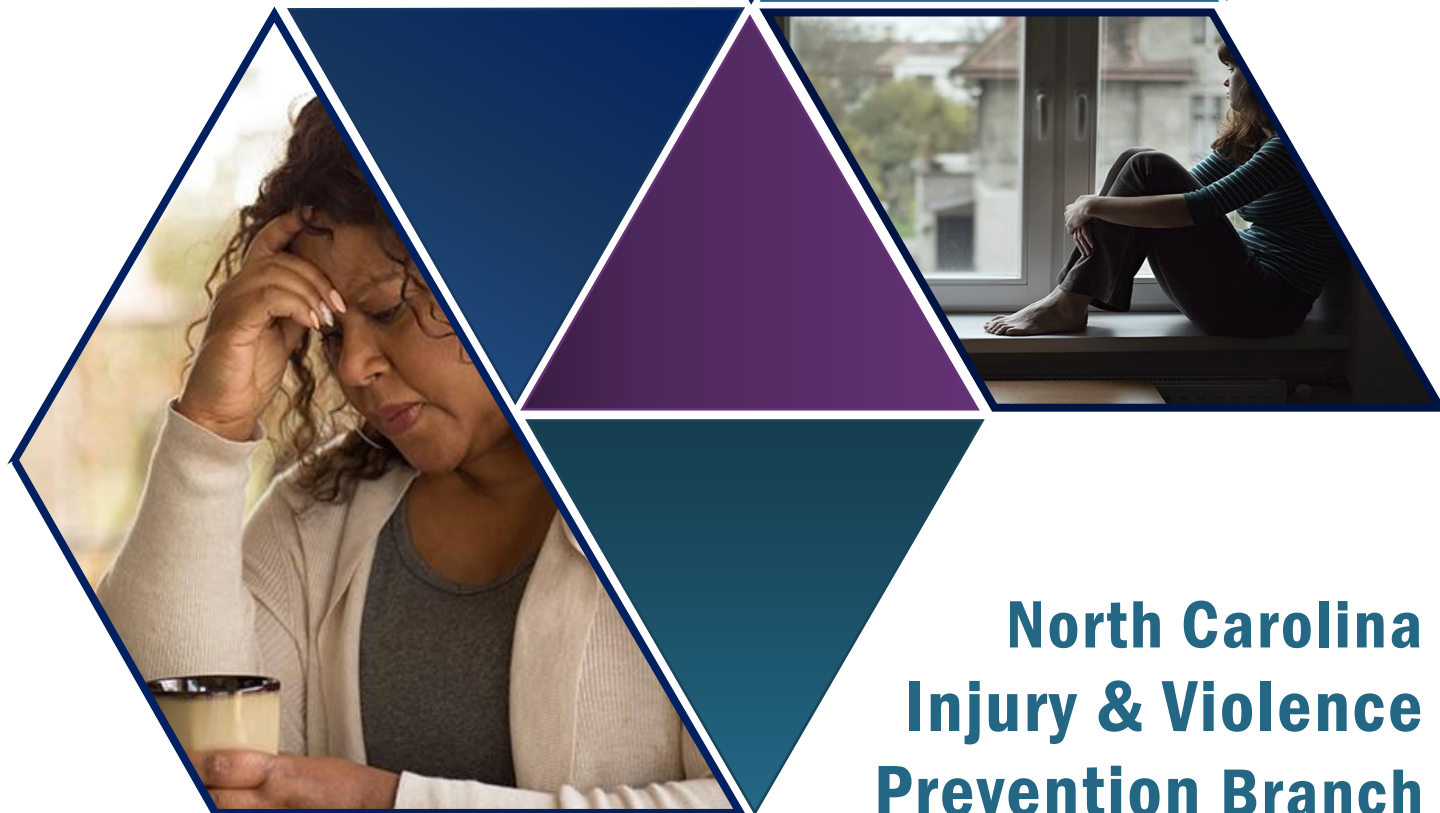


# North Carolina

## Violent Death Reporting System

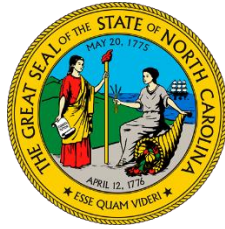
# 2018

## Annual Report



**North Carolina  
Injury & Violence  
Prevention Branch**

North Carolina Department of Health and Human Services  
April 2021



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

North Carolina Violent Death



## **Annual Report 2018**

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

**April 2021**

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# Executive Summary

## North Carolina Violent Death Reporting System, 2018

The North Carolina Violent Death Reporting System (NC-VDRS) is a Centers for Disease Control and Prevention (CDC)-funded, state-wide surveillance system that collects detailed information on deaths that occur in North Carolina resulting from violence, specifically homicide, suicide, unintentional firearm injuries, legal intervention and those deaths for which the intent could not be determined. The system is a relational database and compiles information on the victims, suspects and circumstances surrounding each violent death. NC-VDRS is a multi-source system that gathers information from death certificates, medical examiner reports and law enforcement reports. Collection of this information has created a better understanding of the circumstances surrounding violent deaths that occur in North Carolina. The goal of the system is to aid researchers, legislators and community interest groups in the development of public health prevention strategies to reduce violent deaths. This report summarizes the violent deaths of North Carolina residents that occurred in 2018.

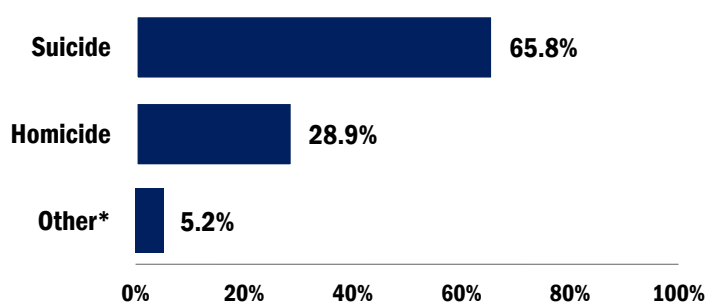
### Overall Violent Deaths

In 2018, 2,222 North Carolina residents (22.4 per 100,000) died as a result of violence. The leading causes of violent death were suicide (65.8%) and homicide (28.9%) (Figure i). Leading methods of violent death were firearm (62.5%), hanging, strangulation or suffocation (16.3%), and poisoning (10.7%). The most common firearms involved in violent firearm deaths were handguns (76.1%), shotguns (9.6%), and rifles (8.6%).

Males were 3.5 times as likely to die from violence as women (33.9 vs. 9.6 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 (31.6), NH Black (23.8), NH white (23.0), Hispanic (8.4), and NH Asian (7.3).

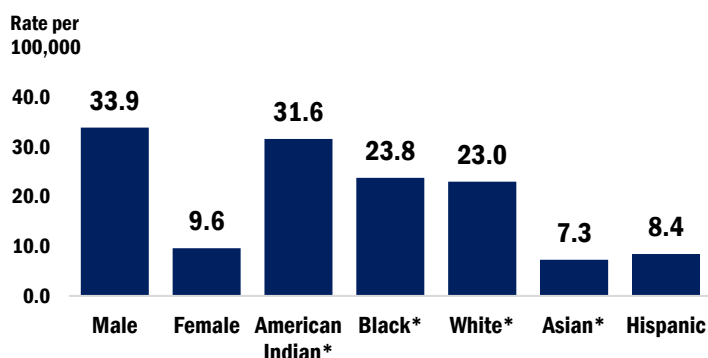
Adults from ages 20 to 64 years had the highest violent death rates by age per 100,000 as follows: 20 to 24 (31.2), 25 to 34 (29.6), 45 to 54 (27.7), 35 to 44 (26.3), and 55 to 64 (26.2). The violent death rate trend by age differed by sex, with males showing higher rates than females across nearly all age groups (Figure iii).

**Figure i: Manner of violent death in North Carolina, 2018**



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

**Figure ii: Overall violent death rates by sex and race/ethnicity in North Carolina, 2018**



\* Non-Hispanic

## Executive Summary

### Suicides

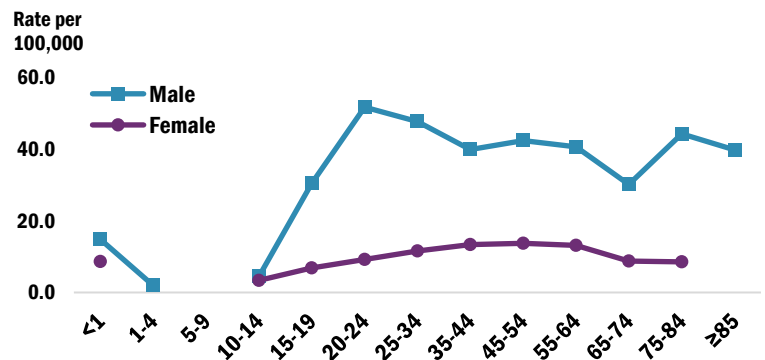
Suicide was the cause of death for 1,463 North Carolinians (16.0 per 100,000) in 2018. Suicides were most commonly completed by a firearm (58.9%), hanging, strangulation, or suffocation (23.2%), and poisoning (13.7%). A handgun was the most common firearm, involved in 78.9% of suicide firearm deaths. Opiates were the most common substance category present in suicide poisonings (47.0%), followed by antidepressants (35.0%) and benzodiazepines (31.5%).

Men were 3.7 times more likely to die from suicide than women (25.7 versus 7.0 per 100,000, respectively) (Figure iv). Among suicide victims, 77.5% were male, and 85.4% were NH white. The suicide rate per 100,000 was highest among NH whites (20.9) and NH American Indians (9.3), and lower among NH Blacks (6.3), NH Asians (6.8), and Hispanics (6.9).

The age group with the highest suicide rate was those 55 to 64 (20.9 per 100,000), followed by ages 45 to 54 (20.8 per 100,000) and ages 75 to 84 (20.1 per 100,000). The suicide rate was higher for men than women across all age groups, however men ages 75 to 84 years were at greatest risk with a rate of 40.1 per 100,000 (Figure v).

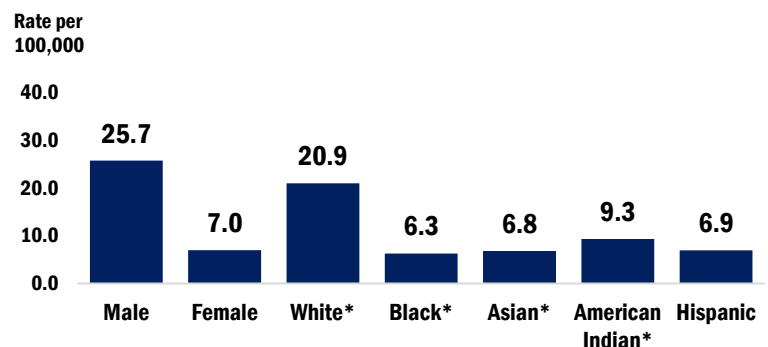
The most common circumstances of suicide were having ever been treated for mental illness (51.0%), current mental health problem (48.8%), current treatment for mental illness (36.2%), a recent crisis (43.3%), and a history of suicidal thoughts (35.1%). Most with a current mental health problem had depression (77.3%). Other common circumstances of suicide were problems with an intimate partner (25.8%), physical health problem (28.3%), an alcohol problem (18.7%), or other substance abuse problem (19.3%).

**Figure iii: Overall Violent Death Rates in North Carolina: Age Group by Sex, 2018**

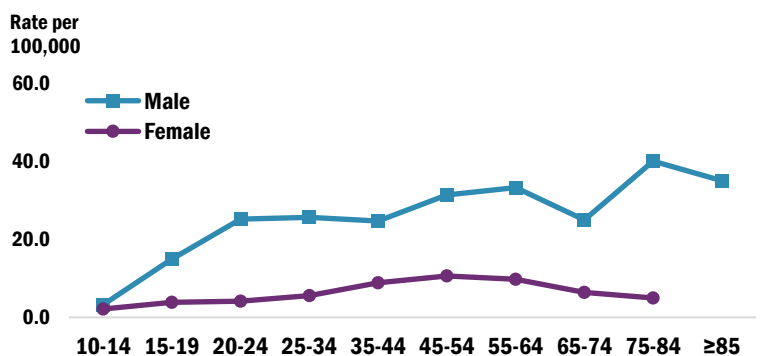


Note: The number of deaths was too small to support a rate calculation for some age and sex groups.

**Figure iv: Suicide rates by sex and race/ethnicity in North Carolina, 2018**



**Figure v: Suicide rates in North Carolina: Age group by sex, 2018**



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

Of the 97.5% of suicide victims tested, 28.9% had alcohol present at the time of death. Most (78.4%) injuries resulting in suicide occurred in a house or apartment.

### Homicides

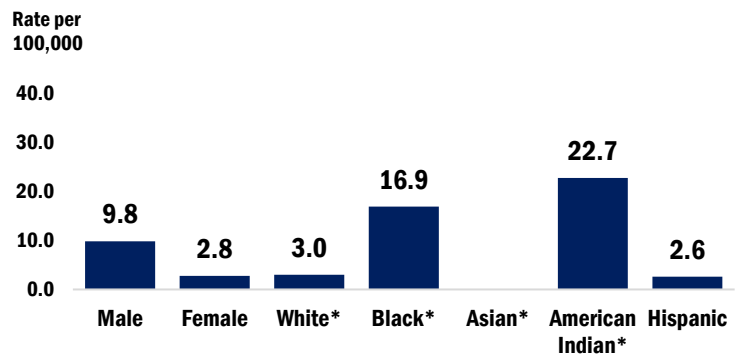
A total of 643 North Carolinians (6.2 per 100,000) were homicide victims in 2018. Firearm (73.3%) and sharp instruments (9.8%) were the most common homicide methods. Handguns accounted for 72.2% of firearms used in homicide firearm deaths.

Men accounted for 77.0% of homicide victims and were 3.5 times more likely to die from homicide than women (9.8 vs. 2.8 per 100,000, respectively) (Figure vi). Unlike suicide rates, homicide rates were higher among NH Blacks (16.9 per 100,000) and NH American Indians (22.7 per 100,000) than in NH whites (3.0 per 100,000), and Hispanics (2.6 per 100,000). The number of homicide deaths among NH Asians was too small to support the calculation of a rate.

Homicide rates were highest in the following age groups: 20 to 24 years (14.8 per 100,000), 25 to 34 years (13.0 per 100,000), and infants younger than one (8.4 per 100,000). Males had a higher homicide rate across all age groups. (Figure vii). Among 20- to 24-year-olds, the homicide rate was 5.1 times greater among males than females.

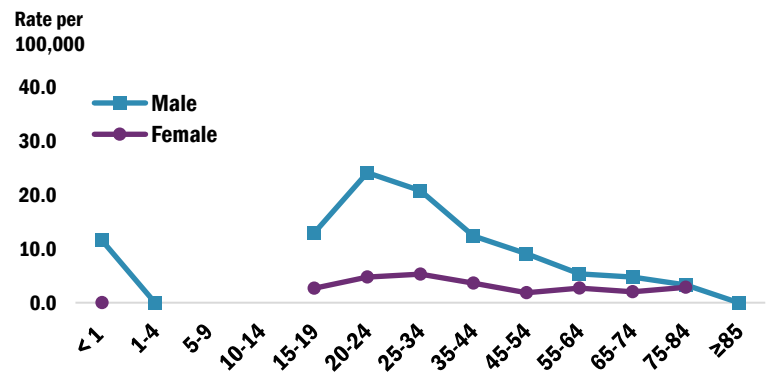
The most common event circumstances surrounding homicides were an argument, abuse or conflict (44.8%), precipitated by another serious crime (36.9%), intimate partner violence-related (18.6%), and drug involvement (26.5%). Homicides occurred most often in a house or apartment (59.7%), a street, road, sidewalk or alley (8.4%), or a motor vehicle (10.3%).

Figure vi: Homicide rates by sex and race/ethnicity in North Carolina, 2018



\* Non-Hispanic

Figure vii: Homicide rates in North Carolina: Age group by sex, 2018



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

### Legal Intervention

Twenty-nine North Carolina residents died in 2018 from legal intervention. These victims were killed by police or other law enforcement officers acting in the line of duty. All legal intervention victims were male, all victims were from 20 to 64 years of age, and over half were NH white (58.6%). All but one legal intervention death occurred by firearm; of the total firearms involved (n=35), handguns were used most frequently (68.6%).

## Executive Summary

### Unintentional Firearm Deaths

In 2018, 24 North Carolinians (0.2 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 (54.2%) followed by a rifle (29.2%) or a shotgun (4.2%).

### Child Violent Deaths

In North Carolina in 2018, 114 children (5.0 per 100,000) ages 0 to 17 died from violence. Suicide (45.6%) and homicide (40.4%) and were the leading causes of child violent death (**Figure viii**). Firearm (54.5%), hanging, strangulation, or suffocation (27.7%), and personal weapons (7.1%) were the most common methods of child death.

Male children were 2.7 times as likely to be victims of violent death as female children (7.2 vs. 2.7 per 100,000, respectively). The violent death rate per 100,000 was 2.1 times higher for NH Black children (8.4 per 100,000) than for NH white children (4.0 per 100,000).

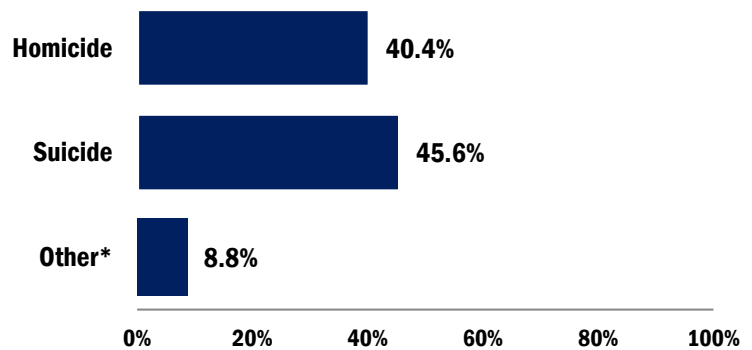
### Undetermined Intent

A total of 63 deaths of undetermined intent (0.6 per 100,000) were reported in North Carolina in 2018. The leading methods of undetermined intent deaths were poisoning (57.1%) and fall (9.5%).

### Violent Death over Time

The overall violent death rate in North Carolina remained fairly stable from 2007 to 2018, averaging 20.2 per 100,000 per year. The overall violent death rate was 20.4 per 100,000 in 2007, 18.8 per 100,000 in 2010, and 21.4 per 100,000 in 2018.

**Figure viii: Manner of violent death among children in North Carolina, 2018**



\* Other includes undetermined intent and unintentional firearm.

## Introduction

In 2018, there were more than 48,300 suicides and 18,800 homicides nationwide, many of which were preventable. In North Carolina, more than 19,200 residents died from suicide or homicide in the ten-year period from 2009 to 2018. In that same period, suicide and homicide ranked as the state's 10<sup>th</sup> and 16<sup>th</sup> leading causes of death, respectively. Among specific age groups, violent death constitutes an even greater risk. In North Carolina in 2018, suicide was the second leading cause of death for young adults ages 15 to 24 and for adults ages 25 to 34. Suicide was the second leading cause of death for children ages 10 to 14 and the fourth leading cause for adults ages 35 to 54. Homicide was the state's third leading cause of death for children ages one to four. Homicide was the third leading cause of death for ages 15 to 34. In addition, violent death rates show disparities by sex, race, and ethnicity. For males in North Carolina in 2018, suicide was the eighth leading cause of death, compared to the fourteenth leading cause among females. Homicide was the eighth leading cause of death in NH Blacks, and suicide was the twentieth leading cause of death in NH whites in North Carolina in 2018. Among Hispanics in North Carolina, suicide and homicide were respectively the ninth and twelfth leading causes of death in 2018.

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 policymakers detailed information on the victims, suspects, relationships, circumstances, and weapons that are associated with every incident of violence that results in a fatality in North Carolina. The NC-VDRS is an incident-based, relational database that combines data from multiple sources such as death certificates, medical examiner reports and incident reports from law enforcement agencies. The NC-VDRS began collecting data on January 1, 2004.

The NC-VDRS is part of a larger, national system being developed by the National Center for Injury Prevention and Control at CDC. In 2002, Congress appropriated \$1.5 million to create the National Violent Death Reporting System (NVDRS) to implement a nationwide surveillance system on deaths from violence. NVDRS is built on the knowledge gained from a firearm reporting system developed at the University of Wisconsin and the National Violent Injury Statistics System (NVISS, operated by the Harvard Injury Control Research Center). Participation in NVDRS is through competitive cooperative agreements. North Carolina was awarded funding in August 2003. Currently, all 50 states, the District of Columbia, and Puerto Rico submit data to NVDRS.

