

2012 Behavioral Risk Factor Surveillance Survey Mississippi Annual Prevalence Report

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## Introduction

It is generally agreed among health care professionals that certain conditions and behavior patterns are associated with disease, injury and death. Some examples are cigarette smoking, physical inactivity, obesity, alcohol consumption and risky sexual behavior. The Behavioral Risk Factor Surveillance System (BRFSS) is a telephone survey designed to estimate the prevalence of these and other health risk factors in all states in the United States. The results provide a tool for evaluating health trends, assessing the risk of chronic disease, along with 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. The first survey was completed 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, lifestyle, preventive health and chronic health conditions. Individual states are allowed to include optional module questions addressing specific issues that may be of particular interest 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 which according to the United States Census Bureau, Housing and Household Economic Statistics Division is approximately 94.5 percent. A sample size of 7,788 interviews over a 12-month period was selected to obtain 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 land line phones. But the number of households with only cell phones increased by more than 700 percent between 2003 and 2009. Approximately three in ten American homes now have only cellular telephones; in Mississippi the rate is 35.1 percent. This trend has been especially strong among younger adults and those in social and ethnic minority groups. The 2012 Mississippi BRFSS has approximately 80 percent land line and 20 percent cell phone households in the survey.

For land line 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.

#### **B. QUESTIONNAIRE**

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

#### C. DATA ANALYSIS

The other significant change that has been introduced to the BRFSS is a new 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. The new weighting methodology began with the 2011 survey.

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. Inclusion of these additional variables in the weighting process will allow the survey to 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 2010 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 percentage 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 data.

#### E. SAMPLE SIZE

In the 2012 BRFSS, 7,788 people were sampled: 6,243 landline surveys and 1,545 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 actually 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 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 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 two drinks per day and female respondents who report having more than one drink per day during the past thirty days.

*Drinking and Driving* - Respondents who report they have driven a vehicle after they have had too much to drink

#### Arthritis

*Diagnosed with Arthritis* - Respondents who report they have been diagnosed with arthritis by a health care professional.

#### Asthma

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

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

#### **Breast Cancer Screening**

*Mammogram and Clinical Breast Examination (CBE)* - Female respondents, age 40 and older, who report they have ever had a mammogram and a CBE.

*Mammogram and CBE within 2 year* - Female respondents, age 40 and older, who report they have had a mammogram and a CBE within the last two years.

*Mammogram and CBE within 2 years* - Female respondents, age 50 and older, who report they have had a mammogram and a CBE within the last two years.

#### Cancer

*Skin Cancer* - Respondents who report being diagnosed with skin cancer by a health care professional.

*Other Cancer* - Respondents who report being diagnosed with cancer other than skin cancer by a health care professional.

#### Cervical Cancer Screening

*Pap Smear* - Female respondents, age 18 and older, who have not had a hysterectomy and who report they have ever had a pap smear.

*Pap Smear Within 3 Years* - Female respondents, age 18 and older, who have not had a hysterectomy and who report they have a pap smear within the last three years.

#### **Colorectal Cancer Screening**

*Colonoscopy or Sigmoidoscopy* - Respondents age 50 and older who report they have ever had a sigmoidoscopy or colonoscopy test.

*Blood Stool Test* - Respondents age 50 and older who report they have not had a blood stool test in the past two years.

#### Cardiovascular Disease

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

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

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

#### Chronic Obstructive Pulmonary Disease (COPD)

*COPD* - Respondents who report ever being diagnosed with COPD by a health care professional.

#### Diabetes

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

#### 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.

#### Falls

*Falls* - Respondents, age 45 and older, who report they have sustained one or more falls in the past twelve months.

*Injury From Falls* - Respondents, age 45 and older, who report that the fall limited their regular activities for at least one day or required them to see a doctor.

#### Health Insurance

*Health Care Coverage* - Respondents age 18 to 64 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 who were unable because of the cost.

#### Health Status

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

#### Healthy Days

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

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

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

#### HIV/AIDS

*Never Tested for HIV* - Respondents age 18 to 64 who report they have never been tested for HIV, excluding tests done as part of a blood donation.

*High Risk Behavior* - Respondents age 18 to 64 who report 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.

#### Immunization

*Flu Shots* - Respondents who report they received a flu shot or the flu spray vaccine within the last twelve months.

*Pneumonia Shots* - Respondents who report they have ever received a pneumonia shot.

#### Kidney Disease

*Kidney Disease* - Respondents who report being diagnosed with kidney disease other than kidney stones, bladder infections or incontinence.

#### Mental Health

*Depression Disorder* - Respondents who report they have ever been diagnosed with a *depressive disorder*.

#### Oral Health

*Permanent Teeth Extracted* - Respondents who report they have had at least one of their permanent teeth extracted excluding extraction because of injury or orthodontics.

*Dental Visits* - Respondents who report that their last visit to a dentist was more than one year ago.

#### **Prostate Cancer**

*Prostate Cancer Screening* - Males, age 40 and older, who report they have ever had a prostate specific antigen (PSA) test.

#### Seat Belt Use

Seat Belt Usage - Respondents who report always or nearly always wearing 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. The Healthy People 2020 Objective is  $\leq 12\%$ .

#### Vision Impairment

*Vision Impairment* – Respondents who report trouble seeing even when wearing glasses or contact lenses.

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

*Healthy Weight:* - Respondents whose body mass index (BMI) is  $18.5 \le BMI < 25$ . This measures Healthy People 2020 Objective 19.1 - Target  $\ge 60\%$ .

*Overweight* - Respondents whose body mass index (BMI) is  $25.0 \le BMI < 30$ .

*Obese* - Respondents whose body mass index (BMI)  $\geq$ 30.0. This measures Healthy People 2020 Objective 19.2 - Target  $\leq$ 15%

Survey Results

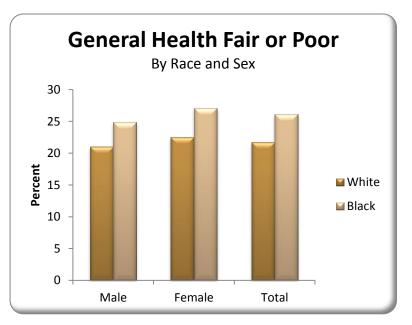
Mississippi Behavioral Risk Factor Surveillance Survey 2012

## **Health Status**

#### **Survey Question**

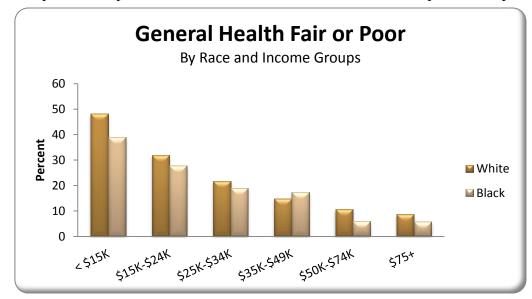
Would you say that in general your health is excellent, very good, good, fair, or poor?

The general health questions in the survey attempt to determine how people view 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.



#### Figure 1

Both white and black females reported their health as worse than males (Figure 1). Black respondents report their health as worse than whites. Black respondents reported



**Figure 2** Mississippi Behavioral Risk Factor Surveillance Survey 2012

fair or poor health at a rate of 26.1 percent compared to 21.7 percent for whites. Older respondents reported fair or poor health at a much higher rate than the younger ones. Persons in the 18 to 24 age group reported a rate of 7.2 percent while those more than 65 years of age reported a rate of 36.9 percent (Table 1).

	White Black		Black Total		tal	
Groups	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
Sex						
Male	484	21.0	276	24.9	781	22.6
Female	845	22.5	652	27.1	1,525	24.1
Age Group						
18-24	11	7.8	12	6.9	23	7.2
25-34	32	9.9	47	14.7	83	12.6
35-44	42	10.8	73	19.4	118	14.5
45-54	194	26.3	189	33.9	387	28.8
55-64	323	31.1	278	46.7	619	36.8
65+	718	33.6	325	47.7	1,062	36.9
Education						
< High School Graduate	331	43.9	366	42.2	712	43.4
High School Graduate or GED	510	24.9	319	25.8	845	25.3
Some College or Technical School	310	16.8	150	16.8	472	16.8
College Graduate	174	8.7	93	14.0	273	9.9
Income						
< \$15,000	308	48.2	397	39.0	721	42.0
\$15-\$24,999	323	32.0	243	27.8	579	30.4
\$25-\$34,999	146	21.7	70	19.0	219	20.7
\$35-\$49,999	100	14.8	44	17.3	147	15.6
\$50-\$74,999	85	10.6	17	5.9	103	9.5
\$75,000+	94	8.7	8	5.7	104	8.5
Employment Status						
Employed	237	10.4	200	15.2	442	12.2
Not Employed	47	19.7	69	21.5	119	20.9
Student/Homemaker	115	18.4	46	10.5	162	15.5
Retired/Unable to Work	927	44.0	608	55.2	1,575	48.2
Total	1,329	21.7	928	26.1	2,306	23.4

#### Table 1 General Health Fair or Poor

<sup>1</sup>Unweighted

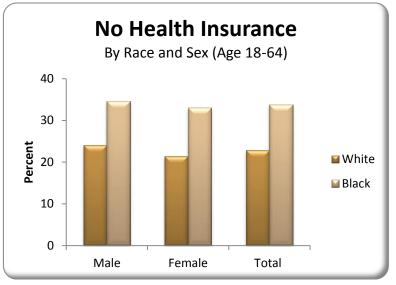
## Health Care Coverage

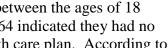
#### **Survey Question**

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. The survey limits this question to those between the ages of 18 and 64 since most people age 65 and older have some kind of health insurance coverage.

In 2012, 21.6 percent of the between the ages of 18 and 64 indicated they had no health care plan. According to





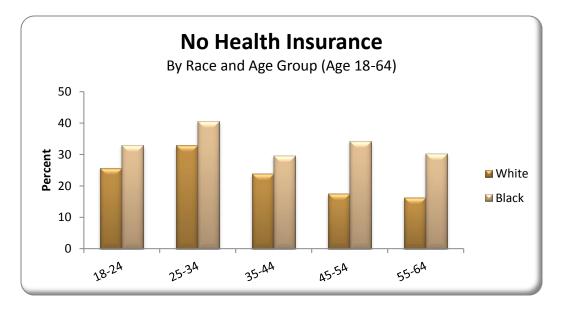
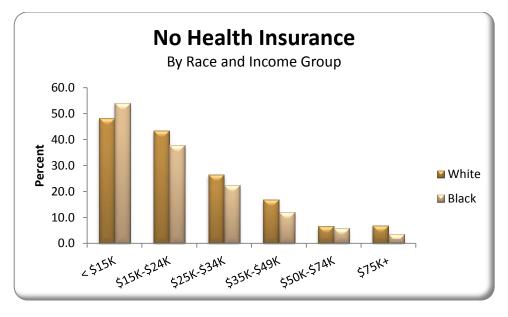


Figure 3

#### Figure 4

Mississippi Behavioral Risk Factor Surveillance Survey 2012

the survey, black males have the highest rate of non-coverage at 34.6 percent; black females were next at 33.1 percent (Figure 3). When viewed by levels of income, more than half of those with an annual household income of less than \$15,000 had no type of health insurance. Blacks in this category reported a rate of 54.1 percent while whites making less than \$15,000 per year reported a rate of 48.3 percent (Figure 5).





With respect to age groups, blacks age 25-34 reported the highest rate non-coverage at 40.6 percent. Almost half (47.9 percent) of blacks with less than a high school education reported having no health care coverage (Table 2).

	White		Bla	ick	Total	
Groups	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
Sex						
Male	226	24.1	185	34.6	427	28.5
Female	300	21.4	381	33.1	692	26.1
Age Group						
18-24	46	25.7	56	32.9	105	29.5
25-34	102	32.9	92	40.6	203	36.7
35-44	89	23.8	90	29.6	183	25.5
45-54	129	17.5	156	34.2	290	23.7
55-64	160	16.3	172	30.3	338	21.2
Education						
< High School Graduate	102	41.5	142	47.9	248	45.0
High School Graduate or GED	198	27.9	238	37.2	445	31.8
Some College or Technical School	144	20.2	131	28.8	284	23.6
College Graduate	79	8.1	54	12.0	138	9.3
Income						
< \$15,000	107	48.3	235	54.1	351	52.0
\$15-\$24,999	144	43.4	183	37.8	334	40.5
\$25-\$34,999	68	26.4	47	22.4	119	24.5
\$35-\$49,999	50	16.9	19	12.0	70	15.1
\$50-\$74,999	32	6.6	7	5.9	40	6.7
\$75,000+	30	6.9	5	3.5	36	6.4
Employment Status						
Employed	289	21.1	275	29.6	578	24.5
Not Employed	105	58.2	145	61.9	255	60.5
Student/Homemaker	68	25.3	45	34.7	118	27.8
Retired/Unable to Work	64	11.8	98	23.3	165	16.8
Total	526	22.8	566	33.8	1,119	27.3

#### Table 2 Have No Health Care Coverage

<sup>1</sup>Unweighted

	Wh	ite	Bla	ick	То	tal
Groups	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
Sex						
Male	204	14.9	185	21.9	401	17.7
Female	469	21.0	517	32.8	1,010	25.4
Age Group						
18-24	34	22.8	40	19.6	78	22.0
25-34	86	22.0	102	31.6	191	25.8
35-44	102	24.6	106	32.0	215	27.6
45-54	179	25.4	180	33.7	364	28.2
55-64	176	16.4	184	32.2	371	22.1
65+	92	4.5	89	12.7	187	6.4
Education						
< High School Graduate	157	35.2	198	30.8	362	33.3
High School Graduate or GED	247	19.0	253	31.0	510	23.3
Some College or Technical School	160	15.2	155	25.1	327	18.9
College Graduate	105	8.7	95	19.1	207	11.3
Income						
< \$15,000	157	41.7	302	46.1	472	44.4
\$15-\$24,999	179	27.3	214	31.2	404	29.5
\$25-\$34,999	72	18.4	48	16.8	123	17.8
\$35-\$49,999	58	15.2	29	12.2	89	14.1
\$50-\$74,999	55	11.3	10	5.8	65	10.1
\$75,000+	35	6.2	6	3.3	43	6.1
Employment Status						
Employed	289	16.3	287	25.0	586	19.5
Not Employed	86	46.4	119	42.8	209	44.6
Student/Homemaker	62	17.7	41	21.3	108	18.8
Retired/Unable to Work	234	15.7	251	27.2	502	19.9
Total	673	18.1	702	27.7	1,411	21.7

#### Table 3 Unable to See Doctor in Past 12 Month Because of Cost

<sup>1</sup>Unweighted

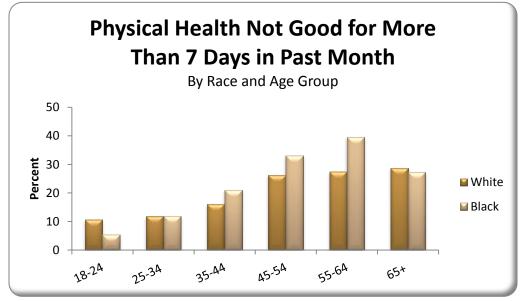
## **Healthy Days**

#### **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?

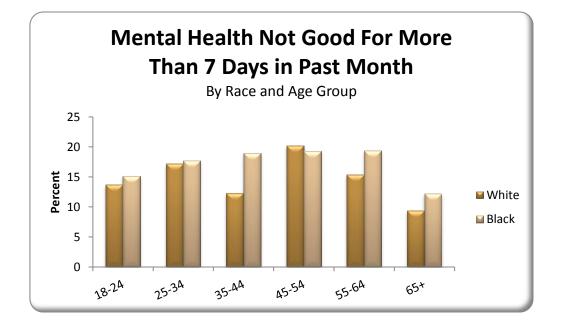
In both public and private medicine, the concept of health-related quality of life refers to the physical and mental health perceived by a person or a group of persons. Health care professionals have often used health-related quality of life to measure the effects of chronic illness in patients to better understand how an illness interferes with the day-to-day life activities of an individual.



#### Figure 6

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.

In Mississippi, the 2012 BRFSS survey showed that days of poor physical health tends to increase with age while the bad days of poor mental health were more evenly distributed. Table 4 shows that people in the 55 to 64 age category reported the highest percentage (31.5) of more than seven days when their physical health was not good. White respondents in this age group had a rate of 27.4 percent compared to 39.6 percent for blacks. For those 65 years of age and older, whites reported a rate of 28.7 percent compared to 27.3 for blacks.



#### Figure 7

People in the 45 to 54 year old age group had the highest percentage of seven or more days when their mental health was not good with a rate of 25.5 percent–27.5 for whites and 22.4 for blacks (Figure 7).

The highest category of respondents with more than seven days of poor mental health in the past month, are people that have incomes below \$15,000 annually with a rate of 38.4 percent: 48.6 percent for whites and 30.4 percent for blacks. People who are unemployed report a rate of 33.4 percent for more than seven days of poor mental health in the past month (Table 5).

