NORTH CAROLINA

Violent Death Reporting System

Annual Report 2008

North Carolina
Injury & Violence
PREVENTION Branch

Division of Public Health

North Carolina Department of Health and Human Services
April 2011

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Executive Summary

North Carolina Violent Death Reporting System, 2008

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 2008.

Overall Violent Deaths

In 2008, 1,884 North Carolina residents (20.4 per 100,000) died as a result of violence. The leading causes of violent death were suicide (60.9%) and homicide (33.3%) (Figure i). Leading methods of violent death were firearm (60.2%), poisoning (14.2%), and hanging, strangulation or suffocation (13.0%). The most common firearms involved in violent firearm deaths were a handgun (72.4%), shotgun (15.5%) and rifle (9.3%).

Males were 3.3 times more likely to die from violence than women (31.2 vs. 10.0 per 100,000, respectively) (Figure ii). The violent death rates per 100,000 from highest to lowest by race were American Indian (29.9), black (21.6), white (20.0) and Asian (12.8). Non-Hispanics had a slightly higher death rate than Hispanics (20.7 vs. 16.6 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 20-24 (31.6), ages 25-34 (30.2), ages 35-44 (26.5), and ages 45-54 (27.7). 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 9.7 deaths per 100,000.

Figure i: Manner of Violent Death in North Carolina, 2008

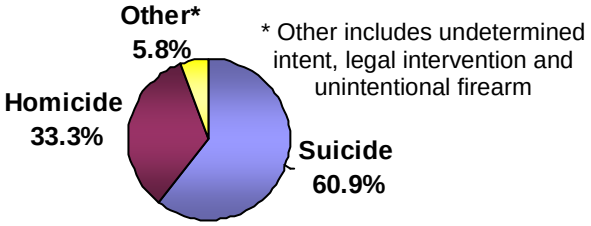


Figure ii: Overall Violent Death Rates by Gender and Race in North Carolina, 2008

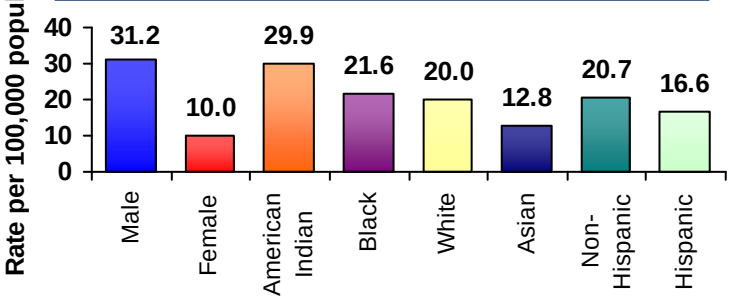
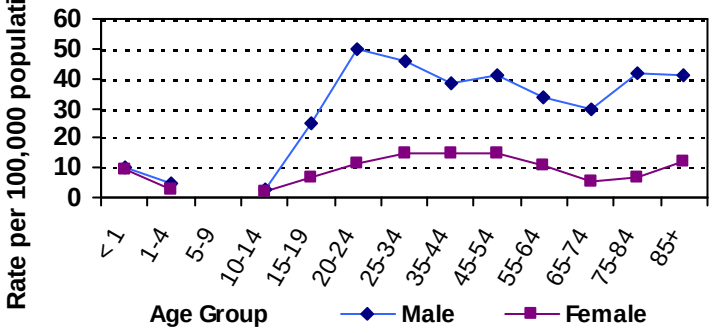


Figure iii: Overall Violent Death Rates: Age Group by Gender in North Carolina, 2008



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

Suicides

Suicide was the cause of death for 1,148 North Carolinians (14.4 per 100,000) in 2008. Suicides were most commonly completed by a firearm (57.3%), poisoning (19.1%) and hanging, and strangulation or suffocation (18.9%). A handgun was the most common firearm, involved in 67.3 percent of suicide firearm deaths. Prescription pharmaceuticals were the most common poison, used in 76.3 percent of suicide poisoning deaths.

Men were 3.4 times more likely to die from suicide than women (22.7 vs. 6.6 per 100,000, respectively) (Figure iv). Among suicide victims, 76.5 percent were male and 87.8 percent were white. The suicide rate per 100,000 was highest in whites (16.9) and relatively lower in American Indians (11.0), Asians (10.8) and blacks (6.3). The suicide rate was two times higher in non-Hispanics than in Hispanics (14.9 vs. 6.6 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 (48.2%), current mental health problem (48.0%), current treatment for mental illness (44.2%), and current depressed mood (39.2%). Most (82.2%) of those with a current mental health problem had depression. Other common circumstances of suicide were a crisis in past two weeks (37.8%), problems with an intimate partner (28.0%), physical health (18.9%) and alcohol (15.0%). Of the 87.3 percent of suicide victims tested, 30.2 percent had alcohol present at the time of death. Most (82.1%) injuries resulting in suicide occurred in a house or apartment.

Figure iv: Suicide Rates by Gender and Race in North Carolina, 2008

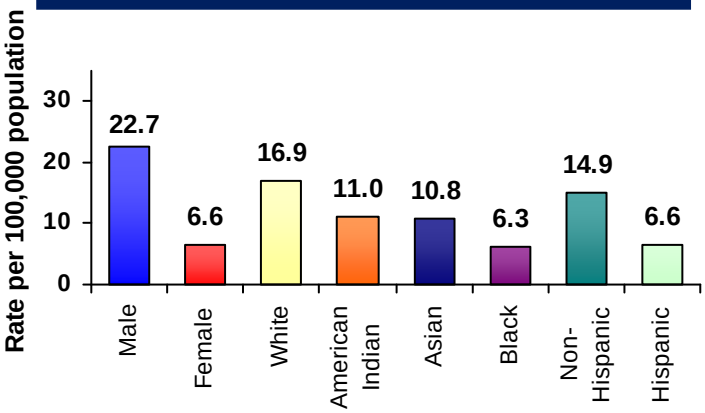
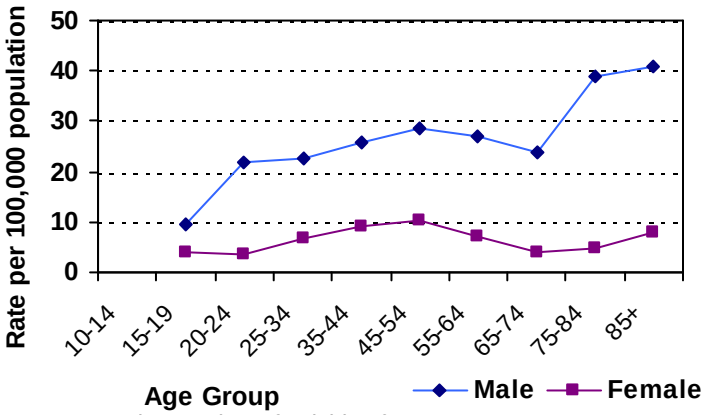


Figure v: Suicide Rates: Age Group by Gender in North Carolina, 2008



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

Homicides

A total of 627 North Carolinians (6.8 per 100,000) were homicide victims in 2008. Firearm (68.2%) and sharp instrument (12.3%) were the most common homicide methods. A handgun was the most common firearm used in 79.0 percent of homicide firearm deaths.

Men accounted for 74.4 percent of homicide victims and were three times more likely to die from homicide than women (10.3 vs. 3.4 per 100,000, respectively) (Figure vi). Unlike suicide rates, homicide rates per 100,000 were higher in American Indians (18.3) and blacks (15.0) than in whites (4.2) and Asians (2.5). Hispanics were nearly twice as likely to be a homicide victim as non-Hispanics (11.6 vs. 6.4 per 100,000, respectively).

Homicide rates per 100,000 were highest in the following age groups: 20 to 24 years (17.3), 25 to 34 years (13.7) and less than 1 year (9.7). Males had a higher homicide rate than females for all age groups except ages 85 or older (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 (46.7%); precipitated by another serious crime (33.4%); intimate partner violence (22.2%) and drug involvement (14.9%). The most common crimes that precipitated homicide were robbery (41.5%), burglary (27.7%), drug trade (11.7%), and rape or sexual assault (9.6%). Homicides occurred most often in a house or apartment (61.9%) or a street,

Legal Intervention

A total of 28 North Carolina residents died in 2008 from legal intervention as victims killed by police or other peace officer acting in the line of duty. Most legal intervention victims were male (92.9%) and between 20 and 64 years of age (96.4%). All legal intervention deaths occurred by firearm, primarily a handgun (85.7%).

Unintentional Firearm Deaths

In 2008, 14 North Carolinians (0.2 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 (71.4%), rifle (14.3%) and shotgun (14.3%).

Figure vi: Homicide Rates by Gender and Race in North Carolina, 2008

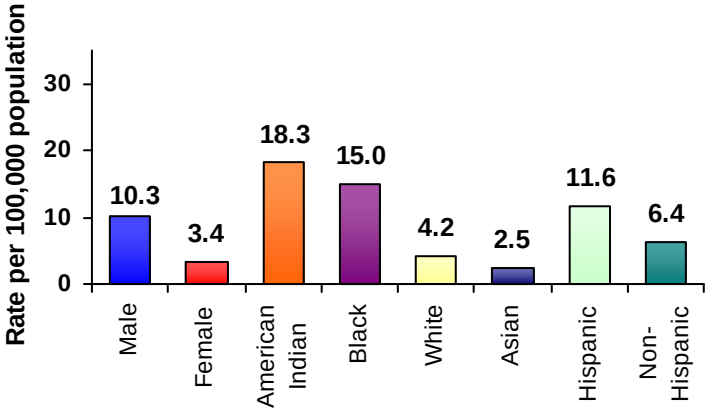
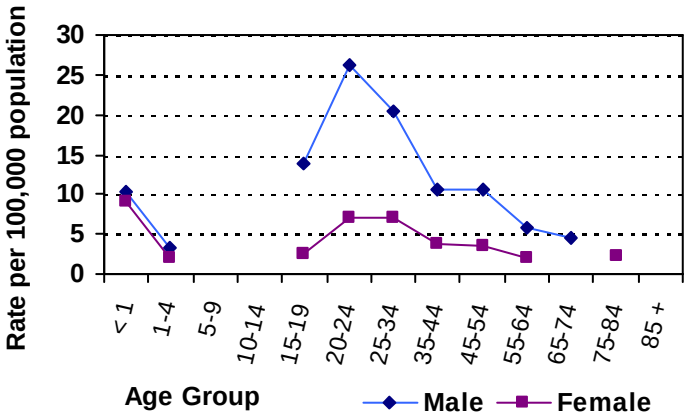


Figure vii: Homicide Rates: Age Group by Gender in North Carolina, 2008



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

Child Violent Deaths

In North Carolina, 91 children (4.0 per 100,000) died from violence in 2008. Homicide (63.7%) and suicide (24.2%) were leading causes of child violent death. Firearm (46.2%) and unarmed assault (19.8%) were common methods.

Male children were 2.2 times more likely to be victims of violent death than females (5.5 vs. 2.5 per 100,000, respectively). The child violent death rate per 100,000 was 6.2 times higher for American Indians (17.4) and 2.5 times higher for blacks (7.0) than for whites (2.8).

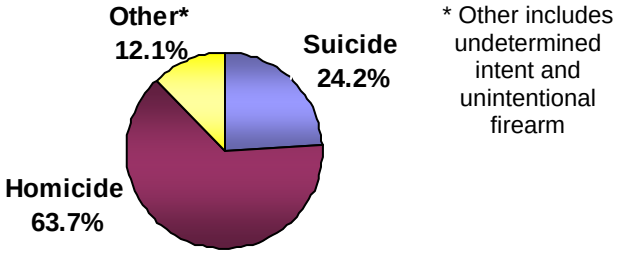
Undetermined Intent

A total of 67 deaths of undetermined intent (0.7 per 100,000) were reported in North Carolina in 2008. The leading methods of undetermined intent deaths were poisoning (70.2%) and firearm (10.5%).

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 20.4 per 100,000 in 2008.

Figure viii: Manner of Violent Death among Children in North Carolina, 2008



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 8,500 residents died from suicide or homicide in the five-year period from 2004 to 2008. In that same period, suicide and homicide ranked as the state's 12th and 15th 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 the fifth leading cause of death for adults ages 25 to 44 in North Carolina in 2008. Homicide was the state's third leading cause of death for young adults ages 15 to 24 and fourth leading cause of death for children ages 1 to 14 in 2008. In addition, violent death rates show disparities by gender, race and Hispanic ethnicity. For males in North Carolina in 2008, suicide was the eighth leading cause of death. Homicide ranked among the top 10 leading causes of death in American Indians, blacks and Hispanics in North Carolina in 2008.

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 2008, 17 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, 2008 to December 31, 2008. This report is an update from the 2008 Violent Death Reporting System Provisional Report (dated September 2010). The final 2008 data file used for this report was dated December 2010. Note that if changes are made to the 2008 data in NC-VDRS after this date, the 2008 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 2008. 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, who 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
- 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 N.C. population data (vintage 2009) from the National Center for Health Statistics. The numbers of the total N.C. 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
Alamance County Sheriff
Albemarle Police Department
Alexander County Sheriff
Alleghany County Sheriff
Anson County Sheriff
Apex Police Department
Archdale Police Department
Asheboro Police Department
Asheville Police Department
Atlantic Beach Police Department
Avery County Sheriff
Beaufort Police Department
Beaufort County Sheriff
Belhaven Police Department
Belmont Police Department
Benson Police Department
Bertie County Sheriff
Bladen County Sheriff
Blowing Rock Police Department
Boone Police Department
Brunswick County Sheriff
Buncombe County Sheriff
Burgaw Police Department
Burke County Sheriff
Burlington Police Department
Butner Public Safety
Cabarrus County Sheriff
Caldwell County Sheriff
Camden County Sheriff
Carolina Beach Police Department
Carrboro Police Department
Carteret County Sheriff
Carthage Police Department
Caswell County Sheriff
Catawba County Sheriff
Chapel Hill Police Department
Charlotte-Mecklenburg Police Department
Chatham County Sheriff
Cherokee County Sheriff
Chowan County Sheriff
Claremont Police Department
Clay County Sheriff
Clayton Police Department
Cleveland County Sheriff
Columbus County Sheriff
Concord Police Department
Conover Police Department
Cornelius Police Department
Craven County Sheriff
Cumberland County Sheriff
Currituck County Sheriff
Dare County Sheriff
Davidson County Sheriff
Davie County Sheriff
Dunn Police Department
Duplin County Sheriff
Durham Police Department
Durham County Sheriff
Eden Police Department
Edgecombe County Sheriff
Elizabeth City Police Department
Elizabethtown Police Department
Enfield Police Department
Farmville Police Department
Fayetteville Police Department
Forest City Police Department
Forsyth County Sheriff
Franklin Police Department
Franklin County Sheriff
Garner Police Department
Gaston County Police
Gastonia Police Department
Gates County Sheriff
Goldsboro Police Department
Graham Police Department
Graham County Sheriff
Granite Falls Police Department
Granville County Sheriff
Greene County Sheriff
Greensboro Police Department
Greenville Police Department
Guilford County Sheriff
Harnett County Sheriff
Havelock Police Department
Haywood County Sheriff
Henderson Police Department
Henderson County Sheriff
Hendersonville Police Department
Hertford Police Department
Hertford County Sheriff
Hickory Police Department
High Point Police Department
Hillsborough Police Department
Hoke County Sheriff
Huntersville Police Department
Iredell County Sheriff
Jackson County Sheriff
Jacksonville Police Department
Johnston County Sheriff
Jonesville Police Department
Kannapolis Police Department
Kenansville Police Department
Kill Devil Hills Police Department
King Police Department
Kings Mountain Police Department
Kinston Public Safety
Kitty Hawk Police Department
Laurinburg Police Department
Lee County Sheriff
Lenoir Police Department
Lenoir County Sheriff
Lexington Police Department
Lincoln County Sheriff
Lincolnton Police Department
Louisburg Police Department
Lumberton Police Department
Macon County Sheriff
Madison County Sheriff
Maiden Police Department
Manteo Police Department
Marion Police Department
Marshville Police Department
Martin County Sheriff
Matthews Police Department
Maxton Police Department
Maysville Police Department
McDowell County Sheriff
Mebane Police Department
Mint Hill Police Department
Mitchell County Sheriff
Mocksville Police Department

ACKNOWLEDGEMENTS

Monroe Public Safety
Montgomery County Sheriff
Moore County Sheriff
Mooresville Police Department
Morganton Police Department
Morrisville Police Department
Mount Airy Police Department
Mount Olive Police Department
Murphy Police Department
Nags Head Police Department
Nash County Sheriff
New Bern Police Department
New Hanover County Sheriff
Newton Police Department
North Wilkesboro Police Department
Northampton County Sheriff
Norwood Police Department
Oak Island Police Dept.
Onslow County Sheriff
Orange County Sheriff
Pamlico County Sheriff
Pasquotank County Sheriff
Pender County Sheriff
Perquimans County Sheriff
Person County Sheriff
Pilot Mountain Police Department
Pinehurst Police Department
Pineville Police Department
Pitt County Sheriff
Princeton Police Department
Randolph County Sheriff
Red Springs Police Department
Richmond County Sheriff
Roanoke Rapids Police Department
Robeson County Sheriff
Rockingham Police Department
Rockingham County Sheriff
Rocky Mount Police Department
Rowan County Sheriff
Rowland Police Department
Roxboro Police Department
Rutherford County Sheriff
Rutherfordton
Salisbury Police Department
Sampson County Sheriff
Sanford Police Department
Scotland County Sheriff
Shelby Police Department
Siler City Police Department
Smithfield Police Department
Southern Pines Police Department
Sparta Police Department
Spindale Police Department
Stanly County Sheriff
Statesville Police Department
Stokes County Sheriff
Surry County Sheriff
Tarboro Police Department
Thomasville Police Department
Transylvania County Sheriff
Union County Sheriff
Valdese Police Department
Vance County Sheriff
Wadesboro Police Department
Wake County Sheriff
Warren County Sheriff
Washington Police Department
Watauga County Sheriff
Waxhaw Police Department
Wayne County Sheriff
Waynesville Police Department
Whiteville Police Department
Wilkes County Sheriff
Wilmington Police Department
Wilson Police Department
Wilson County Sheriff
Winston-Salem Police Department
Winterville Police Department
Wrightsville Beach Police Department
Yadkin County Sheriff
Yadkinville Police Department
Yancey County Sheriff

The NC-VDRS is fortunate to have a very dedicated and professional staff. The Program Manager, Tammy Norwood, oversees all operational aspects of the NC-VDRS and beyond. The high level of data quality and program integrity is a direct result of her efforts. Data Abstractors Pat Jones (now retired), Susan Autry and Jessica Fine spend countless hours compiling the data and constructing sound narratives to make North Carolina's system one of the best in the nation. Without their daily efforts throughout the years, the data and reports would not be as accurate or complete.

