Mississippi

Behavioral Risk Factors Survey

1998

Annual Report

Mississippi State Department Of Health

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Introduction

It is generally acknowledged by health care professionals that certain behavior patterns are associated with disease, injury and death. Among these are cigarette smoking, physical inactivity, alcohol consumption and risky sexual behavior. The Behavioral Risk Factor Surveillance System (BRFSS) is a program designed to estimate the prevalence of these and other health risk factors throughout 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 and awareness campaigns.

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

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

Methodology

A. SAMPLING DESIGN

The Mississippi BRFSS is a random sample telephone survey. Utilizing the disproportionate stratified random sample (DSS) version of random digit dialing and the Computer Assisted Telephone Interviewing (CATI) system, the survey has the potential to represent 93% of all households in Mississippi that have telephones according to Bell South data. A sample size of 2,307 interviews over a 12-month period was selected to obtain a 95% confidence interval of ±3% 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.

Interviewers, contracted by the MSDH, contact the residences during weekdays between 9:00 a.m. and 9:00 p.m. and Saturdays between 8:30 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. Interviews are collected during a two-week period each month.

B. QUESTIONNAIRE

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

C. DATA ANALYSIS

The data collected by the MSDH Office of Public Health Statistics was compiled and weighted by the CDC. Weighted counts were based on the 1998 Mississippi population to accurately reflect the population demographics. The weighting factor considered the number of adults and telephone lines in the household, cluster size, and age/race/sex distribution of the general population. Therefore, the estimated prevalence of any risk factor from the survey represents the total population of Mississippi residents very well.

This report presents the percentage of high-risk behavior within each demographic group for each of the nine risk factors plus one chronic disease (diabetes). The demographic information for persons reporting a high-risk behavior or chronic disease are also presented. The demographic information collected and presented in this survey covers sex, age, education, household income, and race.

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. Not all households have telephones and the survey does not attempt to contact institutionalized persons at all. It is not always

possible to measure the magnitude of these errors or their impact on the data. The user must make his or her own evaluation of the data.

E. Sample Size

Sample sizes vary by question and response category due to 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 number of respondents can mislead the reader into believing that a given finding is much more precise than it actually is. When the number of events is small and the probability of such an event is small, considerable caution must be observed in interpreting the estimates and/or differences between groups and areas. The CDC recommends not interpreting percentages where the denominator is based upon fewer than 50 non-weighted respondents (sample size).

Definition of Terms and Risk Factors

Mammography and Clinical Breast Exam (CBE)

Mammogram and CBE - Female respondents, age 40 and older, who report that they have ever had a mammogram and a CBE.

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

Cervical Cancer

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

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

Diabetes

Diabetes Awareness - Respondents who report they were told by a doctor that they have diabetes.

Health Insurance

Health Insurance - Respondents age 18 and older who report they have no health care plan.

Health Status

Self-Reported Health Status - Respondents who report having a general health status of fair or poor.

Physical Inactivity

No Leisure Time Physical Activity - Respondents who report no leisure-time physical activity during the past month. This measures Healthy People 2000 Objective 1.5 - Target $\leq$15%.

Regular and Sustained Physical Activity - Respondents who report no regular and sustained physical activity which is defined as 5 or more session per week, 30 minutes or more per session, regardless of intensity. This measures Healthy People 2000 Objective 1.3 - Target $\geq$30%.

Regular and Vigorous Physical Activity - Respondents who report no regular and vigorous physical activity or a pair of activities which is defined as 3 or more sessions

per week, 20 minutes of more per session, at 50% or more of capacity. This measures Healthy People 2000 Objective 1.4 - Target ≥20%.

Sedentary Lifestyle - Respondents who report they exercise less than twenty minutes per session or who report physical activity of less than three times per week during the past month.

Smoking Status

Cigarette Smoker - Respondents who have ever smoked 100 cigarettes in their lifetime and report smoking every day or some days. This measures Healthy People 2000 Objective 3.4 - Target ≤15%.

Folic Acid

Multivitamins - Respondents who report taking multivitamins.

Benefits of Folic Acid - Respondents who report they are aware that folic acid prevents birth defects.

Overweight

Overweight: Based on Body Mass Index - Females with body mass index (BMI) ≥27.3 and males with BMI ≥27.8. BMI is defined as weight in kilograms divided by height in meters squared (w/h^2). This measures Healthy People 2000 Objective 2.3 - Target ≤20%. This should be used with caution. Since people tend to under-report their weight, the BRFSS may underestimate the prevalence of overweight.

Weight Control

Trying to lose weight - Respondents who report they are trying to lose weight.

Trying to maintain weight - Respondents who report they are trying to maintain their current weight.

Trying to lose or maintain weight - Respondents who report they are trying to lose or maintain their current weight.

Eating fewer calories - Respondents who report they are eating fewer calories to lose or maintain their current weight.

Fruits and Vegetables

Fruit and vegetable consumption - Respondents who report they eat servings of fruits and vegetables at least five times a day.

Survey Results

Health Care Coverage

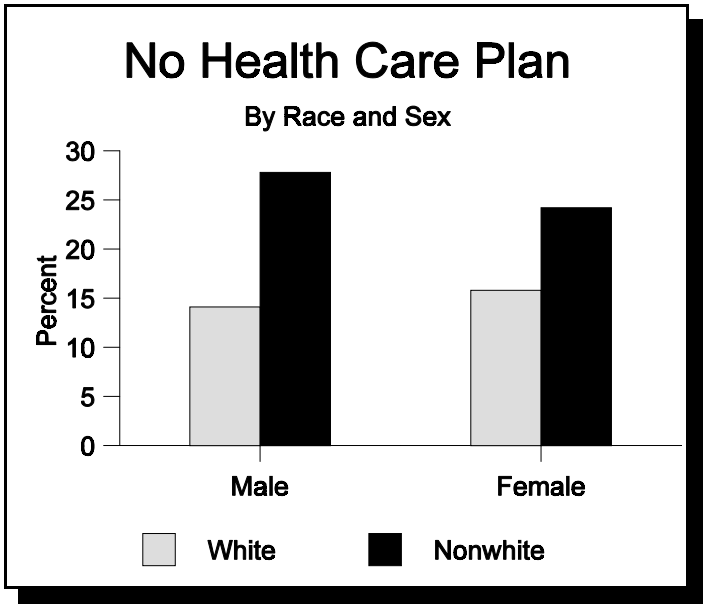

Figure 1

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 cannot afford to pay for insurance coverage. People at risk are those who have no health insurance, prepaid plans, Medicare, or other government assisted programs such as the military, the VA or Medicaid.

In 1998, 18.6% of the respondents indicated they had no health care plan compared to 15.1 in 1997. According to the survey, nonwhite males had the highest rate of non-coverage at a rate of 27.8%; nonwhite females were next at 24.2% (Figure 1).

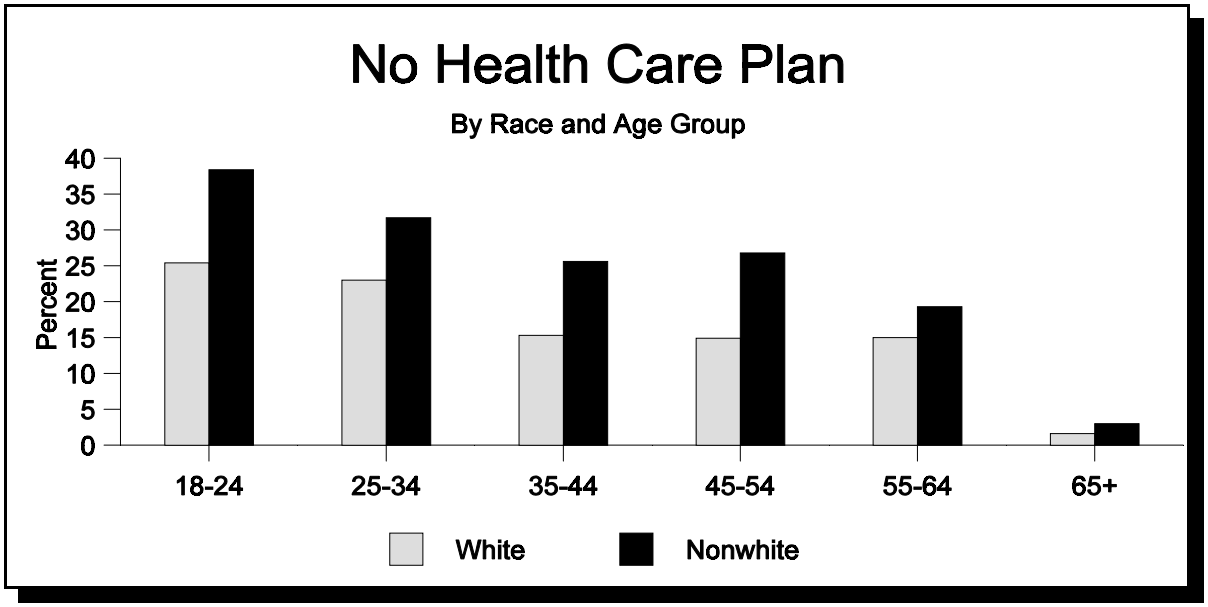

Figure 2

Persons Who Have No Kind of Health Care Plan

Groups	White		Nonwhite		Total	
	Number	Percent	Number	Percent	Number	Percent
Sex						
Male	92	14.1	60	27.8	152	18.5
Female	142	15.8	111	24.2	253	18.8
Age Group						
18-24	32*	25.4	37*	38.4	69	31.0
25-34	61	23.0	44*	31.7	105	26.5
35-44	53	15.3	44*	25.6	97	18.9
45-54	40*	14.9	30*	26.8	70	18.3
55-64	41*	15.0	11*	19.3	52	16.1
65+	7*	1.6	5*	3.0	12*	2.0
Education						
< High School Graduate	63	22.7	52	32.7	115	27.0
High School Graduate or GED	91	19.3	68	26.9	159	22.1
Some College or Technical School	54	13.2	37*	23.2	91	16.2
College Graduate	24*	5.6	14*	15.8	38*	8.0
Income						
< $15,000	58	28.1	62	36.2	120	32.2
$15 - $24,999	64	20.3	46*	22.8	110	21.4
$25 - $34,999	32*	14.2	16*	17.0	48*	15.0
$35 - $49,999	25*	10.0	9*	17.7	34*	11.5
$50 - $74,999	9*	5.9	3*	11.2	12*	6.7
$75,000+	5*	4.3	2*	14.0	7*	5.4
Employment Status						
Employed	137	14.0	109	26.3	246	18.2
Not Employed	25*	53.9	30*	55.4	55	54.8
Student/Homemaker	39*	24.1	16*	34.5	55	26.8
Retired/Unable to Work	30*	7.7	15*	9.5	45*	8.2
Total	234	15.0	171	25.8	405	18.6

* Sample size less than 50

Health Status

Questions related to health status attempt 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 in that they can indicate dysfunction and disability not measured in standard morbidity and mortality data.

