

Tennessee's Behavioral Risk Factor Surveillance System

2011

May 2013

The Behavioral Risk Factor Surveillance System is a state-based computer-assisted telephone interviewing effort conducted in cooperation with the Centers for Disease Control and Prevention. Since 1984, surveys have been done every month, on adults from randomly selected households, throughout the state. Questions are constructed to determine the behaviors of individuals that will affect their risk of developing chronic diseases that may lead to premature mortality and morbidity. The data collected helps to identify high risk populations that can be targeted for intervention programs. The data can also be used to track changes over time of prevalence of risk factor behaviors and related diseases, and can assess the impact of health promotion and prevention intervention programs. In 2011, every state in the country, the District of Columbia, Puerto Rico, and The Virgin Islands were members of this surveillance system.

Tennessee currently conducts approximately 5,750 interviews annually. During 2011, approximately 93,000 unique telephone numbers and over 264,000 call attempts to those numbers were required to complete these interviews. *Tennessee's Behavioral Risk Factor Surveillance System 2011* examines the results of some of the survey questions, and the trends for specific risk factors.

Summary

Beginning in 2011, the Centers for Disease Control and Prevention (CDC) made two important changes in the Behavioral Risk Factor Surveillance System (BRFSS) survey. First, they adopted a new statistical method for weighting data (i.e. raking) and second, they began incorporating cell phone users for the first time (cell phones were added to the Tennessee BRFSS in August 2011). These improvements were necessary to ensure that the survey data continue to represent the population in each state and to maintain an accurate picture of behaviors and chronic health conditions in the United States.

As a result of these changes, 2011 BRFSS results **cannot** be compared to those from earlier years – any shifts in estimates from previous years to 2011 estimates may be the result of the new method and not a true change in behaviors.

A more detailed explanation of the changes described above can be found in the following Morbidity and Mortality Weekly Report from the Centers for Disease Control and Prevention:

<http://www.cdc.gov/mmwr/PDF/wk/mm6122.pdf>

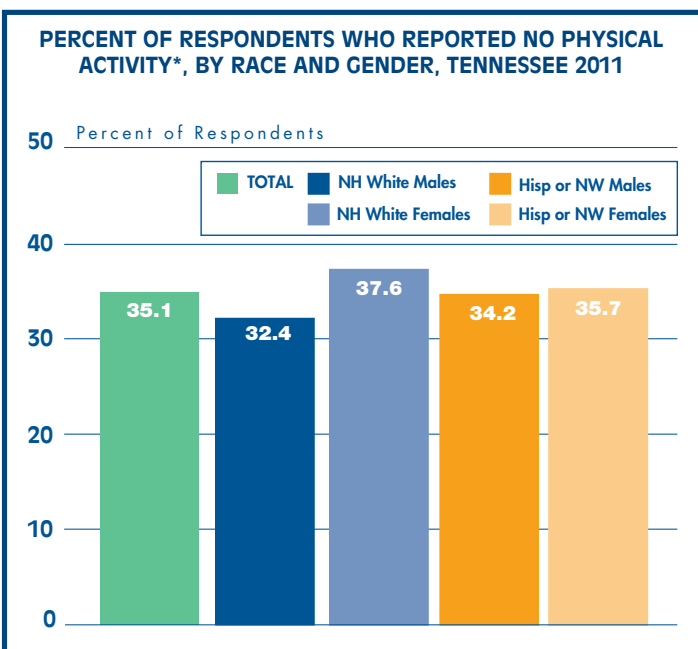
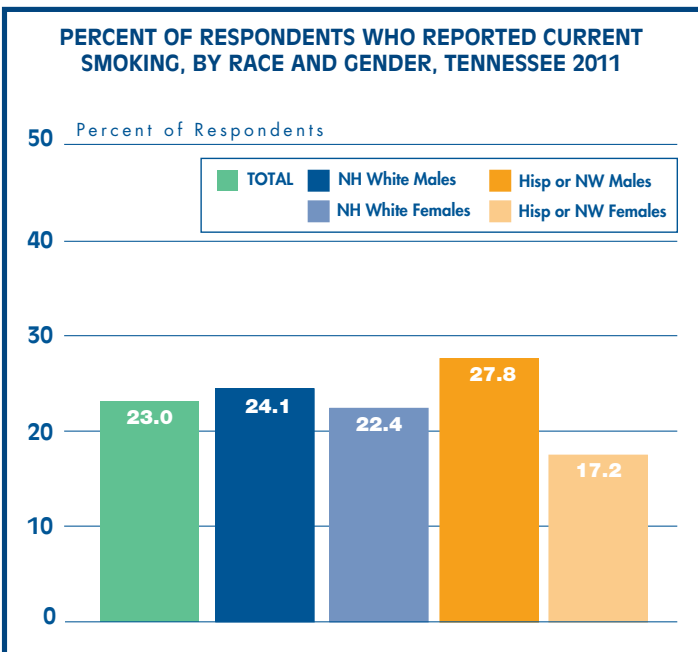
Health status has an impact on quality of life. Improvements in health-related quality of life reduce deaths and increase years of life expectancy. Chronic diseases are the leading causes of death in Tennessee, with diseases of heart and malignant neoplasms (cancer) responsible for almost 50 percent of total deaths each year. The 2011 Behavioral Risk Factor Surveillance System examines some of the risk factors that influence the general health status of the population. Healthy life expectancy is a snapshot of the long-range implications of the current death and illness patterns.