Thanks to Christy Ann Stevens, who is the lead technical author of the 2008 Annual Report. Many thanks to past and current contributors, researchers, writers, editors, graphic designers, CDC staff and program staff which have helped make each year's report better. We would like to thank the following individuals who have provided the NC-VDRS program with assistance throughout the years: Tamera Coyne-Beasley, Stephen Marshall, Holly Hill, Sharon Smith, Leroy Frazier, Carol Schriber, Julie Henry, Tracey Jarrett, Ghazaleh Samandari, Sandra Martin, Sharon Schiro, Phillip Graham, Becca Byrd, Felicia Adams, Kay Sanford, Cindy Stevenson, Katherine Harmon and Scott Proescholdbell. Thanks to Valerie Collins, Chris Bryant, and Alan Dellapenna, current and recent past Injury and Violence Prevention Branch Heads, Sharon Rhyne, Health Promotion Manager for the DPH Chronic Disease and Injury Section and Ruth Petersen, Section Chief, for the organizational support to make the NC-VDRS program successful.

During 2008 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 2008 by demographic characteristics of gender, race and age. The 2008 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 1,884 North Carolinians (20.4 per 100,000) died as a result of violence in 2008.
- Males were 3.3 times more likely to die from violence than females (31.2 vs. 10.0 per 100,000, respectively).
- American Indians had the highest violent death rate (29.9 per 100,000) followed by blacks (21.6 per 100,000), whites (20.0 per 100,000) and Asians (12.8 per 100,000).
- Non-Hispanics had a slightly higher violent death rate than Hispanics (20.7 vs. 16.6 per 100,000, respectively).
- Adults between ages 20 and 54 years had the highest violent death rates per 100,000 as follows: ages 20-24 years (31.6), ages 25-34 (30.2), ages 35-44 (26.5), and ages 45-54 (27.7).
- Among children under the age of 15 years, infants (less than 1 year old) had the highest violent death rate (9.7 per 100,000).

Table 2 lists the manner and method of violent deaths in North Carolina in 2008. Violent deaths in North Carolina in 2008 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 (60.9%) and homicide (33.3%).
- The leading methods of violent death were firearm (60.2%), poisoning (14.2%) and hanging, strangulation or suffocation (13.0%).
- The most common firearms involved in violent firearm deaths were a handgun (72.4%), shotgun (15.5%) and rifle (9.3%).

Table 4 characterizes adult violent death victims (18 years or older) in North Carolina in 2008 by the number of years of completed education, marital status and veteran status.

Key Findings:

- Most adult victims completed high school with 71.6 percent having 12 or more years of education.
- Adult violent death victims were most commonly married (38.1%) or never married (36.5%) as compared to divorced (18.7%) or widowed (6.4%).
- Military veterans accounted for 16.6 percent of North Carolina adult violent death victims in 2008.

Table 5 and **Figure 5** show the overall violent death rates in 2008 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 2008.

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 23.5 deaths per 100,000 with a range from 11.5 to 48.3 deaths per 100,000.

Table 1: Demographics of Violent Death Victims in North Carolina, 2008

		Number	%	Rate	95% CI
Gender					
	Female	471	25.0	10.0	9.1 - 10.9
	Male	1,413	75.0	31.2	29.6 - 32.9
Race					
	American Indian	36	1.9	29.9	20.1 - 39.6
	Asian	26	1.4	12.8	7.9 - 17.7
	Black	438	23.3	21.6	19.6 - 23.6
	White	1,378	73.1	20.0	18.9 - 21.1
	Other/ Unknown	6	0.3	*	*
Hispanic					
	Hispanic	113	6.0	16.6	13.5 - 19.7
	Non-Hispanic	1,771	94.0	20.7	19.7 - 21.6
Age Group (Years)					
	< 1	13	0.7	9.7	4.4 – 15.0
	1-4	19	1.0	3.6	2.0 - 5.3
	5-9	5	0.3	0.8	0.1 - 1.5
	10-14	13	0.7	2.2	1.0 - 3.4
	15 - 19	103	5.5	16.0	12.9 - 19.1
	20 - 24	207	11.0	31.6	27.3 – 36.0
	25 - 34	368	19.6	30.2	27.1 - 33.3
	35 - 44	352	18.7	26.5	23.7 - 29.2
	45 - 54	364	19.3	27.7	24.8 - 30.5
	55 - 64	227	12.0	21.7	18.9 - 24.6
	65 - 74	103	5.5	16.4	13.2 - 19.6
	75 - 84	81	4.3	20.9	16.4 - 25.5
	85 +	29	1.5	20.3	12.9 - 27.7
Total Deaths		**1,884**	**100**	**20.4**	**19.5 - 21.3**

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, 2008

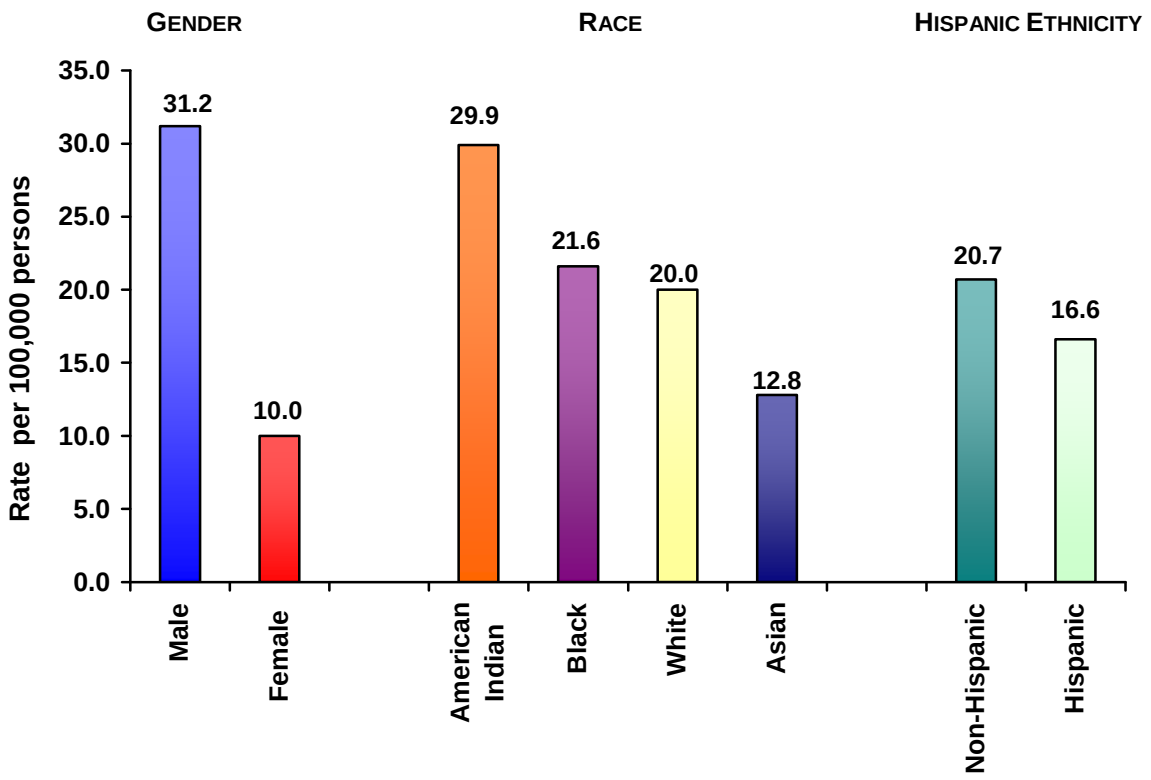


Figure 2: Age-Specific Crude Overall Violent Death Rate by Age Group in North Carolina, 2008

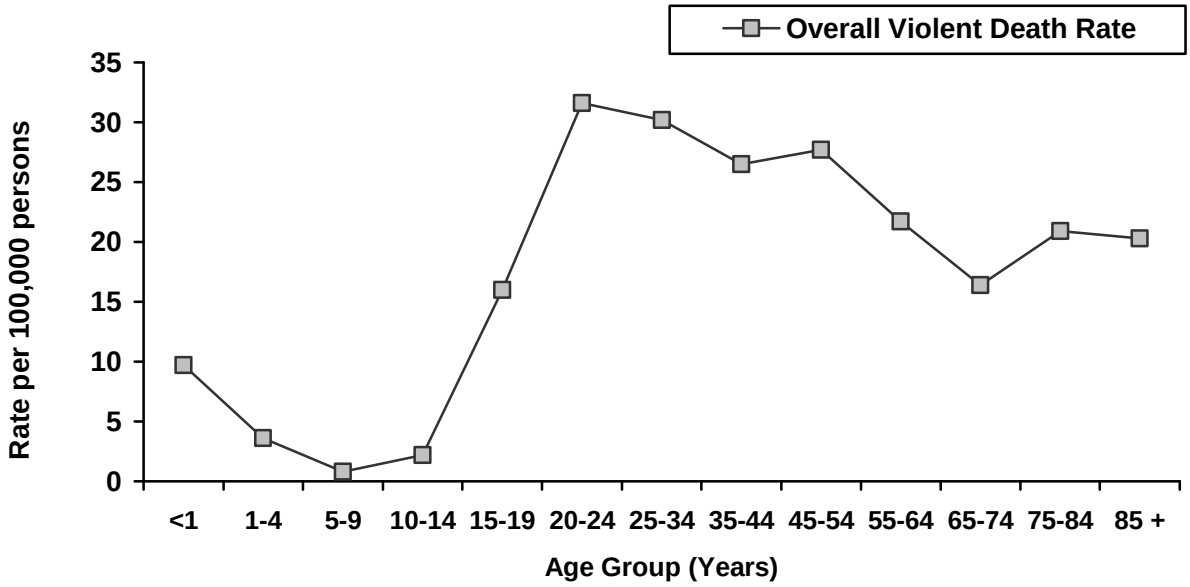


Table 2: Manner and Method of Violent Death in North Carolina, 2008			
		Number	**%**
Manner of Death			
	Suicide	1,148	60.9
	Homicide	627	33.3
	Undetermined Intent	67	3.6
	Legal Intervention	28	1.5
	Unintentional Firearm	14	0.7
Method of Death			
	Firearm	1,134	60.2
	Poisoning	267	14.2
	Hanging, Strangulation, Suffocation	245	13.0
	Sharp Instrument	93	4.9
	Unarmed Assault	42	2.2
	Blunt Instrument	28	1.5
	Motor Vehicle	18	1.0
	Drowning	16	0.9
	Fire/ Burns	11	0.6
	Fall	10	0.5
	Intentional Neglect	4	0.2
	Other Transport Vehicle	3	0.2
	Violent Shaking	2	0.1
	Other/ Unknown	11	0.6
Total Deaths		**1,884**	**100**

Figure 3: Manner of Violent Death in North Carolina, 2008

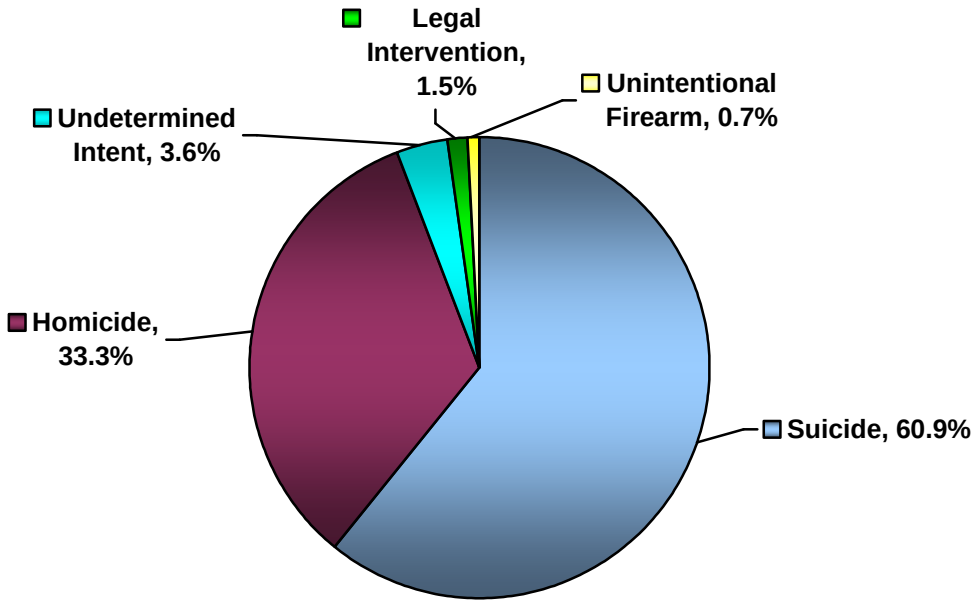
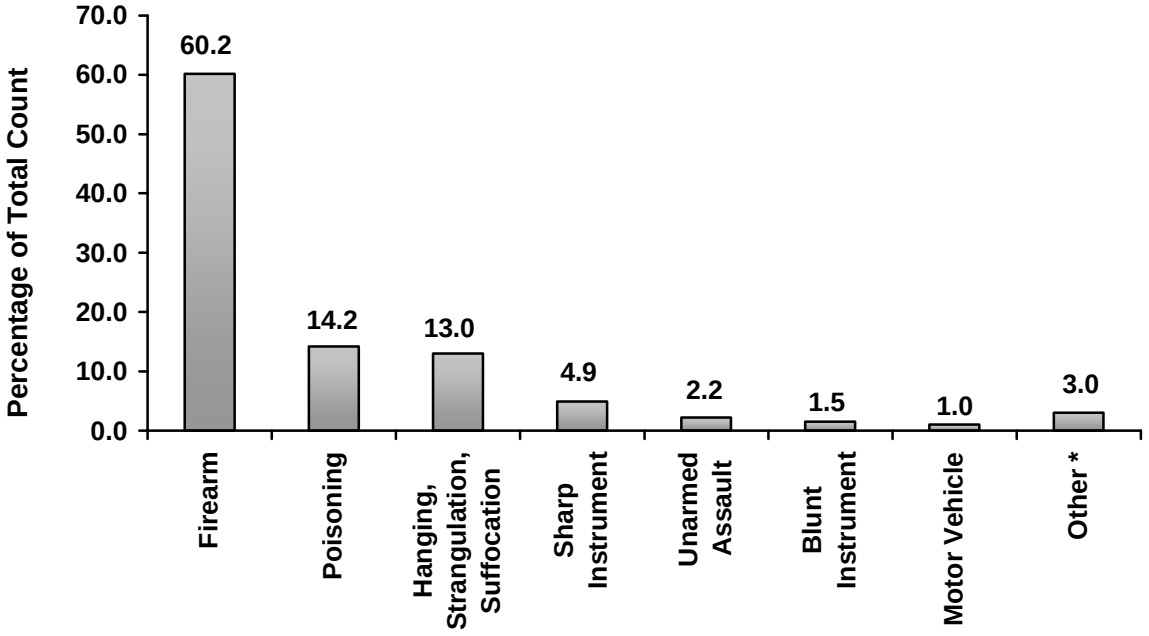


Figure 4: Method of Violent Death in North Carolina, 2008



* 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, 2008			
		Number	**%**
Firearm Type			
	Handgun	820	72.4
	Shotgun	176	15.5
	Rifle	105	9.3
	Other	2	0.2
	Unknown Type	30	2.7
Total Firearm Deaths		**1,133**	**100**

Table 4: Completed Education, Marital Status and Veteran Status of Adult Violent Death Victims (Ages 18 or Older) in North Carolina, 2008			
		Number	**%**
Years of Completed Education			
	0 to 8 Years	126	7.0
	9 to 11 Years	362	20.2
	12 Years	713	39.7
	> 12 Years	571	31.8
	Unknown	22	1.2
Marital Status			
	Never Married	655	36.5
	Married	683	38.1
	Divorced	336	18.7
	Widowed	114	6.4
	Unknown	6	0.3
Veteran Status			
	Non-Veteran	1,480	82.5
	Veteran	298	16.6
	Unknown	16	0.9
Total Adult Deaths (Ages 18 or Older)		**1,794**	**100**

