

NORTH CAROLINA

# Violent Death Reporting System

## Annual Report 2009

North Carolina  
Injury & Violence  
**PREVENTION** Branch

Division of Public Health



North Carolina  
Injury & Violence  
**PREVENTION** Branch



**Annual Report  
2009**

North Carolina Department of Health and Human Services  
Division of Public Health, Injury and Violence Prevention Branch  
June 2012

This report was supported in part by Cooperative Agreement Number 5U17CE423098-09 from the Centers for Disease Control and Prevention. Its contents are solely the responsibility of the authors and do not necessarily represent official views of the Centers for Disease Control and Prevention.

## Table of Contents

<b>Executive Summary .....</b>	<b>v</b>
Overall Violent Deaths .....	v
Suicides .....	vi
Homicides .....	vi
Legal Intervention .....	vii
Unintentional Firearm Deaths .....	vii
Child Violent Deaths .....	i
Undetermined Intent .....	i
Violent Death Trend Over Time .....	vii
Manner of Violent Death among Children .....	vii
<b>Introduction .....</b>	<b>1</b>
<b>Methods .....</b>	<b>2</b>
Case Identification .....	2
Defining Manner of Death .....	3
Analysis .....	4
<b>Acknowledgements .....</b>	<b>5</b>
<b>Section I: Overall Violent Deaths .....</b>	<b>7</b>
Basic Characteristics of Violent Deaths .....	7
Race and Gender of Violent Death Victims .....	15
Age and Gender of Violent Death Victims .....	15
<b>Section II: Suicide .....</b>	<b>18</b>
Basic Characteristics of Suicides .....	18
Race and Gender of Suicide Victims .....	26
Age and Gender of Suicide Victims .....	26
Circumstances, Toxicology Testing and Injury Location for Suicide Victims .....	29
<b>Section III: Homicide .....</b>	<b>34</b>
Basic Characteristics of Homicides .....	34
Race and Gender of Homicide Victims .....	41
Age and Gender of Homicide Victims .....	41
Circumstances and Injury Location for Homicide Victims .....	44
<b>Section IV: Legal Intervention .....</b>	<b>48</b>
<b>Section V: Unintentional Firearm Death .....</b>	<b>50</b>
<b>Section VI: Child Death .....</b>	<b>53</b>
<b>Section VII: Undetermined Intent .....</b>	<b>58</b>
<b>Section VIII: Violent Death Trend Over Time .....</b>	<b>62</b>
<b>Appendix A: Population Data for Rate Calculations .....</b>	<b>63</b>
<b>Appendix B: Advisory Board 2009 .....</b>	<b>64</b>
<b>Appendix C: Glossary .....</b>	<b>66</b>

## Executive Summary

### North Carolina Violent Death Reporting System, 2009

The North Carolina Violent Death Reporting System (NC-VDRS) is a Centers for Disease Control and Prevention (CDC)-funded state-wide surveillance system that collects detailed information on deaths that occur in North Carolina resulting from violence, specifically homicide, suicide, unintentional firearm injuries, legal intervention and those deaths for which the intent could not be determined. The system is a relational database and compiles information on the victims, suspects and circumstances surrounding each violent death. NC-VDRS is a multi-source system that gathers information from death certificates, medical examiner reports and law enforcement reports. Collection of this information has created a better understanding of the circumstances surrounding violent deaths that occur in North Carolina. The goal of the system is to aid researchers, legislators and community interest groups in the development of public health prevention strategies to reduce violent deaths. This report summarizes the violent deaths of North Carolina residents that occurred in 2009.

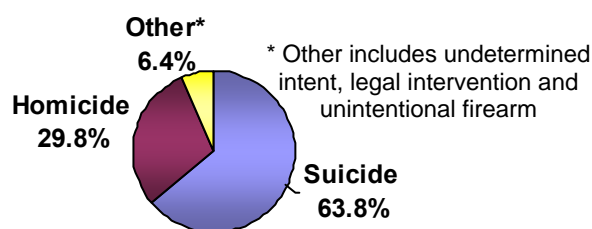
### Overall Violent Deaths

In 2009, 1,815 North Carolina residents (19.3 per 100,000) died as a result of violence. The leading causes of violent death were suicide (63.8%) and homicide (29.8%) (Figure i). Leading methods of violent death were firearm (59.7%), poisoning (15.2%), and hanging, strangulation or suffocation (14.2%). The most common firearms involved in violent firearm deaths were a handgun (70.9%), shotgun (15.7%) and rifle (10.0%).

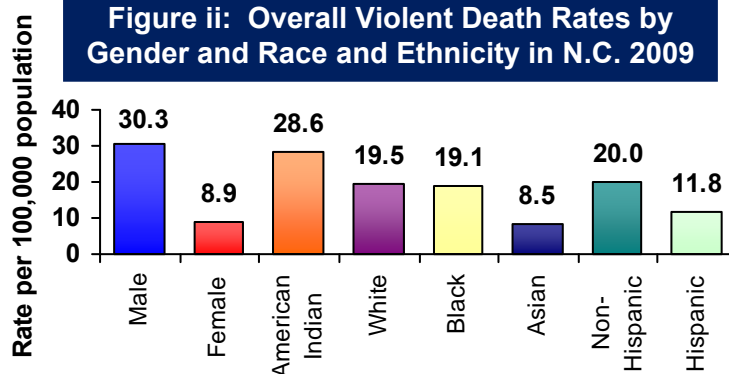
Males were 3.4 times more likely to die from violence than women (30.3 vs. 8.9 per 100,000, respectively) (Figure ii). The violent death rates per 100,000 from highest to lowest by race were American Indian (28.6), white (19.5), black (19.1), and Asian (8.5). Non-Hispanics had a slightly higher death rate than Hispanics (20.0 vs. 11.8 per 100,000, respectively).

Adults between ages 20 and 54 years had the highest violent death rates by age per 100,000 as follows: ages 25-34 (27.8), ages 20-24 (27.1), ages 45-54 (27.0), and ages 35-44 (26.6). The violent death rate trend by age differed by gender with males showing higher rates than females across all ages (Figure iii). Infants (under 1 year) were most likely to be victims of violent death among children under 15 years at a rate of 7.6 deaths per 100,000.

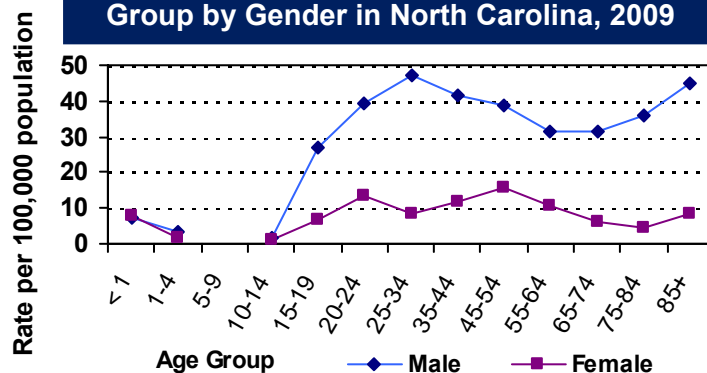
**Figure i: Manner of Violent Death in North Carolina, 2009**



**Figure ii: Overall Violent Death Rates by Gender and Race and Ethnicity in N.C. 2009**



**Figure iii: Overall Violent Death Rates: Age Group by Gender in North Carolina, 2009**



**Note:** The lines appear broken because the number of deaths was too small to support a rate calculation.

v

## Suicides

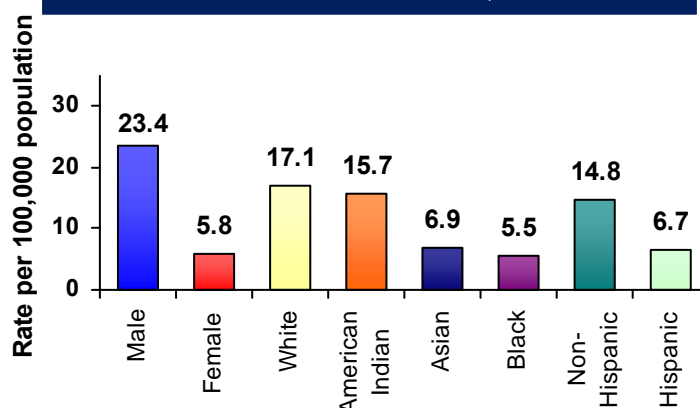
Suicide was the cause of death for 1,157 North Carolinians (14.3 per 100,000) in 2009. Suicides were most commonly completed by a firearm (57.2%), hanging, and strangulation or suffocation (20.9%) and poisoning (18.2%). A handgun was the most common firearm, involved in 66.0 percent of suicide firearm deaths. Prescription pharmaceuticals were the most common poison, used in 69.2 percent of suicide poisoning deaths.

Men were 4 times more likely to die from suicide than women (23.4 vs. 5.8 per 100,000, respectively) (Figure iv). Among suicide victims, 79.1 percent were male and 89.2 percent were white. The suicide rate per 100,000 was highest in whites (17.1) and lower in American Indians (15.7), Asians (6.9) and blacks (5.5). The suicide rate was two times higher in non-Hispanics than in Hispanics (14.8 vs. 6.7 per 100,000, respectively).

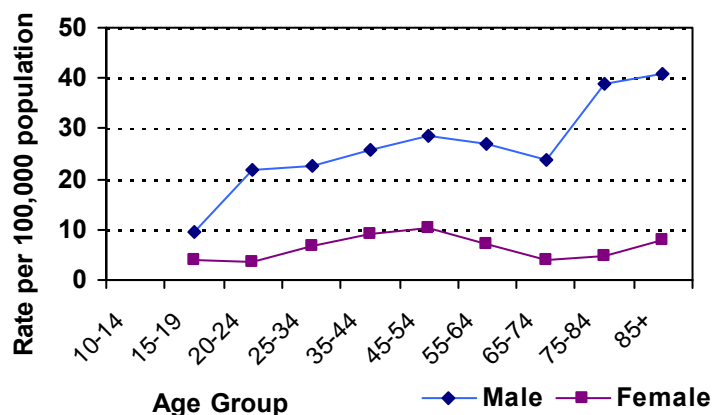
Age groups with the highest suicide rates were 45 to 54 years (19.2 per 100,000) and 75 to 84 years (18.3 per 100,000). Although the suicide rate was higher for men than women for all age groups, men aged 75 to 84 years were 8.3 times more likely to be a suicide victim than women in the same age group (Figure v).

The most common circumstances of suicide were a history of treatment for mental illness (37.2%), current mental health problem (36.8%), current treatment for mental illness (34.7%), and current depressed mood (39.2%). Most (66.9%) of those with a current mental health problem had depression. Other common circumstances of suicide were a crisis in past two weeks (32.1%), problems with an intimate partner (27.8), physical health (15.6%) and alcohol (17.0%). Of the 87.2 percent of suicide victims tested, 31.1 percent had alcohol present at the time of death. Most (80.6%) injuries resulting in suicide occurred in a house or apartment.

**Figure iv: Suicide Rates by Gender and Race in North Carolina, 2009**



**Figure v: Suicide Rates: Age Group by Gender in North Carolina, 2009**



**Note:** The number of suicides for ages 10-14 was too small to support a rate calculation.

## Homicides

A total of 540 North Carolinians (5.8 per 100,000) were homicide victims in 2009. Firearm (71.3%) and sharp instrument (12.4%) were the most common homicide methods. A handgun was the most common firearm used in 78.8 percent of homicide firearm deaths.

Men accounted for 73.2 percent of homicide victims and were nearly three times more likely to die from homicide than women (8.6 vs. 3.0 per 100,000, respectively) (Figure vi). Unlike suicide rates, homicide rates per 100,000 were higher in American Indians (13.9) and blacks (13.5) than in whites (3.4) and Asians (2.8). Hispanics were as likely to be a homicide victim as non-Hispanics (6.8 vs. 5.7 per 100,000, respectively).

Homicide rates per 100,000 were highest in the following age groups: 20 to 24 years (15.0), 25 to 34 years (11.4) and 15 to 19 years (7.4). Males had a higher homicide rate than females for nearly all age groups (Figure vii). Among females, the highest homicide rate was in infants less than 1 year of age.

The most common event circumstances surrounding homicides were: an argument, abuse or conflict (46.9%); precipitated by another serious crime (32.6%); intimate partner violence (20.1%) and drug involvement (15.2%). The most common crimes that precipitated homicide were robbery (36.2%), burglary (26.4%), drug trade (13.5%), and rape or assault (8.6%). Homicides occurred most often in a house or apartment (61.5%) or a street, road, sidewalk or alley (14.8%).

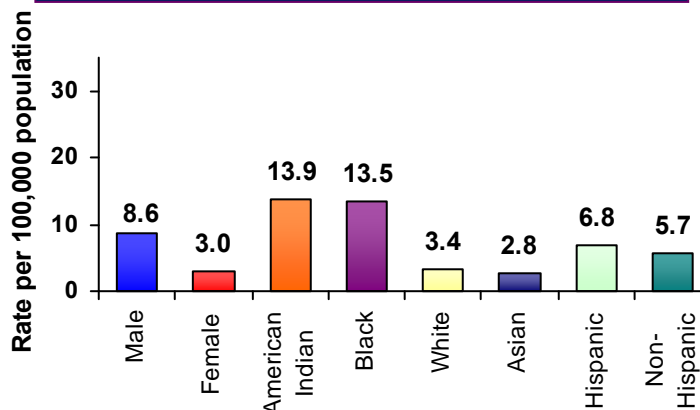
### Legal Intervention

A total of 22 North Carolina residents died in 2009 from legal intervention as victims killed by police or other peace officer acting in the line of duty. All of the legal intervention victims were male and most were between 20 and 54 years of age (90.9%). Ninety five percent of legal intervention deaths occurred by firearm, primarily a handgun (85.7%).

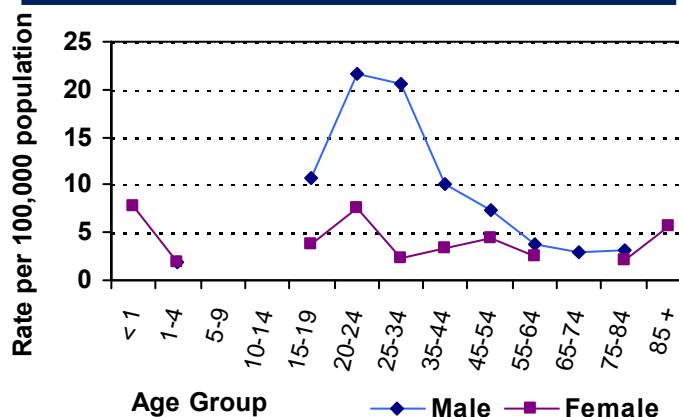
### Unintentional Firearm Deaths

In 2009, 10 North Carolinians (0.1 per 100,000) died from a firearm injury sustained in a shooting not intentionally directed at the victim. Firearms involved in the death included a handgun (60%), rifle (30%) and shotgun (10%).

**Figure vi: Homicide Rates by Gender and Race in North Carolina, 2009**



**Figure vii: Homicide Rates: Age Group by Gender in North Carolina, 2009**



**Note:** The lines appear broken because the number of deaths was too small to support a rate calculation.

### ***Child Violent Deaths***

In North Carolina, 82 children (3.6 per 100,000) died from violence in 2009. Homicide (46.3%) and suicide (42.7%) were leading causes of child violent death. Firearm (47.6%) and hanging/suffocation (17.1%) were common methods.

Male children were 2.1 times more likely to be victims of violent death than females (4.8 vs. 2.3 per 100,000, respectively). The child violent death rate per 100,000 was 1.5 times higher for blacks (4.7) than for whites (3.2).

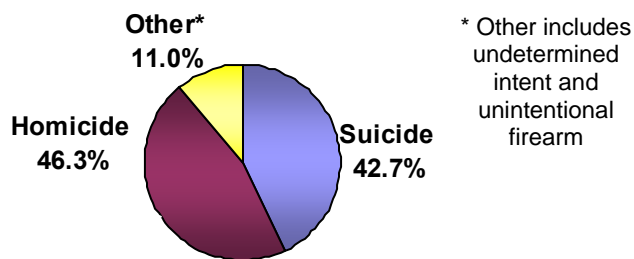
### ***Undetermined Intent***

A total of 86 deaths of undetermined intent (0.9 per 100,000) were reported in North Carolina in 2009. The leading methods of undetermined intent deaths were poisoning (74.4%) and blunt trauma (7.0%).

### ***Violent Death Over Time***

The overall violent death rate in North Carolina remained relatively unchanged over time from 19.6 per 100,000 in 2004 to 19.3 per 100,000 in 2009.

**Figure viii: Manner of Violent Death among Children in North Carolina, 2009**





## Introduction

Violence-related injuries are among the leading causes of death in the United States. Each year there are more than 34,000 suicides and 18,000 homicides nationwide, many of which are preventable. In North Carolina, more than 10,742 residents died from suicide or homicide in the six-year period from 2004 to 2009. In that same period, suicide and homicide ranked as the state's 12<sup>th</sup> and 16<sup>th</sup> leading causes of death, respectively. Among specific age groups, violent death constitutes an even greater risk. Suicide was the fourth leading cause of death for young adults ages 15 to 24 and adults ages 25 to 44 in North Carolina in 2009. Homicide was the state's third leading cause of death for young adults ages 15 to 24 and fifth leading cause of death for children ages 1 to 4 in 2009. In addition, violent death rates show disparities by gender, race and Hispanic ethnicity. For males in North Carolina in 2009, suicide was the eighth leading cause of death. Homicide ranked among the top 10 leading causes of death in American Indians in North Carolina in 2009.

This report provides comprehensive information on the characteristics and circumstances of violent death victims and incidents within North Carolina, using data from the North Carolina Violent Death Reporting System (NC-VDRS). For the purpose of this report, violent deaths include homicide, suicide, and legal intervention, as well as deaths of undetermined intent and from unintentional firearm injuries.

The NC-VDRS is a CDC-funded public health, population-based surveillance system that contains detailed information on deaths that result from violence. It is operated by the North Carolina Division of Public Health's Injury and Violence Prevention Branch to provide injury and violence prevention specialists and policy-makers detailed information on the victims, suspects, relationships, circumstances, and weapons that are associated with every incident of violence that results in a fatality in North Carolina. The NC-VDRS is an incident-based, relational database that combines data from multiple sources, such as death certificates, medical examiner reports, and incident reports from law enforcement agencies. The NC-VDRS began collecting data on January 1, 2004.

The NC-VDRS is part of a larger, national system that is being developed by the National Center for Injury Prevention and Control at the Centers for Disease Control and Prevention (CDC). In 2002, Congress appropriated \$1.5 million to create the National Violent Death Reporting System (NVDRS) as a means to implement a nationwide surveillance system on deaths from violence. NVDRS is built on the knowledge gained from a firearm reporting system that was developed at the University of Wisconsin and the National Violent Injury Statistics System (NVISS, operated by the Harvard Injury Control Research Center). Participation in NVDRS is through competitive cooperative agreements. North Carolina was awarded funding in August 2003. As of 2009, 18 states had submitted data to the NVDRS. The goal is to have all 50 states and U.S. territories contribute their data to NVDRS.

This annual report for the NC-VDRS presents statistics on deaths from violence to North Carolina residents during the period of January 1, 2009 to December 31, 2009. This report is an update from the 2009 Violent Death Reporting System Provisional Report (dated November 2011). The final 2009 data file used for this report was dated October 2011. Note that if changes are made to the 2009 data in NC-VDRS after this date, the 2009 violent death data could change in future reports. A glossary of the terms used in this report is shown in Appendix C.

## Methods

### Case Identification

This report provides a comprehensive summary of all violent deaths to residents of North Carolina during 2009. Violent deaths are captured by data abstractors using multiple, complementary data sources including:

- **Death Certificates** – obtained from North Carolina's State Center for Health Statistics.
- **Chief Medical Examiner Reports** – obtained from the N.C. Office of the Chief Medical Examiner which is required to evaluate all violent deaths in North Carolina.
- **Law Enforcement Reports** – obtained from more than 200 local law enforcement agencies across the state and the North Carolina State Bureau of Investigation.

In most cases, the sources provide a unanimous categorization for the manner of death. However, in cases where a discrepancy occurs, the abstractor assigns a manner of death for which there is a preponderance of evidence from all sources. This classification must agree with at least one of the primary data sources listed above. These deaths must also correspond with the International Classification of Disease codes, version 10 (ICD-10), to be selected as cases for the NC-VDRS.

### Operational Definition: ICD-10 Codes that Define NC-VDRS Cases

Manner of Death	Death < 1 year after injury	Death ≥ 1 year or more after injury
Intentional self-harm	X60-X84	Y87.0
Assault	X85-X99, Y00-Y09	Y87.1
Undetermined Intent	Y10-Y34	Y87.2, Y89.9
Unintentional firearm	W32-W34	Y86 (guns)
Legal intervention	Y35.0-Y35.7	Y89.0
Terrorism	U01, U03	U02

These data are received electronically from the medical examiner and death certificate sources and imported into NC-VDRS. Data that are not received electronically are obtained by hard-copy file and manually entered by the NC-VDRS abstraction team. Data are routinely evaluated for quality by the program manager. Quality control procedures ensure that the data are as accurate and complete as possible. Quality control measures include, but are not limited to:

- Review of death certificate and medical examiner data to determine whether cases meet NVDRS eligibility criteria;
- Review of death certificate data and medical examiner data to identify inconsistent manner of death or ICD-10 codes;
- Assessment of data completeness, especially manner of death;
- Evaluation of data entry errors, including comparison against electronic death certificate data;
- Documentation of coding errors; and
- Assessment of narrative completeness.

## ***Defining Manner of Death***

The NC-VDRS conceptually defines a violent death as a death due to “the intentional use of physical force against oneself, another person, or against a group or community.” Deaths meeting this definition include intentional deaths, such as:

- **Suicide** – A death resulting from the intentional use of force against oneself. A preponderance of evidence should indicate that the use of force was intentional. Suicides are classified among violent deaths only for persons ages 10 or older.
- **Homicide** – A death resulting from the intentional use of force or power, threatened or actual, against another person, group or community. A preponderance of evidence must indicate that the use of force was intentional.
- **Legal Intervention** – A death when the decedent was killed by a police officer, military police officer or other peace officer (person with specified legal authority to use deadly force) acting in the line of duty. Legal executions are not included in the national system (NVDRS) but are reported in the state system (NC-VDRS) as legal intervention deaths.

The database also captures deaths from unintentional firearm injuries and deaths with undetermined intent. These deaths are defined as:

- **Unintentional Firearm** – A death resulting from a penetrating injury or gunshot wound from a weapon that uses a powder charge to fire a projectile and for which a preponderance of evidence indicates that the shooting was not directed intentionally at the decedent. Because most firearm deaths are intentional, unintentional firearm deaths are included in the data system so that they can be reviewed to identify patterns for injury prevention. This category also includes a child under the age of six who shoots himself or another person, as children under the age of six are presumed not to have developed the ability to intentionally harm themselves or others.
- **Undetermined Intent** – A death resulting from the use of force or power against oneself or another person for which the evidence indicating manner of death was not sufficient to determine intent.

