

# North Carolina

**Violent Death Reporting System**

**2016**

**Annual Report**



**North Carolina  
Injury & Violence  
Prevention Branch**

North Carolina Department of Health and Human Services  
February 2019





North Carolina Violent Death



## **Annual Report 2016**

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

**February 2019**

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# Table of Contents

Table of Contents.....	ii
Executive Summary .....	iii
Overall Violent Deaths.....	iii
Suicides.....	iv
Homicides .....	v
Legal Intervention.....	v
Unintentional Firearm Deaths.....	vi
Child Violent Deaths .....	vi
Undetermined Intent .....	vi
Violent Death over Time.....	vi
Introduction .....	1
Methods.....	2
Case Identification.....	2
Defining Manner of Death.....	3
Analysis .....	4
Acknowledgements.....	5
Section I: Overall Violent Deaths.....	8
Basic Characteristics of Violent Deaths .....	8
Race/Ethnicity and Sex of Violent Death Victims.....	15
Age and Sex of Violent Death Victims .....	16
Section II: Suicide.....	19
Basic Characteristics of Suicides .....	19
Race/Ethnicity and Sex of Suicide Victims .....	26
Age and Sex of Suicide Victims.....	27
Circumstances, Toxicology Testing and Injury Location for Suicide Victims.....	29
Section III: Homicide .....	36
Basic Characteristics of Homicides.....	36
Race/Ethnicity and Sex of Homicide Victims.....	43
Age and Sex of Homicide Victims .....	43
Circumstances and Injury Location for Homicide Victims.....	46
Section IV: Legal Intervention .....	50
Section V: Unintentional Firearm Death.....	52
Section VI: Child Death .....	56
Section VII: Undetermined Intent.....	61
Section VIII: Violent Death Trend Over Time .....	65
Appendix A: Population Data for Rate Calculations.....	67
Appendix B: Advisory Board.....	68
Appendix C: Glossary .....	70

# Executive Summary

## North Carolina Violent Death Reporting System, 2016

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 2016.

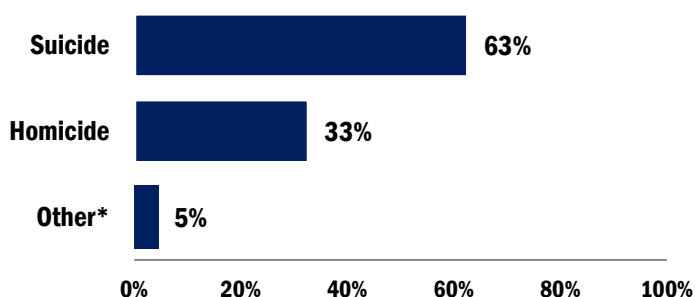
### Overall Violent Deaths

In 2016, 2,173 North Carolina residents (21.4 per 100,000) died as a result of violence. The leading causes of violent death were suicide (62.7%) and homicide (32.8%) (Figure i). Leading methods of violent death were firearm (63.4%), hanging, strangulation or suffocation (14.0%), and poisoning (12.2%). The most common firearms involved in violent firearm deaths were handguns (76.3%), shotguns (10.9%) and rifles (7.5%).

Males were 3.1 times as likely to die from violence as women (32.9 vs. 10.5 per 100,000, respectively) (Figure ii). The violent death rates per 100,000 from highest to lowest by race/ethnicity were non-Hispanic (NH) American Indian (29.6), NH black (23.9), NH white (22.6), NH Asian (11.0), and Hispanic (8.6).

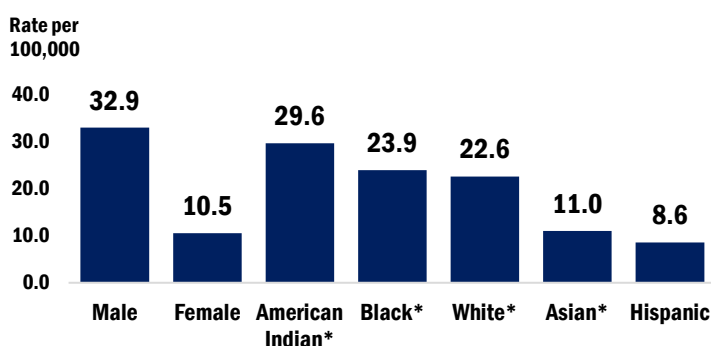
Adults from ages 20 to 64 years had the highest violent death rates by age per 100,000 as follows: 20 to 24 (31.9), 25 to 34 (29.3), 35 to 44 (28.9), 45 to 54 (25.6) and 55 to 64 (25.4). The violent death rate trend by age differed by sex, with males showing higher rates than females across nearly all age groups (Figure iii).

**Figure i: Manner of violent death in North Carolina, 2016**



\* Other includes undetermined intent, legal intervention and unintentional firearm

**Figure ii: Overall violent death rates by sex and race/ethnicity in North Carolina, 2016**



\* Non-Hispanic

## Executive Summary

### Suicides

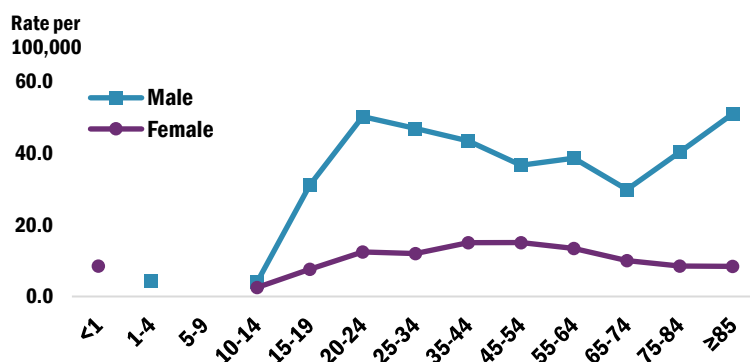
Suicide was the cause of death for 1,362 North Carolinians (15.3 per 100,000) in 2016. Suicides were most commonly completed by a firearm (58.0%), hanging, strangulation, or suffocation (20.9%) and poisoning (16.4%). A handgun was the most common firearm, involved in 76.7 percent of suicide firearm deaths. Opiates were the most common substance category present in suicide poisonings (38.6%), followed by antidepressants (38.1%) and benzodiazepines (26.0%).

Men were 3.1 times more likely to die from suicide than women (23.5 versus 7.7 per 100,000, respectively) (Figure iv). Among suicide victims, 74.0 percent were male, and 86.1 percent were NH white. The suicide rate per 100,000 was highest among NH whites (20.0) and NH American Indians (11.4), and lower among NH blacks (5.2), NH Asians (8.7), and Hispanics (6.3).

The age group with the highest suicide rate was those 55 to 64 (19.3 per 100,000), followed by ages 45-54 and 85+ (18.4 and 18.0 per 100,000 respectively). The suicide rate was higher for men than women across all age groups, however men ages 85 years and older were at greatest risk with a rate of 44.2 per 100,000 (Figure v).

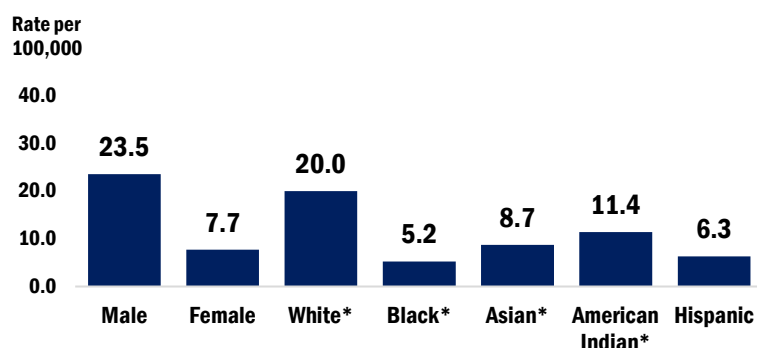
The most common circumstances of suicide were having ever been treated for mental illness (55.4%), current mental health problem (54.6%), current treatment for mental illness (44.6%), a recent crisis (42.6%) and a history of suicidal thoughts (36.9%). Most (79.8%) with a current mental health problem had depression. Other common circumstances of suicide were problems with an intimate partner (26.1%), physical health problem (21.4%), an alcohol problem (16.1%), or other substance abuse problem (18.2%).

**Figure iii: Overall Violent Death Rates in North Carolina: Age Group by Sex, 2016**

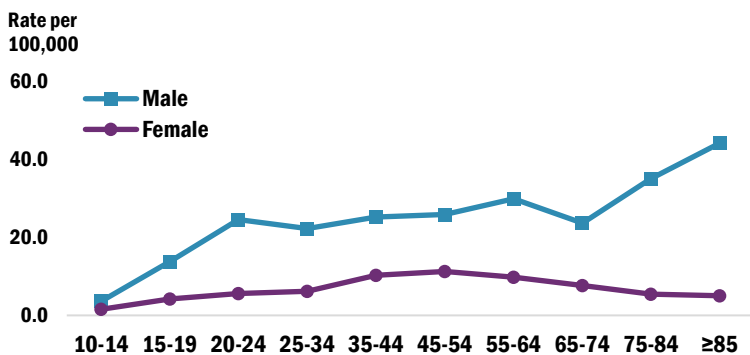


Note: The number of deaths was too small to support a rate calculation for some age and sex groups.

**Figure iv: Suicide rates by sex and race/ethnicity in North Carolina, 2016**



**Figure v: Suicide rates in North Carolina: Age group by sex, 2016**



Note: All age groups had enough deaths to calculate a rate.

Of the 97.0 percent of suicide victims tested, 29.8 percent had alcohol present at the time of death. Most (77.5%) injuries resulting in suicide occurred in a house or apartment.

### Homicides

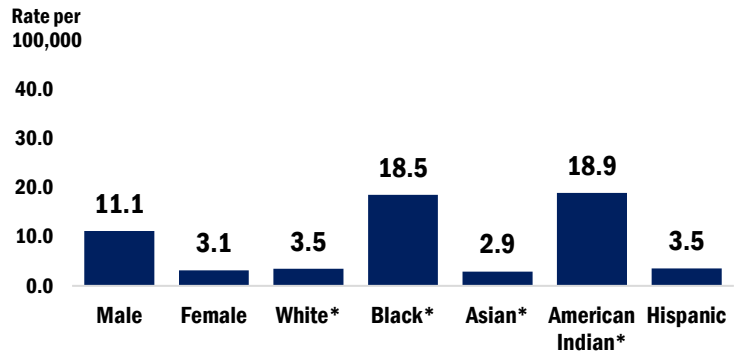
A total of 712 North Carolinians (7.0 per 100,000) were homicide victims in 2016. Firearm (75.8%) and sharp instrument (9.0%) were the most common homicide methods. Handguns accounted for 75.5 percent of firearms used in homicide firearm deaths.

Men accounted for 77.1 percent of homicide victims and were 3.6 times more likely to die from homicide than women (11.1 vs. 3.1 per 100,000, respectively) (Figure vi). Unlike suicide rates, homicide rates were higher among NH blacks (18.5 per 100,000) and NH American Indians (18.9 per 100,000) than in NH Asians (2.9 per 100,000), NH whites (3.5 per 100,000), and Hispanics (3.5 per 100,000).

Homicide rates were highest in the following age groups: 20 to 24 years (15.2 per 100,000), 25 to 34 years (13.9 per 100,000), and 35 to 44 (9.9 per 100,000). Males had a higher homicide rate across all age groups. (Figure vii). Among 25 to 34-year-olds, the homicide rate was 4.4 times greater among males than females.

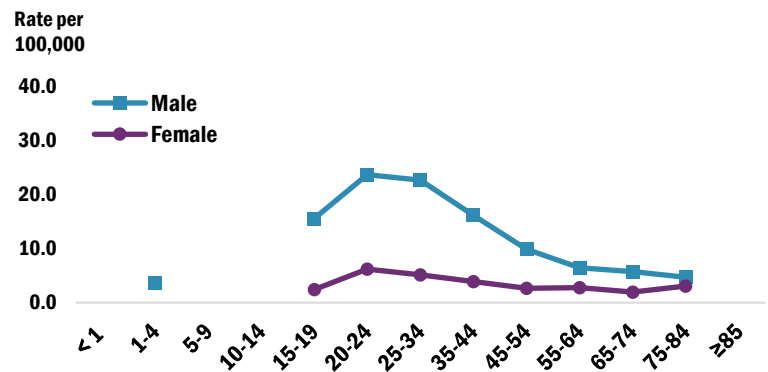
The most common event circumstances surrounding homicides were an argument, abuse or conflict (36.8%), precipitated by another serious crime (32.4%), intimate partner violence related (18.6%) and drug involvement (14.4%). Homicides occurred most often in a house or apartment (61.1%), a street, road, sidewalk or alley (11.8%), or a motor vehicle (9.8%).

**Figure vi: Homicide rates by sex and race/ethnicity in North Carolina, 2016**



\* Non-Hispanic

**Figure vii: Homicide rates in North Carolina: Age group by sex, 2016**



Note: The number of deaths was too small to support a rate calculation for some age and sex groups.

### Legal Intervention

Thirty-one North Carolina residents died in 2016 from legal intervention. These victims were killed by police or other law enforcement officers acting in the line of duty. Ninety-seven percent of legal intervention victims were male, and all victims were from 15 to 64 years of age, and most were NH white (54.8%). All but one legal intervention deaths occurred by firearm; of the total firearms involved (n=30), handguns were used most frequently (70.0%).

## Executive Summary

### Unintentional Firearm Deaths

In 2016, 11 North Carolinians (0.1 per 100,000) died from a firearm injury sustained in a shooting not intentionally directed at the victim. The most common firearm involved in the deaths was a handgun (90.9%) followed by a rifle (9.1%).

### Child Violent Deaths

In North Carolina in 2016, 103 children (4.5 per 100,000) died from violence. Homicide (47.6%) and suicide (45.6%) were the leading causes of child violent death. Firearm (49.0%), hanging, strangulation, or suffocation (22.6%) and personal weapons (12.8%) were the most common methods of child death.

Male children were 2.0 times as likely to be victims of violent death as female children (5.9 vs. 3.0 per 100,000, respectively). The violent death rate per 100,000 was 1.8 times higher for NH black children (7.2 per 100,000) than for NH white children (4.1 per 100,000).

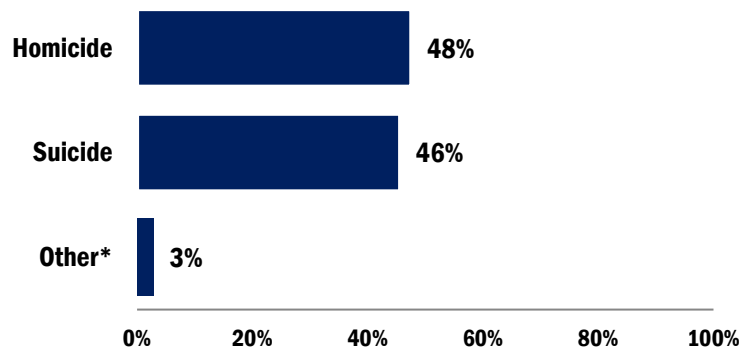
### Undetermined Intent

A total of 57 deaths of undetermined intent (0.6 per 100,000) were reported in North Carolina in 2016. The leading methods of undetermined intent deaths were poisoning (70.2%) and firearm (12.3%).

### Violent Death over Time

The overall violent death rate in North Carolina remained fairly stable from 2005 to 2016, averaging 19.9 per 100,000 per year. The overall violent death rate was 20.0 per 100,000 in 2005, 19.4 per 100,000 in 2009 and 21.4 per 100,000 in 2016.

**Figure viii: Manner of violent death among children in North Carolina, 2016**



\* Other includes undetermined intent and unintentional firearm



## Introduction

Violence-related injuries are among the leading causes of death in the United States. In 2016, there were more than 45,000 suicides and 19,000 homicides nationwide, many of which were preventable. In North Carolina, more than 18,158 residents died from suicide or homicide in the ten-year period from 2007 to 2016. In that same period, suicide and homicide ranked as the state's 11<sup>th</sup> and 16<sup>th</sup> leading causes of death, respectively. Among specific age groups, violent death constitutes an even greater risk. In North Carolina in 2016, suicide was the third leading cause of death for young adults ages 15 to 19 and for adults ages 20 to 34. Suicide was the second leading cause of death for children ages 10 to 14 and the fourth leading cause of death for adults ages 35 to 54. Homicide was the state's fourth leading cause of death for children ages one to four, and second leading cause of death for young adults ages 15 to 24. In addition, violent death rates show disparities by sex, race and ethnicity. For males in North Carolina in 2016, suicide was the eighth leading cause of death, compared to the thirteenth leading cause among females. Homicide was the ninth leading cause of death in NH Blacks, and suicide was the tenth leading cause of death in NH whites in North Carolina in 2016. Among Hispanics in North Carolina, suicide and homicide were respectively the eighth and tenth leading causes of death in 2016.

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. Operated by the North Carolina Division of Public Health's Injury and Violence Prevention Branch, it provides 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 being developed by the National Center for Injury Prevention and Control at 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 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. Currently, all 50 states, the District of Columbia, and Puerto Rico submit 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, 2016, to December 31, 2016. The 2016 data file used for this report was generated in September 2018. Note that if changes are made to the 2016 data in NC-VDRS after this date, the 2016 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 2016. Violent deaths are captured by data abstractors using multiple, complementary data sources that include:

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

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

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

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

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

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

## Methods

### ***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 people 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, sex, race/ethnicity, years of completed education, marital status and North Carolina county.

The rate of violent death is calculated as the number of deaths during the specified time per 100,000 North Carolina residents in the same category (rate = [number of deaths x 100,000 / population]). Rates were calculated using bridged North Carolina population data (vintage 2016) from the National Center for Health Statistics. The numbers of the total North Carolina population and children by demographic characteristic are available in Appendix B. Unless otherwise stated, a child is a person under 18 years of age.

### Resident vs. Occurrent Deaths

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

- **Resident deaths** are those in which the victim was a North Carolina resident at the time of death, and the death occurred in North Carolina (N=2,173).
- **Occurrent deaths** capture all deaths that occur within North Carolina during the specified time, regardless of the residential status of the decedent (N=2,220).

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 (fewer 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 five deaths; however, rates for counts fewer 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.

## Methods

## 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 5NU17/CE002613-05. Its contents are solely the responsibility of the authors and do not necessarily represent official views of the CDC.

We thank and acknowledge the ongoing 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	Chatham County Sheriff's Office
Alamance County Sheriff's Office	Cherokee County Sheriff's Office
Albemarle Police Department	Cherokee Police Department
Alexander County Sheriff's Office	Cherryville Police Department
Alleghany County Sheriff's Office	Chowan County Sheriff's Office
Anson County Sheriff's Office	Clayton Police Department
Apex Police Department	Cleveland County Sheriff's Office
Archdale Police Department	Clinton Police Department
Ashe County Sheriff's Office	Columbus County Sheriff's Office
Asheboro Police Department	Concord Police Department
Asheville Police Department	Conway Police Department
Aurora Police Department	Cornelius Police Department
Avery County Sheriff's Office	Craven County Sheriff's Office
Beaufort County Sheriff's Office	Cumberland County Sheriff's Office
Beaufort Police Department	Currituck County Sheriff's Office
Belmont Police Department	Dallas Police Department
Benson Police Department	Davidson County Sheriff's Office
Black Mountain Police Department	Davidson Police Department
Bladen County Sheriff's Office	Davie County Sheriff's Office
Brevard Police Department	Duck Police Department
Brunswick County Sheriff's Office	Duplin County Sheriff's Office
Buncombe County Sheriff's Office	Durham County Sheriff's Office
Burgaw Police Department	Durham Police Department
Burke County Sheriff's Office	East Spencer Police Department
Burlington Police Department	Eden Police Department
Caldwell County Sheriff's Office	Edenton Police Department
Camden County Sheriff's Office	Edgecombe County Sheriff's Office
Canton Police Department	Elizabeth City Police Department
Cape Carteret Police Department	Elizabethtown Police Department
Carrboro Police Department	Elkin Police Department
Carteret County Sheriff's Office	Emerald Isle Police Department
Carthage Police Department	Enfield Police Department
Cary Police Department	Erwin Police Department
Caswell County Sheriff's Office	Farmville Police Department
Catawba County Sheriff's Office	Fayetteville Police Department
Chadbourn Police Department	Forest City Police Department
Chapel Hill Police Department	Forsyth County Sheriff's Office
Charlotte Mecklenburg Police Department	Four Oaks Police Department

## Acknowledgements

Franklin County Sheriff's Office  
Franklin Police Department  
Fuquay-Varina Police Department  
Garner Police Department  
Gaston Co Police Department  
Gastonia Police Department  
Gates County Sheriff's Office  
Goldsboro Police Department  
Graham County Sheriff's Office  
Graham Police Department  
Granville County Sheriff's Office  
Greene County Sheriff's Office  
Greensboro Police Department  
Greenville Police Department  
Guilford County Sheriff's Office  
Halifax County Sheriff's Office  
Hamlet Police Department  
Harnett County Sheriff's Office  
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Huntersville Police Department  
Iredell County Sheriff's Office  
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Jacksonville Police Department  
Johnston County Sheriff's Office  
Jonesville Police Department  
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Kinston Police Department  
Kitty Hawk Police Department  
Landis Police Department  
Laurinburg Police Department  
Lee County Sheriff's Office  
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Lenoir County Sheriff's Office  
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Lexington Police Department  
Lincoln County Sheriff's Office  
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Lumberton Police Department  
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Mount Holly Police Department  
Mount Olive Police Department  
Nags Head Police Department  
Nashville Police Department  
New Bern Police Department  
New Hanover County Sheriff's Office  
Newport Police Department  
Newton Police Department  
Northampton County Sheriff's Office  
Norwood Police Department  
Oak Island Police Department  
Onslow County Sheriff's Office  
Orange County Sheriff's Office  
Oriental Police Department  
Oxford Police Department  
Pamlico County Sheriff's Office  
Pasquotank County Sheriff's Office  
Pembroke Police Department  
Pender County Sheriff's Office  
Perquiman County Sheriff's Office  
Person County Sheriff's Office  
Pine Knoll Shores Police Department  
Pinebluff Police Department  
Pineville Police Department  
Pitt County Sheriff's Office  
Plymouth Police Department  
Polk County Sheriff's Office  
Raleigh Police Department  
Randolph County Sheriff's Office  
Reidsville Police Department  
Richlands Police Department  
Richmond County Sheriff's Office  
Roanoke Rapids Police Department

## Acknowledgements

Robeson County Sheriff's Office  
Rockingham County Sheriff's Office  
Rocky Mount Police Department  
Rolesville Police Department  
Rowan County Sheriff's Office  
Roxboro Police Department  
Rutherford County Sheriff's Office  
Rutherfordton Police Department  
Salisbury Police Department  
Sampson County Sheriff's Office  
Sanford Police Department  
Scotland County Sheriff's Office  
Selma Police Department  
Shalotte Police Department  
Sharpsburg Police Department  
Shelby Police Department  
Siler City Police Department  
Smithfield Police Department  
Southern Pines Police Department  
Southern Shores Police Department  
Sparta Police Department  
Spindale Police Department  
Spring Lake Police Department  
St Pauls Police Department  
Stallings Police Department  
Stanly County Sheriff's Office  
Statesville Police Department  
Stokes County Sheriff's Office  
Stokes County Sheriff's Office  
Surf City Police Department  
Surry County Sheriff's Office

Swain County Sheriff's Office  
Tarboro Police Department  
Thomasville Police Department  
Transylvania County Sheriff's Office  
Trent Woods Police Department  
Tyrrell County Sheriff's Office  
Union County Sheriff's Office  
Vance County Sheriff's Office  
Wadesboro Police Department  
Wake County Sheriff's Office  
Wake Forest Police Department  
Wallace Police Department  
Warren County Sheriff's Office  
Warrenton Police Department  
Washington Police Department  
Watauga County Sheriff's Office  
Waxhaw Police Department  
Wayne County Sheriff's Office  
Waynesville Police Department  
Wilkes County Sheriff's Office  
Wilkesboro Police Department  
Williamston Police Department  
Wilmington Police Department  
Wilson County Sheriff's Office  
Wilson Police Department  
Wilson's Mills Police Department  
Winston Salem Police Department  
Winterville Police Department  
Yadkin County Sheriff's Office  
Yancey County Sheriff's Office

NC-VDRS is fortunate to have a dedicated and professional staff. Program Manager Tammy Norwood oversees all operational aspects of the NC-VDRS and is chiefly responsible for data quality and program integrity. Data abstractors, Susan Autry and Devon Weaver, spent many 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.

