



THE HEALTH OF Tennessee's Women 2012

A Summary Report of Mortality and Women's Health Issues

MAY 2014

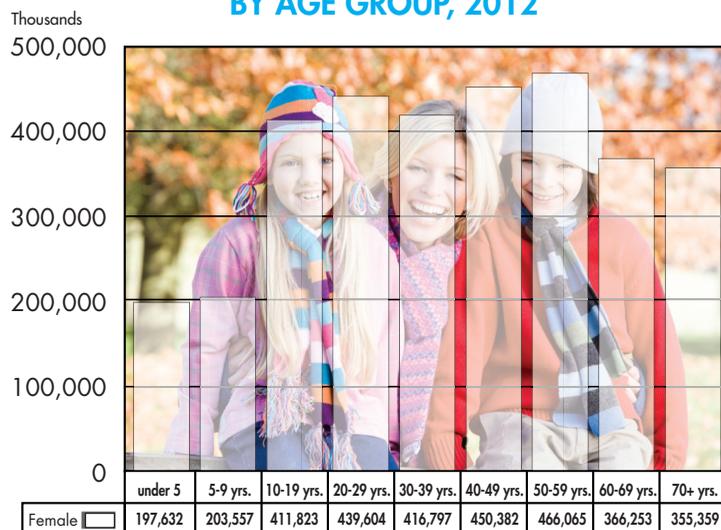
TENNESSEE DEPARTMENT OF HEALTH

The Health of Tennessee's Women 2012 provides information about some of the factors that affect the health status of Tennessee's female population. Maternal risk factors such as inadequate prenatal care, smoking, poor nutrition, and age greatly impact pregnancy outcomes. Adolescent mothers are at particular risk of having low-weight babies, as are mothers age 40 years and older.

Mortality trends and behavioral risks for women of all ages are also the focus of this report. The challenge facing women as individuals is to modify their lifestyles in order to maintain good health and prevent diseases. Health education, preventive screening, and early detection are important factors to reduce mortality risk from diseases such as cancer, cerebrovascular, and heart disease.

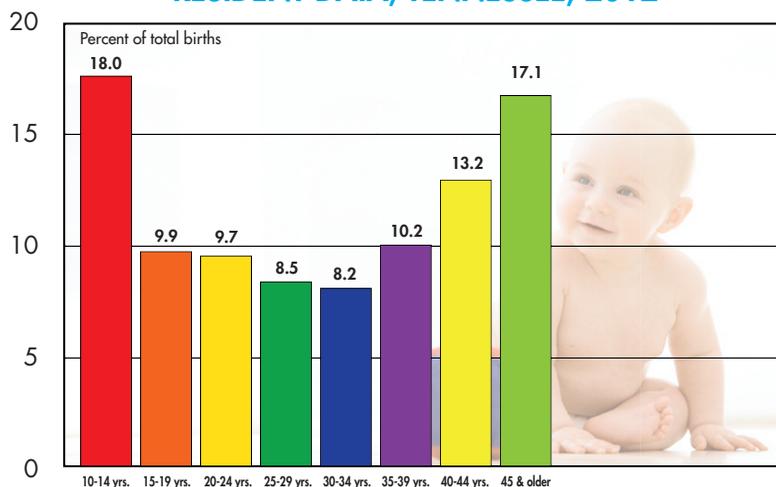
- In 2012, the ten-year age group 50-59 contained Tennessee's greatest number of females (466,065).
- This age group accounted for 14.1 percent of Tennessee's total female population followed by the age group 40-49 with 13.6 percent.
- The percentage of females under 10 years of age was 12.1, while 10.7 percent of females were ages 70 and older.

TENNESSEE'S FEMALE POPULATION, BY AGE GROUP, 2012



Population estimates for 2012 were interpolated from the Census five-year cohort estimates. Source: Tennessee Department of Health, Division of Policy, Planning and Assessment.

PERCENT OF LOW-WEIGHT* BIRTHS BY AGE GROUP, RESIDENT DATA, TENNESSEE, 2012

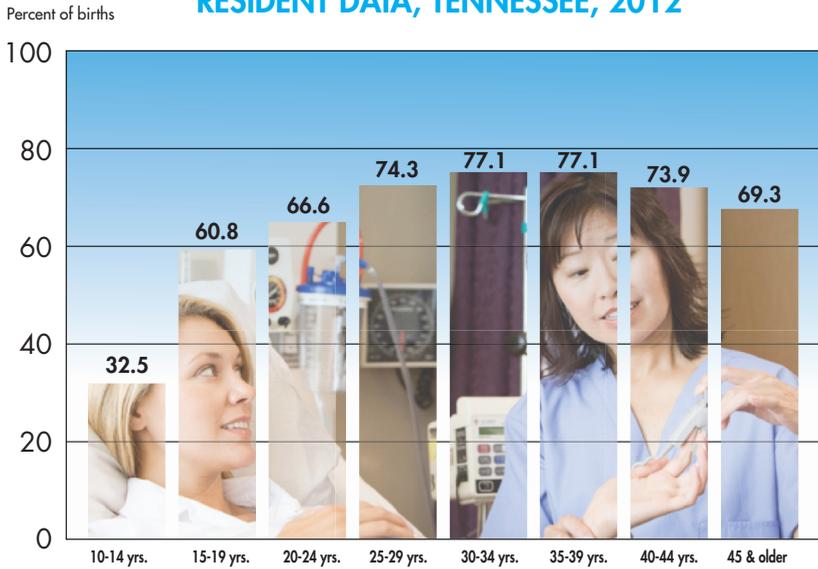


*A live birth weighing less than 2,500 grams (5 pounds, 8 ounces).

