

Tennessee Deaths 2012

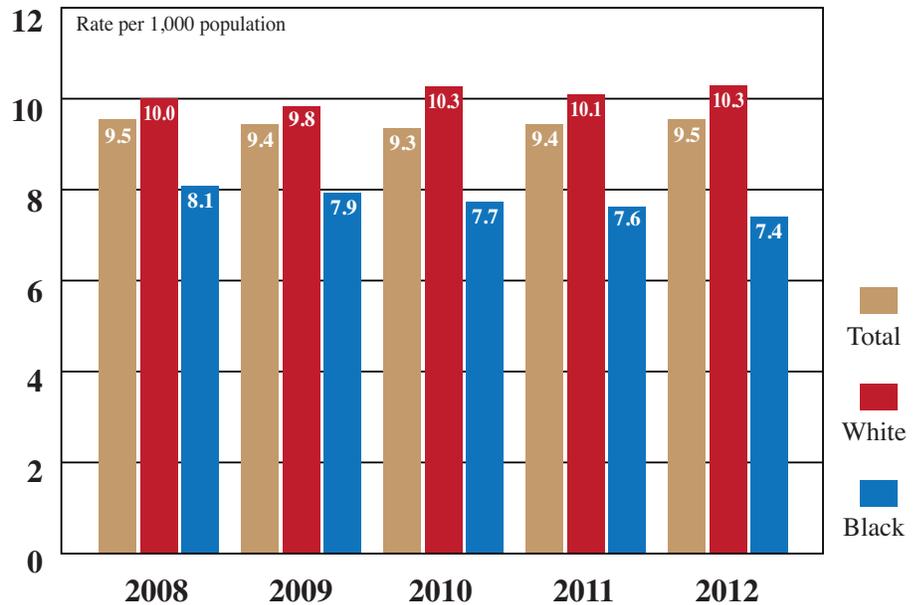
December 2013
Tennessee Department of Health

Tennessee's death data provide information on 2012 final mortality data for state residents. Resident data include events which occurred to residents of the state irrespective of where the events took place. Certificates filed with the Office of Vital Records supplied the data for this report.

Over the past century, improvements in scientific technology and research have created a better quality of life. Tennesseans now have the potential for increased longevity of life and reductions in illnesses.

- The 2012 total death rate of 9.5 per 1,000 population remained the same as the rate for 2008.
- The mortality rate of the white population increased 3.0 percent from 10.0 in 2008 to 10.3 in 2012.
- The rate for the black population decreased 8.6 percent from 8.1 per 1,000 population to 7.4 during the 5-year period.
- Age-specific death rates for 2012 show the total rates for the age group 65-74 almost three times that of the age group 45-64.
- Rates by age group for the black residents were higher than those for the white residents, except for the population group 85 years and older when the white rate was higher than both the total and black rate.
- The black infant death rate of 12.1 was 2.1 times higher than the white rate of 5.9 per 1,000 births.

Death Rates by Race, Resident Data, Tennessee, 2008-2012



Population estimates for 2008-2009 used to calculate rates were revised February 2008. (See note on last page.) 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. Total includes deaths to other racial groups or race not stated. Source: Tennessee Department of Health, Division of Policy, Planning and Assessment, Office of Health Statistics

Number of Deaths by Age and Race, with Rates per 100,000 Population, Resident Data, Tennessee, 2012

Age Groups	Total	Rate	White	Rate	Black	Rate
Total	61,164	947.4	52,532	1,026.5	8,171	744.3
Under 1*	576	7.2	357	5.9	200	12.1
1-4 years	110	33.9	79	33.6	27	40.5
5-14 years	99	11.8	71	11.4	26	15.6
15-24 years	709	80.9	502	77.1	200	106.1
25-44 years	3,084	182.9	2,405	182.5	635	212.1
45-64 years	14,149	816.2	11,387	800.2	2,626	983.3
65-74 years	11,723	2,186.7	10,091	2,141.5	1,549	2,811.6
75-84 years	14,864	5,386.7	13,260	5,408.3	1,504	5,631.5
85+ years	15,850	14,898.2	14,380	15,140.7	1,404	13,640.3

