



2017

***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

2017 Prevalence Report

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MISSISSIPPI STATE DEPARTMENT OF HEALTH

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Introduction

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

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

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

Methodology

A. SAMPLING DESIGN

The Mississippi BRFSS is a random sample telephone survey. Utilizing a disproportionate stratified sample (DSS) design with random digit dialing and the Computer Assisted Telephone Interviewing (CATI) system, the survey has the potential to represent all households in Mississippi that have telephones. A sample size of 5,076 interviews over a 12-month period was obtained to produce a 95 percent confidence interval of $\pm 2.5\%$ on risk factor prevalence estimates in the adult population. Prevalence estimates by individual demographic variables, comprising smaller sample sizes, do not achieve the same level of accuracy as the total sample.

Until the 2011 survey, the BRFSS has relied exclusively on interviews of households with only landline phones; but the number of households having only cell phones increased by more than 700 percent between 2003 and 2009. The CDC reports that as of December 2015, almost half (47 percent) of the households in the U.S. have only cell phones. In Mississippi the rate is 57.7 percent. This trend has been especially strong among younger adults and those in social and ethnic minority groups. The 2017 Mississippi BRFSS has approximately 49 percent landline and 51 percent cell phone households in the survey.

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

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

B. QUESTIONNAIRE

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

C. DATA ANALYSIS

Since 2011 the BRFSS has utilized a different weighting method called iterative proportional fitting, also known as “raking.” The procedure, while not new, has been made feasible through the development of ultra-fast computer processors. In addition to the standard age, gender, race and ethnicity variables, the use of raking allows for consideration of demographic variables such as education level, marital status, renter or owner status, and phone source. By including these additional variables into the weighting process the survey will more accurately reflect Mississippi’s adult population. The data collected by the MSDH Office of Public Health Statistics was edited and weighted by the CDC. Weighted counts were based on the 2016 Mississippi population estimates to accurately reflect the population demographics.

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

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

D. LIMITATIONS OF THE DATA

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

E. SAMPLE SIZE

In the 2017 BRFSS, 5,076 people were sampled: 2,513 landline and 2,563 cell phone surveys. The reader should note that sample sizes by question and response category may vary because of non-response and skip patterns within the survey instrument. Overall estimates generally have relatively small sampling errors, but estimates for certain population subgroups may be based on small numbers and have relatively large sampling errors. Interpreting estimates that are based on small numbers can mislead the reader into believing that a given finding is more precise than it really is. When the number of events is small and the probability of such an event is small, considerable caution should be observed in interpreting the estimates or differences among groups. The BRFSS recommends not interpreting percentages where the denominator is based

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

Definition of Terms and Risk Factors

Alcohol Consumption

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

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

Arthritis

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

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

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

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

Asthma

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

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

Cancer

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

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

Cardiovascular Disease

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

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

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

Cholesterol Awareness

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

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

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

Cigarette Smoking

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

E-Cigarette Smoker – Respondents who have ever used an e-cigarette or other electronic vaping product.

COPD

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

Diabetes

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

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

Disability

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

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

Exercise

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

Health Insurance

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

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

Health Status

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

Healthy Days

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

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

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

HIV/AIDS

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

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

Hypertension

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

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

Immunization

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

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

Kidney Disease

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

Mental Health

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

Physical Activity

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

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

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

Inactive – Respondents who report doing no physical activity.

Seat Belts Usage

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

Weight Based on Body Mass Index (BMI)

Body Mass Index (BMI) – Weight in kilograms divided by height in meters squared (kg/m^2).

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

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

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

Survey Results

Health Status

Survey Question:

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

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

With respect to race and gender, black females reported the highest percentage of health that was fair or poor with a rate of 28.7 percent (Figure 1). Black respondents overall report their health as worse than whites. Black respondents reported

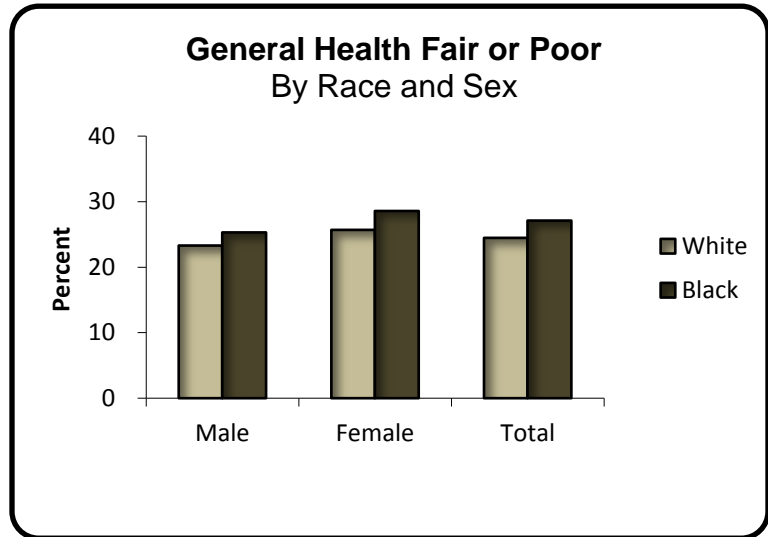


Figure 1

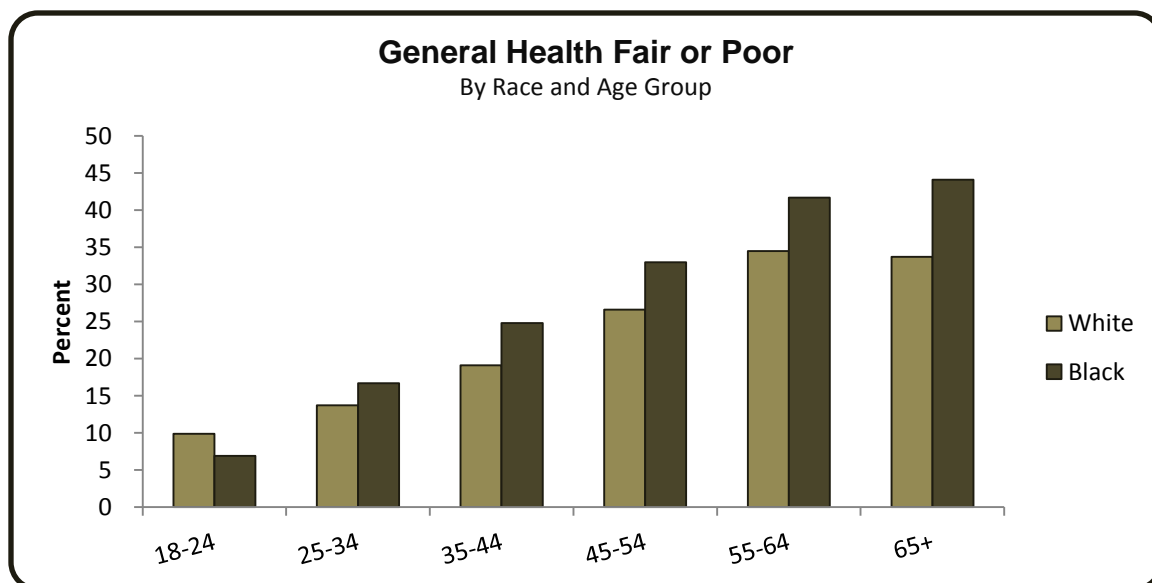


Figure 2

fair or poor health at a rate of 27.1 percent compared to 24.6 percent for whites.

Not surprisingly reported fair or poor health tended to increase with age. Persons in the 18 to 24 age group reported a rate of only 8.9 percent while those more than 65 years of age reported a rate of 36.5 percent (Figure 2 and Table 1).

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 | 332 | 23.3 | 183 | 25.3 | 530 | 24.3 |
| Female | 505 | 25.8 | 327 | 28.7 | 857 | 27.0 |
| Age Group | | | | | | |
| 18-24 | 15 | 9.9 | 5 | 6.9 | 21 | 8.9 |
| 25-34 | 31 | 13.7 | 20 | 16.6 | 52 | 15.3 |
| 35-44 | 55 | 19.2 | 43 | 24.7 | 102 | 21.3 |
| 45-54 | 87 | 26.6 | 83 | 33.0 | 184 | 30.0 |
| 55-64 | 213 | 34.5 | 155 | 41.7 | 376 | 37.4 |
| 65+ | 432 | 33.7 | 197 | 44.2 | 640 | 36.5 |
| Education | | | | | | |
| < High School Graduate | 145 | 50.2 | 129 | 46.6 | 286 | 49.3 |
| High School Graduate or GED | 294 | 26.2 | 193 | 24.9 | 497 | 25.7 |
| Some College or Technical School | 219 | 19.8 | 109 | 22.1 | 341 | 20.8 |
| College Graduate | 176 | 12.3 | 76 | 16.0 | 257 | 13.3 |
| Income | | | | | | |
| < \$15,000 | 173 | 49.1 | 193 | 39.2 | 380 | 43.5 |
| \$15-\$24,999 | 190 | 36.5 | 156 | 36.6 | 358 | 36.8 |
| \$25-\$34,999 | 95 | 28.4 | 43 | 16.2 | 143 | 23.5 |
| \$35-\$49,999 | 111 | 23.8 | 27 | 11.8 | 139 | 20.0 |
| \$50-\$74,999 | 69 | 13.1 | 22 | 15.4 | 94 | 13.8 |
| \$75,000+ | 81 | 7.9 | 24 | 16.5 | 106 | 9.5 |
| Employment Status | | | | | | |
| Employed | 131 | 11.5 | 111 | 18.2 | 246 | 14.0 |
| Not Employed | 43 | 41.7 | 18 | 11.1 | 65 | 26.3 |
| Student/Homemaker | 58 | 12.0 | 20 | 11.8 | 81 | 11.8 |
| Retired/Unable to Work | 602 | 46.7 | 357 | 51.8 | 986 | 49.2 |
| Total | 837 | 24.6 | 510 | 27.1 | 1,387 | 25.7 |

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. People at risk are those without any coverage.

In 2017, 17.0 percent of the respondents indicated they had no health care plan compared to 20.1 percent in 2016. According to the survey, black males continue to have the highest rate of non-coverage at 23.9 percent; black females were next at 21.2 percent (Figure 3).

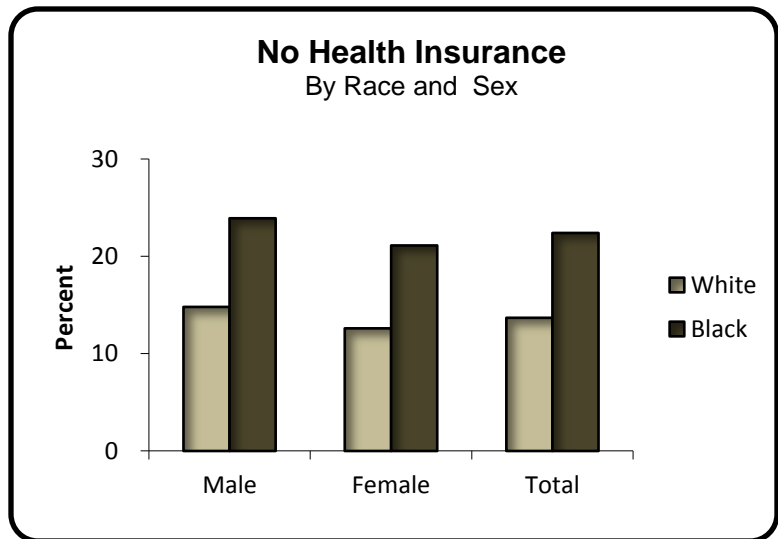


Figure 3

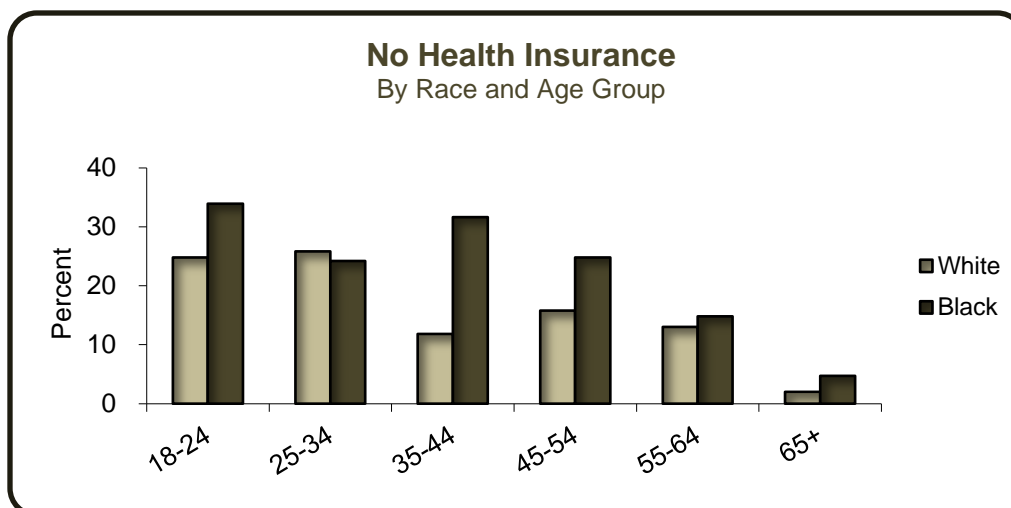


Figure 4

According to age categories, blacks from the age of 18 to 24 reported the highest prevalence of no health care coverage at 33.9 percent (Figure 4).

Another factor that adversely affects the

health status is access to medical care and in 2017, 18.1 percent of Mississippians said they were unable to see a doctor at some point in the prior twelve months because of cost. Blacks (21.5

percent) were more likely to have not seen a doctor due to cost as whites (15.9 percent). Also females of both races were much more likely to experience this predicament than males: 24.1 percent for black females to 18.4 percent for males. The rate for white females was 17.2 percent; white males reported a rate of 14.6 percent.

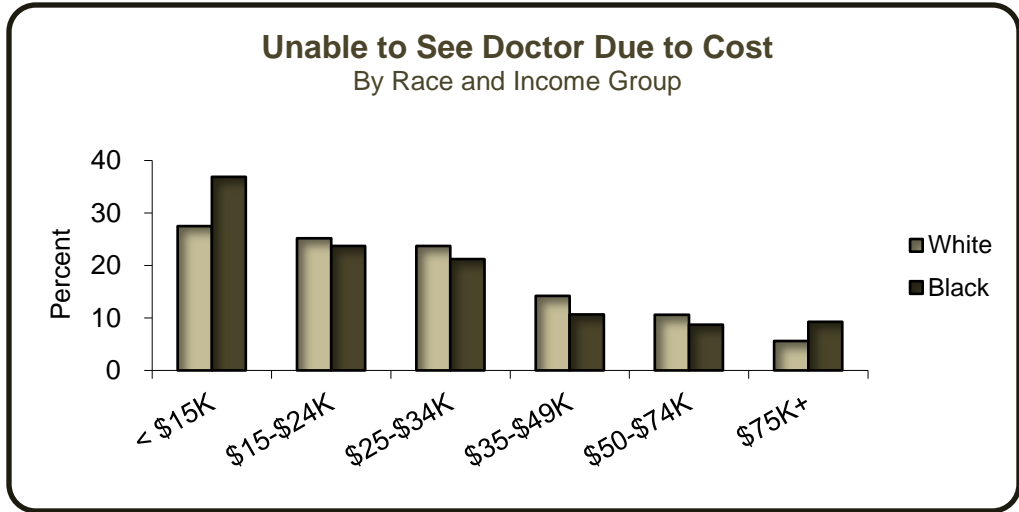


Figure 5

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

Table 2: Have No Health Insurance

| Groups | White | | Black | | Total | |
|----------------------------------|---------------------|----------------------|---------------------|----------------------|---------------------|----------------------|
| | Number ¹ | Percent ² | Number ¹ | Percent ² | Number ¹ | Percent ² |
| Sex | | | | | | |
| Male | 141 | 14.9 | 97 | 23.9 | 246 | 18.2 |
| Female | 131 | 12.6 | 132 | 21.2 | 271 | 15.9 |
| Age Group | | | | | | |
| 18-24 | 31 | 24.8 | 19 | 33.9 | 51 | 28.4 |
| 25-34 | 55 | 25.8 | 26 | 24.1 | 83 | 24.9 |
| 35-44 | 36 | 11.8 | 42 | 31.6 | 80 | 18.9 |
| 45-54 | 51 | 15.7 | 62 | 24.8 | 117 | 19.6 |
| 55-64 | 74 | 13.0 | 56 | 14.8 | 133 | 13.5 |
| 65+ | 21 | 2.0 | 21 | 4.7 | 46 | 2.8 |
| Education | | | | | | |
| < High School Graduate | 45 | 20.7 | 49 | 35.2 | 95 | 26.9 |
| High School Graduate or GED | 94 | 15.6 | 101 | 27.0 | 202 | 20.8 |
| Some College or Technical School | 99 | 14.8 | 47 | 17.3 | 150 | 15.5 |
| College Graduate | 34 | 4.4 | 32 | 6.4 | 70 | 5.0 |
| Income | | | | | | |
| < \$15,000 | 50 | 25.6 | 102 | 41.0 | 156 | 34.3 |
| \$15-\$24,999 | 71 | 21.9 | 68 | 27.4 | 144 | 24.4 |
| \$25-\$34,999 | 32 | 17.2 | 19 | 13.4 | 51 | 15.4 |
| \$35-\$49,999 | 36 | 9.9 | 8 | 10.8 | 47 | 10.5 |
| \$50-\$74,999 | 25 | 6.7 | 7 | 8.5 | 34 | 7.3 |
| \$75,000+ | 27 | 7.0 | 10 | 5.0 | 38 | 6.5 |
| Employment Status | | | | | | |
| Employed | 122 | 12.9 | 102 | 20.6 | 228 | 15.5 |
| Not Employed | 44 | 54.7 | 32 | 49.3 | 79 | 52.0 |
| Student/Homemaker | 48 | 19.4 | 20 | 22.9 | 70 | 20.4 |
| Retired/Unable to Work | 57 | 5.6 | 68 | 15.6 | 131 | 9.6 |
| Total | 272 | 13.7 | 229 | 22.4 | 517 | 17.0 |

¹Unweighted

²Weighted

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

| Groups | White | | Black | | Total | |
|----------------------------------|---------------------|----------------------|---------------------|----------------------|---------------------|----------------------|
| | Number ¹ | Percent ² | Number ¹ | Percent ² | Number ¹ | Percent ² |
| Sex | | | | | | |
| Male | 141 | 14.6 | 106 | 18.4 | 255 | 16.1 |
| Female | 234 | 17.2 | 194 | 24.1 | 443 | 20.0 |
| Age Group | | | | | | |
| 18-24 | 28 | 15.6 | 18 | 22.2 | 46 | 17.9 |
| 25-34 | 56 | 24.5 | 37 | 25.0 | 95 | 25.0 |
| 35-44 | 61 | 23.2 | 38 | 25.1 | 103 | 24.0 |
| 45-54 | 63 | 18.5 | 67 | 21.1 | 137 | 19.7 |
| 55-64 | 96 | 16.2 | 78 | 22.5 | 178 | 18.3 |
| 65+ | 71 | 5.5 | 57 | 11.7 | 133 | 7.2 |
| Education | | | | | | |
| < High School Graduate | 61 | 25.7 | 56 | 25.7 | 120 | 25.5 |
| High School Graduate or GED | 115 | 16.4 | 127 | 24.5 | 252 | 20.7 |
| Some College or Technical School | 122 | 16.4 | 73 | 21.4 | 200 | 17.7 |
| College Graduate | 76 | 7.6 | 44 | 10.7 | 125 | 8.6 |
| Income | | | | | | |
| < \$15,000 | 77 | 27.5 | 123 | 36.9 | 206 | 32.4 |
| \$15-\$24,999 | 99 | 25.1 | 82 | 23.8 | 187 | 24.6 |
| \$25-\$34,999 | 49 | 23.7 | 29 | 20.8 | 80 | 22.3 |
| \$35-\$49,999 | 49 | 14.2 | 21 | 10.6 | 72 | 13.3 |
| \$50-\$74,999 | 33 | 10.6 | 11 | 8.7 | 46 | 10.2 |
| \$75,000+ | 32 | 5.6 | 14 | 9.2 | 47 | 6.1 |
| Employment Status | | | | | | |
| Employed | 152 | 15.8 | 110 | 18.7 | 269 | 17.1 |
| Not Employed | 40 | 40.7 | 30 | 33.3 | 72 | 36.5 |
| Student/Homemaker | 41 | 14.3 | 17 | 18.5 | 60 | 15.5 |
| Retired/Unable to Work | 140 | 12.8 | 137 | 22.7 | 289 | 16.7 |
| Total | 375 | 15.9 | 300 | 21.5 | 698 | 18.1 |

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 use health-related quality of life to measure the effects of chronic illness in patients and to better understand how an illness interferes with the day-to-day life activities of an individual. Similarly, health professionals use health-related quality of life to measure the effects of numerous disorders, short-term and long-term disabilities, and diseases in different populations. Tracking health-related quality of life in different populations can aid in identifying subgroups with poor physical or mental health and can help in developing policies or interventions to improve their health.

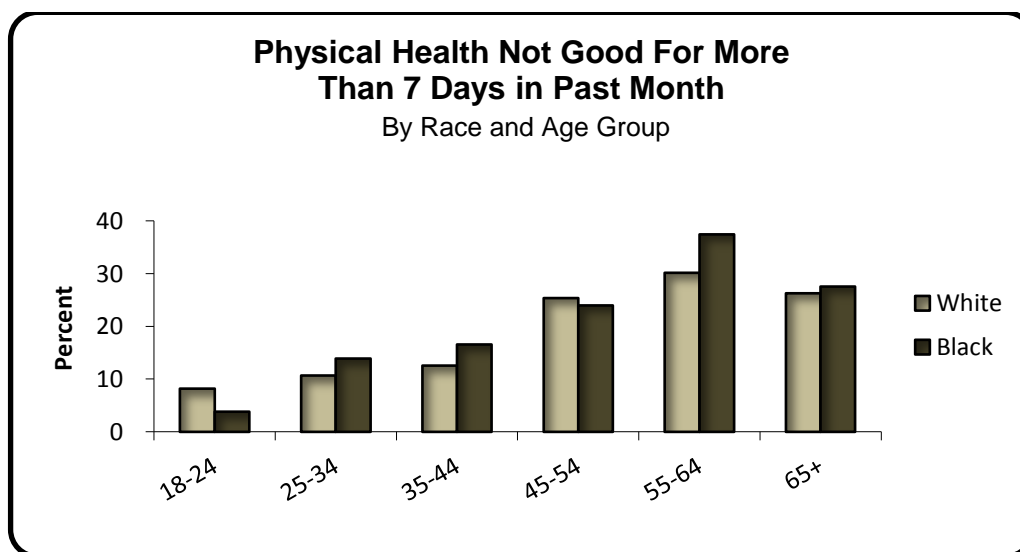


Figure 6

In Mississippi, the 2017 BRFSS survey showed that days of poor physical health tends to increase with age while days of poor mental health were more evenly distributed among age groups. Figure 6 shows that people age 55-64 reported the highest percentage (33.0) of more than seven days when their physical health was not good. Respondents age 65 and older

reported a rate of 26.7 percent. In the 55 to 64 group, white respondents had a rate of 30.2 percent compared to 37.6 percent for blacks. For those 65 and older, whites reported a rate of 26.3 percent compared to 27.6 percent for blacks.

