regular physical activity is important for people who have joint or bone problems. It has been shown to improve muscle function, cardiovascular function, and physical performance. People with osteoporosis may respond positively to regular physical activity, particularly weight-bearing activities such as walking and especially when combined with appropriate drug therapy and calcium intake.

In Mississippi, 36.8 percent of the population is reported as not participating in any physical activity outside of work in the past 30 days. People with less education (Figure 22) and in lower income levels (Table 21) reported the highest percentage of physical inactivity.



**Figure 23**

Table 21: No Leisure Time Physical Activity in Past 30 Days

Groups	White		Black		Total	
	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
<b>Sex</b>						
Male	457	33.2	209	34.5	682	34.0
Female	922	39.4	598	39.7	1,544	39.4
<b>Age Group</b>						
18-24	27	25.6	20	18.6	48	23.1
25-34	69	28.5	56	27.8	129	27.8
35-44	89	31.3	90	38.8	185	34.4
45-54	179	38.2	146	48.8	330	42.5
55-64	333	46.5	220	45.1	564	46.1
65+	679	41.1	271	47.4	963	43.0
<b>Education</b>						
< High School Graduate	182	48.9	206	45.7	398	48.4
High School Graduate or GED	522	45.2	286	39.1	817	42.3
Some College or Technical School	389	33.5	180	32.3	577	32.8
College Graduate	281	21.0	132	29.7	426	23.5
<b>Income</b>						
< \$15,000	201	46.1	250	46.6	459	46.0
\$15-\$24,999	272	40.6	214	37.4	496	39.0
\$25-\$34,999	157	41.9	90	40.0	253	42.3
\$35-\$49,999	168	35.9	54	31.3	225	34.7
\$50-\$74,999	129	30.4	33	29.2	164	29.8
\$75,000+	185	26.5	43	21.2	229	25.5
<b>Employment Status</b>						
Employed	442	33.8	263	35.8	722	34.8
Not Employed	36	24.6	59	32.4	96	28.5
Student/Homemaker	118	26.8	30	23.9	153	25.7
Retired/Unable to Work	782	46.2	450	45.7	1,249	46.1
<b>Total</b>	<b>1,379</b>	<b>36.4</b>	<b>807</b>	<b>37.3</b>	<b>2,226</b>	<b>36.8</b>

<sup>1</sup>Unweighted

<sup>2</sup>Weighted

**Table 22: Do Not Meet Physical Activity Recommendations**

Groups	White		Black		Total	
	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
<b>Sex</b>						
Male	728	58.6	337	60.4	1,086	59.3
Female	1,360	64.1	919	66.6	2,308	64.7
<b>Age Group</b>						
18-24	69	55.2	43	45.5	116	51.9
25-34	145	61.2	116	59.9	265	59.0
35-44	172	57.6	156	66.6	335	61.1
45-54	312	67.7	218	74.1	538	70.3
55-64	461	64.2	342	68.5	814	65.7
65+	926	60.4	377	68.4	1,319	62.7
<b>Education</b>						
< High School Graduate	231	68.8	279	72.3	522	70.9
High School Graduate or GED	690	66.6	447	66.0	1,150	66.1
Some College or Technical School	605	60.4	290	58.2	905	59.0
College Graduate	556	51.5	237	57.6	808	53.0
<b>Income</b>						
< \$15,000	266	74.8	375	79.1	651	76.5
\$15-\$24,999	374	62.9	326	63.6	713	63.2
\$25-\$34,999	216	58.9	136	63.7	359	61.9
\$35-\$49,999	253	60.9	90	49.9	346	57.3
\$50-\$74,999	224	55.6	73	58.9	301	55.9
\$75,000+	375	55.6	71	45.5	448	53.7
<b>Employment Status</b>						
Employed	767	60.3	439	62.2	1,227	61.1
Not Employed	60	52.5	98	58.9	160	55.1
Student/Homemaker	194	56.1	62	50.5	262	53.8
Retired/Unable to Work	1,063	66.3	651	72.0	1,735	68.3
<b>Total</b>	<b>2,088</b>	<b>61.4</b>	<b>1,256</b>	<b>63.8</b>	<b>3,394</b>	<b>62.2</b>

<sup>1</sup>Unweighted

<sup>2</sup>Weighted



## Cancer

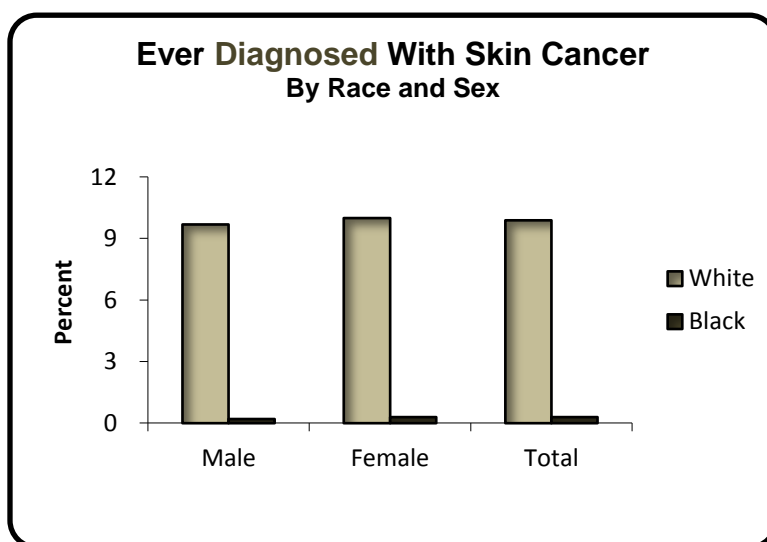
### *Survey Question:*

***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 types of cancer?***

According to the Centers for Disease Control and Prevention (CDC), skin cancer is the most common form of cancer in the United States. The two most common types of skin cancer are basal cell and squamous cell carcinomas both of which are highly curable. However, melanoma, the third most common skin cancer, is more dangerous. About 65 to 90 percent of all melanomas are caused by exposure to ultraviolet light.

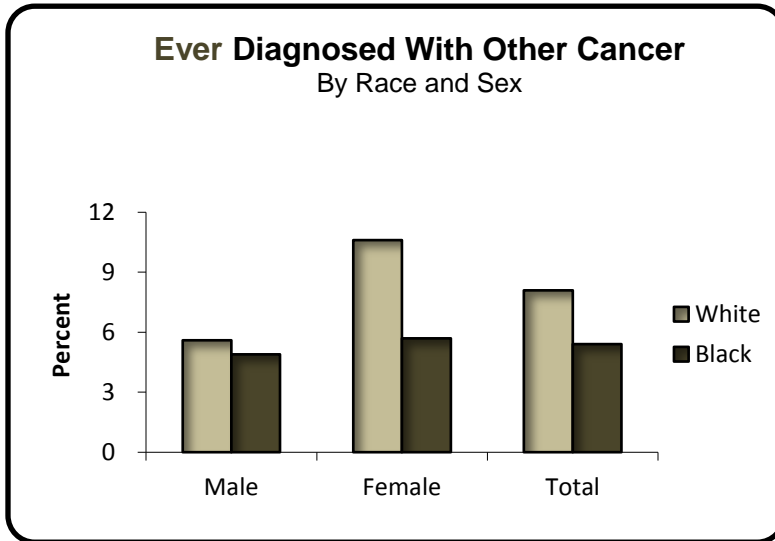
Most skin cancers form in older people on parts of the body exposed to the sun or in people who have weakened immune systems. The American Cancer Society estimates that in 2014 there were 81,220 new cases of skin cancer in the United States.



**Figure 24**

The 2015 Mississippi BRFSS revealed that 6.2 percent of the population had been diagnosed with some form of skin cancer. There was a conspicuous difference between the rates based on race. Whites reported a rate of 9.9 percent compared to only 0.3 percent for blacks. Whites age 65 and older had a rate of 23.4 percent compared to 0.9 percent for blacks (Table 23).

The second BRFSS question concerning cancer was whether the respondent had ever been diagnosed with any other type of cancer. Cancer is a group of diseases characterized by uncontrolled growth and spread of abnormal cells. If the spread is not controlled, it most likely results in death. Cancer is caused by both external and internal factors. These factors may act together or in sequence to initiate or promote carcinogenesis. Ten or more years often pass between exposure to external factors and detectable cancer.



The 2015 BRFSS survey revealed that 7.0 percent of the people in Mississippi have been diagnosed with some form of cancer other than skin cancer which translates into more than 156,000 persons. The rate for white respondents was 8.1 percent while the rate for blacks was 5.4 percent (Figure 25).