This annual report for the NC-VDRS presents statistics on deaths from violence to North Carolina residents during the period of January 1, 2018, to December 31, 2018. The 2018 data file used for this report was generated in May 2019. Note that if changes are made to the 2018 data in NC-VDRS after this date, the 2018 violent death data could change in future reports. A glossary of the terms used in this report is shown in Appendix C.



# Methods

## Case Identification

This report provides a comprehensive summary of all violent deaths to residents of North Carolina during 2018. Violent deaths are captured by data abstractors using multiple, complementary data sources that include:

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

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

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

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

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

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

## Methods

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

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

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

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

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

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

### Analysis

This report provides three main types of analytic data on violent deaths in North Carolina: 1) number of deaths for each violent death category; 2) % 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 of residence.

The rate of violent death is calculated as the number of deaths during the specified time per 100,000 North Carolina residents in the same category (rate = [number of deaths x 100,000 / population]). Rates were calculated using bridged North Carolina population data (vintage 2018) from the National Center for Health Statistics. The numbers of the total North Carolina population and children by demographic characteristic are available in Appendix B. Unless otherwise stated, a child is a person under 18 years of age.

### Resident vs. Occurrent Deaths

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

- **Resident deaths** are those in which the victim was a North Carolina resident at the time of death, and the death occurred in North Carolina (N=2,222).
- **Occurrent deaths** capture all deaths that occur within North Carolina during the specified time, regardless of the residential status of the decedent (N=2,271).

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/CE924955-02-00. 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 2018 and the period of the data close-out (2018-2019), the NC-VDRS Advisory Board provided input and assistance. A full listing of the advisory board is found in Appendix B. Special thanks to the steering committee consisting of Tamera Coyne-Beasley, Stephen Marshall and Anna Waller. Thanks to all of the NC-VDRS advisory board members for their input, support and continuing participation.

# Section I: Overall Violent Deaths

## Basic Characteristics of Violent Deaths

**Table 1** describes violent death victims in North Carolina in 2018 by demographic characteristics of sex, race/ethnicity and age. The 2018 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 2,222 North Carolinians (21.4 per 100,000) died as a result of violence in 2018.
- Males were 3.5 times as likely to die from violence as females (33.9 versus 9.6 per 100,000, respectively).
- Non-Hispanic American Indians had the highest violent death rate per 100,000 (31.6) followed by NH Blacks (23.8), NH whites (23.0), Hispanics (8.4), and NH Asians (7.3).
- Adults ages 20 to 24 years had the highest violent death rate per 100,000 (31.2), followed by adults ages: 25 to 34 (29.6), 45 to 54 (27.7), 35 to 44 (26.3), and 55 to 64 (26.2).
- Among children under the age of 15, children less than one year old had the highest violent death rate (11.8 per 100,000).

**Table 2** lists the manner and method of violent deaths in North Carolina in 2018. N.C. violent deaths in 2018 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 (65.8%) and homicide (28.9%).
- The leading methods of violent death were firearm (62.5%), hanging, strangulation or suffocation (16.3%), and poisoning (10.7%).
- The most common firearm involved in violent firearm deaths was a handgun (76.1%).

**Table 4** characterizes adult violent death victims (18 years or older) in North Carolina in 2018 by the number of years of completed education, marital status and veteran status.

### Key Findings:

- Most adult victims at least completed high school (79.3%) while 39.0% completed at least some college.
- Almost one-third of adult violent death victims were married, in a civil union, or a domestic partnership (30.4%). Almost two-fifths of adult violent victims were never married (39.1%). Fewer victims were divorced (19.8%) or widowed (5.5%).
- Military veterans accounted for 14.9% of North Carolina adult violent death victims in 2018.

**Table 5** and **Figure 5** show the overall violent death rates in 2018 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).

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### Key Findings:

- For the 81 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 25.0 deaths per 100,000 with a range from 0.0 to 60.6 deaths per 100,000.

**Table 1: Demographics of violent death victims in North Carolina, 2018**

	Number	%	Rate	95% CI
<b>Sex</b>				
Female	511	23.0	9.6	8.8 - 10.4
Male	1,711	77.0	33.9	32.3 - 35.5
<b>Race/Ethnicity</b>				
White**	1,524	68.6	23.0	21.9 - 24.2
Black**	546	24.6	23.8	21.8 - 25.8
Asian**	39	1.8	31.6	21.7 - 41.5
American Indian**	25	1.1	7.3	4.4 - 10.2
Hispanic	84	3.8	8.4	6.6 - 10.2
Other/Unknown	4	0.2	--	--
<b>Age Group (Years)</b>				
< 1	14	0.4	11.8	5.6 - 18.0
1-4	9	0.1	1.8	0.6 - 3.0
5-9	3	1.2	*	*
10-14	26	5.8	3.9	2.4 - 5.4
15 - 19	129	9.8	18.9	15.6 - 22.1
20 - 24	218	18.5	31.2	27.1 - 35.4
25 - 34	412	15.4	29.6	26.7 - 32.4
35 - 44	341	17.2	26.3	23.5 - 29.1
45 - 54	382	15.8	27.7	24.9 - 30.5
55 - 64	352	8.5	26.2	23.5 - 28.9
65 - 74	188	5.3	18.6	15.9 - 21.3
75 - 84	118	1.4	23.9	19.6 - 28.3
85 +	30	100.0	16.2	10.4 - 21.9
<b>Total Deaths</b>	<b>2,222</b>	<b>100</b>	<b>21.4</b>	<b>20.5 - 22.3</b>

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

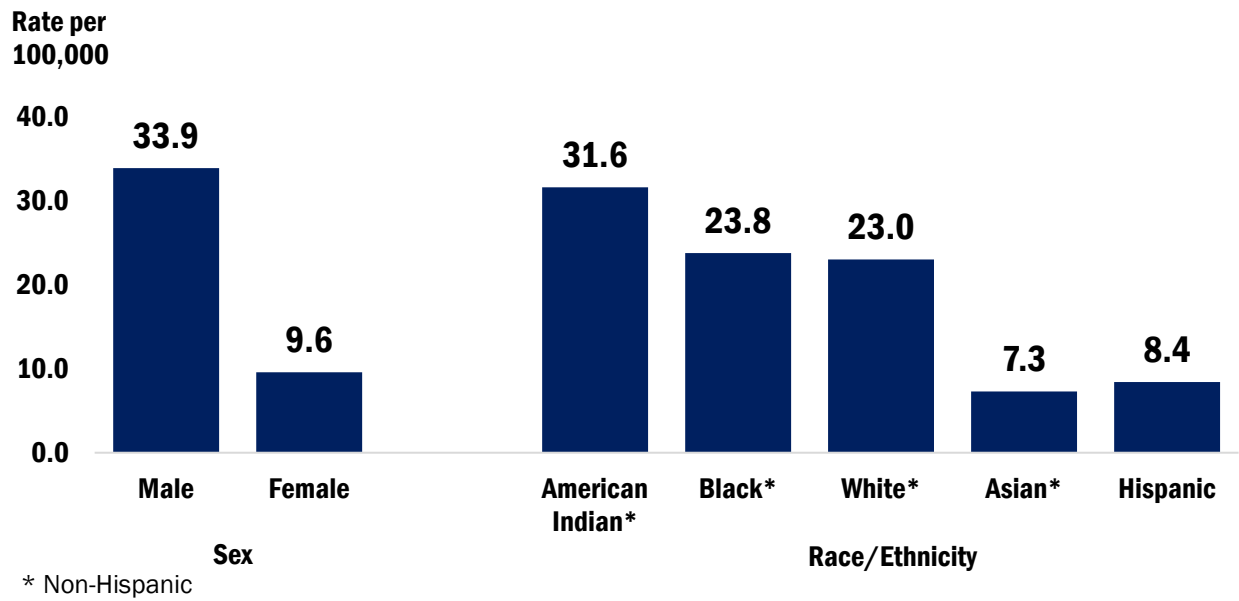
95% CI = 95 % Confidence Interval for the Rate

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

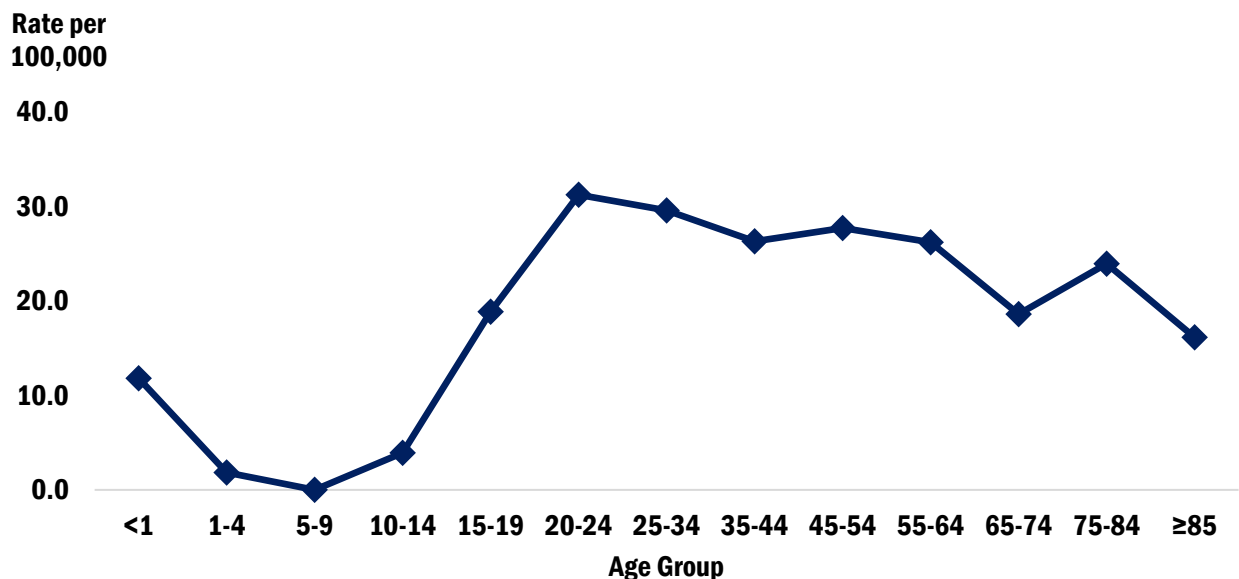
\*\* Non-Hispanic



**Figure 1: Crude overall violent death rates by sex and race/ethnicity in North Carolina, 2018**



**Figure 2: Age-specific crude overall violent death rates by age group in North Carolina, 2018**



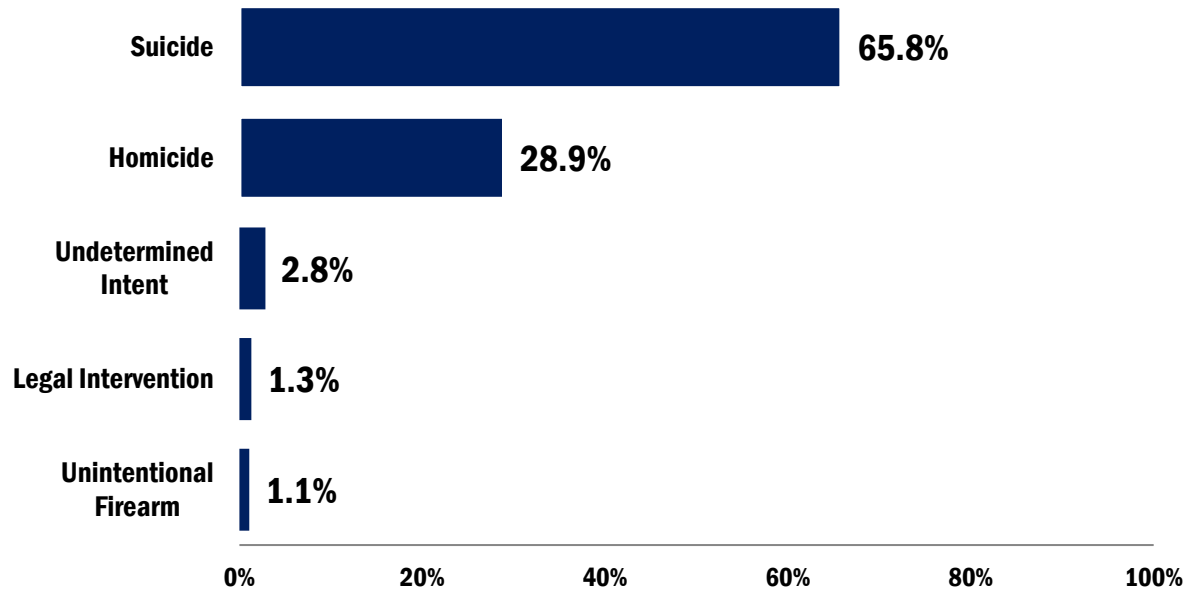
**Note:** The number of violent deaths for all ages was high enough to support the calculation of a rate.

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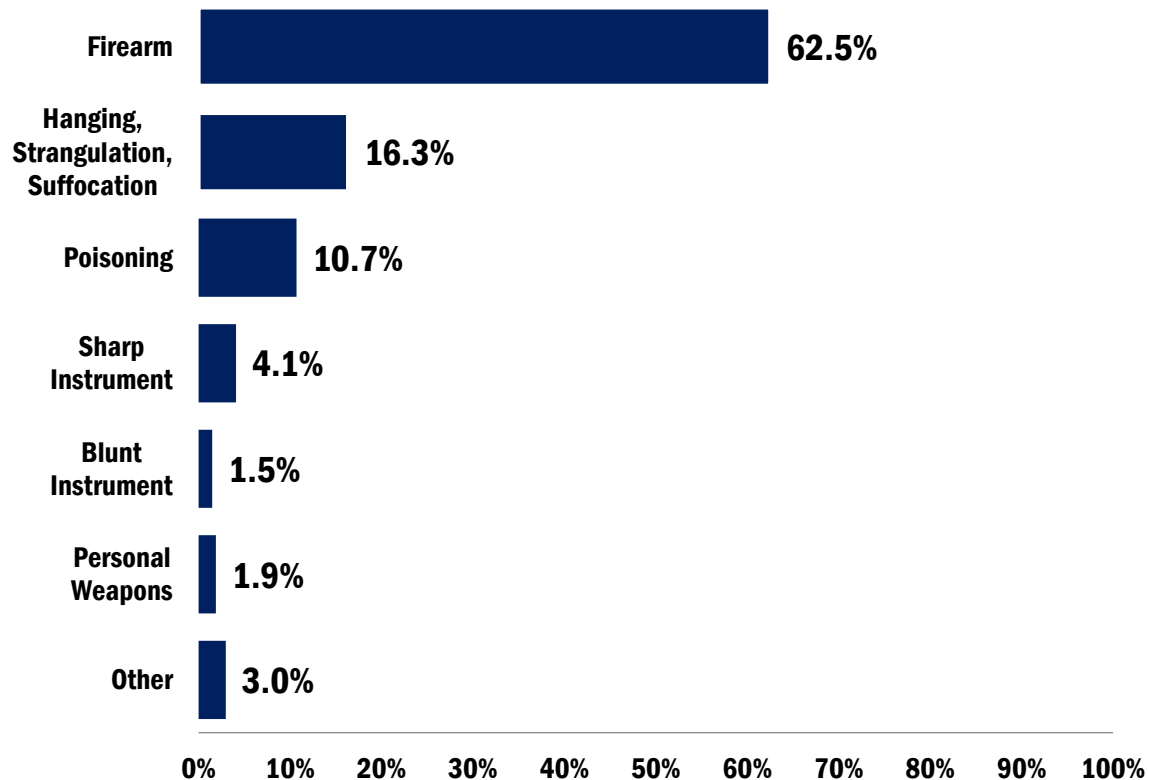
**Table 2: Manner and method of violent death in North Carolina, 2018**

	Number	%
<b>Manner of Death</b>		
Suicide	1,463	65.8
Homicide	643	28.9
Undetermined Intent	63	2.8
Legal Intervention	29	1.3
Unintentional Firearm	24	1.1
<b>Method of Death</b>		
Firearm	1,389	62.5
Hanging, Strangulation, Suffocation	363	16.3
Poisoning	238	10.7
Sharp Instrument	91	4.1
Blunt Instrument	33	1.5
Personal Weapons	42	1.9
Fall	23	1.0
Motor Vehicle	19	0.9
Fire or Burns	6	0.3
Other Transport Vehicle	3	0.1
Drowning	6	0.3
Intentional Neglect	3	0.1
Violent Shaking	3	0.1
Other/Unknown	3	0.1
<b>Total Deaths</b>	<b>2,222</b>	<b>100</b>

**Figure 3: Manner of violent death in North Carolina, 2018**



**Figure 4: Method of violent death in North Carolina, 2018**



\* 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, 2018**

	Number	%
<b>Firearm Type</b>		
Handgun	1,064	76.1
Shotgun	134	9.6
Rifle	121	8.6
Other/Unknown Type	80	5.7
<b>Total Firearms Involved, All Violent Deaths</b>	<b>1,399</b>	<b>100</b>

\*Multiple firearm types were reported for 10 violent deaths in 2018; therefore, the total number of firearms exceeds the number of violent firearm deaths (n=1,389).