	White		Bla	ick	То	tal
Groups	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
Sex						
Male	326	18.6	194	22.5	531	19.7
Female	691	24.3	392	21.3	1,102	23.0
Age Group						
18-24	10	10.6	8	5.4	18	7.9
25-34	33	11.8	34	11.9	68	11.4
35-44	55	16.1	62	21.0	119	17.5
45-54	158	26.3	149	33.1	311	28.6
55-64	239	27.4	181	39.6	430	31.5
65+	516	28.7	148	27.3	676	28.4
Education						
< High School Graduate	235	40.2	214	33.0	457	36.0
High School Graduate or GED	357	22.0	198	22.3	562	21.9
Some College or Technical School	267	18.7	97	13.9	372	17.1
College Graduate	155	10.8	77	15.0	239	11.7
Income						
< \$15,000	246	53.0	268	34.6	525	41.3
\$15-\$24,999	228	25.5	150	23.6	387	24.5
\$25-\$34,999	107	20.8	44	16.5	153	18.8
\$35-\$49,999	80	15.3	29	14.4	111	15.1
\$50-\$74,999	77	12.6	11	3.9	89	10.8
\$75,000+	77	9.1	8	4.8	86	8.4
Employment Status						
Employed	166	8.9	113	10.9	281	9.4
Not Employed	46	29.5	48	16.5	94	21.4
Student/Homemaker	85	19.0	23	9.4	109	15.4
Retired/Unable to Work	719	43.2	399	51.4	1,145	46.0
Total	1,017	21.4	586	21.9	1,633	21.4

#### Table 4 Physical Health Not Good for More Than 7 Days in Past Month

<sup>1</sup>Unweighted

	White		Bla	ck	То	tal
Groups	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
Sex						
Male	232	17.9	139	19.0	379	18.5
Female	509	24.4	323	22.9	851	24.0
Age Group						
18-24	40	30.5	19	14.3	62	24.4
25-34	68	23.9	65	23.7	139	24.3
35-44	82	22.3	64	25.0	147	23.0
45-54	164	27.5	113	22.4	278	25.3
55-64	189	19.7	130	25.6	327	21.9
65+	194	10.6	70	12.8	271	11.2
Education						
< High School Graduate	163	35.2	136	22.4	305	29.4
High School Graduate or GED	259	20.3	156	22.4	422	21.0
Some College or Technical School	208	21.9	99	19.6	316	21.5
College Graduate	110	10.8	71	17.7	186	12.4
Income						
< \$15,000	167	48.6	188	30.4	364	38.4
\$15-\$24,999	183	28.2	122	22.0	312	25.4
\$25-\$34,999	73	21.6	41	17.5	115	19.6
\$35-\$49,999	61	17.6	26	14.2	88	16.6
\$50-\$74,999	67	13.4	13	13.3	81	13.3
\$75,000+	72	10.7	9	6.8	83	10.6
Employment Status						
Employed	236	16.3	137	14.7	378	15.8
Not Employed	56	39.9	60	26.5	120	33.4
Student/Homemaker	68	19.5	27	17.2	99	19.1
Retired/Unable to Work	379	26.5	236	31.6	629	28.3
Total	741	21.1	462	21.0	1,230	21.3

#### Table 5 Mental Health Not Good for More Than 7 Days in Past Month

<sup>1</sup>Unweighted

	White		Bla	ick	То	tal
Groups	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
Sex						
Male	211	10.5	135	13.5	354	11.5
Female	450	15.4	278	13.2	743	14.6
Age Group						
18-24	11	8.0	5	2.3	17	5.6
25-34	22	6.9	28	8.2	53	7.7
35-44	48	11.9	46	14.1	96	12.4
45-54	130	18.7	112	21.2	244	19.5
55-64	165	16.3	123	22.3	298	18.6
65+	280	13.7	96	14.5	381	13.8
Education						
< High School Graduate	166	27.2	155	21.0	327	23.8
High School Graduate or GED	219	13.6	137	13.7	362	13.7
Some College or Technical School	173	10.6	70	8.7	249	10.1
College Graduate	101	5.5	51	7.5	157	6.1
Income						
< \$15,000	183	39.0	200	22.7	391	29.2
\$15-\$24,999	159	17.3	93	13.8	258	15.7
\$25-\$34,999	64	10.9	30	9.9	95	10.3
\$35-\$49,999	47	9.5	15	4.1	65	8.3
\$50-\$74,999	41	6.0	9	3.7	50	5.4
\$75,000+	48	4.7	3	1.7	53	4.3
Employment Status						
Employed	88	4.5	44	3.2	134	4.1
Not Employed	39	19.8	47	16.5	88	18.5
Student/Homemaker	52	9.9	19	6.7	72	8.6
Retired/Unable to Work	481	28.6	302	35.6	801	30.9
Total	661	13.0	413	13.3	1,097	13.1

#### Table 6 Activities Limited Due to Physical, Mental or Emotional Problems

<sup>1</sup>Unweighted

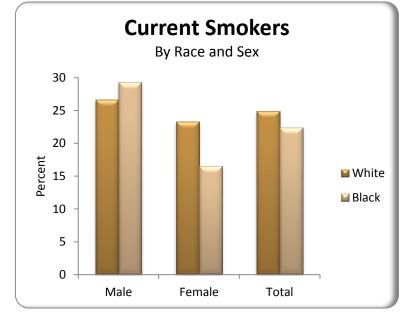
### **Tobacco Use**

#### **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. Mississippi was the first state to reach a settlement with the tobacco industry. The Mississippi State Department of Health has drafted a state tobacco plan that includes strategies to prevent initiation of tobacco use among youth, promote cessation among youth and adults, and eliminate exposure to environmental tobacco smoke



#### Figure 8

According to the 2012 BRFSS report, the group with the highest percentage of current smokers is white respondents that are unemployed who report a rate of 43.4 percent.

The second highest are blacks without a high school education who report a rate of 35.1 percent The group with the lowest percentage in demographic groups for current smokers is white respondents 65 years of age and older with a rate of 8.9 percent (Table 7). Overall, the rate of current smoking in Mississippi is 24.0 percent, a decrease from 26.0 reported in 2011. The Healthy People 2020 objective is 12 percent or less.

#### **Table 7 Current Smokers**

	White		Bla	ick	То	tal
Groups	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
Sex						
Male	370	26.6	216	29.3	601	27.3
Female	526	23.3	279	16.5	821	21.0
Age Group						
18-24	53	31.4	29	17.3	82	23.8
25-34	107	37.3	66	24.1	178	31.4
35-44	113	28.9	51	19.2	170	25.3
45-54	212	29.7	141	33.1	356	30.7
55-64	215	22.7	136	26.1	358	23.8
65+	191	8.9	68	11.1	268	9.6
Education						
< High School Graduate	176	42.3	164	35.1	346	38.5
High School Graduate or GED	320	27.8	185	22.9	515	25.7
Some College or Technical School	255	23.7	97	16.3	366	21.6
College Graduate	142	9.9	49	8.2	192	9.2
Income						
< \$15,000	164	41.3	183	31.2	357	35.1
\$15-\$24,999	212	35.2	154	25.4	372	30.2
\$25-\$34,999	96	22.5	42	14.1	142	19.4
\$35-\$49,999	98	25.1	28	14.3	129	21.8
\$50-\$74,999	89	18.0	14	7.0	105	15.7
\$75,000+	118	15.4	9	7.5	129	14.6
Employment Status						
Employed	415	26.7	208	22.7	635	25.0
Not Employed	73	43.4	74	31.5	149	36.8
Student/Homemaker	63	15.7	12	9.4	78	14.2
Retired/Unable to Work	342	21.3	201	21.6	557	21.6
Total	896	24.9	495	22.4	1,422	24.0

<sup>1</sup>Unweighted

### Diabetes

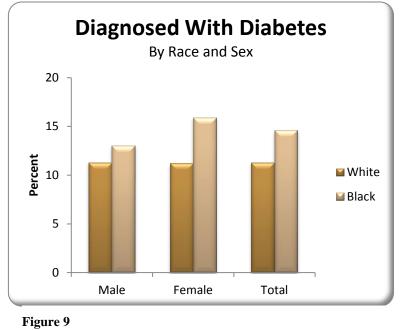
#### **Survey Question**

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

Diabetes was the sixth leading cause of death in Mississippi for the year 2011 with a death rate of 33.3 per

100,000 population. According to the 2012 BRFSS survey, 12.5 percent of all respondents reported being told by a doctor that they have diabetes. In 2011 the reported rate was 12.3 percent.

Black females continue to comprise the largest group having a rate of 15.9 percent followed by black males with a rate of 13.0 percent. White males reported a rate of 11.3 percent and white females were the lowest at 11.2 percent (Figure 9).



The rate of diabetes showed a marked difference by categories of education. Respondents who did not complete high school reported rates of 18.6 percent which is more than 43 percent higher than those with a high school degree. Those with a high school education reported a rate of 13.0 percent; those with some college work, a rate of 10.1 percent; and college graduates a rate of 9.2 percent. Blacks with no high school education reported a diabetes rate of 21.8 percent (Table 8).

There are obvious differences seen by age of the respondent in the rate of diabetes. Only 1.0 percent of respondents between the age of 18 and 24 reported having diabetes while 25.0 percent of those 65 and older reported they had diabetes (Figure 10).

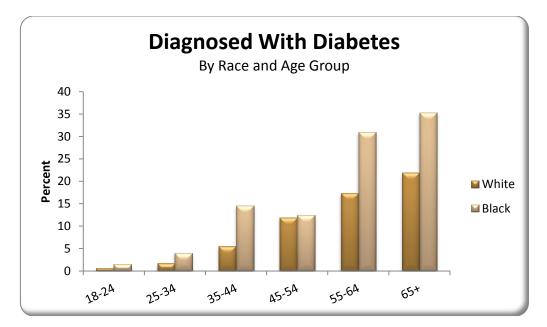


Figure 10

#### **Table 8 Diabetes**

	White		Bla	ck	То	tal
Groups	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
Sex						
Male	310	11.3	166	13.0	488	12.0
Female	464	11.2	441	15.9	922	13.0
Age Group						
18-24	1	0.6	3	1.5	4	1.0
25-34	9	1.7	16	4.0	26	3.1
35-44	22	5.5	40	14.6	65	9.4
45-54	84	11.9	87	12.5	175	12.1
55-64	194	17.4	205	31.0	409	22.2
65+	460	21.9	255	35.3	726	25.0
Education						
< High School Graduate	142	14.8	220	21.8	370	18.6
High School Graduate or GED	294	13.2	182	12.4	485	13.0
Some College or Technical School	187	9.8	102	10.5	297	10.1
College Graduate	146	7.9	103	13.9	253	9.2
Income						
< \$15,000	144	16.5	222	19.3	373	17.7
\$15-\$24,999	163	12.2	147	13.7	315	13.2
\$25-\$34,999	92	13.6	50	9.6	148	12.5
\$35-\$49,999	83	10.9	47	14.2	132	11.8
\$50-\$74,999	79	9.9	25	12.0	104	10.1
\$75,000+	88	7.7	12	7.0	102	7.5
Employment Status						
Employed	193	6.8	148	8.8	347	7.6
Not Employed	19	7.5	28	8.6	49	8.5
Student/Homemaker	52	7.4	22	4.3	75	6.3
Retired/Unable to Work	509	21.4	408	32.8	937	25.3
Total	774	11.3	607	14.6	1,410	12.5

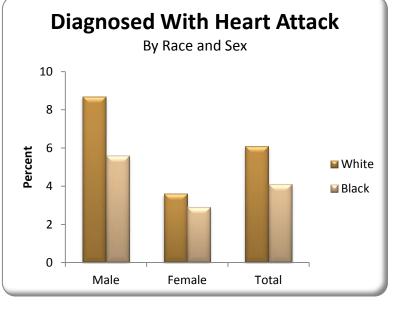
<sup>1</sup>Unweighted

## **Cardiovascular Disease**

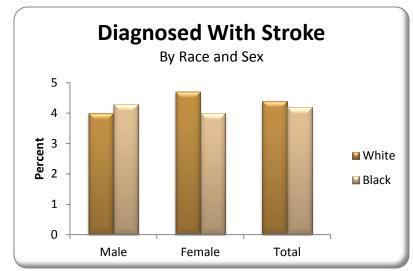
#### **Survey Question**

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 a major cause of premature, permanent disability among working adults. Stroke alone disables almost 2,000 Mississippians each year. In the 2012 BRFSS survey approximately 10.9 percent of Mississippi adults or more than 237,000 people report having some kind of CVD, such as coronary heart disease,







angina, previous heart attack, or stroke.

In 2011 Mississippi reported 7,324 deaths from heart disease and 1,539 from cerebrovascular disease (stroke). The two combined accounted for more than thirty percent of all the deaths reported that year and almost forty-two percent of the total from the ten

#### Figure 12

Mississippi Behavioral Risk Factor Surveillance Survey 2012

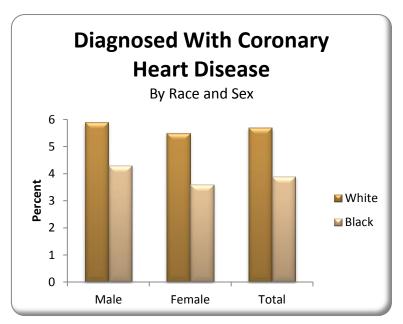
leading causes of death.

The 2012 BRFSS survey revealed that 13.6 percent of the population 65 years of age or older reported that they have been diagnosed as having had a heart attack: 13.0 for white respondents and 15.8 for blacks. The second highest age group that reported being diagnosed with a heart attack was the 55 to 64 category. White respondents reported a

rate of 7.6 percent while blacks reported a rate of 8.6 percent (Table 9).

Table 10 shows that the rate for those who had been diagnosed with a stroke age 65 and greater was 9.6 percent for whites and 10.6 percent for blacks. In the 55 to 64 group the rates were 6.0 and 9.0 for whites and blacks respectively.

Those in the older age groups also reported a higher rate of coronary artery disease. Peoplet in the age group 65 and older



#### Figure 13

reported a rate of 11.9 percent with white respondents having a rate of 12.5 percent compared to 10.3 for blacks. The 55 to 64 age category had an overall rate of 7.8 percent: 7.4 for whites and 8.7 for blacks (Table 11).

	White		Bla	ick	То	tal
Groups	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
Sex						
Male	224	8.2	67	5.9	297	7.3
Female	170	3.9	95	3.0	271	3.7
Age Group						
18-24	1	0.4	0	0.0	1	0.2
25-34	7	2.0	2	1.1	10	1.9
35-44	8	1.9	4	1.1	12	1.5
45-54	39	6.4	29	4.6	71	5.9
55-64	76	7.6	48	8.6	129	8.2
65+	263	13.0	79	15.8	345	13.6
Education						
< High School Graduate	78	9.1	68	7.6	150	8.4
High School Graduate or GED	144	7.2	45	3.7	193	5.9
Some College or Technical School	107	5.0	27	2.5	137	4.3
College Graduate	65	3.6	22	3.2	88	3.4
Income						
< \$15,000	79	10.0	76	6.3	160	7.7
\$15-\$24,999	100	9.1	34	4.5	137	7.1
\$25-\$34,999	41	5.8	9	2.0	51	4.2
\$35-\$49,999	52	7.7	10	3.7	64	6.7
\$50-\$74,999	31	4.3	1	0.9	32	3.6
\$75,000+	38	2.8	3	1.8	42	2.7
Employment Status						
Employed	68	2.3	18	1.5	88	2.0
Not Employed	12	9.0	8	2.1	21	5.5
Student/Homemaker	18	2.4	5	0.3	23	1.6
Retired/Unable to Work	294	13.3	131	12.7	434	13.2
Total	394	6.0	162	4.3	568	5.4

#### Table 9 Ever Diagnosed With a Heart Attack

<sup>1</sup>Unweighted

	Wh	White Black		То	tal	
Groups	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
Sex						
Male	107	4.0	61	4.3	173	4.2
Female	206	4.7	115	4.0	326	4.4
Age Group						
18-24	0	0.0	1	0.5	1	0.2
25-34	7	1.4	4	0.6	12	1.3
35-44	4	0.9	10	2.4	15	1.6
45-54	36	4.8	34	5.5	72	5.0
55-64	65	6.0	58	9.0	125	6.8
65+	200	9.6	68	10.6	272	9.9
Education						
< High School Graduate	71	7.9	64	5.8	137	6.8
High School Graduate or GED	109	4.2	58	4.6	171	4.5
Some College or Technical School	78	3.9	29	2.6	107	3.3
College Graduate	55	2.8	25	3.2	84	3.0
Income						
< \$15,000	71	7.6	79	6.1	153	6.6
\$15-\$24,999	84	7.4	33	3.6	120	5.7
\$25-\$34,999	36	5.1	13	3.5	50	4.4
\$35-\$49,999	21	2.1	8	2.4	30	2.2
\$50-\$74,999	23	3.6	3	0.8	26	3.0
\$75,000+	21	1.7	3	1.1	25	1.7
Employment Status						
Employed	47	1.7	26	1.9	75	1.9
Not Employed	10	3.4	11	1.8	21	2.4
Student/Homemaker	22	2.8	7	0.9	29	2.1
Retired/Unable to Work	233	10.1	132	11.1	373	10.4
Total	313	4.4	176	4.2	499	4.3

#### Table 10 Ever Diagnosed With a Stroke

<sup>1</sup>Unweighted

	White		Black		Total	
Groups	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
Sex						
Male	171	5.9	53	4.3	230	5.4
Female	231	5.5	102	3.6	340	4.8
Age Group						
18-24	0	0.0	0	0.0	0	0.0
25-34	7	2.1	3	1.1	10	1.6
35-44	7	1.7	10	2.0	18	2.2
45-54	44	6.3	30	5.2	76	5.8
55-64	78	7.4	57	8.7	139	7.8
65+	265	12.5	54	10.3	325	11.9
Education						
< High School Graduate	71	6.5	55	5.6	130	6.4
High School Graduate or GED	145	6.5	47	4.1	196	5.5
Some College or Technical School	108	5.8	28	2.6	138	4.6
College Graduate	76	3.8	25	3.2	104	3.6
Income						
< \$15,000	82	9.0	66	5.6	153	6.9
\$15-\$24,999	97	9.1	36	4.5	135	6.6
\$25-\$34,999	37	4.3	12	2.7	50	3.6
\$35-\$49,999	48	6.2	13	2.9	63	5.3
\$50-\$74,999	30	3.9	4	2.3	34	3.5
\$75,000+	51	4.3	1	0.6	54	4.2
Employment Status						
Employed	69	2.6	24	1.5	94	2.1
Not Employed	4	1.4	12	4.7	16	3.2
Student/Homemaker	25	3.6	5	1.0	30	2.7
Retired/Unable to Work	303	13.2	113	9.6	428	12.2
Total	402	5.7	155	3.9	570	5.1

#### Table 11 Ever Diagnosed With Coronary Artery Disease

<sup>1</sup>Unweighted

## Asthma

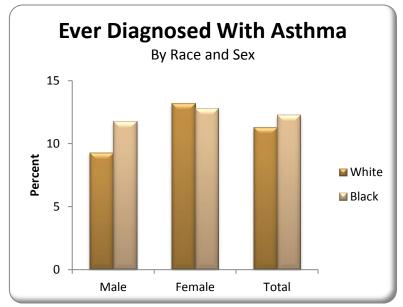
#### **Survey Question**

# 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 lung disease that affects more than 17 million Americans. The disease is characterized by inflammation of the airways with intermittent bronchospasm which is a narrowing of the

bronchial tubes. The inflammation makes the airways smaller making it more difficult for air to move in and out of the lung. In some cases, breathing may be so labored that an asthma attack becomes lifethreatening.