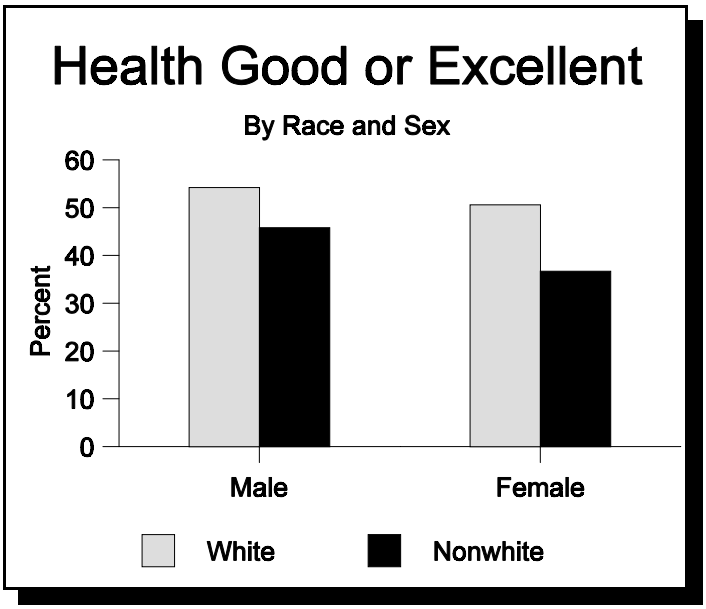

Figure 3

Males reported their health as being better than females. White respondents also report better health than non-whites. Not surprisingly, persons with higher incomes report their health as being better (Figure 3).

The 1998 BRFSS Report indicated that a person whose annual income is below $15,000 is least likely to report his health as being very good or excellent (Figure 4) and for people older than 65, only 29.5% said their health was very good or excellent.

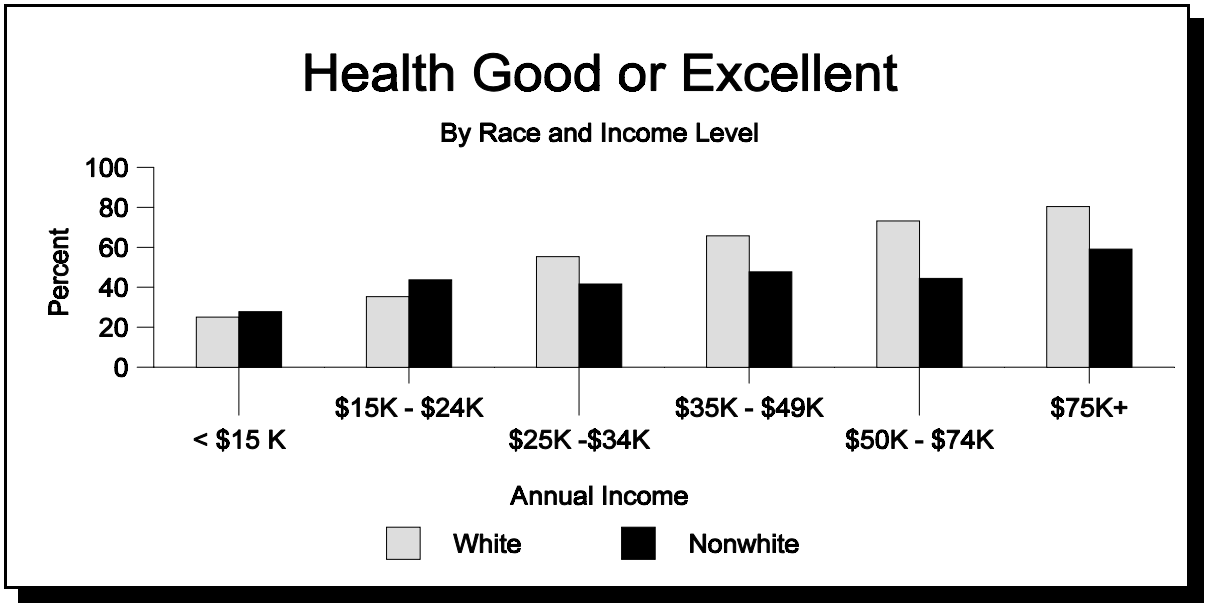

Figure 4

Persons Who Report Their Health as Being Very Good or Excellent

Groups	White		Nonwhite		Total	
	Number	Percent	Number	Percent	Number	Percent
Sex						
Male	353	54.2	95	45.8	450	51.5
Female	476	50.6	161	36.7	638	45.7
Age Group						
18-24	80	65.3	46*	50.2	127	58.8
25-34	183	62.8	72	53.5	255	59.1
35-44	194	62.2	68	43.0	262	55.5
45-54	137	49.0	34*	33.5	172	44.5
55-64	114	47.9	9*	17.7	123	40.3
65+	120	31.0	27*	25.7	147	29.5
Education						
< High School Graduate	67	27.6	45*	28.6	112	28.0
High School Graduate or GED	221	45.2	94	42.6	315	44.2
Some College or Technical School	239	56.0	75	46.7	316	53.3
College Graduate	298	75.6	42*	47.3	341	68.6
Income						
< $15,000	53	25.1	48*	27.8	101	26.5
$15 - $24,999	122	35.3	83	43.7	205	38.9
$25 - $34,999	141	55.3	32*	41.6	173	51.3
$35 - $49,999	169	65.7	28*	47.7	198	61.9
$50 - $74,999	131	73.2	13*	44.4	144	68.6
$75,000+	115	80.4	8*	59.1	123	78.0
Employment Status						
Employed	595	63.1	183	45.9	781	57.3
Not Employed	17*	46.8	22*	50.9	39*	49.3
Student/Homemaker	81	47.4	20*	44.8	101	46.7
Retired/Unable to Work	132	28.2	30*	20.3	162	25.7
Total	829	52.3	256	40.8	1,088	48.4

* Sample size less than 50

Tobacco Use

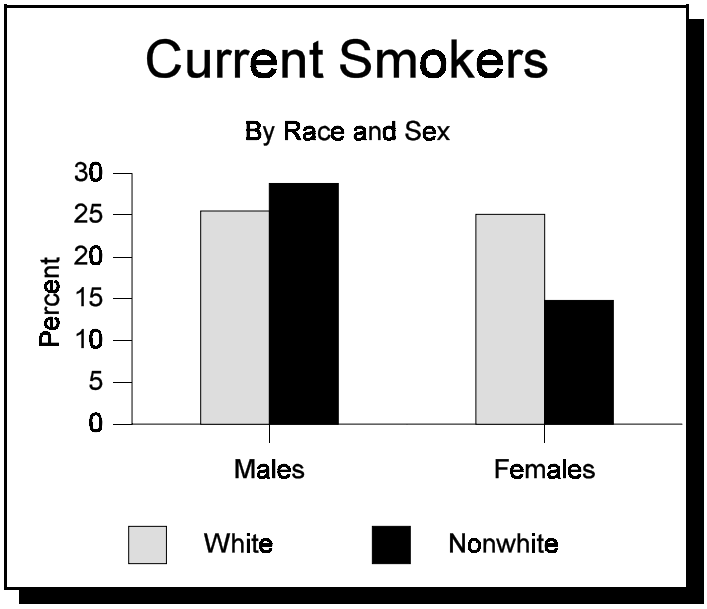

Figure 5

Tobacco use is the single leading preventable risk factor associated with death both in Mississippi and the United States. Each year, about one fifth of Mississippians die from tobacco-related causes. Health problems related to tobacco use include cancers, lung disease, and heart disease. Over the past decade the percent of current adult smokers has not changed significantly. During the same period smokeless tobacco and cigar use among adults has increased. Mississippi was the first state to reach a settlement with the tobacco industry. The Mississippi State Department of Health has approved a state tobacco plan which includes strategies to prevent initiation of tobacco use among youth, promote cessation among youth and adults, and eliminate exposure to environmental tobacco smoke.

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The 1998 BRFSS Survey revealed that the largest percentage of current smokers are nonwhite males at 28.8% followed by white males at 25.5% and white females at 25.1% . The group with the lowest percentage of current smokers were nonwhite females at 14.8% (Figure 5).

Overall, the rate of current smoking in Mississippi is 23.9%. The Healthy People 2000 objective is 15%.