**Table 4: Completed education, marital status and veteran status of adult violent death victims (ages 18 or older) in North Carolina, 2018**

	Number	%
<b>Education Level</b>		
8th Grade or Less	88	4.2
9th - 12th Grade	343	16.3
High school or GED graduate	850	40.3
Some college credit	323	15.3
Associate degree	206	9.8
Bachelor degree	208	9.9
Master degree	56	2.7
Doctorate degree	28	1.3
Unknown	6	0.3
<b>Marital Status</b>		
Never Married	825	39.1
Married*	640	30.4
Divorced	418	19.8
Widowed	116	5.5
Married, but separated	92	4.4
Unknown	17	0.8
<b>Veteran Status</b>		
Non-Veteran	1,774	84.2
Veteran	315	14.9
Unknown	19	0.9
<b>Total Adult Deaths (ages 18 or older)</b>	<b>2,108</b>	<b>100</b>

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

**Table 5: Overall violent deaths by county of residence in North Carolina, 2018**

County	Number	Rate	County	Number	Rate	County	Number	Rate
Alamance	33	19.8	Franklin	13	19.2	Pamlico	4	*
<b>Alexander</b>	12	32.1	Gaston	52	23.3	<b>Pasquotank</b>	15	37.8
<b>Alleghany</b>	6	53.8	Gates	4	*	Pender	12	19.3
<b>Anson</b>	11	44.2	Graham	4	*	Perquimans	3	*
Ashe	3	*	Granville	11	18.3	Person	12	30.4
Avery	2	*	<b>Greene</b>	9	42.8	Pitt	28	15.6
<b>Beaufort</b>	17	36.1	Guilford	125	23.4	Polk	5	24.3
Bertie	3	*	<b>Halifax</b>	20	39.5	Randolph	39	27.2
Bladen	4	*	Harnett	25	18.6	Richmond	10	22.3
Brunswick	24	17.6	Haywood	17	27.4	<b>Robeson</b>	55	41.7
Buncombe	72	27.8	Henderson	27	23.1	<b>Rockingham</b>	28	30.9
<b>Burke</b>	32	35.4	Hertford	7	29.6	Rowan	41	29.0
Cabarrus	32	15.1	Hoke	13	23.7	Rutherford	20	29.9
Caldwell	17	20.7	Hyde	1	*	Sampson	11	17.3
Camden	3	*	Iredell	42	23.5	Scotland	9	25.9
<b>Carteret</b>	28	40.3	Jackson	10	23.1	Stanly	16	25.8
<b>Caswell</b>	7	30.8	Johnston	38	18.7	Stokes	10	22.0
Catawba	38	24.0	Jones	0	0.0	Surry	19	26.4
Chatham	8	10.9	<b>Lee</b>	20	32.5	Swain	4	*
<b>Cherokee</b>	12	42.3	Lenoir	12	21.4	Transylvania	8	23.4
Chowan	4	*	Lincoln	19	22.7	Tyrrell	2	*
Clay	3	*	McDowell	12	26.4	Union	25	10.6
Cleveland	19	19.5	<b>Macon</b>	11	31.2	<b>Vance</b>	16	35.9
Columbus	10	18.0	Madison	4	*	Wake	125	11.4
Craven	20	19.4	Martin	4	*	<b>Warren</b>	12	60.6
Cumberland	99	29.8	Mecklenburg	182	16.6	Washington	0	0.0
Currituck	6	22.2	Mitchell	4	*	Watauga	7	12.5
Dare	9	24.7	Montgomery	5	18.3	Wayne	23	18.7
Davidson	42	25.2	Moore	20	20.3	<b>Wilkes</b>	21	30.6
Davie	6	14.0	Nash	24	25.5	Wilson	17	20.9
Duplin	7	11.9	New Hanover	45	19.4	Yadkin	7	18.6
Durham	62	19.6	Northampton	5	25.4	<b>Yancey</b>	6	33.5
<b>Edgecombe</b>	20	38.5	Onslow	55	27.8			
Forsyth	78	20.6	Orange	23	15.8			

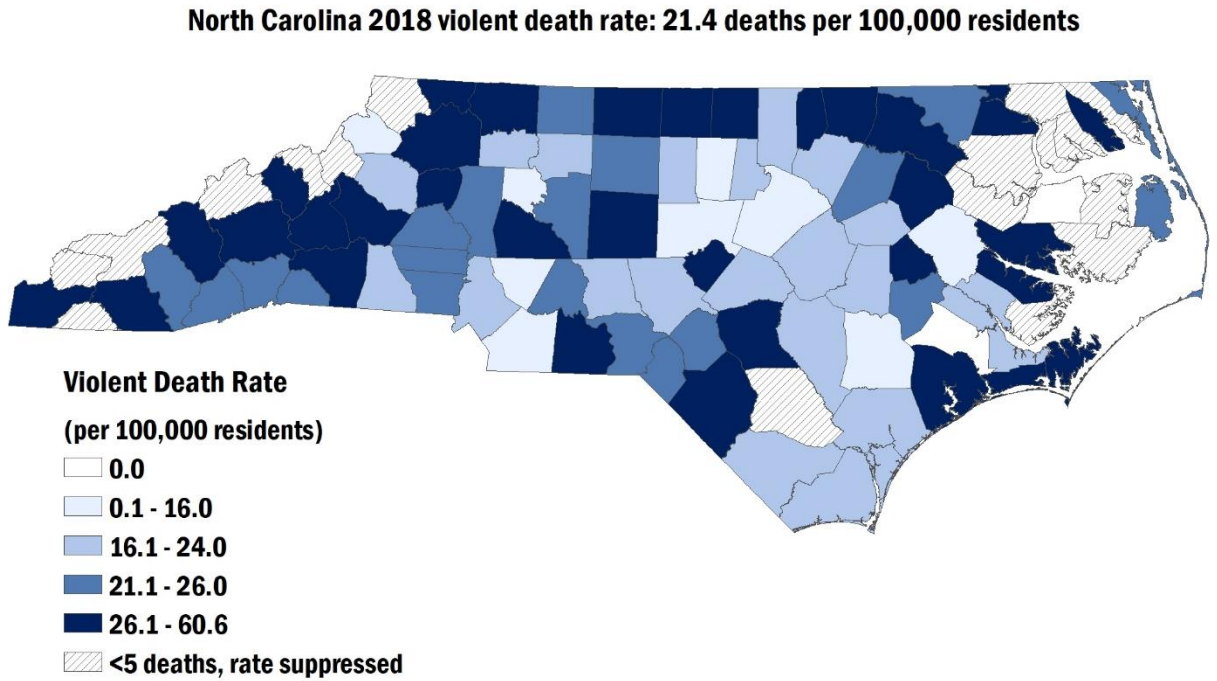
Crude rate per 100,000 population in N.C. county

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

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

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**Figure 5: Map of overall violent death rates in North Carolina by county of residence, 2018**



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

**Table 6** and **Figure 6** summarize the characteristics of violent death victims in North Carolina in 2018 stratified by race/ethnicity and sex.

### **Key Findings:**

- NH whites (68.6%) and males (77.0%) represented the majority of violent death victims, as shown in Table 1.
- NH whites accounted for 66.4% of male violent death victims and 75.9% of female victims, while NH Blacks comprised 26.5% of male victims and 18.0% of female victims.
- Among males, NH American Indian males had the highest violent death rate per 100,000 (55.7) followed by NH Black males (42.2), NH white males (35.1), Hispanic males (13.6), and NH Asian males (10.3).
- Among females, NH white females had the highest violent death rate per 100,000 (11.5) followed by NH American Indian females (9.3), NH Black females (7.5), NH Asian females (4.5), and Hispanic females (2.9).
- The violent death rate was higher for males than for females of the same race/ethnicity by 6.0 for NH American Indians, 5.6 times for NH Blacks, 4.7 times for Hispanics, 3.1 times for NH whites, and 2.3 times for NH Asians.

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

**Table 7** stratifies the North Carolina violent death victims in 2018 by age group and sex. **Figure 7** illustrates the 2018 rate of violent deaths per 100,000 in North Carolina by age group and sex.

### **Key Findings:**

- Most male violent death victims were ages 25 to 34 (19.3%) and 45 to 54 (16.7%) years old followed by males ages 55 to 64 (15.1%), 35 to 44 (14.7%), 20 to 24 (10.9%), and 65 to 74 (8.2%).
- Among females, most violent death victims were ages 45 to 54 (19.0%) years old followed by females ages 55 to 64 (18.2%), 35 to 44 (17.4%), 25 to 34 (15.9%), 65 to 74 (9.4%), and 20 to 24 (6.1%).
- Among males, the violent death rate per 100,000 by age group was highest for ages 20 to 24 (51.8) followed by ages 25 to 34 (47.7) and 75 to 84 (44.3).
- For females, the violent death rate trend by age reached a peak of 13.7 per 100,000 for ages 45 to 54 followed by ages 35 to 44 years (13.4) and 55 to 64 (13.2).
- Males were more likely to experience violent death than females by 5.6 times for ages 20 to 24, 5.2 times for ages 75 to 84, 4.5 times for ages 15 to 19, 4.1 times for ages 25 to 34, and 3.4 times for ages 65 to 74.

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**Table 6: Race/ethnicity of violent death victims in North Carolina by sex, 2018**

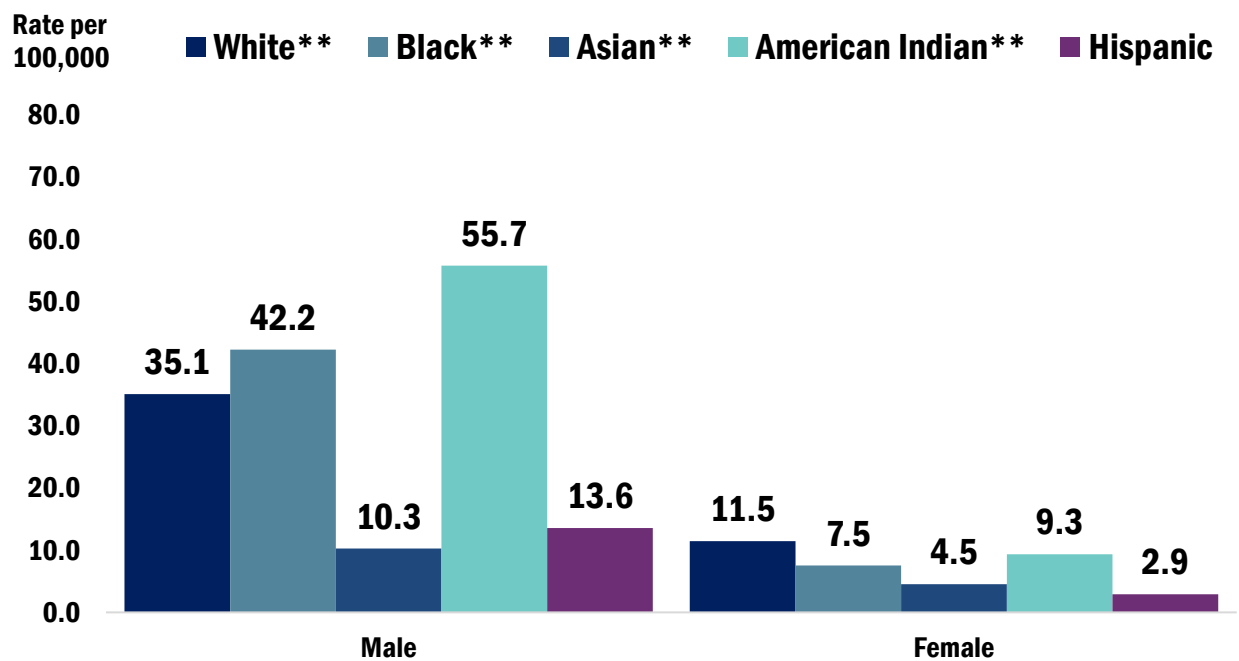
Race/Ethnicity	Male			Female		
	Number	%	Rate	Number	%	Rate
White**	1,136	66.4	35.1	388	75.9	11.5
Black**	454	26.5	42.2	92	18.0	7.5
Asian**	17	1.0	10.3	8	1.6	4.5
American Indian**	33	1.9	55.7	6	1.2	9.3
Hispanic	70	4.1	13.6	14	2.7	2.9
Other/Unknown	1	0.1	-	3	0.6	-
<b>Total Deaths</b>	<b>1,711</b>	<b>100</b>	<b>33.9</b>	<b>511</b>	<b>100</b>	<b>9.6</b>

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

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

\*\* Non-Hispanic

**Figure 6: Crude overall violent death rates in North Carolina, stratified by race/ethnicity and sex, 2018**



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

\*\* Non-Hispanic (NH)

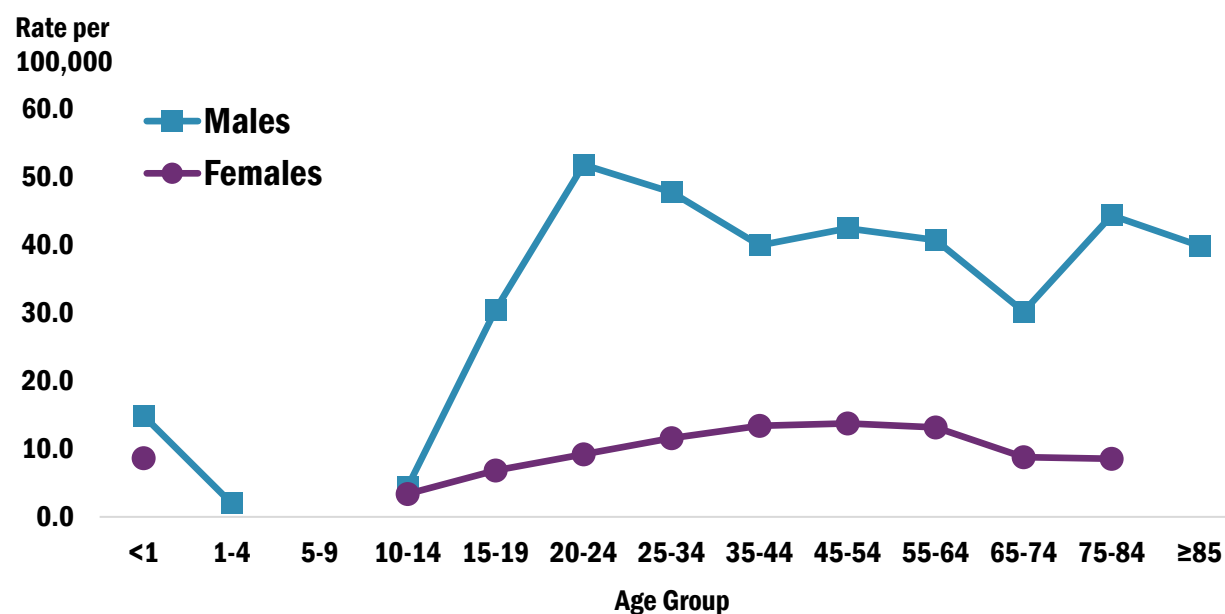


**Table 7: Age group of violent death victims in North Carolina by sex, 2018**

Age Group (years)	Male			Female		
	Number	%	Rate	Number	%	Rate
<1	9	0.5	14.8	5	1.0	8.6
1-4	5	0.3	2.0	4	0.8	*
5-9	3	0.2	*	0	0.0	*
10-14	15	0.9	4.4	11	2.2	3.4
15-19	106	6.2	30.5	23	4.5	6.8
20-24	187	10.9	51.8	31	6.1	9.2
25-34	331	19.3	47.7	81	15.9	11.6
35-44	252	14.7	39.9	89	17.4	13.4
45-54	285	16.7	42.4	97	19.0	13.7
55-64	259	15.1	40.7	93	18.2	13.2
65-74	140	8.2	30.2	48	9.4	8.8
75-84	94	5.5	44.3	24	4.7	8.5
≥85	25	1.5	39.8	5	1.0	*
<b>Total Deaths</b>	<b>1,711</b>	<b>100</b>	<b>33.9</b>	<b>511</b>	<b>100</b>	<b>9.6</b>

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

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

**Figure 7: Age-specific crude overall violent death rates in North Carolina, stratified by age group and sex, 2018**

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 2018 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 2018 is illustrated by race/ethnicity and sex in **Figure 8** and by age group in **Figure 9**.

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

- In 2018, a total of 1,463 North Carolinians (16.0 per 100,000) died from suicide.
- Males were 3.7 times as likely to die from suicide as females (25.7 vs. 7.0 per 100,000).
- NH whites had the highest suicide rate (20.9 per 100,000) followed NH American Indians (9.3 per 100,000), Hispanics (6.9 per 100,000), NH Asians (6.8 per 100,000), and NH Blacks (6.3 per 100,00).
- Adults ages 55 to 64 had the highest rate of suicide (20.9 per 100,00) followed by those ages 45 to 54 (20.8 per 100,000), 75 to 84 (20.1 per 100,000), and 35 to 44 (16.6 per 100,000).

**Table 9** and **Figure 10** summarize the method of death for suicide victims in North Carolina in 2018. **Table 10** shows the type of firearm used for suicide firearm deaths and **Table 11** lists the categories of substances that caused suicide poisoning deaths.

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

- The leading methods of suicide were firearm (58.9%), hanging, strangulation or suffocation (23.2%), and poisoning (13.7%).
- Men more often died from suicide by a firearm (64.2%) or hanging, strangulation or suffocation (23.9%) and less frequently died from suicide by poisoning (7.7%).
- Women more commonly died from suicide by firearm (40.4%) or poisoning (34.4%), compared to hanging, strangulation or suffocation (20.7%).
- Considering only suicide firearm deaths, a handgun was the most common firearm used in 78.9% of all deaths; handguns accounted for 76.7% of male deaths and 91.0% of female deaths.
- Most suicide poisoning deaths (31.5%) involved opiates (either illicit or prescription). The second most common substance was antidepressants (23.0%), followed by benzodiazepines (19.5%), and alcohol (13.5%).

**Table 12** characterizes the 1,411 adult suicide victims (age 18 or older) in North Carolina in 2018 by education level, marital status and veteran status.

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

- The majority (84.5%) of adult suicide victims graduated high school or received their GED.
- Suicide victims were most often married, in a civil union or domestic partnership (35.7%) and less frequently never married (28.9%), divorced (22.8%), or widowed (6.2%).
- Military veterans accounted for 18.6% of adult suicide victims.

**Table 13** and **Figure 11** show the suicide rates in 2018 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 25 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 2018.

**Key Findings:**

- For the 72 counties where the number of suicides was sufficient to support a rate calculation, the average suicide rate by North Carolina county of residence was 18.6 deaths per 100,000 with a range from 0.0 to 49.3 deaths per 100,000.

**Table 8: Demographics of suicide victims (ages 10 or older) in North Carolina, 2018**

	Number	%	Rate	95% CI
<b>Sex</b>				
Female	329	22.5	7.0	6.2 - 7.7
Male	1,134	77.5	25.7	24.2 - 27.2
<b>Race/Ethnicity</b>				
White*	1,250	85.4	20.9	19.8 - 22.1
Black*	125	8.5	6.3	5.2 - 7.4
Asian*	20	1.4	6.8	3.8 - 9.8
American Indian*	10	0.7	9.3	3.5 - 15.1
Hispanic	54	3.7	6.9	5.1 - 8.8
Other/Unknown	4	0.3	-	-
<b>Age Group (Years)</b>				
10-14	18	1.23	2.7	1.5 - 4.0
15 - 19	65	4.44	9.5	7.2 - 11.8
20 - 24	105	7.18	15.0	12.2 - 17.9
25 - 34	217	14.83	15.6	13.5 - 17.6
35 - 44	215	14.70	16.6	14.4 - 18.8
45 - 54	286	19.55	20.8	18.4 - 23.2
55 - 64	281	19.21	20.9	18.5 - 23.4
65 - 74	151	10.32	14.9	12.6 - 17.3
75 - 84	99	6.77	20.1	16.1 - 24.0
≥85	26	1.78	14.0	8.6 - 19.4
<b>Total Deaths</b>	<b>1,463</b>	<b>100</b>	<b>16.0</b>	<b>15.2 - 16.8</b>

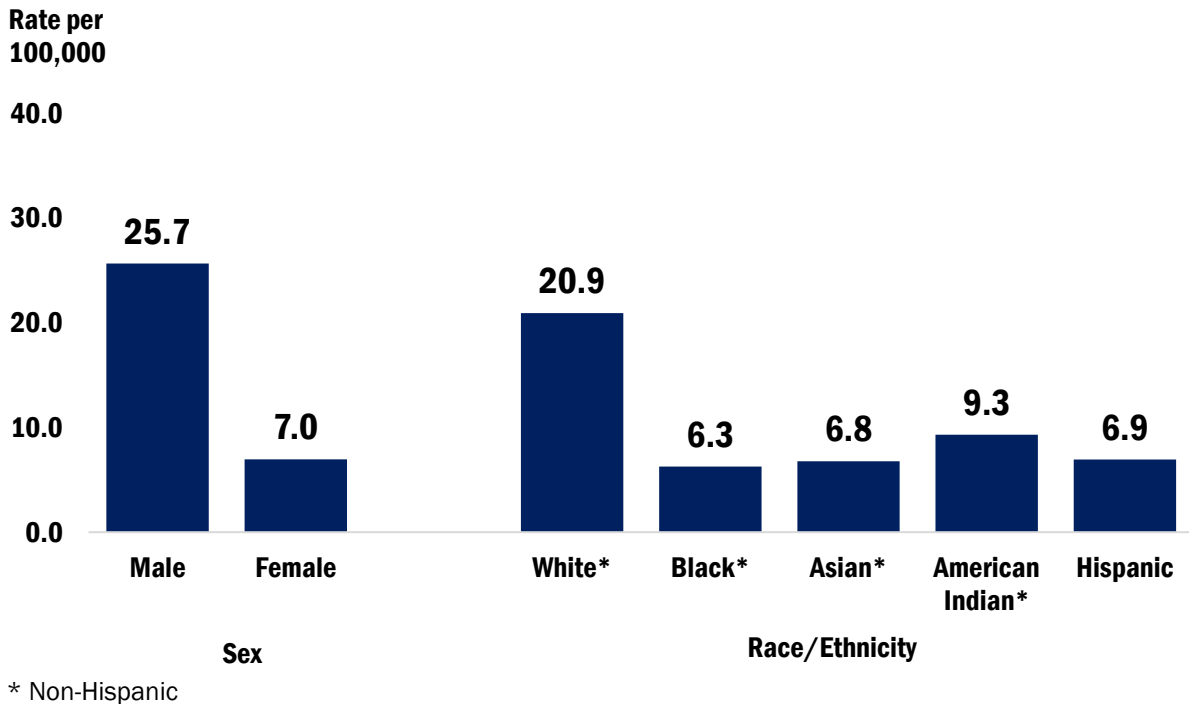
Sex, race/ethnicity and age-specific crude rates per 100,000 N.C. population