* Rates for deaths under age one are per 1,000 live births. All other age groups are per 100,000 population. Totals include deaths of other races and deaths with race or age not stated. Source: Tennessee Department of Health, Division of Policy, Planning and Assessment, Office of Health Statistics

- Tennessee's ten leading causes of death accounted for 45,375 or 74.2 percent of the total 61,164 deaths in 2012.
- In recent years, there has been a shift in the leading causes of death.
- Chronic lower respiratory diseases increased and remained the third cause of death from 2008-2012, while cerebrovascular diseases declined to the fifth cause for 2009-2012.
- The codes used for cause of death were from the Tenth Revision International Classification of Diseases.

Note: Age-adjustment is a technique that removes the effects that differences in age distributions have on mortality rates for two or more groups being compared. Beginning in 1999, the standard population used in the direct method calculations was revised to the 2000 United States estimated population, as recommended by the National Center for Health Statistics. Thus, any age-adjusted rate values calculated in 1999 and later have a different scale of values from similar rates calculated prior to 1999.

Leading Causes of Death (ICD-10 Codes) with Rates and Age-Adjusted Rates per 100,000 Population, Resident Data, Tennessee, 2012

Cause	Number	Rate	Age-Adjusted Rate
Total Deaths	61,164	947.4	869.3
1. Diseases of heart (I00-I09, I11, I13, I20-I51)	14,245	220.6	200.8
2. Malignant neoplasms (C00-C97)	13,633	211.2	185.8
3. Chronic lower respiratory diseases (J40-J47)	3,658	56.7	51.2
4. Accidents (V01-X59, Y85-Y86)	3,302	51.1	49.9
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)	958	14.8	14.6
5. Cerebrovascular diseases (I60-I69)	2,991	46.3	43.1
6. Alzheimer's disease (G30)	2,416	37.4	36.0
7. Diabetes mellitus (E10-E14)	1,823	28.2	25.4
8. Influenza and pneumonia (J10-J18)	1,421	22.0	20.4
9. Intentional self-harm (suicide) (X60-X84, Y87.0)	956	14.8	14.3
10. Nephritis, nephrotic syndrome and nephrosis (N00-N07, N17-N19, N25-N27)	930	14.4	13.4

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

Number of Infant and Neonatal Deaths by Race, with Rates per 1,000 Live Births, Resident Data, Tennessee, 2012

Infant Deaths	Number	Rate	Neonatal Deaths	Number	Rate
Total	576	7.2	Total	345	4.3
White	357	5.9	White	206	3.4
Black	200	12.1	Black	130	7.9

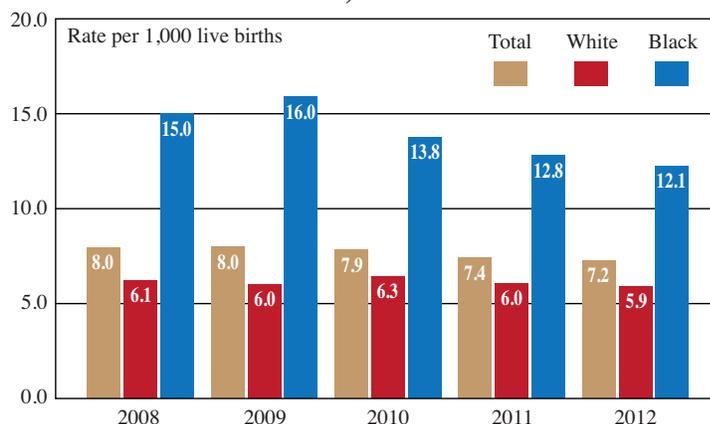
Infant Death - A death of a live-born infant under one year of age.

Neonatal Death - A death of a live-born infant under 28 days of age.

