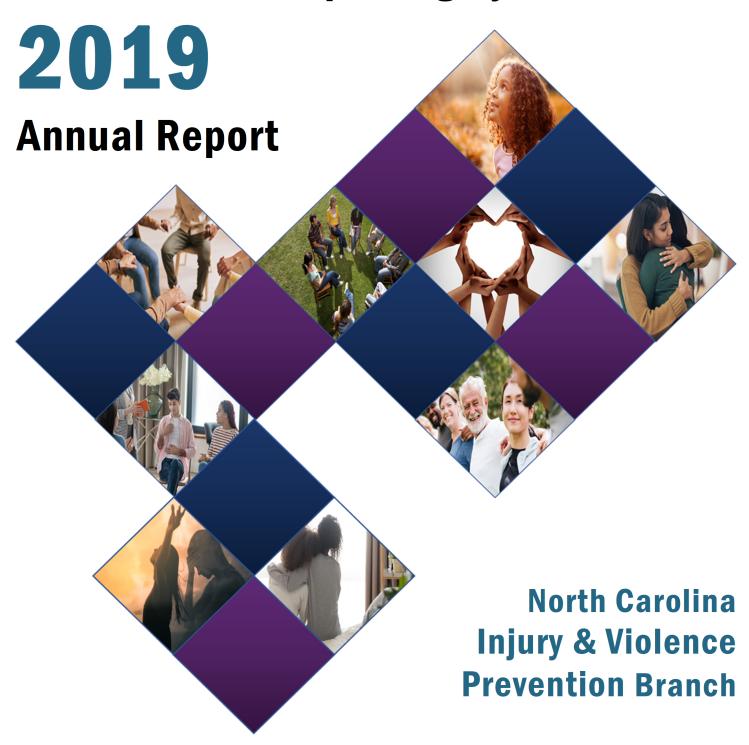
# **North Carolina**

**Violent Death Reporting System** 



North Carolina Department of Health and Human Services April 2022





# **Annual Report** 2019

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

**April 2022** 

This report was supported in part by Cooperative Agreement Number 5NU17/CE924955-02-00 from the Centers for Disease Control and Prevention. Its contents are solely the responsibility of the authors and do not necessarily represent official views of the Centers for Disease Control and Prevention.

# **Table of Contents**

Table of Contents	ii
Executive Summary	iii
Overall Violent Deaths	iii
Suicides	iv
Homicides	v
Legal Intervention	v
Unintentional Firearm Deaths	vi
Child Violent Deaths	vi
Undetermined Intent	vi
Violent Deaths Over Time	vi
NC-VDRS Data Dashboard	vi
Methods	2
Case Identification	
Defining Manner of Death	
Analysis	4
NC-VDRS Data Dashboard	5
Acknowledgements	6
Section I: Overall Violent Deaths	9
Basic Characteristics of Violent Deaths	9
Race/Ethnicity and Sex of Violent Death Victims	
Age and Sex of Violent Death Victims	17
Section II: Suicide	20
Basic Characteristics of Suicides	
Race/Ethnicity and Sex of Suicide Victims	27
Age and Sex of Suicide Victims	28
Circumstances, Toxicology Testing and Injury Location for Suicide Victims	30
Section III: Homicide	37
Basic Characteristics of Homicides	37
Race/Ethnicity and Sex of Homicide Victims	44
Age and Sex of Homicide Victims	
Circumstances and Injury Location for Homicide Victims	47
Section IV: Legal Intervention	51
Section V: Unintentional Firearm Death	53
Section VI: Child Death	57
Section VII: Undetermined Intent	62
Section VIII: Violent Death Trend Over Time	66
Appendix A: Population Data for Rate Calculations	68
Appendix B: Advisory Board	
Appendix C: Glossary	

# **Executive Summary**

# North Carolina Violent Death Reporting System, 2019

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 2019.

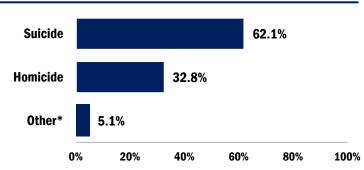
## **Overall Violent Deaths**

In 2019, 2,186 North Carolina residents (20.8 per 100,000) died as a result of violence. The leading causes of violent death were suicide (62.1%) followed by homicide (32.8%) (Figure i). Leading methods of violent death were firearm (63.1%), hanging, strangulation or suffocation (16.0%), and poisoning (9.9%). The most common firearms involved in firearm deaths were handguns (74.4%), shotguns (9.0%), and rifles (7.7%).

Males were 3.8 times as likely to die from violence as women (33.5 vs. 8.9 per 100,000, respectively) (Figure ii). The violent death rates per 100,000 victims from highest to lowest by race/ethnicity were non-Hispanic (NH) Black (27.3), NH American Indian (24.9), NH white (20.6), Hispanic (10.9), and NH Asian (8.0).