Those in the 45 to 54 year age group had the highest percentage of seven or more days when their mental health was not good with a rate of 24.1 percent. Table 5 contains the details for both age groups.

The group with the highest rate for days of poor mental health was people have less than a high school education who reported a rate of 29.6 percent and those who are unemployed with a rate of 29.8 percent. For those with less than a high school education, whites reported a rate of 31.9 percent while the rate for blacks was 27.6. The second highest category is the respondents who report an annual income of less than \$15,000. White respondents in this category had a rate of 34.2 percent; blacks reported a rate of 26.0 percent (Table 5).

Table 4: Poor Physical Health 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 | 238 | 17.5 | 126 | 19.4 | 378 | 18.7 |
| Female | 451 | 22.4 | 219 | 21.2 | 687 | 22.0 |
| Age Group | | | | | | |
| 18-24 | 10 | 8.2 | 3 | 3.8 | 14 | 7.3 |
| 25-34 | 21 | 10.7 | 19 | 13.9 | 41 | 12.5 |
| 35-44 | 36 | 12.6 | 32 | 16.5 | 72 | 14.3 |
| 45-54 | 91 | 25.4 | 62 | 24.1 | 164 | 25.3 |
| 55-64 | 191 | 30.2 | 117 | 37.6 | 313 | 33.0 |
| 65+ | 336 | 26.3 | 106 | 27.6 | 451 | 26.7 |
| Education | | | | | | |
| < High School Graduate | 92 | 34.5 | 76 | 34.9 | 178 | 35.8 |
| High School Graduate or GED | 236 | 22.4 | 138 | 21.5 | 380 | 22.4 |
| Some College or Technical School | 198 | 18.0 | 72 | 14.5 | 278 | 16.9 |
| College Graduate | 160 | 10.5 | 58 | 11.1 | 225 | 10.7 |
| Income | | | | | | |
| < \$15,000 | 139 | 41.6 | 137 | 29.8 | 286 | 34.9 |
| \$15-\$24,999 | 154 | 30.3 | 94 | 25.9 | 257 | 28.5 |
| \$25-\$34,999 | 77 | 22.4 | 24 | 13.8 | 104 | 18.7 |
| \$35-\$49,999 | 97 | 19.8 | 22 | 8.9 | 122 | 16.8 |
| \$50-\$74,999 | 62 | 12.4 | 18 | 12.6 | 82 | 12.4 |
| \$75,000+ | 75 | 7.3 | 19 | 8.6 | 95 | 7.9 |
| Employment Status | | | | | | |
| Employed | 110 | 9.3 | 71 | 11.7 | 187 | 10.4 |
| Not Employed | 26 | 26.6 | 15 | 9.0 | 45 | 18.3 |
| Student/Homemaker | 61 | 12.3 | 10 | 5.4 | 74 | 10.5 |
| Retired/Unable to Work | 492 | 39.0 | 244 | 43.2 | 754 | 41.0 |
| Total | 689 | 20.0 | 345 | 20.3 | 1,065 | 20.4 |

¹Unweighted

²Weighted

Table 5: Poor Mental Health 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 | 154 | 14.5 | 96 | 17.7 | 260 | 16.1 |
| Female | 345 | 23.7 | 158 | 20.7 | 517 | 22.5 |
| Age Group | | | | | | |
| 18-24 | 31 | 23.9 | 12 | 19.0 | 45 | 22.8 |
| 25-34 | 48 | 19.6 | 32 | 24.5 | 82 | 22.0 |
| 35-44 | 58 | 20.4 | 29 | 16.2 | 92 | 19.1 |
| 45-54 | 95 | 28.8 | 54 | 17.4 | 155 | 24.1 |
| 55-64 | 132 | 19.3 | 73 | 22.1 | 207 | 19.9 |
| 65+ | 132 | 10.5 | 51 | 14.3 | 189 | 11.6 |
| Education | | | | | | |
| < High School Graduate | 73 | 31.9 | 52 | 27.6 | 128 | 29.6 |
| High School Graduate or GED | 149 | 19.2 | 104 | 20.2 | 262 | 20.4 |
| Some College or Technical School | 171 | 19.7 | 52 | 18.1 | 230 | 19.1 |
| College Graduate | 105 | 9.7 | 46 | 10.2 | 156 | 9.9 |
| Income | | | | | | |
| < \$15,000 | 99 | 34.2 | 93 | 26.0 | 199 | 29.2 |
| \$15-\$24,999 | 118 | 30.0 | 68 | 23.5 | 193 | 27.0 |
| \$25-\$34,999 | 62 | 22.7 | 17 | 17.2 | 82 | 20.3 |
| \$35-\$49,999 | 50 | 14.6 | 17 | 7.5 | 68 | 12.4 |
| \$50-\$74,999 | 55 | 15.8 | 24 | 16.2 | 82 | 16.0 |
| \$75,000+ | 52 | 7.1 | 14 | 10.1 | 67 | 8.0 |
| Employment Status | | | | | | |
| Employed | 149 | 14.4 | 77 | 13.5 | 230 | 14.0 |
| Not Employed | 32 | 35.0 | 18 | 25.7 | 52 | 29.8 |
| Student/Homemaker | 56 | 22.4 | 15 | 18.4 | 76 | 21.5 |
| Retired/Unable to Work | 261 | 22.6 | 139 | 26.5 | 412 | 24.5 |
| Total | 499 | 19.3 | 254 | 19.3 | 777 | 19.5 |

¹Unweighted

²Weighted

Table 6: Activity Limited for More Than 7 Days Due to Poor Physical or Mental Health³

| Groups | White | | Black | | Total | |
|----------------------------------|---------------------|----------------------|---------------------|----------------------|---------------------|----------------------|
| | Number ¹ | Percent ² | Number ¹ | Percent ² | Number ¹ | Percent ² |
| Sex | | | | | | |
| Male | 162 | 25.4 | 99 | 27.4 | 273 | 26.2 |
| Female | 310 | 26.7 | 139 | 22.2 | 459 | 24.6 |
| Age Group | | | | | | |
| 18-24 | 9 | 11.5 | 6 | 15.4 | 15 | 12.6 |
| 25-34 | 20 | 17.2 | 13 | 15.2 | 34 | 15.6 |
| 35-44 | 37 | 22.8 | 24 | 24.1 | 64 | 24.0 |
| 45-54 | 63 | 34.0 | 44 | 27.1 | 114 | 29.9 |
| 55-64 | 138 | 36.6 | 86 | 41.3 | 228 | 38.8 |
| 65+ | 203 | 28.2 | 61 | 23.2 | 271 | 26.8 |
| Education | | | | | | |
| < High School Graduate | 72 | 37.5 | 60 | 32.1 | 137 | 35.3 |
| High School Graduate or GED | 163 | 28.1 | 100 | 24.7 | 268 | 25.9 |
| Some College or Technical School | 135 | 24.5 | 49 | 23.2 | 190 | 23.8 |
| College Graduate | 101 | 14.5 | 28 | 11.9 | 135 | 13.7 |
| Income | | | | | | |
| < \$15,000 | 107 | 46.4 | 102 | 37.3 | 216 | 40.9 |
| \$15-\$24,999 | 123 | 35.3 | 67 | 24.5 | 197 | 29.9 |
| \$25-\$34,999 | 56 | 29.0 | 17 | 13.5 | 75 | 21.7 |
| \$35-\$49,999 | 57 | 24.7 | 12 | 11.4 | 71 | 20.4 |
| \$50-\$74,999 | 44 | 16.2 | 8 | 15.4 | 55 | 16.3 |
| \$75,000+ | 35 | 9.3 | 8 | 17.4 | 43 | 10.3 |
| Employment Status | | | | | | |
| Employed | 56 | 10.7 | 41 | 14.7 | 98 | 12.1 |
| Not Employed | 30 | 37.3 | 15 | 26.3 | 48 | 32.5 |
| Student/Homemaker | 37 | 15.1 | 11 | 14.7 | 50 | 14.9 |
| Retired/Unable to Work | 348 | 43.8 | 170 | 39.5 | 534 | 42.4 |
| Total | 472 | 26.2 | 238 | 24.4 | 22 | 18.8 |

¹Unweighted

²Weighted

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

* Sample Size<50

Cigarette Usage

Survey Question:

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

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

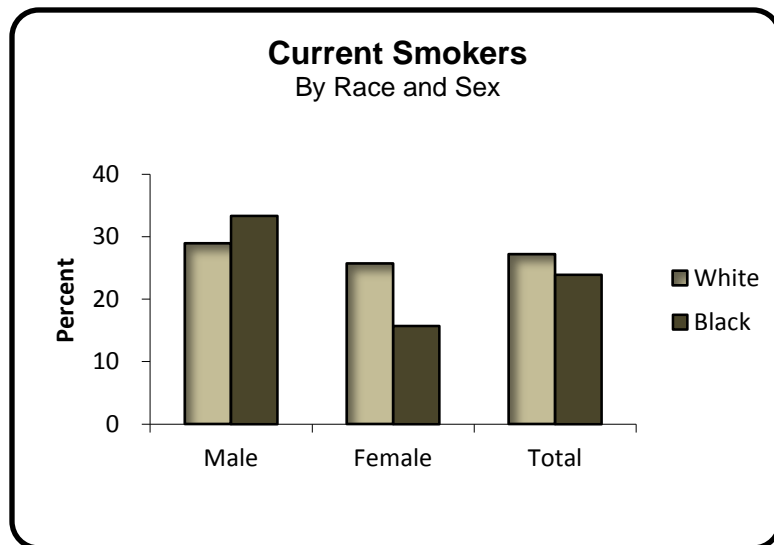


Figure 7

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

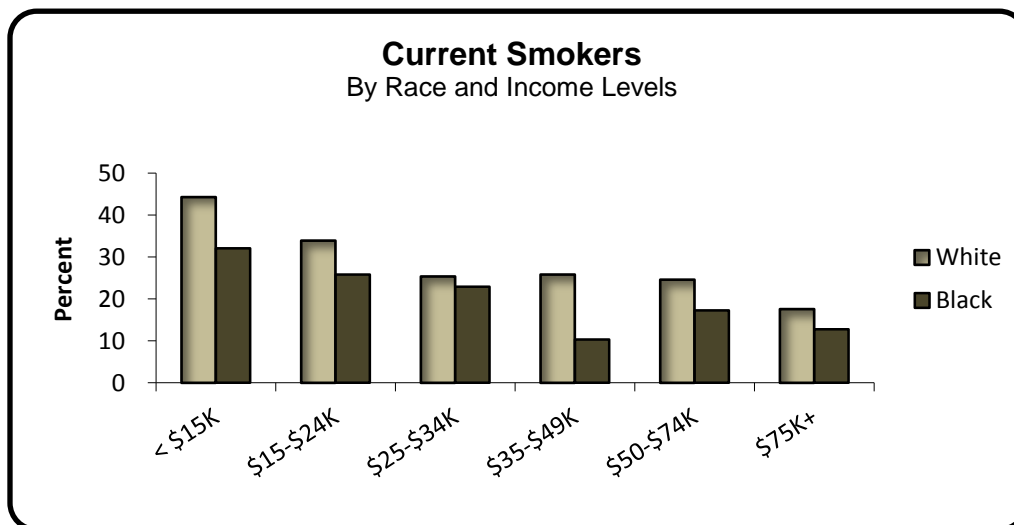


Figure 8

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

According to the 2017 BRFSS report, the race group with the highest percentage of current smokers is white females at 25.4 percent followed by white males at 23.0 percent and black males at 22.4 percent. The group with the lowest percentage of current smokers is black females at 16.9 percent (Figure 7).

Overall, the rate of current smoking in Mississippi is 22.4 percent. The *Healthy People 2020* objective is 12 percent.

Table 7: Current Smokers

| Groups | White | | Black | | Total | |
|----------------------------------|---------------------|----------------------|---------------------|----------------------|---------------------|----------------------|
| | Number ¹ | Percent ² | Number ¹ | Percent ² | Number ¹ | Percent ² |
| Sex | | | | | | |
| Male | 230 | 23.0 | 114 | 22.4 | 353 | 22.6 |
| Female | 334 | 25.4 | 129 | 16.9 | 476 | 22.2 |
| Age Group | | | | | | |
| 18-24 | 28 | 23.0 | 3 | 3.3 | 32 | 15.3 |
| 25-34 | 75 | 37.2 | 28 | 24.1 | 105 | 30.0 |
| 35-44 | 74 | 28.5 | 25 | 22.8 | 102 | 25.8 |
| 45-54 | 103 | 31.3 | 54 | 21.4 | 165 | 27.6 |
| 55-64 | 149 | 25.7 | 80 | 27.1 | 235 | 26.1 |
| 65+ | 133 | 10.4 | 50 | 14.5 | 185 | 11.5 |
| Education | | | | | | |
| < High School Graduate | 80 | 39.9 | 64 | 37.4 | 149 | 38.5 |
| High School Graduate or GED | 182 | 27.0 | 95 | 17.8 | 283 | 23.0 |
| Some College or Technical School | 198 | 24.3 | 55 | 13.6 | 261 | 20.8 |
| College Graduate | 104 | 9.8 | 26 | 7.9 | 133 | 9.3 |
| Income | | | | | | |
| < \$15,000 | 103 | 43.4 | 84 | 23.7 | 194 | 31.9 |
| \$15-\$24,999 | 116 | 30.8 | 69 | 25.5 | 191 | 28.3 |
| \$25-\$34,999 | 66 | 28.5 | 30 | 20.3 | 98 | 25.4 |
| \$35-\$49,999 | 78 | 24.6 | 22 | 10.9 | 103 | 20.4 |
| \$50-\$74,999 | 63 | 17.1 | 13 | 12.5 | 77 | 15.8 |
| \$75,000+ | 82 | 14.5 | 9 | 9.0 | 92 | 13.2 |
| Employment Status | | | | | | |
| Employed | 238 | 25.1 | 86 | 16.5 | 333 | 21.8 |
| Not Employed | 45 | 49.0 | 21 | 21.9 | 69 | 34.9 |
| Student/Homemaker | 47 | 20.4 | 13 | 7.9 | 62 | 17.1 |
| Retired/Unable to Work | 234 | 20.9 | 120 | 26.3 | 362 | 22.8 |
| Total | 564 | 24.2 | 243 | 19.4 | 829 | 22.4 |

¹Unweighted

²Weighted

Table 8: Ever Used E-Cigarettes

| Groups | White | | Black | | Total | |
|----------------------------------|---------------------|----------------------|---------------------|----------------------|---------------------|----------------------|
| | Number ¹ | Percent ² | Number ¹ | Percent ² | Number ¹ | Percent ² |
| Sex | | | | | | |
| Male | 250 | 28.8 | 72 | 16.0 | 334 | 24.5 |
| Female | 298 | 25.1 | 67 | 13.2 | 378 | 20.6 |
| Age Group | | | | | | |
| 18-24 | 61 | 51.2 | 12 | 21.3 | 75 | 40.2 |
| 25-34 | 96 | 42.8 | 26 | 20.9 | 127 | 32.0 |
| 35-44 | 79 | 31.1 | 21 | 16.2 | 105 | 25.5 |
| 45-54 | 95 | 27.8 | 23 | 9.9 | 125 | 21.3 |
| 55-64 | 122 | 21.0 | 33 | 10.0 | 160 | 17.2 |
| 65+ | 93 | 7.1 | 24 | 7.6 | 118 | 7.3 |
| Education | | | | | | |
| < High School Graduate | 64 | 33.4 | 28 | 16.6 | 98 | 25.9 |
| High School Graduate or GED | 157 | 26.8 | 35 | 12.1 | 199 | 21.1 |
| Some College or Technical School | 206 | 31.7 | 49 | 17.1 | 263 | 27.1 |
| College Graduate | 121 | 14.1 | 25 | 10.8 | 150 | 13.1 |
| Income | | | | | | |
| < \$15,000 | 87 | 36.3 | 29 | 9.3 | 119 | 20.4 |
| \$15-\$24,999 | 112 | 37.2 | 42 | 18.4 | 159 | 28.1 |
| \$25-\$34,999 | 59 | 30.0 | 19 | 22.4 | 82 | 27.3 |
| \$35-\$49,999 | 63 | 23.1 | 16 | 14.0 | 82 | 20.6 |
| \$50-\$74,999 | 72 | 22.3 | 14 | 17.7 | 89 | 21.2 |
| \$75,000+ | 108 | 20.7 | 10 | 7.8 | 121 | 18.9 |
| Employment Status | | | | | | |
| Employed | 245 | 27.6 | 67 | 18.4 | 323 | 24.4 |
| Not Employed | 42 | 48.9 | 6 | 7.4 | 51 | 27.5 |
| Student/Homemaker | 57 | 31.2 | 10 | 13.5 | 71 | 26.6 |
| Retired/Unable to Work | 201 | 19.7 | 56 | 11.6 | 261 | 16.7 |
| Total | 548 | 26.9 | 139 | 14.5 | 712 | 22.5 |

¹Unweighted

²Weighted

Diabetes

Survey Question:

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

Diabetes was the seventh leading cause of death in Mississippi for the year 2016 with a death rate of 33.9 per 100,000 population. According to the 2017 BRFSS survey, 14.4 percent of all respondents reported being told by a doctor that they have diabetes.

Black females continue to comprise the largest group having a rate of 18.0 percent followed by white males with a rate of 14.2 percent. Black males reported a rate of 13.8 percent while white females reported a rate of 12.4 percent (Figure 9).

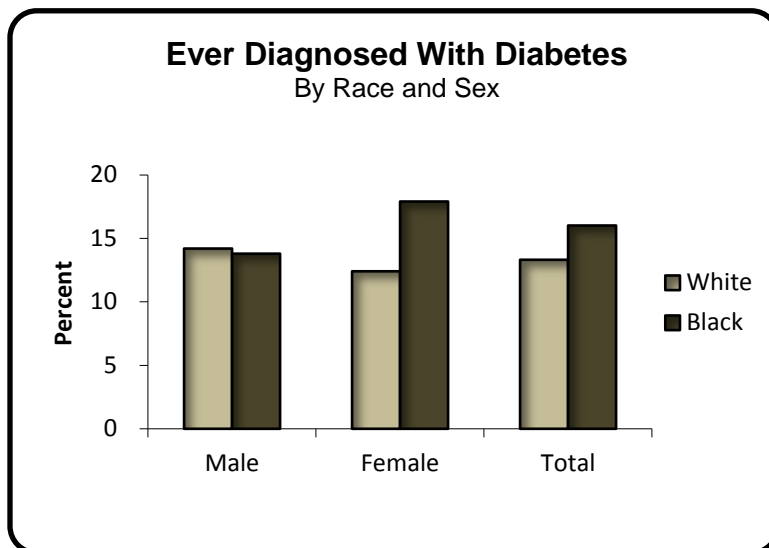


Figure 9

The rate of diabetes continues to show a pronounced difference by

categories of education. Respondents who did not complete high school reported rates of 22.9 percent which is more than 35 percent higher than the next highest education category. Those with a high school education reported a rate of 14.4 percent; those with some college work, a rate of 12.2

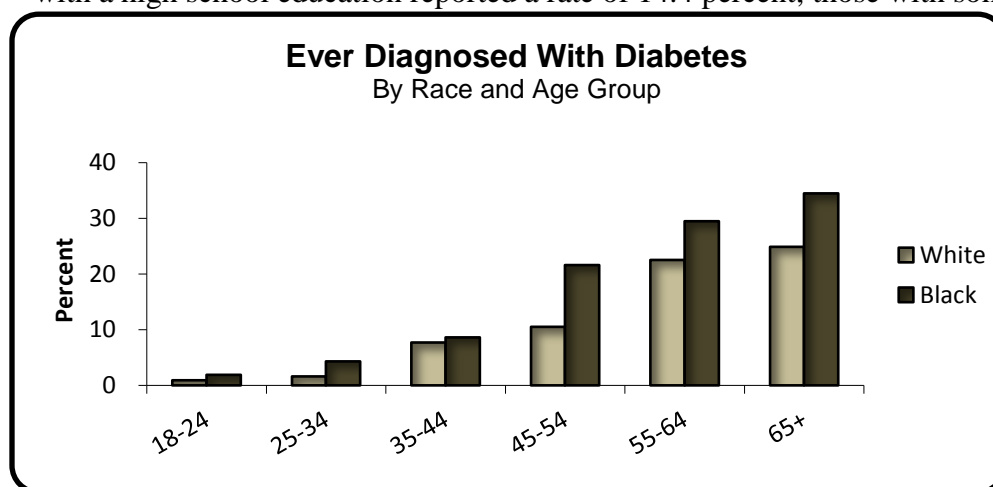


Figure 10

percent; and college graduates a rate of 10.6 percent (Table 9).

There are also obvious differences seen by age of the respondent in the rate of diabetes. Only 1.3 percent

of respondents under age 24 reported having diabetes while those age 65 and above reported a rate of 27.4 percent: 24.9 percent for whites and 34.5 percent for blacks (Figure 10).

