

# Tennessee's Behavioral Risk Factor Surveillance System

2013

## October 2014

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 2013, 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 5,700 interviews annually. During 2013, approximately 130,000 unique telephone numbers and over 357,000 call attempts to those numbers were required to complete these interviews. *Tennessee's Behavioral Risk Factor Surveillance System 2013* 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, 2011-2013 BRFSS results **cannot** be compared to those from earlier years – any shifts in estimates from previous years to 2011 and later estimates may be the result of the new method and not a true change in behaviors.

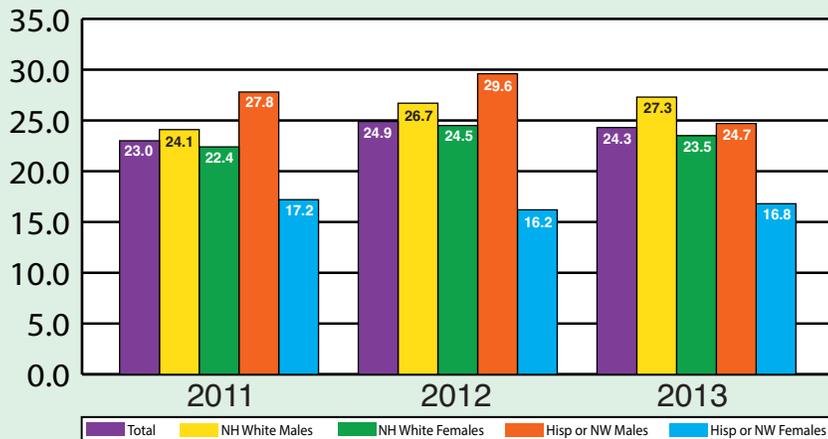
A more detailed explanation of the changes described above can be found in the following Morbidity and Mortality Weekly Report from the Centers for Disease Control and Prevention <http://www.cdc.gov/mmwr/PDF/wk/mm6122.pdf>

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 2013 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*.

# Tennessee's Behavioral Risk Factor Surveillance System 2013

PERCENT OF RESPONDENTS WHO REPORTED CURRENT SMOKING, BY RACE AND GENDER, TENNESSEE 2011 - 2013

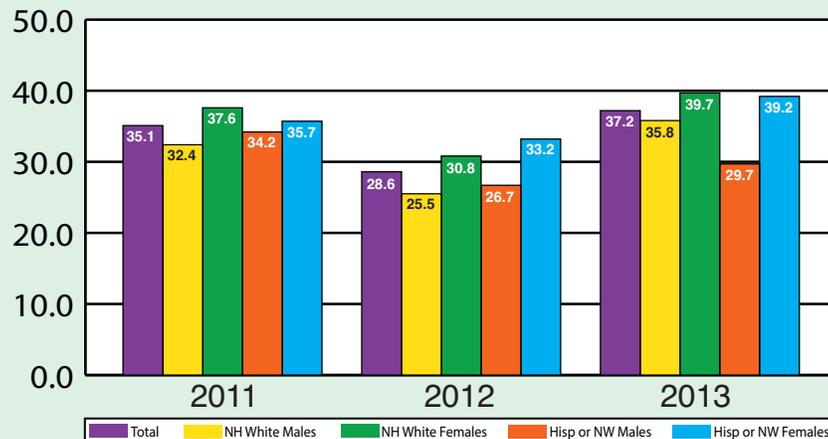


Source: Tennessee Department of Health, Division of Policy, Planning and Assessment, Behavioral Risk Factor Surveillance System.

## Smoking

- Tobacco use is the most preventable cause of premature mortality and morbidity in the United States and Tennessee. Positive changes in smoking behavior can reduce chronic diseases and increase healthy living.
- The Behavioral Risk Factor Surveillance System collected the percent of respondents who reported currently smoking for 2011 through 2013. Tennessee's total percentage of reported smoking increased over the three-year period, with the male population race/ethnic groups reporting the highest percentages.
- The Healthy People 2020 Objective* is to reduce cigarette smoking in adults to 12.0 percent.