**Figure 25**

**Table 23: Ever Diagnosed With Skin Cancer**

Groups	White		Black		Total	
	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
<b>Sex</b>						
Male	232	9.7	3	0.2	238	6.2
Female	330	10.0	7	0.3	340	6.1
<b>Age Group</b>						
18-24	1	0.5	0	0.0	1	0.2
25-34	2	1.0	0	0.0	2	0.5
35-44	9	2.5	0	0.0	9	1.4
45-54	41	9.3	1	0.2	43	5.8
55-64	98	12.3	2	0.6	102	8.0
65+	410	23.4	6	0.9	419	17.9
<b>Education</b>						
< High School Graduate	60	9.6	2	0.3	63	5.2
High School Graduate or GED	179	11.0	7	0.5	187	6.7
Some College or Technical School	153	9.4	0	0.0	155	5.9
College Graduate	166	9.2	1	0.1	169	6.6
<b>Income</b>						
< \$15,000	54	10.0	2	0.1	58	4.4
\$15-\$24,999	95	8.9	1	0.1	98	4.6
\$25-\$34,999	63	11.5	3	0.7	66	6.4
\$35-\$49,999	71	11.1	2	0.6	73	7.6
\$50-\$74,999	61	8.3	0	0.0	62	6.2
\$75,000+	96	8.9	0	0.0	96	7.5
<b>Employment Status</b>						
Employed	123	6.4	0	0.0	124	3.8
Not Employed	5	1.4	0	0.0	6	1.0
Student/Homemaker	34	5.0	0	0.0	34	3.4
Retired/Unable to Work	400	18.6	10	0.8	414	12.0
<b>Total</b>	<b>562</b>	<b>9.9</b>	<b>10</b>	<b>0.3</b>	<b>578</b>	<b>6.2</b>

<sup>1</sup>Unweighted

<sup>2</sup>Weighted

Table 24: Ever Diagnosed With Other Cancer

Groups	White		Black		Total	
	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
<b>Sex</b>						
Male	123	5.6	56	4.9	180	5.2
Female	315	10.6	126	5.7	444	8.6
<b>Age Group</b>						
18-24	2	2.7	0	0.0	2	1.4
25-34	8	3.8	2	1.4	10	2.6
35-44	16	4.4	9	2.8	26	3.7
45-54	23	4.7	25	7.1	48	5.5
55-64	86	10.1	46	8.5	133	9.5
65+	303	16.9	99	15.7	404	16.5
<b>Education</b>						
< High School Graduate	48	12.5	46	8.2	96	10.1
High School Graduate or GED	141	8.0	57	4.6	199	6.5
Some College or Technical School	126	7.9	39	4.3	166	6.5
College Graduate	122	5.7	40	5.0	162	5.4
<b>Income</b>						
< \$15,000	56	12.1	46	7.8	105	9.6
\$15-\$24,999	72	9.2	48	4.4	121	6.8
\$25-\$34,999	59	12.2	17	6.3	76	9.2
\$35-\$49,999	45	6.1	8	1.7	53	4.6
\$50-\$74,999	39	5.7	17	4.2	56	5.2
\$75,000+	60	3.4	9	2.9	69	3.3
<b>Employment Status</b>						
Employed	85	3.5	34	2.9	119	3.2
Not Employed	12	9.9	9	4.5	21	6.8
Student/Homemaker	37	7.6	5	1.4	43	5.7
Retired/Unable to Work	302	14.7	132	10.6	437	13.1
<b>Total</b>	<b>438</b>	<b>8.1</b>	<b>182</b>	<b>5.4</b>	<b>624</b>	<b>7.0</b>

<sup>1</sup>Unweighted

<sup>2</sup>Weighted

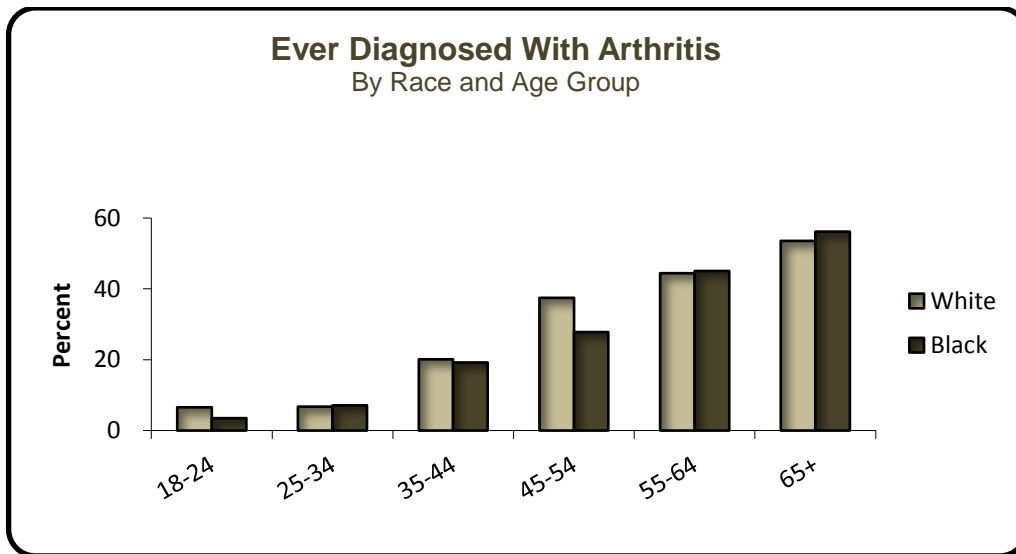
# Arthritis

*Survey Question:*

***Have you ever been told by a doctor or other health professional that you have some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia?***

According to the *Healthy People 2020* publication, arthritis affects one in five adults in the United States and continues to be the most common cause of disability and adds more than \$128 billion per year to the cost of health care. All of the human and economic costs are projected to increase over time as the population ages.

There are more than 100 types of arthritis which commonly occur with other chronic conditions, such as diabetes, heart disease, and obesity. Interventions to treat the pain and reduce the functional limitations from arthritis are important, and may also enable people with these other chronic conditions to be more physically active.



**Figure 26**

The significant public health impact of arthritis is reflected in a variety of measures. First, arthritis is the leading cause of disability. Arthritis limits major activities such as regular work, housekeeping and school for nearly three percent of the U. S. population and almost twenty percent of those who are afflicted with the condition. Arthritis trails only heart disease as a cause of work disability. As a consequence, arthritis limits the independence of affected persons and disrupts the lives of family members and other care givers.

Health-related quality of life measures are consistently worse for persons with arthritis, whether the measure is healthy days in the past 30 days, days without severe pain, “ability days” (that is, days without activity limitations), or difficulty in performing personal care activities.

For Mississippi, the 2015 BRFSS survey showed that 28.7 percent of the population had been diagnosed with arthritis by a health care professional. As seen in Figure 26, the proportion increases with age. Respondents over the age of 65 reported being diagnosed with arthritis at a rate of 54.2 percent. Blacks reported a rate of 56.2 percent while whites were only 53.6 percent. Only 5.3 percent of those 18-24 years old reported this condition.

Of the people who were diagnosed with arthritis, 56.8 percent said that their usual, normal activities were limited by joint pain. Blacks reported a rate of 63.0 while white respondents had a rate of 53.5 percent (Table 26).

A little more than 40 percent of diagnosed arthritics reported that the amount of work, the type of work or even if they are able to work at all is affected by their joint symptoms. Blacks at 48.2 percent had a much higher rate than whites with 36.3 percent. With respect to gender, males reported a rate of 35.6 percent compared to 43.4 percent for females (Table 27).

Table 25: Ever Diagnosed With Arthritis

Groups	White		Black		Total	
	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
<b>Sex</b>						
Male	489	28.5	199	19.8	697	25.0
Female	1,050	34.7	646	28.7	1,715	32.2
<b>Age Group</b>						
18-24	8	6.6	4	3.5	13	5.3
25-34	22	6.8	16	7.1	38	6.7
35-44	67	20.1	49	19.2	117	19.7
45-54	182	37.5	112	27.8	298	33.7
55-64	345	44.5	279	45.1	635	44.9
65+	911	53.6	383	56.2	1,304	54.2
<b>Education</b>						
< High School Graduate	204	45.6	241	40.7	452	42.2
High School Graduate or GED	534	36.3	301	23.3	843	30.7
Some College or Technical School	419	27.5	162	16.6	589	23.5
College Graduate	374	22.6	138	18.4	517	21.4
<b>Income</b>						
< \$15,000	218	52.4	281	34.2	509	41.7
\$15-\$24,999	324	41.5	202	23.9	529	32.3
\$25-\$34,999	166	33.2	72	19.5	240	26.0
\$35-\$49,999	175	26.5	56	18.4	233	23.7
\$50-\$74,999	138	22.3	42	16.0	182	20.8
\$75,000+	223	20.9	37	15.5	262	20.4
<b>Employment Status</b>						
Employed	343	19.0	156	11.4	504	15.8
Not Employed	38	25.9	41	14.9	81	19.9
Student/Homemaker	118	18.7	26	10.6	147	16.7
Retired/Unable to Work	1,036	56.6	621	53.0	1,675	55.1
<b>Total</b>	<b>1,539</b>	<b>31.7</b>	<b>845</b>	<b>24.6</b>	<b>2,412</b>	<b>28.7</b>

<sup>1</sup>Unweighted

<sup>2</sup>Weighted

**Table 26: Do Arthritis Symptoms Prevent Normal Activities<sup>3</sup>**

Groups	White		Black		Total	
	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
<b>Sex</b>						
Male	226	49.2	110	66.8	342	54.5
Female	551	56.8	351	60.9	912	58.3
<b>Age Group</b>						
18-24	2	21.7*	2	54.8*	5	37.1
25-34	6	42.4*	9	56.8*	15	49.2
35-44	29	41.3*	23	49.4*	53	45.6
45-54	106	64.1	78	78.1	186	68.2
55-64	191	62.0	167	68.6	365	64.5
65+	440	49.0	180	55.5	625	50.7
<b>Education</b>						
< High School Graduate	129	65.8	135	64.5	267	65.2
High School Graduate or GED	273	52.5	181	66.7	459	57.0
Some College or Technical School	212	51.8	95	67.9	310	56.2
College Graduate	159	41.5	50	34.1	214	41.1
<b>Income</b>						
< \$15,000	169	77.1	185	72.9	360	75.2
\$15-\$24,999	171	53.1	113	67.7	287	58.7
\$25-\$34,999	89	51.9	36	43.0	125	49.0
\$35-\$49,999	68	41.9	20	43.6	89	42.6
\$50-\$74,999	57	46.2	18	56.9*	77	49.3
\$75,000+	75	35.3	12	13.9*	88	34.3
<b>Employment Status</b>						
Employed	129	40.5	56	38.9	187	40.3
Not Employed	19	41.3*	23	61.4*	44	51.9
Student/Homemaker	57	47.4	15	81.9*	73	55.6
Retired/Unable to Work	571	61.7	367	70.1	949	64.7
<b>Total</b>	<b>777</b>	<b>53.5</b>	<b>461</b>	<b>63.0</b>	<b>1,254</b>	<b>56.8</b>

