

North Carolina

Violent Death Reporting System

2017

Annual Report



North Carolina
Injury & Violence
Prevention Branch

North Carolina Department of Health and Human Services
October 2019



Annual Report 2017

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

October 2019

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Executive Summary

North Carolina Violent Death Reporting System, 2017

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 violent 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 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 2017.

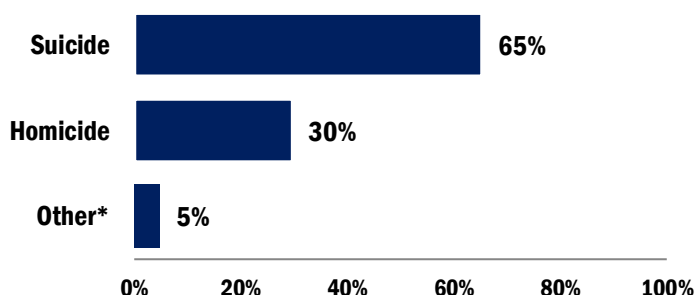
Overall Violent Deaths

In 2017, 2,300 North Carolina residents (22.4 per 100,000) died as a result of violence. The leading causes of violent death were suicide (65.4%) and homicide (29.8%) (Figure i). Leading methods of violent death were firearm (61.0%), hanging, strangulation or suffocation (17.1%), and poisoning (11.4%). The most common firearms involved in violent firearm deaths were handguns (76.5%), shotguns (10.1%) and rifles (7.5%).

Males were 3.6 times as likely to die from violence as women (35.5 vs. 9.9 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 (27.7), NH black (26.0), NH white (23.4), Hispanic (11.2), and NH Asian (6.7).

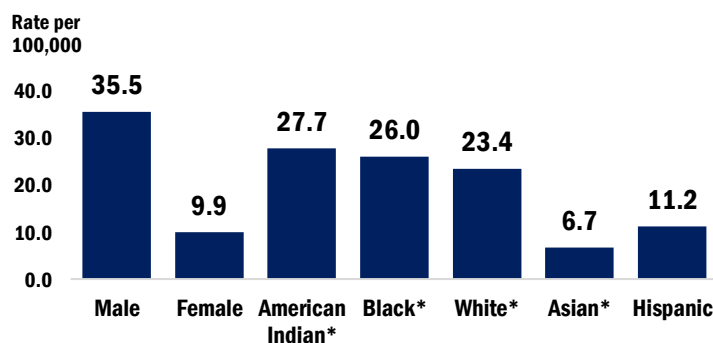
Adults from ages 20 to 64 years had the highest violent death rates by age per 100,000 as follows: 25 to 34 (32.3), 20 to 24 (31.9), 35 to 44 (30.2), 45 to 54 (27.7) and 85+ (26.9). The violent death rate trends by age differed by sex, with males showing higher rates than females across nearly all age groups (Figure iii).

Figure i: Manner of violent death in North Carolina, 2017



* Other includes undetermined intent, legal intervention and unintentional firearm

Figure ii: Overall violent death rates by sex and race/ethnicity in North Carolina, 2017



* Non-Hispanic

Executive Summary

Suicides

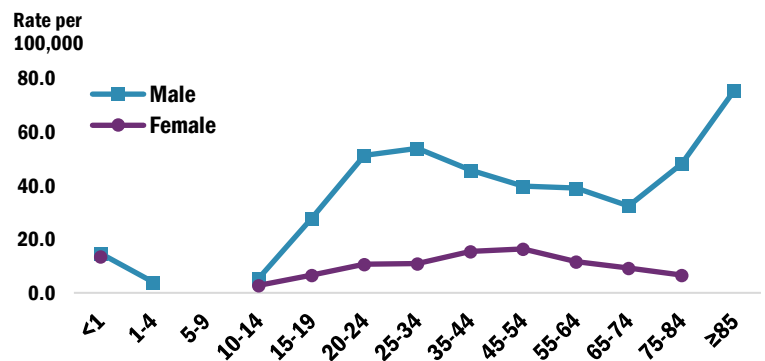
Suicide was the cause of death for 1,503 North Carolinians (16.6 per 100,000) in 2017. Suicides were most commonly completed by a firearm (55.9%), hanging, strangulation, or suffocation (25.0%) and poisoning (14.2%). A handgun was the most common firearm, involved in 76.7% of suicide firearm deaths. Opiates were the most common substance category present in suicide poisonings (44.1%), followed by antidepressants (32.9%) and benzodiazepines (29.6%).

Men were 3.5 times more likely to die from suicide than women (26.3 versus 7.6 per 100,000, respectively) (Figure iv). Among suicide victims, 76.4% were male, and 84.2% were NH white. The suicide rate per 100,000 was highest among NH whites (21.4) and NH American Indians (16.9), and lower among NH blacks (7.4), NH Asians (6.1), and Hispanics (7.3).

The age group with the highest suicide rate was those 85+ (22.0 per 100,000), followed by ages 45-54 and 75-84 (both 20.1 per 100,000). 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 64.0 per 100,000 (Figure v).

The most common circumstances of suicide were having ever been treated for mental illness (54.6%), current mental health problem (52.9%), current treatment for mental illness (39.4%), a recent crisis (45.1%) and a history of suicidal thoughts (36.7%). Most (76.5%) with a current mental health problem had depression. Other common circumstances of suicide were problems with an intimate partner (26.0%), physical health problem (29.9%), an alcohol problem (16.7%), or other substance abuse problem (19.2%).

Figure iii: Overall Violent Death Rates in North Carolina: Age Group by Sex, 2017



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, 2017

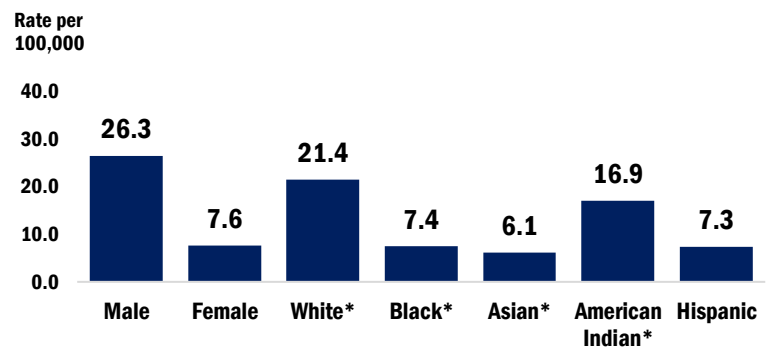
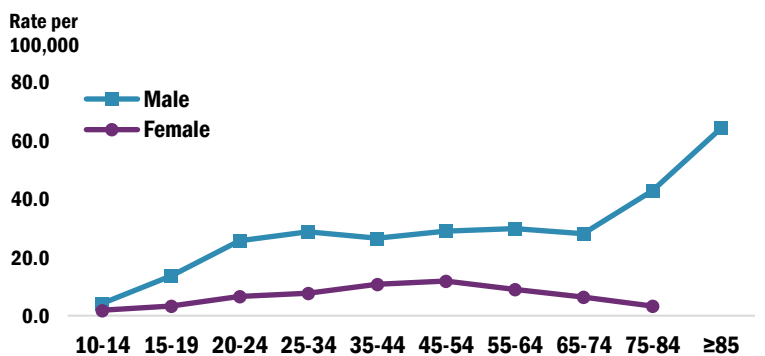


Figure v: Suicide rates in North Carolina: Age group by sex, 2017



Note: Not all age groups had enough deaths to calculate a rate.

Of the 97.3 % of suicide victims tested, 29.1 % had alcohol present at the time of death. Most (77.1%) injuries resulting in suicide occurred in a house or apartment.

Homicides

A total of 685 North Carolinians (6.7 per 100,000) were homicide victims in 2017. Firearm (77.1%) and sharp instruments (9.1%) were the most common homicide methods. Handguns accounted for 73.2% of firearms used in homicide firearm deaths.

Men accounted for 80.3% of homicide victims and were 4.3 times more likely to die from homicide than women (11.0 vs. 2.6 per 100,000, respectively) (Figure vi). Unlike suicide rates, homicide rates were higher among NH blacks (18.2 per 100,000) and NH American Indians (12.2 per 100,000) than in NH Asians (1.5 per 100,000), NH whites (3.1 per 100,000), and Hispanics (4.8 per 100,000).

Homicide rates were highest in the following age groups: 20 to 24 years (13.9 per 100,000), 25 to 34 years (12.6 per 100,000), and infants younger than one (12.5 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 7.4 times greater among males than females.

The most common event circumstances surrounding homicides were an argument, abuse or conflict (39.8%), precipitated by another serious crime (33.8%), intimate partner violence related (18.0%) and drug involvement (15.4%). Homicides occurred most often in a house or apartment (60.3%), a street, road, sidewalk or alley (9.1%), or a motor vehicle (11.7%).

Figure vi: Homicide rates by sex and race/ethnicity in North Carolina, 2017

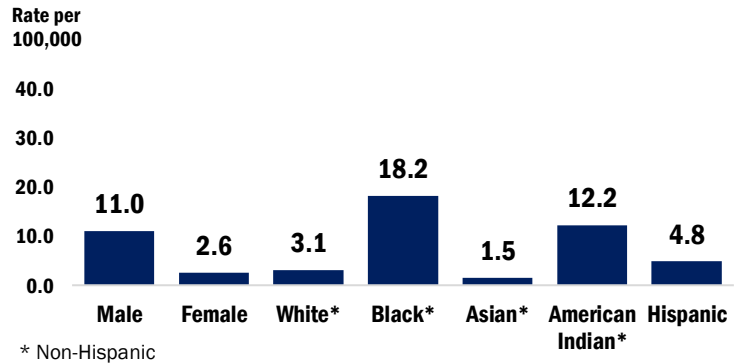
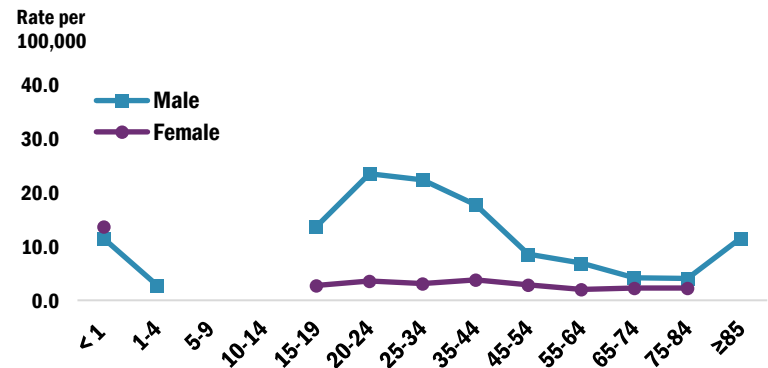


Figure vii: Homicide rates in North Carolina: Age group by sex, 2017



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

Legal Intervention

Twenty-one North Carolina residents died in 2017 from legal intervention. These victims were killed by police or other law enforcement officers acting in the line of duty. Of legal intervention victims, 95.2% were male, and all victims were from 20 to 64 years of age, and most were NH white (47.6%). All but one legal intervention death occurred by firearm; of the total firearms involved (n=24), handguns were used most frequently (53.8%).

Executive Summary

Unintentional Firearm Deaths

In 2017, 12 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 (83.3%) followed by a rifle or shotgun (both 8.3%).

Child Violent Deaths (0 to 17)

In North Carolina in 2017, 105 children (4.6 per 100,000) died from violence. Homicide (48.6%) and suicide (41.9%) were the leading causes of child violent death. Firearm (41.0%), hanging, strangulation, or suffocation (30.5%) and personal weapons† (16.2%) were the most common methods of child death.

Male children were 2.8 times as likely to be victims of violent death as female children (6.6 vs. 2.4 per 100,000, respectively). The violent death rate per 100,000 was 2.0 times higher for NH black children (8.0 per 100,000) than for NH white children (4.1 per 100,000).

Undetermined Intent

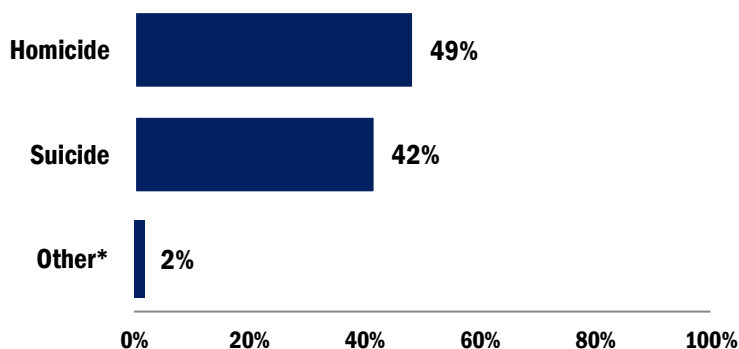
A total of 79 deaths of undetermined intent (0.8 per 100,000) were reported in North Carolina in 2017. The leading methods of undetermined intent deaths were poisoning (60.8%) and fall (10.1%).

Violent Death over Time

The overall violent death rate in North Carolina remained fairly stable from 2006 to 2017, averaging 20.1 per 100,000 per year. The overall violent death rate was 20.3 per 100,000 in 2006, 18.8 per 100,000 in 2010, and 21.5 per 100,000 in 2017.

†See glossary for a definition of personal weapons.

Figure viii: Manner of violent death among children in North Carolina, 2017



* Other includes undetermined intent and unintentional firearm

Introduction

Violence-related injuries are among the leading causes of death in the United States. In 2017, there were more than 47,000 suicides and 19,500 homicides nationwide, many of which were preventable. In North Carolina, more than 18,852 residents died from suicide or homicide in the 10-year period from 2008 to 2017. In that same period, suicide and homicide ranked as the state's 10th and 16th leading causes of death, respectively. Among specific age groups, violent death constitutes an even greater risk. In North Carolina in 2017, suicide was the second 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 third leading cause of death for children ages one to four, and third 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 2017, suicide was the eighth leading cause of death, compared to the fifteenth leading cause among females. Homicide was the ninth leading cause of death in NH blacks, and suicide was the ninth leading cause of death in NH whites in North Carolina in 2017. Among Hispanics in North Carolina, suicide and homicide were respectively the sixth and eighth leading causes of death in 2017.

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 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, some territories 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, 2017, to December 31, 2017. The 2017 data file used for this report was generated in May 2019. Note that if changes are made to the 2017 data in NC-VDRS after this date, the 2017 violent death data could change in future reports/presentations. 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 2017. 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;
- 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 using CDC guidelines.
- **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 US Census bridged North Carolina population data (vintage 2017) 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 of North Carolina.

- **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=2,300).
- **Occurrent deaths** capture all deaths that occur within North Carolina during the specified time, regardless of the residential status of the decedent (N=2,391).

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% 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:

Alamance County Sheriff's Office
Albemarle Police Department
Alexander County Sheriff's Office
Alleghany County Sheriff's Office
Angier Police Department
Anson County Sheriff's Office
Apex Police Department
Asheboro Police Department
Asheville Police Department
Avery County Sheriff's Office
Beaufort County Sheriff's Office
Benson Police Department
Bertie County Sheriff's Office
Beulaville Police Department
Black Mountain Police Department
Bladen County Sheriff's Office
Brevard Police Department
Brunswick County Sheriff's Office
Buncombe County Sheriff's Office
Burke County Sheriff's Office
Burlington Police Department
Cabarrus County Sheriff's Office
Caldwell County Sheriff's Office
Carteret County Sheriff's Office
Cary Police Department
Caswell County Sheriff's Office
Catawba County Sheriff's Office
Chapel Hill Police Department
Chatham County Sheriff's Office
Cherokee County Sheriff's Office
Cherryville Police Department
Clay County Sheriff's Office
Clayton Police Department
Cleveland County Sheriff's Office
Clinton Police Department
Clyde Police Department
Charlotte Mecklenburg Police Department
Columbus County Sheriff's Office

Concord Police Department
Conover Police Department
Cornelius Police Department
Craven County Sheriff's Office
Cumberland County Sheriff's Office
Currituck County Sheriff's Office
Dallas Police Department
Davidson County Sheriff's Office
Davie County Sheriff's Office
Dunn Police Department
Duplin County Sheriff's Office
Durham County Sheriff's Office
Durham Police Department
Eden Police Department
Edenton Police Department
Edgecombe County Sheriff's Office
Elizabeth City Police Department
Elkin Police Department
Elon Police Department
Enfield Police Department
Fairmont Police Department
Fayetteville Police Department
Fletcher Police Department
Forest City Police Department
Forsyth County Sheriff's Office
Franklin County Sheriff's Office
Franklinton Police Department
Fuquay-Varina Police Department
Garner Police Department
Gaston County Police Department
Gastonia Police Department
Gates County Sheriff's Office
Gibsonville Police Department
Goldsboro Police Department
Graham Police Department
Granville County Sheriff's Office
Greene County Sheriff's Office
Greensboro Police Department

Acknowledgements

Greenville Police Department
Guilford County Sheriff's Office
Halifax County Sheriff's Office
Harnett County Sheriff's Office
Haywood County Sheriff's Office
Henderson County Sheriff's Office
Henderson Police Department
Hendersonville Police Department
Hertford County Sheriff's Office
Hickory Police Department
High Point Police Department
Hillsborough Police Department
Hoke County Sheriff's Office
Huntersville Police Department
Hyde County Sheriff's Office
Iredell County Sheriff's Office
Jackson County Sheriff's Office
Jacksonville Police Department
Johnston County Sheriff's Office
Kannapolis Police Department
Kernersville Police Department
Kings Mountain Police Department
Kinston Police Department
Knightdale Police Department
Laurinburg Police Department
Lee County Sheriff's Office
Lenoir County Sheriff's Office
Lexington Police Department
Lillington Police Department
Lincoln County Sheriff's Office
Littleton Police Department
Longview Police Department
Louisburg Police Department
Lumberton Police Department
Macon County Sheriff's Office
Madison County Sheriff's Office
Madison Police Department
Maggie Valley Police Department
Martin County Sheriff's Office
Matthews Police Department
Maxton Police Department
McDowell County Sheriff's Office
Mebane Police Department
Mint Hill Police Department
Mitchell County Sheriff's Office
Monroe Police Department
Montgomery County Sheriff's Office
Moore County Sheriff's Office
Mooresville Police Department
Morehead City Police Department
Morganton Police Department
Morrisville Police Department

Mount Airy Police Department
Mount Holly Police Department
Murphy Police Department
Nags Head Police Department
Nash County Sheriff's Office
New Hanover County Sheriff's Office
Newport Police Department
Newton Police Department
Northampton County Sheriff's Office
Oak Island Police Department
Onslow County Sheriff's Office
Orange County Sheriff's Office
Oxford Police Department
Pamlico County Sheriff's Office
Pasquotank County Sheriff's Office
Pender County Sheriff's Office
Perquimans County Sheriff's Office
Pinehurst Police Department
Pineville Police Department
Pitt County Sheriff's Office
Pittsboro Police Department
Plymouth Police Department
Polk County Sheriff's Office
Polkton Police Department
Raleigh Police Department
Randleman Police Department
Randolph County Sheriff's Office
Reidsville Police Department
Richmond County Sheriff's Office
Roanoke Rapids Police Department
Robeson County Sheriff's Office
Rockingham County Sheriff's Office
Rocky Mount Police Department
Rowan County Sheriff's Office
Roxboro Police Department
Rutherford County Sheriff's Office
Rutherford Police Department
Rutherfordton Police Department
Salisbury Police Department
Sampson County Sheriff's Office
Scotland County Sheriff's Office
Scotland Neck Police Department
Shelby Police Department
Smithfield Police Department
Southern Pines Police Department
Sparta Police Department
St Pauls Police Department
Stallings Police Department
Stanly County Sheriff's Office
Statesville Police Department
Stokes County Sheriff's Office
Surf City Police Department

Acknowledgements

Surry County Sheriff's Office
Thomasville Police Department
Topsail Beach Police Department
Transylvania County Sheriff's Office
Trent Woods Police Department
Troy Police Department
Tyrell County Sheriff's Office
Union County Sheriff's Office
Valdese Police Department
Vance County Sheriff's Office
Wadesboro Police Department
Wake County Sheriff's Office
Warren County Sheriff's Office
Washington Police Department

Wayne County Sheriff's Office
Waynesville Police Department
Weldon Police Department
Whiteville Police Department
Wilkes County Sheriff's Office
Wilmington Police Department
Wilson County Sheriff's Office
Wilson Police Department
Woodfin Police Department
Winston Salem Police Department
Yadkin County Sheriff's Office
Yancey County Sheriff's Office
Youngsville Police Department

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, spend 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 2017 and the period of the data close-out (2017-2018), 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 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 2017 by demographic characteristics of sex, race/ethnicity and age. The 2017 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 2,300 North Carolinians (22.4 per 100,000) died as a result of violence in 2017.
- Males were 3.6 times as likely to die from violence as females (35.5 versus 9.9 per 100,000, respectively).
- Non-Hispanic (NH) American Indians had the highest violent death rate per 100,000 (27.7) followed by NH blacks (26.0), NH whites (23.4), Hispanics (11.2), and NH Asians 6.7).
- Adults ages 25 to 34 years had the highest violent death rate per 100,000 (32.3), followed by adults ages: 20-24 (31.9), 35 to 44 (30.2), 45 to 54 (27.7), and 85+ (26.9).
- Among children under the age of 15, children less than one year old had the highest violent death rate (14.1 per 100,000).