Source: Tennessee Department of Health, Division of Policy, Planning and Assessment.

- Low-weight babies are at higher risk of dying in the first months of life than babies of normal weight.
- Of the total 2012 resident births, 7,359 or 9.2 percent of the babies weighed under 2,500 grams.
- The greatest percent of low-weight babies were born to mothers ages 10 through 14 years (18.0); followed by mothers ages 45 years and older (17.1); and mothers age 40-44 (13.2).
- Of the total low-weight births, 24.6 percent of mothers reported tobacco use during pregnancy. White mothers reported the highest percentage (31.3), while black mothers reported a much lower tobacco use percentage (12.4).
- The Healthy People 2020 Objective for low-weight births is 7.8 percent of the total births.

PERCENT OF BIRTHS WITH PRENATAL CARE BEGINNING IN THE FIRST TRIMESTER, BY AGE GROUP, RESIDENT DATA, TENNESSEE, 2012



Percentages based on number of births with prenatal care reported.
Source: Tennessee Department of Health, Division of Policy, Planning and Assessment.

- In 2012, of the births to mothers ages 10-14 reporting prenatal care, 32.5 percent began care in the first trimester.
- The percentage of first trimester care by age group increased to a high of 77.1 percent for mothers ages 30-39.
- The total percent of Tennessee resident births that reported care beginning in the first trimester was 71.6

(Nationally recommended changes to the birth certificate were implemented in Tennessee on January 1, 2004. The collection of prenatal care information changed significantly; thus prenatal care data for 2004 and later years are not comparable to that of earlier years.)

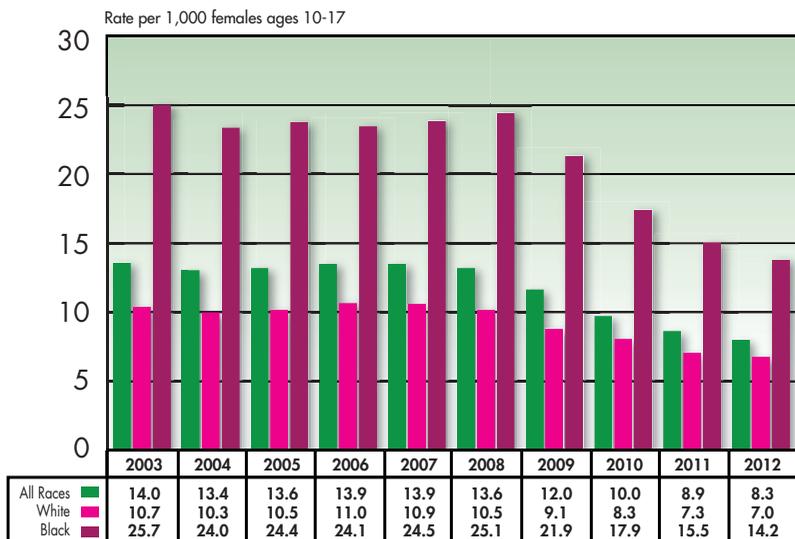
- In 2012, the number of multiple births included 2,512 twins, 77 triplets, and 4 quadruplets.
- The number of multiple births increased over 2011, while the percent of total births that were multiple births (3.2) remained the same.

NUMBER OF MULTIPLE BIRTHS, RESIDENT DATA, TENNESSEE, 2008-2012

	Total	Twins	Triplets	Quadruplets	Quintuplets or more
2012	2,593	2,512	77	4	-
2011	2,531	2,462	69	-	-
2010	2,495	2,415	72	8	-
2009	2,593	2,485	97	3	8
2008	2,747	2,652	92	3	-

The number of live births occurring in multiple deliveries may not be indicative of the number of sets of multiple births due to one or more members of a set not being born alive.
Source: Tennessee Department of Health, Division of Policy, Planning and Assessment.

ADOLESCENT PREGNANCY RATES (10-17), BY RACE, RESIDENT DATA, TENNESSEE, 2003-2012

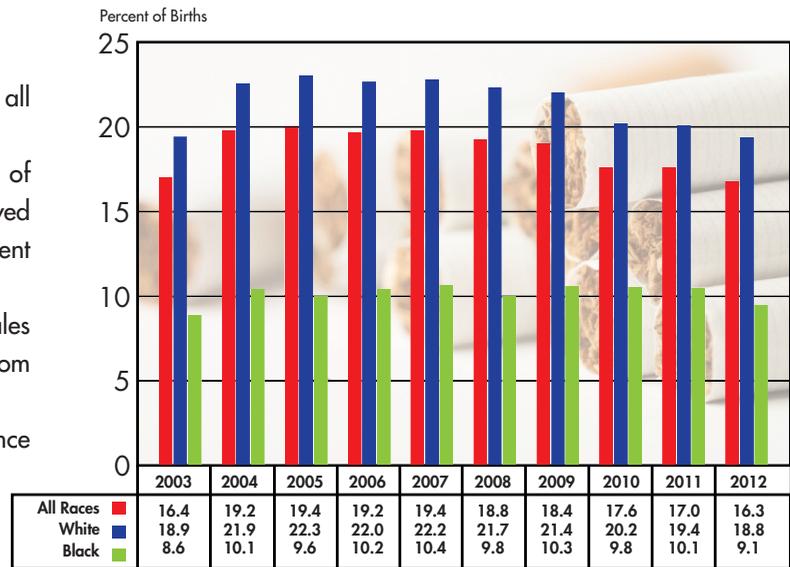


Total includes pregnancies to other racial groups or race not stated.
Source: Tennessee Department of Health, Division of Policy, Planning and Assessment.