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

- Tennessee had 576 infant deaths in 2012. The total infant mortality rate per 1,000 live births was 7.2.
- The number of white infant deaths was 357 with a mortality rate of 5.9.
- In 2012, the number of black infant deaths was 200, with a rate of 12.1 per 1,000 live births.
- The total number of neonatal deaths was 345 with a rate of 4.3 in 2012.
- There were 206 white and 130 black neonatal deaths with corresponding rates of 3.4 and 7.9 per 1,000 live births.
- For the period 2008-2012, Tennessee's infant death rates decreased. The total rate decreased 10.0 percent while the white rate decreased 3.3 percent.
- The 2012 black infant mortality rate of 12.1 decreased 19.3 percent from the 2008 rate of 15.0 deaths per 1,000 live births.
- Early prenatal care and educating mothers on the importance of proper nutrition and good health habits, and informative programs like the "Back to Sleep" campaign, have been important factors in the ongoing effort to decrease infant deaths.
- While these deaths overall have declined since the early 1900's, infant death reduction will continue to be a high priority for health professionals.

Infant Death Rates by Race, Resident Data, Tennessee, 2008-2012



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

Tennessee's violent death data primarily focuses on assault (homicide) and intentional self-harm (suicide) deaths. Also provided is information on firearm deaths, which includes accidental deaths as well as assault and intentional self-harm deaths due to firearm use. There were no deaths from legal intervention in 2012.

- During 2012, there were 456 assault deaths among residents of Tennessee. The corresponding death rate was 7.1 per 100,000 population.
- In 2012, 251 or 55.0 percent of the total assault deaths occurred among the black population.
- Of the total 2012 assault deaths, 78.1 percent were males while 47.1 percent of the total were black males.
- The number of intentional self-harm deaths for 2012 was 956 with a rate of 14.8 per 100,000 population.
- The white population accounted for 877 or 91.7 percent of the total 2012 intentional self-harm deaths.
- Of the total 2012 intentional self-harm deaths, 78.3 percent were males while 72.1 percent of the total were white males.
- In 2012, intentional self-harm was the ninth leading cause of death in Tennessee.

The 2012 assault death rate for black residents was 22.9 per 100,000 population. This rate was 5.9 times the white rate of 3.9. The 2012 intentional self-harm rate for the white population was 17.1. This rate was 3.1 times the black rate of 5.6.

Number of Assault and Intentional Self-Harm Deaths by Race and Gender, with Rates per 100,000 Population, Resident Data, Tennessee, 2012

	Assault		Intentional Self-harm	
	Number	Rate	Number	Rate
Total	456	7.1	956	14.8
White	199	3.9	877	17.1
White Male	138	5.5	689	27.4
White Female	61	2.3	188	7.2
Black	251	22.9	62	5.6
Black Male	215	41.5	52	10.0
Black Female	36	6.2	10	1.7
Other Races	4	1.7	13	5.4
Other Male	3	2.5	8	6.8
Other Female	1	0.8	5	4.1

Total may include deaths with race not stated.
Source: Tennessee Department of Health, Division of Policy, Planning and Assessment, Office of Health Statistics

In 2012, there were 28 assault and 4 intentional self-harm deaths among children under 15 years of age. The highest rate for assault deaths occurred to persons 20-24 years, while the highest rate for intentional self-harm was for persons 45-54 years of age.

Number of Assault and Intentional Self-Harm Deaths by Age with Rates per 100,000 Population, Resident Data, Tennessee, 2012