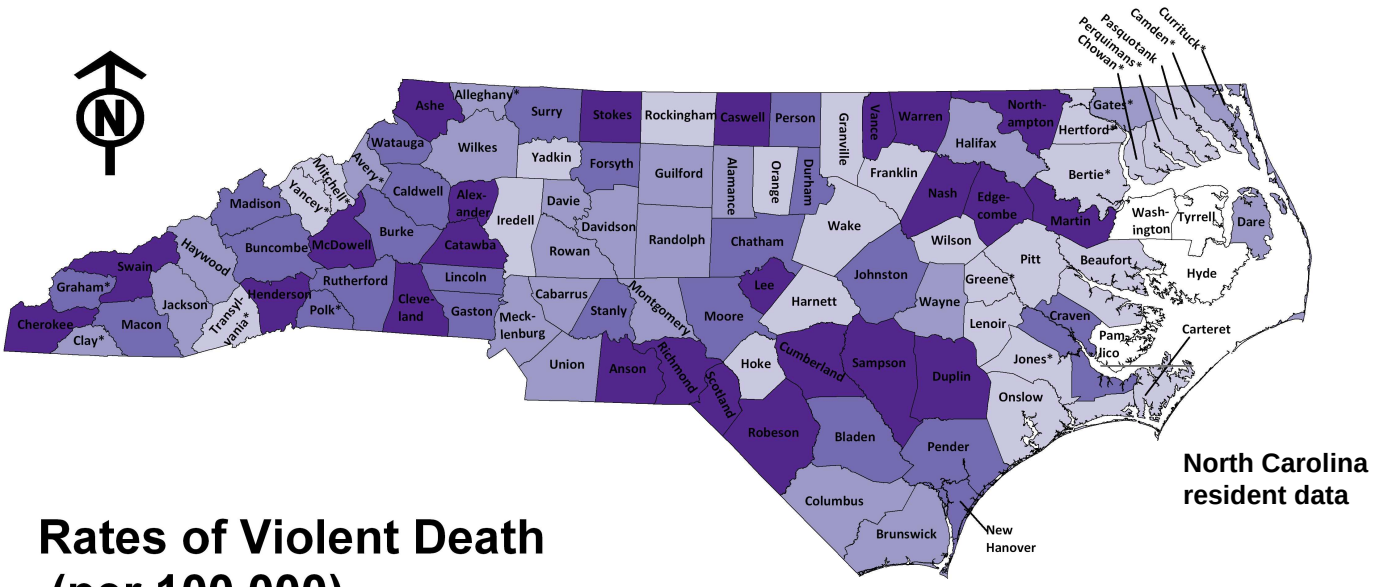
Table 5: Overall Violent Deaths by County of Residence in North Carolina, 2008								
	Number	Rate		Number	Rate		Number	Rate
County			**County**			**County**		
Alamance	28	18.9	Franklin	9	15.2	**Pamlico**	**6**	**48.3**
Alexander	**15**	**41.0**	Gaston	49	23.7	Pasquotank	6	14.5
Alleghany	2	*	Gates	2	*	Pender	12	23.4
Anson	**9**	**35.7**	Graham	2	*	Perquimans	2	*
Ashe	**10**	**38.9**	Granville	9	15.8	Person	8	21.3
Avery	3	*	Greene	2	*	Pitt	23	14.7
Beaufort	7	15.1	Guilford	89	18.8	Polk	4	*
Bertie	2	*	Halifax	11	20.0	Randolph	25	17.7
Bladen	8	24.7	Harnett	18	16.1	**Richmond**	**15**	**32.6**
Brunswick	21	20.2	Haywood	10	17.6	**Robeson**	**44**	**34.2**
Buncombe	48	20.9	Henderson	27	26.4	Rockingham	14	15.2
Burke	20	22.4	Hertford	3	*	Rowan	28	20.0
Cabarrus	31	18.4	Hoke	5	5	Rutherford	16	25.2
Caldwell	20	25.0	Hyde	0	*	**Sampson**	**19**	**30.0**
Camden	1	*	Iredell	25	16.1	**Scotland**	**11**	**30.2**
Carteret	10	15.7	Jackson	6	16.3	Stanly	14	23.5
Caswell	6	25.9	Johnston	35	21.4	Stokes	12	26.0
Catawba	**47**	**29.8**	Jones	1	*	Surry	15	20.7
Chatham	14	22.1	Lee	15	25.4	**Swain**	**6**	**44.9**
Cherokee	**8**	**30.1**	Lenoir	9	15.9	Transylvania	4	*
Chowan	2	*	Lincoln	16	21.4	Tyrrell	0	*
Clay	2	*	**McDowell**	**16**	**36.4**	Union	36	18.6
Cleveland	**30**	**30.3**	Macon	8	24.2	**Vance**	**17**	**39.5**
Columbus	9	16.6	Madison	5	24.5	Wake	125	14.4
Craven	22	22.6	Martin	6	25.5	**Warren**	**7**	**35.8**
Cumberland	**90**	**29.0**	Mecklenburg	149	16.7	Washington	0	*
Currituck	4	*	Mitchell	1	*	Watauga	10	22.0
Dare	6	17.6	Montgomery	5	18.0	Wayne	23	20.3
Davidson	28	17.7	Moore	20	23.2	Wilkes	13	19.5
Davie	7	17.0	**Nash**	**26**	**27.6**	Wilson	11	14.2
Duplin	**20**	**37.7**	New Hanover	42	21.8	Yadkin	6	15.9
Durham	54	20.5	**Northampton**	**9**	**44.0**	Yancey	2	*
Edgecombe	**15**	**28.6**	Onslow	26	15.4			
Forsyth	75	21.1	Orange	20	15.7			

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, 2008



North Carolina resident data

Rates of Violent Death (per 100,000)

- 6.4 - 16.1
- 16.2 - 20.3
- 20.4 - 25.4
- 25.5 - 48.3
- No deaths in 2008

The median rate of violent death in North Carolina was 20.2 deaths per 100,000 residents.

***Indicates <5 deaths and therefore the rate may not yield a meaningful rate.**

Race and Gender of Violent Death Victims

Table 6 and **Figure 6** summarize the characteristics of violent death victims in North Carolina in 2008 stratified by race and gender.

Key Findings:

- Whites (73.1%) and males (75.0%) represented the majority of violent death victims, as shown in Table 1.
- Whites accounted for 71.1 percent of male violent death victims and 79.2 percent of female victims, while blacks comprised 25.3 percent of male victims and 17.4 percent of female victims.
- Among males, American Indian men had the highest violent death rate (51.9) per 100,000, followed by black men (37.3), white men (29.5) and Asian men (18.1).
- Violent death rates per 100,000 for females were similar across races, ranging from a high of 10.7 for white women to a low of 7.6 for black women.
- The violent death rate was higher for males than for females of the same race by 6.3 times for American Indians, 4.9 times for blacks, 2.8 times for whites and 2.4 times for Asians.

Age and Gender of Violent Death Victims

Table 7 stratifies the North Carolina violent death victims in 2008 by age group and gender. **Figure 7** illustrates the 2008 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 (19.7%), 45-54 (18.6%), 35-44 (18.0%), 20-24 (12.2%) and 55-64 (11.9%).
- Among females, the majority of violent death victims were ages 25 to 64 years with a rank order by age group of: 45-54 (21.4%), 35-44 (20.6%), 25-34 (19.3%) and 55-64 (12.5%).
- Among men, the trend in violent death rate by age group was highest in ages 20 to 24 years (49.7 per 100,000) with a gradual decline in rate from ages 25 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 14.9 per 100,000 in ages 25 to 34 and 45 to 54 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 4.4 times between ages 20 to 24 years, 5.3 times between ages 65 to 74 years, and 6.1 times between ages 75 to 84 years.

Table 6: Race by Gender of Violent Death Victims in North Carolina, 2008

	Male			Female		
	Number	%	Rate	Number	%	Rate
Race						
American Indian	31	2.2	51.9	5	1.1	8.2
Asian	18	1.3	18.1	8	1.7	7.7
Black	356	25.3	37.3	82	17.4	7.6
White	1,005	71.1	29.5	373	79.2	10.7
Other/ Unknown	3	0.2	*	3	0.6	*
Total Deaths	**1,413**	**100**	**31.2**	**471**	**100**	**10.0**

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, 2008

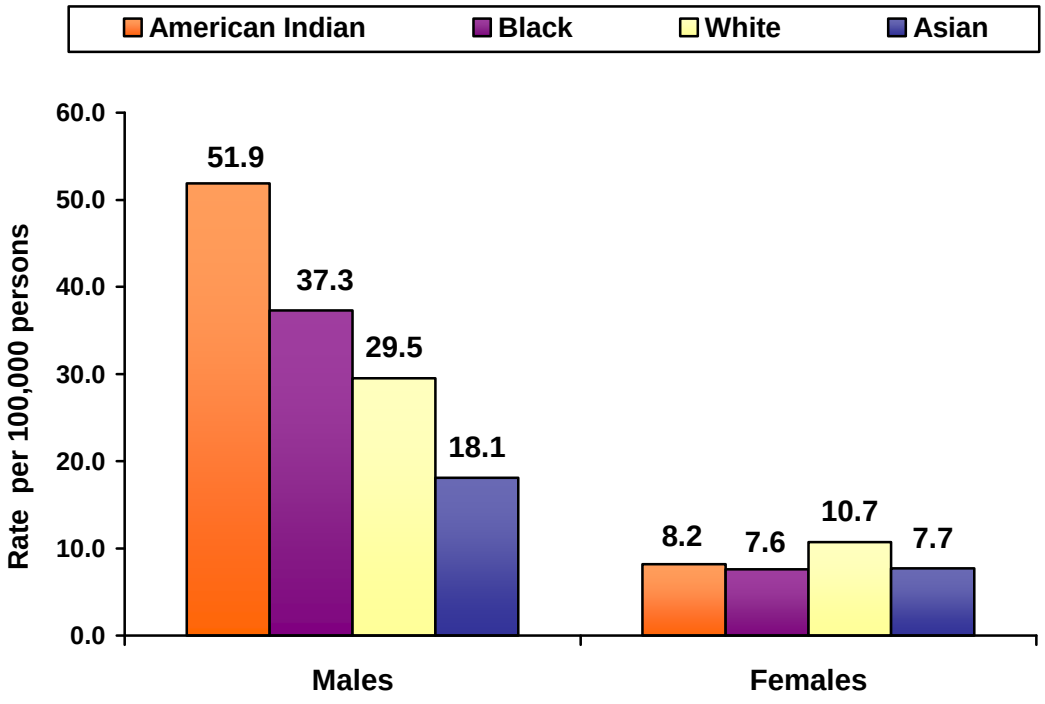


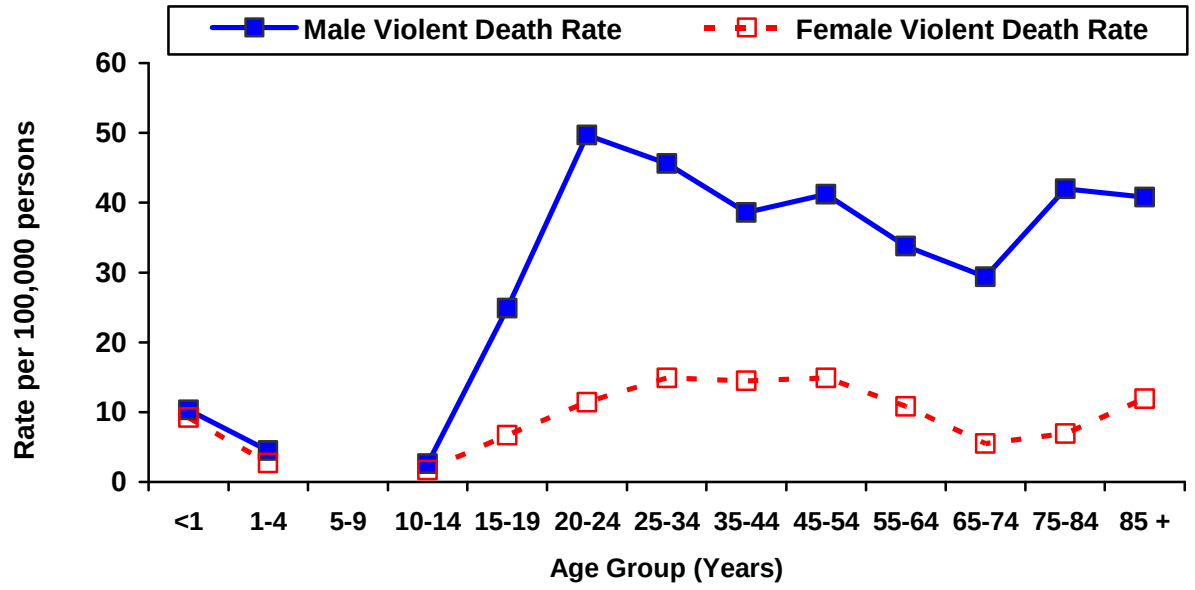
Table 7: Age Group by Gender of Violent Death Victims in North Carolina, 2008

	Male			Female		
	Number	%	Rate	Number	%	Rate
Age (Years)						
<1	7	0.5	10.3	6	1.3	9.2
1-4	12	0.9	4.5	7	1.5	2.7
5-9	3	0.2	*	2	0.4	*
10-14	8	0.6	2.6	5	1.1	1.7
15-19	82	5.8	24.9	21	4.5	6.7
20-24	172	12.2	49.7	35	7.4	11.4
25-34	277	19.7	45.6	91	19.3	14.9
35-44	255	18.0	38.6	97	20.6	14.5
45-54	263	18.6	41.2	101	21.4	14.9
55-64	168	11.9	33.8	59	12.5	10.8
65-74	84	5.9	29.4	19	4.0	5.5
75-84	65	4.6	42.0	16	3.4	6.9
85 +	17	1.2	40.8	12	2.6	11.9
Total Deaths	**1,413**	**100**	**31.2**	**471**	**100**	**10.0**

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, 2008



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.

Section II: Suicide

Basic Characteristics of Suicides

Table 8 describes suicides in 2008 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 2008 is illustrated by race and gender in **Figure 8** and by age group in **Figure 9**.

Key Findings:

- In 2008, 1,148 North Carolinians (14.4 per 100,000) died from suicide.
- Males were 3.4 times more likely to die from suicide than females (22.7 vs. 6.6 per 100,000, respectively).
- Whites had the highest suicide rate (16.9 per 100,000) followed by American Indians (11.0 per 100,000), Asians (10.8 per 100,000) and blacks (6.3 per 100,000).
- Non-Hispanics were twice as likely to die from suicide as compared to Hispanics (14.9 vs. 6.6 per 100,000, respectively).
- Rates of suicide were similar across adult age groups with the highest rates in ages 45 to 54 years (19.2 per 100,000) and 75 to 84 years (18.3 per 100,000).

Table 9 and **Figure 10** summarize the method of death for suicide victims in North Carolina in 2008. **Table 10** shows the type of firearm used for suicide firearm deaths in North Carolina in 2008. **Table 11** lists the type of poison used for suicide poisoning deaths in North Carolina in 2008.

Key Findings:

- The leading methods of suicide were firearm (57.3%), poisoning (19.1%), and hanging, strangulation or suffocation (18.9%).
- Men more often died from suicide by a firearm (62.4%) or hanging, strangulation or suffocation (21.0%), and less frequently died from suicide by poisoning (12.5%).
- Women more commonly completed suicide by firearm (40.7%) or poisoning (40.4%) as compared to hanging, strangulation or suffocation (12.2%).
- Considering only suicide firearm deaths, a handgun was the most common firearm used in 67.3 percent of all deaths, 63.9 percent of male deaths and 84.6 percent of female deaths.
- For suicide poisoning deaths only, prescription pharmaceuticals were the most common poison in 76.3 percent of all deaths, 69.1 percent of male deaths and 83.5 percent of female deaths.

Table 12 characterizes adult suicide victims (ages 18 years or older) in North Carolina in 2008 by the number of years of completed education, marital status and veteran status.

Key Findings:

- The majority (77.3%) of adult suicide victims had 12 or more years of education.
- Suicide victims were most often married (43.0%) and less frequently never married (26.5%), divorced (22.0%), or widowed (8.2%).
- Military veterans accounted for 21.9 percent of suicide victims.

Table 13 and **Figure 11** show the suicide rates in 2008 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 2008.

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 17.2 deaths per 100,000 with a range from 7.5 to 39.4 deaths per 100,000.

Table 8: Demographics of Suicide Victims (Ages 10 or Older) in North Carolina, 2008

		Number	%	Rate	95% CI
Gender					
	Female	270	23.5	6.6	5.8 - 7.4
	Male	878	76.5	22.7	21.2 - 24.2
Race					
	American Indian	11	1.0	11.0	4.5 - 17.4
	Asian	18	1.6	10.8	5.8 - 15.8
	Black	109	9.5	6.3	5.1 - 7.5
	White	1,008	87.8	16.9	15.8 - 17.9
	Other/ Unknown	2	0.2	*	*
Hispanic					
	Hispanic	32	2.8	6.6	4.3 - 8.9
	Non-Hispanic	1,116	97.2	14.9	14.1 - 15.8
Age Group (Years)					
	10 - 14	5	0.4	0.8	0.1 - 1.6
	15 - 19	44	3.8	6.9	4.8 - 8.9
	20 - 24	86	7.5	13.1	10.4 - 15.9
	25 - 34	179	15.6	14.6	12.5 - 16.8
	35 - 44	231	20.1	17.4	15.1 - 19.6
	45 - 54	252	22.0	19.2	16.8 - 21.5
	55 - 64	173	15.1	16.6	14.1 – 19.0
	65 - 74	82	7.1	13.1	10.2 - 15.9
	75 - 84	71	6.2	18.3	14.1 - 22.6
	85 +	25	2.2	17.5	10.7 - 24.4
Total Deaths		**1,148**	**100**	**14.4**	**13.6 - 15.3**

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, 2008

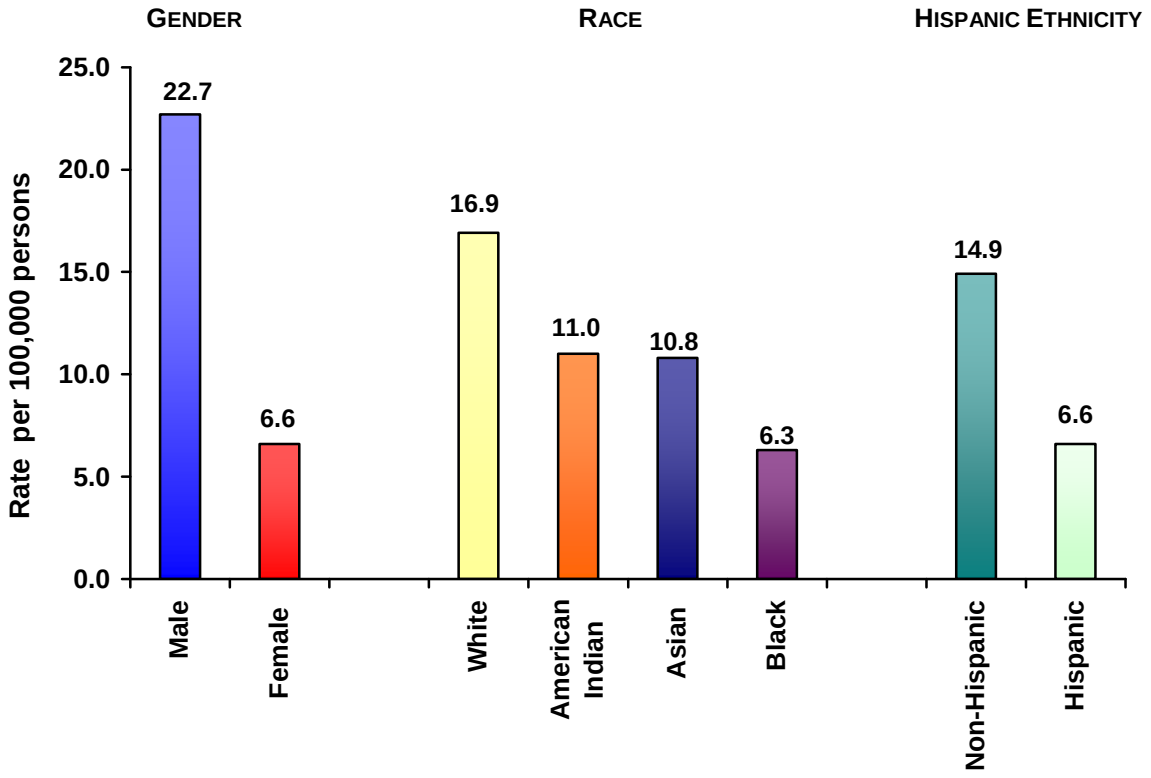


Figure 9: Age-Specific Crude Suicide Rate by Age Group for Ages 10 or Older in North Carolina, 2008