PERCENT OF RESPONDENTS WHO REPORTED NO PHYSICAL ACTIVITY, BY RACE AND GENDER, TENNESSEE 2011 - 2013

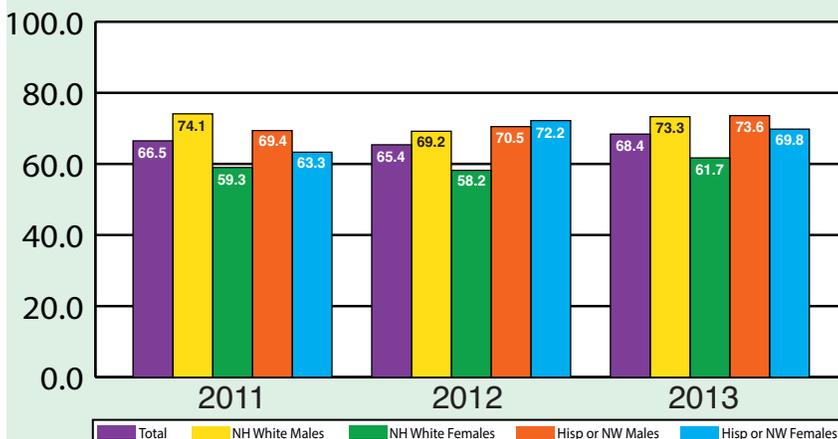


Source: Tennessee Department of Health, Division of Policy, Planning and Assessment, Behavioral Risk Factor Surveillance System.

## Physical Activity

- Physical activity and fitness are good health habits for promoting a healthy life and a preventive lifestyle. In 2013, the total percent of the population who reported no physical activity within the past 30 days was 37.2, increasing over the percentages for 2011 and 2012.
- Of the population surveyed, females of both race/ethnicity categories, reported a higher percentage of no physical activity 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

PERCENT OF RESPONDENTS WHO REPORTED OVERWEIGHT/OBESITY\*, BY RACE AND GENDER, TENNESSEE 2011 - 2013



Source: Tennessee Department of Health, Division of Policy, Planning and Assessment, Behavioral Risk Factor Surveillance System.  
\*Includes all respondents to weight and height questions that had a computed body mass index greater than or equal to 25.0.

## Overweight/Obese

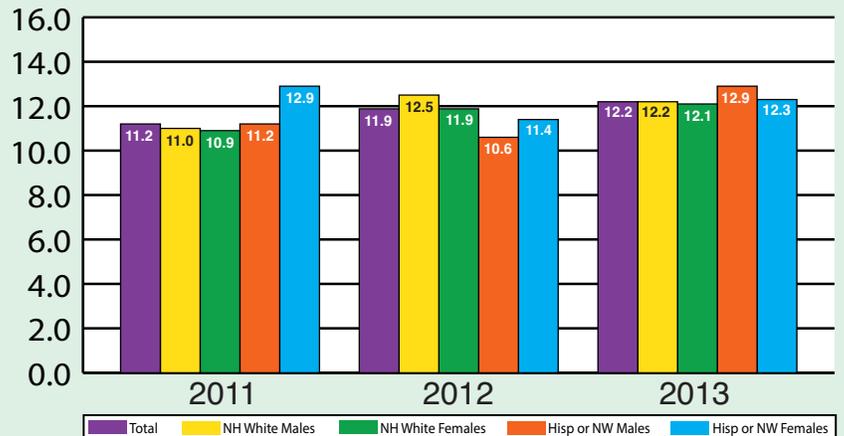
- Being overweight/obese is a risk factor for heart disease, cancer, stroke, and diabetes. According to the Behavioral Risk Factor Surveillance System, non-Hispanic white females reported a lower percentage of overweight/obesity than those of the other demographic subgroups for 2011 through 2013.
- Overweight/obese is defined to include all respondents to weight and height questions that had a computed body mass index greater than or equal to 25.0.
- 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 and a contributing cause for various other deaths including cardiovascular diseases, kidney failure, and adult-onset blindness.
- In 2013, diabetes was the seventh leading cause of death in Tennessee.
- According to the Behavioral Risk Factor Surveillance System, Tennessee's percentage of total respondents reporting diabetes increased over the 2011-2013 three-year period.