This report gives BRFSS data collected for the prevalence estimates of current *smoking*, *overweight/obesity*, *physical inactivity*, *hypertension awareness*, *diabetes*, and *blood cholesterol awareness*, all contributors to heart disease, stroke, and other chronic diseases. Also collected are data for the percentage of women aged 40 and over that had a *mammogram* within the last two years; a preventive measure in the reduction of cancer. Other risk factors presented are for the incidence of *fair or poor health*, *alcohol consumption*, and *persons without health care coverage*.

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Smoking

Tobacco use is the most preventable cause of premature mortality and morbidity in the United States and Tennessee. In 2011, the Behavioral Risk Factor Surveillance System collected the percent of respondents who reported currently smoking. The population subgroup Hispanic or non-white males reported the highest percentage of 27.8. Tennessee's total percentage of reported smoking was 23.0, with the total percent for the non-Hispanic white population 23.2. The total percent for the Hispanic or non-white population group was 22.5. The *Healthy People 2020 Objective* is to reduce cigarette smoking in adults to 12.0 percent.

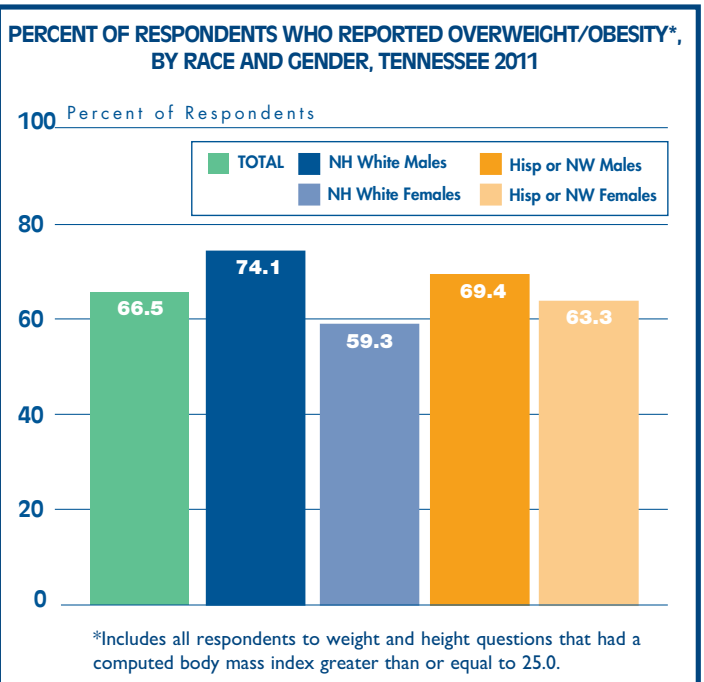


Physical Activity

Physical activity and fitness are good health habits for promoting a healthy life and a preventive lifestyle. In 2011, the total percent of the population who reported no physical activity within the past 30 days was 35.1, and the percentages for the non-Hispanic white and Hispanic or non-white populations were 35.2 and 34.9 respectively. Of the population surveyed, females of both race/ethnicity categories, reported a higher percentage of physical inactivity than males. The *Healthy People 2020 Objective* is to reduce the percent of adults who engage in no leisure-time physical activity to 32.6 percent.