- Adolescent pregnancies include births, induced terminations, and reportable fetal deaths.
- Overall the adolescent 10-17 pregnancy rates showed a declining trend from 2003 through 2012.
- The total pregnancy rate for females ages 10-17 declined 40.7 percent from 14.0 pregnancies per 1,000 females of all races in 2003 to 8.3 in 2012.
- The white adolescent pregnancy rate dropped 34.6 percent from 10.7 in 2003 to 7.0 per 1,000 females in 2012.
- The 2003 black rate of 25.7 decreased 44.7 percent to 14.2 pregnancies per 1,000 females in 2012.

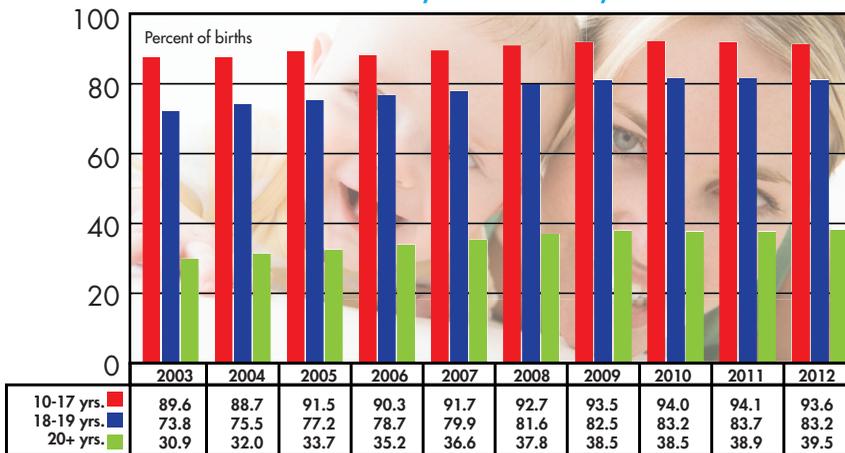
- In 2012, 16.3 percent of Tennessee birth certificates for all races indicated tobacco use.
- During the 10-year period 2003-2012, the reporting of tobacco use on Tennessee resident birth certificates showed the percent for white females was roughly twice the percent for black females.
- In 2012, the percentages for both white and black females who reported smoking during pregnancy decreased from the previous year.
- The Healthy People 2020 Objective for tobacco abstinence among pregnant women is 98.6 percent.

REPORTED TOBACCO USE DURING PREGNANCY, BY RACE, RESIDENT DATA, TENNESSEE, 2003-2012



Source: Tennessee Department of Health, Division of Policy, Planning and Assessment.

PERCENT OF BIRTHS TO UNMARRIED MOTHERS, BY AGE GROUP, TENNESSEE, 2003-2012

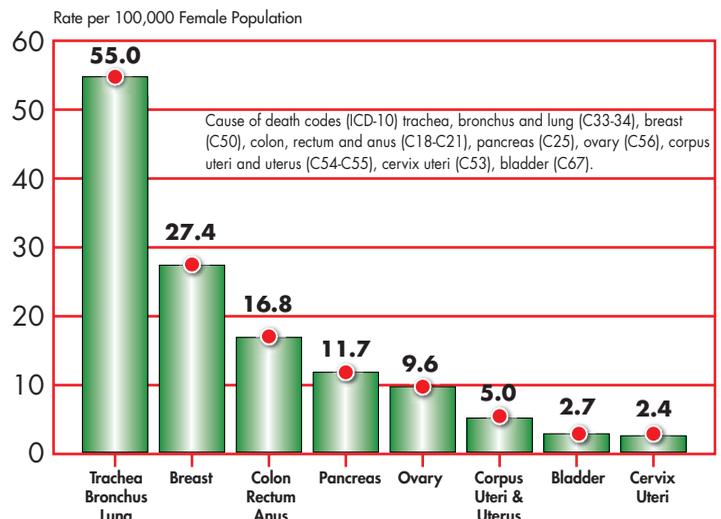


Source: Tennessee Department of Health, Division of Policy, Planning and Assessment.

- For 2003 through 2012, the highest percent of out-of-wedlock births was to mothers under 18 years of age.
- These babies were at greatest risk for negative social and economic consequences due to the fact that adolescent mothers very often lack education and job skills.
- From 2003 to 2012, the percent of out-of-wedlock births increased 4.5 percent for mothers aged 10-17, 12.7 percent for mothers 18-19, and 27.8 percent for mothers 20 years and older.

- Mortality data collected from Tennessee's death certificates ranks malignant neoplasms as the second leading cause of death for females.
- There were 6,219 cancer deaths reported for resident females in 2012.
- Of these deaths, cancer of the trachea, bronchus, and lung had the highest rate per 100,000 females (55.0) followed by breast cancer (27.4).
- These two causes accounted for 43.8 percent of the total cancer deaths for females in 2012.