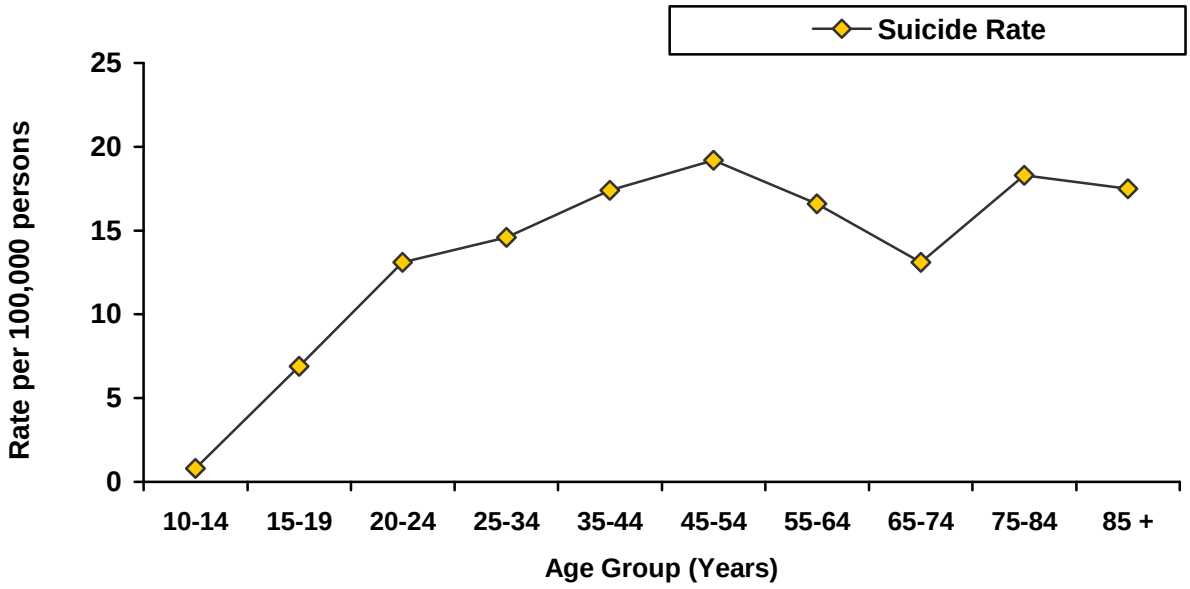
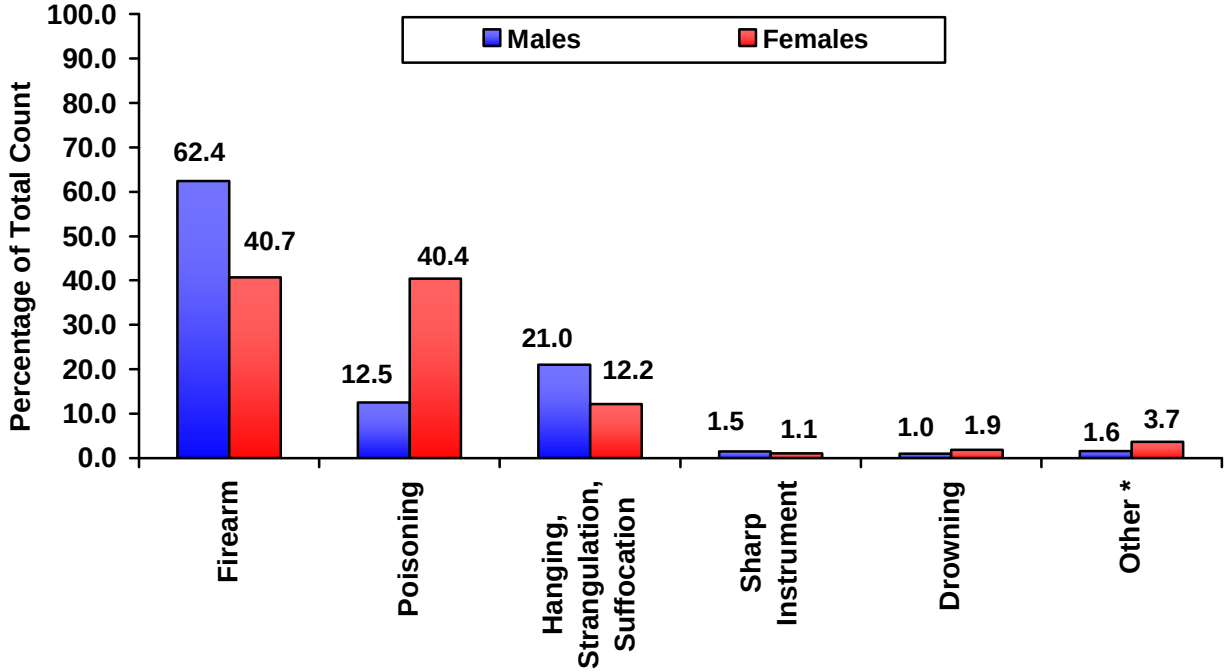


Table 9: Method of Death for Suicide Victims by Gender for Ages 10 or Older in North Carolina, 2008

	Male		Female		Total	
	Number	%	Number	%	Number	%
Method of Death						
Firearm	548	62.4	110	40.7	658	57.3
Poisoning	110	12.5	109	40.4	219	19.1
Hanging, Strangulation, Suffocation	184	21.0	33	12.2	217	18.9
Sharp Instrument	13	1.5	3	1.1	16	1.4
Drowning	9	1.0	5	1.9	14	1.2
Fall	7	0.8	2	0.7	9	0.8
Fire/ Burns	3	0.3	2	0.7	5	0.4
Motor Vehicle	1	0.1	4	1.5	5	0.4
Other Transport Vehicle	2	0.2	1	0.4	3	0.3
Other / Unknown	1	0.1	1	0.4	2	0.2
Total Deaths	**878**	**100**	**270**	**100**	**1,148**	**100**

Figure 10: Method of Death for Suicide Victims by Gender for Ages 10 or Older in North Carolina, 2008



* Other includes: 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, 2008						
	Male		Female		Total	
	Number	%	Number	%	Number	%
Firearm Type						
Handgun	350	63.9	93	84.6	443	67.3
Shotgun	127	23.2	8	8.2	135	20.5
Rifle	62	11.3	9	7.3	71	10.8
Other	2	0.4	0	0.0	2	0.3
Unknown Type	7	1.3	0	0.0	7	1.1
Total Firearm Deaths	**548**	**100**	**110**	**100**	**658**	**100**

Table 11: Type of Poison Involved in Suicide Poisoning Deaths by Gender for Ages 10 or Older in North Carolina, 2008						
	Male		Female		Total	
	Number	%	Number	%	Number	%
Poison Type						
Pharmaceutical - Prescription	76	69.1	91	83.5	167	76.3
Carbon Monoxide or Other Gas	18	16.4	6	6.4	25	11.4
Pharmaceutical - Over-the-Counter	7	6.4	10	9.2	17	7.8
Other (e.g., Rat Poison, Insecticide, Lye)	4	3.6	1	0.9	5	2.3
Street / Recreational Drugs	2	1.8	0	0.0	2	0.9
Pharmaceutical - Unknown	1	0.9	0	0.0	1	0.5
Unknown	2	1.8	1	0.0	2	0.9
Total Poisoning Deaths	**110**	**100**	**109**	**100**	**219**	**100**

Table 12: Completed Education, Marital Status and Veteran Status of Adult Suicide Victims (Ages 18 or Older) in North Carolina, 2008			
		Number	**%**
Years of Completed Education			
	0 to 8 Years	57	5.1
	9 to 11 Years	189	16.8
	12 Years	460	40.9
	> 12 Years	410	36.4
	Unknown	10	0.9
Marital Status			
	Never Married	298	26.5
	Married	484	43.0
	Divorced	248	22.0
	Widowed	92	8.2
	Unknown	4	0.4
Veteran Status			
	Non-Veteran	873	77.5
	Veteran	246	21.9
	Unknown	7	0.6
Total Adult Deaths (Ages 18 or Older)		**1,126**	**100**

Table 13: Suicides by County of Residence for Ages 10 or Older in North Carolina, 2008

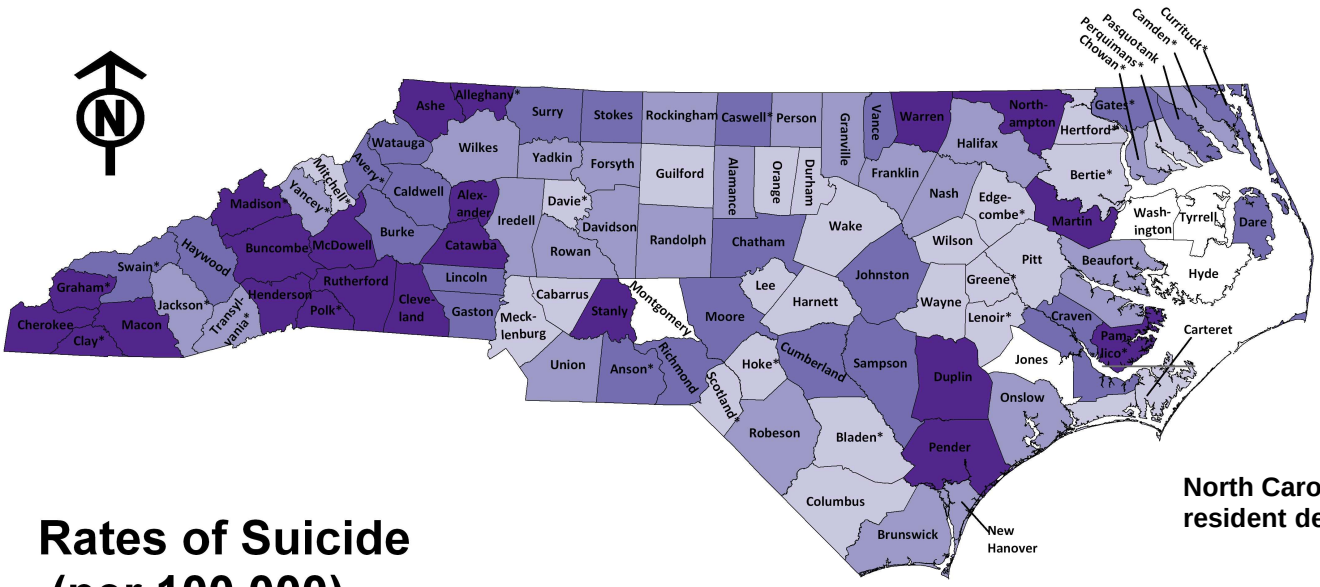
	Number	Rate		Number	Rate		Number	Rate
County			**County**			**County**		
Alamance	20	15.7	Franklin	7	13.7	Pamlico	4	*
Alexander	**9**	**28.0**	Gaston	30	16.8	Pasquotank	6	16.8
Alleghany	2	*	Gates	2	*	**Pender**	**10**	**22.1**
Anson	4	*	Graham	2	*	Perquimans	1	*
Ashe	**9**	**39.4**	Granville	7	13.9	Person	5	15.3
Avery	3	*	Greene	1	*	Pitt	13	9.7
Beaufort	5	12.4	Guilford	49	11.9	Polk	4	*
Bertie	1	*	Halifax	7	14.6	Randolph	19	15.6
Bladen	2	*	Harnett	10	10.5	**Richmond**	**8**	**20.1**
Brunswick	14	15.0	**Haywood**	**10**	**19.7**	Robeson	17	15.7
Buncombe	**41**	**20.3**	**Henderson**	**24**	**26.6**	Rockingham	11	13.6
Burke	13	16.5	Hertford	1	*	Rowan	17	14.0
Cabarrus	15	10.6	Hoke	1	*	**Rutherford**	**13**	**23.4**
Caldwell	13	18.6	Hyde	0	*	Sampson	9	16.7
Camden	1	*	Iredell	17	12.7	Scotland	3	*
Carteret	6	10.5	Jackson	4	*	**Stanly**	**12**	**23.0**
Caswell	4	*	Johnston	25	18.2	Stokes	8	19.5
Catawba	**29**	**21.3**	Jones	0	*	Surry	11	17.5
Chatham	**11**	**19.9**	Lee	5	10.0	Swain	2	*
Cherokee	**5**	**21.0**	Lenoir	1	*	Transylvania	4	*
Chowan	2	*	**Lincoln**	**13**	**20.1**	Tyrrell	0	*
Clay	2	*	**McDowell**	**10**	**26.0**	Union	24	15.0
Cleveland	**22**	**25.5**	**Macon**	**7**	**23.7**	Vance	7	19.2
Columbus	5	10.7	Madison	4	*	Wake	81	11.1
Craven	14	16.7	**Martin**	**5**	**24.4**	**Warren**	**5**	**28.7**
Cumberland	49	18.8	Mecklenburg	69	9.2	Washington	0	*
Currituck	4	*	Mitchell	1	*	Watauga	7	16.8
Dare	5	16.6	Montgomery	0	*	Wayne	9	9.3
Davidson	20	14.6	Moore	14	18.5	Wilkes	8	13.7
Davie	3	*	Nash	13	15.9	Wilson	5	7.5
Duplin	**11**	**24.4**	New Hanover	27	15.9	Yadkin	5	15.2
Durham	24	10.7	**Northampton**	**5**	**27.5**	Yancey	2	*
Edgecombe	4	*	Onslow	19	13.3			
Forsyth	45	14.7	Orange	11	9.8			

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, 2008



North Carolina resident deaths

Rates of Suicide (per 100,000)

- 2.0 - 11.9
- 12.0 - 15.9
- 16.0 - 20.1
- 20.2 - 39.4
- No deaths in 2008

The median rate of suicide in North Carolina was 15.9 deaths per 100,000 residents.

***Indicates <5 deaths and therefore the rate may not yield a meaningful rate.**

Race and Gender of Suicide Victims

Table 14 and **Figure 12** describe suicide victims in North Carolina in 2008 by race and gender.

Key Findings:

- Of all suicide victims, 87.8 percent were white and 76.5 percent were male, as shown in Table 8.
- The majority of male suicide victims were white (87.0%) as compared to black (10.4%). Similarly, the majority of female suicide victims were white (90.4%) as compared to black (6.7%).
- For men, the suicide rate per 100,000 from highest to lowest by race was white men (26.0), American Indian men (20.2), Asian men (16.0) and black men (11.4).
- The suicide rate per 100,000 for females was highest for white women (8.1), followed by Asian women (5.9) and black women (1.9). There were too few deaths among American Indian women to calculate a rate.
- The suicide rate was higher for males than for females of the same race by six times for blacks, 3.2 times for whites, and 2.7 times for Asians.

Age and Gender of Suicide Victims

Table 15 portrays the suicide victims in North Carolina in 2008 by age group and gender. **Figure 13** plots the 2008 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: 45-54 (25.9%), 35-44 (22.6%), 25-34 (15.6%) and 55-64 (14.8%).
- For men, the trend in suicide rate by age remained relatively stable from ages 20 to 74 and increased sharply for ages 75 or older with a peak in ages 85 or older (40.8 per 100,000).
- The trend in suicide rate by age for women increased from age groups 15-20 to 45-54 years with a peak of 10.3 per 100,000 and declined slightly in the age groups of 55-64 to 85 or older.
- Males had higher suicide rates than females across all age groups with the largest gender disparity of 8.3 times higher in men than women (38.8 vs. 4.7 per 100,000, respectively) in ages 75 to 84 years.

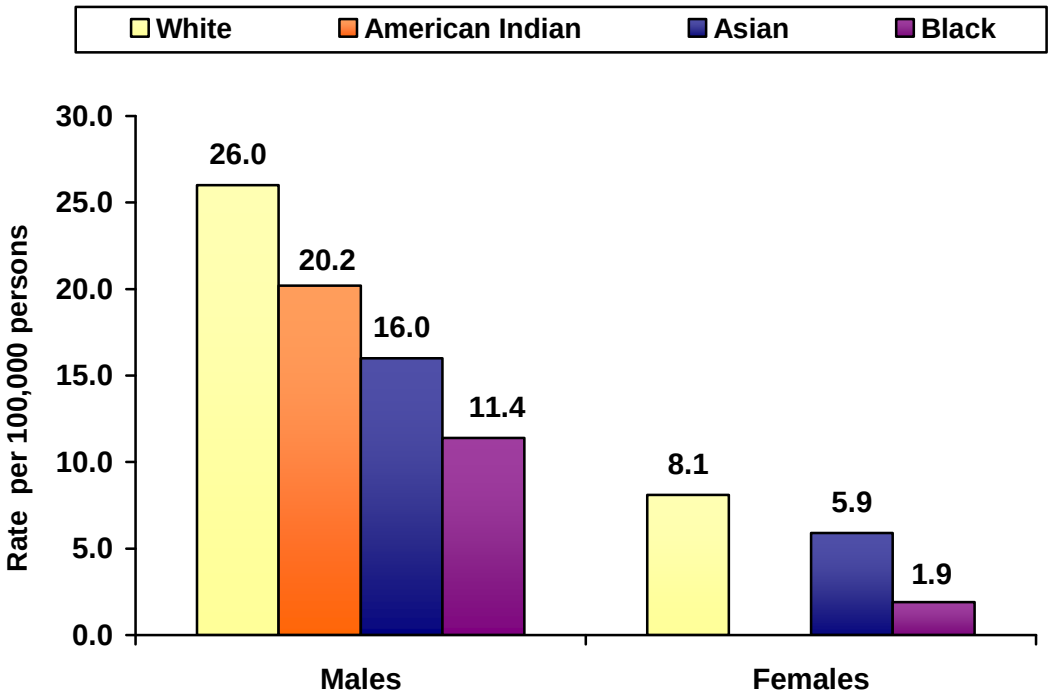
Table 14: Race by Gender of Suicide Victims (Ages 10 or Older) in North Carolina, 2008

	Male			Female		
	Number	%	Rate	Number	%	Rate
Race						
American Indian	10	1.1	20.2	1	0.4	*
Asian	13	1.5	16.0	5	1.9	5.9
Black	91	10.4	11.4	18	6.7	1.9
White	764	87.0	26.0	244	90.4	8.1
Other/ Unknown	0	0.0	*	2	0.7	*
Total Deaths	**878**	**100**	22.7	**270**	**100**	**6.6**

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, 2008



Note: The number of suicides for American Indian females was too small to support a rate calculation.