Table 2 lists the manner and method of violent deaths in North Carolina in 2017. N.C. violent deaths in 2017 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 (65.4%) and homicide (29.8%).
- The leading methods of violent death were firearm (61.0%), hanging, strangulation or suffocation (17.1%) and poisoning (11.4%).
- The most common firearm involved in violent firearm deaths was a handgun (76.5%).

Table 4 characterizes adult violent death victims (18 years or older) in North Carolina in 2017 by the number of years of completed education, marital status and veteran status.

Key Findings:

- Most adult victims completed high school (79.2%); 38.9% completed at least some college.
- Almost one-third of adult violent death victims were married, in a civil union, or a domestic partnership (30.8%). More than one-third were never married (40.8%). Fewer victims were divorced (18.6%) or widowed (5.0%).
- Military veterans accounted for 16.1% of North Carolina adult violent death victims in 2017.

Table 5 and **Figure 5** show the overall violent death rates in 2017 by North Carolina county of residence. County violent death rates should be interpreted with caution because the numbers of violent deaths by county are small and subject to variation. The number of deaths in 20 counties was too small to support a rate calculation (greater than zero, but less than 5).

Section I

Key Findings:

- For the 79 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 25.5 deaths per 100,000 with a range from 0.0 to 49.8 deaths per 100,000.

Table 1: Demographics of violent death victims in North Carolina, 2017

	Number	%	Rate	95% CI
Sex				
Female	523	22.7	9.9	9.1 - 10.8
Male	1,777	77.3	35.5	33.9 - 37.2
Race/Ethnicity				
White**	1,539	66.9	23.4	22.2 - 24.6
Black**	590	25.7	26.0	23.9 - 28.1
Asian**	34	1.5	27.7	18.4 - 37.0
American Indian**	22	1.0	6.7	3.9 - 9.5
Hispanic	109	4.7	11.2	9.1 - 13.3
Unknown	6	0.3	--	--
Age Group (Years)				
< 1	17	0.6	14.1	7.4 - 20.8
1-4	13	0.2	2.7	1.2 - 4.1
5-9	5	1.2	0.8	0.1 - 1.5
10-14	27	5.1	4.1	2.6 - 5.6
15 - 19	118	9.7	17.4	14.3 - 20.6
20 - 24	222	19.2	31.9	27.7 - 36.0
25 - 34	442	17.0	32.3	29.2 - 35.3
35 - 44	390	16.7	30.2	27.2 - 33.2
45 - 54	384	14.1	27.7	24.9 - 30.5
55 - 64	324	8.5	24.5	21.8 - 27.2
65 - 74	195	5.0	19.9	17.1 - 22.7
75 - 84	114	2.1	24.4	19.9 - 28.9
85 +	49	100.0	26.9	19.4 - 34.5
Total Deaths	2,300	100	22.4	21.5 - 23.3

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

95% CI = 95% 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, 2017

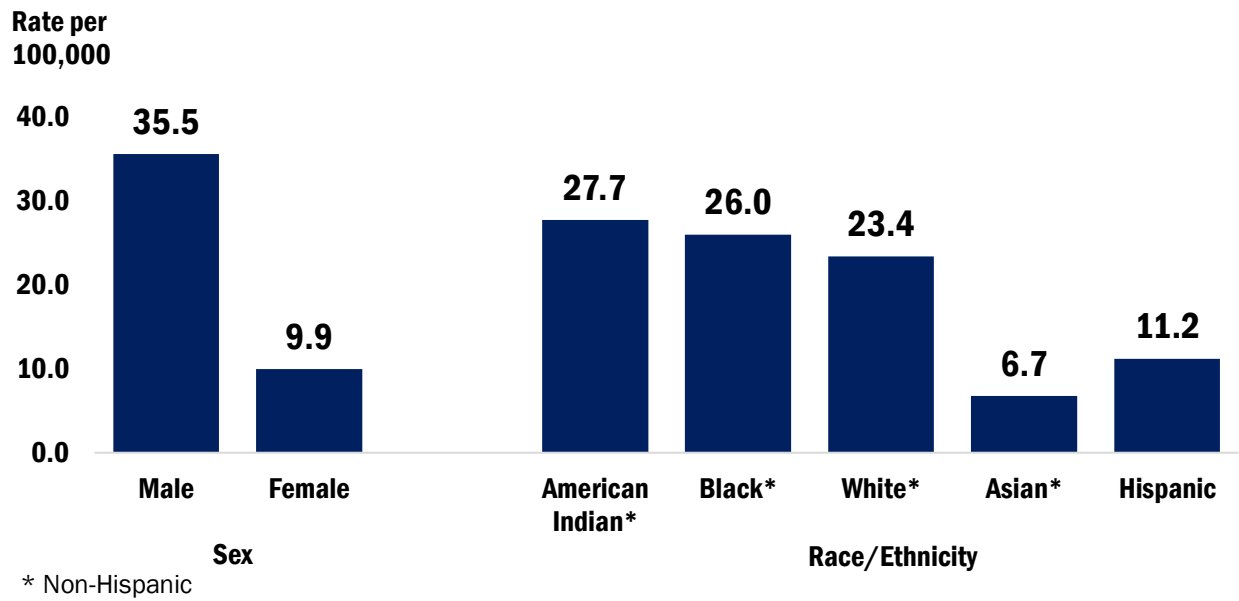
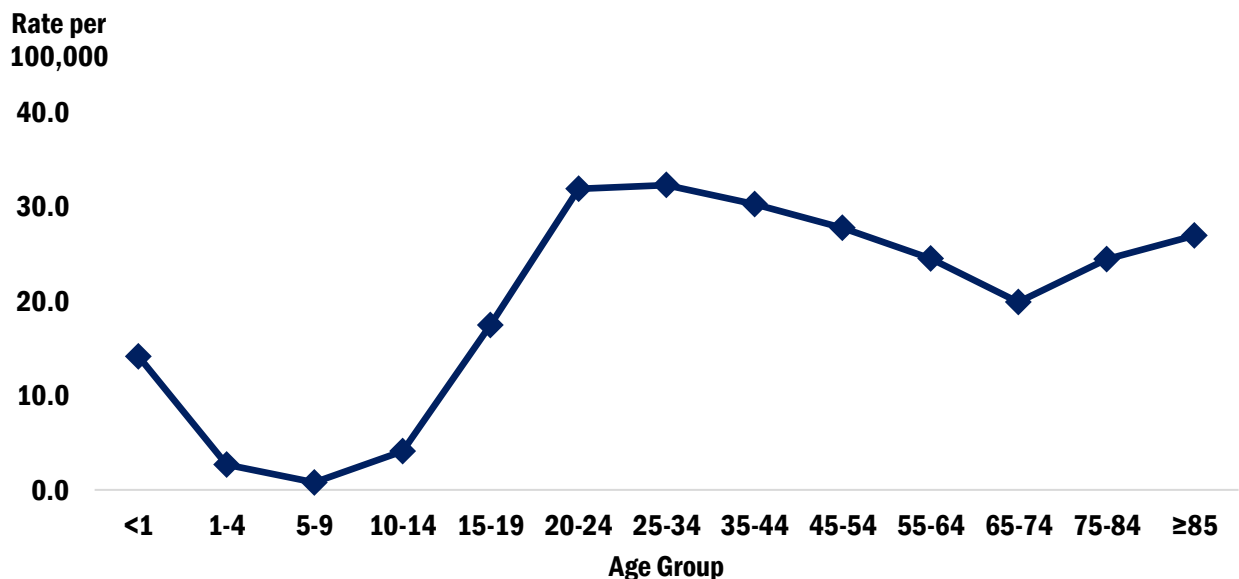


Figure 2: Age-specific crude overall violent death rates by age group in North Carolina, 2017



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, 2017

	Number	%
Manner of Death		
Suicide	1,503	65.4
Homicide	685	29.8
Undetermined Intent	79	3.4
Legal Intervention	21	0.9
Unintentional Firearm	12	0.5
Method of Death		
Firearm	1,403	61.0
Hanging, Strangulation, Suffocation	394	17.1
Poisoning	263	11.4
Sharp Instrument	81	3.5
Blunt Instrument	22	1.0
Personal Weapons	43	1.9
Fall	24	1.0
Motor Vehicle	22	1.0
Fire or Burns	12	0.5
Other Transport Vehicle	8	0.4
Drowning	17	0.7
Intentional Neglect	2	0.1
Violent Shaking	0	0.0
Other/Unknown	9	0.4
Total Deaths	2,300	100

Figure 3: Manner of violent death in North Carolina, 2017

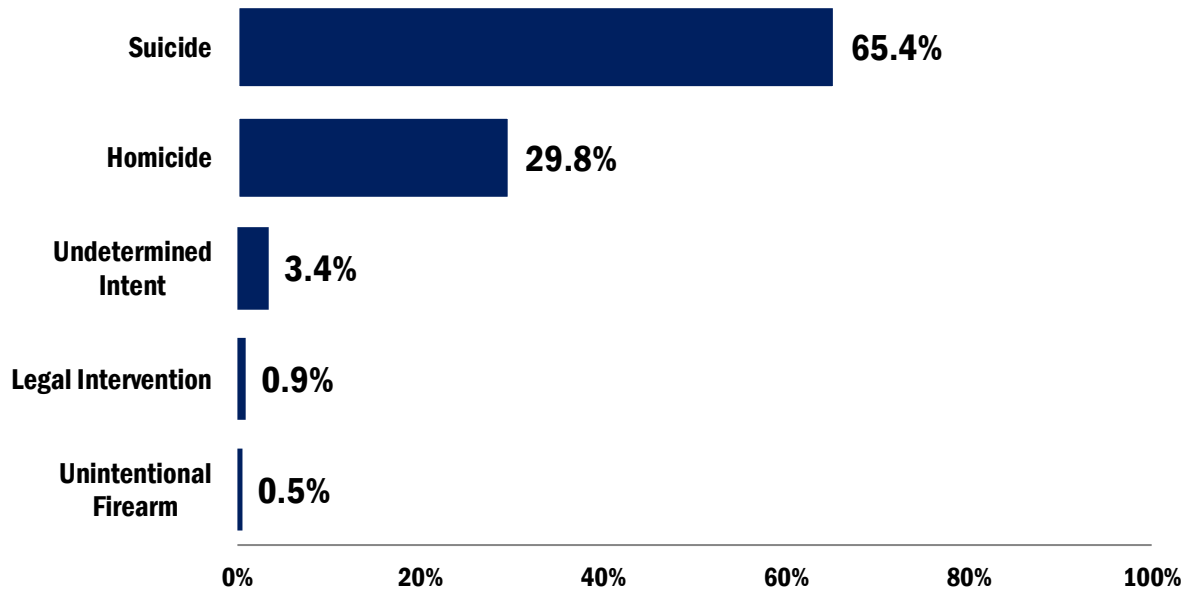
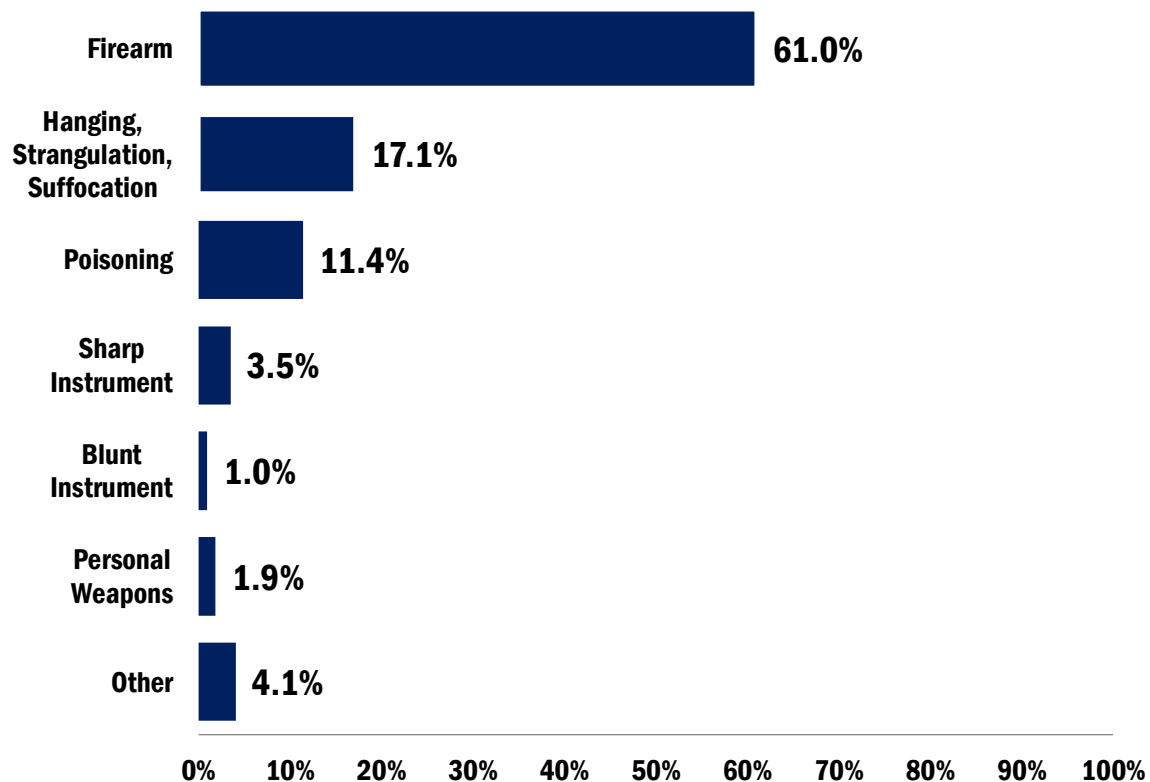


Figure 4: Method of violent death in North Carolina, 2017



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

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Table 3: Type of firearm involved in violent firearm deaths in North Carolina, 2017

	Number	%
Firearm Type		
Handgun	1,082	76.5
Shotgun	143	10.1
Rifle	106	7.5
Other/Unknown Type	84	5.9
Total Firearms Involved, All Violent Deaths	1,415	100

*Multiple firearm types were reported for 12 violent deaths in 2017; therefore, the total number of firearms exceeds the number of violent firearm deaths (n=1,403).

Table 4: Completed education, marital status and veteran status of adult violent death victims (ages 18 or older) in North Carolina, 2017

	Number	%
Education Level		
8th Grade or Less	82	3.7
9th – 12th Grade	361	16.5
High school or GED graduate	885	40.3
Some college credit	353	16.1
Associates degree	195	8.9
Bachelor degree	208	9.5
Master degree	70	3.2
Doctorate degree	28	1.3
Unknown	13	0.6
Marital Status		
Never Married	896	40.8
Married*	676	30.8
Divorced	408	18.6
Widowed	109	5.0
Married, but separated	93	4.2
Unknown	13	0.6
Veteran Status		
Non-Veteran	1,815	82.7
Veteran	354	16.1
Unknown	26	1.2
Total Adult Deaths (ages 18 or older)	2,195	100

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

Table 5: Overall violent deaths by county of residence in North Carolina, 2017

County	Number	Rate	County	Number	Rate	County	Number	Rate
Alamance	43	26.5	Franklin	19	28.7	Pamlico	1	*
Alexander	7	18.8	Gaston	47	21.3	Pasquotank	9	22.6
Alleghany	3	*	Gates	1	*	Pender	16	26.2
Anson	11	44.0	Graham	1	*	Perquimans	4	*
Ashe	6	22.3	Granville	14	23.5	Person	9	22.9
Avery	3	*	Greene	4	*	Pitt	33	18.4
Beaufort	12	25.5	Guilford	117	22.2	Polk	6	29.2
Bertie	4	*	Halifax	21	40.9	Randolph	40	27.9
Bladen	7	20.9	Harnett	32	24.1	Richmond	16	35.7
Brunswick	23	17.6	Haywood	23	37.7	Robeson	44	33.2
Buncombe	72	27.9	Henderson	26	22.5	Rockingham	20	22.0
Burke	23	25.8	Hertford	2	*	Rowan	45	32.0
Cabarrus	26	12.6	Hoke	16	29.6	Rutherford	15	22.5
Caldwell	19	23.2	Hyde	0	0.0	Sampson	12	18.9
Camden	5	47.3	Iredell	32	18.2	Scotland	9	25.6
Carteret	17	24.7	Jackson	7	16.3	Stanly	19	30.9
Caswell	4	*	Johnston	34	17.3	Stokes	13	28.4
Catawba	40	25.3	Jones	2	*	Surry	36	49.8
Chatham	12	16.8	Lee	11	18.2	Swain	6	42.0
Cherokee	8	28.5	Lenoir	22	38.7	Transylvania	12	35.3
Chowan	2	*	Lincoln	10	12.1	Tyrrell	2	*
Clay	2	*	McDowell	12	26.6	Union	28	12.1
Cleveland	27	27.7	Macon	8	23.0	Vance	17	38.5
Columbus	18	32.2	Madison	3	*	Wake	135	12.6
Craven	28	27.3	Martin	5	21.9	Warren	4	*
Cumberland	101	30.4	Mecklenburg	206	19.1	Washington	2	*
Currituck	6	22.8	Mitchell	3	*	Watauga	10	18.1
Dare	11	30.5	Montgomery	10	36.4	Wayne	33	26.6
Davidson	43	26.0	Moore	24	24.7	Wilkes	18	26.2
Davie	11	25.9	Nash	35	37.2	Wilson	15	18.4
Duplin	5	8.5	New Hanover	66	29.0	Yadkin	9	23.8
Durham	66	21.2	Northampton	4	*	Yancey	4	*
Edgecombe	15	28.4	Onslow	51	26.3			
Forsyth	82	21.8	Orange	26	17.9			