PERCENT OF RESPONDENTS WHO REPORTED DIABETES\*, BY RACE AND GENDER, TENNESSEE 2011 - 2013

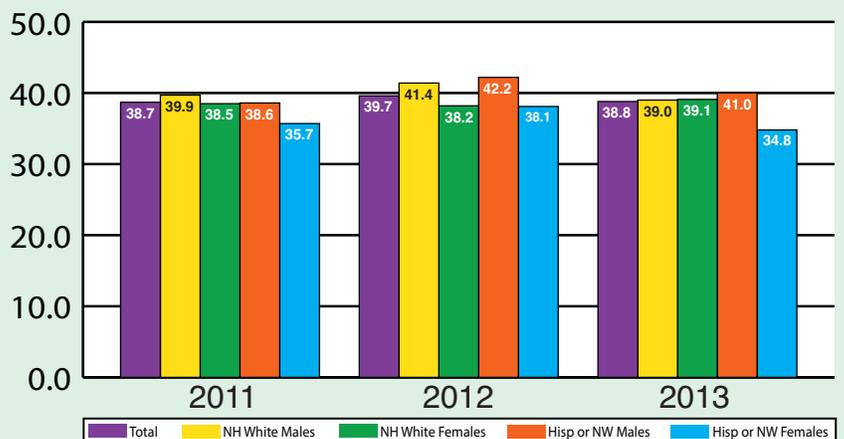


Source: Tennessee Department of Health, Division of Policy, Planning and Assessment, Behavioral Risk Factor Surveillance System.  
\*Doctor diagnosed diabetes

## 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, Tennessee's total percent of the population aware of hypertension remained fairly constant from 2011 through 2013 with Hispanic or non-white females having the lowest percentages.
- *The Healthy People 2020 Objective* is to reduce the proportion of adults with hypertension to 26.9 percent.

PERCENT OF RESPONDENTS WHO REPORTED HYPERTENSION AWARENESS, BY RACE AND GENDER, TENNESSEE 2011 - 2013

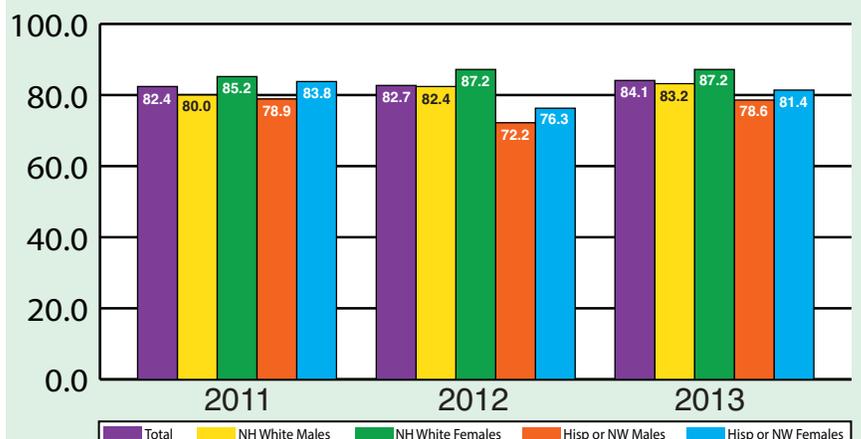


Source: Tennessee Department of Health, Division of Policy, Planning and Assessment, Behavioral Risk Factor Surveillance System.

## Cholesterol

- High cholesterol is a major contributor to cardiovascular disease and is a leading modifiable risk factor.
- In 2013, the percent of respondents to the Behavioral Risk Factor Surveillance System survey reporting ever having their blood cholesterol checked was 84.1; increasing over the percentages for 2011 and 2012.
- Of the population surveyed, the percentages for non-Hispanic white females were the highest for the race/ethnic categories for 2011-2013.

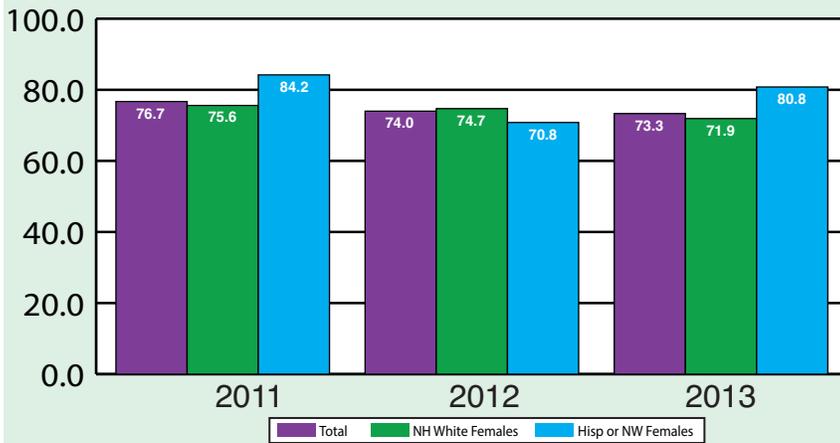
PERCENT OF RESPONDENTS WHO REPORTED EVER HAVING BLOOD CHOLESTROL CHECKED, BY RACE AND GENDER, TENNESSEE 2011 - 2013



Source: Tennessee Department of Health, Division of Policy, Planning and Assessment, Behavioral Risk Factor Surveillance System.