The national and state violent death reporting systems are the official repository of deaths from terrorism. Deaths in North Carolina from an act of terrorism would be listed as a homicide or suicide in the NC-VDRS.

## Analysis

This report provides three main types of analytic data on violent deaths in North Carolina: 1) number of deaths for each violent death category; 2) percent of total deaths for each manner of death and by specific demographic characteristics; and 3) rate of violent deaths for each manner of death and by demographic characteristics, where possible. Demographic characteristics include age, gender, race, Hispanic/non-Hispanic, years of completed education, marital status and North Carolina county. Note that since race and Hispanic/non-Hispanic ethnicity are separate demographic characteristics, race categories include both Hispanics and non-Hispanics.

The rate of violent death is calculated as the number of deaths during the specified time per 100,000 North Carolina residents in the same category (rate = [number of deaths x 100,000/ population]). Rates were calculated using bridged North Carolina population data (vintage 2009) from the National Center for Health Statistics. The numbers of the total North Carolina population and children by demographic characteristic are available in Appendix B. Unless otherwise stated, a child is a person under 18 years of age.

### Resident vs. Occurrent Deaths

The NC-VDRS captures data on all violent deaths that occur in the state.

- **Resident deaths** are those in which the victim was a North Carolina resident at the time of death, and the death occurred in North Carolina.
- **Occurrent deaths** capture all deaths that occur within North Carolina during the specified time, regardless of the residential status of the decedent.

The data in this report are restricted to resident deaths. All victims included in the analyses were classified as residents of North Carolina at the time of death.

### Data Use Caveat

All findings in the report are based on rigorous data collection and analysis. However, counts that are small (less than 20) must be interpreted with caution, particularly when they are used in the calculation of death rates. Small numbers, even if they are not used in the calculation of rates, have substantial variation over time (i.e., a large standard error). This report presents mortality rates for cases where there are at least 5 deaths; however, rates for counts less than 20 should be interpreted with extreme caution when making comparisons or assessing trends over time. An asterisk (\*) in the rate cell indicates the number of deaths was too small to support the calculation of a rate. A good way of determining significance of death rates is to evaluate the 95 percent confidence interval (95% CI). The wider the confidence interval (i.e., the greater the difference between the lower and upper bounds of the confidence interval), the less accurate the rate is, and therefore, more caution should be employed when using the data.

## Acknowledgements

The NC-VDRS is funded by the National Center for Injury Prevention and Control at the CDC, and is operated by the Injury and Violence Prevention Branch, Division of Public Health, N.C. Department of Health and Human Services. This annual report was supported in part by CDC Cooperative Agreement Number 5U17CE423098-08. Its contents are solely the responsibility of the authors and do not necessarily represent official views of the CDC.

We thank and acknowledge the on-going support and assistance of the North Carolina State Center for Health Statistics, North Carolina Office of the Chief Medical Examiner, North Carolina State Bureau of Investigation, and many local law enforcement agencies throughout North Carolina that have provided information to the NC-VDRS. Without these key data partners, the NC-VDRS would not be as credible or strong. The law enforcement agencies that provided data for this report are:

Aberdeen Police Department	Conway Police Department	Henderson County Sheriff
Ahoskie Police Department	Cornelius Police Department	Henderson Police Department
Alamance County Sheriff	Craven County Sheriff	Hendersonville Police Department
Albemarle Police Department	Cumberland County Sheriff	Hertford County Sheriff
Alexander County Sheriff	Currituck County Sheriff	Hickory Police Department
Alleghany County Sheriff	Dare County Sheriff	High Point Police Department
Anson County Sheriff	Davidson County Sheriff	Highlands Police Department
Archdale Police Department	Davie County Sheriff	Hillsborough Police Department
Ashe County Sheriff	Dobson Police Department	Hoke County Sheriff
Asheboro Police Department	Drexel Police Department	Holden Beach Police Department
Asheville Police Department	Dunn Police Department	Huntersville Police Department
Atlantic Beach Police Department	Duplin County Sheriff	Iredell County Sheriff
Avery County Sheriff	Durham County Sheriff	Jacksonville Police Department
Beaufort Police Department	Durham Police Department	Johnston County Sheriff
Beaufort County Sheriff	Eden Police Department	Kannapolis Police Department
Benson Police Department	Edgecombe County Sheriff	Kernersville Police Department
Beulaville Police Department	Elizabeth City Police Department	Kings Mountain Police Department
Biscoe Police Department	Elizabethtown Police Department	Kings Police Department
Bladen County Sheriff	Fairmont Police Department	Kinston Public Safety
Boone Police Department	Farmville Police Department	Laurinburg Police Department
Brevard Police Department	Fayetteville Police Department	Lee County Sheriff
Brunswick County Sheriff	Forest City Police Department	Lenoir County Sheriff
Buncombe County Sheriff	Forsyth County Sheriff	Lenoir Police Department
Burke County Sheriff	Franklin County Sheriff	Lexington Police Department
Burlington Police Department	Franklin Police Department	Lillington Police Department
Butner Public Safety	Fuquay-Varina Police Department	Lincoln County Sheriff
Cabarrus County Sheriff	Garner Police Department	Lincolnton Police Department
Caldwell County Sheriff	Gaston Co Police Department	Louisburg Police Department
Carolina Beach Police Department	Gaston County Sheriff	Lumberton Police Department
Carrboro Police Department	Gastonia Police Department	Macon County Sheriff
Carteret County Sheriff	Gates County Sheriff	Madison County Sheriff
Caswell County Sheriff	Glen Alpine Police Department	Marion Police Department
Catawba County Sheriff	Goldsboro Police Department	Martin County Sheriff
Chadbourne Police Department	Graham C County Sheriff	Matthews Police Department
Chapel Hill Police Department	Granite Falls Police Department	Maxton Police Department
Charlotte Mecklenburg Police Department	Granville County Sheriff	McDowell County Sheriff
Chatham County Sheriff	Greene County Sheriff	Mebane Police Department
Cherokee County Sheriff	Greensboro Police Department	Mint Hill Police Department
Cherryville Police Department	Greenville Police Department	Mitchell County Sheriff
Chowan County Sheriff	Guilford County Sheriff	Mocksville Police Department
Cleveland County Sheriff	Halifax County Sheriff	Monroe Police Department
Clinton Police Department	Harnett County Sheriff	Montgomery County Sheriff
Columbus County Sheriff	Havelock Police Department	Moore County Sheriff
Concord Police Department	Haywood County Sheriff	Mooresville Police Department

Morganton Police Department	Robersonville Police Department	Tabor City Police Department
Morrisville Police Department	Robeson County Sheriff	Taylorsville Police Department
Mount Airy Police Department	Rockingham County Sheriff	Thomasville Police Department
Mount Olive Police Department	Rockingham Police Department	Transylvania Co SD
Murphy Police Department	Rockwell City Police Department	Transylvania Police Department
Nash Co Police Department	Rocky Mount Police Department	Trent Woods Police Department
New Bern Police Department	Rolesville Police Department	Tryon Police Department
New Hanover County Sheriff	Rowan County Sheriff	Union County Sheriff
Newland Police Department	Rowland Police Department	Valdese Police Department
Newport Police Department	Roxboro Police Department	Vance County Sheriff
North Wilkesboro Police Department	Rutherford County Sheriff	Wadesboro Police Department
Northampton County Sheriff	Salisbury Police Department	Wake County Sheriff
Oak Island Police Department	Sampson County Sheriff	Wallace Police Department
Onslow County Sheriff	Sanford Police Department	Warren County Sheriff
Orange County Sheriff	Scotland County Sheriff	Washington Police Department
Oxford Police Department	Selma Police Department	Watauga County Sheriff
Pamlico County Sheriff	Sharpsburg Police Department	Wayne County Sheriff
Pasquotank County Sheriff	Shelby Police Department	Waynesville Police Department
Pender County Sheriff	Siler City Police Department	Weaverville Police Department
Perquimans County Sheriff	Southern Pines Police Department	West Jefferson Police Department
Person County Sheriff	Southport Police Department	White Lake Police Department
Pikeville Police Department	Sparta Police Department	Whiteville Police Department
Pine Knoll Shores Police Department	Spencer Police Department	Wilkes County Sheriff
Pineville Police Department	Spindale Police Department	Wilkesboro Police Department
Pitt County Sheriff	Stallings Police Department	Williamston Police Department
Polk County Sheriff	Stanfield Police Department	Wilmington Police Department
Raleigh Police Department	Stanly County Sheriff	Wilson County Sheriff
Randolph County Sheriff	Statesville Police Department	Wilson Police Department
Red Springs Police Department	Stokes County Sheriff	Winston Salem Police Department
Richmond County Sheriff	Sunset Beach Police Department	Yadkin County Sheriff
Roanoke Rapids Police Department	Surry County Sheriff	Yancey County Sheriff
Robbins Police Department	Swain County Sheriff	Youngsville Police Department

The NC-VDRS is fortunate to have a very dedicated and professional staff. Program Manager Tammy Norwood oversees all operational aspects of the NC-VDRS and is chiefly responsible for data quality and program integrity. Data abstractors Susan Autry and Jessica Fine spend hours compiling the data and constructing sound narratives to make North Carolina's program one of the best. Without their daily efforts throughout the years, the data and reports would not be as accurate or complete. Special thanks to Annie Hirsch and Kathleen Creppage for data checking and editing this report

During 2009 and the period of the data close-out (2009-2010), the NC-VDRS Advisory Board provided input and assistance. A full listing of the advisory board is found in Appendix B. Special thanks to the steering committee consisting of Tamera Coyne-Beasley, Stephen Marshall and Anna Waller. Thanks to all of the NC-VDRS advisory board members for their input, support and continuing participation.

## Section I: Overall Violent Deaths

### *Basic Characteristics of Violent Deaths*

**Table 1** describes the overall violent death victims in North Carolina in 2009 by demographic characteristics of gender, race and age. The 2009 overall rate of violent deaths per 100,000 persons in North Carolina is displayed in **Figure 1** by gender and race and in **Figure 2** by age group.

#### **Key Findings:**

- A total of 1,815 North Carolinians (19.3 per 100,000) died as a result of violence in 2009.
- Males were 3.4 times more likely to die from violence than females (30.3 vs. 8.9 per 100,000, respectively).
- American Indians had the highest violent death rate (28.6 per 100,000) followed by whites (19.5 per 100,000), blacks (19.1 per 100,000) and Asians (8.5 per 100,000).
- Non-Hispanics had a slightly higher violent death rate than Hispanics (20.0 vs. 11.8 per 100,000, respectively).
- Adults between ages 20 and 54 years had the highest violent death rates per 100,000 as follows: ages 25-34 years (27.8), ages 20-24 (27.1), ages 45-54 (27.0), and ages 35-44 (26.6).
- Among children under the age of 15 years, infants (less than 1 year old) had the highest violent death rate (7.6 per 100,000).

**Table 2** lists the manner and method of violent deaths in North Carolina in 2009. Violent deaths in North Carolina in 2009 are presented in **Figure 3** by manner of death and in **Figure 4** by method of death. The type of firearm used in firearm violent deaths is shown in **Table 3**.

#### **Key Findings:**

- The leading causes of violent death were suicide (63.8%) and homicide (29.8%).
- The leading methods of violent death were firearm (59.7%), poisoning (15.2%) and hanging, strangulation or suffocation (14.2%).
- The most common firearms involved in violent firearm deaths were a handgun (71.0%), shotgun (15.7%) and rifle (10.0%).

**Table 4** characterizes adult violent death victims (18 years or older) in North Carolina in 2009 by the number of years of completed education, marital status and veteran status.

#### **Key Findings:**

- Most adult victims completed high school with 72.1 percent having 12 or more years of education.
- Adult violent death victims were most commonly married (38.1%) or never married (36.2%) as compared to divorced (19.4%) or widowed (6.0%).
- Military veterans accounted for 13.0 percent of North Carolina adult violent death victims in 2009.

**Table 5** and **Figure 5** show the overall violent death rates in 2009 by North Carolina county of residence. County violent death rates should be interpreted with caution because the numbers of violent deaths by county are small and subject to variation. The number of deaths in 20 counties was zero or too small to support a rate calculation. In addition, county rates are influenced by small populations with 12 of the 20 counties with the highest violent death rates having less than 50,000 residents in 2009.



**Key Findings:**

- For the 80 counties where the number of resident deaths was sufficient to support a rate calculation, the average rate of violent deaths by North Carolina county of residence was 19.6 deaths per 100,000 with a range from 11.0 to 44.6 deaths per 100,000.

**Table 1: Demographics of Violent Death Victims in North Carolina, 2009**

		Number	%	Rate	95% CI
<b>Gender</b>					
	Female	424	23.4	8.9	8.0 – 9.7
	Male	1,391	76.6	30.3	28.7 – 31.9
<b>Race</b>					
	American Indian	35	1.9	28.6	19.1 – 38.1
	Asian	18	1.0	8.5	4.6 – 12.4
	Black	396	21.8	19.1	17.3 – 21.0
	White	1,361	75.0	19.5	18.5 – 20.5
	Other/ Unknown	*	*	*	*
<b>Hispanic</b>					
	Hispanic	85	4.9	11.8	9.3 – 14.4
	Non-Hispanic	1,730	95.3	20.0	19.0 – 20.9
<b>Age Group (Years)</b>					
	< 1	10	0.6	7.6	2.9 – 12.2
	1-4	14	0.8	2.6	1.3 – 4.0
	5-9	*	*	*	*
	10-14	10	0.6	1.7	0.6 – 2.7
	15 - 19	112	6.2	17.4	14.1 – 20.6
	20 - 24	181	10.0	27.1	23.2 – 31.1
	25 - 34	344	19.0	27.8	24.9 – 30.8
	35 - 44	351	19.3	26.6	23.8 – 19.4
	45 - 54	360	19.8	27.0	24.2 – 29.8
	55 - 64	220	12.1	20.4	17.7 – 23.1
	65 - 74	116	6.4	17.7	14.5 – 21.0
	75 - 84	67	3.7	17.2	13.1 – 21.3
	85 +	29	1.6	19.5	12.4 – 26.6
<b>Total Deaths</b>		<b>1,815</b>	<b>100</b>	<b>19.3</b>	<b>18.5 – 20.2</b>

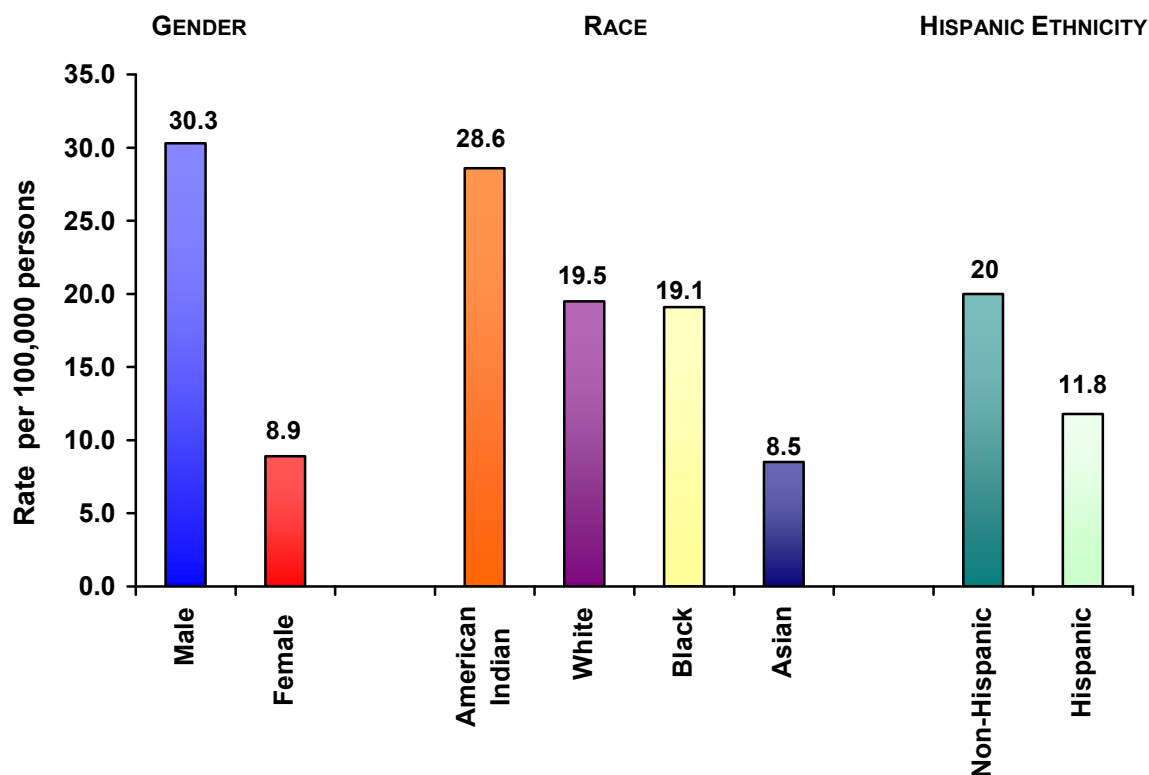
Gender, race, Hispanic ethnicity or age-specific crude rate per 100,000 N.C. population

95% CI = 95 Percent Confidence Interval for the Rate

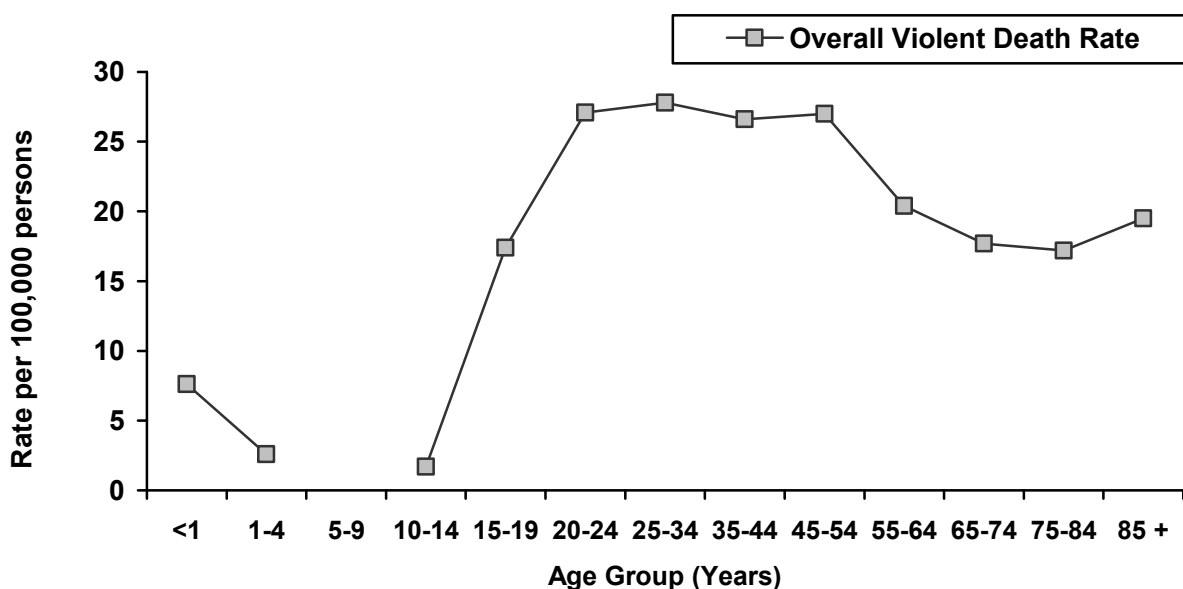
\* The number of deaths was too small to support the calculation of a rate.



**Figure 1: Crude Overall Violent Death Rates by Gender, Race and Hispanic Ethnicity in North Carolina, 2009**



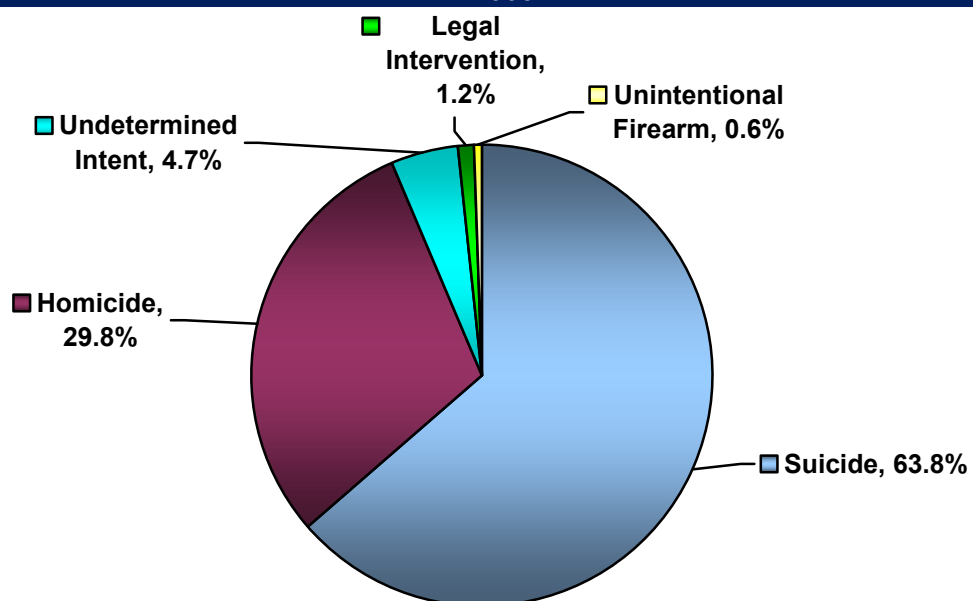
**Figure 2: Age-Specific Crude Overall Violent Death Rate by Age Group in North Carolina, 2009**



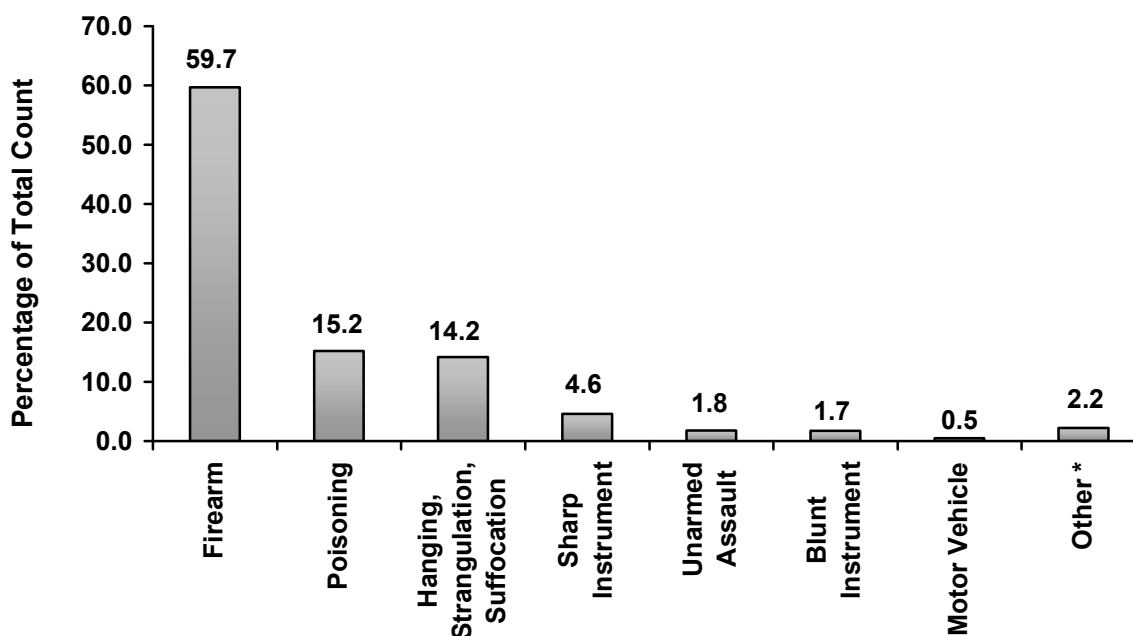
**Table 2: Manner and Method of Violent Death in North Carolina, 2009**

		Number	%
<b>Manner of Death</b>			
	Suicide	1,157	63.8
	Homicide	540	29.8
	Undetermined Intent	86	4.7
	Legal Intervention	22	1.2
	Unintentional Firearm	10	0.6
<b>Method of Death</b>			
	Firearm	1,083	59.7
	Poisoning	275	15.2
	Hanging, Strangulation, Suffocation	257	14.2
	Sharp Instrument	83	4.6
	Unarmed Assault	33	1.8
	Blunt Instrument	31	1.7
	Fall	11	0.6
	Other/ Unknown	10	0.6
	Motor Vehicle	9	0.5
	Drowning	7	0.4
	Other Transport Vehicle	5	0.3
	Fire/ Burns	4	0.2
	Violent Shaking	2	0.1
	Intentional Neglect	1	0.1
<b>Total Deaths</b>		<b>1,815</b>	<b>100</b>

**Figure 3: Manner of Violent Death in North Carolina, 2009**



**Figure 4: Method of Violent Death in North Carolina, 2009**



\* Other includes: drowning, fire/ burns, fall, intentional neglect, other transport vehicle, violent shaking, and unknown.