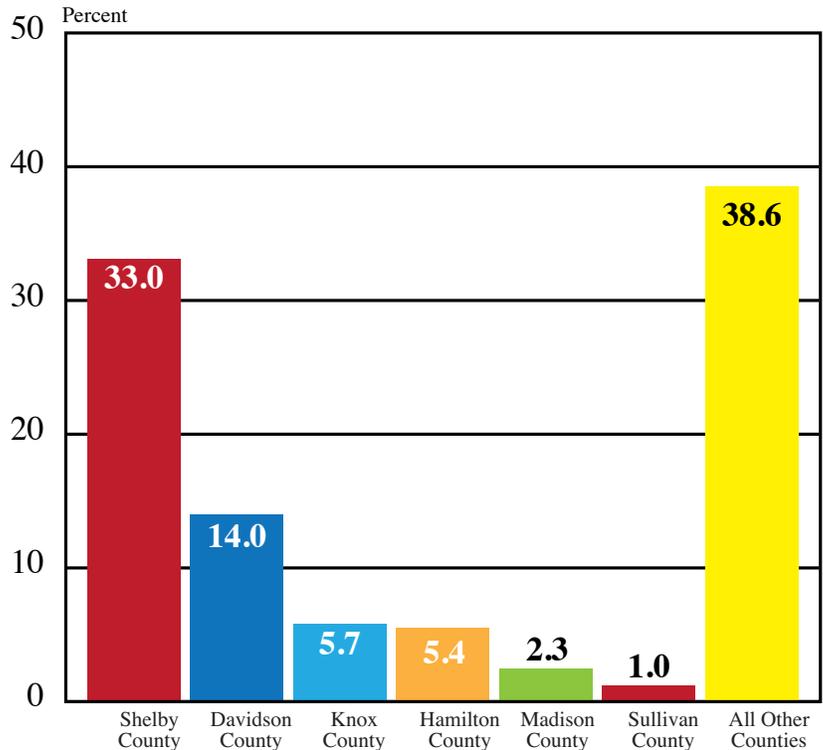
Age Groups	Assault		Intentional Self-harm	
	Number	Rate	Number	Rate
Total	456	7.1	956	14.8
Under 1*	9	0.1	-	-
1-9 years	16	2.2	-	-
10-14 years	3	0.7	4	0.9
15-19 years	42	10.0	38	9.0
20-24 years	78	17.1	53	11.6
25-29 years	59	14.0	63	14.9
30-34 years	54	12.8	76	18.0
35-44 years	69	8.2	157	18.6
45-54 years	55	6.0	215	23.6
55-64 years	41	5.0	165	20.1
65-74 years	21	3.9	104	19.4
75-84 years	7	2.5	61	22.1
85+ years	2	1.9	20	18.8

*Rates for deaths under age one are per 1,000 births. All other age groups are per 100,000 population.
Source: Tennessee Department of Health, Division of Policy, Planning and Assessment, Office of Health Statistics

- Tennessee's assault mortality by county of residence revealed the highest numbers for the metropolitan areas of Shelby and Davidson Counties for the period of 2008-2012.
- The larger number of assault deaths in metropolitan counties is a reflection of the larger population at risk base, not necessarily greater assault rates.
- The six metropolitan counties (Shelby, Davidson Hamilton, Knox, Madison, and Sullivan) accounted for 61.4 percent of the total assault deaths for the 5-year period.
- While accidental death is the leading cause of mortality for young children, violence toward children and youth is an increasing concern.
- In 2012, four children under the age of 10 years died from firearm injuries. Of these deaths, 2 were accidental and 2 were assault.
- For children ages 10-14, there were 4 firearm deaths. Of these deaths, 1 was accidental, 2 were intentional self-harm, and 1 was an undetermined death.
- For the age groups 15-19, and 20-44, assault was the leading cause of firearm mortality with 40 and 213 deaths respectively.
- Intentional self-harm was the leading cause of firearm deaths for age groups 45 years and older.