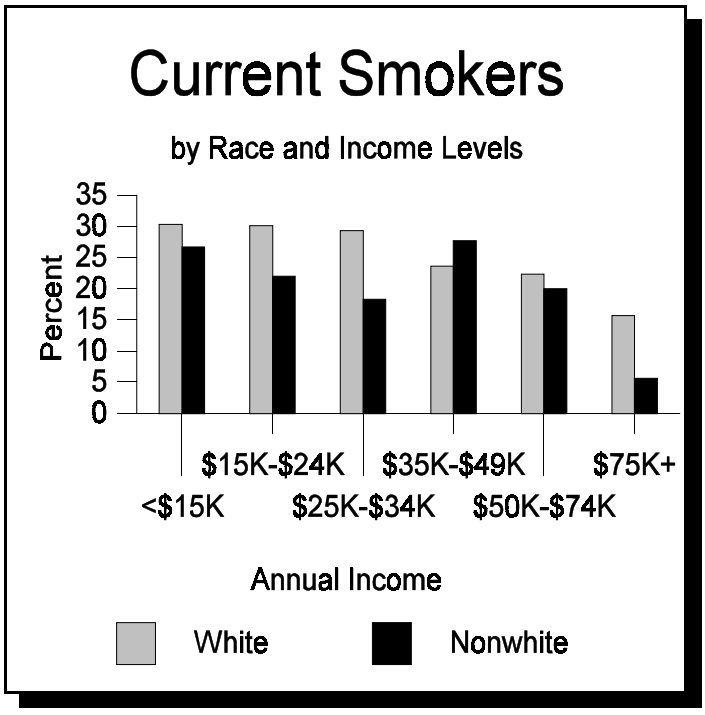

Figure 6

Persons Who Smoke Everyday or Some Days

Groups	White		Nonwhite		Total	
	Number	Percent	Number	Percent	Number	Percent
Sex						
Male	164	25.5	67	28.8	233	26.7
Female	237	25.1	68	14.8	305	21.4
Age Group						
18-24	48*	36.6	10*	12.0	59	26.0
25-34	82	28.2	27*	19.1	109	24.5
35-44	99	28.8	50	32.3	149	30.0
45-54	81	32.1	26*	29.6	108	31.5
55-64	56	21.4	12*	25.2	68	22.3
65+	35*	9.2	10*	9.0	45*	9.1
Education						
< High School Graduate	84	31.5	42*	27.1	126	29.6
High School Graduate or GED	146	30.4	52	20.9	198	26.8
Some College or Technical School	106	24.7	32*	21.2	139	23.7
College Graduate	63	14.8	9*	10.7	73	14.0
Income						
< $15,000	64	30.3	44*	26.7	108	28.5
$15 - $24,999	92	30.1	42*	22.0	134	26.6
$25 - $34,999	70	29.3	13*	18.3	83	26.1
$35 - $49,999	62	23.6	13*	27.7	76	24.6
$50 - $74,999	40*	22.3	5*	20.0	45*	21.9
$75,000+	22*	15.7	1*	5.6	23*	14.5
Employment Status						
Employed	250	25.9	94	23.8	345	25.2
Not Employed	24*	52.8	13*	31.6	37*	40.2
Student/Homemaker	43*	28.4	3*	6.4	46*	22.7
Retired/Unable to Work	83	19.4	25*	14.2	109	17.9
Total	401	25.3	135	21.0	538	23.9

* Sample size less than 50

The MSDH Insulin Program

For persons who are unable to pay, the Mississippi State Department of Health maintains a program which provides insulin, syringes, and diabetes testing supplies at no charge to type 1 diabetics 21 years of age and younger and gestational diabetics of any age. In FY 1998, the Insulin Program served 443 patients.

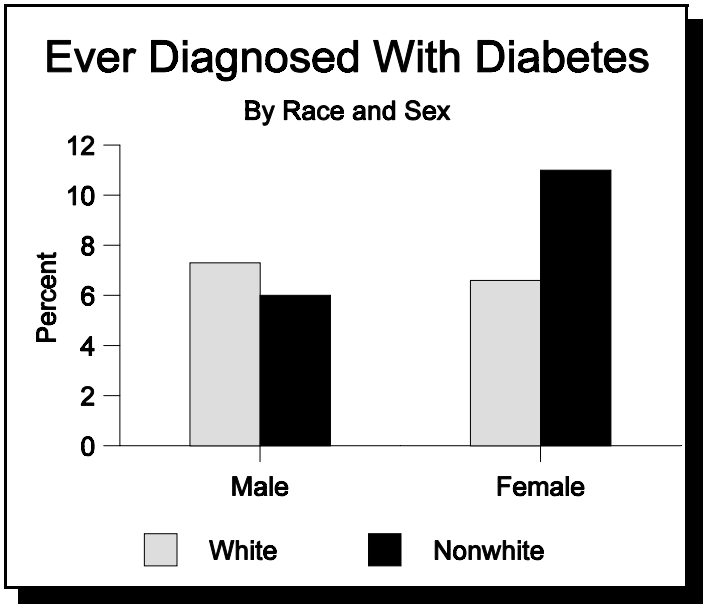

Figure 7

Supportive services for both type 1 and type 2 diabetics are available through the county health departments, including screening and referral for definitive diagnosis; problem assessment and appropriate referral; joint medical management (with the patient's own physician); and health education, provision of informational materials, and diet counseling. In FY 1998, county health departments reported 2,159 diabetic monitoring visits.

There are no specific MSDH treatment programs or services for older, non-insulin-dependent diabetics (who constitute more than 90% of all diabetics in the state).

The Diabetes Control and Prevention Program

In 1994, the MSDH entered into a cooperative agreement with the CDC to establish a statewide Diabetes Control and Prevention Program. Funds have been used to develop a chronic disease coalition (the Mississippi Chronic Illness Coalition), which has a major focus on diabetes, and to build epidemiologic capacity in the area of diabetes, so that diabetes prevalence, morbidity, and mortality can be better estimated. In addition, planning is underway for the development of a diabetes resource center. Funds cannot be used for direct patient services, and currently no expansion of clinical diabetes services is planned.

According to the 1998 BRFSS survey, approximately 7.6 percent of the people in Mississippi have been told they have diabetes. Nonwhite females comprised the largest group having a rate of 11.0% followed by white males with a rate of 7.3%. White females responded with a rate of 6.6% and nonwhite males were the lowest at 6.0% (Figure 7).

Persons Who Have Ever Been Told by a Doctor That They Have Diabetes

	White		Nonwhite		Total	
	Number	Percent	Number	Percent	Number	Percent
Sex						
Male	47*	7.3	15*	6.0	63	7.0
Female	65	6.6	57	11.0	122	8.2
Age Group						
18-24	1*	0.7	1*	1.2	2*	0.9
25-34	8*	4.0	2*	1.5	10*	3.0
35-44	14*	3.8	13*	7.9	27*	5.3
45-54	20*	7.6	16*	15.4	37*	10.2
55-64	22*	7.8	7*	10.1	29*	8.4
65+	47*	15.4	33*	24.7	80	17.9
Education						
< High School Graduate	35*	10.9	33*	13.5	68	12.0
High School Graduate or GED	43*	10.6	14*	5.0	57	8.5
Some College or Technical School	19*	4.1	13*	7.1	32*	5.0
College Graduate	14*	2.7	12*	12.6	27*	5.3
Income						
< $15,000	23*	10.8	28*	13.4	51	12.1
$15 - $24,999	31*	10.9	17*	7.0	48*	9.2
$25 - $34,999	16*	6.0	6*	7.5	22*	6.4
$35 - $49,999	10*	4.5	4*	7.9	15*	5.5
$50 - $74,999	7*	2.9	1*	1.9	8*	2.7
$75,000+	2*	0.8	1*	7.4	3*	1.5
Employment Status						
Employed	39*	4.3	27*	6.2	66	4.9
Not Employed	1*	1.7	2*	2.7	3*	2.3
Student/Homemaker	14*	7.4	1*	0.9	15*	5.7
Retired/Unable to Work	58	14.1	42*	21.5	101	16.6
Total	112	7.0	72	8.8	185	7.6

* Sample size less than 50

Folic Acid

Folic acid is a B vitamin that helps to prevent birth defects of the brain and spinal cord called neural tube defects (NTDs) when taken before pregnancy and in the early weeks of pregnancy. About 2,500 babies are born with neural tube defects each year in the United States. They include spina bifida which can result in paralysis, and anencephaly, a fatal condition which impedes the development of the brain and skull. Studies suggest that folic acid may help prevent some other birth defects as well such as cleft lip and palate. It has also been found to reduce the risk of certain types of cancer and cardiovascular disease.