**Table 3: Type of Firearm Involved in Violent Firearm Deaths in North Carolina, 2009**

		Number	%
Firearm Type			
	Handgun	769	71.0
	Shotgun	171	15.7
	Rifle	108	10.0
	Other Long Gun	1	0.1
	Unknown Type	34	3.2
<b>Total Firearm Deaths</b>		<b>1,083</b>	<b>100</b>

**Table 4: Completed Education, Marital Status and Veteran Status of Adult Violent Death Victims (Ages 18 or Older) in North Carolina, 2009**

		Number	%
Years of Completed Education			
	0 to 8 Years	123	7.1
	9 to 11 Years	342	19.7
	12 Years	679	39.2
	> 12 Years	571	33.0
	Unknown	18	1.0
Marital Status			
	Never Married	627	36.2
	Married	660	38.1
	Divorced	336	19.4
	Widowed	104	6.0
	Unknown	6	0.4
Veteran Status			
	Non-Veteran	1,487	85.8
	Veteran	226	13.0
	Unknown	20	1.2
<b>Total Adult Deaths (Ages 18 or Older)</b>		<b>1,733</b>	<b>100</b>

**Table 5: Overall Violent Deaths by County of Residence in North Carolina, 2009**

	Number	Rate		Number	Rate		Number	Rate
County			County			County		
Alamance	21	14.0	Franklin	13	21.6	Pamlico	4	*
<b>Alexander</b>	<b>14</b>	<b>38.1</b>	Gaston	53	25.4	Pasquotank	3	*
Alleghany	3	*	Gates	2	*	Pender	11	21.0
<b>Anson</b>	<b>9</b>	<b>35.9</b>	Graham	1	*	Perquimans	2	*
Ashe	5	19.4	<b>Granville</b>	<b>16</b>	<b>27.8</b>	Person	5	13.3
<b>Avery</b>	<b>8</b>	<b>44.6</b>	<b>Greene</b>	<b>6</b>	<b>29.0</b>	Pitt	31	19.5
Beaufort	10	21.5	Guilford	78	16.2	Polk	2	*
Bertie	4	*	Halifax	14	25.6	Randolph	38	26.7
<b>Bladen</b>	<b>13</b>	<b>40.2</b>	Harnett	21	18.1	<b>Richmond</b>	<b>14</b>	<b>30.5</b>
Brunswick	17	15.9	Haywood	7	12.3	<b>Robeson</b>	<b>46</b>	<b>35.5</b>
Buncombe	45	19.4	Henderson	14	13.5	Rockingham	18	19.5
Burke	22	24.6	Hertford	4	*	Rowan	31	22.0
Cabarrus	39	22.6	Hoke	8	17.7	Rutherford	13	20.5
Caldwell	18	22.5	Hyde	0	*	<b>Sampson</b>	<b>18</b>	<b>28.3</b>
Camden	0	*	Iredell	25	15.8	Scotland	9	24.8
<b>Carteret</b>	<b>21</b>	<b>32.6</b>	Jackson	8	21.7	Stanly	15	25.1
Caswell	4	*	Johnston	20	11.9	<b>Stokes</b>	<b>13</b>	<b>28.2</b>
Catawba	37	23.3	Jones	0	*	Surry	14	19.3
Chatham	10	15.4	Lee	14	23.1	<b>Swain</b>	<b>5</b>	<b>37.3</b>
<b>Cherokee</b>	<b>10</b>	<b>38.0</b>	Lenoir	13	23.1	<b>Transylvania</b>	<b>11</b>	<b>36.4</b>
Chowan	1	*	Lincoln	12	15.8	Tyrrell	1	*
Clay	1	*	McDowell	9	20.5	Union	30	15.1
Cleveland	23	23.2	Macon	6	18.1	Vance	11	25.5
Columbus	12	22.1	Madison	5	24.5	Wake	99	11.0
Craven	22	22.3	<b>Martin</b>	<b>10</b>	<b>42.9</b>	Warren	4	20.6
Cumberland	68	21.6	Mecklenburg	145	15.9	Washington	1	*
Currituck	1	*	Mitchell	1	*	Watauga	10	22.0
Dare	5	14.6	<b>Montgomery</b>	<b>11</b>	<b>39.6</b>	<b>Wayne</b>	<b>32</b>	<b>28.1</b>
Davidson	27	17.0	<b>Moore</b>	<b>31</b>	<b>35.6</b>	Wilkes	17	25.5
Davie	4	*	Nash	19	20.1	Wilson	13	16.6
Duplin	12	22.6	New Hanover	43	22.0	Yadkin	7	18.6
Durham	45	16.7	<b>Northampton</b>	<b>6</b>	<b>29.8</b>	<b>Yancey</b>	<b>6</b>	<b>32.3</b>
Edgecombe	10	19.3	Onslow	31	17.9			
Forsyth	70	19.5	Orange	24	18.6			

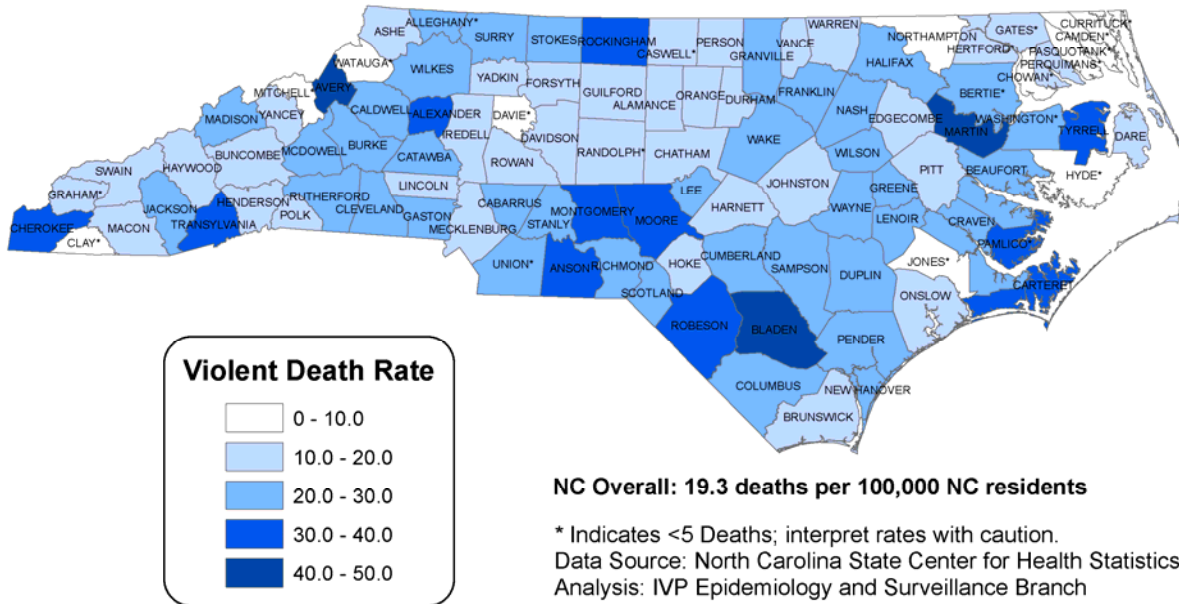
Crude rate per 100,000 population in N.C. county

\* The number of deaths was zero or too small to support rate calculation.

**Top 20 counties with the highest crude overall violent death rates are shown in bold.**

**Figure 5: Map of Overall Violent Death Rates by County of Residence in North Carolina, 2009**

**Violent Deaths per 100,000 North Carolina Residents: 2009**



## ***Race and Gender of Violent Death Victims***

**Table 6** and **Figure 6** summarize the characteristics of violent death victims in North Carolina in 2009 stratified by race and gender.

### **Key Findings:**

- Whites (75.0%) and males (76.6%) represented the majority of violent death victims, as shown in Table 1.
- Whites accounted for 73.0 percent of male violent death victims and 78.3 percent of female victims, while blacks comprised 23.3 percent of male victims and 17.0 percent of female victims.
- Among males, American Indian men had the highest violent death rate (41.2) per 100,000, followed by black men (33.3), white men (29.8) and Asian men (8.7).
- Violent death rates per 100,000 for females were similar across races with the exception of American Indian (16.2), ranging from a high of 9.4 for white women to a low of 6.6 for black women.
- The violent death rate was higher for males than for females of the same race by 5.1 times for blacks, 3.4 times for whites, and 2.5 times for American Indians.

## ***Age and Gender of Violent Death Victims***

**Table 7** stratifies the North Carolina violent death victims in 2009 by age group and gender. **Figure 7** illustrates the 2009 rate of violent deaths per 100,000 in North Carolina by age group and gender.

### **Key Findings:**

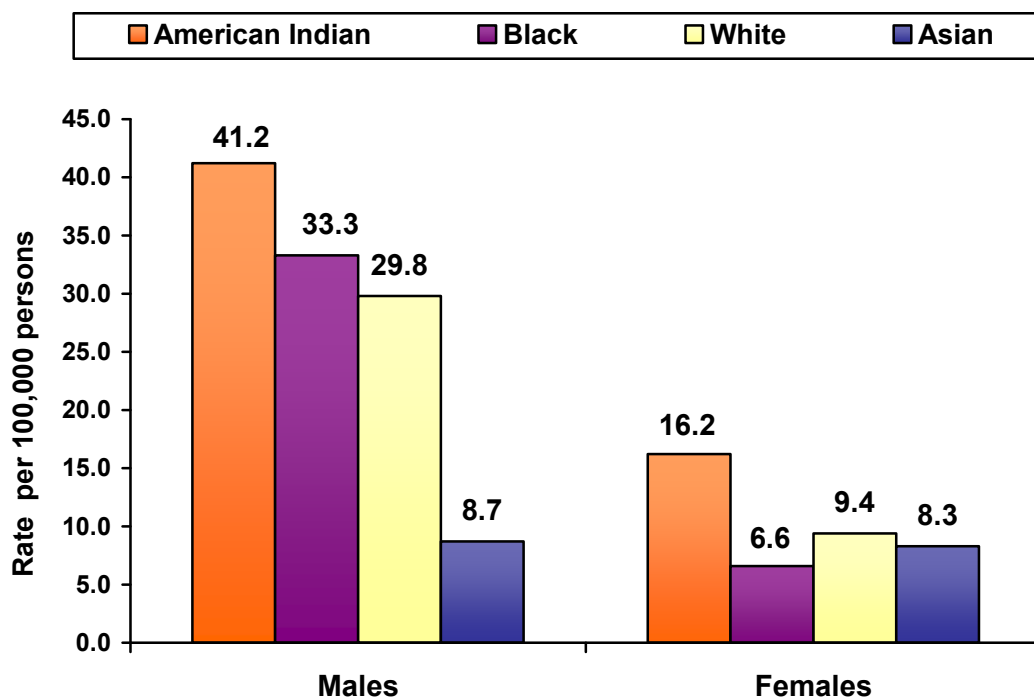
- Most male violent death victims were ages 20 to 64 years with a rank order by age group of: 25-34 (20.9%), 35-44 (19.6%), 45-54 (18.0%), 55-64 (11.6%) and 20-24 (9.9%).
- Among females, the majority of violent death victims were ages 25 to 64 years with a rank order by age group of: 45-54 (25.9%), 35-44 (18.6%), 55-64 (13.9%) and 25-34 (12.7%).
- Among men, the trend in violent death rate by age group was highest in ages 25 to 34 years (47.0 per 100,000) with a gradual decline in rate from ages 35 to 74 years followed by an increase in rate for ages 75 and older.
- For women, the violent death rate trend by age reached a peak of 16.0 and 13.6 per 100,000 in ages 45 to 54 and 20 to 24 years, declined between ages 55 to 84 years, and increased again in ages 85 and older.
- Males were more likely to experience violent death than females by 7.6 times between ages 75 to 84 years, 5.4 times between ages 25 to 34 years, 5.3 times for ages 85 and over, and 5.1 times between ages 65 to 74.

**Table 6: Race by Gender of Violent Death Victims in North Carolina, 2009**

	Male			Female		
	Number	%	Rate	Number	%	Rate
Race						
American Indian	25	1.8	41.2	10	2.4	16.2
Asian	9	0.7	8.7	19	4.5	8.3
Black	324	23.3	33.3	72	17.0	6.6
White	1,029	73.0	29.8	332	78.3	9.4
Other/ Unknown	4	0.2	*	1	0.2	*
<b>Total Deaths</b>	<b>1,391</b>	<b>100</b>	<b>30.3</b>	<b>424</b>	<b>100</b>	<b>10.0</b>

Gender and race-specific crude rate per 100,000 N.C. population

\* The number of deaths was too small to support calculation of a rate.

**Figure 6: Crude Overall Violent Death Rate Stratified by Race and Gender in North Carolina, 2009**

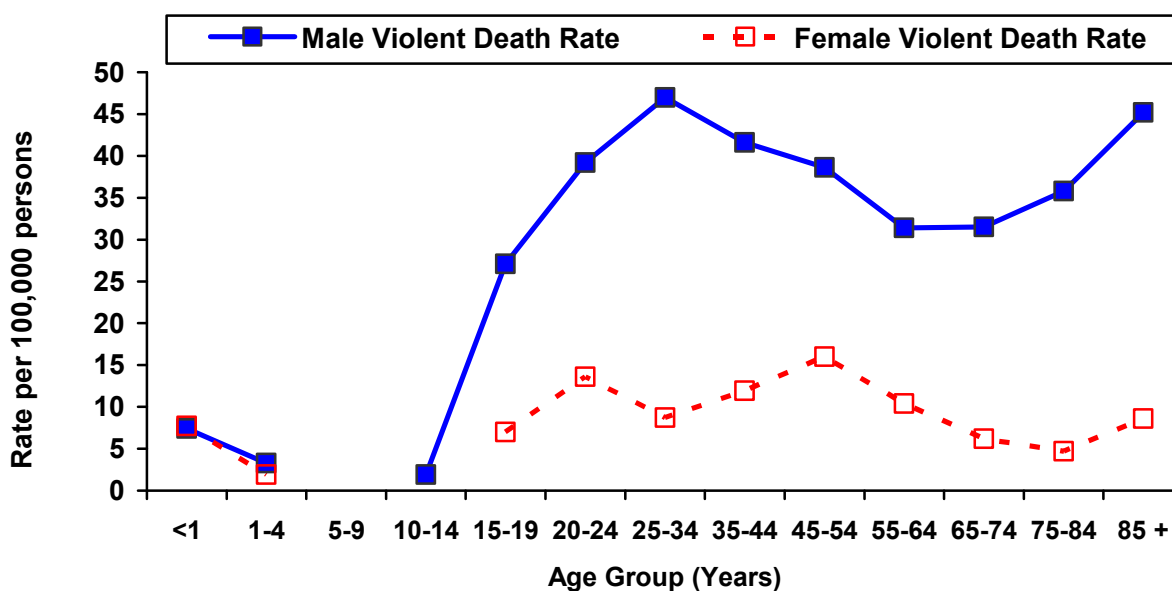


**Table 7: Age Group by Gender of Violent Death Victims in North Carolina, 2009**

	Male			Female		
	Number	%	Rate	Number	%	Rate
Age (Years)						
<1	5	0.4	7.4	5	1.2	7.7
1-4	9	0.7	3.3	5	1.2	1.9
5-9	0	0.0	*	1	0.2	*
10-14	6	0.4	1.9	4	0.9	*
15-19	90	6.5	27.1	22	5.2	7.0
20-24	138	9.9	39.2	43	10.1	13.6
25-34	290	20.9	47.0	54	12.7	8.7
35-44	272	19.6	41.6	79	18.6	11.9
45-54	250	18.0	38.6	110	25.9	16.0
55-64	161	11.6	31.4	59	13.9	10.4
65-74	94	6.8	31.5	22	5.2	6.2
75-84	56	4.0	35.8	11	2.6	4.7
85 +	20	1.4	45.2	9	2.1	8.6
<b>Total Deaths</b>	<b>1,391</b>	<b>100</b>	<b>30.3</b>	<b>424</b>	<b>100</b>	<b>8.9</b>

Gender and age-specific crude rate per 100,000 N.C. population

\* The number of deaths was too small to support calculation of a rate.

**Figure 7: Age-Specific Crude Overall Violent Death Rate Stratified by Age Group and Gender in North Carolina, 2009**

**Note:** The lines appear broken because the number of deaths was too small to support a rate calculation for the age group of 5 to 9 years and 10 to 14 for females.

## Section II: Suicide

### *Basic Characteristics of Suicides*

**Table 8** describes suicides in 2009 for North Carolinians aged 10 years or older by demographic characteristics of gender, race and age. The rate of suicide in North Carolina per 100,000 persons in 2009 is illustrated by race and gender in **Figure 8** and by age group in **Figure 9**.

#### **Key Findings:**

- In 2009, 1,157 North Carolinians (14.3 per 100,000) died from suicide.
- Males were four times more likely to die from suicide than females (23.4 vs. 5.8 per 100,000, respectively).
- Whites had the highest suicide rate (17.1 per 100,000) followed by American Indians (15.7 per 100,000), Asians (6.9 per 100,000) and blacks (5.5 per 100,000).
- Non-Hispanics were twice as likely to die from suicide as compared to Hispanics (14.8 vs. 6.7 per 100,000, respectively).
- Rates of suicide were similar across adult age groups with the highest rates in ages 45 to 54 years (19.3 per 100,000) and 35 to 44 years (17.8 per 100,000).

**Table 9** and **Figure 10** summarize the method of death for suicide victims in North Carolina in 2009. **Table 10** shows the type of firearm used for suicide firearm deaths in North Carolina in 2009. **Table 11** lists the type of poison used for suicide poisoning deaths in North Carolina in 2009.

#### **Key Findings:**

- The leading methods of suicide were firearm (57.2%), hanging, strangulation or suffocation (20.9%) and poisoning (18.2%).
- Men more often died from suicide by a firearm (61.0%) or hanging, strangulation or suffocation (22.3%) and less frequently died from suicide by poisoning (13.1%).
- Women more commonly completed suicide by firearm (42.7%) or poisoning (37.8%) as compared to hanging, strangulation or suffocation (15.8%).
- Considering only suicide firearm deaths, a handgun was the most common firearm used in 65.9 percent of all deaths, 62.3 percent of male deaths and 85.4 percent of female deaths.
- For suicide poisoning deaths only, prescription pharmaceuticals were the most common poison in 69.2 percent of all deaths, 59.2 percent of male deaths and 82.4 percent of female deaths.

**Table 12** characterizes adult suicide victims (ages 18 years or older) in North Carolina in 2009 by the number of years of completed education, marital status and veteran status.

#### **Key Findings:**

- The majority (76.8%) of adult suicide victims had 12 or more years of education.
- Suicide victims were most often married (45.1%) and less frequently never married (27.0%), divorced (20.6%), or widowed (7.3%).
- Military veterans accounted for 16.2 percent of suicide victims.

**Table 13** and **Figure 11** show the suicide rates in 2009 by North Carolina county of residence. County rates should be interpreted with caution because the numbers of suicides by county are small and subject to variation. The number of suicides in 33 counties was zero or too small to support a rate calculation. Furthermore, county suicide rates are influenced by small populations with 11 of the 20 counties with the highest suicide rates having less than 50,000 residents in 2009.

**Key Findings:**

- For the 67 counties where the number of suicides was sufficient to support a rate calculation, the average suicide rate by North Carolina county of residence was 14.6 deaths per 100,000 with a range from 6.6 to 49.4 deaths per 100,000.