Overweight/Obese

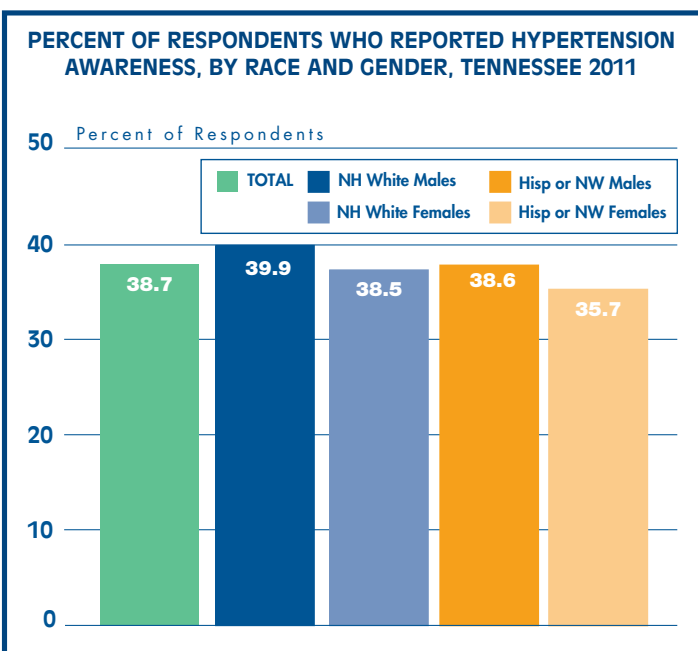
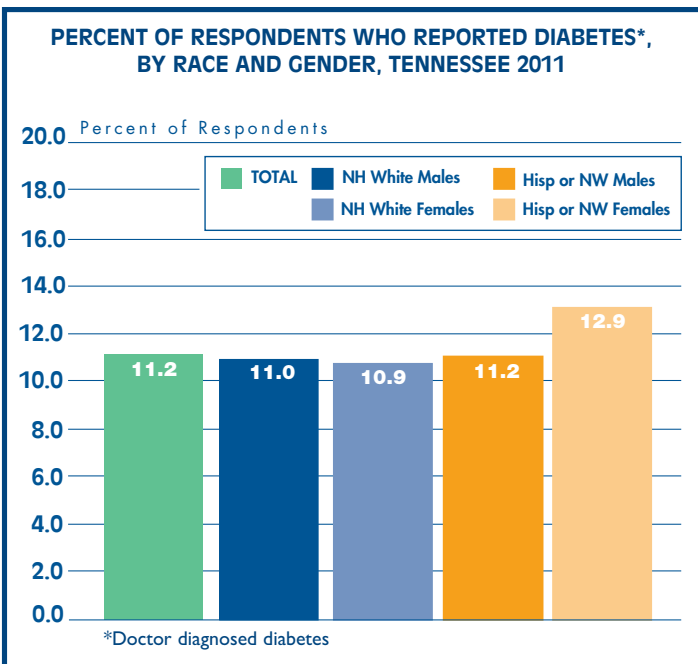
Being overweight/obese is a risk factor for heart disease, cancer, stroke, and diabetes. According to the 2011 Behavioral Risk Factor Surveillance System, non-Hispanic white females reported a lower percentage (59.3) of overweight/obesity than those of the other demographic subgroups. Overweight/obese is defined to include all respondents to weight and height questions that had a computed body mass index greater than or equal to 25. The prevalence of being overweight/obese for the total population was 66.5 percent in 2011. The *Healthy People 2020 Objective* is to increase the proportion of adults who are a healthy weight to 33.9 percent.



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Diabetes

Diabetes is a chronic metabolic disease. In 2011, diabetes was the seventh leading cause of death in Tennessee and a contributing cause for various other deaths including cardiovascular diseases. According to the 2011 Behavioral Risk Factor Surveillance System, the subgroup Hispanic or non-white females respondents reported the highest percentage (12.9) of diabetes. Tennessee's percentage of total respondents reporting diabetes was 11.2 percent in 2011. The total percentage of non-Hispanic white respondents reporting diabetes was 10.9, and the total for Hispanic or non-white respondents was 12.0 percent.

