



2016

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

Mississippi State Department of Health
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MISSISSIPPI STATE DEPARTMENT OF HEALTH

Mississippi Behavioral Risk Factor Surveillance Survey

2016 Prevalence Report

August 19, 2017



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Table of Contents

Table of Contents	iii
Introduction	v
Methodology	vi
Definition of Terms and Risk Factors	ix
Survey Results	1
Health Status.....	2
Health Care Coverage.....	5
Healthy Days	9
Tobacco Use	14
E-Cigarettes	16
Diabetes	20
Cardiovascular Disease.....	23
Asthma.....	28
Arthritis.....	32
Depression	35
Cancer Prevalence	38
Chronic Obstructive Pulmonary Disease.....	43
Kidney Disease	46
Breast Cancer Screening.....	49
Cervical Cancer Screening	55
Prostate Cancer Screening	59
Colorectal Cancer Screening	63
Immunization.....	67
Overweight and Obesity	73
Exercise	77
Oral Health	80
Disability	84
Alcohol Consumption.....	88

Drinking and Driving	92
Falls	94
Seat Belt Use	99
Sleep	102
HIV/AIDS.....	105

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 random sample telephone survey designed to estimate the prevalence of these and other health risk factors by each state in the United States. The results provide a tool for evaluating health trends, assessing the impact 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 (MSDH). 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 concern to that state.

Methodology

A. SAMPLING DESIGN

The Mississippi BRFSS is a random sample telephone survey. Utilizing a disproportionate stratified sample (DSS) design with random digit dialing and the Computer Assisted Telephone Interviewing (CATI) system, the survey has the potential to represent all households in Mississippi that have telephones which according to the United States Census Bureau, Housing and Household Economic Statistics Division is approximately 94.5 percent. A sample size of 5,135 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 had 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. The National Health Interview Survey (NHIS) reports that approximately 51 percent of American homes now have only cellular telephones. The NHIS reports that the rate in Mississippi for 2015 was 57.7 percent. This trend has been especially strong among younger adults and those in social and ethnic minority groups. The 2016 Mississippi BRFSS has approximately 39 percent land line and 61 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

A recent, significant change in the BRFSS has been the introduction of a different weighting method known as iterative proportional fitting, also referred to as “raking.” The procedure, while not new, has been made feasible through the development of ultra-fast computer processors. The current weighting methodology was first used in 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 are based on the 2015 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 2016 BRFSS, 5,135 people were sampled: 2,005 landline surveys and 3,130 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 for the particular cell in the table.

So that a more accurate portrait of local health conditions may be obtained, the MSDH stratifies the BRFSS sample by its nine public health districts. Stratification allows weighting of the data which produces a more precise estimate of health conditions in each district from the BRFSS. For the data to be weighted, a minimum of 500 completed surveys is required.

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 Age 40+ – Female respondents, age 40 and older, who report they have had a mammogram within the past two years,

Mammogram Age 50+ – Female respondents, age 50 and older, who report they have had a mammogram within the past two years.

Cancer

Skin Cancer – Respondents who report a diagnosis of skin cancer by a health care professional.

Other Cancer – Respondents who report a diagnosis of 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 fecal occult blood (FOBT) 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

Disabled – Respondents who report that because of a physical, mental or emotional condition they are 1) deaf or have serious difficulty hearing, 2) are blind or have serious difficulty seeing, 3) have difficulty concentrating, remembering or making decisions, 4) have difficulty walking or climbing stairs, 5) have difficulty dressing or bathing, or 6) have difficulty doing errands alone such as visiting a doctor or shopping.

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.

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.

Sleep

Inadequate Sleep – Respondents age 18 - 21 who report less than eight hours of sleep per day and respondents age 22 and older who report less than seven hours per day.

Smoking

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 $\leq 12\%$.

E-Cigarette User – Respondents who have ever smoked an e-cigarette.

Current E-Cigarette User – Respondents who have ever smoked an e-cigarette and who currently smoke e-cigarettes.

Weight Based on Body Mass Index (BMI)

Healthy Weight: – Respondents whose body mass index (BMI) is $18.5 \leq \text{BMI} < 25$. This measures Healthy People 2020 Objective 19.1 – Target $\geq 60\%$.

Overweight – Respondents whose body mass index (BMI) is $25.0 \leq \text{BMI} < 30$.

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

Survey Results

Health Status

Survey Question

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

The questions related to general health 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.

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 fair or poor health at a rate of 25.9 percent compared to 22.0 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 5.9 percent while those more than 65 years of age reported a rate of 36.4 percent (Table 1).

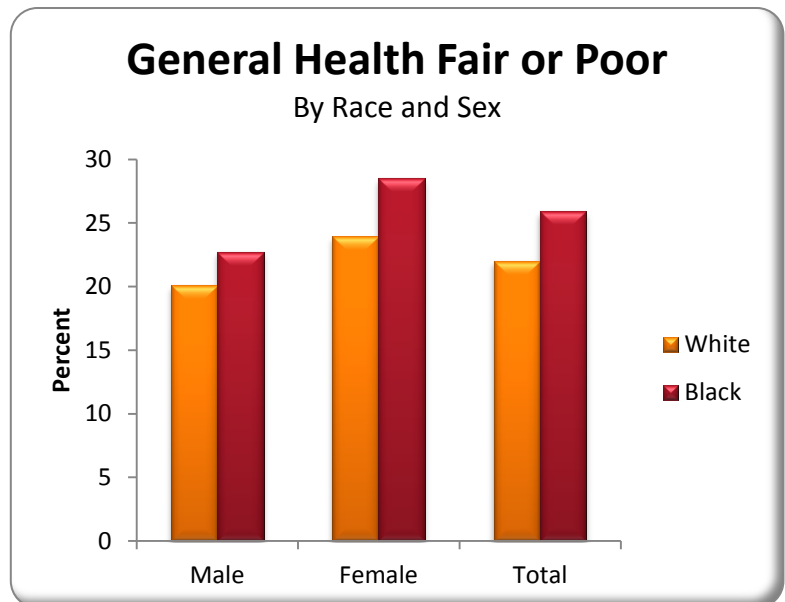


Figure 1

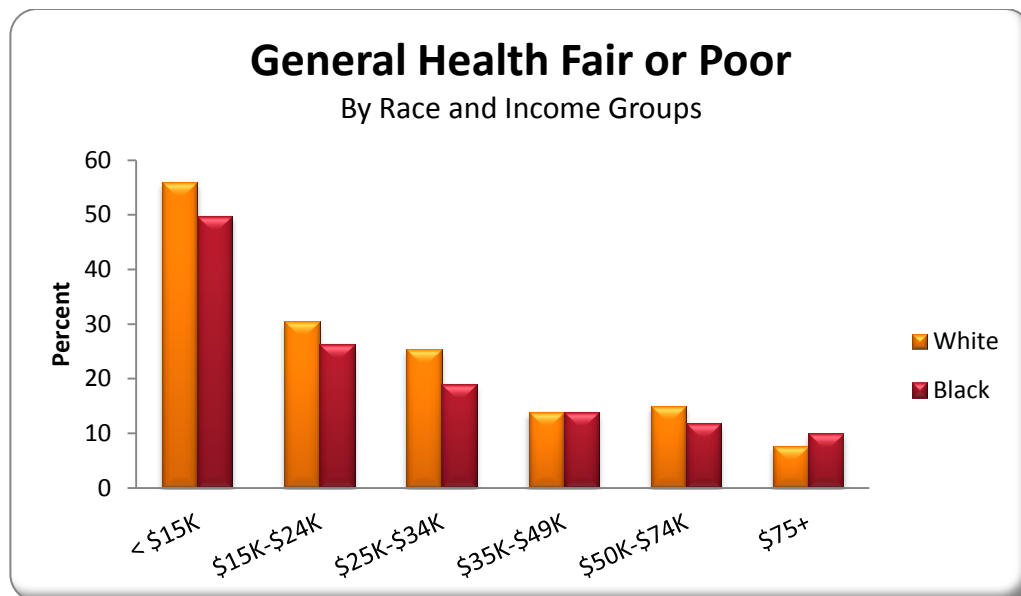


Figure 2

Table 1: General Health Fair or Poor

Groups	White		Black		Total	
	Number ¹	Percent ²	Number ¹	Percent ²	Number ¹	Percent ²
Sex						
Male	259	20.1	191	22.7	459	20.7
Female	474	23.9	380	28.5	870	25.6
Age Group						
18-24	7	6.0	6	3.9	14	5.9
25-34	25	10.2	31	13.1	57	11.1
35-44	51	16.4	59	20.9	113	18.1
45-54	100	25.5	113	33.5	217	28.0
55-64	180	29.7	181	43.5	369	34.8
65+	366	33.5	177	44.4	551	36.4
Education						
< High School Graduate	151	43.3	180	46.5	337	43.9
High School Graduate or GED	268	21.6	203	22.6	477	21.5
Some College or Technical School	213	21.8	113	20.5	332	21.3
College Graduate	100	7.5	74	15.1	181	9.9
Income						
< \$15,000	141	56.0	216	49.8	366	53.0
\$15-\$24,999	175	30.5	160	26.3	336	27.7
\$25-\$34,999	77	25.4	43	19.0	128	22.7
\$35-\$49,999	61	13.9	32	13.9	95	13.6
\$50-\$74,999	56	15.0	18	11.8	75	14.1
\$75,000+	52	7.7	9	9.9	63	7.9
Employment Status						
Employed	133	11.0	115	11.7	255	11.3
Not Employed	34	22.0	32	25.2	66	23.1
Student/Homemaker	33	8.9	15	11.2	48	9.1
Retired/Unable to Work	532	43.2	408	54.6	957	47.3
Total	733	22.0	571	25.9	1,329	23.3

¹Unweighted

²Weighted

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.

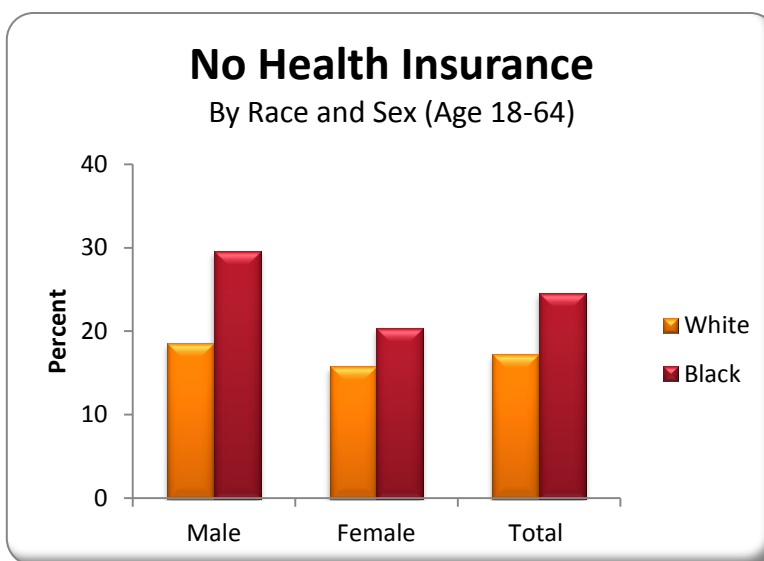


Figure 3

In 2016, 20.1 percent of respondents between the ages of 18 and 64 indicated they had no health care plan. According to the survey, black

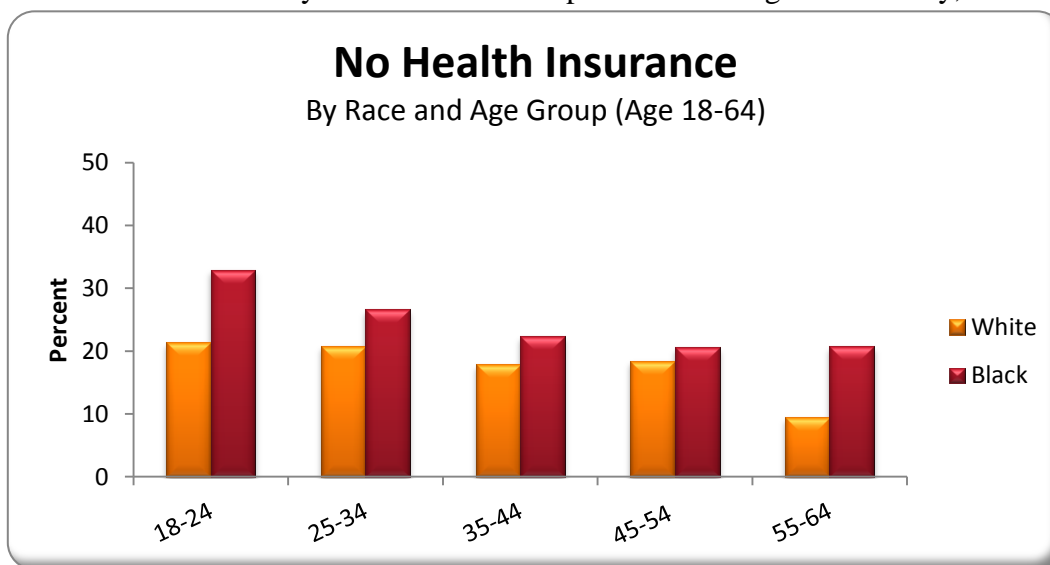


Figure 4

males have the highest rate of non-coverage at 29.6 percent; black females were next at 20.4 percent (Figure 3). When viewed by levels of income, white respondents reporting an annual income between of less than \$15,000 annually had a non-coverage rate of 41.5 percent followed by blacks reporting an annual income of less than \$15,000 with a rate of 36.8 percent.

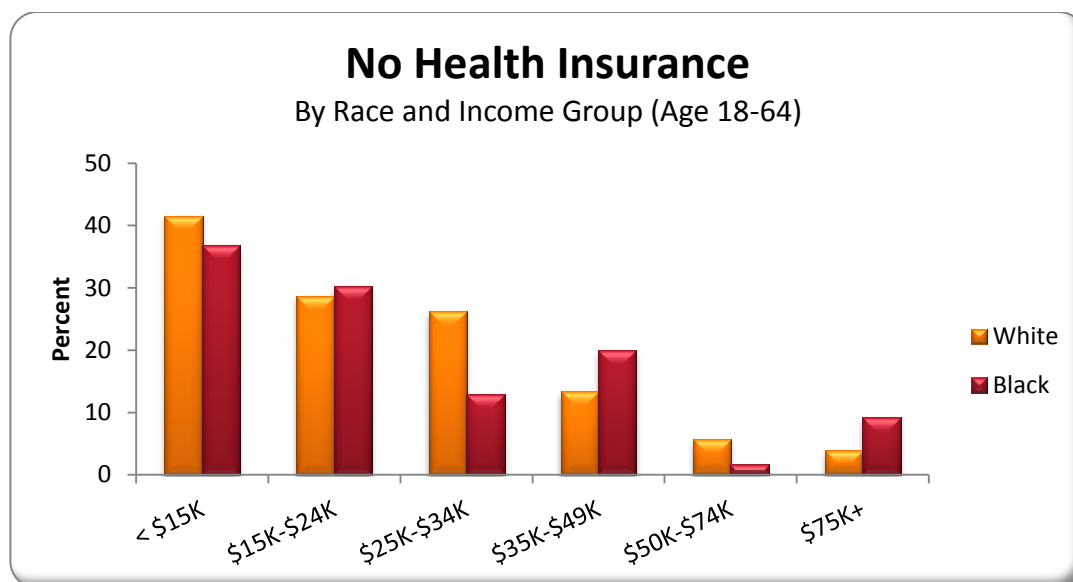


Figure 5

With respect to age groups, blacks age 18-24 reported the highest rate non-coverage at 32.9 percent. With respect to levels of education, blacks who did not complete high school reported a rate of 39.3 percent (Table 2). Overall blacks with no health insurance had a rate of 24.6 percent while whites reported a rate of 17.2 percent.

Table 2: Have No Health Care Coverage

Groups	White		Black		Total	
	Number ¹	Percent ²	Number ¹	Percent ²	Number ¹	Percent ²
Sex						
Male	128	18.6	130	29.6	265	22.7
Female	145	15.8	153	20.4	303	17.6
Age Group						
18-24	29	21.4	36	32.9	66	25.7
25-34	58	20.8	64	26.6	125	23.0
35-44	50	17.9	61	22.4	114	19.9
45-54	74	18.4	55	20.6	132	19.4
55-64	62	9.4	67	20.7	131	13.3
Education						
< High School Graduate	49	30.6	64	39.3	117	35.1
High School Graduate or GED	107	22.7	130	29.0	241	25.1
Some College or Technical School	78	14.0	55	18.6	135	15.6
College Graduate	38	6.2	34	10.2	74	7.3
Income						
< \$15,000	57	41.5	91	36.8	152	39.6
\$15-\$24,999	69	28.7	100	30.3	173	29.3
\$25-\$34,999	39	26.2	17	13.0	57	18.9
\$35-\$49,999	26	13.4	19	19.9	47	17.0
\$50-\$74,999	14	5.7	2	1.7	16	4.6
\$75,000+	18	3.9	8	9.2	26	4.7
Employment Status						
Employed	145	15.9	150	22.3	304	18.6
Not Employed	47	44.4	58	54.8	105	48.6
Student/Homemaker	37	18.4	16	23.3	55	19.8
Retired/Unable to Work	44	12.9	58	19.1	103	15.5
Total	273	17.2	283	24.6	568	20.1

¹Unweighted

²Weighted

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

Groups	White		Black		Total	
	Number ¹	Percent ²	Number ¹	Percent ²	Number ¹	Percent ²
Sex						
Male	140	13.5	123	22.7	269	16.4
Female	264	18.2	273	26.6	550	21.5
Age Group						
18-24	24	18.2	29	26.5	54	20.9
25-34	54	18.6	64	25.5	121	20.9
35-44	70	23.4	79	29.0	154	26.1
45-54	93	20.9	84	30.0	182	24.1
55-64	107	16.1	97	26.4	206	19.6
65+	51	4.9	41	10.3	95	6.5
Education						
< High School Graduate	79	27.5	77	30.5	159	28.0
High School Graduate or GED	134	17.1	158	24.2	297	19.8
Some College or Technical School	117	14.2	100	26.2	222	18.3
College Graduate	73	8.4	61	14.9	140	10.6
Income						
< \$15,000	82	32.9	119	34.7	204	33.3
\$15-\$24,999	106	26.9	138	30.9	248	28.5
\$25-\$34,999	47	21.0	37	18.4	88	19.5
\$35-\$49,999	44	15.6	31	19.1	78	17.1
\$50-\$74,999	32	7.9	6	5.7	39	7.4
\$75,000+	28	5.3	6	11.1	35	6.4
Employment Status						
Employed	159	14.1	187	23.6	356	17.6
Not Employed	54	44.0	47	47.3	101	44.6
Student/Homemaker	42	18.2	19	24.6	64	20.3
Retired/Unable to Work	148	14.4	142	21.8	296	17.0
Total	404	15.9	396	24.9	819	19.1

¹Unweighted

²Weighted

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.

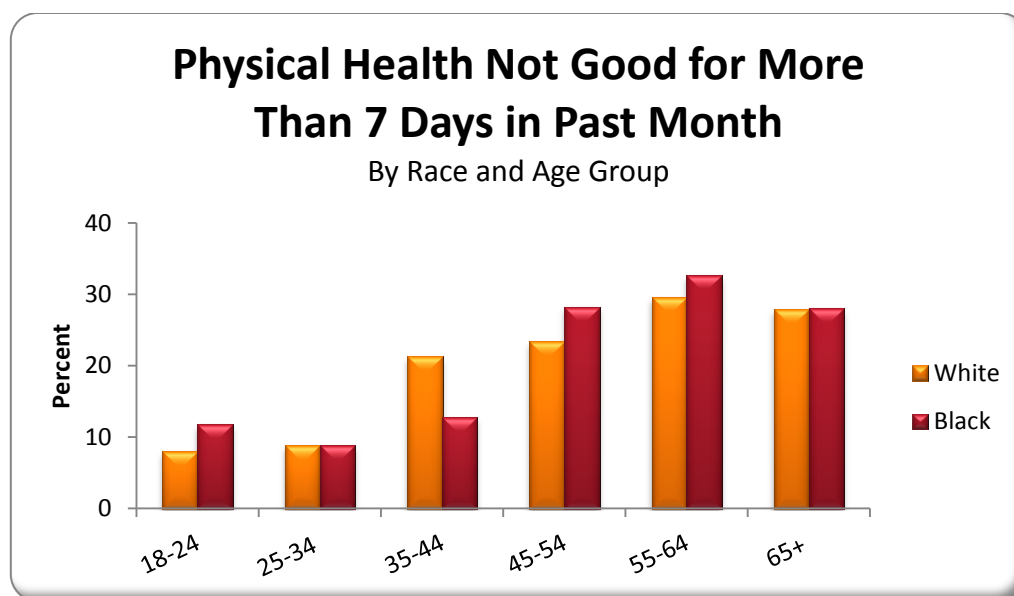


Figure 6

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 2016 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 (30.6) of more than seven days when their physical health was not good. White respondents in this age group had a rate of 29.5 percent compared to 32.6 percent for blacks. For those 65 years of age and older, whites reported a rate of 27.9 percent compared to 28.0 for blacks.

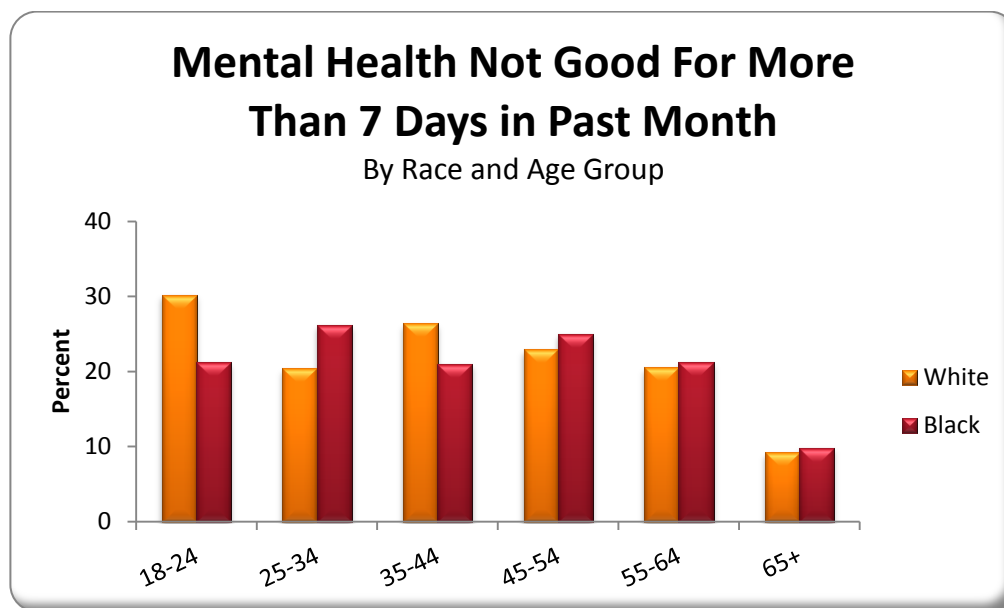


Figure 7

People in the 18 to 24 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—30.2 for whites and 21.2 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 36.7 percent: 44.0 percent for whites and 32.7 percent for blacks. People who are unemployed report a rate of 27.4 percent for more than seven days of poor mental health in the past month (Table 5).