<sup>1</sup>Unweighted

<sup>2</sup>Weighted

<sup>3</sup>Denominator is those diagnosed with arthritis

\*Sample size <50



**Table 27: Do Arthritis Symptoms Affect Work<sup>3</sup>**

Groups	White		Black		Total	
	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
<b>Sex</b>						
Male	191	45.5	96	55.0	291	48.1
Female	484	55.2	366	61.0	861	57.4
<b>Age Group</b>						
18-24	1	10.4*	2	54.8*	3	23.7
25-34	11	63.2*	7	41.6*	18	52.9
35-44	39	58.4	26	55.4*	66	58.1
45-54	100	60.1	69	66.9	171	62.2
55-64	179	56.5	166	62.8	351	58.7
65+	342	42.7	190	54.3	538	45.7
<b>Education</b>						
< High School Graduate	110	62.1	138	59.8	252	61.1
High School Graduate or GED	263	55.8	183	64.6	452	58.7
Some College or Technical School	182	47.2	84	55.9	268	49.7
College Graduate	116	33.1	57	44.5	176	35.1
<b>Income</b>						
< \$15,000	145	69.0	174	64.5	324	66.9
\$15-\$24,999	177	62.6	127	63.8	306	63.0
\$25-\$34,999	68	48.9	29	37.3	98	45.4
\$35-\$49,999	65	42.9	20	45.5	86	43.8
\$50-\$74,999	40	32.0	19	55.7*	60	35.7
\$75,000+	59	31.1	15	18.6*	75	31.0
<b>Employment Status</b>						
Employed	112	39.6	52	35.4	164	38.1
Not Employed	22	51.8*	23	58.4*	46	54.9
Student/Homemaker	50	50.7	15	82.1*	66	57.7
Retired/Unable to Work	489	56.3	372	65.6	874	59.7
<b>Total</b>	<b>675</b>	<b>51.0</b>	<b>462</b>	<b>58.9</b>	<b>1,152</b>	<b>53.5</b>

<sup>1</sup>Unweighted

<sup>2</sup>Weighted

<sup>3</sup>Denominator is those diagnosed with arthritis

\*Sample size <50

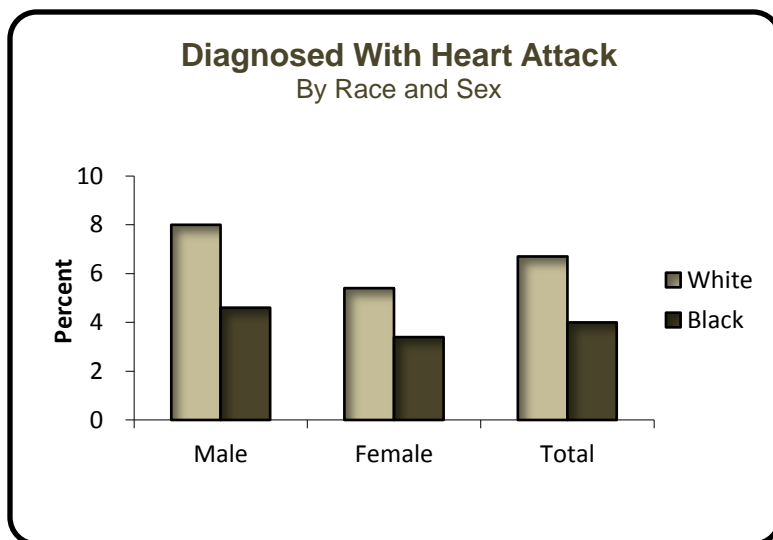
## Cardiovascular Disease

*Survey Question:*

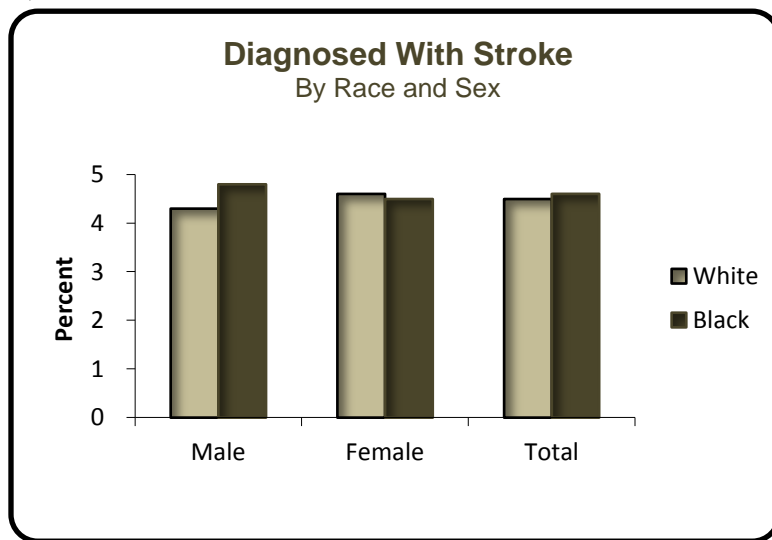
***Has a doctor, nurse, or other health professional ever told you that you had any of the following: A heart attack, also called a myocardial infarction? Angina or coronary heart disease? A stroke?***

Cardiovascular disease (CVD) includes coronary heart disease, stroke, complications of hypertension, and diseases of the arterial blood vessels. In addition to causing almost half of all deaths in Mississippi, CVD is the major cause of premature, permanent disability among working adults. In the 2015 BRFSS survey over ten percent of Mississippi adults (more than 235,000 people) report having some kind of CVD, such as coronary heart disease, angina, previous heart attack, or stroke.

In 2014 Mississippi reported 7,539 deaths from heart disease and



**Figure 27**



**Figure 28**

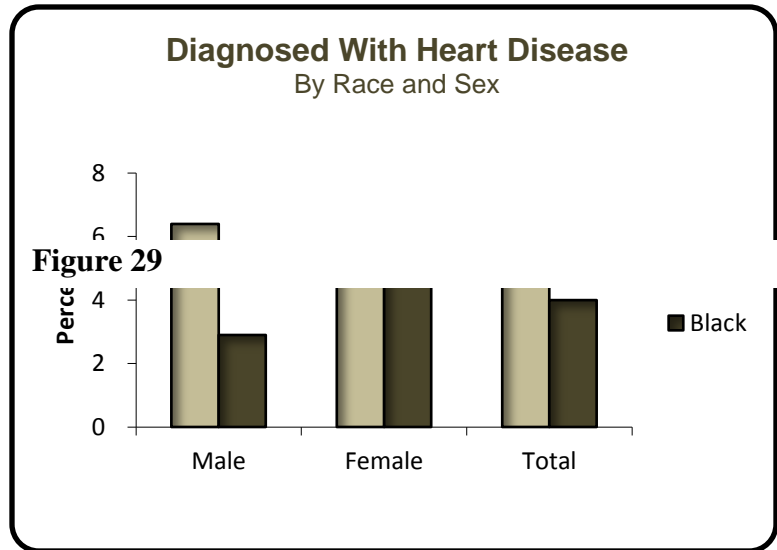
1,587 from cerebrovascular disease (stroke). The two combined accounted for nearly thirty percent of all the deaths reported that year and almost forty percent of the total from the ten leading causes of death.

The 2015 BRFSS survey revealed that 12.2 percent of the population 65 years of age or older reported that they have been diagnosed as having had a heart attack: 13.2 for white respondents and 8.1 for blacks. The second highest age group that reported being diagnosed with a heart attack

was the 55 to 64 category. Whites reported a rate of 9.7 percent while blacks reported a rate of 6.1 for a total rate of 8.4 percent (Table 28).

Table 29 shows the rate for those age 65 and greater who had been diagnosed with a stroke was 10.1 for whites compared to a rate of 14.1 for blacks. In the 55 to 64 group the rates were 5.2 and 7.5 for whites and blacks respectively.

Those in the older age groups also reported a higher rate of coronary heart disease. Those in the age group 65 and older reported a rate of 11.2 percent with white respondents having a rate of 11.7 percent compared to 9.2 for blacks. The 55 to 64 age category had an overall rate of 7.9 percent: 9.4 for whites and 5.3 for blacks (Table 30).



**Table 28: Ever Diagnosed With Heart Attack**

Groups	White		Black		Total	
	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
<b>Sex</b>						
Male	159	8.0	36	4.6	200	6.8
Female	146	5.4	70	3.4	219	4.6
<b>Age Group</b>						
18-24	0	0.0	1	2.5	1	1.1
25-34	2	1.4	1	0.3	3	0.9
35-44	8	2.6	5	3.5	13	2.9
45-54	27	7.1	12	5.0	41	6.4
55-64	65	9.7	33	6.1	100	8.4
65+	201	13.2	53	8.1	258	12.2
<b>Education</b>						
< High School Graduate	54	12.9	38	10.2	96	11.6
High School Graduate or GED	116	7.8	37	2.5	156	5.7
Some College or Technical School	76	5.3	18	1.6	94	3.9
College Graduate	58	3.0	12	2.1	71	2.7
<b>Income</b>						
< \$15,000	60	16.9	40	7.1	106	11.5
\$15-\$24,999	73	8.5	29	3.8	103	6.2
\$25-\$34,999	31	6.7	8	1.8	39	4.3
\$35-\$49,999	41	7.2	4	1.0	45	5.1
\$50-\$74,999	20	2.9	3	0.5	23	2.3
\$75,000+	24	2.8	3	2.4	27	2.7
<b>Employment Status</b>						
Employed	41	2.7	7	1.0	48	2.0
Not Employed	5	2.5	6	7.8	12	5.6
Student/Homemaker	10	1.6	3	0.6	14	1.4
Retired/Unable to Work	249	15.5	90	8.3	345	13.0
<b>Total</b>	<b>305</b>	<b>6.7</b>	<b>106</b>	<b>4.0</b>	<b>419</b>	<b>5.7</b>