# Tennessee's Behavioral Risk Factor Surveillance System 2013

**PERCENT OF FEMALE RESPONDENTS AGED 40 AND OLDER WHO HAD A MAMMOGRAM WITHIN THE LAST TWO YEARS, BY RACE, TENNESSEE 2011 - 2013**

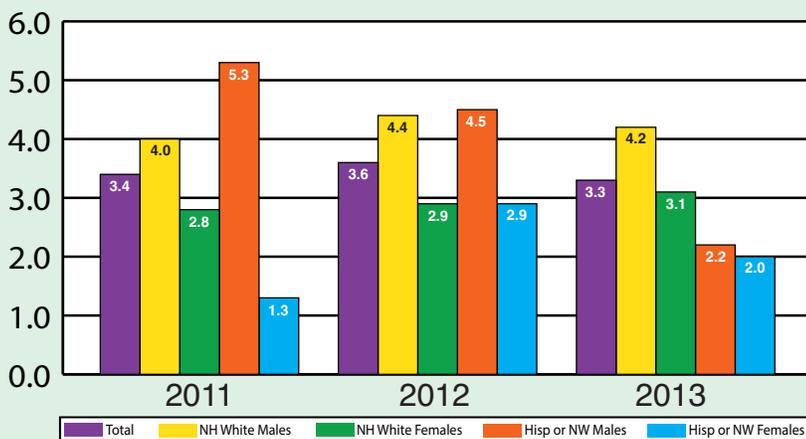


Source: Tennessee Department of Health, Division of Policy, Planning and Assessment, Behavioral Risk Factor Surveillance System.

## 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, the total percentage for female respondents ages 40 years and older reporting having a mammogram within the last two years decreased from 2011 to 2013.
- Hispanic or non-white females reported the highest percentage of women age 40 years and older having a mammogram within the last two years for 2011 and 2013.

**PERCENT OF RESPONDENTS WHO REPORTED CHRONIC (HEAVY DRINKING)\*, BY RACE AND GENDER, TENNESSEE 2011 - 2013**

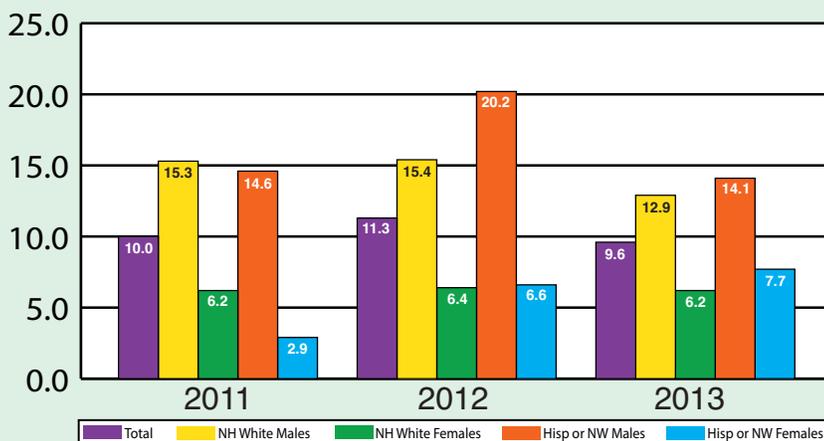


Source: Tennessee Department of Health, Division of Policy, Planning and Assessment, Behavioral Risk Factor Surveillance System.  
\*Respondents reporting having more than two drinks per day.

## Chronic Drinking

- Chronic or heavy drinking is defined as having more than two drinks per day.
- According to the Behavioral Risk Factor Surveillance System, the percent of Tennessee's total respondents reporting chronic drinking remained fairly constant from 2011 through 2013.
- The greatest decrease in respondents reporting chronic drinking for the three-year period was for the race/ethnic group of Hispanic or non-white males.

**PERCENT OF RESPONDENTS WHO REPORTED BINGE DRINKING\*, BY RACE AND GENDER, TENNESSEE 2011 - 2013**



Source: Tennessee Department of Health, Division of Policy, Planning and Assessment, Behavioral Risk Factor Surveillance System.  
\*Respondents reporting having five or more drinks on one occasion.