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

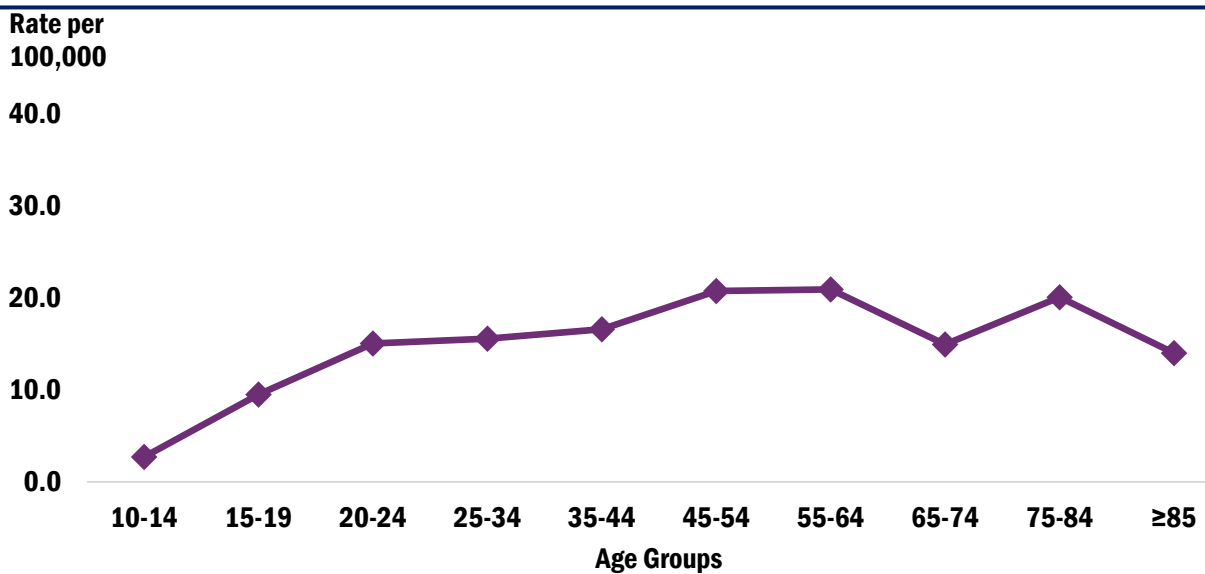
\* Non-Hispanic

## Section II

**Figure 8: Crude suicide rates (ages 10 or older) in North Carolina by sex and race/ethnicity, 2018**

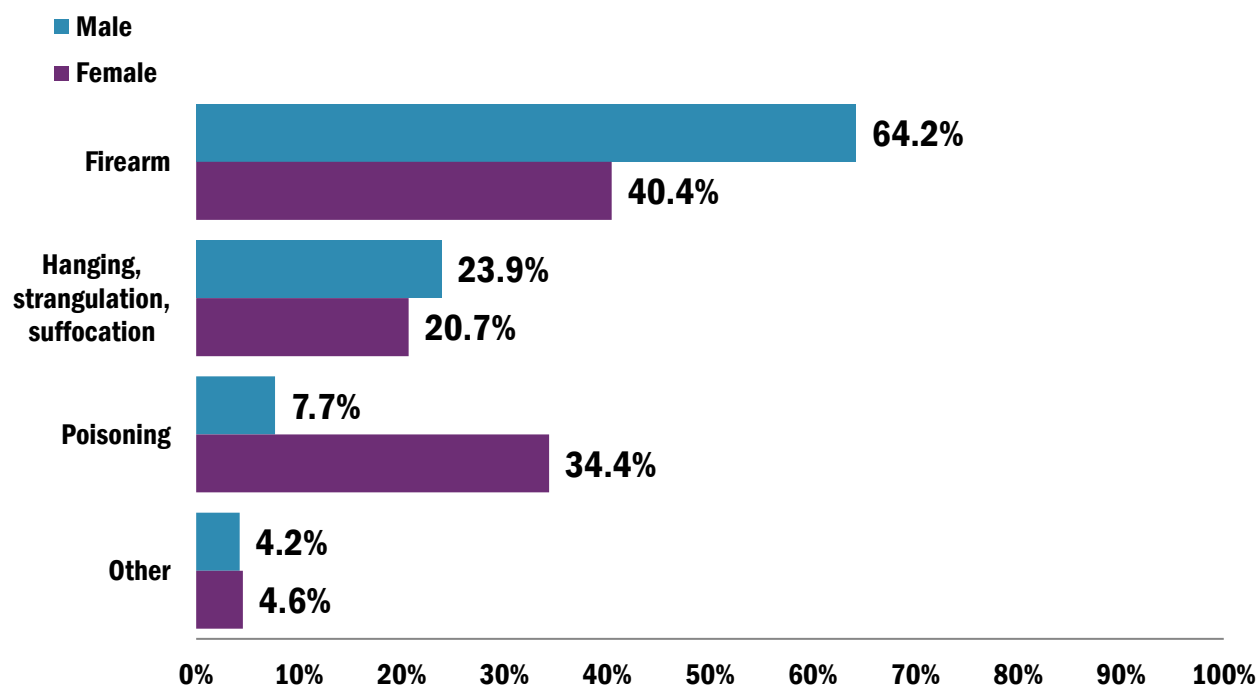


**Figure 9: Age-specific crude suicide rate (ages 10 or older) in North Carolina by age group, 2018**



**Table 9: Method of death for suicide victims (ages 10 or older) in North Carolina by sex, 2018**

Method of Death	Male		Female		Total	
	Number	%	Number	%	Number	%
Firearm	728	64.2	133	40.4	861	58.9
Hanging, strangulation, suffocation	271	23.9	68	20.7	339	23.2
Poisoning	87	7.7	113	34.4	200	13.7
Sharp instrument	23	2.0	5	1.5	28	1.9
Fall	12	1.1	5	1.5	17	1.2
Drowning	4	0.4	0	0.0	4	0.3
Motor vehicle including buses, motorcycles	6	0.5	2	0.6	8	0.5
Fire or burns	2	0.2	2	0.6	4	0.3
Other	1	0.1	1	0.3	2	0.1
<b>Total Deaths</b>	<b>1,134</b>	<b>100</b>	<b>329</b>	<b>100</b>	<b>1,463</b>	<b>100</b>

**Figure 10: Method of death for suicide victims (ages 10 or older) in North Carolina by sex, 2018**

\* 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, 2018**

Firearm Type*	Male		Female		Total	
	Number	%	Number	%	Number	%
Handgun	558	76.7	121	91.0	679	78.9
Shotgun	90	12.4	10	7.52	100	11.6
Rifle	71	9.8	2	1.5	73	8.5
Other/Unknown	9	1.2	0	0	9	1.1
<b>Total Firearms Involved in Suicides</b>	<b>728</b>	<b>100.0</b>	<b>133</b>	<b>100</b>	<b>861</b>	<b>100.0</b>

**Table 11: Fatal substances in suicide poisoning deaths (ages 10 or older) in North Carolina by sex, 2018**

Category of Fatal Substance*	Male		Female		Total	
	Number	%	Number	%	Number	%
Opiate**	31	35.6	32	28.3	63	31.5
Antidepressant	13	14.9	33	29.2	46	23.0
Benzodiazepines	11	12.6	28	24.8	39	19.5
Barbiturates	3	3.5	3	2.7	6	3.0
Carbon Monoxide	17	19.5	6	5.3	23	11.5
Alcohol	9	10.3	18	15.9	27	13.5
Amphetamine	3	3.5	1	0.9	4	2.0
Cocaine	3	3.5	5	4.4	8	4.0
Other Poison***	31	35.6	45	39.8	76	38.0

\* Category of substance that directly caused or was suspected to cause suicide poisoning. There were 200 suicide poisonings (36.0%) where more than one substance caused the death in 2018, with as many as five 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, 2018**

	Number	%
<b>Education Level</b>		
8th Grade or Less	164	11.6
9th – 12th Grade	533	37.8
High school or GED graduate	222	15.7
Some college credit	173	12.3
Associates degree	180	12.8
Bachelor degree	54	3.8
Master degree	26	1.8
Doctorate degree	4	0.3
Unknown	4	0.3
<b>Marital Status</b>		
Never Married	408	28.9
Married*	504	35.7
Divorced	322	22.8
Married, but Separated	76	5.4
Widowed	88	6.2
Unknown	13	0.9
<b>Veteran Status</b>		
Non-Veteran	1,133	80.3
Veteran	262	18.6
Unknown	16	1.1
<b>Total Adult Deaths (ages 18 or older)</b>	<b>1,411</b>	<b>100</b>

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

## Section II

**Table 13: Suicides (ages 10 or older) in North Carolina by county of residence, 2018**

County	Number	Rate	County	Number	Rate	County	Number	Rate
Alamance	21	14.3	Franklin	11	18.4	Pamlico	3	*
Alexander	8	23.9	Gaston	43	22.0	<b>Pasquotank</b>	9	25.8
<b>Alleghany</b>	5	49.3	Gates	2	*	Pender	11	20.0
Anson	5	22.4	Graham	3	*	Perquimans	1	*
Ashe	2	*	Granville	11	20.4	<b>Person</b>	10	28.4
Avery	2	*	<b>Greene</b>	6	31.9	Pitt	15	9.4
<b>Beaufort</b>	13	30.8	Guilford	67	14.3	Polk	4	*
Bertie	2	*	<b>Halifax</b>	11	24.5	<b>Randolph</b>	32	25.3
Bladen	3	*	Harnett	14	12.3	Richmond	5	12.7
Brunswick	18	14.3	<b>Haywood</b>	15	26.8	Robeson	20	17.6
<b>Buncombe</b>	56	24.0	Henderson	24	22.8	Rockingham	17	21.0
<b>Burke</b>	22	27.0	Hertford	3	*	Rowan	27	21.6
Cabarrus	24	13.1	Hoke	7	15.3	<b>Rutherford</b>	17	28.5
Caldwell	13	17.7	Hyde	0	0.0	Sampson	2	*
Camden	3	*	<b>Iredell</b>	39	24.7	Scotland	4	*
<b>Carteret</b>	21	33.1	Jackson	8	20.3	Stanly	6	10.9
Caswell	4	*	Johnston	30	17.1	Stokes	8	19.4
Catawba	29	20.7	Jones	0	0.0	Surry	14	21.8
Chatham	6	9.1	Lee	10	18.7	Swain	3	*
<b>Cherokee</b>	7	27.0	Lenoir	6	12.2	Transylvania	4	*
Chowan	3	*	Lincoln	14	18.7	Tyrrell	2	*
Clay	3	*	McDowell	8	19.7	Union	18	8.7
Cleveland	10	11.6	Macon	5	15.7	Vance	2	*
Columbus	5	10.1	Madison	3	*	Wake	104	10.9
Craven	12	13.3	Martin	1	*	Warren	3	*
Cumberland	64	22.5	Mecklenburg	100	10.5	Washington	0	0.0
Currituck	5	21.0	Mitchell	3	*	Watauga	7	13.4
<b>Dare</b>	8	24.2	Montgomery	3	*	Wayne	13	12.1
Davidson	28	19.0	Moore	15	17.2	<b>Wilkes</b>	15	24.4
Davie	5	13.1	Nash	13	15.6	Wilson	9	12.6
Duplin	6	11.7	New Hanover	31	14.8	Yadkin	5	15.0
Durham	26	9.3	<b>Northampton</b>	5	28.0	<b>Yancey</b>	5	30.8
<b>Edgecombe</b>	11	24.0	<b>Onslow</b>	45	27.0			
Forsyth	47	14.1	Orange	15	11.4			

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

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

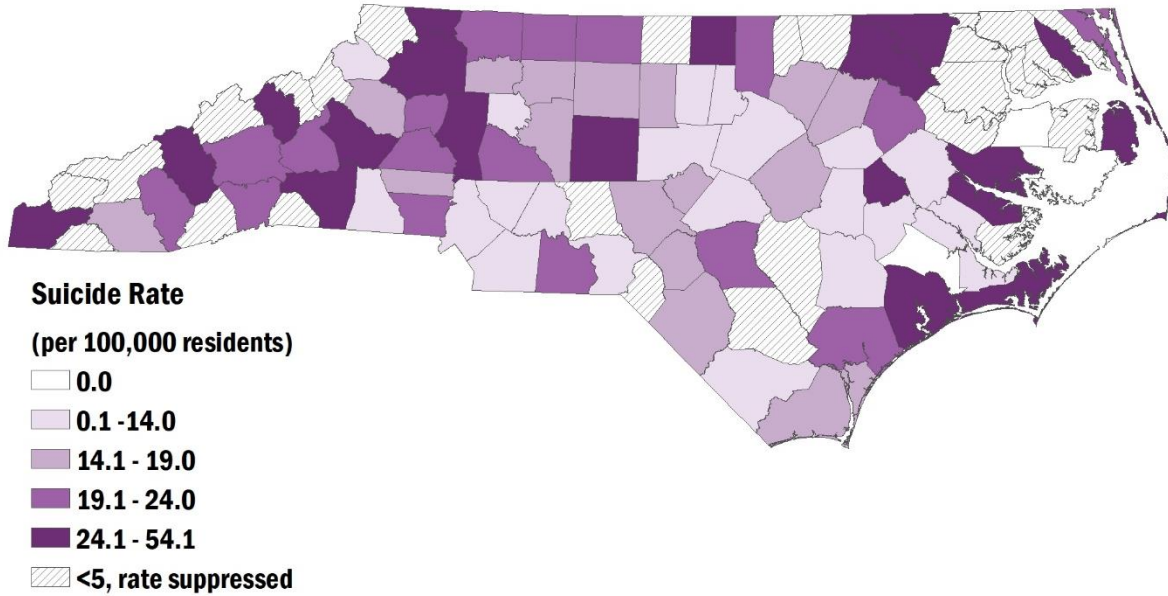
Top 20 counties with the highest crude overall violent death rates are shown in bold.



**Figure 11: Map of suicide rates (ages 10 or older) in North Carolina by county of residence, 2018**

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**North Carolina 2018 suicide rate: 16.0 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 2018 by race and sex.

#### **Key Findings:**

- Of all suicide victims, 85.4% were NH white and 77.5% were male, as shown in **Table 8**.
- Most male suicide victims were NH white (85.1%) as compared to NH Black (9.0%). Similarly, most female suicide victims were NH white (86.6%) as compared to NH Black (7.0%).
- For males, the suicide rate per 100,000 from highest to lowest by race/ethnicity was NH white males (33.3), NH American Indian males (19.6), NH Black males (11.1), Hispanic males (10.6), and NH Asian males (9.2).
- For females, the suicide rate per 100,000 from highest to lowest by race/ethnicity was NH white females (9.3), NH Asian females (4.6), Hispanic females (2.9), and NH Black females (2.1). There were zero suicides among NH American Indian females in 2018.
- The suicide rate was higher for males than for females of the same race by 5.2 times for NH Blacks, 3.6 times for NH whites, 3.6 times for Hispanics, and 2.0 times for NH Asians. The rate ratio could not be calculated for NH American Indians due to NH American Indian females having a rate of zero.

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

**Table 15** portrays the suicide victims in North Carolina in 2018 by age group and sex. **Figure 13** plots the 2018 suicide rates per 100,000 in North Carolina by age group and sex.

#### **Key Findings:**

- Among males, most suicide victims were ages 25 to 64 with a rank order by age group of: 55 to 64 (18.7%), 45 to 54 (18.6%), 25 to 34 (15.7%), and 35 to 44 (13.8%).
- Similarly, among females most suicide victims were ages 25 to 64 with a rank order by age group of: 45 to 54 (22.8%), 55 to 64 (21.0%), 35 to 44 (17.9%), and 25 to 34 (11.9%).
- For males, the suicide rate increased by age group and peaked among those ages 75 to 84 (40.1 per 100,000).
- The suicide rate by age group for females peaked at 45 to 54 (10.6 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 8.0 times higher among males than females (40.1 versus 5.0 per 100,000, respectively).

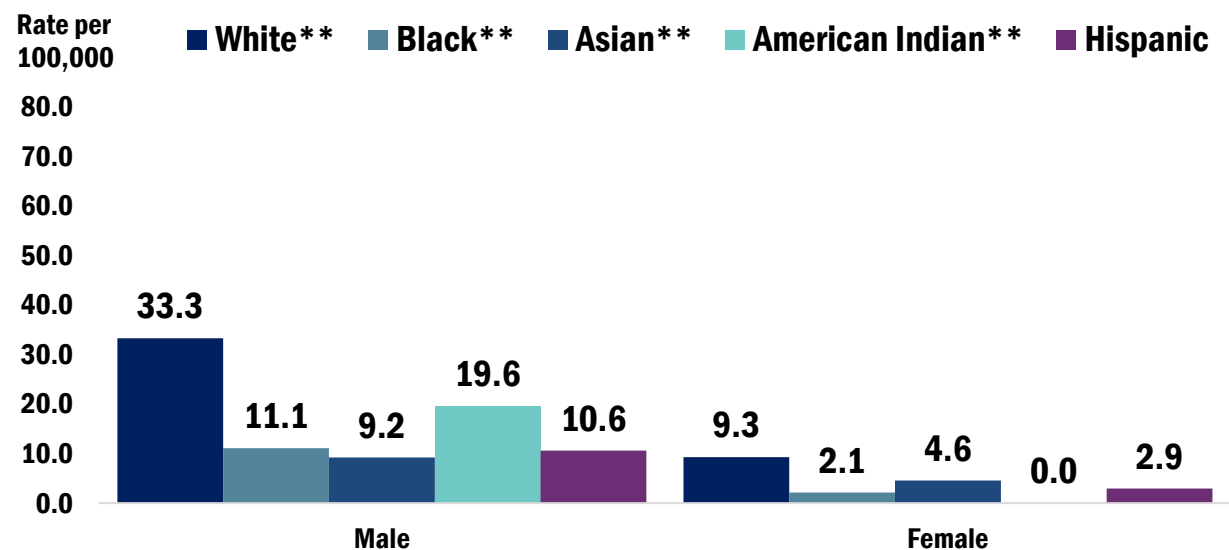
**Table 14: Race of suicide victims (ages 10 or older) in North Carolina by sex, 2018**

Race/Ethnicity	Male			Female		
	Number	%	Rate	Number	%	Rate
White**	965	85.1	33.3	285	86.6	9.3
Black**	102	9.0	11.1	23	7.0	2.1
Asian**	13	1.1	9.2	7	2.1	4.6
American Indian**	10	0.9	19.6	0	0.0	*
Hispanic	43	3.8	10.6	11	3.3	2.9
Other/Unknown	1	0.1	-	3	0.9	-
<b>Total Deaths</b>	<b>1,134</b>	<b>100</b>	<b>25.7</b>	<b>329</b>	<b>100</b>	<b>7.6</b>

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

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

\*\* Non-Hispanic

**Figure 12: Crude suicide rates (ages 10 or older) in North Carolina stratified by race/ethnicity and sex, 2018**

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

\*\* Non-Hispanic

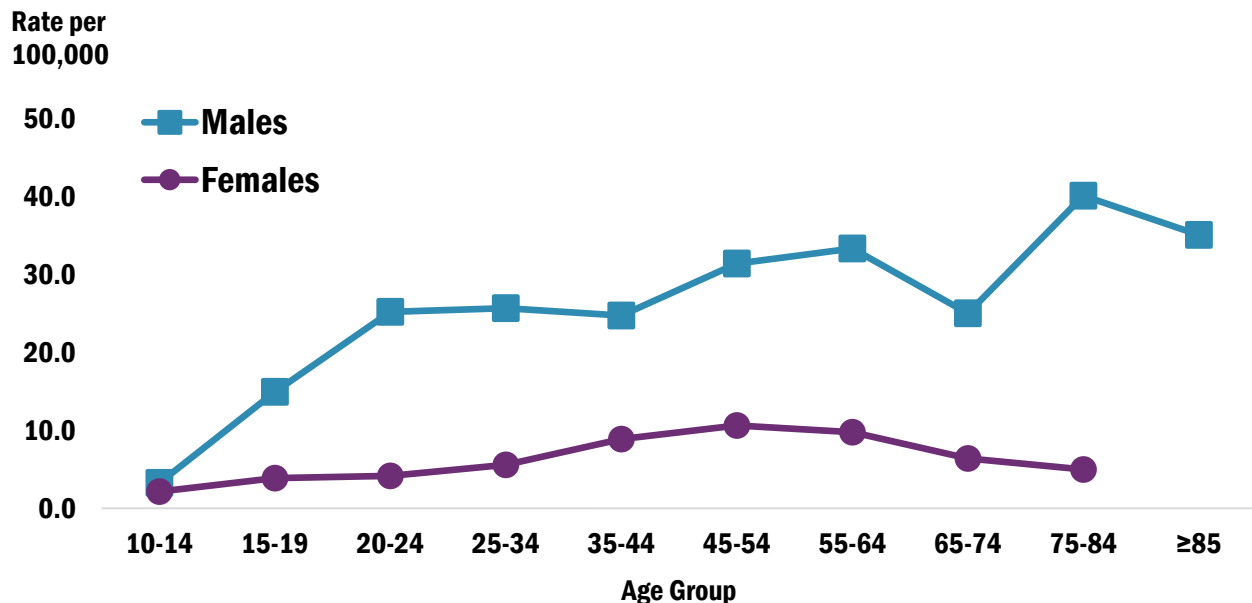
## Section II

**Table 15: Age group of suicide victims (ages 10 or older) in North Carolina by sex, 2018**

Age Group (Years)	Male			Female		
	Number	%	Rate	Number	%	Rate
10-14	11	1.0	3.2	7	2.1	2.1
15-19	52	4.6	14.9	13	4.0	3.9
20-24	91	8.0	25.2	14	4.3	4.2
25-34	178	15.7	25.7	39	11.9	5.6
35-44	156	13.8	24.7	59	17.9	8.9
45-54	211	18.6	31.4	75	22.8	10.6
55-64	212	18.7	33.3	69	21.0	9.8
65-74	116	10.2	25.0	35	10.6	6.4
75-84	85	7.5	40.1	14	4.3	5.0
≥85	22	1.9	35.1	4	1.2	*
<b>Total Deaths</b>	<b>1,134</b>	<b>100</b>	<b>25.7</b>	<b>329</b>	<b>100</b>	<b>7.0</b>

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

**Figure 13: Age-specific suicide rates (ages 10 or older) in North Carolina stratified by age group and sex, 2018**



**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 2018, 97.1% 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 and based on the number of cases reporting circumstances in North Carolina in 2018. **Table 17** lists the mental health problem at the time of the suicide for both males and females in 2018.