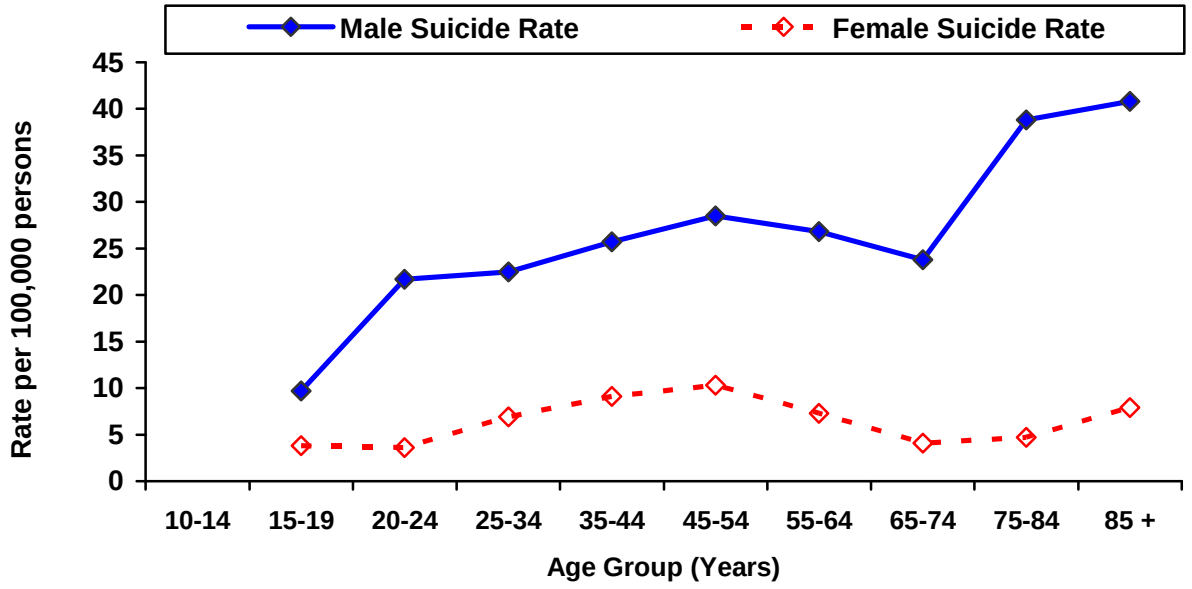
Table 15: Age Group by Gender of Suicide Victims (Ages 10 or Older) in North Carolina, 2008

	Male			Female		
	Number	%	Rate	Number	%	Rate
Age (Years)						
10-14	4	0.5	*	1	0.4	*
15-19	32	3.6	9.7	12	4.4	3.8
20-24	75	8.5	21.7	11	4.1	3.6
25-34	137	15.6	22.5	42	15.6	6.9
35-44	170	19.4	25.7	61	22.6	9.1
45-54	182	20.7	28.5	70	25.9	10.3
55-64	133	15.2	26.8	40	14.8	7.3
65-74	68	7.7	23.8	14	5.2	4.1
75-84	60	6.8	38.8	11	4.1	4.7
85 +	17	1.9	40.8	8	3.0	7.9
Total Deaths	**878**	**100**	**22.7**	**270**	**100**	**6.6**

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, 2008



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 2008, 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 2008. **Table 17** lists the mental health problem at the time of the suicide in 2008 in North Carolina for both men and women.

Key Findings:

- Among male victims, the most common circumstances of suicide were a history of treatment for mental illness (42.3%), current mental health problem (42.1%), crisis in past two weeks (39.2%), current depressed mood (39.1%), and current treatment for mental illness (38.0%).
- Similarly for females, the most common circumstances of suicide were a history of treatment for mental illness (66.8%), current mental health problem (66.8%), current treatment for mental illness (64.0%), current depressed mood (39.6%), and crisis in past two weeks (33.2%).
- A suicide note was left by 28.5 percent male victims and 34.8 percent of female victims.
- Intent to commit suicide was disclosed by 29.1 percent of men and 24.8 percent of women.
- A history of suicide attempts was reported for 14.7 percent of male victims and 27.2 percent of female victims.
- Other common circumstances of suicide for men and women, respectively, were an intimate partner problem (30.4% and 20.4%), physical health problem (18.1% and 21.6%), alcohol problem (16.2% and 11.2%) and other substance problem (12.8% and 12.0%).
- At the time of suicide, the most common mental health problems were depression or dysthymia (82.2%), bipolar disorder (9.5%), schizophrenia (3.0%) and anxiety disorder (2.2%).

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 2008 is shown by gender in **Table 18** and by age and race in **Table 19**.

Key Findings:

- Alcohol was tested in 87.3 percent of all suicides; testing was relatively infrequent for other substances. Of those victims tested, alcohol was present in 30.2 percent of all suicide victims, 32.2 percent of male victims and 23.9 percent of female victims.
- Ages 20 to 54 had the highest percentage of suicide victims with alcohol present, ranging from 32.2 to 38.7 percent of those tested by age group. Alcohol was present in those victims tested by race as follows: whites (30.7%), American Indians (27.3%), blacks (26.8%) and Asians (18.8%).

Table 20 lists the location of the injury resulting in death for suicide victims in North Carolina in 2008.

Key Findings:

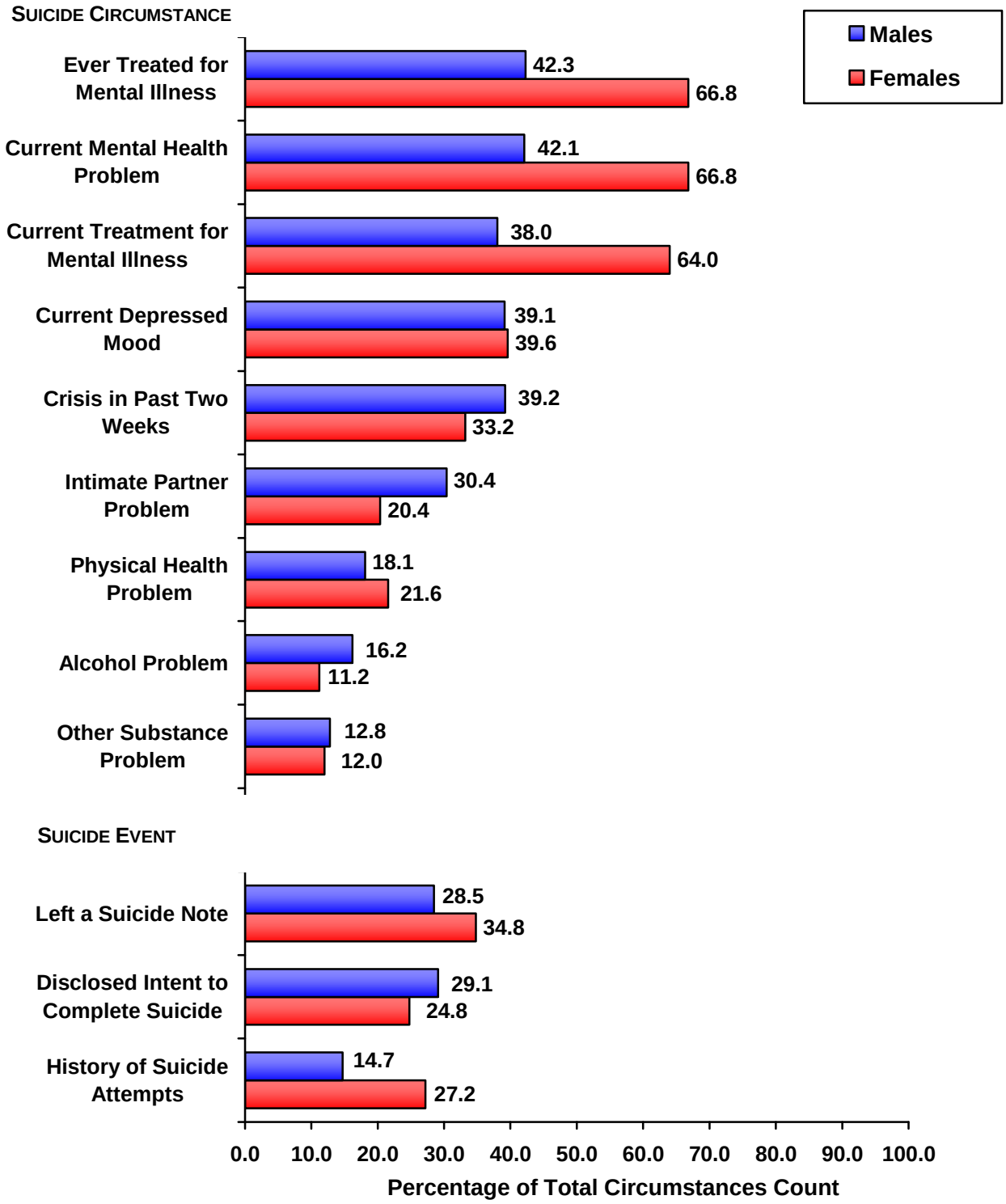
- The majority (82.1%) of injuries resulting in death occurred in a house or apartment.
- Other common locations where injuries resulting in death occurred were a: natural area (3.9%); motor vehicle (2.4%); hotel or motel (2.1%); and street, road, sidewalk or alley (1.9%).

Table 16: Circumstances of Suicide Victims (Ages 10 or Older) by Gender in North Carolina, 2008						
	Male		Female		Total	
Circumstance**	**Number**	**%**	**Number**	**%**	**Number**	**%**
Mental Health						
Ever Treated for Mental Illness	340	42.3	167	66.8	507	48.2
Current Mental Health Problem	338	42.1	167	66.8	505	48.0
Current Treatment for Mental Illness	305	38.0	160	64.0	465	44.2
Current Depressed Mood	314	39.1	99	39.6	413	39.2
Substance Abuse						
Alcohol Problem	130	16.2	28	11.2	158	15.0
Other Substance Problem	103	12.8	30	12.0	133	12.6
Interpersonal						
Intimate Partner Problem	244	30.4	51	20.4	295	28.0
Other Relationship Problem	60	7.5	20	8.0	80	7.6
Perpetrator of Interpersonal Violence in Past Month	74	9.2	7	2.8	81	7.7
Other Death of Friend/ Family	33	4.1	14	5.6	47	4.5
Suicide of Friend/ Family in Past 5 Years	8	1.0	6	2.4	14	1.3
Victim of Interpersonal Violence in Past Month	3	0.4	4	1.6	7	0.7
Life Stressor						
Crisis in Past Two Weeks	315	39.2	83	33.2	398	37.8
Physical Health Problem	145	18.1	54	21.6	199	18.9
Recent Criminal-Related Legal Problem	81	10.1	8	3.2	89	8.5
Job Problem	65	8.1	14	5.6	79	7.5
Financial Problem	62	7.7	12	4.8	74	7.0
Other Legal Problems	20	2.5	5	2.0	25	2.4
School Problem	2	0.3	1	0.4	3	0.3
Suicide Event						
Left a Suicide Note	229	28.5	87	34.8	316	30.0
Disclosed Intent to Complete Suicide	234	29.1	62	24.8	296	28.1
History of Suicide Attempts	118	14.7	68	27.2	186	17.7

** Circumstances were available for 91 percent (803/878) of male victims, 93 percent (250/270) of female victims and 92 percent (1,053/1,148) of all suicide victims. The percentage of circumstances for suicide victims is based on the number of cases reporting circumstances in North Carolina in 2008.

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, 2008



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, 2008						
	Male		Female		Total	
	Number	%	Number	%	Number	%
Current Mental Health Problem **						
Depression / Dysthymia	278	82.2	137	82.0	415	82.2
Bipolar Disorder	29	8.6	19	11.4	48	9.5
Schizophrenia	14	4.1	1	0.6	15	3.0
Anxiety Disorder	8	2.4	3	1.8	11	2.2
Attention Deficit Disorder (ADD) or Hyper-Reactivity Disorder	3	0.9	0	0.0	3	0.6
Post-Traumatic Stress Disorder	2	0.6	0	0.0	2	0.4
Eating Disorder	0	0.0	2	1.2	2	0.4
Other	7	2.1	1	0.6	8	1.6
Unknown	6	1.8	6	3.6	12	2.4

** For 338 males, 167 females and 505 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, 2008*						
	Male		Female		Total	
	Number	%	Number	%	Number	%
Alcohol						
Tested with Results	763	86.9	239	88.5	1,002	87.3
Alcohol Present in Those Tested	246	32.2	57	23.9	303	30.2
Antidepressant						
Tested with Results	40	4.6	63	23.3	103	9.0
Antidepressant Present in Those Tested	39	97.5	61	96.8	100	97.1
Amphetamines						
Tested with Results	2	0.2	3	1.1	5	0.4
Amphetamines Present in Those Tested	1	50.0	1	33.3	2	40.0
Cocaine						
Tested with Results	84	9.6	81	30.0	165	14.4
Cocaine Present in Those Tested	13	15.5	3	3.7	16	9.7
Marijuana						
Tested with Results	0	0.0	0	0.0	0	0.0
Marijuana Present in Those Tested	-	-	-	-	-	-
Opiates						
Tested with Results	83	9.5	89	33.0	172	15.0
Opiates Present in Those Tested	63	75.9	60	67.4	123	71.5
Other Drugs						
Tested with Results	99	11.3	96	35.6	195	17.0
Other Drugs Present in Those Tested	93	93.9	95	99.0	188	96.4

* In 2008, 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, 2008				
	Alcohol tested with results		Alcohol present in those tested	
	Number	%	Number	%
Age Group (Years)				
10-14	5	100.0	0	0.0
15-19	41	93.2	6	14.6
20-24	75	87.2	29	38.7
25-34	152	84.9	49	32.2
35-44	205	88.7	78	38.1
45-54	225	89.3	79	35.1
55-64	146	84.4	43	29.5
65-74	71	86.6	11	15.5
75-84	61	85.9	8	13.1
85 +	21	84.0	0	0.0
Race				
American Indian	11	100.0	3	27.3
Asian	16	88.9	3	18.8
Black	97	89.0	26	26.8
White	876	86.9	269	30.7

Table 20: Injury Location for Suicide Victims (Ages 10 or Older) in North Carolina, 2008		
	Number	%
Injury Location		
House, Apartment	943	82.1
Natural Area (e.g., Field, River, Beaches, Woods)	45	3.9
Motor Vehicle (Excluding School Bus and Public Transportation)	27	2.4
Hotel/ Motel	24	2.1
Street/ Road, Sidewalk, Alley	22	1.9
Jail, Prison, Detention Facility	11	1.0
Highway/ Freeway	10	0.9
Other Commercial Establishment (e.g., Grocery Store, Retail Outlet, Laundromat)	9	0.8
Parking Lot/ Public Parking Garage	9	0.8
Park, Playground, Public Use Area	9	0.8
Synagogue, Church, Temple	7	0.6
Hospital or Medical Facility	6	0.5
Other Specified *	14	1.2
Other/ Unknown	12	1.0
Total Deaths	**1,148**	**100**

* Other Specified with less than 0.3 percent of injuries for suicide victims by location type included: bar or nightclub; office building; farm; sports or athletic area; abandoned house, building or warehouse; supervised residential facility; and high school.

Section III: Homicide

Basic Characteristics of Homicides

Table 21 characterizes the homicides in 2008 for North Carolina residents by demographics of gender, race and age. The homicide rate in 2008 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 2008, 627 North Carolinians (6.8 per 100,000) were victims of homicide.
- Males were three times more likely to be victims of a homicide than females (10.3 vs. 3.4 per 100,000, respectively).
- American Indians (18.3 per 100,000) and blacks (15.0 per 100,000) had higher homicide rates than whites (4,2 per 100,000) and Asians (2.5 per 100,000).
- Hispanics were nearly twice as likely to be victims of homicide as compared to non-Hispanics (11.6 vs. 6.4 per 100,000, respectively).
- Homicide rates per 100,000 were highest for adult age groups of 20 to 24 years (17.3) and 25 to 34 years (13.7) and infants less than 1 year (9.7).

The method of death for homicide victims in North Carolina in 2008 is shown in **Table 22** and **Figure 17**. The type of firearm involved in homicide firearm deaths in North Carolina in 2008 is listed in **Table 23**.

Key Findings:

- The leading methods of homicide were firearm (68.2%), sharp instrument (12.3%), unarmed assault (6.7%), hanging, strangulation or suffocation (4.3%), and blunt instrument (4.0%).
- Most male homicide victims died by a firearm (74.5%) or sharp instrument (11.4%).
- The majority of female homicide victims died by a firearm (49.7%), sharp instrument (14.9%), or hanging, strangulation or suffocation (13.0%).
- Considering only homicide firearm deaths, a handgun was the most common firearm used in 79.0 percent of all deaths, 81.5 percent of male deaths and 68.3 percent of female deaths.

Table 24 describes adult homicide victims (18 years or older) in North Carolina in 2008 by the number of years of completed education, marital status and veteran status.

Key Findings:

- Among adult homicide victims, 60.9 percent completed high school with 12 or more years of education and 37.2 percent had less than 12 years of education.
- More than half of homicide victims were never married (56.7%) as compared to married (28.1%), divorced (11.8%) or widowed (3.2%).
- Military veterans accounted for 6.7 percent of adult homicide victims.

Table 25 and **Figure 18** display the homicide rates in 2008 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 59 counties was zero or too small to support a rate calculation. In addition, 5 of the 20 counties with the highest rates had less than 50,000 residents in 2008.

Key Findings:

- For the 41 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 2.2 to 21.9 deaths per 100,000.