<sup>1</sup>Unweighted

<sup>2</sup>Weighted

**Table 29: Ever Diagnosed With Coronary Heart Disease**

Groups	White		Black		Total	
	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
<b>Sex</b>						
Male	134	6.4	37	2.9	175	5.1
Female	157	5.0	82	4.9	240	4.9
<b>Age Group</b>						
18-24	0	0.0	1	2.5	1	1.1
25-34	0	0.0	1	0.6	1	0.3
35-44	7	2.4	6	2.6	13	2.4
45-54	20	5.4	18	6.0	38	5.6
55-64	69	9.4	33	5.3	104	7.9
65+	195	11.7	60	9.2	258	11.2
<b>Education</b>						
< High School Graduate	42	7.6	37	9.1	81	8.2
High School Graduate or GED	109	6.7	37	2.2	147	4.8
Some College or Technical School	74	5.1	27	2.3	101	4.0
College Graduate	64	3.8	18	3.7	84	3.7
<b>Income</b>						
< \$15,000	45	11.6	41	7.9	90	9.5
\$15-\$24,999	72	7.2	33	3.9	105	5.4
\$25-\$34,999	30	5.7	9	1.2	39	3.6
\$35-\$49,999	40	5.2	6	2.5	46	4.3
\$50-\$74,999	25	3.8	7	1.9	32	3.3
\$75,000+	33	3.6	4	0.6	37	3.2
<b>Employment Status</b>						
Employed	33	2.1	5	0.1	38	1.3
Not Employed	3	2.3	8	6.0	11	4.1
Student/Homemaker	18	2.5	1	1.1	19	2.0
Retired/Unable to Work	237	13.1	105	10.4	346	12.0
<b>Total</b>	<b>291</b>	<b>5.7</b>	<b>119</b>	<b>4.0</b>	<b>415</b>	<b>5.0</b>

<sup>1</sup>Unweighted

<sup>2</sup>Weighted

Table 30: Ever Diagnosed With a Stroke

Groups	White		Black		Total	
	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
<b>Sex</b>						
Male	81	4.3	47	4.8	131	4.4
Female	142	4.6	99	4.5	245	4.5
<b>Age Group</b>						
18-24	0	0.0	2	2.9	2	1.3
25-34	3	1.2	1	0.3	4	0.7
35-44	4	1.2	5	1.4	9	1.3
45-54	20	4.7	19	4.8	39	4.7
55-64	39	5.2	42	7.5	84	6.1
65+	157	10.1	76	14.1	237	11.1
<b>Education</b>						
< High School Graduate	37	7.5	57	10.0	97	8.6
High School Graduate or GED	83	5.1	47	4.0	133	4.6
Some College or Technical School	59	3.6	26	2.3	85	3.1
College Graduate	43	2.8	16	2.3	60	2.6
<b>Income</b>						
< \$15,000	45	12.4	51	8.4	101	10.2
\$15-\$24,999	52	5.7	39	3.9	91	4.7
\$25-\$34,999	21	4.1	16	4.1	37	4.0
\$35-\$49,999	24	4.3	1	0.5	25	3.0
\$50-\$74,999	18	2.4	3	2.4	21	2.3
\$75,000+	11	0.9	6	1.5	17	1.0
<b>Employment Status</b>						
Employed	26	1.6	13	0.9	39	1.3
Not Employed	4	2.0	8	6.8	12	4.4
Student/Homemaker	18	1.8	2	0.4	20	1.3
Retired/Unable to Work	174	10.3	123	11.1	304	10.6
<b>Total</b>	<b>223</b>	<b>4.5</b>	<b>146</b>	<b>4.6</b>	<b>376</b>	<b>4.5</b>

<sup>1</sup>Unweighted

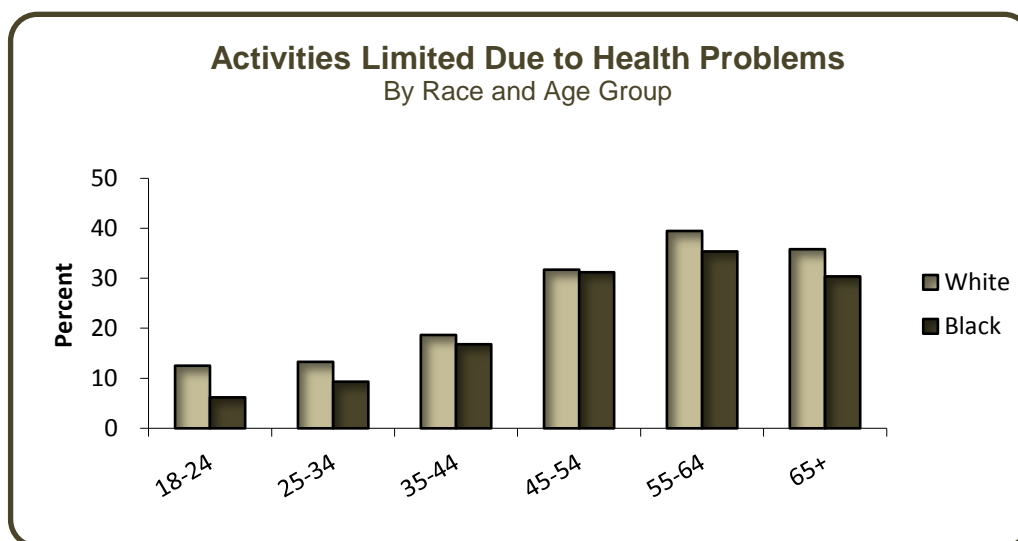
<sup>2</sup>Weighted

## Disability

*Survey Question:*

***Are you limited in any way in any activities because of physical, mental, or emotional problems?***

Traditionally, the health status of persons with disabilities has been associated with medical care, rehabilitation services and long-term care financing according to *Healthy People 2020*. A number of health care professionals believe that these are misconceptions resulting in a lack of emphasis on health promotion that target people with disabilities and have led to an increase in secondary conditions such as social, emotional, family and community problems.

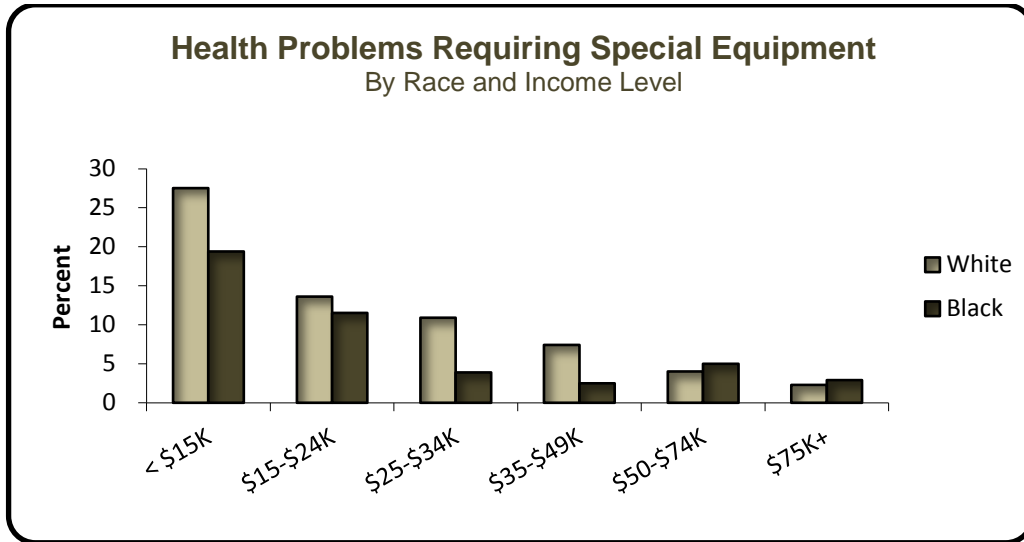


**Figure 30**

According to the Centers for Disease Control and Prevention (CDC), people who have activity limitations report having had more days of pain, depression, anxiety, and sleeplessness and fewer days of vitality during the previous month than people not reporting activity limitations. In view of the increased rates of disability, it is important to target activities and services that address all aspects of health and well-being, as well as providing access to medical care. For an older person with a disability, it is important to target conditions that may threaten their well-being.

There are few data systems that identify those with disabilities as a sub-population. Despite the paucity of data, some disparities between people with and without disabilities have been noted. These disparities include excess weight, reduced physical activity, increased stress, and less frequent mammograms for women over age 55 years with disabilities.

In the 2015 BRFSS survey, 24.2 percent of Mississippians reported that their activities were limited because of health. White respondents reported a rate of 24.5 percent while blacks reported a rate of 23.1 percent. Figure 30 reflects the fact that these limitations increase with age for both races. People over the age of 65 report a rate of 26.0 percent (25.0 for whites and 29.4 for blacks) but the 18-24 age group had a rate of only 8.3 percent (7.7 for whites and 7.9 for blacks).



**Figure 31**

Only 10.3 percent of the population has health problems that require special equipment such as a wheelchair, special bed, cane or special telephone. Figure 31 shows that those with lower incomes tend to require special equipment for health problems.