During 2016 and the period of the data close-out (2016-2018), 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 violent death victims in North Carolina in 2016 by demographic characteristics of sex, race/ethnicity and age. The 2016 overall rate of violent deaths per 100,000 people in North Carolina is displayed in **Figure 1** by sex and race/ethnicity and in **Figure 2** by age group.

### Key Findings:

- A total of 2,173 North Carolinians (21.4 per 100,000) died as a result of violence in 2016.
- Males were 3.1 times as likely to die from violence as females (32.9 versus 10.5 per 100,000, respectively).
- Non-Hispanic (NH) American Indians had the highest violent death rate per 100,000 (29.6) followed by NH blacks (23.9), NH whites (22.6), NH Asians (11.0), and Hispanics (8.6).
- Adults ages 20 to 24 years had the highest violent death rate per 100,000 (31.9), followed by adults ages: 25-34 (29.3), 35 to 44 (28.9), 45 to 54 (25.6) and 55 to 64 (25.4).
- Among children under the age of 15, children less than one year had the highest violent death rate (7.4 per 100,000).

**Table 2** lists the manner and method of violent deaths in North Carolina in 2016. N.C. violent deaths in 2016 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 (62.7%) and homicide (32.8%).
- The leading methods of violent death were firearm (63.4%), hanging, strangulation or suffocation (14.0%) and poisoning (12.2%).
- The most common firearm involved in violent firearm deaths was a handgun (76.3%).

**Table 4** characterizes adult violent death victims (18 years or older) in North Carolina in 2016 by the number of years of completed education, marital status and veteran status.

### Key Findings:

- Most adult victims completed high school (78.0%); 39.6 percent completed at least some college.
- Almost one-third of adult violent death victims were married, in a civil union, or a domestic partnership (30.1%). Over one-third were never married (40.0%). Fewer victims were divorced (19.2%) or widowed (4.9%).
- Military veterans accounted for 14.3 percent of North Carolina adult violent death victims in 2016.

**Table 5** and **Figure 5** show the overall violent death rates in 2016 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 19 counties was too small to support a rate calculation (greater than zero, but less than 5).



## Section I

### Key Findings:

- For the 82 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 24.5 deaths per 100,000 with a range from 0.0 to 50.4 deaths per 100,000.

**Table 1: Demographics of violent death victims in North Carolina, 2016**

	Number	%	Rate	95% CI
<b>Sex</b>				
Female	549	25.3	10.5	9.6 - 11.4
Male	1,624	74.7	32.9	31.3 - 34.5
<b>Race/Ethnicity</b>				
White**	1,475	67.9	22.6	21.4 - 23.7
Black**	536	24.7	23.9	21.9 - 25.9
Asian**	36	1.7	29.6	19.9 - 39.3
American Indian**	34	1.6	11.0	7.3 - 14.7
Hispanic	80	3.7	8.6	6.7 - 10.5
Unknown	12	0.6	--	--
<b>Age Group (Years)</b>				
< 1	9	0.7	7.4	2.6 - 12.3
1-4	15	0.3	3.1	1.5 - 4.7
5-9	6	1.0	0.9	0.2 - 1.7
10-14	21	6.0	3.2	1.8 - 4.6
15 - 19	131	10.2	19.6	16.2 - 22.9
20 - 24	222	18.0	31.9	27.7 - 36.1
25 - 34	391	17.2	29.3	26.4 - 32.2
35 - 44	373	16.3	28.9	26.0 - 31.8
45 - 54	355	15.2	25.6	23.0 - 28.3
55 - 64	330	8.3	25.4	22.6 - 28.1
65 - 74	181	4.6	19.2	16.4 - 22.0
75 - 84	99	1.8	22.0	17.7 - 26.3
85 +	40	100.0	22.5	15.5 - 29.5
<b>Total Deaths</b>	<b>2,173</b>	<b>100</b>	<b>21.4</b>	<b>20.5 - 22.3</b>

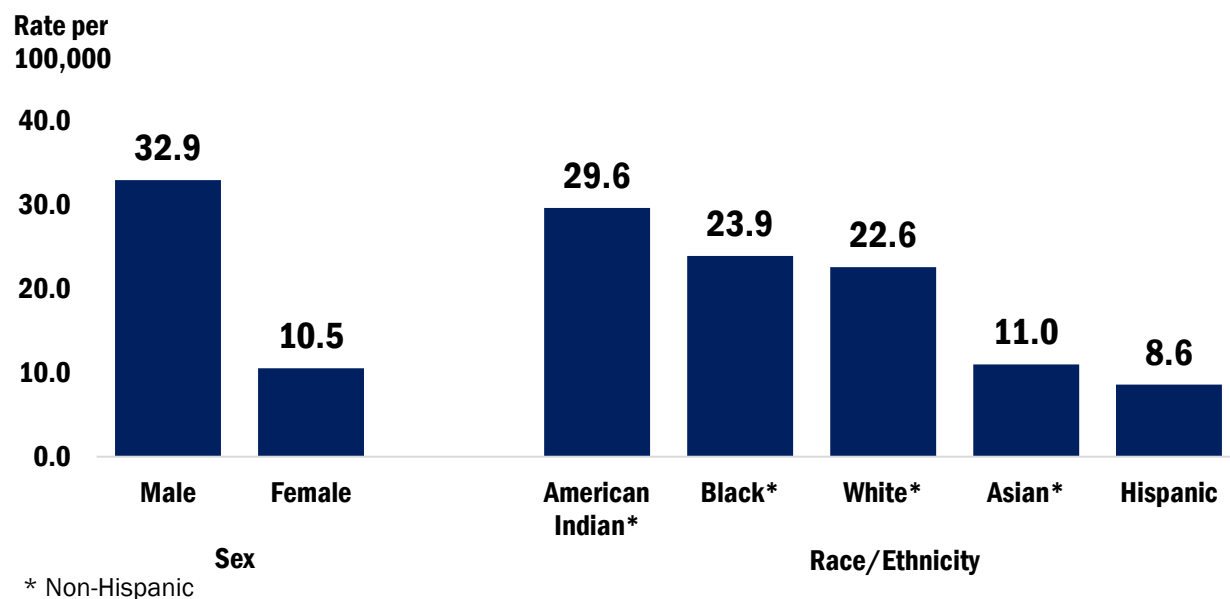
Sex, race/ethnicity and age-specific crude rates per 100,000 N.C. population

95% CI = 95 Percent Confidence Interval for the Rate

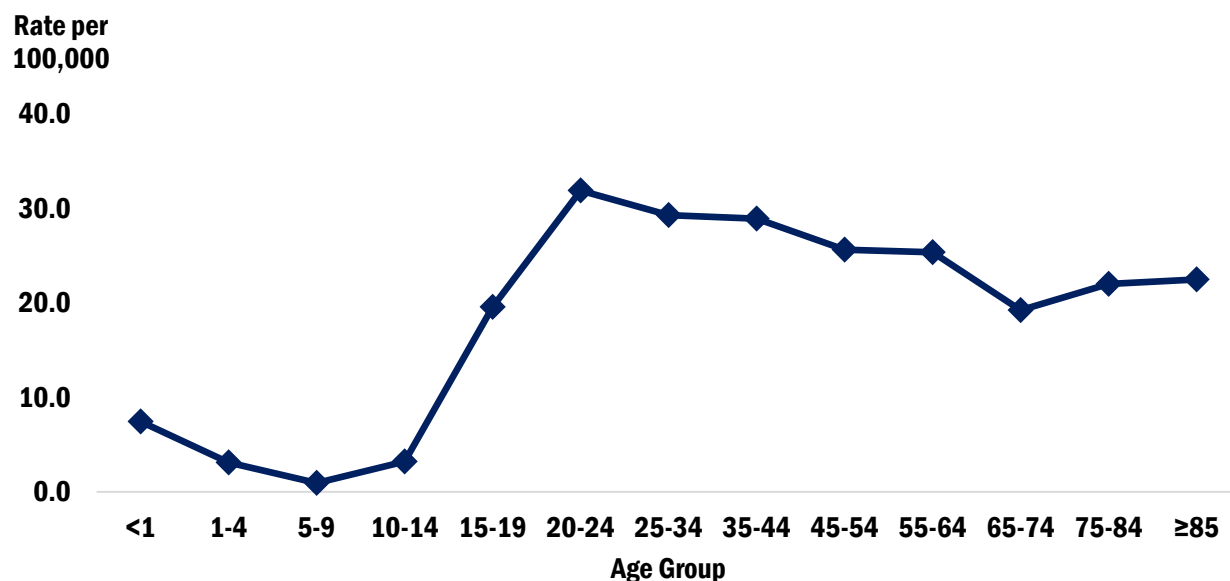
\* The number of deaths was too small to support the calculation of a rate.

\*\* Non-Hispanic

**Figure 1: Crude overall violent death rates by sex and race/ethnicity in North Carolina, 2016**



**Figure 2: Age-specific crude overall violent death rates by age group in North Carolina, 2016**



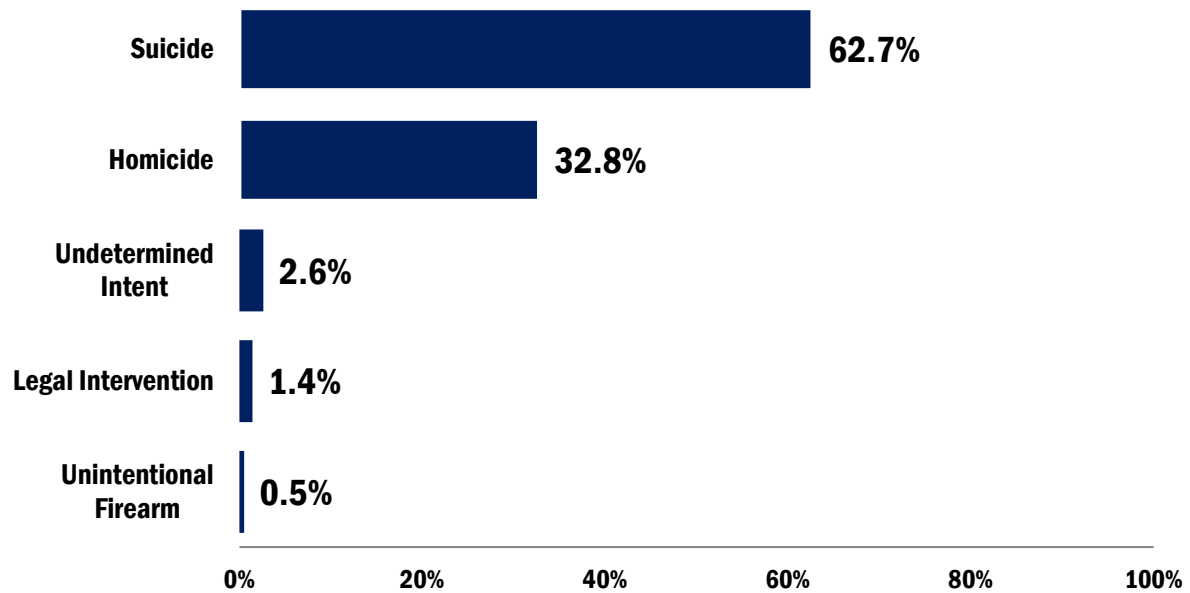
**Note:** The number of violent deaths for all ages was high enough to support the calculation of a rate.

## Section I

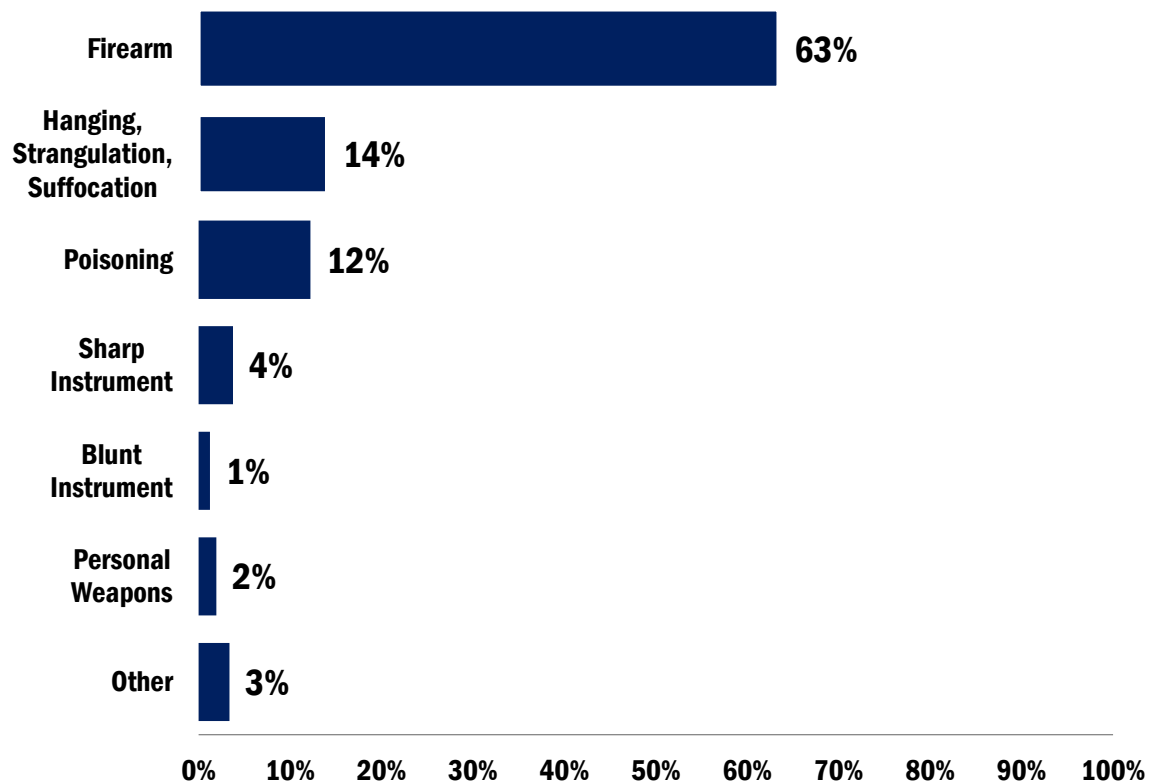
**Table 2: Manner and method of violent death in North Carolina, 2016**

	Number	%
<b>Manner of Death</b>		
Suicide	1,362	62.7
Homicide	712	32.8
Undetermined Intent	57	2.6
Legal Intervention	31	1.4
Unintentional Firearm	11	0.5
<b>Method of Death</b>		
Firearm	1,378	63.4
Hanging, Strangulation, Suffocation	305	14.0
Poisoning	266	12.2
Sharp Instrument	82	3.8
Blunt Instrument	27	1.2
Personal Weapons	42	1.9
Fall	17	0.8
Motor Vehicle	16	0.7
Fire or Burns	10	0.5
Other Transport Vehicle	7	0.3
Drowning	12	0.6
Intentional Neglect	2	0.1
Violent Shaking	0	0.0
Other/Unknown	9	0.4
<b>Total Deaths</b>	<b>2,173</b>	<b>100</b>

**Figure 3: Manner of violent death in North Carolina, 2016**



**Figure 4: Method of violent death in North Carolina, 2016**



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

## Section I

**Table 3: Type of firearm involved in violent firearm deaths in North Carolina, 2016**

	Number	%
<b>Firearm Type</b>		
Handgun	1,058	76.3
Shotgun	151	10.9
Rifle	104	7.5
Unknown Type	73	5.3
<b>Total Firearms Involved, All Violent Deaths</b>	<b>1,386</b>	<b>100</b>

\*Multiple firearm types were reported for 12 violent deaths in 2016; therefore, the total number of firearms exceeds the number of violent firearm deaths (n=1374).