### **Key Findings:**

- The most common circumstances of suicide for male victims were ever being treated for mental illness (49.6%), experienced a recent crisis (45.0%), current mental health problem (44.3%), current depressed mood (38.9%), and current depressed mood (38.9%).
- The most common circumstances of suicide for female victims were ever being treated for mental illness (65.5%), current mental health problem (64.0%), current treatment for mental illness (52.9%), current depressed mood (39.1%), and experienced a recent crisis (37.5%).
- A suicide note was left by 26.7% of male victims and 43.1% of female victims. Intent to commit suicide was disclosed by 27.9% of male victims and 25.5% of female victims. A total of 13.6% of male victims and 32.6% of female victims reported a history of suicide attempts, while 33.5% of male victims and 40.3% of female victims had a history of suicidal thoughts.

An intimate partner problem was a circumstance of suicide for 27.0% of males and 21.5% of females. A substance problem other than alcohol was a circumstance of suicide for 18.3% of males and 22.5% of females. Other common circumstances of suicide for males and females, respectively, were alcohol problem (20.6% and 12.3%), physical health problem (27.9% and 29.5%), recent criminal-related legal problem (8.2% and 2.5%), job problem (10.1% and 4.6%) and financial problem (7.3% and 4.0%).

At the time of suicide, the most common mental health problems were depression or dysthymia (77.3%), anxiety disorder (12.6%), bipolar disorder (12.4%), schizophrenia (3.8%), and post-traumatic stress disorder (3.8%).

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 2018 is shown by sex in **Table 18** and by age and race/ethnicity in **Table 19**.

### **Key Findings:**

- Alcohol was tested in 97.5% of all suicides. Testing was relatively infrequent for other substances. Of those victims tested, alcohol was present in 28.9% of all suicide victims, 30.5% of male victims and 23.6% of female victims.
- Ages 20 to 54 had the highest percentage of suicide victims with alcohol present, with a range from 35.2% to 40.9% of those age groups testing positive for alcohol. Alcohol was present in those victims tested by race as follows: NH whites (31.0%), NH Blacks (21.4%), NH Asians (44.4%), NH American Indians (37.5%), and Hispanics (28.3%).

**Table 20** lists the location of the injury resulting in death for suicide victims in North Carolina in 2018.

### **Key Findings:**

## Section II

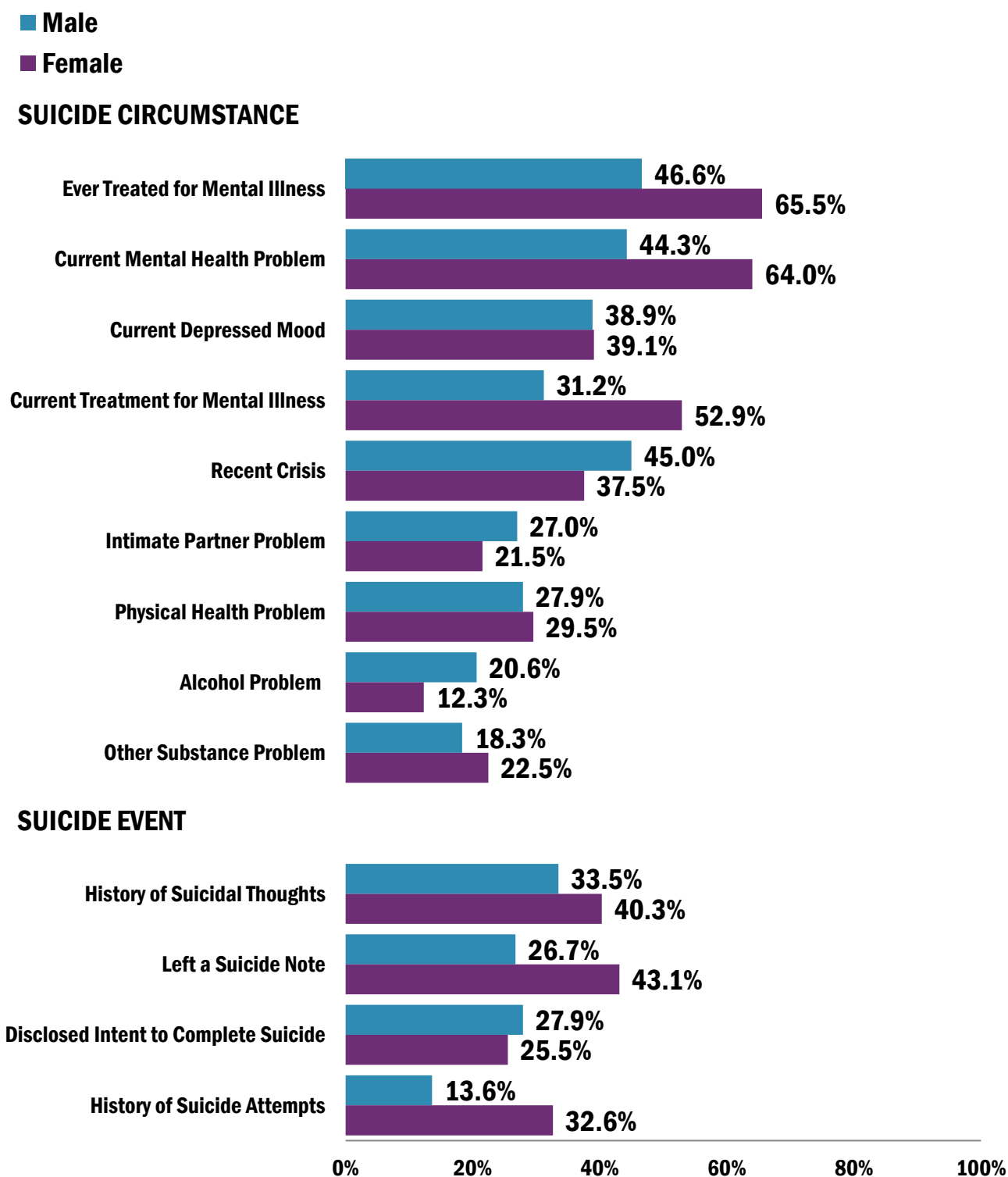
- The majority (78.4%) of injuries resulting in death occurred in a house or an apartment.

**Table 16: Circumstances of suicide victims (ages 10 or older) in North Carolina by Sex, 2018**

Circumstance*	Male		Female		Total	
	Number	%	Number	%	Number	%
<b>Mental Health</b>						
Ever treated-Mental health	511	46.6	213	65.5	724	51.0
Current Mental health problem	485	44.3	208	64.0	693	48.8
Current depressed mood	426	38.9	127	39.1	553	38.9
Current treatment MH	342	31.2	172	52.9	514	36.2
<b>Substance Abuse/Addiction</b>						
Alcohol problem	226	20.6	40	12.3	266	18.7
Other substance problem	201	18.3	73	22.5	274	19.3
Other addiction problem	5	0.5	1	0.3	6	0.4
<b>Interpersonal</b>						
Intimate partner problem	296	27.0	70	21.5	366	25.8
Other relationship problem	22	2.0	5	1.5	27	1.9
Perpetrator of intimate partner violence	53	4.8	4	1.2	57	4.0
Death of family/friend	72	6.6	27	8.3	99	7.0
Suicide death of family/friend in past 5 years	23	2.1	7	2.2	30	2.1
<b>Life Stressor</b>						
Physical Health problem	306	27.9	96	29.5	402	28.3
Job problem	111	10.1	15	4.6	126	8.9
Criminal/Legal Problem	90	8.2	8	2.5	98	6.9
Financial Problem	80	7.3	13	4.0	93	6.5
Legal Problem, Other	38	3.5	9	2.8	47	3.3
School Problem	12	1.1	0	0.0	12	0.8
Recent Crisis	493	44.98	122	37.54	615	43.28
<b>Suicide Event</b>						
Left a Suicide Note	293	26.7	140	43.1	433	30.5
Suicide Disclosed	306	27.9	83	25.5	389	27.4
History of Suicide Attempt	149	13.6	106	32.6	255	18.0
History of Suicidal Thoughts	367	33.5	131	40.3	498	35.1

\* Circumstances were available for 96.7% (1,096/1,134) of male victims, 98.8% (325/329) of female victims, and 97.1% (1,421/1,463) of all suicide victims. The percentage of circumstances for suicide victims is based on the number of cases reporting circumstances in North Carolina in 2018.

**Figure 14: Circumstances of suicide victims (ages 10 or older) in North Carolina by Sex, 2018**



**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, 2018**

	Male		Female		Total	
	Number	%	Number	%	Number	%
<b>Current Mental Health Problem *</b>						
Depression / Dysthymia	365	75.3	171	82.2	536	77.3
Bipolar Disorder	51	10.5	35	16.8	86	12.4
Schizophrenia	20	4.1	6	2.9	26	3.8
Anxiety Disorder	56	11.5	31	14.9	87	12.6
Post-Traumatic Stress Disorder	24	4.9	2	1.0	26	3.8
Attention Deficit Disorder (ADD) or Hyper-Reactivity Disorder	13	2.7	3	1.4	16	2.3
Eating Disorder	1	0.2	1	0.5	2	0.3
Other/Unknown	43	8.9	8	3.8	51	7.4

\* For 573 males, 257 females, and 830 total suicide victims with a current mental health problem  
**Note:** Victims may have more than one current problem; thus, responses add up to more than 100%.

**Table 18: Toxicology testing and results for suicide victims (ages 10 or older) in North Carolina by sex, 2018**

	Male		Female		Total	
	Number	%	Number	%	Number	%
<b>Alcohol</b>						
Tested with results	1,007	98.4	288	94.4	1,295	97.5
Alcohol present in those tested	312	30.5	72	23.6	384	28.9
<b>Amphetamines</b>						
Tested with results	5	0.5	10	3.3	15	1.1
Amphetamines present in those tested	4	0.4	10	3.3	14	1.1
<b>Antidepressant</b>						
Tested with results	36	3.5	61	20.0	97	7.3
Antidepressant present in those tested	36	3.5	61	20.0	97	7.3
<b>Cocaine</b>						
Tested with results	69	6.7	92	30.2	161	12.1
Cocaine present in those tested	7	0.7	7	2.3	14	1.1
<b>Opiates</b>						
Tested with results	68	6.7	89	29.2	157	11.8
Opiates present in those tested	29	2.8	34	11.2	63	4.7
<b>Other substances*</b>						
Tested with results	96	9.4	105	34.4	201	15.1
Other drugs present in those tested	47	49.0	65	61.9	112	55.7

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



**Table 19: Alcohol toxicology testing and results for suicide victims (ages 10 or older) in North Carolina by age group and race, 2018**

	Alcohol tested with results		Alcohol present in those tested	
	Number	%	Number	%
<b>Age Group (Years)</b>				
10-14	15	83.3	0	0.0
15 - 19	60	92.3	6	10.0
20 - 24	92	87.6	23	25.0
25 - 34	194	89.4	70	36.1
35 - 44	186	86.5	73	39.2
45 - 54	247	86.4	101	40.9
55 - 64	250	89.0	88	35.2
65 - 74	137	90.7	22	16.1
75 - 84	89	89.9	7	7.9
≥85	25	96.2	1	4.0
<b>Race/Ethnicity</b>				
White*	1,108	88.6	343	31.0
Black*	112	89.6	24	21.4
Asian*	18	180.0	8	44.4
American Indian*	8	40.0	3	37.5
Hispanic	46	85.2	13	28.3
Other/Unknown	3	75.0	0	0.0

\*Non-Hispanic

## Section II

**Table 20: Injury location for suicide victims (ages 10 or older) in North Carolina, 2018**

	Number	%
<b>Injury Location</b>		
House, apartment	1,147	78.4
Motor Vehicle (Excluding School Bus and Public Transportation)	105	7.2
Natural Area (e.g., Field, River, Beach, Woods)	47	3.2
Hotel/Motel	24	1.6
Jail, Prison, Detention Facility	20	1.4
Park, Playground, Public Use Area	18	1.2
Other Commercial Establishment (e.g., grocery store, retail outlet, laundromat)	21	1.4
Street/Road, Sidewalk, Alley	10	0.7
Parking Lot/Public Parking Garage	5	0.3
Highway/Freeway	6	0.4
Hospital or Medical Facility	7	0.5
Synagogue, Church, Temple	2	0.1
Other Specified*	39	2.7
Other/Unknown	12	0.8
<b>Total Deaths</b>	<b>1,463</b>	<b>100</b>

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

## Section III: Homicide

### **Basic Characteristics of Homicides**

**Table 21** characterizes the homicides in 2018 for North Carolina residents by demographics of sex, race/ethnicity, and age. The homicide rate in 2018 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 2018, 643 North Carolinians (6.2 per 100,000) were victims of homicide.
- Males were 3.5 times as likely to be victims of a homicide as females (9.8 versus 2.8 per 100,000, respectively).
- NH American Indians (22.7 per 100,000) had higher homicide rates than NH Blacks (16.9 per 100,000), NH Whites (3.0 per 100,000), and Hispanics (2.6 per 100,000). The number of homicides among NH Asians was too small to support the calculation of a rate.
- Homicide rates per 100,000 were highest for adults ages 20 to 24 years (14.8 per 100,000) and 25 to 34 years (13.0 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 (8.4 per 100,000).

The method of death for homicide victims in North Carolina in 2018 is shown in **Table 22** and **Figure 17**. The type of firearm involved in homicide firearm deaths in North Carolina in 2018 is listed in **Table 23**.

#### **Key Findings:**

- The leading methods of homicide were firearm (73.3%), sharp instrument (9.8%), personal weapons (6.2%), blunt instrument (4.7%), and hanging, strangulation, and suffocation (3.0%).
- Most male and female homicide victims died by firearm (78.4% and 56.1% respectively), or sharp instrument (7.9% and 16.2% respectively).
- Considering only homicide firearm deaths, a handgun was the most common firearm used (72.2%).

**Table 24** describes adult homicide victims (18 years or older) in North Carolina in 2018 by education level, marital status and veteran status.

#### **Key Findings:**

- Among adult homicide victims, 46.2% graduated high school or received their GED, 22.5% completed at least some college credit, and 31.0% completed up to 12<sup>th</sup> grade but did not graduate.
- Almost two thirds of homicide victims were never married (63.2%) as compared to married, civil union, or domestic partnership (17.8%), divorced (12.9%), married but separated (1.8%), or widowed (3.7%).
- Military veterans accounted for 7.4% of adult homicide victims.

## Section III

**Table 25** and **Figure 18** display the homicide rates in 2018 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 46 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 2018.

### Key Findings:

- For the 40 counties where the number of homicides was sufficient to support a rate calculation, the average homicide rate by North Carolina County of residence was 7.4 deaths per 100,000 with a range from 0.0 to 45.4 deaths per 100,000.

**Table 21: Demographics of homicide victims in North Carolina, 2018**

	Number	%	Rate	95% CI
<b>Sex</b>				
Female	148	23.02	2.8	2.3 - 3.2
Male	495	76.98	9.8	8.9 - 10.7
<b>Race/Ethnicity</b>				
White**	199	30.9%	3.0	2.6 - 3.4
Black**	387	60.2%	16.9	15.2 - 18.5
Asian**	3	0.5%	*	*
American Indian**	28	4.4%	22.7	14.3 - 31.1
Hispanic	26	4.0%	2.6	1.6 - 3.6
Other/Unknown	0	0.0%	-	-
<b>Age Group (Years)</b>				
< 1	10	1.6	8.4	3.2 - 13.7
1-4	7	1.1	1.4	0.4 - 2.5
5-9	3	0.5	*	*
10-14	5	0.8	0.8	0.1 - 1.4
15-19	54	8.4	7.9	5.8 - 10.0
20-24	103	16.0	14.8	11.9 - 17.6
25-34	181	28.1	13.0	11.1 - 14.9
35-44	102	15.9	7.9	6.3 - 9.4
45-54	74	11.5	5.4	4.1 - 6.6
55-64	53	8.2	3.9	2.9 - 5.0
65-74	33	5.1	3.3	2.2 - 4.4
75-84	15	2.3	3.0	1.5 - 4.6
≥85	3	0.5	*	*
<b>Total Deaths</b>	<b>643</b>	<b>100.0</b>	<b>6.2</b>	<b>5.7 - 6.7</b>

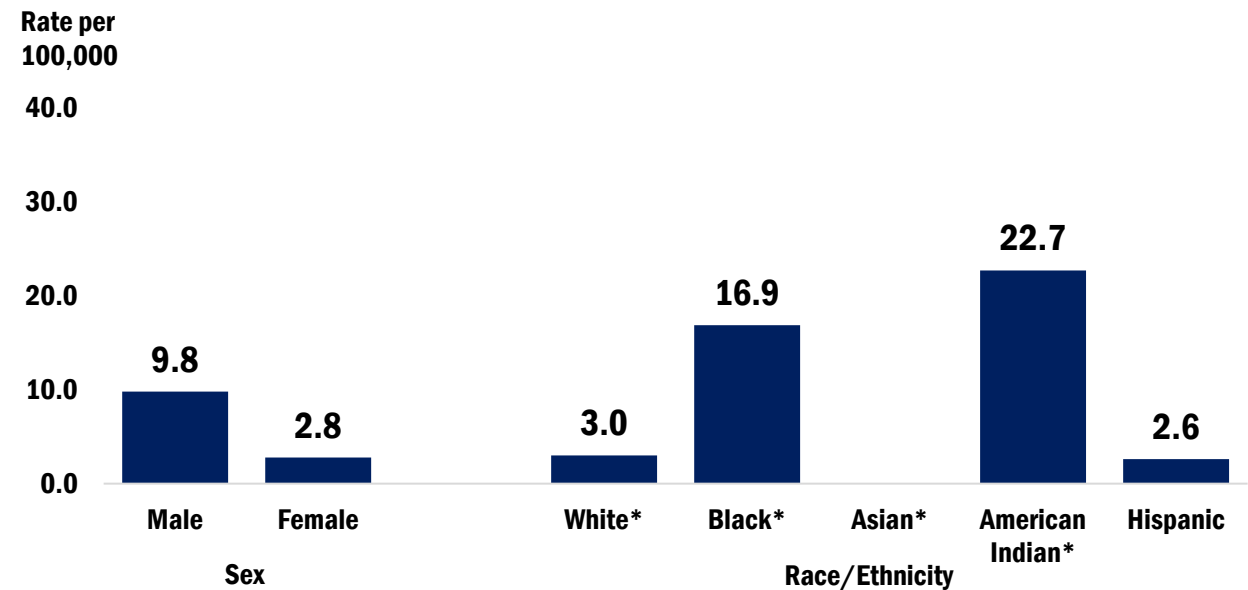
Sex, race/ethnicity and age-specific crude rates per 100,000 N.C. population