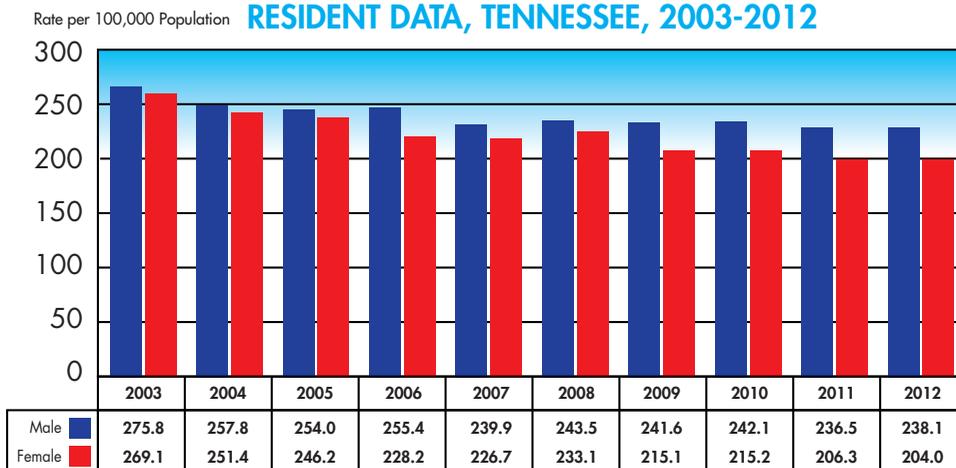
CANCER DEATH RATES FOR FEMALES, FOR SELECTED CAUSES, RESIDENT DATA, TENNESSEE, 2012



Source: Tennessee Department of Health, Division of Policy, Planning and Assessment.

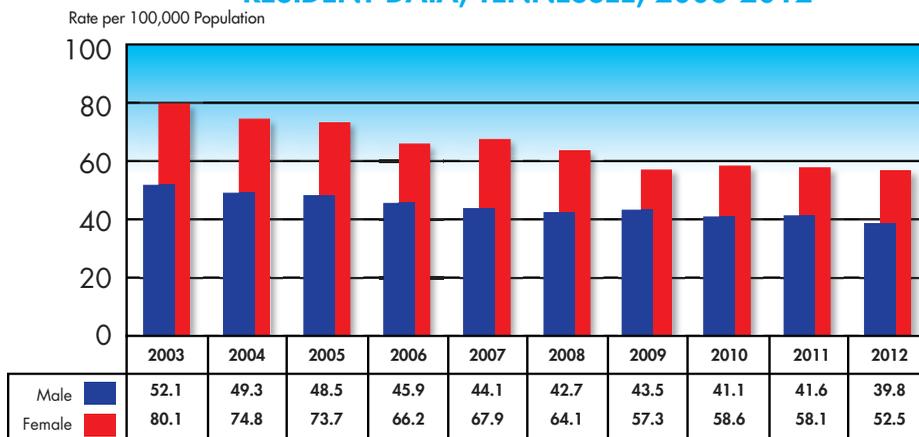
HEART DISEASE DEATH RATES BY GENDER, RESIDENT DATA, TENNESSEE, 2003-2012

- Heart disease, the leading cause of death in Tennessee, has generally declined in recent years.
- The crude death rate for females decreased 24.2 percent from 2003 to 2012, while the rate for males declined 13.7 percent for the same period.
- The 2012 death rate per 100,000 males (238.1) exceeded the death rate per 100,000 females (204.0) by 16.7 percent.



Cause of death code (ICD-10) I00-I09, I11, I13, I20-I51. Source: Tennessee Department of Health, Division of Policy, Planning and Assessment.

CEREBROVASCULAR DISEASE DEATH RATES BY GENDER, RESIDENT DATA, TENNESSEE, 2003-2012



Cause of death code (ICD-10) I60-I69. Source: Tennessee Department of Health, Division of Policy, Planning and Assessment.

- Tennessee's cerebrovascular diseases crude death rate was higher for females than males for the years 2003-2012.
- Although the rate for both genders decreased during the ten years, the female rate decreased 34.5 percent, while the male rate decreased 23.6 percent.
- The 2012 rate of 52.5 per 100,000 females was 1.3 times higher than the rate of 39.8 per 100,000 males.

- In 2012, diseases of heart and malignant neoplasms accounted for 42.7 percent of the total resident deaths to Tennessee's women.
- While the leading cause of death for white females was diseases of heart, malignant neoplasms ranked as the leading cause for the black female population in 2012.
- Chronic lower respiratory diseases ranked third for white females but ranked sixth for black females.
- Diabetes was the cause for 5.3 percent of deaths to black women and 2.5 percent of the deaths for white women.
- Cerebrovascular diseases ranked as the third cause for black females and fifth for white females.

LEADING CAUSES OF DEATH (ICD-10 CODES) FOR FEMALES, BY RACE, WITH PERCENTAGE OF DEATHS, RESIDENT DATA, TENNESSEE, 2012

Cause	Total	Percent	White	Percent	Black	Percent
Total Deaths	30,395	100.0	26,228	100.0	3,932	100.0
1. Diseases of heart (I00-I09, I11, I13, I20-I51)	6,747	22.2	5,843	22.3	858	21.8
2. Malignant neoplasms (C00-C97)	6,219	20.5	5,280	20.1	884	22.5
3. Chronic lower respiratory disease (J40-J47)	1,956	6.4	1,801	6.9	143	3.6
4. Alzheimer's disease (G30)	1,745	5.7	1,581	6.0	156	4.0
5. Cerebrovascular diseases (I60-I69)	1,737	5.7	1,455	5.5	265	6.7
6. Accidents (V01-X59, Y85-Y86)	1,285	4.2	1,175	4.5	103	2.6
Motor vehicle accidents (V02-V04, V09.0, V09.2, V12-V14, V19.0-V19.2, V19.4-V19.6, V20-V79, V80.3-V80.5, V81.0-V81.1, V82.0-V82.1, V83-V86, V87.0-V87.8, V88.0-V88.8, V89.0-V89.2)	251	0.8	220	0.8	28	0.7
7. Diabetes mellitus (E10-E14)	889	2.9	667	2.5	210	5.3
8. Influenza and pneumonia (J10-J18)	762	2.5	686	2.6	71	1.8
9. Nephritis, nephrotic syndrome and nephrosis (N00-N07, N17-N19, N25-N27)	471	1.5	370	1.4	94	2.4
10. Septicemia (A40-A41)	390	1.3	341	1.3	46	1.2

Source: Tennessee Department of Health, Division of Policy, Planning and Assessment.