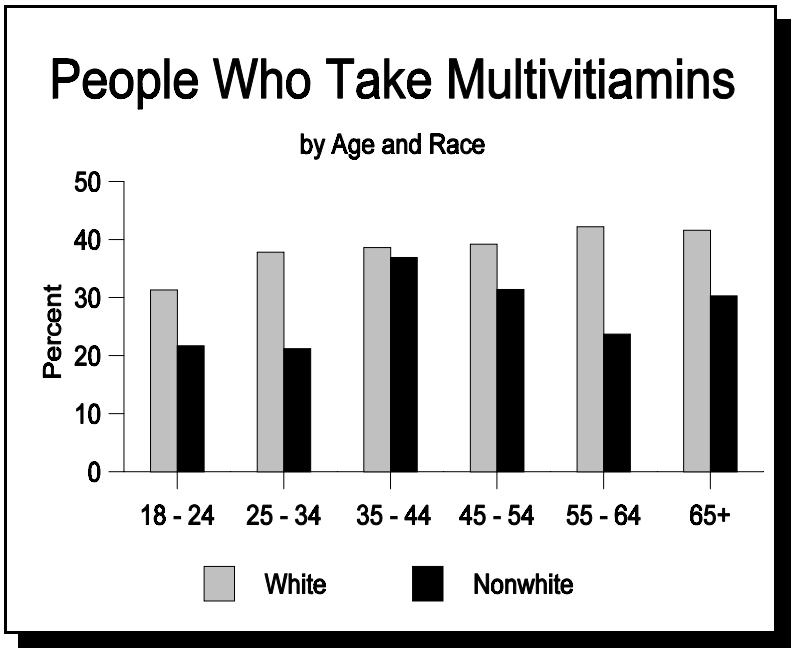

Figure 8

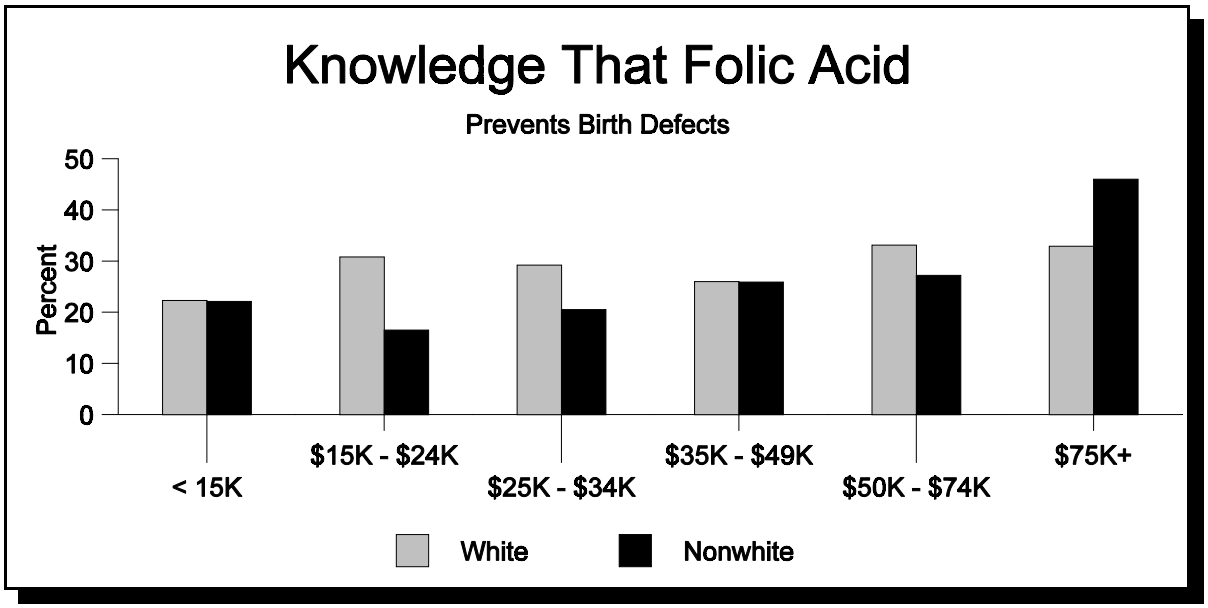

Figure 9

Knowledge That Folic Acid Prevents Birth Defects

Groups	White		Nonwhite		Total	
	Number	Percent	Number	Percent	Number	Percent
Sex						
Male	71	23.4	28*	22.2	99	22.9
Female	136	32.1	45*	19.0	181	26.7
Age Group						
18-24	36*	29.1	24*	28.0	60	28.5
25-34	96	32.1	25*	18.5	121	26.6
35-44	75	22.9	24*	15.9	99	20.5
Education						
< High School	13*	17.5	11*	22.9	24*	19.8
High School Graduate or GED	45*	20.4	21*	14.4	66	17.6
Some College or Technical School	65	29.3	27*	26.5	92	28.2
College Graduate	84	40.0	14*	23.0	98	35.3
Income						
< $15,000	13*	22.3	15*	22.1	28*	22.2
$15 - $24,999	37*	30.8	16*	16.5	53	23.0
$25 - $34,999	47*	29.2	10*	20.5	57	26.4
$35 - $49,999	39*	26.0	12*	25.9	51	26.0
$50 - $74,999	36*	33.1	5*	27.2	41*	32.0
$75,000+	21*	32.9	5*	46.0	26*	35.3
Employment Status						
Employed	166	28.0	48*	17.1	214	23.8
Not Employed	7*	25.8	8*	24.5	15*	24.9
Student/Homemaker	29*	33.1	13*	38.6	42*	34.9
Retired/Unable to Work	5*	13.0	4*	18.6	9*	15.2
Total	207	27.7	73	20.5	280	24.9

* Sample size less than 50

People Who Take Multivitamins

Groups	White		Nonwhite		Total	
	Number	Percent	Number	Percent	Number	Percent
Sex						
Male	228	34.1	62	26.7	292	31.9
Female	424	43.2	141	28.3	365	37.9
Age Group						
18-24	39*	31.3	23*	21.7	62	27.0
25-34	107	37.8	33*	21.2	140	31.1
35-44	119	38.6	54	36.9	173	38.0
45-54	112	39.2	38*	31.4	151	37.0
55-64	109	42.2	15*	23.7	124	37.5
65+	163	41.6	38*	30.3	201	38.5
Education						
< High School	78	26.9	40*	24.0	118	25.6
High School Graduate or GED	183	35.5	71	24.2	254	31.3
Some College or Technical School	195	44.2	55	30.6	251	40.1
College Graduate	194	46.0	37*	36.9	232	43.8
Income						
< $15,000	78	33.7	48*	25.0	126	29.3
$15 - $24,999	120	36.8	62	29.7	182	33.7
$25 - $34,999	98	37.3	26*	28.4	124	34.7
$35 - $49,999	104	38.6	21*	35.3	126	38.0
$50 - $74,999	81	43.7	9*	29.7	90	41.4
$75,000+	67	46.1	6*	36.2	73	45.0
Employment Status						
Employed	372	39.0	124	28.0	497	35.2
Not Employed	15*	25.6	17*	30.3	32*	28.4
Student/Homemaker	80	42.9	14*	30.5	94	39.7
Retired/Unable to Work	183	37.8	47*	24.0	231	33.6
Total	652	38.8	203	27.6	857	35.1

* Sample size less than 50

Breast Cancer Screening

The MSDH breast and cervical cancer program has three major emphases: establishing greater access to screening and follow-up services, increasing education and outreach programs for women and health care providers, and improving quality assurance measures for screening.

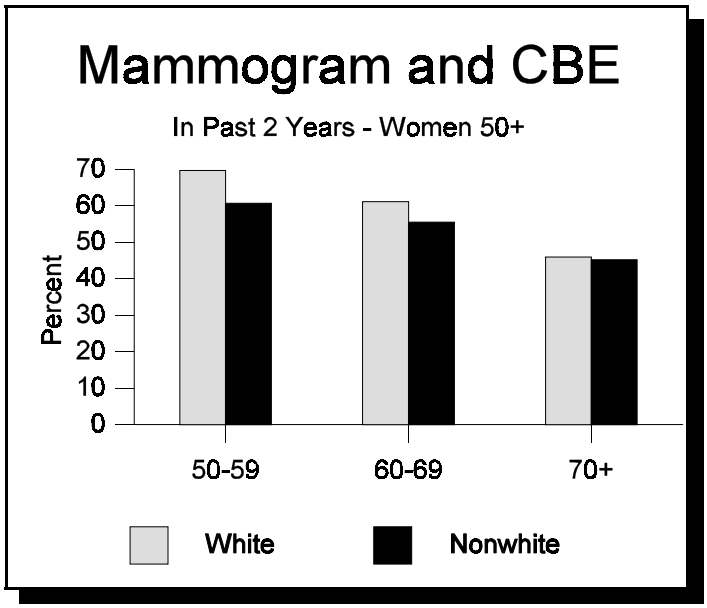

Figure 10

The program objective for FY1998 is to reduce breast cancer deaths to no more than 19.5 per 100,000 by September 30, 1998. In 1997, there were 20.0 breast cancer deaths per 100,000 females, a decrease from 23.5 in 1996.

A mammogram and a breast exam by a medical professional (clinical breast exam) is recommended yearly by the American Cancer Society and the National Cancer Advisory Board for women over the age of 40. The American Cancer Society states that women between the ages of 20 and 39 should have a clinical breast examination every 3 years, and all women over age 20 should do breast self examination (BSE) every month.

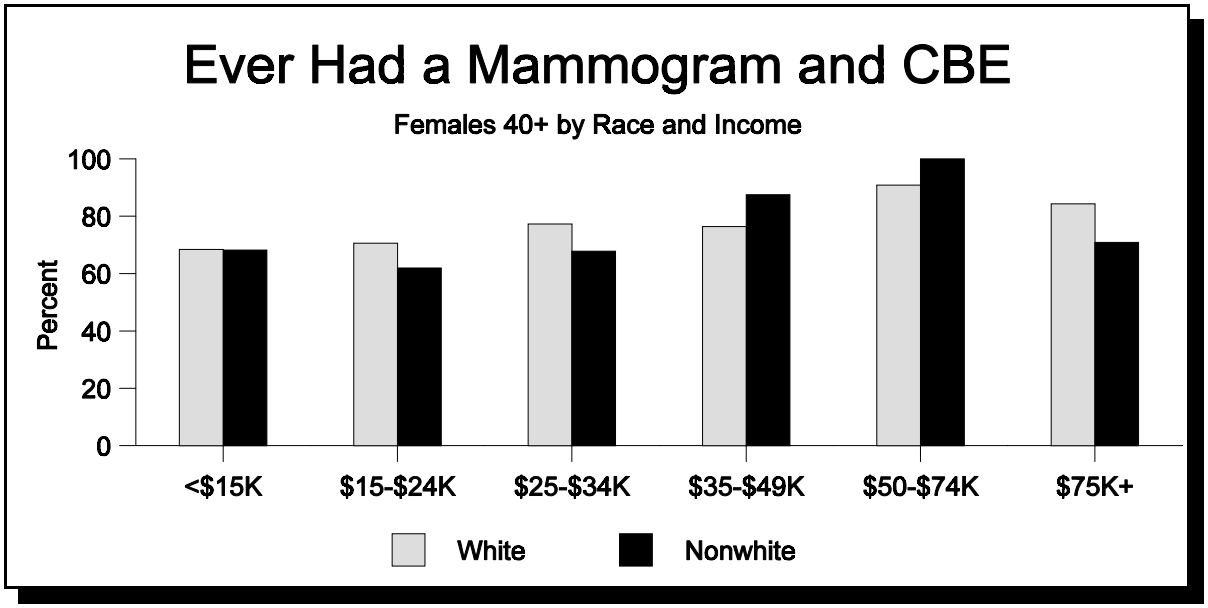

Figure 11

Year 2000 National Health Objective

1. Increase to at least 80.0% the proportion of women aged 40 and older who have ever received a clinical breast examination and mammogram.

1998 BRFSS data revealed that 71.9% of Mississippi women aged 40 and older have ever received a clinical breast examination and mammogram.