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



#### Figure 14

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 2012 BRFSS survey revealed that 11.7 percent of the respondents said that they had ever had asthma, a minimal decrease from 12.4 percent reported in 2011 which was an increase from 11.6 percent in 2010. The black rate in 2012 was 12.3 percent compared to 11.3 percent for white respondents. Women reported a higher rate than men (Figure 14 and Table 12).

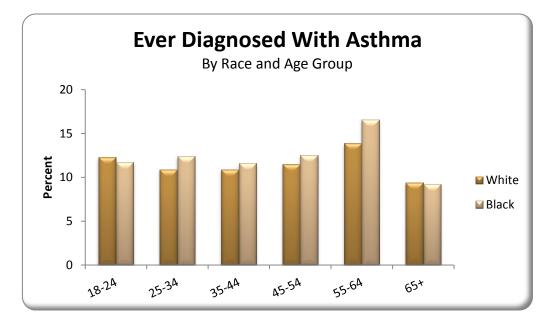


Figure 15

	White		Black		Total	
Groups	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
Sex						
Male	168	9.3	96	11.8	271	10.2
Female	375	13.2	238	12.8	624	13.0
Age Group						
18-24	21	12.3	24	11.7	46	12.2
25-34	38	10.9	38	12.4	79	11.6
35-44	46	10.9	39	11.6	85	10.8
45-54	86	11.5	74	12.5	165	12.1
55-64	150	13.9	84	16.6	240	14.9
65+	199	9.4	75	9.2	277	9.3
Education						
< High School Graduate	105	17.1	102	14.0	210	15.4
High School Graduate or GED	181	11.1	125	15.5	312	12.7
Some College or Technical School	130	10.2	62	9.5	197	10.2
College Graduate	126	9.0	45	7.5	175	8.5
Income						
< \$15,000	97	21.7	132	16.3	234	18.2
\$15-\$24,999	118	14.3	90	13.0	211	13.5
\$25-\$34,999	61	12.0	27	7.7	90	10.1
\$35-\$49,999	45	7.3	13	6.3	60	7.7
\$50-\$74,999	55	7.4	11	9.6	68	8.3
\$75,000+	81	9.1	5	2.8	87	8.3
Employment Status						
Employed	186	9.4	108	9.2	300	9.3
Not Employed	25	11.6	43	17.8	70	14.9
Student/Homemaker	52	13.3	22	12.4	76	13.6
Retired/Unable to Work	279	14.0	161	15.9	448	14.5
Total	543	11.3	334	12.3	895	11.7

## Table 12 Ever Diagnosed With Asthma

<sup>1</sup>Unweighted

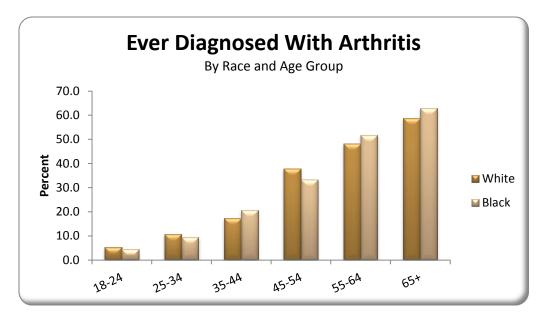
	White		Bla	ck	Total	
Groups	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
Sex						
Male	98	5.1	65	7.9	166	6.0
Female	285	10.2	186	10.3	477	10.0
Age Group						
18-24	12	6.8	15	8.5	27	7.3
25-34	25	7.3	29	8.8	54	7.7
35-44	30	7.5	27	7.9	57	7.4
45-54	63	8.8	55	9.4	121	9.2
55-64	101	9.1	66	13.5	170	10.4
65+	150	7.0	59	7.3	212	7.0
Education						
< High School Graduate	80	13.3	80	10.7	161	11.7
High School Graduate or GED	139	8.4	93	11.2	237	9.4
Some College or Technical School	80	6.0	43	7.0	125	6.3
College Graduate	83	5.3	35	6.1	119	5.3
Income						
< \$15,000	77	16.8	107	13.0	188	14.2
\$15-\$24,999	92	10.4	64	9.9	158	10.0
\$25-\$34,999	38	6.2	19	5.9	58	5.9
\$35-\$49,999	27	4.8	9	3.0	36	4.1
\$50-\$74,999	38	5.0	7	4.0	46	5.0
\$75,000+	55	6.0	2	2.0	57	5.4
Employment Status						
Employed	122	6.0	66	6.0	190	5.9
Not Employed	18	8.3	34	14.2	53	11.5
Student/Homemaker	32	8.5	19	9.7	51	8.5
Retired/Unable to Work	211	10.5	132	12.9	349	11.2
Total	383	7.7	251	9.2	643	8.1

<sup>1</sup>Unweighted

# 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 generates 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.



#### Figure 15

There are more than 100 types of arthritis which commonly occurs 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.

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.

In Mississippi, the 2012 BRFSS survey showed that 30.8 percent of the population had been diagnosed with arthritis by a health care professional. As noted in the "Definitions of Terms and Risk Factors," the question in the current report has been amended so that only those who have actually been diagnosed with arthritis by a health care professional are being reported. Until 2003, the report included those who had reported pain or stiffness in the joints for at least 30 days during the previous year.

As seen in Figure 16, the proportion increases with age. Respondents over the age of 65 reported being diagnosed with arthritis at a rate of 59.8 percent. The rate for blacks within this age group was higher than for whites. Blacks reported a rate of 62.9 percent while whites 58.8 percent. Only 4.8 percent of those 18-24 years old reported this condition.

Table	14 Ever	Diagnosed	Arthritis
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	White		Bla	ick	Total		
Groups	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	
Sex							
Male	679	29.4	293	26.0	994	28.0	
Female	1,444	36.8	794	28.5	2,272	33.3	
Age Group							
18-24	8	5.4	7	4.4	15	4.8	
25-34	37	10.8	28	9.5	67	10.1	
35-44	71	17.3	71	20.7	144	18.7	
45-54	269	37.8	186	33.4	457	35.6	
55-64	505	48.3	338	51.8	861	49.7	
65+	1,222	58.8	450	62.9	1,703	59.8	
Education							
< High School Graduate	370	47.0	399	40.6	783	43.8	
High School Graduate or GED	740	34.5	331	24.6	1,092	30.6	
Some College or Technical School	579	32.3	200	20.7	790	27.9	
College Graduate	429	22.8	157	21.1	595	21.9	
Income							
< \$15,000	341	52.7	416	35.2	775	41.6	
\$15-\$24,999	448	40.2	283	29.0	741	34.3	
\$25-\$34,999	242	36.6	89	22.2	338	30.5	
\$35-\$49,999	216	27.8	69	24.9	290	26.7	
\$50-\$74,999	219	27.7	30	12.2	251	24.5	
\$75,000+	265	22.8	29	15.8	299	22.2	
Employment Status							
Employed	533	20.0	248	15.4	789	18.1	
Not Employed	51	24.0	62	16.3	115	19.4	
Student/Homemaker	192	25.8	52	11.9	245	20.6	
Retired/Unable to Work	1,341	61.7	721	62.4	2,107	62.1	
Total	2,123	33.2	1,087	27.3	3,266	30.8	

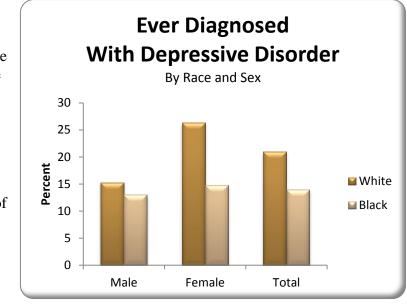
<sup>1</sup>Unweighted

# Depression

#### **Survey Question**

Has a doctor or other healthcare provider ever told you that you have a depressive disorder including depression, major depression, dysthymia, or minor depression?

Affective disorders, which encompass major depression and manic depressive illness, constitute a second category of severe mental illness. The World Health Organization found major depression to be the leading cause of disability among adults in developed nations such as the United States. About 6.5 percent of women and 3.3 percent of men will have major depression in any year. Manic depressive illness affects around one percent of adults, with comparable rates of occurrence in men

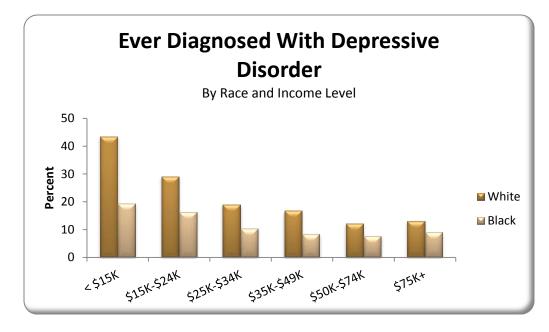




and women. A high rate of suicide is associated with such mood disorders.

Almost all adults will at some time experience a tragedy or times of profound sadness, grief, or distress. Major depressive disorder, however, differs both quantitatively and qualitatively from episodes of normal sadness or grief. Depression disrupts the lives of depressed persons and their families and reduces economic productivity. Depression also can result in suicide and has an especially severe impact on women.

Depression also has a negative impact on the economy, costing the United States over \$40 billion each year, both in diminished productivity and in use of health care resources. In the workplace, depression is a leading cause of absenteeism and diminished productivity. Although only a minority seek professional help to relieve a mood disorder, depressed people are significantly more likely than others to visit a physician for some other reason. The 2012 Mississippi BRFSS revealed that 18.4 percent of those surveyed said they had been diagnosed with a depressive disorder. The rate for women was dramatically



#### Figure 16

higher than for men. Females reported a rate of 22.1 percent to only 14.5 for males, a difference of almost 35 percent (Figure 17). Similarly, the respondents in lower income categories reported a much higher rate of diagnosed depression than those in the upper income groups. The group with the highest rate of depression was whites whose income was less than \$15 thousand annually with a rate of 43.5 percent (Figure 18 and Table 15).

	White		Bla	ick	Total	
Groups	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
Sex						
Male	270	15.3	110	13.0	388	14.5
Female	718	26.3	314	14.8	1,057	22.1
Age Group						
18-24	32	18.0	10	7.2	44	13.1
25-34	79	23.3	44	14.1	127	19.3
35-44	90	21.1	57	15.5	150	19.0
45-54	200	27.0	112	18.1	315	23.4
55-64	267	23.2	130	17.6	408	21.4
65+	317	14.6	69	11.4	396	13.9
Education						
< High School Graduate	179	33.4	126	15.8	313	24.5
High School Graduate or GED	325	19.7	132	13.8	467	17.4
Some College or Technical School	274	20.7	88	12.9	369	18.3
College Graduate	207	14.2	78	13.2	293	13.9
Income						
< \$15,000	218	43.5	174	19.4	404	29.2
\$15-\$24,999	235	29.1	107	16.3	346	22.5
\$25-\$34,999	104	19.0	32	10.4	139	15.3
\$35-\$49,999	95	16.8	23	8.4	120	14.2
\$50-\$74,999	79	12.2	15	7.7	95	11.1
\$75,000+	113	13.1	11	9.1	127	12.9
Employment Status						
Employed	283	14.5	106	8.4	392	12.1
Not Employed	59	29.3	43	13.1	107	21.0
Student/Homemaker	89	22.1	24	14.9	116	19.6
Retired/Unable to Work	556	30.9	250	25.7	828	29.3
Total	988	21.0	424	14.0	1,445	18.4

## Table 15 Ever Diagnosed With Depression

<sup>1</sup>Unweighted

# **Cancer Prevalence**

**Survey Question** 

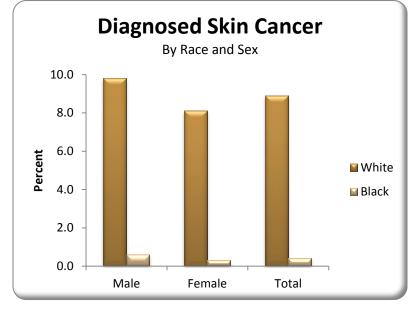
## Ever told you had skin cancer?

Ever told you had any other types of cancer?

## Skin Cancer

According to the American Cancer Society (ACS) basal cell and squamous cell cancers are the most common cancers of the skin. They develop from skin cells called *keratinocytes*. Both basal cell and squamous cell cancers are found mainly on parts of the body exposed to the sun, such as the head and neck. These cancers are strongly related to the amount of sun exposure a person has had.

Basal and squamous cell cancers are much less likely than melanomas to spread to other parts of the body and become life threatening. Still, it is important to find and treat them early. If left untreated, they can grow quite large and invade into nearby tissues and organs, causing scarring, deformity, or even loss of function in some parts of the body. Some of these cancers (especially squamous cell cancers) may even spread and if not treated they can be fatal.





Melanomas are cancers that develop from melanocytes, the cells that make the brown pigment that gives skin its color. Melanocytes can also form benign (non-cancerous) growths called *moles*. Melanomas can occur anywhere on the body, but are more likely to start in certain locations. The chest and back are the most common sites in

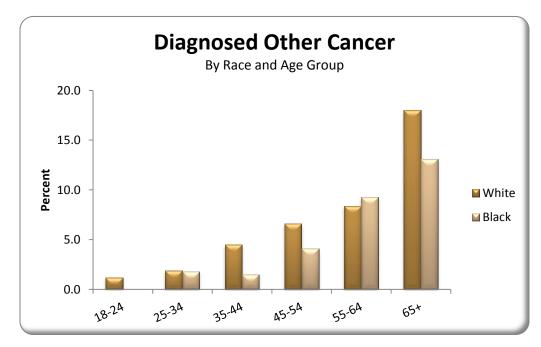
men. In females, the legs are the most common site with the neck and face being other common sites.

Melanomas are not as common as basal cell and squamous cell skin cancers, but they can be far more serious. Like basal cell and squamous cell cancers, melanoma is almost always curable in its early stages. Left alone, melanoma is much more likely to spread to other parts of the body, where it can be extremely difficult to treat.

In Mississippi 5.7 percent of the BRFSS respondents reported they have had skin cancer. The rate among whites was 8.9 percent with blacks reporting a rate of only 0.4 percent. Nationally, skin cancer accounts for only one to two percent of all cancers in the black population.

## **Other Cancer**

Cancer is the general name for a group of more than 100 diseases. Although there are many kinds of cancer, all cancers start because abnormal cells grow out of control. Untreated cancers can cause serious illness and death.



#### Figure 20

The human body contains trillions of living cells. Normal body cells grow, divide, and die in an orderly fashion. Cancer starts when cells in a part of the body start to grow out of control. Cells become cancer cells because of deoxyribonucleic acid (DNA) damage. In a normal cell, when DNA gets damaged the cell either repairs the damage or the cell dies. In cancer cells, the damaged DNA is not repaired, and the cell does not die but goes on making new cells that the body does not need. These new cells all have the same abnormal DNA as the first cell does.

In most cases, the cancer cells form a tumor. Some cancers, like leukemia, rarely form tumors. Instead, these cancer cells involve the blood and blood-forming organs and circulate through other tissues where they reproduce.

The ACS states that half of all men and one-third of all women in the United States will develop cancer during their lifetimes.

The rate for people who reported having cancer other than skin cancer was 6.4 percent. Whites reported a rate of 7.9 percent which was almost twice that for blacks who reported a rate of 4.3 percent. As may be observed from Figure 20, the rate for cancer increases dramatically with age.

	White		Bla	ick	Total	
Groups	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
Sex						
Male	302	9.8	4	0.6	312	6.4
Female	386	8.1	8	0.3	396	5.0
Age Group						
18-24	0	0.0	1	0.6	1	0.3
25-34	4	0.9	0	0.0	4	0.5
35-44	11	3.0	1	0.7	12	2.0
45-54	45	5.9	2	0.2	47	3.7
55-64	127	10.7	3	0.2	131	7.2
65+	498	24.1	4	0.6	509	18.5
Education						
< High School Graduate	111	13.0	2	0.1	115	6.5
High School Graduate or GED	209	7.9	6	0.8	216	5.1
Some College or Technical School	164	7.5	4	0.5	171	5.1
College Graduate	200	9.7	0	0.0	201	7.0
Income						
< \$15,000	75	7.5	2	0.1	80	3.0
\$15-\$24,999	127	9.7	5	1.0	133	5.4
\$25-\$34,999	86	10.1	1	0.1	88	6.0
\$35-\$49,999	70	8.1	0	0.0	70	5.6
\$50-\$74,999	83	7.9	0	0.0	83	6.2
\$75,000+	111	7.4	0	0.0	113	6.4
Employment Status						
Employed	173	5.2	4	0.5	178	3.4
Not Employed	12	4.8	2	0.1	14	2.0
Student/Homemaker	49	5.1	0	0.0	49	3.3
Retired/Unable to Work	450	17.9	5	0.3	462	11.7
Total	688	8.9	12	0.4	708	5.7

## Table 16 Ever Diagnosed With Skin Cancer

<sup>1</sup>Unweighted

	White		Bla	ick	Total		
Groups	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	
Sex							
Male	181	6.1	58	4.0	243	5.2	
Female	372	9.6	133	4.5	511	7.5	
Age Group							
18-24	2	1.2	0	0.0	2	0.6	
25-34	6	1.9	7	1.8	13	1.8	
35-44	15	4.5	6	1.5	22	3.3	
45-54	48	6.6	24	4.1	73	5.6	
55-64	98	8.4	58	9.3	158	8.6	
65+	378	18.0	94	13.1	478	16.8	
Education							
< High School Graduate	82	9.6	67	6.4	150	7.8	
High School Graduate or GED	202	8.6	45	2.9	248	6.3	
Some College or Technical School	137	7.4	35	3.2	174	5.8	
College Graduate	129	6.1	44	5.7	179	6.1	
Income							
< \$15,000	76	10.0	73	5.2	151	7.0	
\$15-\$24,999	124	10.3	42	3.9	167	6.9	
\$25-\$34,999	65	10.2	16	3.6	82	7.4	
\$35-\$49,999	48	5.6	11	2.6	60	4.7	
\$50-\$74,999	52	4.7	7	3.0	60	4.3	
\$75,000+	68	5.5	12	4.1	81	5.4	
Employment Status							
Employed	119	4.1	32	1.9	151	3.2	
Not Employed	9	3.1	13	4.5	22	3.8	
Student/Homemaker	43	6.2	10	2.7	54	5.1	
Retired/Unable to Work	381	16.3	135	9.5	525	13.8	
Total	553	7.9	191	4.3	754	6.4	

## Table 17 Ever Diagnosed With Other Cancer

<sup>1</sup>Unweighted

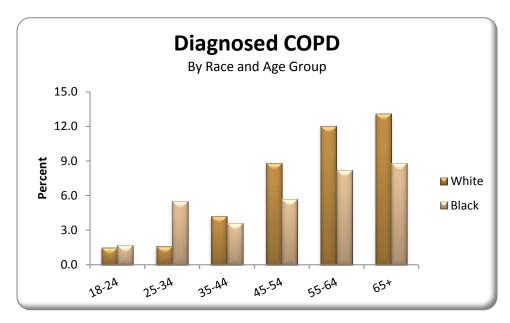
# **Chronic Obstructive Pulmonary Disease**

**Survey Question** 

Ever told you have Chronic Obstructive Pulmonary Disease or COPD, emphysema or chronic bronchitis?