Table 9: Diagnosed With Diabetes

| Groups | White | | Black | | Total | |
|----------------------------------|---------------------|----------------------|---------------------|----------------------|---------------------|----------------------|
| | Number ¹ | Percent ² | Number ¹ | Percent ² | Number ¹ | Percent ² |
| Sex | | | | | | |
| Male | 254 | 14.2 | 117 | 13.8 | 381 | 14.1 |
| Female | 317 | 12.4 | 239 | 18.0 | 568 | 14.6 |
| Age Group | | | | | | |
| 18-24 | 2 | 1.0 | 2 | 1.9 | 4 | 1.3 |
| 25-34 | 6 | 1.6 | 6 | 4.3 | 12 | 2.8 |
| 35-44 | 24 | 7.7 | 16 | 8.6 | 41 | 8.1 |
| 45-54 | 51 | 10.5 | 52 | 21.7 | 111 | 15.9 |
| 55-64 | 133 | 22.5 | 120 | 29.5 | 259 | 25.0 |
| 65+ | 354 | 24.9 | 155 | 34.5 | 516 | 27.4 |
| Education | | | | | | |
| < High School Graduate | 76 | 19.9 | 78 | 24.9 | 163 | 22.9 |
| High School Graduate or GED | 159 | 13.3 | 128 | 15.9 | 294 | 14.4 |
| Some College or Technical School | 169 | 12.0 | 73 | 12.5 | 247 | 12.2 |
| College Graduate | 164 | 10.6 | 75 | 11.5 | 240 | 10.6 |
| Income | | | | | | |
| < \$15,000 | 80 | 19.0 | 112 | 23.2 | 200 | 22.2 |
| \$15-\$24,999 | 123 | 18.4 | 90 | 14.9 | 218 | 16.5 |
| \$25-\$34,999 | 68 | 14.7 | 37 | 11.4 | 108 | 13.3 |
| \$35-\$49,999 | 64 | 10.3 | 30 | 13.3 | 97 | 11.7 |
| \$50-\$74,999 | 71 | 11.8 | 22 | 9.7 | 93 | 11.2 |
| \$75,000+ | 92 | 8.3 | 30 | 16.0 | 123 | 9.4 |
| Employment Status | | | | | | |
| Employed | 129 | 8.0 | 78 | 9.2 | 211 | 8.4 |
| Not Employed | 11 | 7.9 | 11 | 5.0 | 24 | 7.8 |
| Student/Homemaker | 35 | 5.5 | 11 | 6.2 | 49 | 5.8 |
| Retired/Unable to Work | 395 | 25.7 | 250 | 32.9 | 657 | 28.2 |
| Total | 571 | 13.3 | 356 | 16.0 | 949 | 14.4 |

¹Unweighted

²Weighted

Hypertension Awareness

Survey Question:

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

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

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

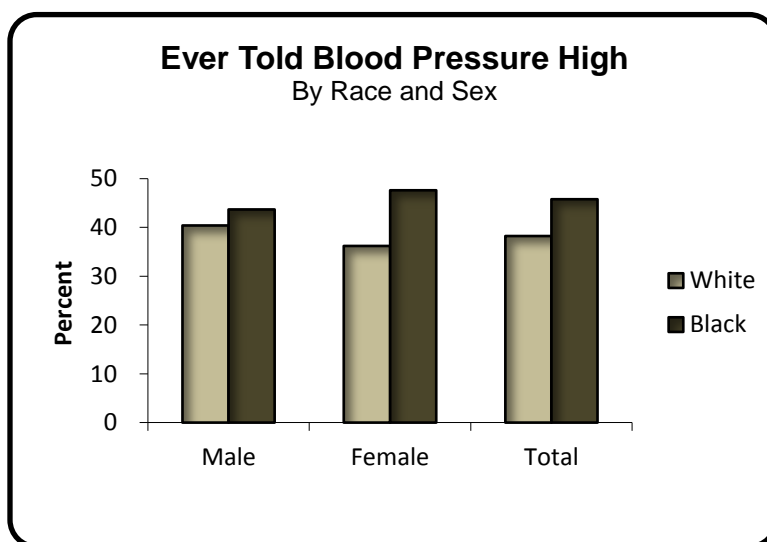


Figure 11

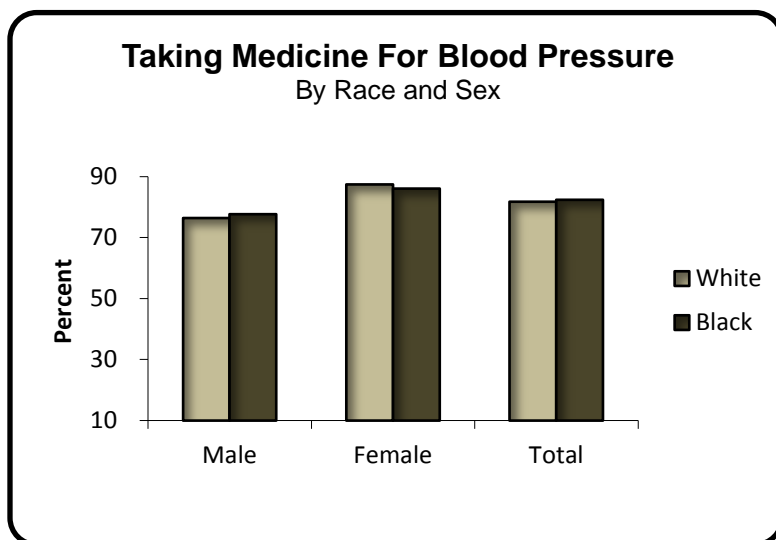


Figure 12

The 2017 BRFSS survey indicates that approximately 40.9 percent of the people surveyed in Mississippi have been told they have high blood pressure by a health care professional.

Blacks were more likely to be hypertensive than whites. The overall rate of hypertension among blacks in Mississippi was 45.8 percent compared to 38.2 for whites. Black females in the survey reported a rate of 47.7 percent rate for hypertension compared to 36.1 percent of the white females (Figure 11). Black

males, on the other hand, reported a rate of 43.6 percent compared to a rate of 40.5 percent for white males.

Table 10: Ever Told Blood Pressure High

| Groups | White | | Black | | Total | |
|----------------------------------|---------------------|----------------------|---------------------|----------------------|---------------------|----------------------|
| | Number ¹ | Percent ² | Number ¹ | Percent ² | Number ¹ | Percent ² |
| Sex | | | | | | |
| Male | 654 | 40.5 | 325 | 43.6 | 1,002 | 41.5 |
| Female | 917 | 36.1 | 614 | 47.7 | 1,557 | 40.3 |
| Age Group | | | | | | |
| 18-24 | 12 | 5.0 | 8 | 11.6 | 22 | 7.9 |
| 25-34 | 29 | 12.7 | 33 | 28.4 | 64 | 20.0 |
| 35-44 | 89 | 27.0 | 78 | 37.9 | 172 | 30.9 |
| 45-54 | 144 | 38.4 | 155 | 51.7 | 311 | 44.1 |
| 55-64 | 360 | 55.8 | 297 | 73.6 | 668 | 62.2 |
| 65+ | 929 | 64.0 | 356 | 79.7 | 1,300 | 68.0 |
| Education | | | | | | |
| < High School Graduate | 166 | 48.5 | 175 | 59.4 | 354 | 54.0 |
| High School Graduate or GED | 490 | 42.4 | 313 | 42.8 | 816 | 42.0 |
| Some College or Technical School | 440 | 35.1 | 218 | 40.4 | 674 | 36.8 |
| College Graduate | 469 | 30.4 | 230 | 45.4 | 706 | 34.5 |
| Income | | | | | | |
| < \$15,000 | 181 | 46.8 | 273 | 57.6 | 469 | 53.2 |
| \$15-\$24,999 | 292 | 43.8 | 233 | 41.0 | 537 | 42.7 |
| \$25-\$34,999 | 189 | 46.4 | 89 | 36.9 | 282 | 42.0 |
| \$35-\$49,999 | 194 | 36.3 | 92 | 46.8 | 292 | 40.0 |
| \$50-\$74,999 | 210 | 36.7 | 87 | 50.4 | 300 | 40.4 |
| \$75,000+ | 316 | 29.0 | 75 | 32.5 | 393 | 29.1 |
| Employment Status | | | | | | |
| Employed | 429 | 27.2 | 288 | 34.8 | 728 | 29.8 |
| Not Employed | 41 | 31.1 | 40 | 38.1 | 85 | 35.8 |
| Student/Homemaker | 132 | 24.4 | 31 | 21.9 | 167 | 23.7 |
| Retired/Unable to Work | 964 | 61.7 | 571 | 74.2 | 1,564 | 66.0 |
| Total | 1,571 | 38.2 | 939 | 45.8 | 2,559 | 40.9 |

¹Unweighted

²Weighted

Table 11: Taking Blood Pressure Medication³

| Groups | White | | Black | | Total | |
|----------------------------------|---------------------|----------------------|---------------------|----------------------|---------------------|----------------------|
| | Number ¹ | Percent ² | Number ¹ | Percent ² | Number ¹ | Percent ² |
| Sex | | | | | | |
| Male | 552 | 76.5 | 278 | 77.7 | 843 | 76.0 |
| Female | 835 | 87.7 | 565 | 86.2 | 1,421 | 86.8 |
| Age Group | | | | | | |
| 18-24 | 1 | 8.1* | 4 | 47.1* | 5 | 30.4 |
| 25-34 | 13 | 38.4* | 15 | 43.4* | 28 | 40.7 |
| 35-44 | 64 | 72.1 | 60 | 77.2 | 127 | 74.7 |
| 45-54 | 112 | 75.1 | 130 | 86.1 | 249 | 78.3 |
| 55-64 | 320 | 86.0 | 276 | 93.8 | 605 | 89.2 |
| 65+ | 871 | 92.4 | 346 | 96.4 | 1,230 | 93.6 |
| Education | | | | | | |
| < High School Graduate | 144 | 81.1 | 163 | 87.8 | 318 | 84.4 |
| High School Graduate or GED | 435 | 83.5 | 277 | 75.8 | 721 | 79.7 |
| Some College or Technical School | 382 | 79.5 | 191 | 85.0 | 583 | 80.3 |
| College Graduate | 421 | 85.6 | 209 | 82.4 | 634 | 83.8 |
| Income | | | | | | |
| < \$15,000 | 153 | 81.6 | 247 | 86.5 | 413 | 84.1 |
| \$15-\$24,999 | 268 | 87.3 | 209 | 85.5 | 485 | 85.6 |
| \$25-\$34,999 | 172 | 88.2 | 76 | 73.5 | 251 | 82.8 |
| \$35-\$49,999 | 165 | 73.8 | 83 | 74.3 | 250 | 73.1 |
| \$50-\$74,999 | 186 | 80.4 | 80 | 81.3 | 267 | 80.1 |
| \$75,000+ | 275 | 80.1 | 69 | 92.3 | 345 | 81.3 |
| Employment Status | | | | | | |
| Employed | 345 | 74.4 | 237 | 77.0 | 585 | 74.3 |
| Not Employed | 30 | 76.7* | 31 | 55.3* | 63 | 62.8 |
| Student/Homemaker | 114 | 78.1 | 25 | 64.2 | 141 | 73.7 |
| Retired/Unable to Work | 894 | 88.4 | 543 | 93.1 | 1,463 | 90.4 |
| Total | 1,387 | 82.0 | 843 | 82.5 | 2,264 | 81.6 |

¹Unweighted

²Weighted

* Sample Size<50

³Denominator is those who have been told that their blood pressure is high

Cholesterol Awareness

Survey Question:

Have you ever had your blood cholesterol checked?

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

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

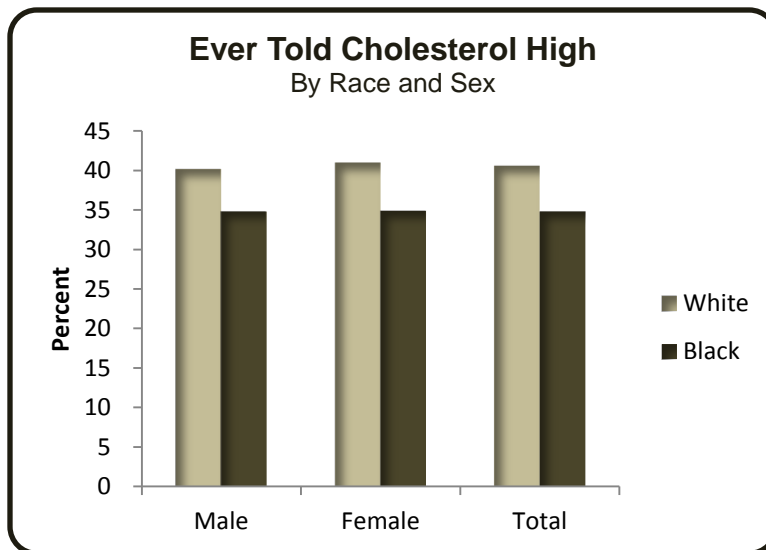


Figure 13

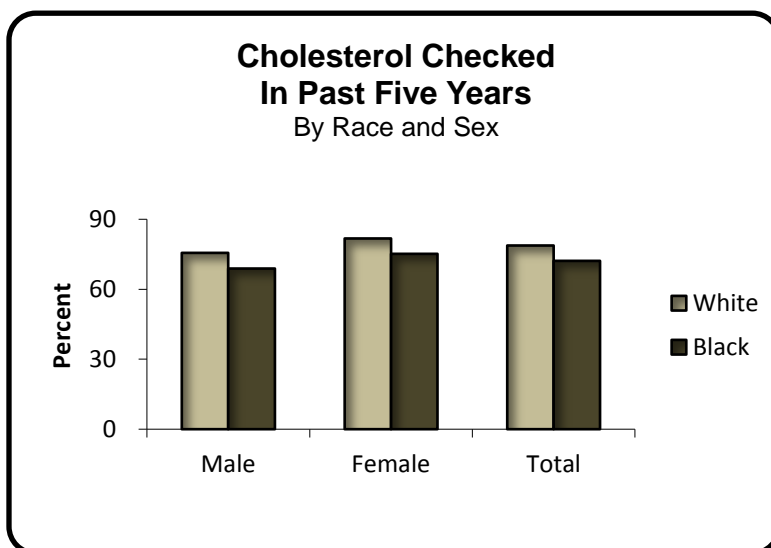


Figure 14

The 2017 survey revealed that 89.3 percent of the respondents reported that they have had their blood cholesterol checked and 84.7 percent reported that it had been checked in the past five years (Figure 14). Black respondents were more likely to have had their cholesterol checked within five years with a rate of 88.6 percent than whites who reported a rate of 82.5 percent (Table 12).

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

five years with a rate of 79.2 percent. Of those who have ever had their cholesterol checked, 38.1 percent said they have been told their blood cholesterol is high but for the age group 65 and above, the rate was 56.1 percent.

Table 12: Cholesterol Checked Past Five Years

| Groups | White | | Black | | Total | |
|----------------------------------|---------------------|----------------------|---------------------|----------------------|---------------------|----------------------|
| | Number ¹ | Percent ² | Number ¹ | Percent ² | Number ¹ | Percent ² |
| Sex | | | | | | |
| Male | 1,145 | 79.2 | 502 | 88.7 | 1,689 | 82.9 |
| Female | 1,723 | 85.7 | 877 | 88.6 | 2,654 | 86.5 |
| Age Group | | | | | | |
| 18-24 | 71 | 59.3 | 49 | 75.2 | 123 | 66.0 |
| 25-34 | 167 | 62.7 | 116 | 87.1 | 292 | 74.6 |
| 35-44 | 233 | 77.0 | 151 | 84.0 | 401 | 80.2 |
| 45-54 | 362 | 89.8 | 249 | 91.7 | 632 | 89.9 |
| 55-64 | 624 | 91.2 | 367 | 96.8 | 1,011 | 93.2 |
| 65+ | 1,385 | 96.6 | 425 | 96.8 | 1,834 | 96.7 |
| Education | | | | | | |
| < High School Graduate | 227 | 82.5 | 212 | 89.7 | 454 | 85.9 |
| High School Graduate or GED | 753 | 79.6 | 448 | 83.4 | 1,221 | 80.8 |
| Some College or Technical School | 844 | 81.4 | 335 | 91.9 | 1,211 | 84.9 |
| College Graduate | 1,034 | 88.2 | 377 | 91.8 | 1,440 | 89.3 |
| Income | | | | | | |
| < \$15,000 | 249 | 80.8 | 349 | 89.7 | 617 | 85.9 |
| \$15-\$24,999 | 423 | 75.2 | 336 | 87.2 | 782 | 80.9 |
| \$25-\$34,999 | 314 | 90.9 | 139 | 79.4 | 462 | 85.3 |
| \$35-\$49,999 | 371 | 76.4 | 156 | 97.4 | 533 | 82.5 |
| \$50-\$74,999 | 429 | 82.4 | 141 | 98.2 | 578 | 86.6 |
| \$75,000+ | 767 | 89.2 | 136 | 93.5 | 919 | 90.1 |
| Employment Status | | | | | | |
| Employed | 1,065 | 77.8 | 546 | 86.6 | 1,649 | 81.1 |
| Not Employed | 74 | 63.7 | 73 | 85.8 | 151 | 75.7 |
| Student/Homemaker | 278 | 78.4 | 76 | 83.1 | 365 | 79.5 |
| Retired/Unable to Work | 1,447 | 94.0 | 669 | 95.2 | 2,158 | 94.5 |
| Total | 2,868 | 82.5 | 1,379 | 88.7 | 4,343 | 84.8 |

¹Unweighted

²Weighted

Table 13: Ever Told Cholesterol High

| Groups | White | | Black | | Total | |
|----------------------------------|---------------------|----------------------|---------------------|----------------------|---------------------|----------------------|
| | Number ¹ | Percent ² | Number ¹ | Percent ² | Number ¹ | Percent ² |
| Sex | | | | | | |
| Male | 552 | 33.3 | 227 | 31.3 | 796 | 32.4 |
| Female | 873 | 35.4 | 398 | 31.2 | 1,291 | 33.5 |
| Age Group | | | | | | |
| 18-24 | 5 | 4.4 | 7 | 8.2 | 14 | 6.3 |
| 25-34 | 30 | 11.2 | 18 | 16.2 | 48 | 13.1 |
| 35-44 | 67 | 20.3 | 37 | 20.5 | 107 | 20.1 |
| 45-54 | 156 | 41.3 | 108 | 41.9 | 275 | 41.7 |
| 55-64 | 343 | 51.4 | 213 | 53.4 | 564 | 52.1 |
| 65+ | 816 | 55.8 | 233 | 52.6 | 1,060 | 54.9 |
| Education | | | | | | |
| < High School Graduate | 130 | 39.5 | 122 | 45.0 | 259 | 42.3 |
| High School Graduate or GED | 411 | 35.1 | 200 | 25.9 | 622 | 30.9 |
| Some College or Technical School | 395 | 31.3 | 152 | 32.5 | 561 | 31.4 |
| College Graduate | 487 | 35.5 | 149 | 23.0 | 641 | 31.2 |
| Income | | | | | | |
| < \$15,000 | 137 | 34.8 | 179 | 36.5 | 327 | 35.8 |
| \$15-\$24,999 | 237 | 36.3 | 157 | 30.0 | 404 | 33.3 |
| \$25-\$34,999 | 173 | 40.5 | 60 | 25.9 | 237 | 34.0 |
| \$35-\$49,999 | 182 | 32.7 | 57 | 31.5 | 242 | 32.4 |
| \$50-\$74,999 | 203 | 34.1 | 64 | 35.2 | 268 | 34.2 |
| \$75,000+ | 315 | 30.0 | 48 | 26.9 | 368 | 29.2 |
| Employment Status | | | | | | |
| Employed | 416 | 25.0 | 181 | 23.4 | 606 | 24.2 |
| Not Employed | 32 | 25.0 | 22 | 20.4 | 55 | 22.2 |
| Student/Homemaker | 107 | 21.4 | 20 | 18.6 | 131 | 20.7 |
| Retired/Unable to Work | 866 | 55.2 | 399 | 51.8 | 1,288 | 53.8 |
| Total | 1,425 | 34.4 | 625 | 31.2 | 2,087 | 33.0 |

¹Unweighted

²Weighted

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 2016 producing a death rate of 26.3 per 100,000 population.

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

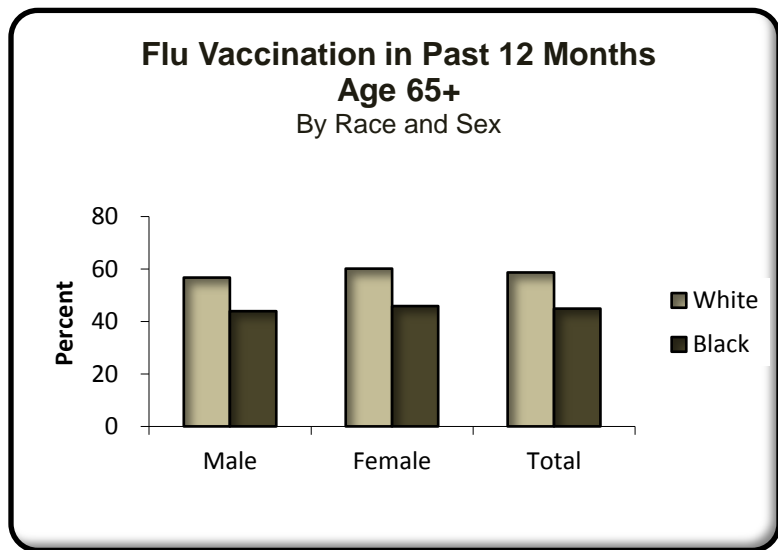


Figure 15

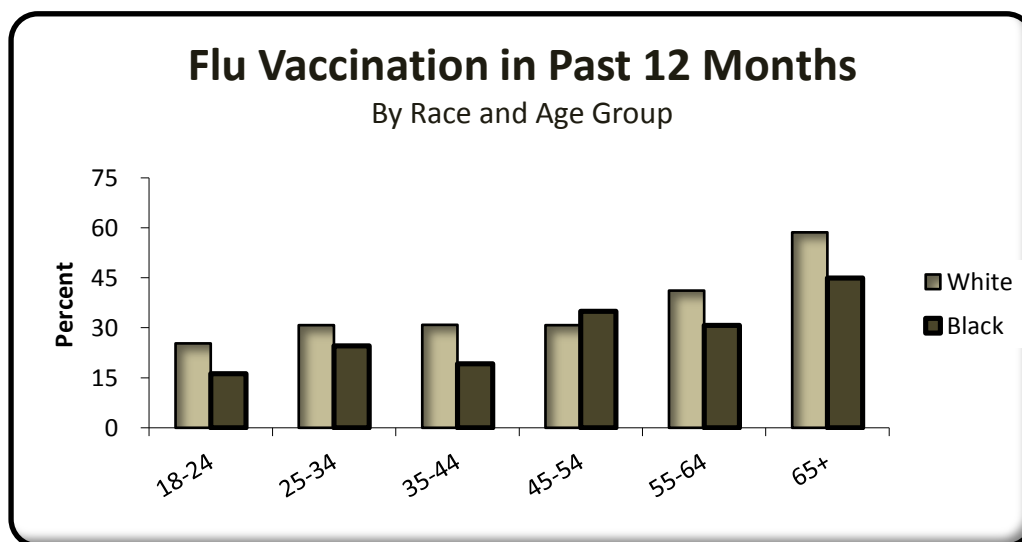


Figure 16

prevention but reduces severity of disease and the incidence of complications and death. Vaccination is an important intervention to reduce hospitalizations due to complications of influenza. Influenza vaccine is recommended for all persons 65 years of age and older, and for those with chronic health problems which put them at risk for complications.

In the 2017 BRFSS survey, 55.1 percent of the respondents age 65 and older reported they had received the influenza vaccine in the last 12 months. The proportion vaccinated in this age group reflected a marked difference according to race: 58.6 percent of whites reported having been vaccinated compared to only 44.9 percent for blacks (Figure 16). For the total population, females reported higher vaccination in the past twelve months with a rate of 38.0 percent compared to 32.6 percent for males (Figure 15).