**Table 4: Completed education, marital status and veteran status of adult violent death victims (ages 18 or older) in North Carolina, 2016**

	Number	%
<b>Education Level</b>		
8th Grade or Less	88	4.3
9th - 12th Grade	353	17.0
High school or GED graduate	795	38.4
Some college credit	331	16.0
Associates degree	187	9.0
Bachelor's degree	207	10.0
Master's degree	66	3.2
Doctorate degree	29	1.4
Unknown	15	0.7
<b>Marital Status</b>		
Never Married	829	40.0
Married*	624	30.1
Divorced	398	19.2
Widowed	102	4.9
Married, but separated	100	4.8
Unknown	18	0.9
<b>Veteran Status</b>		
Non-Veteran	1,742	84.1
Veteran	296	14.3
Unknown	33	1.6
<b>Total Adult Deaths (ages 18 or older)</b>	<b>2,071</b>	<b>100</b>

\*Married includes: married, in a civil union or a domestic partnership

**Table 5: Overall violent deaths by county of residence in North Carolina, 2016**

County	Number	Rate	County	Number	Rate	County	Number	Rate
Alamance	41	25.7	Franklin	11	17.0	Pamlico	4	*
<b>Alexander</b>	14	37.4	Gaston	55	25.3	Pasquotank	11	27.6
Alleghany	1	*	Gates	0	0.0	Pender	17	28.8
Anson	7	27.5	Graham	1	*	Perquimans	2	*
Ashe	7	26.0	Granville	8	13.6	Person	9	22.9
Avery	2	*	Greene	6	28.3	Pitt	28	15.8
Beaufort	12	25.2	Guilford	108	20.7	<b>Polk</b>	9	44.3
<b>Bertie</b>	10	50.4	Halifax	9	17.4	Randolph	30	20.9
<b>Bladen</b>	11	32.6	Harnett	25	19.1	<b>Richmond</b>	15	33.4
Brunswick	24	18.9	Haywood	17	28.0	<b>Robeson</b>	47	35.3
Buncombe	61	23.8	Henderson	16	14.0	Rockingham	24	26.3
<b>Burke</b>	28	31.5	<b>Hertford</b>	10	41.4	<b>Rowan</b>	46	32.9
Cabarrus	24	11.9	Hoke	12	22.5	Rutherford	14	21.1
<b>Caldwell</b>	25	30.7	Hyde	0	0.0	Sampson	9	14.3
<b>Camden</b>	5	48.0	Iredell	45	26.0	Scotland	10	28.4
Carteret	19	27.6	Jackson	11	26.0	Stanly	11	18.1
Caswell	5	21.8	Johnston	32	16.7	<b>Stokes</b>	15	32.5
Catawba	43	27.5	Jones	0	0.0	<b>Surry</b>	24	33.3
Chatham	13	18.0	Lee	18	30.2	Swain	3	*
Cherokee	4	*	Lenoir	15	26.2	<b>Transylvania</b>	12	35.8
Chowan	4	*	Lincoln	19	23.4	Tyrrell	0	0.0
Clay	1	*	McDowell	13	28.8	Union	39	17.2
<b>Cleveland</b>	30	30.9	Macon	9	26.2	<b>Vance</b>	17	38.4
Columbus	17	30.1	Madison	4	*	Wake	136	13.0
Craven	19	18.4	<b>Martin</b>	7	30.2	Warren	5	25.1
Cumberland	90	27.5	Mecklenburg	190	18.0	Washington	1	*
Currituck	3	*	<b>Mitchell</b>	6	39.7	Watauga	4	*
Dare	5	13.9	<b>Montgomery</b>	9	32.8	Wayne	29	23.4
Davidson	36	21.8	Moore	21	21.9	Wilkes	15	21.8
Davie	12	28.6	Nash	21	22.3	Wilson	17	20.8
Duplin	11	18.7	New Hanover	46	20.6	Yadkin	4	*
Durham	68	22.2	<b>Northampton</b>	7	35.0	Yancey	5	28.3
Edgecombe	12	22.5	Onslow	49	26.2			
Forsyth	77	20.7	Orange	19	13.4			

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

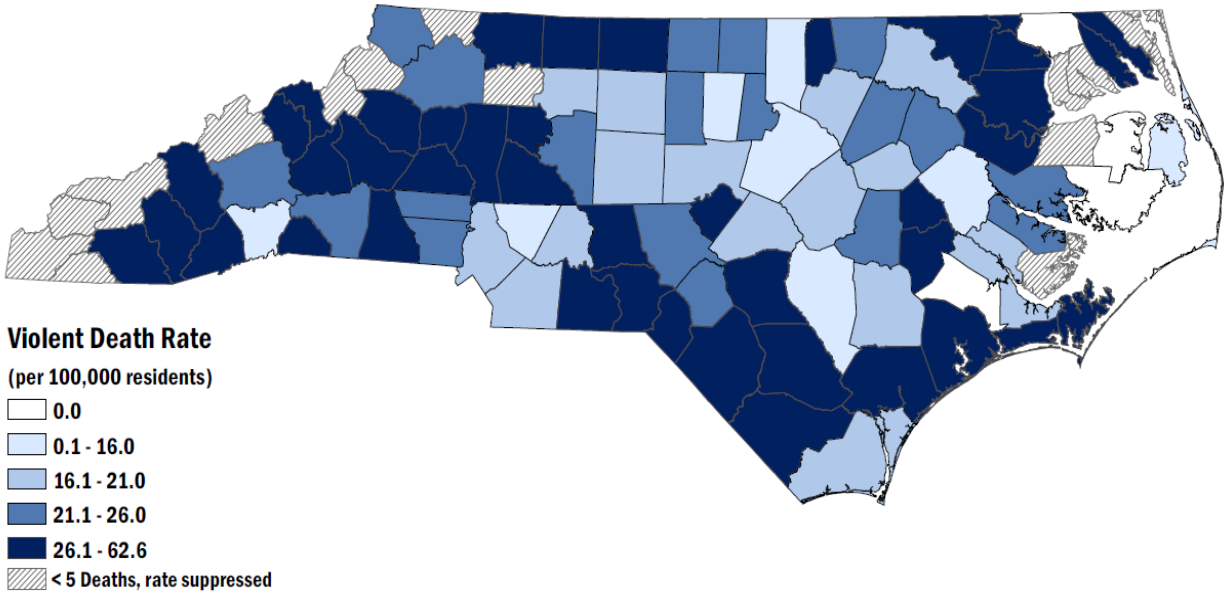
\* The number of deaths was too small to support calculation of a rate.

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

## Section I

**Figure 5: Map of overall violent death rates in North Carolina by county of residence**

North Carolina 2016 violent death rate: 21.4 deaths per 100,000 residents



## ***Race/Ethnicity and Sex of Violent Death Victims***

**Table 6** and **Figure 6** summarize the characteristics of violent death victims in North Carolina in 2016 stratified by race/ethnicity and sex.

### **Key Findings:**

- NH whites (67.9%) and males (74.7%) represented the majority of violent death victims, as shown in Table 1.
- NH whites accounted for 64.8 percent of male violent death victims and 76.9 percent of female victims, while NH blacks comprised 27.3 percent of male victims and 16.8 percent of female victims.
- Among males, NH American Indian men had the highest violent death rate per 100,000 (46.2) followed by NH black men (42.3), NH white men (33.0), NH Asian men (17.4), and Hispanic men (14.6).
- Among females, NH American Indian women had the highest violent death rate per 100,000 (14.2), followed by NH white (12.6), NH black women (7.7), NH Asian women (5.0), and Hispanic women (3.1).
- The violent death rate was higher for males than for females of the same race/ethnicity by 5.5 times for NH blacks, 2.6 times for NH whites, 4.4 for Hispanics, and 3.2 for NH Asians.

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

**Table 7** stratifies the North Carolina violent death victims in 2016 by age group and sex. **Figure 7** illustrates the 2016 rate of violent deaths per 100,000 in North Carolina by age group and sex.

### **Key Findings:**

- Most male violent death victims were ages 25 to 34 (19.1%) and 35 to 44 (16.9%) years-old followed by males ages 45 to 54 (15.3%), 55 to 64 (14.7%), 20 to 24 (11.1%), 65 to 74 (8.0%), and 15 to 19 (6.5%).
- Among females, most violent death victims were ages 45 to 54 (19.5%) years old followed by females ages 35 to 44 (18.0%), 55 to 64 (16.8%), 25 to 34 (14.8%), 65 to 74 (9.3%), and 20 to 24 (7.7%).
- Among men, the violent death rate per 100,000 by age group was highest for ages 85 and older (54.5) followed by ages 25 to 34 years (48.7) and 20 to 24 (47.9).
- For women, the violent death rate trend by age reached a peak of 15.3 per 100,000 for ages 45 to 54 followed by ages 35 to 44 years (14.9) and 55 to 64 (14.1).
- Males were more likely to experience violent death than females by 4.8 times for ages 75 to 84, 3.9 times for ages 20 to 24, 3.9 times for ages 25 to 34, and 3.0 times for ages 65 to 74.



## Section I

**Table 6: Race/ethnicity of violent death victims in North Carolina by sex, 2016**

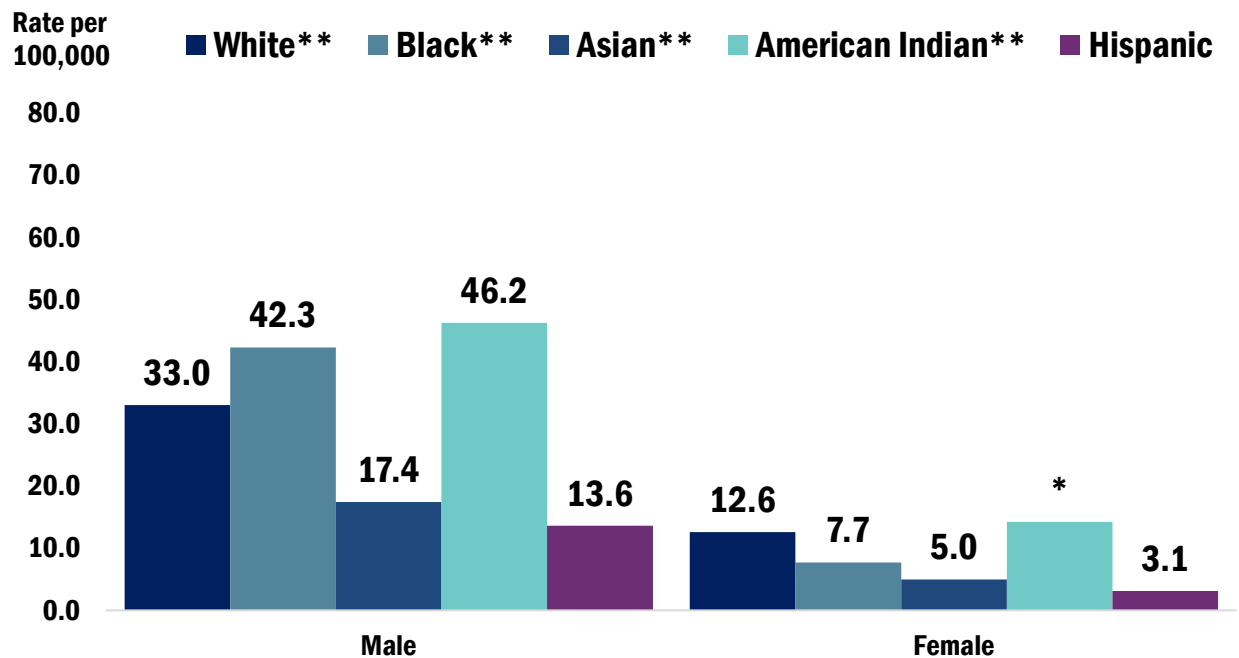
Race/Ethnicity	Male			Female		
	Number	%	Rate	Number	%	Rate
White**	1,053	64.8	33.0	422	76.9	12.6
Black**	444	27.3	42.3	92	16.8	7.7
Asian**	26	1.6	17.4	8	1.5	5.0
American Indian**	27	1.7	46.2	9	1.6	14.2
Hispanic	66	4.1	13.6	14	2.6	3.1
Other/Unknown	8	0.5	-	4	0.7	-
<b>Total Deaths</b>	<b>1,624</b>	<b>100</b>	<b>32.9</b>	<b>549</b>	<b>100</b>	<b>10.5</b>

Sex and race/ethnicity-specific crude rate per 100,000 N.C. population

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

\*\* Non-Hispanic

**Figure 6: Crude overall violent death rates in North Carolina, stratified by race/ethnicity and sex, 2016**



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

\*\* Non-Hispanic (NH)

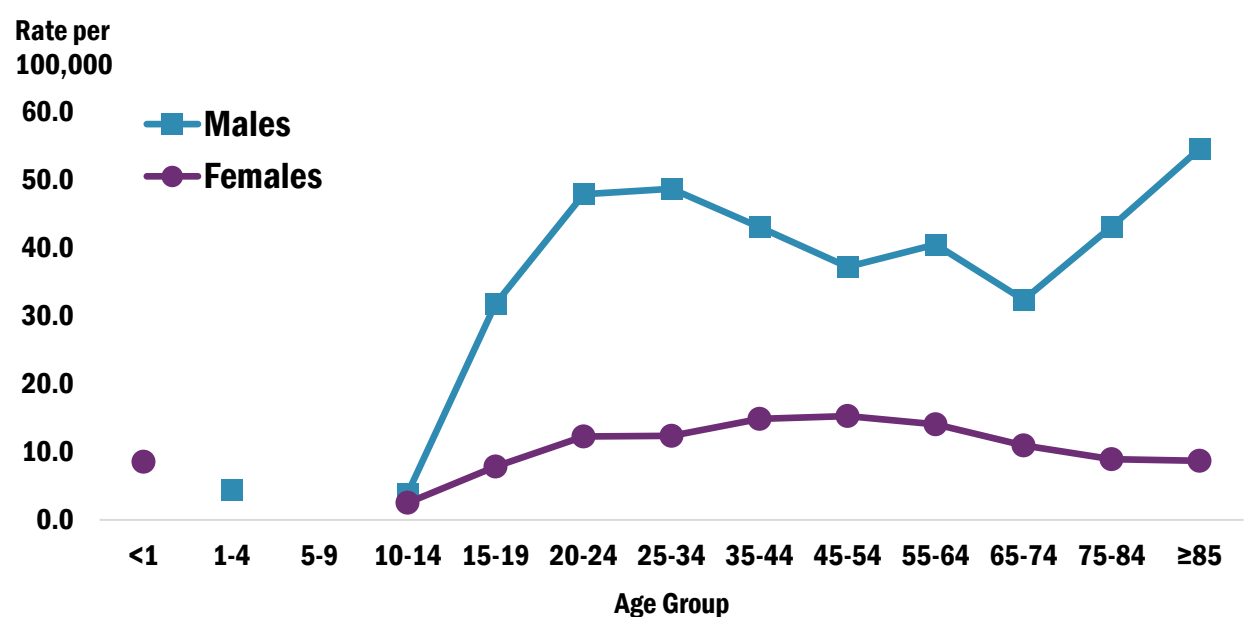
The rate for NH Asian males was based on fewer than 20 deaths; rates for NH Asian females were based on fewer than 10 deaths. These rates should be interpreted with extreme caution when making comparisons or assessing trends over time.

**Table 7: Age group of violent death victims in North Carolina by sex, 2016**

Age Group (years)	Male			Female		
	Number	%	Rate	Number	%	Rate
<1	4	0.2	*	5	0.9	8.5
1-4	11	0.7	4.4	4	0.7	*
5-9	3	0.2	*	3	0.5	*
10-14	13	0.8	3.9	8	1.5	2.5
15-19	106	6.5	31.8	25	4.6	7.8
20-24	180	11.1	47.9	42	7.7	12.3
25-34	310	19.1	48.7	81	14.8	12.4
35-44	274	16.9	43.0	99	18.0	14.9
45-54	248	15.3	37.2	107	19.5	15.3
55-64	238	14.7	40.5	92	16.8	14.1
65-74	130	8.0	32.4	51	9.3	10.9
75-84	77	4.7	43.1	22	4.0	8.9
≥85	30	1.8	54.5	10	1.8	8.7
<b>Total Deaths</b>	<b>1,624</b>	<b>100</b>	<b>33.5</b>	<b>549</b>	<b>100</b>	<b>10.8</b>

Sex 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 rates in North Carolina, stratified by age group and sex, 2016**

**Note:** The number of deaths was too small to support a rate calculation for some groups.

## Section II

### Section II: Suicide

#### **Basic Characteristics of Suicides**

**Table 8** describes suicides in 2016 for North Carolinians ages 10 or older by demographic characteristics of sex, race/ethnicity, and age. The rate of suicide in North Carolina per 100,000 population in 2016 is illustrated by race/ethnicity and sex in **Figure 8** and by age group in **Figure 9**.

##### **Key Findings:**

- In 2016, a total of 1,362 North Carolinians (15.3 per 100,000) died from suicide.
- Males were 3.1 times as likely to die from suicide as females (23.5 vs. 7.7 per 100,000).
- NH whites had the highest suicide rate (20.0 per 100,000) followed NH American Indians (11.4 per 100,000), NH Asians (8.7 per 100,000), Hispanics (6.3 per 100,000), and by NH blacks (5.2 per 100,000),
- Adults ages 55 to 64 had the highest rate of suicide (19.3 per 100,000) followed by those ages 45 to 54 (18.4 per 100,000), and 75 to 84/84 and older (each 18.0 per 100,000).

**Table 9** and **Figure 10** summarize the method of death for suicide victims in North Carolina in 2016. **Table 10** shows the type of firearm used for suicide firearm deaths and **Table 11** lists the categories of substances that caused suicide poisoning deaths.

##### **Key Findings:**

- The leading methods of suicide were firearm (58.0%), hanging, strangulation or suffocation (20.9%), and poisoning (16.4%).
- Men more often died from suicide by a firearm (64.6%) or hanging, strangulation or suffocation (22.3%) and less frequently died from suicide by poisoning (8.5%).
- Women more commonly died from suicide by poisoning (38.7%) or firearm (39.3%) compared to hanging, strangulation or suffocation (16.7%).
- Considering only suicide firearm deaths, a handgun was the most common firearm used in 76.7 percent of all deaths, 74.5 percent of male deaths and 87.1 percent of female deaths.
- Most suicide poisoning deaths (38.6%) involved opiates (either illicit or prescription). The second most common substance was antidepressants (38.1%), followed by benzodiazepines (26.0%) and carbon monoxide (9.9%).

**Table 12** characterizes the 1,315 adult suicide victims (age 18 or older) in North Carolina in 2016 by education level, marital status and veteran status.

##### **Key Findings:**

- The majority (84.9%) of adult suicide victims graduated high school or received their GED.
- Suicide victims were most often married, in a civil union or domestic partnership (36.1%) and less frequently never married (29.6%), divorced (21.8%), or widowed (5.9%).
- Military veterans accounted for 17.6 percent of adult suicide victims.

**Table 13** and **Figure 11** show the suicide rates in 2016 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 23 counties was too small to support a rate calculation. Furthermore, county suicide rates are influenced by small populations with 12 of the 20 counties with the highest suicide rates having less than 50,000 residents in 2016.

**Key Findings:**

- For the 77 counties where the number of suicides was sufficient to support a rate calculation, the average suicide rate by North Carolina county of residence was 17.9 deaths per 100,000 with a range from 0.0 to 61.1 deaths per 100,000.

**Table 8: Demographics of suicide victims (ages 10 or older) in North Carolina, 2016**

	Number	%	Rate	95% CI
<b>Sex</b>				
Female	354	26.0	7.7	6.9 - 8.5
Male	1,008	74.0	23.5	22.0 - 24.9
<b>Race/Ethnicity</b>				
White*	1,173	86.1	20.0	18.8 - 21.1
Black*	101	7.4	5.2	4.2 - 6.2
Asian*	23	1.7	8.7	5.1 - 12.3
American Indian*	12	0.9	11.4	4.9 - 17.8
Hispanic	45	3.3	6.3	4.4 - 8.1
<b>Age Group (Years)</b>				
10-14	17	1.25	2.6	1.4 - 3.8
15 - 19	61	4.48	9.1	6.8 - 11.4
20 - 24	107	7.86	15.4	12.5 - 18.3
25 - 34	189	13.88	14.2	12.1 - 16.2
35 - 44	227	16.67	17.6	15.3 - 19.9
45 - 54	255	18.72	18.4	16.1 - 20.7
55 - 64	251	18.43	19.3	16.9 - 21.7
65 - 74	142	10.43	15.1	12.6 - 17.6
75 - 84	81	5.95	18.0	14.1 - 21.9
≥85	32	2.35	18.0	11.8 - 24.2
<b>Total Deaths</b>	<b>1,362</b>	<b>100</b>	<b>15.3</b>	<b>14.5 - 16.1</b>

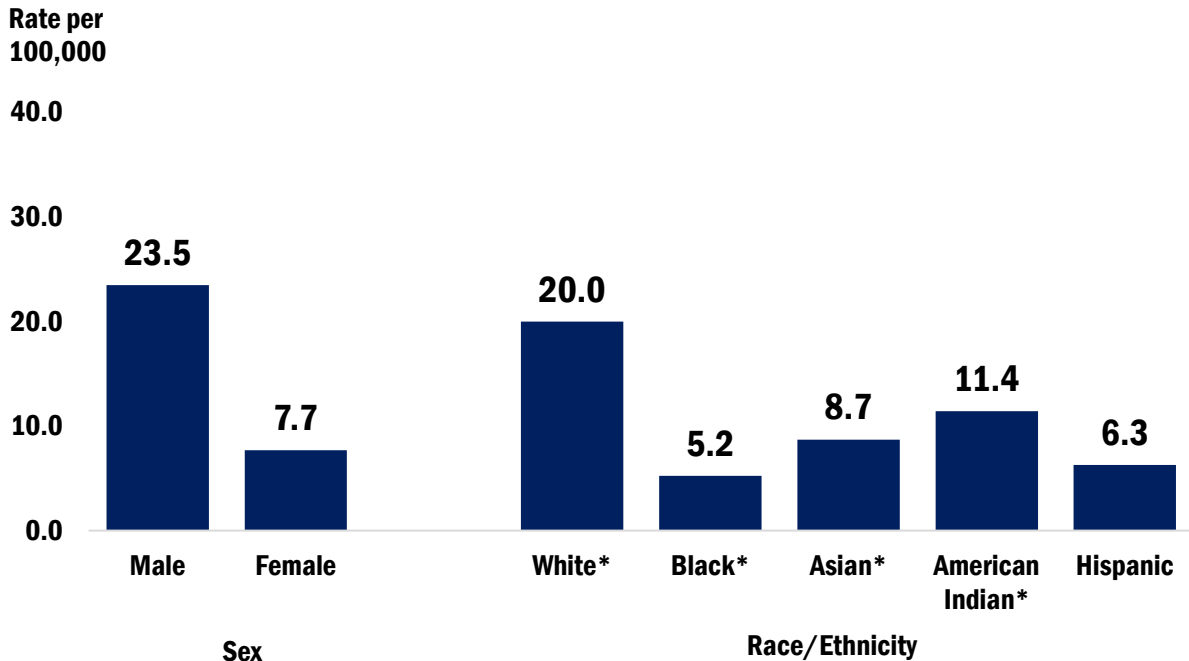
Sex, race/ethnicity and age-specific crude rates per 100,000 N.C. population

95% CI = 95 percent confidence interval for the rate.