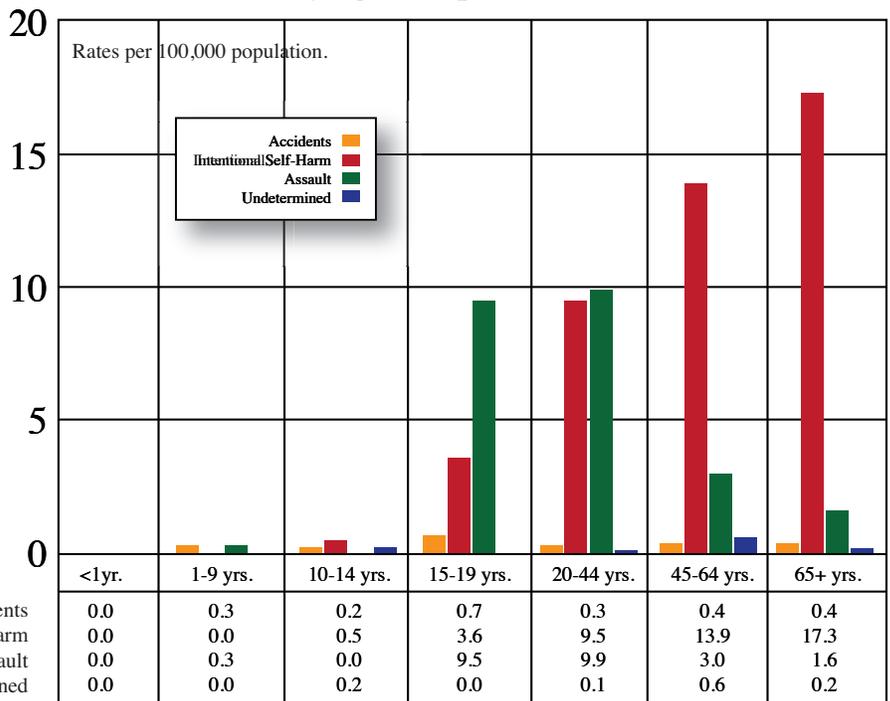
Deaths attributed to firearm injury are classified according to ICD-10 codes as follows: accident codes W32-W34; intentional self-harm codes X72-X74; assault codes X93-X95, and undetermined whether accidentally or purposely inflicted, codes Y22-Y24.

Five-Year Average Percent of Assault (Homicide) Deaths, by Metropolitan and Rural Counties, Resident Data, Tennessee 2008-2012



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

Firearm Death Rates by Age Group, Resident Data, Tennessee, 2012

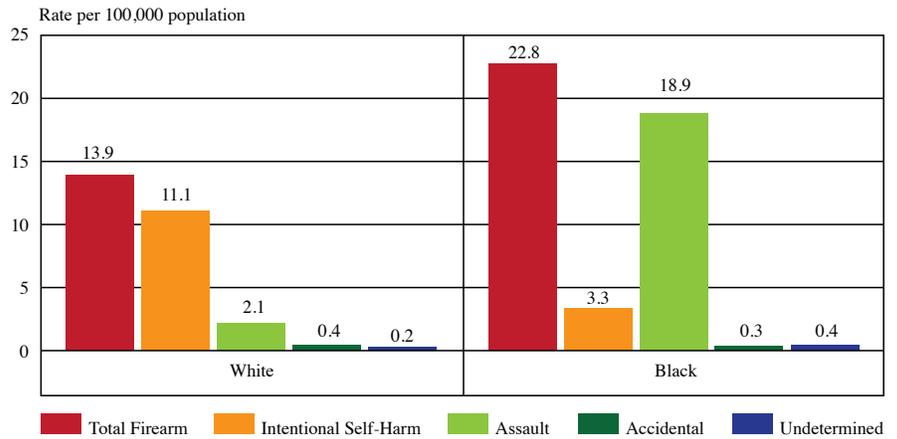


Rates for deaths under age one are per 1,000 live births. All other age groups are per 100,000 population.

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

- Tennessee had 709 firearm deaths for white residents and 250 for black residents in 2012.
- The white firearm death rate was 13.9 per 100,000 population. The black rate of 22.8 was 1.6 times greater than the white rate.
- The white intentional self-harm firearm mortality rate was 3.4 times greater than the black rate, while the black assault firearm death rate was 9.0 times greater than the white rate.
- The 2012 accidental firearm death rate for the white population group was 0.4, while the rate for the black group was 0.3 per 100,000 population.
- The undetermined cause rate was 0.2 for the white population and 0.4 for the black population.
- For 2012, firearm death rates by race and gender show that black males had the highest rate (43.8) per 100,000 population. The population group of other females had the lowest rate of 3.2.
- The 2012 total firearm death rate of 15.2 per 100,000 population increased 4.1 percent over the rate (14.6) in 2011.
- Violent deaths have become an important health issue as it appears that violent behavior has grown to be the course of action for conflict, emotional distress, and criminal activity.
- Reducing these preventable deaths is imperative in the goal toward increased longevity of life.
- From 2008 to 2012, Tennessee's total death rate for diseases of heart decreased 7.4 percent, while the rate for malignant neoplasms (cancer) decreased 1.0 percent
- Although heart disease continues to be the leading cause of death for the total population, the cancer death rate for the population under 85 years of age exceeded the rate for heart disease for 2008-2012.
- This relationship is similar to comparative data at the national level.
- Smoking, obesity, poor diet, and lack of exercise are all contributing factors to both heart disease and cancer deaths.