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

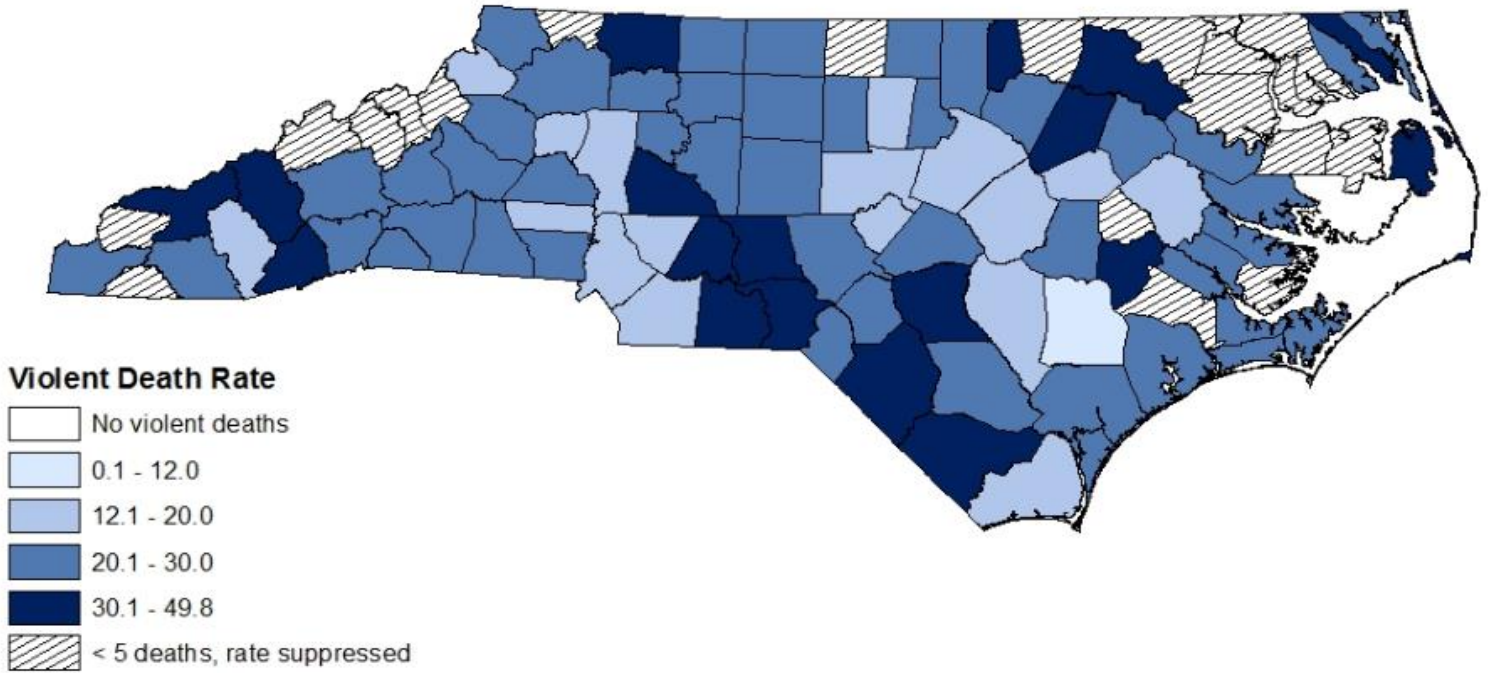
* The number of deaths was too small to support calculation of a rate.

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 2017 Violent Death Rate: 22.4 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 2017 stratified by race/ethnicity and sex.

Key Findings:

- NH whites (66.9%) and males (77.3%) represented the majority of violent death victims, as shown in Table 1.
- NH whites accounted for 65.1% of male violent death victims and 73.0% of female victims, while NH blacks comprised 28.0% of male victims and 17.8% of female victims.
- Among males, NH black men had the highest violent death rate per 100,000 (46.8) followed by NH American Indian men (39.0), NH white men (36.0), Hispanic men (16.2), and NH Asian men (8.2).
- Among females, NH American Indian women had the highest violent death rate per 100,000 (17.3), followed by NH white women (11.4), NH black women (7.7), Hispanic women (5.8), and NH Asian women (5.3).
- The violent death rate was higher for males than for females of the same race/ethnicity by 6.1 times for NH blacks, 3.2 times for NH whites, 2.8 times for Hispanics, and 1.5 times for NH Asians.

Age and Sex of Violent Death Victims

Table 7 stratifies the North Carolina violent death victims in 2017 by age group and sex. **Figure 7** illustrates the 2017 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 (20.7%) and 35 to 44 (16.2%) years old followed by males ages 45 to 54 (15.1%), 55 to 64 (13.7%), 20 to 24 (10.5%), 65 to 74 (8.2%), and both 15 to 19 and 75-84 (both at 5.4%).
- Among females, most violent death victims were ages 45 to 54 (22.2%) years old followed by females ages 35 to 44 (19.5%), 55 to 64 (15.3%), 25 to 34 (14.3%), 65 to 74 (9.4%), and 20 to 24 (6.9%).
- Among men, the violent death rate per 100,000 by age group was highest for ages 85 and older (75.5) followed by ages 25 to 34 years (53.9) and 20 to 24 (51.3).
- For women, the violent death rate trend by age reached a peak of 16.3 per 100,000 for ages 45 to 54 followed by ages 35 to 44 years (15.4) and 55 to 64 (11.5).
- Males were more likely to experience violent death than females by 7.2 times for ages 75 to 84, 4.8 times for ages 20 to 24, 5.0 times for ages 25 to 34, and 3.5 times for ages 65 to 74.

Section I

Table 6: Race/ethnicity of violent death victims in North Carolina by sex, 2017

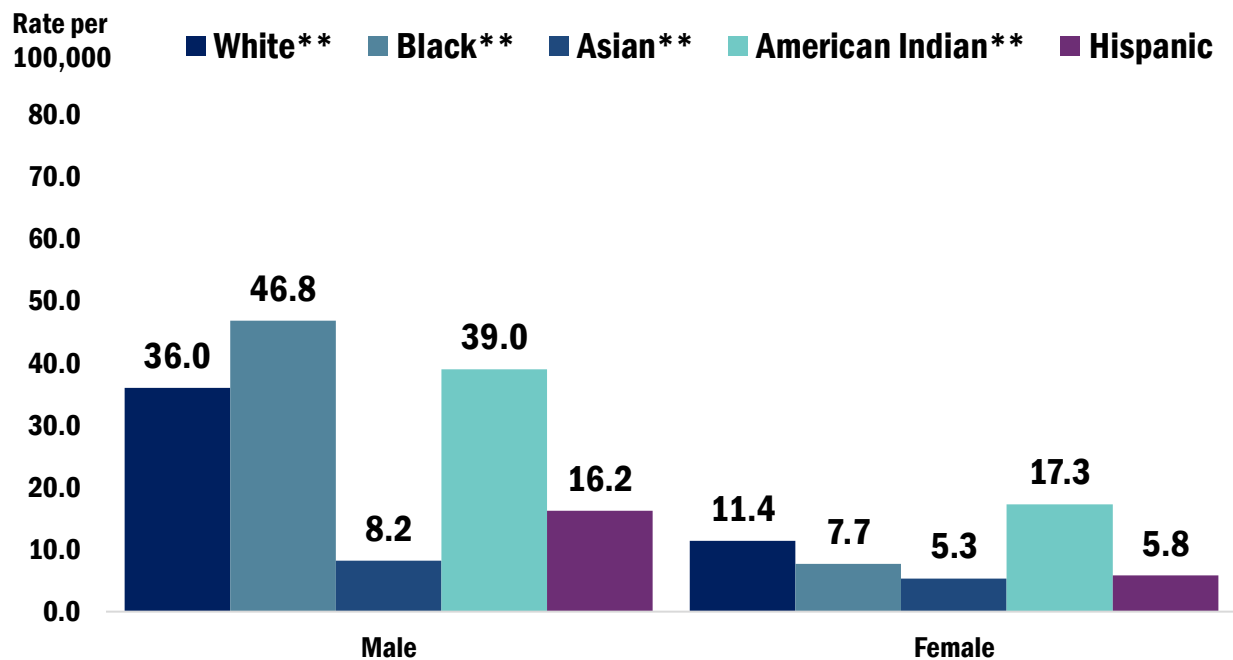
Race/Ethnicity	Male			Female		
	Number	%	Rate	Number	%	Rate
White**	1,157	65.1	36.0	382	73.0	11.4
Black**	497	28.0	46.8	93	17.8	7.7
Asian**	13	0.7	8.2	9	1.7	5.3
American Indian**	23	1.3	39.0	11	2.1	17.3
Hispanic	82	4.6	16.2	27	5.2	5.8
Other/Unknown	5	0.3	-	1	0.2	-
Total Deaths	1,777	100	35.5	523	100	9.9

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, 2017



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

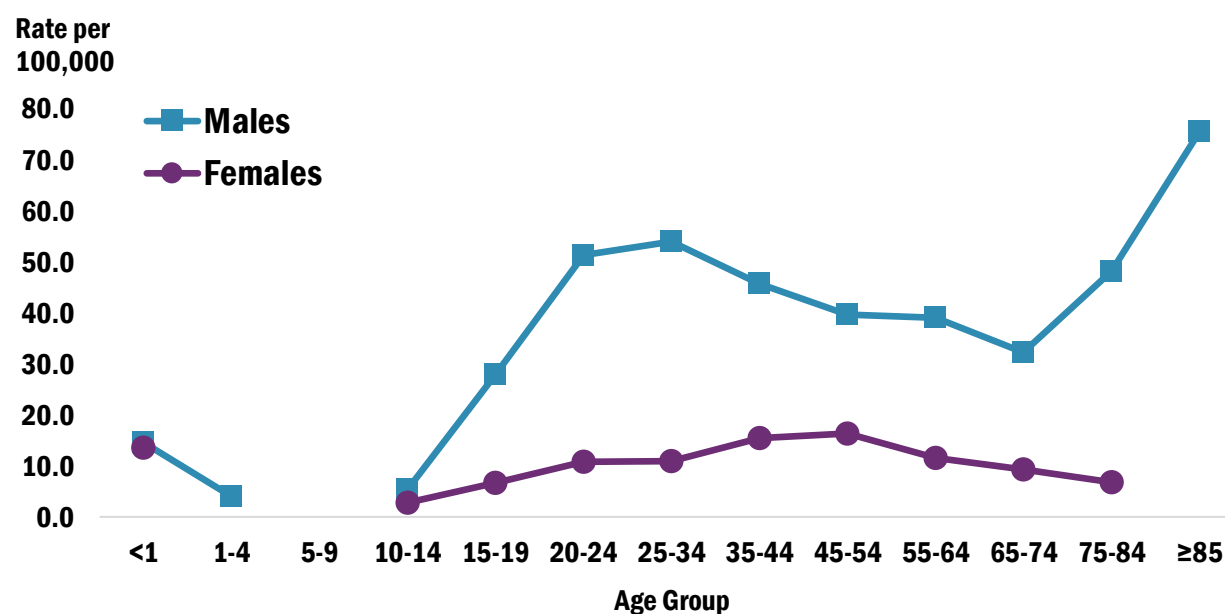
** Non-Hispanic (NH)

Table 7: Age group of violent death victims in North Carolina by sex, 2017

Age Group (years)	Male			Female		
	Number	%	Rate	Number	%	Rate
<1	9	0.5	14.6	8	1.5	13.6
1-4	10	0.6	4.0	3	0.6	*
5-9	3	0.2	*	2	0.4	*
10-14	18	1.0	5.4	9	1.7	2.8
15-19	96	5.4	27.9	22	4.2	6.6
20-24	186	10.5	51.3	36	6.9	10.8
25-34	367	20.7	53.9	75	14.3	10.9
35-44	288	16.2	45.7	102	19.5	15.4
45-54	268	15.1	39.7	116	22.2	16.3
55-64	244	13.7	39.0	80	15.3	11.5
65-74	146	8.2	32.3	49	9.4	9.3
75-84	96	5.4	48.2	18	3.4	6.7
≥85	46	2.6	75.5	3	0.6	*
Total Deaths	1,777	100	35.5	523	100	9.9

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, 2017

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 2017 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 2017 is illustrated by race/ethnicity and sex in **Figure 8** and by age group in **Figure 9**.

Key Findings:

- In 2017, a total of 1,503 North Carolinians (16.6 per 100,000) died from suicide.
- Males were 3.5 times as likely to die from suicide as females (26.3 vs. 7.6 per 100,000).
- NH whites had the highest suicide rate (21.4 per 100,000) followed NH American Indians (16.9 per 100,000), NH blacks (7.4 per 100,000), Hispanics (7.3), and NH Asians (6.1 per 100,000).
- Adults ages 45 to 54 and 75 to 84 had the highest rate of suicide (20.1 per 100,000) followed by those ages 55 to 64 (18.8 per 100,000), and 35 to 44 (18.4 per 100,000).

Table 9 and **Figure 10** summarize the method of death for suicide victims in North Carolina in 2017. **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 (55.9%), hanging, strangulation or suffocation (25.0%), and poisoning (14.2%).
- Men more often died from suicide by a firearm (62.0%) or hanging, strangulation or suffocation (25.2%) and less frequently died from suicide by poisoning (8.3%).
- Women more commonly died from suicide by poisoning (33.3%) or firearm (36.2%) compared to hanging, strangulation or suffocation (24.0%).
- Considering only suicide firearm deaths, a handgun was the most common firearm used in 78.8% of all deaths; 76.7% of male deaths and 90.6% of female deaths.
- Most suicide poisoning deaths (44.1%) involved opiates (either illicit or prescription). The second most common substance was antidepressants (32.9%), followed by benzodiazepines (29.6%) and alcohol (13.1%).

Table 12 characterizes the 1,459 adult suicide victims (age 18 or older) in North Carolina in 2017 by education level, marital status and veteran status.

Key Findings:

- The majority (84.7%) of adult suicide victims graduated high school or received their GED.
- Suicide victims were most often married, in a civil union or domestic partnership (36.4%) and less frequently never married (30.5%), divorced (20.9%), or widowed (6.2%).
- Military veterans accounted for 19.7% of adult suicide victims.

Table 13 and **Figure 11** show the suicide rates in 2017 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 24 counties was too small to support a rate calculation. Furthermore, county suicide rates are influenced by small populations with 11 of the 20 counties with the highest suicide rates having less than 50,000 residents in 2017.

Key Findings:

- For the 73 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, 2017

	Number	%	Rate	95% CI
Sex				
Female	354	23.6	7.6	6.8 - 8.4
Male	1,149	76.4	26.3	24.8 - 27.8
Race/Ethnicity				
White*	1,265	84.2	21.4	20.2 - 22.5
Black*	145	9.6	7.4	6.2 - 8.6
Asian*	17	1.1	6.1	3.2 - 8.9
American Indian*	18	1.2	16.9	9.1 - 24.7
Hispanic	55	3.7	7.3	5.4 - 9.2
Age Group (Years)				
10-14	20	1.33	3.0	1.7 - 4.4
15 - 19	58	3.86	8.6	6.4 - 10.8
20 - 24	115	7.65	16.5	13.5 - 19.5
25 - 34	249	16.57	18.2	15.9 - 20.4
35 - 44	238	15.83	18.4	16.1 - 20.8
45 - 54	279	18.56	20.1	17.8 - 22.5
55 - 64	249	16.57	18.8	16.5 - 21.2
65 - 74	161	10.71	16.4	13.9 - 18.9
75 - 84	94	6.25	20.1	16.1 - 24.2
≥85	40	2.66	22.0	15.2 - 28.8
Total Deaths	1,503	100	16.6	15.8 - 17.5

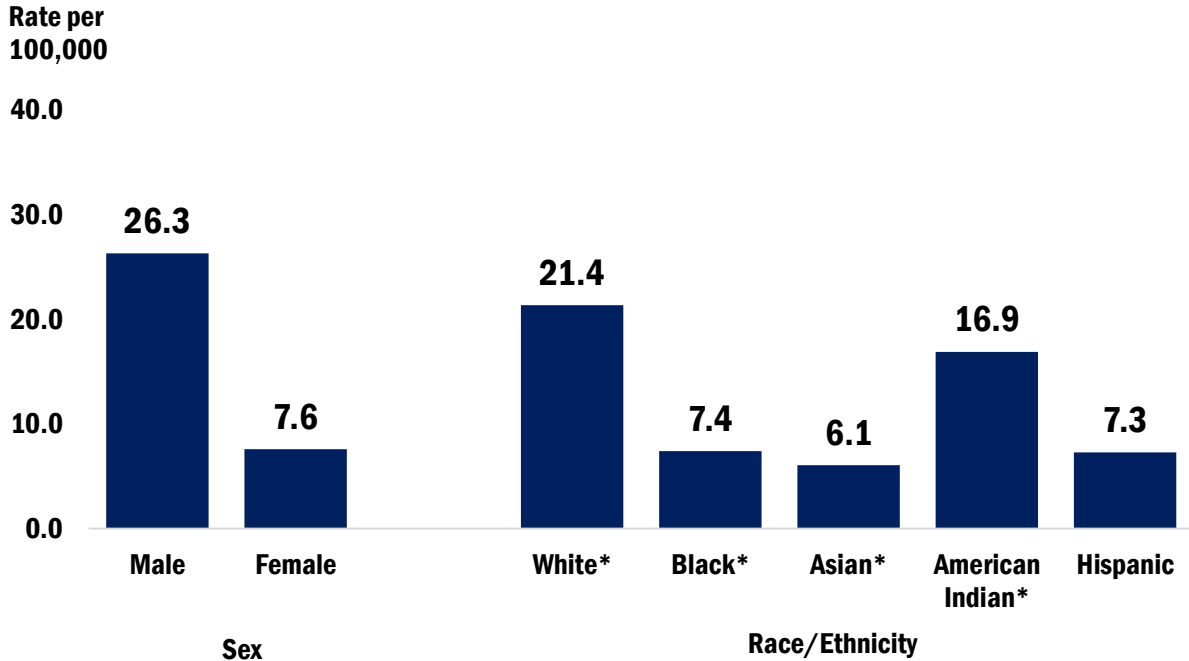
Sex, race/ethnicity and age-specific crude rates per 100,000 N.C. population

95% CI = 95% 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, 2017



* Non-Hispanic

Figure 9: Age-specific crude suicide rate (ages 10 or older) in North Carolina by age group, 2017