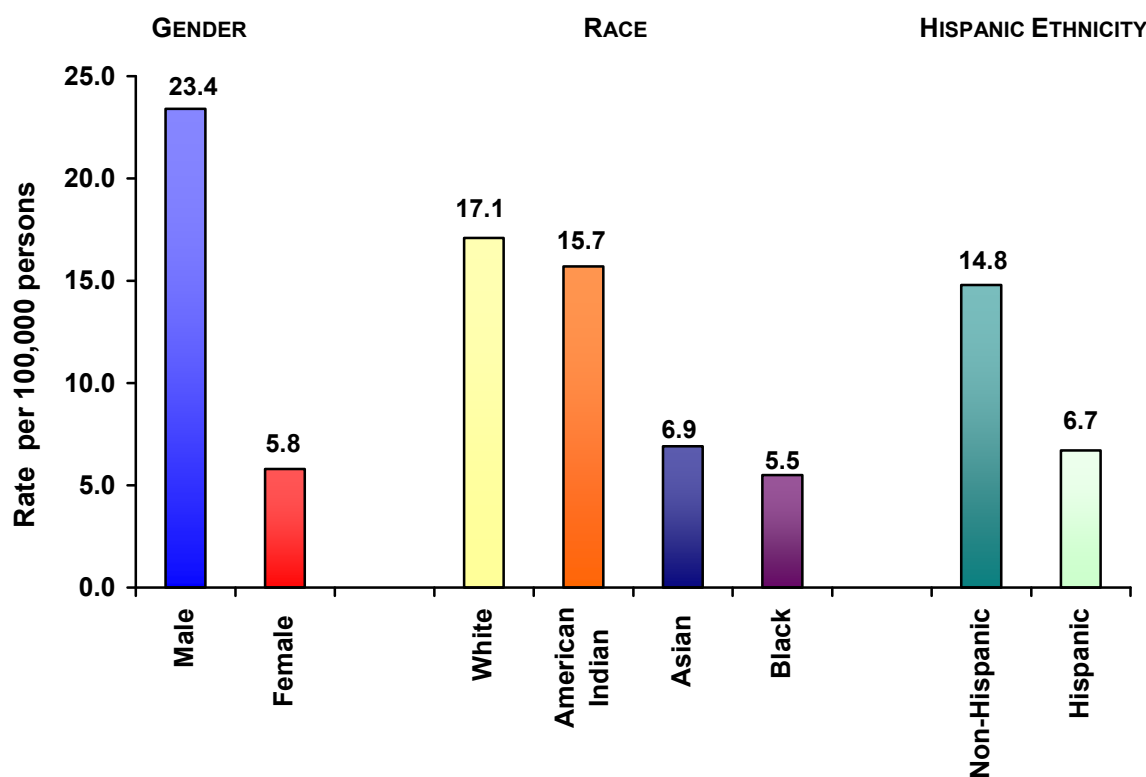
<b>Table 8: Demographics of Suicide Victims (Ages 10 or Older) in North Carolina, 2009</b>					
		<b>Number</b>	<b>%</b>	<b>Rate</b>	<b>95% CI</b>
<b>Gender</b>					
	Female	241	20.8	5.8	4.4 – 5.7
	Male	916	79.2	23.4	18.7 – 21.2
<b>Race</b>					
	American Indian	16	1.4	15.7	6.7 – 19.5
	Asian	12	1.0	6.9	2.5 – 8.7
	Black	96	8.3	5.5	3.7 – 5.6
	White	1,032	89.2	17.1	13.9 – 15.7
	Other/ Unknown	1	0.1	*	*
<b>Hispanic</b>					
	Hispanic	34	2.9	6.7	3.1 – 6.3
	Non-Hispanic	1,123	97.1	14.8	12.2 – 13.7
<b>Age Group (Years)</b>					
	10 - 14	7	0.6	1.2	0.3 – 2.0
	15 - 19	60	5.2	9.3	6.9 – 11.6
	20 - 24	70	6.1	10.5	8.0 – 12.9
	25 - 34	181	15.6	14.7	12.5 – 16.8
	35 - 44	235	20.3	17.8	15.5 – 20.1
	45 - 54	258	22.3	19.3	17.0 – 21.7
	55 - 64	174	15.0	16.1	13.7 – 18.5
	65 - 74	96	8.3	14.7	11.7 – 17.6
	75 - 84	56	4.8	14.4	10.6 – 18.2
	85 +	20	1.7	13.4	7.5 – 19.3
<b>Total Deaths</b>		<b>1,157</b>	<b>100</b>	<b>14.3</b>	<b>11.6 – 13.0</b>

Gender, race, Hispanic ethnicity or age-specific crude rate per 100,000 N.C. population

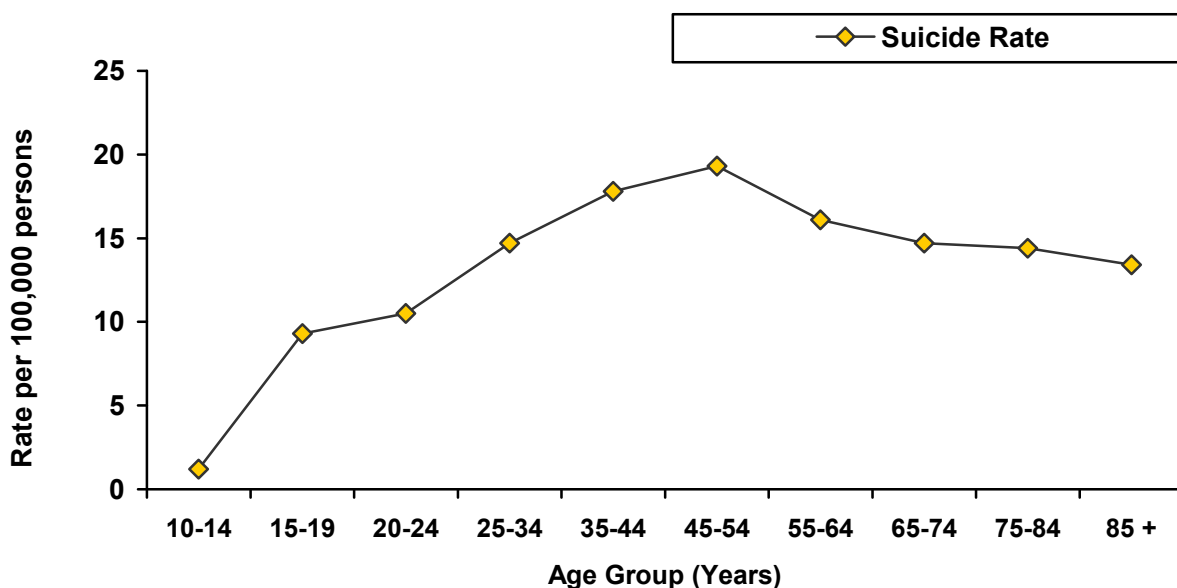
95% CI = 95 Percent Confidence Interval for the Rate

\* The number of deaths was too small to support the calculation of a rate.

**Figure 8: Crude Suicide Rates by Gender, Race and Hispanic Ethnicity for Ages 10 or Older in North Carolina, 2009**

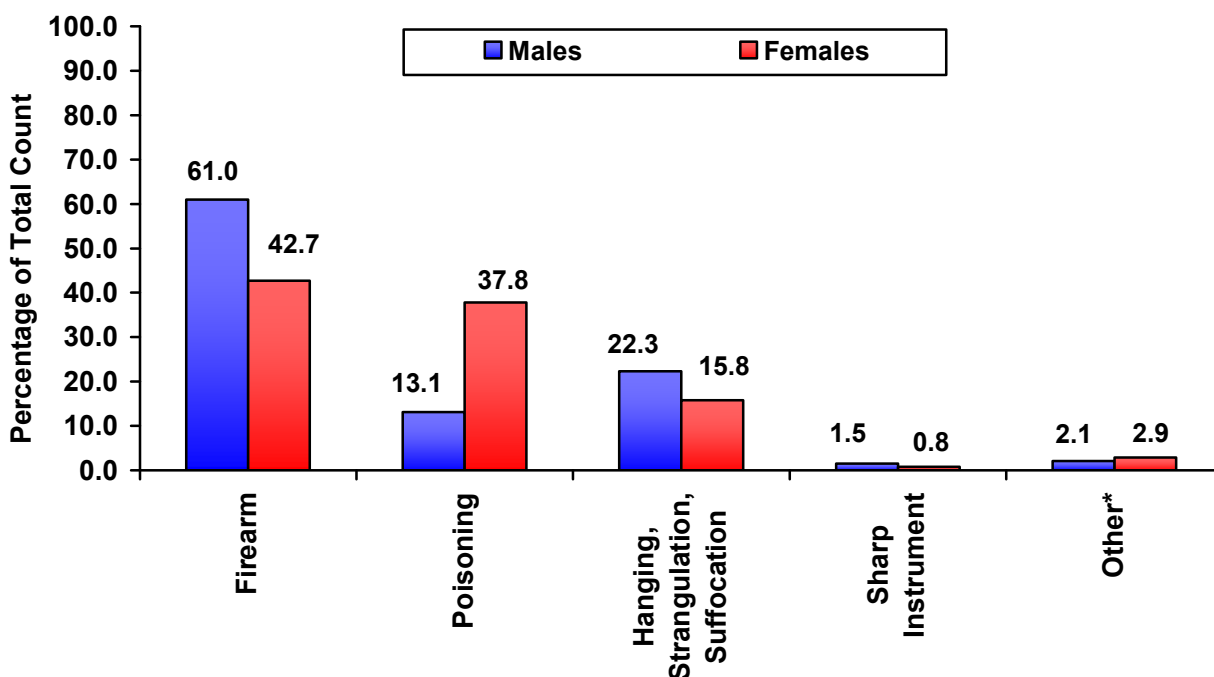


**Figure 9: Age-Specific Crude Suicide Rate by Age Group for Ages 10 or Older in North Carolina, 2009**



**Table 9: Method of Death for Suicide Victims by Gender for Ages 10 or Older in North Carolina, 2009**

	Male		Female		Total	
	Number	%	Number	%	Number	%
<b>Method of Death</b>						
Firearm	559	61.03	103	42.7	662	57.2
Hanging, Strangulation, Suffocation	204	22.27	38	15.8	242	20.9
Poisoning	120	13.1	91	37.8	211	18.2
Sharp Instrument	14	1.53	2	0.8	16	1.4
Fall	4	0.44	4	1.7	8	0.7
Motor Vehicle	5	0.55	1	0.4	6	0.5
Other Transport Vehicle	5	0.55	0	0.0	5	0.4
Drowning	2	0.22	2	0.8	4	0.4
Fire/ Burns	2	0.22	0	0.0	2	0.2
Other / Unknown	1	0.11	0	0.0	1	0.1
<b>Total Deaths</b>	<b>916</b>	<b>100</b>	<b>241</b>	<b>100</b>	<b>1,157</b>	<b>100</b>

**Figure 10: Method of Death for Suicide Victims by Gender for Ages 10 or Older in North Carolina, 2009**

\* Other includes: drowning, fall, fire/ burns, motor vehicle, other transport vehicle and unknown.

**Table 10: Type of Firearm Involved in Suicide Firearm Deaths by Gender for Ages 10 or Older in North Carolina, 2009**

	Male		Female		Total	
	Number	%	Number	%	Number	%
<b>Firearm Type</b>						
Handgun	348	62.3	88	85.4	435	65.9
Shotgun	128	22.9	5	4.9	132	20.1
Rifle	73	13.1	8	7.8	81	12.2
Other	1	0.2	0	0.0	1	0.2
Unknown Type	9	1.6	2	1.9	10	1.7
<b>Total Firearm Deaths</b>	<b>559</b>	<b>100</b>	<b>103</b>	<b>100</b>	<b>662</b>	<b>100</b>

**Table 11: Type of Poison Involved in Suicide Poisoning Deaths by Gender for Ages 10 or Older in North Carolina, 2009**

	Male		Female		Total	
	Number	%	Number	%	Number	%
<b>Poison Type</b>						
Pharmaceutical - Prescription	71	59.2	75	82.4	146	69.2
Carbon Monoxide or Other Gas	35	29.2	6	6.6	41	19.4
Pharmaceutical - Over-the-Counter	10	8.3	4	4.4	14	6.6
Other (e.g., Rat Poison, Insecticide, Lye)	0	0.0	3	3.3	3	1.4
Street / Recreational Drugs	2	1.7	2	2.2	4	1.9
Alcohol	2	1.7	1	1.1	3	1.4
<b>Total Poisoning Deaths</b>	<b>120</b>	<b>100</b>	<b>91</b>	<b>100</b>	<b>211</b>	<b>100</b>

**Table 12: Completed Education, Marital Status and Veteran Status of Adult Suicide Victims (Ages 18 or Older) in North Carolina, 2009**

		Number	%
<b>Years of Completed Education</b>			
	0 to 8 Years	79	7.0
	9 to 11 Years	173	15.4
	12 Years	408	36.4
	> 12 Years	454	40.5
	Unknown	8	0.7
<b>Marital Status</b>			
	Never Married	303	27.0
	Married	506	45.1
	Divorced	231	20.6
	Widowed	80	7.1
	Unknown	2	0.2
<b>Veteran Status</b>			
	Non-Veteran	927	82.6
	Veteran	182	16.2
	Unknown	13	1.0
<b>Total Adult Deaths (Ages 18 or Older)</b>		<b>1,122</b>	<b>100</b>

**Table 13: Suicides by County of Residence for Ages 10 or Older in North Carolina, 2009**

	Number	Rate		Number	Rate		Number	Rate
County			County			County		
Alamance	15	11.6	<b>Franklin</b>	<b>11</b>	<b>21.1</b>	Pamlico	3	*
<b>Alexander</b>	<b>11</b>	<b>33.9</b>	<b>Gaston</b>	<b>43</b>	<b>23.8</b>	Pasquotank	3	*
Alleghany	3	*	Gates	1	*	<b>Pender</b>	<b>9</b>	<b>19.5</b>
<b>Anson</b>	<b>5</b>	<b>22.8</b>	Graham	1	*	Perquimans	2	*
Ashe	4	*	<b>Granville</b>	<b>12</b>	<b>23.7</b>	Person	4	*
<b>Avery</b>	<b>8</b>	<b>49.4</b>	Greene	2	*	Pitt	14	10.2
Beaufort	6	14.9	Guilford	51	12.3	Polk	2	*
Bertie	2	*	Halifax	7	14.7	<b>Randolph</b>	<b>26</b>	<b>21.2</b>
Bladen	5	17.9	Harnett	13	13.2	Richmond	7	17.6
Brunswick	13	13.6	Haywood	5	9.8	Robeson	16	14.7
Buncombe	37	18.1	Henderson	6	6.6	Rockingham	14	17.3
<b>Burke</b>	<b>20</b>	<b>25.4</b>	Hertford	2	*	Rowan	19	15.5
Cabarrus	28	19.4	Hoke	3	*	Rutherford	11	19.8
Caldwell	11	15.7	Hyde	0	*	Sampson	9	16.6
Camden	0	*	Iredell	14	10.3	Scotland	0	*
<b>Carteret</b>	<b>18</b>	<b>31.1</b>	<b>Jackson</b>	<b>8</b>	<b>24.4</b>	Stanly	7	13.4
Caswell	2	*	Johnston	14	9.9	<b>Stokes</b>	<b>10</b>	<b>24.3</b>
Catawba	25	18.2	Jones	0	*	Surry	6	9.5
Chatham	7	12.4	Lee	5	9.8	Swain	4	*
<b>Cherokee</b>	<b>9</b>	<b>38.2</b>	<b>Lenoir</b>	<b>12</b>	<b>24.6</b>	<b>Transylvania</b>	<b>9</b>	<b>33.2</b>
Chowan	1	*	Lincoln	7	10.6	Tyrrell	1	*
Clay	1	*	McDowell	4	*	Union	21	12.7
Cleveland	15	17.3	Macon	5	16.9	Vance	5	13.7
Columbus	4	*	Madison	4	*	Wake	70	9.2
Craven	8	9.5	<b>Martin</b>	<b>5</b>	<b>24.6</b>	Warren	2	*
Cumberland	33	12.5	Mecklenburg	87	11.3	Washington	1	*
Currituck	1	*	Mitchell	1	*	<b>Watauga</b>	<b>10</b>	<b>23.9</b>
Dare	5	16.6	<b>Montgomery</b>	<b>6</b>	<b>25.2</b>	<b>Wayne</b>	<b>21</b>	<b>21.7</b>
Davidson	21	15.2	Moore	13	17.0	<b>Wilkes</b>	<b>14</b>	<b>24.0</b>
Davie	4	*	Nash	11	13.4	Wilson	8	11.9
Duplin	8	17.8	New Hanover	29	16.9	Yadkin	4	*
Durham	18	7.8	Northampton	2	*	Yancey	4	*
Edgecombe	7	15.8	Onslow	15	10.3			
Forsyth	47	15.2	Orange	20	17.6			

Crude rate per 100,000 population in N.C. county

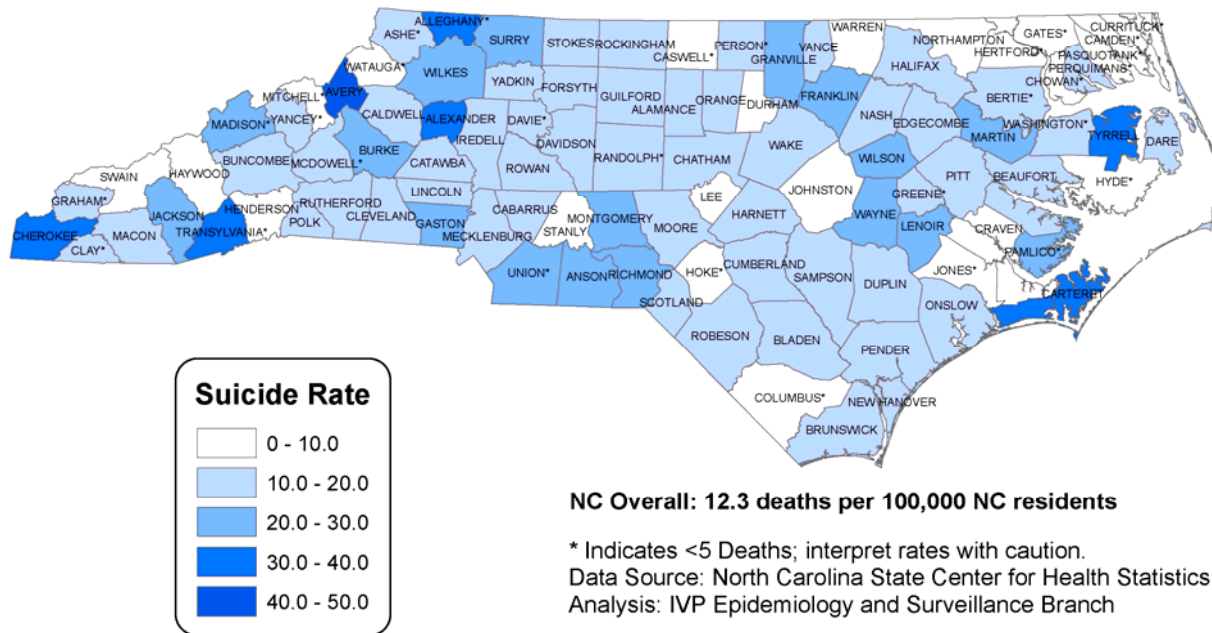
\* Number of deaths was zero or too small to support rate calculation.

**Top 20 counties with the highest crude suicide rates are shown in bold.**



**Figure 11: Map of Suicide Rates by County of Residence for Ages 10 or Older in North Carolina, 2009**

### Suicides per 100,000 North Carolina Residents: 2009



## ***Race and Gender of Suicide Victims***

**Table 14** and **Figure 12** describe suicide victims in North Carolina in 2009 by race and gender.

### **Key Findings:**

- Of all suicide victims, 89.2 percent were white and 79.2 percent were male, as shown in Table 8.
- The majority of male suicide victims were white (89.1%) as compared to black (9.1%). Similarly, the majority of female suicide victims were white (89.6%) as compared to black (5.4%).
- For men, the suicide rate per 100,000 from highest to lowest by race was white men (27.4), American Indian men (21.9), black men (10.2) and Asian men (5.9).
- The suicide rate per 100,000 for females was highest for American Indian women (9.7), followed by Asian women (7.8), white women (7.0) and black women (1.4). There were five deaths among American Indian women.
- The suicide rate was higher for males than for females of the same race by 7.4 times for blacks, 4.7 times for whites, and 2.3 times for American Indians. The Asian suicide rate for females was higher but had only seven deaths.

## ***Age and Gender of Suicide Victims***

**Table 15** portrays the suicide victims in North Carolina in 2009 by age group and gender. **Figure 13** plots the 2009 suicide rates per 100,000 in North Carolina by age group and gender.

### **Key Findings:**

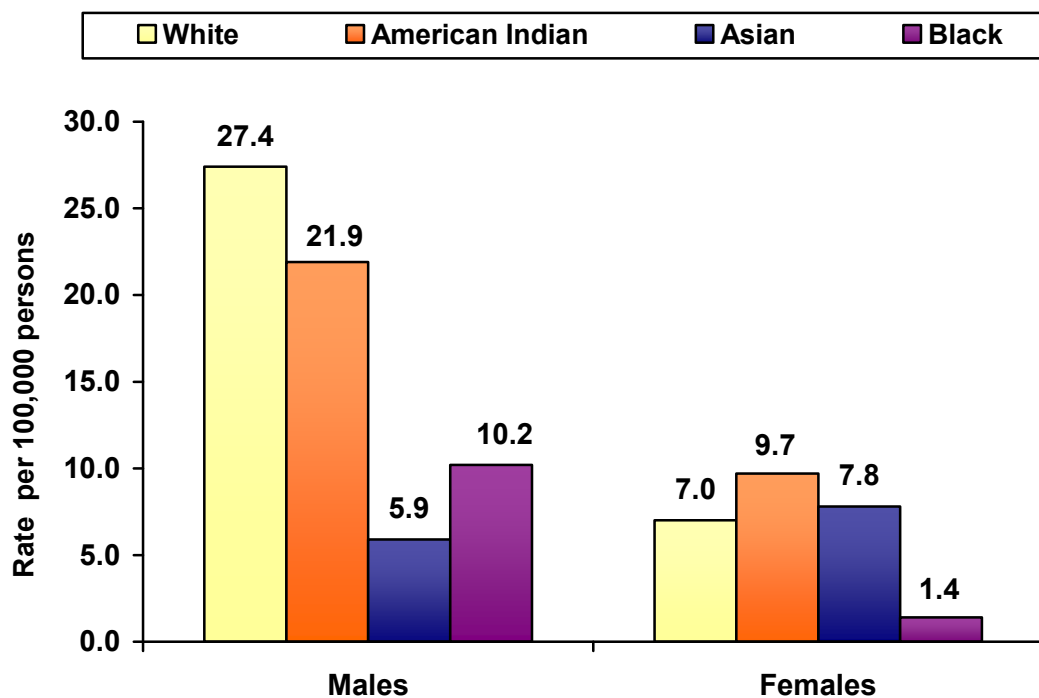
- Among males, the majority of suicide victims were ages 25 to 64 years with a rank order by age group of: 45-54 (20.7%), 35-44 (19.4%), 25-34 (15.6%) and 55-64 (15.2%).
- Similarly among females, the majority of suicide victims were ages 25 to 64 years with a rank order by age group of: 35-44 (20.9%), 45-54 (20.6%), 25-34 (15.8%) and 55-64 (14.6%).
- For men, the trend in suicide rate essentially increased by age and peaked among 85 and older (38.4 per 100,000).
- The trend in suicide rate by age for women increased by age and peaked at 45-54 (10.1 per 100,000) and 55-64 (7.1 per 100,000).
- Males had higher suicide rates than females across all age groups with the largest gender disparity of 13.4 times higher in men than women (38.4 vs. 2.9 per 100,000, respectively) in ages 85 and older.

**Table 14: Race by Gender of Suicide Victims (Ages 10 or Older) in North Carolina, 2009**

	Male			Female		
	Number	%	Rate	Number	%	Rate
Race						
American Indian	11	1.2	21.9	5	2.1	9.7
Asian	5	0.1	5.9	7	2.9	7.8
Black	83	9.1	10.2	13	5.4	1.4
White	816	89.1	27.4	216	89.6	7.0
Other/ Unknown	1	0.1	*	0	*	*
<b>Total Deaths</b>	<b>916</b>	<b>100</b>	<b>23.4</b>	<b>241</b>	<b>100</b>	<b>5.8</b>

Gender and race-specific crude rate per 100,000 N.C. population

\* The number of deaths was zero or too small to support calculation of a rate.