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

Groups	White		Black		Total	
	Number ¹	Percent ²	Number ¹	Percent ²	Number ¹	Percent ²
Sex						
Male	187	18.6	109	16.6	305	17.6
Female	353	23.5	212	22.4	573	23.0
Age Group						
18-24	11	8.0	9	11.7	22	9.9
25-34	22	8.8	14	8.8	36	8.4
35-44	44	21.3	32	12.7	78	17.7
45-54	70	23.4	72	28.2	148	25.0
55-64	145	29.5	102	32.6	250	30.6
65+	246	27.9	90	28.0	340	28.0
Education						
< High School Graduate	100	34.7	83	31.2	186	32.1
High School Graduate or GED	198	22.0	115	17.3	321	19.8
Some College or Technical School	154	20.6	73	19.0	230	19.9
College Graduate	88	10.2	49	10.8	140	10.9
Income						
< \$15,000	110	51.8	116	33.7	233	41.4
\$15-\$24,999	131	31.2	83	21.2	214	25.7
\$25-\$34,999	47	18.5	26	12.7	75	15.3
\$35-\$49,999	48	17.8	24	18.2	73	17.5
\$50-\$74,999	40	12.2	13	7.7	54	11.0
\$75,000+	44	7.9	7	4.3	52	7.4
Employment Status						
Employed	82	8.8	67	9.5	154	9.1
Not Employed	24	24.7	10	6.9	34	16.0
Student/Homemaker	27	8.4	10	17.5	38	10.5
Retired/Unable to Work	407	42.5	234	43.2	651	42.7
Total	540	21.0	321	19.7	878	20.3

¹Unweighted

²Weighted

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

Groups	White		Black		Total	
	Number ¹	Percent ²	Number ¹	Percent ²	Number ¹	Percent ²
Sex						
Male	139	15.8	81	14.8	228	15.2
Female	280	23.8	205	26.1	495	24.7
Age Group						
18-24	29	30.2	15	21.2	45	25.5
25-34	50	20.4	47	26.2	100	22.2
35-44	61	26.4	51	21.0	115	23.7
45-54	74	22.9	65	25.0	144	23.5
55-64	106	20.5	70	21.2	177	20.6
65+	98	9.2	35	9.8	138	9.7
Education						
< High School Graduate	68	28.5	53	24.9	126	26.1
High School Graduate or GED	134	20.4	108	19.6	248	19.9
Some College or Technical School	135	21.3	78	22.2	215	21.4
College Graduate	82	10.2	47	15.0	134	11.9
Income						
< \$15,000	86	44.0	97	32.7	187	36.7
\$15-\$24,999	93	29.2	69	18.6	166	24.0
\$25-\$34,999	46	22.8	25	19.4	74	21.0
\$35-\$49,999	44	17.9	29	24.5	74	19.6
\$50-\$74,999	44	13.4	16	12.2	61	12.9
\$75,000+	31	7.2	7	7.9	38	7.1
Employment Status						
Employed	125	14.1	107	16.6	238	14.8
Not Employed	34	28.0	20	28.0	54	27.4
Student/Homemaker	42	26.9	14	27.0	59	26.6
Retired/Unable to Work	218	25.2	145	26.3	371	25.7
Total	419	19.8	286	21.0	723	20.0

¹Unweighted

²Weighted

Table 6: Activities Limited More Than 7 Days in Past Month Due to Physical or Mental Health*

Groups	White		Black		Total	
	Number ¹	Percent ²	Number ¹	Percent ²	Number ¹	Percent ²
Sex						
Male	113	25.7	71	33.6	191	28.1
Female	221	29.9	127	22.7	357	27.2
Age Group						
18-24	6	6.7	6	18.7	12	10.8
25-34	18	15.4	14	19.0	35	17.7
35-44	36	30.1	21	21.4	58	26.7
45-54	62	40.9	55	35.7	122	38.9
55-64	103	41.2	55	34.8	159	38.9
65+	108	26.7	47	31.2	161	28.6
Education						
< High School Graduate	62	36.3	48	33.0	113	34.7
High School Graduate or GED	111	28.6	76	28.4	194	28.8
Some College or Technical School	106	29.4	51	24.9	160	27.9
College Graduate	55	14.7	23	13.3	81	14.8
Income						
< \$15,000	77	53.2	78	38.6	162	45.5
\$15-\$24,999	86	40.9	50	26.8	137	34.3
\$25-\$34,999	32	27.6	14	15.4	48	23.5
\$35-\$49,999	24	16.4	13	21.1	38	17.7
\$50-\$74,999	26	21.4	7	7.5	34	18.5
\$75,000+	24	12.5	3	17.6*	27	13.0
Employment Status						
Employed	48	12.0	34	13.0	84	12.3
Not Employed	23	39.9*	11	27.0*	34	33.5
Student/Homemaker	17	11.8*	6	13.6*	25	13.1
Retired/Unable to Work	246	48.8	147	46.3	404	48.2
Total	334	28.0	198	26.6	548	27.6

¹Unweighted

²Weighted

* Denominator is those who had more than 7 days of poor physical or mental health in past month

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.

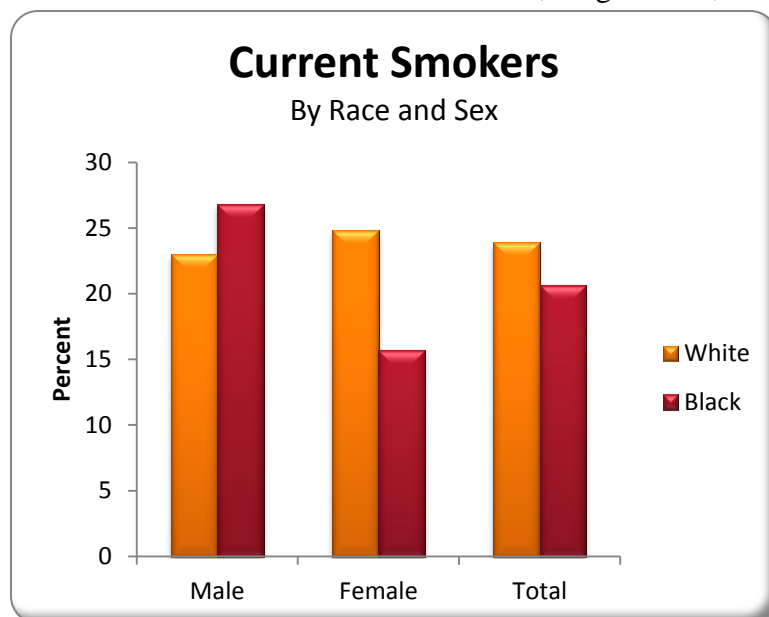


Figure 8

According to the 2016 BRFSS report, the group with the highest percentage of current smokers is white respondents whose annual income is less than \$15,000 who report a rate of 42.9 percent. The second highest are white respondents that are unemployed with a rate of 39.4 percent. The group with the lowest percentage in demographic groups for current smokers is black respondents who are college graduates with a rate of 7.9 percent (Table 7). Overall, the rate of current smoking in Mississippi is 22.8 percent; the rate in 2015 was 22.6 percent. The Healthy People 2020 objective is 12 percent or less.

Table 7: Current Smokers

Groups	White		Black		Total	
	Number ¹	Percent ²	Number ¹	Percent ²	Number ¹	Percent ²
Sex						
Male	232	23.0	170	26.8	413	24.4
Female	329	24.8	142	15.7	483	21.3
Age Group						
18-24	39	32.8	13	16.1	53	25.4
25-34	85	28.9	49	26.2	138	27.0
35-44	74	26.0	49	19.8	128	24.3
45-54	109	28.8	67	25.1	181	27.6
55-64	133	24.1	86	23.2	224	24.0
65+	118	12.0	48	12.2	169	12.0
Education						
< High School Graduate	104	38.4	83	32.6	192	36.0
High School Graduate or GED	187	25.5	127	23.5	320	24.4
Some College or Technical School	187	24.7	68	15.4	260	21.5
College Graduate	82	9.5	33	7.9	122	9.6
Income						
< \$15,000	94	42.9	79	25.3	179	33.6
\$15-\$24,999	121	33.1	98	22.9	224	28.0
\$25-\$34,999	53	22.2	26	16.8	83	20.1
\$35-\$49,999	66	22.0	27	15.4	94	19.2
\$50-\$74,999	60	19.7	10	9.3	72	17.6
\$75,000+	73	16.2	14	11.9	91	16.1
Employment Status						
Employed	242	23.9	144	20.7	400	23.0
Not Employed	46	39.4	30	32.5	77	35.3
Student/Homemaker	49	21.4	6	8.4	56	17.6
Retired/Unable to Work	224	22.7	132	20.2	363	21.8
Total	561	23.9	312	20.6	896	22.8

¹Unweighted

²Weighted

E-Cigarettes

Survey Question

Have you ever used an e-cigarette or other electronic “vaping” product, even just one time, in your entire life?

Do you now use e-cigarettes or other electronic “vaping” products every day, some days, or not at all?

Electronic cigarettes (or e-cigarettes) are an alternative nicotine delivery system. According to the CDC, smoking tobacco is responsible for one out of every five deaths in the United States. The ingredients which cause smoking-related illnesses are not the important components in an e-cigarette. Smokers inhale tar, carbon monoxide, arsenic, formaldehyde and other carcinogens to gain access to nicotine. One of the appeals of e-cigarettes is that there is less risk for gaining access to nicotine.

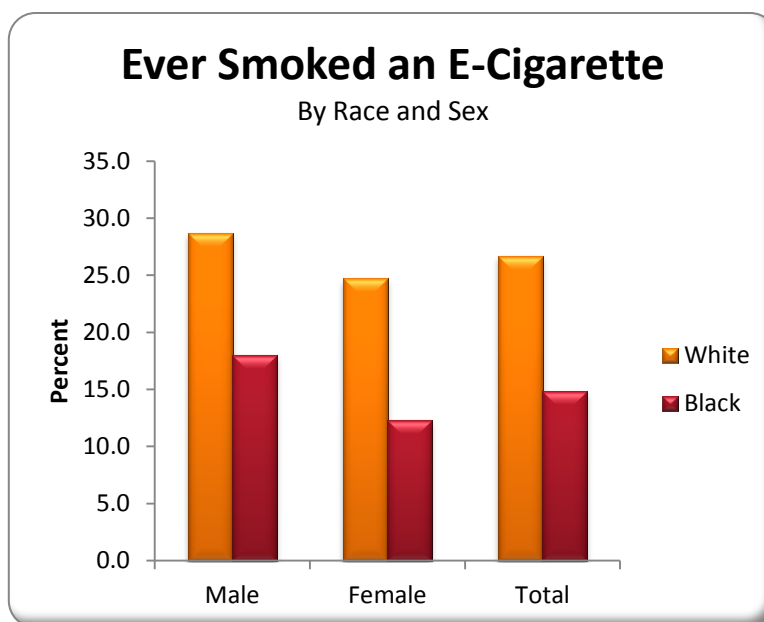


Figure 9

Rather than burning tobacco leaves to produce the smoke of cigarettes, e-cigarettes use pure pharmaceutical-grade nicotine which is heated to produce a vapor. And because the ingredients in it can be controlled, the number of chemicals that smokers consume is drastically reduced.

Electronic cigarettes have been marketed to smokers as a way to help them quit, but to date there is no evidence that they actually help people stop smoking. E-cigarettes have been found to be a health risk for people who use them, as well as for bystanders who breathe in the second and third-hand vapor.

In the 2016 Mississippi BRFSS survey, 22.4 percent of the respondents reported that they have ever smoked an e-cigarette. White respondents age 18 to 24 had by far the

highest usage of e-cigarettes with a rate of 50.4 percent. The next highest rate was reported by white respondents in the 25-34 age-group at 48.0 percent. Whites had overall usage rate of 26.7 percent compared to only 14.8 percent for blacks.

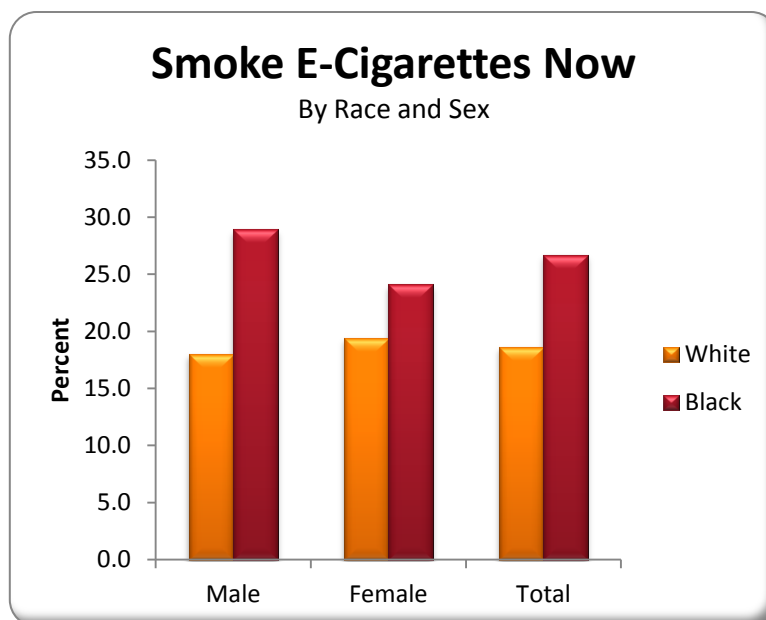


Figure 10

Of those who reported ever having smoked an e-cigarette, 21.0 percent said that they continue to smoke them. The highest rate for current users of e-cigarettes is among black respondent in the 45-54 age category who reported a rate of 41.4 percent followed by blacks age 18-24 with a rate of 34.6 percent. Blacks age 25-34 were next with a rate of 29.5 percent. Overall, blacks reported a usage rate of 26.7 percent while white reported of rate of 18.6

percent.

White males had the lowest rate of current e-cigarette usage with a rate of 18.0 percent. Next were white females with a rate of 19.4 percent followed by black females at 24.1 percent. Black males reported a rate of 28.9 percent.

Table 8: Ever Smoked an E-Cigarette

Groups	White		Black		Total	
	Number ¹	Percent ²	Number ¹	Percent ²	Number ¹	Percent ²
Sex						
Male	243	28.7	105	18.0	360	25.3
Female	296	24.7	107	12.3	410	19.7
Age Group						
18-24	66	50.4	29	27.6	99	40.0
25-34	122	48.0	52	21.0	180	36.5
35-44	85	31.6	26	9.5	114	22.1
45-54	91	22.4	38	16.2	131	19.9
55-64	100	17.8	49	10.8	152	15.4
65+	74	8.2	18	4.4	93	7.2
Education						
< High School Graduate	74	29.7	40	13.7	118	22.4
High School Graduate or GED	177	27.2	69	15.2	253	22.6
Some College or Technical School	200	34.4	53	15.2	258	27.8
College Graduate	88	11.0	50	15.0	141	12.3
Income						
< \$15,000	75	33.6	44	15.5	123	22.9
\$15-\$24,999	103	31.0	52	12.7	160	22.6
\$25-\$34,999	50	26.1	28	19.9	80	22.5
\$35-\$49,999	62	27.0	24	16.9	88	24.0
\$50-\$74,999	68	29.4	14	14.3	83	26.1
\$75,000+	80	18.6	12	8.6	94	17.3
Employment Status						
Employed	270	30.5	108	15.9	389	24.9
Not Employed	37	37.9	21	15.8	59	26.3
Student/Homemaker	54	29.8	15	23.9	72	28.5
Retired/Unable to Work	178	18.5	67	10.8	249	15.8
Total	539	26.7	212	14.8	770	22.4

¹Unweighted

²Weighted

Table 9: Smoke E-Cigarette Now³

Groups	White		Black		Total	
	Number ¹	Percent ²	Number ¹	Percent ²	Number ¹	Percent ²
Sex						
Male	42	18.0	21	28.9	67	21.4
Female	65	19.4	24	24.1	90	20.5
Age Group						
18-24	13	21.9	8	34.6	22	25.8
25-34	18	12.4	15	29.5	34	16.4
35-44	21	20.7	2	6.6	25	20.2
45-54	19	19.5	11	41.4	31	26.6
55-64	19	22.1	6	5.9	25	17.9
65+	16	19.7	3	11.7	19	18.2
Education						
< High School Graduate	11	14.6	6	24.4 [*]	17	16.8
High School Graduate or GED	26	14.7	17	27.8	45	19.0
Some College or Technical School	42	20.2	12	30.6	56	22.4
College Graduate	28	31.6	10	18.7	39	28.3
Income						
< \$15,000	15	18.2	11	20.8 [*]	26	18.9
\$15-\$24,999	15	13.5	8	15.1	25	14.6
\$25-\$34,999	15	27.2	7	38.4 [*]	23	31.9
\$35-\$49,999	12	17.8	8	59.8 [*]	20	26.9
\$50-\$74,999	13	17.2	2	3.2 [*]	15	15.3
\$75,000+	18	19.1	4	37.4 [*]	24	24.6
Employment Status						
Employed	60	20.5	22	26.1	86	22.2
Not Employed	8	21.4 [*]	6	33.5 [*]	14	24.8
Student/Homemaker	6	9.7	5	36.7 [*]	12	17.8
Retired/Unable to Work	33	17.8	12	21.8	45	18.6
Total	107	18.6	45	26.7	157	21.0

¹Unweighted

²Weighted

^{*}Observations < 50

³Denominator is those who have ever smoked an E-Cigarette

Diabetes

Survey Question

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

Diabetes was the seventh leading cause of death in Mississippi for the year 2015 with a death rate of 36.5 per 100,000 population. According to the 2016 BRFSS survey, 13.7 percent of all respondents reported being told by a doctor that they have diabetes. In 2015 the reported rate was 14.8 percent.

Black females continue to comprise the largest group having a rate of 18.6 percent followed by black males with a rate of 15.7 percent. White males reported a rate of 12.3 percent and white females were the lowest at 11.7 percent (Figure 11).

The rate of diabetes showed a marked difference by categories of education. Respondents who did not complete high school reported rates of 21.0 percent which is almost 36 percent

higher than those with a high school degree. Those with a high school education reported a rate of 13.5 percent; those with some college work, a rate of 12.9 percent; and college graduates a rate of 8.3 percent. Blacks with no high school education reported a diabetes rate of 27.2 percent (Table 10).

There are obvious differences seen by age of the respondent in the rate of diabetes. Respondents between the age of 18 and 24 reported a rate on only 1.4 percent but 26.8 percent of those older than age 65 reported they had diabetes (Table 10).

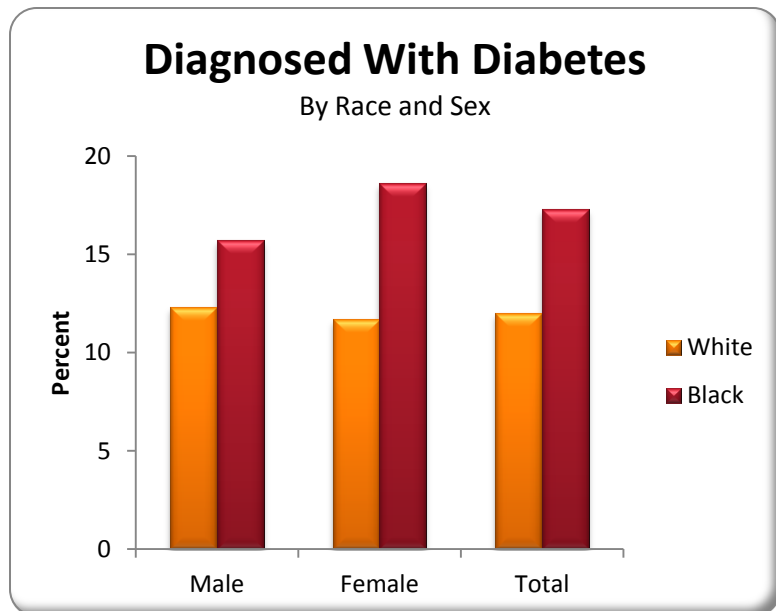


Figure 11

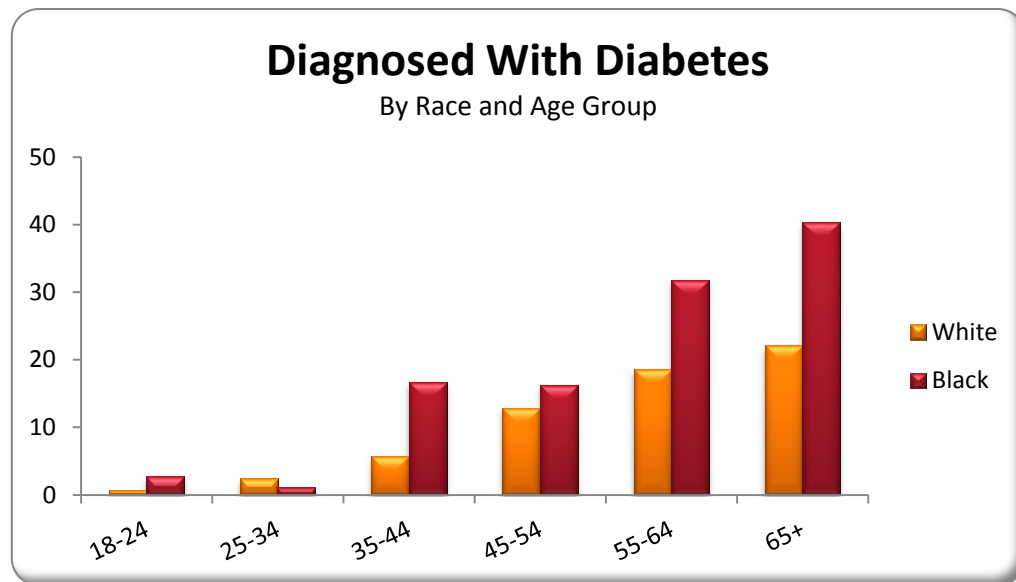


Figure 12

Table 10: Diabetes

Groups	White		Black		Total	
	Number ¹	Percent ²	Number ¹	Percent ²	Number ¹	Percent ²
Sex						
Male	186	12.3	132	15.7	325	13.2
Female	265	11.7	288	18.6	560	14.2
Age Group						
18-24	1	0.7	4	2.7	5	1.4
25-34	6	2.4	5	1.1	11	1.7
35-44	16	5.8	43	16.7	60	10.3
45-54	52	12.9	63	16.3	117	14.0
55-64	121	18.6	134	31.8	260	23.5
65+	252	22.1	167	40.4	425	26.8
Education						
< High School Graduate	64	17.4	111	27.2	178	21.0
High School Graduate or GED	160	13.6	146	14.5	308	13.5
Some College or Technical School	128	10.8	90	16.7	222	12.9
College Graduate	97	7.7	73	10.0	175	8.3
Income						
< \$15,000	58	20.5	113	22.3	174	21.3
\$15-\$24,999	100	14.5	101	14.7	204	14.3
\$25-\$34,999	48	13.2	38	15.8	88	13.9
\$35-\$49,999	52	9.4	28	12.1	81	10.1
\$50-\$74,999	39	8.1	33	17.8	73	10.3
\$75,000+	64	8.4	18	17.9	83	9.8
Employment Status						
Employed	102	6.7	111	9.5	216	7.6
Not Employed	12	8.6	15	10.5	27	9.3
Student/Homemaker	19	5.7	9	6.8	28	5.7
Retired/Unable to Work	317	22.4	284	35.0	611	26.9
Total	451	12.0	420	17.3	885	13.7

¹Unweighted

²Weighted

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 2016 BRFSS survey approximately 12.0 percent of Mississippi adults or more than 272,000 people report having some kind of CVD,

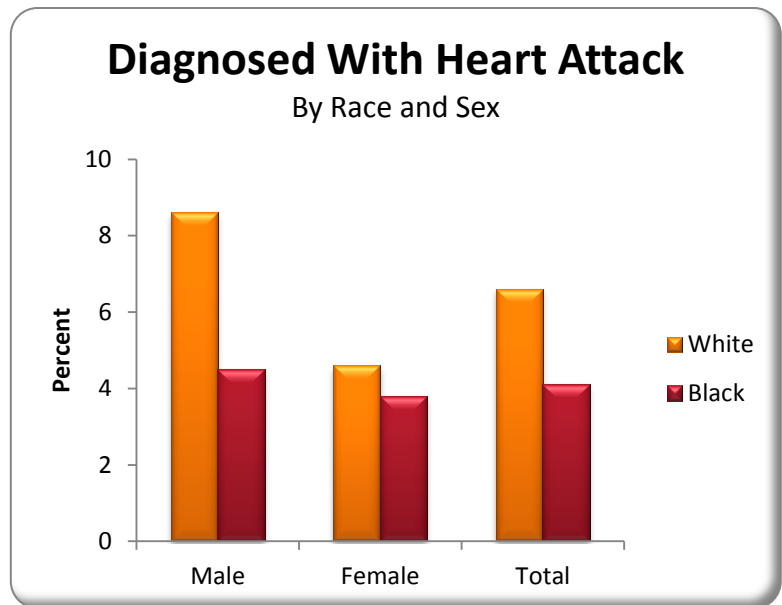


Figure 13

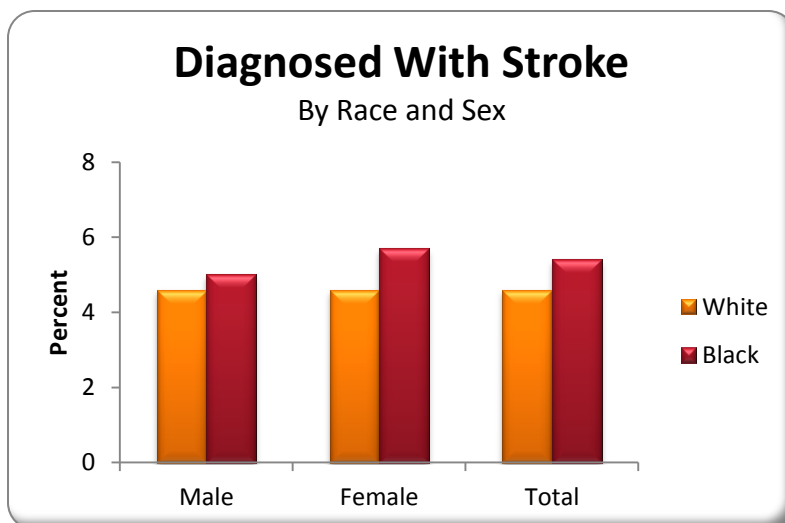


Figure 14

such as coronary heart disease, angina, previous heart attack, or stroke.