Table 21: Demographics of Homicide Victims in North Carolina, 2008

		Number	%	Rate	95% CI
Gender					
	Female	161	25.6	3.4	2.9 - 3.9
	Male	466	74.4	10.3	9.4 - 11.3
Race					
	American Indian	22	3.5	18.3	10.6 - 25.9
	Asian	5	0.8	2.5	0.3 - 4.6
	Black	305	48.7	15.0	13.4 - 16.7
	White	291	46.3	4.2	3.7 - 4.7
	Other/ Unknown	4	0.6	*	*
Hispanic					
	Hispanic	79	12.6	11.6	9.0 - 14.2
	Non-Hispanic	548	87.4	6.4	5.9 - 6.9
Age Group (Years)					
	< 1	13	2.1	9.7	4.4 - 15.0
	1 - 4	14	2.2	2.7	1.3 - 4.1
	5 - 9	5	0.8	0.8	0.1 - 1.5
	10 - 14	6	1.0	1.0	0.2 - 1.8
	15 - 19	54	8.6	8.4	6.2 - 10.6
	20 - 24	113	18.0	17.3	14.1 - 20.5
	25 – 34	167	26.8	13.7	11.7 - 15.8
	35 – 44	95	15.1	7.1	5.7 - 8.6
	45 – 54	91	14.5	6.9	5.5 - 8.3
	55 – 64	40	6.4	3.8	2.6 – 5.0
	65 - 74	16	2.6	2.5	1.3 - 3.8
	75 - 84	9	1.4	2.3	0.8 - 3.8
	85 +	4	0.6	*	*
Total Deaths		**627**	**100**	**6.8**	**6.3 - 7.3**

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, 2008

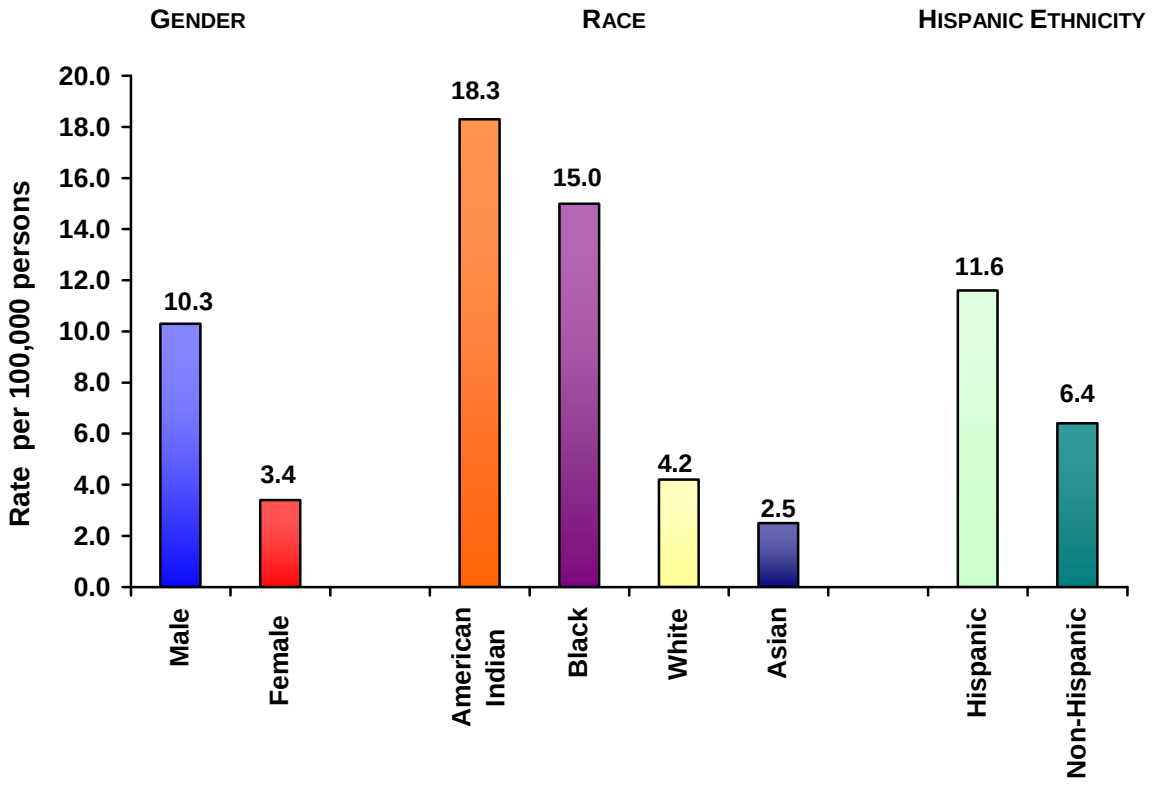
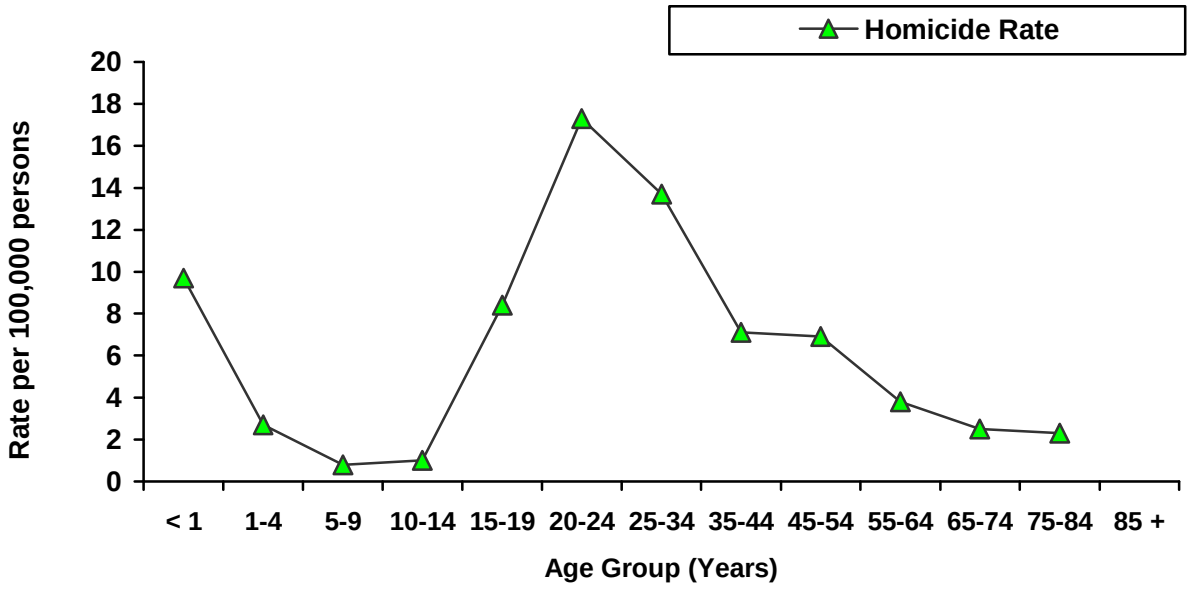


Figure 16: Age-Specific Crude Homicide Rate by Age Group in North Carolina, 2008

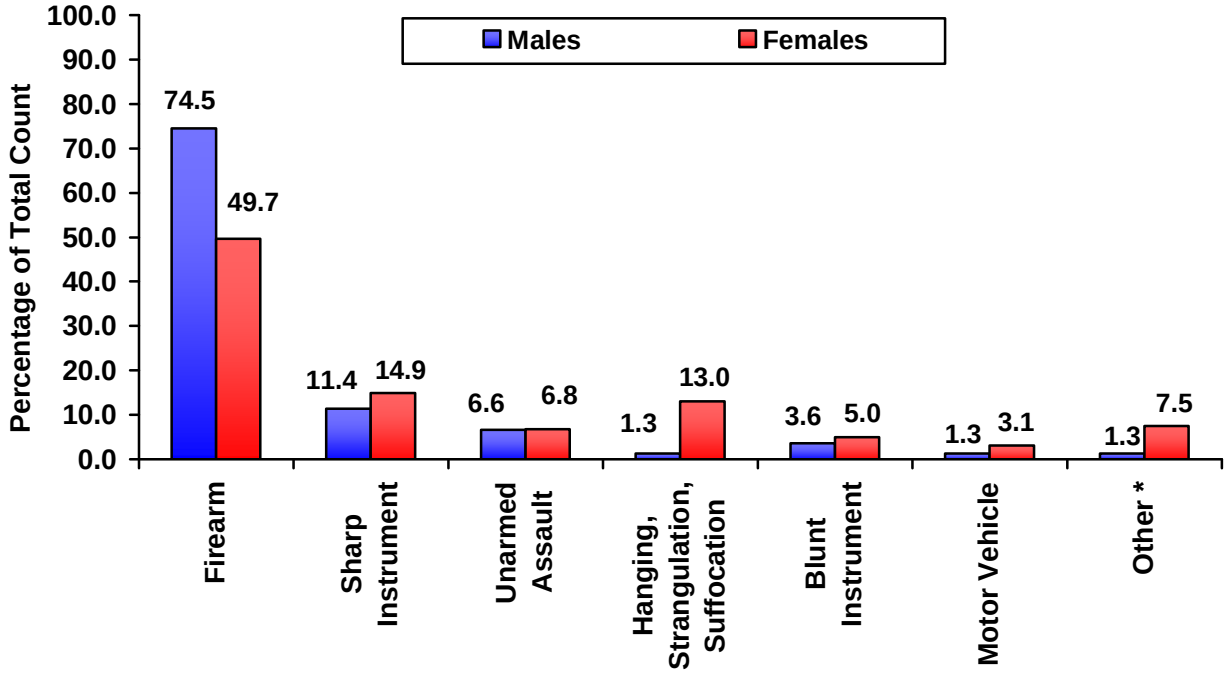


Note: The number of deaths was too small to support a rate calculation for the age group of 85+ years.

Table 22: Method of Death for Homicide Victims by Gender in North Carolina, 2008

	Male		Female		Total	
	Number	%	Number	%	Number	%
Method of Death						
Firearm	347	74.5	80	49.7	427	68.2
Sharp Instrument	53	11.4	24	14.9	77	12.3
Unarmed Assault	31	6.6	11	6.8	42	6.7
Hanging, Strangulation, Suffocation	6	1.3	21	13.0	27	4.3
Blunt Instrument	17	3.6	8	5.0	25	4.0
Motor Vehicle	6	1.3	5	3.1	11	1.8
Fire/ Burns	0	0.0	4	2.5	4	0.6
Intentional Neglect	2	0.4	2	1.2	4	0.6
Violent Shaking	1	0.2	1	0.6	2	0.3
Poisoning	1	0.2	0	0.0	1	0.2
Other / Unknown	2	0.4	5	3.1	7	1.1
Total Deaths	**466**	**100**	**161**	**100**	**627**	**100**

Figure 17: Method of Death for Homicide Victims by Gender in North Carolina, 2008



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

Table 23: Type of Firearm Involved in Homicide Firearm Deaths by Gender in North Carolina, 2008						
	Male		Female		Total	
	Number	%	Number	%	Number	%
Firearm Type						
Handgun	281	81.0	56	70.0	337	78.9
Shotgun	29	8.4	7	8.8	36	8.4
Rifle	19	5.5	13	16.3	32	7.5
Unknown Type	18	5.2	4	5.0	22	5.2
Total Deaths	**347**	**100**	**80**	**100**	**427**	**100**

Table 24: Completed Education, Marital Status and Veteran Status of Adult Homicide Victims (Ages 18 or Older) in North Carolina, 2008			
		Number	%
Years of Completed Education			
	0 to 8 Years	58	10.2
	9 to 11 Years	154	27.0
	12 Years	212	37.3
	> 12 Years	134	23.5
	Unknown	11	1.9
Marital Status			
	Never Married	322	56.6
	Married	160	28.1
	Divorced	67	11.8
	Widowed	18	3.2
	Unknown	2	0.4
Veteran Status			
	Non-Veteran	522	91.7
	Veteran	38	6.7
	Unknown	9	1.6
Total Adult Deaths (Ages 18 or Older)		**569**	**100**

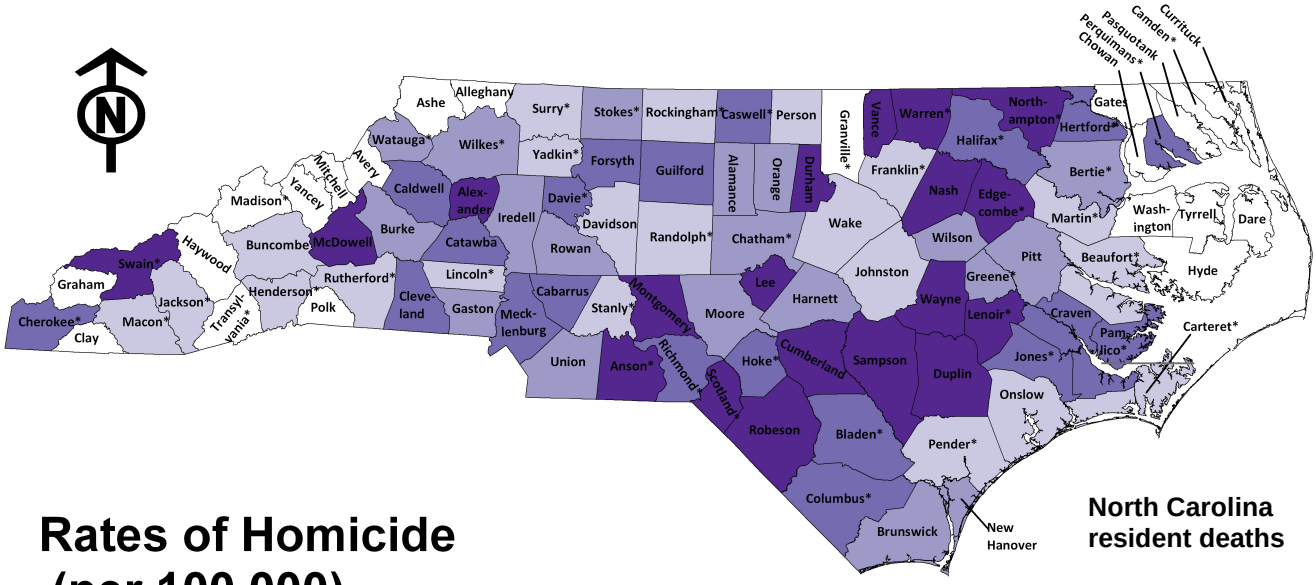
Table 25: Homicides by County of Residence in North Carolina, 2008								
	Number	Rate		Number	Rate		Number	Rate
County			**County**			**County**		
Alamance	7	4.7	Franklin	2	*	Pamlico	1	*
Alexander	**5**	**13.7**	Gaston	14	6.8	Pasquotank	0	*
Alleghany	0	*	Gates	0	*	Pender	2	*
Anson	4	*	Graham	0	*	Perquimans	1	*
Ashe	0	*	Granville	0	*	Person	1	*
Avery	0	*	Greene	1	*	Pitt	9	5.8
Beaufort	1	*	Guilford	33	7.0	Polk	0	*
Bertie	1	*	Halifax	4	*	Randolph	3	*
Bladen	3	*	Harnett	6	5.4	Richmond	4	*
Brunswick	6	5.8	Haywood	0	*	**Robeson**	**24**	**18.6**
Buncombe	5	2.2	Henderson	3	*	Rockingham	3	*
Burke	6	6.7	Hertford	2	*	Rowan	9	6.4
Cabarrus	**15**	**8.9**	Hoke	4	*	Rutherford	2	*
Caldwell	**7**	**8.8**	Hyde	0	*	**Sampson**	**9**	**14.2**
Camden	0	*	Iredell	7	4.5	**Scotland**	**8**	**21.9**
Carteret	2	*	Jackson	1	*	Stanly	2	*
Caswell	2	*	Johnston	7	4.3	Stokes	3	*
Catawba	**14**	**8.9**	Jones	1	*	Surry	2	*
Chatham	3	*	**Lee**	**8**	**13.5**	Swain	3	*
Cherokee	2	*	**Lenoir**	**7**	**12.4**	Transylvania	0	*
Chowan	0	*	Lincoln	3	*	Tyrrell	0	*
Clay	0	*	**McDowell**	**5**	**11.4**	Union	12	6.2
Cleveland	7	7.1	Macon	1	*	**Vance**	**9**	**20.9**
Columbus	4	*	Madison	0	*	Wake	38	4.4
Craven	7	7.2	Martin	1	*	Warren	2	*
Cumberland	**35**	**11.3**	**Mecklenburg**	**76**	**8.5**	Washington	0	*
Currituck	0	*	Mitchell	0	*	Watauga	3	*
Dare	0	*	**Montgomery**	**5**	**18.0**	**Wayne**	**13**	**11.5**
Davidson	7	4.4	Moore	5	5.8	Wilkes	3	*
Davie	3	*	**Nash**	**13**	**13.8**	Wilson	5	6.4
Duplin	**8**	**15.1**	New Hanover	11	5.7	Yadkin	1	*
Durham	**27**	**10.3**	Northampton	3	*	Yancey	0	*
Edgecombe	**10**	**19.1**	Onslow	7	4.1			
Forsyth	**26**	**7.3**	Orange	8	6.3			

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, 2008



North Carolina resident deaths

Rates of Homicide (per 100,000)

- 2.1 - 4.4
- 4.5 - 6.8
- 6.9 - 10.0
- 10.1 - 22.4
- No deaths in 2008

The median rate of homicide in North Carolina was 6.8 deaths per 100,000 residents.

***Indicates <5 deaths and therefore the rate may not yield a meaningful rate.**

Race and Gender of Homicide Victims

Table 26 and **Figure 19** describe the 2008 North Carolina homicide victims by gender and race.

Key Findings:

- Of all homicide victims, 74.4 percent were male, 48.7 percent were black and 46.3 percent were white, as shown in Table 21.
- The majority of male homicide victims were black (52.7%) as compared to white (42.2%) and American Indian (3.9%). Conversely, the majority of female homicide victims were white (58.4%) compared to black (37.3%) and American Indian (2.5%).
- The homicide rate per 100,000 was 25 times higher for American Indian males (30.1) and 21 times higher for black males (25.7) as compared to white males (1.2).
- Black females were three times more likely to be a homicide victim than white females (5.6 vs. 1.7 per 100,000, correspondingly).
- The homicide rate was 4.6 times higher for black males than for black females; the homicide rate was similar for white males and white females.

Age and Gender of Homicide Victims

The age and gender of homicide victims in North Carolina in 2008 are categorized in **Table 27**. The 2008 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: 20-24 (26.3%), 25-34 (20.5%), 15-19 (13.9%), 35-44 (10.6%) and 45-54 (10.5%).
- Among females, the majority of homicide victims were ages 20 to 54 years with a rank order by age group of: 25-34 (26.7%), 35-44 (15.5%), 45-54 (14.9%) and 20-24 (13.7%).
- Males 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 5.3 times in ages 15 to 19 years and 3.7 times in ages 20 to 24 years.
- The trend in homicide rate by age for males peaked in ages 20 to 24 years (26.3 per 100,000) and declined with older age.
- For females, the trend in homicide rate by age was highest in infants under 1 year of age (9.2 per 100,000) with another peak between ages 20 to 34, followed by a decline with older age.