BEHAVIORAL RISK FACTORS THAT AFFECT TENNESSEE WOMEN'S HEALTH

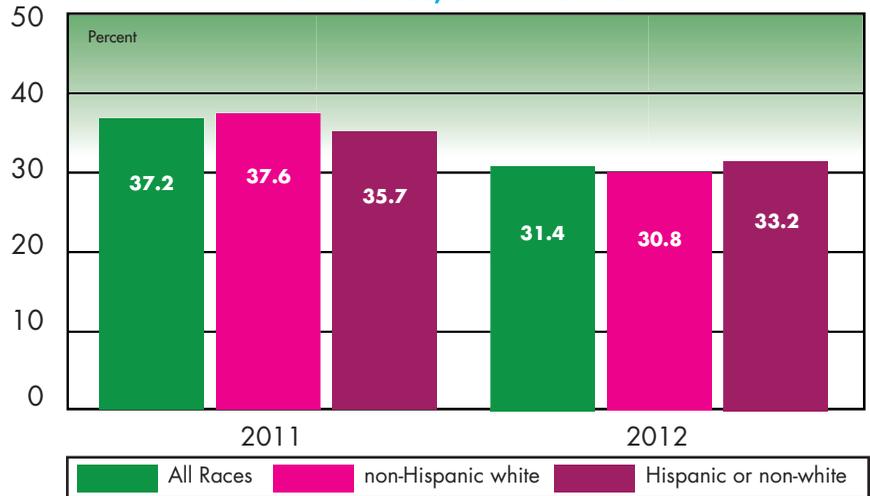
Beginning in 2011, the Centers for Disease Control and Prevention (CDC) made two important changes in the Behavioral Risk Factor Surveillance System (BRFSS) survey. First, they adopted a new statistical method for weighting data (i.e. raking) and second, they began incorporating cell phone users for 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 U.S.

As a result of these changes, 2011 and 2012 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 www.cdc.gov/mmwr/PDF/wk/mm6122.pdf

- The Behavioral Risk Factor Surveillance System for 2012 collected data on the percent of female respondents who reported no physical activity within the past 30 days.
- The 2012 survey showed a decline from 2011 in the percent of all women that reported no physical activity.
- The 2012 percentage of 31.4 for the total female respondents reporting no physical activity within the past 30 days was 15.6 percent lower than the 2011 percentage of 37.2.
- The percentages for the non-Hispanic white female respondents and Hispanic or non white female respondents declined 18.1 and 7.0 respectively.

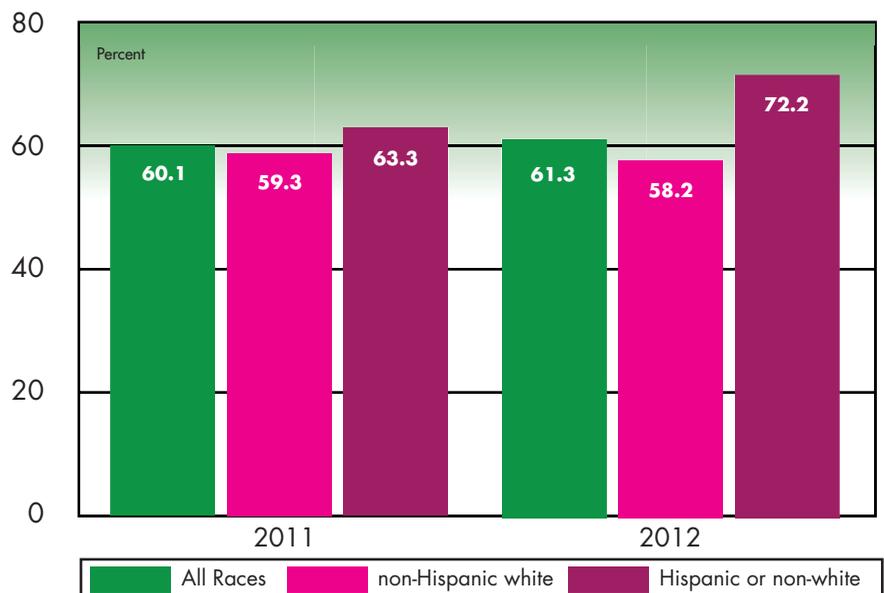
PERCENT OF WOMEN WHO REPORTED NO PHYSICAL ACTIVITY WITHIN THE PAST 30 DAYS, BY RACE, TENNESSEE, 2011 - 2012



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

- Obesity can be an attributing factor for health conditions such as hypertension, cerebrovascular diseases, heart disease, diabetes and other chronic respiratory diseases.
- The Behavioral Risk Factor Surveillance System indicated that in 2012 there continued to be a high percentage in the at risk female population for being overweight or obese.
- Results of the 2012 surveillance showed the percentages for the total female respondents and the non-Hispanic white female respondents remained fairly constant from 2011 to 2012.
- The percentage of Hispanic or non-white women reporting overweight/obesity increased 14.1 percent from 2011 to 2012.