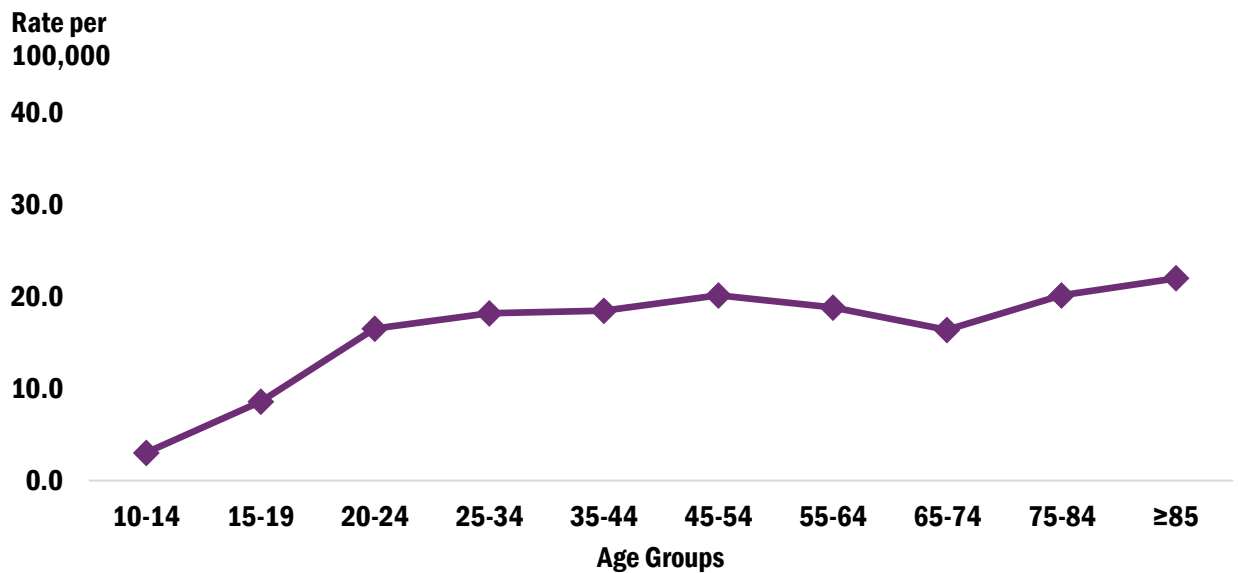
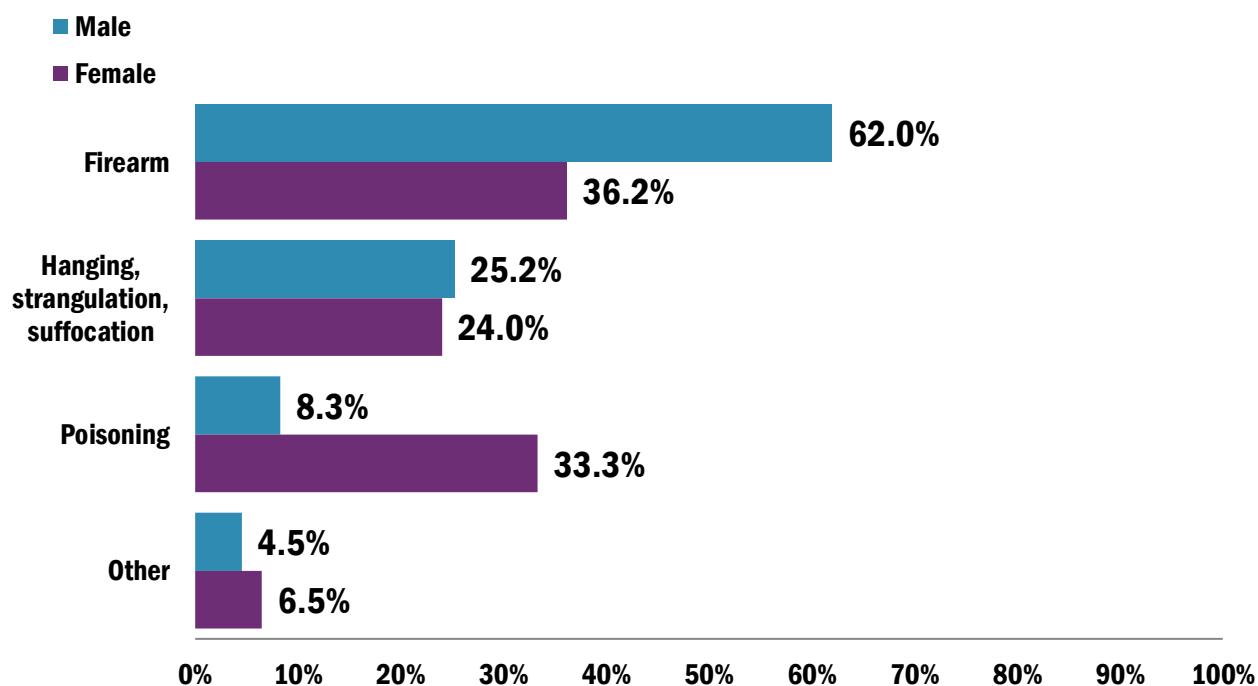


Table 9: Method of death for suicide victims (ages 10 or older) in North Carolina by sex, 2017

Method of Death	Male		Female		Total	
	Number	%	Number	%	Number	%
Firearm	712	62.0	128	36.2	840	55.9
Hanging, strangulation, suffocation	290	25.2	85	24.0	375	25.0
Poisoning	95	8.3	118	33.3	213	14.2
Sharp instrument	12	1.0	7	2.0	19	1.3
Fall	11	1.0	3	0.9	14	0.9
Drowning	6	0.5	5	1.4	11	0.7
Motor vehicle including buses, motorcycles	12	1.0	2	0.6	14	0.9
Fire or burns	1	0.1	5	1.4	6	0.4
Other	10	0.9	1	0.3	11	0.7
Total Deaths	1,149	100	354	100	1,503	100

Figure 10: Method of death for suicide victims (ages 10 or older) in North Carolina by sex, 2017

* 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, 2017

Firearm Type*	Male		Female		Total	
	Number	%	Number	%	Number	%
Handgun	548	76.69	116	90.63	662	78.81
Shotgun	94	13.2	3	2.34	97	11.55
Rifle	56	7.87	5	3.91	61	7.26
Other/Unknown	14	2.24	4	3.12	20	2.38
Total Firearms Involved in Suicides	712	100	128	100	840	100

Table 11: Fatal substances in suicide poisoning deaths (ages 10 or older) in North Carolina by sex, 2017

Category of Fatal Substance*	Male		Female		Total	
	Number	%	Number	%	Number	%
Opiate**	37	39.0	53	44.2	90	42.3
Antidepressant	22	23.2	47	39.8	69	32.4
Benzodiazepines	19	20.0	42	35.6	61	28.6
Barbiturates	2	2.1	3	2.5	5	2.3
Carbon Monoxide	10	10.5	6	5.1	16	7.2
Alcohol	14	14.7	12	10.1	26	12.2
Amphetamine	2	2.1	3	2.5	5	2.3
Cocaine	5	5.3	5	4.2	10	4.7
Other Poison***	36	37.9	44	37.3	80	37.6

* Category of substance that directly caused or was suspected to cause suicide poisoning. There were 100 suicide poisonings (46.9%) where more than one substance caused the death in 2017, 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 12: Completed education, marital status and veteran status of adult suicide victims (ages 18 or older) in North Carolina, 2017

	Number	%
Education Level		
8th Grade or Less	177	12.1
9th – 12th Grade	556	38.1
High school or GED graduate	258	17.7
Some college credit	146	10.0
Associates degree	179	12.3
Bachelor degree	61	4.2
Master degree	26	1.8
Doctorate degree	10	0.7
Unknown	10	0.7
Marital Status		
Never Married	445	30.5
Married*	531	36.4
Divorced	305	20.9
Married, but Separated	76	5.2
Widowed	90	6.2
Unknown	12	0.8
Veteran Status		
Non-Veteran	1,152	79.0
Veteran	287	19.7
Unknown	20	1.4
Total Adult Deaths (ages 18 or older)	1,459	100

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

Section II

Table 13: Suicides (ages 10 or older) in North Carolina by county of residence, 2017

County	Number	Rate	County	Number	Rate	County	Number	Rate
Alamance	30	21.0	Franklin	10	17.1	Pamlico	1	*
Alexander	7	20.9	Gaston	33	17.1	Pasquotank	6	17.2
Alleghany	2	*	Gates	1	*	Pender	10	18.6
Anson	5	22.3	Graham	1	*	Perquimans	2	*
Ashe	6	24.6	Granville	8	15.0	Person	4	*
Avery	3	*	Greene	2	*	Pitt	23	14.6
Beaufort	10	23.7	Guilford	61	13.2	Polk	6	31.7
Bertie	3	*	Halifax	7	15.3	Randolph	30	23.8
Bladen	2	*	Harnett	18	16.0	Richmond	9	22.9
Brunswick	19	15.9	Haywood	19	34.5	Robeson	21	18.4
Buncombe	58	25.1	Henderson	24	23.1	Rockingham	12	14.8
Burke	17	21.1	Hertford	0	0.0	Rowan	32	25.8
Cabarrus	21	11.8	Hoke	7	15.5	Rutherford	12	20.2
Caldwell	13	17.7	Hyde	0	0.0	Sampson	5	9.1
Camden	3	*	Iredell	25	16.1	Scotland	4	*
Carteret	16	25.5	Jackson	5	12.8	Stanly	15	27.5
Caswell	3	*	Johnston	28	16.5	Stokes	11	26.6
Catawba	24	17.2	Jones	1	*	Surry	29	45.2
Chatham	9	14.1	Lee	6	11.4	Swain	6	48.2
Cherokee	8	31.3	Lenoir	9	17.9	Transylvania	10	32.1
Chowan	0	0.0	Lincoln	8	10.9	Tyrrell	2	*
Clay	2	*	McDowell	8	19.8	Union	25	12.4
Cleveland	18	20.9	Macon	7	22.4	Vance	4	*
Columbus	6	12.1	Madison	3	*	Wake	102	10.9
Craven	18	20.1	Martin	3	*	Warren	3	*
Cumberland	55	19.3	Mecklenburg	113	12.1	Washington	1	*
Currituck	6	25.8	Mitchell	3	*	Watauga	9	17.5
Dare	9	27.6	Montgomery	9	37.1	Wayne	15	13.9
Davidson	31	21.2	Moore	20	23.3	Wilkes	15	24.5
Davie	11	29.0	Nash	19	22.9	Wilson	6	8.4
Duplin	5	9.7	New Hanover	42	20.6	Yadkin	7	20.8
Durham	34	12.5	Northampton	1	*	Yancey	2	*
Edgecombe	9	19.5	Onslow	36	22.0			
Forsyth	46	14.0	Orange	17	13.0			

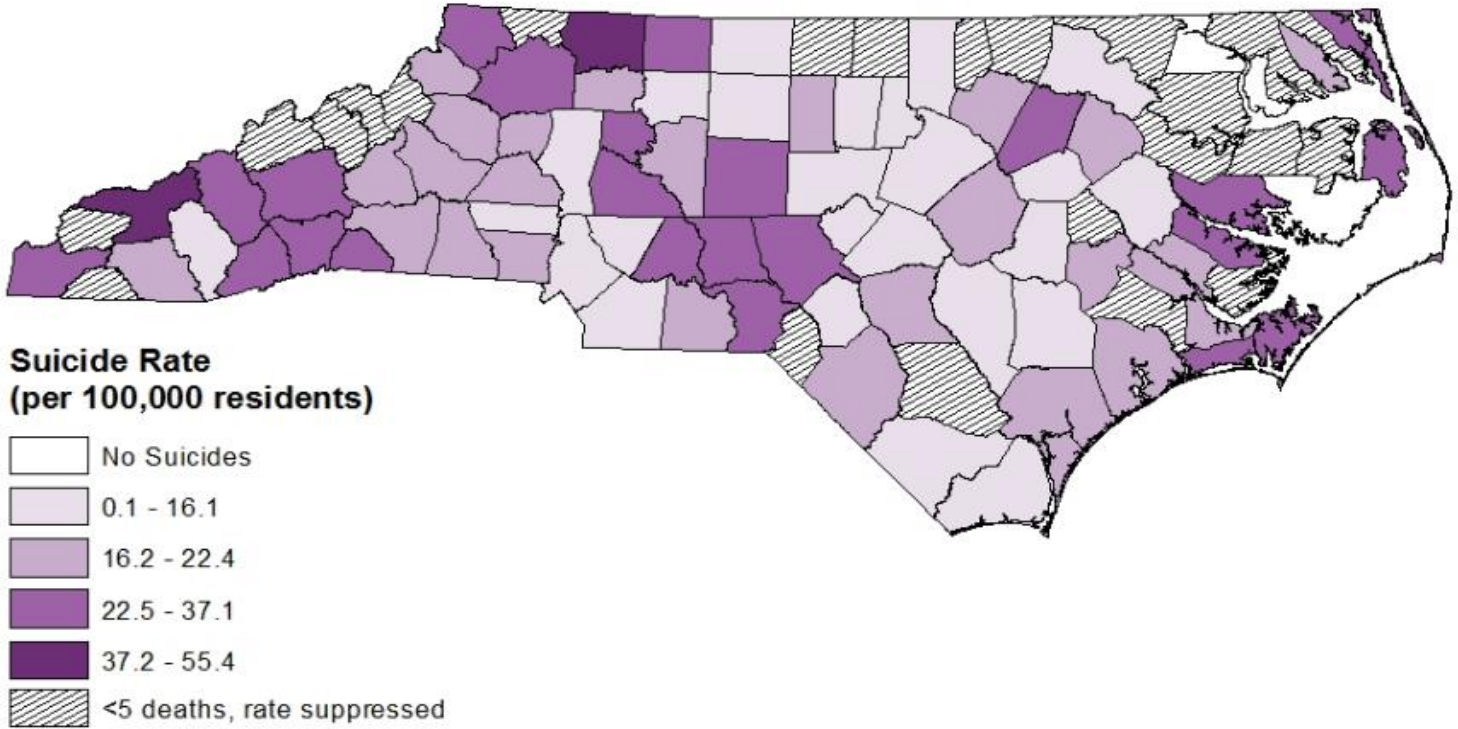
Crude rate per 100,000 population in N.C. county

* 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, 2017

North Carolina 2017 Suicide Rate: 16.6 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 2017 by race and sex.

Key Findings:

- Of all suicide victims, 84.2% were NH white and 76.4% were male, as shown in Table 8.
- Most male suicide victims were NH white (84.6%) as compared to NH black (10.0%). Similarly, most female suicide victims were NH white (82.8%) as compared to NH black (8.5%).
- For men, the suicide rate per 100,000 from highest to lowest by race/ethnicity was NH white men (33.8), NH American Indian men (25.6), NH black men (12.7), Hispanic men (9.4), and NH Asian men (6.7).
- For women, the suicide rate per 100,000 from highest to lowest by race/ethnicity was NH white women (9.6), NH American Indian women (9.0), NH Asian women (5.5), Hispanic women (5.0), and NH black women (2.8).
- The suicide rate was higher for males than for females of the same race by 4.5 times for NH blacks, 3.5 times for NH whites, 2.8 times for NH American Indians, 1.9 times for Hispanics, 1.2 times for NH Asians.

Age and Sex of Suicide Victims

Table 15 portrays the suicide victims in North Carolina in 2017 by age group and sex. Figure 13 plots the 2017 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: 25 to 34 (17.1%), 45 to 54 (17.0%), 55 to 64 (16.2%), 35 to 44 (14.5%).
- Similarly, among females most suicide victims were ages 25 to 64 with a rank order by age group of: 45 to 54 (23.7%), 35 to 44 (20.1%), 55 to 64 (17.8%) and 25 to 34 (15.0%).
- For men, the suicide rate increased by age group and peaked among those 85 years and older (64.0 per 100,000).
- The suicide rate by age group for women peaked at 45 to 54 (11.8 per 100,000) and then declined.
- Males had higher suicide rates than females across all age groups with the largest sex disparity occurring among those between 75 and 84 years with the rate being 12.7 times higher among men than women (42.6 versus 3.4 per 100,000, respectively).

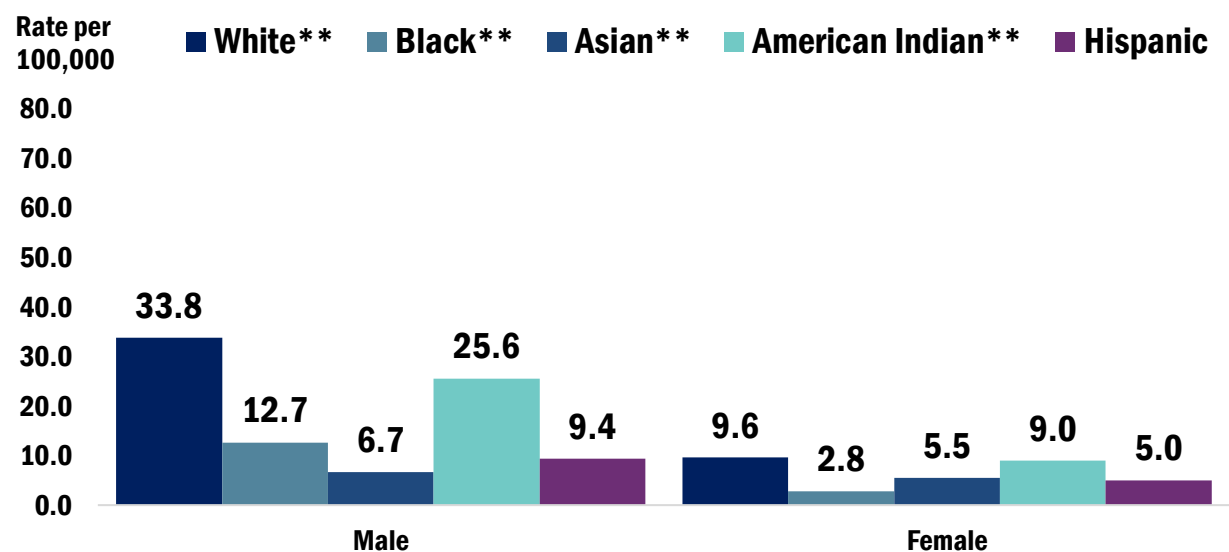
Table 14: Race of suicide victims (ages 10 or older) in North Carolina by sex, 2017

Race/Ethnicity	Male			Female		
	Number	%	Rate	Number	%	Rate
White**	972	84.6	33.8	293	82.8	9.6
Black**	115	10.0	12.7	30	8.5	2.8
Asian**	9	0.8	6.7	8	2.3	5.5
American Indian**	13	1.1	25.6	5	1.4	9.0
Hispanic	37	3.2	9.4	18	5.1	5.0
Unknown	3	0.3	-	0	-	-
Total Deaths	1,149	100	26.3	354	100	8.2

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, 2017

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

** Non-Hispanic

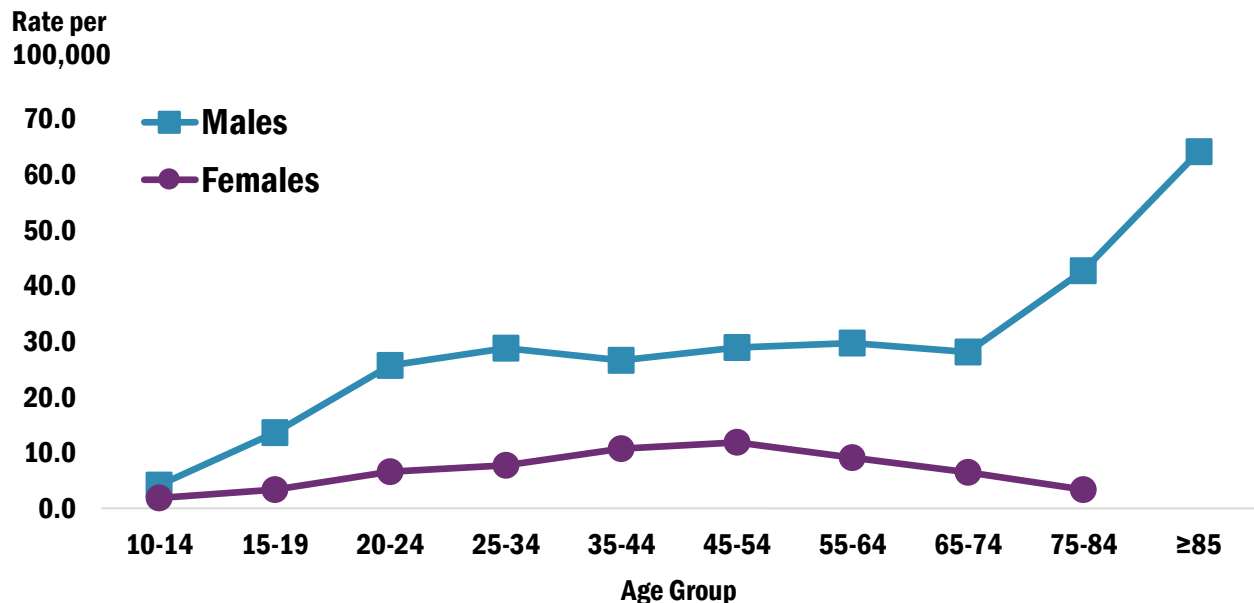
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Table 15: Age group of suicide victims (ages 10 or older) in North Carolina by sex, 2017

Age Group (Years)	Male			Female		
	Number	%	Rate	Number	%	Rate
10-14	14	1.2	4.2	6	1.7	1.9
15-19	47	4.1	13.6	11	3.1	3.3
20-24	93	8.1	25.7	22	6.2	6.6
25-34	196	17.1	28.8	53	15.0	7.7
35-44	167	14.5	26.5	71	20.1	10.7
45-54	195	17.0	28.9	84	23.7	11.8
55-64	186	16.2	29.7	63	17.8	9.1
65-74	127	11.1	28.1	34	9.6	6.4
75-84	85	7.4	42.6	9	2.5	3.4
≥85	39	3.4	64.0	1	0.3	*
Total Deaths	1,149	100	26.3	354	100	7.6

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, 2017



Note: The number of deaths was not 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 2017, 95.8% 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 2017. **Table 17** lists the mental health problem at the time of the suicide for both men and women in 2017.