Only 37.2 percent of the respondents said that they had ever received a pneumonia vaccination. Respondents over the age of 65 reported a vaccination rate of 71.8 percent. As with influenza vaccinations rates on those 65 years of age and older, there was a marked difference with respect to race for pneumonia vaccinations: 77.3 percent for whites but only 55.8 percent for blacks (Table 16).

Table 14: Flu Vaccination in Past 12 Months

| Groups | White | | Black | | Total | |
|----------------------------------|---------------------|----------------------|---------------------|----------------------|---------------------|----------------------|
| | Number ¹ | Percent ² | Number ¹ | Percent ² | Number ¹ | Percent ² |
| Sex | | | | | | |
| Male | 539 | 36.0 | 158 | 26.2 | 715 | 32.6 |
| Female | 884 | 42.2 | 303 | 30.7 | 1,211 | 38.0 |
| Age Group | | | | | | |
| 18-24 | 26 | 25.4 | 10 | 15.8 | 37 | 21.3 |
| 25-34 | 70 | 30.7 | 26 | 24.5 | 99 | 28.0 |
| 35-44 | 96 | 30.6 | 30 | 19.2 | 137 | 27.5 |
| 45-54 | 127 | 30.9 | 78 | 34.9 | 213 | 32.3 |
| 55-64 | 294 | 41.2 | 118 | 30.6 | 418 | 37.5 |
| 65+ | 799 | 58.6 | 187 | 44.9 | 998 | 55.1 |
| Education | | | | | | |
| < High School Graduate | 88 | 28.9 | 68 | 30.5 | 159 | 29.4 |
| High School Graduate or GED | 352 | 37.6 | 137 | 25.8 | 499 | 32.8 |
| Some College or Technical School | 391 | 38.2 | 110 | 25.9 | 513 | 34.3 |
| College Graduate | 585 | 49.7 | 144 | 37.3 | 746 | 46.4 |
| Income | | | | | | |
| < \$15,000 | 118 | 38.1 | 112 | 27.7 | 239 | 32.0 |
| \$15-\$24,999 | 199 | 35.1 | 112 | 26.7 | 316 | 30.5 |
| \$25-\$34,999 | 148 | 38.8 | 39 | 23.0 | 193 | 33.2 |
| \$35-\$49,999 | 184 | 41.3 | 47 | 22.5 | 234 | 35.8 |
| \$50-\$74,999 | 204 | 37.1 | 51 | 33.2 | 257 | 36.0 |
| \$75,000+ | 413 | 43.4 | 57 | 42.5 | 479 | 43.3 |
| Employment Status | | | | | | |
| Employed | 474 | 33.4 | 155 | 24.5 | 646 | 30.5 |
| Not Employed | 27 | 23.1 | 17 | 21.2 | 46 | 21.9 |
| Student/Homemaker | 129 | 36.1 | 19 | 21.4 | 153 | 32.3 |
| Retired/Unable to Work | 791 | 52.1 | 266 | 39.5 | 1,074 | 47.2 |
| Total | 1,423 | 39.2 | 461 | 28.7 | 1,926 | 35.4 |

¹Unweighted

²Weighted

Table 15: 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 | 282 | 56.7 | 63 | 43.9 | 352 | 53.5 |
| Female | 517 | 60.0 | 124 | 45.7 | 646 | 56.4 |
| Education | | | | | | |
| < High School Graduate | 60 | 54.3 | 43 | 41.7 | 103 | 48.3 |
| High School Graduate or GED | 237 | 58.4 | 52 | 46.3 | 293 | 55.8 |
| Some College or Technical School | 210 | 56.7 | 41 | 44.4 | 256 | 54.6 |
| College Graduate | 287 | 66.0 | 50 | 53.2 | 340 | 63.3 |
| Income | | | | | | |
| < \$15,000 | 57 | 49.7 | 48 | 37.6 | 107 | 43.4 |
| \$15-\$24,999 | 129 | 56.0 | 47 | 44.2 | 179 | 51.6 |
| \$25-\$34,999 | 104 | 57.6 | 18 | 50.4* | 124 | 56.5 |
| \$35-\$49,999 | 115 | 60.1 | 19 | 52.8* | 135 | 59.3 |
| \$50-\$74,999 | 112 | 59.4 | 17 | 50.7* | 130 | 57.7 |
| \$75,000+ | 171 | 67.8 | 18 | 45.5* | 190 | 65.4 |
| Employment Status | | | | | | |
| Employed | 99 | 51.1 | 20 | 50.6* | 119 | 51.0 |
| Not Employed | 4 | 45.4* | 4 | 44.6* | 9 | 46.2 |
| Student/Homemaker | 75 | 64.2 | 6 | 65.8* | 82 | 64.1 |
| Retired/Unable to Work | 621 | 59.4 | 156 | 43.3 | 787 | 55.0 |
| Total | 799 | 58.6 | 187 | 44.9 | 998 | 55.1 |

¹Unweighted

²Weighted

*Sample size <50

Table 16: Ever Had Pneumonia Vaccination

| Groups | White | | Black | | Total | |
|----------------------------------|---------------------|----------------------|---------------------|----------------------|---------------------|----------------------|
| | Number ¹ | Percent ² | Number ¹ | Percent ² | Number ¹ | Percent ² |
| Sex | | | | | | |
| Male | 564 | 41.8 | 174 | 31.0 | 755 | 37.8 |
| Female | 921 | 40.3 | 323 | 31.0 | 1,267 | 36.8 |
| Age Group | | | | | | |
| 18-24 | 32 | 29.6 | 16 | 24.9 | 50 | 28.7 |
| 25-34 | 47 | 20.7 | 23 | 16.4 | 72 | 18.7 |
| 35-44 | 51 | 22.4 | 29 | 22.9 | 87 | 22.8 |
| 45-54 | 88 | 25.3 | 68 | 32.6 | 162 | 27.6 |
| 55-64 | 234 | 36.9 | 119 | 34.1 | 362 | 35.9 |
| 65+ | 1,022 | 77.3 | 235 | 55.8 | 1,270 | 71.8 |
| Education | | | | | | |
| < High School Graduate | 122 | 41.0 | 80 | 32.3 | 207 | 37.0 |
| High School Graduate or GED | 442 | 46.1 | 160 | 31.0 | 612 | 40.1 |
| Some College or Technical School | 426 | 39.0 | 121 | 30.9 | 560 | 36.1 |
| College Graduate | 489 | 37.8 | 136 | 30.4 | 637 | 35.3 |
| Income | | | | | | |
| < \$15,000 | 147 | 44.2 | 132 | 32.1 | 286 | 37.0 |
| \$15-\$24,999 | 260 | 48.4 | 129 | 29.3 | 397 | 38.5 |
| \$25-\$34,999 | 187 | 47.4 | 39 | 18.4 | 231 | 36.6 |
| \$35-\$49,999 | 206 | 41.3 | 61 | 34.1 | 271 | 39.2 |
| \$50-\$74,999 | 197 | 36.8 | 45 | 29.2 | 245 | 34.6 |
| \$75,000+ | 303 | 32.7 | 43 | 28.6 | 352 | 32.1 |
| Employment Status | | | | | | |
| Employed | 313 | 22.8 | 129 | 22.3 | 453 | 22.8 |
| Not Employed | 34 | 31.4 | 10 | 11.0 | 47 | 21.0 |
| Student/Homemaker | 142 | 37.8 | 26 | 33.3 | 172 | 36.8 |
| Retired/Unable to Work | 996 | 69.0 | 327 | 48.5 | 1,344 | 61.4 |
| Total | 1,485 | 41.0 | 497 | 31.0 | 2,022 | 37.2 |

¹Unweighted

²Weighted

Table 17: Ever Had Pneumonia Vaccination: Age 65+

| Groups | White | | Black | | Total | |
|----------------------------------|---------------------|----------------------|---------------------|----------------------|---------------------|----------------------|
| | Number ¹ | Percent ² | Number ¹ | Percent ² | Number ¹ | Percent ² |
| Sex | | | | | | |
| Male | 348 | 73.8 | 66 | 46.7 | 420 | 66.9 |
| Female | 674 | 79.9 | 169 | 62.6 | 850 | 75.4 |
| Education | | | | | | |
| < High School Graduate | 83 | 76.6 | 49 | 41.9 | 132 | 60.6 |
| High School Graduate or GED | 319 | 77.8 | 74 | 65.4 | 398 | 75.1 |
| Some College or Technical School | 286 | 77.0 | 52 | 66.8 | 343 | 75.2 |
| College Graduate | 329 | 78.0 | 60 | 63.3 | 392 | 75.0 |
| Income | | | | | | |
| < \$15,000 | 80 | 70.0 | 61 | 47.6 | 142 | 58.2 |
| \$15-\$24,999 | 183 | 77.1 | 61 | 43.1 | 248 | 64.8 |
| \$25-\$34,999 | 143 | 78.2 | 27 | 79.2* | 173 | 78.5 |
| \$35-\$49,999 | 150 | 77.8 | 28 | 78.1* | 178 | 77.7 |
| \$50-\$74,999 | 137 | 76.9 | 21 | 82.5* | 160 | 78.1 |
| \$75,000+ | 187 | 80.1 | 17 | 56.1* | 205 | 77.6 |
| Employment Status | | | | | | |
| Employed | 118 | 65.5 | 22 | 70.2* | 140 | 66.5 |
| Not Employed | 7 | 70.4* | 2 | 16.3* | 10 | 51.5 |
| Student/Homemaker | 92 | 75.1 | 6 | 43.8* | 99 | 70.7 |
| Retired/Unable to Work | 805 | 79.6 | 203 | 55.5 | 1,019 | 73.0 |
| Total | 1,022 | 77.3 | 235 | 55.8 | 1,270 | 71.8 |

¹Unweighted

²Weighted

*Sample size <50

Overweight and Obesity

Survey Question:

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

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

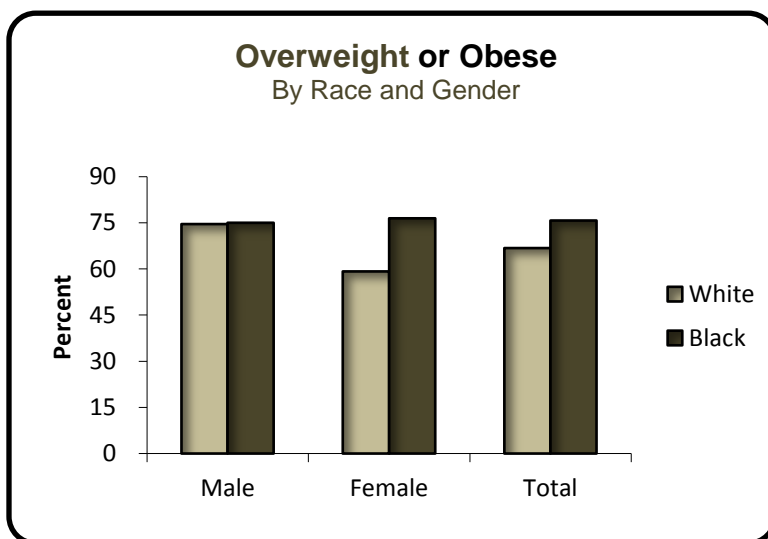


Figure 17

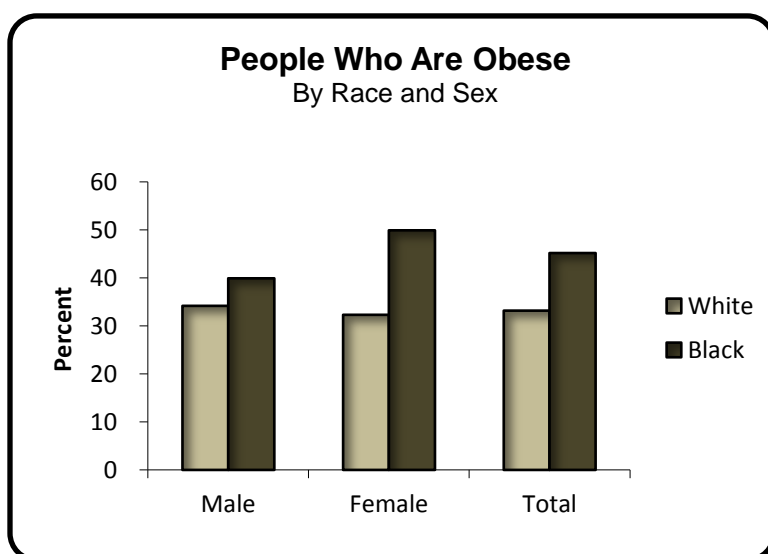


Figure 18

Weight may be controlled by dietary changes such as decreasing caloric intake and by increasing physical activity. According to the 2017 BRFSS study, 69.9 percent of those surveyed reported themselves as being either overweight (BMI ≥ 25) or obese (BMI ≥ 30). The rate for whites was 66.8 percent compared to 75.8 percent for blacks (Table 18).

The total obesity rate for 2017 was 37.5 percent: 33.2 for whites and 45.2 for blacks (Table 19). Black females reported the highest rate of obesity at 50.1 percent and black males reported the second highest

rate at 39.7 percent. Black respondents in the 55 to 64 age group have the highest rate of obesity at 53.2 percent compared to a rate of 37.4 for whites in the same age category.

Table 18: People Who Are Overweight or Obese

| Groups | White | | Black | | Total | |
|----------------------------------|---------------------|----------------------|---------------------|----------------------|---------------------|----------------------|
| | Number ¹ | Percent ² | Number ¹ | Percent ² | Number ¹ | Percent ² |
| Sex | | | | | | |
| Male | 1,036 | 74.6 | 416 | 74.9 | 1,480 | 74.3 |
| Female | 1,104 | 59.3 | 715 | 76.6 | 1,851 | 65.7 |
| Age Group | | | | | | |
| 18-24 | 69 | 46.0 | 39 | 59.3 | 111 | 51.8 |
| 25-34 | 176 | 71.7 | 99 | 78.4 | 277 | 73.8 |
| 35-44 | 201 | 66.8 | 138 | 79.5 | 348 | 71.1 |
| 45-54 | 280 | 70.9 | 213 | 78.6 | 507 | 73.5 |
| 55-64 | 476 | 72.4 | 313 | 81.1 | 806 | 75.2 |
| 65+ | 930 | 68.9 | 315 | 76.4 | 1,259 | 70.8 |
| Education | | | | | | |
| < High School Graduate | 174 | 63.6 | 169 | 73.3 | 356 | 67.8 |
| High School Graduate or GED | 594 | 65.7 | 372 | 72.9 | 979 | 68.6 |
| Some College or Technical School | 654 | 68.0 | 287 | 79.8 | 962 | 71.7 |
| College Graduate | 713 | 68.6 | 301 | 80.3 | 1,027 | 71.1 |
| Income | | | | | | |
| < \$15,000 | 196 | 63.9 | 295 | 78.8 | 505 | 72.5 |
| \$15-\$24,999 | 347 | 67.9 | 274 | 75.6 | 637 | 71.1 |
| \$25-\$34,999 | 223 | 65.2 | 122 | 70.1 | 349 | 66.5 |
| \$35-\$49,999 | 301 | 74.3 | 120 | 73.9 | 426 | 73.9 |
| \$50-\$74,999 | 312 | 67.0 | 116 | 85.9 | 433 | 72.1 |
| \$75,000+ | 554 | 65.7 | 113 | 78.8 | 676 | 68.0 |
| Employment Status | | | | | | |
| Employed | 860 | 69.2 | 469 | 80.2 | 1,352 | 72.9 |
| Not Employed | 76 | 66.6 | 59 | 65.4 | 140 | 66.5 |
| Student/Homemaker | 202 | 53.0 | 56 | 61.3 | 262 | 55.0 |
| Retired/Unable to Work | 998 | 70.2 | 536 | 76.5 | 1,560 | 72.3 |
| Total | 2,140 | 66.8 | 1,131 | 75.8 | 3,331 | 69.9 |

¹Unweighted

²Weighted

Table 19: People Who Are Obese

| Groups | White | | Black | | Total | |
|----------------------------------|---------------------|----------------------|---------------------|----------------------|---------------------|----------------------|
| | Number ¹ | Percent ² | Number ¹ | Percent ² | Number ¹ | Percent ² |
| Sex | | | | | | |
| Male | 448 | 34.1 | 216 | 39.7 | 677 | 35.9 |
| Female | 559 | 32.3 | 452 | 50.1 | 1,027 | 38.9 |
| Age Group | | | | | | |
| 18-24 | 34 | 21.7 | 20 | 29.7 | 54 | 24.5 |
| 25-34 | 90 | 37.2 | 57 | 45.8 | 148 | 40.1 |
| 35-44 | 110 | 35.2 | 88 | 51.8 | 203 | 41.4 |
| 45-54 | 141 | 37.9 | 129 | 47.2 | 278 | 41.8 |
| 55-64 | 237 | 37.4 | 193 | 53.2 | 437 | 42.8 |
| 65+ | 393 | 30.2 | 173 | 42.1 | 573 | 33.3 |
| Education | | | | | | |
| < High School Graduate | 102 | 37.1 | 103 | 50.4 | 215 | 43.2 |
| High School Graduate or GED | 297 | 33.1 | 235 | 43.8 | 540 | 37.7 |
| Some College or Technical School | 304 | 34.1 | 169 | 47.2 | 483 | 37.9 |
| College Graduate | 301 | 28.9 | 161 | 40.0 | 463 | 31.7 |
| Income | | | | | | |
| < \$15,000 | 114 | 37.9 | 190 | 49.8 | 312 | 45.0 |
| \$15-\$24,999 | 183 | 35.6 | 164 | 45.9 | 356 | 40.4 |
| \$25-\$34,999 | 132 | 40.9 | 70 | 35.0 | 204 | 38.1 |
| \$35-\$49,999 | 140 | 36.5 | 65 | 38.9 | 206 | 36.9 |
| \$50-\$74,999 | 131 | 29.9 | 71 | 56.1 | 203 | 37.0 |
| \$75,000+ | 209 | 27.1 | 57 | 42.9 | 269 | 29.3 |
| Employment Status | | | | | | |
| Employed | 385 | 31.9 | 273 | 46.5 | 664 | 36.9 |
| Not Employed | 43 | 39.3 | 38 | 37.4 | 84 | 39.4 |
| Student/Homemaker | 99 | 29.5 | 34 | 38.9 | 134 | 31.9 |
| Retired/Unable to Work | 477 | 35.9 | 317 | 47.3 | 812 | 40.2 |
| Total | 1,007 | 33.2 | 668 | 45.2 | 1,704 | 37.5 |

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 inflammatory disorder of the airways characterized by episodes of reversible breathing problems due to airway narrowing and obstruction. These episodes can range in severity from mild to life threatening. Symptoms of asthma include wheezing, coughing, chest tightness, and shortness of breath. In some cases, the breathing may be so labored that an asthma attack becomes life-threatening.

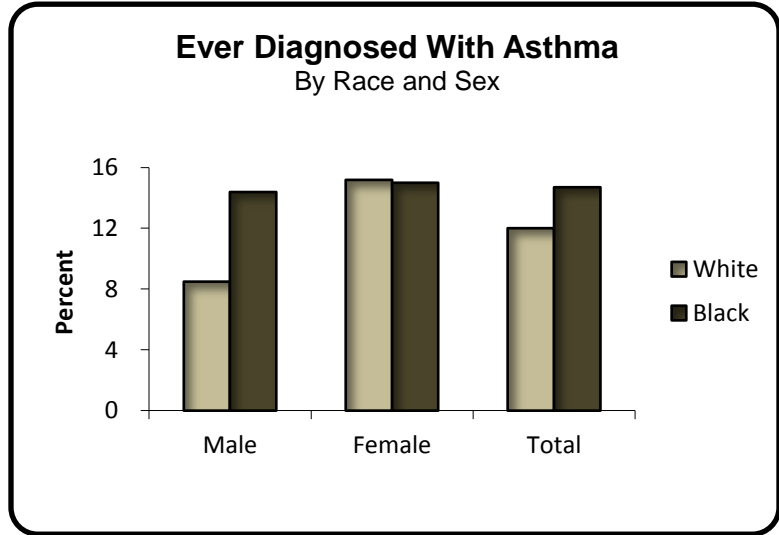


Figure 19

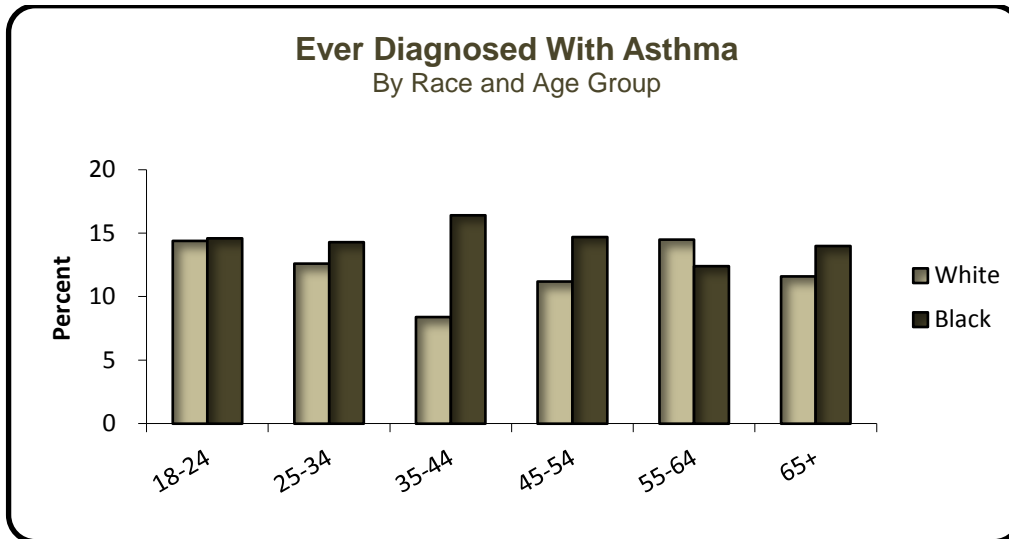


Figure 20

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

In Mississippi, the 2017 BRFSS survey revealed that 13.1 percent of the respondents said that they had ever had asthma. As has been true in recent years, blacks reported a higher rate of asthma, 14.6 percent, than whites who had a rate of 12.0 percent. Women reported a higher rate (15.0 percent) than men (10.9 percent).

Table 20 contains the rates for the various categories.