Chronic Obstructive Pulmonary Disease or COPD is a progressive disease that makes breathing difficult. It can cause coughing that produces large amounts of mucus, wheezing, shortness of breath, chest tightness, and other symptoms.

COPD is a major cause of disability, and is the third leading cause of death in the United States as well as in Mississippi. Currently, millions of people are diagnosed with COPD and the National Heart, Lung and Blood Institute states that many more people may have the disease without knowing it.



#### Figure 21

Cigarette smoking is the leading cause of COPD. Most people who have the disease either smoke or have a history of smoking. Long-term exposure to other lung irritants such as air pollution, chemical fumes, or dust also may contribute to COPD.

COPD symptoms develop slowly and often become more severe over time and can limit the ability to do routine activities. Severe COPD may prevent even basic activities like walking, cooking, or personal care. Most of the time, COPD is diagnosed in middle-aged or older adults. The disease isn't passed from person to person—you can't catch it from someone else.

Presently there is no cure and damage to the lungs and airways cannot be reversed. Certain treatments and lifestyle changes can be of benefit in slowing the progress of COPD.

	White		Bla	ick	Total	
Groups	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
Sex						
Male	159	6.9	55	5.5	218	6.3
Female	330	8.3	116	5.1	460	7.1
Age Group						
18-24	3	1.5	3	1.7	6	1.6
25-34	6	1.6	11	5.5	18	3.3
35-44	21	4.2	13	3.6	34	3.8
45-54	64	8.8	34	5.7	100	7.7
55-64	115	12.0	55	8.2	174	10.6
65+	277	13.1	54	8.8	342	12.1
Education						
< High School Graduate	122	16.5	53	5.6	178	10.8
High School Graduate or GED	177	8.3	46	4.8	230	6.9
Some College or Technical School	116	5.6	43	5.3	162	5.4
College Graduate	74	3.5	29	6.0	108	4.1
Income						
< \$15,000	122	17.2	73	6.2	204	10.5
\$15-\$24,999	125	11.6	34	5.5	163	8.5
\$25-\$34,999	58	8.7	18	7.4	78	8.0
\$35-\$49,999	47	6.7	10	4.7	59	6.1
\$50-\$74,999	26	2.9	3	2.2	29	2.7
\$75,000+	30	2.7	6	3.7	36	2.8
Employment Status						
Employed	86	3.4	36	3.5	124	3.4
Not Employed	15	7.6	13	4.0	28	5.4
Student/Homemaker	35	5.8	4	2.3	39	4.5
Retired/Unable to Work	353	16.2	118	10.7	487	14.3
Total	489	7.6	171	5.3	678	6.7

<sup>1</sup>Unweighted

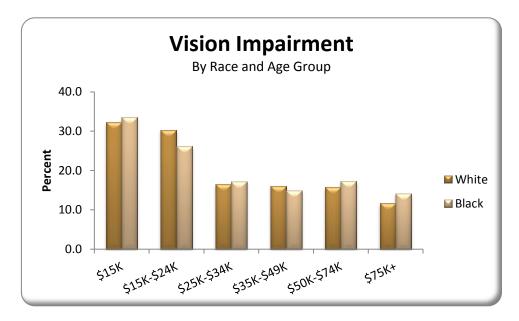
# **Vision Impairment**

**Survey Question** 

Do you have any trouble seeing, even when wearing glasses or contact lenses?

People with vision impairment, also called low vision, are unable to see normally even with eyeglasses, contact lenses, medicine, or surgery. The condition can range from mild to severe. The leading causes of vision impairment and blindness in the United States are age-related eye diseases such as macular degeneration, cataract, and glaucoma. Loss of vision may also be the result of other eye disorders, eye injuries, birth defects or diabetes.

Vision impairments result from conditions that range from the presence of some usable vision (low vision) to the absence of any vision (total blindness). Low vision is a term that describes a person with a vision impairment that cannot be improved by correction but has some usable vision remaining. Legal blindness is defined as 20/200 or less in the better eye with the best possible correction. Errors of refraction, diseases of the eye, and other vision-related conditions are usually the cause of vision loss. Each of these categories includes more specific disorders.



#### Figure 22

According to a 2008 report from the American Foundation for the Blind, there are an estimated 10 million blind and visually impaired people in the United States, 1.3

million of which are considered legally blind. Of this number, approximately 109,000 people use long canes for assistance, while about 7,000 individuals use service dogs. In some cases vision loss is preventable. Regular comprehensive eye exams and prompt treatment are critical.

In Mississippi, 21.8 percent of respondents reported vision impairment on the 2012 BRFSS survey. The rate for whites was 19.9 percent and for blacks it was 24.8 percent. As seen in Figure 22, the survey showed that as income levels decreased, the prevalence of vision impairment increased. Those with incomes less than \$15,000 per year reported a rate of 33.4 percent compared to only 12.2 percent for those with incomes of more than \$75,000 per year.

Females with a rate of 24.7 percent reported a higher rate than male who reported a rate of 18.6 percent (Table 19).

## Table 19 Vision Impairment

	White		Bla	ck	Total	
Groups	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
Sex						
Male	330	16.7	203	21.5	548	18.6
Female	736	22.9	544	27.7	1,309	24.7
Age Group						
18-24	17	10.5	29	16.8	49	13.7
25-34	47	14.1	47	16.8	100	15.7
35-44	64	16.7	59	19.9	126	18.0
45-54	215	30.6	188	34.6	408	31.7
55-64	245	21.0	218	37.8	474	26.9
65+	475	21.6	204	28.0	694	23.2
Education						
< High School Graduate	211	30.4	255	34.6	475	32.9
High School Graduate or GED	389	20.9	239	23.4	640	21.8
Some College or Technical School	271	19.2	146	19.3	431	19.4
College Graduate	192	11.7	106	19.9	307	13.7
Income						
< \$15,000	208	32.3	301	33.6	522	33.4
\$15-\$24,999	254	30.3	185	26.2	447	28.2
\$25-\$34,999	105	16.5	59	17.2	171	17.2
\$35-\$49,999	104	16.1	36	14.9	142	15.4
\$50-\$74,999	90	15.8	31	17.3	121	15.8
\$75,000+	111	11.7	20	14.1	135	12.2
Employment Status						
Employed	324	15.9	229	19.0	563	17.0
Not Employed	57	31.5	80	29.2	139	29.8
Student/Homemaker	83	12.6	32	17.4	122	15.1
Retired/Unable to Work	602	27.8	404	37.0	1,031	31.1
Total	1,066	19.9	747	24.8	1,857	21.8

<sup>1</sup>Unweighted

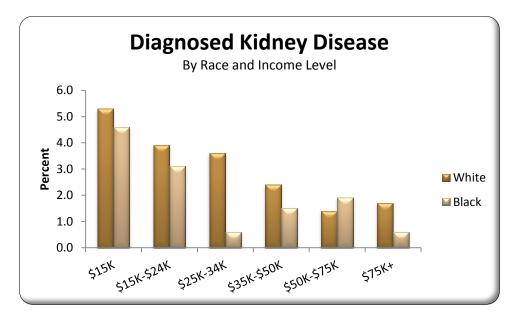
# **Kidney Disease**

#### **Survey Question**

Ever told you have kidney disease (excluding kidney stones, bladder infections or incontinence)?

Chronic kidney disease includes conditions that damage the kidneys and decrease their ability to function normally. If untreated it can allow waste to accumulate in the blood, producing sickness. It can develop into more severe complications such as high blood pressure, bone degeneration, and nerve damage.

Kidney disease also increases the risk of heart and blood vessel disease. These problems may develop slowly over a long period of time. Chronic kidney disease may be caused by diabetes, high blood pressure, and other disorders. Early detection and treatment can often keep chronic kidney disease in check. If the disease progresses, it may eventually lead to kidney failure, requiring dialysis or a kidney transplant to maintain life.



#### Figure 173

In 2011, kidney disease was the eighth leading cause of death both nationally and in the state of Mississippi. The Mississippi BRFSS survey revealed that 2.9 percent of the respondents reported having been diagnosed with some form of kidney disease. The rates were almost equal across racial lines (see Table 20).

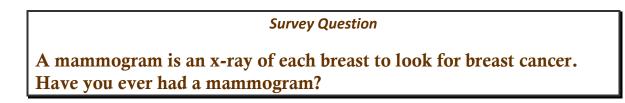
As seen in Figure 23, kidney disease is higher among low income groups. Those reporting an income of less than \$15,000 per year were more than three times as likely to have kidney disease than those making \$50,000 per year or higher.

	White		Bla	ick	Total		
Groups	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	
Sex							
Male	70	2.6	36	3.9	108	3.0	
Female	115	3.3	49	1.9	165	2.7	
Age Group							
18-24	1	0.2	1	1.0	2	0.6	
25-34	4	1.1	4	1.3	8	1.1	
35-44	9	1.6	6	1.5	15	1.5	
45-54	21	4.4	15	3.3	37	3.9	
55-64	42	3.2	22	5.4	66	4.0	
65+	107	5.2	37	6.6	144	5.5	
Education							
< High School Graduate	37	5.3	32	5.7	70	5.4	
High School Graduate or GED	58	2.9	25	1.9	85	2.6	
Some College or Technical School	51	2.5	12	1.4	63	2.1	
College Graduate	36	1.8	16	2.4	52	1.9	
Income							
< \$15,000	35	5.3	33	4.6	70	4.8	
\$15-\$24,999	32	3.9	26	3.1	59	3.5	
\$25-\$34,999	26	3.6	2	0.6	28	2.3	
\$35-\$49,999	17	2.4	6	1.5	23	2.1	
\$50-\$74,999	14	1.4	4	1.9	18	1.5	
\$75,000+	23	1.7	1	0.6	24	1.6	
Employment Status							
Employed	38	1.8	18	1.5	56	1.6	
Not Employed	1	0.3	2	1.5	3	1.0	
Student/Homemaker	10	1.6	1	0.3	11	1.1	
Retired/Unable to Work	135	6.2	63	7.0	201	6.4	
Total	185	2.9	85	2.8	273	2.9	

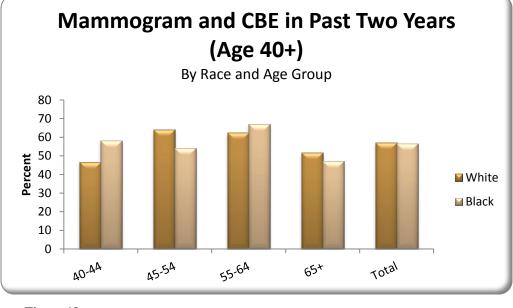
## Table 20 Ever Diagnosed With Kidney Disease

<sup>1</sup>Unweighted

# **Breast Cancer Screening**



A mammogram and a breast examination by a medical professional (clinical breast exam or CBE) are recommended yearly by the American Cancer Society and the National Cancer Advisory Board for women over the age of 40. The American Cancer





Society states that women between the ages of 20 and 39 should have a clinical breast examination every three years, and all women over age 20 should do a breast self-examination (BSE) every month

The 2012 BRFSS survey indicated that 80.7 percent of the women in Mississippi age 40 and above had ever had a mammogram and a clinical breast examination (CBE). In women age 50 and older, white respondents had a mammogram and CBE within two years at a rate of 58.2 percent compared to a rate of 59.0 percent for blacks.

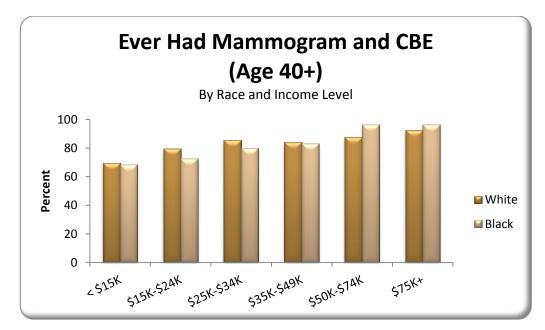
#### Year 2020 National Health Objective

Increase to at least 81.1 percent the proportion of women who have received breast cancer screening.

The 2012 BRFSS data revealed that 80.7 percent of Mississippi women age 40 and older had received a clinical breast examination and mammogram at least once.

Centers for Disease Control surveys reveal that early detection of breast cancer has increased considerably in recent years, but in 1993 in the United States, only 47 percent of the women aged 50-64 years and 39 percent of women aged 70 years or older reported having a recent mammogram.

The Breast and Cervical Cancer Early Detection Program follows the National Cancer Advisory Board recommendations; however, because of increased incidence and mortality among older women, the program targets women aged 50 to 64.





	White		Black		Total	
Groups	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
Age Group						
40-44	92	65	72	65	168	65.1
45-54	380	86	290	75	676	81.2
55-64	604	89	363	86	983	88.2
65+	1,188	84	349	71	1,559	80.6
Education						
< High School Graduate	246	70.0	286	67.1	541	68.7
High School Graduate or GED	793	82.9	317	69.9	1,123	79.1
Some College or Technical School	654	86.8	236	85.1	899	85.7
College Graduate	569	88.8	235	84.8	821	87.7
Income						
< \$15,000	265	69.6	354	68.5	631	69.3
\$15-\$24,999	417	79.4	263	72.6	689	76.1
\$25-\$34,999	230	85.6	111	79.9	347	82.7
\$35-\$49,999	253	84.0	82	83.2	339	83.8
\$50-\$74,999	261	87.5	64	96.2	326	88.9
\$75,000+	369	92.5	51	96.5	427	93.0
Employment Status						
Employed	702	85.2	389	77.3	1,099	81.9
Not Employed	60	69.6	66	60.0	128	64.9
Student/Homemaker	280	83.4	59	73.8	343	81.6
Retired/Unable to Work	1,217	83.3	557	76.3	1,808	81.2
Total	2,264	83.5	1,074	75.2	3,386	80.7

# Table 21 Ever Had Mammogram and CBE (Females Age 40+)

<sup>1</sup>Unweighted

	White		Black		Total	
Groups	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
Age Group						
50-54	163	67.5	130	62.6	296	65.4
55-64	417	62.5	277	67.0	704	63.7
65+	718	51.6	235	47.1	965	50.4
Education						
< High School Graduate	122	42.4	176	47.9	302	45.2
High School Graduate or GED	435	51.5	187	56.6	628	52.6
Some College or Technical School	398	66.9	136	72.3	541	67.8
College Graduate	343	68.5	143	71.5	494	69.1
Income						
< \$15,000	123	37.5	196	45.0	326	41.6
\$15-\$24,999	218	47.0	173	65.3	397	53.8
\$25-\$34,999	127	54.6	65	58.0	196	55.8
\$35-\$49,999	169	66.3	49	75.0	219	67.1
\$50-\$74,999	165	72.4	39	92.9 <sup>*</sup>	204	75.2
\$75,000+	231	77.4	34	91.7 <sup>*</sup>	267	78.7
Employment Status						
Employed	391	66.2	210	66.6	604	66.1
Not Employed	30	54.8	23	37.0	55	48.2
Student/Homemaker	152	56.3	35	59.2	189	56.3
Retired/Unable to Work	723	54.0	373	56.2	1,114	54.5
Total	1,298	58.2	642	59.0	1,965	58.2

## Table 22 Had CBE and Mammogram In Past 2 Years (Females 50+)

<sup>1</sup>Unweighted

<sup>2</sup>Weighted

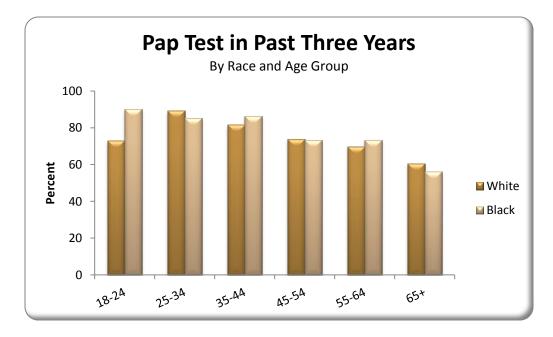
\* Observations < 50

# **Cervical Cancer Screening**

Survey Question

A Pap test is a test for cancer of the cervix. Have you ever had a Pap test?

According to the National Cancer Institute (NCI), cervical cancer—once one of the most common cancers affecting U.S. women—now ranks 14th in frequency. Because precancerous lesions found by Pap smears can be treated and cured before they develop into cancer, and because cervical cancer is often detected before it becomes advanced, the incidence and death rates for this disease are relatively low. According to the most recent data, the incidence rate for cervical cancer was 8.1 cases per 100,000 women per year in the United States. The mortality rate was 2.4 deaths per 100,000 women per year. In 2010, an estimated 12,200 women in the United States will be diagnosed with cervical cancer and an estimated 4,210 will die of the disease. In contrast, the lifetime risk of cervical cancer would be an estimated 3.7 percent in the absence of cervical cancer screening.