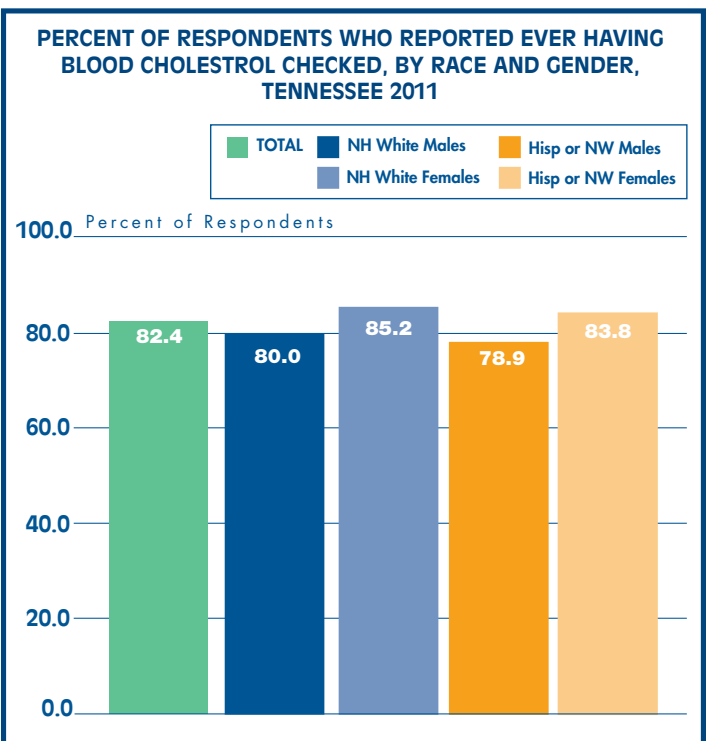


Hypertension

Uncontrolled hypertension is a well-known risk factor for cardiovascular, cerebrovascular, and end-stage renal diseases. According to the Behavioral Risk Factor Surveillance System, the subgroup non-Hispanic white males had the highest percentage (39.9) of hypertension awareness respondents for 2011. Tennessee's total percent of the population aware of hypertension was 38.7, while the percentages for non-Hispanic white and Hispanic or non-white populations were 39.2 and 37.2 percent respectively. The *Healthy People 2020 Objective* is to reduce the proportion of adults with hypertension to 26.9 percent.