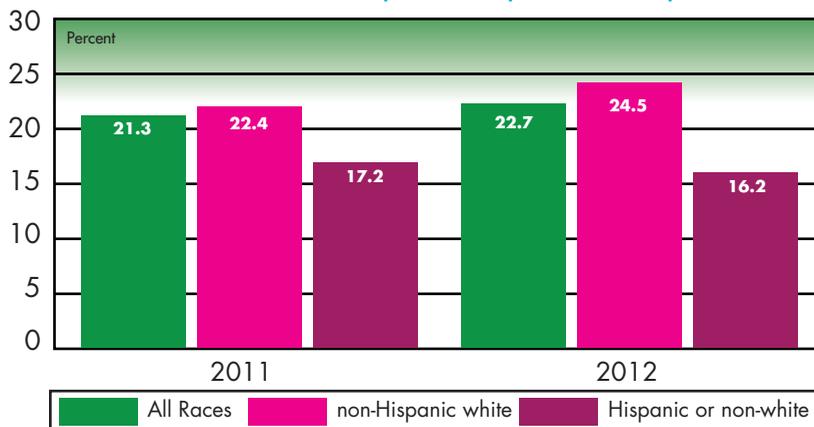
PERCENT OF WOMEN WHO REPORTED OVERWEIGHT/OBESITY*, BY RACE, TENNESSEE, 2011 - 2012



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

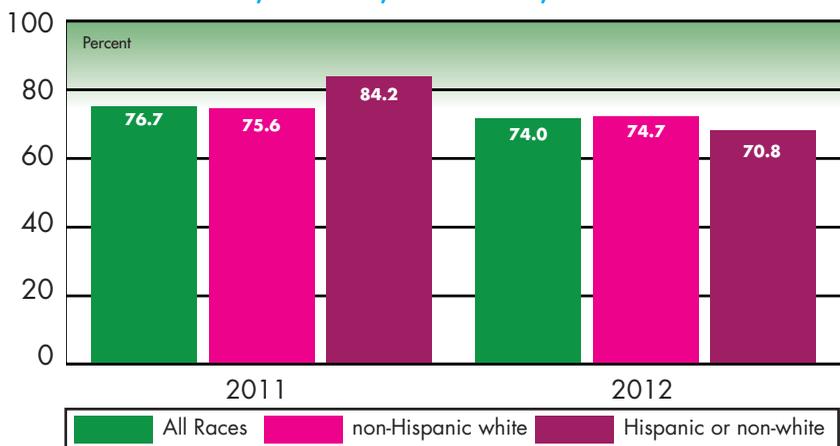
- Tobacco use is a major risk factor for heart disease, cancer, respiratory, and other diseases.
- The percent of women aged 18 years and older who reported they were smokers was greater for non-Hispanic white females than Hispanic or non white females, according to data collected from the 2011 and 2012 Tennessee Behavioral Risk Factor Surveillance System.
- The 2012 total female and non-Hispanic white female respondents reported an increase in current smoking over the 2011 survey respondents.

PERCENT OF WOMEN AGED 18 YEARS AND OLDER WHO REPORTED THEY ARE CURRENT SMOKERS, BY RACE, TENNESSEE, 2011 - 2012



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

PERCENT OF WOMEN AGED 40 YEARS AND OLDER WHO REPORTED THEY HAD A MAMMOGRAM WITHIN THE LAST TWO YEARS, BY RACE, TENNESSEE, 2011 - 2012

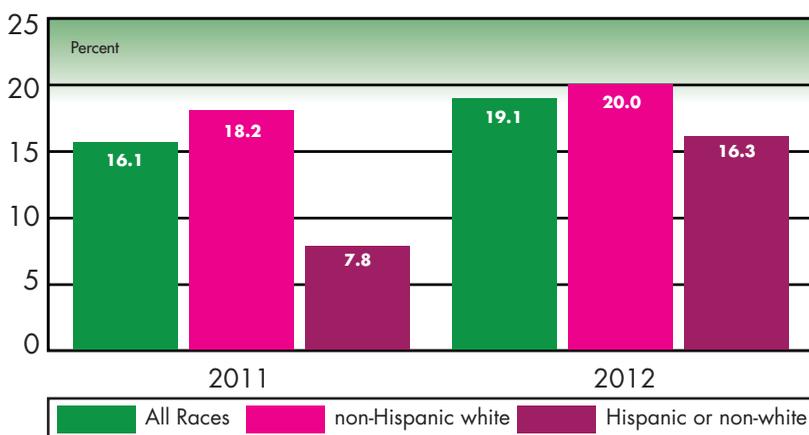


Source: Tennessee Department of Health, Division of Policy, Planning and Assessment. Behavioral Risk Factor Surveillance System

- Breast cancer ranked as the second leading cause of cancer deaths among Tennessee's women.
- Screening for breast cancer can provide early detection and reduce mortality.
- Data from the Tennessee Behavioral Risk Factor Surveillance System provides information by race on the percent of women aged 40 and older who stated they had a mammogram within the last two years.
- Tennessee's 2012 survey respondents reported a decrease from 2011 in the percent of women who stated they had a mammogram with the last two years.

- Mortality from invasive cervical cancer can be reduced with early detection from the Pap test.
- The 2012 Tennessee Behavioral Risk Factor Surveillance System survey results indicated that the total percent of women 18 years and older that did not have a Pap smear within the past three years was 19.1 percent, which was an increase over 2011.
- For non-Hispanic white females the 2012 percentage was 20.0.
- The 2012 percentage (16.3) for Hispanic or non-white females aged 18 years and older reporting not having received a Pap test within the preceding three years. was twice the percentage (7.8) in 2011.