#### Figure 26

There is ample epidemiological evidence to suggest that screening can reduce the number of deaths from cervical cancer. Invasive cervical cancer is preceded in a large proportion of cases by pre-cancerous changes in cervical tissue that can be identified with a Pap test. If cervical cancer is detected early, the likelihood of survival is almost 100

percent with appropriate treatment and follow-up. Risk is substantially decreased among former smokers in comparison to continuing smokers.

The 2020 National Health Objectives call for an increase to at least 93.0 percent the proportion of women who receive a cervical cancer screening.

2012 BRFSS data indicate that 92.8 percent of Mississippi women aged 18 and older has received a Pap test (Table 23). This figure represents a slight decrease from 93.2 percent reported in 2010 and also a decrease from 94.2 percent reported in 2008.

The 2012 BRFSS data indicate that 78.3 percent of Mississippi women aged 18 and older have received a Pap test within the preceding one to three years which is a decrease from 85.3 percent reported in 2010.

The rate of Pap screening within three years among women ages 65 and older was substantially lower in 2012 than in 2010. The rate in 2010 was 62.7 percent compared to 59.0 percent in 2012. White females in this age category reported a higher rate at 60.6 percent than did black females who reported a rate of 56.2 percent.

	White		Black		Total	
Groups	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
Age Group						
18-24	59	74.0	81	90.6	141	81.3
25-34	191	97.7	175	90.6	377	94.3
35-44	199	96.7	162	98.2	375	97.4
45-54	257	96.4	225	95.4	487	96.0
55-64	331	97.2	195	97.1	535	97.2
65+	486	94.6	194	87.7	687	92.6
Education						
< High School Graduate	147	89.3	220	92.1	370	90.9
High School Graduate or GED	465	91.6	345	92.3	819	91.9
Some College or Technical School	420	93.3	240	92.0	674	91.7
College Graduate	501	97.5	230	99.6	755	97.8
Income						
< \$15,000	179	91.8	320	91.3	508	91.6
\$15-\$24,999	250	94.4	285	95.3	542	94.6
\$25-\$34,999	153	93.1	108	98.1	266	94.9
\$35-\$49,999	186	95.7	79	94.9	269	92.4
\$50-\$74,999	198	92.9	59	100.0	260	94.5
\$75,000+	314	96.6	46	100.0	367	96.7
Employment Status						
Employed	695	94.6	487	94.7	1,201	94.3
Not Employed	79	94.9	110	96.8	195	96.2
Student/Homemaker	236	87.9	91	88.2	337	87.0
Retired/Unable to Work	523	93.2	343	89.4	881	91.7
Total	1,534	93.1	1,036	93.2	2,620	92.8

Table 23 Female Respondents Who Have Ever Had a Pap Test<sup>3</sup>

<sup>1</sup>Unweighted

<sup>2</sup>Weighted

<sup>3</sup> Denominator is females who have never had a hysterectomy

Table 24 Had a Pap	Test in Past 3 Years
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	White		Black		Total	
Groups	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
Age Group						
18-24	60	73.0	89	90.0	150	80.1
25-34	186	89.2	168	85.2	365	87.6
35-44	172	81.6	147	86.5	333	84.4
45-54	204	73.9	185	73.3	393	73.8
55-64	235	69.8	150	73.4	391	70.9
65+	297	60.6	111	56.2	410	59.0
Education						
< High School Graduate	89	64.9	141	68.8	233	67.2
High School Graduate or GED	325	71.4	281	82.9	609	76.5
Some College or Technical School	323	78.0	216	85.3	551	80.4
College Graduate	416	85.6	210	92.1	646	87.6
Income						
< \$15,000	118	73.1	227	68.6	351	70.7
\$15-\$24,999	162	67.8	241	87.3	409	79.2
\$25-\$34,999	115	79.3	97	90.1	216	83.6
\$35-\$49,999	138	75.1	76	94.2	217	78.1
\$50-\$74,999	167	81.4	60	100.0	230	85.4
\$75,000+	282	87.1	46	97.0 <sup>*</sup>	334	88.4
Employment Status						
Employed	573	80.2	447	87.8	1,035	83.2
Not Employed	60	74.1	89	81.2	155	79.1
Student/Homemaker	186	76.4	76	82.6	271	78.0
Retired/Unable to Work	334	65.4	235	63.4	577	64.5
Total	1,154	76.0	850	81.7	2,042	78.3

<sup>1</sup>Unweighted

<sup>2</sup>Weighted

<sup>3</sup> Denominator is females who have never had a hysterectomy

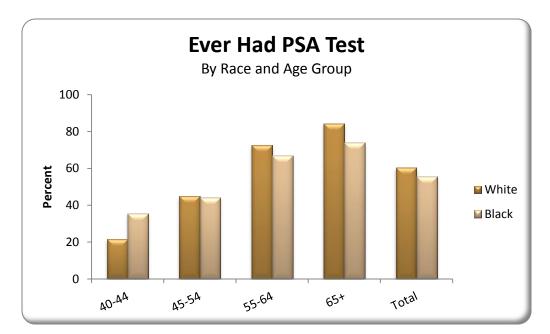
\* Observations < 50

# **Prostate Cancer Screening**

#### **Survey Question**

# A Prostate-Specific Antigen test, also called a PSA test, is a blood test used to check men for prostate cancer. Have you ever had a PSA test?

The public health burden of prostate cancer is substantial. According to the National Cancer Institute a total of 238,590 new cases of prostate cancer and 28,170 deaths from the disease are anticipated in the United States in 2013, making it the most frequent cancer among men with the exception of skin cancer. For a male, the lifetime risk of prostate cancer is one in six. Prostate cancer is the second leading cause of cancer death in men, exceeded only by lung cancer.



#### Figure 27

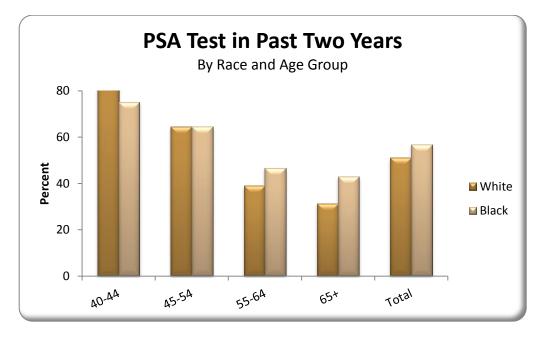
Some men with prostate cancer remain asymptomatic and die from unrelated causes rather than as a result of the cancer itself. This may be due to the advanced age of many men at the time of diagnosis, slow tumor growth, or response to therapy. The estimated number of men with latent prostate carcinoma (i.e., prostate cancer that is present in the prostate gland but never detected or diagnosed during a patient's life) is greater than the number of men with clinically detected disease. A better understanding is needed of the genetic and biologic mechanisms that determine why some prostate carcinomas remain clinically silent, while others cause serious, even life-threatening illness.

In 2011 the death rate in Mississippi among males for prostate cancer was 22.0 per 100,000 which is a decrease from 23.2 per 100,000 reported in 2010. The mortality rate

for whites was 17.8 and 19.2 respectively for 2011 and 2010 and for blacks it was 22.0 and 23.2 in the same years.

Prostate cancer is most common in men aged 65 years and older, who account for approximately 80 percent of all cases of prostate cancer. Digital rectal examination (DRE) and the prostate-specific antigen (PSA) test are two commonly used methods for detecting prostate cancer.

The 2012 BRFSS survey for Mississippi indicated that 58.2 percent of males more than 40 years of age reported ever having had a PSA test. The overall rate for white respondents was 60.4 percent while blacks reported a rate of 55.4 percent. There was a greater difference in rates for men age 60 and older. In the age group 60-69, the screening rate for whites was 84.1 percent compared to 66.0 percent for blacks and for men 70 and older, whites had a rate of 85.0 percent while blacks had a rate of 71.5 percent.



#### Figure 28

Only 53.5 percent of males over 40 years of age reported having a PSA test within the past two years. The rate for white respondents was 51.2 percent compared to 56.8 percent for blacks. There was a conspicuous difference by race in rates for men more than 70 years of age. White males reported a rate of 68.4 percent while in the black group the rate was on 55.8 percent.

	White		Bla	ick	Total	
Groups	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
Age Group						
40-44	21	21.5	17	35.5 <sup>*</sup>	40	26.4
45-54	139	44.9	73	44.2	216	44.6
55-64	291	72.5	129	66.8	422	69.3
65+	543	84.3	122	73.9	679	81.9
Education						
< High School Graduate	107	52.4	97	51.4	207	51.4
High School Graduate or GED	280	54.0	105	48.8	390	51.7
Some College or Technical School	240	60.5	83	62.3	330	60.5
College Graduate	367	73.8	57	74.6	431	73.1
Income						
< \$15,000	53	41.6	82	50.3	138	46.6
\$15-\$24,999	158	58.4	82	45.4	242	52.0
\$25-\$34,999	129	61.5	41	66.3	172	62.3
\$35-\$49,999	131	64.5	39	57.7	173	61.6
\$50-\$74,999	140	58.9	27	80.0*	170	62.5
\$75,000+	293	65.5	28	64.2 <sup>*</sup>	326	64.0
Employment Status						
Employed	428	49.6	113	49.8	550	49.3
Not Employed	18	52.1 <sup>*</sup>	16	44.7 <sup>*</sup>	34	47.7
Retired/Unable to Work	551	77.3	213	63.8	777	71.7
Total	998	60.4	342	55.4	1,362	58.2

# Table 25 Ever Had a PSA Test (Males Age 40+)

<sup>1</sup>Unweighted

<sup>2</sup>Weighted

\* Observations < 50

	White		Bla	ick	Total	
Groups	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
Age Group						
40-44	84	88.0	37	75.2 <sup>*</sup>	128	83.2
45-54	164	64.5	89	64.5	260	64.5
55-64	148	39.1	79	46.7	236	42.7
65+	190	31.4	71	43.0	267	34.0
Education						
< High School Graduate	104	66.5	102	62.3	208	64.8
High School Graduate or GED	189	54.2	106	62.4	304	57.4
Some College or Technical School	141	48.6	44	48.9	195	49.1
College Graduate	148	39.4	24	38.7	180	40.1
Income						
< \$15,000	67	73.9	86	66.6	157	69.7
\$15-\$24,999	112	56.1	78	65.3	194	60.7
\$25-\$34,999	66	46.7	22	52.2	89	49.3
\$35-\$49,999	55	42.8	28	53.2	87	46.9
\$50-\$74,999	88	51.3	11	27.2 <sup>*</sup>	100	47.2
\$75,000+	124	44.8	10	43.1 <sup>*</sup>	143	45.7
Employment Status						
Employed	321	59.4	106	58.7	444	59.4
Not Employed	22	59.0 <sup>*</sup>	22	69.6 <sup>*</sup>	44	65.2
Retired/Unable to Work	241	38.2	148	52.3	401	43.9
Total	586	51.2	276	56.8	891	53.5

## Table 26 Had PSA Test in Past 2 Years (Males 40+)

<sup>1</sup>Unweighted

<sup>2</sup>Weighted

\* Observations < 50

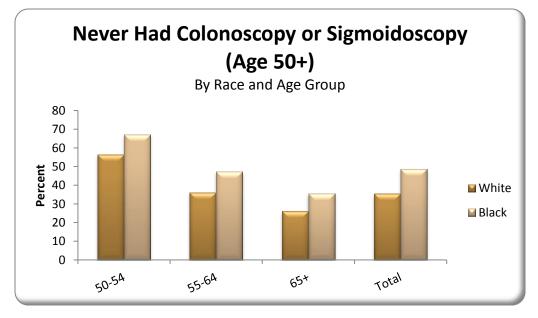
# **Colorectal Cancer Screening**

## **Survey Question**

A sigmoidoscopy and colonoscopy are exams in which a tube is inserted in the rectum to view the colon for signs of cancer or other health problems. Have you ever had either of these exams?

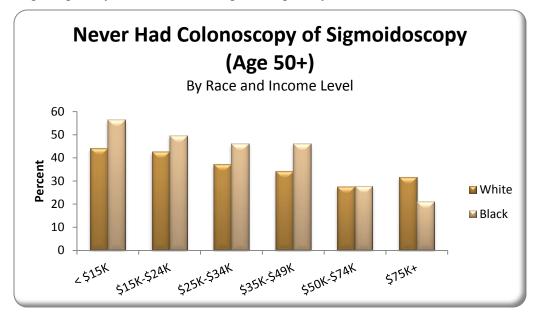
According to CDC, of cancers affecting both men and women, colorectal cancer (CRC), cancer of the colon and rectum, is the second leading cancer killer in the United States. In the U.S. in 2009, there were 136,717 people who were diagnosed with colorectal cancer, and 51,848 deaths from it. CDC estimates that screening could prevent up to 60 percent of the deaths from this form of cancer.

In the past 15 years there have been fewer cases of colorectal cancer with a consequent decrease in death rates. Screening tests help identify polyps that can be removed before they develop into cancer. When detected early the cancer is easier to cure. Improved treatment protocols have also contributed to the decrease in mortality.



#### Figure 29

Risk factors for CRC may include age, personal and family history of polyps or colorectal cancer, inflammatory bowel disease, inherited syndromes, physical inactivity (colon only), obesity, alcohol use and a diet high in fat and low in fruits and vegetables. Fecal Occult Blood Testing and sigmoidoscopy are widely used to screen for CRC, along with barium enema and colonoscopy tests. In 2011 the death rate for colorectal cancer in Mississippi was 21.0 per 100,000 among people age sixty-five and older; in 2010 it was 21.3. Digital rectal examinations (DRE) and proctosigmoidoscopic examinations are designed to detect colorectal cancer and other problems at an early stage to enhance the success of medical intervention Regular screening, beginning at age 50, is the key to preventing colorectal cancer. The U.S. Preventive Services Task Force (USPSTF) recommends screening for colorectal cancer using high-sensitivity fecal occult blood testing, sigmoidoscopy, or colonoscopy beginning at age 50 years and continuing until age 75 years.



#### Figure 30

The 2012 BRFSS data for Mississippi indicates that for people age 50 and older 39.7 percent of those surveyed had never had sigmoidoscopy or colonoscopy examination. In the 2010 survey the rate was 40.0 percent. The survey showed that black respondents were more than 1.4 times more likely to have never had an examination.

The rate for blacks was 48.8 percent compared to 35.5 percent for whites. Blacks who are age 65 or older were also 1.4 times more likely to have never had a sigmoidoscopy or colonoscopy: 35.5 for blacks and 26.1 for whites (Figure 29 and Table 27).

	Wh	ite	Bla	ick	То	tal
Groups	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
Sex						
Male	442	37.8	217	52.1	676	42.5
Female	735	33.7	463	46.0	1,220	37.3
Age Group						
50-54	224	56.3	178	67.2	412	60.5
55-64	390	36.1	267	47.2	666	40.0
65+	563	26.1	235	35.5	818	28.5
Education						
< High School Graduate	215	46.8	249	52.8	471	49.7
High School Graduate or GED	403	34.0	239	53.2	657	39.7
Some College or Technical School	312	35.2	118	47.6	438	38.3
College Graduate	243	28.4	74	27.0	325	28.2
Income						
< \$15,000	168	44.2	264	56.5	441	51.0
\$15-\$24,999	266	42.6	177	49.6	452	45.8
\$25-\$34,999	137	37.2	67	46.2	207	39.8
\$35-\$49,999	120	34.3	41	46.2	165	37.3
\$50-\$74,999	112	27.5	16	27.9	128	27.5
\$75,000+	164	31.7	12	21.2	179	30.6
Employment Status						
Employed	430	42.7	226	54.7	667	46.5
Not Employed	43	54.7	50	68.1	95	60.8
Student/Homemaker	96	31.9	26	43.5	123	33.3
Retired/Unable to Work	606	29.4	376	42.8	1,007	33.8
Total	1,177	35.5	680	48.8	1,896	39.7

### Table 27 Never Had Colonoscopy or Sigmoidoscopy (Age 50+)

<sup>1</sup>Unweighted

	Wh	ite	Bla	ick	То	tal
Groups	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
Sex						
Male	1,016	83.3	376	85.1	1,422	83.9
Female	1,902	83.1	912	85.2	2,856	83.7
Age Group						
50-54	358	88.6	258	89.1	625	88.6
55-64	900	82.3	500	83.7	1,427	82.9
65+	1,660	81.6	530	83.6	2,226	82.1
Education						
< High School Graduate	404	85.9	432	87.8	846	86.7
High School Graduate or GED	1,011	84.7	410	84.3	1,444	84.7
Some College or Technical School	772	81.6	237	83.4	1,024	81.9
College Graduate	723	81.1	209	81.4	955	81.3
Income						
< \$15,000	346	87.1	441	84.9	804	85.9
\$15-\$24,999	560	82.9	326	86.2	900	84.3
\$25-\$34,999	335	80.1	131	83.1	473	81.2
\$35-\$49,999	321	83.8	91	83.5	417	83.2
\$50-\$74,999	336	81.9	53	75.3	389	81.0
\$75,000+	495	84.0	46	74.6	554	83.4
Employment Status						
Employed	933	85.3	380	87.6	1,329	85.9
Not Employed	74	86.0	72	91.4	150	88.6
Student/Homemaker	231	82.0	50	85.7	284	82.6
Retired/Unable to Work	1,676	81.7	784	82.6	2,509	82.0
Total	2,918	83.2	1,288	85.1	4,278	83.8

### Table 28 No Blood Stool Test in Past 2 Years (Age 50+)

<sup>1</sup>Unweighted

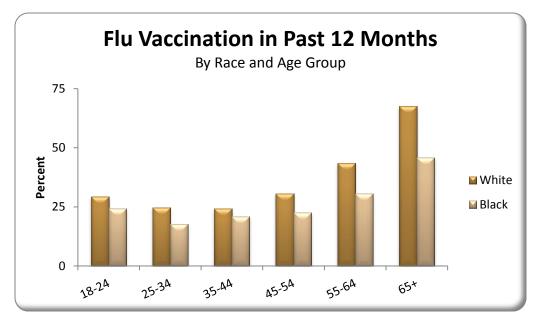
### Immunization

**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 ninth leading cause of death in Mississippi for 2011 producing a death rate of 20.5 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 non-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. It is an important intervention to reduce hospitalizations due to complications of 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.