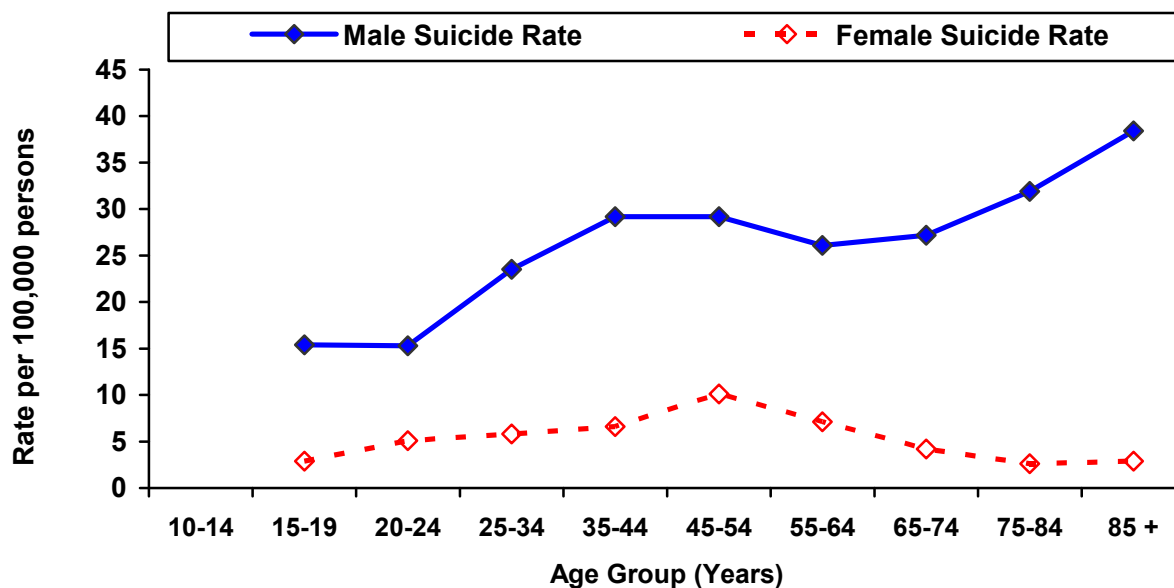
**Figure 12: Crude Suicide Rate Stratified by Race and Gender for Ages 10 or Older in North Carolina, 2009**

**Table 15: Age Group by Gender of Suicide Victims (Ages 10 or Older) in North Carolina, 2009**

	Male			Female		
	Number	%	Rate	Number	%	Rate
Age (Years)						
10-14	4	0.4	*	3	1.2	*
15-19	51	5.6	15.4	9	3.7	2.9
20-24	54	5.9	15.3	16	6.6	5.1
25-34	145	15.8	23.5	36	14.9	5.8
35-44	191	20.9	29.2	44	18.3	6.6
45-54	189	20.6	29.2	69	28.6	10.1
55-64	134	14.6	26.1	40	16.6	7.1
65-74	81	8.8	27.2	15	6.2	4.2
75-84	50	5.5	31.9	6	2.5	2.6
85 +	17	1.9	38.4	3	1.2	*
<b>Total Deaths</b>	<b>916</b>	<b>100</b>	<b>23.4</b>	<b>241</b>	<b>100</b>	<b>5.8</b>

Gender and age-specific crude rate per 100,000 N.C. population

\* The number of deaths was too small to support calculation of a rate.

**Figure 13: Age-Specific Crude Suicide Rate Stratified by Age Group and Gender for Ages 10 or Older in North Carolina, 2009**

**Note:** The number of suicides for ages 10-14 was too small to support a rate calculation.

## ***Circumstances, Toxicology Testing and Injury Location for Suicide Victims***

NC-VDRS collects data on the circumstances surrounding suicides. In 2009, 92 percent of suicide victims had available data. A wide range of circumstances lead to suicide, and each victim may have more than one circumstance. Accordingly, the total number of circumstances may exceed the total number of suicides. **Table 16** and **Figure 14** describe the circumstances for suicide victims ages 10 or older stratified by gender based on the number of cases reporting circumstances in North Carolina in 2009. **Table 17** lists the mental health problem at the time of the suicide in 2009 in North Carolina for both men and women.

### **Key Findings:**

- Among male victims, the most common circumstances of suicide were current depressed mood (39.9%), crisis in past two weeks (35.5%), a history of treatment for mental illness (32.7%), current mental health problem (32.1%), and intimate partner problem (30.9%).
- Similarly for females, the most common circumstances of suicide were a history of treatment for mental illness (54.0%), current mental health problem (54.0%), current treatment for mental illness (50.9%), current depressed mood (36.6%), and crisis in past two weeks (19.6%).
- A suicide note was left by 28.0 percent of male victims and 29.0 percent of female victims.
- Intent to commit suicide was disclosed by 24.1 percent of men and 24.6 percent of women.
- A history of suicide attempts was reported for 12.1 percent of male victims and 28.1 percent of female victims.
- Other common circumstances of suicide for men and women, respectively, were physical health problem (15.6% and 17.4%), alcohol problem (17.0% and 10.7%) and other substance problem (14.7 and 19.2%).
- At the time of suicide, the most common mental health problems were depression or dysthymia (78.8%), bipolar disorder (18.6%), anxiety disorder (7.5%), and schizophrenia (5.2%).

Toxicology testing was performed on suicide victims at the medical examiner's direction to identify substances believed to have contributed to the death or circumstances surrounding the death. A positive test for a substance does not necessarily indicate that substance was present at a lethal level. Testing of North Carolina suicide victims in 2009 is shown by gender in **Table 18** and by age and race in **Table 19**.

### **Key Findings:**

- Alcohol was tested in 87.2 percent of all suicides; testing was relatively infrequent for other substances. Of those victims tested, alcohol was present in 31.1 percent of all suicide victims, 33.5 percent of male victims and 22.4 percent of female victims.
- Ages 20 to 54 had the highest percentage of suicide victims with alcohol present, ranging from 35.5 to 39.3 percent of those tested by age group. Alcohol was present in those victims tested by race as follows: whites (31.7%), American Indians (26.7%) and blacks (27.9%).

**Table 20** lists the location of the injury resulting in death for suicide victims in North Carolina in 2009.

### **Key Findings:**

- The majority (80.6%) of injuries resulting in death occurred in a house or apartment.
- Other common locations where injuries resulting in death occurred were as follows: a natural area (3.5%); motor vehicle (3.5%); street, road, sidewalk or alley (2.5%); and jail or prison (1.6%).

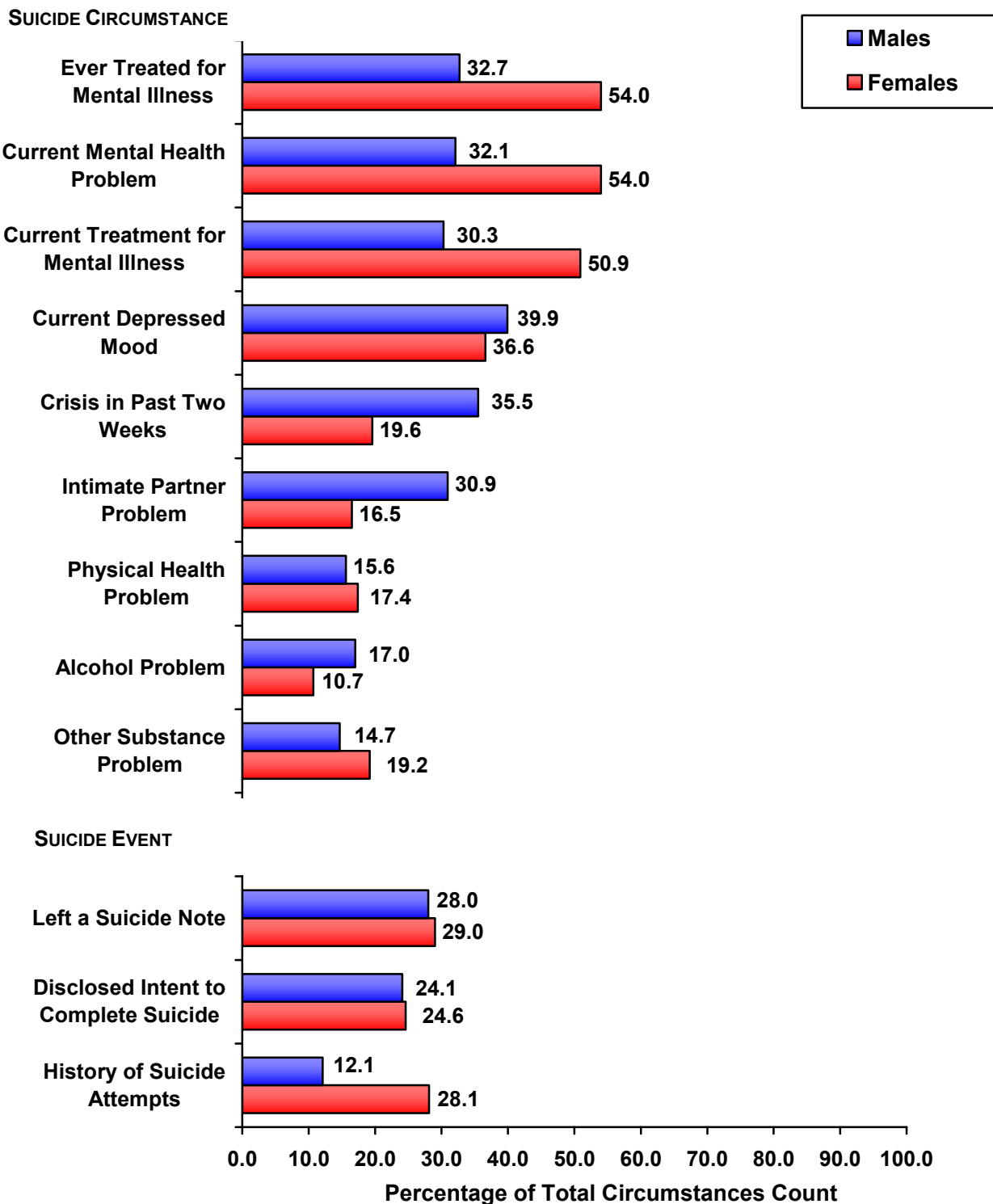
**Table 16: Circumstances of Suicide Victims (Ages 10 or Older) by Gender in North Carolina, 2009**

	Male		Female		Total	
<b>Circumstance**</b>	<b>Number</b>	<b>%</b>	<b>Number</b>	<b>%</b>	<b>Number</b>	<b>%</b>
<b>Mental Health</b>						
Ever Treated for Mental Illness	271	32.7	121	54.0	392	37.2
Current Mental Health Problem	266	32.1	121	54.0	387	36.8
Current Treatment for Mental Illness	251	30.3	114	50.9	365	34.7
Current Depressed Mood	331	39.9	82	36.6	413	39.2
<b>Substance Abuse</b>						
Alcohol Problem	141	17.0	24	10.7	165	15.7
Other Substance Problem	122	14.7	43	19.2	165	15.7
<b>Interpersonal</b>						
Intimate Partner Problem	256	30.9	37	16.5	293	27.8
Other Relationship Problem	60	7.2	15	6.7	75	7.1
Perpetrator of Interpersonal Violence in Past Month	83	10.0	1	0.5	84	8.0
Other Death of Friend/ Family	42	5.1	12	5.4	54	5.1
Suicide of Friend/ Family in Past 5 Years	8	1.0	1	0.5	9	0.9
Victim of Interpersonal Violence in Past Month	3	0.4	2	0.9	5	0.5
<b>Life Stressor</b>						
Crisis in Past Two Weeks	294	35.5	44	19.6	338	32.1
Physical Health Problem	129	15.6	39	17.4	168	16.0
Recent Criminal-Related Legal Problem	91	11.0	7	3.1	98	9.3
Job Problem	98	11.8	13	5.8	111	10.5
Financial Problem	70	8.4	15	6.7	85	8.1
Other Legal Problems	24	2.9	4	1.8	28	2.7
School Problem	2	0.2	1	0.4	3	0.3
<b>Suicide Event</b>						
Left a Suicide Note	232	28.0	65	29.0	297	28.2
Disclosed Intent to Complete Suicide	200	24.1	55	24.6	255	24.2
History of Suicide Attempts	100	12.1	63	28.1	163	15.5

\*\* Circumstances were available for 91 percent (829/916) of male victims, 93 percent (224/241) of female victims and 91 percent (1,053/1,157) of all suicide victims. The percentage of circumstances for suicide victims is based on the number of cases reporting circumstances in North Carolina in 2009.

**Note:** Each victim may have more than one circumstance. Accordingly, the total number of circumstances may exceed the total number of suicides.

**Figure 14: Circumstances of Suicide Victims (Ages 10 or Older) by Gender in North Carolina, 2009**



**Note:** Suicide victims may have more than one circumstance; therefore, the responses add up to more than 100 percent. This figure does not include all circumstances.

**Table 17: Current Mental Health Problem at the Time of Suicide by Gender for Ages 10 or Older in North Carolina, 2009**

	Male		Female		Total	
	Number	%	Number	%	Number	%
<b>Current Mental Health Problem **</b>						
Depression / Dysthymia	202	75.9	103	85.1	305	78.8
Bipolar Disorder	51	19.2	21	17.4	72	18.6
Schizophrenia	18	6.8	2	1.7	20	5.2
Anxiety Disorder	18	6.8	11	9.1	29	7.5
Attention Deficit Disorder (ADD) or Hyper-Reactivity Disorder	2	0.8	2	1.7	4	1.0
Post-Traumatic Stress Disorder	3	1.1	0	0.0	3	0.8
Obsessive-Compulsive Disorder	1	0.4	2	1.7	3	0.8
Other	7	2.6	1	0.8	8	2.1
Unknown	6	2.3	6	5.0	12	3.1

\*\* For 266 males, 121 females and 387 total suicide victims with a current mental health problem

**Note:** Victims may have more than one current problem; thus, responses add up to more than 100%.

**Table 18: Toxicology Testing and Results for Suicide Victims (Ages 10 or Older) by Gender in North Carolina, 2009\***

	Male		Female		Total	
	Number	%	Number	%	Number	%
<b>Alcohol</b>						
Tested with Results	795	86.8	214	88.8	1,009	87.2
Alcohol Present in Those Tested	266	33.5	48	22.4	314	31.1
<b>Antidepressant</b>						
Tested with Results	73	8.0	62	25.7	135	11.7
Antidepressant Present in Those Tested	45	61.6	43	69.4	88	65.2
<b>Amphetamines</b>						
Tested with Results	44	4.8	43	17.8	87	7.5
Amphetamines Present in Those Tested	0	0.0	0	0.0	0	0.0
<b>Cocaine</b>						
Tested with Results	86	9.4	71	29.5	157	13.6
Cocaine Present in Those Tested	11	12.8	4	5.6	15	9.6
<b>Marijuana</b>						
Tested with Results	43	4.7	42	17.4	85	7.4
Marijuana Present in Those Tested	0	0.0	0	0.0	0	0.0
<b>Opiates</b>						
Tested with Results	88	9.6	74	30.7	162	14.0
Opiates Present in Those Tested	45	51.1	49	66.2	94	58.0
<b>Other Drugs</b>						
Tested with Results	106	11.6	79	32.8	185	16.0
Other Drugs Present in Those Tested	91	85.6	69	87.3	160	86.5

\* In 2009, North Carolina did not have a standard toxicology panel for all deaths.



**Table 19: Alcohol Toxicology Testing and Results for Suicide Victims (Ages 10 or Older) by Age Group and Race in North Carolina, 2009**

	Alcohol tested with results		Alcohol present in those tested	
	Number	%	Number	%
<b>Age Group (Years)</b>				
10-14	7	100.0	0	0.0
15-19	57	95.0	11	19.3
20-24	61	87.1	24	39.3
25-34	161	89.0	60	37.3
35-44	206	87.7	80	38.8
45-54	220	85.3	78	35.5
55-64	151	86.8	43	28.5
65-74	81	84.4	9	11.1
75-84	48	85.7	8	16.7
85 +	17	85.0	1	5.9
<b>Race</b>				
American Indian	15	93.8	4	26.7
Asian	11	91.7	1	9.1
Black	79	82.3	22	27.9
White	903	87.5	286	31.7

**Table 20: Injury Location for Suicide Victims (Ages 10 or Older) in North Carolina, 2009**

	Number	%
<b>Injury Location</b>		
House, Apartment	932	80.6
Natural Area (e.g., Field, River, Beaches, Woods)	41	3.5
Motor Vehicle (Excluding School Bus and Public Transportation)	41	3.5
Street/ Road, Sidewalk, Alley	29	2.5
Jail, Prison, Detention Facility	18	1.6
Hotel/ Motel	16	1.4
Other Commercial Establishment (e.g., Grocery Store, Retail Outlet, Laundromat)	11	1.0
Parking Lot/ Public Parking Garage	11	1.0
Highway/ Freeway	6	0.5
Park, Playground, Public Use Area	6	0.5
Synagogue, Church, Temple	3	0.3
Hospital or Medical Facility	3	0.3
Other Specified *	28	2.4
Unknown	4	0.4
<b>Total Deaths</b>	<b>1,157</b>	<b>100</b>

\* Other Specified with less than 3 percent of injuries for suicide victims by location type included: Industrial/construction area; office building; sports or athletic area; abandoned house, bank/credit union/ATM; building or warehouse; supervised residential facility; and college/university.

## Section III: Homicide

### *Basic Characteristics of Homicides*

**Table 21** characterizes the homicides in 2009 for North Carolina residents by demographics of gender, race and age. The homicide rate in 2009 in North Carolina per 100,000 persons is displayed by race and gender in **Figure 15** and by age group in **Figure 16**.

#### **Key Findings:**

- In 2009, 540 North Carolinians (5.8 per 100,000) were victims of homicide.
- Males were nearly three times more likely to be victims of a homicide than females (8.6 vs. 3.0 per 100,000, respectively).
- American Indians (13.9 per 100,000) and blacks (13.5 per 100,000) had higher homicide rates than whites (3.4 per 100,000) and Asians (2.8 per 100,000).
- Hispanics were as likely to be victims of homicide as non-Hispanics (6.8 vs. 5.7 per 100,000, respectively).
- Homicide rates per 100,000 were highest for adults ages 20 to 24 years (15.0) and 25 to 34 years (11.4), and among children less than 14, the rate was highest in infants less than 1 year (4.5).

The method of death for homicide victims in North Carolina in 2009 is shown in **Table 22** and **Figure 17**. The type of firearm involved in homicide firearm deaths in North Carolina in 2009 is listed in **Table 23**.

#### **Key Findings:**

- The leading methods of homicide were firearm (71.3%), sharp instrument (12.4%), unarmed assault (6.1%), blunt instrument (4.6%), and hanging, strangulation or suffocation (2.4%).
- Most male homicide victims died by a firearm (77.5%) or sharp instrument (10.9%).
- The majority of female homicide victims died by a firearm (54.5%), sharp instrument (16.6%), or hanging, strangulation or suffocation (9.0%).
- Considering only homicide firearm deaths, a handgun was the most common firearm used in 78.8 percent of all deaths, 77.6 percent of male deaths and 83.5 percent of female deaths.

**Table 24** describes adult homicide victims (18 years or older) in North Carolina in 2009 by the number of years of completed education, marital status and veteran status.

#### **Key Findings:**

- Among adult homicide victims, 61.4 percent completed high school with 12 or more years of education and 37.1 percent had less than 12 years of education.
- More than half of homicide victims were never married (58.8%) as compared to married (22.9%), divorced (13.6%) or widowed (4.2%).
- Military veterans accounted for 6.4 percent of adult homicide victims.

**Table 25** and **Figure 18** display the homicide rates in 2009 by North Carolina county of residence. County rates should be interpreted with caution because the numbers of homicides by county are small and subject to variation. The number of homicides in 60 counties was zero or too small to support a rate calculation, and six of the 20 counties with the highest rates had less than 50,000 residents in 2009.

**Key Findings:**

- For the 40 counties where the number of homicides was sufficient to support a rate calculation, the average homicide rate by North Carolina county of residence was 9.4 deaths per 100,000 with a range from 2.6 to 24.8 deaths per 100,000.