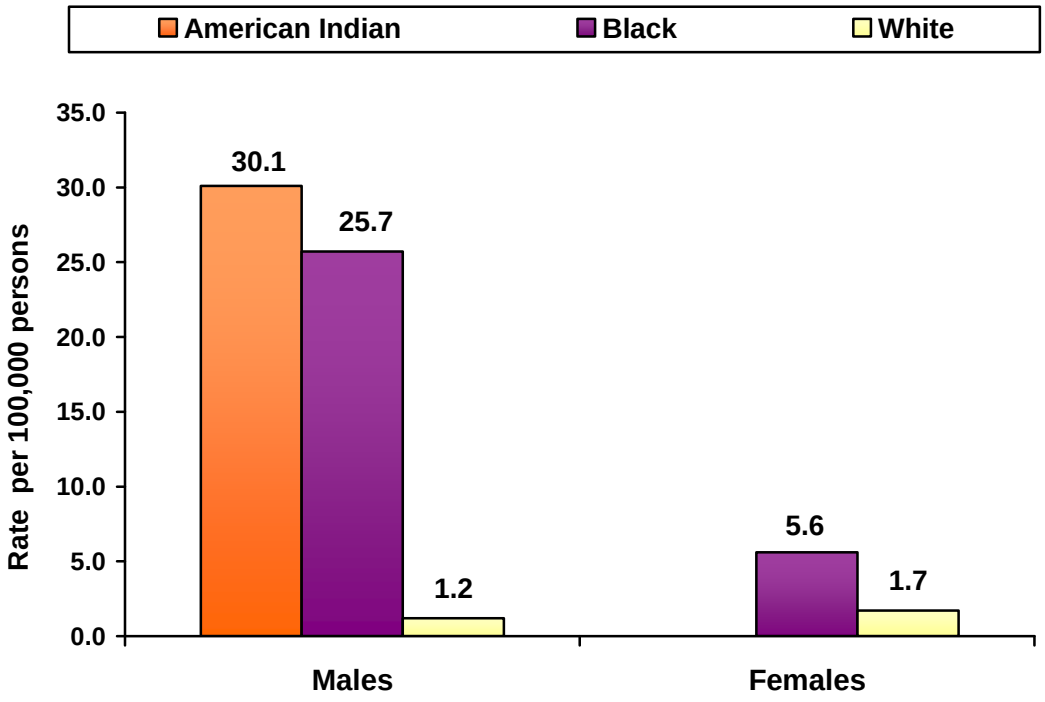
Table 26: Race by Gender of Homicide Victims in North Carolina, 2008

	Male			Female		
	Number	%	Rate	Number	%	Rate
Race						
American Indian	18	3.9	30.1	4	2.5	*
Asian	3	0.6	*	2	1.2	*
Black	245	52.6	25.7	60	37.3	5.6
White	197	42.3	1.2	94	58.4	1.7
Other/ Unknown	3	0.6	*	1	0.6	*
Total Deaths	**466**	**100**	**10.3**	**161**	**100**	**3.4**

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, 2008



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

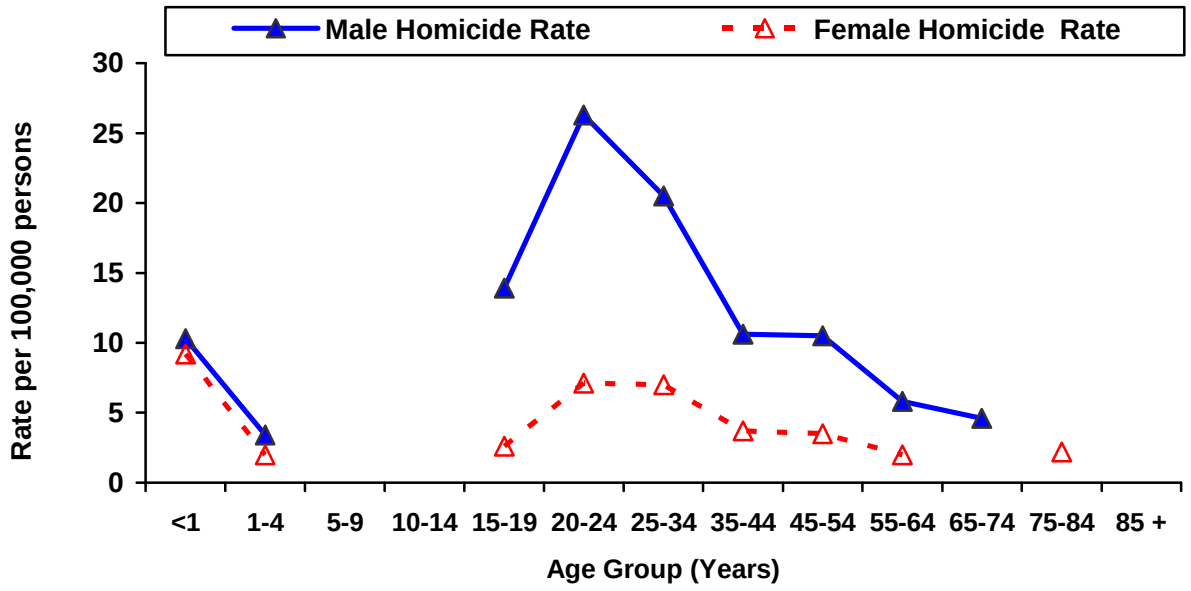
Table 27: Age Group by Gender of Homicide Victims in North Carolina, 2008

	Male			Female		
	Number	%	Rate	Number	%	Rate
Age (Years)						
<1	7	1.5	10.3	6	3.7	9.2
1-4	9	1.9	3.4	5	3.1	2.0
5-9	3	0.6	*	2	1.2	*
10-14	3	0.6	*	3	1.9	*
15-19	46	9.9	13.9	8	5.0	2.6
20-24	91	19.5	26.3	22	13.7	7.1
25-34	124	26.8	20.5	43	26.7	7.0
35-44	70	15.0	10.6	25	15.5	3.7
45-54	67	14.4	10.5	24	14.9	3.5
55-64	29	6.2	5.8	11	6.8	2.0
65-74	13	2.8	4.6	3	1.9	*
75-84	4	0.9	*	5	3.1	2.2
85 +	0	0.0	*	4	2.5	*
Total Deaths	**466**	**100**	**10.3**	**161**	**100**	**3.4**

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, 2008



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 2008, 90 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 2008. **Table 29** lists the crimes that precipitated the homicide in 2008 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 2008.

Key Findings:

- The most common event circumstances surrounding homicides for males were: an argument, abuse or conflict (53.9%); precipitated by another serious crime (36.3%); drug involvement (17.1%); and intimate partner violence (8.5%).
- For females, the most common event circumstances surrounding homicides were: intimate partner violence (58.8%); an argument, abuse or conflict (27.5%); precipitation by another serious crime (25.5%); and drug involvement (9.2%).
- The most common crimes that precipitated the homicide for male victims were robbery (47.0%), burglary (29.5%) and drug trade (14.8%).
- For female victims, the most common crimes that precipitated the homicide included rape or sexual assault (38.5%), robbery (20.5%) and burglary (20.5%).
- Common victim circumstances surrounding homicides were: the victim used a weapon (9.6%); the homicide was justifiable self-defense (2.1%); and the victim was a bystander (2.0%).

Table 30 summarizes the location of the injury resulting in death for homicide victims in North Carolina in 2008.

Key Findings:

- The majority (61.9%) 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 (15.8%); other commercial establishment (3.5%); parking lot or public garage (3.2%); motor vehicle (2.9%); bar or nightclub (2.4%); and natural area (2.4%).

Table 28: Circumstances of Homicide Victims by Gender in North Carolina, 2008						
	Male		Female		Total	
Circumstance**	**Number**	**%**	**Number**	**%**	**Number**	**%**
Event						
Other Argument, Abuse, Conflict	221	53.9	42	27.5	263	46.7
Precipitated by Another Serious Crime	149	36.3	39	25.5	188	33.4
Intimate Partner Violence Related	35	8.5	90	58.8	125	22.2
Drug Involvement	70	17.1	14	9.2	84	14.9
Argument Over Money or Property	32	7.8	6	3.9	38	6.8
Jealousy (Lovers' Triangle)	17	4.2	7	4.6	24	4.3
Gang Related	13	3.2	1	0.7	14	2.5
Mercy Killing	0	0.0	1	0.7	1	0.2
Victim						
Victim Used a Weapon	49	12.0	5	3.3	54	9.6
Justifiable Self Defense	12	2.9	0	0.0	12	2.1
Victim was a Bystander	9	2.2	2	1.3	11	2.0
Intervener Assisting Crime Victim	3	0.7	0	0.0	3	0.5
Victim was a Police Officer on Duty	2	0.5	0	0.0	2	0.4

** Circumstances were available for 88 percent (410/466) of male victims, 95 percent (153/161) of female victims and 90 percent (563/627) of all homicide victims. The percentage of circumstances for homicide victims is based on the number of cases reporting circumstances in North Carolina in 2008.

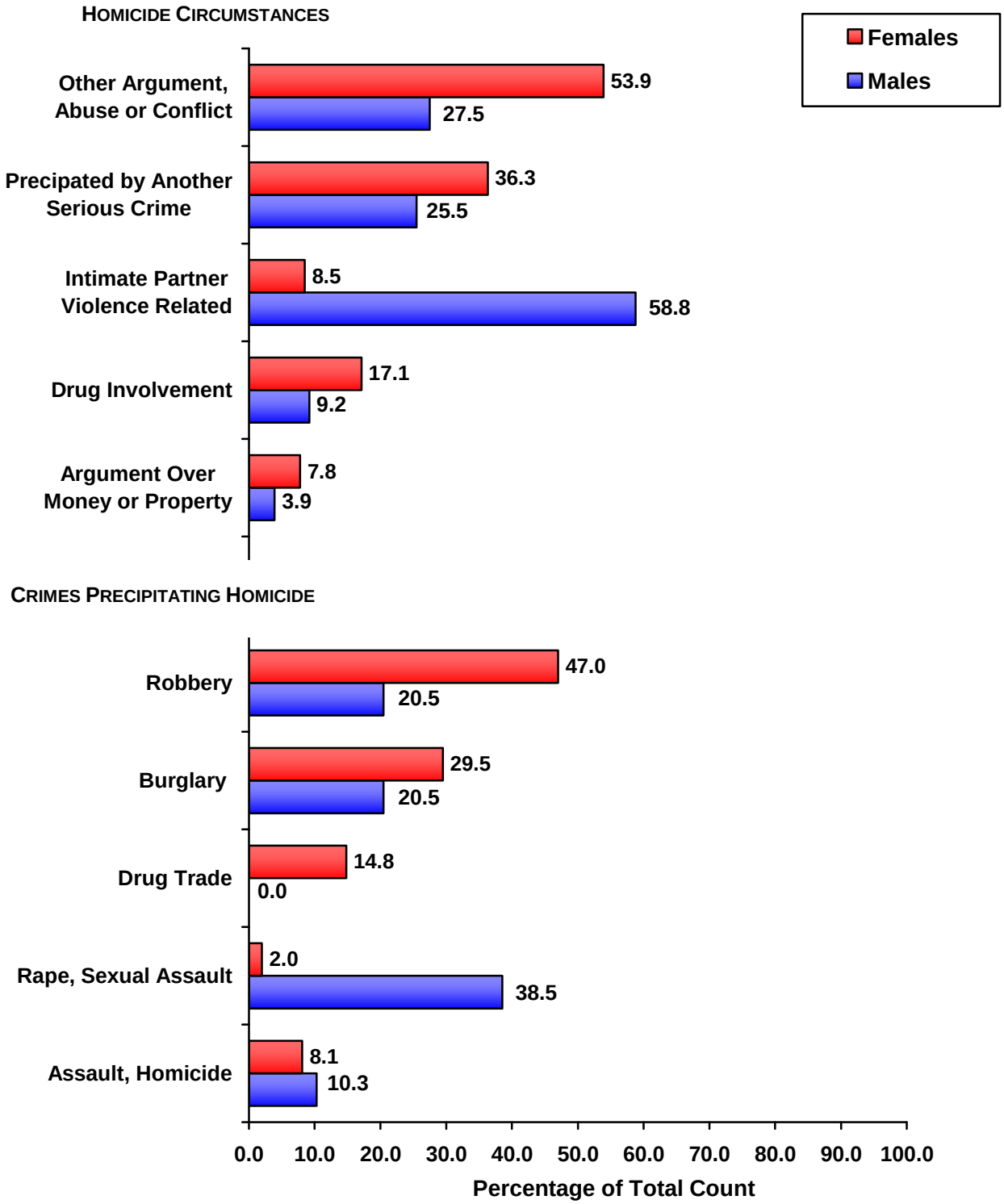
Note: Each victim may have more than one circumstance. Accordingly, the total number of circumstances may exceed the total number of homicides.

Table 29: Crimes Precipitating Homicide by Gender in North Carolina, 2008						
	Male		Female		Total	
	Number	**%**	**Number**	**%**	**Number**	**%**
Crime**						
Robbery	70	47.0	8	20.5	78	41.5
Burglary	44	29.5	8	20.5	52	27.7
Drug Trade	22	14.8	0	0.0	22	11.7
Rape, Sexual Assault	3	2.0	15	38.5	18	9.6
Assault, Homicide	12	8.1	4	10.3	16	8.5
Gambling	4	2.7	0	0.0	4	2.1
Motor Vehicle Theft	2	1.3	1	2.6	3	1.6
Arson	0	0.0	3	7.7	3	1.6
Witness Intimidation/ Elimination	1	0.7	0	0.0	1	0.5
Other	4	2.7	4	10.3	8	4.3

** For 149 males, 39 females and 188 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%.

Figure 21: Circumstances of Homicide Victims and Crimes Precipitating Homicide by Gender in North Carolina, 2008



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, 2008		
	Number	**%**
Injury Location		
House, Apartment	388	61.9
Street/ Road, Sidewalk, Alley	99	15.8
Other Commercial Establishment (e.g., Grocery Store, Retail Outlet, Laundromat)	22	3.5
Parking Lot/ Public Parking Garage	20	3.2
Motor Vehicle (Excluding School Bus and Public Transportation)	18	2.9
Bar, Nightclub	15	2.4
Natural Area (e.g., Field, River, Beaches, Woods)	15	2.4
Office Building	10	1.6
Highway/ Freeway	8	1.3
Abandoned House, Building or Warehouse	3	0.5
Park, Playground, Public Use Area	3	0.5
Hotel/ Motel	3	0.5
Other Specified *	11	1.8
Other/ Unknown	12	1.9
Total Deaths	**627**	**100**

* Other Specified with less than 0.4 percent of injuries for homicide victims by location type included: elementary or middle school; jail, prison or detention facility; service station; industrial or construction areas; public transportation or station; synagogue, church or temple; hospital or medical facility; supervised residential facility; and farm.

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 2008. Caution should be used in interpreting the rates because of the very small number of legal intervention deaths. **Table 32** shows the type of firearm used in legal intervention deaths of North Carolina residents in 2008. **Table 33** lists the number of legal intervention deaths in 2008 by North Carolina county of residence.

Key Findings:

- In 2008, 28 residents of North Carolina (0.3 per 100,000) died from legal intervention.
- Most victims of legal intervention were male (92.9%) and between 20 and 64 years of age (96.4%).
- All legal intervention deaths occurred by firearm, primarily a handgun (85.7%).

Table 31: Demographics of Legal Intervention Death Victims in North Carolina, 2008

		Number	%	Rate	95% CI
Gender					
	Female	2	7.1	*	*
	Male	26	92.9	0.6	0.4 - 0.8
Race					
	Asian	2	7.1	*	*
	Black	12	42.9	0.6	0.3 - 0.9
	White	14	50.0	0.2	0.1 - 0.3
Hispanic					
	Hispanic	0	0.0	*	*
	Non-Hispanic	28	100	0.3	0.2 - 0.4
Age Group (Years)					
	20 - 24	6	21.4	0.9	0.2 - 1.7
	25 - 34	9	32.1	0.7	0.3 - 1.2
	35 - 44	4	14.3	*	*
	45 - 54	4	14.3	*	*
	55 - 64	4	14.3	*	*
	65 - 74	1	3.6	*	*
Total Deaths		**28**	**100**	**0.3**	**0.2 - 0.4**

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 zero or too small to support the calculation of a rate.

Table 32: Type of Firearm for Legal Intervention Deaths in North Carolina, 2008			
		Number	**%**
Firearm Type			
	Handgun	24	85.7
	Shotgun	1	3.6
	Unknown Type	3	10.7
Total Deaths		**28**	**100**

Table 33: Legal Intervention Deaths by County of Residence in North Carolina, 2008			
	Number		**Number**
County		**County**	
Bladen	2	Guilford	4
Catawba	1	Johnston	2
Craven	1	Lee	1
Cumberland	1	McDowell	1
Dare	1	Mecklenburg	1
Davidson	1	Person	1
Edgecombe	1	Rowan	1
Forsyth	1	Surry	2
Gaston	3	Wake	3

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 2008 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 2008. **Table 36** provides the number of unintentional firearm deaths in 2008 by North Carolina county of residence.

Key Findings:

- In 2008, 14 North Carolinians (0.2 per 100,000) died from an unintentional firearm injury.
- Unintentional firearm victims were 78.6 percent male, 57.1 percent white, 35.7 percent black and 85.7 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 (71.4%), followed by a rifle (14.3%), and a shotgun (14.3%).

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 2008.

Key Findings:

- The most common circumstances related to unintentional firearm injuries resulting in death were: the shooter unintentionally pulled the trigger (50.0%); the injury occurred while playing with a gun (35.7%); the injury occurred while hunting or on a hunting trip (21.4%); the gun had a defect or malfunctioned (21.4%); and the injury occurred while showing the gun to others (21.4%).

Table 34: Demographics of Unintentional Firearm Death Victims in North Carolina, 2008					
		Number	%	Rate	95% CI
Gender					
	Female	3	21.4	*	*
	Male	11	78.6	0.2	0.1 - 0.4
Race					
	American Indian	1	7.1	*	*
	Black	5	35.7	0.2	0.0 - 0.5
	White	8	57.1	0.1	0.0 - 0.2
Hispanic					
	Hispanic	2	14.3	*	*
	Non-Hispanic	12	85.7	0.1	0.1 - 0.2
Age Group (Years)					
	1-4	2	14.3	*	*
	5-9	0	0.0	*	*
	10-14	1	7.1	*	*
	15-19	1	7.1	*	*
	20 - 24	2	14.3	*	*
	25 - 34	2	14.3	*	*
	35 - 44	1	7.1	*	*
	45 - 54	3	21.4	*	*
	55 - 64	1	7.1	*	*
	65 - 74	1	7.1	*	*
Total Deaths		**14**	**100**	**0.2**	**0.1 - 0.2**

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 zero or too small to support the calculation of a rate.

Table 35: Type of Firearm for Unintentional Firearm Deaths in North Carolina, 2008			
		Number	%
Firearm Type			
	Handgun	10	71.4
	Rifle	2	14.3
	Shotgun	2	14.3
Total Deaths		**14**	**100**

Table 36: Unintentional Firearm Deaths by County of Residence in North Carolina, 2008			
	Number		Number
County		**County**	
Beaufort	1	Person	1
Bladen	1	Richmond	1
Cherokee	1	Robeson	1
Duplin	1	Rowan	1
Granville	1	Rutherford	1
Madison	1	Wake	1
Mecklenburg	1	Wilson	1

Table 37: Circumstances of Unintentional Firearm Deaths in North Carolina, 2008		
	Number	%
Circumstance**		
Shooter Unintentionally Pulled Trigger	7	50.0
Occurred While Playing with a Gun	5	35.7
Occurred While Hunting or on a Hunting Trip	3	21.4
Gun Had a Defect or Malfunctioned	3	21.4
Occurred While Showing Gun to Others	3	21.4
Occurred While Loading or Unloading a Gun	2	14.3
Shooter Thought Gun was Unloaded Because Magazine was Disengaged	2	14.3
Shooter Thought Gun was Unloaded for Other or Unspecified Reason	2	14.3
Occurred While Cleaning a Gun	1	7.1

** Circumstances were available for 100 percent unintentional firearm deaths in North Carolina in 2008.

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 2008 by gender, race and age.