In 2015 Mississippi reported 7,965 deaths from heart disease and 1,733 from cerebrovascular disease (stroke). The two combined accounted for more than thirty percent of all the deaths reported that year and more than thirty-nine percent of the total from

the ten leading causes of death.

The 2016 BRFSS survey revealed that 15.3 percent of the population 65 years of age or older reported that they have been diagnosed as having had a heart attack: 16.1 for white respondents and 11.8 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 7.5 percent while blacks reported a rate of 9 percent (Table 11).

Table 12 shows that the rate for those who had been diagnosed with a stroke age 65 and greater was 10.2 percent for whites and 13.3 percent for blacks. In the 55 to 64 group the rates were 5.8 and 9.8 for whites and blacks respectively.

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

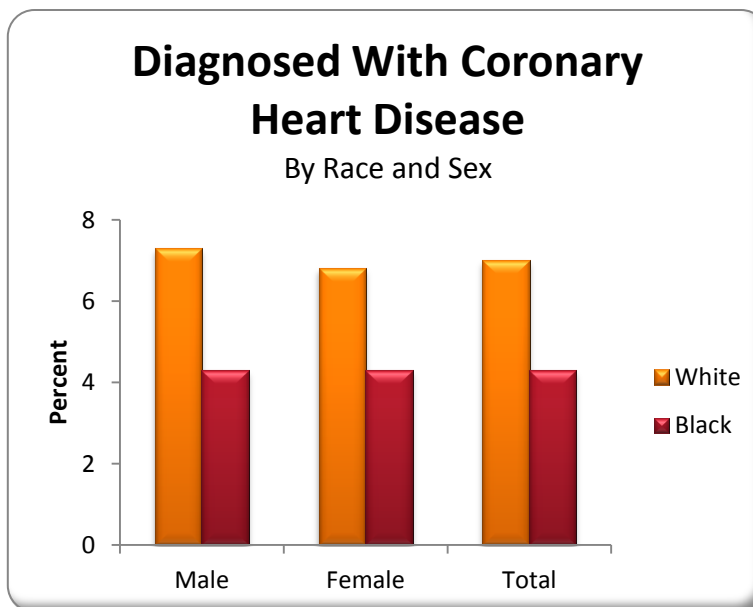


Figure 15

People in the age group 65 and older reported a rate of 15.4 percent with white respondents having a rate of 16.5 percent compared to 12.7 for blacks. The 55 to 64 age category had an overall rate of 9.6 percent: 9.6 for whites and 9.5 for blacks (Table 13).

Table 11: Ever Diagnosed With a Heart Attack

Groups	White		Black		Total	
	Number ¹	Percent ²	Number ¹	Percent ²	Number ¹	Percent ²
Sex						
Male	126	8.6	46	4.5	174	6.9
Female	100	4.6	62	3.8	171	4.5
Age Group						
18-24	0	0.0	0	0.0	0	0.0
25-34	3	1.5	2	0.4	5	1.0
35-44	5	1.8	2	0.5	8	1.3
45-54	18	5.4	13	4.7	32	5.1
55-64	46	7.5	45	9.7	95	8.4
65+	153	16.1	45	11.8	203	15.3
Education						
< High School Graduate	44	12.0	30	7.2	78	9.8
High School Graduate or GED	74	6.3	43	4.3	118	5.3
Some College or Technical School	61	6.1	24	3.0	89	5.1
College Graduate	46	3.3	11	1.8	59	2.9
Income						
< \$15,000	35	12.1	35	6.3	75	9.0
\$15-\$24,999	47	8.6	38	6.0	87	7.3
\$25-\$34,999	19	5.8	9	2.6	31	4.6
\$35-\$49,999	26	6.0	3	1.1	29	4.2
\$50-\$74,999	22	5.5	3	1.1	25	4.4
\$75,000+	20	2.6	3	2.8	23	2.6
Employment Status						
Employed	39	3.2	14	1.1	54	2.3
Not Employed	3	0.6	4	2.0	7	1.3
Student/Homemaker	7	2.0	2	1.3	9	1.8
Retired/Unable to Work	177	14.0	88	10.8	275	13.2
Total	226	6.6	108	4.1	345	5.7

¹Unweighted

²Weighted

Table 12: Ever Diagnosed With a Stroke

Groups	White		Black		Total	
	Number ¹	Percent ²	Number ¹	Percent ²	Number ¹	Percent ²
Sex						
Male	68	4.6	51	5.0	120	4.8
Female	116	4.6	78	5.7	202	5.2
Age Group						
18-24	2	1.1	2	1.0	4	1.0
25-34	0	0.0	4	2.2	5	1.4
35-44	3	0.5	12	3.3	16	1.7
45-54	26	6.0	15	4.5	42	5.4
55-64	36	5.8	44	9.8	83	7.4
65+	117	10.2	51	13.3	171	11.1
Education						
< High School Graduate	24	7.0	38	8.1	65	7.9
High School Graduate or GED	62	5.0	45	5.9	109	5.2
Some College or Technical School	56	4.5	27	4.2	85	4.5
College Graduate	42	2.5	18	3.1	62	2.7
Income						
< \$15,000	33	9.2	47	9.2	82	9.1
\$15-\$24,999	45	7.4	39	6.2	85	6.7
\$25-\$34,999	18	4.3	9	5.3	29	4.9
\$35-\$49,999	13	2.2	4	1.4	18	2.7
\$50-\$74,999	11	2.4	2	0.8	13	2.0
\$75,000+	14	1.7	4	2.1	19	1.8
Employment Status						
Employed	18	1.0	19	1.9	39	1.5
Not Employed	9	4.1	1	0.3	10	2.2
Student/Homemaker	6	1.4	3	2.1	9	1.5
Retired/Unable to Work	151	11.2	106	13.7	264	12.2
Total	184	4.6	129	5.4	322	5.0

¹Unweighted

²Weighted

Table 13: Ever Diagnosed With Coronary Artery Disease

Groups	White		Black		Total	
	Number ¹	Percent ²	Number ¹	Percent ²	Number ¹	Percent ²
Sex						
Male	119	7.3	36	4.3	156	6.0
Female	161	6.8	63	4.3	227	5.8
Age Group						
18-24	0	0.0	1	1.0	1	0.4
25-34	3	1.4	1	0.3	4	0.9
35-44	9	2.9	3	0.7	13	2.0
45-54	19	5.1	11	4.0	30	4.6
55-64	60	9.6	36	9.5	98	9.6
65+	187	16.5	46	12.7	234	15.4
Education						
< High School Graduate	43	10.6	30	8.3	75	9.3
High School Graduate or GED	104	7.9	31	3.2	136	5.8
Some College or Technical School	71	6.6	24	3.9	95	5.5
College Graduate	62	4.2	14	1.7	77	3.5
Income						
< \$15,000	49	15.8	28	5.6	80	9.8
\$15-\$24,999	60	9.4	24	5.2	84	7.1
\$25-\$34,999	27	6.5	10	3.6	37	4.9
\$35-\$49,999	30	6.3	6	2.9	36	5.0
\$50-\$74,999	24	4.6	5	1.8	29	3.9
\$75,000+	32	3.7	5	4.0	37	3.6
Employment Status						
Employed	39	3.1	13	1.1	52	2.2
Not Employed	8	3.3	2	1.4	10	2.3
Student/Homemaker	12	1.6	2	1.3	14	1.5
Retired/Unable to Work	221	15.6	81	11.3	306	14.1
Total	280	7.0	99	4.3	383	5.9

¹Unweighted

²Weighted

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 life-threatening.

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

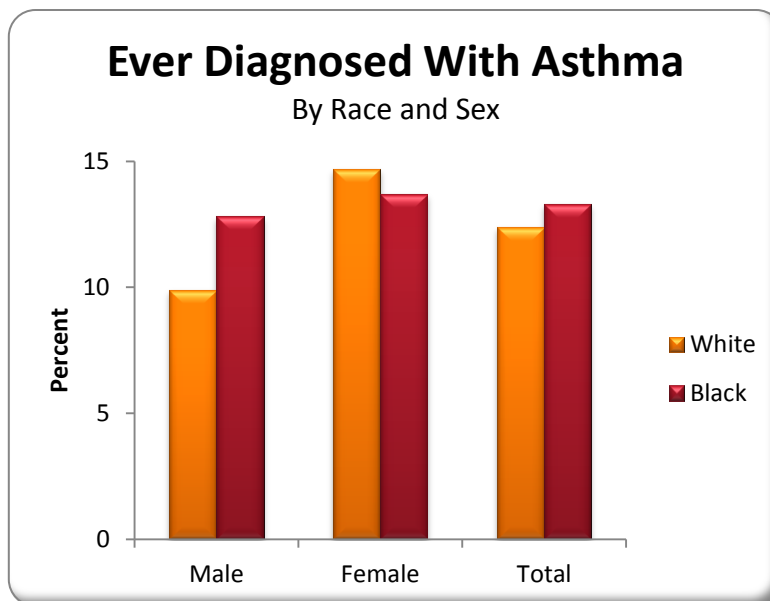


Figure 16

In the 2016 BRFSS survey for Mississippi, 8.0 percent of the respondents indicated that they presently have asthma. The black rate was 8.9 percent compared to 7.5 percent for white respondents. Women reported a higher rate than men with black females having the highest rate at 10.4 percent (Table 15).

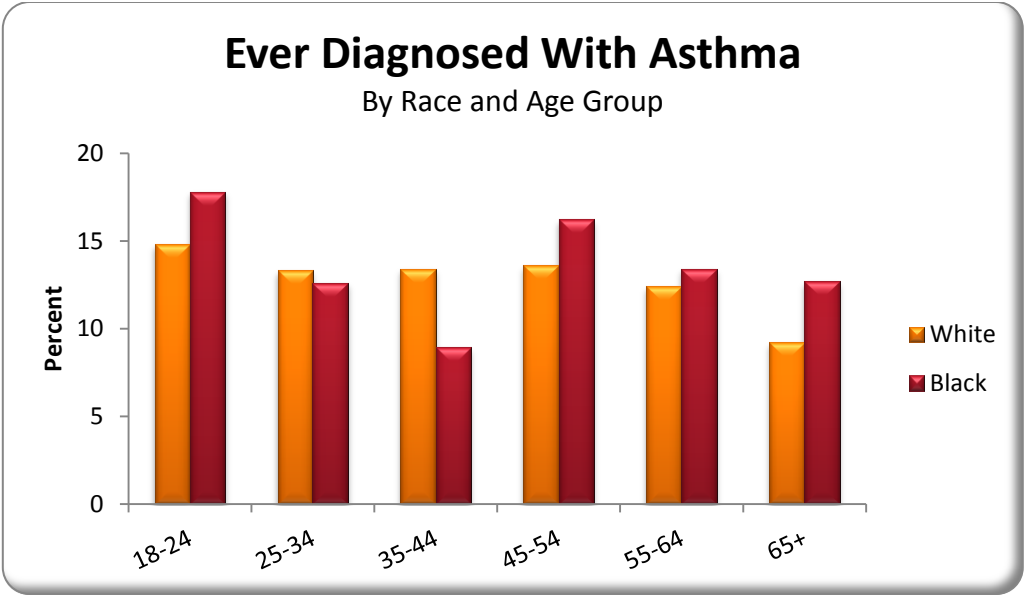


Figure 17

Table 14: Ever Diagnosed With Asthma

Groups	White		Black		Total	
	Number ¹	Percent ²	Number ¹	Percent ²	Number ¹	Percent ²
Sex						
Male	109	9.9	71	12.8	185	10.8
Female	244	14.7	170	13.7	427	14.5
Age Group						
18-24	20	14.8	20	17.8	40	15.0
25-34	37	13.3	36	12.6	78	13.8
35-44	41	13.4	29	8.9	73	11.4
45-54	52	13.6	52	16.2	108	14.4
55-64	87	12.4	57	13.4	146	12.7
65+	113	9.2	47	12.7	164	10.2
Education						
< High School Graduate	57	20.7	53	16.6	113	18.8
High School Graduate or GED	94	9.4	87	15.5	187	11.8
Some College or Technical School	106	12.8	55	9.3	165	11.7
College Graduate	96	9.8	46	12.7	147	10.5
Income						
< \$15,000	57	23.3	78	18.6	140	20.5
\$15-\$24,999	64	14.1	65	12.8	131	13.2
\$25-\$34,999	33	12.7	20	10.0	58	12.2
\$35-\$49,999	36	9.0	23	16.1	61	12.1
\$50-\$74,999	45	13.2	9	4.8	55	11.2
\$75,000+	53	7.3	6	2.6	60	6.3
Employment Status						
Employed	117	10.3	72	9.5	195	10.1
Not Employed	16	22.2	14	13.6	31	17.6
Student/Homemaker	28	10.7	13	13.0	43	11.2
Retired/Unable to Work	192	14.8	141	20.0	342	16.7
Total	353	12.4	241	13.3	612	12.7

¹Unweighted

²Weighted

Table 15: Currently Have Asthma

Groups	White		Black		Total	
	Number ¹	Percent ²	Number ¹	Percent ²	Number ¹	Percent ²
Sex						
Male	55	4.6	39	7.1	97	5.3
Female	177	10.3	128	10.4	317	10.5
Age Group						
18-24	9	8.3	8	9.5	17	8.3
25-34	14	5.6	21	6.7	39	6.5
35-44	23	6.4	23	7.7	49	7.1
45-54	35	8.5	39	11.7	78	9.7
55-64	63	9.1	42	9.5	107	9.3
65+	86	7.1	34	9.7	122	7.8
Education						
< High School Graduate	42	13.2	42	14.0	86	13.1
High School Graduate or GED	73	6.7	64	9.6	142	7.9
Some College or Technical School	66	7.4	36	6.4	105	7.2
College Graduate	51	4.6	25	5.8	81	5.0
Income						
< \$15,000	46	18.9	59	13.9	110	16.1
\$15-\$24,999	50	10.0	47	9.1	98	9.4
\$25-\$34,999	20	7.6	16	6.0	41	7.8
\$35-\$49,999	18	3.8	11	6.8	29	4.7
\$50-\$74,999	24	6.6	4	1.4	29	5.4
\$75,000+	27	2.7	2	1.1	30	2.4
Employment Status						
Employed	56	4.4	41	5.5	102	4.9
Not Employed	12	18.5	11	11.6	24	14.9
Student/Homemaker	16	5.5	6	4.4	24	5.3
Retired/Unable to Work	148	11.4	108	15.2	263	12.8
Total	232	7.5	167	8.9	414	8.0

¹Unweighted

²Weighted

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.

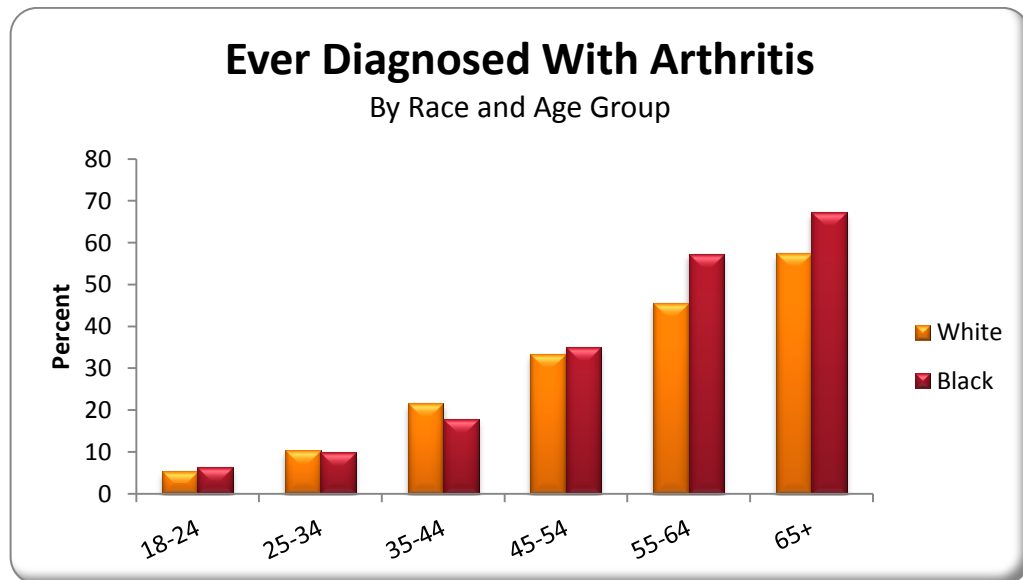


Figure 18

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 2016 BRFSS survey showed that 31.3 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 18, the proportion increases with age. Respondents over the age of 65 reported being diagnosed with arthritis at a rate of 60.3 percent. The rate for blacks within this age group was higher than for whites. Blacks reported a rate of 67.3 percent while whites only 57.5 percent. Only 5.4 percent of those 18-24 years old reported this condition.

Table 18: Ever Diagnosed Arthritis

Groups	White		Black		Total	
	Number ¹	Percent ²	Number ¹	Percent ²	Number ¹	Percent ²
Sex						
Male	416	27.5	230	27.2	657	26.7
Female	850	37.4	520	33.4	1,391	35.6
Age Group						
18-24	8	5.3	8	6.4	16	5.4
25-34	31	10.3	22	9.9	55	9.8
35-44	63	21.5	54	17.8	119	19.5
45-54	140	33.5	128	35.0	276	33.8
55-64	297	45.6	242	57.3	544	49.5
65+	720	57.5	289	67.3	1,024	60.3
Education						
< High School Graduate	165	43.5	202	49.6	375	44.8
High School Graduate or GED	423	35.4	267	29.5	700	32.2
Some College or Technical School	349	31.1	154	24.9	510	28.9
College Graduate	328	23.4	127	18.1	462	21.5
Income						
< \$15,000	165	57.6	224	43.8	398	48.8
\$15-\$24,999	237	39.4	192	30.7	435	34.6
\$25-\$34,999	131	35.3	65	24.4	203	29.9
\$35-\$49,999	149	32.5	62	26.7	212	29.7
\$50-\$74,999	129	23.2	39	17.6	171	22.0
\$75,000+	167	18.4	30	22.5	198	18.6
Employment Status						
Employed	299	18.5	202	17.1	508	17.4
Not Employed	41	29.4	20	11.4	62	20.1
Student/Homemaker	77	18.1	23	20.2	101	18.0
Retired/Unable to Work	848	59.2	503	61.6	1,374	60.2
Total	1,266	32.5	750	30.7	2,048	31.3

¹Unweighted

²Weighted

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 2016 Mississippi BRFSS revealed that 19.0 percent of those surveyed said they had been diagnosed with a depressive disorder. The rate for women was almost 1.7 times

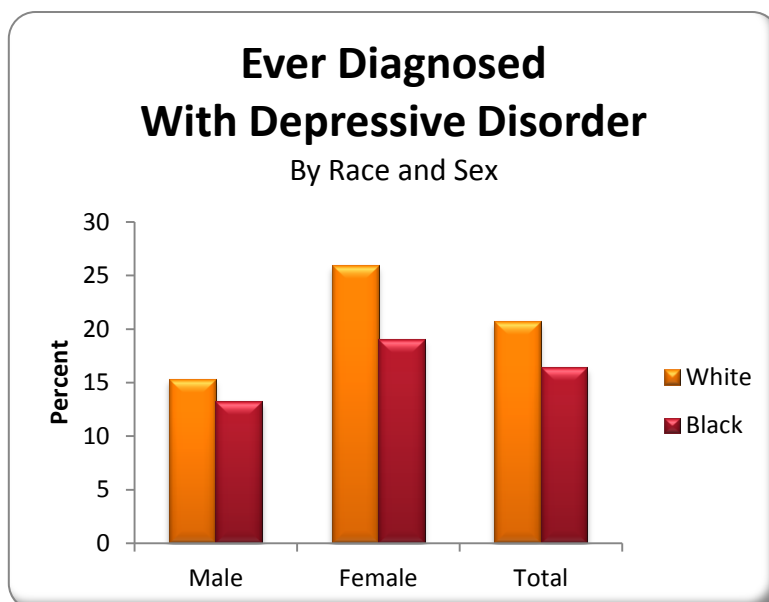


Figure 19

higher than for men. Females reported a rate of 23.1 percent to only 14.5 for males, a difference of more than 37 percent (Figure 19). Similarly, the respondents in lower

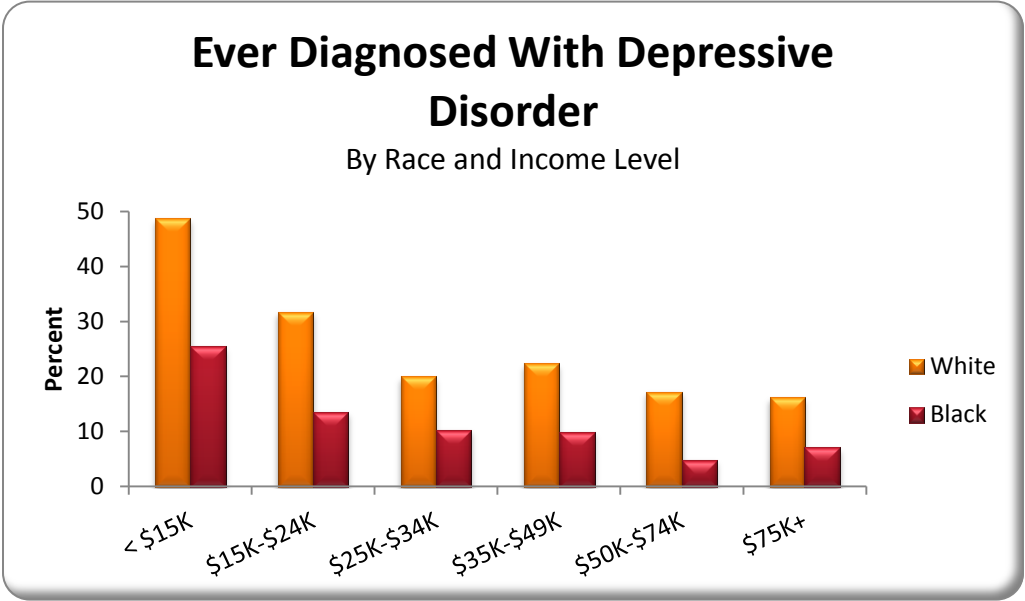


Figure 20

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 40.1 percent (Figure 20 and Table 19).

Table 19: Ever Diagnosed With Depression

Groups	White		Black		Total	
	Number ¹	Percent ²	Number ¹	Percent ²	Number ¹	Percent ²
Sex						
Male	175	15.3	86	13.2	267	14.5
Female	453	25.9	217	19.0	683	23.1
Age Group						
18-24	18	11.5	14	14.7	33	13.2
25-34	61	22.1	34	12.6	97	17.4
35-44	77	25.3	46	14.9	125	20.5
45-54	108	25.0	64	21.5	176	23.4
55-64	170	26.0	86	23.3	259	25.0
65+	192	15.3	58	12.6	257	14.9
Education						
< High School Graduate	92	29.1	71	22.8	166	25.3
High School Graduate or GED	190	19.3	111	17.5	307	18.7
Some College or Technical School	196	22.0	77	14.6	278	19.4
College Graduate	150	14.3	44	8.4	199	12.6
Income						
< \$15,000	105	40.1	108	28.6	218	32.9
\$15-\$24,999	117	23.3	74	15.3	194	19.2
\$25-\$34,999	67	20.6	26	10.8	98	17.6
\$35-\$49,999	67	22.3	28	19.0	96	20.6
\$50-\$74,999	62	16.5	9	5.9	71	13.9
\$75,000+	78	11.5	6	2.8	85	9.8
Employment Status						
Employed	183	14.0	75	8.9	263	12.0
Not Employed	36	29.8	15	17.4	52	23.2
Student/Homemaker	48	17.8	15	16.9	64	17.1
Retired/Unable to Work	360	30.7	198	30.0	569	30.5
Total	628	20.7	303	16.4	950	19.0

¹Unweighted

²Weighted

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 can be fatal.

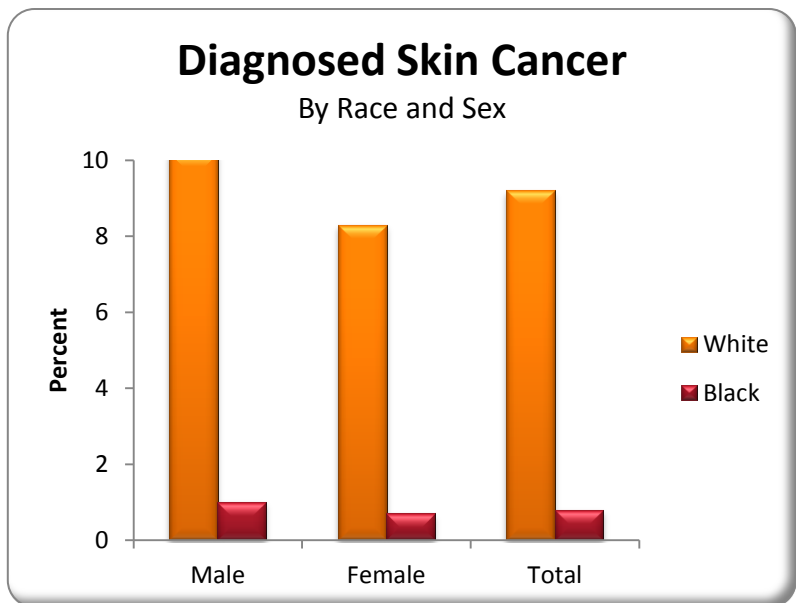


Figure 21

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 6.0 percent of the 2016 BRFSS respondents reported they have had skin cancer. The rate among whites was 9.2 percent with blacks reporting a rate of only 0.8 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.