#### Figure 31

In the 2012 BRFSS survey, 62.4 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 substantial difference according to race: 67.6

percent of whites reported having been vaccinated compared to only 45.8 percent for blacks. For the total population the vaccination rates showed little difference with respect to gender: 33.0 percent of the males and 35.0 percent of the females reported receiving a flu vaccination in the past 12 months.

Only 29.0 percent of the respondents said that they had ever received a pneumonia vaccination. Respondents over the age of 65 reported a vaccination rate of 65.8 percent. As was the case with influenza vaccinations there was a marked difference with respect to race: 71.6 percent for whites but only 47.3 percent for blacks.

	Wh	ite	Bla	ick	То	tal
Groups	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
Sex						
Male	850	37.1	251	25.5	1,128	33.0
Female	1,593	41.1	579	25.5	2,205	35.0
Age Group						
18-24	45	29.4	37	24.3	87	27.4
25-34	90	24.7	60	17.7	156	21.9
35-44	118	24.2	77	20.9	201	22.5
45-54	253	30.5	133	22.5	392	27.8
55-64	495	43.5	198	30.6	707	39.1
65+	1,424	67.6	319	45.8	1,766	62.4
Education						
< High School Graduate	305	34.0	224	21.9	539	27.6
High School Graduate or GED	801	39.0	243	23.5	1,064	33.7
Some College or Technical School	642	39.4	189	28.8	843	35.5
College Graduate	689	42.8	172	30.0	879	39.0
Income						
< \$15,000	282	38.3	251	22.1	545	28.9
\$15-\$24,999	432	38.2	202	23.6	643	30.8
\$25-\$34,999	281	42.0	95	30.0	386	37.2
\$35-\$49,999	289	40.6	67	25.5	360	36.3
\$50-\$74,999	283	38.8	55	28.1	344	37.4
\$75,000+	445	39.4	45	37.8	496	38.7
Employment Status						
Employed	768	31.1	291	22.5	1,077	28.0
Not Employed	48	23.7	29	11.6	78	16.4
Student/Homemaker	222	39.6	42	25.9	274	35.8
Retired/Unable to Work	1,400	56.6	467	38.7	1,898	50.4
Total	2,443	39.2	830	25.5	3,333	34.0

### Table 29 Flu Vaccination in Past 12 Months

<sup>1</sup>Unweighted

	Wh	ite	Bla	ick	То	tal
Groups	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
Sex						
Male	471	68.2	91	46.2	573	62.9
Female	953	67.2	228	45.5	1,193	62.0
Education						
< High School Graduate	229	65.6	150	45.8	384	56.2
High School Graduate or GED	530	68.0	78	46.0	614	64.8
Some College or Technical School	336	66.8	46	42.2	386	63.0
College Graduate	326	70.3	45	52.4	379	67.4
Income						
< \$15,000	192	70.4	122	44.5	317	57.2
\$15-\$24,999	318	65.5	75	46.8	397	60.2
\$25-\$34,999	189	71.8	29	69.0	222	71.5
\$35-\$49,999	154	68.8	17	34.1*	173	63.6
\$50-\$74,999	121	70.5	10	58.2 <sup>*</sup>	132	69.9
\$75,000+	156	63.5	10	52.4 <sup>*</sup>	167	61.7
Employment Status						
Employed	166	57.5	26	51.3 <sup>*</sup>	193	55.9
Not Employed	8	40.0*	4	$13.5^{*}$	12	24.4
Student/Homemaker	128	74.3	19	56.5 <sup>*</sup>	148	72.4
Retired/Unable to Work	1,119	69.0	270	46.2	1,410	63.1
Total	1,424	67.6	319	45.8	1,766	62.4

### Table 30 Flu Vaccination in Past 12 Months (Age 65+)

<sup>1</sup>Unweighted

<sup>2</sup>Weighted

\* Observations < 50

	Wh	ite	Bla	ick	То	tal
Groups	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
Sex						
Male	688	32.3	230	23.3	940	29.1
Female	1,384	33.8	485	21.2	1,898	29.0
Age Group						
18-24	27	21.8	20	13.7	51	19.4
25-34	39	13.9	45	16.0	85	14.4
35-44	52	13.1	55	19.2	111	15.9
45-54	146	21.7	98	16.9	249	19.9
55-64	334	31.1	182	29.7	526	30.6
65+	1,459	71.6	308	47.3	1,793	65.8
Education						
< High School Graduate	308	40.4	228	28.1	547	34.2
High School Graduate or GED	730	34.2	200	18.2	942	27.9
Some College or Technical School	556	32.7	141	18.4	709	28.1
College Graduate	473	26.9	146	28.2	634	26.9
Income						
< \$15,000	287	39.7	261	25.9	565	31.9
\$15-\$24,999	455	42.8	174	23.0	636	32.3
\$25-\$34,999	248	39.4	64	22.9	319	32.6
\$35-\$49,999	214	28.3	57	18.4	276	26.2
\$50-\$74,999	211	27.5	35	19.3	248	25.6
\$75,000+	259	23.9	33	23.1	298	24.1
Employment Status						
Employed	439	18.7	179	15.3	627	17.6
Not Employed	38	21.1	42	12.9	80	15.8
Student/Homemaker	178	29.1	35	20.7	217	26.7
Retired/Unable to Work	1,412	61.7	459	41.0	1,909	54.6
Total	2,072	33.1	715	22.2	2,838	29.0

#### Table 31 Ever Had Pneumonia Vaccination

<sup>1</sup>Unweighted

	Wh	ite	Bla	ick	То	tal
Groups	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
Sex						
Male	457	68.8	90	46.0	559	63.3
Female	1,002	73.6	218	48.3	1,234	67.6
Education						
< High School Graduate	237	69.4	137	45.9	379	58.6
High School Graduate or GED	544	72.8	75	41.6	625	67.9
Some College or Technical School	362	74.4	50	53.3	418	71.2
College Graduate	313	67.3	46	60.0	367	66.0
Income						
< \$15,000	196	70.5	122	44.4	326	57.9
\$15-\$24,999	349	73.5	65	43.1	418	65.1
\$25-\$34,999	190	76.0	26	$67.1^{*}$	220	74.8
\$35-\$49,999	147	67.2	21	64.3 <sup>*</sup>	169	65.9
\$50-\$74,999	108	62.9	7	39.4 <sup>*</sup>	116	61.7
\$75,000+	160	73.0	14	87.2*	177	73.9
Employment Status						
Employed	169	60.1	20	42.7 <sup>*</sup>	190	56.9
Not Employed	9	53.8 <sup>*</sup>	5	$17.1^*$	14	31.8
Student/Homemaker	127	76.7	14	50.8 <sup>*</sup>	142	73.6
Retired/Unable to Work	1,151	73.3	269	49.0	1,444	67.2
Total	1,459	71.6	308	47.3	1,793	65.8

### Table 32 Ever Had Pneumonia Vaccination (Age 65+)

<sup>1</sup>Unweighted

<sup>2</sup>Weighted

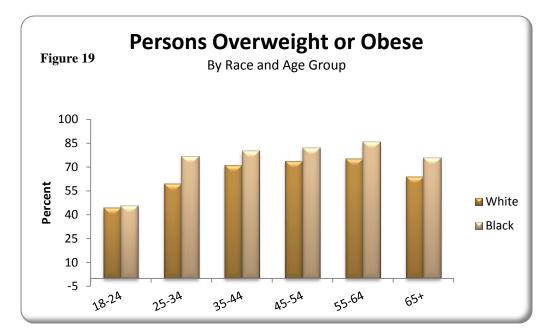
\* Observations < 50

# **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 reported height and weight. See the "*Definitions*" section for the formula.

The proportion of overweight persons has increased substantially during the past twenty-five 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, gallbladder 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 32

Weight may be controlled by dietary changes such as decreasing caloric intake and by increasing physical activity. According to the 2012 BRFSS study 68.9 percent of those surveyed in Mississippi reported themselves as being either overweight (BMI  $\geq$  25) or obese (BMI  $\geq$ 30). The rate for whites was 65.8 percent compared to 74.3 percent for blacks (Table 35). In year 2010 the self-reported rate was 68.8 percent and in 2009 it was 70.3 percent.

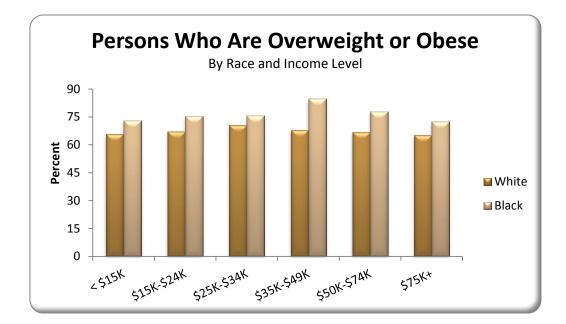


Figure 33

### Table 33 Overweight or Obese

	Wh	ite	Bla	ick	То	tal
Groups	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
Sex						
Male	1,404	72.3	594	69.8	2,045	71.1
Female	1,743	59.4	1,389	78.5	3,187	66.8
Age Group						
18-24	72	44.4	69	45.6	145	45.1
25-34	194	59.7	211	76.9	415	66.8
35-44	292	71.2	255	80.3	564	75.0
45-54	528	73.8	423	82.2	967	76.7
55-64	785	75.2	521	85.8	1,330	78.9
65+	1,268	64.0	497	76.0	1,795	66.9
Education						
< High School Graduate	390	66.3	502	74.3	908	70.6
High School Graduate or GED	1,043	66.6	649	71.6	1,720	68.5
Some College or Technical School	874	67.0	449	75.3	1,351	69.7
College Graduate	834	62.6	381	79.2	1,245	66.2
Income						
< \$15,000	358	65.7	597	72.9	975	69.8
\$15-\$24,999	575	67.2	533	75.5	1,127	71.0
\$25-\$34,999	363	70.5	210	75.6	585	72.5
\$35-\$49,999	389	67.9	179	84.8	581	72.8
\$50-\$74,999	407	66.8	121	78.0	535	69.2
\$75,000+	617	65.2	96	72.5	727	65.7
Employment Status						
Employed	1,372	67.4	860	76.2	2,269	70.2
Not Employed	119	65.7	169	70.2	296	68.4
Student/Homemaker	220	50.5	101	52.4	329	52.1
Retired/Unable to Work	1,433	68.3	849	79.8	2,331	72.5
Total	3,147	65.8	1,983	74.3	5,232	68.9

<sup>1</sup>Unweighted

Table	34 C	)bese
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	Wh	ite	Bla	ick	То	tal
Groups	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
Sex						
Male	569	30.3	284	36.0	868	31.8
Female	821	29.9	866	49.1	1,718	37.3
Age Group						
18-24	33	20.5	36	26.3	69	22.4
25-34	96	28.8	138	46.6	240	36.7
35-44	137	32.5	174	54.0	319	40.9
45-54	249	34.1	253	43.1	510	37.4
55-64	374	36.7	290	45.9	677	39.8
65+	497	26.2	255	39.3	763	29.0
Education						
< High School Graduate	192	30.3	298	45.2	496	37.4
High School Graduate or GED	455	30.1	373	40.7	841	34.1
Some College or Technical School	404	32.2	259	42.4	677	35.6
College Graduate	335	26.2	219	44.8	567	30.6
Income						
< \$15,000	179	35.1	366	44.8	554	40.5
\$15-\$24,999	268	33.1	302	43.6	578	37.9
\$25-\$34,999	158	34.7	119	41.6	285	37.5
\$35-\$49,999	159	26.4	110	54.0	275	33.9
\$50-\$74,999	176	28.5	73	44.7	251	31.6
\$75,000+	252	27.0	48	35.1	304	27.5
Employment Status						
Employed	603	29.4	499	43.1	1,116	33.9
Not Employed	64	34.5	109	46.8	178	41.9
Student/Homemaker	102	24.5	61	30.2	168	27.0
Retired/Unable to Work	621	32.5	479	44.6	1,122	36.5
Total	1,390	30.1	1,150	42.9	2,586	34.6

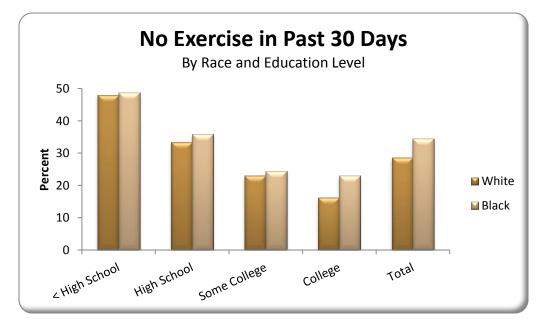
<sup>1</sup>Unweighted

## Exercise

#### **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 other of these risk factors.



#### Figure 34

Regular physical activity is important for people who have joint or bone problems and 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, 30.8 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 34) and in lower income levels (Figure 35) reported the highest percentage of physical inactivity.

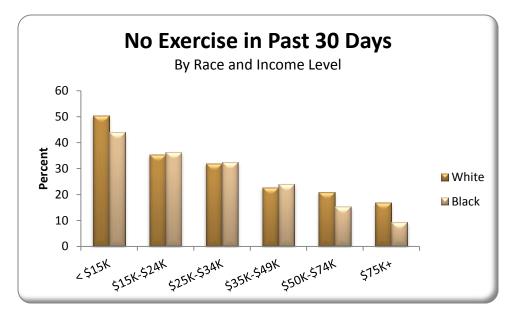


Figure 35

Table 35 No	<b>Exercise</b> in	Past 30 Days
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	Wh	ite	Bla	ick	То	tal
Groups	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
Sex						
Male	511	25.5	270	30.6	803	27.6
Female	1,085	31.5	697	37.8	1,814	33.8
Age Group						
18-24	23	11.8	45	25.4	69	18.0
25-34	68	20.2	74	27.0	150	23.9
35-44	118	31.6	100	30.9	226	31.6
45-54	229	29.1	219	42.5	453	33.7
55-64	353	33.6	246	42.9	614	37.0
65+	795	36.9	276	43.2	1,087	38.2
Education						
< High School Graduate	301	47.9	329	48.7	646	48.8
High School Graduate or GED	631	33.5	336	36.0	983	34.7
Some College or Technical School	382	23.0	178	24.4	570	23.2
College Graduate	277	16.2	122	23.0	410	18.0
Income						
< \$15,000	271	50.3	364	44.0	651	46.3
\$15-\$24,999	351	35.3	257	36.4	618	36.1
\$25-\$34,999	180	31.9	90	32.5	275	32.3
\$35-\$49,999	158	22.7	53	24.0	214	22.8
\$50-\$74,999	149	20.9	29	15.3	179	19.7
\$75,000+	174	16.8	16	9.3	194	16.0
Employment Status						
Employed	497	22.4	332	28.0	847	24.7
Not Employed	60	29.6	97	38.5	161	34.7
Student/Homemaker	128	21.8	39	18.5	169	20.6
Retired/Unable to Work	907	41.8	492	49.8	1,429	44.6
Total	1,596	28.6	967	34.5	2,617	30.8

<sup>1</sup>Unweighted

# **Oral Health**

**Survey Questions** 

1. How long has it been since you last visited a dentist or a dental clinic for any reason?

2. How many of your permanent teeth have been removed because of tooth decay or gum disease?

3. How long has it been since you had your teeth cleaned by a dentist or dental hygienist?

Oral health is an essential and integral component of health throughout life. According the CDC, poor oral health and untreated oral diseases and conditions can have a significant impact on quality of life. Millions of people in the United States are at high risk for oral health problems. Oral and facial pain affects a substantial proportion of the general population.

A full dentition is defined as having 28 natural teeth, exclusive of third

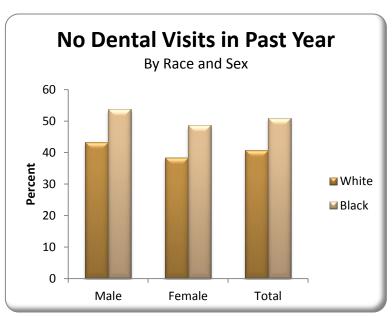


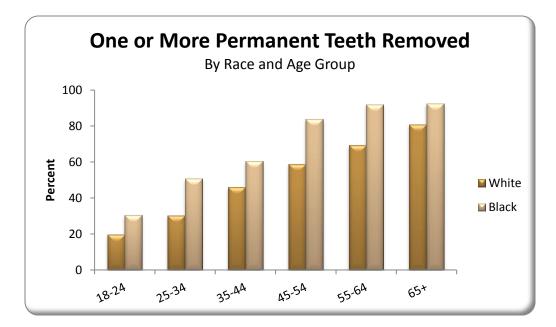
Figure 36

molars and teeth removed for orthodontic treatment or as a result of trauma. Most persons can keep their teeth for life with optimal personal, professional and preventive practices.

Early tooth loss has been shown to be a predictor of eventual edentulism. As teeth are lost, the ability to chew and speak decreases along with the ability to function properly socially. The 2020 national goal for adults age 45 to 64 who have never had permanent teeth extracted because of dental caries or periodontitis is 68.8 percent.

According to the 2012 BRFSS Survey for Mississippi, 58.3 percent of the respondents reported having one or more of their permanent teeth removed. In 2010 the rate was 56.1 percent.

Older people reported the loss of permanent teeth much more frequently than their younger counterparts (Figure 37). Only 24.6 percent of respondents in the 18-24 age category reported the loss of permanent teeth while 83.5 percent in the over age 65 category reported losing permanent teeth. The rate for white respondents reporting tooth loss was 54.5 percent; for blacks it was 65.5 percent.



#### Figure 37

Oral health diseases such as tooth decay and periodontal diseases are common health problems in Mississippi, yet 41.9 percent of respondents from the 2010 BRFSS Survey reported that they had not seen a dentist within the last twelve months (Figure 36). Failure to see a dentist within the past year was observed most frequently among black respondents who less than a high school education with a rate of 70.4 percent. Next were white respondents who have less that a high school education with a rate 67.5 percent, followed by blacks who report an annual income of less than \$15,000 with a rate of 66.7 percent (Table 36).

As has been the case historically, people with incomes above \$75,000 per year have the most frequent dental visits within the past year. Only 23.6 percent of this group report that it has been more than one year since the last visit. The survey revealed that as the income of the respondent decreases, so also the number of people with no dental visits also decreases. With respect to race, 51.0 percent of the black males reported no visits to a dental facility within the past year compared to 40.8 percent for white males. The rate for black females was 48.7 percent while white females reported a rate of 38.4 percent (Table 36).