95% CI = 95 % confidence interval for the rate

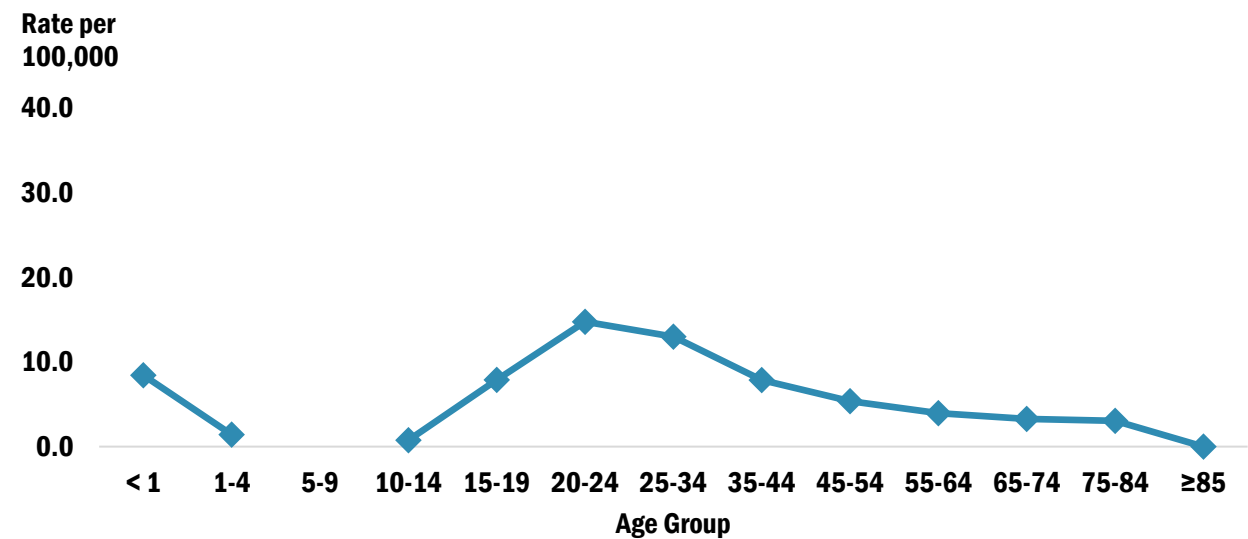
\* The number of deaths was too small to support the calculation of a rate

\*\* Non-Hispanic

**Figure 15: Crude homicide rates in North Carolina by sex and race/ethnicity, 2018**



**Figure 16: Age-specific crude homicide rates in North Carolina by age group, 2018**



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

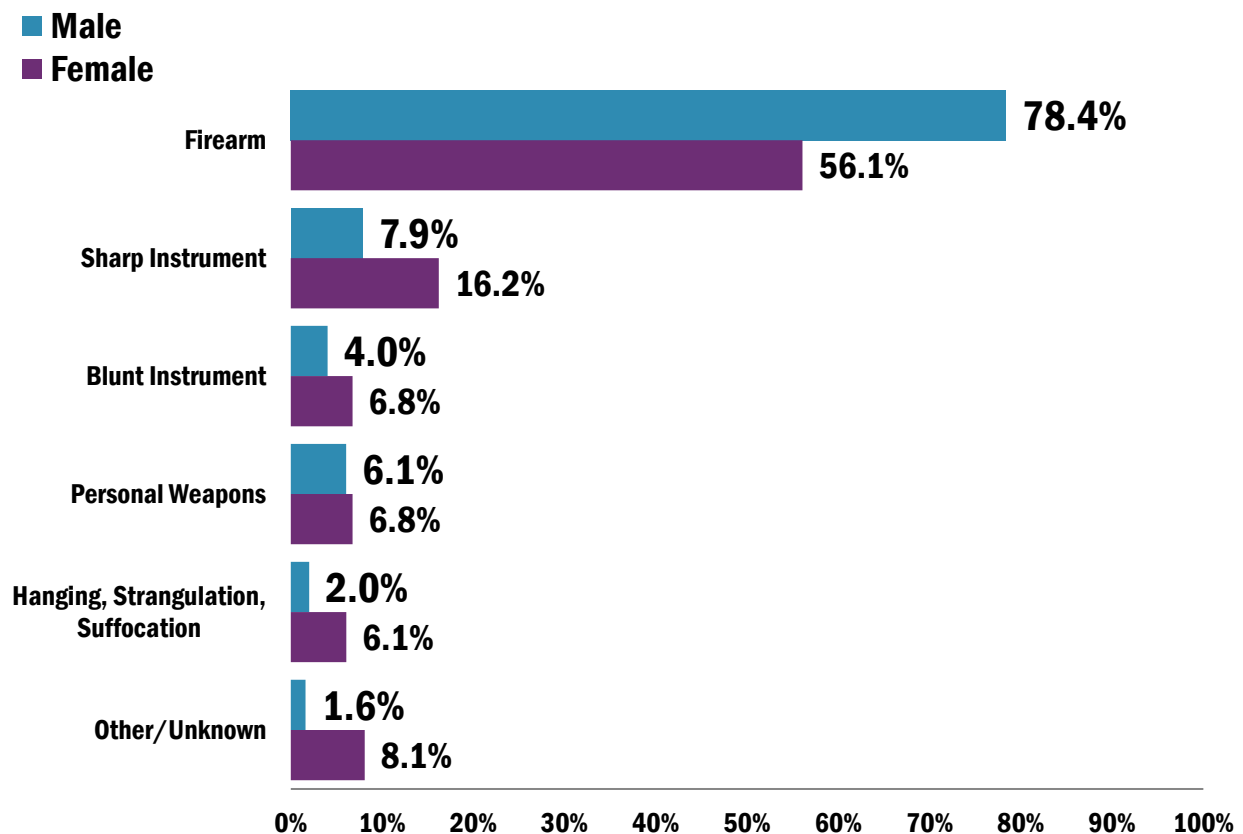
### Section III

**Table 22: Method of death for homicide victims in North Carolina by sex, 2018**

Method of Death	Male		Female		Total	
	Number	%	Number	%	Number	%
Firearm	388	78.4	83	56.1	471	73.3
Sharp instrument	39	7.9	24	16.2	63	9.8
Blunt instrument	20	4.0	10	6.8	30	4.7
Personal weapons	30	6.1	10	6.8	40	6.2
Hanging, strangulation, suffocation	10	2.0	9	6.1	19	3.0
Fire or burns	1	0.2	1	0.7	2	0.3
Intentional Neglect	1	0.2	1	0.68	2	0.3
Other*/ Unknown	6	1.2	10	6.7	16	2.5
<b>Total Deaths</b>	<b>495</b>	<b>100</b>	<b>148</b>	<b>100</b>	<b>643</b>	<b>100</b>

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

**Figure 17: Method of death for homicide victims in North Carolina by sex, 2018**



**Table 23: Type of firearm involved in homicide firearm deaths in North Carolina by Sex, 2018**

	Male		Female		Total	
	Number	%	Number	%	Number	%
<b>Firearm Type*</b>						
Handgun	283	72.2	60	72.3	343	72.2
Shotgun	24	6.1	8	9.6	32	6.7
Rifle	26	6.6	7	8.4	33	6.9
Other/Unknown	59	15.1	8	9.6	67	14.1
<b>Total Firearms Involved in Homicides</b>	<b>392</b>	<b>100</b>	<b>83</b>	<b>100</b>	<b>475</b>	<b>100</b>

\* Multiple firearm types were reported for four male homicide deaths; therefore, the total number of firearms exceeds the number of homicide firearm deaths (n=471).

**Table 24: Completed education, marital status and veteran status of adult homicide victims (age 18 or older) in North Carolina, 2018**

	Number	%
<b>Education Level</b>		
8th Grade or Less	24	4.0
9th – 12th Grade	161	27.0
High school or GED graduate	276	46.2
Some college credit	84	14.1
Associates degree	26	4.4
Bachelor degree	21	3.5
Master degree	1	0.2
Doctorate degree	2	0.3
Unknown	2	0.34
<b>Marital Status</b>		
Never Married	377	63.2
Married*	106	17.8
Divorced	77	12.9
Married, but Separated	11	1.8
Widowed	22	3.7
Single, not otherwise specified	0	0.0
Unknown	4	0.7
<b>Veteran Status</b>		
Non-Vet	551	92.3
Vet	44	7.4
Unknown	2	0.3

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

## Section III

**Table 25: Homicides in North Carolina by county of residence, 2018**

County	Number	Rate	County	Number	Rate	County	Number	Rate
Alamance	7	4.2	Franklin	2	*	Pamlico	1	*
Alexander	2	*	Gaston	8	3.6	Pasquotank	4	*
Alleghany	0	0.0	Gates	2	*	Pender	1	*
<b>Anson</b>	6	24.1	Graham	1	*	Perquimans	2	*
Ashe	1	*	Granville	0	0.0	Person	1	*
Avery	0	0.0	Greene	3	*	Pitt	11	6.1
Beaufort	3	*	<b>Guilford</b>	55	10.3	Polk	1	*
Bertie	1	*	<b>Halifax</b>	9	17.8	Randolph	4	*
Bladen	0	0.0	<b>Harnett</b>	11	8.2	<b>Richmond</b>	5	11.1
Brunswick	2	*	Haywood	1	*	<b>Robeson</b>	32	24.3
Buncombe	13	5.0	Henderson	3	*	<b>Rockingham</b>	9	9.9
<b>Burke</b>	9	10.0	Hertford	4	*	Rowan	11	7.8
Cabarrus	6	2.8	<b>Hoke</b>	5	9.1	Rutherford	2	*
Caldwell	3	*	Hyde	1	*	<b>Sampson</b>	9	14.1
Camden	0	0.0	Iredell	2	*	Scotland	4	*
Carteret	4	*	Jackson	2	*	<b>Stanly</b>	8	12.9
Caswell	3	*	Johnston	8	3.9	Stokes	0	0.0
Catawba	6	3.8	Jones	0	0.0	Surry	5	6.9
Chatham	2	*	<b>Lee</b>	8	13.0	Swain	1	*
Cherokee	3	*	Lenoir	4	*	Transylvania	4	*
Chowan	1	*	Lincoln	5	6.0	Tyrrell	0	0.0
Clay	0	0.0	McDowell	4	*	Union	6	2.5
<b>Cleveland</b>	9	9.2	Macon	3	*	<b>Vance</b>	11	24.7
Columbus	4	*	Madison	0	0.0	Wake	19	1.7
Craven	4	*	Martin	3	*	<b>Warren</b>	9	45.4
<b>Cumberland</b>	32	9.6	Mecklenburg	74	6.8	Washington	0	0.0
Currituck	1	*	Mitchell	1	*	Watauga	0	0.0
Dare	1	*	Montgomery	2	*	Wayne	7	5.7
Davidson	10	6.0	Moore	2	*	<b>Wilkes</b>	6	8.8
Davie	1	*	<b>Nash</b>	11	11.7	Wilson	5	6.1
Duplin	1	*	New Hanover	11	4.7	Yadkin	1	*
<b>Durham</b>	35	11.1	Northampton	0	0.0	Yancey	0	0.0
<b>Edgecombe</b>	7	13.5	Onslow	10	5.1			
Forsyth	25	6.6	Orange	7	4.8			

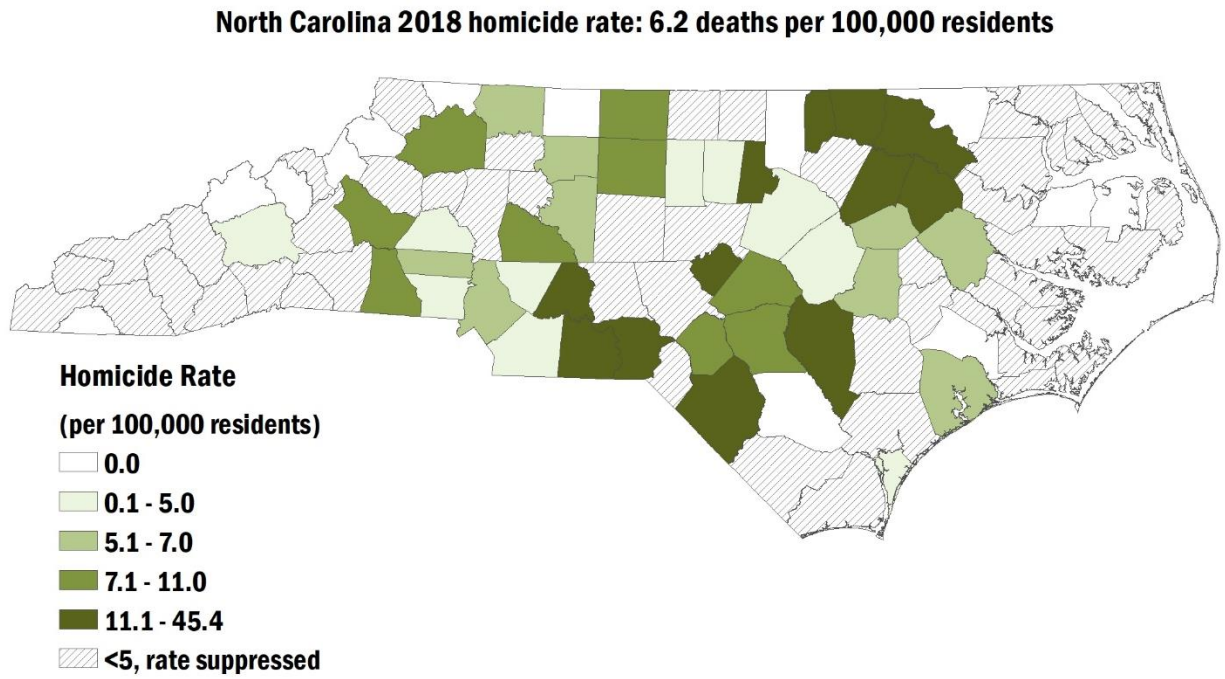
Crude rate per 100,000 population in N.C. county

\* 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, 2018**



## Section III

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

Table 26 and Figure 19 describe the 2018 North Carolina homicide victims by sex and race/ethnicity.

#### **Key Findings:**

- Of all homicide victims 77.0% were male, 60.2% were NH Black, and 30.9% were NH white as shown in **Table 19**.
- Most male homicide victims were NH Black (65.3%) as compared to NH white (24.8%), Hispanic (4.6%), NH American Indian (4.6%), and NH Asian (0.6%). Over half of female homicide victims were NH white (51.4%) followed by NH Black (43.2%), Hispanic (2.0%), and NH American Indian (3.4%).
- The homicide rates per 100,000 were 7.9 times higher for NH Black males (30.1 per 100,000) and 10.2 times higher for NH American Indian males (38.9 per 100,000), than NH white males (3.8 per 100,000).
- NH Black females were 2.3 times as likely to be homicide victims compared to NH white females (5.2 versus 2.2 per 100,000, respectively).
- The homicide rate was 5.7 times higher for NH Black males than for NH Black females. The homicide rate was 1.7 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 2018 are categorized in **Table 27**. The 2018 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 (29.1%), 20 to 24 (17.6%), 35 to 44 (15.8%), and 45 to 54 (12.3%).
- Among females, most homicide victims were ages 20 to 64 years with a rank order by age group of: 25 to 34 (25.0%), 35 to 44 (16.2%), 55 to 64 (12.8%), 20 to 24 (10.8%), and 45 to 54 (8.8%).
- Males had higher homicide rates than females across all groups in which rates could be calculated.
- The homicide rate by age for males peaked among ages 20 to 24 years (24.1 per 100,000) and then declined to 3.3 per 100,000 for ages 85 and older.

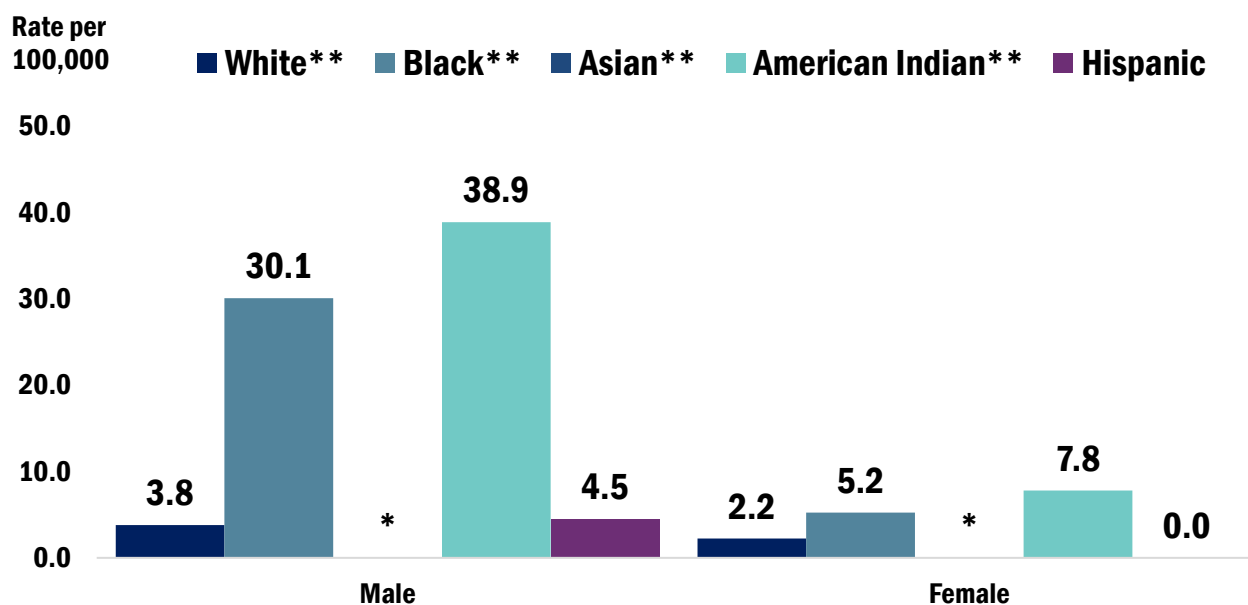
**Table 26: Race/ethnicity of homicide victims in North Carolina by sex, 2018**

Race/Ethnicity	Male			Female		
	Number	%	Rate	Number	%	Rate
White**	123	24.8	3.8	76	51.4	2.2
Black**	323	65.3	30.1	64	43.2	5.2
Asian**	3	0.6	*	0	0	*
American Indian**	23	4.6	38.9	5	3.4	7.8
Hispanic	23	4.6	4.5	3	2	*
Other/Unknown	0	0	-	0	0	-
<b>Total Deaths</b>	<b>495</b>	<b>100</b>	<b>9.8</b>	<b>148</b>	<b>100</b>	<b>2.8</b>

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

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

\*\* Non-Hispanic

**Figure 19: Crude homicide rates in North Carolina stratified by race/ethnicity and sex, 2018**

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

\*\* Non-Hispanic

## Section III

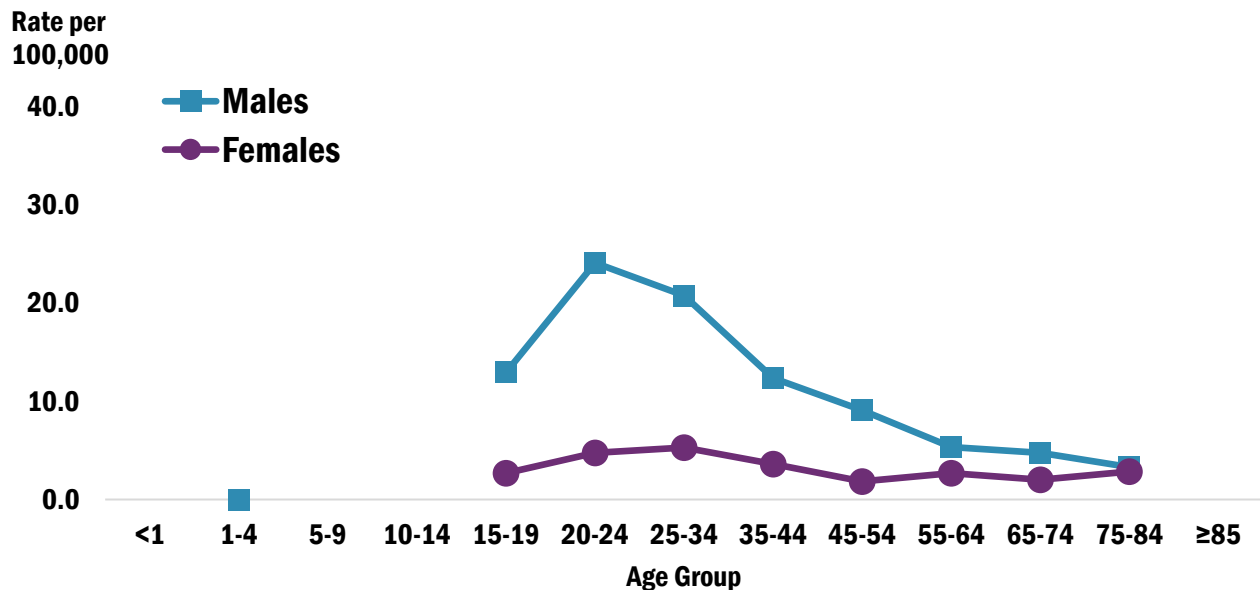
**Table 27: Age group of homicide victims in North Carolina by sex, 2018**

Age Group (Years)	Male			Female		
	Number	%	Rate	Number	%	Rate
<1	7	1.4	11.5	3	2	*
1-4	4	0.8	*	3	2	*
5-9	3	0.6	*	0	0	*
10-14	1	0.2	*	4	2.7	*
15-19	45	9.1	12.9	9	6.1	2.7
20-24	87	17.6	24.1	16	10.8	4.8
25-34	144	29.1	20.8	37	25	5.3
35-44	78	15.8	12.4	24	16.2	3.6
45-54	61	12.3	9.1	13	8.8	1.8
55-64	34	6.9	5.3	19	12.8	2.7
65-74	22	4.4	4.7	11	7.4	2.0
75-84	7	1.4	3.3	8	5.4	2.8
≥85	2	0.4	*	1	0.7	*
<b>Total Deaths</b>	<b>495</b>	<b>100</b>	<b>9.8</b>	<b>148</b>	<b>100</b>	<b>2.8</b>

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

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

**Figure 20: Age-specific crude homicide rates in North Carolina stratified by age group and sex, 2018**



**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 2018, 95.2% 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 2018. **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 2018.