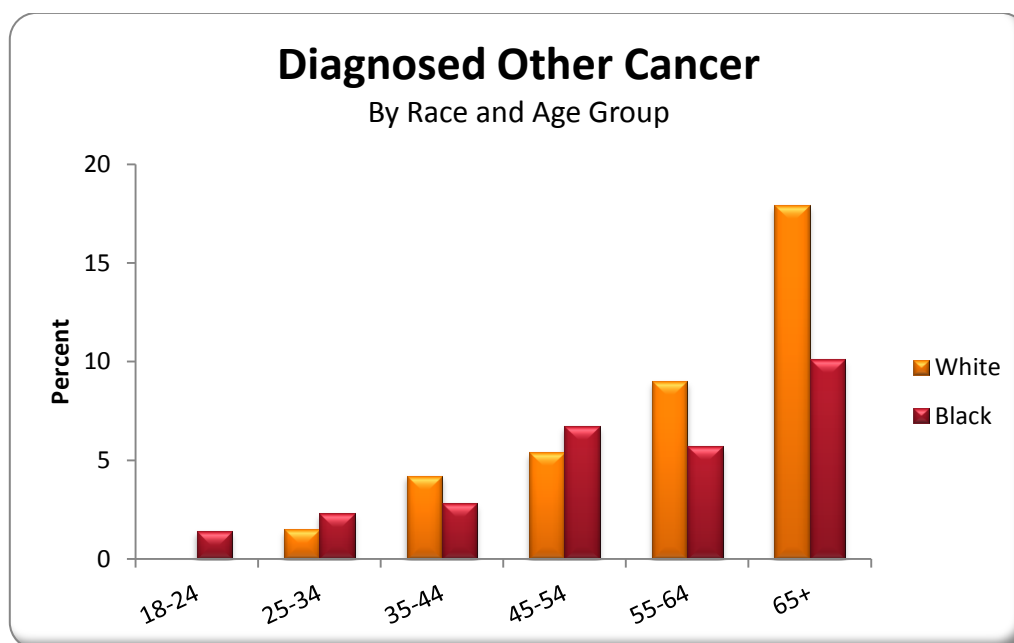


Figure 22

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 7.6 percent which was more than thirty-nine percent higher than the rate for blacks who reported a rate of 4.6 percent. As may be observed from Figure 22, the rate for cancer increases dramatically with age.

Table 20: Ever Diagnosed Skin Cancer

Groups	White		Black		Total	
	Number ¹	Percent ²	Number ¹	Percent ²	Number ¹	Percent ²
Sex						
Male	178	10.2	4	1.0	184	6.7
Female	233	8.3	10	0.7	246	5.3
Age Group						
18-24	3	2.8	1	1.4	4	2.1
25-34	6	1.2	0	0.0	6	0.7
35-44	5	2.0	0	0.0	6	1.1
45-54	23	5.5	3	1.1	26	3.8
55-64	70	10.6	3	0.6	74	7.0
65+	301	23.6	7	2.2	311	18.0
Education						
< High School Graduate	35	8.9	4	1.8	39	5.5
High School Graduate or GED	149	10.9	3	0.7	152	6.5
Some College or Technical School	99	8.6	3	0.3	104	5.7
College Graduate	128	8.3	4	0.8	135	6.0
Income						
< \$15,000	47	13.0	3	0.9	51	5.7
\$15-\$24,999	59	8.3	6	1.3	65	4.8
\$25-\$34,999	47	9.3	1	0.1	49	5.3
\$35-\$49,999	46	8.4	2	2.0	49	6.1
\$50-\$74,999	42	6.7	1	0.3	43	5.2
\$75,000+	74	8.0	0	0.0	74	6.4
Employment Status						
Employed	84	4.3	3	0.3	88	2.7
Not Employed	7	4.0	1	0.2	8	2.0
Student/Homemaker	19	5.4	2	1.6	22	4.3
Retired/Unable to Work	301	18.7	8	1.7	312	12.7
Total	411	9.2	14	0.8	430	6.0

¹Unweighted

²Weighted

Table 21: Ever Diagnosed Other Cancer

Groups	White		Black		Total	
	Number ¹	Percent ²	Number ¹	Percent ²	Number ¹	Percent ²
Sex						
Male	101	5.2	37	4.0	139	4.6
Female	233	9.9	76	5.1	314	8.0
Age Group						
18-24	0	0.0	1	1.4	1	0.5
25-34	5	1.5	4	2.3	9	1.7
35-44	13	4.2	7	2.8	21	3.6
45-54	25	5.4	19	6.7	45	5.8
55-64	61	9.0	30	5.7	92	7.8
65+	229	17.9	51	10.1	283	15.9
Education						
< High School Graduate	26	6.3	28	7.3	54	6.4
High School Graduate or GED	119	8.6	32	3.3	154	6.3
Some College or Technical School	86	7.7	25	4.4	112	6.5
College Graduate	103	7.1	28	4.0	133	6.1
Income						
< \$15,000	37	12.5	36	8.4	73	9.8
\$15-\$24,999	57	8.5	36	5.3	95	6.9
\$25-\$34,999	34	7.6	11	2.1	46	5.2
\$35-\$49,999	44	8.5	9	5.3	53	7.2
\$50-\$74,999	35	5.0	7	3.1	43	4.5
\$75,000+	55	5.4	5	3.4	61	5.0
Employment Status						
Employed	71	3.8	20	2.3	93	3.1
Not Employed	5	2.8	3	3.2	8	2.9
Student/Homemaker	16	3.2	3	1.7	19	2.7
Retired/Unable to Work	241	15.4	86	9.6	331	13.4
Total	334	7.6	113	4.6	453	6.4

¹Unweighted

²Weighted

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.

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—it cannot be caught from someone else.

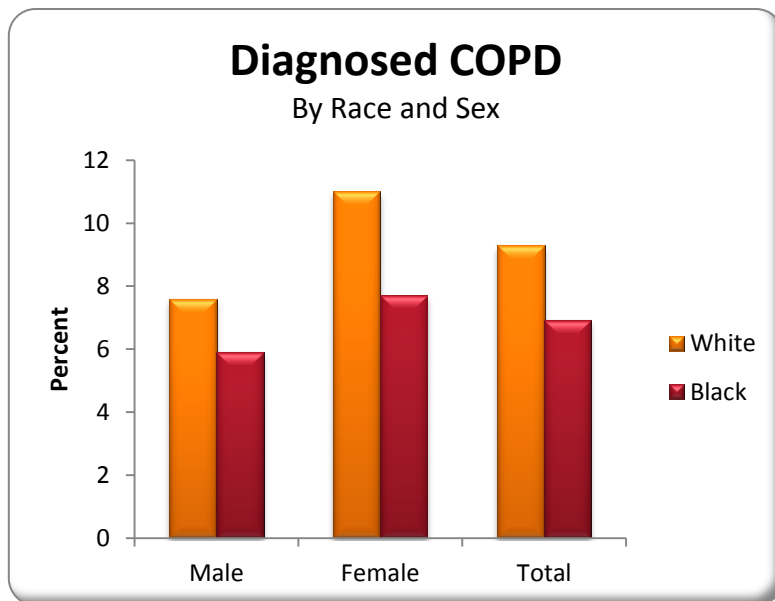


Figure 23

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.

The 2016 BRFSS survey revealed that Mississippians have a COPD rate of 8.3 percent. White respondents who reported a rate of 9.3 percent have a higher rate than blacks who had a rate of 6.9 percent. In the gender category, white females show the highest prevalence at 11.0 percent followed by black females at 7.7 percent.

As may be seen in Table 22, there is an close association between the rate of COPD and the level of education among the respondents. Those who did not graduate from high school have a COPD rate almost five times higher than college graduates.

Table 22: Ever Diagnosed COPD

Groups	White		Black		Total	
	Number ¹	Percent ²	Number ¹	Percent ²	Number ¹	Percent ²
Sex						
Male	94	7.6	45	5.9	142	6.8
Female	225	11.0	99	7.7	332	9.7
Age Group						
18-24	3	2.7	5	2.9	8	2.6
25-34	11	4.6	10	4.2	22	4.3
35-44	17	6.1	12	4.3	30	5.3
45-54	37	9.1	26	7.9	64	8.5
55-64	91	14.5	42	9.7	136	13.0
65+	159	14.2	48	14.0	212	14.3
Education						
< High School Graduate	72	19.9	45	12.5	119	16.0
High School Graduate or GED	104	8.4	48	6.2	156	7.4
Some College or Technical School	101	9.3	30	5.1	134	7.9
College Graduate	42	3.1	21	4.2	65	3.4
Income						
< \$15,000	62	23.2	49	11.9	117	16.9
\$15-\$24,999	74	12.6	42	7.7	118	10.1
\$25-\$34,999	27	7.5	9	5.6	38	6.6
\$35-\$49,999	31	6.2	6	1.5	37	4.5
\$50-\$74,999	27	6.0	2	0.6	29	4.7
\$75,000+	22	3.9	4	2.4	27	3.5
Employment Status						
Employed	57	4.2	24	2.4	82	3.4
Not Employed	22	15.8	13	11.0	35	13.1
Student/Homemaker	9	2.6	5	4.1	14	2.9
Retired/Unable to Work	231	18.6	102	14.6	343	17.4
Total	319	9.3	144	6.9	474	8.3

¹Unweighted

²Weighted

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 and produce sickness that 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 transplantation to maintain life.

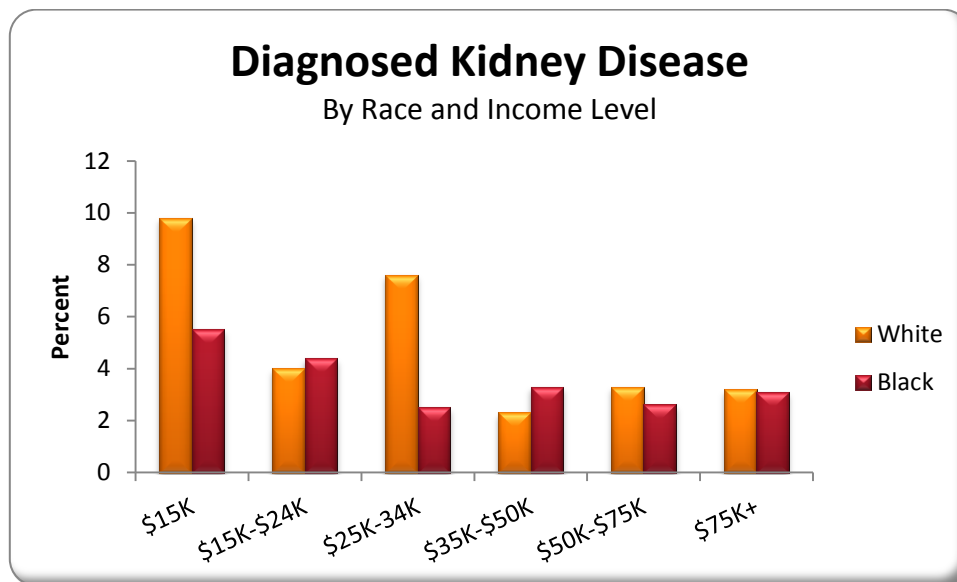


Figure 25

In 2015, kidney disease was the ninth leading cause of death both nationally and in the state of Mississippi. The Mississippi BRFSS survey revealed that 4.0 percent of the respondents reported having been diagnosed with some form of kidney disease in 2016. White respondents reported a rate of 4.4 percent compared to 3.7 percent for blacks (see Table 23).

As seen in Figure 25, kidney disease is higher among low income groups. Those reporting an income of less than \$15,000 per year were more than twice as likely to have kidney disease than those making \$75,000 per year or higher.

Table 23: Ever Diagnosed With Kidney Disease

Groups	White		Black		Total	
	Number ¹	Percent ²	Number ¹	Percent ²	Number ¹	Percent ²
Sex						
Male	54	4.3	29	3.3	83	3.8
Female	97	4.5	58	4.0	157	4.3
Age Group						
18-24	2	3.2	1	1.4	3	2.3
25-34	1	0.4	0	0.0	1	0.2
35-44	9	4.1	6	1.8	15	3.0
45-54	20	4.8	14	5.2	34	4.8
55-64	35	4.6	28	5.5	64	4.9
65+	82	7.5	38	10.4	121	8.2
Education						
< High School Graduate	21	6.0	26	6.6	48	6.0
High School Graduate or GED	55	4.8	25	3.5	81	4.2
Some College or Technical School	48	5.0	19	2.6	67	4.1
College Graduate	27	1.7	17	2.4	44	1.8
Income						
< \$15,000	29	9.8	24	5.5	54	7.1
\$15-\$24,999	19	4.0	28	4.4	48	4.1
\$25-\$34,999	16	7.6	9	2.5	25	5.1
\$35-\$49,999	13	2.3	7	3.3	20	2.6
\$50-\$74,999	17	3.3	4	2.6	21	3.1
\$75,000+	21	3.2	4	3.1	25	3.1
Employment Status						
Employed	25	1.9	14	1.4	39	1.6
Not Employed	3	4.2	2	2.4	5	3.2
Student/Homemaker	4	4.3	1	0.3	5	3.1
Retired/Unable to Work	119	8.4	70	9.1	191	8.6
Total	151	4.4	87	3.7	240	4.0

¹Unweighted

²Weighted

Breast Cancer Screening

Survey Question

**A mammogram is an x-ray of each breast to look for breast cancer.
Have you ever had a mammogram?**

The American Cancer Society (ACS) recommends that women with an average risk of breast cancer should undergo regular screening mammography starting at age 45.

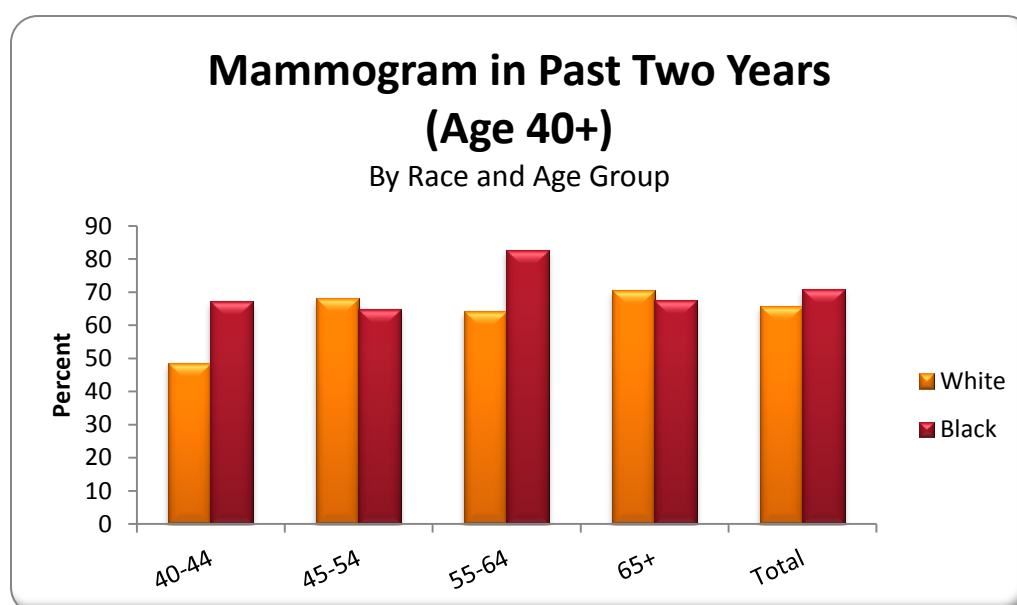


Figure 26

Women aged 45 to 54 years should be screened annually while those 55 years and older should transition to biennial screening or have the opportunity to continue screening annually. The ACS recommends that women should have the opportunity to begin annual screening between the ages of 40 and 44 years and should continue screening mammography as long as their overall health is good and they have a life expectancy of 10 years or longer. The ACS does not recommend clinical breast examination for breast cancer screening among average-risk women at any age.

Year 2020 National Health Objective

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

The 2016 BRFSS survey indicated that 90.6 percent of the women in Mississippi age 40 and above had ever had a mammogram. In women age 50 and older, white

respondents had a mammogram within two years at a rate of 64.8 percent compared to a rate of 69.8 percent for blacks.

The U.S. Preventive Services Task Force (USPSTF) recommends the following with regard to screening for breast cancer.

Women age 40-49

The decision to start screening mammography in women prior to age 50 years should be an individual one. Women who place a higher value on the potential benefit than the potential harms may choose to begin biennial screening between the ages of 40 and 49 years.

- For women who are at average risk for breast cancer, most of the benefit of mammography results from biennial screening during ages 50 to 74 years. Of all of the age groups, women aged 60 to 69 years are most likely to avoid breast cancer death through mammography screening. While screening mammography in women aged 40 to 49 years may reduce the risk for breast cancer death, the number of deaths averted is smaller than that in older women and the number of false-positive results and unnecessary biopsies is larger. The balance of benefits and harms is likely to improve as women move from their early to late 40s.

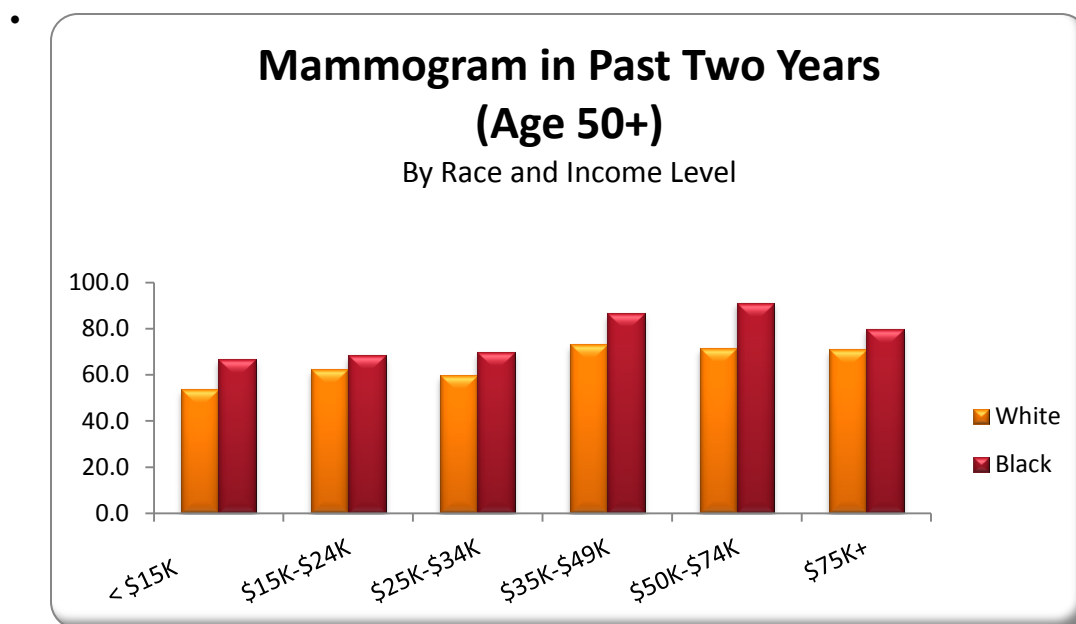


Figure 27

In addition to false-positive results and unnecessary biopsies, all women undergoing regular screening mammography are at risk for the diagnosis and treatment of noninvasive and invasive breast cancer that would otherwise not have become a threat to their health, or even apparent, during their lifetime (known as “over diagnosis”).

Beginning mammography screening at a younger age and screening more frequently may increase the risk for over diagnosis and subsequent overtreatment.

- Women with a parent, sibling, or child with breast cancer are at higher risk for breast cancer and thus may benefit more than average-risk women from beginning screening in their 40s.

Women age 50-74

The USPSTF recommends biennial screening mammography for women aged 50 to 74 years.

Women age 75+

The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening mammography in women aged 75 years or older.

Table 24: Ever Had a Mammogram (Age 40+)

Groups	White		Black		Total	
	Number ¹	Percent ²	Number ¹	Percent ²	Number ¹	Percent ²
Age Group						
35-44	59	70.1	63	77.4	123	72.5
45-54	205	88.8	172	89.1	382	89.1
55-64	348	94.8	246	95.0	602	94.9
65+	746	94.2	305	96.5	1,063	94.7
Education						
< High School Graduate	129	88.2	175	94.8	312	91.5
High School Graduate or GED	438	91.5	245	86.0	688	89.6
Some College or Technical School	393	89.4	170	93.5	568	90.5
College Graduate	396	93.2	196	90.3	600	91.7
Income						
< \$15,000	123	84.3	185	88.9	313	86.4
\$15-\$24,999	238	90.7	199	86.3	442	88.9
\$25-\$34,999	127	91.0	87	96.2	218	92.3
\$35-\$49,999	150	92.1	80	95.7	231	93.2
\$50-\$74,999	154	87.4	55	97.3	209	89.3
\$75,000+	235	94.2	39	93.1	277	94.2
Employment Status						
Employed	395	89.3	268	89.0	668	88.9
Not Employed	37	86.8*	21	84.4*	60	86.4
Student/Homemaker	117	81.0	28	94.7*	146	83.1
Retired/Unable to Work	808	93.5	468	93.2	1,294	93.3
Total	1,358	90.5	786	91.2	2,170	90.6

¹Unweighted

²Weighted

* Observations < 50

Table 25: Mammogram in Past Two Years (Females Age 40+)

Groups	White		Black		Total	
	Number ¹	Percent ²	Number ¹	Percent ²	Number ¹	Percent ²
Age Group						
40-44	44	48.6	53	67.2	97	55.7
45-54	157	68.0	141	64.7	303	67.2
55-64	242	64.1	209	82.7	457	71.0
65+	544	70.4	218	67.4	769	69.2
Education						
< High School Graduate	77	52.6	123	66.2	205	59.5
High School Graduate or GED	316	69.3	196	69.5	515	69.3
Some College or Technical School	295	66.4	130	72.4	429	68.0
College Graduate	299	71.1	172	80.0	477	73.1
Income						
< \$15,000	77	50.9	146	69.6	225	60.6
\$15-\$24,999	166	64.8	150	64.8	320	65.0
\$25-\$34,999	88	64.5	67	71.2	157	66.2
\$35-\$49,999	112	66.7	72	86.2*	184	72.0
\$50-\$74,999	122	70.3	49	88.4	171	73.9
\$75,000+	191	72.1	35	86.2	229	73.8
Employment Status						
Employed	304	67.9	225	70.5	534	69.0
Not Employed	23	60.1*	16	75.8*	41	66.9
Student/Homemaker	89	62.1	20	62.8*	109	62.0
Retired/Unable to Work	571	65.6	360	72.0	942	67.6
Total	987	65.9	621	71.0	1,626	67.5

¹Unweighted

²Weighted

Table 26: Had Mammogram In Past 2 Years (Females 50+)

Groups	White		Black		Total	
	Number ¹	Percent ²	Number ¹	Percent ²	Number ¹	Percent ²
Age Group						
50-54	82	60.6	71	64	156	62.3
55-64	242	62.8	209	78	457	68.4
65+	544	67.5	218	64.9	769	66.4
Education						
< High School Graduate	69	50.6	110	61.8	184	56.8
High School Graduate or GED	291	65.8	157	71.3	451	67.3
Some College or Technical School	262	68.7	101	73.5	366	69.7
College Graduate	246	68.8	130	79.9	381	71.9
Income						
< \$15,000	68	53.8	118	66.7	188	60.8
\$15-\$24,999	149	62.3	123	68.3	275	64.9
\$25-\$34,999	72	59.7	50	69.6	123	62.5
\$35-\$49,999	103	73.1	49	86.6	152	75.8
\$50-\$74,999	106	71.5	38	91.1*	144	74.7
\$75,000+	147	71.1	26	79.8*	176	72.6
Employment Status						
Employed	226	67.8	145	72.2	375	69.7
Not Employed	16	44.3*	9	75.3*	26	58.4
Student/Homemaker	70	61.7	16	60.6*	86	61.6
Retired/Unable to Work	556	64.7	328	69.2	895	65.9
Total	868	64.8	498	69.8	1,382	66.4

¹Unweighted

²Weighted

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 from the National Institutes of Health the incidence rate for cervical cancer was 8.1 cases per 100,000 women per year in the United States. The mortality rate was 2.3 deaths per 100,000 women per year. In 2017, an estimated 12,820 women in the United States will be diagnosed with cervical cancer and an estimated 4,210 will die from the disease. Approximately 0.6 percent of women will be diagnosed with cervical cancer at some point during their lifetime, based on 2012-2014 data.