2. Increase to at least 60.0% the proportion of women aged 50 and older who have received a clinical breast examination and mammogram within the preceding 1 to 2 years.

1998 BRFSS data revealed that 57.2% of Mississippi women aged 50 and older have received a clinical breast examination and mammogram within the preceding 1 to 2 years.

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

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

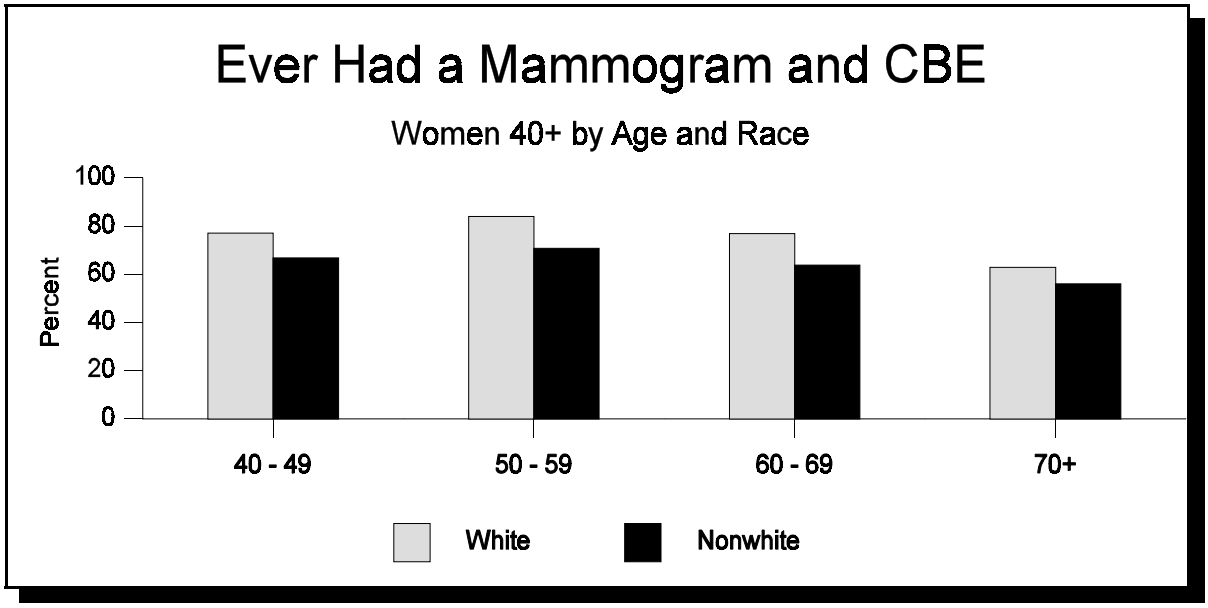

Figure 12

Females 40+ Who Have Ever Had a Mammogram and CBE

Groups	White		Nonwhite		Total	
	Number	Percent	Number	Percent	Number	Percent
Age Group						
40-49	128	77.1	58	66.8	186	73.4
50-59	112	84.1	36*	70.8	149	80.4
60-69	110	77.0	35*	63.8	145	72.8
70+	121	62.8	34*	56.1	155	61.1
Education						
< High School Graduate	80	55.5	54	53.0	134	54.4
High School Graduate or GED	160	74.3	43*	64.1	203	71.6
Some College or Technical School	123	83.4	36*	71.2	159	80.0
College Graduate	107	87.0	30*	82.1	138	85.8
Income						
< $15,000	81	68.4	58	68.2	139	68.3
$15 - $24,999	94	70.6	37*	61.9	131	68.0
$25 - $34,999	55	77.3	16*	67.8	71	74.5
$35 - $49,999	58	76.4	17*	87.5	76	79.6
$50 - $74,999	56	90.9	7*	100.0	63	91.9
$75,000+	38*	84.3	2*	70.9	40*	83.5
Employment Status						
Employed	198	76.5	79	68.1	278	73.9
Not Employed	12*	87.4	4*	50.1	16*	74.6
Student/Homemaker	70	79.1	6*	73.7	76	78.6
Retired/Unable to Work	191	71.3	74	61.4	265	67.8
Total	471	75.0	163	64.8	635	71.9

* Sample size less than 50

Had a Mammogram and a CBE in the Past Two Years (Women 50+)

Groups	White		Nonwhite		Total	
	Number	Percent	Number	Percent	Number	Percent
Age Group						
50-59	93	69.7	31*	60.7	125	67.3
60-69	83	61.1	31*	55.8	114	59.3
70+	86	46.0	26*	45.2	112	45.8
Education						
High School Graduate	49*	39.8	37*	41.4	86	40.5
High School Graduate or GED	90	58.9	21*	64.9	111	59.6
Some College or Technical School	74	70.4	15*	62.0	89	68.8
College Graduate	49*	70.3	15*	71.3	65	71.0
Income						
< $15,000	41*	41.8	35*	55.1	76	47.3
$15 - $24,999	65	62.9	20*	61.6	85	62.6
$25 - $34,999	28*	68.2	8*	86.7	36*	72.0
$35 - $49,999	30*	64.0	4*	72.3	35*	66.1
$50 - $74,999	22*	82.8	4*	100.0	26*	85.2
$75,000+	16*	67.5	1*	62.5	17*	67.0
Employment Status						
Employed	81	64.9	28*	61.1	110	64.1
Not Employed	1*	19.0	1*	27.4	2*	22.5
Student/Homemaker	46*	68.7	1*	30.1	47*	66.7
Retired/Unable to Work	134	52.8	58	52.5	192	52.5
Total	262	58.4	88	54.0	351	57.2

* Sample size less than 50

Cervical Cancer Screening

This year, the American Cancer Society estimates that in the United States there will be about 12,800 new cases of invasive cervical cancer and about 4,800 will die from the disease. When detected and treated early, cervical cancer can often be cured. At one time cervical cancer was one of the most common causes of cancer death for American women. Between 1955 and 1992, the number of deaths from cervical cancer declined by 74%. The American Cancer Society attributes the decline to the use of the Pap smear as a screening test for cervical cancer. All women should have yearly Pap smears as recommended by the American Cancer Society starting at age 18 or when they become sexually active. The Breast and Cervical Cancer Early Detection Program currently follows the American Cancer Society recommendations.

Year 2000 National Health Objective

1. Increase to at least 95.0% the proportion of women aged 18 and older who have ever received a Pap test.

1998 BRFSS data indicate that 92.7% of Mississippi women aged 18 and older have received a Pap test. This figure represents a decrease from 95.8% reported in the 1997 BRFSS Report.

2. Increase to at least 85.0% the proportion of women aged 18 and older who have received a Pap test within the preceding 1 to 3 years.

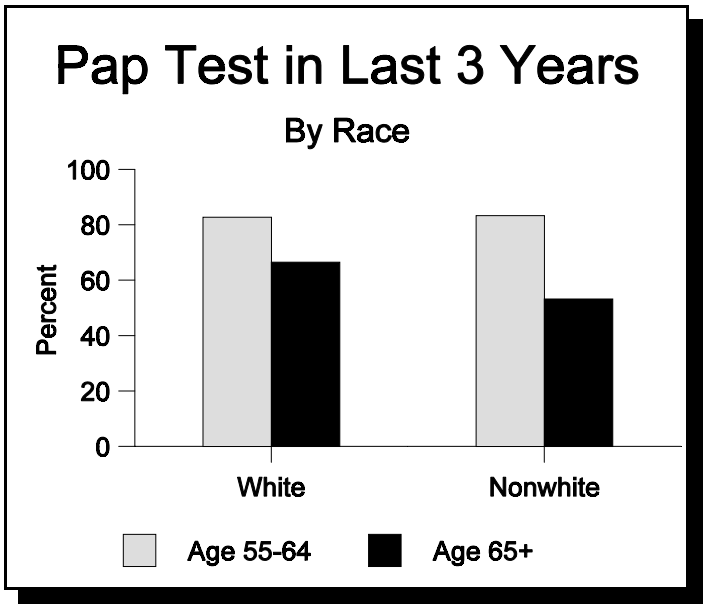

Figure 13

1998 BRFSS data indicate that 82.7% of Mississippi women aged 18 and older have received a Pap test within the preceding 1 to 3 years.

Centers for Disease Control surveys show that in the United States for 1993, almost 83% of women aged 18 years or older reported having had a Pap smear within the past two years. Rates of recent Pap screening among women ages 60 and older were substantially lower.

Women 18 and Older Who Have Ever Had a Pap Test

Groups	White		Nonwhite		Total	
	Number	Percent	Number	Percent	Number	Percent
Age Group						
18-24	57	82.4	49*	83.1	106	82.7
25-34	152	98.9	86	94.2	238	96.9
35-44	136	98.1	83	100.0	219	98.8
45-54	79	98.3	43*	98.8	123	98.5
55-64	59	95.5	13*	86.7	72	93.0
65+	101	91.3	35*	67.4	136	82.9
Education						
< High School Graduate	76	90.7	62	77.9	138	84.2
High School Graduate or GED	172	93.7	117	92.6	289	93.2
Some College or Technical School	162	93.8	80	89.7	242	92.4
College Graduate	171	97.5	51	98.9	223	97.9
Income						
< $15,000	74	96.5	86	92.9	160	94.3
$15 - $24,999	117	95.3	91	93.2	208	94.4
$25 - $34,999	94	97.3	44*	97.5	138	97.3
$35 - $49,999	95	96.3	29*	98.0	125	96.8
$50 - $74,999	67	93.5	9*	100.0	76	94.3
$75,000+	48*	94.8	7*	100.0	55	95.4
Employment Status						
Employed	348	95.5	200	95.2	549	95.4
Not Employed	18*	91.5	26*	98.3	44*	95.7
Student/Homemaker	101	92.9	24*	74.7	125	87.9
Retired/Unable to Work	116	93.0	59	79.4	175	87.1
Total	584	94.4	310	89.8	895	92.7