**Table 31: Activities Limited Due to Health Problems**

Groups	White		Black		Total	
	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
<b>Sex</b>						
Male	398	25.0	160	18.5	567	23.0
Female	775	29.1	405	22.9	1,198	26.6
<b>Age Group</b>						
18-24	19	12.5	6	6.2	27	11.0
25-34	34	13.3	20	9.3	54	11.1
35-44	57	18.7	38	16.8	98	18.4
45-54	158	31.7	110	31.2	270	31.3
55-64	300	39.5	197	35.4	507	38.4
65+	600	35.8	190	30.4	798	34.5
<b>Education</b>						
< High School Graduate	171	41.2	147	31.0	324	36.8
High School Graduate or GED	407	31.3	218	22.3	633	27.7
Some College or Technical School	320	23.3	130	15.6	456	20.6
College Graduate	270	17.9	69	12.0	346	16.3
<b>Income</b>						
< \$15,000	239	60.6	221	35.5	469	46.5
\$15-\$24,999	260	37.6	154	21.3	420	29.3
\$25-\$34,999	124	29.0	40	10.1	167	22.1
\$35-\$49,999	129	20.0	26	10.2	157	16.7
\$50-\$74,999	92	14.7	21	10.2	114	13.4
\$75,000+	114	13.5	17	10.0	132	13.2
<b>Employment Status</b>						
Employed	207	13.7	59	5.9	271	11.0
Not Employed	38	22.2	39	17.2	80	20.5
Student/Homemaker	102	19.3	23	11.9	129	17.4
Retired/Unable to Work	824	51.3	443	48.3	1,282	50.2
<b>Total</b>	<b>1,173</b>	<b>27.1</b>	<b>565</b>	<b>20.9</b>	<b>1,765</b>	<b>24.9</b>

<sup>1</sup>Unweighted

<sup>2</sup>Weighted

**Table32: Health Problems Requiring Special Equipment**

Groups	White		Black		Total	
	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
<b>Sex</b>						
Male	177	9.6	102	11.2	283	10.0
Female	349	10.5	257	10.5	617	10.5
<b>Age Group</b>						
18-24	3	2.3	1	0.5	4	1.4
25-34	4	1.8	4	2.6	8	2.1
35-44	18	5.4	12	5.7	30	5.4
45-54	52	11.6	51	14.1	104	12.5
55-64	82	11.4	114	18.5	201	14.1
65+	365	19.8	176	30.1	549	22.4
<b>Education</b>						
< High School Graduate	95	17.6	120	20.6	218	18.6
High School Graduate or GED	199	12.6	136	10.9	342	11.8
Some College or Technical School	124	7.5	66	6.1	192	7.0
College Graduate	104	5.4	36	4.4	143	5.1
<b>Income</b>						
< \$15,000	130	27.5	148	19.4	285	22.8
\$15-\$24,999	114	13.6	101	11.5	217	12.4
\$25-\$34,999	57	10.9	16	3.9	74	7.5
\$35-\$49,999	55	7.4	10	2.5	65	5.7
\$50-\$74,999	35	4.0	12	5.0	48	4.2
\$75,000+	26	2.3	7	2.9	33	2.3
<b>Employment Status</b>						
Employed	33	1.8	11	0.6	44	1.3
Not Employed	6	3.6	14	5.7	20	4.6
Student/Homemaker	41	4.5	9	4.1	51	4.4
Retired/Unable to Work	445	25.7	325	30.6	784	27.5
<b>Total</b>	<b>526</b>	<b>10.0</b>	<b>359</b>	<b>10.8</b>	<b>900</b>	<b>10.3</b>

<sup>1</sup>Unweighted

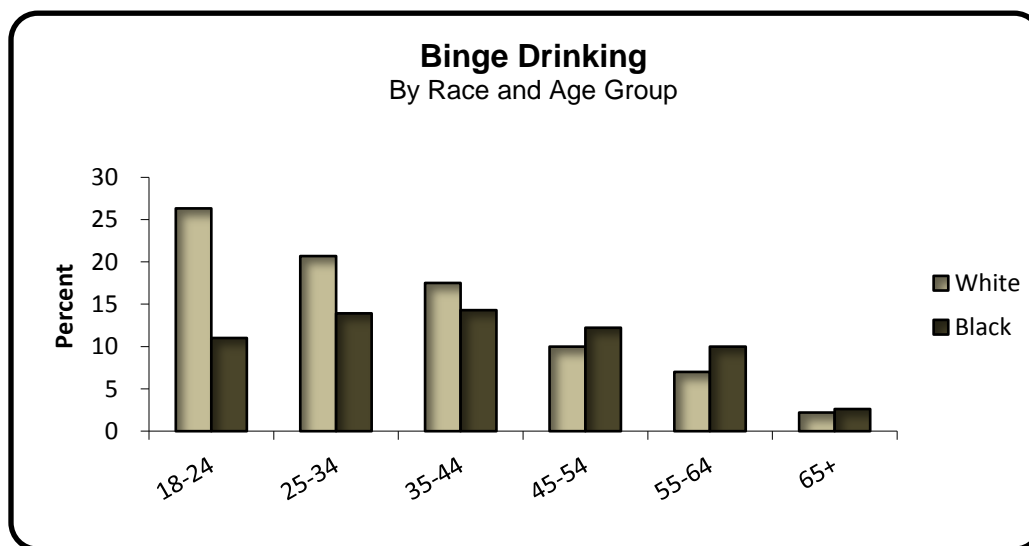
<sup>2</sup>Weighted

## Alcohol Consumption

*Survey Question:*

***Considering all types of alcoholic beverages, how many times during the past 30 days did you have 5 or more drinks on an occasion?***

Excessive drinking has consequences for virtually every part of the human body. The wide range of alcohol-induced disorders is due, among other factors, to differences in the amount, duration, and patterns of alcohol consumption, as well as differences in genetic vulnerability to particular alcohol-related consequences.



**Figure 32**

Alcohol use has been linked with a substantial proportion of injuries and deaths from motor vehicle crashes, falls, fires and drowning. It also is a factor in homicide, suicide, marital violence and child abuse and has been associated with high risk sexual behavior. Persons who drink even relatively small amounts of alcoholic beverages may contribute to alcohol-related death and injury in occupational incidents especially if they drink before operating a vehicle. In 2014 alcohol use was associated 34.1 percent of all motor vehicle crash fatalities, according to the Mississippi Office of Highway Safety.

White males 18 to 24 years of age continue to report the highest rates of binge drinking. In 2015 the rate for this group was 26.3 percent and represents a small decrease from 28.3 percent reported in the 2014 survey. White males age 25 to 34 reported a rate of 20.7 percent (Table 33).

Males were almost three times as likely to indulge in binge drinking as females. Only 6.2 percent of female respondents said they had five or more drinks on one occasion during the last thirty days compared to 18.2 percent for males.

**Table 33: At Risk From Binge Drinking**

Groups	White		Black		Total	
	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
<b>Sex</b>						
Male	176	18.4	78	17.6	260	18.2
Female	84	6.4	58	5.7	145	6.2
<b>Age Group</b>						
18-24	31	26.3	7	11.0	38	18.9
25-34	44	20.7	23	13.9	71	18.4
35-44	48	17.5	30	14.3	79	16.0
45-54	50	10.0	27	12.2	79	11.2
55-64	47	7.0	41	10.0	88	8.0
65+	39	2.2	8	2.6	49	2.4
<b>Education</b>						
< High School Graduate	16	11.7	20	9.2	39	10.8
High School Graduate or GED	62	9.8	46	12.7	109	10.8
Some College or Technical School	76	13.3	39	10.7	118	12.6
College Graduate	106	14.1	31	11.4	139	13.5
<b>Income</b>						
< \$15,000	21	9.1	29	9.0	51	8.9
\$15-\$24,999	30	11.1	39	11.8	71	11.3
\$25-\$34,999	24	7.6	17	10.7	43	9.8
\$35-\$49,999	29	14.0	12	15.8	42	14.8
\$50-\$74,999	38	11.2	5	4.9	44	10.0
\$75,000+	89	18.9	20	15.7	111	18.8
<b>Employment Status</b>						
Employed	161	16.9	79	14.3	246	16.2
Not Employed	15	20.7	16	13.1	31	16.1
Student/Homemaker	28	12.6	7	12.2	36	12.4
Retired/Unable to Work	53	3.4	34	5.1	89	4.0
<b>Total</b>	<b>260</b>	<b>12.2</b>	<b>136</b>	<b>11.1</b>	<b>405</b>	<b>11.9</b>

<sup>1</sup>Unweighted

<sup>2</sup>Weighted

Table 34: At Risk From Chronic Drinking

Groups	White		Black		Total	
	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
<b>Sex</b>						
Male	56	5.9	23	5.6	82	5.9
Female	68	3.6	29	2.6	100	3.4
<b>Age Group</b>						
18-24	10	9.4	3	3.5	13	6.5
25-34	10	4.7	6	3.9	18	4.7
35-44	14	5.6	11	4.8	26	5.3
45-54	24	4.8	13	6.4	39	5.8
55-64	27	4.1	14	2.8	41	3.6
65+	39	2.5	5	1.7	45	2.3
<b>Education</b>						
< High School Graduate	10	4.9	10	5.2	23	5.6
High School Graduate or GED	33	5.4	11	1.5	45	3.9
Some College or Technical School	36	4.6	16	4.4	53	4.6
College Graduate	45	4.0	15	6.6	61	4.6
<b>Income</b>						
< \$15,000	13	3.7	11	2.3	25	2.9
\$15-\$24,999	22	5.2	20	5.9	43	5.5
\$25-\$34,999	9	2.6	2	0.8	13	2.5
\$35-\$49,999	15	6.1	4	6.2	20	6.5
\$50-\$74,999	17	5.2	3	5.3	21	5.6
\$75,000+	37	6.3	9	6.4	46	6.2
<b>Employment Status</b>						
Employed	56	5.3	30	4.7	90	5.3
Not Employed	10	12.0	4	3.9	14	7.5
Student/Homemaker	15	4.6	3	6.2	19	5.1
Retired/Unable to Work	42	2.6	15	2.2	58	2.5
<b>Total</b>	124	4.7	52	3.9	182	4.5

<sup>1</sup>Unweighted

<sup>2</sup>Weighted

## HIV/AIDS

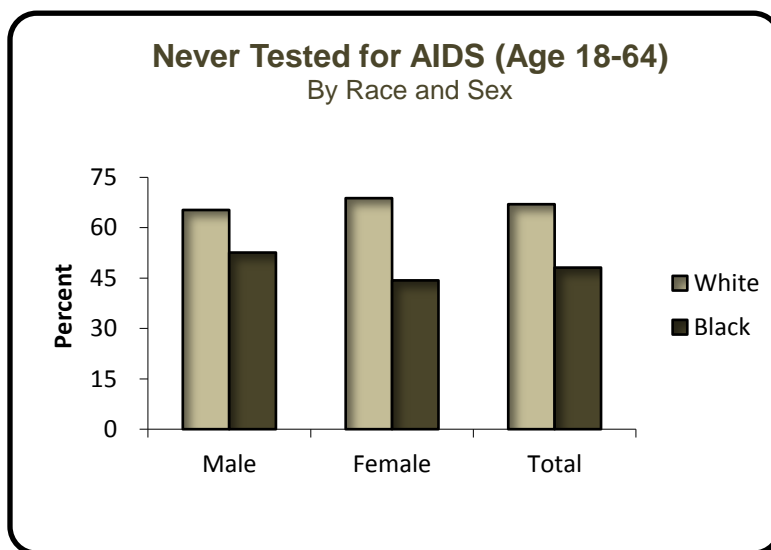
### *Survey Question:*

### ***Have you ever been tested for HIV?***

CDC estimates that nearly 1.15 million people in the United States are living with HIV infection. One in five of those people are unaware of their infection. Despite increases in the total number of people in the U.S. living with HIV infection in recent years (due to better testing and treatment options), the annual number of new HIV infections has remained relatively stable. However, new infections continue at far too high of a level, with approximately 50,000 Americans becoming infected with HIV each year.