Cholesterol

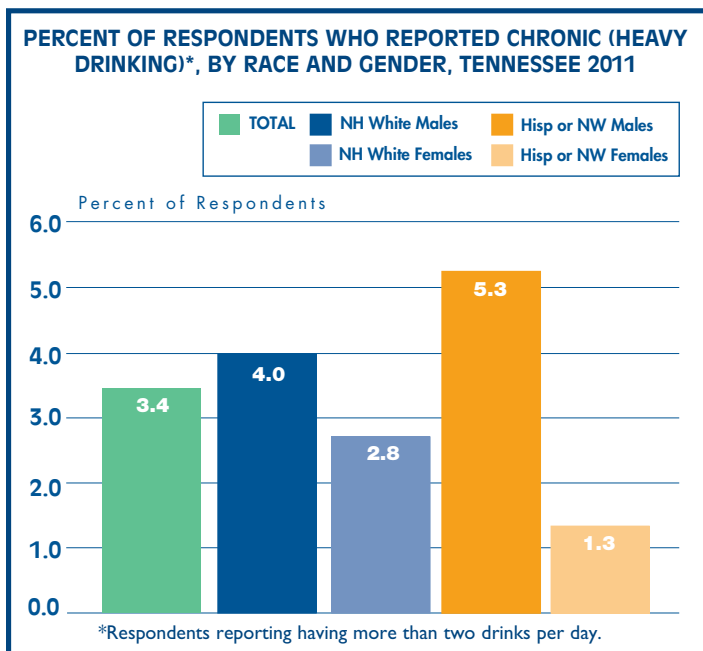
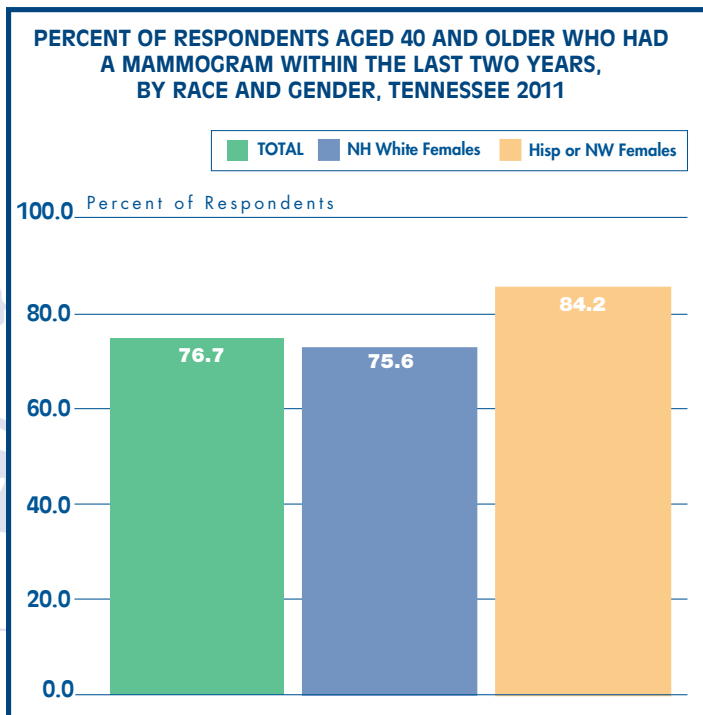
High cholesterol is a major contributor to cardiovascular disease and is a leading modifiable risk factor. Overall 82.4 percent of respondents to the 2011 Behavioral Risk Factor Surveillance System reported ever having their blood cholesterol checked, with 82.7 percent for the non-Hispanic white population and 81.3 for Hispanic or nonwhite respondents. The female population subgroups reported the highest percentages with 85.2 for non-Hispanic white and 83.8 for Hispanic or non-white females.



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Mammogram

Having a mammogram is a very important and highly effective diagnostic screening procedure in the early detection and prevention of breast cancer. Of the female population surveyed in 2011, Hispanic or non-white females reported the highest percentage (84.2) of women age 40 years and older having a mammogram within the last two years. Non-Hispanic white female respondents reported 75.6 percent, and total female respondents age 40 years and older reported 76.7 percent.