PERCENT OF WOMEN AGED 18 YEARS AND OLDER WHO REPORTED THEY DID NOT HAVE A PAP SMEAR WITHIN THE PAST THREE YEARS*, BY RACE, TENNESSEE, 2011 - 2012

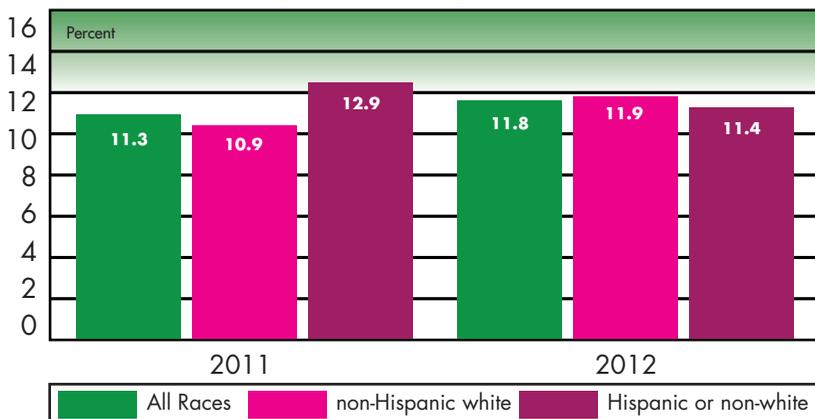


* Percent includes women who reported never having a PAP Smear

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

- In 2012, the Behavioral Risk Factor Surveillance System indicated 11.8 percent of total women and 11.9 percent of non-Hispanic white women reported diabetes; an increase over the percentages reported for 2011.
- The 2012 percent (11.4) of Hispanic or non-white women reporting diabetes decreased from the 2011 percent (12.9).
- Diabetes was the 7th leading cause of death for women in Tennessee for 2012.
- Diabetes has been associated with end-stage renal disease, blindness, and lower extremity amputation.
- Women with diabetes have an increased risk of pregnancy complications and higher rates of infants born with birth defects

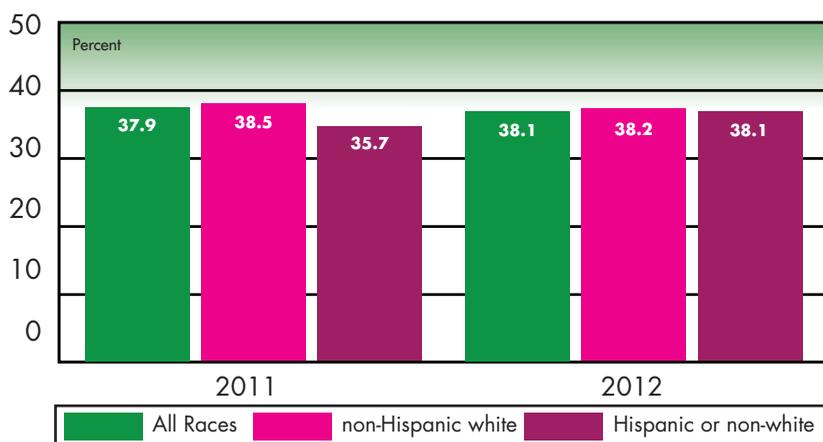
PERCENT OF WOMEN WHO REPORTED DIABETES*, BY RACE, TENNESSEE, 2011 - 2012



*Doctor diagnosed diabetes

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

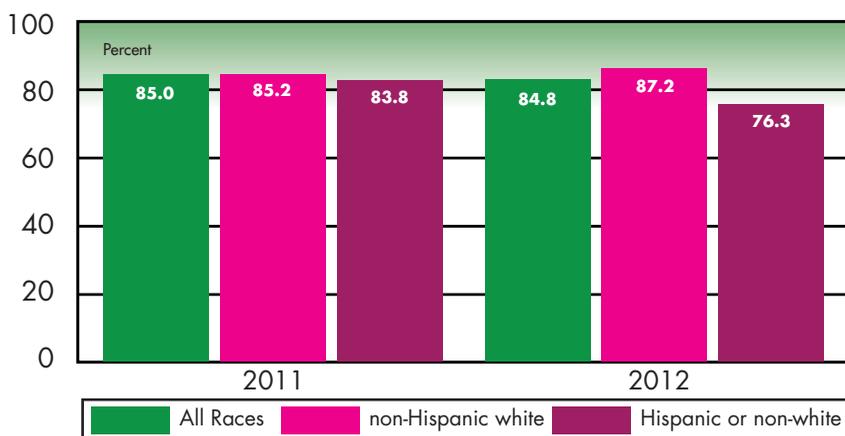
PERCENT OF WOMEN WHO REPORTED HYPERTENSION AWARENESS, BY RACE, TENNESSEE, 2011 - 2012



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

- In 2012, Tennessee's at-risk female population for high blood pressure remained fairly constant with the data collected from the 2011 Behavioral Risk Factor Surveillance System.
- The percent of non-Hispanic white women reporting high blood pressure was 38.2 while 38.1 percent of Hispanic or non-white women reported having high blood pressure in 2012.
- The modifiable risk factors for heart disease and cerebrovascular diseases are high blood pressure, high blood cholesterol and smoking.