In 2014, an estimated 20,896 people were diagnosed with HIV infection in the United States. An estimated 12,963 people with AIDS died in 2014, and nearly 1,210,835 people with AIDS in the U.S. have died since the epidemic began.

In 2015, Mississippi reported 370 new cases of HIV Disease and 177 new cases of AIDS. As of December 31, 2015 there 5,330 people in Mississippians living with the HIV infection and 5,146 living with AIDS for a total of total 10,473 with HIV,



**Figure 33**

Questions about HIV and AIDS were only asked of persons between the ages of 18 and 64. One of the questions was whether the respondent had ever been tested for the AIDS virus. In 2015, 59.4 percent of the respondents reported that they had never been tested. White respondents were much more likely to have never been tested than blacks: 60.0 percent to 48.1 percent. The rate for white respondents who have never been tested was 65.2 percent for males and 68.8 percent for females. For blacks, the rates were 52.6 percent for males and 44.3 for females (Figure 33 and Table 35).

**Table 35: Never Tested for AIDS: Age 18-64**

Groups	White		Black		Total	
	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
<b>Sex</b>						
Male	919	65.2	309	52.6	1,241	60.0
Female	1,673	68.8	782	44.3	2,484	58.9
<b>Age Group</b>						
18-24	76	62.3	42	51.1	121	56.3
25-34	122	48.5	47	26.3	173	37.8
35-44	149	50.3	56	25.1	209	39.9
45-54	291	61.2	160	55.1	456	58.7
55-64	560	74.3	319	64.7	891	70.8
<b>Education</b>						
< High School Graduate	266	67.0	265	56.8	540	61.3
High School Graduate or GED	831	72.1	387	54.6	1,228	64.7
Some College or Technical School	692	63.1	233	41.4	933	54.6
College Graduate	795	66.3	202	32.3	1,012	57.4
<b>Income</b>						
< \$15,000	260	66.6	298	46.2	565	54.6
\$15-\$24,999	440	62.6	289	51.2	737	56.5
\$25-\$34,999	256	61.1	108	40.6	371	51.0
\$35-\$49,999	315	68.6	84	45.9	400	60.6
\$50-\$74,999	296	67.9	59	31.4	359	58.9
\$75,000+	522	67.5	60	35.3	585	62.4
<b>Employment Status</b>						
Employed	847	60.9	308	38.1	1,170	51.7
Not Employed	70	64.3	70	42.0	143	52.5
Student/Homemaker	251	68.2	56	56.1	312	63.7
Retired/Unable to Work	1,417	76.2	654	63.9	2,090	71.6
<b>Total</b>	<b>2,592</b>	<b>67.0</b>	<b>1,091</b>	<b>48.1</b>	<b>3,725</b>	<b>59.4</b>

<sup>1</sup>Unweighted

<sup>2</sup>Weighted

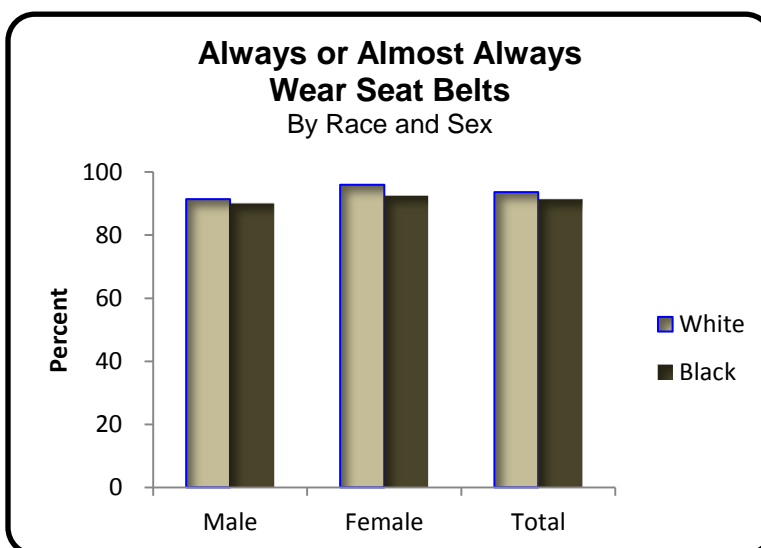
## Seat Belt Usage

*Survey Question:*

***How often do you use seat belts when you drive or ride in a car?  
Would you say always, nearly always, sometimes, seldom or never?***

The Centers for Disease Control and Prevention reports that motor vehicle-related injuries cause more fatalities among children and young adults than any other single cause in the United States. According to the National Highway Traffic Safety Administration (NHTSA) in the United States during 2014, safety belts saved the lives of an estimated 12,802 people over five years of age. If all passenger vehicle occupants over age 4 had worn seat belts, an additional 2,814 lives could have been saved.

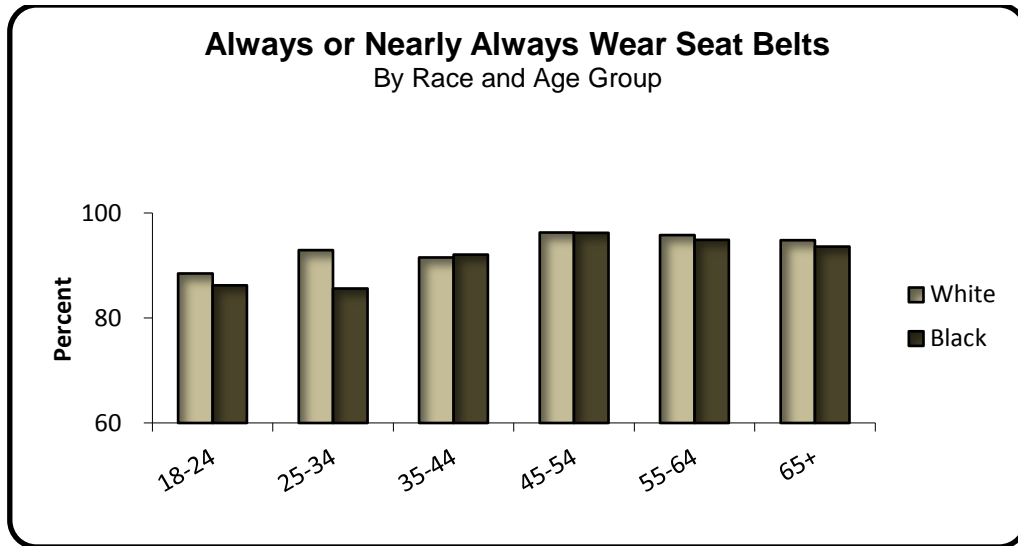
The NHTSA further reports that seat belts reduce the risk of fatal injury to front-seat passenger car occupants by 45 percent and the risk of moderate-to-critical injury by 50 percent. For light-truck occupants, seat belts reduce the risk of fatal injury by 60 percent and moderate-to-critical injury by 65 percent. Ejection from the vehicle is one of the most injurious events that can happen to a person in a crash. Seat belts are effective in preventing total ejections: only one percent of the occupants reported to have been using restraints were totally ejected, compared with 30 percent of the unrestrained occupants.



**Figure 34**

During 2012 there were 6,247 serious traffic injuries in Mississippi and 22.4 percent of these, were not using safety belts. Fatalities among passengers ages 16 to 20 were unbelted at an astounding rate of 77 percent. There were 463 drivers who sustained life-threatening injuries. Also, there were 4,112 drivers with moderate injuries and 23.9 percent of those were unbelted. Moreover, 13,840 drivers sustained minor injuries; 93 percent of those were belted. The Mississippi Department of Highway Safety concludes that seat belts save lives and reduce injury.





**Figure 35**

The 2015 BRFSS survey in Mississippi revealed that 92.9 of the respondents say that they always or nearly always wear a seat belt when they either drive or ride in a car. Females report that they use seat belts more often than men. Women had a usage rate of 94.6 percent compared to 90.9 percent for men (Figure 34). Younger respondents reported a higher rate of non-usage than older respondents. In the 18 to 24 age group, 87.9 percent said that they always or nearly always use seat belts while those 65 years and older reported a rate of 94.5 percent (Figure 35).