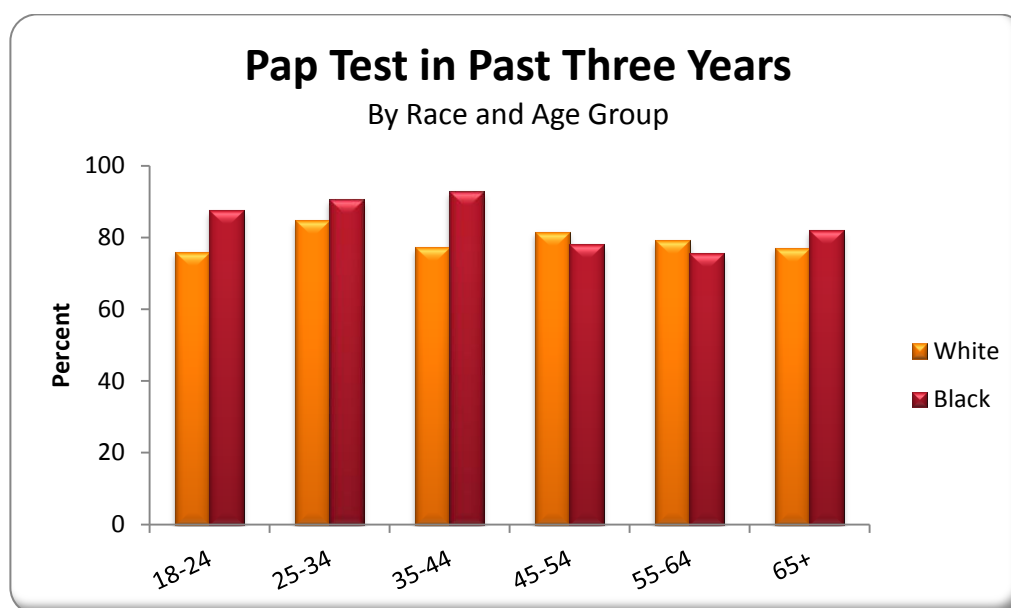


Figure 28

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.

2016 BRFSS data indicate that 90.7 percent of Mississippi women aged 18 and older has received a Pap test (Table 27). This figure represents a slight increase from 89.6 percent reported in 2014 and also a decrease from 92.8 percent reported in 2012.

The 2016 BRFSS data indicate that 83.0 percent of Mississippi women from ages 21 to 65 have received a Pap test within the preceding one to three years.

Table 27: Female Respondents Who Have Ever Had a Pap Test³

Groups	White		Black		Total	
	Number ¹	Percent ²	Number ¹	Percent ²	Number ¹	Percent ²
Age Group						
18-24	30	66.9*	47	71.0	79	69.3
25-34	125	95.2	129	98.7	262	96.8
35-44	131	97.5	137	94.6	274	96.0
45-54	132	98.9	113	94.5	248	97.0
55-64	177	94.7	120	94.6	300	94.8
65+	287	91.0	131	87.8	425	89.9
Education						
< High School Graduate	74	88.9	107	87.5	184	88.2
High School Graduate or GED	235	86.2	209	88.3	451	87.1
Some College or Technical School	264	92.7	163	89.8	433	91.6
College Graduate	320	93.8	206	98.2	539	95.4
Income						
< \$15,000	74	87.1	163	91.4	241	89.2
\$15-\$24,999	141	88.8	186	91.3	335	90.4
\$25-\$34,999	80	93.0	77	98.8	165	96.2
\$35-\$49,999	101	88.3	75	90.4	177	89.1
\$50-\$74,999	118	98.3	44	90.0*	164	96.5
\$75,000+	190	98.3	36	100.0*	228	98.5
Employment Status						
Employed	391	90.0	350	94.7	754	92.2
Not Employed	44	92.9*	60	92.7	106	92.9
Student/Homemaker	125	90.2	39	63.7	168	83.6
Retired/Unable to Work	333	92.5	235	90.2	578	91.4
Total	894	90.8	685	90.5	1,608	90.7

¹Unweighted

²Weighted

³Denominator is females who have never had a hysterectomy

* Denominator < 50

Table 28: Had a Pap Test in Past 3 Years (Age 21-65)

Groups	White		Black		Total	
	Number ¹	Percent ²	Number ¹	Percent ²	Number ¹	Percent ²
Age Group						
18-24	21	75.9 [*]	36	87.5 [*]	59	82.2
25-34	111	84.6	118	90.5	236	87.5
35-44	108	77.2	133	92.8	246	84.2
45-54	107	81.5	96	78.0	206	80.1
55-64	143	79.1	96	75.5	241	77.8
65+	11	77.0	12	81.9	24	80.0
Education						
< High School Graduate	37	77.4	50	71.8	88	74.4
High School Graduate or GED	95	70.5	141	82.1	240	76.7
Some College or Technical School	158	82.0	133	92.5	296	86.4
College Graduate	211	86.2	167	93.9	388	89.1
Income						
< \$15,000	35	71.9	109	80.2	147	77.0
\$15-\$24,999	54	64.6	145	87.2	205	77.9
\$25-\$34,999	38	76.2	62	92.7	104	85.0
\$35-\$49,999	60	87.0	63	99.3	123	91.5
\$50-\$74,999	83	87.4	35	87.1 [*]	120	87.7
\$75,000+	158	95.4	29	99.4 [*]	188	95.9
Employment Status						
Employed	319	84.2	307	88.8	638	86.5
Not Employed	26	62.5 [*]	45	76.3	73	70.9
Student/Homemaker	78	78.9	27	92.7 [*]	108	81.4
Retired/Unable to Work	78	74.0	111	81.7	192	77.3
Total	501	80.1	491	86.5	1,012	83.0

¹Unweighted

²Weighted

³Denominator is females who have never had a hysterectomy

^{*}Denominator < 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. For the United States in 2017, the American Cancer Society estimates there will be 161,360 new cases of prostate cancer and 27,730 deaths from the disease 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.

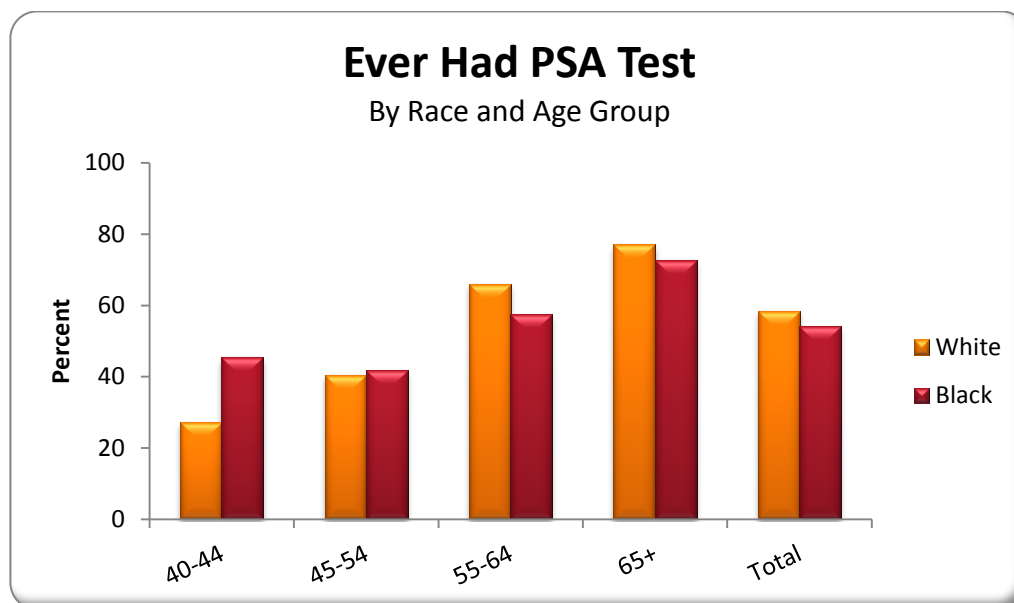


Figure 29

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 2015 the death rate in Mississippi among males for prostate cancer was 21.8 per 100,000 male population which is a decrease from 21.2 reported in 2014. The mortality

rate for whites was 18.3 and 19.5 respectively for 2014 and 2015 and for blacks it was 27.8 and 27.2 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 2016 BRFSS survey for Mississippi indicated that 56.8 percent of males more than 40 years of age reported ever having had a PSA test. The overall rate for white respondents was 58.4 percent while blacks reported a rate of 54.1 percent. There was a greater difference in rates for men age 65 and older. In the 65 and older age group, the screening rate for whites was 77.0 percent compared to 72.5 percent for blacks.

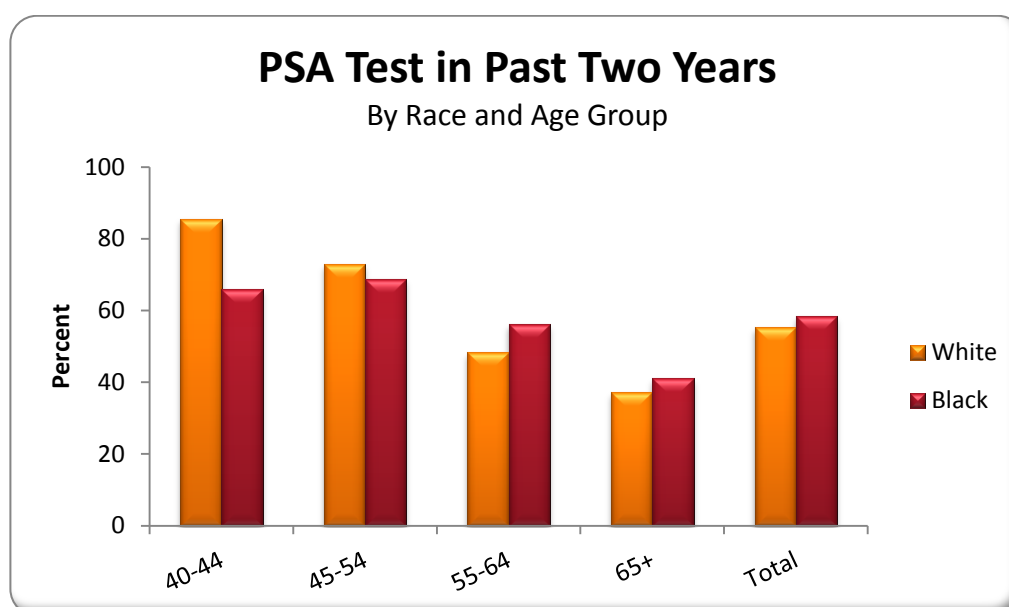


Figure 30

For males over 40 years of age, 56.3 percent reported having a PSA test within the past two years. The rate for white respondents was 55.2 percent compared to 58.4 percent for blacks. For men more than 65 years of age, white males reported a rate of 37.1 percent while in the black group the rate was 41.1 percent.

Table 29: Ever Had a PSA Test (Males Age 40+)

Groups	White		Black		Total	
	Number ¹	Percent ²	Number ¹	Percent ²	Number ¹	Percent ²
Age Group						
40-44	16	27.1	17	45.4 [*]	34	35.9
45-54	75	40.5	54	41.8	130	39.8
55-64	161	66.0	84	57.4	248	63.4
65+	325	77.0	91	72.5	420	75.9
Education						
< High School Graduate	41	44.1	59	52.8	102	48.7
High School Graduate or GED	155	53.2	86	46.5	243	50.3
Some College or Technical School	145	62.4	54	60.2	201	61.7
College Graduate	240	71.6	51	69.1	294	69.7
Income						
< \$15,000	35	42.9	42	47.0	78	44.9
\$15-\$24,999	77	56.1	62	52.7	139	53.5
\$25-\$34,999	57	53.1	26	48.0 [*]	84	52.4
\$35-\$49,999	70	61.7	29	54.7	101	58.9
\$50-\$74,999	79	58.4	25	55.4 [*]	106	58.1
\$75,000+	179	62.5	34	73.8 [*]	214	63.8
Employment Status						
Employed	225	50.0	93	46.1	323	48.4
Not Employed	9	18.2 [*]	8	43.8 [*]	17	29.0
Student/Homemaker	1	40.0 [*]	1	100.0 [*]	2	42.3
Retired/Unable to Work	345	70.2	147	63.7	496	68.1
Total	581	58.4	250	54.1	840	56.8

¹Unweighted

²Weighted

^{*} Denominator < 50

Table 30: Had PSA Test in Past 2 Years (Males 40+)

Groups	White		Black		Total	
	Number ¹	Percent ²	Number ¹	Percent ²	Number ¹	Percent ²
Age Group						
40-44	48	85.5	34	65.9*	83	75.6
45-54	124	72.8	81	68.8	213	72.2
55-64	109	48.3	84	56.2	195	50.7
65+	115	37.1	42	41.1	159	38.0
Education						
< High School Graduate	64	72.8	66	65.5	132	68.3
High School Graduate or GED	136	57.9	102	63.6	241	60.3
Some College or Technical School	96	52.3	48	48.4	145	51.1
College Graduate	99	42.0	24	45.0	130	43.7
Income						
< \$15,000	47	71.0	51	70.7	99	70.7
\$15-\$24,999	61	56.7	67	59.1	131	58.7
\$25-\$34,999	51	61.4	25	58.4*	78	59.0
\$35-\$49,999	41	48.7	34	65.9	76	54.8
\$50-\$74,999	58	61.9	17	47.7*	76	58.4
\$75,000+	90	50.0	11	30.5*	104	47.0
Employment Status						
Employed	209	63.5	122	64.5	340	63.9
Not Employed	18	84.7*	14	81.9*	32	83.6
Student/Homemaker	1	60.0*	0	0.0*	1	60.0
Retired/Unable to Work	167	44.1	105	49.4	276	45.7
Total	396	55.2	241	58.4	650	56.3

¹Unweighted

²Weighted

* Denominator < 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 2014, there were 139,992 people who were diagnosed with colorectal cancer, and 51,651 deaths from it. CDC estimates that screening could prevent up to 60 percent of the deaths from this form of cancer.

The American Cancer Society (ACS) estimates that in 2017 there will be 135,430 new cases of colorectal cancer with 50,260 deaths from the disease. The ACS also estimates that in the same year Mississippi will experience 17,290 new cases of colorectal cancer with 6,560 deaths.

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.

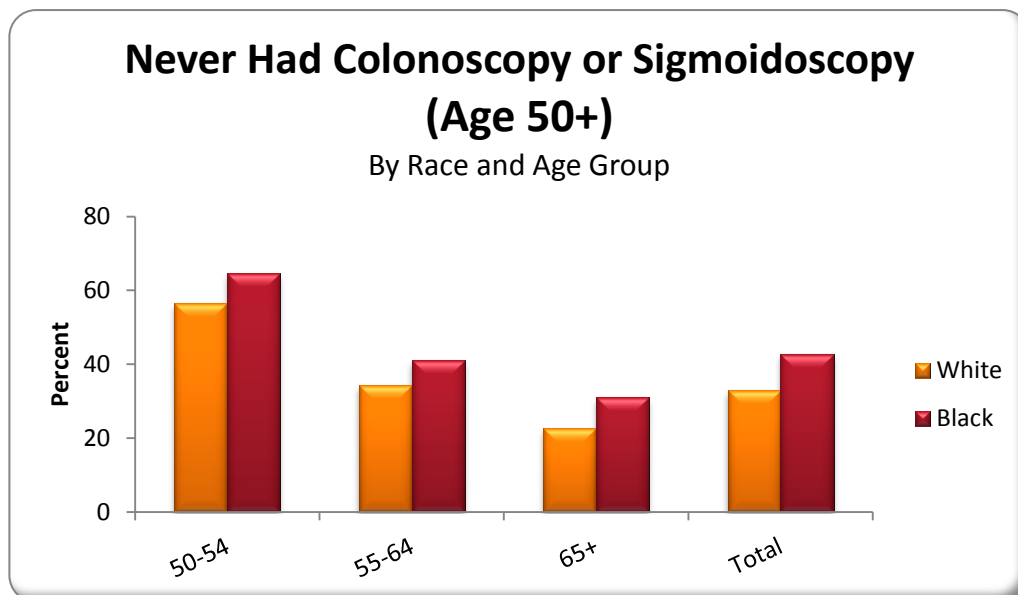


Figure 31

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 2015 the death rate for colorectal cancer in Mississippi was 84.6 per 100,000 among people age sixty-five and older; in 2014 it was 88.2. Colonoscopy and sigmoidoscopy 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.

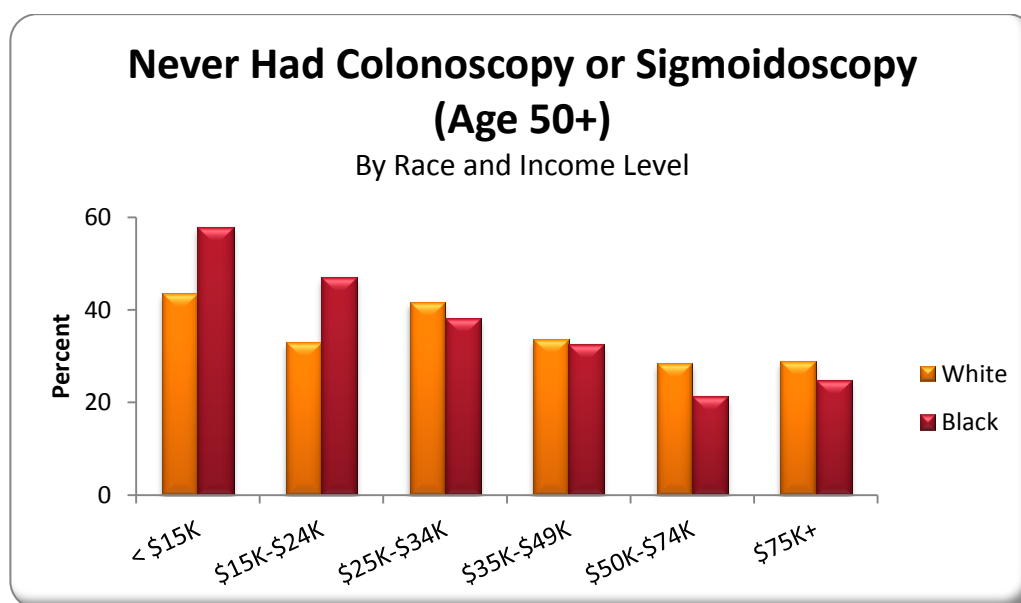


Figure 32

The 2016 BRFSS data for Mississippi indicates that for people age 50 and older 36.2 percent of those surveyed had never had sigmoidoscopy or colonoscopy examination. In the 2014 survey the rate was 37.1 percent. The survey showed that black respondents were more than 1.2 times more likely to have never had an examination.

The rate for blacks was 42.8 percent compared to 32.9 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: 31.0 for blacks and 22.6 for whites (Figure 31 and Table 31).

Table 31: Never Had Colonoscopy or Sigmoidoscopy (Age 50+)

Groups	White		Black		Total	
	Number ¹	Percent ²	Number ¹	Percent ²	Number ¹	Percent ²
Sex						
Male	243	34.6	147	44.9	397	37.8
Female	334	31.5	253	41.2	600	34.8
Age Group						
50-54	128	56.5	101	64.5	235	59.2
55-64	200	34.2	166	41.0	370	36.6
65+	237	22.6	127	31.0	374	25.2
Education						
< High School Graduate	79	38.5	124	52.5	210	45.2
High School Graduate or GED	194	30.6	156	47.5	354	35.8
Some College or Technical School	176	37.9	64	31.5	244	36.5
College Graduate	124	21.9	55	26.3	184	23.4
Income						
< \$15,000	70	43.5	109	57.8	183	51.3
\$15-\$24,999	97	32.9	114	47.1	213	38.3
\$25-\$34,999	62	41.7	45	38.1	112	41.3
\$35-\$49,999	63	33.6	30	32.5	94	33.4
\$50-\$74,999	54	28.4	17	21.4	71	26.9
\$75,000+	94	28.9	16	24.8	112	28.6
Employment Status						
Employed	217	40.3	143	50.2	367	43.5
Not Employed	22	60.2 [*]	18	84.2 [*]	41	70.0
Student/Homemaker	33	38.6	12	53.6 [*]	45	40.5
Retired/Unable to Work	302	27.3	225	36.1	539	30.3
Total	577	32.9	400	42.8	997	36.2

¹Unweighted

²Weighted

^{*}Denominator < 50

Table 32: No Blood Stool Test in Past 2 Years (Age 50-75)

Groups	White		Black		Total	
	Number ¹	Percent ²	Number ¹	Percent ²	Number ¹	Percent ²
Sex						
Male	552	88.4	267	86.6	834	88.0
Female	835	93.8	513	94.3	1,368	94.0
Age Group						
50-54	216	95.1	157	92.9	383	94.4
55-64	569	91.8	369	91.4	950	91.8
65+	602	87.7	254	87.9	869	87.9
Education						
< High School Graduate	133	89.2	187	92.1	329	90.8
High School Graduate or GED	421	92.0	278	93.1	710	92.5
Some College or Technical School	410	91.7	166	88.9	583	91.0
College Graduate	423	90.2	148	85.7	579	89.4
Income						
< \$15,000	125	90.5	183	94.2	315	92.6
\$15-\$24,999	219	91.0	212	91.2	436	91.2
\$25-\$34,999	119	91.4	85	90.0	210	91.1
\$35-\$49,999	156	90.3	77	90.6	234	90.2
\$50-\$74,999	177	91.0	53	86.0	232	90.2
\$75,000+	321	89.2	43	74.4	369	87.5
Employment Status						
Employed	529	93.3	277	92.3	818	93.1
Not Employed	39	82.5	19	92.7	59	86.6
Student/Homemaker	68	95.0	14	95.8	82	95.1
Retired/Unable to Work	750	89.6	468	89.5	1,240	89.7
Total	1,387	91.1	780	90.8	2,202	91.2

¹Unweighted

²Weighted

* Denominator < 50

Immunization

Survey Question

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

Influenza and pneumonia was the eighth leading cause of death in Mississippi for 2015 producing a death rate of 26.4 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.

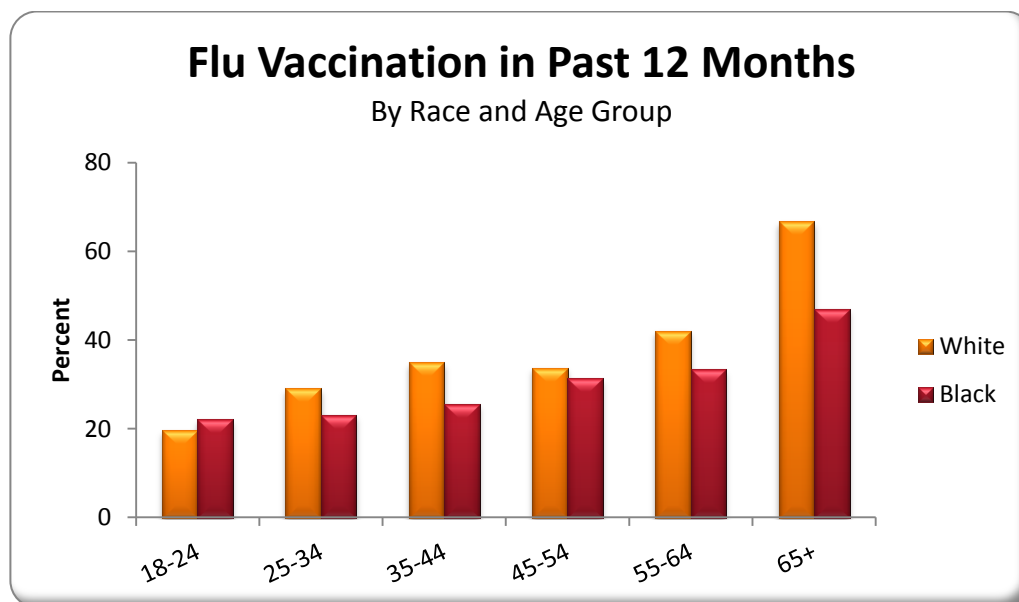


Figure 33

In the 2016 BRFSS survey, 61.7 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: 66.8

percent of whites reported having been vaccinated compared to only 47.0 percent for blacks. For the total population the vaccination rate among females was 38.8 percent compared to a rate of 35.5 percent for males.

Only 30.8 percent of the respondents said that they had ever received a pneumonia vaccination. Respondents over the age of 65 reported a vaccination rate of 65.6 percent. As was the case with influenza vaccinations there was a marked difference in this age category with respect to race: 71.7 percent for whites but only 48.4 percent for blacks.