Firearm Death Rates by Race, Resident Data, Tennessee, 2012



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

Number of Firearm Deaths by Race and Gender, with Rates per 100,000 Population, Resident Data, Tennessee, 2012

	Number	Rate
Total	980	15.2
White	709	13.9
White Male	584	23.2
White Female	125	4.8
Black	250	22.8
Black Male	227	43.8
Black Female	23	4.0
Other Races	17	7.1
Other Male	13	11.0
Other Female	4	3.2

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

Number Deaths for Diseases of Heart and Malignant Neoplasms, by Age Group, with Rates per 100,000 Population, Resident Data, Tennessee, 2008-2012

Year	Total		Under 85 Years		85 Years and Older	
	Number	Rate	Number	Rate	Number	Rate
Diseases of Heart						
2008	14,636	238.2	9,968	165.0	4,668	4,507.7
2009	14,144	228.0	9,645	158.2	4,498	4,219.7
2010	14,489	228.3	9,873	158.1	4,616	4,619.8
2011	14,154	221.0	9,602	152.4	4,552	4,369.7
2012	14,245	220.6	9,809	154.5	4,436	4,169.6
Malignant Neoplasms						
2008	13,108	213.3	11,472	189.9	1,636	1,579.8
2009	13,409	216.2	11,783	193.3	1,626	1,525.4
2010	13,514	212.9	11,752	188.1	1,762	1,763.5
2011	13,461	210.2	11,713	186.0	1,748	1,678.0
2012	13,633	211.2	11,850	186.6	1,783	1,675.9

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

Tennessee Deaths 2012

- Tennessee’s injury deaths include unintentional and intentional deaths for the 5-year period of 2008-2012.
- Motor vehicle deaths (958) with a rate of 14.8 per 100,000 population decreased 5.1 percent from the rate of 15.6 in 2011.
- In 2012, motor vehicle accidents accounted for 29.0 percent of all resident accidental deaths.

Number of Injury Deaths, by Type with Rates per 100,000 Population, Resident Data, Tennessee, 2008-2012

Year	Accidents Including Motor vehicle		Intentional Self-harm		Assault	
	Number	Rate	Number	Rate	Number	Rate
2012	3,302	51.1	956	14.8	456	7.1
2011	3,400	53.1	938	14.6	442	6.9
2010	3,472	54.7	932	14.7	409	6.4
2009	3,148	50.8	939	15.1	491	7.9
2008	3,220	52.4	965	15.7	480	7.8

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

More detailed county level mortality data may be obtained by contacting the Tennessee Department of Health, Office of Health Statistics or at our website tn.gov/health

2012 Total Population 6,456,121	2012 White Population 5,117,466	2012 Black Population 1,097,867
--	--	--

NOTE: The population estimates for Tennessee used to calculate the rates in this report for 2008-2009 were based on figures prepared from the 2000 Census in February 2008 by the Office of Health Statistics. 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-EST2012-ALLDATA-[ST-FIPS] May 2013) by the Office of Health Statistics. These population figures may result in rates that differ from those published in previous time periods.

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

Report of Tennessee Deaths 2012 was published by the
Tennessee Department of Health
Division of Policy, Planning and Assessment
Office of Health Statistics
Andrew Johnson Tower, 2nd floor
Nashville, Tennessee, 37243
For additional information please call (615)741-1954



Tennessee Department of Health, Authorization
No. 343622, (12-13) website only