### **Key Findings:**

- The most common event circumstances surrounding homicides for males were an argument, abuse, or conflict (46.9%), precipitated by another serious crime (38.1%), drug involvement (28.9%), intimate partner violence-related (12.2%), and gang related (6.2%).
- For females, the most common event circumstances surrounding homicides were intimate partner violence-related (39.3%), an argument, abuse or conflict (37.9%), precipitated by another serious crime (33.1%), drug involvement (18.6%), and jealousy (lovers triangle) (3.5%).
- The most common crimes that precipitated homicide for male victims were robbery (37.4%), drug trade (21.3%), and burglary (14.3%).
- The most common crimes that precipitated homicide for female victims included robbery (33.9%), drug trade (11.9%), motor vehicle theft (11.9%), burglary (10.2%), and rape or sexual assault (10.2%).
- Common victim circumstances surrounding homicides were: the victim used a weapon (10.0%), justifiable self-defense (2.5%), and the victim was a bystander (1.0%).

**Table 30** summarizes the location of the injury resulting in death for homicide victims in North Carolina in 2018.

### **Key Findings:**

- Most injuries resulting in death occurred in a house or apartment (59.7%).
- Other common locations where injuries resulting in death occurred were: a motor vehicle (10.3%), a street, road, sidewalk or alley (8.4%), other commercial establishments such as a grocery store or laundromat (4.8%), bars/nightclubs (1.6%), and natural areas such as a field or woods (1.6%).

## Section III

**Table 28: Circumstances of homicides victims in North Carolina by sex, 2018**

Circumstance*	Male		Female		Total	
	Number	%	Number	%	Number	%
<b>Event</b>						
Other Argument, Abuse, Conflict	219	46.9	55	37.9	274	44.8
Precipitated by Another Serious Crime	178	38.1	48	33.1	226	36.9
Drug Involvement	135	28.9	27	18.6	162	26.5
Intimate Partner Violence-Related	57	12.2	57	39.3	114	18.6
Jealousy (Lovers Triangle)	15	3.2	5	3.5	20	3.3
Gang Related	29	6.2	4	2.8	33	5.4
Brawl (Mutual Physical Fight)	10	2.1	0	0.0	10	1.6
Mercy Killing	0	0.0	0	0.0	0	0.0
<b>Victim</b>						
Victim Used a Weapon	60	12.9	1	0.7	61	10.0
Victim was a Bystander	1	0.2	5	3.5	6	1.0
Justifiable Self-Defense	15	3.2	0	0.0	15	2.5
Intervener Assisting Crime Victim	3	0.6	0	0.0	3	0.5

\* Circumstances were available for 94.3% (467/495) of male victims, 98.0% (145/148) of female victims and 95.2% (612/643) of all homicide victims. The percentage of circumstances for homicide victims is based on the number of cases reporting circumstances in North Carolina in 2018.

**Note:** Each victim may have more than one circumstance, therefore 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, 2018**

Crime*	Male		Female		Total	
	Number	%	Number	%	Number	%
Robbery	86	37.4	20	33.9	106	36.7
Burglary	33	14.3	6	10.2	39	13.5
Drug trade	49	21.3	7	11.9	56	19.4
Motor vehicle theft	24	10.4	7	11.9	31	10.7
Assault, homicide	14	6.1	5	8.5	19	6.6
Rape, sexual assault	2	0.9	6	10.2	8	2.8
Arson	7	3.0	3	5.1	10	3.5
Gambling	4	1.7	1	1.7	5	1.7
Other	11	4.8	4	6.8	15	5.2

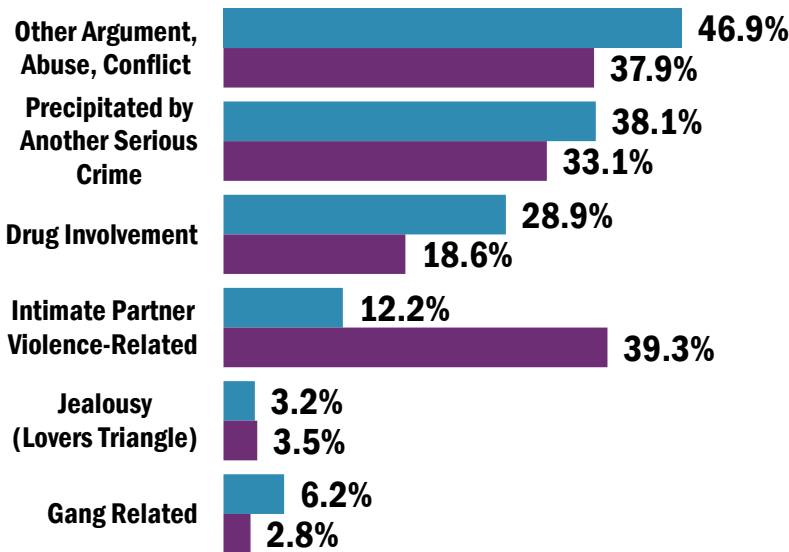
\* For 178 males, 48 females and 226 total victims whose homicide was precipitated by another serious crime.

**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%.

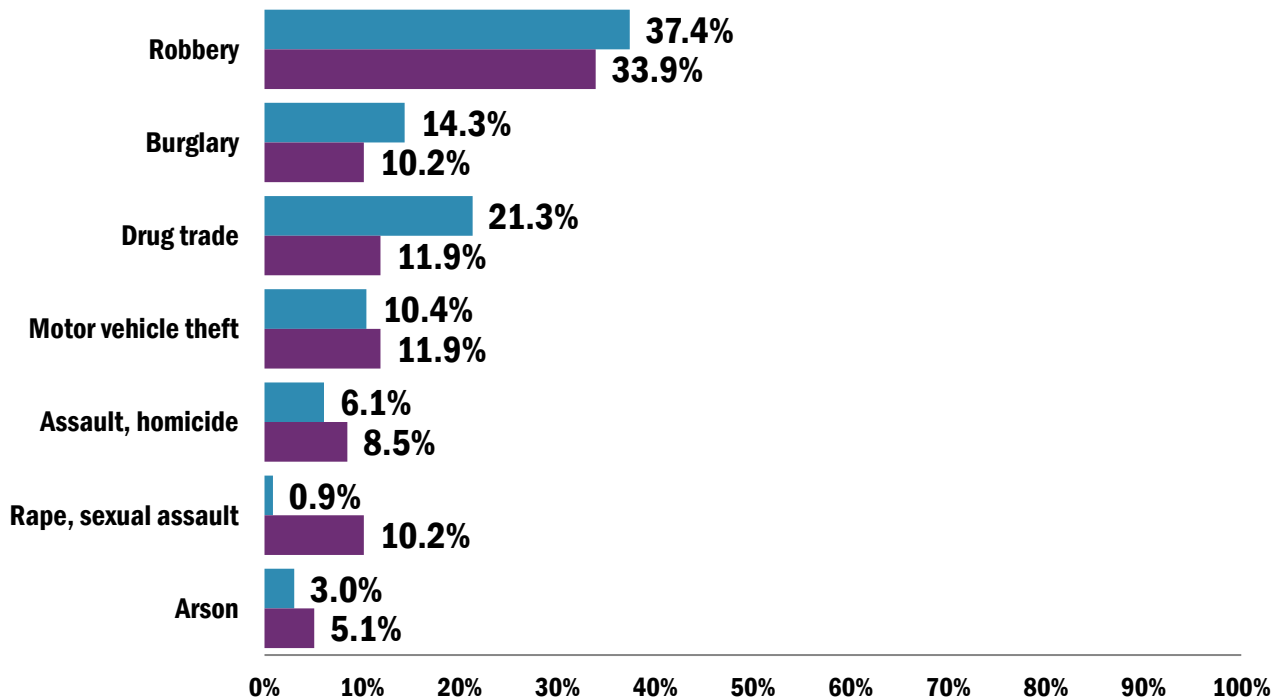
**Figure 21: Circumstances of homicide victims and crimes precipitating homicides in North Carolina by sex, 2018**

- 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, 2018**

	Number	%
<b>Injury Location</b>		
House, apartment	384	59.7
Motor vehicle (excluding school bus, 15, and public transportation, 21)	66	10.3
Street/road, sidewalk, alley	54	8.4
Other commercial establishment (e.g., grocery store, retail outlet, laundromat)	31	4.8
Unknown	21	3.3
Parking lot/public parking garage	17	2.6
Hotel/motel	14	2.2
Park, playground, public use area	11	1.7
Bar, nightclub	10	1.6
Natural area (e.g., field, river, beaches, woods)	10	1.6
Other	4	0.6
Highway, freeway	4	0.6
Abandoned house, building, or warehouse	4	0.6
Farm	4	0.6
Other/Unknown	9	1.4
<b>Total Deaths</b>	<b>643</b>	<b>100</b>



## Section IV: Legal Intervention

NC-VDRS compiles data on legal intervention deaths which are classified as homicide by the medical examiner but are defined by NVDRS as legal intervention. Legal intervention deaths represent victims killed by a police officer, military police officer or other peace officer acting in the line of duty. In addition, legal executions are not included in the national system but are reported in the state system as legal intervention deaths. **Table 31** summarizes the demographics of legal intervention victims in North Carolina in 2018. Caution should be used in interpreting the rates because of the very small number of legal intervention deaths. **Table 32** shows the type of weapon used in legal intervention deaths of North Carolina residents in 2018. **Table 33** lists the number of legal intervention deaths in 2018 by North Carolina county of residence.

### Key Findings:

- In 2018, 29 residents of North Carolina (0.5 per 100,000) died from legal intervention.
- All of the victims were male, and most were from 35 to 44 years of age (34.5%).
- All but one legal intervention deaths occurred by firearm. Of the total firearms involved (n=36), handguns were the most frequently used (66.7%).

**Table 31: Demographics of legal intervention death victims in North Carolina, 2018**

	Number	%	Rate	95% CI
<b>Sex</b>				
Female	0	0.0	*	*
Male	29	100.0	0.6	0.4 - 0.8
<b>Race/Ethnicity</b>				
White**	17	58.6	0.3	0.1 - 0.4
Black**	9	31.0	0.4	0.1 - 0.6
Asian**	0	0.0	0.0	-
American Indian**	0	0.0	0.0	-
Hispanic	3	10.3	*	*
Other/Unknown	0	0.0	-	-
<b>Age Group (Years)</b>				
15-19	0	0.0	*	*
20-24	3	10.3	*	*
25-34	6	20.7	0.4	0.1 - 0.8
35-44	10	34.5	0.8	0.3 - 1.2
45-54	5	17.2	0.4	0.0 - 0.7
55-64	5	17.2	0.4	0.0 - 0.7
65-74	0	0.0	0.0	-
75-84	0	0.0	0.0	-
≥85	0	0.0	0.0	-
<b>Total Deaths</b>	<b>29</b>	<b>100</b>	<b>0.3</b>	<b>0.2 - 0.4</b>

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

95% CI = 95 % 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, 2018**

Weapon Type	Number	%
Firearm		
Handgun	24	66.7
Rifle	8	22.2
Shotgun	1	2.8
Unknown firearm type	2	5.6
Other, non-firearm weapons	1	2.8
<b>Total Weapons Involved in Legal Intervention Deaths*</b>	<b>36</b>	<b>100</b>

\*Multiple firearm types were reported for some legal intervention fatalities in 2018; 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, 2018**

County	Number	County	Number
Alamance	2	Moore	1
Alleghany	1	New Hanover	1
Beaufort	1	Orange	1
Caldwell	1	Person	1
Craven	1	Pitt	2
Cumberland	1	Vance	1
Davidson	1	Wake	1
Edgecombe	1	Yadkin	1
Forsyth	1	Yancey	1
Guilford	1		
Lee	1		
Lenoir	1		
Macon	1		
Madison	1		
Mecklenburg	4		
Moore	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 2018 by sex, race/ethnicity, and age. Caution should be used in interpreting the rates because of the very small number of unintentional firearm deaths. **Table 35** displays the type of firearm for unintentional firearm deaths in North Carolina in 2018. **Table 36** provides the number of unintentional firearm deaths in 2018 by North Carolina county of residence.

### Key Findings:

- In 2018, 24 North Carolinians (0.2 per 100,000) died from an unintentional firearm injury.
- Unintentional firearm victims were 87.5% male, 50.0% NH white, and 45.8% NH Black.
- Deaths from an unintentional firearm injury occurred among those ages 1-4 to 75 to 84.
- The most common firearm involved in unintentional firearm deaths was a handgun (54.2%) followed by a rifle (29.2%), and a shotgun (4.2%).

NC-VDRS collects data on the circumstances surrounding unintentional firearm deaths to help understand the underlying causes of death. Twenty-three of the twenty-four 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 2018.

### Key Findings:

- The most common circumstance among mechanisms of unintentional firearm injuries resulting in death included: the victim unintentionally pulled the trigger (43.5%), the shooter thought the magazine was unloaded (13.0%), the gun discharged when dropped (8.7%), the shooter thought the gun was unloaded (unspecified reason) (8.7%), or the bullet ricocheted and hit the victim (8.7%).
- Among contexts of unintentional firearm injuries resulting in death, the most common contexts included: the injury occurred while playing with a firearm (34.8%), while showing the firearm to others (13.0%), or while cleaning the firearm (13.0%).

## Section V

**Table 34: Demographics of unintentional firearm death victims in North Carolina, 2018**

	Number	%	Rate	95% CI
<b>Sex</b>				
Female	3	12.5	*	*
Male	21	87.5	0.4	0.2 - 0.6
<b>Race/Ethnicity</b>				
White**	12	50.0	0.2	0.1 - 0.3
Black**	11	45.8	0.5	0.2 - 0.8
Asian**	0	0.0	0.0	-
American Indian**	0	0.0	0.0	-
Hispanic	0	0.0	0.0	-
Other/Unknown	0	0.0	-	-
<b>Age Group (Years)</b>				
< 1	0	0.0	0.0	0.0
1-4	1	0.0	*	*
5-9	0	0.0	0.0	*
10-14	3	0.1	0.0	0.0
15-19	9	0.4	1.3	*
20-24	3	0.1	*	*
25-34	0	0.0	0.0	*
35-44	2	0.1	0.0	0.0
45-54	0	0.0	0.0	0.0
55-64	3	0.1	*	*
65-74	1	0.0	*	*
75-84	2	0.1	0.0	0.0
≥85	0	0.0	0.0	0.0
<b>Total Deaths</b>	<b>24</b>	<b>100</b>	<b>0.2</b>	<b>0.1 - 0.3</b>

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, 2018**

	Number	%
<b>Firearm Type</b>		
Handgun	13	54.2
Rifle	7	29.2
Shotgun	1	4.2
Other/Unknown	3	12.5
<b>Total Firearms Involved in Unintentional Firearms*</b>	<b>24</b>	<b>100.0</b>

\*Multiple firearm types were not reported for any unintentional firearm fatalities in 2018; Therefore, the total number of firearms equals the number of unintentional firearm deaths (n=24).

**Table 36: Unintentional firearm deaths in North Carolina by county of residence, 2018**

County	Number	County	Number
Alamance	1	Scotland	1
Alexander	1	Stanly	1
Brunswick	2	Stokes	1
Buncombe	1	Vance	1
Catawba	1	Wake	1
Craven	1	Wayne	2
Davidson	1	Wilson	1
Edgecombe	1		
Forsyth	1		
Gaston	1		
Mecklenburg	2		
Moore	2		
Rowan	1		

## Section V

**Table 37: Circumstances of unintentional firearm deaths in North Carolina, 2018**

Circumstances*	Number	%
<b>Context</b>		
Occurred while playing with gun	8	34.8
Occurred while cleaning gun	3	13.0
Gun fired while loading or unloading	1	4.4
Occurred while showing gun to others	3	13.0
Occurred while target shooting	2	8.7
Other context	13	56.5
<b>Mechanism</b>		
Gun discharged when dropped	2	8.7
Shooter thought gun was unloaded, unspecified reason	2	8.7
Unintentionally pulled trigger	10	43.5
Shooter thought magazine was unloaded	3	13.0
Bullet ricocheted and hit victim	2	8.7
Gun had defect or malfunctioned	1	4.4
Other mechanism	4	17.4

\*Circumstances were available for 23/24 (95.8%) of unintentional firearm deaths in North Carolina during 2018.

**Note:** Each death may have more than one circumstance, therefore 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 2018 by sex, race/ethnicity and age.

### Key Findings:

- In 2018, 114 children in North Carolina (5.0 per 100,000) died as a result of violence.
- Male children were 2.7 times as likely to be victims of violent death as female children (7.2 vs. 2.7 per 100,000, respectively).
- The violent death rate for children per 100,000 was 2.1 times higher for NH Blacks (8.4 per 100,000) than for NH whites (4.0 per 100,000).
- The highest death rate was for children ages 15 to 17 (15.6 per 100,000). The lowest rate was for ages one to four (1.8 per 100,000). The number of violent deaths among children ages 5 to 9 was too small to support the calculation of a rate.

Manner of violent death for child victims in North Carolina in 2018 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 suicide (45.6%) and homicide (40.4%).
- Homicide was the cause of violent death for the majority of NH Black children (55.3%).
- Homicide was the leading cause of violent death for infants less than one year (71.4%), for children ages one to four (77.8%), and children ages five to nine (100.0%).
- Suicide was the cause of violent death in the majority NH white children (62.0%).
- Suicide was the leading cause of violent death for children ages 10 to 14 (69.2%) and ages 15 to 17 (54.8%).

Method of child violent death in North Carolina in 2018 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 (54.5%), hanging, strangulation or suffocation (27.7%), and personal weapons (i.e., abuse by a caretaker) (7.1%).
- Firearm was the leading method of child violent death for males (62.7%), NH Blacks (53.3%), and NH whites (56.0%).
- Personal weapons (33.3%), hanging, strangulation or suffocation (33.3%), and violent shaking (16.7%) were the leading methods of violent death in infants less than one year. For children ages one to four, personal weapons (44.4%), hanging, strangulation, or suffocation (22.2%), and firearms (22.2%) were the leading methods of death. There were three child deaths for ages five to nine, attributed to firearms (66.7%) and hanging, strangulation or suffocation (33.3%). Firearms (53.9%) and hanging, strangulation, or suffocation (38.5%) were the top causes of violent child death for ages 10 to 14, as well as for ages 15 to 17 (69.4% and 22.6% respectively).