\* Non-Hispanic

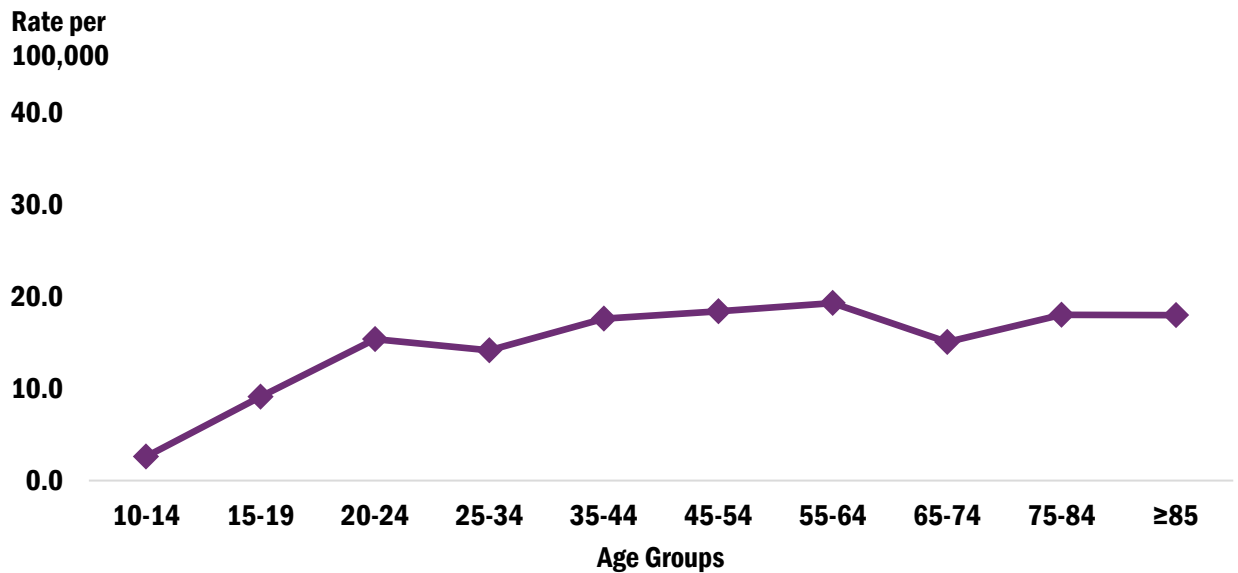
## Section II

**Figure 8: Crude suicide rates (ages 10 or older) in North Carolina by sex and race/ethnicity, 2016**



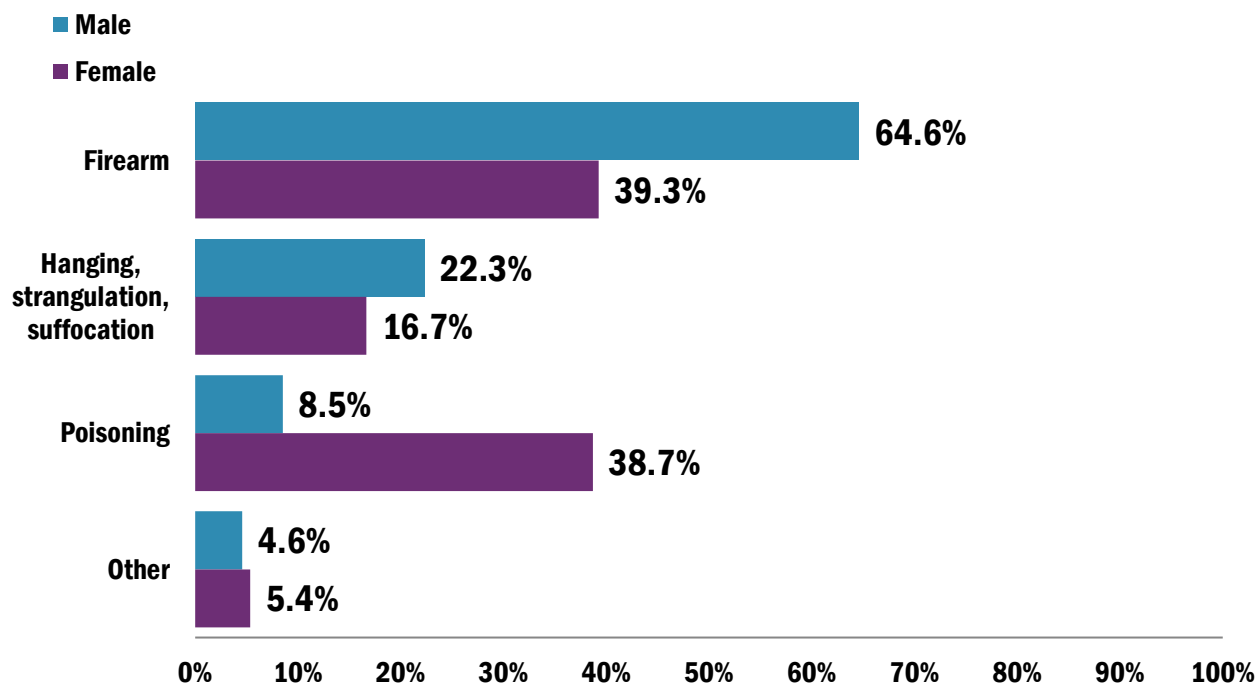
\* Non-Hispanic

**Figure 9: Age-specific crude suicide rate (ages 10 or older) in North Carolina by age group, 2016**



**Table 9: Method of death for suicide victims (ages 10 or older) in North Carolina by sex, 2016**

Method of Death	Male		Female		Total	
	Number	%	Number	%	Number	%
Firearm	651	64.6	139	39.3	790	58.0
Hanging, strangulation, suffocation	225	22.3	59	16.7	284	20.9
Poisoning	86	8.5	137	38.7	223	16.4
Sharp instrument	16	1.6	2	0.6	18	1.3
Fall	13	1.3	4	1.1	17	1.2
Drowning	4	0.4	4	1.1	8	0.6
Motor vehicle including buses, motorcycles	6	0.6	4	1.1	10	0.7
Fire or burns	2	0.2	2	0.6	4	0.3
Other	5	0.5	3	0.8	8	0.6
<b>Total Deaths</b>	<b>1,008</b>	<b>100</b>	<b>354</b>	<b>100</b>	<b>1,362</b>	<b>100</b>

**Figure 10: Method of death for suicide victims (ages 10 or older) in North Carolina by sex, 2016**

\* Other includes: drowning, fall, sharp instrument, motor vehicle, other transport vehicle, fire or burns, non-powder gun, other, and unknown.

## Section II

**Table 10: Type of firearm involved in suicide firearm deaths (ages 10 or older) in North Carolina by sex, 2016**

Firearm Type*	Male		Female		Total	
	Number	%	Number	%	Number	%
Handgun	485	74.5	121	87.05	606	76.71
Shotgun	98	15.05	13	9.35	111	14.05
Rifle	63	9.68	5	3.6	68	8.61
Other/Unknown	5	0.77	0	0	5	0.63
<b>Total Firearms Involved in Suicides</b>	<b>651</b>	<b>100</b>	<b>139</b>	<b>100</b>	<b>790</b>	<b>100</b>

\*There were zero suicides in 2016 where multiple firearm types were reported; therefore, the total number of firearms are equal the number of suicide firearm deaths (n=790).

**Table 11: Fatal substances in suicide poisoning deaths (ages 10 or older) in North Carolina by sex, 2016**

Category of Fatal Substance*	Male		Female		Total	
	Number	%	Number	%	Number	%
Opiate**	24	27.9	62	45.6	86	38.6
Antidepressant	24	27.9	61	44.5	85	38.1
Benzodiazepines	17	19.8	41	29.9	58	26.0
Barbiturates	0	0.0	1	0.7	1	0.5
Carbon Monoxide	15	17.4	7	5.1	22	9.9
Alcohol	8	9.3	8	5.8	16	7.2
Amphetamine	2	2.3	3	2.2	5	2.2
Cocaine	4	4.7	5	3.7	9	4.0
Other Poison***	33	38.4	44	32.1	77	34.5

\* Category of substance that directly caused or was suspected to cause suicide poisoning. There were 94 suicide poisonings (41.7%) where more than one substance caused the death in 2016, with as many as six fatal substances present in a given case (<1%).

\*\* Opiate includes both prescription opioids and illicit substances such as heroin.

\*\*\* Other poison includes substances that did not fall into any of the summary categories

**Table 12: Completed education, marital status and veteran status of adult suicide victims (ages 18 or older) in North Carolina, 2016**

	Number	%
<b>Education Level</b>		
8th Grade or Less	51	3.9
9th – 12th Grade	147	11.2
High school or GED graduate	472	35.9
Some college credit	236	18.0
Associates degree	149	11.3
Bachelor’s degree	164	12.5
Master’s degree	56	4.3
Doctorate degree	28	2.1
Unknown	12	0.9
<b>Marital Status</b>		
Never Married	389	29.6
Married*	474	36.1
Divorced	286	21.8
Married, but Separated	75	5.7
Widowed	77	5.9
Unknown	14	1.1
<b>Veteran Status</b>		
Non-Veteran	1,061	80.7
Veteran	232	17.6
Unknown	22	1.7
<b>Total Adult Deaths (ages 18 or older)</b>	<b>1,315</b>	<b>100</b>

\* Married includes: married, civil union, or domestic partnership.



## Section II

**Table 13: Suicides (ages 10 or older) in North Carolina by county of residence, 2016**

County	Number	Rate	County	Number	Rate	County	Number	Rate
Alamance	26	25.7	Franklin	7	12.2	Pamlico	4	*
<b>Alexander</b>	10	37.4	Gaston	34	17.9	<b>Pasquotank</b>	8	22.9
Alleghany	1	*	Gates	0	0.0	<b>Pender</b>	16	30.7
Anson	3	27.5	Graham	1	*	Perquimans	1	*
<b>Ashe</b>	7	26.0	Granville	7	13.3	Person	5	14.3
Avery	2	*	<b>Greene</b>	5	26.7	Pitt	12	7.7
Beaufort	9	25.2	Guilford	60	13.1	<b>Polk</b>	9	48.2
Bertie	2	50.4	Halifax	4	*	Randolph	26	20.6
Bladen	3	32.6	Harnett	12	10.8	<b>Richmond</b>	9	22.9
Brunswick	15	18.9	Haywood	12	21.9	Robeson	10	8.7
Buncombe	46	23.8	Henderson	13	12.7	Rockingham	13	16.0
<b>Burke</b>	23	31.5	<b>Hertford</b>	5	23.1	Rowan	27	21.9
Cabarrus	19	11.9	Hoke	8	18.1	Rutherford	9	15.2
<b>Caldwell</b>	17	30.7	Hyde	0	0.0	Sampson	5	9.1
Camden	4	48.0	Iredell	33	21.7	Scotland	4	*
<b>Carteret</b>	18	27.6	<b>Jackson</b>	10	26.1	Stanly	8	14.9
Caswell	2	21.8	Johnston	25	15.1	<b>Stokes</b>	13	31.3
<b>Catawba</b>	31	27.5	Jones	0	0.0	<b>Surry</b>	17	26.5
Chatham	11	18.0	Lee	9	17.4	Swain	2	*
Cherokee	4	*	Lenoir	5	9.9	<b>Transylvania</b>	12	39.2
Chowan	2	*	Lincoln	16	22.2	Tyrrell	0	0.0
Clay	1	*	McDowell	7	17.4	Union	29	14.8
Cleveland	19	30.9	<b>Macon</b>	7	22.7	Vance	5	13.0
Columbus	9	30.1	Madison	3	*	Wake	95	10.5
Craven	12	18.4	Martin	4	*	Warren	2	*
Cumberland	48	27.5	Mecklenburg	107	11.7	Washington	0	0.0
Currituck	3	*	<b>Mitchell</b>	5	36.6	Watauga	3	*
Dare	5	13.9	Montgomery	5	20.7	Wayne	12	11.1
Davidson	30	21.8	Moore	14	16.5	Wilkes	10	16.3
<b>Davie</b>	11	28.6	Nash	12	14.5	Wilson	7	9.8
Duplin	5	18.7	New Hanover	33	16.5	Yadkin	3	*
Durham	22	22.2	Northampton	1	*	<b>Yancey</b>	5	31.3
Edgecombe	5	22.5	Onslow	34	21.7			
Forsyth	43	20.7	Orange	15	11.8			

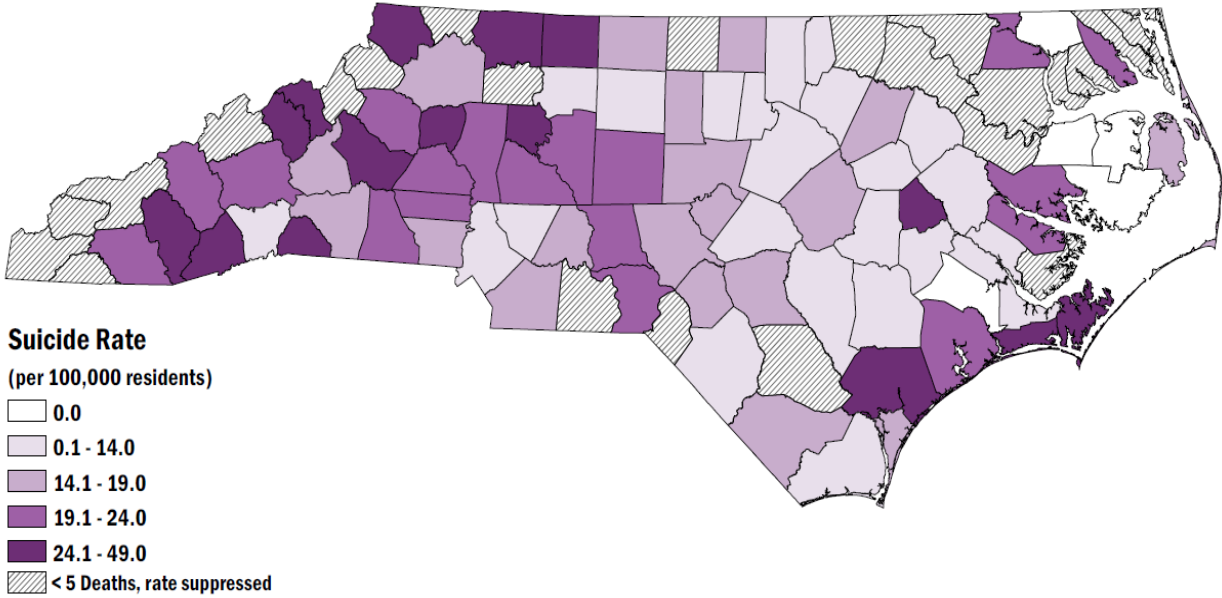
Crude rate per 100,000 population in N.C. county

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

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

**Figure 11: Map of suicide rates (ages 10 or older) in North Carolina by county of residence, 2016**

North Carolina 2016 suicide rate: 15.3 deaths per 100,000 residents



## Section II

### ***Race/Ethnicity and Sex of Suicide Victims***

Table 14 and Figure 12 describe suicide victims in North Carolina in 2016 by race and sex.

#### **Key Findings:**

- Of all suicide victims, 86.1 percent were NH white and 74.0 percent were male, as shown in Table 8.
- Most male suicide victims were NH white (85.6%) as compared to NH black (7.6%). Similarly, most female suicide victims were NH white (87.6%) as compared to NH black (6.8%).
- For men, the suicide rate per 100,000 from highest to lowest by race/ethnicity was NH white men (30.3), NH American Indian men (17.9), NH Asian men (14.3), Hispanic men (9.9), and NH black men (8.6).
- The suicide rate per 100,000 for females was higher for NH white women (10.2) than NH Asian women (3.6), Hispanic women (2.3), and NH black women (2.3). The numbers of suicide deaths were too small to calculate rates for NH American Indian women.
- The suicide rate was higher for males than for females of the same race by 3.7 times for NH blacks, 3.0 times for NH whites, 4.2 times for Hispanics, and 4.0 times for NH Asians.

### ***Age and Sex of Suicide Victims***

Table 15 portrays the suicide victims in North Carolina in 2016 by age group and sex. Figure 13 plots the 2016 suicide rates per 100,000 in North Carolina by age group and sex.

#### **Key Findings:**

- Among males, most suicide victims were ages 25 to 64 with a rank order by age group of: 55 to 64 (18.3%), 45 to 54 (17.4%), 35 to 44 (15.8%) and 25 to 34 (14.6%).
- Similarly, among females most suicide victims were ages 25 to 64 with a rank order by age group of: 45 to 54 (22.6%), 35 to 44 (19.2%), 55 to 64 (18.9%) and 25 to 34 (11.9%).
- For men, the suicide rate increased by age group and peaked among those 85 years and older (44.2 per 100,000).
- The suicide rate by age group for women peaked at 45 to 54 (11.3 per 100,000) and then declined.
- Males had higher suicide rates than females across all age groups with the largest sex disparity among those age 85 and older with the rate being 8.8 times higher among men than women (44.2 versus 5.0 per 100,000, respectively).

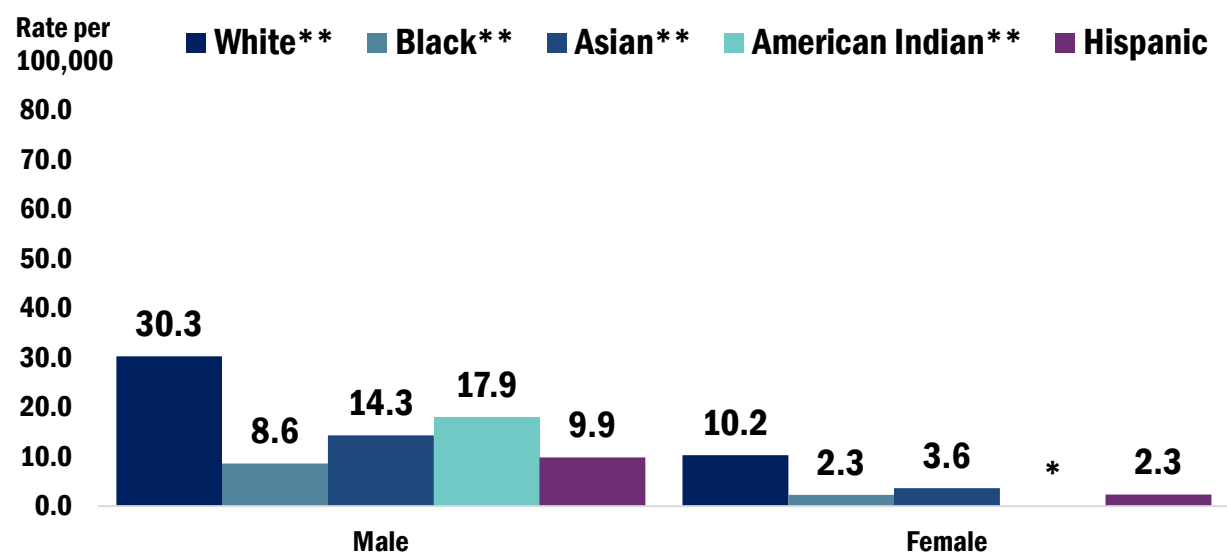
**Table 14: Race of suicide victims (ages 10 or older) in North Carolina by sex, 2016**

Race/Ethnicity	Male			Female		
	Number	%	Rate	Number	%	Rate
White**	863	85.6	30.3	310	87.6	10.2
Black**	77	7.6	8.6	24	6.8	2.3
Asian**	18	1.8	14.3	5	1.4	3.6
American Indian**	9	0.9	17.9	3	0.8	*
Hispanic	37	3.7	9.9	8	2.3	2.3
Unknown	4	0.4	-	4	1.1	-
<b>Total Deaths</b>	<b>1,008</b>	<b>100</b>	<b>23.5</b>	<b>354</b>	<b>100</b>	<b>8.3</b>

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

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

\*\* Non-Hispanic

**Figure 12: Crude suicide rates (ages 10 or older) in North Carolina stratified by race/ethnicity and sex, 2016**

\* The numbers of suicide deaths among NH American Indian females was too small to support calculation a rate.

\*\* Non-Hispanic

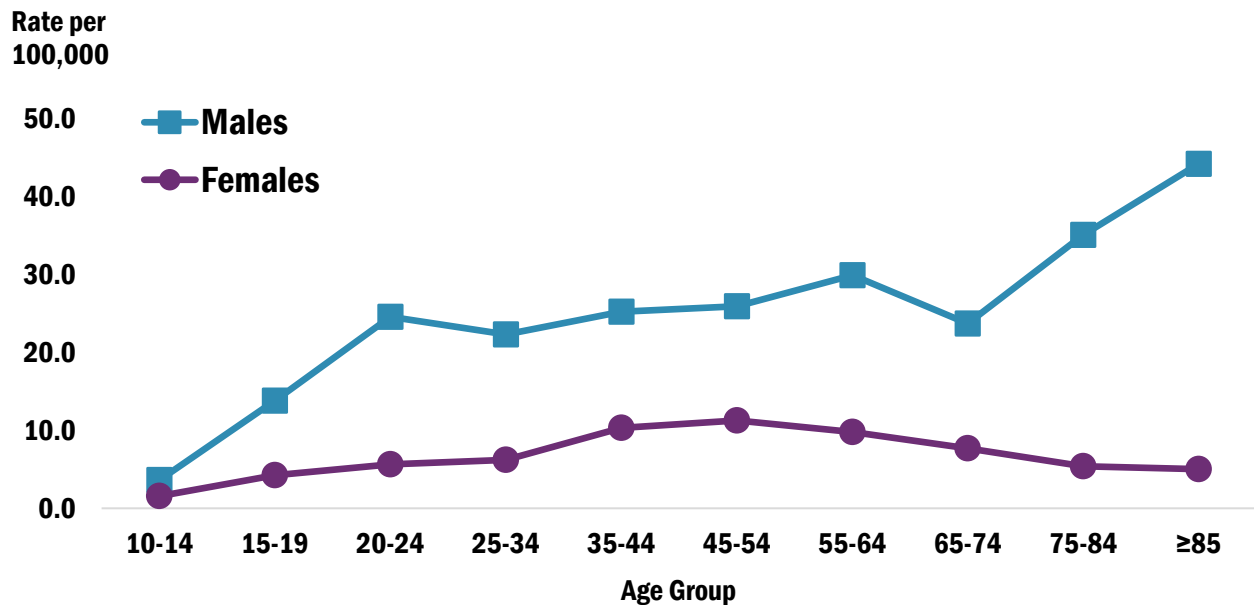
## Section II

**Table 15: Age group of suicide victims (ages 10 or older) in North Carolina by sex, 2016**

Age Group (Years)	Male			Female		
	Number	%	Rate	Number	%	Rate
10-14	12	1.2	3.6	5	1.4	1.6
15-19	47	4.7	13.8	14	4.0	4.2
20-24	88	8.7	24.5	19	5.4	5.6
25-34	147	14.6	22.3	42	11.9	6.2
35-44	159	15.8	25.2	68	19.2	10.3
45-54	175	17.4	25.9	80	22.6	11.3
55-64	184	18.3	29.9	67	18.9	9.8
65-74	103	10.2	23.7	39	11.0	7.7
75-84	67	6.6	35.1	14	4.0	5.4
≥85	26	2.6	44.2	6	1.7	5.0
<b>Total Deaths</b>	<b>1,008</b>	<b>100</b>	<b>23.5</b>	<b>354</b>	<b>100</b>	<b>7.7</b>

Sex and age-specific crude rates per 100,000 N.C. population

**Figure 13: Age-specific suicide rates (ages 10 or older) in North Carolina stratified by age group and sex, 2016**



**Note:** The number of deaths was large enough to calculate a rate for each group.

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

NC-VDRS collects data on the circumstances surrounding suicides. In 2016, 95.9 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 age 10 or older stratified by sex based on the number of cases reporting circumstances in North Carolina in 2016. **Table 17** lists the mental health problem at the time of the suicide for both men and women in 2016.