**Table 36: Always or Nearly Always Wear Seat Belts**

Groups	White		Black		Total	
	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
<b>Sex</b>						
Male	1,254	91.4	528	90.0	1,809	90.9
Female	2,177	96.0	1,306	92.4	3,531	94.6
<b>Age Group</b>						
18-24	111	88.5	75	86.2	192	87.9
25-34	238	92.9	167	85.6	417	89.6
35-44	296	91.5	225	92.1	532	91.9
45-54	474	96.3	310	96.2	794	96.3
55-64	730	95.8	478	94.9	1,224	95.5
65+	1,569	94.8	567	93.6	2,154	94.5
<b>Education</b>						
< High School Graduate	321	90.7	369	91.8	704	91.0
High School Graduate or GED	1,021	92.9	619	92.0	1,659	92.7
Some College or Technical School	973	93.9	435	89.1	1,424	92.3
College Graduate	1,105	96.6	407	93.7	1,538	95.9
<b>Income</b>						
< \$15,000	362	93.9	462	88.2	834	90.1
\$15-\$24,999	568	92.7	472	92.2	1,055	92.6
\$25-\$34,999	351	93.8	205	92.9	566	93.7
\$35-\$49,999	405	93.9	155	84.6	567	91.0
\$50-\$74,999	410	94.5	136	97.1	553	95.2
\$75,000+	724	94.7	133	96.4	865	95.0
<b>Employment Status</b>						
Employed	1,258	93.2	676	92.1	1,968	93.0
Not Employed	108	92.4	130	84.6	243	88.5
Student/Homemaker	340	96.2	96	84.7	446	92.8
Retired/Unable to Work	1,714	93.8	924	94.1	2,664	93.6
<b>Total</b>	<b>3,431</b>	<b>93.7</b>	<b>1,834</b>	<b>91.3</b>	<b>5,340</b>	<b>92.9</b>

<sup>1</sup>Unweighted

<sup>2</sup>Weighted

## Depression

*Survey Question:*

***Has a doctor, nurse, or other health professional ever told you that you a depressive disorder?***

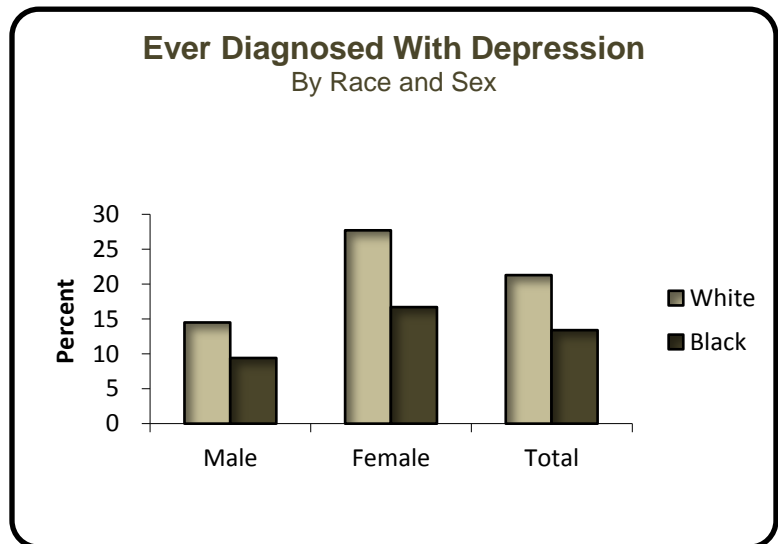
The CDC states that depression is characterized by depressed or sad mood, diminished interest in activities which used to be pleasurable, weight gain or loss, psychomotor agitation or retardation, fatigue, inappropriate guilt, difficulties concentrating, as well as recurrent thoughts of death. Diagnostic criteria established by the American Psychiatric Association dictate that five or more of the above symptoms must be present for a continuous period of at least two weeks. As an illness, depression falls within the spectrum of affective disorders.

Depression poses a substantial burden globally and also to the individual suffering from the disorder. Research has found that interpersonal relationships are particularly likely to suffer when someone is depressed, and data suggest that few families or networks of friends are likely to remain unaffected by depression.

The urgency of the rate of depression to public health is likely compounded by the recognition that, if not effectively treated, depression is likely to lapse into a chronic disease. Experiencing just one episode of depression places the individual at a 50 percent risk for experiencing another, with subsequent episodes raising the likelihood of experiencing more episodes in the future.

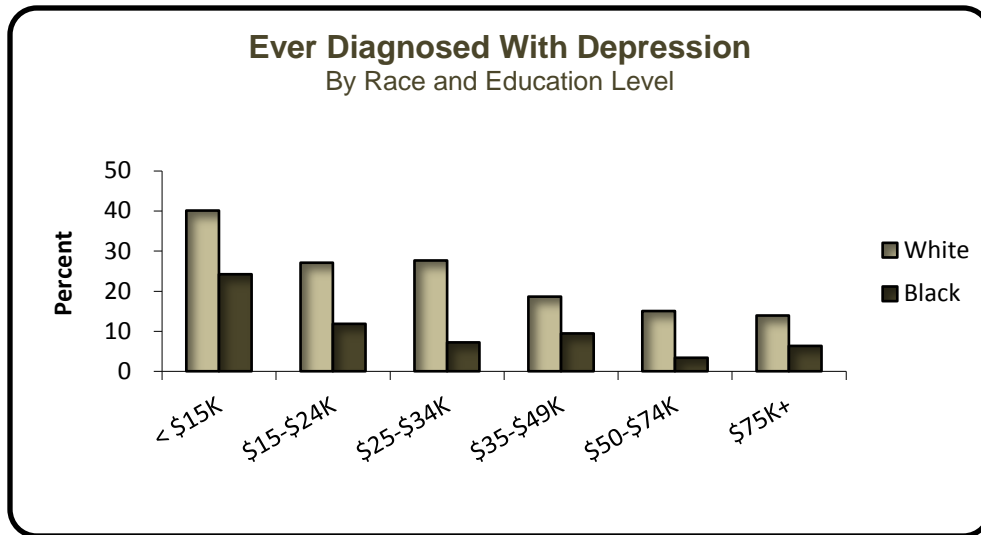
Major depression frequently goes unrecognized and untreated and may foster tragic consequences, such as suicide and impaired interpersonal relationships at work and at home. The use of medications and/or specific psychotherapeutic techniques has proven very effective in the treatment of major depression, but the condition is still misconstrued as a sign of weakness, rather than recognized as an illness.

With respect to depressive disorders, 18.3 percent of those surveyed said they had been diagnosed with this condition. Women reported a much higher rate than men. Females reported



**Figure 36**

a rate of 23.3 percent compared to only 12.9 percent for males (Figure 36). Similarly, the respondents in lower income categories reported higher rates of diagnosed depression than those in the upper income groups. The group with the highest rate of depression was white respondents whose income was less than \$15 thousand annually with a rate of 40.1 percent (Figure 37 and Table 37).



**Figure 37**

Table 37: Ever Diagnosed With Depression

Groups	White		Black		Total	
	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
<b>Sex</b>						
Male	186	14.5	69	9.4	261	12.9
Female	584	27.7	235	16.7	832	23.3
<b>Age Group</b>						
18-24	22	18.3	5	6.6	27	12.7
25-34	52	16.9	23	11.6	78	15.0
35-44	89	28.2	39	16.3	131	23.5
45-54	127	25.0	74	20.3	204	23.2
55-64	202	24.9	86	14.2	293	21.2
65+	276	16.3	74	10.2	355	14.7
<b>Education</b>						
< High School Graduate	92	30.0	82	22.8	180	26.6
High School Graduate or GED	257	22.1	112	12.6	374	18.4
Some College or Technical School	220	19.3	64	8.8	291	15.6
College Graduate	198	17.3	45	9.6	244	15.0
<b>Income</b>						
< \$15,000	136	40.1	116	24.2	259	31.1
\$15-\$24,999	169	27.1	82	11.8	257	19.9
\$25-\$34,999	89	27.6	19	7.2	109	18.6
\$35-\$49,999	83	18.6	15	9.4	100	15.6
\$50-\$74,999	67	15.0	8	3.4	75	11.9
\$75,000+	104	13.9	9	6.3	114	13.0
<b>Employment Status</b>						
Employed	214	15.8	60	7.7	279	12.8
Not Employed	39	31.6	27	17.9	67	23.8
Student/Homemaker	71	18.2	13	7.2	86	15.2
Retired/Unable to Work	442	28.8	203	22.6	656	26.7
<b>Total</b>	<b>770</b>	<b>21.3</b>	<b>304</b>	<b>13.4</b>	<b>1,093</b>	<b>18.3</b>

<sup>1</sup>Unweighted

<sup>2</sup>Weighted

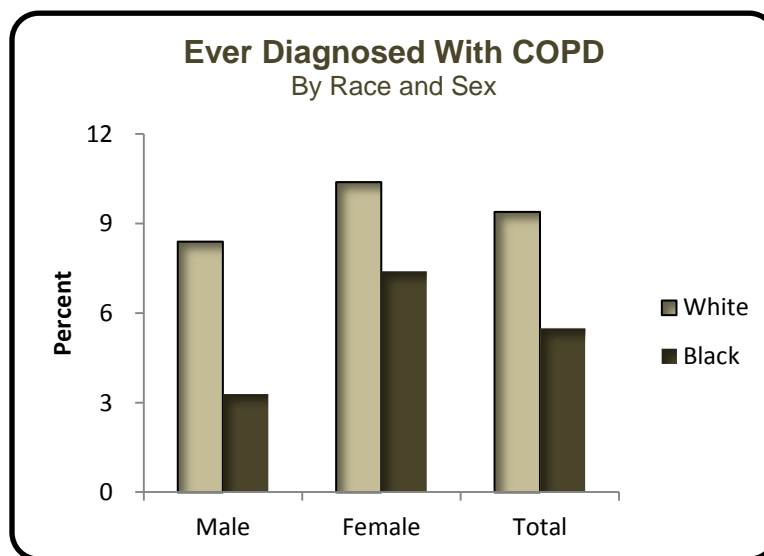
## Chronic Obstructive Pulmonary Disease (COPD)

*Survey Question:*

***Has a doctor, nurse, or other health professional ever told you that you had COPD, emphysema or chronic bronchitis?***