## Section VI

**Table 38: Demographics of child (under age 18) violent deaths in North Carolina, 2018**

	Number	%	Rate	95% CI
<b>Sex</b>				
Female	30	26.3	2.7	1.7 - 3.6
Male	84	73.7	7.2	5.6 - 8.7
<b>Race/Ethnicity</b>				
White**	50	43.9	4.0	2.9 - 5.1
Black**	47	41.2	8.4	6.0 - 10.8
Asian**	3	2.6	*	*
American Indian**	3	2.6	*	*
Hispanic	9	7.9	2.3	0.8 - 3.9
Other/Unknown	2	1.8	-	-
<b>Age Group (Years)</b>				
<1	14	12.3	11.8	5.6 - 18.0
1-4	9	7.9	1.8	0.6 - 3.0
5-9	3	2.6	*	*
10-14	26	22.8	3.9	2.4 - 5.4
15-17	62	54.4	15.6	11.7 - 19.4
<b>Total Deaths</b>	<b>114</b>	<b>100</b>	<b>5.0</b>	<b>4.0 - 5.9</b>

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

95% CI = 95 % confidence interval for the rate

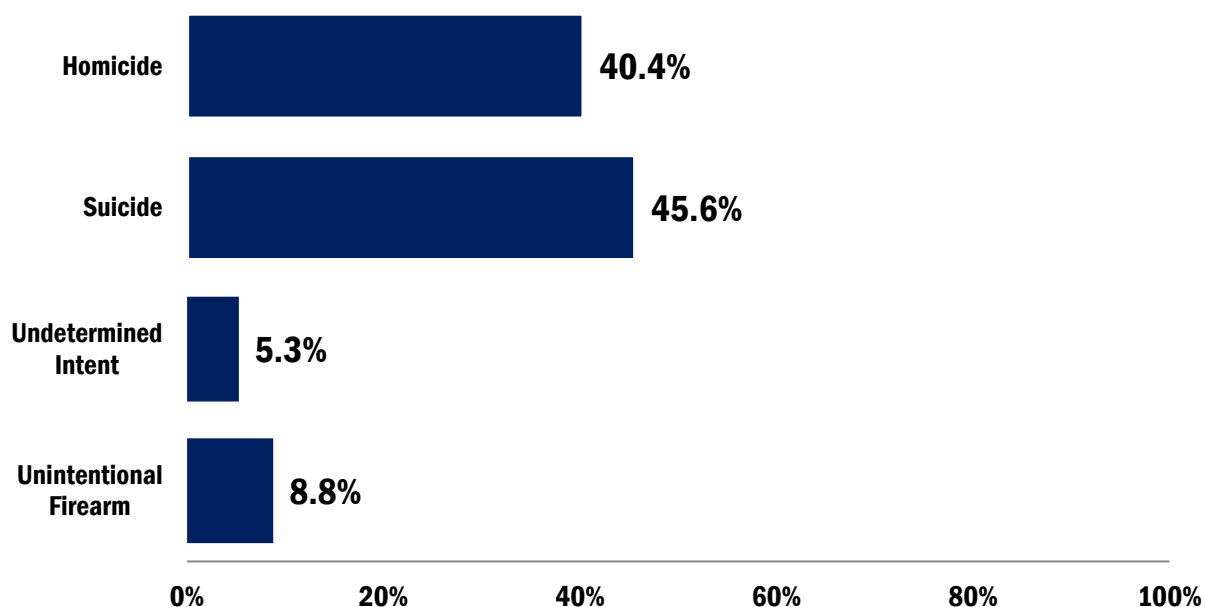
\* The number of deaths was too small to support the calculation of a rate.

\*\* Non-Hispanic

**Table 39: Manner of child (under age 18) violent death in North Carolina by sex, 2018**

Manner of Death	Male		Female		Total	
	Number	%	Number	%	Number	%
Homicide	33	39.3	13	43.3	46	40.4
Suicide	39	46.4	13	43.3	52	45.6
Undetermined Intent	4	4.8	2	6.7	6	5.3
Unintentional Firearm	8	9.5	2	6.7	10	8.8
<b>Total Deaths</b>	<b>84</b>	<b>100</b>	<b>30</b>	<b>100</b>	<b>114</b>	<b>100</b>



**Figure 22: Manner of child (under age 18) violent death in North Carolina, 2018****Table 40: Manner of child (under age 18) violent death in North Carolina by race/ethnicity, 2018**

Manner of Death	White**		Black**		American Indian**		Asian**		Hispanic	
	Number	%	Number	%	Number	%	Number	%	Number	%
Homicide	13	26.0	26	55.3	2	66.7	1	33.3	4	44.4
Suicide	31	62.0	12	25.5	1	33.3	1	33.3	5	55.6
Undetermined Intent	3	6.0	3	6.4	0	0.0	0	0.0	0	0.0
Unintentional Firearm	3	6.0	6	12.8	0	0.0	1	33.3	0	0.0
<b>Total Deaths</b>	<b>50</b>	<b>100</b>	<b>47</b>	<b>100</b>	<b>3</b>	<b>100</b>	<b>3</b>	<b>100</b>	<b>9</b>	<b>100</b>

There were two child violent deaths where the race/ethnicity was unknown or other.

\*\* Non-Hispanic

## Section VI

**Table 41: Manner of child (under age 18) violent death in North Carolina by age group, 2018**

Manner of Death	<1		1-4		5-9		10-14		15-17	
	Number	%	Number	%	Number	%	Number	%	Number	%
Homicide	10	71.4	7	77.8	3	100.0	5	19.2	21	33.9
Suicide	0	0.0	0	0.0	0	0.0	18	69.2	34	54.8
Undetermined Intent	4	28.6	1	11.1	0	0.0	0	0.0	1	1.6
Unintentional Firearm	0	0.0	1	11.1	0	0.0	3	11.5	6	9.7
<b>Total Deaths</b>	<b>14</b>	<b>100</b>	<b>9</b>	<b>100</b>	<b>3</b>	<b>100</b>	<b>26</b>	<b>100</b>	<b>62</b>	<b>100</b>

**Table 42: Method of child (under age 18) violent death in North Carolina by sex, 2018**

Method of Death*	Male		Female		Total	
	Number	%	Number	%	Number	%
Firearm	52	62.7	9	31.0	61	54.5
Hanging, strangulation, suffocation	20	24.1	11	37.9	31	27.7
Personal Weapons	6	7.2	2	6.9	8	7.1
Poisoning	0	0.0	3	10.3	3	2.7
Sharp instrument	0	0.0	0	0.0	0	0.0
Blunt Instrument	0	0.0	1	3.5	1	0.9
Intentional Neglect	0	0.0	0	0.0	0	0.0
Violent Shaking	2	2.4	1	3.5	3	2.7
Other/Unknown	3	3.6	2	6.9	5	4.5
<b>Total Deaths</b>	<b>83</b>	<b>100</b>	<b>29</b>	<b>100</b>	<b>112</b>	<b>100</b>

\* Only the first method is included in this table. One child had multiple methods of death.

**Table 43: Method of child (under age 18) violent death in North Carolina by race/ethnicity, 2018**

Method of Death	White**		Black**		American Indian**		Asian**		Hispanic	
	Number	%	Number	%	Number	%	Number	%	Number	%
Firearm	28	56.0	24	53.3	2	66.7	1	33.3	5	55.6
Hanging, strangulation, suffocation	15	30.0	10	22.2	1	33.3	1	33.3	3	33.3
Personal Weapons	3	6.0	5	11.1	0	0.0	0	0.0	0	0.0
Poisoning	1	2.0	2	4.4	0	0.0	0	0.0	0	0.0
Sharp instrument	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Blunt Instrument	1	2.0	0	0.0	0	0.0	0	0.0	0	0.0
Intentional Neglect	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Violent Shaking	1	2.0	1	2.2	0	0.0	1	33.3	0	0.0
Other/Unknown	1	2.0	3	6.7	0	0.0	0	0.0	1	11.1
<b>Total Deaths</b>	<b>50</b>	<b>100</b>	<b>45</b>	<b>100</b>	<b>3</b>	<b>100</b>	<b>3</b>	<b>100</b>	<b>9</b>	<b>100</b>

\* Only the first method is included in this table. One child had multiple methods of death.

\*\* Non-Hispanic

**Table 44: Method of child (under age 18) violent death in North Carolina by age group, 2018**

Method of Death	<1		1-4		5-9		10-14		15-17	
	Number	%	Number	%	Number	%	Number	%	Number	%
Firearm	0	0.0	2	22.2	2	66.7	14	53.9	43	69.4
Hanging, strangulation, suffocation	4	33.3	2	22.2	1	33.3	10	38.5	14	22.6
Personal Weapons	4	33.3	4	44.4	0	0.0	0	0.0	0	0.0
Poisoning	1	8.3	0	0.0	0	0.0	0	0.0	2	3.2
Sharp instrument	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Blunt Instrument	1	8.3	0	0.0	0	0.0	0	0.0	0	0.0
Intentional Neglect	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Violent Shaking	2	16.7	0	0.0	0	0.0	1	3.9	0	0.0
Other/Unknown	0	0.0	1	11.1	0	0.0	1	3.8	3	4.8
<b>Total Deaths</b>	<b>12</b>	<b>100</b>	<b>9</b>	<b>100</b>	<b>3</b>	<b>100</b>	<b>26</b>	<b>100</b>	<b>62</b>	<b>100</b>

\* Only the first method is included in this table.

\*\* 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 2018 by sex, race/ethnicity and age.

### Key Findings:

- In 2018, 63 undetermined intent deaths (0.6 per 100,000) were reported in North Carolina.
- Males and females had a similar undetermined death rate of 0.6 per 100,000.
- NH whites accounted for 73.0% of undetermined intent victims.
- The majority (81.0%) of undetermined intent death victims were among those ages 20 to 64, and the highest undetermined intent death rate by age group was among those 45 to 54 years (1.2 per 100,000).

**Table 46** summarizes the method of undetermined intent deaths in North Carolina in 2018. **Table 47** shows the category of the fatal substance that caused the undetermined intent poisoning deaths in North Carolina in 2018.

### Key Findings:

- The leading methods of undetermined intent deaths were poisoning (57.1%) and fall (9.5%).
- Most undetermined intent poisoning deaths involved an opiate (either illicit or prescription) (61.1%), benzodiazepines (61.1%), or antidepressants (27.8%).
- A handgun was involved in all five undetermined intent firearm deaths that occurred in North Carolina in 2018.
- Multiple firearm types were not reported for any undetermined intent fatalities in 2018. Therefore, the total number of firearms equals the number of undetermined intent firearm deaths.

**Table 48** provides the number of undetermined intent deaths in 2018 by North Carolina County of residence.

**Table 45: Demographics of undetermined intent death victims in North Carolina, 2018**

	Number	%	Rate	95% CI
<b>Sex</b>				
Female	31	49.2%	0.6	0.4 - 0.8
Male	32	50.8%	0.6	0.4 - 0.9
<b>Race/Ethnicity</b>				
White**	46	73.0%	0.7	0.5 - 0.9
Black**	14	22.2%	0.6	0.3 - 0.9
Asian**	1	1.6%	0.0	-
American Indian**	1	1.6%	*	*
Hispanic	1	1.6%	*	*
Other/Unknown	0	0.0%	-	-
<b>Age Group (Years)</b>				
< 1	4	6%	*	*
1-4	1	2%	*	*
5-9	0	0%	0.0	-
10-14	0	0%	*	*
15-19	1	2%	*	*
20-24	4	6%	*	*
25-34	8	13%	0.6	0.2 - 1.0
35-44	12	19%	0.9	0.4 - 1.4
45-54	17	27%	1.2	0.6 - 1.8
55-64	10	16%	0.7	0.3 - 1.2
65-74	3	5%	*	*
75-84	2	3%	*	*
≥85	1	2%	0.0	-
<b>Total Deaths</b>	<b>63</b>	<b>100%</b>	<b>0.6</b>	<b>0.5 - 0.8</b>

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, 2018**

	Number	%
<b>Method of Death</b>		
Poisoning	36	57.1
Fall	6	9.5
Firearm	5	7.9
Hanging, strangulation, suffocation	5	7.9
Blunt instrument	3	4.8
Drowning	2	3.2
Motor vehicle including buses, motorcycles	2	3.2
Intentional neglect (e.g., starving a baby)	1	1.6
Other transport vehicle (e.g., trains, planes, boats)	1	1.6
Personal weapons	1	1.6
Other/Unknown	1	1.6
<b>Total Deaths</b>	<b>63</b>	<b>100.0</b>

**Table 47: Fatal substances in undetermined intent poisoning deaths in North Carolina by sex, 2018**

Category of Fatal Substance*	Male		Female		Total	
	Number	%	Number	%	Number	%
Opiate**	11	61.1	11	61.1	22	61.1
Antidepressant	2	11.1	8	44.4	10	27.8
Benzodiazepines	14	77.8	8	44.4	22	61.1
Barbiturates	18	100.0	18	100.0	36	100.0
Carbon Monoxide	1	5.6	0	0.0	1	2.8
Alcohol	3	16.7	1	5.6	4	11.1
Amphetamine	2	11.1	1	5.6	3	8.3
Cocaine	5	27.8	2	11.1	7	19.4
Other Poison***	3	16.7	7	38.9	10	27.8

\* Category of substance that directly caused or was suspected to cause undetermined intent poisoning deaths. There were 23 undetermined intent poisonings (63.9%) where more than one substance caused the death in 2018, 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, 2018**

County	Number	County	Number	County	Number
Alamance	2	Forsyth	4	Rutherford	1
Alexander	1	Guilford	2	Stanly	1
Bladen	1	Haywood	1	Stokes	1
Brunswick	2	Hoke	1	Union	1
Buncombe	2	Iredell	1	Vance	1
Burke	1	Lee	1	Wayne	1
Cabarrus	2	Lenoir	1	Wilson	2
Carteret	3	Macon	2		
Catawba	2	Mecklenburg	2		
Cherokee	2	New Hanover	2		
Columbus	1	Pasquotank	2		
Craven	2	Randolph	3		
Cumberland	2	Robeson	3		
Davidson	2	Rockingham	2		
Durham	1	Rowan	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 2007 to 2018, 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 2018.

#### Key Findings:

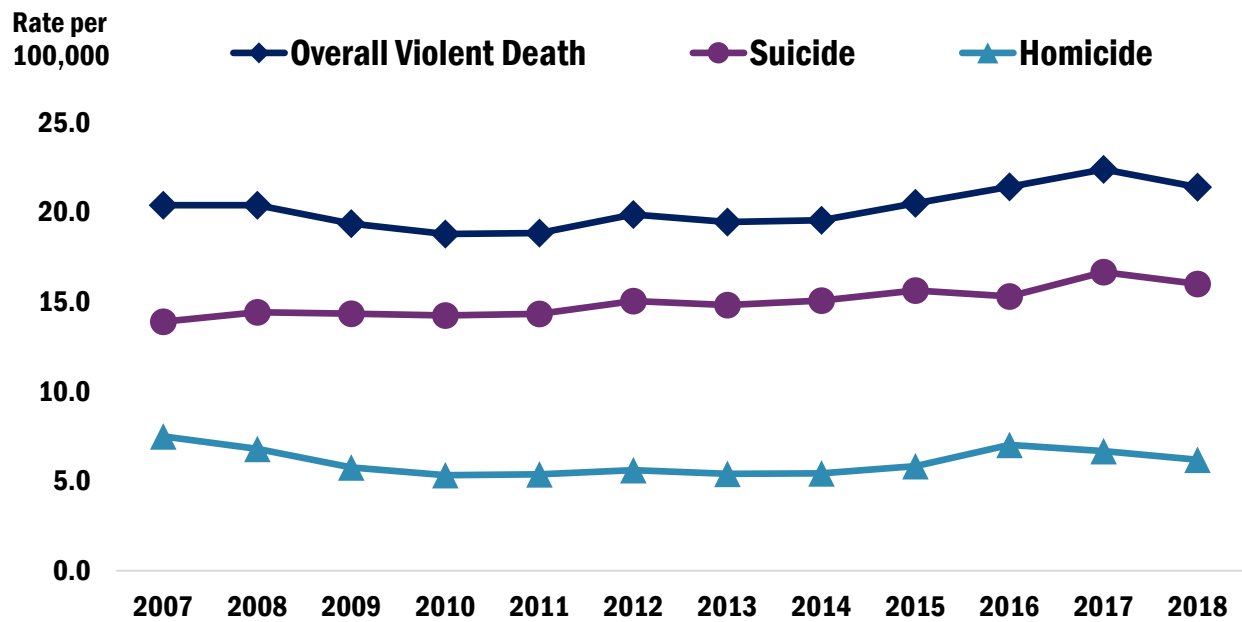
- The overall violent death rate in North Carolina has remained fairly stable from 2007 (20.4 per 100,000) to 2018 (21.4 per 100,000).
- From 2007 to 2018 in North Carolina, the death rates have slightly increased for suicides (range of 13.9 to 16.0 per 100,000 by year) and slightly decreased for homicides (range of 7.5 to 6.2 per 100,000 by year).

**Table 49: Trends of violent deaths over time in North Carolina, 2007-2018**

Year	Overall Violent Deaths		Suicides (Ages ≥10)		Homicides	
	Number	Rate	Number	Rate	Number	Rate
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	1,504	16.7	685	6.7
2018	2,222	21.4	1,463	16.0	643	6.2



**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 2018 population data by sex, race/ethnicity, and age group

	Total Population	Population Ages 10 or Older (for Suicide Rates)	Child Population (<18 Years of Age)
<b>Sex</b>			
Female	5,332,759	4,726,287	1,127,884
Male	5,050,861	4,419,111	1,172,761
<b>Race/Ethnicity</b>			
White**	6,623,807	5,971,378	1,240,316
Black**	2,296,309	1,993,334	561,958
Asian**	342,753	295,029	85,100
American Indian**	123,402	107,410	29,656
Hispanic	997,349	778,247	383,615
<b>Age Group (Years)</b>			
< 1	118,550	-	118,550
1-4	491,578	-	491,578
5-9	628,094	-	628,094
10-14	664,208	664,208	664,208
15-17	-	-	398,215
15-19	684,178	684,178	-
20-24	697,871	697,871	-
25-34	1,393,148	1,393,148	-
35-44	1,295,905	1,295,905	-
45-54	1,377,840	1,377,840	-
55-64	1,342,983	1,342,983	-
65-74	1,010,458	1,010,458	-
75-84	493,058	493,058	-
≥85	185,749	185,749	-
<b>Total Population</b>	<b>10,383,620</b>	<b>9,145,398</b>	<b>2,300,645</b>

\*\* Non-Hispanic

## **Appendix B: Advisory Board**

The list of advisory board members below represents the membership and their positions during the year of this report and during the data collection close-out period (2018).

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

#### **Steering Committee:**

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

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

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

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

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

##### **Matthew Avery**

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

##### **Becky Ceartas**

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

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

Professor, Terry Stanford Public Policy, Duke University

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

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

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

Chief of Police, Durham Police Department

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

Assistant Research Professor, Terry Stanford Public Policy, Duke University

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

Public Health Researcher, RTI International

##### **Gayle Harris**

Director, Durham County Health Department

##### **Kella Hatcher**

Executive Director, NC Child Fatality Task Force

##### **Amy Ising**

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

**Rebecca Macy**

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

**Alison Miller**

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

**Jane Miller**

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

**Zack Moore, MD, MPH**

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

**Beth Moracco, PhD, MPH**

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

**Marcia Owen**

*Community Volunteer*, Religious Coalition for Nonviolent Durham

**Timothy Parker**

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

**Rick Pendergrass**

*Deputy Assistant Chief*, Durham Police Department

**Deborah Radisch, MD**

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

**Joel Rosch, PhD**

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

**Kristen Rosselli**

*Chief Strategy Officer*, TROSA, Durham

**Glorina Stallworth**

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

**Kevin Strom**

*Public Health Researcher*, RTI International

**Kevin Underhill**

*Interim Director*, Durham County Emergency Medical Services

## Appendix C: Glossary

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



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

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

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

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North Carolina Violent Death



Reporting System

**North Carolina Division of Public Health**

**Violent Death Reporting System  
2018 Annual Report**

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