### **Key Findings:**

- The most common circumstances of suicide for male victims were ever treated for mental illness (49.1%), current mental health problem (48.2%), experienced a recent crisis (44.2%), current treatment for mental health illness (37.6%), and current depressed mood (34.0%).
- The most common circumstances of suicide for female victims were ever treated for mental illness (72.9%), current mental health problem (72.1%), current treatment for mental illness (64.0%), experienced a recent crisis (38.3%), and current depressed mood (29.4%).
- A suicide note was left by 29.6 percent of male victims and 33.4 percent of female victims. Intent to commit suicide was disclosed by 26.0 percent of male and 27.1 percent of female victims. A total of 12.1 percent of male and 28.0 percent of female victims reported a history of suicide attempts and 35.5 percent of male and 40.6 percent of female victims had a history of suicidal thoughts.

An intimate partner problem was a circumstance of suicide for 27.8 percent of men and 21.3 percent of women. A substance problem other than alcohol was a circumstance of suicide for 17.5 percent of men and 20.2 percent of women. Other common circumstances of suicide for men and women, respectively, were alcohol problem (17.0% and 13.8%), physical health problem (21.2% and 22.2%), recent criminal-related legal problem (8.9% and 4.3%), job problem (8.4% and 5.2%) and financial problem (6.8% and 5.5%).

At the time of suicide, the most common mental health problems were depression or dysthymia (79.8%), bipolar disorder (11.5%), anxiety disorder (12.9%), post-traumatic stress disorder (4.2%), and schizophrenia (2.4%).

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 2016 is shown by sex in **Table 18** and by age and race/ethnicity in **Table 19**.

### **Key Findings:**

- Alcohol was tested in 97.0 percent of all suicides. Testing was relatively infrequent for other substances. Of those victims tested, alcohol was present in 29.8 percent of all suicide victims, 32.1 percent of male victims and 23.5 percent of female victims.
- Ages 20 to 54 had the highest percentage of suicide victims with alcohol present, with a range from 32.3.7 percent to 42.5 percent of those age groups testing positive for alcohol. Alcohol was present in those victims tested by race as follows: NH whites (30.9%), NH blacks (25.6%), NH Asians (33.3%), NH American Indians (45.5%), and Hispanics (30.2%).

## Section II

Table 20 lists the location of the injury resulting in death for suicide victims in North Carolina in 2016.

### Key Findings:

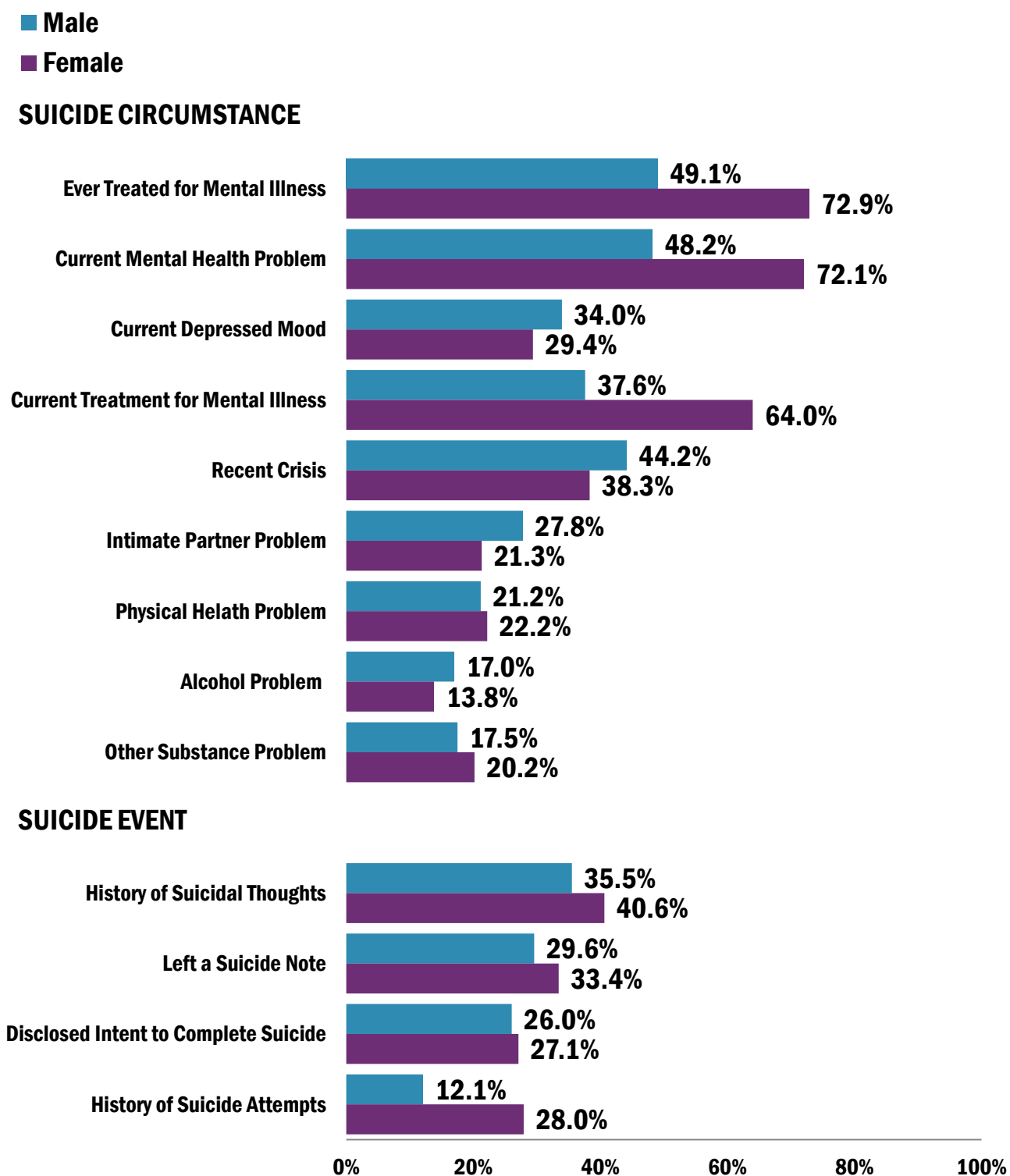
- The majority (77.5%) of injuries resulting in death occurred in a house or an apartment.

**Table 16: Circumstances of suicide victims (ages 10 or older) in North Carolina by Sex, 2016**

Circumstance*	Male		Female		Total	
	Number	%	Number	%	Number	%
<b>Mental Health</b>						
Ever treated-Mental health	471	49.1	253	72.9	724	55.4
Current Mental health problem	463	48.2	250	72.1	713	54.6
Current depressed mood	326	34.0	102	29.4	428	32.8
Current treatment MH	361	37.6	222	64.0	583	44.6
<b>Substance Abuse/Addiction</b>						
Alcohol problem	163	17.0	48	13.8	211	16.1
Other substance problem	168	17.5	70	20.2	238	18.2
Other addiction problem	2	0.2	1	0.3	3	0.2
<b>Interpersonal</b>						
Intimate partner problem	267	27.8	74	21.3	341	26.1
Other relationship problem	17	1.8	6	1.7	23	1.8
Perpetrator of intimate partner violence	45	4.7	7	2.0	52	4.0
Death of family/friend	38	4.0	30	8.7	68	5.2
Suicide death of family/friend in past 5 years	12	1.3	10	2.9	22	1.7
<b>Life Stressor</b>						
Physical Health problem	203	21.2	77	22.2	280	21.4
Job problem	81	8.4	18	5.2	99	7.6
Criminal/Legal Problem	85	8.9	15	4.3	100	7.7
Financial Problem	65	6.8	19	5.5	84	6.4
Legal Problem, Other	29	3.0	9	2.6	38	2.9
School Problem	17	1.8	5	1.4	22	1.7
Recent Crisis	424	44.17	133	38.33	557	42.62
<b>Suicide Event</b>						
Left a Suicide Note	284	29.6	116	33.4	400	30.6
Suicide Disclosed	250	26.0	94	27.1	344	26.3
History of Suicide Attempt	116	12.1	97	28.0	213	16.3
History of Suicidal Thoughts	341	35.5	141	40.6	482	36.9

\* Circumstances were available for 95.2 percent (960/1008) of male victims, 98.0 percent (347/354) of female victims, and 96.0 percent (1,307/1,362) of all suicide victims. The percentage of circumstances for suicide victims is based on the number of cases reporting circumstances in North Carolina in 2016.

**Figure 14: Circumstances of suicide victims (ages 10 or older) in North Carolina by Sex, 2016**



Note: For Table 15 and Figure 14, 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.



## Section II

**Table 17: Current mental health problems at the time of suicide (ages 10 or older) in North Carolina by sex, 2016**

	Male		Female		Total	
	Number	%	Number	%	Number	%
<b>Current Mental Health Problem *</b>						
Depression / Dysthymia	356	76.9	213	85.2	569	79.8
Bipolar Disorder	50	10.8	32	12.8	82	11.5
Schizophrenia	10	2.2	7	2.8	17	2.4
Anxiety Disorder	53	11.4	39	15.6	92	12.9
Post-Traumatic Stress Disorder	26	5.6	4	1.6	30	4.2
Attention Deficit Disorder (ADD) or Hyper-Reactivity Disorder	9	1.9	0	0.0	9	1.3
Eating Disorder	0	0.0	2	0.8	2	0.3
Other/Unknown	27	5.8	13	5.2	40	5.6

\* For 466 males, 230 females, and 696 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) in North Carolina by sex, 2016**

	Male		Female		Total	
	Number	%	Number	%	Number	%
<b>Alcohol</b>						
Tested with results	901	98.4	318	93.3	1,219	97.0
Alcohol present in those tested	294	32.1	80	23.5	374	29.8
<b>Amphetamines</b>						
Tested with results	6	0.7	3	0.9	9	0.7
Amphetamines present in those tested	6	0.7	3	0.9	9	0.7
<b>Antidepressant</b>						
Tested with results	48	5.2	87	25.5	135	10.7
Antidepressant present in those tested	48	5.2	87	25.5	135	10.7
<b>Cocaine</b>						
Tested with results	72	7.9	113	33.1	185	14.7
Cocaine present in those tested	9	1.0	5	1.5	14	1.1
<b>Opiates</b>						
Tested with results	69	7.5	115	33.7	184	14.6
Opiates present in those tested	26	2.8	64	18.8	90	7.2
<b>Other substances*</b>						
Tested with results	87	9.5	124	36.4	211	16.8
Other drugs present in those tested	48	55.2	78	62.9	126	59.7

\*Other substances include carbon monoxide, barbiturates, benzodiazepines, and marijuana.

**Table 19: Alcohol toxicology testing and results for suicide victims (ages 10 or older) in North Carolina by age group and race, 2016**

	Alcohol tested with results		Alcohol present in those tested	
	Number	%	Number	%
<b>Age Group (Years)</b>				
10-14	14	82.4	0	0.0
15 - 19	53	86.9	6	11.3
20 - 24	96	89.7	31	32.3
25 - 34	167	88.4	71	42.5
35 - 44	207	91.2	79	38.2
45 - 54	224	87.8	86	38.4
55 - 64	226	90.0	69	30.5
65 - 74	131	92.3	26	19.8
75 - 84	72	88.9	5	6.9
≥85	29	90.6	1	3.4
<b>Race/Ethnicity</b>				
White*	1,047	89.3	324	30.9
Black*	90	89.1	23	25.6
Asian*	21	175.0	7	33.3
American Indian*	11	47.8	5	45.5
Hispanic	43	95.6	13	30.2

\*Non-Hispanic

## Section II

**Table 20: Injury location for suicide victims (ages 10 or older) in North Carolina, 2016**

	Number	%
<b>Injury Location</b>		
House, apartment	1,056	77.5
Motor Vehicle (Excluding School Bus and Public Transportation)	97	7.1
Natural Area (e.g., Field, River, Beach, Woods)	69	5.1
Hotel/Motel	22	1.6
Jail, Prison, Detention Facility	18	1.3
Park, Playground, Public Use Area	6	0.4
Other Commercial Establishment (e.g., grocery store, retail outlet, laundromat)	11	0.8
Street/Road, Sidewalk, Alley	13	1.0
Parking Lot/Public Parking Garage	4	0.3
Highway/Freeway	10	0.7
Hospital or Medical Facility	4	0.3
Synagogue, Church, Temple	0	0.0
Other Specified*	39	2.9
Other/Unknown	13	1.0
<b>Total Deaths</b>	<b>1,362</b>	<b>100</b>

\*Other Specified includes office building, industrial/construction area, abandoned house or building, college/university, farm, supervised residential facility, and railroad tracks.

## Section III: Homicide

### ***Basic Characteristics of Homicides***

**Table 21** characterizes the homicides in 2016 for North Carolina residents by demographics of sex, race/ethnicity and age. The homicide rate in 2016 in North Carolina per 100,000 people is displayed by race/ethnicity and sex in **Figure 15** and by age group in **Figure 16**.

#### **Key Findings:**

- In 2016, 712 North Carolinians (7.0 per 100,000) were victims of homicide.
- Males were 3.6 times as likely to be victims of a homicide as females (11.1 versus 3.1 per 100,000, respectively).
- NH American Indians (18.9 per 100,000) and NH blacks (18.5 per 100,000) had higher homicide rates than NH Asians (2.9 per 100,000), NH whites (3.5 per 100,000), and Hispanics (3.5 per 100,000).
- Homicide rates per 100,000 were highest for adults ages 20 to 24 years (15.2 per 100,000) and 25 to 34 years (13.9 per 100,000). Among children younger than 14 (for age groups where rates could be calculated), the rate was highest in children younger than one year old (5.8 per 100,000).

The method of death for homicide victims in North Carolina in 2016 is shown in **Table 22** and **Figure 17**. The type of firearm involved in homicide firearm deaths in North Carolina in 2016 is listed in **Table 23**.

#### **Key Findings:**

- The leading methods of homicide were firearm (75.8%), sharp instrument (9.0%), blunt instrument (3.8%), personal weapons (5.8%), and hanging, strangulation and suffocation (3.0%).
- Most male and female homicide victims died by firearm (80.3% and 60.7% respectively), or sharp instrument (8.6% and 10.4% respectively).
- Considering only homicide firearm deaths, a handgun was the most common firearm used (75.5%).

**Table 24** describes adult homicide victims (18 years or older) in North Carolina in 2016 by education level, marital status and veteran status.

#### **Key Findings:**

- Among adult homicide victims, 42.7 percent graduated high school or received their GED, 23.2 percent completed at least some college credit, and 33.6 percent completed up to 12<sup>th</sup> grade but did not graduate.
- Almost two thirds of homicide victims were never married (60.9%) as compared to married, civil union, or domestic partnership (18.3%), divorced (13.9%), married but separated (3.5%), or widowed (3.0%).
- Military veterans accounted for 8.0 percent of adult homicide victims.

## Section III

**Table 25** and **Figure 18** display the homicide rates in 2016 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 too small to support a rate calculation. None of the 20 counties with the highest rates had less than 50,000 residents in 2016.

### 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 7.8 deaths per 100,000 with a range from 0.0 to 40.3 deaths per 100,000.

**Table 21: Demographics of homicide victims in North Carolina, 2016**

	Number	%	Rate	95% CI
<b>Sex</b>				
Female	163	22.89	3.1	2.6 - 3.6
Male	549	77.11	11.1	10.2 - 12.1
<b>Race/Ethnicity</b>				
White**	228	32.0%	3.5	3.0 - 3.9
Black**	416	58.4%	18.5	16.8 - 20.3
Asian**	9	1.3%	2.9	1.0 - 4.8
American Indian**	23	3.2%	18.9	11.2 - 26.6
Hispanic	33	4.6%	3.5	2.3 - 4.7
<b>Age Group (Years)</b>				
< 1	7	1.0	5.8	1.5 - 10.1
1-4	13	1.8	2.7	1.2 - 4.1
5-9	6	0.8	0.9	0.2 - 1.7
10-14	4	0.6	*	*
15-19	61	8.6	9.1	6.8 - 11.4
20-24	106	14.9	15.2	12.3 - 18.1
25-34	185	26.0	13.9	11.9 - 15.8
35-44	128	18.0	9.9	8.2 - 11.6
45-54	86	12.1	6.2	4.9 - 7.5
55-64	59	8.3	4.5	3.4 - 5.7
65-74	35	4.9	3.7	2.5 - 4.9
75-84	17	2.4	3.8	2.0 - 5.6
≥85	5	0.7	2.8	0.3 - 5.3
<b>Total Deaths</b>	<b>712</b>	<b>100.0</b>	<b>7.0</b>	<b>6.5 - 7.5</b>

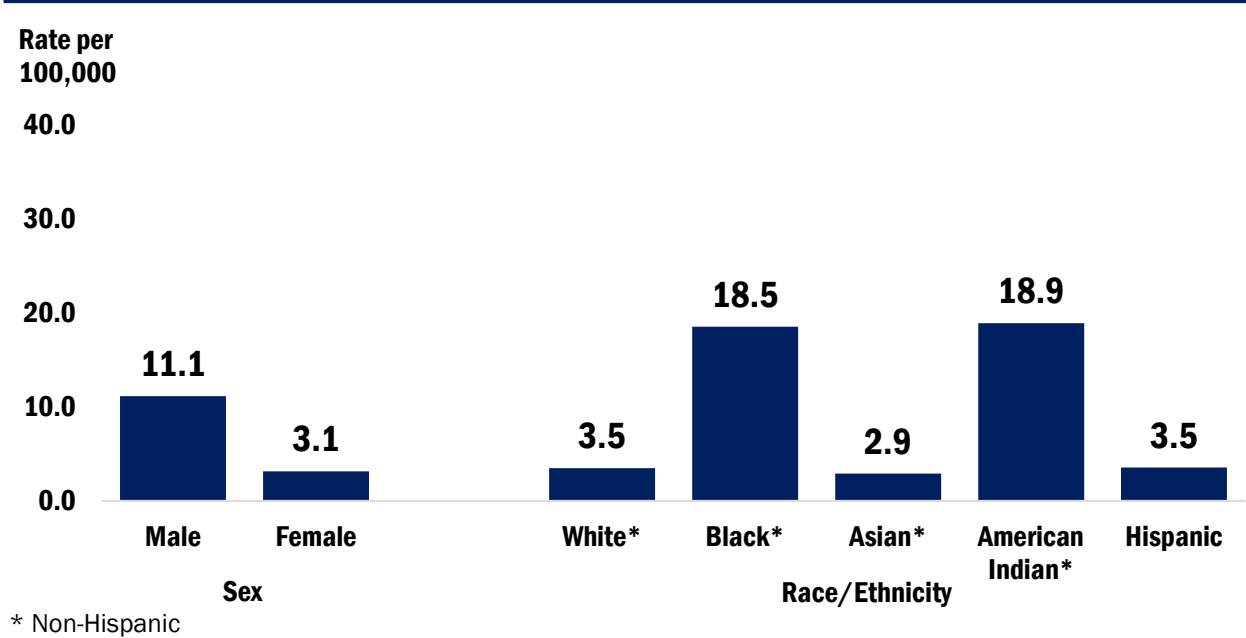
Sex, race/ethnicity and age-specific crude rates per 100,000 N.C. population

95% CI = 95 percent confidence interval for the rate

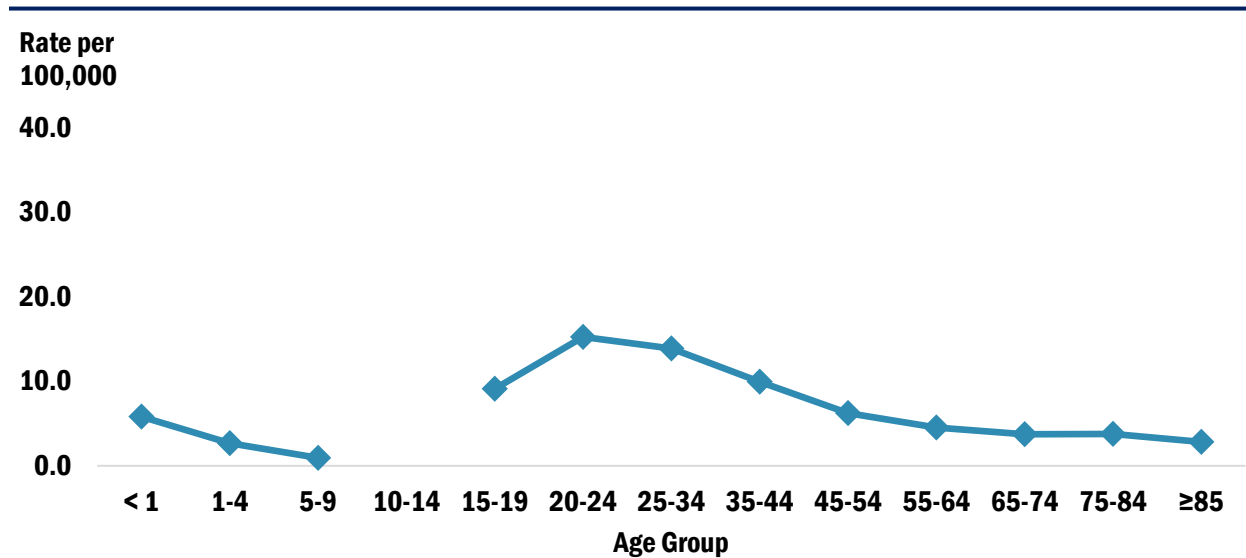
\* The number of deaths was too small to support the calculation of a rate