Table 33: Flu Vaccination in Past 12 Months

Groups	White		Black		Total	
	Number ¹	Percent ²	Number ¹	Percent ²	Number ¹	Percent ²
Sex						
Male	530	38.2	219	29.7	764	35.5
Female	934	44.2	411	30.5	1,364	38.8
Age Group						
18-24	25	19.7	24	22.1	53	22.1
25-34	89	29.1	56	23.1	149	26.6
35-44	102	34.9	70	25.6	177	31.2
45-54	137	33.7	106	31.3	249	32.8
55-64	277	42.1	147	33.4	429	39.1
65+	820	66.8	218	47.0	1,048	61.7
Education						
< High School Graduate	117	35.9	140	34.6	265	35.4
High School Graduate or GED	428	37.6	199	29.5	635	34.5
Some College or Technical School	407	41.8	125	24.5	538	35.8
College Graduate	510	49.3	166	37.4	688	45.7
Income						
< \$15,000	115	40.9	150	31.5	271	35.1
\$15-\$24,999	224	37.6	134	25.0	361	31.0
\$25-\$34,999	132	39.7	64	29.1	204	36.9
\$35-\$49,999	173	42.6	75	33.4	250	39.6
\$50-\$74,999	181	40.9	55	33.3	238	38.9
\$75,000+	312	42.3	47	36.3	367	41.8
Employment Status						
Employed	501	36.3	222	24.0	739	31.7
Not Employed	27	19.2	25	19.6	52	19.3
Student/Homemaker	84	24.9	30	34.4	118	27.7
Retired/Unable to Work	850	56.7	352	42.7	1,216	51.8
Total	1,464	41.2	630	30.1	2,128	37.2

¹Unweighted

²Weighted

Table 34: Flu Vaccination in Past 12 Months (Age 65+)

Groups	White		Black		Total	
	Number ¹	Percent ²	Number ¹	Percent ²	Number ¹	Percent ²
Sex						
Male	271	62.6	66	44.3	339	58.2
Female	549	70.2	152	48.9	709	64.4
Education						
< High School Graduate	78	62.3	73	50.0	155	57.1
High School Graduate or GED	292	68.8	56	43.1	349	63.3
Some College or Technical School	215	67.0	36	42.8	253	62.4
College Graduate	234	67.2	53	52.4	290	64.1
Income						
< \$15,000	78	68.5	58	52.5	139	62.1
\$15-\$24,999	148	62.9	52	38.2	202	54.4
\$25-\$34,999	84	67.5	21	54.5	107	64.3
\$35-\$49,999	98	66.7	16	50.0	114	63.4
\$50-\$74,999	88	66.6	14	69.3	102	66.8
\$75,000+	101	61.5	11	64.4	113	61.7
Employment Status						
Employed	80	55.8	18	49.2	98	54.3
Not Employed	7	66.6	1	100.0	8	68.6
Student/Homemaker	43	70.1	4	43.9	47	66.4
Retired/Unable to Work	690	68.3	195	46.8	895	62.4
Total	820	66.8	218	47.0	1,048	61.7

¹Unweighted

²Weighted

* Denominator < 50

Table 35: Ever Had Pneumonia Vaccination

Groups	White		Black		Total	
	Number ¹	Percent ²	Number ¹	Percent ²	Number ¹	Percent ²
Sex						
Male	424	33.9	174	26.3	605	30.8
Female	821	37.1	301	20.1	1,142	30.9
Age Group						
18-24	27	26.0	17	19.1	47	24.4
25-34	46	18.0	22	11.4	71	15.6
35-44	44	18.5	41	13.9	88	16.3
45-54	74	19.9	68	22.5	146	20.8
55-64	175	29.7	112	25.5	290	28.2
65+	868	71.7	212	48.4	1,091	65.6
Education						
< High School Graduate	121	36.9	105	29.0	231	32.3
High School Graduate or GED	417	36.6	143	19.9	565	29.9
Some College or Technical School	358	36.9	113	23.3	478	32.5
College Graduate	347	31.0	114	18.5	471	27.9
Income						
< \$15,000	130	50.0	119	25.9	255	35.6
\$15-\$24,999	248	41.0	113	20.6	366	30.7
\$25-\$34,999	115	33.5	46	23.0	167	30.5
\$35-\$49,999	147	34.8	45	20.4	193	29.1
\$50-\$74,999	129	29.7	34	17.6	165	27.2
\$75,000+	181	25.5	34	32.6	217	26.6
Employment Status						
Employed	232	18.7	126	14.2	368	17.3
Not Employed	26	31.2	20	13.6	46	21.3
Student/Homemaker	85	28.7	21	27.7	109	29.4
Retired/Unable to Work	899	61.2	308	38.6	1,221	53.4
Total	1,245	35.6	475	22.8	1,747	30.8

¹Unweighted

²Weighted

Table 36: Ever Had Pneumonia Vaccination (Age 65+)

Groups	White		Black		Total	
	Number ¹	Percent ²	Number ¹	Percent ²	Number ¹	Percent ²
Sex						
Male	267	65.8	63	45.4	332	60.7
Female	601	76.5	149	50.4	759	69.3
Education						
< High School Graduate	79	67.8	62	47.2	143	57.9
High School Graduate or GED	328	78.0	54	45.0	384	71.2
Some College or Technical School	225	70.4	42	50.3	270	66.8
College Graduate	235	66.3	54	56.0	293	64.6
Income						
< \$15,000	82	76.1	54	52.7	138	65.7
\$15-\$24,999	179	78.8	55	46.0	237	67.5
\$25-\$34,999	88	67.0	21	53.6 [*]	111	63.7
\$35-\$49,999	99	67.0	18	59.9 [*]	118	65.6
\$50-\$74,999	88	75.7	12	62.2 [*]	100	74.5
\$75,000+	104	65.5	9	50.1 [*]	114	63.7
Employment Status						
Employed	73	44.9	19	49.0 [*]	93	45.9
Not Employed	5	55.4 [*]	1	100.0 [*]	6	58.6
Student/Homemaker	51	85.4	4	27.2 [*]	55	76.3
Retired/Unable to Work	738	75.0	188	48.9	936	67.7
Total	868	71.7	212	48.4	1,091	65.6

¹Unweighted

²Weighted

^{*} Denominator < 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.

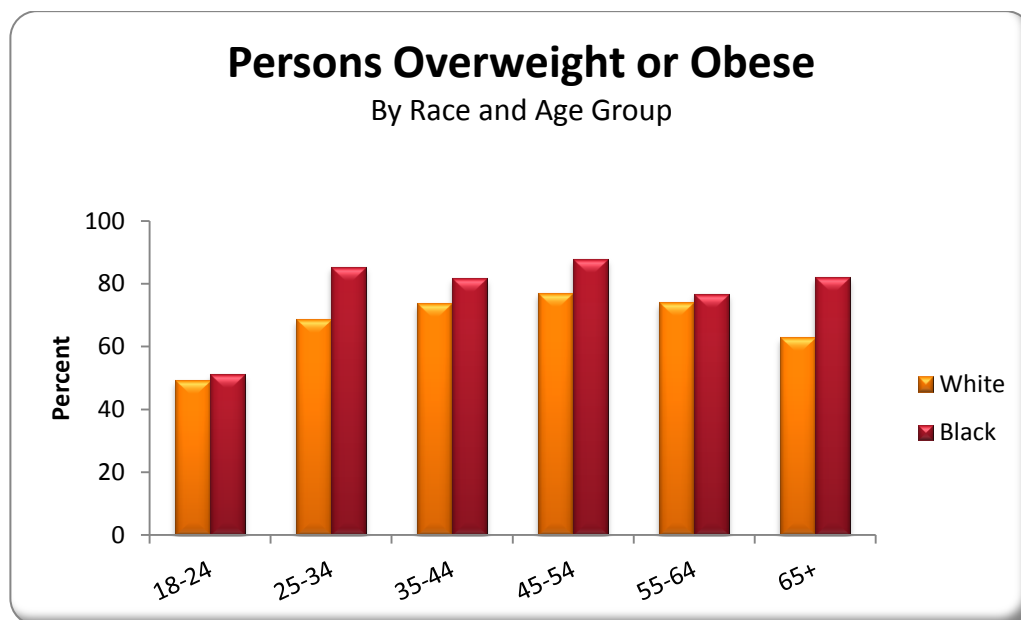


Figure 34

Weight may be controlled by dietary changes such as decreasing caloric intake and by increasing physical activity. According to the 2016 BRFSS study 71.2 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 68.0 percent compared to 78.0 percent for blacks (Table 37). In year 2015 the self-reported rate was 70.1 percent and in 2014 it was 68.7 percent.

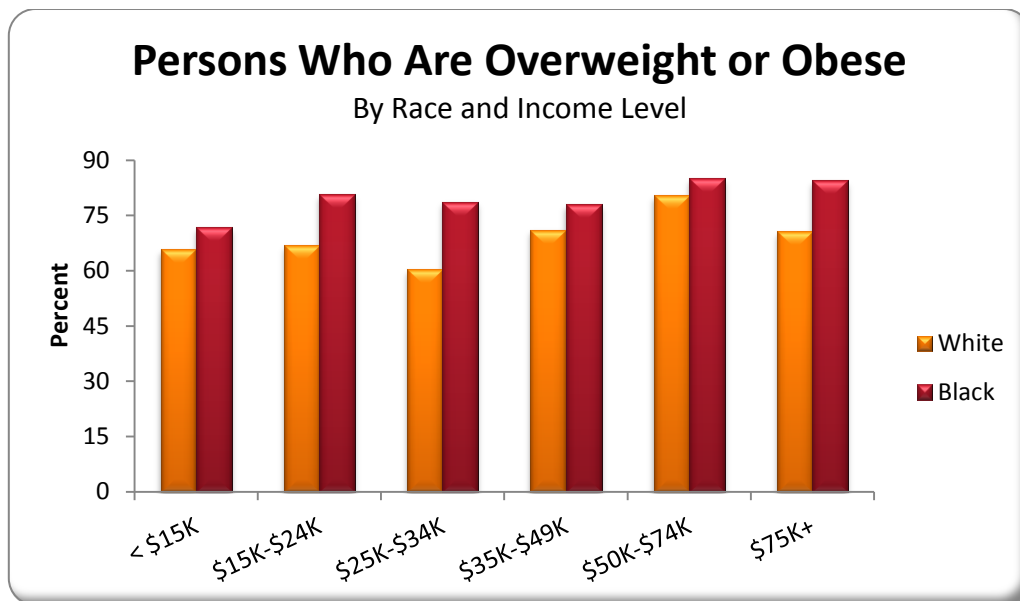


Figure 35

Table 37: Overweight or Obese

Groups	White		Black		Total	
	Number ¹	Percent ²	Number ¹	Percent ²	Number ¹	Percent ²
Sex						
Male	922	75.3	481	74.1	1,433	74.1
Female	1,036	60.6	946	81.3	2,008	68.5
Age Group						
18-24	56	49.2	57	51.1	118	49.5
25-34	176	68.6	183	85.4	370	74.5
35-44	210	73.7	219	81.7	437	76.8
45-54	309	77.1	268	87.9	591	80.8
55-64	449	74.1	342	76.8	798	75.2
65+	751	62.9	348	82.0	1,110	67.7
Education						
< High School Graduate	178	66.8	257	77.6	445	70.4
High School Graduate or GED	613	68.4	488	75.1	1,122	70.8
Some College or Technical School	568	70.2	348	82.0	925	74.1
College Graduate	598	64.5	333	76.1	947	67.5
Income						
< \$15,000	166	65.8	297	71.7	472	68.4
\$15-\$24,999	314	66.9	397	80.6	723	72.5
\$25-\$34,999	181	60.3	152	78.7	343	67.8
\$35-\$49,999	251	71.1	163	78.1	419	73.1
\$50-\$74,999	281	80.5	105	85.1	392	81.4
\$75,000+	438	70.7	103	84.6	548	72.5
Employment Status						
Employed	867	70.9	683	82.2	1,581	74.6
Not Employed	65	66.0	75	60.7	141	62.4
Student/Homemaker	119	52.5	46	55.0	169	53.0
Retired/Unable to Work	906	68.7	622	79.1	1,547	72.2
Total	1,958	68.0	1,427	78.0	3,441	71.2

¹Unweighted

²Weighted

Table 38: Obese

Groups	White		Black		Total	
	Number ¹	Percent ²	Number ¹	Percent ²	Number ¹	Percent ²
Sex						
Male	404	33.6	253	39.4	674	35.2
Female	512	30.9	630	53.6	1,159	39.5
Age Group						
18-24	18	17.6	31	25.1	50	20.1
25-34	82	33.4	114	48.9	200	38.4
35-44	118	41.4	154	56.4	278	47.9
45-54	165	39.8	183	56.1	357	45.5
55-64	217	35.2	213	48.0	436	40.0
65+	314	26.1	182	44.9	504	31.1
Education						
< High School Graduate	81	26.2	160	44.7	250	34.3
High School Graduate or GED	298	34.5	301	44.8	610	38.3
Some College or Technical School	281	35.7	228	51.4	514	41.0
College Graduate	255	27.6	193	46.1	457	32.2
Income						
< \$15,000	84	30.7	209	49.9	301	41.6
\$15-\$24,999	159	33.4	256	52.5	422	41.9
\$25-\$34,999	91	32.2	84	43.3	181	36.5
\$35-\$49,999	122	34.1	95	40.6	219	35.9
\$50-\$74,999	131	39.1	61	44.2	195	40.0
\$75,000+	172	28.1	56	52.9	232	32.4
Employment Status						
Employed	414	34.4	419	48.5	847	39.1
Not Employed	27	28.2	52	41.5	79	33.9
Student/Homemaker	47	22.4	27	28.4	77	24.6
Retired/Unable to Work	427	32.4	384	49.6	827	38.6
Total	916	32.3	883	47.1	1,833	37.4

¹Unweighted

²Weighted

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.

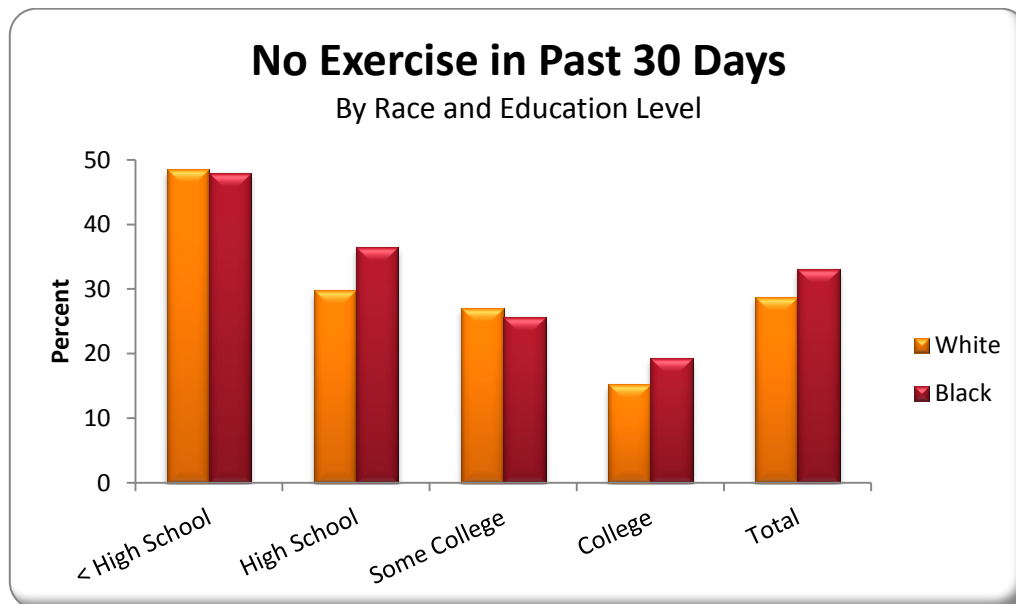


Figure 36

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, 30.2 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 36) and in lower income levels (Figure 37) reported the highest percentage of physical inactivity.

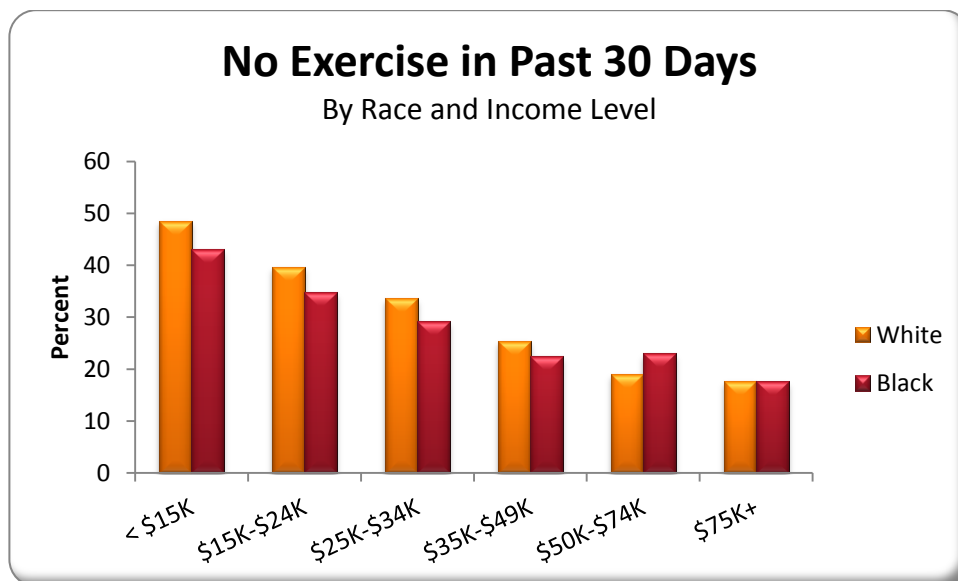


Figure 37

Table 39: No Exercise in Past 30 Days

Groups	White		Black		Total	
	Number ¹	Percent ²	Number ¹	Percent ²	Number ¹	Percent ²
Sex						
Male	302	24.7	211	28.5	523	26.0
Female	651	32.6	476	36.8	1,145	34.1
Age Group						
18-24	21	20.9	28	24.5	51	22.3
25-34	44	17.2	65	25.4	113	21.0
35-44	70	22.1	86	25.9	161	24.1
45-54	124	30.3	136	40.6	263	33.4
55-64	232	36.2	171	41.3	410	38.1
65+	457	37.9	193	43.6	657	39.4
Education						
< High School Graduate	156	48.5	171	48.0	334	48.3
High School Graduate or GED	339	29.8	273	36.5	622	32.1
Some College or Technical School	264	27.1	130	25.7	398	26.4
College Graduate	192	15.3	112	19.3	311	16.5
Income						
< \$15,000	136	48.5	195	43.0	340	46.1
\$15-\$24,999	198	39.7	192	34.8	393	37.1
\$25-\$34,999	96	33.7	65	29.2	165	30.6
\$35-\$49,999	103	25.4	45	22.5	152	24.9
\$50-\$74,999	85	19.1	32	23.0	117	19.5
\$75,000+	118	17.7	30	17.6	149	17.2
Employment Status						
Employed	289	21.4	246	26.4	542	23.2
Not Employed	37	30.9	45	37.0	84	35.3
Student/Homemaker	59	22.0	20	15.0	81	20.0
Retired/Unable to Work	568	41.9	376	48.3	960	44.2
Total	953	28.7	687	33.1	1,668	30.2

¹Unweighted

²Weighted

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?**

Oral health is an essential and integral component of health throughout life. According to 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 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 2016 BRFSS Survey for Mississippi, 57.2 percent of the respondents reported having one or more of their permanent teeth removed. In 2014 the rate was the same.

Older people reported the loss of permanent teeth much more frequently than their younger counterparts (Figure 39). Only 15.0 percent of respondents in the 18-24 age group reported the loss of permanent teeth while 84.0 percent in the category of those

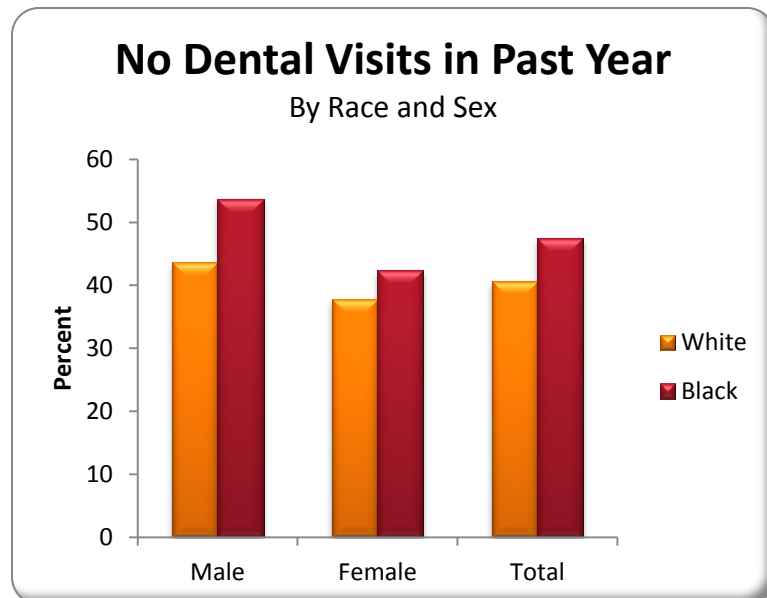


Figure 38

over age 65 reported losing permanent teeth. The rate for white respondents reporting tooth loss was 53.9 percent; for blacks it was 64.8 percent.

Oral health diseases such as tooth decay and periodontal diseases are common health problems in Mississippi, yet 43.0 percent of respondents from the 2016 BRFSS Survey reported that they had not seen a dentist within the last twelve months (Table 40). Failure to see a dentist within the past year was observed most frequently among white respondents with an annual income of less than \$15,000 who reported a rate of 74.2 percent. Next were blacks who report an annual income of less than \$15,000 with a rate of 62.4 percent followed by black respondents with less than a high school education with a rate of 66.8 percent.

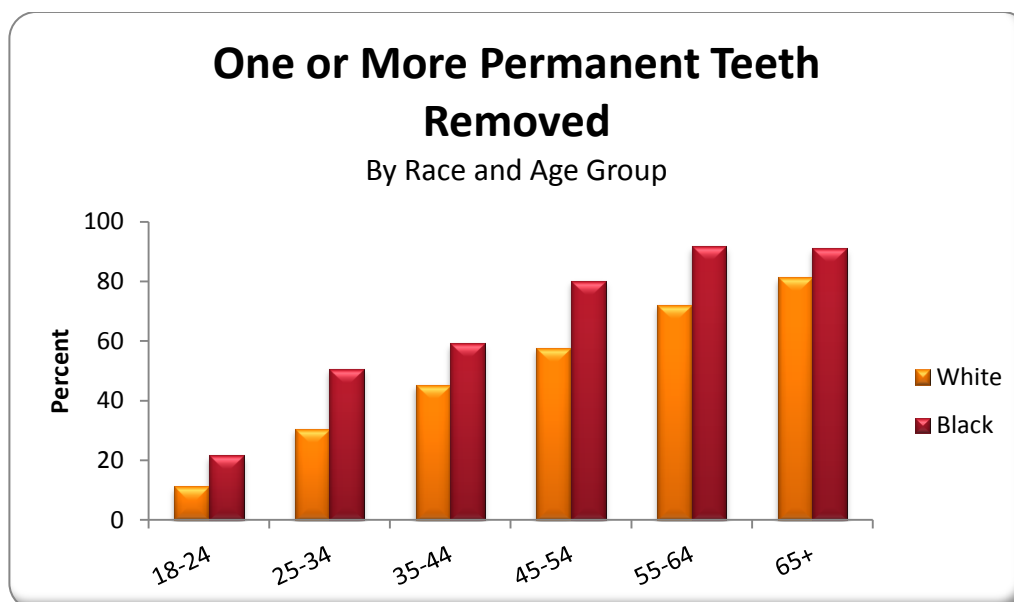


Figure 39

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 22.5 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 increases. With respect to race, 53.7 percent of the black males reported no visits to a dental facility within the past year compared to 43.6 percent for white males. The rate for black females was 42.3 percent while white females reported a rate of 37.7 percent (Table 40).