* Sample size less than 50

Women 18 and Older Who Have Had a Pap Test in Past Three Years

Groups	White		Nonwhite		Total	
	Number	Percent	Number	Percent	Number	Percent
Age Group						
18-24	56	81.0	48*	82.3	104	81.6
25-34	136	87.4	82	90.9	218	88.9
35-44	116	83.9	79	95.0	195	88.0
45-54	67	84.5	37*	85.8	105	85.1
55-64	50	82.7	12*	83.3	62	82.9
65+	73	66.5	27*	53.2	100	61.8
Education						
< High School Graduate	48*	60.3	49*	62.1	97	61.2
High School Graduate or GED	143	78.3	109	87.8	252	82.5
Some College or Technical School	145	85.9	76	87.4	221	86.5
College Graduate	159	90.8	51	98.9	211	93.1
Income						
< $15,000	55	74.3	75	83.9	130	80.3
$15 - $24,999	97	77.5	86	88.9	183	82.6
$25 - $34,999	82	84.8	42*	93.0	124	87.8
$35 - $49,999	86	88.5	29*	98.0	116	91.0
$50 - $74,999	62	87.4	7*	82.8	69	86.9
$75,000+	47*	92.2	7*	100.0	54	93.2
Employment Status						
Employed	311	85.7	187	89.7	499	87.3
Not Employed	12*	69.2	25*	96.3	37*	85.8
Student/Homemaker	86	79.9	22*	71.6	108	77.7
Retired/Unable to Work	88	71.6	51	71.1	139	71.3
Total	498	81.7	285	84.2	784	82.7

* Sample size less than 50

Physical Activity

The 1996 Report of the Surgeon General on physical activity and health concluded that high or moderate levels of regular physical activity are related to lower mortality rates for both older and younger adults. Research has shown that regular physical activity can provide many health benefits that include reducing the risk of coronary heart disease, diabetes, cancer and osteoporosis, promoting weight loss and fostering a sense of well-being.

As recently as 1995, the U.S. Centers for Disease Control and the American College of Sports Medicine reported that as many as 250,000 lives are lost annually because of sedentary lifestyles. Lack of physical activity is now considered as important a risk factor for heart disease as high blood cholesterol, high blood pressure, and smoking. Inactivity contributes to substantial number (34.0%) of the deaths from heart disease and approaches $5.7 billion in annual medical costs. The 1998 BRFSS revealed that 61.1% of the people in Mississippi are at risk because of a sedentary lifestyle. The goal for Healthy People 2000 is for no more than 15% of the population to be at risk from a lack of physical activity.

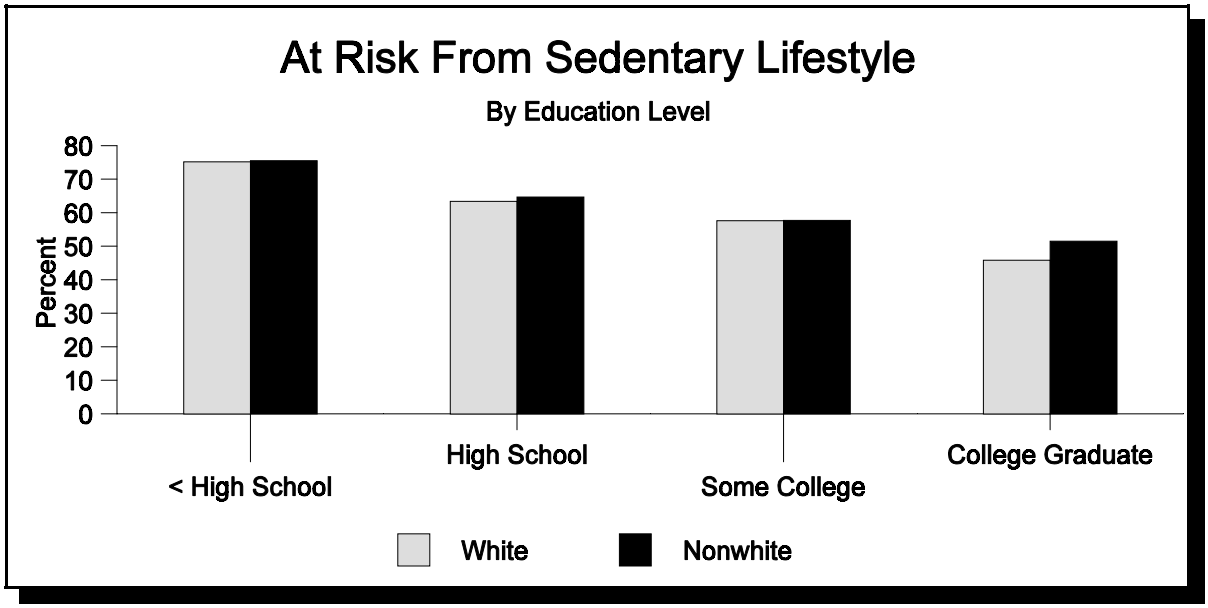

Figure 14

People Who Are Physically Inactive

Groups	White		Nonwhite		Total	
	Number	Percent	Number	Percent	Number	Percent
Sex						
Male	200	30.3	70	32.0	270	30.8
Female	328	33.1	201	42.7	530	36.5
Age Group						
18-24	19*	15.3	27*	23.9	46*	19.0
25-34	83	31.1	54	38.4	137	34.1
35-44	96	30.4	59	38.3	155	33.1
45-54	90	34.2	45*	39.6	135	35.6
55-64	97	37.3	28*	52.1	125	41.1
65+	143	38.5	56	44.4	200	40.2
Education						
< High School	128	42.9	93	50.5	221	46.1
High School Graduate or GED	196	39.4	104	40.8	301	40.0
Some College or Technical School	121	26.7	53	30.7	174	27.8
College Graduate	77	18.8	21*	21.4	98	19.3
Income						
< $15,000	112	47.8	88	46.8	200	47.3
$15 - $24,999	116	39.8	68	35.5	184	37.9
$25 - $34,999	67	28.3	21*	25.4	88	27.5
$35 - $49,999	74	25.8	16*	30.4	90	26.6
$50 - $74,999	54	27.7	4*	11.2	58	25.1
$75,000+	18*	11.7	4*	27.4	22*	13.5
Employment Status						
Employed	275	28.5	149	36.0	424	31.0
Not Employed	17*	30.8	21*	34.2	38*	32.8
Student/Homemaker	60	31.0	18*	30.2	78	30.8
Retired/Unable to Work	173	40.2	82	47.6	256	42.5
Total	528	31.8	271	37.9	800	33.8

* Sample size less than 50

People Who Have Regular and Intensive Physical Activity

Groups	White		Nonwhite		Total	
	Number	Percent	Number	Percent	Number	Percent
Sex						
Male	72	10.7	31*	14.0	103	11.7
Female	101	9.8	43*	8.1	144	9.2
Age Group						
18-24	8*	6.7	9*	9.0	17*	7.7
25-34	34*	11.6	12*	8.8	46*	10.5
35-44	31*	9.9	20*	10.9	51	10.3
45-54	32*	11.9	11*	9.5	43*	11.1
55-64	19*	7.6	6*	9.1	25*	8.0
65+	48*	11.6	15*	18.1	63	13.3
Education						
< High School	20*	5.6	18*	10.2	38*	7.5
High School Graduate or GED	44*	8.3	24*	10.3	68	9.0
Some College or Technical School	40*	9.9	17*	10.1	57	10.0
College Graduate	68	16.6	15*	13.8	83	15.8
Income						
< $15,000	16*	4.9	10*	5.7	26*	5.3
$15 - $24,999	28*	7.5	27*	13.3	55	10.0
$25 - $34,999	26*	9.6	11*	11.4	37*	10.2
$35 - $49,999	35*	13.6	5*	6.0	40*	12.0
$50 - $74,999	21*	12.8	5*	23.5	26*	14.5
$75,000+	27*	19.0	2*	13.1	29*	18.3
Employment Status						
Employed	108	11.5	40*	8.1	148	10.3
Not Employed	3*	6.5	6*	12.7	9*	10.2
Student/Homemaker	12*	6.6	8*	20.1	20*	10.1
Retired/Unable to Work	49*	9.1	20*	14.3	69	10.6
Total	173	10.2	74	10.8	247	10.4

* Sample size less than 50

People With Regular and Sustained Physical Activity

Groups	White		Nonwhite		Total	
	Number	Percent	Number	Percent	Number	Percent
Sex						
Male	128	20.0	47*	23.7	175	21.1
Female	189	19.0	69	14.9	258	17.6
Age Group						
18-24	33*	28.5	23*	26.0	56	27.3
25-34	54	17.7	20*	15.2	74	16.7
35-44	55	16.4	32*	19.6	87	17.5
45-54	43*	15.6	14*	14.2	57	15.0
55-64	44*	18.6	8*	16.7	52	18.1
65+	85	21.8	18*	20.0	103	21.3
Education						
< High School	45*	16.5	26*	15.1	71	15.9
High School Graduate or GED	89	17.4	44*	21.3	133	18.9
Some College or Technical School	84	19.3	24*	18.0	108	18.8
College Graduate	98	24.8	22*	20.6	120	23.6
Income						
< $15,000	40*	17.2	27*	20.8	67	19.0
$15 - $24,999	56	15.8	37*	19.4	93	17.4
$25 - $34,999	53	21.5	21*	26.1	74	22.8
$35 - $49,999	45*	18.2	10*	17.8	55	18.0
$50 - $74,999	36*	20.9	6*	30.2	42*	22.4
$75,000+	39*	29.1	3*	16.2	42*	27.6
Employment Status						
Employed	175	18.7	69	17.5	244	18.2
Not Employed	10*	21.0	13*	30.4	23*	26.6
Student/Homemaker	30*	17.6	12*	28.3	42*	20.4
Retired/Unable to Work	100	21.3	22*	14.8	122	19.2
Total	317	19.5	116	18.9	433	19.2