\*\* Non-Hispanic

**Figure 15: Crude homicide rates in North Carolina by sex and race/ethnicity, 2016**



**Figure 16: Age-specific crude homicide rates in North Carolina by age group, 2016**



**Note:** The number of deaths was too small to support a rate calculation for the age group 10-14.

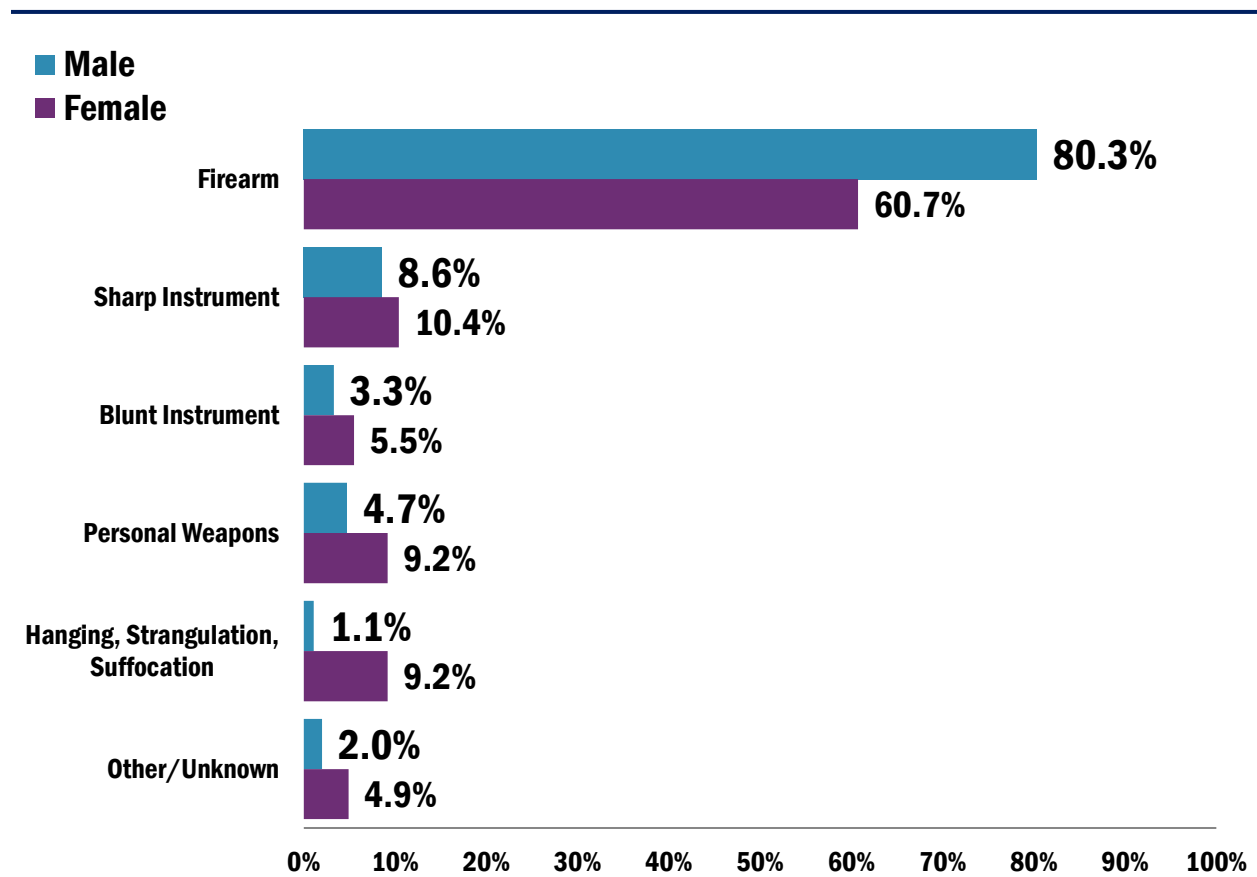
## Section III

**Table 22: Method of death for homicide victims in North Carolina by sex, 2016**

Method of Death	Male		Female		Total	
	Number	%	Number	%	Number	%
Firearm	441	80.3	99	60.7	540	75.8
Sharp instrument	47	8.6	17	10.4	64	9.0
Blunt instrument	18	3.3	9	5.5	27	3.8
Personal weapons	26	4.7	15	9.2	41	5.8
Hanging, strangulation, suffocation	6	1.1	15	9.2	21	3.0
Fire or burns	4	0.7	2	1.2	6	0.8
Intentional Neglect	2	0.36	0	0	2	0.3
Other*/ Unknown	5	0.9	6	3.7	11	1.5
<b>Total Deaths</b>	<b>549</b>	<b>100</b>	<b>163</b>	<b>100</b>	<b>712</b>	<b>100</b>

\* Other includes: intentional neglect (e.g., starvation), and violent shaking.

**Figure 17: Method of death for homicide victims in North Carolina by sex, 2016**



**Table 23: Type of firearm involved in homicide firearm deaths in North Carolina by Sex, 2016**

	Male		Female		Total	
	Number	%	Number	%	Number	%
<b>Firearm Type*</b>						
Handgun	335	75.3	77	76.2	412	75.5
Shotgun	28	6.3	10	9.9	38	7.0
Rifle	22	4.9	6	5.9	28	5.1
Unknown	60	13.5	8	7.9	68	12.5
<b>Total Firearms Involved in Homicides</b>	<b>445</b>	<b>100</b>	<b>101</b>	<b>100</b>	<b>546</b>	<b>100</b>

**Table 24: Completed education, marital status and veteran status of adult homicide victims (age 18 or older) in North Carolina, 2016**

	Number	%
<b>Education Level</b>		
8th Grade or Less	33	5.0
9th – 12th Grade	190	28.7
High school or GED graduate	283	42.7
Some college credit	82	12.4
Associates degree	28	4.2
Bachelor's degree	35	5.3
Master's degree	8	1.2
Doctorate degree	1	0.2
Unknown	3	0.45
<b>Marital Status</b>		
Never Married	404	60.9
Married*	121	18.3
Divorced	92	13.9
Married, but Separated	23	3.5
Widowed	20	3.0
Single, not otherwise specified	0	0.0
Unknown	3	0.5
<b>Veteran Status</b>		
Non-Vet	599	90.4
Vet	53	8.0
Unknown	11	1.7

\* Married includes: married, civil union or domestic partnership.



## Section III

**Table 25: Homicides in North Carolina by county of residence, 2016**

County	Number	Rate	County	Number	Rate	County	Number	Rate
Alamance	14	8.8	Franklin	4	*	Pamlico	0	0.0
Alexander	4	*	<b>Gaston</b>	20	9.2	Pasquotank	3	*
Alleghany	0	0.0	Gates	0	0.0	Pender	0	0.0
Anson	3	*	Graham	0	0.0	Perquimans	1	*
Ashe	0	0.0	Granville	1	*	Person	4	*
Avery	0	0.0	Greene	1	*	Pitt	15	8.5
Beaufort	2	*	Guilford	44	8.4	Polk	0	0.0
<b>Bertie</b>	8	40.3	Halifax	4	*	Randolph	2	*
<b>Bladen</b>	7	20.7	Harnett	12	9.2	<b>Richmond</b>	6	13.4
Brunswick	7	5.5	Haywood	3	*	<b>Robeson</b>	35	26.3
Buncombe	12	4.7	Henderson	2	*	<b>Rockingham</b>	10	10.9
Burke	4	*	Hertford	4	*	<b>Rowan</b>	18	12.9
Cabarrus	4	*	Hoke	4	*	Rutherford	3	*
Caldwell	4	*	Hyde	0	0.0	Sampson	3	*
Camden	1	*	Iredell	8	4.6	<b>Scotland</b>	6	17.0
Carteret	1	*	Jackson	1	*	Stanly	1	*
Caswell	3	*	Johnston	5	2.6	Stokes	1	*
Catawba	8	5.1	Jones	0	0.0	Surry	6	8.3
Chatham	1	*	<b>Lee</b>	9	15.1	Swain	0	0.0
Cherokee	0	0.0	<b>Lenoir</b>	6	10.5	Transylvania	0	0.0
Chowan	2	*	Lincoln	2	*	Tyrrell	0	0.0
Clay	0	0.0	<b>McDowell</b>	5	11.1	Union	9	4.0
<b>Cleveland</b>	9	9.3	Macon	2	*	<b>Vance</b>	11	24.9
<b>Columbus</b>	8	14.2	Madison	1	*	Wake	36	3.4
Craven	5	4.8	Martin	3	*	Warren	3	*
<b>Cumberland</b>	41	12.5	Mecklenburg	72	6.8	Washington	1	*
Currituck	0	0.0	Mitchell	1	*	Watauga	1	*
Dare	0	0.0	Montgomery	4	*	<b>Wayne</b>	17	13.7
Davidson	5	3.0	Moore	6	6.3	Wilkes	3	*
Davie	1	*	Nash	8	8.5	<b>Wilson</b>	10	12.2
Duplin	5	8.5	New Hanover	12	5.4	Yadkin	1	*
<b>Durham</b>	45	14.7	Northampton	5	25.0	Yancey	0	0.0
<b>Edgecombe</b>	7	13.1	Onslow	14	7.5			
Forsyth	28	7.5	Orange	3	*			

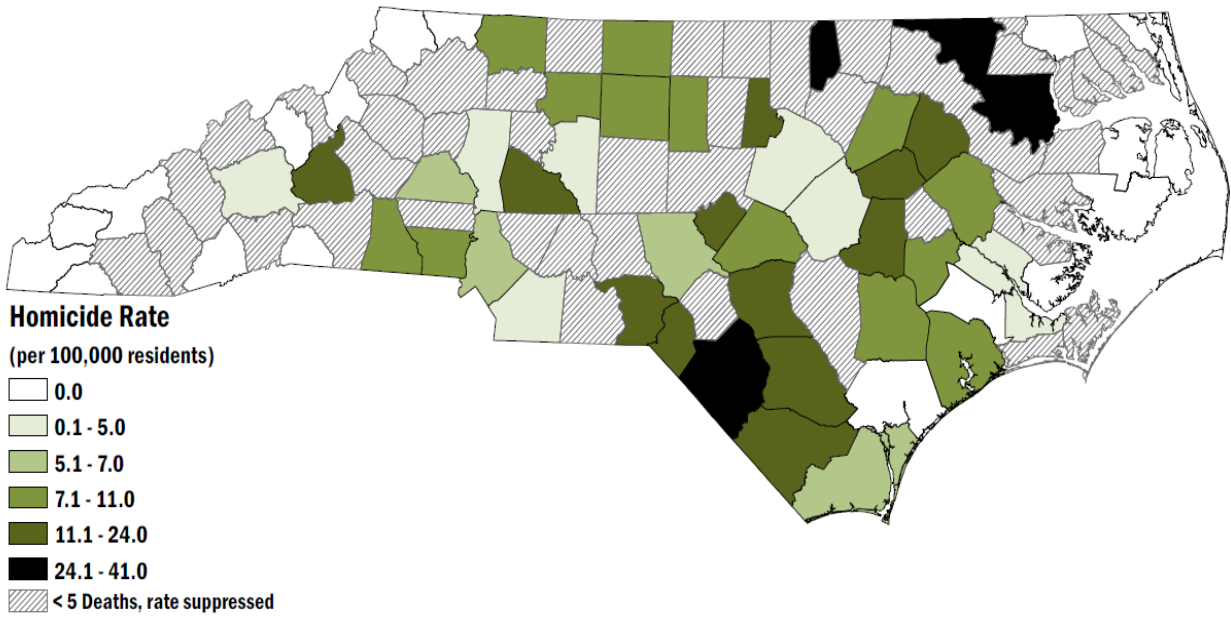
Crude rate per 100,000 population in N.C. county

\* Number of deaths was 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 in North Carolina by county of residence, 2016**

North Carolina 2016 homicide rate: 7.0 deaths per 100,000 residents



## Section III

### ***Race/Ethnicity and Sex of Homicide Victims***

Table 26 and Figure 19 describe the 2016 North Carolina homicide victims by sex and race/ethnicity.

#### **Key Findings:**

- Of all homicide victims, 77.1 percent were male, 58.4 percent were NH black, and 32.0 percent were NH white as shown in Table 19.
- Most male homicide victims were NH black (64.1%) as compared to NH white (26.2%), Hispanic (4.9), NH American Indian (3.1%), and NH Asian (1.1%). Conversely, less than half of female homicide victims were NH black (39.3%) followed by NH white (51.5%), Hispanic (3.7%), NH Asian (1.8%), and NH American Indian (3.7%) women.
- The homicide rates per 100,000 were 7.4 times higher for NH black males (33.5 per 100,000) and 6.5 times higher for NH American Indian males (29.1 per 100,000), then NH white males (4.5 per 100,000).
- NH black females were 2.1 times as likely to be homicide victims as NH white females (5.4 versus 2.5 per 100,000, respectively).
- The homicide rate was 6.2 times higher for NH black males than for NH black females. The homicide rate was 1.8 times higher for NH white males than NH white females.

### ***Age and Sex of Homicide Victims***

The age and sex of homicide victims in North Carolina in 2016 are categorized in Table 27. The 2016 homicide rates per 100,000 in North Carolina are stratified by age group and sex in Figure 20.

#### **Key Findings:**

- Most male homicide victims were ages 20 to 54 years, with a rank order by age group of: 25 to 34 (27.3%), 35 to 44 (18.6%), 20 to 24 (15.5%), and 45 to 54 (12.2%).
- Among females, most homicide victims were ages 20 to 64 years with a rank order by age group of: 25 to 34 (21.5%), 35 to 44 (16.0%), 20 to 24 (12.9%), 45 to 54 (11.7%), and 55 to 64 (11.7%)
- Males had higher homicide rates than females across all age groups for 2016.
- Males were more likely to die of homicide than females by more than 4.4 times among ages 25 to 34 and 3.8 times among ages 20 to 24 years.
- The homicide rate by age for males peaked in ages 20 to 24 years (23.7 per 100,000) and then declined to 5.8 per 100,000 for ages 65 to 74 years.

**Table 26: Race/ethnicity of homicide victims in North Carolina by sex, 2016**

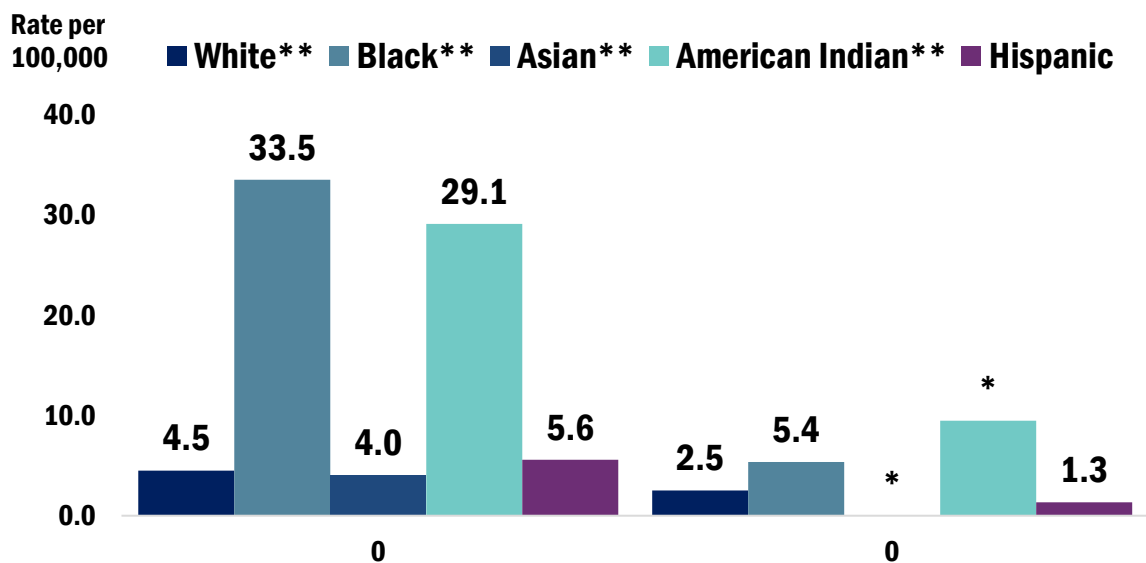
Race/Ethnicity	Male			Female		
	Number	%	Rate	Number	%	Rate
White**	144	26.2	4.5	84	51.5	2.5
Black**	352	64.1	33.5	64	39.3	5.4
Asian**	6	1.1	4.0	3	1.8	*
American Indian**	17	3.1	29.1	6	3.7	9.5
Hispanic	27	4.9	5.6	6	3.7	1.3
Other/Unknown	3	0.5	-	0	0	-
<b>Total Deaths</b>	<b>549</b>	<b>100</b>	<b>11.1</b>	<b>163</b>	<b>100</b>	<b>3.1</b>

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

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

\*\* Non-Hispanic

**Figure 19: Crude homicide rates in North Carolina stratified by race/ethnicity and sex, 2016**



\* The numbers of homicide deaths among NH Asian and NH American Indian females were too small to support the calculation of rates.

\*\* Non-Hispanic

## Section III

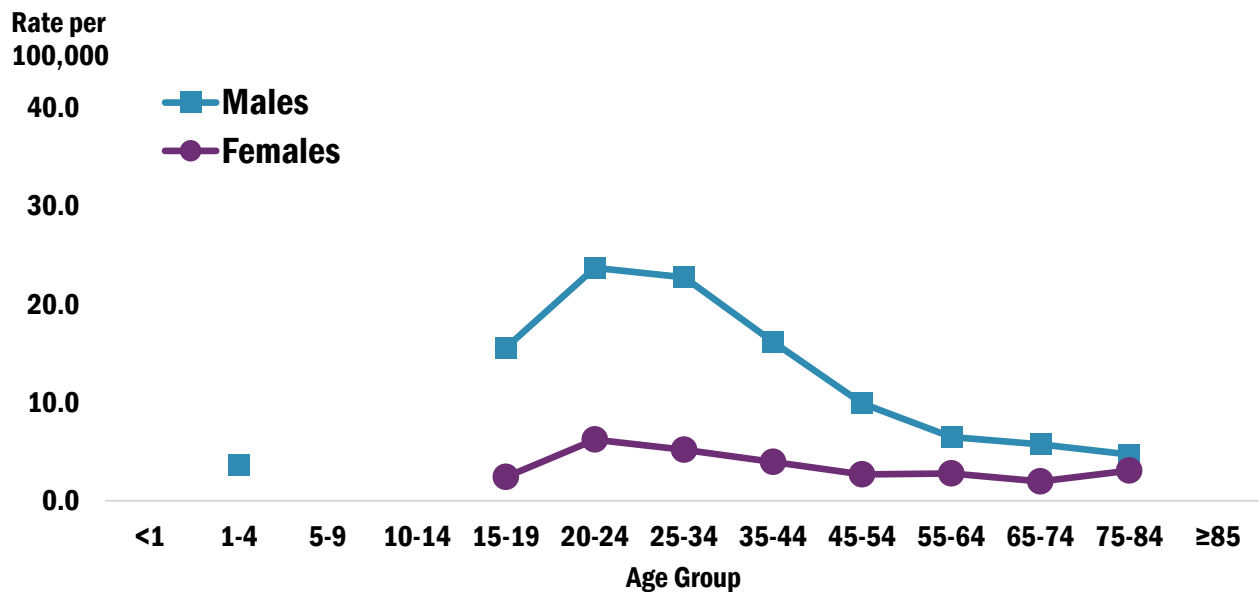
**Table 27: Age group of homicide victims in North Carolina by sex, 2016**

Age Group (Years)	Male			Female		
	Number	%	Rate	Number	%	Rate
<1	3	0.5	*	4	2.5	*
1-4	9	1.6	3.6	4	2.5	*
5-9	3	0.5	*	3	1.8	*
10-14	1	0.2	*	3	1.8	*
15-19	53	9.7	15.6	8	4.9	2.4
20-24	85	15.5	23.7	21	12.9	6.2
25-34	150	27.3	22.7	35	21.5	5.2
35-44	102	18.6	16.2	26	16	3.9
45-54	67	12.2	9.9	19	11.7	2.7
55-64	40	7.3	6.5	19	11.7	2.8
65-74	25	4.6	5.8	10	6.1	2.0
75-84	9	1.6	4.7	8	4.9	3.1
≥85	2	0.4	*	3	1.8	*
<b>Total Deaths</b>	<b>549</b>	<b>100</b>	<b>11.1</b>	<b>163</b>	<b>100</b>	<b>3.1</b>

Sex and age-specific crude rates per 100,000 N.C. population

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

**Figure 20: Age-specific crude homicide rates in North Carolina stratified by age group and sex, 2016**



**Note:** The numbers of deaths were too small to support rate calculations for males younger than 1 year, and ages 5 to 9, 10 to 14, and 85 and older. The numbers of deaths were too small to support rate calculations for females younger than 1 year and ages 1 to 4, 5 to 9, 10 to 14, and 85 and older.