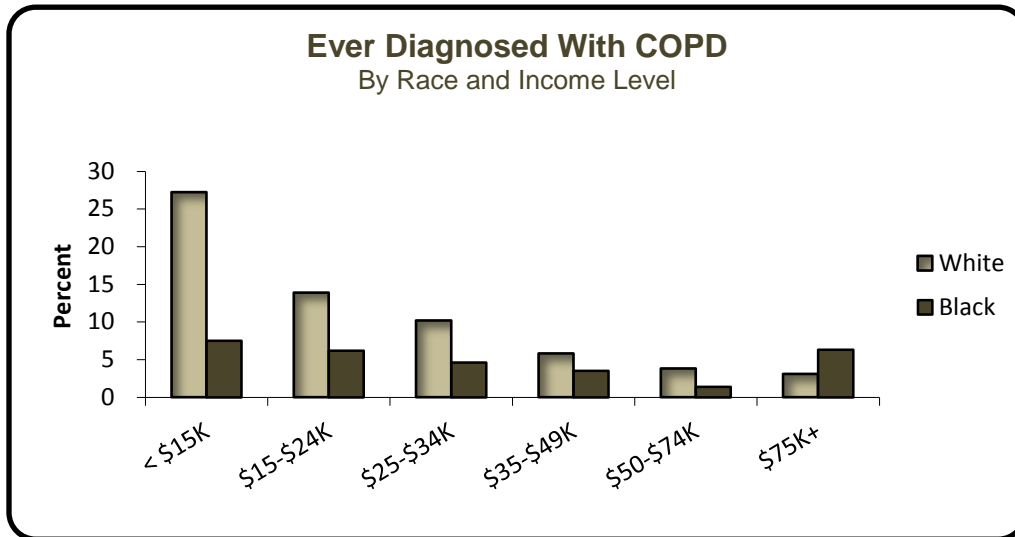
Chronic Obstructive Pulmonary Disease, or COPD, refers to a group of diseases that cause airflow blockage and breathing-related problems. It includes emphysema, chronic bronchitis, and in some cases asthma.

COPD is the fourth leading cause of death in the United States. The disease kills more than 120,000 Americans each year, which is one death every four minutes, and causes serious, long-term disability. The number of people with COPD is increasing. The CDC reports that more than 12 million people are diagnosed with COPD and that an additional 12 million are affected without knowing it.



**Figure 38**

In the 2015 BRFSS survey, Mississippians reported a rate of diagnosed COPD at 7.9 percent which translates into almost 178,000 Mississippians with the disease. For whites the rate was 9.4 percent while blacks reported a rate of 5.5 percent. By gender category, white females reported the highest rate of COPD with a rate of 10.4 percent; next were white males with a rate of 8.4 percent followed by black females at 7.4 percent. Black males were the lowest with a rate of 3.3 percent (Figure 38).



**Figure 39**

The survey revealed that the rate of COPD increased as annual income levels decreased. The category reporting the highest rate of COPD was white respondents who have less than \$15,000 in annual income with a rate 27.2 percent followed by whites who earn between \$15,000 and \$25,000 annually with a rate of 13.9 percent. Additional details can be found in Table 38 and Figure 39.

As can also be seen from Table 38, trends are evident with respect to age groups. COPD rates are low in the younger respondents and higher in the older respondents. The same is true for levels of education. Those who have completed more years of education report lower rates of COPD than those with fewer years of education.

**Table 38: Ever Diagnosed With COPD**

Groups	White		Black		Total	
	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
<b>Sex</b>						
Male	125	8.4	32	3.3	159	6.4
Female	280	10.4	120	7.4	407	9.2
<b>Age Group</b>						
18-24	4	4.8	2	4.0	6	4.3
25-34	6	2.8	5	2.6	11	2.6
35-44	11	3.3	14	4.6	25	3.8
45-54	61	11.6	29	7.0	92	9.8
55-64	116	15.9	47	8.6	165	13.3
65+	205	13.1	55	7.8	264	11.7
<b>Education</b>						
< High School Graduate	80	19.8	40	7.3	123	13.4
High School Graduate or GED	147	10.6	66	5.2	216	8.3
Some College or Technical School	108	7.5	26	5.3	136	6.7
College Graduate	68	3.8	20	3.6	89	3.7
<b>Income</b>						
< \$15,000	97	27.2	55	7.5	157	15.7
\$15-\$24,999	93	13.9	42	6.2	136	9.8
\$25-\$34,999	46	10.2	14	4.6	60	7.4
\$35-\$49,999	37	5.8	6	3.5	44	5.1
\$50-\$74,999	26	3.8	5	1.4	31	3.1
\$75,000+	33	3.1	7	6.3	40	3.5
<b>Employment Status</b>						
Employed	65	4.2	23	2.5	88	3.4
Not Employed	14	12.3	13	8.9	27	10.2
Student/Homemaker	32	6.2	3	4.5	35	5.6
Retired/Unable to Work	294	18.3	113	9.5	416	15.1
<b>Total</b>	<b>405</b>	<b>9.4</b>	<b>152</b>	<b>5.5</b>	<b>566</b>	<b>7.9</b>

<sup>1</sup>Unweighted

<sup>2</sup>Weighted

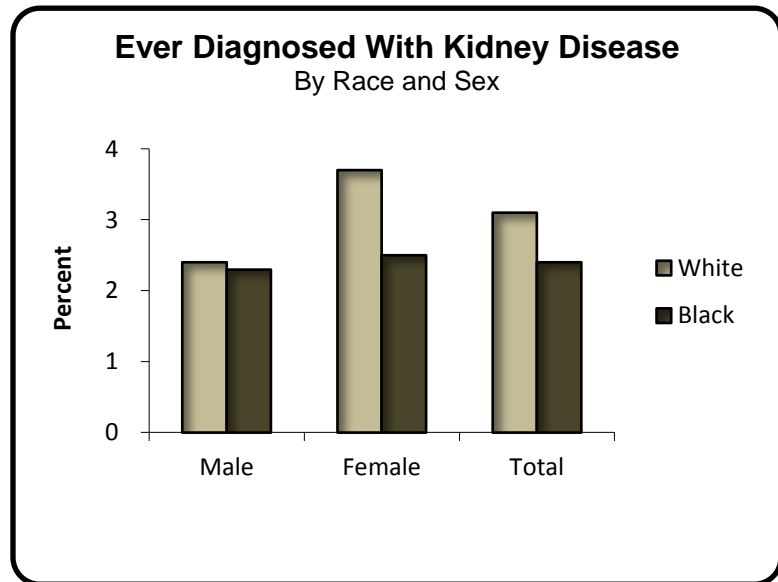


## Kidney Disease

*Survey Question:*

***Has a doctor, nurse, or other health professional ever told you that you have kidney disease?***

Chronic kidney disease (CKD) is a condition in which the kidneys are damaged and cannot filter blood adequately. This damage can cause wastes to build up in the body and lead to other health problems, including cardiovascular disease (CVD), anemia, and bone disease. People with early CKD tend not to feel any symptoms. The only ways to detect CKD are through a blood test to estimate kidney function, and a urine test to assess kidney damage. CKD is usually an irreversible and progressive disease and can lead to kidney failure, also called End Stage Renal Disease, over time if it is not treated. Once detected, CKD can be treated through medication and lifestyle changes to reduce the disease progression, and to prevent or delay the onset of kidney failure. However, the only treatment options for kidney failure are dialysis or a kidney transplant.



**Figure 41**

The CDC reports the following facts about CKD: 1) is common among adults in the United States; 2) More than 10 percent of people, or more than 20 million, aged 20 years or older in the United States have CKD; 3) CKD is more common among women than men; 4) more than 35 percent of people aged 20 years or older with diabetes have CKD; and 5) more than 20 percent of people aged 20 years or older with hypertension have CKD.

Adults with diabetes or hypertension are at an increased risk of developing CKD. Other risk factors for developing CKD include CVD, obesity, elevated cholesterol, and a family history of CKD. The risk of developing CKD increases with age largely because risk factors for kidney disease become more common as one ages.

In Mississippi the 2015 BRFSS survey revealed that 2.9 percent of the respondents said they have been diagnosed with kidney disease. Whites reported a rate of 3.1 percent while blacks had a rate of 2.4 percent.

As is true on the national level, the rate for Mississippi females is higher than the rate for males. White females reported a 35 percent higher rate than white males: 3.7 percent to 2.4 percent. For blacks, females reported a rate of 2.5 percent while black males had a rate of 2.3 percent.

**Table 39: Ever Diagnosed With Kidney Disease**

Groups	White		Black		Total	
	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
<b>Sex</b>						
Male	45	2.4	26	2.3	73	2.4
Female	107	3.7	55	2.5	165	3.3
<b>Age Group</b>						
18-24	0	0.0	0	0.0	0	0.0
25-34	3	0.8	1	0.5	4	0.7
35-44	7	2.7	2	1.0	10	2.3
45-54	15	2.9	15	4.6	30	3.5
55-64	19	2.4	25	4.5	45	3.2
65+	108	6.9	37	4.9	148	6.6
<b>Education</b>						
< High School Graduate	29	4.5	21	4.3	52	4.5
High School Graduate or GED	51	4.0	34	2.5	86	3.4
Some College or Technical School	38	2.0	12	0.8	52	1.7
College Graduate	34	2.6	14	2.8	48	2.5
<b>Income</b>						
< \$15,000	30	6.9	35	4.7	68	5.9
\$15-\$24,999	29	3.4	17	1.8	47	2.6
\$25-\$34,999	19	3.2	8	2.1	27	2.6
\$35-\$49,999	12	2.6	0	0.0	12	1.7
\$50-\$74,999	10	1.8	3	1.0	13	1.6
\$75,000+	20	1.8	4	2.0	25	2.1
<b>Employment Status</b>						
Employed	25	1.5	5	0.3	30	1.0
Not Employed	8	3.6	4	0.6	12	1.9
Student/Homemaker	10	1.5	2	1.4	13	2.0
Retired/Unable to Work	109	6.0	70	6.5	183	6.4
<b>Total</b>	<b>152</b>	<b>3.1</b>	<b>81</b>	<b>2.4</b>	<b>238</b>	<b>2.9</b>

<sup>1</sup>Unweighted

<sup>2</sup>Weighted