Key Findings:

- In 2008, 91 children in North Carolina (4.0 per 100,000) died as a result of violence.
- Male children were 2.2 times more likely to be victims of violent death than female children (5.5 vs. 2.5 per 100,000, respectively).
- The violent death rate per 100,000 was 6.2 times higher for American Indian children (17.4) and 2.5 times higher for black children (7.0) than for white children (2.8).
- Non-Hispanic children were twice as likely to be victims of violent death as compared to Hispanic children (4.4 vs. 1.8 per 100,000, respectively).
- The highest rates of child violent death were in the age groups of 15 to 17 years (11.0 per 100,000) and less than 1 year (9.7 per 100,000).

Manner of violent death for child victims in North Carolina in 2008 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 (63.7%) and suicide (24.2%) with similar proportions for males and females.
- Homicide was the cause of violent death in the majority of black children (77.5%), followed by white children (52.3%) and American Indian children (50.0%).
- Homicide was the leading cause of violent death across all child age groups: infants less than 1 year (100%), ages 1-4 (73.7%), ages 5-9 (100%), ages 10-14 (46.2%) and ages 15-17 (48.8%).
- Suicide was the second leading cause of violent death in black children (17.5%) and white children (31.8%).
- Suicide represented 38.5 percent of violent deaths in ages 10-14 and 41.5 percent in ages 15-17.

Method of child violent death in North Carolina in 2008 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 (46.2%); unarmed assault (19.8%); and hanging, strangulation, or suffocation (15.4%).
- Firearm was the leading method of child violent death for both males (52.4%) and females (32.1%) as well as for American Indians (50.0%), blacks (50.0%) and whites (43.2%).
- Unarmed assault (i.e., child abuse by an abusive parent or caretaker) was a leading method of violent death in children less than 1 year (69.2%) and ages 1-4 (47.4%); whereas, firearm was the leading method in ages 5-9 (60.0%), 10-14 (53.9%) and 15-17 (68.3%).

Table 38: Demographics of Child (Under Age 18) Violent Deaths in North Carolina, 2008					
		Number	%	Rate	95% CI
Gender					
	Female	28	30.8	2.5	1.6 - 3.5
	Male	63	69.2	5.5	4.1 - 6.8
Race					
	American Indian	6	6.6	17.4	3.5 - 31.3
	Black	40	44.0	7.0	4.9 - 9.2
	White	44	48.4	2.8	1.9 - 3.6
	Unknown	1	1.1	*	*
Hispanic					
	Hispanic	5	5.5	1.8	0.2 - 3.4
	Non-Hispanic	86	94.5	4.4	3.4 - 5.3
Age Group (Years)					
	<1	13	14.3	9.7	4.4 – 15.0
	1-4	19	20.9	3.6	2.0 - 5.3
	5-9	5	5.5	0.8	0.1 - 1.5
	10-14	13	14.3	2.2	1.0 - 3.4
	15-17	41	45.1	11.0	7.6 - 14.3
Total Deaths		**91**	**100**	**4.0**	**3.2 - 4.9**

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.

Table 39: Manner of Child (Under Age 18) Violent Death by Gender in North Carolina, 2008						
	Male		Female		Total	
	Number	%	Number	%	Number	%
Manner of Death						
Homicide	40	63.5	18	64.3	58	63.7
Suicide	16	25.4	6	21.4	22	24.2
Undetermined Intent	4	6.4	3	10.7	7	7.7
Unintentional Firearm	3	4.8	1	3.6	4	4.4
Total Deaths	**63**	**100**	**28**	**100**	**91**	**100**

Figure 22: Manner of Child (Under Age 18) Violent Death in North Carolina, 2008

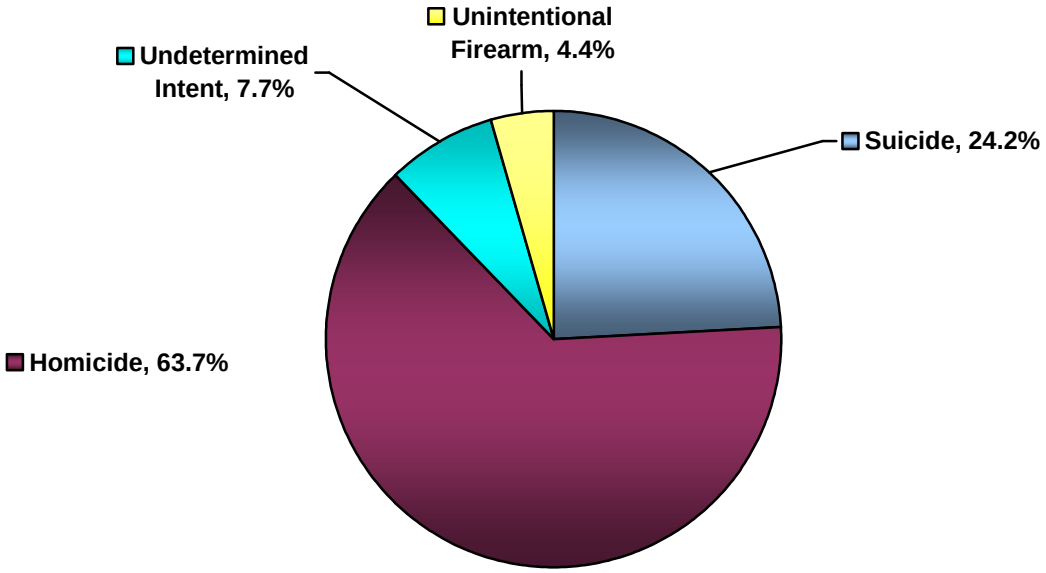


Table 40: Manner of Child (Under Age 18) Violent Death by Race in North Carolina, 2008

Race	American Indian		Black		White		Unknown	
	N	%	N	%	N	%	N	%
Manner of Death								
Homicide	3	50.0	31	77.5	23	52.3	1	100
Suicide	1	16.7	7	17.5	14	31.8	0	0.0
Undetermined Intent	1	16.7	0	0.0	6	13.6	0	0.0
Unintentional Firearm	1	16.7	2	5.0	1	2.3	0	0.0
Total Deaths	**6**	**100**	**40**	**100**	**44**	**100**	**1**	**100**

N = Number of deaths

Table 41: Manner of Child (Under Age 18) Violent Death by Age Group in North Carolina, 2008

Age Group	< 1 year		1-4 years		5-9 years		10-14 years		15 to 17 years	
	N	%	N	%	N	%	N	%	N	%
Manner of Death										
Homicide	13	100	14	73.7	5	100	6	46.2	20	48.8
Suicide	0	0.0	0	0.0	0	0.0	5	38.5	17	41.5
Undetermined Intent	0	0.0	3	15.8	0	0.0	1	7.7	3	7.3
Unintentional Firearm	0	0.0	2	10.5	0	0.0	1	7.7	1	2.4
Total Deaths	**13**	**100**	**19**	**100**	**5**	**100**	**13**	**100**	**41**	**100**

N = Number of deaths

Table 42: Method of Child (Under Age 18) Violent Death by Gender in North Carolina, 2008						
	Male		Female		Total	
	Number	%	Number	%	Number	%
Method of Death						
Firearm	33	52.4	9	32.1	42	46.2
Unarmed Assault	12	19.1	6	21.4	18	19.8
Hanging, Strangulation, Suffocation	9	14.3	5	17.9	14	15.4
Intentional Neglect	2	3.2	2	7.1	4	4.4
Poisoning	2	3.2	2	7.1	4	4.4
Blunt Instrument	2	3.2	0	0.0	2	2.2
Sharp Instrument	1	1.6	1	3.6	2	2.2
Violent Shaking	1	1.6	1	3.6	2	2.2
Fire/ Burns	0	0.0	1	3.6	1	1.1
Other/ Unknown	1	1.6	1	3.6	2	2.2
Total Deaths	**63**	**100**	**28**	**100**	**91**	**100**

Table 43: Method of Child (Under Age 18) Violent Death by Race in North Carolina, 2008								
Race	**American Indian**		**Black**		**White**		**Unknown**	
	N	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Method of Death								
Firearm	3	50.0	20	50.0	19	43.2	0	0.0
Unarmed Assault	1	16.7	10	25.0	7	15.9	0	0.0
Hanging, Strangulation, Suffocation	1	16.7	6	15.0	7	15.9	0	0.0
Intentional Neglect	0	0.0	0	0.0	3	6.8	1	100
Poisoning	0	0.0	0	0.0	4	9.1	0	0.0
Blunt Instrument	0	0.0	2	5.0	0	0.0	0	0.0
Sharp Instrument	0	0.0	1	2.5	1	2.3	0	0.0
Violent Shaking	0	0.0	1	2.5	1	2.3	0	0.0
Fire/ Burns	1	16.7	0	0.0	0	0.0	0	0.0
Other/ Unknown	0	0.0	0	0.0	2	4.5	0	0.0
Total Deaths	**6**	**100**	**40**	**100**	**44**	**100**	**1**	**100**

N = Number of deaths

Table 44: Method of Child (Under Age 18) Violent Death by Age Group in North Carolina, 2008										
Age Group	**< 1 year**		**1-4 years**		**5-9 years**		**10-14 years**		**15 to 17 years**	
	N	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Method of Death										
Firearm	1	7.7	3	15.8	3	60.0	7	53.9	28	68.3
Unarmed Assault	9	69.2	9	47.4	0	0.0	0	0.0	0	0.0
Hanging, Strangulation, Suffocation	0	0.0	0	0.0	1	20.0	4	30.8	9	22.0
Intentional Neglect	1	7.7	2	10.5	0	0.0	1	7.7	0	0.0
Poisoning	0	0.0	2	10.5	1	20.0	0	0.0	1	2.4
Blunt Instrument	0	0.0	1	5.3	0	0.0	0	0.0	1	2.4
Sharp Instrument	0	0.0	0	0.0	0	0.0	0	0.0	2	4.9
Violent Shaking	2	15.4	0	0.0	0	0.0	0	0.0	0	0.0
Fire/ Burns	0	0.0	1	5.3	0	0.0	0	0.0	0	0.0
Other/ Unknown	0	0.0	1	5.3	0	0.0	1	7.7	0	0.0
Total Deaths	**13**	**100**	**19**	**100**	**5**	**100**	**13**	**100**	**41**	**100**

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 2008 by gender, race and age.

Key Findings:

- In 2008, 67 undetermined intent deaths (0.7 per 100,000) were reported in North Carolina.
- Males and females had the same rate (0.7 per 100,000) of undetermined intent deaths.
- Whites accounted for 85.1 percent of undetermined intent victims and had a slightly higher undetermined intent death rate than blacks (0.8 vs. 0.3 per 100,000, correspondingly).
- All undetermined intent death victims were non-Hispanic with a death rate of 0.8 per 100,000.
- The majority (82.1%) 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 (1.6 per 100,000).

Table **46** summarizes the method of undetermined intent deaths in North Carolina in 2008. **Table 47** shows the type of poisoning for undetermined intent poisoning deaths in North Carolina in 2008. **Table 48** shows the type of firearm involved in undetermined intent firearm deaths in North Carolina in 2008.

Key Findings:

- The leading methods of undetermined intent deaths were poisoning (70.2%) and firearm (10.5%).
- Most (87.2%) undetermined intent poisoning deaths involved prescription pharmaceuticals.
- A handgun was involved in 71.4 percent of undetermined intent firearm deaths, while a shotgun was used in 28.6 percent of undetermined intent firearm deaths.

Table 49 provides the number of undetermined intent deaths in 2008 by North Carolina county of residence.

Table 45: Demographics of Undetermined Intent Death Victims in North Carolina, 2008					
		Number	**%**	**Rate**	**95% CI**
Gender					
	Female	35	52.2	0.7	0.5 – 1.0
	Male	32	47.8	0.7	0.5 – 1.0
Race					
	American Indian	2	3.0	*	*
	Asian	1	1.5	*	*
	Black	7	10.5	0.3	0.1 - 0.6
	White	57	85.1	0.8	0.6 – 1.0
Hispanic					
	Hispanic	0	0.0	*	*
	Non-Hispanic	67	100.0	0.8	0.6 – 1.0
Age Group (Years)					
	1-4	3	4.5	*	*
	5-9	0	0.0	*	*
	10-14	1	1.5	*	*
	15-19	4	6.0	*	*
	20 - 24	0	0.0	*	*
	25 - 34	11	16.4	0.9	0.4 - 1.4
	35 - 44	21	31.3	1.6	0.9 - 2.3
	45 - 54	14	20.9	1.1	0.5 - 1.6
	55 - 64	9	13.4	0.9	0.3 - 1.4
	65 - 74	3	4.5	*	*
	75 - 84	1	1.5	*	*
Total Deaths		**67**	**100**	**0.7**	**0.6 - 0.9**

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 zero or too small to support the calculation of a rate.

Table 46: Method of Undetermined Intent Deaths in North Carolina, 2008			
		Number	%
Method of Death			
	Poisoning	47	70.2
	Firearm	7	10.5
	Blunt Instrument	3	4.5
	Drowning	2	3.0
	Fire/ Burns	2	3.0
	Motor Vehicle	2	3.0
	Fall	1	1.5
	Hanging, Strangulation, Suffocation	1	1.5
	Other/ Unknown	2	3.0
Total Deaths		**67**	**100**

Table 47: Type of Poison for Undetermined Intent Poisoning Deaths in North Carolina, 2008			
		Number	%
Poison Type			
	Pharmaceutical - Prescription	41	87.2
	Street / Recreational Drugs	4	8.5
	Pharmaceutical - Over-the-Counter	1	2.1
	Other (e.g., Rat Poison, Insecticide, Lye)	1	2.1
Total Poisoning Deaths		**47**	**100**

Table 48: Type of Firearm for Undetermined Intent Firearm Deaths in North Carolina, 2008			
		Number	%
Firearm Type			
	Handgun	5	71.4
	Shotgun	2	28.6
Total Firearm Deaths		**7**	**100**

Table 49: Undetermined Intent Deaths by County of Residence in North Carolina, 2008					
	Number		Number		Number
County		**County**		**County**	
Alamance	1	Forsyth	3	Orange	1
Alexander	1	Gaston	2	Pamlico	1
Anson	1	Granville	1	Pitt	1
Ashe	1	Guilford	3	Randolph	3
Brunswick	1	Harnett	2	Richmond	2
Buncombe	2	Iredell	1	Robeson	2
Burke	1	Jackson	1	Sampson	1
Cabarrus	1	Johnston	1	Stokes	1
Carteret	2	Lee	1	Swain	1
Catawba	3	Lenoir	1	Vance	1
Cleveland	1	Mecklenburg	2	Wake	2
Cumberland	5	Moore	1	Wayne	1
Davie	1	New Hanover	4	Wilkes	2
Durham	3	Northampton	1		

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 2008 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 2008.

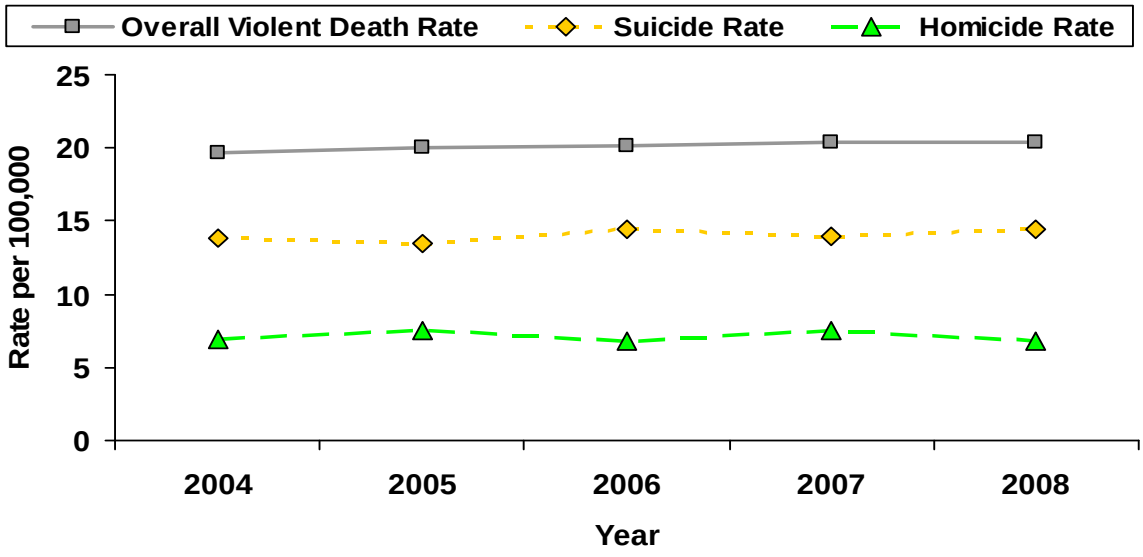
Key Findings:

- The overall violent death rate in North Carolina remained relatively unchanged over time from 19.6 per 100,000 in 2004 to 20.4 per 100,000 in 2008.
- From 2004 to 2008 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 6.8 to 7.5 per 100,000 by year).

Table 50: Trend in Violent Deaths Over Time in North Carolina, 2004-2008

	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	1,085	13.9	677	7.5
2008	1,884	20.4	1,148	14.4	627	6.8

Figure 23: Trend in Violent Death Rate Over Time in North Carolina, 2004-2008



Appendix A: Population Data for Rate Calculations

Appendix A: North Carolina Population Data in 2008 for Rate Calculations			
	Number of Total Population	**Number of Persons Ages 10 or Older (for Suicide Rates)**	**Number of Children (Ages Less than 18)**
Gender			
Female	4,721,444	4,093,557	1,100,875
Male	4,525,690	3,868,912	1,153,413
Race			
American Indian	120,478	100,438	34,468
Asian	203,135	166,687	58,552
Black	2,034,474	1,726,895	568,260
White	6,889,047	5,968,449	1,593,008
Hispanic			
Hispanic	680,623	485,634	278,145
Non-Hispanic	8,566,511	7,476,835	1,976,143
Age Group (Years)			
< 1	133,441	--	133,441
1 - 4	522,252	--	522,252
5 - 9	628,972	--	628,972
10 - 14	595,556	595,556	595,556
15 - 19	642,303	642,303	(ages 15-17) 374,067
20 - 24	654,153	654,153	--
25 – 34	1,222,133	1,222,133	--
35 – 44	1,330,576	1,330,576	--
45 – 54	1,315,430	1,315,430	--
55 – 64	1,044,294	1,044,294	--
65 - 74	628,176	628,176	--
75 - 84	387,296	387,296	--
85 +	142,552	142,552	--
Total Population	**9,247,134**	**7,962,469**	**2,254,288**

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 (2009-2010).

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

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N.C. Office of Chief Medical Examiner

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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

Steven Mihaich
Deputy 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 N.C. 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 N.C 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 • Lanier M. Cansler, Secretary
Division of Public Health • Jeffrey P. Engel, State Health Director
Injury and Violence Prevention Branch

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North Carolina Division of Public Health

VIOLENT DEATH REPORTING SYSTEM ANNUAL REPORT 2008

April 2011