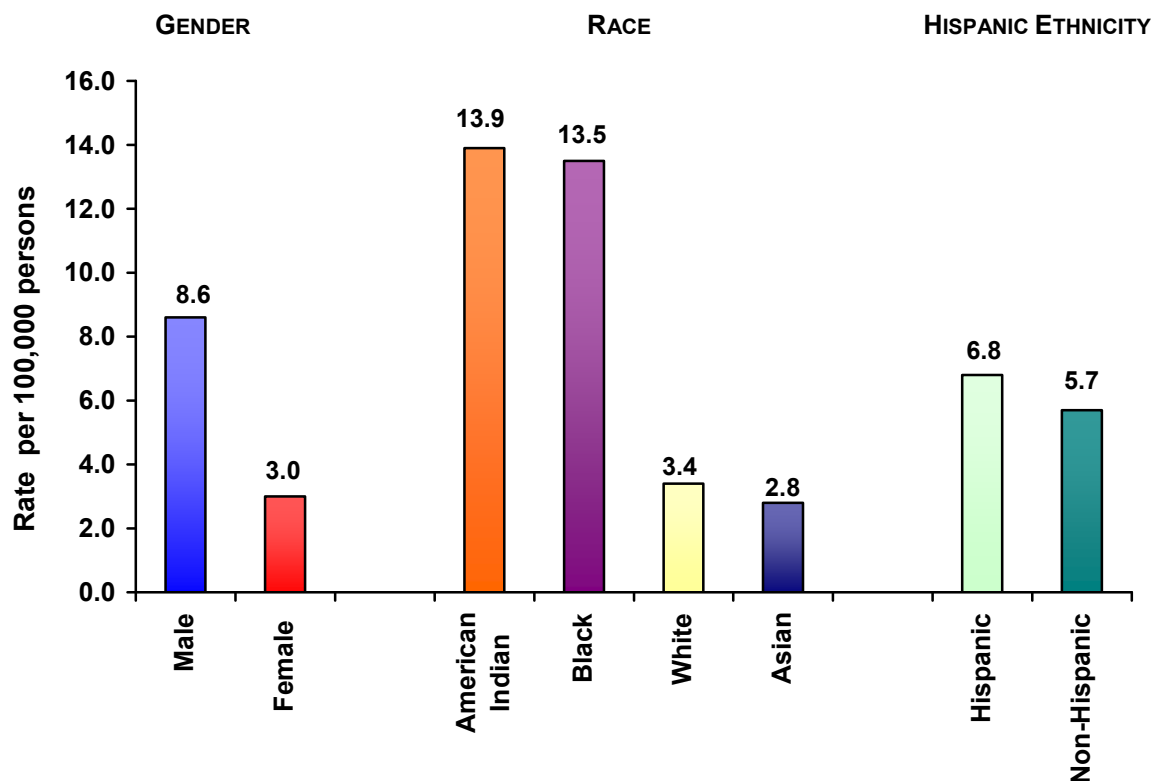
<b>Table 21: Demographics of Homicide Victims in North Carolina, 2009</b>					
		<b>Number</b>	<b>%</b>	<b>Rate</b>	<b>95% CI</b>
<b>Gender</b>					
	Female	145	26.9	3.0	2.5 - 3.5
	Male	395	73.2	8.6	7.8 - 9.5
<b>Race</b>					
	American Indian	17	3.2	13.9	7.3 – 20.5
	Asian	6	1.1	2.8	0.6 - 5.1
	Black	280	51.9	13.5	12.0 - 15.1
	White	234	43.3	3.4	2.9 - 3.8
	Other/ Unknown	3	0.6	*	*
<b>Hispanic</b>					
	Hispanic	49	9.1	6.8	4.9 - 8.7
	Non-Hispanic	491	90.9	5.7	5.2 - 6.2
<b>Age Group (Years)</b>					
	< 1	6	1.1	4.5	0.9 - 8.2
	1 - 4	10	1.9	1.9	0.7 - 3.0
	5 - 9	1	0.2	*	*
	10 - 14	2	0.4	*	*
	15 - 19	48	8.9	7.4	5.3 - 9.5
	20 - 24	100	18.5	15.0	12.0 - 17.9
	25 – 34	141	26.1	11.4	9.5 - 13.3
	35 – 44	88	16.3	6.7	5.3 - 8.1
	45 – 54	79	14.6	5.9	4.6 - 7.2
	55 – 64	34	6.3	3.1	2.1 - 4.2
	65 - 74	13	2.4	2.0	0.9 - 3.1
	75 - 84	10	1.9	2.6	1.0 - 4.2
	85 +	8	1.5	5.4	1.6 - 9.1
<b>Total Deaths</b>		<b>540</b>	<b>100</b>	<b>5.8</b>	<b>5.3 - 6.2</b>

Gender, race, Hispanic ethnicity or age-specific crude rate per 100,000 N.C. population

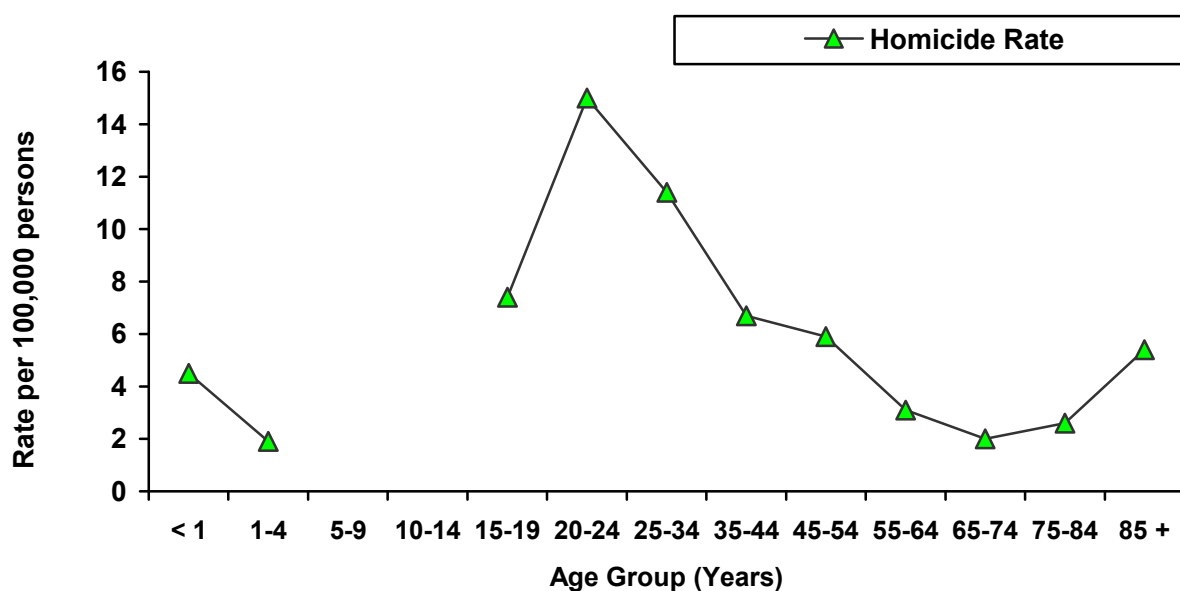
95% CI = 95 Percent Confidence Interval for the Rate

\* The number of deaths was too small to support the calculation of a rate.

**Figure 15: Crude Homicide Rates by Gender, Race and Hispanic Ethnicity in North Carolina, 2009**



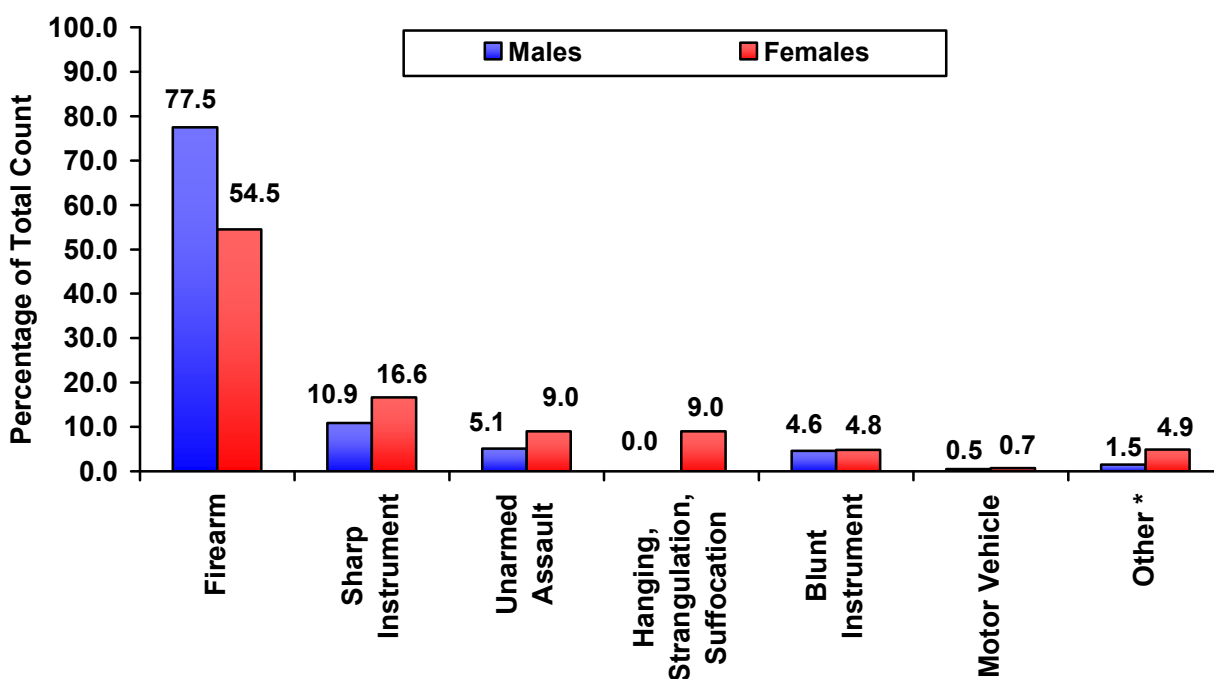
**Figure 16: Age-Specific Crude Homicide Rate by Age Group in North Carolina, 2009**



**Note:** The number of deaths was too small to support a rate calculation for the 5-14 year age group.

**Table 22: Method of Death for Homicide Victims by Gender in North Carolina, 2009**

	Male		Female		Total	
	Number	%	Number	%	Number	%
Method of Death						
Firearm	306	77.5	79	54.5	385	71.3
Sharp instrument	43	10.9	24	16.6	67	12.4
Unarmed Assault	20	5.1	13	9.0	33	6.1
Blunt instrument	18	4.6	7	4.8	25	4.6
Hanging, strangulation, suffocation	0	0.0	13	9.0	13	2.4
Motor Vehicle	2	0.5	1	0.7	3	0.6
Violent Shaking	0	0.0	2	1.4	2	0.4
Drowning	0	0.0	1	0.7	1	0.2
Fire or burns	0	0.0	1	0.7	1	0.2
Intentional neglect	0	0.0	1	0.7	1	0.2
Other / Unknown	6	1.5	3	2.1	9	1.7
<b>Total Deaths</b>	<b>395</b>	<b>100</b>	<b>145</b>	<b>100</b>	<b>540</b>	<b>100</b>

**Figure 17: Method of Death for Homicide Victims by Gender in North Carolina, 2009**

\* Other includes: fire/ burn, intentional neglect, violent shaking, drowning, and unknown.

**Table 23: Type of Firearm Involved in Homicide Firearm Deaths by Gender in North Carolina, 2009**

	Male		Female		Total	
	Number	%	Number	%	Number	%
<b>Firearm Type</b>						
Handgun	239	77.6	66	83.5	305	78.8
Shotgun	27	8.8	7	8.9	34	8.8
Rifle	21	6.8	2	5.1	23	5.9
Unknown Type	21	6.8	4	5.1	25	6.5
<b>Total Deaths</b>	<b>308</b>	<b>100</b>	<b>79</b>	<b>100</b>	<b>387</b>	<b>100</b>

**Table 24: Completed Education, Marital Status and Veteran Status of Adult Homicide Victims (Ages 18 or Older) in North Carolina, 2009**

		Number	%
<b>Years of Completed Education</b>			
	0 to 8 Years	39	7.8
	9 to 11 Years	147	29.3
	12 Years	220	43.8
	> 12 Years	88	17.5
	Unknown	8	1.6
<b>Marital Status</b>			
	Never Married	295	58.8
	Married	115	22.9
	Divorced	68	13.6
	Widowed	21	4.2
	Unknown	3	0.6
<b>Veteran Status</b>			
	Non-Veteran	463	92.2
	Veteran	32	6.4
	Unknown	7	1.4
<b>Total Adult Deaths (Ages 18 or Older)</b>		<b>502</b>	<b>100</b>

**Table 25: Homicides by County of Residence in North Carolina, 2009**

	Number	Rate		Number	Rate		Number	Rate
County			County			County		
Alamance	5	3.3	Franklin	2	*	Pamlico	1	*
Alexander	3	*	Gaston	6	2.9	Pasquotank	0	*
Alleghany	0	*	Gates	1	*	Pender	2	*
Anson	3	*	Graham	0	*	Perquimans	0	*
Ashe	0	*	Granville	4	*	Person	1	*
Avery	0	*	Greene	4	*	<b>Pitt</b>	<b>16</b>	<b>10.1</b>
Beaufort	4	*	Guilford	21	4.4	Polk	0	*
Bertie	2	*	<b>Halifax</b>	<b>7</b>	<b>12.8</b>	Randolph	8	5.6
<b>Bladen</b>	<b>8</b>	<b>24.7</b>	Harnett	6	5.2	<b>Richmond</b>	<b>5</b>	<b>10.9</b>
Brunswick	3	*	Haywood	1	*	<b>Robeson</b>	<b>30</b>	<b>23.2</b>
Buncombe	6	2.6	Henderson	5	4.8	Rockingham	4	*
Burke	1	*	Hertford	2	*	Rowan	7	5.0
Cabarrus	10	5.8	<b>Hoke</b>	<b>5</b>	<b>11.1</b>	Rutherford	1	*
Caldwell	5	6.3	Hyde	0	*	<b>Sampson</b>	<b>8</b>	<b>12.6</b>
Camden	0	*	Iredell	6	3.8	<b>Scotland</b>	<b>9</b>	<b>24.8</b>
Carteret	3	*	Jackson	0	*	<b>Stanly</b>	<b>6</b>	<b>10.0</b>
Caswell	2	*	Johnston	4	*	Stokes	1	*
Catawba	10	6.3	Jones	0	*	<b>Surry</b>	<b>7</b>	<b>9.7</b>
Chatham	2	*	<b>Lee</b>	<b>6</b>	<b>9.9</b>	Swain	1	*
Cherokee	1	*	Lenoir	1	*	Transylvania	2	*
Chowan	0	*	Lincoln	3	*	Tyrrell	0	*
Clay	0	*	McDowell	3	*	Union	9	4.5
Cleveland	7	7.1	Macon	0	*	<b>Vance</b>	<b>5</b>	<b>11.6</b>
<b>Columbus</b>	<b>5</b>	<b>9.2</b>	Madison	1	*	Wake	23	2.6
<b>Craven</b>	<b>11</b>	<b>11.2</b>	Martin	4	*	Warren	2	*
<b>Cumberland</b>	<b>32</b>	<b>10.2</b>	Mecklenburg	53	5.8	Washington	0	*
Currituck	0	*	Mitchell	0	*	Watauga	0	*
Dare	0	*	<b>Montgomery</b>	<b>5</b>	<b>18.0</b>	<b>Wayne</b>	<b>11</b>	<b>9.7</b>
Davidson	1	*	<b>Moore</b>	<b>15</b>	<b>17.2</b>	Wilkes	3	*
Davie	0	*	<b>Nash</b>	<b>7</b>	<b>7.4</b>	Wilson	5	6.4
Duplin	3	*	New Hanover	8	4.1	Yadkin	3	*
<b>Durham</b>	<b>24</b>	<b>8.9</b>	Northampton	3	*	Yancey	2	*
Edgecombe	3	*	Onslow	11	6.4			
Forsyth	18	5.0	Orange	2	*			

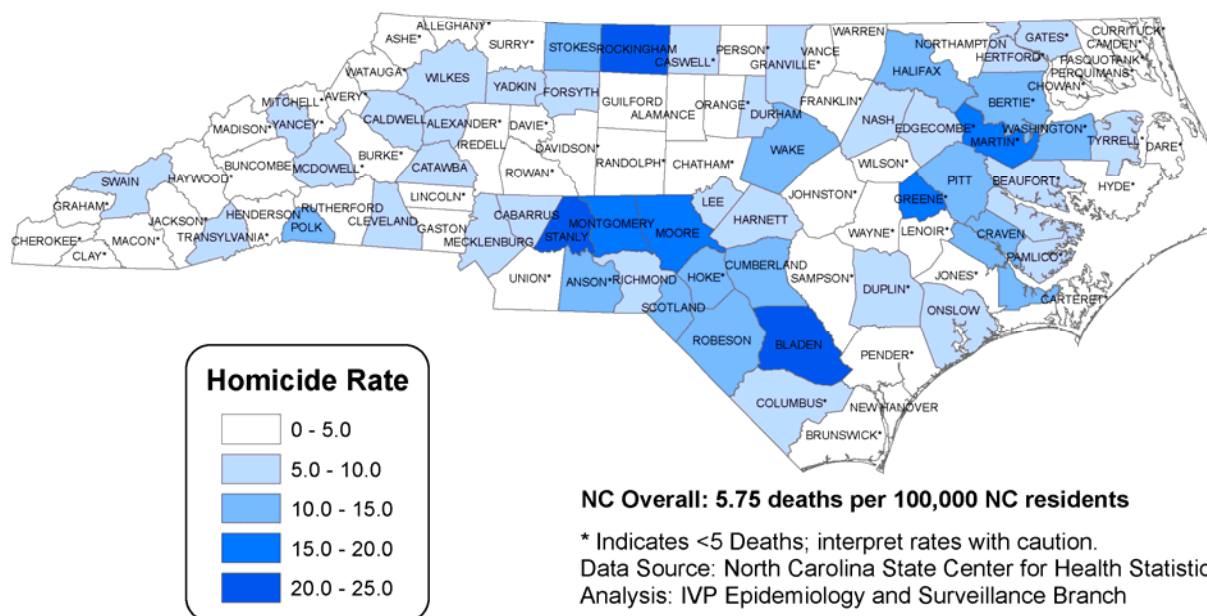
Crude rate per 100,000 population in N.C. county

\* Number of deaths was zero or too small to support rate calculation.

**Top 20 counties with the highest crude homicide rates are shown in bold.**

**Figure 18: Map of Homicide Rates by County of Residence in North Carolina, 2009**

Homicides per 100,000 North Carolina Residents: 2009





## ***Race and Gender of Homicide Victims***

**Table 26** and **Figure 19** describe the 2009 North Carolina homicide victims by gender and race.

### **Key Findings:**

- Of all homicide victims, 73.2 percent were male, 51.9 percent were black and 43.3 percent were white, as shown in Table 21.
- The majority of male homicide victims were black (57.2%) as compared to white (38.0%) and American Indian (3.3%). Conversely, the majority of female homicide victims were white (57.9%) compared to black (37.2%) and American Indian (2.8%).
- The homicide rate per 100,000 was five times higher for black males (23.2) and American Indian males (21.4) as compared to white males (4.3).
- Black females were two times more likely to be a homicide victim than white females (4.9 vs. 2.4 per 100,000, correspondingly).
- The homicide rate was 4.7 times higher for black males than for black females; American Indian females had only four deaths and thus rates were not calculated.

## ***Age and Gender of Homicide Victims***

The age and gender of homicide victims in North Carolina in 2009 are categorized in **Table 27**. The 2009 homicide rates per 100,000 in North Carolina are stratified by age group and gender in **Figure 20**.

### **Key Findings:**

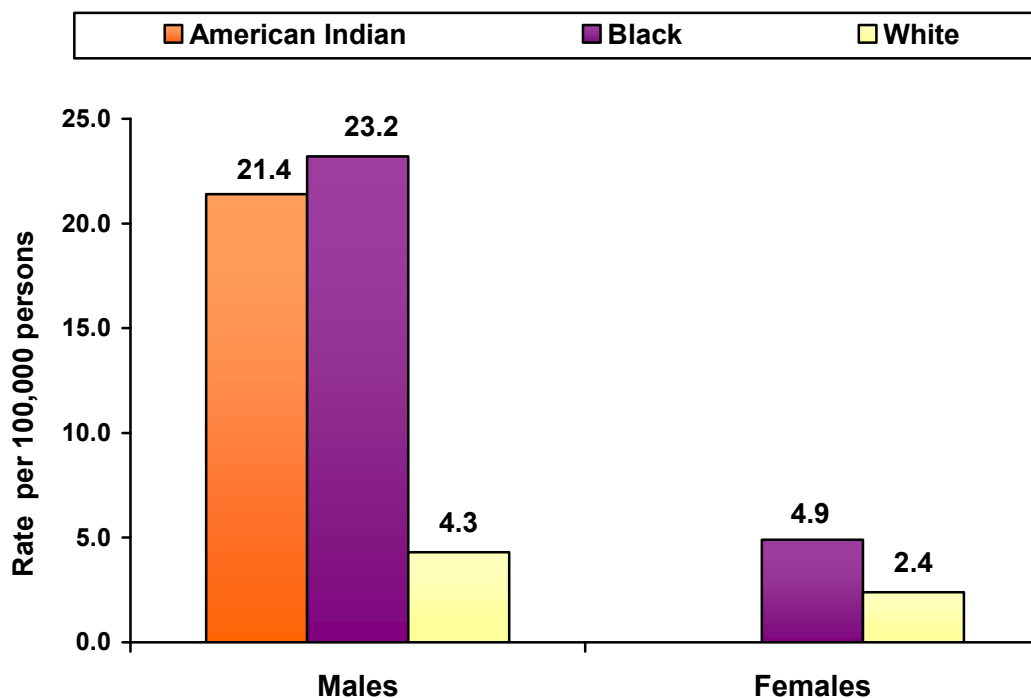
- Most male homicide victims were ages 15 to 54 years with a rank order by age group of: 25-34 (32.2%), 20-24 (19.2%), 35-44 (16.7%), 45-54 (12.2%) and 15-19 (9.1%).
- Among females, the majority of homicide victims were ages 20 to 54 years with a rank order by age group of: 45-54 (21.4%), 20-24 (16.6%), 35-44 (15.2%), 55-64 (10.3%) and 25-34 (9.7%).
- Adult males (20+) had higher homicide rates than females across all age groups except ages 85 or older.
- Males were more likely to die of homicide than females by 9.1 times in ages 25 to 34 years and 3.1 times in ages 35 to 44 years.
- The trend in homicide rate by age for males peaked in ages 20 to 24 years (21.6 per 100,000) and mostly declined with older age.
- For females, the trend in homicide rate by age was highest between ages 20 to 24 (7.6 per 100,000) and in infants under 1 year of age (7.7 per 100,000), followed by peaks among those 85 years or older (5.7 per 100,000) and 45-54 (4.5 per 100,000).

**Table 26: Race by Gender of Homicide Victims in North Carolina, 2009**

	Male			Female		
	Number	%	Rate	Number	%	Rate
Race						
American Indian	13	3.3	21.4	4	2.8	*
Asian	4	1.0	*	2	1.4	*
Black	226	57.2	23.2	54	37.2	4.9
White	150	38.0	4.3	84	57.9	2.4
Other/ Unknown	2	0.5	*	1	0.7	*
<b>Total Deaths</b>	<b>395</b>	<b>100</b>	<b>8.6</b>	<b>145</b>	<b>100</b>	<b>3.0</b>

Gender and race-specific crude rate per 100,000 N.C. population

\* The number of deaths was too small to support calculation of a rate.

**Figure 19: Crude Homicide Rate Stratified by Race and Gender in North Carolina, 2009**

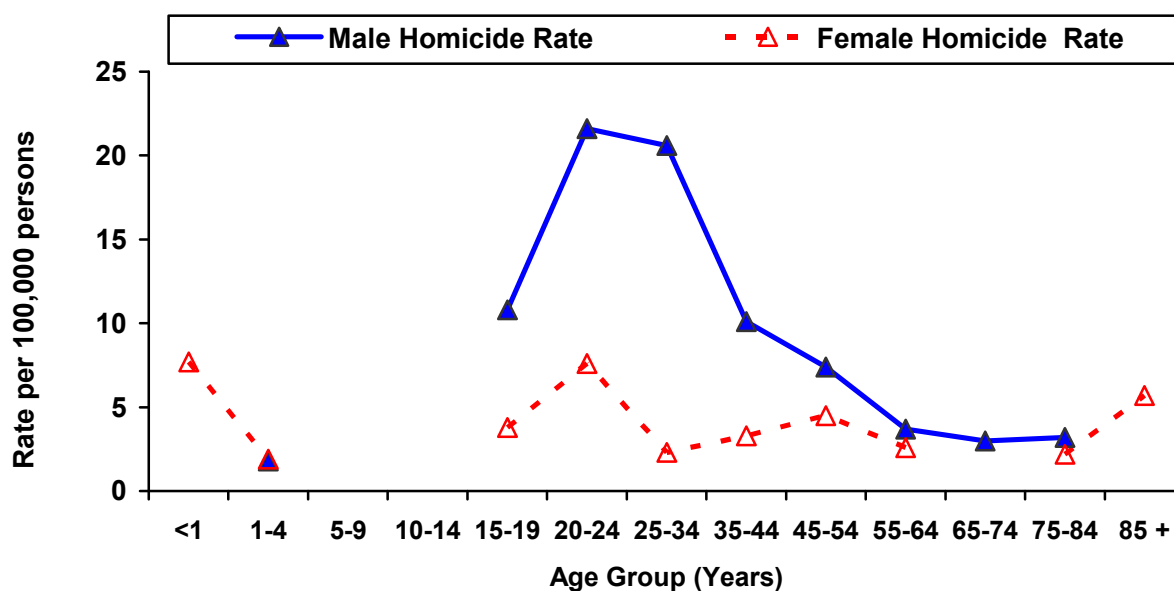
**Note:** The number of homicides for American Indian females and for Asian males and females was too small to support a rate calculation.