Table 20: Ever Diagnosed With Asthma

| Groups | White | | Black | | Total | |
|----------------------------------|---------------------|----------------------|---------------------|----------------------|---------------------|----------------------|
| | Number ¹ | Percent ² | Number ¹ | Percent ² | Number ¹ | Percent ² |
| Sex | | | | | | |
| Male | 120 | 8.5 | 72 | 14.4 | 199 | 10.9 |
| Female | 270 | 15.2 | 155 | 14.9 | 435 | 15.0 |
| Age Group | | | | | | |
| 18-24 | 18 | 14.2 | 11 | 14.5 | 30 | 14.3 |
| 25-34 | 35 | 12.6 | 19 | 14.2 | 55 | 13.7 |
| 35-44 | 30 | 8.4 | 26 | 16.4 | 59 | 11.6 |
| 45-54 | 40 | 11.2 | 38 | 14.7 | 84 | 12.6 |
| 55-64 | 101 | 14.6 | 59 | 12.3 | 161 | 13.7 |
| 65+ | 165 | 11.6 | 67 | 14.0 | 236 | 12.4 |
| Education | | | | | | |
| < High School Graduate | 46 | 14.2 | 48 | 19.9 | 98 | 16.9 |
| High School Graduate or GED | 110 | 13.4 | 86 | 15.0 | 199 | 13.7 |
| Some College or Technical School | 114 | 11.4 | 52 | 14.3 | 172 | 12.9 |
| College Graduate | 118 | 9.5 | 40 | 8.2 | 162 | 9.1 |
| Income | | | | | | |
| < \$15,000 | 50 | 14.5 | 73 | 19.3 | 128 | 17.2 |
| \$15-\$24,999 | 75 | 15.9 | 65 | 13.5 | 146 | 15.0 |
| \$25-\$34,999 | 47 | 14.8 | 23 | 12.2 | 73 | 13.8 |
| \$35-\$49,999 | 53 | 11.2 | 19 | 17.6 | 73 | 13.2 |
| \$50-\$74,999 | 43 | 7.4 | 17 | 18.4 | 61 | 10.4 |
| \$75,000+ | 72 | 8.2 | 8 | 4.1 | 81 | 8.0 |
| Employment Status | | | | | | |
| Employed | 117 | 8.8 | 59 | 9.6 | 180 | 9.3 |
| Not Employed | 20 | 19.2 | 13 | 25.8 | 33 | 22.2 |
| Student/Homemaker | 42 | 13.9 | 14 | 14.9 | 58 | 14.1 |
| Retired/Unable to Work | 211 | 14.7 | 139 | 18.9 | 361 | 16.5 |
| Total | 390 | 12.0 | 227 | 14.6 | 634 | 13.1 |

¹Unweighted

²Weighted

Table 21: Presently Have Asthma

| Groups | White | | Black | | Total | |
|----------------------------------|---------------------|----------------------|---------------------|----------------------|---------------------|----------------------|
| | Number ¹ | Percent ² | Number ¹ | Percent ² | Number ¹ | Percent ² |
| Sex | | | | | | |
| Male | 74 | 4.8 | 44 | 7.3 | 123 | 5.8 |
| Female | 198 | 10.4 | 129 | 11.6 | 335 | 10.8 |
| Age Group | | | | | | |
| 18-24 | 7 | 4.2 | 7 | 10.1 | 15 | 6.7 |
| 25-34 | 21 | 7.7 | 13 | 7.2 | 34 | 7.1 |
| 35-44 | 22 | 6.4 | 19 | 10.1 | 43 | 8.0 |
| 45-54 | 30 | 8.2 | 30 | 10.0 | 66 | 9.1 |
| 55-64 | 74 | 10.3 | 45 | 9.4 | 120 | 9.9 |
| 65+ | 117 | 8.3 | 54 | 10.3 | 173 | 8.8 |
| Education | | | | | | |
| < High School Graduate | 35 | 11.1 | 39 | 11.1 | 77 | 11.3 |
| High School Graduate or GED | 79 | 8.4 | 66 | 9.3 | 148 | 8.6 |
| Some College or Technical School | 78 | 6.8 | 37 | 11.0 | 120 | 8.3 |
| College Graduate | 79 | 6.1 | 30 | 6.2 | 111 | 6.0 |
| Income | | | | | | |
| < \$15,000 | 44 | 13.1 | 58 | 13.0 | 107 | 13.1 |
| \$15-\$24,999 | 57 | 9.4 | 53 | 9.6 | 115 | 9.9 |
| \$25-\$34,999 | 29 | 8.4 | 18 | 9.2 | 49 | 8.8 |
| \$35-\$49,999 | 39 | 7.1 | 13 | 5.7 | 52 | 6.6 |
| \$50-\$74,999 | 22 | 3.8 | 13 | 13.6 | 36 | 6.5 |
| \$75,000+ | 47 | 5.0 | 3 | 0.8 | 50 | 4.1 |
| Employment Status | | | | | | |
| Employed | 75 | 5.1 | 40 | 5.5 | 117 | 5.2 |
| Not Employed | 17 | 15.6 | 9 | 13.4 | 26 | 14.2 |
| Student/Homemaker | 19 | 4.4 | 10 | 10.0 | 31 | 6.1 |
| Retired/Unable to Work | 161 | 11.8 | 112 | 14.6 | 282 | 13.1 |
| Total | 272 | 7.7 | 173 | 9.6 | 458 | 8.4 |

¹Unweighted

²Weighted

Exercise and Physical Activity

Survey Question:

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

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

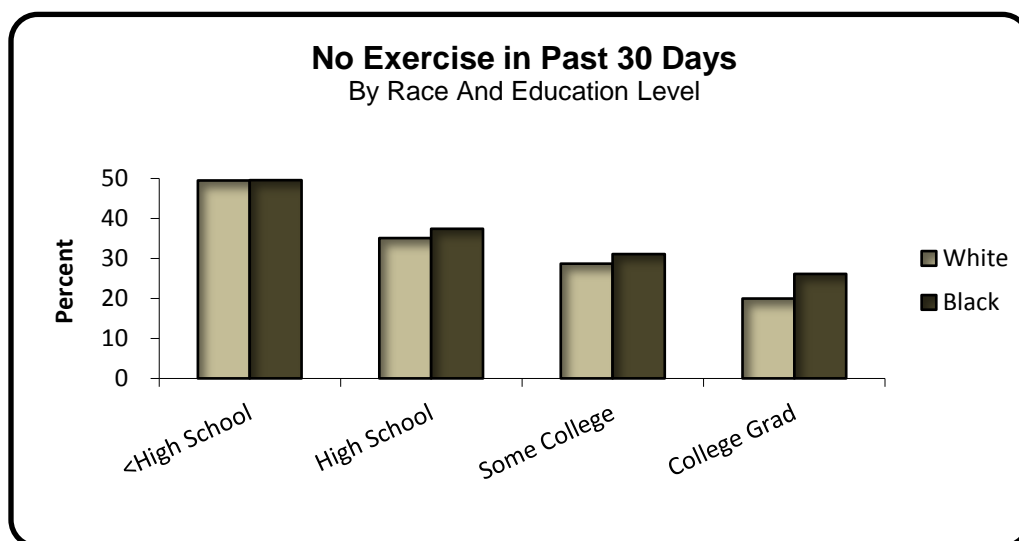


Figure 21

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

In Mississippi, 33.2 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 21) and in lower income levels (Table 22) reported the highest percentage of physical inactivity.

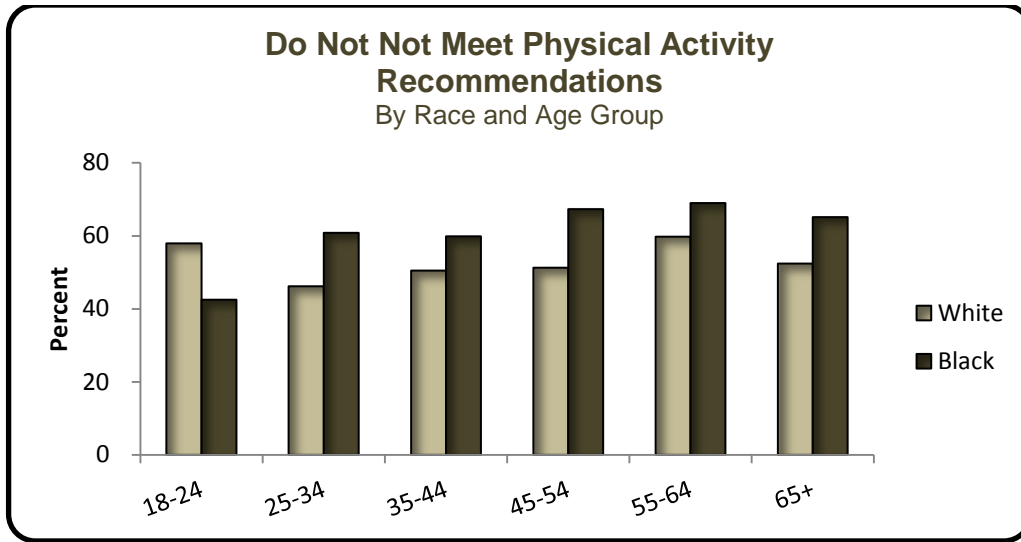


Figure 22

Table 22: No Leisure Time Physical Activity in Past 30 Days

| Groups | White | | Black | | Total | |
|----------------------------------|---------------------|----------------------|---------------------|----------------------|---------------------|----------------------|
| | Number ¹ | Percent ² | Number ¹ | Percent ² | Number ¹ | Percent ² |
| Sex | | | | | | |
| Male | 369 | 26.7 | 175 | 33.9 | 559 | 29.6 |
| Female | 638 | 36.1 | 303 | 37.7 | 962 | 36.5 |
| Age Group | | | | | | |
| 18-24 | 24 | 19.9 | 13 | 24.5 | 38 | 22.2 |
| 25-34 | 55 | 25.6 | 34 | 33.0 | 91 | 28.8 |
| 35-44 | 71 | 26.9 | 50 | 36.6 | 127 | 30.2 |
| 45-54 | 119 | 31.0 | 91 | 41.9 | 222 | 36.1 |
| 55-64 | 235 | 40.4 | 136 | 40.0 | 379 | 40.2 |
| 65+ | 497 | 37.5 | 142 | 38.5 | 645 | 37.7 |
| Education | | | | | | |
| < High School Graduate | 114 | 49.6 | 94 | 49.5 | 219 | 50.1 |
| High School Graduate or GED | 320 | 35.1 | 172 | 37.5 | 503 | 36.2 |
| Some College or Technical School | 307 | 28.7 | 113 | 30.9 | 430 | 29.5 |
| College Graduate | 263 | 20.1 | 97 | 26.2 | 364 | 21.5 |
| Income | | | | | | |
| < \$15,000 | 139 | 49.0 | 144 | 44.2 | 293 | 46.1 |
| \$15-\$24,999 | 184 | 37.2 | 132 | 43.3 | 325 | 40.2 |
| \$25-\$34,999 | 121 | 39.7 | 41 | 25.4 | 167 | 34.0 |
| \$35-\$49,999 | 131 | 27.5 | 42 | 23.9 | 177 | 26.8 |
| \$50-\$74,999 | 144 | 29.4 | 42 | 30.8 | 187 | 29.7 |
| \$75,000+ | 183 | 20.7 | 37 | 25.7 | 223 | 22.1 |
| Employment Status | | | | | | |
| Employed | 319 | 25.7 | 183 | 32.8 | 513 | 28.6 |
| Not Employed | 31 | 34.6 | 30 | 49.5 | 64 | 42.1 |
| Student/Homemaker | 108 | 28.9 | 24 | 23.0 | 136 | 27.2 |
| Retired/Unable to Work | 546 | 41.0 | 236 | 40.6 | 799 | 40.9 |
| Total | 1,007 | 31.6 | 478 | 36.0 | 1,521 | 33.2 |

¹Unweighted

²Weighted

Table 23: Do Not Meet Physical Activity Recommendations

| Groups | White | | Black | | Total | |
|----------------------------------|---------------------|----------------------|---------------------|----------------------|---------------------|----------------------|
| | Number ¹ | Percent ² | Number ¹ | Percent ² | Number ¹ | Percent ² |
| Sex | | | | | | |
| Male | 585 | 49.6 | 299 | 61.4 | 905 | 53.8 |
| Female | 939 | 56.0 | 487 | 60.9 | 1,456 | 57.6 |
| Age Group | | | | | | |
| 18-24 | 66 | 56.4 | 28 | 42.5 | 95 | 50.7 |
| 25-34 | 106 | 46.1 | 62 | 60.8 | 175 | 53.0 |
| 35-44 | 139 | 50.0 | 86 | 59.9 | 232 | 52.9 |
| 45-54 | 194 | 51.3 | 153 | 67.2 | 361 | 57.7 |
| 55-64 | 355 | 59.8 | 226 | 68.9 | 594 | 63.1 |
| 65+ | 658 | 52.3 | 219 | 64.9 | 885 | 55.3 |
| Education | | | | | | |
| < High School Graduate | 144 | 63.5 | 136 | 74.0 | 292 | 68.6 |
| High School Graduate or GED | 442 | 51.6 | 270 | 60.3 | 723 | 55.1 |
| Some College or Technical School | 465 | 55.6 | 195 | 56.2 | 675 | 55.5 |
| College Graduate | 468 | 43.0 | 181 | 57.5 | 662 | 47.2 |
| Income | | | | | | |
| < \$15,000 | 187 | 67.1 | 217 | 67.4 | 414 | 66.7 |
| \$15-\$24,999 | 256 | 58.5 | 200 | 64.8 | 466 | 61.5 |
| \$25-\$34,999 | 161 | 57.1 | 68 | 45.6 | 239 | 52.8 |
| \$35-\$49,999 | 198 | 50.6 | 80 | 56.7 | 282 | 52.4 |
| \$50-\$74,999 | 232 | 52.2 | 83 | 65.2 | 317 | 55.6 |
| \$75,000+ | 333 | 42.1 | 70 | 50.5 | 411 | 43.9 |
| Employment Status | | | | | | |
| Employed | 582 | 50.2 | 310 | 58.0 | 910 | 53.1 |
| Not Employed | 52 | 54.0 | 42 | 66.9 | 97 | 59.9 |
| Student/Homemaker | 161 | 53.0 | 43 | 43.7 | 212 | 50.6 |
| Retired/Unable to Work | 723 | 56.1 | 384 | 69.5 | 1,127 | 60.8 |
| Total | 1,524 | 52.9 | 786 | 61.1 | 2,361 | 55.8 |

¹Unweighted

²Weighted

Cancer

Survey Question:

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

Has a doctor, nurse, or other health professional EVER told you that you had any other types of cancer?

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

Most skin cancers form in older people on parts of the body exposed to the sun or in people who have weakened immune systems. The CDC reports that in 2015 there were 80,442 new cases of melanoma in the United States.

The 2017 Mississippi BRFSS revealed that 5.5 percent of the population had been diagnosed with some form of skin cancer. There was a conspicuous difference between the rates based on race. Whites reported a rate of 8.6 percent compared to only 0.4 percent for blacks. Whites age 65 and older had a rate of 22.3 percent compared to 1.7 percent for blacks (Table 24).

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

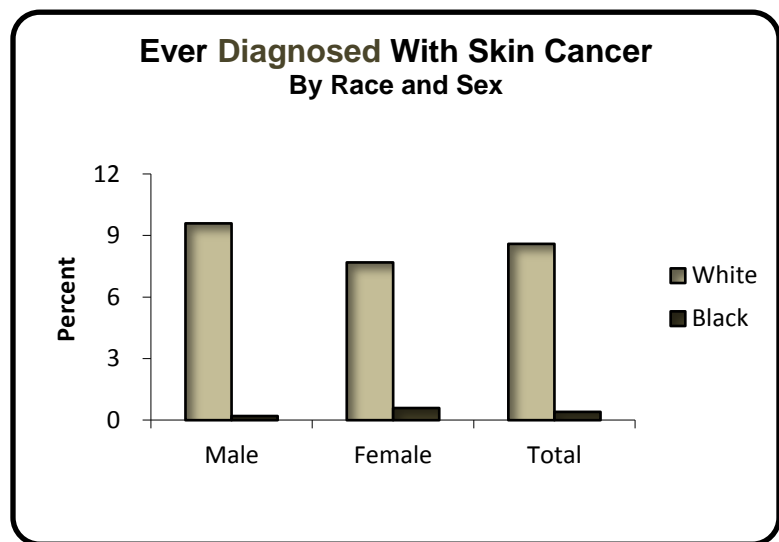
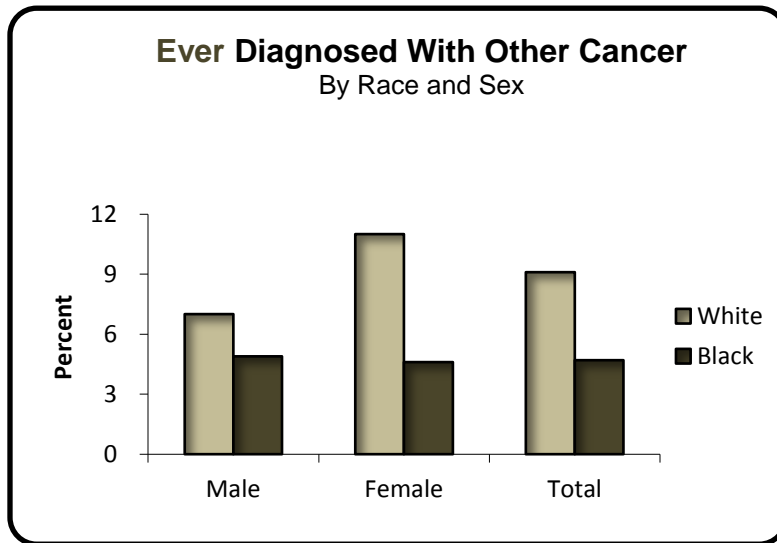


Figure 23



The 2017 BRFSS survey revealed that 7.3 percent of the people in Mississippi have been diagnosed with some form of cancer other than skin cancer which translates into more than 156,000 persons. The rate for white respondents was 9.1 percent while the rate for blacks was 4.7 percent (Figure 24).

Figure 24

Table 24: Ever Diagnosed With Skin Cancer

| Groups | White | | Black | | Total | |
|----------------------------------|---------------------|----------------------|---------------------|----------------------|---------------------|----------------------|
| | Number ¹ | Percent ² | Number ¹ | Percent ² | Number ¹ | Percent ² |
| Sex | | | | | | |
| Male | 199 | 9.6 | 4 | 0.2 | 206 | 6.1 |
| Female | 237 | 7.7 | 8 | 0.6 | 249 | 4.9 |
| Age Group | | | | | | |
| 18-24 | 2 | 1.9 | 0 | 0.0 | 2 | 1.1 |
| 25-34 | 2 | 0.4 | 1 | 0.5 | 3 | 0.4 |
| 35-44 | 11 | 3.5 | 0 | 0.0 | 11 | 2.1 |
| 45-54 | 23 | 4.7 | 0 | 0.0 | 26 | 2.9 |
| 55-64 | 68 | 8.2 | 2 | 0.3 | 71 | 5.5 |
| 65+ | 324 | 22.3 | 9 | 1.7 | 336 | 16.9 |
| Education | | | | | | |
| < High School Graduate | 29 | 6.6 | 3 | 0.6 | 34 | 3.9 |
| High School Graduate or GED | 123 | 9.9 | 4 | 0.4 | 129 | 5.7 |
| Some College or Technical School | 113 | 7.2 | 2 | 0.4 | 116 | 5.0 |
| College Graduate | 168 | 10.6 | 3 | 0.3 | 173 | 7.3 |
| Income | | | | | | |
| < \$15,000 | 40 | 9.0 | 7 | 1.3 | 50 | 4.6 |
| \$15-\$24,999 | 63 | 8.0 | 1 | 0.1 | 66 | 4.0 |
| \$25-\$34,999 | 49 | 10.2 | 2 | 0.2 | 52 | 6.1 |
| \$35-\$49,999 | 66 | 12.0 | 1 | 0.3 | 68 | 8.5 |
| \$50-\$74,999 | 76 | 9.1 | 0 | 0.0 | 76 | 6.5 |
| \$75,000+ | 88 | 6.2 | 0 | 0.0 | 88 | 5.0 |
| Employment Status | | | | | | |
| Employed | 86 | 4.1 | 0 | 0.0 | 86 | 2.5 |
| Not Employed | 10 | 6.6 | 1 | 1.1 | 11 | 3.7 |
| Student/Homemaker | 45 | 6.4 | 0 | 0.0 | 46 | 4.6 |
| Retired/Unable to Work | 295 | 16.7 | 11 | 1.0 | 312 | 11.0 |
| Total | 436 | 8.6 | 12 | 0.4 | 455 | 5.5 |

¹Unweighted

²Weighted

Table 25: Ever Diagnosed With Other Cancer

| Groups | White | | Black | | Total | |
|----------------------------------|---------------------|----------------------|---------------------|----------------------|---------------------|----------------------|
| | Number ¹ | Percent ² | Number ¹ | Percent ² | Number ¹ | Percent ² |
| Sex | | | | | | |
| Male | 145 | 7.0 | 47 | 4.8 | 194 | 6.0 |
| Female | 249 | 11.0 | 68 | 4.6 | 322 | 8.5 |
| Age Group | | | | | | |
| 18-24 | 4 | 2.7 | 0 | 0.0 | 4 | 1.6 |
| 25-34 | 4 | 0.6 | 1 | 0.2 | 5 | 0.4 |
| 35-44 | 18 | 6.1 | 0 | 0.0 | 19 | 3.8 |
| 45-54 | 36 | 8.8 | 9 | 3.0 | 48 | 6.3 |
| 55-64 | 58 | 8.3 | 32 | 10.1 | 90 | 8.8 |
| 65+ | 270 | 19.6 | 71 | 17.5 | 344 | 19.0 |
| Education | | | | | | |
| < High School Graduate | 37 | 13.4 | 31 | 8.8 | 68 | 11.0 |
| High School Graduate or GED | 128 | 11.5 | 41 | 4.2 | 172 | 8.3 |
| Some College or Technical School | 101 | 6.3 | 18 | 2.5 | 121 | 5.0 |
| College Graduate | 128 | 7.7 | 25 | 4.9 | 155 | 6.7 |
| Income | | | | | | |
| < \$15,000 | 49 | 14.1 | 38 | 6.8 | 90 | 9.8 |
| \$15-\$24,999 | 65 | 10.9 | 34 | 5.9 | 102 | 8.2 |
| \$25-\$34,999 | 51 | 12.6 | 13 | 3.6 | 64 | 8.7 |
| \$35-\$49,999 | 49 | 7.5 | 7 | 2.2 | 56 | 5.8 |
| \$50-\$74,999 | 61 | 9.0 | 9 | 4.8 | 71 | 7.9 |
| \$75,000+ | 63 | 4.9 | 6 | 1.4 | 69 | 4.2 |
| Employment Status | | | | | | |
| Employed | 75 | 3.9 | 23 | 2.4 | 99 | 3.2 |
| Not Employed | 11 | 6.7 | 1 | 0.2 | 13 | 3.4 |
| Student/Homemaker | 22 | 5.3 | 2 | 1.0 | 24 | 4.0 |
| Retired/Unable to Work | 285 | 18.9 | 88 | 11.2 | 378 | 15.8 |
| Total | 394 | 9.1 | 115 | 4.7 | 516 | 7.3 |

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 adds more than \$128 billion per year to the cost of health care. All of the human and economic costs are projected to increase over time as the population ages.