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

NC-VDRS collects data on the event and victim circumstances involving homicides to understand the underlying causes of violent death. However, circumstance data were not available for all homicides. In 2016, 91.6 percent of homicide victims had data available for at least one circumstance related to the homicide. Since each victim may have more than one circumstance, the total number of circumstances may exceed the total number of homicides.

Please 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 sex based on the number of cases reporting circumstances in North Carolina in 2016. **Table 29** lists the crimes that precipitated the homicide for both men and women. **Figure 21** illustrates the most common homicide event circumstances and precipitating crimes for homicide victims in North Carolina in 2016.

### **Key Findings:**

- The most common event circumstances surrounding homicides for males were an argument, abuse or conflict (40.1%), precipitated by another serious crime (32.9%), drug involvement (16.6%), intimate partner violence-related (10.4%), and gang related (5.2%),
- For females, the most common event circumstances surrounding homicides were intimate partner violence-related (45.1%), an argument, abuse or conflict (26.1%), precipitated by another serious crime (30.7%), drug involvement (7.2%), and gang related (3.3%).
- The most common crimes that precipitated homicide for male victims were robbery (38.6%), burglary (26.1%) and drug trade (9.8%).
- Similarly, the most common crimes that precipitated homicide for female victims included robbery (26.3%), burglary (26.3%), and rape/sexual assault (21.1%).
- Common victim circumstances surrounding homicides were: the victim used a weapon (11.6%), justifiable self-defense (2.2%), and the victim was a bystander (0.4%).

**Table 30** summarizes the location of the injury resulting in death for homicide victims in North Carolina in 2016.

### **Key Findings:**

- Most injuries resulting in death occurred in a house or apartment (61.1%).
- Other common locations where injuries resulting in death occurred were: a street, road, sidewalk or alley (11.8), a motor vehicle (9.8%), parking lot or garage (2.4%), other commercial establishments such as a grocery store or laundromat (4.2%), bars/nightclubs (2.7%), and natural areas such as a field or woods (2.7%).

## Section III

**Table 28: Circumstances of homicides victims in North Carolina by sex, 2016**

Circumstance*	Male		Female		Total	
	Number	%	Number	%	Number	%
<b>Event</b>						
Other Argument, Abuse, Conflict	200	40.1	40	26.1	240	36.8
Precipitated by Another Serious Crime	164	32.9	47	30.7	211	32.4
Drug Involvement	83	16.6	11	7.2	94	14.4
Intimate Partner Violence-Related	52	10.4	69	45.1	121	18.6
Jealousy (Lovers Triangle)	14	2.8	3	2.0	17	2.6
Gang Related	26	5.2	5	3.3	31	4.8
Brawl (Mutual Physical Fight)	10	2.0	1	0.7	11	1.7
Mercy Killing	0	0.0	1	0.7	1	0.2
<b>Victim</b>						
Victim Used a Weapon	58	11.6	3	2.0	61	9.4
Victim was a Bystander	2	0.4	3	2.0	5	0.8
Justifiable Self-Defense	11	2.2	2	1.3	13	2.0
Intervener Assisting Crime Victim	0	0.0	0	0.0	0	0.0

\* Circumstances were available for 90.9 percent (499/549) of male victims, 93.9 percent (153/163) of female victims and 91.6 percent (652/712) of all homicide victims. The percentage of circumstances for homicide victims is based on the number of cases reporting circumstances in North Carolina in 2016.

**Note:** Each victim may have more than one circumstance Accordingly, the total number of circumstances may exceed the total number of homicides, or responses may exceed 100 percent.

**Table 29: Crimes precipitating homicides in North Carolina by sex, 2016**

Crime*	Male		Female		Total	
	Number	%	Number	%	Number	%
Robbery	71	38.6	15	26.3	86	35.7
Burglary	48	26.1	15	26.3	63	26.1
Drug trade	18	9.8	1	1.8	19	7.9
Motor vehicle theft	9	4.9	6	10.5	15	6.2
Assault, homicide	15	8.2	0	0.0	15	6.2
Rape, sexual assault	3	1.6	12	21.1	15	6.2
Arson	12	6.5	7	12.3	19	7.9
Gambling	3	1.6	0	0.0	3	1.2
Other	4	2.2	1	1.8	5	2.1

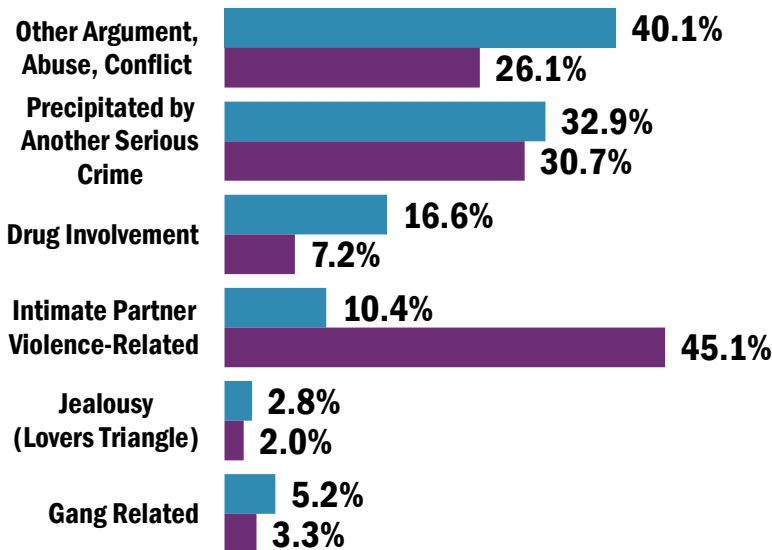
\* For 164 males, 47 females and 211 victims whose homicide was precipitated by another serious crime.

**Note:** Each homicide may be precipitated by more than one crime. Accordingly, the total number of crimes may exceed the total number of homicides, or responses may exceed 100 percent.

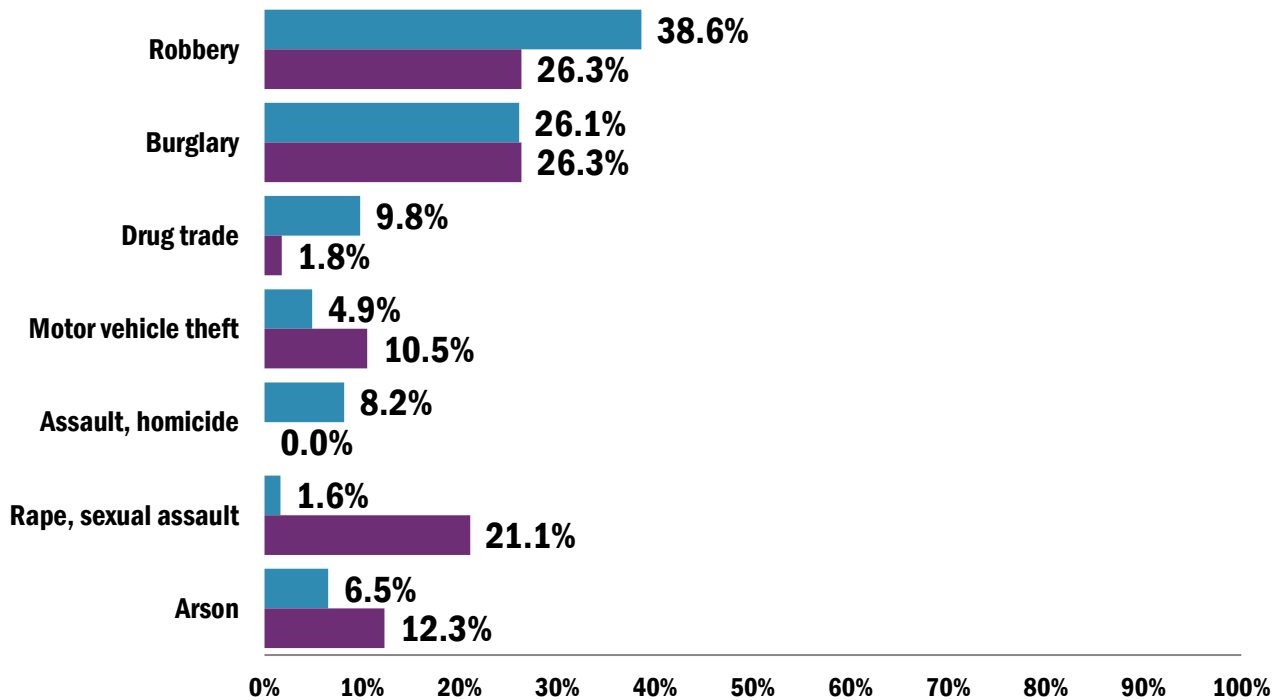
**Figure 21: Circumstances of homicide victims and crimes precipitating homicides in North Carolina by sex, 2016c**

- Males
- Females

**HOMICIDE CIRCUMSTANCE**



**CRIMES PRECIPITATING HOMICIDE**



**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.



## Section III

**Table 30: Injury location for homicide victims in North Carolina, 2016**

	Number	%
<b>Injury Location</b>		
House, apartment	435	61.1
Street/road, sidewalk, alley	84	11.8
Motor vehicle (excluding school bus, 15, and public transportation, 21)	70	9.8
Other commercial establishment (e.g., grocery store, retail outlet)	30	4.2
Bar, nightclub	19	2.7
Natural area (e.g., field, river, beaches, woods)	19	2.7
Parking lot/public parking garage	17	2.4
Hotel/motel	7	1.0
Park, playground, public use area	5	0.7
Highway, freeway	3	0.4
Office building	3	0.4
Elementary school, middle school (i.e., K-8), including school dormitory	2	0.3
Sports or athletic area (e.g., stadium, baseball field, gymnasium)	2	0.3
Hospital or medical facility	2	0.3
Other/Unknown	14	2.0
<b>Total Deaths</b>	<b>712</b>	<b>100</b>

## Section IV: Legal Intervention

NC-VDRS compiles data on legal intervention deaths which are 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 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 2016. Caution should be used in interpreting the rates because of the very small number of legal intervention deaths. **Table 32** shows the type of weapon used in legal intervention deaths of North Carolina residents in 2016. **Table 33** lists the number of legal intervention deaths in 2016 by North Carolina county of residence.

### Key Findings:

- In 2016, 31 residents of North Carolina (0.3 per 100,000) died from legal intervention.
- Nearly all the victims were male (96.8%) and most were from 20 to 64 years of age (93.5%).
- All but one legal intervention deaths occurred by firearm. Of the total firearms involved (n=35), handguns were the most frequently used (71.4%).

**Table 31: Demographics of legal intervention death victims in North Carolina, 2016**

	Number	%	Rate	95% CI
<b>Sex</b>				
Female	1	3.2	*	*
Male	30	96.8	0.6	0.4 - 0.8
<b>Race/Ethnicity</b>				
White**	17	54.8	0.3	0.1 - 0.4
Black**	11	35.5	0.5	0.2 - 0.8
Asian**	1	3.2	*	*
American Indian**	1	3.2	*	*
Hispanic	3	3.2	*	*
<b>Age Group (Years)</b>				
15-19	2	6.5	*	*
20-24	4	12.9	*	*
25-34	7	22.6	0.5	0.1 - 0.9
35-44	8	25.8	0.6	0.2 - 1.0
45-54	3	9.7	*	*
55-64	7	22.6	0.5	0.1 - 0.9
65-74	0	0.0	0.0	-
75-84	0	0.0	0.0	-
≥85	0	0.0	0.0	-
<b>Total Deaths</b>	<b>31</b>	<b>100</b>	<b>0.3</b>	<b>0.2 - 0.4</b>

Sex, race/ ethnicity and age-specific crude rates per 100,000 North Carolina population

95% CI = 95 percent confidence interval for the rate

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

\*\* Non-Hispanic

## Section IV

**Table 32: Type of weapon for legal intervention deaths in North Carolina, 2016**

Weapon Type	Number	%
Firearm		
Handgun	25	69.4
Rifle	5	13.9
Shotgun	2	5.6
Unknown firearm type	3	8.3
Other, non-firearm weapons	1	2.8
<b>Total Weapons Involved in Legal Intervention Deaths*</b>	<b>36</b>	<b>100</b>

\*Multiple firearm types were reported for some legal intervention fatalities in 2016; therefore, the total number of weapons exceeds the number of legal intervention deaths.

**Table 33: Legal intervention deaths in North Carolina by county of residence, 2016**

County	Number	County	Number
Anson	1	Iredell	2
Brunswick	1	Johnston	1
Cabarrus	1	Lenoir	1
Caldwell	2	Mecklenburg	6
Catawba	2	Robeson	1
Cleveland	1	Rockingham	1
Cumberland	1	Rowan	1
Duplin	1	Rutherford	1
Durham	1	Wake	2
Guilford	1	Wilkes	1
Henderson	1	Northampton	1

## Section V: Unintentional Firearm Death

An unintentional firearm death is a death that 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 2016 by sex, race/ethnicity, 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 2016. **Table 36** provides the number of unintentional firearm deaths in 2016 by North Carolina county of residence.

### Key Findings:

- In 2016, 11 North Carolinians (0.1 per 100,000) died from an unintentional firearm injury.
- Unintentional firearm victims were 54.4 percent female, 63.6 percent NH white, and 27.3 percent NH black (1 unknown race/ethnicity).
- Deaths from an unintentional firearm injury occurred among those ages 1-4 to 85 and older.
- The most common firearm involved in unintentional firearm deaths was a handgun (90.9%) followed by a rifle (9.1%).

NC-VDRS collects data on the circumstances surrounding unintentional firearm deaths to help understand the underlying causes of death. 10 of the 11 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 2016.

### Key Findings:

- The most common circumstance among mechanisms of unintentional firearm injuries resulting in death was that the victim accidentally pulled the trigger (30.0%), the firearm discharged as it was dropped (20.0%), and the victim thought the magazine was unloaded (20.0%).
- Among contexts of unintentional firearm injuries resulting in death, the most common contexts were that the injury occurred while playing with a firearm (40.0%), and the injury occurred while showing the firearm (20.0%).

## Section V

**Table 34: Demographics of unintentional firearm death victims in North Carolina, 2016**

	Number	%	Rate	95% CI
<b>Sex</b>				
Female	6	54.5	*	*
Male	5	45.5	0.1	0.0 - 0.2
<b>Race/Ethnicity</b>				
White**	7	63.6	0.1	0.0 - 0.2
Black**	3	27.3	*	*
Asian**	0	0.0	0.0	-
American Indian**	0	0.0	0.0	-
Hispanic	0	0.0	0.0	-
<b>Age Group (Years)</b>				
< 1	0	0.0	0.0	0.0
1-4	1	0.1	*	*
5-9	0	0.0	0.0	*
10-14	0	0.0	0.0	0.0
15-19	5	0.5	0.7	*
20-24	1	0.1	*	*
25-34	1	0.1	*	*
35-44	0	0.0	0.0	0.0
45-54	1	0.1	0.0	0.0
55-64	1	0.1	*	*
65-74	0	0.0	0.0	*
75-84	0	0.0	0.0	0.0
≥85	1	0.1	0.0	0.0
<b>Total Deaths</b>	<b>11</b>	<b>100</b>	<b>0.1</b>	<b>0.0 - 0.2</b>

Sex, race/ethnicity and age-specific crude rates per 100,000 North Carolina population

95% CI = 95 percent confidence interval for the rate

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

\*\* Non-Hispanic

**Table 35: Type of firearm in unintentional firearm deaths in North Carolina, 2016**

	Number	%
<b>Firearm Type</b>		
Handgun	10	90.9
Rifle	1	9.1
<b>Total Firearms Involved in Unintentional Firearms*</b>	<b>11</b>	<b>100</b>

\*Multiple firearm types were not reported for any unintentional firearm fatalities in 2016; Therefore, the total number of firearms equals the number of unintentional firearm deaths (n=14).

**Table 36: Unintentional firearm deaths in North Carolina by county of residence, 2016**

County	Number	County	Number
Caldwell	1	Mecklenburg	2
Chatham	1	Randolph	1
Haywood	1	Robeson	1
Iredell	1	Stanly	1
Lenoir	2		

## Section V

**Table 37: Circumstances of unintentional firearm deaths in North Carolina, 2016**

Circumstances*	Number	%
<b>Context</b>		
Occurred while playing with gun	4	40.0
Occurred while cleaning gun	1	10.0
Occurred while showing gun to others	2	20.0
Other context	4	40.0
<b>Mechanism</b>		
Gun discharged when dropped	2	20.0
Shooter thought gun was unloaded, unspecified reason	1	10.0
Unintentionally pulled trigger	3	30.0
Shooter thought gun was a toy	1	10.0
Shooter thought magazine was unloaded	2	20.0
Other mechanism	2	20.0

\*Circumstances were available for 10/11 (90.9%) of unintentional firearm deaths in North Carolina during 2016.

**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 2016 by sex, race/ethnicity and age.

### Key Findings:

- In 2016, 103 children in North Carolina (4.5 per 100,000) died as a result of violence.
- Male children were 1.9 times as likely to be victims of violent death as female children (5.9 vs. 3.0 per 100,000, respectively).
- The violent death rate for children per 100,000 was 1.8 times higher for NH blacks (7.2 per 100,000) than for NH whites (4.1 per 100,000).
- The highest death rate was for children ages 15 to 17 (13.0 per 100,000). The lowest rate was for ages 5-9 (0.9 per 100,000).

Manner of violent death for child victims in North Carolina in 2016 is displayed in **Figure 22**, and it is shown stratified by sex in **Table 39**, by race/ethnicity 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 (47.8%) and suicide (44.9%).
- Homicide was the cause of violent death in the majority of NH black children (75.6%).
- Homicide was the leading cause of violent death for infants less than one year (77.8%), for children ages one to four (86.7%), and children ages five to nine (100%).
- Suicide was the cause of violent death in the majority NH white children (62.8%).
- Suicide was the leading cause of violent death for children ages 10 to 14 (81.0%) and ages 15 to 17 (57.7%).

Method of child violent death in North Carolina in 2016 is provided stratified by sex in **Table 42**, by race/ethnicity 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 (49.0%), hanging, strangulation or suffocation (22.6%) and personal weapons (i.e., abuse by a caretaker) (12.8%).
- Firearm was the leading method of child violent death for males (58.8%), NH blacks (46.3%) and NH whites (52.0%).
- Personal weapons (71.4%), blunt instruments (14.3%), and poisoning (14.3%) were the leading methods of violent death in infants less than one year. For children ages one to four, personal weapons (43.8%) and firearms (25.0%) were the leading methods of death. There were six child deaths for ages five to nine, attributed to firearms (50.0%), blunt instruments (33.3%), and personal weapons (16.7%). Hanging, strangulation, or suffocation (50.0%) were and firearms (36.4%) were the top causes of violent child death for ages 10 to 14, as well as for ages 15 to 17 (18.9% and 67.9% respectively).