**Table 27: Age Group by Gender of Homicide Victims in North Carolina, 2009**

	Male			Female		
	Number	%	Rate	Number	%	Rate
Age (Years)						
<1	1	0.3	*	5	3.5	7.7
1-4	5	1.3	1.8	5	3.5	1.9
5-9	0	0.0	*	1	0.7	*
10-14	1	0.3	*	1	0.7	*
15-19	36	9.1	10.8	12	8.3	3.8
20-24	76	19.2	21.6	24	16.6	7.6
25-34	127	32.2	20.6	14	9.7	2.3
35-44	66	16.7	10.1	22	15.2	3.3
45-54	48	12.2	7.4	31	21.4	4.5
55-64	19	4.8	3.7	15	10.3	2.6
65-74	9	2.3	3.0	4	2.8	*
75-84	5	1.3	3.2	5	3.5	2.2
85 +	2	0.5	*	6	4.1	5.7
<b>Total Deaths</b>	<b>395</b>	<b>100</b>	<b>8.6</b>	<b>145</b>	<b>100</b>	<b>3.0</b>

Gender and age-specific crude rate per 100,000 N.C. population

\* The number of deaths was zero or too small to support calculation of a rate.

**Figure 20: Age-Specific Crude Homicide Rate Stratified by Age Group and Gender in North Carolina, 2009**

**Note:** The lines appear broken because the number of deaths was zero or too small to support a rate calculation for several age groups.

## ***Circumstances and Injury Location for Homicide Victims***

NC-VDRS collects data on the event and victim circumstances involving homicides to help understand the underlying causes of violent death. However, circumstance data were not available for all homicides. In 2009, 87.6 percent of homicide victims had data available for at least one circumstance related to the homicide. Since each victim may have more than one circumstance, the total number of circumstances may exceed the total number of homicides.

Note that drug-related homicides are characterized in two ways. If the drug-related crime (e.g., drug sales) was part of the homicide, then the circumstances are categorized as “precipitated by another crime” and the crime is listed as “drug trade.” If drugs played a role in the homicide, then the homicide is classified as “drug involvement.” In addition, gang-related crimes are likely significantly undercounted because these crimes are difficult to identify and definitions differ across agencies.

**Table 28** describes the circumstances for homicide victims stratified by gender based on the number of cases reporting circumstances in North Carolina in 2009. **Table 29** lists the crimes that precipitated the homicide in 2009 in North Carolina for both men and women. **Figure 21** illustrates the most common homicide event circumstances and precipitating crimes for homicide victims in North Carolina in 2009.

### **Key Findings:**

- The most common event circumstances surrounding homicides for males were: an argument, abuse or conflict (52.9%); precipitated by another serious crime (34.3%); drug involvement (17.4%); and intimate partner violence (8.4%).
- For females, the most common event circumstances surrounding homicides were: intimate partner violence (51.2%); an argument, abuse or conflict (31.0%); precipitation by another serious crime (27.9%); and drug involvement (9.3%).
- The most common crimes that precipitated the homicide for male victims were robbery (44.1%), burglary (31.4%) and drug trade (16.1%).
- For female victims, the most common crimes that precipitated the homicide included rape or sexual assault (36.1%), robbery (19.4%) and burglary (16.7%).
- Common victim circumstances surrounding homicides were: the victim used a weapon (9.5%), the homicide was justifiable self-defense (3.4%), and the victim was a bystander (3.0%).

**Table 30** summarizes the location of the injury resulting in death for homicide victims in North Carolina in 2009.

### **Key Findings:**

- The majority (61.5%) of injuries resulting in death occurred in a house or apartment.
- Other common locations where injuries resulting in death occurred were: a street, road, sidewalk or alley (14.8%); parking lot or public garage (4.1%); motor vehicle (3.7%); bar or nightclub (3.5%); other commercial establishment (3.2%); and natural area (2.8%).

**Table 28: Circumstances of Homicide Victims by Gender in North Carolina, 2009**

	Male		Female		Total	
	Number	%	Number	%	Number	%
<b>Circumstance**</b>						
<b>Event</b>						
Other Argument, Abuse, Conflict	182	52.9	40	31.0	251	46.9
Precipitated by Another Serious Crime	118	34.3	36	27.9	154	32.6
Intimate Partner Violence Related	29	8.4	66	51.2	95	20.1
Drug Involvement	60	17.4	12	9.3	72	15.2
Argument Over Money or Property	40	11.6	5	3.9	45	9.5
Jealousy (Lovers' Triangle)	14	4.1	3	2.3	17	3.6
Gang Related	17	4.9	3	2.3	20	4.2
Mercy Killing	1	0.3	0	0.0	1	0.2
<b>Victim</b>						
Victim Used a Weapon	43	12.5	2	1.6	45	9.5
Justifiable Self Defense	15	4.4	1	0.8	16	3.4
Victim was a Bystander	7	2.0	7	5.4	14	3.0
Intervener Assisting Crime Victim	0	0.0	2	1.6	2	0.4
Victim was a Police Officer on Duty	3	0.9	0	0.0	3	0.6

\*\* Circumstances were available for 87 percent (344/395) of male victims, 89 percent (129/144) of female victims and 88 percent (473/540) of all homicide victims. The percentage of circumstances for homicide victims is based on the number of cases reporting circumstances in North Carolina in 2009.

**Note:** Each victim may have more than one circumstance. Accordingly, the total number of circumstances may exceed the total number of homicides.

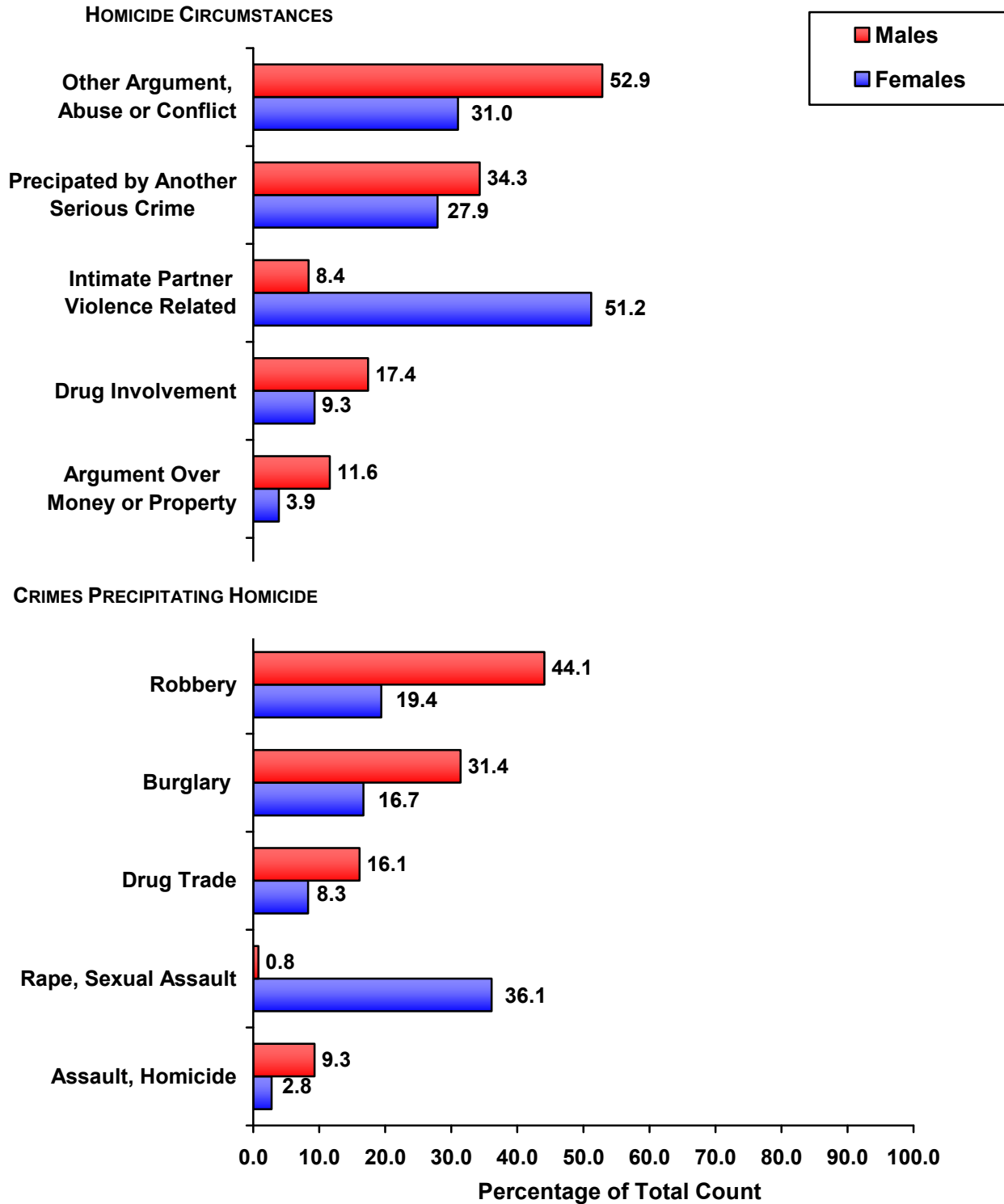
**Table 29: Crimes Precipitating Homicide by Gender in North Carolina, 2009**

	Male		Female		Total	
	Number	%	Number	%	Number	%
<b>Crime**</b>						
Robbery	52	44.1	7	19.4	59	38.3
Burglary	37	31.4	6	16.7	43	27.9
Drug Trade	19	16.1	3	8.3	22	14.3
Rape, Sexual Assault	1	0.8	13	36.1	14	9.1
Assault, Homicide	11	9.3	1	2.8	12	7.8
Other	4	3.4	4	11.1	8	5.2
Motor Vehicle Theft	2	1.7	1	2.8	3	1.9
Gambling	1	0.8	0	0.0	1	0.6
Arson	0	0.0	1	2.8	1	0.6

\*\* For 118 males, 36 females and 154 victims whose homicide was precipitated by another serious crime.

**Note:** Homicides may be precipitated by more than one crime; responses add up to more than 100 percent.

**Figure 21: Circumstances of Homicide Victims and Crimes Precipitating Homicide by Gender in North Carolina, 2009**



**Note:** Homicides may have more than one circumstance and precipitating crime; therefore, the responses add up to more than 100 percent. This figure does not include all circumstances and crimes.

**Table 30: Injury Location for Homicide Victims in North Carolina, 2009**

	Number	%
<b>Injury Location</b>		
House, Apartment	332	61.5
Street/ Road, Sidewalk, Alley	80	14.8
Parking Lot/ Public Parking Garage	22	4.1
Motor Vehicle (Excluding School Bus and Public Transportation)	20	3.7
Bar, Nightclub	19	3.5
Other Commercial Establishment (e.g., Grocery Store, Retail Outlet, Laundromat)	17	3.2
Natural Area (e.g., Field, River, Beaches, Woods)	15	2.8
Hospital or Medical Facility	13	2.4
Hotel/ Motel	4	0.7
Service Station	2	0.4
Bank, Credit Union, ATM location	2	0.4
Highway/ Freeway	1	0.2
Other Specified *	10	1.9
Other/ Unknown	3	0.6
<b>Total Deaths</b>	<b>540</b>	<b>100</b>

\* Other specified location for homicide victims by location type included: synagogue, church or temple; supervised residential facility; office building; sports or athletic area; jail, prison or detention facility; and park, playground, public use area.

## Section IV: Legal Intervention

NC-VDRS compiles data on legal intervention deaths, which would have been classified as homicide by the medical examiner but are defined by NVDRS as legal intervention. Legal intervention deaths represent victims killed by a police officer, military police officer or other peace officer (person with specified legal authority to use deadly force) acting in the line of duty. In addition, legal executions are not included in the national system but are reported in the state system as legal intervention deaths.

**Table 31** summarizes the demographics of legal intervention victims in North Carolina in 2009. Caution should be used in interpreting the rates because of the very small number of legal intervention deaths.

**Table 32** shows the type of weapon used in legal intervention deaths of North Carolina residents in 2009.

**Table 33** lists the number of legal intervention deaths in 2009 by North Carolina county of residence.

### Key Findings:

- In 2009, 22 residents of North Carolina (0.1 per 100,000) died from legal intervention.
- All legal intervention victims were male and most were between 20 and 54 years of age (90.1%).
- Most legal intervention deaths occurred by firearm, primarily a handgun (81.8%).

Table 31: Demographics of Legal Intervention Death Victims in North Carolina, 2009					
		Number	%	Rate	95% CI
<b>Gender</b>					
	Female	0	0.0	*	*
	Male	22	100	0.5	0.3 - 0.7
<b>Race</b>					
	American Indian	1	4.6	*	*
	Black	6	27.3	0.3	0.1 - 0.5
	White	14	63.6	0.2	0.1 - 0.3
	Other / Unknown	1	4.6	*	*
<b>Hispanic</b>					
	Hispanic	2	9.1	*	*
	Non-Hispanic	20	90.9	0.2	0.1 - 0.3
<b>Age Group (Years)</b>					
	20 - 24	4	18.18	*	*
	25 - 34	4	18.18	*	*
	35 - 44	7	31.82	0.5	0.1 - 0.9
	45 - 54	5	22.73	0.4	0.0 - 0.7
	55 - 64	1	4.55	*	*
	75 - 84	1	4.55	*	*
<b>Total Deaths</b>		<b>22</b>	<b>100</b>	<b>0.2</b>	<b>0.1 - 0.3</b>

Gender, race, Hispanic ethnicity or age-specific crude rate per 100,000 North Carolina population

95% CI = 95 Percent Confidence Interval for the Rate

\* The number of deaths was zero or too small to support the calculation of a rate.



**Table 32: Type of Weapon for Legal Intervention Deaths in North Carolina, 2009**

		Number	%
Weapon Type			
	Handgun	18	81.8
	Rifle	2	9.1
	Shotgun	1	4.5
	Other	1	4.5
<b>Total Deaths</b>		<b>22</b>	<b>100</b>

**Table 33: Legal Intervention Deaths by County of Residence in North Carolina, 2009**

	Number		Number
County		County	
Brunswick	1	Harnett	1
Caldwell	2	Lincoln	1
Chatham	1	Martin	1
Cleveland	1	Mecklenburg	1
Craven	1	Nash	1
Durham	1	Onslow	2
Forsyth	1	Randolph	1
Gaston	2	Rowan	1
Guilford	2	Wake	1

## Section V: Unintentional Firearm Death

An unintentional firearm death results from the discharge of a firearm that killed a victim but the firearm was not intentionally directed at the victim. Therefore, unintentional firearm death is considered separately from a firearm-related suicide or homicide. **Table 34** describes the unintentional firearm injury victims in North Carolina in 2009 by gender, race and age. Caution should be used in interpreting the rates because of the very small number of unintentional firearm deaths. **Table 35** displays the type of firearm for unintentional firearm deaths in North Carolina in 2009. **Table 36** provides the number of unintentional firearm deaths in 2009 by North Carolina county of residence.

### Key Findings:

- In 2009, 10 North Carolinians (0.1 per 100,000) died from an unintentional firearm injury.
- Unintentional firearm victims were 90 percent male, 80 percent white, 20 percent black and 100 percent non-Hispanic.
- Deaths from an unintentional firearm injury occurred across most age groups.
- The most common firearm involved in unintentional firearm deaths was a handgun (60%), followed by a shotgun (30%) and a rifle (10%).

NC-VDRS collects data on the circumstances surrounding unintentional firearm deaths to help understand the underlying causes of death. All unintentional firearm deaths had data available for at least one circumstance related to the death. Since each death may have more than one circumstance, the total number of circumstances may exceed the total number of deaths. **Table 37** summarizes the circumstances of unintentional firearm deaths in North Carolina in 2009.

### Key Findings:

- The most common circumstances related to unintentional firearm injuries resulting in death were: the shooter unintentionally pulled the trigger (33.3%); the injury occurred while hunting or on a hunting trip (22.2%); the injury occurred while showing the gun to others (22.2%); the shooter thought the gun was unloaded (22.2%); the injury occurred while playing with a gun (11.1%); the gun had a defect or malfunctioned (11.1%); the gun discharged when it was dropped (11.1%); the gun was mistaken for a toy (11.1%); the injury occurred while target shooting (11.1%); the injury occurred while cleaning a gun (11.1%).

**Table 34: Demographics of Unintentional Firearm Death Victims in North Carolina, 2009**

		Number	%	Rate	95% CI
<b>Gender</b>					
	Female	1	10.0	*	*
	Male	9	90.0	0.2	0.1 - 0.3
<b>Race</b>					
	Black	2	20.0	*	*
	White	8	80.0	0.1	0.0 - 0.2
<b>Hispanic</b>					
	Hispanic	0	0.0	*	*
	Non-Hispanic	10	100	0.1	0.1 - 0.2
<b>Age Group (Years)</b>					
	<1	0	0.0	*	*
	1-4	2	20.0	*	*
	5-9	0	0.0	*	*
	10-14	0	0.0	*	*
	15-19	1	10.0	*	*
	20 - 24	0	0.0	*	*
	25 - 34	2	20.0	*	*
	35 - 44	1	10.0	*	*
	45 - 54	0	0.0	*	*
	55 - 64	1	10.0	*	*
	65 - 74	2	20.0	*	*
	75-84	0	0.0	*	*
	85+	1	10.0	*	*
<b>Total Deaths</b>		<b>10</b>	<b>100</b>	<b>0.1</b>	<b>0.0 - 0.2</b>

Gender, race, Hispanic ethnicity or age-specific crude rate per 100,000 North Carolina population

95% CI = 95 Percent Confidence Interval for the Rate

\* The number of deaths was zero or too small to support the calculation of a rate.

**Table 35: Type of Firearm for Unintentional Firearm Deaths in North Carolina, 2009**

		Number	%
<b>Firearm Type</b>			
	Handgun	6	60.0
	Shotgun	3	30.0
	Rifle	1	10.0
<b>Total Deaths</b>		<b>10</b>	<b>100</b>

**Table 36: Unintentional Firearm Deaths by County of Residence in North Carolina, 2009**

	Number		Number
County		County	
Anson	1	Northampton	1
Johnston	1	Onslow	1
Lee	2	Surry	1
Macon	1	Vance	1
Moore	1		

**Table 37: Circumstances of Unintentional Firearm Deaths in North Carolina, 2009**

	Number	%
Circumstance**		
Shooter Unintentionally Pulled Trigger	3	33.3
Occurred While Hunting or on a Hunting Trip	2	22.2
Occurred While Showing Gun to Others	2	22.2
Shooter Thought Gun was Unloaded for Other or Unspecified Reason	2	22.2
Occurred While Playing with a Gun	1	11.1
Gun Had a Defect or Malfunctioned	1	11.1
Gun Discharged When it was Dropped	1	11.1
Gun Mistaken for a Toy	1	11.1
Occurred While Target Shooting	1	11.1
Occurred While Cleaning a Gun	1	11.1

\*\* Circumstances were available for 90 percent of unintentional firearm deaths in North Carolina in 2009.

**Note:** Each death may have more than one circumstance. Accordingly, the total number of circumstances may exceed the total number of deaths.

## Section VI: Child Death

**Table 38** characterizes violent deaths for children under the age of 18 years in North Carolina in 2009 by gender, race and age.

### Key Findings:

- In 2009, 82 children in North Carolina (3.6 per 100,000) died as a result of violence.
- Male children were 2.1 times more likely to be victims of violent death than female children (4.8 vs. 2.3 per 100,000, respectively).
- The violent death rate per 100,000 was 1.5 times higher for black children (4.7) than for white children (3.2).
- Non-Hispanic children were just as likely to be victims of violent death as compared to Hispanic children (3.8 vs. 2.0 per 100,000, respectively).
- The highest rates of child violent death were in the age groups of 15 to 17 years (24.8 per 100,000) and less than 1 year (14.8 per 100,000).

Manner of violent death for child victims in North Carolina in 2009 is displayed in **Figure 22** and shown stratified by gender in **Table 39**, by race in **Table 40** and by age group in **Table 41**.

### Key Findings:

- The most common causes of violent death for all child victims were homicide (46.3%) and suicide (42.7%). Female children victims were more likely to be victims of homicide (69.2%) than male children victims (35.7%).
- Homicide was the cause of violent death in the majority of black children (70.4%).
- Homicide was the leading cause of violent death across most child age groups: infants less than 1 year (60%), ages 1-4 (71.4%), ages 5-9 (100%), ages 10-14 (20%) and ages 15-17 (40.4%).
- Suicide was the leading cause of violent death in white children (57.7%).
- Suicide represented 70 percent of violent deaths in ages 10-14 and 59.6 percent in ages 15-17.

Method of child violent death in North Carolina in 2009 is provided stratified by gender in **Table 42**, by race in **Table 43** and by age group in **Table 44**.

### Key Findings:

- The most common methods of violent death for all child victims were firearm (47.6%); hanging, strangulation or suffocation (17.1%) and unarmed assault (12.2%).
- Firearm was the leading method of child violent death for both males (57.1%) and females (26.9%) as well as for blacks (59.3%) and whites (42.1%).
- Unarmed assault (i.e., child abuse by a parent or caretaker) was a leading method of violent death in children less than 1 year (30.0%) and ages 1-4 (50.0%); whereas, firearm was the leading method in ages 15-17 (70.2%).