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

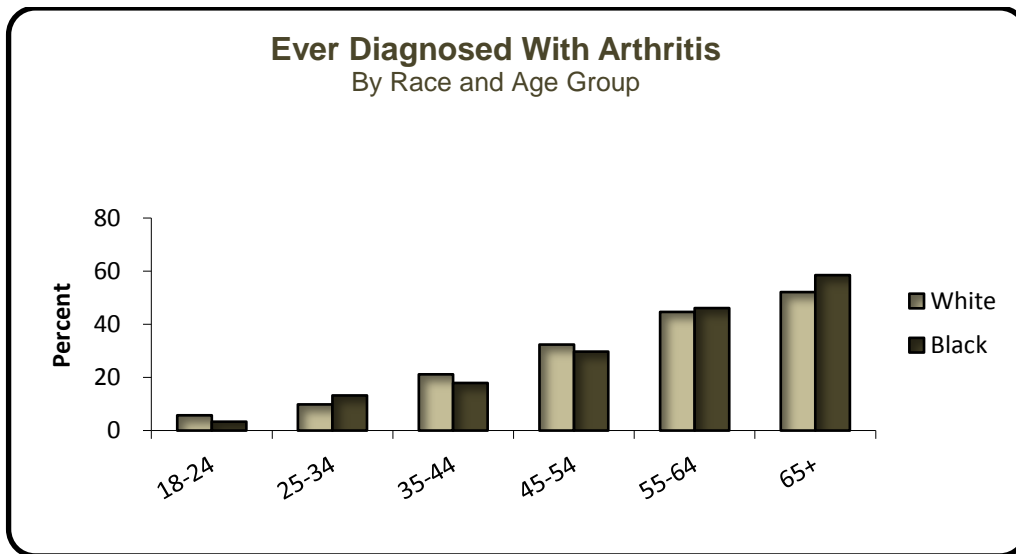


Figure 25

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

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

For Mississippi, the 2017 BRFSS survey showed that 29.7 percent of the population had been diagnosed with arthritis by a health care professional. As seen in Figure 25, the proportion increases with age. Respondents over the age of 65 reported being diagnosed with arthritis at a rate of 54.1 percent. Blacks reported a rate of 58.6 percent in this age category while the rate for whites was only 52.2 percent. Only 4.7 percent of those 18-24 years old reported this condition.

Of the people who were diagnosed with arthritis, 59.4 percent said that their usual, normal activities were limited by joint pain. Blacks reported a rate of 64.2 percent while white respondents had a rate of 56.8 percent (Table 27).

Almost 46 percent of diagnosed arthritics reported that the amount of work, the type of work or even if they are able to work at all is affected by their joint symptoms. Blacks at 55.6 percent had a much higher rate than whites with 40.3 percent. With respect to gender, males reported a rate of 42.4 percent compared to 48.3 percent for females (Table 28).

Table 26: Ever Diagnosed With Arthritis

| Groups | White | | Black | | Total | |
|----------------------------------|---------------------|----------------------|---------------------|----------------------|---------------------|----------------------|
| | Number ¹ | Percent ² | Number ¹ | Percent ² | Number ¹ | Percent ² |
| Sex | | | | | | |
| Male | 425 | 25.5 | 197 | 26.0 | 638 | 25.7 |
| Female | 844 | 36.6 | 386 | 28.0 | 1,260 | 33.3 |
| Age Group | | | | | | |
| 18-24 | 8 | 5.7 | 3 | 3.3 | 11 | 4.7 |
| 25-34 | 25 | 9.9 | 19 | 13.2 | 46 | 12.0 |
| 35-44 | 57 | 21.3 | 30 | 17.9 | 89 | 19.9 |
| 45-54 | 121 | 32.5 | 85 | 29.7 | 218 | 31.5 |
| 55-64 | 296 | 44.7 | 178 | 46.0 | 485 | 45.5 |
| 65+ | 752 | 52.2 | 258 | 58.6 | 1,028 | 54.1 |
| Education | | | | | | |
| < High School Graduate | 144 | 43.8 | 136 | 42.0 | 292 | 43.7 |
| High School Graduate or GED | 386 | 33.6 | 193 | 24.4 | 591 | 29.6 |
| Some College or Technical School | 383 | 29.0 | 136 | 25.0 | 532 | 27.5 |
| College Graduate | 351 | 22.8 | 117 | 18.2 | 477 | 21.1 |
| Income | | | | | | |
| < \$15,000 | 177 | 48.9 | 203 | 40.9 | 392 | 44.1 |
| \$15-\$24,999 | 240 | 36.3 | 143 | 26.8 | 397 | 32.0 |
| \$25-\$34,999 | 153 | 37.7 | 54 | 20.1 | 214 | 30.4 |
| \$35-\$49,999 | 158 | 28.6 | 45 | 19.5 | 206 | 25.9 |
| \$50-\$74,999 | 151 | 24.3 | 41 | 23.4 | 195 | 24.1 |
| \$75,000+ | 223 | 21.3 | 37 | 15.0 | 261 | 19.6 |
| Employment Status | | | | | | |
| Employed | 287 | 18.6 | 120 | 15.3 | 416 | 17.1 |
| Not Employed | 35 | 26.9 | 14 | 9.5 | 52 | 18.3 |
| Student/Homemaker | 116 | 21.9 | 19 | 12.9 | 139 | 19.4 |
| Retired/Unable to Work | 828 | 54.9 | 426 | 56.8 | 1,284 | 56.0 |
| Total | 1,269 | 31.2 | 583 | 27.1 | 1,898 | 29.7 |

¹Unweighted

²Weighted

Table 27: Do Arthritis Symptoms Prevent Normal Activities³

| Groups | White | | Black | | Total | |
|----------------------------------|---------------------|----------------------|---------------------|----------------------|---------------------|----------------------|
| | Number ¹ | Percent ² | Number ¹ | Percent ² | Number ¹ | Percent ² |
| Sex | | | | | | |
| Male | 232 | 52.8 | 113 | 55.0 | 359 | 53.9 |
| Female | 472 | 59.4 | 255 | 71.5 | 745 | 63.2 |
| Age Group | | | | | | |
| 18-24 | 4 | 43.0* | 1 | 28.3* | 5 | 38.8 |
| 25-34 | 9 | 48.9* | 12 | 69.8* | 22 | 56.9 |
| 35-44 | 35 | 53.8 | 24 | 75.7* | 61 | 62.2 |
| 45-54 | 81 | 69.3 | 57 | 64.6 | 146 | 66.9 |
| 55-64 | 190 | 68.3 | 122 | 68.4 | 322 | 69.1 |
| 65+ | 379 | 47.9 | 147 | 56.8 | 537 | 50.4 |
| Education | | | | | | |
| < High School Graduate | 86 | 61.4 | 95 | 65.5 | 189 | 63.7 |
| High School Graduate or GED | 211 | 53.6 | 127 | 65.0 | 347 | 57.0 |
| Some College or Technical School | 219 | 57.9 | 92 | 67.2 | 320 | 60.7 |
| College Graduate | 185 | 54.4 | 53 | 49.8 | 244 | 53.6 |
| Income | | | | | | |
| < \$15,000 | 128 | 74.2 | 155 | 80.2 | 290 | 76.9 |
| \$15-\$24,999 | 153 | 69.9 | 95 | 64.5 | 259 | 68.1 |
| \$25-\$34,999 | 75 | 53.9 | 27 | 49.2 | 107 | 53.3 |
| \$35-\$49,999 | 92 | 49.1 | 22 | 38.2* | 117 | 47.1 |
| \$50-\$74,999 | 65 | 47.9 | 19 | 46.2* | 86 | 47.4 |
| \$75,000+ | 106 | 44.3 | 17 | 46.7* | 124 | 44.8 |
| Employment Status | | | | | | |
| Employed | 131 | 47.7 | 52 | 45.6 | 187 | 46.6 |
| Not Employed | 23 | 77.9* | 8 | 80.5* | 34 | 79.6 |
| Student/Homemaker | 53 | 46.2 | 12 | 51.8* | 67 | 47.6 |
| Retired/Unable to Work | 496 | 61.8 | 294 | 72.2 | 813 | 65.7 |
| Total | 704 | 56.8 | 368 | 64.2 | 1,104 | 59.4 |

¹Unweighted

²Weighted

³Denominator is those diagnosed with arthritis

*Sample size <50

Table 28: Do Arthritis Symptoms Affect Work³

| Groups | White | | Black | | Total | |
|----------------------------------|---------------------|----------------------|---------------------|----------------------|---------------------|----------------------|
| | Number ¹ | Percent ² | Number ¹ | Percent ² | Number ¹ | Percent ² |
| Sex | | | | | | |
| Male | 161 | 38.9 | 92 | 46.8 | 265 | 42.4 |
| Female | 306 | 41.1 | 218 | 62.7 | 540 | 48.3 |
| Age Group | | | | | | |
| 18-24 | 4 | 43.0* | 2 | 71.7* | 6 | 51.2 |
| 25-34 | 9 | 50.7* | 14 | 54.7* | 24 | 49.9 |
| 35-44 | 27 | 43.5* | 23 | 74.5* | 52 | 55.4 |
| 45-54 | 64 | 48.9 | 49 | 59.6 | 120 | 53.3 |
| 55-64 | 146 | 50.3 | 106 | 60.1 | 260 | 54.5 |
| 65+ | 214 | 29.1 | 110 | 41.5 | 333 | 32.7 |
| Education | | | | | | |
| < High School Graduate | 65 | 44.3 | 73 | 50.6 | 146 | 48.4 |
| High School Graduate or GED | 144 | 41.3 | 113 | 62.5 | 264 | 48.2 |
| Some College or Technical School | 150 | 40.9 | 69 | 56.3 | 227 | 45.6 |
| College Graduate | 107 | 32.2 | 54 | 47.8 | 166 | 37.0 |
| Income | | | | | | |
| < \$15,000 | 92 | 55.2 | 130 | 64.5 | 229 | 60.1 |
| \$15-\$24,999 | 117 | 55.8 | 79 | 57.5 | 206 | 57.6 |
| \$25-\$34,999 | 52 | 42.8 | 29 | 58.8 | 85 | 48.1 |
| \$35-\$49,999 | 55 | 33.1 | 18 | 36.6* | 76 | 34.5 |
| \$50-\$74,999 | 48 | 34.7 | 18 | 43.7* | 68 | 37.1 |
| \$75,000+ | 52 | 21.1 | 15 | 36.3* | 67 | 23.0 |
| Employment Status | | | | | | |
| Employed | 87 | 32.4 | 51 | 45.6 | 142 | 37.0 |
| Not Employed | 27 | 87.9* | 7 | 40.3* | 37 | 76.1 |
| Student/Homemaker | 34 | 25.9 | 10 | 64.6* | 47 | 34.0 |
| Retired/Unable to Work | 318 | 43.0 | 240 | 60.3 | 576 | 49.6 |
| Total | 467 | 40.3 | 310 | 55.6 | 805 | 45.8 |

¹Unweighted

²Weighted

³Denominator is those diagnosed with arthritis

*Sample size <50

Cardiovascular Disease

Survey Question:

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

Cardiovascular disease (CVD) includes coronary heart disease, stroke, complications of hypertension, and diseases of the arterial blood vessels. In addition to causing almost half of all deaths in Mississippi, CVD is the major cause of premature, permanent disability among working adults. In the 2017 BRFSS survey over eleven percent of Mississippi adults (more than 235,000 people) report having some kind of CVD, such as coronary heart disease, angina, previous heart attack, or stroke.

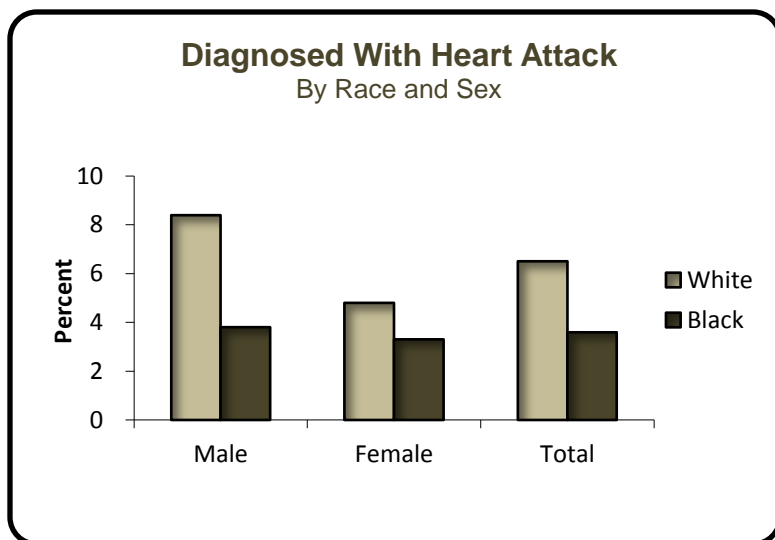


Figure 26

In 2016 Mississippi reported 7,876 deaths from heart disease and

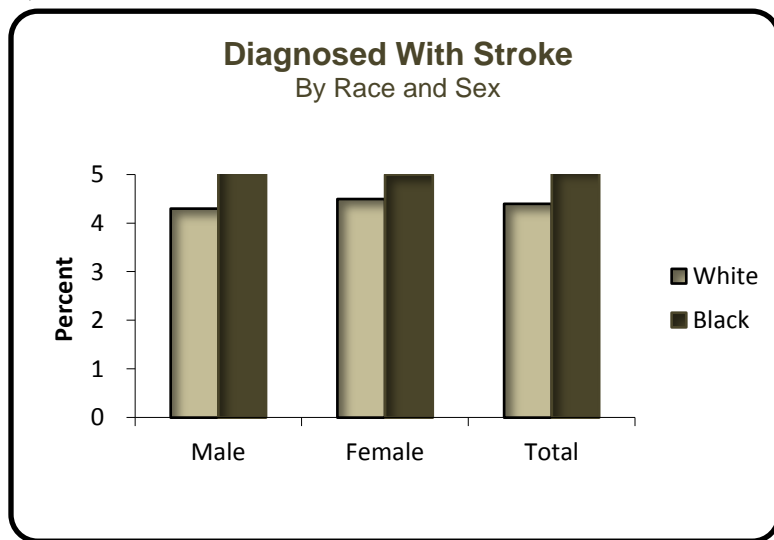


Figure 27

1,705 from cerebrovascular disease (stroke). The two combined accounted for over thirty percent of all the deaths reported that year and almost forty percent of the total from the ten leading causes of death.

The 2017 BRFSS survey revealed that 13.5 percent of the population 65 years of age or older reported that they have been diagnosed as having had a heart attack: 13.6 for white respondents and 13.4 for blacks. The second highest age group that reported being diagnosed with a heart attack

was the 55 to 64 category. Whites reported a rate of 8.9 percent while blacks reported a rate of 7.7 for a combined rate of 8.7 percent (Table 29).

Table 31 shows the rate for those age 65 and greater who had been diagnosed with a stroke was 8.1 for whites compared to a rate of 15.6 for blacks. In the 55 to 64 group the rates were 5.5 and 10.6 for whites and blacks respectively.

Those in the older age groups also reported a higher rate of coronary heart disease. Those in the age group 65 and older reported a rate of 14.2 percent with white respondents having a rate of 15.5 percent compared to 10.3 for blacks. The 55 to 64 age category had an overall rate of 8.1 percent: 8.4 for whites and 7.0 for blacks (Table 30).

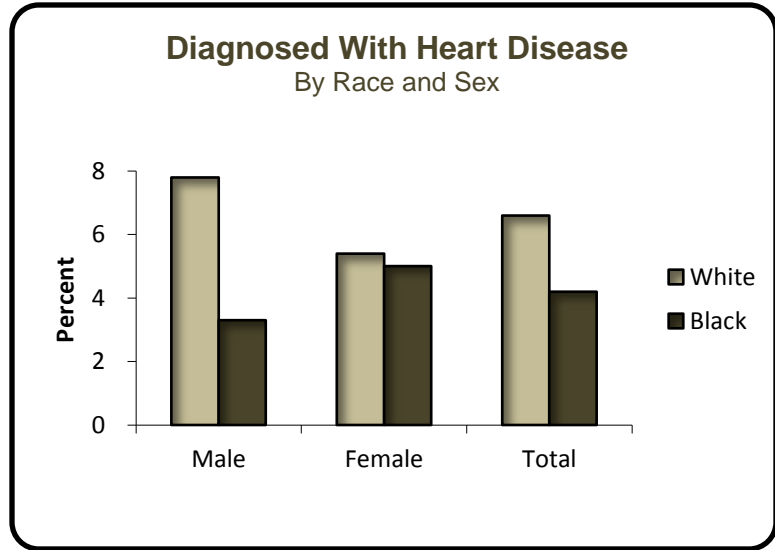


Figure 28

Table 29: Ever Diagnosed With Heart Attack

| Groups | White | | Black | | Total | |
|----------------------------------|---------------------|----------------------|---------------------|----------------------|---------------------|----------------------|
| | Number ¹ | Percent ² | Number ¹ | Percent ² | Number ¹ | Percent ² |
| Sex | | | | | | |
| Male | 139 | 8.4 | 36 | 3.8 | 182 | 6.8 |
| Female | 114 | 4.8 | 51 | 3.4 | 171 | 4.3 |
| Age Group | | | | | | |
| 18-24 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| 25-34 | 2 | 1.8 | 0 | 0.0 | 2 | 0.9 |
| 35-44 | 10 | 4.4 | 1 | 0.5 | 12 | 3.0 |
| 45-54 | 13 | 4.5 | 7 | 1.9 | 24 | 3.6 |
| 55-64 | 57 | 8.9 | 29 | 7.7 | 90 | 8.7 |
| 65+ | 170 | 13.6 | 49 | 13.4 | 223 | 13.5 |
| Education | | | | | | |
| < High School Graduate | 38 | 10.8 | 22 | 7.5 | 64 | 9.6 |
| High School Graduate or GED | 91 | 7.6 | 29 | 2.7 | 123 | 5.5 |
| Some College or Technical School | 74 | 6.1 | 17 | 3.0 | 96 | 5.0 |
| College Graduate | 49 | 2.8 | 19 | 1.8 | 69 | 2.5 |
| Income | | | | | | |
| < \$15,000 | 50 | 14.1 | 27 | 5.1 | 82 | 9.1 |
| \$15-\$24,999 | 50 | 8.3 | 19 | 2.9 | 73 | 5.6 |
| \$25-\$34,999 | 31 | 8.4 | 9 | 1.8 | 41 | 5.6 |
| \$35-\$49,999 | 34 | 7.2 | 9 | 3.7 | 44 | 6.2 |
| \$50-\$74,999 | 27 | 4.9 | 8 | 3.9 | 35 | 4.6 |
| \$75,000+ | 34 | 2.9 | 7 | 2.5 | 41 | 2.7 |
| Employment Status | | | | | | |
| Employed | 34 | 2.5 | 6 | 0.5 | 40 | 1.7 |
| Not Employed | 5 | 3.9 | 3 | 1.2 | 8 | 2.5 |
| Student/Homemaker | 11 | 2.4 | 3 | 0.7 | 14 | 1.9 |
| Retired/Unable to Work | 201 | 14.7 | 75 | 10.4 | 288 | 13.3 |
| Total | 253 | 6.5 | 87 | 3.6 | 353 | 5.5 |

¹Unweighted

²Weighted

Table 30: Ever Diagnosed With Coronary Heart Disease

| Groups | White | | Black | | Total | |
|----------------------------------|---------------------|----------------------|---------------------|----------------------|---------------------|----------------------|
| | Number ¹ | Percent ² | Number ¹ | Percent ² | Number ¹ | Percent ² |
| Sex | | | | | | |
| Male | 142 | 7.8 | 26 | 3.2 | 171 | 6.0 |
| Female | 147 | 5.4 | 62 | 5.0 | 217 | 5.3 |
| Age Group | | | | | | |
| 18-24 | 1 | 0.4 | 1 | 2.6 | 2 | 1.2 |
| 25-34 | 3 | 1.1 | 1 | 1.1 | 4 | 1.0 |
| 35-44 | 8 | 2.3 | 4 | 2.6 | 12 | 2.3 |
| 45-54 | 14 | 4.8 | 9 | 3.5 | 26 | 4.2 |
| 55-64 | 59 | 8.4 | 27 | 7.0 | 89 | 8.1 |
| 65+ | 204 | 15.5 | 45 | 10.3 | 254 | 14.2 |
| Education | | | | | | |
| < High School Graduate | 37 | 11.0 | 28 | 7.0 | 66 | 9.1 |
| High School Graduate or GED | 89 | 7.1 | 30 | 2.5 | 122 | 5.1 |
| Some College or Technical School | 75 | 5.0 | 19 | 5.7 | 99 | 5.2 |
| College Graduate | 88 | 5.6 | 11 | 1.6 | 101 | 4.3 |
| Income | | | | | | |
| < \$15,000 | 47 | 13.3 | 41 | 9.0 | 92 | 10.8 |
| \$15-\$24,999 | 60 | 8.4 | 15 | 2.7 | 77 | 5.4 |
| \$25-\$34,999 | 35 | 8.3 | 8 | 0.9 | 45 | 5.3 |
| \$35-\$49,999 | 38 | 7.4 | 7 | 3.0 | 46 | 6.1 |
| \$50-\$74,999 | 30 | 3.7 | 2 | 2.2 | 33 | 3.3 |
| \$75,000+ | 48 | 3.8 | 7 | 3.8 | 56 | 3.7 |
| Employment Status | | | | | | |
| Employed | 32 | 1.8 | 12 | 1.5 | 45 | 1.7 |
| Not Employed | 7 | 4.9 | 2 | 3.2 | 9 | 3.9 |
| Student/Homemaker | 15 | 3.1 | 2 | 0.3 | 18 | 2.4 |
| Retired/Unable to Work | 234 | 15.5 | 72 | 10.1 | 315 | 13.5 |
| Total | 289 | 6.6 | 88 | 4.2 | 388 | 5.6 |