Key Findings:

- The most common circumstances of suicide for male victims were ever treated for mental illness (49.6%), current mental health problem (47.9%), experienced a recent crisis (47.2%), current treatment for mental health illness (34.2%), and current depressed mood (32.7%).
- The most common circumstances of suicide for female victims were ever treated for mental illness (70.5%), current mental health problem (68.7%), current treatment for mental illness (56.4%), experienced a recent crisis (38.6%), and current depressed mood (33.9%).
- A suicide note was left by 28.6% of male victims and 36.3% of female victims. Intent to commit suicide was disclosed by 29.0% of male and 24.6% of female victims. A total of 13.7% of male and 28.7% of female victims reported a history of suicide attempts and 35.8% of male and 39.5% of female victims had a history of suicidal thoughts.

An intimate partner problem was a circumstance of suicide for 26.4% of men and 24.9% of women. A substance problem other than alcohol was a circumstance of suicide for 17.2% of men and 25.4% of women. Other common circumstances of suicide for men and women, respectively, were alcohol problem (17.9% and 12.6%), physical health problem (28.2% and 35.1%), recent criminal-related legal problem (8.1% and 4.4%), job problem (9.6% and 4.1%) and financial problem (6.0% and 3.8%).

At the time of suicide, the most common mental health problems were depression or dysthymia (76.5%), bipolar disorder (14.5%), anxiety disorder (13.5%), post-traumatic stress disorder (4.9%), and schizophrenia (3.4%).

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 2017 is shown by sex in **Table 18** and by age and race/ethnicity in **Table 19**.

Key Findings:

- Alcohol was tested in 97.3% of all suicides. Testing was relatively infrequent for other substances. Of those victims tested, alcohol was present in 29.1% of all suicide victims, 31.0% of male victims and 23.3% of female victims.
- Ages 20 to 54 had the highest percentage of suicide victims with alcohol present, with a range from 34.2% to 40.7% of those age groups testing positive for alcohol. Alcohol was present in those victims tested by race as follows: NH whites (29.7%), NH blacks (31.5%), NH Asians (18.8%), NH American Indians (23.1%), and Hispanics (34.7%).

Table 20 lists the location of the injury resulting in death for suicide victims in North Carolina in 2017.

Key Findings:

Section II

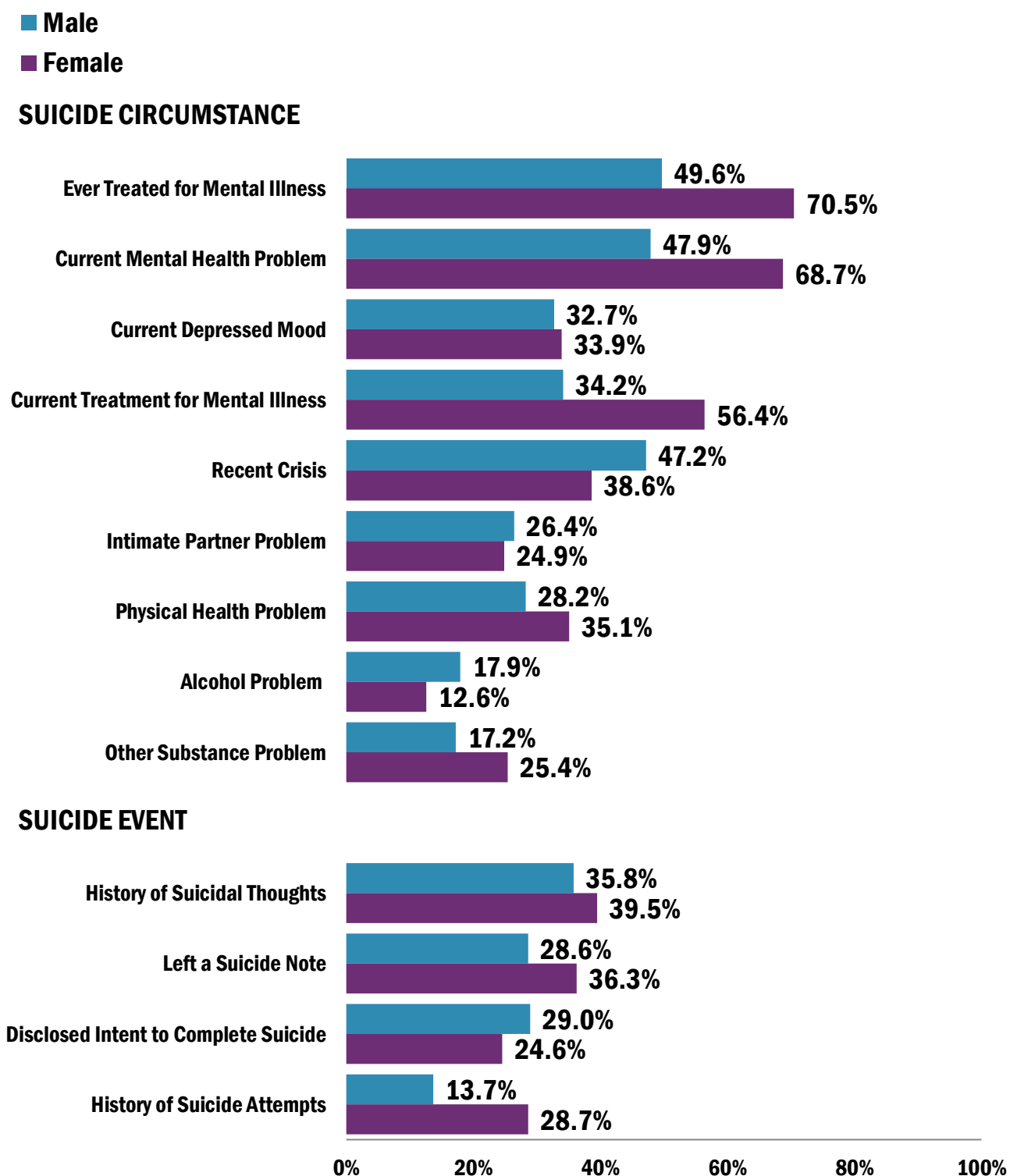
- The majority (77.1%) of injuries resulting in death occurred in a house or an apartment.

Table 16: Circumstances of suicide victims (ages 10 or older) in North Carolina by Sex, 2017

Circumstance*	Male		Female		Total	
	Number	%	Number	%	Number	%
Mental Health						
Ever treated-Mental health	545	49.6	241	70.5	786	54.6
Current Mental health problem	526	47.9	235	68.7	761	52.9
Current depressed mood	359	32.7	116	33.9	475	33.0
Current treatment MH	375	34.2	193	56.4	568	39.4
Substance Abuse/Addiction						
Alcohol problem	197	17.9	43	12.6	240	16.7
Other substance problem	189	17.2	87	25.4	276	19.2
Other addiction problem	1	0.1	0	0.0	1	0.1
Interpersonal						
Intimate partner problem	290	26.4	85	24.9	375	26.0
Other relationship problem	20	1.8	3	0.9	23	1.6
Perpetrator of intimate partner violence	51	4.6	6	1.8	57	4.0
Death of family/friend	81	7.4	26	7.6	107	7.4
Suicide death of family/friend in past 5 years	14	1.3	6	1.8	20	1.4
Life Stressor						
Physical Health problem	310	28.2	120	35.1	430	29.9
Job problem	105	9.6	14	4.1	119	8.3
Criminal/Legal Problem	89	8.1	15	4.4	104	7.2
Financial Problem	66	6.0	13	3.8	79	5.5
Legal Problem, Other	36	3.3	9	2.6	45	3.1
School Problem	18	1.6	3	0.9	21	1.5
Recent Crisis	518	47.18	132	38.6	650	45.14
Suicide Event						
Left a Suicide Note	314	28.6	124	36.3	438	30.4
Suicide Disclosed	318	29.0	84	24.6	402	27.9
History of Suicide Attempt	150	13.7	98	28.7	248	17.2
History of Suicidal Thoughts	393	35.8	135	39.5	528	36.7

* Circumstances were available for 95.6% (1,098/1,149) of male victims, 96.6% (342/354) of female victims, and 95.8% (1,440/1,503) of all suicide victims. The percentage of circumstances for suicide victims is based on the number of cases reporting circumstances in North Carolina in 2017.

Figure 14: Circumstances of suicide victims (ages 10 or older) in North Carolina by Sex, 2017



Note: For Table 15 and Figure 14, suicide victims may have more than one circumstance; therefore, the responses add up to more than 100%. 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, 2017

	Male		Female		Total	
	Number	%	Number	%	Number	%
Current Mental Health Problem *						
Depression / Dysthymia	394	74.9	188	80.0	582	76.5
Bipolar Disorder	69	13.1	41	17.4	110	14.5
Schizophrenia	21	4.0	5	2.1	26	3.4
Anxiety Disorder	60	11.4	43	18.3	103	13.5
Post-Traumatic Stress Disorder	28	5.3	9	3.8	37	4.9
Attention Deficit Disorder (ADD) or Hyper-Reactivity Disorder	10	1.9	0	0.0	10	1.3
Eating Disorder	0	0.0	2	0.9	2	0.3
Other/Unknown	37	7.0	10	4.3	47	6.2

* For 526 males, 235 females, and 761 total suicide victims with a current mental health problem

Note: Victims may have more than one current mental health 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, 2017

	Male		Female		Total	
	Number	%	Number	%	Number	%
Alcohol						
Tested with results	979	98.1	313	94.9	1,292	97.3
Alcohol present in those tested	309	31.0	77	23.3	386	29.1
Amphetamines						
Tested with results	6	0.6	7	2.1	13	1.0
Amphetamines present in those tested	6	0.6	6	1.8	12	0.9
Antidepressant						
Tested with results	48	4.8	76	23.0	124	9.3
Antidepressant present in those tested	47	4.7	76	23.0	123	9.3
Cocaine						
Tested with results	70	7.0	78	23.6	148	11.1
Cocaine present in those tested	11	1.1	7	2.1	18	1.4
Opiates						
Tested with results	73	7.3	93	28.2	166	12.5
Opiates present in those tested	38	3.8	57	17.3	95	7.2
Other substances*						
Tested with results	91	9.1	120	36.4	211	15.9
Other drugs present in those tested	50	54.9	83	69.2	133	63.0

*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, 2017

	Alcohol tested with results		Alcohol present in those tested	
	Number	%	Number	%
Age Group (Years)				
10-14	18	90.0	0	0.0
15 - 19	47	81.0	4	8.5
20 - 24	101	87.8	41	40.6
25 - 34	222	89.2	88	39.6
35 - 44	204	85.7	83	40.7
45 - 54	234	83.9	80	34.2
55 - 64	211	84.7	56	26.5
65 - 74	135	83.9	27	20.0
75 - 84	81	86.2	5	6.2
≥85	39	97.5	2	5.1
Race/Ethnicity				
White*	1,086	85.8	323	29.7
Black*	127	87.6	40	31.5
Asian*	16	88.9	3	18.8
American Indian*	13	76.5	3	23.1
Hispanic	49	89.1	17	34.7

*Non-Hispanic

Section II

Table 20: Injury location for suicide victims (ages 10 or older) in North Carolina, 2017

	Number	%
Injury Location		
House, apartment	1,159	77.1
Motor Vehicle (Excluding School Bus and Public Transportation)	89	5.9
Natural Area (e.g., Field, River, Beach, Woods)	67	4.5
Hotel/Motel	25	1.7
Jail, Prison, Detention Facility	15	1.0
Park, Playground, Public Use Area	17	1.1
Other Commercial Establishment (e.g., grocery store, retail outlet, laundromat)	17	1.1
Street/Road, Sidewalk, Alley	16	1.1
Parking Lot/Public Parking Garage	11	0.7
Highway/Freeway	9	0.6
Hospital or Medical Facility	2	0.1
Synagogue, Church, Temple	2	0.1
Other Specified*	44	3.0
Other/Unknown	30	2.0
Total Deaths	1,503	100

*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 2017 for North Carolina residents by demographics of sex, race/ethnicity and age. The homicide rate in 2017 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 2017, 685 North Carolinians (6.7 per 100,000) were victims of homicide.
- Males were 4.3 times as likely to be victims of a homicide as females (11.0 versus 2.6 per 100,000, respectively).
- NH American Indians (12.2 per 100,000) and NH blacks (18.2 per 100,000) had higher homicide rates than NH Asians (1.5 per 100,000), NH whites (3.1 per 100,000), and Hispanics (4.8 per 100,000).
- Homicide rates per 100,000 were highest for adults ages 20 to 24 years (13.9 per 100,000) and 25 to 34 years (12.6 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 (12.5 per 100,000).

The method of death for homicide victims in North Carolina in 2017 is shown in **Table 22** and **Figure 17**. The type of firearm involved in homicide firearm deaths in North Carolina in 2017 is listed in **Table 23**.

Key Findings:

- The leading methods of homicide were firearm (77.1%), sharp instrument (9.1%), blunt instrument (3.2%), personal weapons (5.8%), and hanging, strangulation and suffocation (2.3%).
- Most male and female homicide victims died by firearm (82.6% and 54.8% respectively), or sharp instrument (7.5% and 15.6% respectively).
- Considering only homicide firearm deaths, a handgun was the most common firearm used (73.2%).

Table 24 describes adult homicide victims (18 years or older) in North Carolina in 2017 by education level, marital status and veteran status.

Key Findings:

- Among adult homicide victims, 45.3% graduated high school or received their GED, 23.7% completed at least some college credit, and 30.6% completed up to 12th grade but did not graduate.
- Almost two thirds of homicide victims were never married (63.9%) as compared to married, civil union, or domestic partnership (19.4%), divorced (12.5%), married but separated (1.9%), or widowed (2.2%).
- Military veterans accounted for 8.7% of adult homicide victims.

Section III

Table 25 and **Figure 18** display the homicide rates in 2017 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 39 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 2017.

Key Findings:

- For the 42 counties where the number of homicides was sufficient to support a rate calculation, the average homicide rate by North Carolina county of residence was 7.2 deaths per 100,000 with a range from 0.0 to 27.1 deaths per 100,000.