**Table 38: Demographics of Child (Under Age 18) Violent Deaths in North Carolina, 2009**

		Number	%	Rate	95% CI
<b>Gender</b>					
	Female	26	31.7	2.3	1.4 - 3.2
	Male	56	68.3	4.8	3.5 - 6.1
<b>Race</b>					
	American Indian	1	1.2	*	*
	Black	27	32.9	4.7	2.9 - 6.5
	White	52	63.4	3.2	2.4 - 4.1
	Unknown	2	2.4	*	*
<b>Hispanic</b>					
	Hispanic	6	7.3	2.0	0.4 - 3.6
	Non-Hispanic	76	92.7	3.8	3.0 - 4.7
<b>Age Group (Years)</b>					
	<1	10	12.2	7.6	2.9 - 12.2
	1-4	14	17.1	2.6	1.3 - 4.0
	5-9	1	1.2	*	*
	10-14	10	12.2	1.7	0.6 - 2.7
	15-17	47	57.3	12.7	9.1 - 16.3
<b>Total Deaths</b>		<b>82</b>	<b>100</b>	<b>3.6</b>	<b>2.8 - 4.4</b>

Gender, race, Hispanic ethnicity or age-specific crude rate per 100,000 North Carolina population

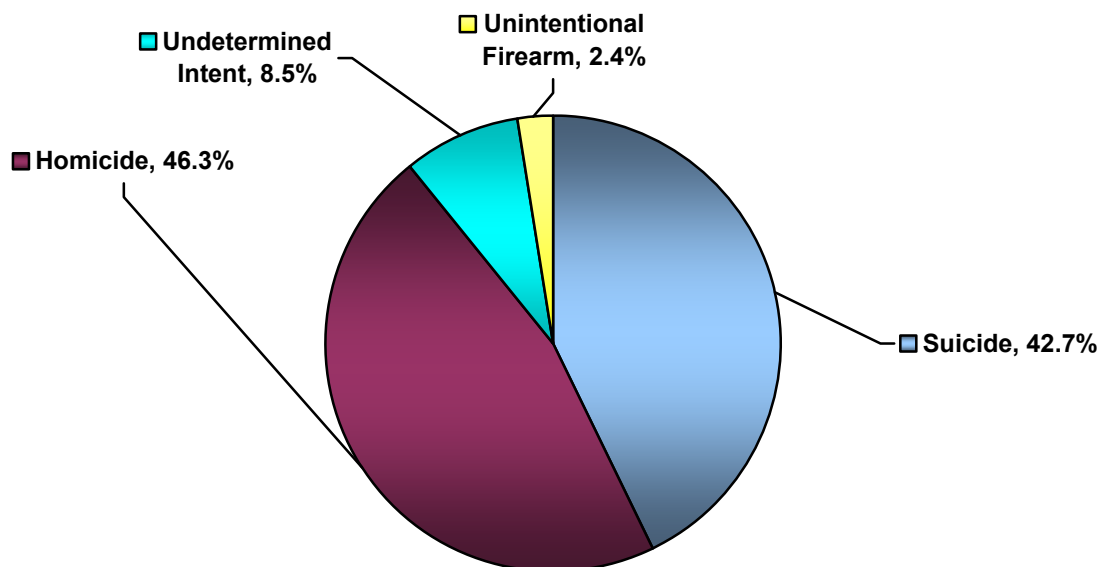
95% CI = 95 Percent Confidence Interval for the Rate

\* The number of deaths was too small to support the calculation of a rate.

**Table 39: Manner of Child (Under Age 18) Violent Death by Gender in North Carolina, 2009**

	Male		Female		Total	
	Number	%	Number	%	Number	%
<b>Manner of Death</b>						
Homicide	20	35.7	18	69.2	38	46.3
Suicide	27	48.2	8	30.8	35	42.7
Undetermined Intent	7	12.5	0	0.0	7	8.5
Unintentional Firearm	2	3.6	0	0.0	2	2.4
<b>Total Deaths</b>	<b>56</b>	<b>100</b>	<b>26</b>	<b>100</b>	<b>82</b>	<b>100</b>

**Figure 22: Manner of Child (Under Age 18) Violent Death in North Carolina, 2009**



**Table 40: Manner of Child (Under Age 18) Violent Death by Race in North Carolina, 2009**

Race	American Indian		Black		White		Unknown	
	N	%	N	%	N	%	N	%
<b>Manner of Death</b>								
Homicide	1	100	19	70.4	17	32.7	1	50.0
Suicide	0	0.0	4	14.8	30	57.7	1	50.0
Undetermined Intent	0	0.0	3	11.1	4	7.7	0	0.0
Unintentional Firearm	0	0.0	1	3.7	1	1.9	0	0.0
<b>Total Deaths</b>	<b>1</b>	<b>100</b>	<b>27</b>	<b>100</b>	<b>52</b>	<b>100</b>	<b>2</b>	<b>100</b>

N = Number of deaths

**Table 41: Manner of Child (Under Age 18) Violent Death by Age Group in North Carolina, 2009**

Age Group	< 1 year		1-4 years		5-9 years		10-14 years		15 to 17 years	
	N	%	N	%	N	%	N	%	N	%
<b>Manner of Death</b>										
Homicide	6	60.0	10	71.4	1	100	2	20.0	19	40.4
Suicide	0	0.0	0	0.0	0	0.0	7	70.0	28	59.6
Undetermined Intent	4	40.0	2	14.3	0	0.0	1	10.0	0	0.0
Unintentional Firearm	0	0.0	2	14.3	0	0.0	0	0.0	0	0.0
<b>Total Deaths</b>	<b>10</b>	<b>100</b>	<b>14</b>	<b>100</b>	<b>1</b>	<b>100</b>	<b>10</b>	<b>100</b>	<b>47</b>	<b>100</b>

N = Number of deaths

**Table 42: Method of Child (Under Age 18) Violent Death by Gender in North Carolina, 2009**

	Male		Female		Total	
	Number	%	Number	%	Number	%
<b>Method of Death</b>						
Firearm	32	57.1	7	26.9	39	47.6
Hanging, Strangulation, Suffocation	7	12.5	7	26.9	14	17.1
Unarmed Assault	5	8.9	5	19.2	10	12.2
Poisoning	4	7.1	2	7.7	6	7.3
Sharp Instrument	2	3.6	1	3.9	3	3.7
Blunt Instrument	2	3.6	0	0.0	2	2.4
Violent Shaking	0	0.0	2	7.7	2	2.4
Intentional Neglect	0	0.0	1	3.9	1	1.2
Other*/ Unknown	4	7.2	1	3.9	5	6.1
<b>Total Deaths</b>	<b>56</b>	<b>100</b>	<b>26</b>	<b>100</b>	<b>82</b>	<b>100</b>

\*Other methods include: drowning and fall.

**Table 43: Method of Child (Under Age 18) Violent Death by Race in North Carolina, 2009**

Race	American Indian		Black		White		Unknown	
	N	%	N	%	N	%	N	%
<b>Method of Death</b>								
Firearm	0	0.0	16	59.3	22	42.3	1	50.0
Unarmed Assault	0	0.0	4	14.8	6	11.5	0	0.0
Hanging, Strangulation, Suffocation	0	0.0	2	7.4	11	21.2	1	50.0
Intentional Neglect	0	0.0	0	0.0	1	1.9	0	100
Poisoning	0	0.0	1	3.7	5	9.6	0	0.0
Blunt Instrument	0	0.0	0	0.0	2	3.9	0	0.0
Sharp Instrument	1	100	1	3.7	1	1.9	0	0.0
Violent Shaking	0	0.0	1	3.7	1	1.9	0	0.0
Other/ Unknown	0	0.0	2	7.4	3	5.8	0	0.0
<b>Total Deaths</b>	<b>1</b>	<b>100</b>	<b>27</b>	<b>100</b>	<b>52</b>	<b>100</b>	<b>2</b>	<b>100</b>

N = Number of deaths



**Table 44: Method of Child (Under Age 18) Violent Death by Age Group in North Carolina, 2009**

Age Group	< 1 year		1-4 years		5-9 years		10-14 years		15 to 17 years	
	N	%	N	%	N	%	N	%	N	%
<b>Method of Death</b>										
Firearm	1	10.0	2	14.3	0	0.0	3	30.0	33	70.2
Unarmed Assault	3	30.0	7	50.0	0	0.0	0	0.0	0	0.0
Hanging, Strangulation, Suffocation	0	0.0	0	0.0	1	100	4	40.0	9	19.2
Intentional Neglect	1	10.0	0	0.0	0	0.0	0	0.0	0	0.0
Poisoning	1	10.0	0	0.0	0	0.0	2	20.0	3	6.4
Blunt Instrument	1	10.0	1	7.1	0	0.0	0	0.0	0	0.0
Sharp Instrument	0	0.0	0	0.0	0	0.0	1	10.0	2	4.3
Violent Shaking	1	10.0	1	7.1	0	0.0	0	0.0	0	0.0
Other/ Unknown	2	20.0	3	21.4	0	0.0	0	0.0	0	0.0
<b>Total Deaths</b>	<b>10</b>	<b>100</b>	<b>14</b>	<b>100</b>	<b>1</b>	<b>100</b>	<b>10</b>	<b>100</b>	<b>47</b>	<b>100</b>

N = Number of deaths

## Section VII: Undetermined Intent

The NC-VDRS categorizes undetermined intent deaths as deaths with some evidence of intent but without enough information to definitively classify the death as purposeful. **Table 45** provides the characteristics of undetermined intent deaths in North Carolina in 2009 by gender, race and age.

### Key Findings:

- In 2009, 86 undetermined intent deaths (0.9 per 100,000) were reported in North Carolina.
- Males and females had similar rates (1.1 and 0.8 per 100,000) of undetermined intent deaths.
- Whites accounted for 84.9 percent of undetermined intent victims and had a slightly higher undetermined intent death rate than blacks (1.0 vs. 0.6 per 100,000, correspondingly).
- All undetermined intent death victims were non-Hispanic with a death rate of 1.0 per 100,000.
- The majority (74.4%) of undetermined intent death victims were between ages 25 to 64, and the highest undetermined intent death rate by age group was in ages 35-44 years (1.5 per 100,000).

Table 46 summarizes the method of undetermined intent deaths in North Carolina in 2009. **Table 47** shows the type of poisoning for undetermined intent poisoning deaths in North Carolina in 2009. **Table 48** shows the type of firearm involved in undetermined intent firearm deaths in North Carolina in 2009.

### Key Findings:

- The leading methods of undetermined intent deaths were poisoning (74.4%), blunt instrument (7.0%) and firearm (5.8%)
- Most (84.4%) undetermined intent poisoning deaths involved prescription pharmaceuticals.
- A handgun was involved in 80.0 percent of undetermined intent firearm deaths, while a rifle was used in 20.0 percent of undetermined intent firearm deaths.

**Table 49** provides the number of undetermined intent deaths in 2009 by North Carolina county of residence.

**Table 45: Demographics of Undetermined Intent Death Victims in North Carolina, 2009**

		Number	%	Rate	95% CI
<b>Gender</b>					
	Female	37	43.0	0.8	0.5 - 1.0
	Male	49	57.0	1.1	0.5 - 1.4
<b>Race</b>					
	American Indian	1	1.2	*	*
	Black	12	14.0	0.8	0.3 - 0.9
	White	73	84.9	1.0	0.8 - 1.3
<b>Hispanic</b>					
	Hispanic	0	0.0	*	*
	Non-Hispanic	86	100.0	1.0	0.8 - 1.2
<b>Age Group (Years)</b>					
	<1	4	4.7	*	
	1-4	2	2.3	*	*
	5-9	0	0.0	*	*
	10-14	1	1.2	*	*
	15-19	3	3.5	*	*
	20 - 24	7	8.1	1.0	0.3 - 1.8
	25 - 34	16	18.6	1.3	0.7 - 1.9
	35 - 44	20	23.3	1.5	0.9 - 2.2
	45 - 54	18	20.9	1.3	0.7 - 2.0
	55 - 64	10	11.6	0.9	0.4 - 1.5
	65 - 74	5	5.8	0.8	0.1 - 1.4
<b>Total Deaths</b>		<b>86</b>	<b>100</b>	<b>0.9</b>	<b>0.7 – 1.1</b>

Gender, race, Hispanic ethnicity or age-specific crude rate per 100,000 North Carolina population

95% CI = 95 Percent Confidence Interval for the Rate

\* The number of deaths was zero or too small to support the calculation of a rate.

**Table 46: Method of Undetermined Intent Deaths in North Carolina, 2009**

		Number	%
Method of Death			
	Poisoning	64	74.4
	Blunt Instrument	6	7.0
	Firearm	5	5.8
	Fall	3	3.5
	Drowning	2	2.3
	Hanging, Strangulation, Suffocation	2	2.3
	Fire/ Burns	1	1.2
	Other/ Unknown	3	3.5
<b>Total Deaths</b>		<b>86</b>	<b>100</b>

**Table 47: Type of Poison for Undetermined Intent Poisoning Deaths in North Carolina, 2009**

		Number	%
Poison Type			
	Pharmaceutical - Prescription	54	84.4
	Street / Recreational Drugs	4	6.3
	Pharmaceutical - Over-the-Counter	3	4.7
	Alcohol	2	3.1
	Other (e.g., Rat Poison, Insecticide, Lye)	1	1.6
<b>Total Poisoning Deaths</b>		<b>64</b>	<b>100</b>

**Table 48: Type of Firearm for Undetermined Intent Firearm Deaths in North Carolina, 2009**

		Number	%
Firearm Type			
	Handgun	4	80.0
	Rifle	1	20.0
<b>Total Firearm Deaths</b>		<b>5</b>	<b>100</b>

**Table 49: Undetermined Intent Deaths by County of Residence in North Carolina, 2009**

	Number		Number		Number
County		County		County	
Alamance	1	Gaston	2	Onslow	2
Ashe	1	Guilford	4	Orange	2
Buncombe	2	Harnett	1	Pitt	1
Burke	1	Haywood	1	Randolph	3
Cabarrus	1	Henderson	3	Richmond	2
Catawba	2	Iredell	5	Rowan	4
Columbus	3	Johnston	1	Rutherford	1
Craven	2	Lee	1	Sampson	1
Cumberland	3	Lincoln	1	Stanly	2
Davidson	5	McDowell	2	Stokes	2
Duplin	1	Mecklenburg	4	Wake	5
Durham	2	Moore	2		
Forsyth	4	New Hanover	6		

## Section VIII: Violent Death Trend Over Time

**Table 50** shows the number and the rate of violent deaths over time in North Carolina from 2004 to 2009 including overall violent deaths, suicides for ages 10 or older, and homicides. **Figure 23** plots the overall violent death, suicide and homicide rates in North Carolina from 2004 to 2009.

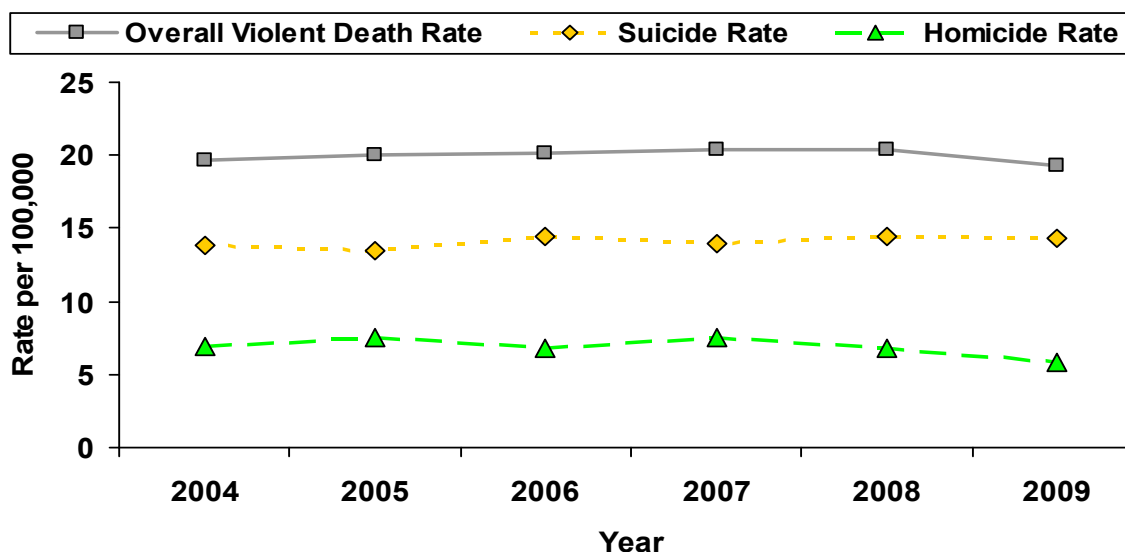
### Key Findings:

- The overall violent death rate in North Carolina remained relatively unchanged over time from 19.6 per 100,000 in 2004 to 19.3 per 100,000 in 2009.
- From 2004 to 2009 in North Carolina, the death rates were stable for suicides (range of 13.5 to 14.5 per 100,000 by year) and homicides (range of 5.8 to 7.5 per 100,000 by year).

**Table 50: Trend in Violent Deaths Over Time in North Carolina, 2004-2009**

	Overall Violent Deaths		Suicides (Ages 10+)		Homicides	
	Number	Rate	Number	Rate	Number	Rate
Year						
2004	1,674	19.6	1,017	13.8	585	6.9
2005	1,734	20.0	1,009	13.5	646	7.5
2006	1,790	20.2	1,107	14.5	606	6.8
2007	1,848	20.4	1,087	13.9	677	7.5
2008	1,885	20.4	1,148	14.4	628	6.8
2009	1,815	19.3	1,157	14.3	540	5.8

**Figure 23: Trend in Violent Death Rate Over Time in North Carolina, 2004-2009**



## Appendix A: Population Data for Rate Calculations

Appendix A: North Carolina Population Data in 2009 for Rate Calculations			
	Number of Total Population	Number of Persons Ages 10 or Older (for Suicide Rates)	Number of Children (Ages Less than 18)
<b>Gender</b>			
Female	4,790,699	4,152,093	1,112,732
Male	4,590,185	3,922,763	1,165,235
<b>Race</b>			
American Indian	122,425	101,932	34,811
Asian	211,842	174,198	60,894
Black	2,068,139	1,753,025	572,550
White	6,978,478	6,045,701	1,609,712
<b>Hispanic</b>			
Hispanic	717,662	510,483	296,159
Non-Hispanic	8,663,222	7,564,373	1,981,808
<b>Age Group (Years)</b>			
< 1	132,275	--	132,275
1 - 4	532,562	--	532,562
5 - 9	641,191	--	641,191
10 - 14	601,152	601,152	601,152
15 - 19	645,512	645,512	(ages 15-17) 370,787
20 - 24	667,603	667,603	--
25 - 34	1,235,447	1,235,447	--
35 - 44	1,318,226	1,318,226	--
45 - 54	1,334,481	1,334,481	--
55 - 64	1,080,410	1,080,410	--
65 - 74	653,980	653,980	--
75 - 84	389,078	389,078	--
85 +	148,967	148,967	--
<b>Total Population</b>	<b>9,380,884</b>	<b>8,074,856</b>	<b>2,277,967</b>

**Note:** Race categories include both Hispanic and non-Hispanic ethnicity.

## Appendix B: Advisory Board

The list of advisory board members below represents the membership and their positions during the year of this report and during the data collection close-out period (2009-2011).

### ***NC-VDRS Advisory Board***

#### **Steering Committee:**

Tamera Coyne-Beasley, MD, MPH

*Associate Professor of Pediatrics and Internal Medicine, Core Faculty of the Injury Prevention Research Center, University of North Carolina-Chapel Hill*

Stephen Marshall, PhD

*Associate Professor, Department of Epidemiology, Core Faculty of Injury Prevention Research Center, University of North Carolina-Chapel Hill*

Anna E. Waller

*Associate Professor, Departments of Emergency Medicine and Health Behavior/Health Education, University of North Carolina-Chapel Hill*

### ***Advisory Board Members***

Patricia Barnes

*N.C. Office of Chief Medical Examiner*

Philip Cook, PhD

*Terry Sanford Professor of Public Policy, Duke University*

Megan Davies, MD

*State Epidemiologist, Division of Public Health, N.C. Department of Health and Human Services*

Phillip Graham, DrPH, MPH

*Public Health Researcher, RTI International*

Peggy Goodman, MD

*Associate Professor, The Brody School of Medicine, East Carolina University*

Gayle Harris

*Director, Durham County Health Department*

Elizabeth Hudgins

*Executive Director, Child Fatality Task Force*

Amy Ising

*Department of Emergency Medicine, University of North Carolina-Chapel Hill*



Kathleen Jones-Vessey  
N.C. State Center for Health Statistics, Division of Public Health  
N.C. Department of Health and Human Services

Roxane Kolar  
*Executive Director*, North Carolinians Against Gun Violence Education Fund, Inc.

Jose Lopez, Sr.  
*Chief of Police*, Durham Police Department

Larry Smith  
*Assistant Chief*, Durham Police Department

Jane Miller  
*Program Consultant*, Injury and Violence Prevention Branch,  
N.C. Department of Health and Human Services

Beth Moracco, PhD, MPH  
*Research Associate Professor*, Department of *Health Behavior and Health Education*, University of North  
Carolina-Chapel Hill

Marcia Owen  
*Community Volunteer*, Religious Coalition for Nonviolent Durham

Timothy Parker  
N.C. State Bureau of Investigation

Deborah Radisch, MD  
N.C. Chief Medical Examiner, N.C. Office of Chief Medical Examiner

Rebecca Reyes  
*Latino Health Project Coordinator*, Duke University

Joel Rosch, PhD  
*Senior Research Scholar*, Child and Health Policy Initiative,  
Center for Child and Family Policy, Terry Sanford Institute, Duke University

Kristen Rosselli  
Community Services Director, City of Raleigh

Stephania Sidberry  
*Head of Applications and Program Unit*, Injury and Violence Prevention Branch,  
N.C. Department of Health and Human Services

Mike Smith  
*Director*, Durham County Emergency Medical Services

Kevin Strom  
*Public Health Researcher*, RTI International

## Appendix C: Glossary

Adult	Person was 18 years of age or older on date of death.
Child	Person was less than 18 years of age on date of death.
Homicide	A death resulting from the intentional use of force or power, threatened or actual, against another person, group or community.
Legal intervention	Decedent was killed by a police officer, military police officer or other peace officer acting in the line of duty. In North Carolina, legal intervention includes legal executions.
NVDRS	National Violent Death Reporting System
NC-VDRS	North Carolina Violent Death Reporting System
Occurrent death	Death occurred in North Carolina during the specified time frame. Decedent may or may not have been a resident at the time of death.
Peace officer	Person with specified legal authority to use deadly force.
Rates	Calculated as number of deaths x 100,000/population.
Resident death	Victim was a North Carolina resident at the time of death and the death occurred in North Carolina. All deaths reported in this report are resident deaths.
Suicide	A death resulting from the intentional use of force against oneself. Suicides are classified among violent deaths only for persons ages 10 or older.
Unintentional firearm	A death resulting from a penetrating injury or gunshot wound from a weapon that uses a powder charge to fire a projectile and from a shooting that was not directed intentionally at the decedent.
Undetermined intent	A death resulting from the use of force or power against oneself or another person for which the evidence indicating the manner of death was not sufficient to determine intent.
Violent death	Intentional use of physical force or power against oneself, another person, or against a group or community. Intentional deaths meeting this definition include suicides, homicides and legal interventions.



State of North Carolina • Beverly Eaves Perdue, Governor  
Department of Health and Human Services • Albert A. Delia, Acting Secretary  
Division of Public Health • Laura Gerald, MD, MPH, State Health Director  
Injury and Violence Prevention Branch

[www.ncdhhs.gov](http://www.ncdhhs.gov) • [www.publichealth.nc.gov](http://www.publichealth.nc.gov) • [www.injuryfreenc.ncdhhs.gov](http://www.injuryfreenc.ncdhhs.gov)

*The Department of Health and Human Services does not discriminate on the basis of race, color, national origin, sex, religion, age or disability in employment or the provision of services.*



North Carolina Division of Public Health

VIOLENT DEATH REPORTING SYSTEM ANNUAL REPORT 2009

June 2011