¹Unweighted

²Weighted

Table 31: Ever Diagnosed With a Stroke

| Groups | White | | Black | | Total | |
|----------------------------------|---------------------|----------------------|---------------------|----------------------|---------------------|----------------------|
| | Number ¹ | Percent ² | Number ¹ | Percent ² | Number ¹ | Percent ² |
| Sex | | | | | | |
| Male | 71 | 4.2 | 44 | 5.3 | 122 | 4.8 |
| Female | 106 | 4.5 | 72 | 5.0 | 182 | 4.7 |
| Age Group | | | | | | |
| 18-24 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| 25-34 | 2 | 0.4 | 1 | 0.8 | 3 | 0.6 |
| 35-44 | 8 | 2.5 | 7 | 3.4 | 16 | 2.9 |
| 45-54 | 19 | 6.5 | 12 | 2.6 | 34 | 4.9 |
| 55-64 | 34 | 5.5 | 42 | 10.6 | 79 | 7.8 |
| 65+ | 114 | 8.1 | 53 | 15.6 | 171 | 10.1 |
| Education | | | | | | |
| < High School Graduate | 23 | 6.2 | 28 | 8.8 | 56 | 8.1 |
| High School Graduate or GED | 66 | 5.8 | 44 | 5.5 | 112 | 5.6 |
| Some College or Technical School | 50 | 3.7 | 26 | 3.8 | 79 | 3.7 |
| College Graduate | 37 | 2.2 | 17 | 1.5 | 55 | 2.0 |
| Income | | | | | | |
| < \$15,000 | 35 | 11.4 | 50 | 9.4 | 90 | 10.4 |
| \$15-\$24,999 | 43 | 6.9 | 33 | 5.0 | 79 | 6.2 |
| \$25-\$34,999 | 20 | 2.9 | 9 | 2.9 | 30 | 3.0 |
| \$35-\$49,999 | 23 | 4.3 | 5 | 1.2 | 28 | 3.3 |
| \$50-\$74,999 | 18 | 2.0 | 4 | 2.0 | 22 | 2.0 |
| \$75,000+ | 16 | 1.7 | 4 | 3.0 | 20 | 1.9 |
| Employment Status | | | | | | |
| Employed | 22 | 1.3 | 8 | 1.0 | 30 | 1.1 |
| Not Employed | 7 | 4.5 | 5 | 2.6 | 12 | 3.4 |
| Student/Homemaker | 17 | 2.7 | 4 | 2.1 | 22 | 2.6 |
| Retired/Unable to Work | 130 | 9.5 | 97 | 13.2 | 236 | 11.2 |
| Total | 177 | 4.4 | 116 | 5.1 | 304 | 4.7 |

¹Unweighted

²Weighted

Disability

Survey Question:

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

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

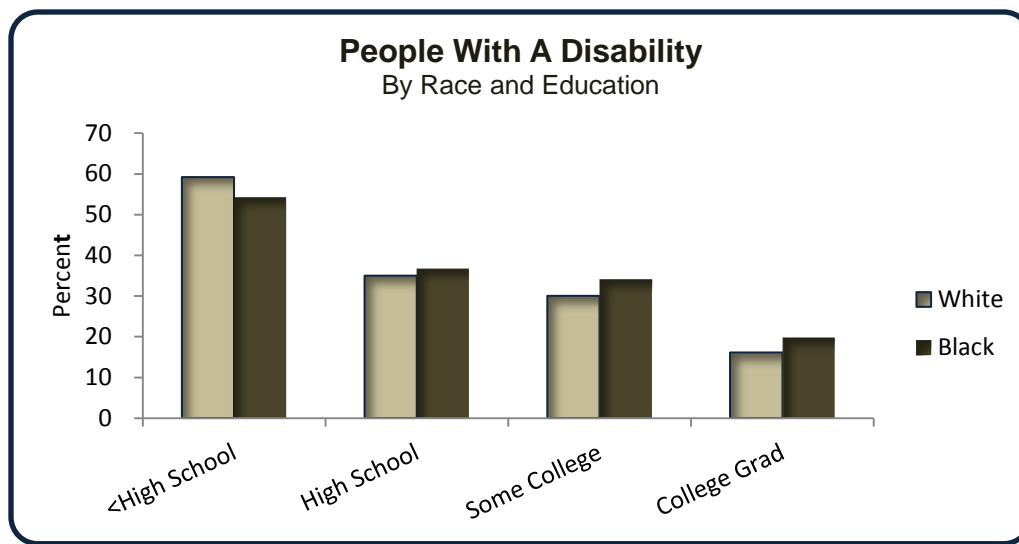


Figure 29

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

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

In the 2017 BRFSS survey, 34.5 percent of Mississippians reported some type of disability. White respondents reported a rate of 32.9 percent while blacks reported a rate of 36.8 percent. Figure 29 reflects how these limitations are associated with education levels for both races. People who have less than a high school education have a disability rate of 57.5 percent compared to only 17.4 percent for those with a college degree. Also, in Table 32 it can be seen that there is a marked relationship between disability and levels of income. Those with an annual income of less than \$15,000 report of disability of 56.7 percent compared to only 14.9 percent for those with an income exceeding \$75,000 annually.

Table 32: People With A Disability

| Groups | White | | Black | | Total | |
|----------------------------------|---------------------|----------------------|---------------------|----------------------|---------------------|----------------------|
| | Number ¹ | Percent ² | Number ¹ | Percent ² | Number ¹ | Percent ² |
| Sex | | | | | | |
| Male | 386 | 27.4 | 207 | 31.0 | 616 | 29.2 |
| Female | 732 | 38.0 | 396 | 41.7 | 1,156 | 39.3 |
| Age Group | | | | | | |
| 18-24 | 30 | 23.5 | 19 | 32.2 | 52 | 27.8 |
| 25-34 | 53 | 23.2 | 36 | 28.2 | 92 | 25.6 |
| 35-44 | 79 | 26.3 | 47 | 29.6 | 131 | 27.4 |
| 45-54 | 117 | 34.6 | 94 | 36.0 | 225 | 35.7 |
| 55-64 | 266 | 42.1 | 183 | 50.4 | 459 | 45.3 |
| 65+ | 567 | 40.2 | 216 | 49.3 | 798 | 42.6 |
| Education | | | | | | |
| < High School Graduate | 161 | 59.3 | 150 | 54.2 | 323 | 57.5 |
| High School Graduate or GED | 364 | 35.0 | 219 | 36.9 | 598 | 36.2 |
| Some College or Technical School | 334 | 30.0 | 136 | 34.0 | 483 | 31.1 |
| College Graduate | 255 | 16.2 | 96 | 19.8 | 362 | 17.4 |
| Income | | | | | | |
| < \$15,000 | 206 | 62.8 | 232 | 52.9 | 452 | 56.7 |
| \$15-\$24,999 | 267 | 48.5 | 158 | 40.3 | 443 | 45.1 |
| \$25-\$34,999 | 137 | 43.8 | 54 | 35.0 | 196 | 40.0 |
| \$35-\$49,999 | 136 | 27.3 | 32 | 14.6 | 172 | 23.7 |
| \$50-\$74,999 | 109 | 21.3 | 30 | 22.9 | 142 | 21.8 |
| \$75,000+ | 119 | 12.5 | 35 | 25.6 | 155 | 14.9 |
| Employment Status | | | | | | |
| Employed | 195 | 15.9 | 118 | 23.7 | 319 | 18.8 |
| Not Employed | 57 | 54.9 | 24 | 25.8 | 85 | 39.9 |
| Student/Homemaker | 117 | 32.0 | 29 | 25.8 | 154 | 30.5 |
| Retired/Unable to Work | 748 | 55.0 | 427 | 65.1 | 1,206 | 59.1 |
| Total | 1,118 | 32.9 | 603 | 36.8 | 1,772 | 34.5 |

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.

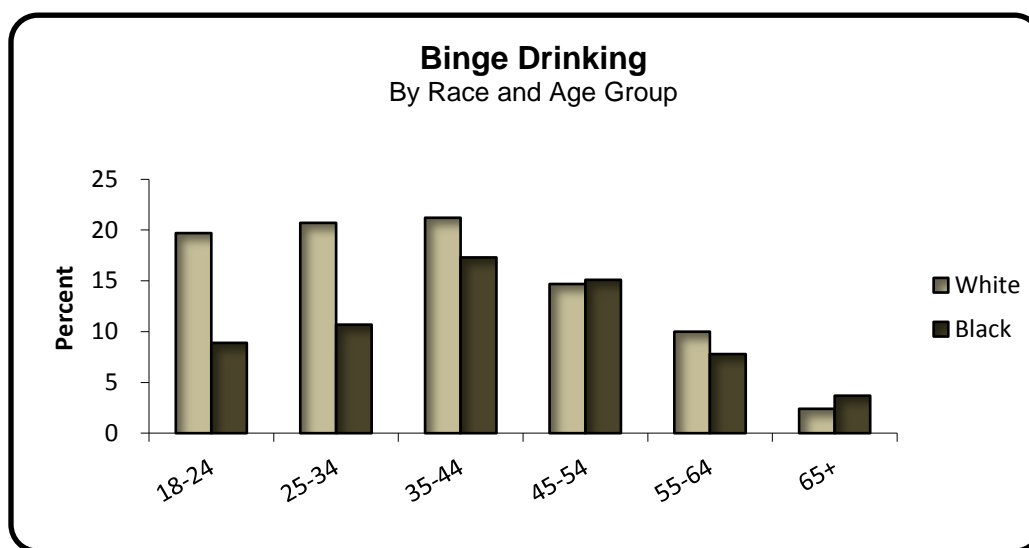


Figure 30

Alcohol use has been linked with a substantial proportion of injuries and deaths from motor vehicle crashes, falls, fires and drowning. It also is a factor in homicide, suicide, marital violence and child abuse and has been associated with high risk sexual behavior. Persons who drink even relatively small amounts of alcoholic beverages may contribute to alcohol-related death and injury in occupational incidents especially if they drink before operating a vehicle. In 2016 alcohol use was associated 18.6 percent of all motor vehicle crash fatalities, according to the U. S. National Highway Traffic Safety Administration.

White males 35 to 44 years of age report the highest rates of binge drinking with a rate of 21.3 percent. The next highest age group for binge drinking was white males age 25 to 34 who reported a rate of 20.7 percent. White males age 18 to 24, who have historically had the highest rate of binge drinking reported a rate of 19.6 percent (Table 33).

Males were more than twice as likely to indulge in binge drinking as females. Only 8.0 percent of female respondents said they had five or more drinks on one occasion during the last thirty days compared to 17.7 percent for males.

Table 33: At Risk From Binge Drinking

| Groups | White | | Black | | Total | |
|----------------------------------|---------------------|----------------------|---------------------|----------------------|---------------------|----------------------|
| | Number ¹ | Percent ² | Number ¹ | Percent ² | Number ¹ | Percent ² |
| Sex | | | | | | |
| Male | 178 | 18.3 | 67 | 15.4 | 254 | 17.7 |
| Female | 110 | 8.5 | 45 | 6.9 | 159 | 8.0 |
| Age Group | | | | | | |
| 18-24 | 31 | 19.6 | 5 | 9.1 | 37 | 15.6 |
| 25-34 | 54 | 20.7 | 14 | 10.6 | 73 | 17.1 |
| 35-44 | 53 | 21.3 | 21 | 17.3 | 75 | 19.4 |
| 45-54 | 53 | 14.7 | 30 | 15.2 | 86 | 15.2 |
| 55-64 | 65 | 10.1 | 26 | 7.8 | 94 | 9.3 |
| 65+ | 32 | 2.4 | 15 | 3.7 | 47 | 2.7 |
| Education | | | | | | |
| < High School Graduate | 10 | 7.4 | 18 | 15.4 | 28 | 10.8 |
| High School Graduate or GED | 60 | 11.0 | 45 | 9.4 | 110 | 10.7 |
| Some College or Technical School | 98 | 15.7 | 25 | 9.0 | 129 | 14.3 |
| College Graduate | 120 | 15.8 | 23 | 8.6 | 145 | 13.5 |
| Income | | | | | | |
| < \$15,000 | 16 | 9.0 | 30 | 7.1 | 46 | 7.7 |
| \$15-\$24,999 | 36 | 11.1 | 31 | 13.4 | 70 | 12.8 |
| \$25-\$34,999 | 23 | 9.6 | 16 | 18.4 | 40 | 13.5 |
| \$35-\$49,999 | 33 | 13.8 | 10 | 8.6 | 44 | 12.2 |
| \$50-\$74,999 | 47 | 11.7 | 11 | 10.7 | 59 | 11.5 |
| \$75,000+ | 113 | 19.9 | 7 | 6.0 | 124 | 18.2 |
| Employment Status | | | | | | |
| Employed | 199 | 19.9 | 67 | 15.1 | 274 | 18.5 |
| Not Employed | 17 | 15.9 | 8 | 11.0 | 25 | 13.1 |
| Student/Homemaker | 22 | 9.0 | 4 | 6.2 | 27 | 8.2 |
| Retired/Unable to Work | 49 | 4.6 | 33 | 5.3 | 84 | 4.8 |
| Total | 288 | 13.2 | 112 | 10.6 | 413 | 12.5 |

¹Unweighted

²Weighted

Table 34: At Risk From Chronic Drinking

| Groups | White | | Black | | Total | |
|----------------------------------|---------------------|----------------------|---------------------|----------------------|---------------------|----------------------|
| | Number ¹ | Percent ² | Number ¹ | Percent ² | Number ¹ | Percent ² |
| Sex | | | | | | |
| Male | 78 | 7.0 | 24 | 6.4 | 106 | 7.2 |
| Female | 59 | 3.7 | 15 | 1.6 | 77 | 3.0 |
| Age Group | | | | | | |
| 18-24 | 11 | 8.7 | . | . | 11 | 5.2 |
| 25-34 | 12 | 3.6 | 4 | 3.9 | 19 | 4.9 |
| 35-44 | 18 | 7.7 | 9 | 6.9 | 27 | 7.1 |
| 45-54 | 17 | 4.0 | 11 | 5.8 | 31 | 5.5 |
| 55-64 | 44 | 7.0 | 9 | 3.3 | 54 | 5.7 |
| 65+ | 35 | 2.6 | 5 | 2.2 | 40 | 2.5 |
| Education | | | | | | |
| < High School Graduate | 10 | 8.1 | 10 | 7.6 | 20 | 7.7 |
| High School Graduate or GED | 33 | 5.0 | 12 | 2.5 | 49 | 4.4 |
| Some College or Technical School | 36 | 4.0 | 12 | 3.6 | 51 | 4.3 |
| College Graduate | 58 | 6.2 | 5 | 1.9 | 63 | 4.8 |
| Income | | | | | | |
| < \$15,000 | 7 | 3.0 | 12 | 3.6 | 19 | 3.3 |
| \$15-\$24,999 | 17 | 5.0 | 10 | 3.4 | 28 | 4.4 |
| \$25-\$34,999 | 10 | 3.3 | 7 | 7.1 | 18 | 5.2 |
| \$35-\$49,999 | 16 | 3.9 | 2 | 0.9 | 18 | 3.0 |
| \$50-\$74,999 | 22 | 5.2 | 4 | 5.4 | 27 | 5.4 |
| \$75,000+ | 49 | 7.6 | . | . | 51 | 7.1 |
| Employment Status | | | | | | |
| Employed | 73 | 7.0 | 19 | 4.1 | 97 | 6.4 |
| Not Employed | 8 | 5.8 | 2 | 5.3 | 10 | 5.4 |
| Student/Homemaker | 11 | 4.6 | 2 | 0.4 | 14 | 3.6 |
| Retired/Unable to Work | 45 | 3.2 | 16 | 4.0 | 62 | 3.5 |
| Total | 137 | 5.3 | 39 | 3.8 | 183 | 5.0 |

¹Unweighted

²Weighted

HIV/AIDS

Survey Question:

Have you ever been tested for HIV?

CDC estimates that nearly 1.1 million people in the United States were living with HIV infection at the end of 2015. One in seven or about 15 percent of those people were unaware of their infection. Despite increases in the total number of people in the U.S. living with HIV infection in recent years (due to better testing and treatment options), the annual number of new HIV infections has declined by five percent from 2011 to 2015.

CDC reports that in 2016, there were 39,782 cases of HIV diagnosed in the United States. In 2015 the number of people who died from HIV disease was 6,465 and 507,351 have died with the disease since 1987 when it began to be listed as a cause of death on death certificates.

In 2017, Mississippi reported 460 new cases of HIV. As of December 31, 2014 there were 9,456 people in Mississippi living with the HIV infection.

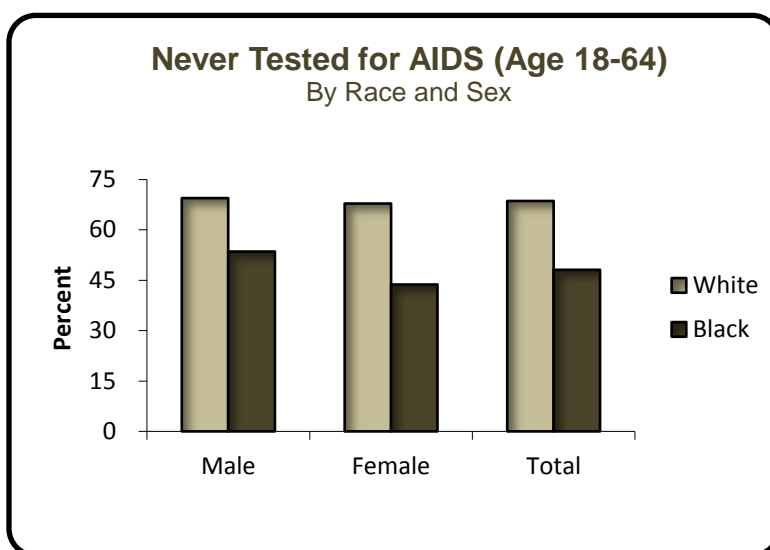


Figure 31

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 2017, 61.0 percent of the respondents reported that they had never been tested. White respondents were much more likely to have never been tested than blacks: 68.5 percent to 48.1 percent. The rate for white respondents who have never been tested was 69.5 percent for males and 67.7 percent for females. For blacks, the rates were 53.4 percent for males and 43.8 for females (Figure 31 and Table 35).

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

| Groups | White | | Black | | Total | |
|----------------------------------|---------------------|----------------------|---------------------|----------------------|---------------------|----------------------|
| | Number ¹ | Percent ² | Number ¹ | Percent ² | Number ¹ | Percent ² |
| Sex | | | | | | |
| Male | 877 | 69.5 | 274 | 53.4 | 1,178 | 63.6 |
| Female | 1,369 | 67.7 | 479 | 43.8 | 1,881 | 58.7 |
| Age Group | | | | | | |
| 18-24 | 86 | 74.1 | 30 | 55.4 | 118 | 66.4 |
| 25-34 | 121 | 50.5 | 33 | 29.1 | 160 | 40.8 |
| 35-44 | 130 | 46.8 | 37 | 24.8 | 175 | 38.8 |
| 45-54 | 232 | 58.9 | 108 | 41.5 | 352 | 52.4 |
| 55-64 | 492 | 75.6 | 226 | 64.6 | 734 | 71.8 |
| Education | | | | | | |
| < High School Graduate | 169 | 68.7 | 137 | 56.4 | 316 | 63.1 |
| High School Graduate or GED | 636 | 71.2 | 263 | 55.3 | 915 | 65.0 |
| Some College or Technical School | 652 | 67.6 | 155 | 37.0 | 821 | 57.5 |
| College Graduate | 780 | 66.4 | 194 | 42.3 | 994 | 58.8 |
| Income | | | | | | |
| < \$15,000 | 189 | 58.1 | 201 | 52.3 | 404 | 54.7 |
| \$15-\$24,999 | 341 | 66.1 | 178 | 44.0 | 528 | 54.4 |
| \$25-\$34,999 | 236 | 66.1 | 74 | 43.5 | 319 | 57.5 |
| \$35-\$49,999 | 294 | 69.8 | 77 | 46.7 | 376 | 63.3 |
| \$50-\$74,999 | 359 | 74.1 | 68 | 38.6 | 433 | 64.7 |
| \$75,000+ | 583 | 69.3 | 75 | 42.5 | 666 | 64.9 |
| Employment Status | | | | | | |
| Employed | 804 | 65.3 | 250 | 37.5 | 1,074 | 54.9 |
| Not Employed | 57 | 50.3 | 38 | 53.3 | 99 | 51.5 |
| Student/Homemaker | 249 | 67.4 | 41 | 52.1 | 300 | 63.8 |
| Retired/Unable to Work | 1,131 | 76.6 | 415 | 61.7 | 1,571 | 70.9 |
| Total | 2,246 | 68.5 | 753 | 48.1 | 3,059 | 61.0 |

¹Unweighted

²Weighted

Seat Belt Usage

Survey Question:

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

The Centers for Disease Control and Prevention reports total of 23,714 drivers and passengers in passenger vehicles died in motor vehicle crashes in 2016 and more than half of teenagers and adults aged 20-44 years who died were not buckled up when the crash occurred. According to the National Highway Traffic Safety Administration (NHTSA) in the United States during 2016, seat belts saved an estimated 14,668 lives of passenger vehicle occupants and older in 2016. If all passenger vehicle occupants over age 4 had worn seat belts, an additional 2,500 lives could have been saved.

The NHTSA further reports that seat belts, when used, reduce the risk of fatal injury to front-seat passenger car occupants by 45 percent and the risk of moderate-to-critical injury by 50 percent. For light-truck occupants, seat belts reduce the risk of fatal injury by 60 percent and moderate-to-critical injury by 65 percent. Ejection from the vehicle is one of the most injurious events that can happen to a person in a crash. Seat belts can be effective in preventing total ejections.

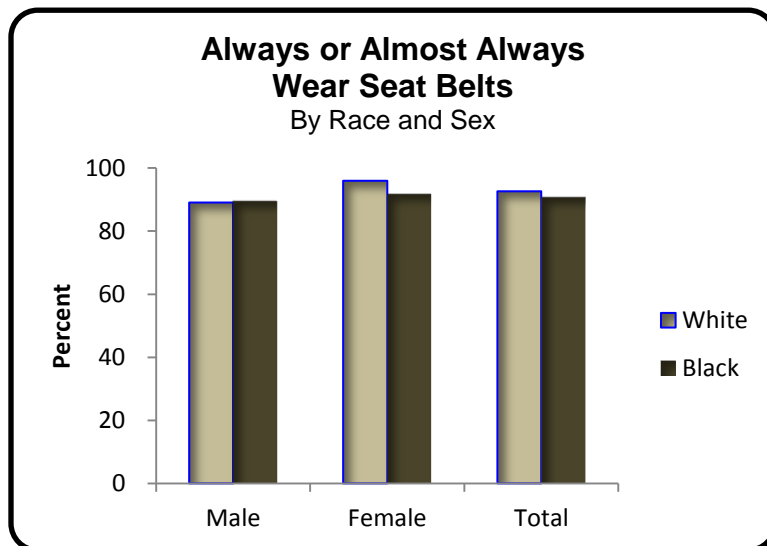


Figure 32

According to the Mississippi Department of Public Safety, there were 687 fatalities on Mississippi roadways in 2016. Of these, 301 or 43.8 percent were not wearing seat belts at the time of the accident. On fatalities involving persons from age 13 to 20, more than half or 50.7 percent were not wearing seatbelts. In 2017 there were 536 severe injuries resulting from traffic accidents of which 212 or 39.6 percent were unbelted when the accident occurred. The Mississippi Department of Highway Safety concludes that seat belts save lives and reduce injury.