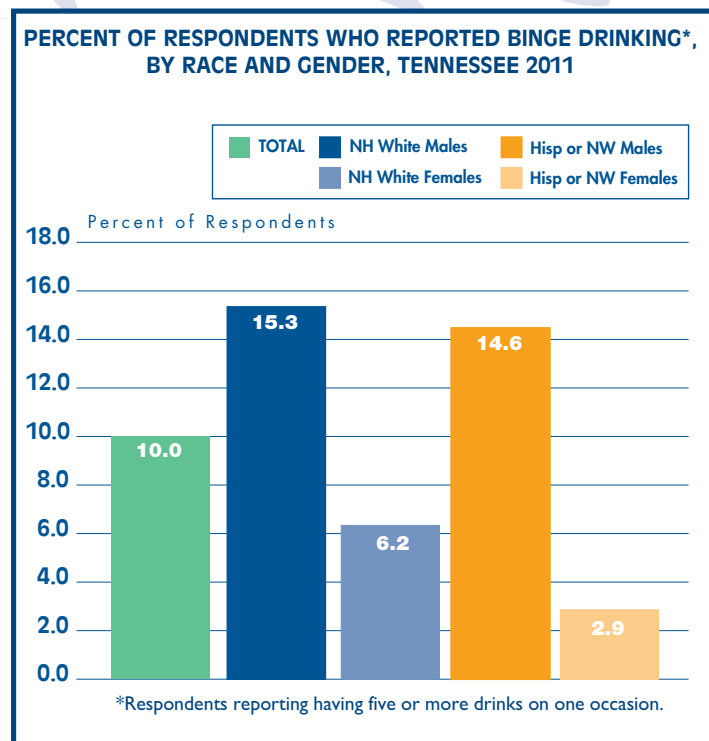


Chronic Drinking

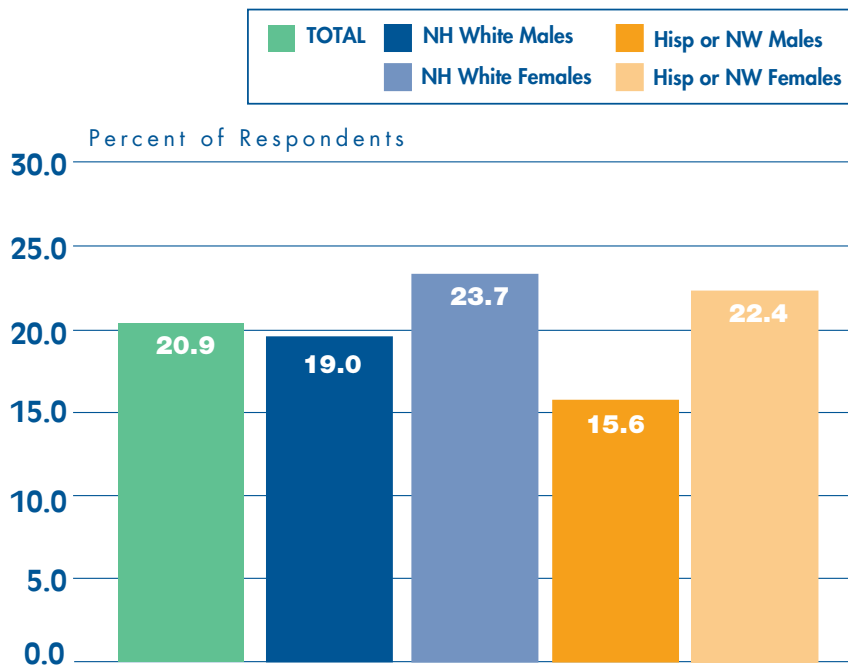
Chronic or heavy drinking is defined as having more than two drinks per day. According to the 2011 Behavioral Risk Factor Surveillance System, 3.4 percent of Tennessee's total respondents reported chronic drinking. The total percent of non-Hispanic white respondents was 3.4, and Hispanic or non-white respondents reported 3.3 for chronic drinking. The male population subgroups reported the highest percentages with Hispanic or non-white males reporting 5.3 percent and non-Hispanic white males reporting 4.0 percent.

Binge Drinking

Binge drinking is defined as having five or more drinks on one occasion. In 2011, the Behavioral Risk Factor Surveillance System revealed that 10.0 percent of the total respondents reported binge drinking. The total percentage of binge drinking for non-Hispanic white respondents (10.4) was greater than the percent for Hispanic or non-white respondent (8.7). The subgroup non-Hispanic white males reported the highest percent (15.3), while the subgroup Hispanic or non-white females reported the lowest percent (2.9).



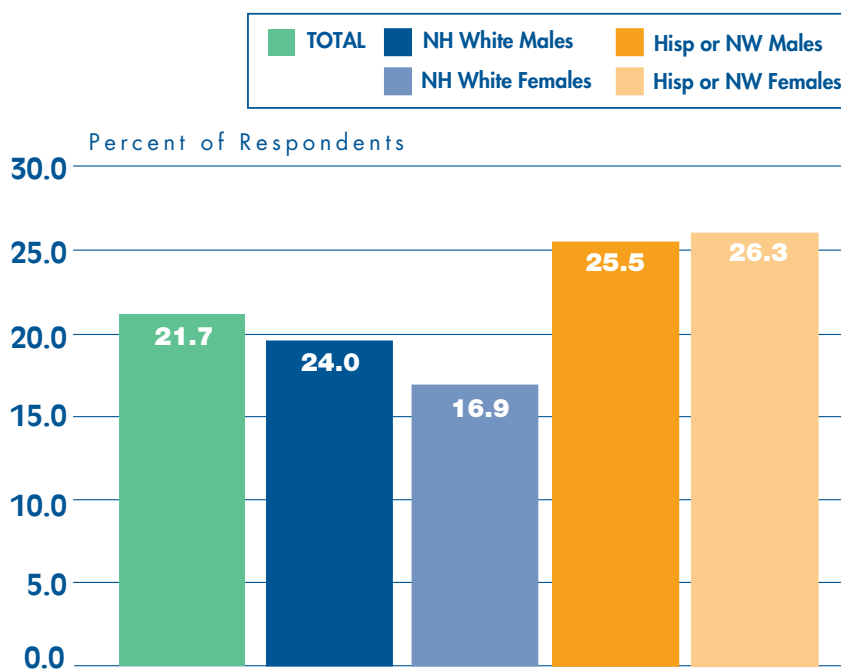
PERCENT OF RESPONDENTS WHO REPORTED FAIR OR POOR HEALTH, BY RACE AND GENDER, TENNESSEE 2011