Table 36 No De	ntal Visits in Past Year
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	White		Bla	ick	Total		
Groups	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	
Sex							
Male	779	43.3	451	53.7	1,265	47.1	
Female	1,172	38.4	981	48.7	2,188	42.2	
Age Group							
18-24	53	33.0	69	37.0	128	35.7	
25-34	123	38.0	124	47.0	258	42.6	
35-44	171	42.9	153	47.8	333	44.5	
45-54	296	42.4	282	54.6	584	46.5	
55-64	424	41.1	334	57.8	769	46.5	
65+	874	43.4	464	70.6	1,363	49.8	
Education							
< High School Graduate	414	67.5	490	70.4	920	69.3	
High School Graduate or GED	762	45.6	484	50.4	1,264	47.1	
Some College or Technical School	463	35.1	280	41.2	761	37.5	
College Graduate	304	23.0	175	33.4	496	25.7	
Income							
< \$15,000	370	64.0	552	66.7	942	65.9	
\$15-\$24,999	478	58.9	379	52.7	870	55.7	
\$25-\$34,999	225	44.1	137	46.5	369	44.9	
\$35-\$49,999	187	38.0	79	35.6	271	37.1	
\$50-\$74,999	155	26.8	42	24.7	200	26.6	
\$75,000+	204	23.8	25	22.4	234	23.6	
Employment Status							
Employed	676	37.1	501	46.8	1,201	40.6	
Not Employed	104	56.9	142	54.4	251	55.5	
Student/Homemaker	188	35.5	78	33.9	273	35.5	
Retired/Unable to Work	981	46.4	708	63.9	1,723	52.4	
Total	1,951	40.8	1,432	51.0	3,453	44.6	

<sup>1</sup>Unweighted

	Wh	ite	Bla	ick	Total		
Groups	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	
Sex							
Male	1,174	52.9	604	65.0	1,817	57.0	
Female	1,987	56.1	1,402	66.0	3,442	59.5	
Age Group							
18-24	31	19.5	47	30.4	81	24.6	
25-34	99	30.2	142	50.8	249	39.1	
35-44	189	46.0	197	60.4	396	51.5	
45-54	423	58.9	444	83.7	877	67.6	
55-64	740	69.4	551	92.0	1,317	77.4	
65+	1,660	80.8	616	92.3	2,309	83.5	
Education							
< High School Graduate	522	77.3	583	76.8	1,117	76.3	
High School Graduate or GED	1,204	62.7	671	67.9	1,905	64.4	
Some College or Technical School	826	48.9	415	56.9	1,264	51.7	
College Graduate	600	34.8	335	55.4	962	39.9	
Income							
< \$15,000	449	72.2	651	70.1	1,121	70.0	
\$15-\$24,999	670	65.0	538	70.1	1,225	67.3	
\$25-\$34,999	381	59.6	199	65.1	596	62.1	
\$35-\$49,999	362	54.0	151	61.2	522	55.5	
\$50-\$74,999	327	45.5	104	59.4	435	48.1	
\$75,000+	401	36.9	78	49.4	490	38.4	
Employment Status							
Employed	1,014	43.6	742	60.2	1,785	49.2	
Not Employed	114	55.2	170	60.8	289	58.6	
Student/Homemaker	266	41.6	100	43.3	375	41.6	
Retired/Unable to Work	1,758	79.1	988	86.1	2,795	81.5	
Total	3,161	54.5	2,006	65.5	5,259	58.3	

#### Table 37 Have Had at Least One Permanent Tooth Extracted

<sup>1</sup>Unweighted

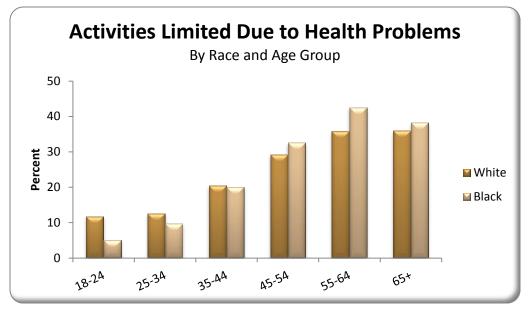
# Disability

#### **Survey Question**

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

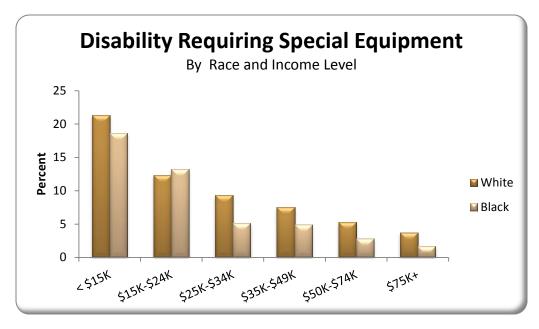
According to the Healthy People 2020 publication, the U.S. Census of 2000 counted 49.7 million people with some type of long-lasting condition or disability. An individual may sustain a disabling impairment or chronic condition at any point in life. Disability is part of human life, and an impairment or condition does not define individuals, their health, or their talents and abilities.

People with disabilities play an important and valued role in every community. All people, including people with disabilities, must have the opportunity to take part in important daily activities that add to a person's growth, development, fulfillment, and community contribution.



#### Figure 38

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.



#### Figure 39

In the 2012 BRFSS survey, 24.6 percent of Mississippians reported that their activities were limited because of health problems compared to 27.5 percent in 2011. White respondents reported a rate of 26.0 down from 29.6 in 2011 while blacks reported a rate of 22.9 percent, which was slight decrease from the rate of 24.0 percent reported in 2011. Figure 38 reflects the fact that these limitations increase with age for both races. People over the age of 65 report a rate of 36.6 percent (36.0 for whites and 38.2 for blacks) but the 18-24 age group had a rate of only 8.3 percent (11.7 for white and 5.0 for blacks).

Only 10.2 percent of the population has health problems that require special equipment such as a wheelchair, special bed, cane or special telephone. Figure 39 shows that those with lower incomes tend to require special equipment for health problems.

	White		Bla	ick	То	tal
Groups	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
Sex						
Male	530	23.1	261	25.2	805	23.6
Female	1,009	28.7	505	20.9	1,545	25.6
Age Group						
18-24	20	11.7	8	5.0	28	8.3
25-34	45	12.6	28	9.7	75	11.3
35-44	80	20.4	69	20.0	153	20.1
45-54	222	29.2	183	32.6	411	30.2
55-64	389	35.8	245	42.5	647	38.1
65+	773	36.0	228	38.2	1,021	36.6
Education						
< High School Graduate	300	42.4	276	36.4	587	39.4
High School Graduate or GED	534	27.2	244	21.0	790	24.6
Some College or Technical School	399	23.4	145	16.8	555	21.0
College Graduate	303	16.2	101	13.4	415	15.2
Income						
< \$15,000	313	51.4	350	35.9	676	41.5
\$15-\$24,999	355	35.5	170	22.5	536	29.0
\$25-\$34,999	169	27.8	49	13.5	223	21.8
\$35-\$49,999	150	23.3	37	12.4	191	20.1
\$50-\$74,999	124	15.3	23	9.4	148	13.9
\$75,000+	141	11.5	11	5.9	156	11.2
Employment Status						
Employed	278	11.9	118	8.7	400	10.5
Not Employed	62	30.0	62	19.6	128	24.4
Student/Homemaker	125	19.2	32	12.4	158	16.4
Retired/Unable to Work	1,073	53.5	553	57.4	1,662	54.9
Total	1,539	26.0	766	22.9	2,350	24.6

### Table 38 Activities Limited Due to Physical, Mental or Emotional Problems

<sup>1</sup>Unweighted

	Wh	ite	Bla	ick	Total		
Groups	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	
Sex							
Male	215	8.2	154	14.3	375	10.3	
Female	477	10.4	297	9.7	790	10.1	
Age Group							
18-24	2	0.9	2	0.9	4	0.9	
25-34	8	1.8	8	2.6	16	2.1	
35-44	20	4.6	26	9.3	47	6.7	
45-54	61	7.4	80	16.1	143	10.6	
55-64	141	14.2	129	22.2	276	17.0	
65+	454	19.9	203	28.9	670	22.0	
Education							
< High School Graduate	146	15.1	206	21.1	358	18.3	
High School Graduate or GED	236	9.9	125	10.0	367	10.0	
Some College or Technical School	170	8.0	73	7.5	249	7.7	
College Graduate	139	6.4	47	6.1	190	6.2	
Income							
< \$15,000	173	21.3	217	18.6	396	19.3	
\$15-\$24,999	165	12.3	102	13.2	271	12.7	
\$25-\$34,999	72	9.3	20	5.1	95	7.5	
\$35-\$49,999	58	7.5	13	4.9	73	6.9	
\$50-\$74,999	46	5.3	7	2.8	53	4.7	
\$75,000+	46	3.7	3	1.7	51	3.9	
Employment Status							
Employed	61	2.4	23	1.7	84	2.1	
Not Employed	15	4.5	21	6.7	36	5.6	
Student/Homemaker	37	3.6	20	4.0	57	3.6	
Retired/Unable to Work	578	25.0	385	37.5	985	29.5	
Total	692	9.3	451	11.8	1,165	10.2	

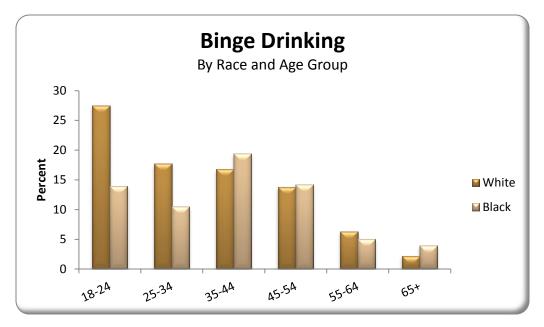
### Table 39 Health Problems Requiring Special Equipment

<sup>1</sup>Unweighted

# **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 40

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 2009 alcohol use was associated with 35 percent of all motor vehicle crash fatalities, according to the Mississippi Office of Highway Safety.

Historically the BRFSS Survey has revealed that the group with the highest rate of binge drinking has been white males in the age group 18-24. In the 2012 survey the rate in this category was 18.5 percent. Since 1999 when the rate of binge drinking for this

group was reported to be 33.5 percent, the survey has shown an overall decline within this age segment. In 2003 it was 26.7 percent but in 2011 it had dropped to 22.0 percent.

The 2012 survey revealed that males were 2.6 times more likely than females to indulge in binge drinking. Only 7.0 percent of female respondents said they had five or more drinks on one occasion during the last thirty days compared to 17.9 percent for males.

### Table 40 Report Binge Drinking

	White		Bla	ick	Total		
Groups	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	
Sex							
Male	220	18.5	106	17.0	335	17.9	
Female	115	6.9	84	7.4	201	7.0	
Age Group							
18-24	41	27.5	21	13.9	63	20.8	
25-34	53	17.7	26	10.5	80	14.2	
35-44	60	16.8	42	19.4	105	17.8	
45-54	85	13.8	53	14.2	144	14.2	
55-64	53	6.3	33	5.0	86	5.7	
65+	42	2.2	15	3.9	57	2.5	
Education							
< High School Graduate	34	10.4	40	11.3	75	10.9	
High School Graduate or GED	89	10.7	81	16.0	177	12.9	
Some College or Technical School	109	14.9	44	9.3	154	12.7	
College Graduate	103	12.5	25	7.9	130	11.1	
Income							
< \$15,000	24	9.9	63	14.1	89	12.6	
\$15-\$24,999	41	9.5	52	11.7	95	10.4	
\$25-\$34,999	40	12.4	26	13.7	67	12.6	
\$35-\$49,999	32	11.5	21	15.5	54	12.3	
\$50-\$74,999	58	14.9	4	5.4	65	13.5	
\$75,000+	107	18.0	7	6.2	116	16.6	
Employment Status							
Employed	231	17.3	109	14.6	348	16.2	
Not Employed	20	13.9	28	13.4	49	13.6	
Student/Homemaker	25	10.6	10	9.1	35	9.7	
Retired/Unable to Work	58	3.9	43	6.1	103	4.8	
Total	335	12.4	190	11.7	536	12.1	

<sup>1</sup>Unweighted

	White		Bla	ck	Total		
Groups	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	
Sex							
Male	84	6.7	39	6.0	126	6.6	
Female	86	3.6	23	1.7	110	2.9	
Age Group							
18-24	8	5.4	3	1.7	11	3.6	
25-34	18	8.2	8	4.9	27	6.8	
35-44	20	6.1	9	3.5	31	5.5	
45-54	34	5.1	27	8.4	62	6.3	
55-64	44	5.0	11	1.5	55	3.7	
65+	46	2.5	4	0.6	50	2.0	
Education							
< High School Graduate	18	4.0	17	5.0	36	4.8	
High School Graduate or GED	43	5.1	30	5.2	75	5.2	
Some College or Technical School	54	5.9	11	1.9	65	4.4	
College Graduate	55	4.7	4	1.2	60	3.9	
Income							
< \$15,000	16	3.7	20	4.6	36	4.1	
\$15-\$24,999	19	3.3	19	3.0	38	3.1	
\$25-\$34,999	17	3.8	6	5.5	24	4.9	
\$35-\$49,999	15	5.4	4	2.9	19	4.6	
\$50-\$74,999	26	5.1	1	0.5	29	4.6	
\$75,000+	58	8.5	4	4.2	63	8.2	
Employment Status							
Employed	93	6.5	35	4.5	131	5.8	
Not Employed	9	3.4	9	4.1	18	3.7	
Student/Homemaker	14	4.4	4	4.7	18	4.3	
Retired/Unable to Work	54	3.1	14	1.5	69	2.8	
Total	170	5.1	62	3.7	236	4.6	

<sup>1</sup>Unweighted

# **Drinking and Driving**

#### **Survey Question**

During the past month, how many times have you driven when you have had perhaps too much to drink?

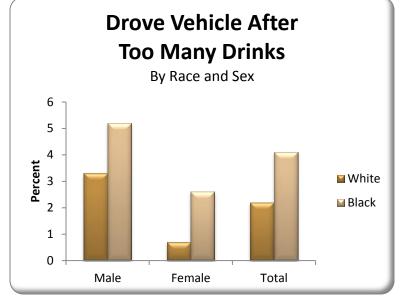
In 2010 there were 10,228 reports alcohol-related motor vehicle fatalities in the United States according to the Centers for Disease Control and Prevention (CDC). In the same year Mississippi reported 236 such fatalities which accounted for approximately 40 percent of all vehicular deaths that year an increase from 38 percent reported in 2009.

Between 2007 and 2011 there were a total 1,187 traffic fatalities on roadways for Mississippi in which the crash victims registered a blood alcohol content of 0.08 percent or higher. This is an

average of 237 fatalities per year and accounts for approximately 33 percent of all traffic fatalities during the five-year period.

In Mississippi, males were much more likely than females to have driven after having too much to drink according to the 2012 BRFSS report. The rate for males was 4.2 percent compared to only 1.3 for females. White males were five times

more likely to drive after excessive drinking than





white females while black males were twice as likely to drive after drinking as were black females.

The demographic group that reported the highest rate of drinking and driving was black respondents age 18 to 24 with a rate of 7.0 percent. The next highest group was blacks in the 35 to 44 age group who showed a rate of 5.1 percent. The third highest group was whites 18 to 24 who reported a rate of 4.5 percent.

	White		Bla	ck	Total		
Groups	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	
Sex							
Male	15	3.3	11	5.2	27	4.2	
Female	4	0.7	8	2.6	12	1.3	
Age Group							
18-24	2	4.5	4	7.0	6	5.5	
25-34	5	3.7	5	4.1	10	3.7	
35-44	3	2.2	5	5.1	9	4.1	
45-54	6	2.2	3	2.1	9	2.1	
55-64	1	0.3	0	0.0	1	0.2	
65+	2	0.3	2	4.8	4	1.0	
Education							
< High School Graduate	0	0.0	4	3.4	5	3.0	
High School Graduate or GED	4	2.5	5	3.0	9	2.6	
Some College or Technical School	9	3.1	8	6.5	17	4.1	
College Graduate	6	1.7	2	2.2	8	1.8	
Income							
< \$15,000	0	0.0	5	4.1	5	2.4	
\$15-\$24,999	2	0.3	4	2.4	6	1.4	
\$25-\$34,999	1	0.3	3	3.1	4	1.5	
\$35-\$49,999	4	5.1	4	7.9	8	5.8	
\$50-\$74,999	3	1.8	1	3.0	4	2.1	
\$75,000+	7	3.5	0	0.0	8	3.9	
Employment Status							
Employed	14	2.3	14	5.6	28	3.3	
Not Employed	1	0.3	2	2.3	3	1.5	
Student/Homemaker	2	7.5	2	4.1	4	6.1	
Retired/Unable to Work	2	0.2	1	0.3	4	1.3	
Total	19	2.2	19	4.1	39	3.0	

### Table 42 Report Driving While Having Too Much to Drink in Past Month<sup>\*</sup>

<sup>1</sup>Unweighted

<sup>2</sup>Weighted

\* Denominator is those who report drinking

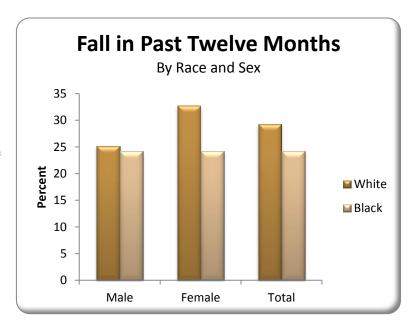
# Falls

#### **Survey Question**

1. The next question asks about a recent fall. By a fall, we mean when a person unintentionally comes to rest on the ground or another lower level. In the past twelve months, how many times have you fallen?

2. How many of these falls caused an injury? By an injury, we mean the fall caused you to limit your regular activities for at least a day or to go see a doctor.

According to the CDC, each year one in every three adults age 65 and older falls. Falls can cause moderate to severe injuries, such as hip fractures and head injuries, and can increase the risk of early death. Fortunately, falls are a public health problem that is largely preventable. Among older adults aged 65 or older, falls are the leading cause of injury death. They are also the most common cause of nonfatal injuries and hospital





admissions for trauma. In 2010, there were approximately 2.3 million nonfatal fall injuries among older adults treated in emergency departments and more than 662 thousand of these patients were hospitalized.