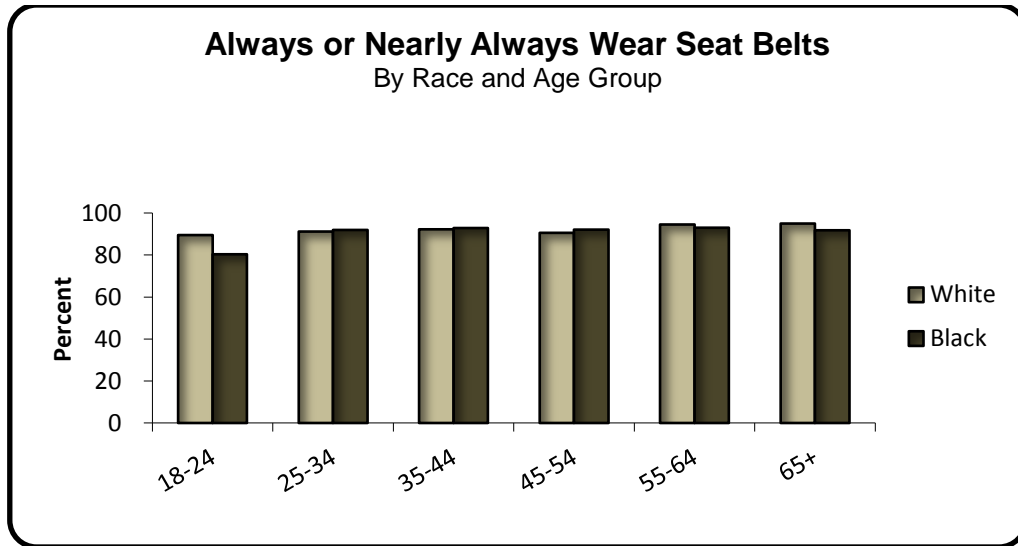


Figure 33

The 2017 BRFSS survey in Mississippi revealed that 92.1 of the respondents say that they always or nearly always wear a seat belt when they either drive or ride in a car. Females report that they use seat belts more often than men. Women had a usage rate of 94.4 percent compared to 89.4 percent for men (Figure 34). Younger respondents reported a higher rate of non-usage than older respondents. In the 18 to 24 age group, 86.2 percent said that they always or nearly always use seat belts while those 55 years and older reported a rate of 94.2 percent (Figure 33).

Table 36: Always or Nearly Always Wear Seat Belts

| Groups | White | | Black | | Total | |
|----------------------------------|---------------------|----------------------|---------------------|----------------------|---------------------|----------------------|
| | Number ¹ | Percent ² | Number ¹ | Percent ² | Number ¹ | Percent ² |
| Sex | | | | | | |
| Male | 1,112 | 89.1 | 437 | 89.6 | 1,587 | 89.4 |
| Female | 1,717 | 95.9 | 774 | 91.6 | 2,547 | 94.4 |
| Age Group | | | | | | |
| 18-24 | 101 | 89.5 | 44 | 80.7 | 149 | 86.2 |
| 25-34 | 210 | 91.2 | 100 | 91.9 | 320 | 91.6 |
| 35-44 | 253 | 92.1 | 135 | 92.9 | 404 | 92.4 |
| 45-54 | 351 | 90.5 | 226 | 92.1 | 600 | 91.5 |
| 55-64 | 615 | 94.4 | 323 | 93.0 | 958 | 94.1 |
| 65+ | 1,278 | 95.0 | 358 | 91.7 | 1,656 | 94.2 |
| Education | | | | | | |
| < High School Graduate | 209 | 88.2 | 181 | 90.8 | 403 | 89.6 |
| High School Graduate or GED | 767 | 93.9 | 377 | 86.9 | 1,165 | 91.2 |
| Some College or Technical School | 828 | 91.8 | 306 | 92.4 | 1,165 | 92.0 |
| College Graduate | 1,016 | 95.3 | 341 | 94.9 | 1,386 | 95.3 |
| Income | | | | | | |
| < \$15,000 | 255 | 92.1 | 301 | 90.2 | 576 | 91.2 |
| \$15-\$24,999 | 410 | 87.0 | 293 | 87.8 | 723 | 87.6 |
| \$25-\$34,999 | 299 | 94.5 | 120 | 91.2 | 430 | 93.3 |
| \$35-\$49,999 | 374 | 94.0 | 131 | 86.9 | 512 | 92.1 |
| \$50-\$74,999 | 435 | 97.1 | 124 | 94.4 | 566 | 96.4 |
| \$75,000+ | 750 | 92.4 | 130 | 96.2 | 896 | 93.2 |
| Employment Status | | | | | | |
| Employed | 1,094 | 92.1 | 496 | 90.8 | 1,625 | 91.8 |
| Not Employed | 88 | 88.2 | 65 | 89.4 | 160 | 89.1 |
| Student/Homemaker | 309 | 94.6 | 69 | 93.4 | 391 | 94.4 |
| Retired/Unable to Work | 1,331 | 93.5 | 568 | 89.9 | 1,936 | 92.2 |
| Total | 2,829 | 92.6 | 1,211 | 90.7 | 4,134 | 92.1 |

¹Unweighted

²Weighted

Depression

Survey Question:

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

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

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

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

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

With respect to depressive disorders, 21.0 percent of those surveyed said they had been diagnosed with this condition. Women reported a much higher rate than men. Females reported

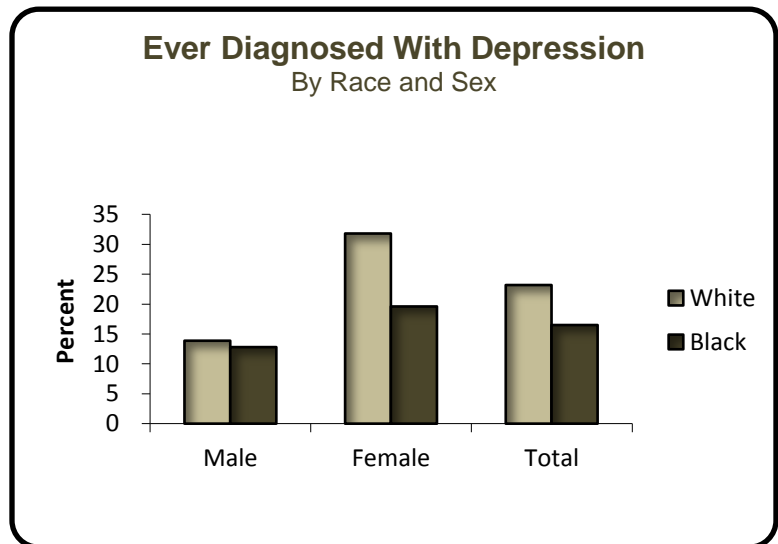


Figure 34

a rate of 27.0 percent compared to only 14.2 percent for males (Figure 34). Similarly, the respondents in lower income categories reported higher rates of diagnosed depression than those in the upper income groups. The income group with the highest rate of depression was white respondents whose income was less than \$15 thousand annually with a rate of 38.0 percent (Figure 35 and Table 37).

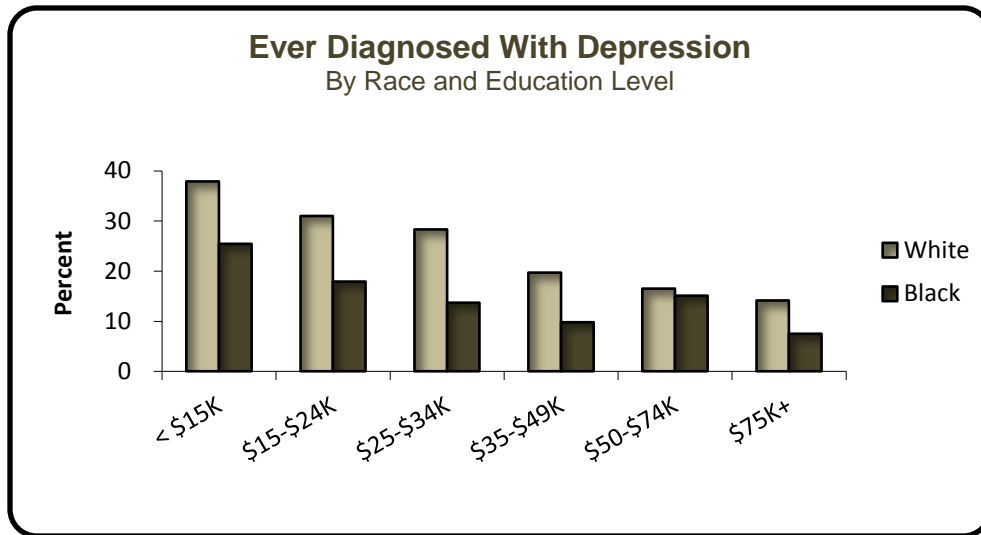


Figure 35

Table 37: Ever Diagnosed With Depression

| Groups | White | | Black | | Total | |
|----------------------------------|---------------------|----------------------|---------------------|----------------------|---------------------|----------------------|
| | Number ¹ | Percent ² | Number ¹ | Percent ² | Number ¹ | Percent ² |
| Sex | | | | | | |
| Male | 195 | 14.0 | 76 | 12.8 | 282 | 14.2 |
| Female | 517 | 31.8 | 181 | 19.7 | 713 | 27.0 |
| Age Group | | | | | | |
| 18-24 | 32 | 23.4 | 6 | 9.2 | 41 | 18.7 |
| 25-34 | 76 | 26.0 | 28 | 22.9 | 108 | 24.9 |
| 35-44 | 83 | 24.9 | 29 | 15.2 | 115 | 21.2 |
| 45-54 | 107 | 30.0 | 52 | 16.0 | 167 | 24.1 |
| 55-64 | 184 | 25.8 | 74 | 19.4 | 262 | 23.8 |
| 65+ | 227 | 15.0 | 65 | 14.5 | 295 | 14.9 |
| Education | | | | | | |
| < High School Graduate | 86 | 33.4 | 53 | 22.5 | 145 | 28.8 |
| High School Graduate or GED | 201 | 21.6 | 97 | 15.5 | 305 | 19.5 |
| Some College or Technical School | 213 | 22.7 | 64 | 16.2 | 287 | 20.9 |
| College Graduate | 211 | 19.3 | 43 | 12.3 | 257 | 16.9 |
| Income | | | | | | |
| < \$15,000 | 120 | 38.0 | 106 | 25.5 | 232 | 30.4 |
| \$15-\$24,999 | 147 | 30.9 | 67 | 17.9 | 222 | 25.3 |
| \$25-\$34,999 | 84 | 28.3 | 22 | 13.7 | 109 | 22.0 |
| \$35-\$49,999 | 97 | 19.7 | 20 | 9.8 | 118 | 16.6 |
| \$50-\$74,999 | 75 | 16.5 | 16 | 15.1 | 94 | 16.3 |
| \$75,000+ | 112 | 14.1 | 12 | 7.4 | 126 | 13.2 |
| Employment Status | | | | | | |
| Employed | 198 | 15.3 | 59 | 10.4 | 262 | 13.5 |
| Not Employed | 45 | 39.7 | 14 | 13.5 | 62 | 26.0 |
| Student/Homemaker | 81 | 29.1 | 13 | 15.0 | 98 | 25.1 |
| Retired/Unable to Work | 385 | 29.5 | 170 | 27.9 | 568 | 29.6 |
| Total | 712 | 23.2 | 257 | 16.5 | 995 | 21.0 |

¹Unweighted

²Weighted

Chronic Obstructive Pulmonary Disease (COPD)

Survey Question:

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

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

COPD was the third leading cause of death in the United States in 2014. The disease kills more than 120,000 Americans each year, which is one death every four minutes, and causes serious, long-term disability. More than 11 million people have been diagnosed with COPD, but millions more may have the disease without even knowing it. COPD causes serious long-term disability and early death. At this time there is no cure, and the number of people dying from COPD is increasing.

In the 2017 BRFSS survey, Mississippians reported a rate of diagnosed COPD at 8.3 percent which translates into more than 165,000 Mississippians with the disease. For whites the rate was 10.1 percent while blacks reported a rate of 5.2 percent. By gender category, white females reported the highest rate of COPD with a rate of 11.6 percent; next were white males with a rate of 8.5 percent followed by black females at 7.3 percent. Black males were the lowest with a rate of 2.7 percent (Figure 36).

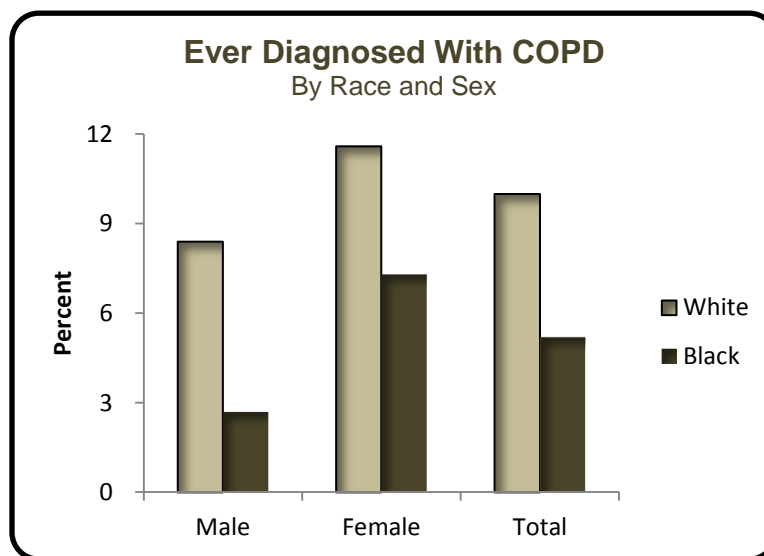


Figure 36

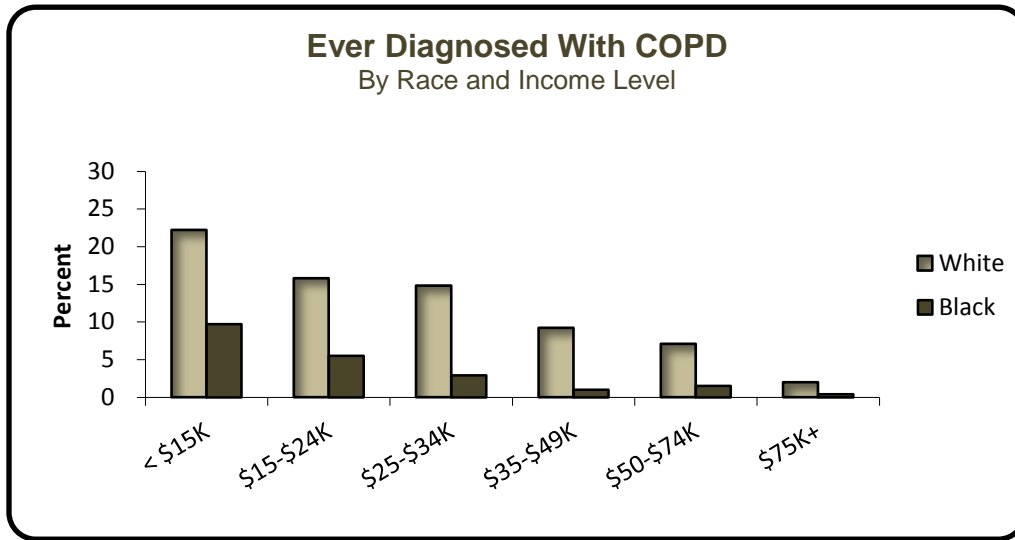


Figure 37

The survey revealed that the rate of COPD increased as annual income levels decreased. The category reporting the highest rate of COPD was white respondents who have less than \$15,000 in annual income with a rate 22.7 percent followed by whites who earn between \$15,000 and \$25,000 annually with a rate of 15.8 percent. Additional details can be found in Table 38 and Figure 37.

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

Table 38: Ever Diagnosed With COPD

| Groups | White | | Black | | Total | |
|----------------------------------|---------------------|----------------------|---------------------|----------------------|---------------------|----------------------|
| | Number ¹ | Percent ² | Number ¹ | Percent ² | Number ¹ | Percent ² |
| Sex | | | | | | |
| Male | 125 | 8.5 | 29 | 2.7 | 157 | 6.3 |
| Female | 231 | 11.6 | 87 | 7.3 | 330 | 10.0 |
| Age Group | | | | | | |
| 18-24 | 5 | 3.9 | 2 | 3.1 | 7 | 3.5 |
| 25-34 | 7 | 2.6 | 4 | 2.5 | 12 | 2.6 |
| 35-44 | 18 | 6.2 | 6 | 3.4 | 25 | 5.2 |
| 45-54 | 35 | 11.9 | 16 | 5.0 | 58 | 9.4 |
| 55-64 | 90 | 13.4 | 33 | 9.1 | 125 | 11.8 |
| 65+ | 199 | 16.5 | 53 | 9.5 | 256 | 14.8 |
| Education | | | | | | |
| < High School Graduate | 64 | 20.4 | 30 | 7.3 | 99 | 14.8 |
| High School Graduate or GED | 118 | 11.9 | 43 | 6.3 | 165 | 9.4 |
| Some College or Technical School | 120 | 8.9 | 28 | 4.1 | 150 | 7.3 |
| College Graduate | 52 | 2.4 | 15 | 2.2 | 71 | 2.5 |
| Income | | | | | | |
| < \$15,000 | 84 | 22.2 | 46 | 9.7 | 137 | 15.2 |
| \$15-\$24,999 | 85 | 15.8 | 34 | 5.5 | 123 | 10.7 |
| \$25-\$34,999 | 43 | 14.9 | 9 | 3.0 | 55 | 10.1 |
| \$35-\$49,999 | 48 | 9.2 | 5 | 1.0 | 53 | 6.7 |
| \$50-\$74,999 | 31 | 7.1 | 6 | 1.5 | 37 | 5.5 |
| \$75,000+ | 25 | 2.0 | 3 | 0.4 | 28 | 1.7 |
| Employment Status | | | | | | |
| Employed | 47 | 4.3 | 14 | 1.6 | 63 | 3.2 |
| Not Employed | 15 | 15.0 | 3 | 3.9 | 18 | 9.0 |
| Student/Homemaker | 17 | 3.2 | 3 | 4.5 | 22 | 3.8 |
| Retired/Unable to Work | 276 | 20.9 | 96 | 11.8 | 383 | 17.7 |
| Total | 356 | 10.1 | 116 | 5.2 | 487 | 8.3 |

¹Unweighted

²Weighted

Kidney Disease

Survey Question:

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

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

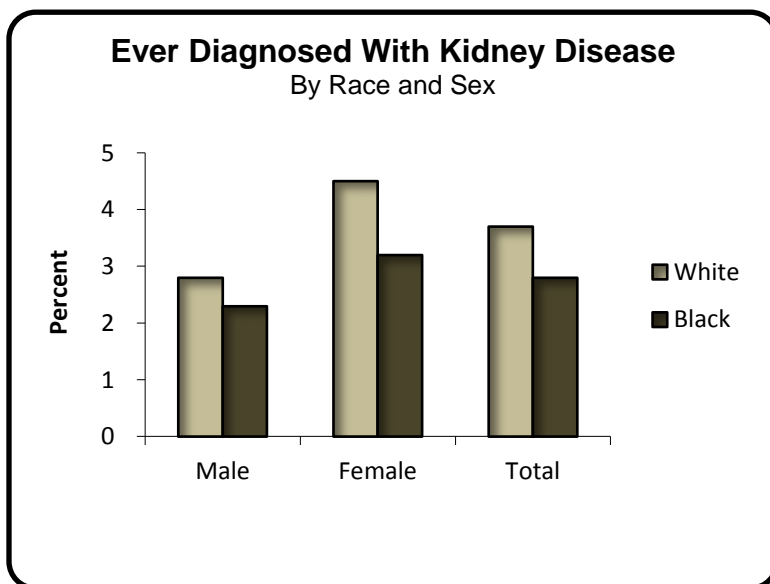


Figure 38

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

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

In Mississippi the 2017 BRFSS survey revealed that 3.3 percent of the respondents said they have been diagnosed with kidney disease. Whites reported a rate of 3.7 percent while blacks had a rate of 2.8 percent.

As is true on the national level, the rate for Mississippi females is higher than the rate for males. White females reported a 38 percent higher rate than white males: 4.5 percent to 2.8 percent. For blacks, females reported a rate of 3.2 percent while black males had a rate of 2.3 percent.

Table 39: Ever Diagnosed With Kidney Disease

| Groups | White | | Black | | Total | |
|----------------------------------|---------------------|----------------------|---------------------|----------------------|---------------------|----------------------|
| | Number ¹ | Percent ² | Number ¹ | Percent ² | Number ¹ | Percent ² |
| Sex | | | | | | |
| Male | 52 | 2.8 | 20 | 2.3 | 73 | 2.6 |
| Female | 92 | 4.5 | 36 | 3.2 | 131 | 3.9 |
| Age Group | | | | | | |
| 18-24 | 3 | 2.6 | | | 3 | 1.5 |
| 25-34 | 1 | 0.2 | 1 | 2.8 | 2 | 1.4 |
| 35-44 | 7 | 2.6 | 2 | 1.4 | 10 | 2.2 |
| 45-54 | 11 | 2.8 | 6 | 2.5 | 18 | 2.6 |
| 55-64 | 35 | 4.6 | 16 | 3.2 | 51 | 4.1 |
| 65+ | 87 | 6.7 | 29 | 6.2 | 118 | 6.6 |
| Education | | | | | | |
| < High School Graduate | 25 | 8.8 | 10 | 5.1 | 36 | 7.2 |
| High School Graduate or GED | 39 | 2.7 | 18 | 2.0 | 59 | 2.4 |
| Some College or Technical School | 39 | 3.0 | 9 | 1.6 | 48 | 2.5 |
| College Graduate | 41 | 2.5 | 18 | 3.2 | 60 | 2.7 |
| Income | | | | | | |
| < \$15,000 | 23 | 5.8 | 17 | 2.5 | 41 | 3.8 |
| \$15-\$24,999 | 38 | 6.5 | 12 | 3.8 | 52 | 5.2 |
| \$25-\$34,999 | 18 | 4.7 | 10 | 2.0 | 28 | 3.5 |
| \$35-\$49,999 | 13 | 3.2 | | | 13 | 2.2 |
| \$50-\$74,999 | 9 | 1.0 | 3 | 1.0 | 12 | 1.0 |
| \$75,000+ | 24 | 2.2 | 4 | 2.0 | 29 | 2.2 |
| Employment Status | | | | | | |
| Employed | 11 | 0.8 | 6 | 0.8 | 18 | 0.8 |
| Not Employed | 4 | 2.6 | 2 | 0.4 | 6 | 1.4 |
| Student/Homemaker | 11 | 3.2 | 1 | 0.0 | 13 | 2.3 |
| Retired/Unable to Work | 118 | 8.3 | 47 | 7.6 | 167 | 8.0 |
| Total | 144 | 3.7 | 56 | 2.8 | 204 | 3.3 |

¹Unweighted

²Weighted