Fair or Poor Health

The Behavioral Risk Factor Surveillance System interviews respondents regarding their self-reported health status. In 2011, the total percentage of respondents who reported fair or poor health was 20.9, with non-Hispanic white and Hispanic or non-white respondents reporting percentages of 21.5 and 19.0 respectively. Females respondents overall reported the highest percentages of fair or poor health. Determinants of health include biology and genetics, social factors, individual behavior, health services and policies. *Healthy People 2020 Objective* is exploring these factors to develop interventions that can target multiple determinants.

PERCENT OF RESPONDENTS* WHO REPORTED NO HEALTH CARE COVERAGE, BY RACE AND GENDER, TENNESSEE 2011



*Respondents ages 18-64 years.

No Health Care Coverage

Availability of quality health care services is important to improving the quality of healthy living. Access to health care impacts prevention of diseases and disabilities; overall physical and mental status; and life expectancy. In 2011, the percentage of total respondents reporting no health care coverage was 21.7 percent. The total Hispanic or non-white population reported a higher percentage (25.9) of no health care coverage than the percent (20.4) for the non-Hispanic white population. The percentage of respondents reporting no health care coverage for the subgroup Hispanic or non-white females was the highest at 26.3 percent. *The Healthy People 2020 Objective* is to increase the proportion of persons with health insurance to 100 percent.

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Beginning in 1999, the Centers for Disease Control and Prevention (CDC) redefined its demographic classification scheme to include the ethnicity factor of Hispanic or non-Hispanic origin in its data collection and presentations. Where before the data were analyzed and presented according to the broad categories of white male, white female, nonwhite male and nonwhite female, the categories now used are non-Hispanic white male, non-Hispanic white female, Hispanic or nonwhite male, and Hispanic or nonwhite female. The new classification scheme is basically a change in terminology and does not substantially differ from the previous classification breakdown used. Care should be exercised in the comparison between data from the 2001 and later editions of this report, which presents this new classification, and previous editions.

Please bear in mind that the percentage estimates presented in the report tables represent point estimates made from sample data. As such, they are associated with a certain degree of random variation which must be taken into consideration in viewing and interpreting the data. The comparison of the percentages of the various risk factors and their differences by demographic characteristics may or may not be of valid concern without taking into consideration the confidence intervals about the percentages and their differences and whether or not these differences were statistically significant.

To increase the span of healthy life is a challenge for health officials in Tennessee as well as the nation. Health promotion strategies can play an important role in influencing personal choices for good health habits and preventative lifestyles. Prevention intervention programs, designed to promote physical activity and fitness, good nutrition, along with educating the population to the health risks of diabetes, tobacco, and unhealthy body weight, are important tools toward increasing years of healthy life. The Behavioral Risk Factor Surveillance System can assist in identifying those individuals in need of community-based programs that promote healthy lifestyles, and programs that provide education to reduce the risk of heart disease, stroke, cancer, and other diseases that could lead to premature mortality.

The source for year 2020 National Objectives was U.S Department of Health and Human Services. Office of Disease Prevention and Health Promotion. Healthy People 2020. Washington, DC.

Please visit the Tennessee Department of Health web site:
<http://health.state.tn.us/statistics>

More detailed state and regional data of the prevalence of major behavioral risk factors can be found at the above web site and then selecting the Featured Topic Behavioral Risk Factor Surveillance System (BRFSS).

The mission of the Department of Health is to protect, promote and improve the health and prosperity of people in Tennessee.

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