Table 21: Demographics of homicide victims in North Carolina, 2017

	Number	%	Rate	95% CI
Sex				
Female	135	19.71	2.6	2.1 - 3.0
Male	550	80.29	11.0	10.1 - 11.9
Race/Ethnicity				
White**	201	29.3%	3.1	2.6 - 3.5
Black**	414	60.4%	18.2	16.5 - 20.0
Asian**	5	0.7%	1.5	0.2 - 2.9
American Indian**	15	2.2%	12.2	6.0 - 18.4
Hispanic	47	6.9%	4.8	3.5 - 6.2
Age Group (Years)				
< 1	15	2.2	12.5	6.2 - 18.8
1-4	10	1.5	2.0	0.8 - 3.3
5-9	4	0.6	*	*
10-14	5	0.7	0.8	0.1 - 1.4
15-19	56	8.2	8.3	6.1 - 10.4
20-24	97	14.2	13.9	11.1 - 16.7
25-34	173	25.3	12.6	10.7 - 14.5
35-44	136	19.9	10.5	8.8 - 12.3
45-54	78	11.4	5.6	4.4 - 6.9
55-64	57	8.3	4.3	3.2 - 5.4
65-74	31	4.5	3.2	2.0 - 4.3
75-84	14	2.0	3.0	1.4 - 4.6
≥85	9	1.3	4.9	1.7 - 8.2
Total Deaths	685	100.0	6.7	6.2 - 7.2

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

95% CI = 95% 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, 2017

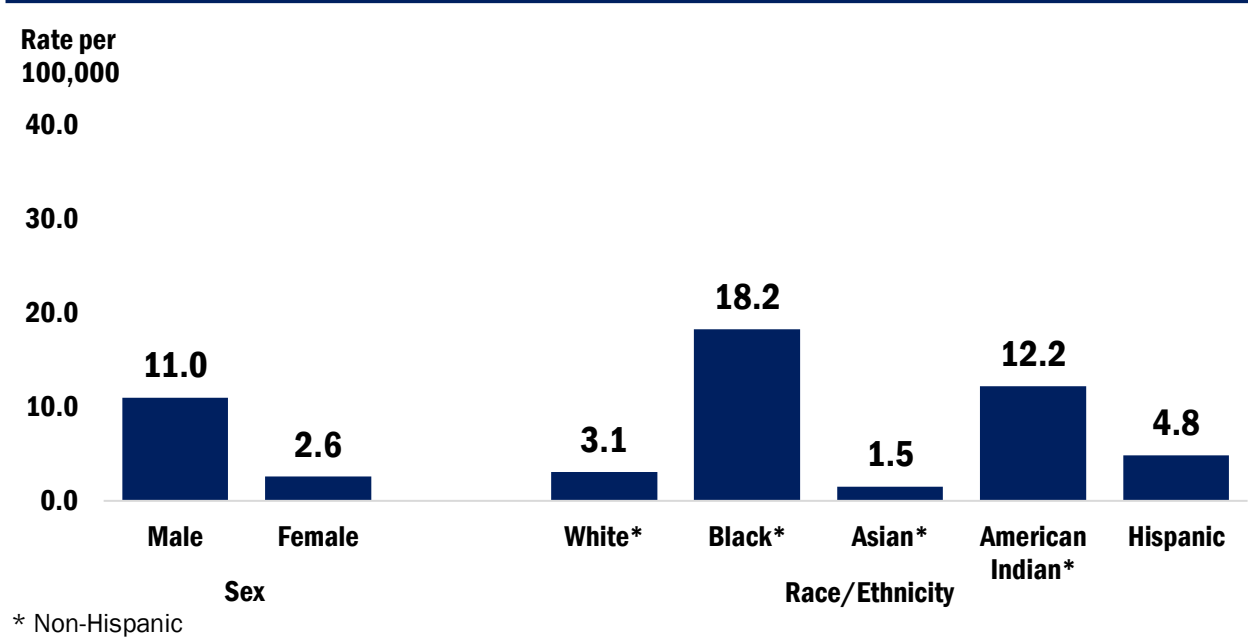
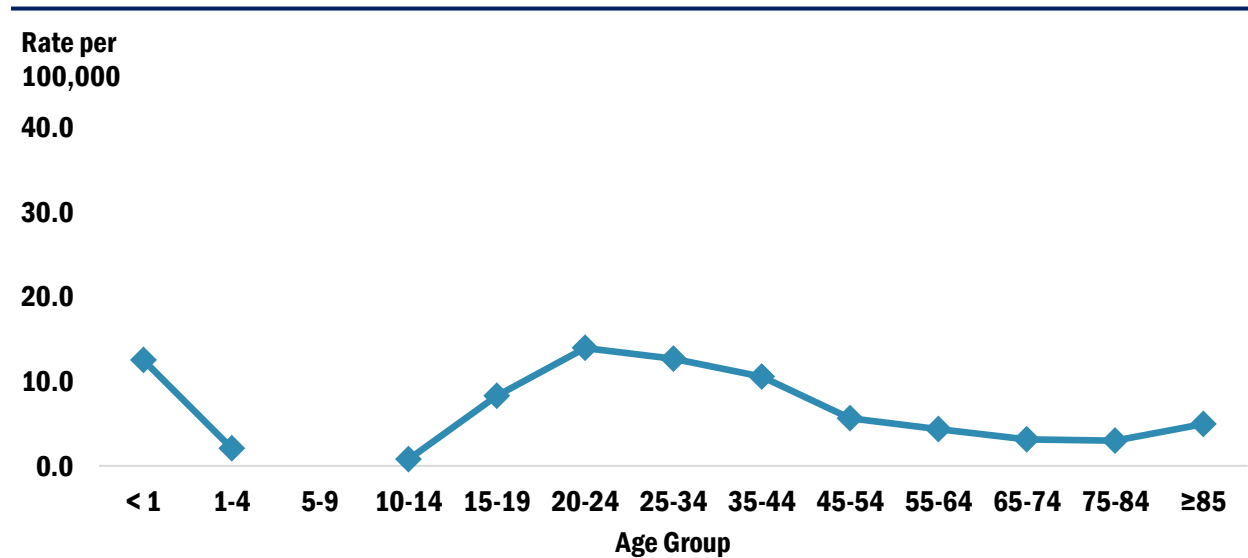


Figure 16: Age-specific crude homicide rates in North Carolina by age group, 2017



Note: The number of deaths was too small to support a rate calculation for the age group 5 to 9.

Section III

Table 22: Method of death for homicide victims in North Carolina by sex, 2017

Method of Death	Male		Female		Total	
	Number	%	Number	%	Number	%
Firearm	454	82.6	74	54.8	528	77.1
Sharp instrument	41	7.5	21	15.6	62	9.1
Blunt instrument	12	2.2	10	7.4	22	3.2
Personal weapons	26	4.7	14	10.4	40	5.8
Hanging, strangulation, suffocation	9	1.6	7	5.2	16	2.3
Fire or burns	1	0.2	4	3.0	5	0.7
Intentional Neglect	1	0.18	1	0.74	2	0.3
Other*/ Unknown	6	1.1	4	3.0	10	1.5
Total Deaths	550	100	135	100	685	100

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

Figure 17: Method of death for homicide victims in North Carolina by sex, 2017

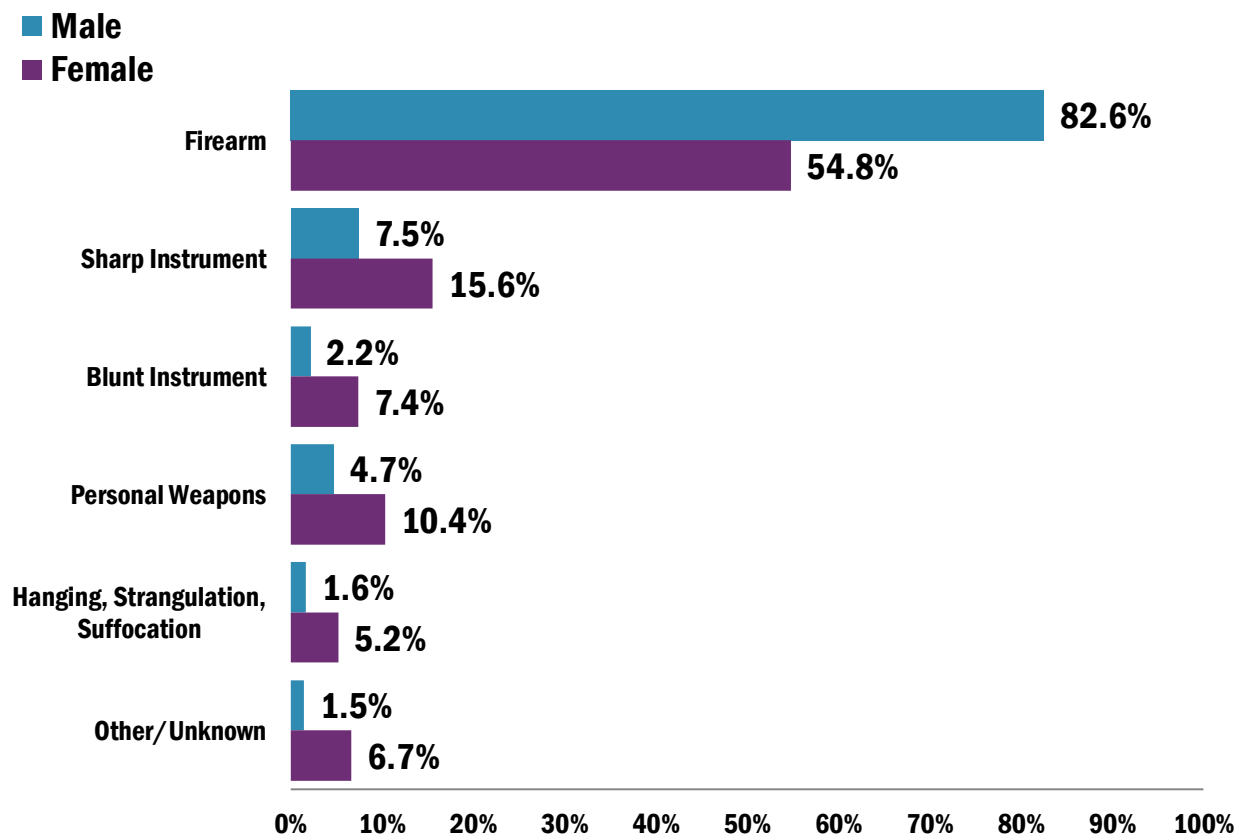


Table 23: Type of firearm involved in homicide firearm deaths in North Carolina by Sex, 2017

Firearm Type*	Male		Female		Total	
	Number	%	Number	%	Number	%
Handgun	340	73.9	51	68.9	391	73.2
Shotgun	36	7.8	9	12.2	45	8.4
Rifle	27	5.9	11	14.9	38	7.1
Unknown	57	12.4	3	4.1	60	11.2
Total Firearms Involved in Homicides	460	100	74	100	534	100

Table 24: Completed education, marital status and veteran status of adult homicide victims (age 18 or older) in North Carolina, 2017

	Number	%
Education Level		
8th Grade or Less	31	4.9
9th – 12th Grade	163	25.7
High school or GED graduate	287	45.3
Some college credit	83	13.1
Associates degree	38	6.0
Bachelor degree	21	3.3
Master degree	6	1.0
Doctorate degree	2	0.3
Unknown	3	0.47
Marital Status		
Never Married	405	63.9
Married*	123	19.4
Divorced	79	12.5
Married, but Separated	12	1.9
Widowed	14	2.2
Single, not otherwise specified	0	0.0
Unknown	1	0.2
Veteran Status		
Non-Vet	576	90.9
Vet	55	8.7
Unknown	3	0.5

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

Section III

Table 25: Homicides in North Carolina by county of residence, 2017

County	Number	Rate	County	Number	Rate	County	Number	Rate
Alamance	12	7.4	Franklin	8	12.1	Pamlico	0	0.0
Alexander	0	0.0	Gaston	11	5.0	Pasquotank	2	*
Alleghany	1	*	Gates	0	0.0	Pender	6	9.8
Anson	6	24.0	Graham	0	0.0	Perquimans	2	*
Ashe	0	0.0	Granville	5	8.4	Person	5	12.7
Avery	0	0.0	Greene	2	*	Pitt	7	3.9
Beaufort	1	*	Guilford	49	9.3	Polk	0	0.0
Bertie	1	*	Halifax	13	25.3	Randolph	10	7.0
Bladen	4	*	Harnett	12	9.0	Richmond	6	13.4
Brunswick	4	*	Haywood	4	*	Robeson	21	15.8
Buncombe	11	4.3	Henderson	2	*	Rockingham	6	6.6
Burke	4	*	Hertford	2	*	Rowan	12	8.5
Cabarrus	4	*	Hoke	6	11.1	Rutherford	2	*
Caldwell	5	6.1	Hyde	0	0.0	Sampson	6	9.5
Camden	2	*	Iredell	6	3.4	Scotland	5	14.2
Carteret	1	*	Jackson	0	0.0	Stanly	4	*
Caswell	1	*	Johnston	4	*	Stokes	2	*
Catawba	14	8.9	Jones	1	*	Surry	4	*
Chatham	3	*	Lee	5	8.3	Swain	0	0.0
Cherokee	0	0.0	Lenoir	8	14.1	Transylvania	1	*
Chowan	2	*	Lincoln	2	*	Tyrrell	0	0.0
Clay	0	0.0	McDowell	3	*	Union	2	*
Cleveland	7	7.2	Macon	1	*	Vance	12	27.1
Columbus	11	19.7	Madison	0	0.0	Wake	27	2.5
Craven	9	8.8	Martin	1	*	Warren	1	*
Cumberland	42	12.6	Mecklenburg	84	7.8	Washington	1	*
Currituck	0	0.0	Mitchell	0	0.0	Watauga	1	*
Dare	0	0.0	Montgomery	1	*	Wayne	16	12.9
Davidson	9	5.4	Moore	2	*	Wilkes	3	*
Davie	0	0.0	Nash	15	16.0	Wilson	9	11.0
Duplin	0	0.0	New Hanover	23	10.1	Yadkin	1	*
Durham	27	8.7	Northampton	2	*	Yancey	1	*
Edgecombe	6	11.4	Onslow	13	6.7			
Forsyth	30	8.0	Orange	7	4.8			

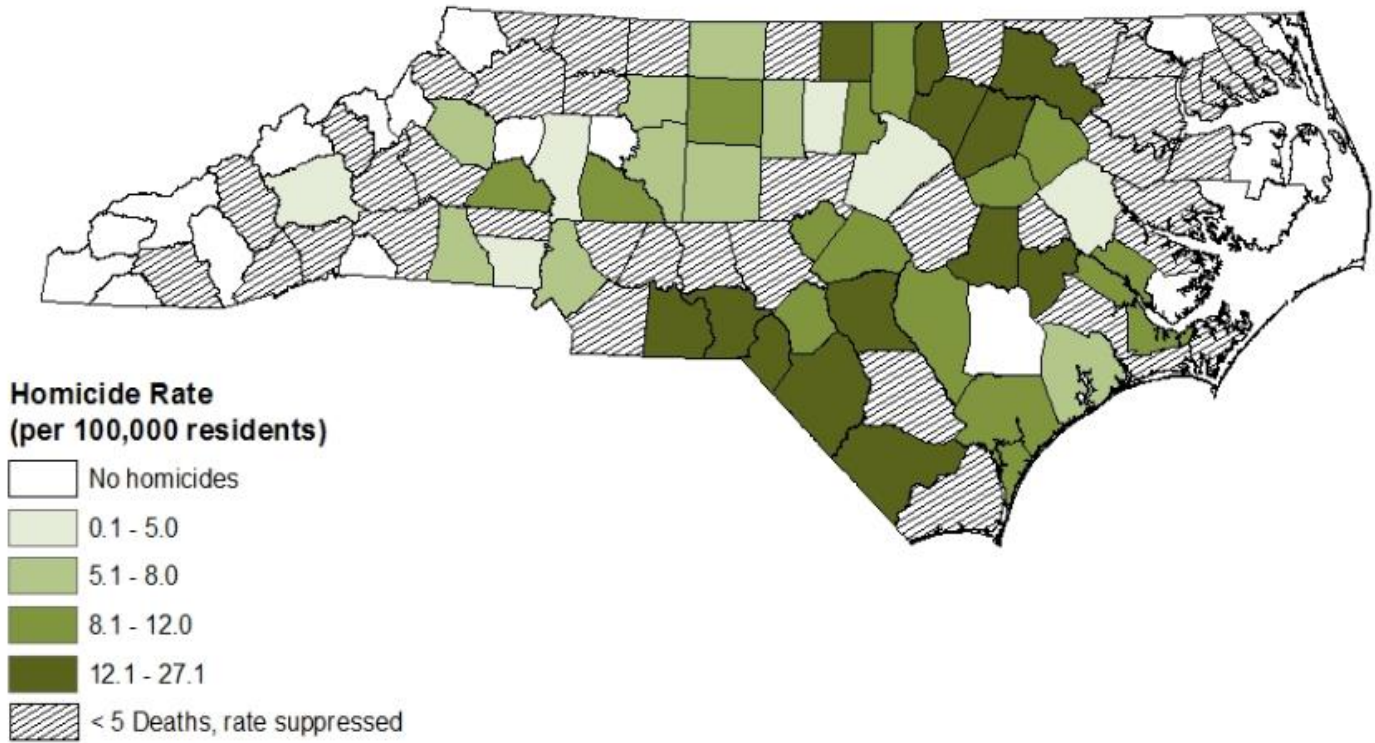
Crude rate per 100,000 population in N.C. county

* 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, 2017

North Carolina 2017 Homicide Rate: 6.7 Deaths per 100,000 Residents



Section III

Race/Ethnicity and Sex of Homicide Victims

Table 26 and Figure 19 describe the 2017 North Carolina homicide victims by sex and race/ethnicity.

Key Findings:

- Of all homicide victims, 80.3% were male, 60.4% were NH black, and 29.3% were NH white as shown in Table 19.
- Most male homicide victims were NH black (64.7%) as compared to NH white (25.5%), Hispanic (7.1), NH American Indian (1.6%), and NH Asian (0.7%). Conversely, less than half of female homicide victims were NH white (45.2%) followed by NH black (43.0%), Hispanic (5.9%), NH Asian (0.7%), and NH American Indian (4.4%) women.
- The homicide rates per 100,000 were 7.7 times higher for NH black males (33.5 per 100,000) and 3.5 times higher for NH American Indian males (15.3 per 100,000), then NH white males (4.4 per 100,000).
- NH black females were 2.7 times as likely to be homicide victims compared to NH white females (4.8 versus 1.8 per 100,000, respectively).
- The homicide rate was 7.0 times higher for NH black males than for NH black females. The homicide rate was 2.4 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 2017 are categorized in Table 27. The 2017 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 (27.6%), 35 to 44 (20.2%), 20 to 24 (15.5%), and 45 to 54 (10.5%).
- Among females, most homicide victims were ages 20 to 64 years with a rank order by age group of: 35 to 44 (18.5%), 25 to 34 (15.6%), 45 to 54 (14.8%), 55 to 64 (10.4%), and 20 to 24 (8.9%)
- Males had higher homicide rates than females across all but one age groups for 2017.
- The homicide rate by age for males peaked in ages 20 to 24 years (23.4 per 100,000) and then declined to 4.0 per 100,000 for ages 65 to 74 years.