## Binge Drinking

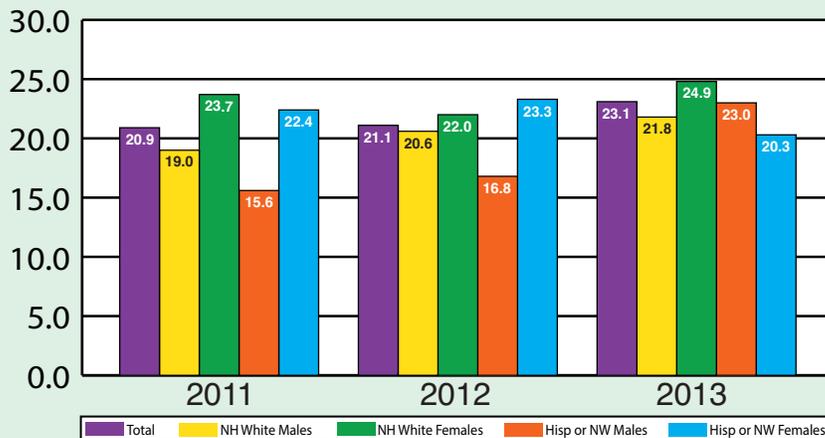
- Binge drinking is defined as having five or more drinks on one occasion.
- For 2011 through 2013, the Behavioral Risk Factor Surveillance System revealed that males of both race/ethnic groups reported the highest percentages of binge drinking.
- For the three-year period, Tennessee's percentages for all subgroups were below the 2020 Healthy People goal of 24.4 percent of adults aged 18 years and older reporting binge drinking during the past 30 days.

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## Fair or Poor Health

- The Behavioral Risk Factor Surveillance System interviews respondents regarding their self-reported health status. For 2011 through 2013, the total percentage of respondents who reported fair or poor health slightly increased.
- 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.
- This wide range of factors can influence the health of individuals as well as population groups. *Healthy People 2020* is exploring these factors to develop interventions that can target multiple determinants.

PERCENT OF RESPONDENTS WHO REPORTED FAIR OR POOR HEALTH, BY RACE AND GENDER, TENNESSEE 2011 - 2013



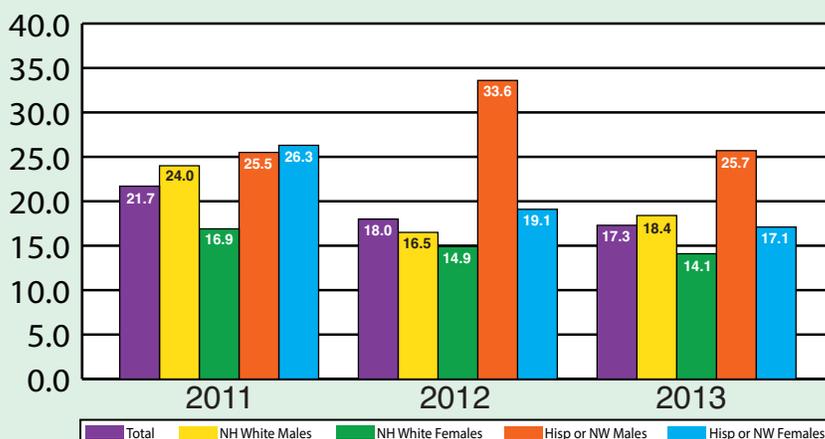
Source: Tennessee Department of Health, Division of Policy, Planning and Assessment, Behavioral Risk Factor Surveillance System.



## 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.
- From 2011 through 2013, the total percent of respondents reporting no health care coverage decreased.
- Overall the total Hispanic or non-white population reported a higher percentage of no health care coverage than the percent for the non-Hispanic white population.
- The *Healthy People 2020 Objective* is to increase the proportion of persons with health insurance to 100 percent.

PERCENT OF RESPONDENTS\* WHO REPORTED NO HEALTH CARE COVERAGE, BY RACE AND GENDER, TENNESSEE 2011 - 2013



Source: Tennessee Department of Health, Division of Policy, Planning and Assessment, Behavioral Risk Factor Surveillance System.  
\*Respondents ages 18-64 years.

## Technical Notes

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 revised 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.*

**Tennessee's Behavioral Risk Factor Surveillance System 2013 was published by the Tennessee Department of Health, Division of Policy, Planning and Assessment, Andrew Johnson Tower, 2nd Floor Nashville, Tennessee, 37243 For additional information please contact: (615)741-1954**



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