Recent studies have shown that in the United States, one of every three people age 65 years and older falls each year. Of those who fall, twenty to thirty percent suffer moderate to severe injuries such as fracture or head trauma that reduce mobility and independence, and increases the risk of premature death. Most fractures among older adults are caused by falls. The most common are fractures of the spine, hip, forearm, leg, ankle, pelvis, upper arm, and hand. The direct cost of fall injuries in 2010 for people age 65 and older was \$30 billion.

One of the strongest predictors of a fall is having sustained a previous fall. A fall is often a marker of increasing fragility, functional decline, or neurological impairment and may indicate the need for a secondary prevention strategy such as hip protectors to guard against hip fractures.

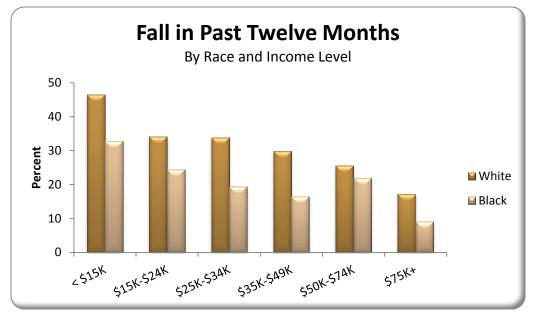


Figure 43

In the 2012 BRFSS survey for Mississippi, the question related to falls was only asked of those who were 45 year old or older. Of those, 27.7 percent reported that they had sustained a fall in the past twelve months. White respondents reported a rate of 29.3 percent compared to 24.2 percent for black respondents (Table 43).

Lower income groups reported a higher rate of falls than those with incomes in the upper group. Those with incomes less that \$15 thousand annually had a rate of 39.0 percent and those with incomes in the range of \$15 to \$25 thousand annually reported a rate of 30.1 percent while those with incomes greater than \$75 thousand annually experienced a rate of only 16.4 percent (See Figure 45 and Table 43). Females, at 30.2 percent, reported a higher rate of falls than males who had a rate of 24.8 percent (Figure 44).

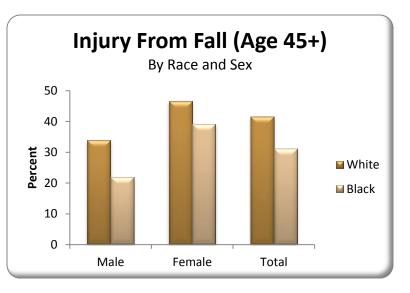


Figure 44

Of those who reported a fall, 38.8 percent said that they sustained an injury from the fall. As was the case with falls, those in the lower income groups had the higher rates of injury as did females in the survey. Almost 50 percent of those with incomes less than \$15 thousand annually reported receiving an injury from the fall and 44.6 percent of the females reported an injury from a fall compared to 30.5 percent for males (See Figures 44, 45 and Table 44).

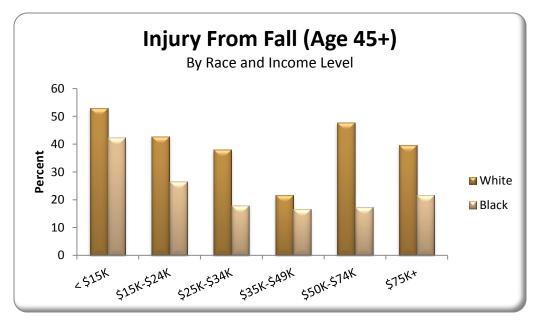


Figure 45

	White		Bla	ick	Total	
Groups	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
Sex						
Male	385	25.2	121	24.2	516	24.8
Female	831	32.8	325	24.2	1,177	30.2
Age Group						
45-54	213	27.0	136	26.0	353	26.5
55-64	339	30.2	149	22.7	499	27.8
65+	664	30.6	161	23.2	841	28.9
Education						
< High School Graduate	209	40.2	145	24.6	356	32.2
High School Graduate or GED	413	29.0	153	25.8	579	28.4
Some College or Technical School	303	26.7	85	23.7	394	25.8
College Graduate	288	24.8	63	19.6	361	23.8
Income						
< \$15,000	213	46.4	183	32.7	406	39.0
\$15-\$24,999	263	34.1	110	24.4	379	30.1
\$25-\$34,999	143	33.8	32	19.4	178	29.0
\$35-\$49,999	131	29.8	23	16.4	157	26.7
\$50-\$74,999	124	25.5	17	21.8	142	24.6
\$75,000+	140	17.2	8	9.1	153	16.4
Employment Status						
Employed	282	19.1	93	16.1	377	17.9
Not Employed	49	47.6	29	27.6	79	37.2
Student/Homemaker	92	28.4	24	27.2	116	27.9
Retired/Unable to Work	791	37.6	298	30.3	1,117	35.5
Total	1,216	29.3	446	24.2	1,693	27.7

### Table 43 Report a Fall in Past 12 Months (Age 45+)

<sup>1</sup>Unweighted

	Wh	ite	Bla	ick	Total		
Groups	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	
Sex							
Male	117	34.0	33	21.9	154	30.5	
Female	385	46.5	135	39.2	532	44.6	
Age Group							
45-54	98	45.2	53	27.9	153	39.2	
55-64	152	44.5	53	33.5	210	41.2	
65+	252	36.9	62	33.9	323	36.4	
Education							
< High School Graduate	102	49.6	54	29.0	157	42.0	
High School Graduate or GED	167	38.3	50	29.0	223	35.5	
Some College or Technical School	125	41.5	32	32.0	159	39.3	
College Graduate	107	36.7	32	45.5	146	39.1	
Income							
< \$15,000	114	53.0	80	42.4	197	47.3	
\$15-\$24,999	106	42.8	39	26.6	148	36.8	
\$25-\$34,999	51	38.0	12	17.9	64	33.5	
\$35-\$49,999	33	21.7	6	16.7	42	22.9	
\$50-\$74,999	57	47.8	4	17.3	62	44.3	
\$75,000+	56	39.7	3	21.7	61	38.7	
Employment Status							
Employed	101	36.8	26	20.6	127	32.4	
Not Employed	19	43.0	8	16.3	27	32.7	
Student/Homemaker	38	38.7	10	43.3	48	39.3	
Retired/Unable to Work	343	44.2	123	37.6	482	42.4	
Total	502	41.6	168	31.2	686	38.8	

### Table 44 Report Injury From a Fall in Past 12 Months (Age 45+)<sup>\*</sup>

<sup>1</sup>Unweighted

<sup>2</sup>Weighted

\* Denominator is those who report a fall in past 12 months

### Seat Belt Use

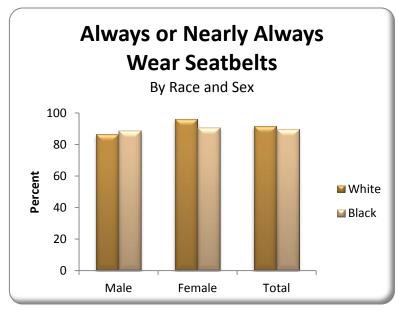
#### **Survey Question**

## 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?

Motor vehicle-related injuries kill more children and young adults than any other single cause in the United States according to the Centers for Disease Control and Prevention. Data from the National Highway Traffic Safety Administration (NHTSA) in 2011 states that the use of seat belts in passenger vehicles saved an estimated 11,949 lives in the United States for occupants five year of age and older. An additional 3,384 lives

would have been saved in 2011 if all unrestrained passenger vehicle occupants age five and older involved in fatal crashes had worn their seat belts

The NHTSA further reports that one of the most effective measures a person can take to prevent injury and death in a crash is to be appropriately restrained in rear- or forward-facing child safety seats, booster seats, or seat belts. NHTSA estimates that lap-shoulder seat belts, when used correctly, reduce the risk of

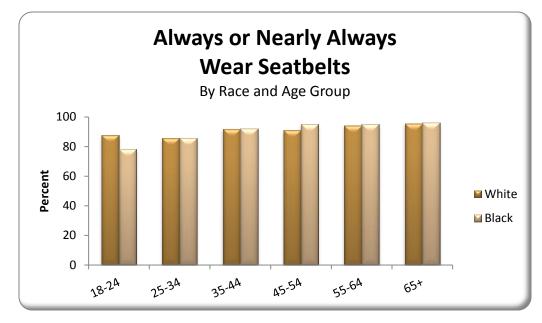




fatal injury to front-seat passenger car occupants by 45 percent and the risk of moderateto-critical injury by 50 percent. For light-truck occupants, seat belts reduce the risk of fatal injury by 60 percent and moderate-to-critical injury by 65 percent. Research on the effectiveness of child safety seats has found them to reduce fatal injury by 71 percent for infants less than one year old and by 54 percent for toddlers one to four years old in passenger cars. For infants and toddlers in light trucks the corresponding reductions are 58 percent and 59 percent, respectively

The Agency also states that child restraints saved an estimated 263 lives of children under the age of five and if the use of child restraints had been 100 percent, another 51 lives could have been saved.

In 2010, according to the Mississippi Office of Highway Safety (MOHS), 62.4 percent of the traffic fatalities in Mississippi were from unbelted occupants. The MOHS classifies non-fatal traffic injuries into three categories from most severe (A-level) to least severe (C-level). According to the latest MOHS Highway Safety and Performance Plan, there were 440 A-level injuries in 2010 and almost half or 47.0 percent were belted and prevented from more serious injury or death. There were 4,395 B-level injures and of these, 80.7 percent were using belts. In the C-level category there were 13,349 non-fatal injuries and 92.9 percent of those were wearing safety belts. The Plan concluded that seat belt usage significantly reduces the risk of serious injury and death.



#### Figure 47

The 2012 BRFSS survey in Mississippi revealed that 90.9 of the respondents say that they always or nearly always wear a seat belt when they either drive of ride in a car. Females report that they use seat belts more often than men. Women had a usage rate of 94.0 percent compared to 87.5 percent for men (Figure 46). Younger respondents reported a higher rate of non-usage that older respondents. In the 18 to 24 age group, 83.6 percent said that they always or nearly always use seat belts while those age 65 and older reported a rate of 95.6 percent (Figure 47).

	Wh	ite	Bla	ick	Total		
Groups	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	
Sex							
Male	1,642	86.6	726	88.7	2,433	87.5	
Female	2,998	96.2	1,667	90.7	4,747	94.0	
Age Group							
18-24	147	87.6	125	78.1	282	83.6	
25-34	310	85.5	253	85.8	582	85.8	
35-44	417	91.9	292	92.2	734	91.8	
45-54	691	90.9	493	95.0	1,205	92.4	
55-64	1,040	94.2	584	95.0	1,649	94.3	
65+	2,006	95.6	632	96.0	2,680	95.6	
Education							
< High School Graduate	556	87.3	620	89.6	1,195	88.3	
High School Graduate or GED	1,499	90.2	790	91.1	2,326	90.4	
Some College or Technical School	1,255	92.1	531	87.4	1,824	90.7	
College Graduate	1,320	95.7	449	92.4	1,821	94.8	
Income							
< \$15,000	511	91.6	738	90.9	1,273	90.9	
\$15-\$24,999	806	89.4	616	90.6	1,450	90.2	
\$25-\$34,999	494	92.8	256	90.9	765	91.4	
\$35-\$49,999	531	90.6	197	92.2	743	91.1	
\$50-\$74,999	596	92.0	139	88.3	744	91.5	
\$75,000+	905	92.5	115	90.6	1,044	92.4	
Employment Status							
Employed	1,882	89.6	991	89.9	2,934	89.8	
Not Employed	166	89.0	214	81.8	388	85.2	
Student/Homemaker	447	95.6	136	83.1	600	91.2	
Retired/Unable to Work	2,137	94.0	1,045	95.8	3,243	94.6	
Total	4,640	91.5	2,393	89.8	7,180	90.9	

### Table 45 Always or Nearly Always Wear Seatbelts

<sup>1</sup>Unweighted

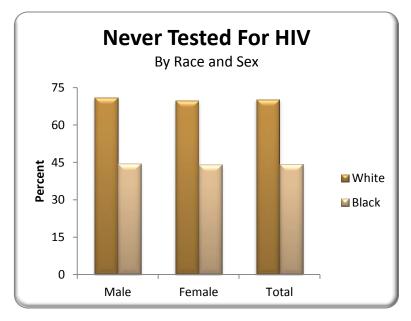
# HIV/AIDS

#### **Survey Question**

### 1. Have you ever been tested for HIV?

2. Are any of these statements is true? You are a man who has had sex with other men, even just one time. You have taken street drugs by needle, even just one time. You traded sex for money or drugs, even just one time.

Acquired Immune **Deficiency Syndrome** (AIDS) received designation as a legally reportable disease in July 1983. By 1990, AIDS had become the tenth leading cause of death in the United States. Individuals engaging in certain risky behaviors have greater risk of contracting AIDS. These behaviors include sharing needles or syringes, having unprotected sex (anal, oral or vaginal). having multiple sex partners, having a history of sexually transmitted

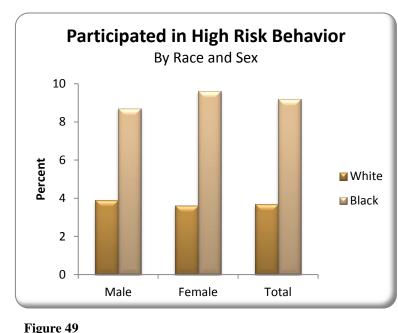




diseases, abusing intravenous drugs and having sex with a person engaged in one of these risky behaviors. AIDS is a life threatening condition representing the later stages of infection with the human immunodeficiency virus (HIV). Infection with HIV results in slow, progressive damage to the immune system and certain other organ systems. As the immune system weakens, certain opportunistic infections and cancers develop that are not normally seen in healthy individuals resulting in severe and frequently fatal illnesses.

In 2011, the estimated number of diagnoses of AIDS in the United States and dependent areas was 32,052. Of these, 24,088 AIDS diagnoses were among adult and adolescent males, 7,949 were among adult and adolescent females, and 15 diagnoses were among children aged less than 13 years. Mississippi reported 547 new cases of HIV in 2012 and there were 10,254 people with HIV living in the state.

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 2012, 60.3 percent of the respondents reported that they had never been tested. White respondents were more likely to have never been tested than blacks: 70.3 percent to 44.2. The rate for white respondents who have never been tested was 71.0 percent for males and 69.7 percent for females. For blacks, the rates were 44.4 percent for males and 44.0 for females (Figure 48 and Table 46).



On the question of whether the respondents had participated in high risk behavior, blacks with a rate of 9.2 percent were 2.5 times more likely to have participated as whites who had a rate of 3.7 percent. In the gender category, black females who reported a rate of 9.6 percent were higher than any of the other gender groups for engaging in high risk

behavior. The next highest group was

black males with a rate of 8.7 percent followed by white males at 3.9 percent. White females reported the lowest rate of risky behavior with a rate of 3.6 percent (Figure 49 and Table 47).

	White		Black		Total	
Groups	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
Sex						
Male	1,284	71.0	378	44.4	1,704	61.3
Female	2,293	69.7	984	44.0	3,336	59.5
Age Group						
18-24	105	67.5	59	36.9	171	53.6
25-34	168	51.0	74	26.1	247	39.7
35-44	236	56.9	100	32.8	352	46.9
45-54	484	68.3	257	48.1	752	60.5
55-64	811	78.5	382	63.1	1,214	72.9
Education						
< High School Graduate	421	63.2	415	55.3	851	59.3
High School Graduate or GED	1,245	74.9	460	45.2	1,735	63.6
Some College or Technical School	946	69.9	261	36.6	1,227	57.9
College Graduate	954	69.5	224	35.8	1,213	60.1
Income						
< \$15,000	360	57.5	422	44.7	805	50.1
\$15-\$24,999	632	67.4	373	45.1	1,020	55.9
\$25-\$34,999	389	70.9	139	39.9	543	58.6
\$35-\$49,999	436	78.3	109	40.1	557	67.6
\$50-\$74,999	456	73.0	62	33.7	521	64.5
\$75,000+	656	68.0	53	36.5	721	63.0
Employment Status						
Employed	1,375	67.8	500	39.4	1,912	57.2
Not Employed	105	54.4	118	42.3	226	46.4
Student/Homemaker	348	70.9	73	35.3	433	59.2
Retired/Unable to Work	1,743	77.8	667	58.5	2,459	71.1
Total	3,577	70.3	1,362	44.2	5,040	60.3

<sup>1</sup>Unweighted

	White		Black		Total	
Groups	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>	Number <sup>1</sup>	Percent <sup>2</sup>
Sex						
Male	23	3.9	40	8.7	63	5.6
Female	37	3.6	73	9.6	111	6.1
Age Group						
18-24	12	8.1	23	14.8	35	11.0
25-34	16	6.4	31	12.5	48	9.0
35-44	8	2.0	15	7.1	23	3.9
45-54	20	3.3	19	4.2	39	3.6
55-64	4	0.4	25	6.4	29	2.4
Education						
< High School Graduate	14	8.3	34	16.0	48	12.0
High School Graduate or GED	19	4.0	40	8.5	59	5.8
Some College or Technical School	15	2.8	29	7.1	45	4.5
College Graduate	12	2.0	10	3.8	22	2.4
Income						
< \$15,000	15	6.8	46	14.3	61	11.0
\$15-\$24,999	13	7.2	32	8.6	46	8.1
\$25-\$34,999	3	2.8	13	12.4	16	7.2
\$35-\$49,999	9	4.0	3	2.5	12	3.4
\$50-\$74,999	3	0.7	3	1.2	6	0.8
\$75,000+	11	2.0	2	2.4	13	2.0
Employment Status						
Employed	26	2.8	50	8.7	76	4.9
Not Employed	13	11.2	30	14.9	44	13.6
Student/Homemaker	7	4.5	9	7.8	16	5.4
Retired/Unable to Work	14	3.5	23	6.6	37	4.8
Total	60	3.7	113	9.2	174	5.8

### Table 47 Participated in High Risk Behavior in Past 12 Months (Age 18-64)

<sup>1</sup>Unweighted