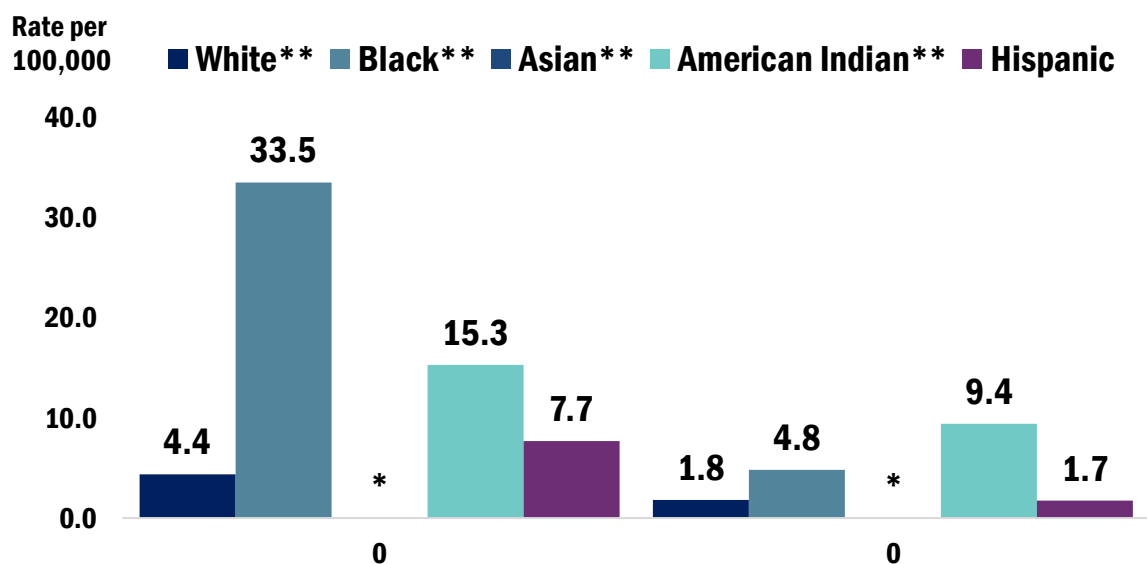
Table 26: Race/ethnicity of homicide victims in North Carolina by sex, 2017

Race/Ethnicity	Male			Female		
	Number	%	Rate	Number	%	Rate
White**	140	25.5	4.4	61	45.2	1.8
Black**	356	64.7	33.5	58	43	4.8
Asian**	4	0.7	*	1	0.7	*
American Indian**	9	1.6	15.3	6	4.4	9.4
Hispanic	39	7.1	7.7	8	5.9	1.7
Other/Unknown	2	0.4	-	1	0.7	-
Total Deaths	550	100	11.0	135	100	2.6

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, 2017

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

** Non-Hispanic

Section III

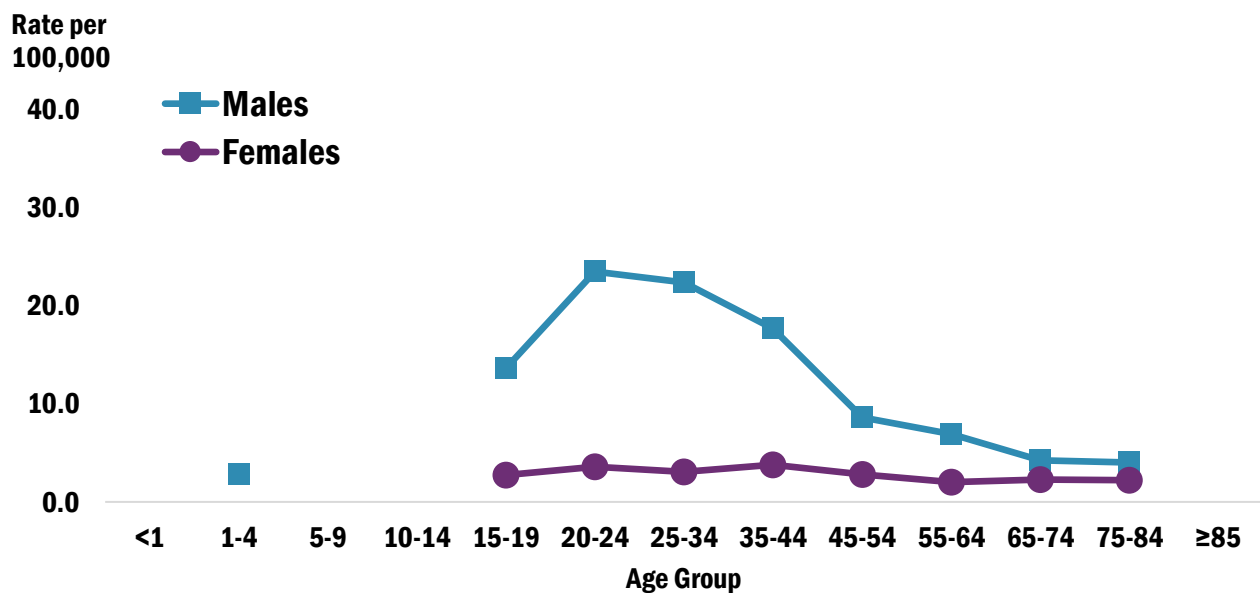
Table 27: Age group of homicide victims in North Carolina by sex, 2017

Age Group (Years)	Male			Female		
	Number	%	Rate	Number	%	Rate
<1	7	1.3	11.4	8	5.9	13.6
1-4	7	1.3	2.8	3	2.2	*
5-9	3	0.5	*	1	0.7	*
10-14	3	0.5	*	2	1.5	*
15-19	47	8.5	13.6	9	6.7	2.7
20-24	85	15.5	23.4	12	8.9	3.6
25-34	152	27.6	22.3	21	15.6	3.0
35-44	111	20.2	17.6	25	18.5	3.8
45-54	58	10.5	8.6	20	14.8	2.8
55-64	43	7.8	6.9	14	10.4	2.0
65-74	19	3.5	4.2	12	8.9	2.3
75-84	8	1.5	4.0	6	4.4	2.2
≥85	7	1.3	11.5	2	1.5	*
Total Deaths	550	100	11.0	135	100	2.6

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, 2017



Note: The numbers of deaths were too small to support rate calculations for some age groups.

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 2017, 94.2% 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 2017. **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 2017.

Key Findings:

- The most common event circumstances surrounding homicides for males were an argument, abuse or conflict (42.2%), precipitated by another serious crime (35.0%), drug involvement (17.9%), intimate partner violence-related (9.7%), and gang related (7.6%),
- For females, the most common event circumstances surrounding homicides were intimate partner violence-related (50.4%), an argument, abuse or conflict (30.5%), precipitated by another serious crime (29.0%), drug involvement (5.3%), and gang related (2.3%).
- The most common crimes that precipitated homicide for male victims were robbery (46.0%), burglary (22.1%) and drug trade (14.1%).
- The most common crimes that precipitated homicide for female victims included burglary (26.7%), rape/sexual assault (20.0%), and motor vehicle theft (13.3%).
- Common victim circumstances surrounding homicides were: the victim used a weapon (9.8%), justifiable self-defense (1.9%), and the victim was a bystander (0.6%).

Table 30 summarizes the location of the injury resulting in death for homicide victims in North Carolina in 2017.

Key Findings:

- Most injuries resulting in death occurred in a house or apartment (60.3%).
- Other common locations where injuries resulting in death occurred were: a street, road, sidewalk or alley (9.1), a motor vehicle (11.7%), parking lot or garage (1.6%), other commercial establishments such as a grocery store or laundromat (5.7%), bars/nightclubs (2.0%), and natural areas such as a field or woods (2.0%).

Section III

Table 28: Circumstances of homicides victims in North Carolina by sex, 2017

Circumstance*	Male		Female		Total	
	Number	%	Number	%	Number	%
Event						
Other Argument, Abuse, Conflict	217	42.2	40	30.5	257	39.8
Precipitated by Another Serious Crime	180	35.0	38	29.0	218	33.8
Drug Involvement	92	17.9	7	5.3	99	15.4
Intimate Partner Violence-Related	50	9.7	66	50.4	116	18.0
Jealousy (Lovers Triangle)	13	2.5	4	3.1	17	2.6
Gang Related	39	7.6	3	2.3	42	6.5
Brawl (Mutual Physical Fight)	7	1.4	0	0.0	7	1.1
Mercy Killing	0	0.0	0	0.0	0	0.0
Victim						
Victim Used a Weapon	63	12.3	0	0.0	63	9.8
Victim was a Bystander	1	0.2	3	2.3	4	0.6
Justifiable Self-Defense	12	2.3	0	0.0	12	1.9
Intervener Assisting Crime Victim	1	0.2	0	0.0	1	0.2

* Circumstances were available for 93.5% (514/550) of male victims, 97.0% (131/135) of female victims and 94.2% (645/685) of all homicide victims. The percentage of circumstances for homicide victims is based on the number of cases reporting circumstances in North Carolina in 2017.

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%.

Table 29: Crimes precipitating homicides in North Carolina by sex, 2017

Crime*	Male		Female		Total	
	Number	%	Number	%	Number	%
Robbery	98	46.0	4	8.9	102	39.5
Burglary	47	22.1	12	26.7	59	22.9
Drug trade	30	14.1	1	2.2	31	12.0
Motor vehicle theft	13	6.1	6	13.3	19	7.4
Assault, homicide	7	3.3	3	6.7	10	3.9
Rape, sexual assault	3	1.4	9	20.0	12	4.7
Arson	2	0.9	5	11.1	7	2.7
Gambling	3	1.4	0	0.0	3	1.2
Other	10	4.7	5	11.1	15	5.8

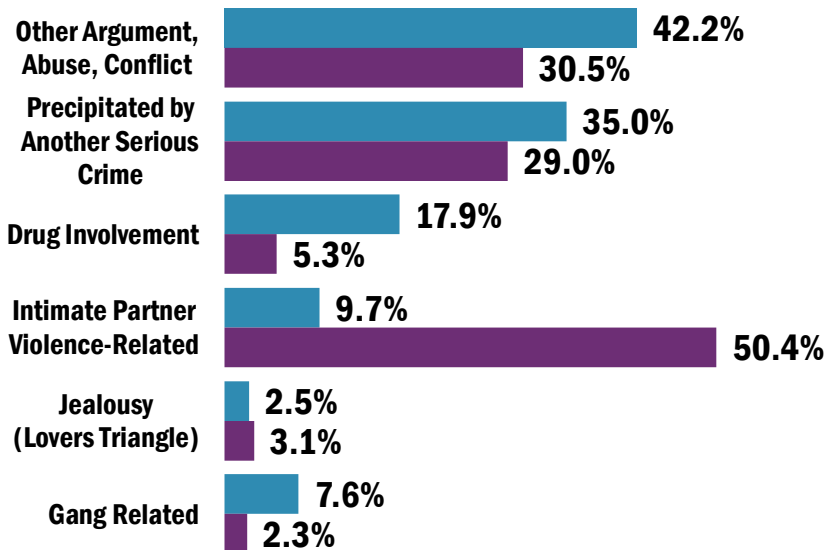
* For 180 males, 38 females and 218 victims whose homicide was precipitated by another serious crime.

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%.

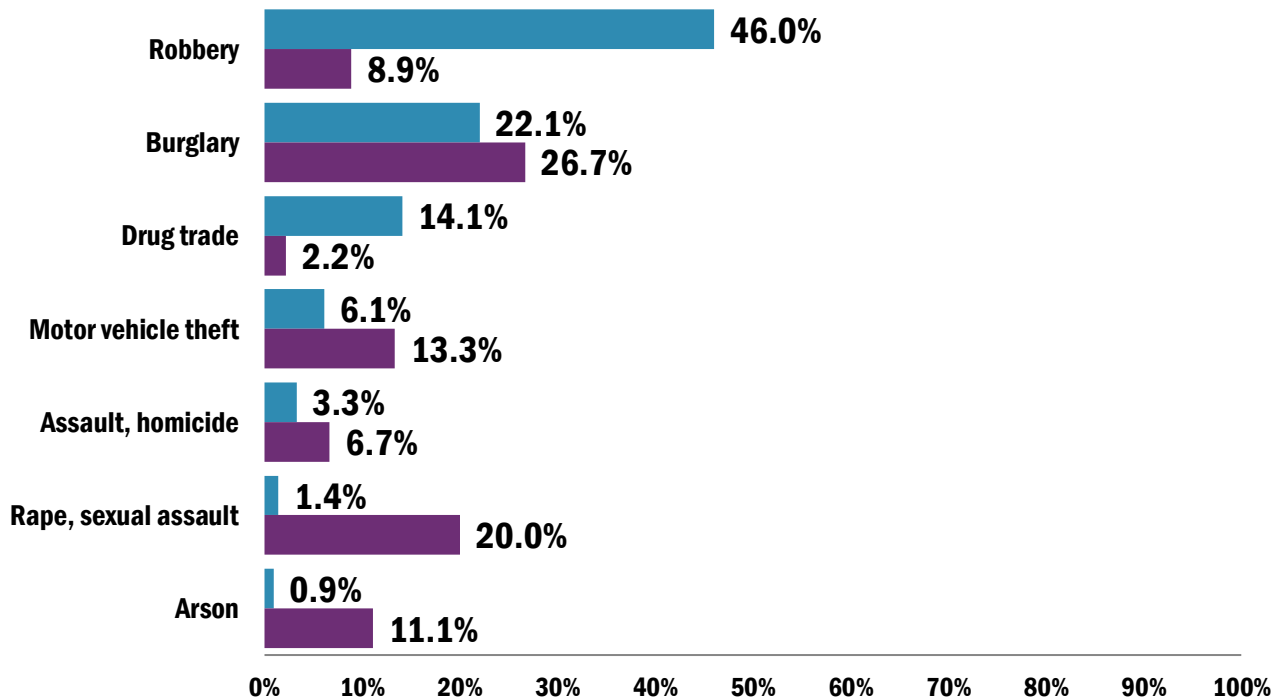
Figure 21: Circumstances of homicide victims and crimes precipitating homicides in North Carolina by sex, 2017

- 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%. This figure does not include all circumstances and crimes.

Section III

Table 30: Injury location for homicide victims in North Carolina, 2017

	Number	%
Injury Location		
House, apartment	413	60.3
Motor vehicle (excluding school bus, 15, and public transportation, 21)	80	11.7
Street/road, sidewalk, alley	62	9.1
Other commercial establishment (e.g., grocery store, retail outlet, laundromat)	39	5.7
Natural area (e.g., field, river, beaches, woods)	14	2.0
Bar, nightclub	14	2.0
Unknown	13	1.9
Hotel/motel	11	1.6
Parking lot/public parking garage	11	1.6
Park, playground, public use area	9	1.3
Jail, prison, detention facility	5	0.7
Farm	4	0.6
Abandoned house, building, or warehouse	2	0.3
Office building	1	0.2
Other/Unknown	7	1.0
Total Deaths	685	100

Section IV: Legal Intervention

NC-VDRS compiles data on legal intervention deaths which the medical examiner classified as homicide but are further classified 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 2017. Caution should be used in interpreting the rates because of the small number of legal intervention deaths. **Table 32** shows the type of weapon used in legal intervention deaths of North Carolina residents in 2017. **Table 33** lists the number of legal intervention deaths in 2017 by North Carolina county of residence.

Key Findings:

- In 2017, 21 residents of North Carolina (0.2 per 100,000) died from legal intervention.
- Nearly all the victims were male (95.2%) and most were from 20 to 64 years of age (100%).
- All but one legal intervention death occurred by firearm. Of the total firearms involved (n=26), handguns were the most frequently used (53.8%).

Table 31: Demographics of legal intervention death victims in North Carolina, 2017

	Number	%	Rate	95% CI
Sex				
Female	1	4.8	*	*
Male	20	95.2	0.4	0.2 - 0.6
Race/Ethnicity				
White**	10	47.6	0.2	0.1 - 0.2
Black**	9	42.9	0.4	0.1 - 0.7
Asian**	0	0.0	0.0	-
American Indian**	0	0.0	0.0	-
Hispanic	2	9.5	*	*
Age Group (Years)				
15-19	0	0.0	*	*
20-24	2	9.5	*	*
25-34	12	57.1	0.9	0.4 - 1.4
35-44	3	14.3	*	*
45-54	3	14.3	*	*
55-64	1	4.8	*	*
65-74	0	0.0	0.0	-
75-84	0	0.0	0.0	-
≥85	0	0.0	0.0	-
Total Deaths	21	100	0.2	0.1 - 0.3

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

95% CI = 95% 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, 2017

Weapon Type	Number	%
Firearm		
Handgun	14	53.8
Rifle	6	23.1
Shotgun	0	0.0
Unknown firearm type	4	15.4
Other, non-firearm weapons	2	7.7
Total Weapons Involved in Legal Intervention Deaths	26*	100

*Multiple firearm types were reported for some legal intervention fatalities in 2017; 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, 2017

County	Number	County	Number
Buncombe	1	Richmond	1
Burke	1	Robeson	1
Catawba	1	Surry	1
Cleveland	1	Wake	2
Cumberland	1	Wayne	1
Durham	2		
Gaston	1		
Halifax	1		
Harnett	1		
Mecklenburg	4		
Orange	1		
Buncombe	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 2017 by sex, race/ethnicity, and age. Caution should be used in interpreting the rates because of the small number of unintentional firearm deaths. **Table 35** displays the type of firearm for unintentional firearm deaths in North Carolina in 2017. **Table 36** provides the number of unintentional firearm deaths in 2017 by North Carolina county of residence.

Key Findings:

- In 2017, 12 North Carolinians (0.1 per 100,000) died from an unintentional firearm injury.
- Unintentional firearm victims were 83.3% male, 50.0% NH white, and 33.3% NH black.
- Deaths from an unintentional firearm injury occurred among those ages 1-4 to 55 to 64.
- The most common firearm involved in unintentional firearm deaths was a handgun (83.3%) followed by a rifle and shotgun (both 8.3%).

NC-VDRS collects data on the circumstances surrounding unintentional firearm deaths to help understand the underlying causes of death. Eleven of the 12 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 2017.

Key Findings:

- The most common circumstance among mechanisms of unintentional firearm injuries resulting in death was that the victim unintentionally pulled the trigger (63.6%), the firearm had a defect or malfunctioned (18.2%), and the victim thought the magazine was unloaded (18.2%).
- Among contexts of unintentional firearm injuries resulting in death, the most common contexts were that the injury occurred while playing with a firearm (36.4%), and the injury occurred while showing the firearm to others (18.2%).

Section V

Table 34: Demographics of unintentional firearm death victims in North Carolina, 2017

	Number	%	Rate	95% CI
Sex				
Female	2	16.7	*	*
Male	10	83.3	0.2	0.1 - 0.3
Race/Ethnicity				
White**	6	50.0	0.1	0.0 - 0.2
Black**	4	33.3	*	*
Asian**	0	0.0	0.0	-
American Indian**	0	0.0	0.0	-
Hispanic	2	16.7	*	*
Age Group (Years)				
< 1	0	0.0	0.0	0.0
1-4	1	0.1	*	*
5-9	1	0.1	*	*
10-14	0	0.0	0.0	0.0
15-19	2	0.2	*	*
20-24	3	0.3	*	*
25-34	1	0.1	*	*
35-44	1	0.1	0.0	0.0
45-54	0	0.0	0.0	0.0
55-64	3	0.3	*	*
65-74	0	0.0	0.0	*
75-84	0	0.0	0.0	0.0
≥85	0	0.0	0.0	0.0
Total Deaths	12	100	0.1	0.1 - 0.2

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

95% CI = 95% 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, 2017

	Number	%
Firearm Type		
Handgun	10	83.3
Rifle	1	8.3
Shotgun	1	8.3
Total Firearms Involved in Unintentional Firearms*	12	100.0

*Multiple firearm types were not reported for any unintentional firearm fatalities in 2017; Therefore, the total number of firearms equals the number of unintentional firearm deaths (n=12).

Table 36: Unintentional firearm deaths in North Carolina by county of residence, 2017

County	Number	County	Number
Beaufort	1	Wake	1
Bladen	1	Yancey	1
Cleveland	1		
Forsyth	1		
Gaston	1		
Guilford	1		
Pasquotank	1		
Robeson	1		
Surry	1		
Transylvania	1		

Section V

Table 37: Circumstances of unintentional firearm deaths in North Carolina, 2017

Circumstances*	Number	%
Context		
Occurred while playing with gun	4	36.4
Gun fired while loading or unloading	1	9.1
Occurred while showing gun to others	2	18.2
Other context	6	54.6
Mechanism		
Gun discharged when dropped	1	9.1
Unintentionally pulled trigger	7	63.6
Shooter thought magazine was unloaded	2	18.2
Gun had defect or malfunctioned	2	18.2
Other mechanism	4	36.4

*Circumstances were available for 11/12 (91.7%) of unintentional firearm deaths in North Carolina during 2017.

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 2017 by sex, race/ethnicity and age.

Key Findings:

- In 2017, 105 children in North Carolina (4.6 per 100,000) died as a result of violence.
- Male children were 2.8 times as likely to be victims of violent death as female children (6.6 vs. 2.4 per 100,000, respectively).
- The violent death rate for children per 100,000 was 2.0 times higher for NH blacks (8.0 per 100,000) than for NH whites (4.1 per 100,000).
- The highest death rate was for children less than one (14.1 per 100,000). The lowest rate was for ages 5-9 (0.8 per 100,000).

Manner of violent death for child victims in North Carolina in 2017 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 (48.6%) and suicide (41.9%).
- Homicide was the cause of violent death in the majority of NH black children (60.0%).
- Homicide was the leading cause of violent death for infants less than one year (88.2%), for children ages one to four (76.9%), and children ages five to nine (80.0%).
- Suicide was the cause of violent death in the majority of NH white children (52.9%).
- Suicide was the leading cause of violent death for children ages 10 to 14 (74.1%) and ages 15 to 17 (55.8%).