* Sample size less than 50

People at Risk Because of Sedentary Lifestyle

Groups	White		Nonwhite		Total	
	Number	Percent	Number	Percent	Number	Percent
Sex						
Male	381	59.0	129	58.5	511	58.7
Female	583	60.5	324	68.0	908	63.1
Age Group						
18-24	57	49.0	51	48.8	109	49.0
25-34	162	59.8	93	66.0	255	62.3
35-44	181	59.2	101	61.5	282	60.0
45-54	164	62.2	77	67.4	241	63.3
55-64	165	63.9	43*	77.9	208	67.5
65+	235	62.8	86	71.2	322	65.1
Education						
< High School	218	75.2	140	75.5	358	75.3
High School Graduate or GED	312	63.4	161	64.7	474	63.9
Some College or Technical School	245	57.6	99	57.7	345	57.6
College Graduate	182	45.8	53	51.5	235	46.9
Income						
< $15,000	163	71.4	132	69.1	295	70.3
$15 - $24,999	200	64.7	125	63.4	325	64.1
$25 - $34,999	131	55.5	52	59.1	183	56.6
$35 - $49,999	148	55.5	30*	51.1	178	54.2
$50 - $74,999	105	57.5	9*	27.3	114	52.6
$75,000+	53	39.6	8*	61.2	61	42.1
Employment Status						
Employed	535	57.0	265	61.5	801	58.5
Not Employed	27*	62.9	33*	61.6	60	62.1
Student/Homemaker	105	61.5	25*	50.3	130	58.6
Retired/Unable to Work	293	65.7	129	75.8	423	68.7
Total	964	59.8	453	63.7	1,419	61.1

* Sample size less than 50

Weight Control

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; gallbladder disease; endometrial, breast, prostate, and colon cancers; and arthritis. Overweight people may also suffer from social stigmatization, discrimination, and low self-esteem.

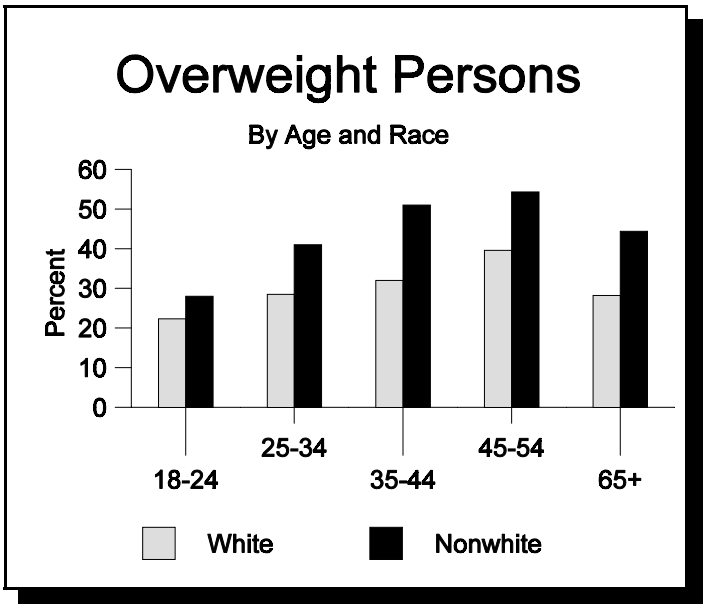

Figure 15

Weight may be controlled by dietary changes such as decreasing caloric intake and by increasing physical activity. According to the 1998 BRFSS study over, one-third (35.8 percent) of those surveyed in Mississippi reported themselves as being overweight based on body mass index. Figure 15 shows how being overweight increases with age.

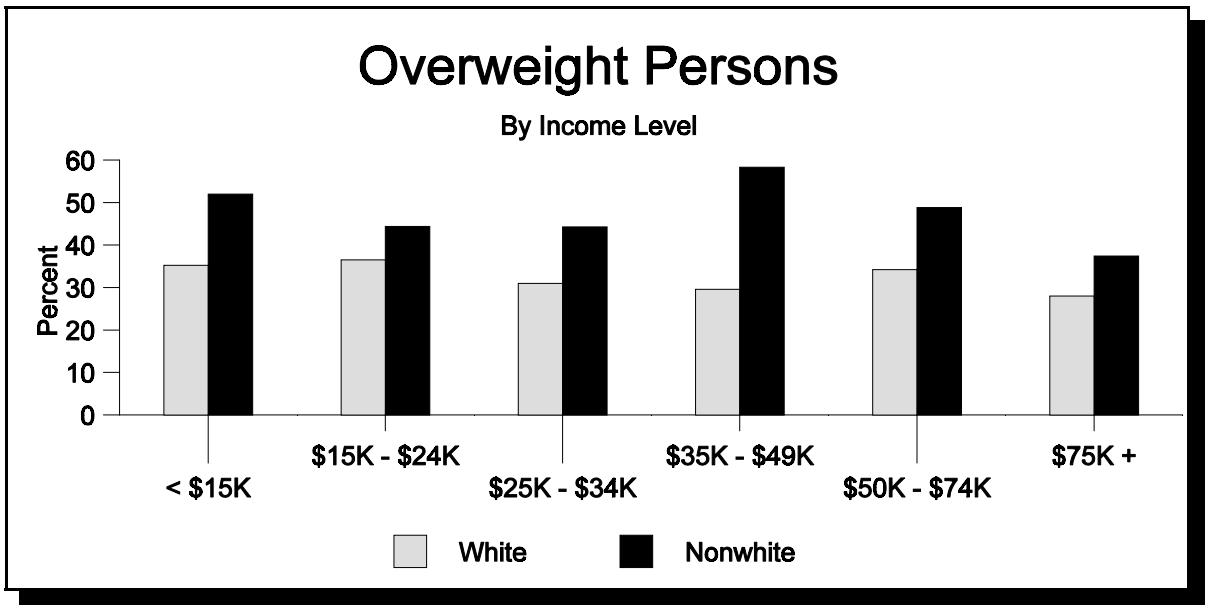

Figure 16

People at Risk From Being Overweight (Based on BMI)

Groups	White		Nonwhite		Total	
	Number	Percent	Number	Percent	Number	Percent
Sex						
Male	220	33.5	88	39.9	309	35.6
Female	281	29.0	229	48.8	510	35.9
Age Group						
18-24	26*	22.3	26*	28.0	52	24.8
25-34	84	28.5	58	41.0	142	33.5
35-44	100	32.0	90	51.7	190	38.9
45-54	99	39.6	60	54.3	159	43.6
55-64	91	35.1	28*	62.0	119	42.0
65+	100	28.2	55	44.4	155	32.4
Education						
< High School	93	30.7	80	40.9	173	35.0
High School Graduate or GED	160	32.7	116	48.3	276	38.5
Some College or Technical School	130	31.7	75	43.3	206	35.3
College Graduate	116	28.9	46*	45.7	162	32.8
Income						
< $15,000	77	35.2	95	52.0	172	43.8
$15 - $24,999	114	36.5	90	44.4	204	39.9
$25 - $34,999	80	31.0	38*	44.3	118	34.9
$35 - $49,999	74	29.6	34*	58.3	108	35.2
$50 - $74,999	63	34.2	14*	48.8	77	36.5
$75,000+	37*	28.0	6*	37.4	43*	29.1
Employment Status						
Employed	296	31.9	211	49.0	508	37.8
Not Employed	17*	41.6	14*	26.4	31*	32.6
Student/Homemaker	48*	25.6	14*	26.0	62	25.7
Retired/Unable to Work	140	31.3	77	46.8	217	36.0
Total	501	31.2	317	44.8	819	35.8

* Sample size less than 50

People Trying to Lose Weight

Groups	White		Nonwhite		Total	
	Number	Percent	Number	Percent	Number	Percent
Sex						
Male	181	27.8	65	30.2	247	28.6
Female	369	40.0	202	46.8	571	42.3
Age Group						
18-24	51	40.2	41*	44.8	92	42.1
25-34	109	34.5	55	36.3	164	35.3
35-44	122	39.3	80	46.3	202	41.8
45-54	114	41.9	47*	44.3	161	42.3
55-64	80	32.0	21*	41.0	101	34.3
65+	73	19.7	23*	21.4	96	20.1
Education						
< High School	80	29.0	52	28.6	132	28.9
High School Graduate or GED	161	32.0	103	42.1	264	35.8
Some College or Technical School	150	36.9	64	39.2	215	37.7
College Graduate	157	37.8	48*	51.0	205	40.8
Income						
< $15,000	81	36.3	76	44.8	157	40.7
$15 - $24,999	104	31.4	72	33.5	176	32.3
$25 - $34,999	75	30.2	32*	35.2	107	31.6
$35 - $49,999	95	36.6	35*	59.9	130	41.1
$50 - $74,999	65	36.8	11*	40.0	76	37.3
$75,000+	62	45.2	6*	42.7	68	44.9
Employment Status						
Employed	335	34.8	181	42.3	517	37.4
Not Employed	16*	38.6	16*	23.0	32*	29.3
Student/Homemaker	75	42.7	19*	48.5	94	44.2
Retired/Unable to Work	122	28.0	51	34.1	173	29.8
Total	550	34.2	267	39.3	818	35.9

* Sample size less than 50

People Trying to Maintain Current Weight

Groups	White		Nonwhite		Total	
	Number	Percent	Number	Percent	Number	Percent
Sex						
Male	273	56.5	98	65.4	372	59.2
Female	390	66.7	161	60.3	552	64.6
Age Group						
18-24	34*	48.2	24*	47.0	59	48.0
25-34	101	57.6	55	62.8	156	59.7
35-44	126	63.2	55	67.3	181	64.5
45-54	100	65.4	38*	59.3	139	63.5
55-64	114	67.0	24*	81.4	138	70.3
65+	187	63.0	60	67.3	247	64.0
Education						
< High School	117	58.4	78	59.8	195	59.0
High School Graduate or GED	206	59.0	77	62.9	283	60.2
Some College or Technical School	164	59.5	65	61.6	230	60.2
College Graduate	173	69.2	39*	73.6	213	69.9
Income						
< $15,000	86	59.8	64	66.2	150	62.9
$15 - $24,999	121	56.2	72	61.7	193	58.5
$25 - $34,999	105	56.4	36*	61.2	141	57.7
$35 - $49,999	110	64.2	16*	72.0	127	65.0
$50 - $74,999	79	67.2	16*	95.3	95	71.6
$75,000+	59	72.6	6*	82.1	65	73.8
Employment Status						
Employed	388	61.6	161	66.4	551	63.2
Not Employed	14*	53.7	14*	47.8	28*	49.9
Student/Homemaker	57	61.4	11*	40.4	68	56.3
Retired/Unable to Work	201	61.0	73	67.9	274	62.6
Total	663	61.3	259	63.0	924	61.8