Table 40: No Dental Visits in Past Year

Groups	White		Black		Total	
	Number ¹	Percent ²	Number ¹	Percent ²	Number ¹	Percent ²
Sex						
Male	484	43.6	357	53.7	862	47.1
Female	654	37.7	570	42.3	1,243	39.2
Age Group						
18-24	40	32.3	43	39.0	86	34.8
25-34	110	39.5	91	40.3	206	39.3
35-44	122	41.4	120	41.5	249	42.0
45-54	165	44.2	160	49.6	332	46.0
55-64	247	42.1	247	57.2	500	47.3
65+	447	42.0	259	61.1	718	47.0
Education						
< High School Graduate	194	65.1	235	66.8	440	66.0
High School Graduate or GED	424	45.0	347	48.7	790	46.5
Some College or Technical School	334	38.8	179	40.3	517	38.9
College Graduate	184	20.5	166	32.8	356	23.6
Income						
< \$15,000	189	74.2	258	62.4	459	67.8
\$15-\$24,999	252	55.6	275	48.0	536	51.8
\$25-\$34,999	115	42.9	85	43.8	205	42.2
\$35-\$49,999	118	38.5	79	38.5	201	39.1
\$50-\$74,999	99	31.2	31	27.8	133	30.3
\$75,000+	118	22.3	31	23.7	152	22.5
Employment Status						
Employed	406	34.9	363	43.8	783	38.3
Not Employed	69	64.2	62	52.2	131	57.9
Student/Homemaker	83	33.3	35	34.2	122	33.4
Retired/Unable to Work	580	48.8	465	55.6	1,067	51.3
Total	1,138	40.6	927	47.4	2,105	43.0

¹Unweighted

²Weighted

Table 41: Have Had at Least One Permanent Tooth Extracted

Groups	White		Black		Total	
	Number ¹	Percent ²	Number ¹	Percent ²	Number ¹	Percent ²
Sex						
Male	701	51.5	486	64.5	1,207	54.8
Female	1,125	56.1	890	65.0	2,049	59.5
Age Group						
18-24	12	11.1	22	21.5	36	15.0
25-34	86	30.5	118	50.6	209	38.7
35-44	133	45.3	167	59.3	306	50.9
45-54	226	57.7	262	80.2	500	65.3
55-64	423	72.1	385	91.8	819	79.0
65+	932	81.2	411	91.1	1,361	84.0
Education						
< High School Graduate	237	73.2	302	84.6	549	76.0
High School Graduate or GED	666	62.5	491	63.2	1,174	61.7
Some College or Technical School	519	51.2	302	59.8	833	54.4
College Graduate	400	32.9	280	50.0	695	37.4
Income						
< \$15,000	207	75.0	322	72.7	540	72.7
\$15-\$24,999	362	69.5	383	67.9	756	68.4
\$25-\$34,999	196	62.4	133	57.5	340	58.9
\$35-\$49,999	210	48.3	138	61.0	350	51.2
\$50-\$74,999	201	46.1	95	65.5	299	49.8
\$75,000+	260	36.3	78	55.7	343	39.1
Employment Status						
Employed	563	40.5	560	57.8	1,143	46.3
Not Employed	66	58.2	66	57.4	134	58.1
Student/Homemaker	111	32.3	43	39.0	158	34.2
Retired/Unable to Work	1,083	81.1	706	85.5	1,817	82.8
Total	1,826	53.9	1,376	64.8	3,256	57.2

¹Unweighted

²Weighted

Disability

Survey Questions

Are you deaf or do you have serious difficulty hearing?

Are you blind or do you have serious difficulty seeing, even when wearing glasses?

Because of a physical, mental, or emotional condition, do you have serious difficulty concentrating, remembering, or making decisions?

Do you have serious difficulty walking or climbing stairs?

Do you have difficulty dressing or bathing?

Because of a physical, mental, or emotional condition, do you have difficulty doing errands alone such as visiting a doctor's office or shopping?

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.

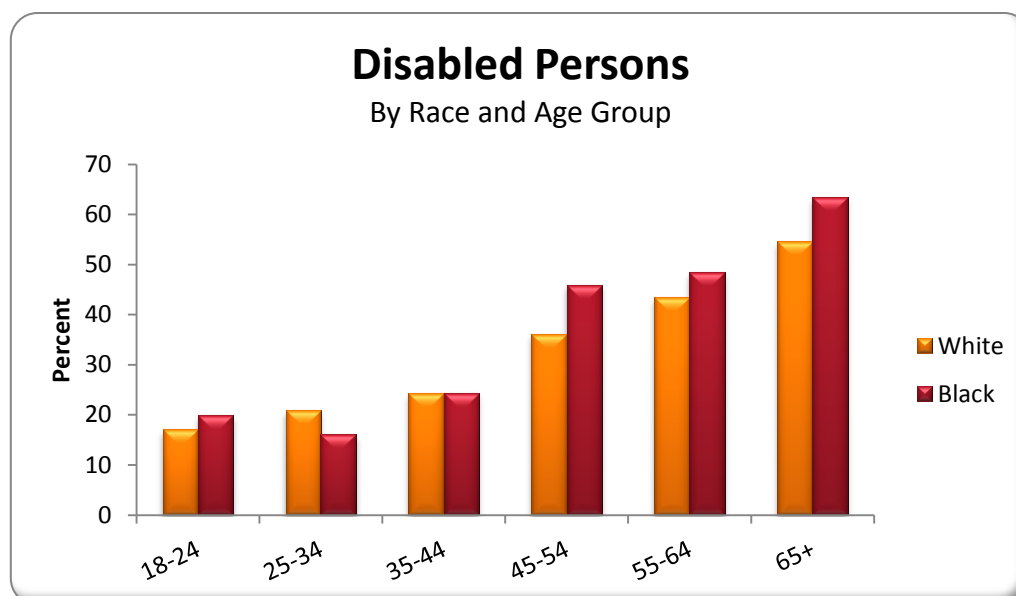


Figure 40

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.

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.

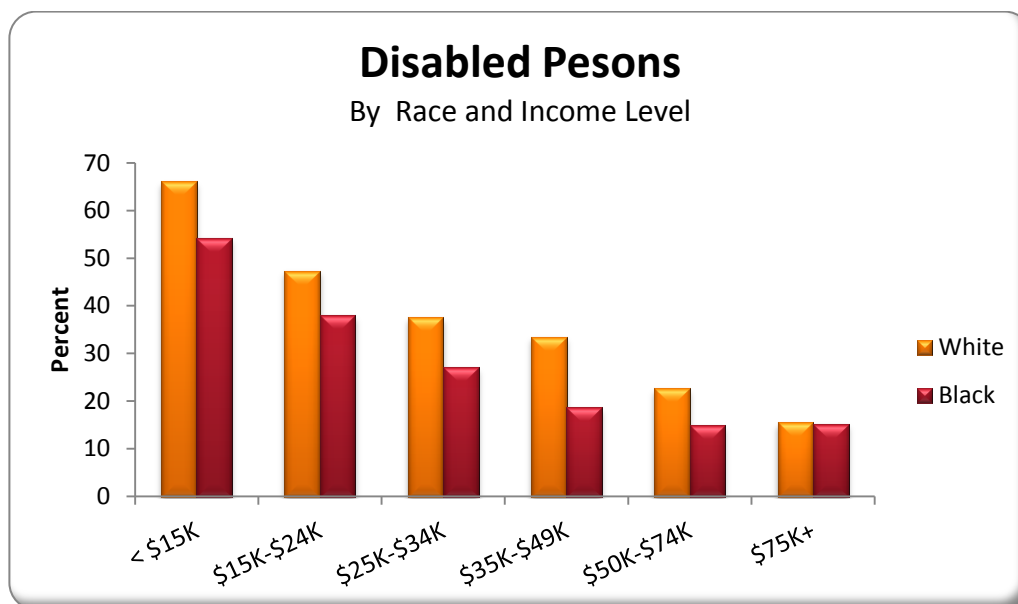


Figure 41

Before 2016, the BRFSS defined disability in two ways. One was a respondent whose activity was limited in any way because of physical, mental or emotional problems. The other was a respondent who had a health problem that required the use of special equipment such as a cane, wheelchair, special bed or special telephone.

Starting in 2016 disability was defined as anyone with the following conditions: someone who is deaf or has serious difficulty hearing; someone who is blind or has serious difficulty seeing even when wearing glasses; someone who because of a physical, mental or emotional condition has difficulty concentrating, remembering or making decisions; someone who has difficulty walking or climbing stairs; someone who has difficulty dressing or bathing; or someone who because of a physical, mental or emotional condition has difficulty doing errands alone such as visiting a doctor’s office or shopping.

In the 2016 BRFSS survey, 35.3 percent of Mississippians reported that they had some type of disability. The racial differences were negligible. Whites reported a rate of 35.4 percent compared to 35.0 percent for blacks.

Huge differences among the disabled were observed in the income category. Those whose annual income was less than \$15,000 per year reported a rate of 59.7 percent to only 15.7 percent for those with an income of at least \$75,000 annually. White respondents who make less than \$15,000 reported an astounding rate of being disabled of 66.1 percent; the same group in blacks had a rate of 54.2 percent (Figure 41 and Table 42).

Table 42: Disabled Persons

Groups	White		Black		Total	
	Number ¹	Percent ²	Number ¹	Percent ²	Number ¹	Percent ²
Sex						
Male	441	33.9	246	31.2	702	33.1
Female	749	37.0	522	38.0	1,295	37.2
Age Group						
18-24	23	17.0	20	19.9	48	20.2
25-34	57	20.9	43	16.0	105	19.1
35-44	70	24.3	77	24.4	151	24.3
45-54	136	36.1	150	45.9	290	39.0
55-64	262	43.4	223	48.4	492	45.2
65+	636	54.6	250	63.4	900	57.1
Education						
< High School Graduate	189	55.3	214	53.4	413	54.1
High School Graduate or GED	414	37.7	279	34.7	707	36.6
Some College or Technical School	347	34.7	156	29.5	508	32.8
College Graduate	238	19.5	118	20.3	366	19.6
Income						
< \$15,000	185	66.1	251	54.2	446	59.7
\$15-\$24,999	252	47.3	221	38.0	482	42.4
\$25-\$34,999	128	37.5	60	27.0	193	33.5
\$35-\$49,999	125	33.5	45	18.6	172	28.4
\$50-\$74,999	96	22.7	27	14.9	124	20.7
\$75,000+	110	15.5	20	15.2	135	15.7
Employment Status						
Employed	244	19.9	161	15.6	418	18.8
Not Employed	49	38.5	47	40.3	96	38.5
Student/Homemaker	69	19.8	28	26.5	100	21.5
Retired/Unable to Work	827	63.5	531	69.8	1,381	65.8
Total	1,190	35.4	768	35.0	1,997	35.3

¹Unweighted

²Weighted

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.

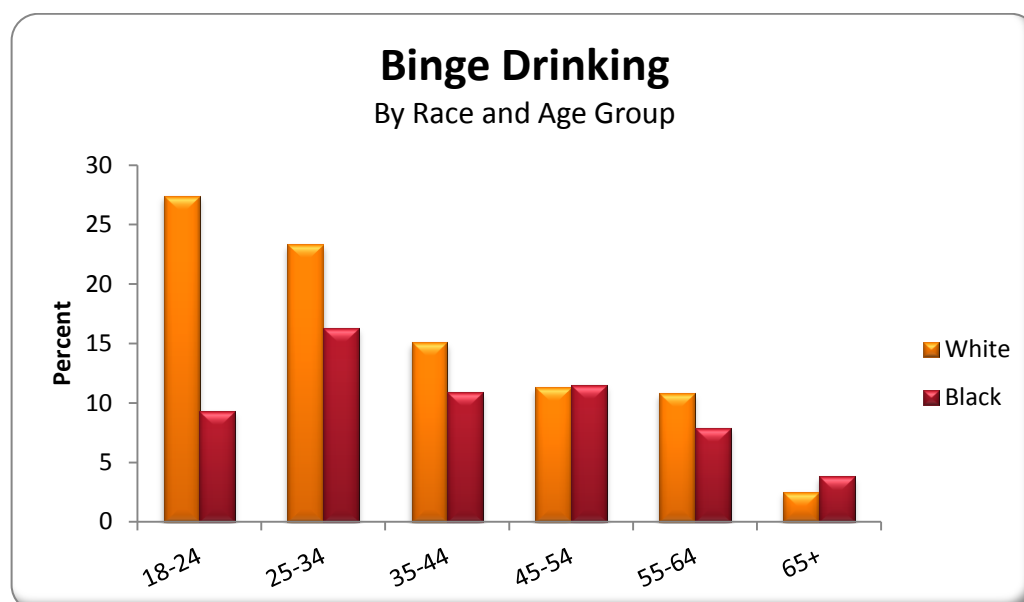


Figure 42

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. According to CDC, in 2015 there were 10,265 traffic deaths associated with alcohol consumption representing 29 percent of all motor vehicle crash fatalities in the United States.

White males 18 to 24 years of age continue to report the highest rates of binge drinking. In 2016 the rate for this group was 27.4 percent; the rate in 2015 was 26.3 percent.

The 2016 survey also revealed that males were almost 2.5 times more likely than females to indulge in binge drinking. Only 7.2 percent of female respondents said they had five or more drinks on one occasion during the last thirty days compared to 18.1 percent for males.

Table 43: Report Binge Drinking

Groups	White		Black		Total	
	Number ¹	Percent ²	Number ¹	Percent ²	Number ¹	Percent ²
Sex						
Male	173	19.9	75	14.5	255	18.1
Female	79	7.1	57	6.8	140	7.2
Age Group						
18-24	36	27.4	11	9.3	51	20.8
25-34	57	23.3	27	16.3	86	20.4
35-44	39	15.1	30	10.9	70	13.2
45-54	46	11.3	30	11.5	79	11.4
55-64	50	10.8	26	7.9	76	9.8
65+	23	2.5	8	3.8	32	2.9
Education						
< High School Graduate	22	12.2	18	11.5	42	12.2
High School Graduate or GED	61	11.0	49	10.1	114	11.0
Some College or Technical School	76	14.5	37	10.0	113	12.8
College Graduate	93	15.3	28	8.6	126	14.1
Income						
< \$15,000	19	10.9	23	7.9	42	8.9
\$15-\$24,999	21	8.2	37	9.8	61	8.9
\$25-\$34,999	21	10.6	17	10.2	39	10.7
\$35-\$49,999	41	18.0	21	16.3	64	18.2
\$50-\$74,999	35	14.7	11	13.3	48	14.7
\$75,000+	87	20.1	12	12.7	100	18.7
Employment Status						
Employed	179	19.2	86	12.8	274	17.0
Not Employed	9	10.7	12	9.9	21	10.2
Student/Homemaker	22	16.2	5	7.0	28	13.7
Retired/Unable to Work	42	4.0	29	6.4	72	4.8
Total	252	13.3	132	10.2	395	12.4

¹Unweighted

²Weighted

Table 44: Report Chronic Drinking

Groups	White		Black		Total	
	Number ¹	Percent ²	Number ¹	Percent ²	Number ¹	Percent ²
Sex						
Male	70	8.1	25	4.3	95	6.6
Female	44	3.3	20	2.9	65	3.1
Age Group						
18-24	16	12.3	4	4.2	20	8.3
25-34	15	6.3	5	4.7	20	5.4
35-44	17	6.4	9	4.2	26	5.3
45-54	23	5.8	11	3.1	35	4.8
55-64	30	5.5	10	2.6	40	4.5
65+	13	1.5	6	2.0	19	1.6
Education						
< High School Graduate	12	7.2	10	4.8	22	5.9
High School Graduate or GED	27	4.7	20	3.1	47	3.9
Some College or Technical School	28	4.4	10	3.7	39	4.1
College Graduate	47	7.8	5	2.0	52	5.9
Income						
< \$15,000	9	3.9	9	2.9	18	3.2
\$15-\$24,999	16	5.0	14	3.2	30	4.0
\$25-\$34,999	9	3.7	5	4.1	15	3.8
\$35-\$49,999	14	6.2	7	7.3	21	6.4
\$50-\$74,999	16	7.5	3	4.8	19	6.8
\$75,000+	32	7.7	2	3.9	34	6.9
Employment Status						
Employed	74	7.8	24	4.2	99	6.2
Not Employed	7	5.7	8	6.8	15	6.2
Student/Homemaker	10	6.5	1	0.6	11	4.8
Retired/Unable to Work	23	2.1	12	2.1	35	2.1
Total	114	5.6	45	3.5	160	4.7

¹Unweighted

²Weighted

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 2014 there were 9,967 reported alcohol-related motor vehicle fatalities in the United States according to the National Highway Traffic Safety Administration (NHTSA). In the same year Mississippi reported 207 such fatalities which accounted for approximately 34 percent of all vehicular deaths that year.

Between 2004 and 2013 there were a total 7,575 traffic fatalities on roadways in Mississippi and 2,503 or 33 percent of those, the crash victims registered a blood alcohol content of 0.08 percent or higher. This is an average of 250 fatalities per year and accounts for a little over 33 percent of all traffic fatalities during the 10 year period.

In Mississippi, males were much more likely than females to have driven after having too much to

drink according to the 2016 BRFSS report. The rate for males was 5.5 percent compared to only 3.9 for females. White males were more likely to drive after excessive drinking than white females but black females were more likely than their male counterparts to do so (see Table 45).

The demographic group that reported the highest rate of drinking and driving was white respondents age 25 to 34 with a rate of 8.2 percent. Both white respondents age 18-24 and black respondents age 45-54 reported a rate of 6.9 percent. Overall whites reported a rate of 4.2 percent compared to 4.0 percent for blacks (Table 45).

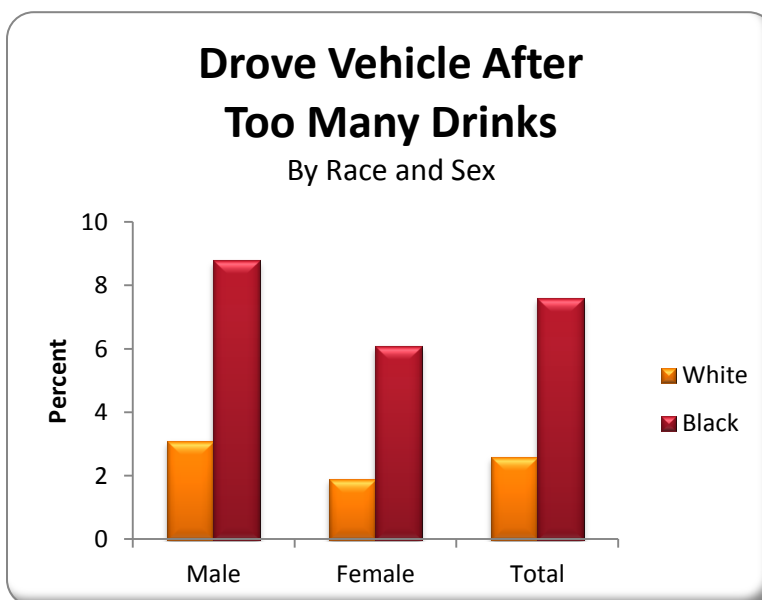


Figure 43

Table 45: Report Driving While Having Too Much to Drink in Past Month³

Groups	White		Black		Total	
	Number ¹	Percent ²	Number ¹	Percent ²	Number ¹	Percent ²
Sex						
Male	21	5.2	15	3.9	39	5.5
Female	11	2.7	7	4.2	19	3.9
Age Group						
18-24	5	6.9	2	5.4	10	10.2
25-34	11	8.2	5	5.3	16	6.6
35-44	1	0.6	3	1.9	5	1.8
45-54	5	3.1	7	6.9	12	4.3
55-64	7	3.9	5	2.1	12	3.3
65+	3	1.2	0	0.0	3	1.0
Education						
< High School Graduate	2	9.0	5	12.4	7	9.7
High School Graduate or GED	7	2.0	8	2.5	18	4.3
Some College or Technical School	9	4.0	4	1.2	13	3.0
College Graduate	14	4.5	5	4.8	20	5.5
Income						
< \$15,000	3	5.4	5	6.0	8	5.5
\$15-\$24,999	3	2.1	5	2.0	8	2.0
\$25-\$34,999	3	5.5	3	9.1	7	10.9
\$35-\$49,999	3	2.2	6	9.5	9	4.6
\$50-\$74,999	6	3.2	1	1.3	7	2.7
\$75,000+	7	3.8	2	1.2	10	3.8
Employment Status						
Employed	19	4.4	16	3.8	38	5.1
Not Employed	2	3.3 [*]	3	7.1	5	5.2
Student/Homemaker	5	6.8	0	0.0 [*]	6	6.2
Retired/Unable to Work	6	2.3	3	4.1	9	2.9
Total	32	4.2	22	4.0	58	4.8

¹Unweighted

²Weighted

³Denominator is those who report drinking

^{*}Denominator < 50

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 2013, there were approximately 2.5 million nonfatal fall injuries among older adults treated in emergency departments and more than 734 thousand of these patients were hospitalized.

Falls are the most common cause of traumatic brain injury. 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 2013 for people age 65 and older was \$34 billion.

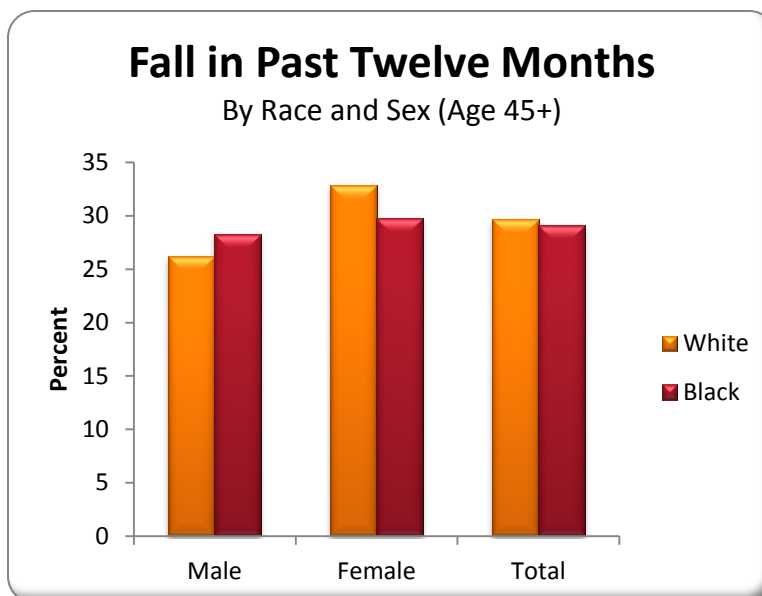


Figure 44

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.

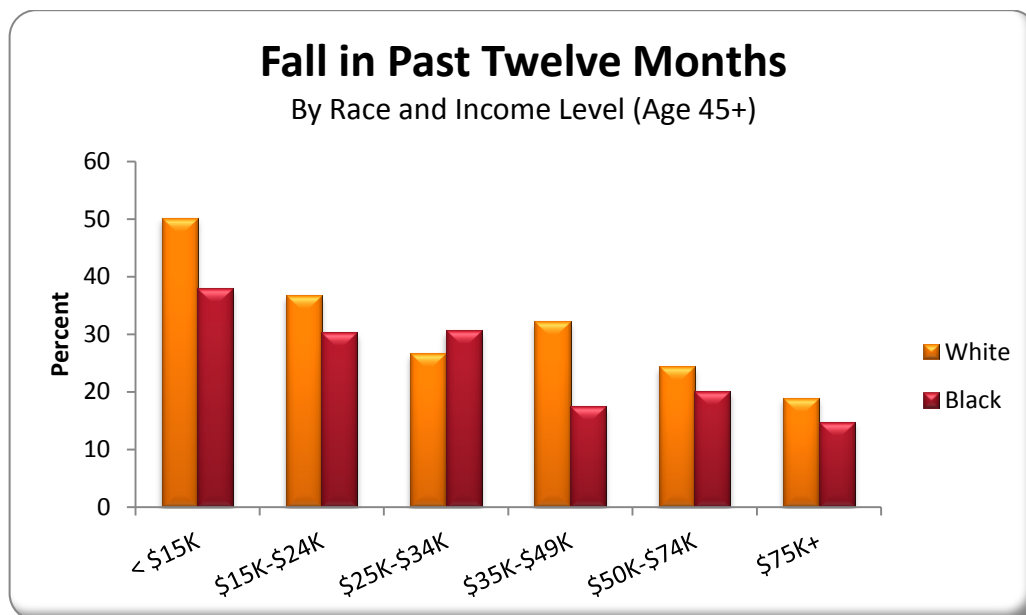


Figure 45

In the 2016 BRFSS survey for Mississippi, the question related to falls was only asked of those who were 45 year old or older. Of those, 29.4 percent reported that they had sustained a fall in the past twelve months. White respondents reported a rate of 29.7 percent compared to 29.1 percent for black respondents (Table 46).

Lower income groups reported a higher rate of falls than those with incomes in the upper group. Those with incomes less than \$15 thousand annually had a rate of 43.8 percent and those with incomes in the range of \$15 to \$25 thousand annually reported a rate of 33.8 percent while those with incomes greater than \$75 thousand annually experienced

a rate of 18.6 percent (See Figure 45 and Table 46). Females, at 32.0 percent, reported a higher rate of falls than males who had a rate of 26.5 percent (Figure 44).

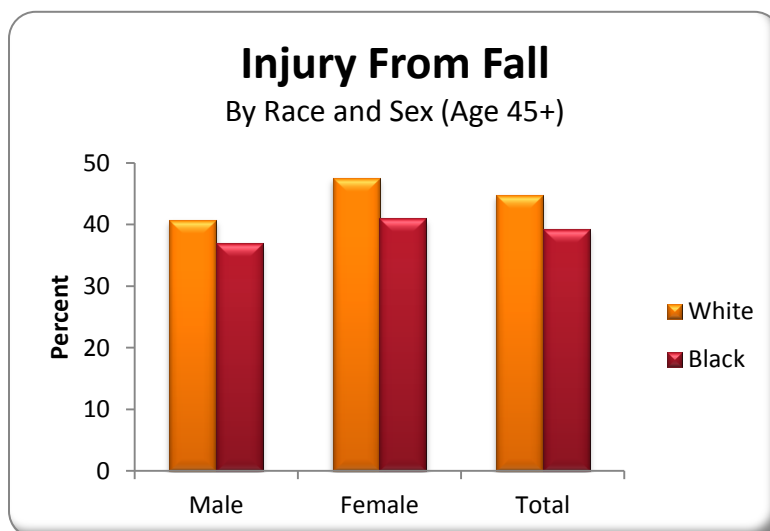


Figure 46

Of those who reported a fall, 42.6 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 was true for females in the survey. Nearly half (47.9 percent) of those with incomes less than \$15 thousand annually reported receiving an injury from the fall and 44.8 percent of the females reported an injury from a fall compared to 39.5 percent for males (See Figures 46, 47 and Table 47).