PERCENT OF WOMEN WHO REPORTED EVER HAVING BLOOD CHOLESTEROL CHECKED, BY RACE, TENNESSEE, 2011 - 2012

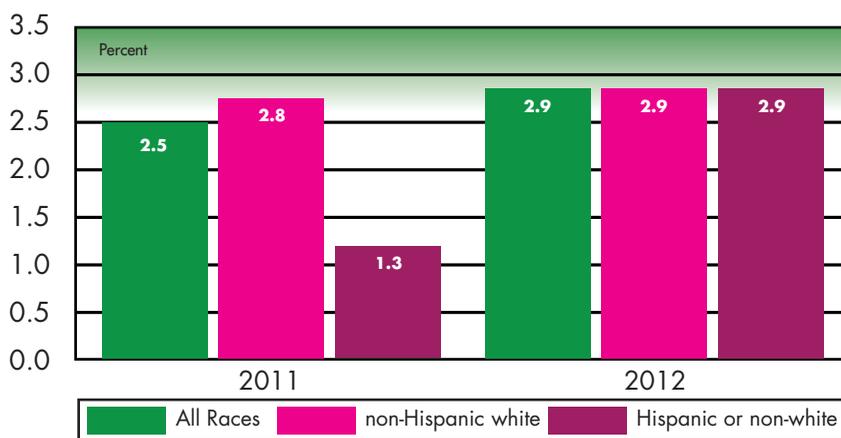


Source: Tennessee Department of Health, Division of Policy, Planning and Assessment. Behavioral Risk Factor Surveillance System

- The 2012 Behavioral Risk Factor Surveillance System revealed the percent of Tennessee's female population, who reported ever having their blood cholesterol checked was 84.8.
- Non-Hispanic white women reported 87.2 percent for having their blood pressure checked. This was an increase over the 2011 percentage of 85.2.
- In 2012, Hispanic or non-white women reported 76.3 percent. This was a decrease from the 2011 percent of 83.8 for ever having blood pressure checked.

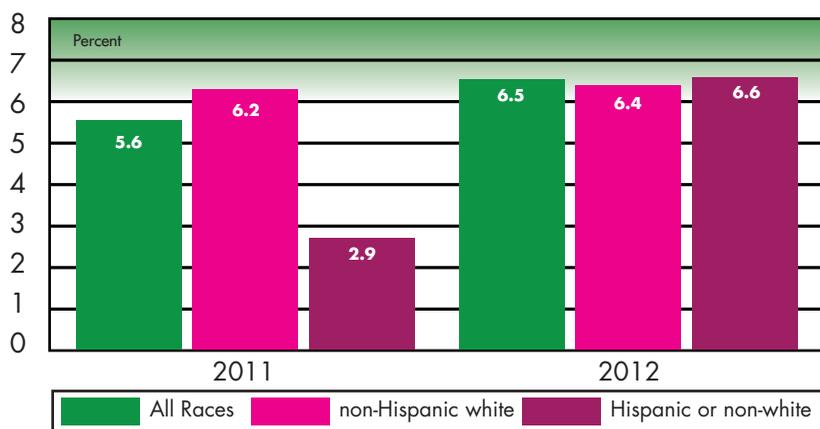
PERCENT OF WOMEN WHO REPORTED CHRONIC (HEAVY DRINKING*), BY RACE, TENNESSEE, 2011 - 2012

- In 2012, the Tennessee Behavioral Risk Factor Surveillance System collected alcohol consumption data from Tennessee females.
- According to the survey, 2.9 percent of all women, which includes the non-Hispanic white women, and Hispanic or non-white women, reported (chronic or heavy drinking) having more than two drinks per day.
- The 2012 percentages (2.9) were higher than the percentages reported for 2011.



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

PERCENT OF WOMEN WHO REPORTED BINGE DRINKING*, BY RACE, TENNESSEE, 2011 - 2012



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

- The percent of female Behavioral Risk Factor Surveillance System respondents reporting that they drank in the past 30 days and had five or more drinks on one or more occasion in the past month (binge drinking) was 6.5 in 2012.
- The percentage for non-Hispanic white women was 6.4, a slight increase over 2011. The percent (6.6) for Hispanic or non-white women was twice the percent (2.9) for 2011.
- The percent of all women reporting binge drinking increased from 2011 to 2012.

The Behavioral Risk Factor Surveillance System (BRFSS) is a state-based computer-assisted telephone interviewing effort conducted in cooperation with the Centers for Disease Control and Prevention. Since 1984, adults have been surveyed every month in 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. 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. Thus where Tennessee Behavioral Risk Factor Surveillance System (BRFSS) data were previously analyzed and presented according to the broad categories of white, black, and other races groups, current BRFSS data are now presented using the categories of non-Hispanic white and Hispanic or nonwhite. Since the Hispanic population in Tennessee is relatively small in comparison to the total population this new classification scheme is basically a change in terminology and does not significantly differ from the previous classification used. However, the population and vital statistics data presented in this report still follows a racial classification scheme of white, black and other races. Please note that there are technically two different racial definitions employed in this report depending upon the source of the data. This difference should be very minimal in the context of the report.

***Do NOT compare 2011 and 2012 BRFSS data to previous years. Due to changes in methods, comparisons are NOT valid and may be misleading.**

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 U.S.

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

NOTE: The population estimates for Tennessee used to calculate the rates in this report for 2003-2009 were based on figures prepared from the 2000 Census in February 2008 by the Division of Policy, Planning and Assessment. The population estimates for 2010 were based on the 2010 Census data. Population estimates for 2011 and 2012 were interpolated from the Census five-year age cohort estimates (CC-EST2011-ALLDATA-[ST-FIPS] May 2012) by the Division of Policy, Planning and Assessment in October 2012. These population figures may result in rates that differ from those published in previous time periods.

Birth and death certificates filed with the Office of Vital Records supplied statistical data maintained by the Division of Policy, Planning and Assessment for the pregnancy, birth, and death data presented in this report. 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.

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

Please visit the **Health Statistics** pages on the Tennessee Department of Health website at: <http://health.state.tn.us>

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Andrew Johnson Tower, 2nd Floor
Nashville, Tennessee, 37243
For additional information please contact: (615)741-1954



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