Method of child violent death in North Carolina in 2017 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 (41.0%), hanging, strangulation or suffocation (30.5%) and personal weapons (i.e., physical abuse by a caretaker) (16.2%).
- Firearm was the leading method of child violent death for males (47.4%), NH blacks (44.4%) and NH whites (42.2%).
- Personal weapons (62.5%), hanging, strangulation or suffocation (25.0%), and intentional neglect (12.5%) were the leading methods of violent death in infants less than one year. For children ages one to four, personal weapons (42.9%) and firearms, poisoning, and sharp instruments (all 14.3%) were the leading methods of death. There were five child deaths for ages five to nine, attributed to firearms and hanging, strangulation or suffocation (both 40.0%), and sharp instruments (20.0%). Hanging, strangulation, or suffocation (40.7%) and firearms (51.9%) were the top causes of violent child death for ages 10 to 14, as well as for ages 15 to 17 (34.9% and 58.1% respectively).

Section VI

Table 38: Demographics of child (under age 18) violent deaths in North Carolina, 2017

	Number	%	Rate	95% CI
Sex				
Female	27	25.7	2.4	1.5 - 3.3
Male	78	74.3	6.6	5.2 - 8.1
Race/Ethnicity				
White**	51	48.6	4.1	3.0 - 5.2
Black**	45	42.9	8.0	5.6 - 10.3
Asian**	0	0.0	*	*
American Indian**	2	1.9	*	*
Hispanic	7	6.7	1.9	0.5 - 3.2
Age Group (Years)				
<1	17	16.2	14.1	7.4 - 20.8
1-4	13	12.4	2.7	1.2 - 4.1
5-9	5	4.8	0.8	0.1 - 1.5
10-14	27	25.7	4.1	2.6 - 5.6
15-17	43	41.0	10.7	7.5 - 13.9
Total Deaths	105	100	4.6	3.7 - 5.4

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

95% CI = 95% 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, 2017

Manner of Death	Male		Female		Total	
	Number	%	Number	%	Number	%
Homicide	36	46.2	15	55.6	51	48.6
Suicide	35	44.9	9	33.3	44	41.9
Undetermined Intent	5	6.4	2	7.4	7	6.7
Unintentional Firearm	2	2.6	1	3.7	3	2.9
Total Deaths	78	100	27	100	105	100

Figure 22: Manner of child (under age 18) violent death in North Carolina, 2017

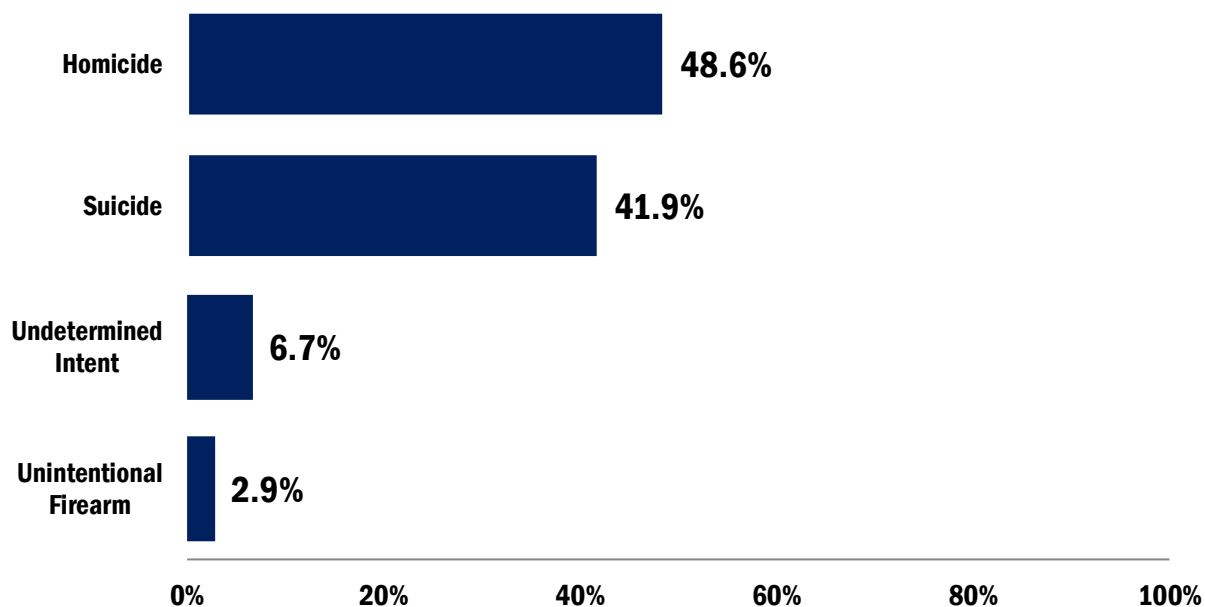


Table 40: Manner of child (under age 18) violent death in North Carolina by race/ethnicity, 2017

Manner of Death	White**		Black**		American Indian**		Asian**		Hispanic	
	Number	%	Number	%	Number	%	Number	%	Number	%
Homicide	19	37.3	27	60.0	2	100.0	0	0.0	3	42.9
Suicide	27	52.9	13	28.9	0	0.0	0	0.0	4	57.1
Undetermined Intent	4	7.8	3	6.7	0	0.0	0	0.0	0	0.0
Unintentional Firearm	1	2.0	2	4.4	0	0.0	0	0.0	0	0.0
Total Deaths	51	100	45	100	2	100	0	0	7	100

** Non-Hispanic

Section VI

Table 41: Manner of child (under age 18) violent death in North Carolina by age group, 2017

	<1		1-4		5-9		10-14		15-17	
	Number	%	Number	%	Number	%	Number	%	Number	%
Manner of Death										
Homicide	15	88.2	10	76.9	4	80.0	5	18.5	17	39.5
Suicide	0	0.0	0	0.0	0	0.0	20	74.1	24	55.8
Undetermined Intent	2	11.8	2	15.4	0	0.0	2	7.4	1	2.3
Unintentional Firearm	0	0.0	1	7.7	1	20.0	0	0.0	1	2.3
Total Deaths	17	100	13	100	5	100	27	100	43	100

Table 42: Method of child (under age 18) violent death in North Carolina by sex, 2017

Method of Death	Male		Female		Total	
	Number	%	Number	%	Number	%
Firearm	37	47.4	6	22.2	43	41.0
Hanging, strangulation, suffocation	24	30.8	8	29.6	32	30.5
Personal Weapons	10	12.8	7	25.9	17	16.2
Poisoning	2	2.6	2	7.4	4	3.8
Sharp instrument	1	1.3	2	7.4	3	2.9
Blunt Instrument	0	0.0	0	0.0	0	0.0
Intentional Neglect	1	1.3	1	3.7	2	1.9
Violent Shaking	0	0.0	0	0.0	0	0.0
Other/Unknown	3	3.8	1	3.7	4	3.8
Total Deaths	78	100	27	100	105	100

Table 43: Method of child (under age 18) violent death in North Carolina by race/ethnicity, 2017

Method of Death	White**		Black**		American Indian**		Asian**		Hispanic	
	Number	%	Number	%	Number	%	Number	%	Number	%
Firearm	21	41.2	20	44.4	0	0.0	0	0.0	2	28.6
Hanging, strangulation, suffocation	16	31.4	13	28.9	1	50.0	0	0.0	2	28.6
Personal Weapons	9	17.7	5	11.1	1	50.0	0	0.0	2	28.6
Poisoning	2	3.9	2	4.4	0	0.0	0	0.0	0	0.0
Sharp instrument	0	0.0	3	6.7	0	0.0	0	0.0	0	0.0
Blunt Instrument	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Intentional Neglect	0	0.0	1	2.2	0	0.0	0	0.0	1	14.3
Violent Shaking	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Other/Unknown	3	5.9	1	2.2	0	0.0	0	0.0	0	0.0
Total Deaths	51	100	45	100	2	100	0	0	7	100

** Non-Hispanic

Table 44: Method of child (under age 18) violent death in North Carolina by age group, 2017

Method of Death	<1		1-4		5-9		10-14		15-17	
	Number	%	Number	%	Number	%	Number	%	Number	%
Firearm	0	0.0	2	14.3	2	40.0	14	51.9	25	58.1
Hanging, strangulation, suffocation	4	25.0	0	0.0	2	40.0	11	40.7	15	34.9
Personal Weapons	10	62.5	6	42.9	0	0.0	1	3.7	0	0.0
Poisoning	0	0.0	2	14.3	0	0.0	1	3.7	1	2.3
Sharp instrument	0	0.0	2	14.3	1	20.0	0	0.0	0	0.0
Blunt Instrument	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Intentional Neglect	2	12.5	0	0.0	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	2	14.3	0	0.0	0	0.0	2	4.6
Total Deaths	16	100	14	100	5	100	27	100	43	100

** 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 2017 by sex, race/ethnicity and age.

Key Findings:

- In 2017, 79 undetermined intent deaths (0.8 per 100,000) were reported in North Carolina.
- Males had an undetermined death rate of 1.6 times that of females (1.0 versus 0.6 per 100,000).
- NH whites accounted for 72.2% of undetermined intent victims.
- The majority (78.5%) 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 45 to 54 years (1.7 per 100,000).

Table 46 summarizes the method of undetermined intent deaths in North Carolina in 2017. **Table 47** shows the category of the fatal substance that caused the undetermined intent poisoning deaths in North Carolina in 2017.

Key Findings:

- The leading methods of undetermined intent deaths were poisoning (60.8%) and fall (10.1%).
- Most undetermined intent poisoning deaths involved an opiate (either illicit or prescription) (47.9%), followed by benzodiazepines (33.3%) and antidepressants (16.7%).
- A handgun was involved in all three undetermined intent firearm deaths that occurred in North Carolina in 2017.
- Multiple firearm types were not reported for any undetermined intent fatalities in 2017. Therefore, the total number of firearms equals the number of undetermined intent firearm deaths.

Table 48 provides the number of undetermined intent deaths in 2017 by North Carolina county of residence.

Table 45: Demographics of undetermined intent death victims in North Carolina, 2017

	Number	%	Rate	95% CI
Sex				
Female	31	39.2%	0.6	0.4 - 0.8
Male	48	60.8%	1.0	0.7 - 1.2
Race/Ethnicity				
White**	57	72.2%	0.9	0.6 - 1.1
Black**	18	22.8%	0.8	0.4 - 1.2
Asian**	0	0.0%	0.0	-
American Indian**	1	1.3%	*	*
Hispanic	3	3.8%	*	*
Age Group (Years)				
< 1	2	3%	*	*
1-4	2	3%	*	*
5-9	0	0%	0.0	-
10-14	2	3%	*	*
15-19	2	3%	*	*
20-24	5	6%	0.7	0.1 - 1.3
25-34	7	9%	0.5	0.1 - 0.9
35-44	12	15%	0.9	0.4 - 1.5
45-54	24	30%	1.7	1.0 - 2.4
55-64	14	18%	1.1	0.5 - 1.6
65-74	3	4%	*	*
75-84	6	8%	1.3	1.3 - 1.3
≥85	0	0%	0.0	-
Total Deaths	79	100%	0.8	0.6 - 0.9

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

95% CI = 95% 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, 2017

	Number	%
Method of Death		
Poisoning	48	60.8
Fall	8	10.1
Drowning	5	6.3
Motor vehicle including buses, motorcycles	5	6.3
Firearm	3	3.8
Hanging, strangulation, suffocation	3	3.8
Personal weapons	2	2.5
Fire or burns	1	1.3
Other/Unknown	4	5.1
Total Deaths	79	100

Table 47: Fatal substances in undetermined intent poisoning deaths in North Carolina by sex, 2017

Category of Fatal Substance*	Male		Female		Total	
	Number	%	Number	%	Number	%
Opiate**	14	58.3	9	37.5	23	47.9
Antidepressant	1	4.2	7	29.2	8	16.7
Benzodiazepines	7	29.2	9	37.5	16	33.3
Barbiturates	2	8.3	0	0.0	2	4.2
Carbon Monoxide	3	12.5	0	0.0	3	6.3
Alcohol	3	12.5	2	8.3	5	10.4
Amphetamine	2	8.3	1	4.2	3	6.3
Cocaine	6	25.0	0	0.0	6	12.5
Other Poison***	2	8.3	5	20.8	7	14.6

* Category of substance that directly caused or was suspected to cause undetermined intent poisoning deaths. There were 21 undetermined intent poisonings (43.7%) where more than one substance caused the death in 2017, with as many as four fatal substances present in a given case.

** 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, 2017

County	Number	County	Number	County	Number
Alamance	1	Granville	1	Orange	1
Buncombe	2	Guilford	6	Pitt	3
Burke	1	Harnett	1	Rockingham	2
Cabarrus	1	Hoke	3	Rowan	1
Caldwell	1	Iredell	1	Rutherford	1
Catawba	1	Jackson	2	Sampson	1
Columbus	1	Johnston	2	Surry	1
Craven	1	Lenoir	5	Union	1
Cumberland	3	Martin	1	Vance	1
Dare	2	McDowell	1	Wake	3
Davidson	3	Mecklenburg	5	Wayne	1
Durham	3	Moore	2	Yadkin	1
Forsyth	5	Nash	1	Northampton	1
Franklin	1	New Hanover	1		
Gaston	1	Onslow	2		

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 2006 to 2017, 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 2017.

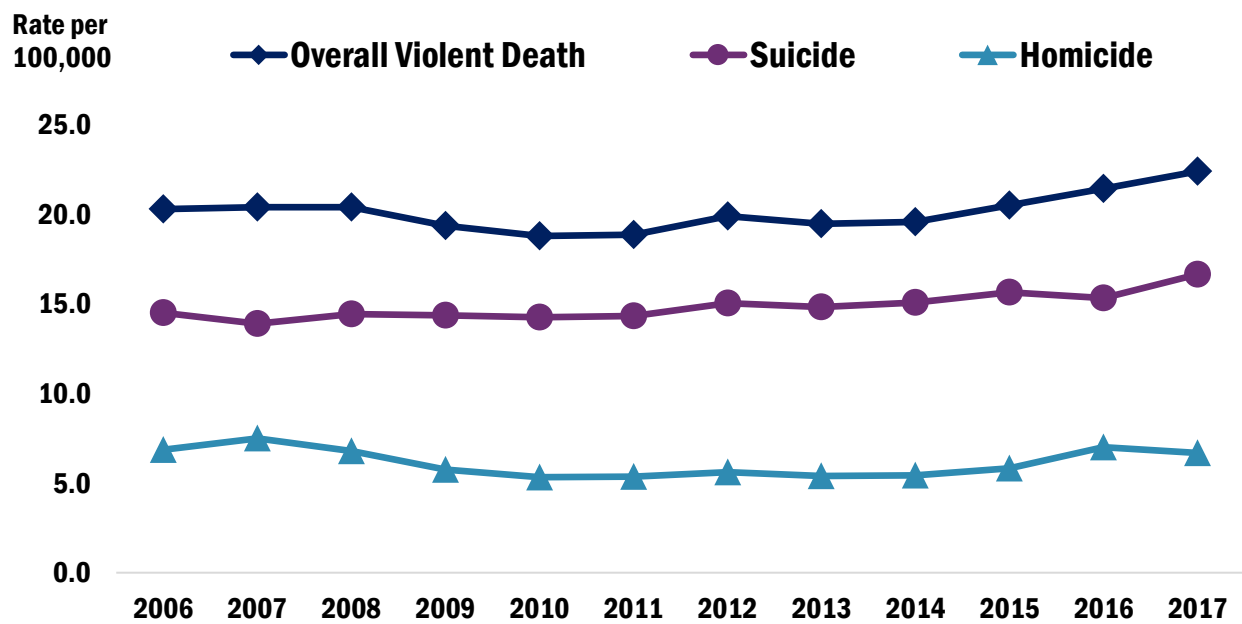
Key Findings:

- The overall violent death rate in North Carolina has remained fairly stable from 2006 (20.3 per 100,000) to 2017 (22.4 per 100,000).
- From 2006 to 2017 in North Carolina, the death rates have slightly increased for suicides (range of 13.9 to 16.6 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, 2005-2017

Year	Overall Violent Deaths		Suicides (Ages ≥10)		Homicides	
	Number	Rate	Number	Rate	Number	Rate
2006	1,797	20.3	1,111	14.5	609	6.9
2007	1,848	20.4	1,085	13.9	679	7.5
2008	1,885	20.4	1,148	14.4	628	6.8
2009	1,816	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	1,938	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
2017	2,300	22.4	1,503	16.6	685	6.7

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 2017 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)
Sex			
Female	5,271,981	4,663,063	1,128,778
Male	5,001,438	4,367,593	1,173,568
Race/Ethnicity			
White**	6,581,107	5,923,766	1,249,952
Black**	2,270,022	1,964,619	564,315
Asian**	327,267	280,610	82,691
American Indian**	122,735	106,513	30,158
Hispanic	972,288	755,148	375,230
Age Group (Years)			
< 1	120,301	-	120,301
1-4	489,412	-	489,412
5-9	633,050	-	633,050
10-14	658,662	658,662	658,662
15-17	-	-	400,921
15-19	676,444	676,444	-
20-24	696,993	696,993	-
25-34	1,370,247	1,370,247	-
35-44	1,290,678	1,290,678	-
45-54	1,385,509	1,385,509	-
55-64	1,321,678	1,321,678	-
65-74	981,481	981,481	-
75-84	467,019	467,019	-
≥85	181,945	181,945	-
Total Population	10,273,419	9,030,656	2,302,346

** 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 (2017).

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, NC Department of Health and Human Services

Becky Ceartas

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

Phil Cook, PhD

Professor, Terry Sanford Public Policy, Duke University

Alan Dellapenna, RS, MPH

Branch Head, Injury and Violence Prevention Branch, Division of Public Health, NC Department of Health and Human Services

C.J. Davis

Chief of Police, Durham Police Department

Elizabeth Gifford, PhD

Assistant Research Professor, Terry Sanford 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

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Jane Miller

Program Consultant-Suicide Prevention, Injury and Violence Prevention Branch, Division of Public Health, NC Department of Health and Human Services

Zack Moore, MD, MPH

State Epidemiologist, Division of Public Health, NC 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

Chief Medical Examiner, Office of Chief Medical Examiner, NC Department of Health and Human Services

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, Division of Public Health, NC Department of Health and Human Services

Kevin Strom

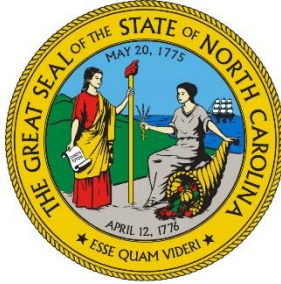
Public Health Researcher, RTI International

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.
Personal weapons	Includes fists, feet, and hands in actions such as punching, kicking, or hitting. It does not include manual strangulations. This would include someone who is at standing height, is pushed by another, and falls backward hitting his or her head.
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

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Department of Health and Human Services • Mark Benton, Assistant Secretary
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North Carolina Violent Death



Reporting System

North Carolina Division of Public Health

**Violent Death Reporting System
2017 Annual Report**

October 2019