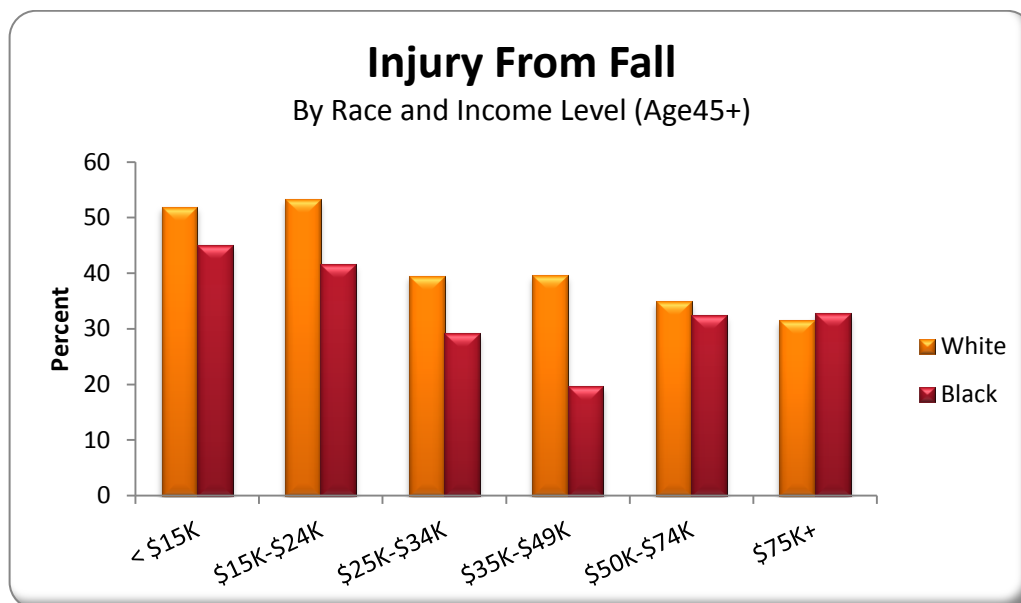


Figure 47

Table 46: Report a Fall in Past 12 Months (Age 45+)

Groups	White		Black		Total	
	Number ¹	Percent ²	Number ¹	Percent ²	Number ¹	Percent ²
Sex						
Male	247	26.2	113	28.3	363	26.5
Female	476	32.8	231	29.8	718	32.0
Age Group						
45-54	112	27.6	91	26.5	206	26.9
55-64	210	30.8	135	30.5	349	30.6
65+	401	30.3	118	30.6	526	30.4
Education						
< High School Graduate	103	40.5	104	40.0	212	40.4
High School Graduate or GED	232	26.4	115	24.6	351	25.6
Some College or Technical School	196	29.5	63	24.1	263	28.1
College Graduate	191	25.3	61	24.1	253	24.6
Income						
< \$15,000	105	50.2	101	37.9	211	43.8
\$15-\$24,999	136	36.7	93	30.3	233	33.8
\$25-\$34,999	72	26.7	37	30.6	112	28.2
\$35-\$49,999	95	32.2	20	17.5	116	27.9
\$50-\$74,999	74	24.4	19	20.1	93	23.5
\$75,000+	91	18.9	11	14.8	103	18.6
Employment Status						
Employed	165	20.1	71	16.0	238	18.7
Not Employed	21	31.6	15	30.8	36	30.6
Student/Homemaker	41	28.7	11	37.9	52	29.9
Retired/Unable to Work	496	36.4	245	37.5	753	36.8
Total	723	29.7	344	29.1	1,081	29.4

¹Unweighted

²Weighted

* Denominator < 50

Table 47: Report Injury From a Fall in Past 12 Months (Age 45+)³

Groups	White		Black		Total	
	Number ¹	Percent ²	Number ¹	Percent ²	Number ¹	Percent ²
Sex						
Male	95	40.8	37	37.0	133	39.5
Female	207	47.6	94	41.0	303	44.8
Age Group						
45-54	50	48.7	41	39.7	92	45.0
55-64	87	44.5	56	44.8	144	44.2
65+	165	42.6	34	32.8	200	39.6
Education						
< High School Graduate	53	54.3	38	37.8	92	46.0
High School Graduate or GED	93	41.2	48	41.6	143	41.5
Some College or Technical School	78	43.6	26	42.2	104	42.6
College Graduate	78	39.4	19	32.5	97	37.7
Income						
< \$15,000	53	51.9	49	45.1	103	47.9
\$15-\$24,999	60	53.3	35	41.6	96	48.7
\$25-\$34,999	30	39.5	12	29.2	43	34.9
\$35-\$49,999	36	39.6	4	19.6	40	35.8
\$50-\$74,999	23	34.9	4	32.4	27	34.6
\$75,000+	31	31.5	3	32.8	34	30.7
Employment Status						
Employed	51	36.0	18	25.3	69	32.5
Not Employed	7	36.4	6	23.1	13	31.0
Student/Homemaker	12	35.0	4	45.2	16	36.7
Retired/Unable to Work	232	49.3	103	44.7	338	47.3
Total	302	44.8	131	39.3	436	42.6

¹Unweighted

²Weighted

³Denominator is those who report a fall in past 12 months

* Denominator < 50

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?**

In the United States motor vehicle crashes are a leading cause of death according to CDC. The National Highway Traffic Safety Administration (NHTSA), reports that there were 22,441 passengers killed in motor vehicle traffic crashes in 2015. Of these occupants, 10,635 or 52 percent were known to be restrained. Of those where the restraint status was known, 48 percent were unrestrained at the time of the crash. The restraint status was not known for nine percent of the occupants.

The proportion of unrestrained passenger vehicle occupants killed in motor vehicle traffic crashes has decreased from 2006 to 2015. Among passenger vehicle occupants killed, when restraint use was known, the percentage of unrestrained deaths decreased by seven percentage points from 55 percent in 2006 to 48 percent in 2015.

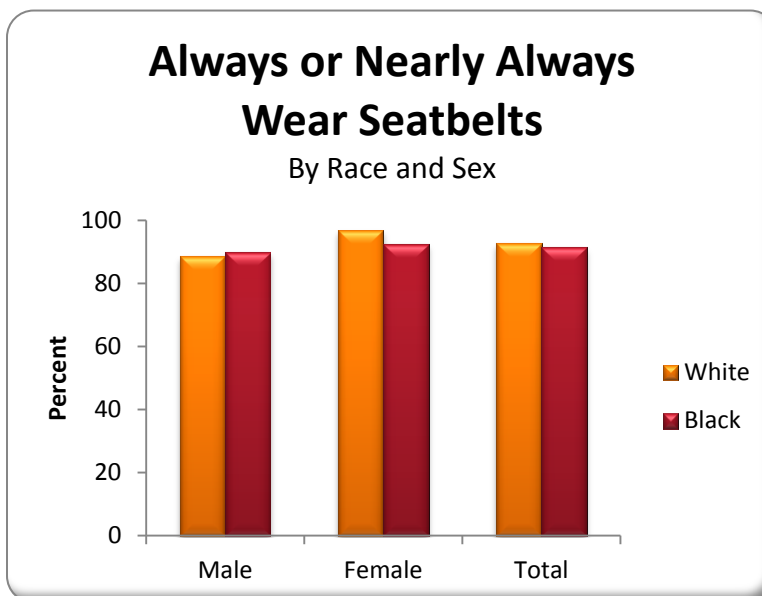


Figure 48

Among passenger vehicle occupants 5 and older, seat belts saved an estimated 13,941 lives in 2015. If all passenger vehicle occupants 5 and older had worn seat belts, 16,745 lives (that is, an additional 2,804) could have been saved in 2015. The Agency also states that child restraints saved an estimated 266 lives of children under the age of five.

In 2015, according to the NHTSA, 57 percent of the traffic fatalities in Mississippi were from unbelted occupants. The Mississippi Office of Highway Safety (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 463 A-level injuries in 2012 and 43.0 percent were belted and prevented

from more serious injury or death. There were 4,112 B-level injures and of these, 76.1 percent were using belts. In the C-level category there were 13,840 non-fatal injuries and 93.0 percent of those were wearing safety belts. The Plan concluded that seat belt usage significantly reduces the risk of serious injury and death.

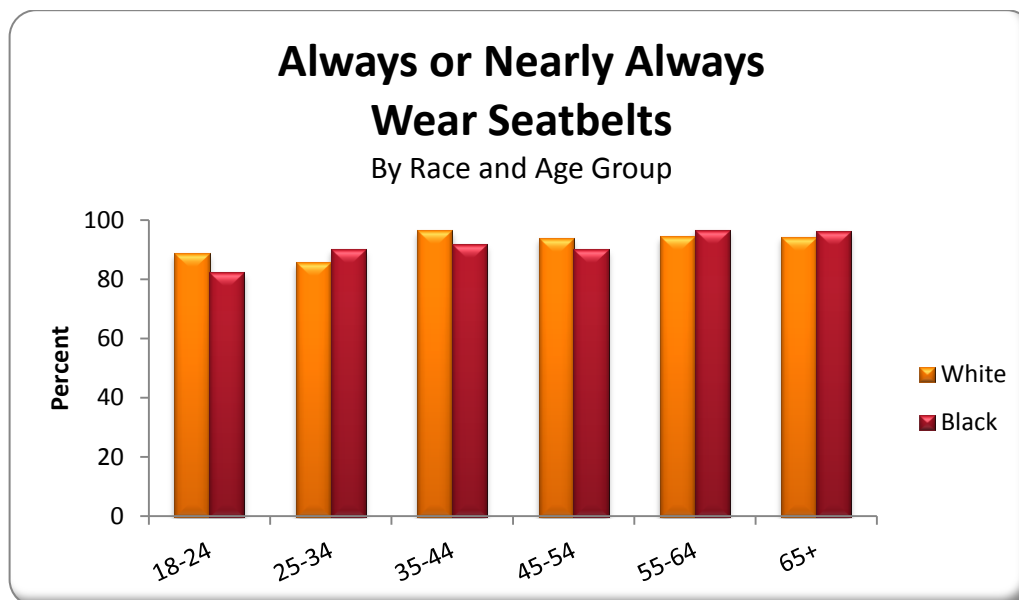


Figure 49

The 2016 BRFSS survey in Mississippi revealed that 92.2 of the respondents say that they always or nearly always wear a seat belt when they either drive or ride in a car. Females report that they use seat belts more often than men. Women had a usage rate of 95.0 percent compared to 89.0 percent for men (Figure 48). Younger respondents reported a higher rate of non-usage that older respondents. In the 18 to 24 age group, 86.7 percent said that they always or nearly always use seat belts while those in the age group 65 and older reported a rate of 94.7 percent (Figure 49).

Table 48: Always or Nearly Always Wear Seatbelts

Groups	White		Black		Total	
	Number ¹	Percent ²	Number ¹	Percent ²	Number ¹	Percent ²
Sex						
Male	1,067	88.5	583	89.8	1,690	89.0
Female	1,733	96.7	1,118	92.5	2,895	95.0
Age Group						
18-24	109	88.8	89	82.4	208	86.7
25-34	254	85.7	201	90.2	471	87.5
35-44	281	96.5	258	91.7	551	94.4
45-54	391	93.9	295	90.1	702	92.6
55-64	593	94.5	406	96.7	1,011	95.3
65+	1,146	94.3	436	96.4	1,600	94.7
Education						
< High School Graduate	270	92.7	324	90.9	609	91.7
High School Graduate or GED	839	91.8	589	92.3	1,455	92.1
Some College or Technical School	779	91.9	386	89.9	1,178	91.1
College Graduate	907	95.4	401	92.8	1,337	94.9
Income						
< \$15,000	232	90.9	373	90.4	619	90.9
\$15-\$24,999	436	93.1	458	95.3	908	93.4
\$25-\$34,999	265	92.6	172	83.9	450	89.3
\$35-\$49,999	328	91.8	187	94.2	523	92.8
\$50-\$74,999	370	95.5	127	93.3	505	95.2
\$75,000+	599	91.5	115	93.2	727	92.1
Employment Status						
Employed	1,154	90.4	751	89.7	1,949	90.3
Not Employed	97	96.3	97	88.1	196	90.6
Student/Homemaker	233	95.2	76	87.4	318	93.6
Retired/Unable to Work	1,311	94.7	775	95.7	2,115	95.0
Total	2,800	92.6	1,701	91.3	4,585	92.2

¹Unweighted

²Weighted

Sleep

Survey Question:

On average how many hours of sleep to you get in a 24-hour period?

While sleep is often considered a passive activity, sufficient sleep is increasingly being recognized as an essential aspect of health promotion and chronic disease prevention in the public health community.

Insufficient sleep is associated with a number of chronic diseases and conditions—such as diabetes, cardiovascular disease, obesity, and depression—which threaten our nation’s health. Notably, while insufficient sleep is associated with the onset of these diseases, it also poses important implications for their management and outcome. Moreover, insufficient sleep is responsible for motor vehicle and machinery-related crashes, causing substantial injury and disability each year. Drowsy driving can be as dangerous as driving while intoxicated.

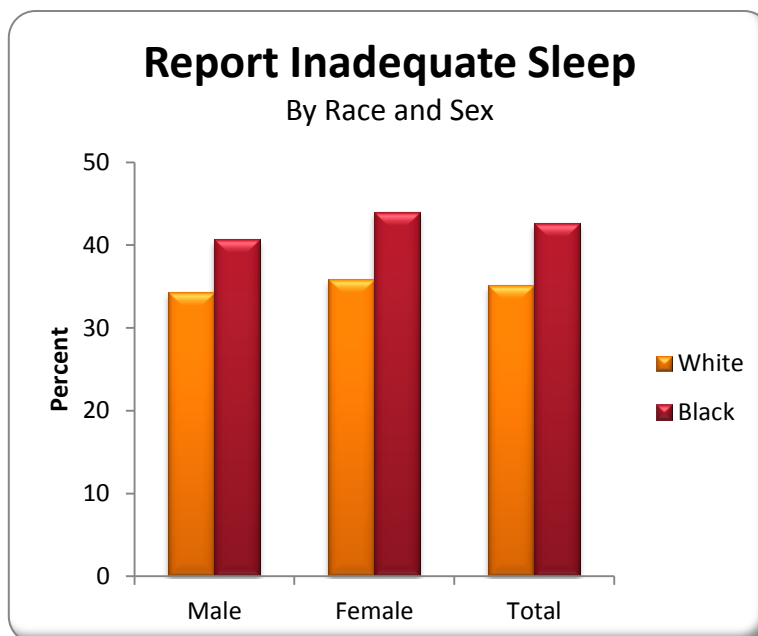


Figure 50

More than one-quarter of the U.S. population report occasionally not getting enough sleep, while nearly 10 percent experience chronic insomnia. However, new methods for assessing and treating sleep disorders are bringing hope to the millions suffering from insufficient sleep. Fundamental to the success of all of these efforts is the recognition that sufficient sleep is not a luxury but rather a necessity and should be thought of as a vital sign of good health.

According to the CDC there are four major sleep disorders: 1) Insomnia which is an inability to initiate or maintain sleep, 2) Narcolepsy, the hallmarks of which are daytime sleepiness combined with sudden muscle weakness, 3) Restless Leg Syndrome or RLS characterized by an unpleasant sensation which feels like it is originating in the lower legs, but often associated with aches and pains throughout the legs and which may cause

difficulty initiating sleep, and 4) Sleep Apnea a potentially serious sleep disorder in which breathing repeatedly stops and starts and often results in loud snoring or gasping sounds during sleep and cause a person to be tired even after a full night of sleep.

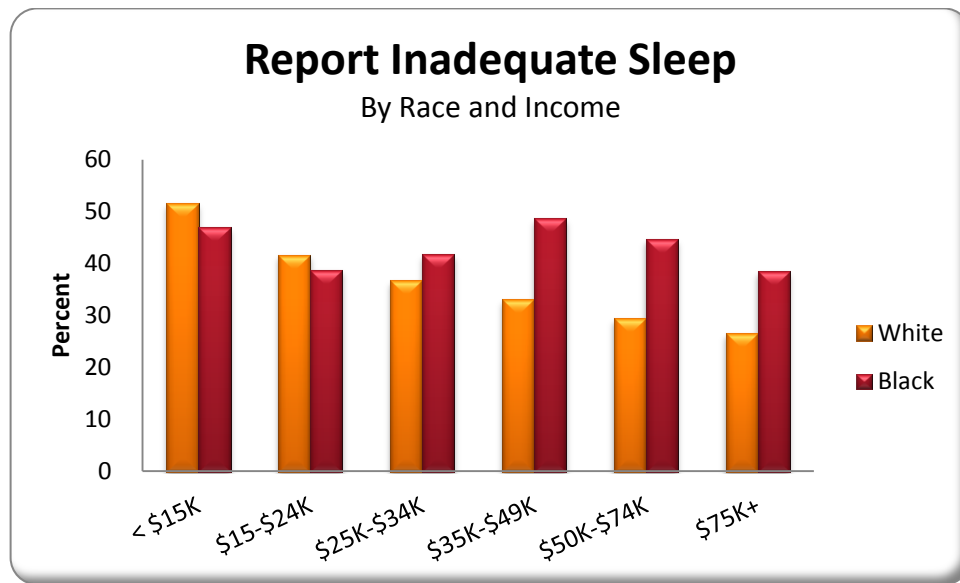


Figure 51

In Mississippi the group with the highest rate of inadequate sleep was black respondents 25 to 34 age group with a rate of 53.4 percent. The next highest group was blacks in the age group of 18 to 24 who reported a rate of 51.6 percent followed by whites whose annual income is less than \$15,000 with a rate of 51.5 percent. Table 49 contains the details. Overall, blacks reported an inadequate sleep rate of 42.6 percent compared to 35.1 percent for whites (Figure 50).

Table 49: Report Getting Inadequate Sleep

Groups	White		Black		Total	
	Number ¹	Percent ²	Number ¹	Percent ²	Number ¹	Percent ²
Sex						
Male	372	34.3	237	40.7	633	37.0
Female	570	35.8	484	44.0	1,077	39.3
Age Group						
18-24	53	46.3	59	51.6	119	49.3
25-34	100	34.5	115	53.4	222	42.6
35-44	113	37.7	114	37.3	233	37.6
45-54	163	40.1	140	46.2	311	42.1
55-64	203	32.8	153	32.3	362	33.0
65+	285	24.4	123	29.6	421	26.4
Education						
< High School Graduate	112	40.5	113	35.6	233	37.8
High School Graduate or GED	302	34.2	236	38.6	557	37.0
Some College or Technical School	277	36.8	197	51.2	481	42.1
College Graduate	248	29.2	174	41.4	435	33.2
Income						
< \$15,000	117	51.5	172	47.0	299	48.5
\$15-\$24,999	170	41.6	167	38.7	345	40.2
\$25-\$34,999	96	36.7	79	41.7	184	40.3
\$35-\$49,999	112	33.0	89	48.7	204	38.4
\$50-\$74,999	106	29.4	52	44.6	163	33.4
\$75,000+	151	26.6	50	38.5	205	28.9
Employment Status						
Employed	415	35.7	367	44.7	803	39.5
Not Employed	46	40.3	46	35.0	93	37.3
Student/Homemaker	83	39.4	38	55.4	127	44.3
Retired/Unable to Work	395	31.9	266	37.2	679	34.2
Total	942	35.1	721	42.6	1,710	38.2

¹Unweighted

²Weighted

HIV/AIDS

Survey Question

Have you ever been tested for HIV?

According to the latest estimates from the Centers for Disease Control and Prevention (CDC), an estimated 37,600 people became newly infected with HIV in the United States in 2014. However, between 2008 and 2014, the estimated number of annual HIV infections in the U.S. declined from 45,700 to 37,600 a reduction of 18 percent. The decline was seen in most risk groups and in all states where data were available. Even greater reductions were observed among people who inject drugs (56 percent) and heterosexual men and women (36 percent). Gay and bisexual men were the only group that did not experience an overall decline in annual HIV infections during this period. Annual infections remained stable at about 26,000 per year among gay and bisexual men overall and about 10,000 infections per year among black gay and bisexual men after more than a decade of increases in these populations. Despite these declines, rising trends emerged among other groups of gay and bisexual males in certain age groups and ethnicities. For example, gay and bisexual males in the 25 to 34 age group saw a 35 percent increase while in gay and bisexual Latino males, there was a 20 percent increase.

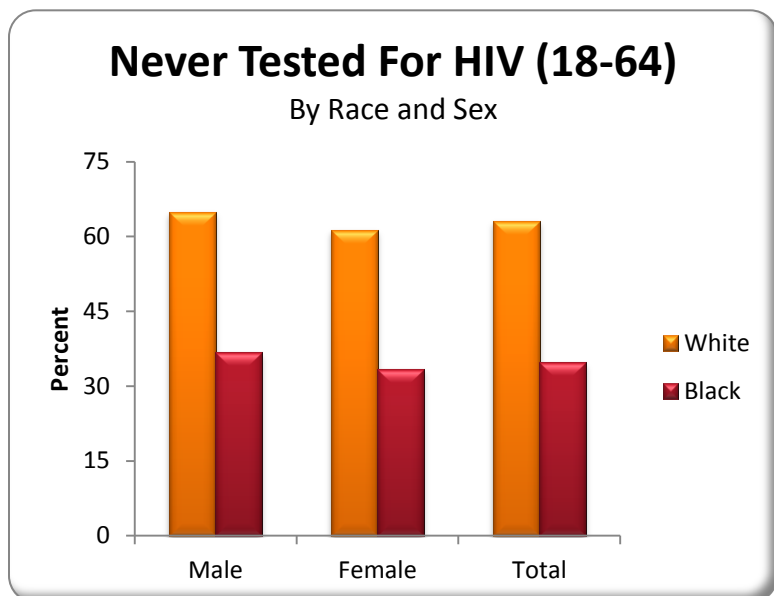


Figure 52

In 2015, 39,513 people were diagnosed with HIV infection in the United States. The number of new HIV diagnoses fell 19 percent from 2005 to 2014. Because HIV testing has remained stable or increased in recent years, this decrease in diagnoses suggests a true decline in new infections. The decrease may be due to targeted HIV prevention efforts. However, progress has been uneven, and diagnoses have increased among a few groups. In 2014 there were 6,271 deaths directly attributable to AIDS. There were 12,333 deaths to people with HIV.

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 2016, 52.1 percent of the respondents reported that they had never been tested. White respondents were more likely to have never been tested than blacks: 63.1 percent to 34.8. The rate for white respondents who have never been tested was 64.9 percent for males and 61.3 percent for females. For blacks, the rates were 36.7 percent for males and 33.4 for females (Figure 52 and Table 50).

Table 50: Never Tested for HIV (Age 18-64)

Groups	White		Black		Total	
	Number ¹	Percent ²	Number ¹	Percent ²	Number ¹	Percent ²
Sex						
Male	471	64.9	191	36.7	687	55.0
Female	594	61.3	345	33.4	957	49.4
Age Group						
18-24	88	77.5	40	37.9	136	61.7
25-34	131	49	53	19.5	193	36.9
35-44	134	49.4	57	23.2	197	38.6
45-54	254	64.1	125	38.6	390	54.9
55-64	436	75.8	248	58.5	693	69.8
Education						
< High School Graduate	102	65.9	99	45.7	209	57.9
High School Graduate or GED	305	70.1	216	38	536	55.8
Some College or Technical School	283	58.2	99	27.2	388	46.2
College Graduate	372	60.5	121	31.6	507	51.8
Income						
< \$15,000	73	61.8	116	39.7	196	48.9
\$15-\$24,999	145	62.3	139	30.1	292	46.1
\$25-\$34,999	89	58.8	62	34.5	157	47.9
\$35-\$49,999	118	61.2	46	22.7	166	45.4
\$50-\$74,999	161	61	36	27.1	200	52.6
\$75,000+	299	63.3	44	44	351	60.3
Employment Status						
Employed	669	61.7	267	30	967	49.7
Not Employed	47	59.4	36	36.8	84	48.2
Student/Homemaker	106	69.6	27	41.4	137	61.2
Retired/Unable to Work	239	64.3	205	46.7	451	56.8
Total	1,065	63.1	536	34.8	1,644	52.1

¹Unweighted

²Weighted