## Section VI

**Table 38: Demographics of child (under age 18) violent deaths in North Carolina, 2016**

	Number	%	Rate	95% CI
<b>Sex</b>				
Female	34	33.0	3.0	2.0 - 4.0
Male	69	67.0	5.9	4.5 - 7.3
<b>Race/Ethnicity</b>				
White**	51	49.5	4.1	2.9 - 5.2
Black**	41	39.8	7.2	5.0 - 9.5
Asian**	1	1.0	*	*
American Indian**	1	1.0	*	*
Hispanic	7	6.8	1.9	0.5 - 3.3
<b>Age Group (Years)</b>				
<1	9	8.7	7.4	2.6 - 12.3
1-4	15	14.6	3.1	1.5 - 4.7
5-9	6	5.8	0.9	0.2 - 1.7
10-14	21	20.4	3.2	1.8 - 4.6
15-17	52	50.5	13.0	9.5 - 16.6
<b>Total Deaths</b>	<b>103</b>	<b>100</b>	<b>4.5</b>	<b>3.6 - 5.3</b>

Sex, race, Hispanic ethnicity and age-specific crude rates per 100,000 North Carolina population

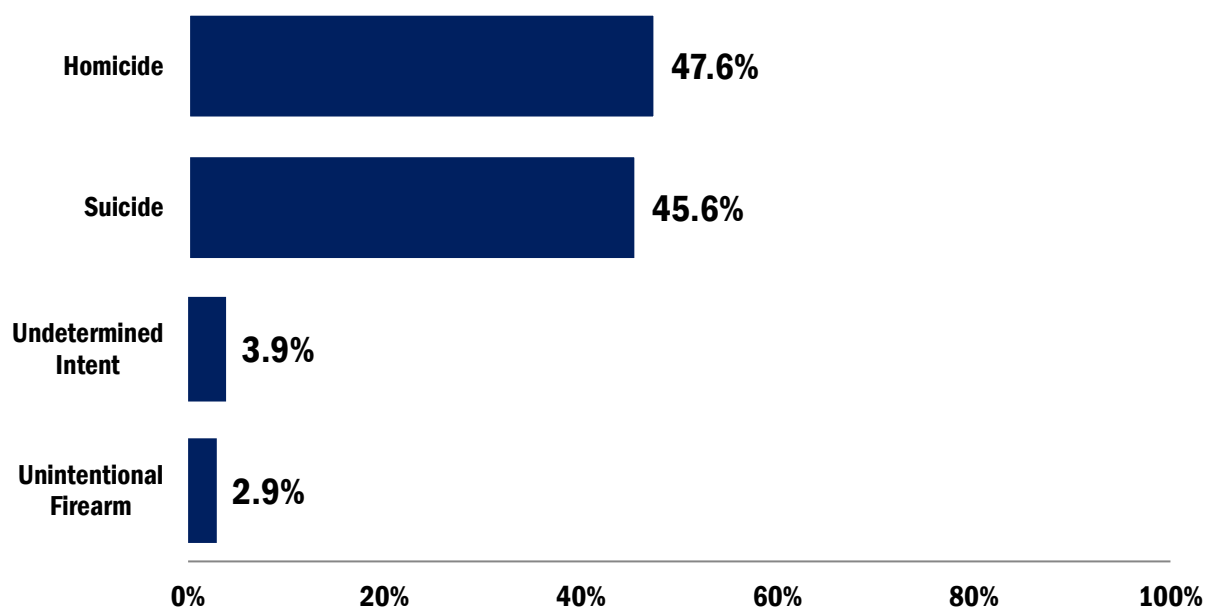
95% CI = 95 percent confidence interval for the rate

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

\*\* Non-Hispanic

**Table 39: Manner of child (under age 18) violent death in North Carolina by sex, 2016**

	Male		Female		Total	
	Number	%	Number	%	Number	%
<b>Manner of Death</b>						
Homicide	33	47.8	16	47.1	49	47.6
Suicide	31	44.9	16	47.1	47	45.6
Undetermined Intent	3	4.4	1	2.9	4	3.9
Unintentional Firearm	2	2.9	1	2.9	3	2.9
<b>Total Deaths</b>	<b>69</b>	<b>100</b>	<b>34</b>	<b>100</b>	<b>103</b>	<b>100</b>

**Figure 22: Manner of child (under age 18) violent death in North Carolina, 2016****Table 40: Manner of child (under age 18) violent death in North Carolina by race/ethnicity, 2016**

Manner of Death	White**		Black**		American Indian**		Asian**		Hispanic	
	Number	%	Number	%	Number	%	Number	%	Number	%
Homicide	15	29.4	31	75.6	1	100.0	0	0.0	2	28.6
Suicide	32	62.8	8	19.5	0	0.0	1	100.0	5	71.4
Undetermined Intent	2	3.9	2	4.9	0	0.0	0	0.0	0	0.0
Unintentional Firearm	2	3.9	0	0.0	0	0.0	0	0.0	0	0.0
<b>Total Deaths</b>	<b>51</b>	<b>100</b>	<b>41</b>	<b>100</b>	<b>1</b>	<b>100</b>	<b>1</b>	<b>100</b>	<b>7</b>	<b>100</b>

\*\* Non-Hispanic

## Section VI

**Table 41: Manner of child (under age 18) violent death in North Carolina by age group, 2016**

Manner of Death	<1		1-4		5-9		10-14		15-17	
	Number	%	Number	%	Number	%	Number	%	Number	%
Homicide	7	77.8	13	86.7	6	100.0	4	19.1	19	36.5
Suicide	0	0.0	0	0.0	0	0.0	17	81.0	30	57.7
Undetermined Intent	2	22.2	1	6.7	0	0.0	0	0.0	1	1.9
Unintentional Firearm	0	0.0	1	6.7	0	0.0	0	0.0	2	3.8
<b>Total Deaths</b>	<b>9</b>	<b>100</b>	<b>15</b>	<b>100</b>	<b>6</b>	<b>100</b>	<b>21</b>	<b>100</b>	<b>52</b>	<b>100</b>

**Table 42: Method of child (under age 18) violent death in North Carolina by sex, 2016**

Method of Death*	Male		Female		Total	
	Number	%	Number	%	Number	%
Firearm	40	58.8	10	29.4	50	49.0
Hanging, strangulation, suffocation	14	20.6	9	26.5	23	22.6
Personal Weapons	8	11.8	5	14.7	13	12.8
Poisoning	1	1.5	2	5.9	3	2.9
Sharp instrument	0	0.0	1	2.9	1	1.0
Blunt Instrument	1	1.5	4	11.8	5	4.9
Intentional Neglect	1	1.5	0	0.0	1	1.0
Violent Shaking	0	0.0	0	0.0	0	0.0
Other/Unknown	3	4.4	3	8.8	6	5.9
<b>Total Deaths</b>	<b>68</b>	<b>100</b>	<b>34</b>	<b>100</b>	<b>102</b>	<b>100</b>

## Section VI

**Table 43: Method of child (under age 18) violent death in North Carolina by race/ethnicity, 2016**

Method of Death*	White**		Black**		American Indian**		Asian**		Hispanic	
	Number	%	Number	%	Number	%	Number	%	Number	%
Firearm	26	52.0	19	46.3	1	100.0	0	0.0	3	42.9
Hanging, strangulation, suffocation	13	26.0	5	12.2	0	0.0	1	100.0	4	57.1
Personal Weapons	6	12.0	7	17.1	0	0.0	0	0.0	0	0.0
Poisoning	0	0.0	2	4.9	0	0.0	0	0.0	0	0.0
Sharp instrument	1	2.0	0	0.0	0	0.0	0	0.0	0	0.0
Blunt Instrument	0	0.0	5	12.2	0	0.0	0	0.0	0	0.0
Intentional Neglect	0	0.0	1	2.4	0	0.0	0	0.0	0	0.0
Violent Shaking	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Other/Unknown	4	8.0	2	4.9	0	0.0	0	0.0	0	0.0
<b>Total Deaths</b>	<b>50</b>	<b>100</b>	<b>41</b>	<b>100</b>	<b>1</b>	<b>100</b>	<b>1</b>	<b>100</b>	<b>7</b>	<b>100</b>

\*\* Non-Hispanic

**Table 44: Method of child (under age 18) violent death in North Carolina by age group, 2016**

Method of Death	<1		1-4		5-9		10-14		15-17	
	Number	%	Number	%	Number	%	Number	%	Number	%
Firearm	0	0.0	4	25.0	3	50.0	7	33.3	36	69.2
Hanging, strangulation, suffocation	0	0.0	2	12.5	0	0.0	11	52.4	10	19.2
Personal Weapons	5	71.4	7	43.8	1	16.7	0	0.0	0	0.0
Poisoning	1	14.3	1	6.3	0	0.0	0	0.0	1	1.9
Sharp instrument	0	0.0	0	0.0	0	0.0	1	4.8	0	0.0
Blunt Instrument	1	14.3	0	0.0	2	33.3	1	4.8	1	1.9
Intentional Neglect	0	0.0	1	6.3	0	0.0	0	0.0	0	0.0
Violent Shaking	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Other/Unknown	0	0.0	1	6.3	0	0.0	1	4.8	4	7.7
<b>Total Deaths</b>	<b>7</b>	<b>100</b>	<b>16</b>	<b>100</b>	<b>6</b>	<b>100</b>	<b>21</b>	<b>100</b>	<b>52</b>	<b>100</b>

\*\* Non-Hispanic

## Section VII: Undetermined Intent

The NC-VDRS defines an undetermined intent death as a death 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 2016 by sex, race/ethnicity and age.

### Key Findings:

- In 2016, 57 undetermined intent deaths (0.6 per 100,000) were reported in North Carolina.
- Males had an undetermined death rate of 1.4 times that of females (0.6 versus 0.5 per 100,000).
- NH whites accounted for 87.7 percent of undetermined intent victims.
- The majority (81.0%) of undetermined intent death victims were among those ages 20 to 64, and the highest undetermined intent death rate by age group was among those 55 to 64 years (0.9 per 100,000).

**Table 46** summarizes the method of undetermined intent deaths in North Carolina in 2016. **Table 47** shows the category of the fatal substance that caused the undetermined intent poisoning deaths in North Carolina in 2016.

### Key Findings:

- The leading methods of undetermined intent deaths were poisoning (70.2%) and firearm (12.3%).
- Most undetermined intent poisoning deaths involved an opiate (either illicit or prescription) (57.5%), followed by benzodiazepines (32.5%) and antidepressants (22.5%).
- A handgun was involved in five of seven undetermined intent firearm deaths that occurred in North Carolina in 2016.
- Multiple firearm types were not reported for any undetermined intent fatalities in 2016. Therefore, the total number of firearms equals the number of undetermined intent firearm deaths.

**Table 48** provides the number of undetermined intent deaths in 2016 by North Carolina County of residence.

**Table 45: Demographics of undetermined intent death victims in North Carolina, 2016**

	Number	%	Rate	95% CI
<b>Sex</b>				
Female	25	43.9%	0.5	0.3 - 0.7
Male	32	56.1%	0.6	0.4 - 0.9
<b>Race/Ethnicity</b>				
White**	50	87.7%	0.8	0.6 - 1.0
Black**	5	8.8%	0.2	0.0 - 0.4
Asian**	1	1.8%	0.0	-
American Indian**	0	0.0%	*	*
Hispanic	1	1.8%	0.0	-
<b>Age Group (Years)</b>				
< 1	1	2%	0.0	-
1-4	1	2%	*	*
5-9	0	0%	0.0	-
10-14	0	0%	0.0	-
15-19	2	4%	*	*
20-24	5	9%	0.7	0.1 - 1.3
25-34	9	16%	0.7	0.2 - 1.1
35-44	10	18%	0.8	0.3 - 1.3
45-54	10	18%	0.7	0.3 - 1.2
55-64	12	21%	0.9	0.4 - 1.4
65-74	4	7%	*	*
75-84	1	2%	0.0	-
≥85	2	4%	*	*
<b>Total Deaths</b>	<b>57</b>	<b>100%</b>	<b>0.6</b>	<b>0.4 - 0.7</b>

Sex, race/ethnicity and age-specific crude rates per 100,000 North Carolina population

95% CI = 95 percent confidence interval for the rate

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

\*\* Non-Hispanic

## Section VII

**Table 46: Method of undetermined intent deaths in North Carolina, 2016**

	Number	%
<b>Method of Death</b>		
Poisoning	40	70.2
Firearm	7	12.3
Drowning	4	7.0
Motor vehicle including buses, motorcycles	2	3.5
Personal weapons	1	1.8
Intentional neglect, e.g., starving a baby	0	0.0
Fire or burns	0	0.0
Other/Unknown	3	5.3
<b>Total Deaths</b>	<b>57</b>	<b>100</b>

**Table 47: Fatal substances in undetermined intent poisoning deaths in North Carolina by sex, 2016**

Category of Fatal Substance*	Male		Female		Total	
	Number	%	Number	%	Number	%
Opiate**	12	63.2	11	52.4	23	57.5
Antidepressant	3	15.8	6	28.6	9	22.5
Benzodiazepines	5	26.3	8	38.1	13	32.5
Barbiturates	0	0.0	1	4.8	1	2.5
Carbon Monoxide	2	10.5	0	0.0	2	5.0
Alcohol	0	0.0	2	9.5	2	5.0
Amphetamine	3	15.8	0	0.0	3	7.5
Cocaine	3	15.8	3	14.3	6	15.0
Other Poison***	3	15.8	5	23.8	8	20.0

\* Category of substance that directly caused or was suspected to cause undetermined intent poisoning deaths. There were 22 undetermined intent poisonings (55%) where more than one substance caused the death in 2016, with as many as four fatal substances present in a given case (<1%).

\*\* Opiate includes both prescription opioids and illicit substances such as heroin

\*\*\* Other poison includes substances that did not fall into any of the summary categories

**Table 48: Undetermined intent deaths in North Carolina by county of residence, 2016**

County	Number	County	Number	County	Number
Alamance	1	Harnett	1	Pitt	1
Beaufort	1	Haywood	1	Randolph	1
Bladen	1	Hertford	1	Rutherford	1
Brunswick	1	Iredell	1	Sampson	1
Buncombe	3	Johnston	1	Stanly	1
Burke	1	Lenoir	1	Stokes	1
Caldwell	1	Lincoln	1	Surry	1
Catawba	2	McDowell	1	Swain	1
Cleveland	1	Mecklenburg	3	Union	1
Craven	2	Moore	1	Vance	1
Davidson	1	Nash	1		
Forsyth	6	New Hanover	1		
Gaston	1	Onslow	1		
Guilford	3	Orange	1		
Halifax	1	Pender	1		



## Section VIII

### Section VIII: Violent Death Trend Over Time

**Table 49** shows the number and the rate of violent deaths over time in North Carolina from 2005 to 2016, including overall violent deaths, suicides for people ages 10 or older and homicides. **Figure 23** plots the overall violent death, suicide and homicide rates in North Carolina from 2005 to 2016.

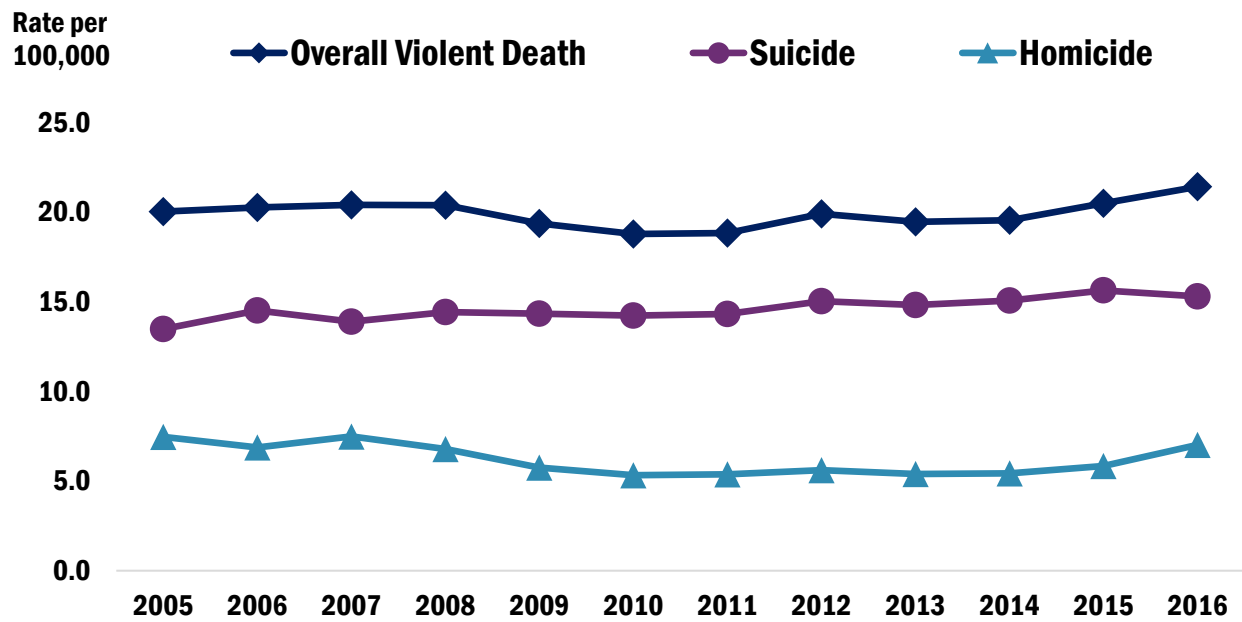
#### Key Findings:

- The overall violent death rate in North Carolina has remained fairly stable from 2005 (20.0 per 100,000) to 2016 (21.4 per 100,000).
- From 2005 to 2016 in North Carolina, the death rates have slightly increased for suicides (range of 13.5 to 15.6 per 100,000 by year) and slightly decreased for homicides (range of 5.3 to 7.5 per 100,000 by year).

**Table 49: Trends of violent deaths over time in North Carolina, 2005-2016**

Year	Overall Violent Deaths		Suicides (Ages ≥10)		Homicides	
	Number	Rate	Number	Rate	Number	Rate
2005	1,737	20.0	1,010	13.5	647	7.5
2006	1,797	20.3	1,111	14.5	609	6.9
2007	1,850	20.4	1,085	13.9	679	7.5
2008	1,885	20.4	1,148	14.4	628	6.8
2009	1,817	19.4	1,158	14.3	540	5.8
2010	1,791	18.8	1,177	14.2	508	5.3
2011	1,819	18.8	1,202	14.3	519	5.4
2012	1,941	19.9	1,277	15.0	547	5.6
2013	1,916	19.5	1,273	14.8	532	5.4
2014	1,944	19.5	1,310	15.1	540	5.4
2015	2,058	20.5	1,375	15.6	586	5.8
2016	2,173	21.4	1,362	15.3	712	7.0

**Figure 23: Trends of violent death rates over time in North Carolina, 2005-2016**



## Appendix A: Population Data for Rate Calculations

### Appendix A: North Carolina 2016 population data by sex, race/ethnicity and age group

	Number of Population	Number of People Ages 10 or Older (for Suicide Rates)	Number of Children (<18 Years of Age)
<b>Sex</b>			
Female	5,213,836	4,603,018	1,127,746
Male	4,932,952	4,297,291	1,170,974
<b>Race/Ethnicity</b>			
White**	6,539,036	5,876,497	1,258,132
Black**	2,243,994	1,936,262	566,279
Asian**	309,907	264,369	80,101
American Indian**	121,630	105,334	30,420
Hispanic	932,221	717,847	363,788
<b>Age Group (Years)</b>			
< 1	120,842	-	120,842
1-4	485,468	-	485,468
5-9	640,169	-	640,169
10-14	652,704	652,704	652,704
15-17	-	-	399,537
15-19	669,708	669,708	-
20-24	696,063	696,063	-
25-34	1,335,454	1,335,454	-
35-44	1,290,237	1,290,237	-
45-54	1,385,750	1,385,750	-
55-64	1,300,928	1,300,928	-
65-74	941,813	941,813	-
75-84	449,842	449,842	-
≥85	177,810	177,810	-
<b>Total Population</b>	<b>10,146,788</b>	<b>8,900,309</b>	<b>2,298,720</b>

\*\* Non-Hispanic

## **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 (2011-2016).

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

#### **Steering Committee:**

##### **Stephen Marshall, PhD**

Associate Professor, Department of Epidemiology, Director Injury Prevention Research Center, UNC-CH

##### **Anna E. Waller, ScD**

Research Professor, Department of Emergency Medicine, Director, Carolina Center for Health Informatics, and Adjunct Faculty, Department of Health Behavior, UNC-CH.

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

##### **Matthew Avery**

N.C. State Center for Health Statistics, Division of Public Health

##### **Becky Ceartas**

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

##### **Phil Cook, PhD**

Professor, Terry Stanford Public Policy, Duke University

##### **Alan Dellapenna, RS, MPH**

Branch Head, Injury and Violence Prevention Branch, N.C. Department of Health and Human Services

##### **C.J. Davis**

Chief of Police, Durham Police Department

##### **Elizabeth Gifford, PhD**

Assistant Research Professor, Terry Stanford Public Policy, Duke University

##### **Phillip Graham, DrPH, MPH**

Public Health Researcher, RTI International

##### **Gayle Harris**

Director, Durham County Health Department

##### **Kella Hatcher**

Executive Director, NC Child Fatality Task Force

##### **Amy Ising**

Associate Director, Carolina Center for Health Informatics, Department of Emergency Medicine, and Adjunct Faculty, Department of Epidemiology, UNC-CH.

**Rebecca Macy**

Associate Professor, School of Social Work, University of North Carolina-Chapel Hill

**Alison Miller**

*Epidemiologist*, N.C. Office of Chief Medical Examiner

**Jane Miller**

*Program Consultant-Suicide Prevention*, Injury and Violence Prevention Branch, NC Div. of Public Health

**Zack Moore, MD, MPH**

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

**Beth Moracco, PhD, MPH**

*Research Associate Professor*, Department of *Health Behavior and Health Education*, UNC-CH

**Marcia Owen**

*Community Volunteer*, Religious Coalition for Nonviolent Durham

**Timothy Parker**

*Director*, *Criminal Justice Analysis Center of the NC Governor's Crime Commission*

**Rick Pendergrass**

*Deputy Assistant Chief*, Durham Police Department

**Deborah Radisch, MD**

*N.C. Chief Medical Examiner*, N.C. Office of Chief Medical Examiner

**Joel Rosch, PhD**

*Senior Research Scholar (retired)*, Child and Health Policy Initiative,  
Center for Child and Family Policy, Terry Sanford Institute, Duke University

**Kristen Rosselli**

*Chief Strategy Officer*, TROSA, Durham

**Glorina Stallworth**

*Program Consultant, Rape, Prevention and Education (RPE)*, Injury and Violence Prevention Branch

**Kevin Strom**

*Public Health Researcher*, RTI International

**Kevin Underhill**

*Interim Director*, Durham County Emergency Medical Services

## Appendix C: Glossary

Adult	Person was 18 years of age or older on date of death.
Child	Person was younger than 18 years of age on date of death.
Homicide	A death resulting from the intentional use of force or power, threatened or actual, against another person, group or community.
Legal intervention	Decedent was killed by a police officer, military police officer or other peace officer acting in the line of duty. In North Carolina, legal intervention includes legal executions.
NVDRS	National Violent Death Reporting System
NC-VDRS	North Carolina Violent Death Reporting System
Occurrent death	Death occurred in North Carolina during the specified time frame. Decedent may or may not have been a resident at the time of death.
Peace officer	Person with specified legal authority to use deadly force.
Rates	Calculated as number of deaths x 100,000/population.
Resident death	Victim was a North Carolina resident at the time of death and the death occurred in North Carolina. All deaths reported in this report are resident deaths.
Suicide	A death resulting from the intentional use of force against oneself. Suicides are classified among violent deaths only for people age 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.



NC DEPARTMENT OF  
**HEALTH AND  
HUMAN SERVICES**  
Division of Public Health

North Carolina  
Injury & Violence  
**PREVENTION** Branch

**State of North Carolina • Roy Cooper, Governor**  
**Department of Health and Human Services • Mandy Cohen, Secretary**  
**Division of Public Health • Elizabeth Cuervo Tilson, M.D., MPH, State Health Director**  
**Injury and Violence Prevention Branch**

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

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North Carolina Violent Death



Reporting System

**North Carolina Division of Public Health**

**Violent Death Reporting System  
2016 Annual Report**

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