* Sample size less than 50

People Eating Fewer Calories to Lose or Maintain Weight

Groups	White		Nonwhite		Total	
	Number	Percent	Number	Percent	Number	Percent
Sex						
Male	290	62.7	104	64.4	395	63.2
Female	585	75.9	281	79.1	867	77.1
Age Group						
18-24	56	61.7	44*	63.7	100	62.4
25-34	157	72.8	79	73.2	236	73.0
35-44	182	72.2	104	75.2	286	73.3
45-54	168	77.1	68	78.6	237	77.7
55-64	142	72.6	35*	82.7	177	75.4
65+	169	61.9	54	66.0	223	63.0
Education						
< High School	122	58.8	89	67.0	211	62.3
High School Graduate or GED	270	71.3	139	74.6	409	72.6
Some College or Technical School	229	71.7	83	65.0	313	69.6
College Graduate	252	74.6	74	87.2	327	77.9
Income						
< $15,000	121	74.1	106	74.4	227	74.2
$15 - $24,999	175	71.7	103	70.9	278	71.4
$25 - $34,999	131	72.6	53	77.9	184	74.3
$35 - $49,999	143	67.2	37*	70.6	181	68.2
$50 - $74,999	102	70.9	25*	92.5	127	75.0
$75,000+	95	77.3	9*	77.0	104	77.3
Employment Status						
Employed	527	70.1	253	73.0	782	71.2
Not Employed	23*	68.2	19*	57.6	42*	62.4
Student/Homemaker	91	69.2	28*	95.5	119	75.5
Retired/Unable to Work	233	71.4	85	68.9	318	70.6
Total	875	70.1	385	72.7	1,262	71.0

* Sample size less than 50

People Using Physical Activity to Lose or Maintain Weight

Groups	White		Nonwhite		Total	
	Number	Percent	Number	Percent	Number	Percent
Sex						
Male	222	50.1	90	56.8	313	52.4
Female	386	51.3	187	53.4	574	52.1
Age Group						
18-24	62	70.6	49*	78.1	111	73.6
25-34	133	61.5	69	64.6	202	62.8
35-44	143	56.7	83	58.3	226	57.3
45-54	115	51.7	43*	51.5	159	51.8
55-64	75	38.2	14*	26.1	89	34.8
65+	79	30.6	18*	28.5	97	30.0
Education						
< High School	69	36.2	41*	34.0	110	35.3
High School Graduate or GED	155	44.2	106	60.2	261	50.5
Some College or Technical School	174	57.1	72	58.7	247	57.6
College Graduate	209	61.5	58	66.9	268	63.0
Income						
< $15,000	59	37.7	62	50.0	121	44.3
$15 - $24,999	110	46.3	78	51.6	188	48.7
$25 - $34,999	96	52.9	43*	63.1	139	56.0
$35 - $49,999	109	53.4	32*	57.6	142	54.6
$50 - $74,999	74	52.5	18*	69.4	92	55.7
$75,000+	85	72.0	9*	67.1	94	71.4
Employment Status						
Employed	409	55.9	207	60.0	618	57.4
Not Employed	15*	52.2	17*	61.2	32*	57.1
Student/Homemaker	74	58.9	22*	84.0	96	64.9
Retired/Unable to Work	109	33.8	31*	28.6	140	32.1
Total	608	50.8	277	54.9	887	52.3

* Sample size less than 50

People Who Eat Fruits and Vegetables at Least Five Times Per Day

Nutrition plays a vital role in achieving and maintaining optimum health. Dietary factors have a significant impact in decreasing the risk of heart disease, stroke, diabetes mellitus, obesity and atherosclerosis. Some scientific studies have shown that greater fruit and vegetable consumption reduces the risk of cancer of the colon, breast, lung, oral cavity, larynx, esophagus, stomach, bladder, uterine cervix, and pancreas.

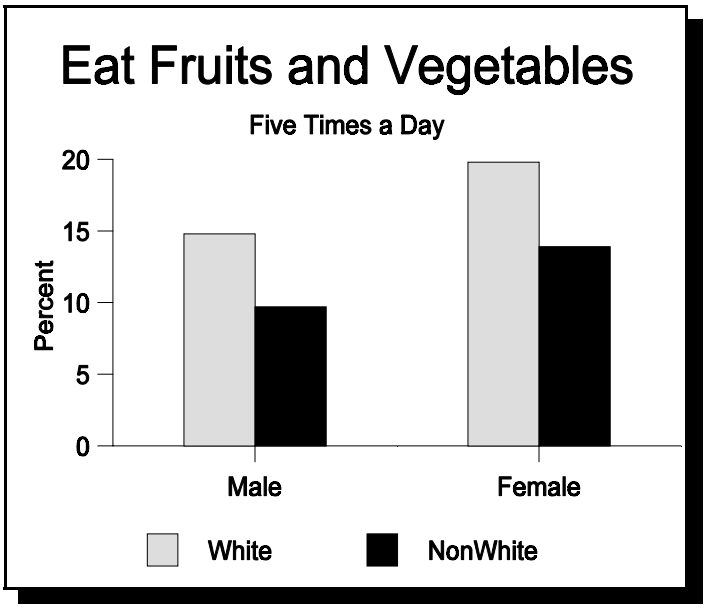

Figure 17

Fruits and vegetables are high in complex carbohydrates, fiber, minerals, and vitamins and as a general rule are low in fat and calories. It is recommended that every person eat a variety of and a minimum of five servings of fruits and vegetables each day.

6

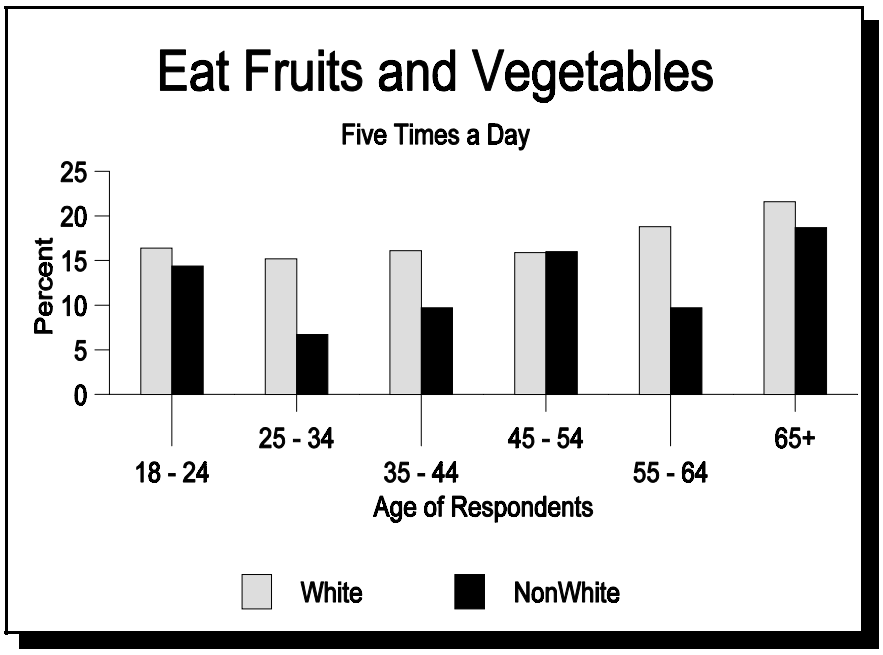

Figure 18

Based on the 1998 BRFS Survey only 15.6 percent of the people in Mississippi report that they consume fruits and vegetables as much as five times per day.

As noted in Figure 17 white females reported the highest rate of fruit and vegetables consumption at 19.8 percent. Next were white males at 14.8 percent which was slightly ahead of nonwhite females at 13.9 percent. Nonwhite males were the lowest at 9.7 percent.

People Who Eat Fruits and Vegetables at Least Five Times Per Day

Groups	White		Nonwhite		Total	
	Number	Percent	Number	Percent	Number	Percent
Sex						
Male	96	14.8	22*	9.7	118	13.1
Female	186	19.8	64	13.9	251	17.8
Age Group						
18-24	18*	16.4	15*	14.4	33*	15.4
25-34	40*	15.2	12*	6.7	52	11.8
35-44	52	16.1	17*	9.7	69	13.8
45-54	42*	15.9	17*	16.0	60	16.1
55-64	49*	18.8	6*	9.7	55	16.5
65+	80	21.6	19*	18.7	99	20.8
Education						
< High School	37*	12.0	19*	9.6	56	11.0
High School Graduate or GED	81	16.2	25*	10.0	106	13.9
Some College or Technical School	79	20.4	23*	14.3	102	18.4
College Graduate	82	19.4	19*	17.5	102	19.1
Income						
< $15,000	26*	11.9	23*	14.0	49*	13.0
$15 - $24,999	60	18.1	26*	13.0	86	15.9
$25 - $34,999	49*	22.5	13*	12.2	62	19.5
$35 - $49,999	41*	15.8	9*	14.1	51	15.7
$50 - $74,999	38*	19.6	1*	2.5	39*	16.8
$75,000+	31*	20.9	3*	23.7	34*	21.2
Employment Status						
Employed	156	16.4	46*	10.1	203	14.3
Not Employed	7*	19.2	9*	16.3	16*	17.5
Student/Homemaker	38*	22.9	7*	15.7	45*	21.0
Retired/Unable to Work	80	17.5	24*	14.6	104	16.5
Total	282	17.4	86	12.0	369	15.6

* Sample size less than 50

MISSISSIPPI STATE DEPARTMENT OF HEALTH

June 2001

Equal Opportunity In Employment/Service