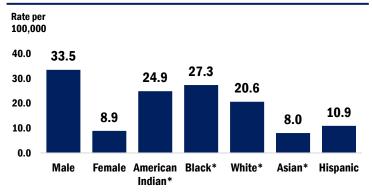
Adults from ages 20 to 64 years had the highest violent death rates by age per 100,000 as follows: 20 to 24 (35.1), 25 to 34 (30.8), 35 to 44 (26.5), 45 to 54 (24.6), and 55 to 64 (22.5). The violent death rate trend by age differed by sex, with male victims showing higher rates than female victims across nearly all age groups (Figure iii).

Figure i: Manner of violent death in North Carolina, 2019



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

Figure ii: Overall violent death rates by sex and race/ethnicity in North Carolina, 2019



\* Non-Hispanic

**Note:** The number of homicide deaths for sex and race/ethnicity was high enough to support a rate calculation.

# **Executive Summary**

# **Suicides**

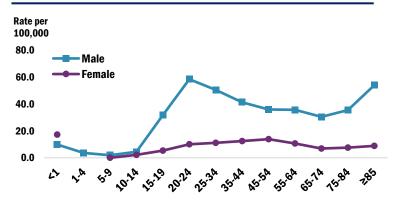
Suicide was the cause of death for 1,358 North Carolinians (14.7 per 100,000) in 2019. The most common method of suicide was firearm (57.3%), followed by hanging, strangulation, or suffocation (24.7%), and poisoning (13.4%). A handgun was the most common firearm, involved in 78.4% of suicide firearm deaths. Opiates were the most common substance category present in suicide poisonings (32.4%), followed by antidepressants (31.3%) and benzodiazepines (23.1%).

Men were 3.5 times more likely to die from suicide than women (23.3 versus 6.7 per 100,000, respectively) (Figure iv). Among suicide victims, 76.5% were male, and 85.1% were NH white. The suicide rate per 100,000 was highest among NH whites (18.8) and NH American Indians (10.2), and lower among NH Blacks (7.3), NH Asians (7.3), and Hispanics (6.0).

The age group with the highest suicide rate was those 20 to 24 (17.6 per 100,000), followed by ages 75 to 84 (17.3 per 100,000) and ages 35 to 44 (17.1 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 32.8 per 100,000 (Figure v).

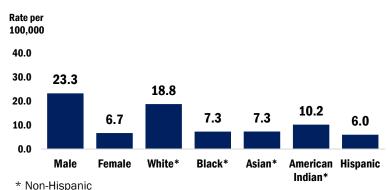
The most common circumstances of suicide were having ever been treated for mental illness (53.5%), current mental health problem (50.8%), current treatment for mental illness (41.7%), a recent crisis (41.4%), and a history of suicidal thoughts (38.1%). Most with a current mental health problem had depression (73.9%). Other common circumstances of suicide were problems with an intimate partner (25.6%), physical health problem (31.6%), an alcohol problem (17.5%), or other substance abuse problem (18.4%).

Figure iii: Overall Violent Death Rates in North Carolina: Age Group by Sex, 2019



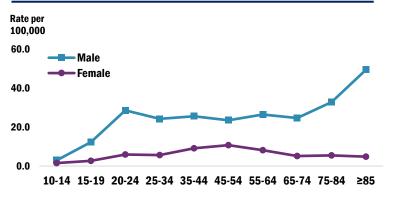
**Note:** The number of deaths was too small to support a rate calculation for female ages 1-4.

Figure iv: Suicide rates by sex and race/ethnicity in North Carolina, 2019



**Note:** The number of suicide deaths for sex and race/ethnicity was high enough to support a rate calculation.

Figure v: Suicide rates in North Carolina: Age group by sex, 2019



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

Of the 88.1% of suicide victims tested, 28.0% had alcohol present at the time of death. Most (76.8%) injuries resulting in suicide occurred in a house or apartment.

#### **Homicides**

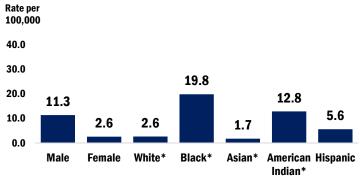
A total of 716 North Carolinians (6.8 per 100,000) were homicide victims in 2019. Firearm (75.8%) and sharp instruments (11.7%) were the most common homicide methods. Handguns accounted for 69.6% of firearms used in homicide firearm deaths.

Men accounted for 80.7% of homicide victims and were 4.4 times more likely to die from homicide than women (11.3 vs. 2.6 per 100,000, respectively) (Figure vi). Unlike suicide rates, homicide rates were higher among NH Blacks (19.8 per 100,000) and NH American Indians (12.8 per 100,000) than in NH whites (2.6 per 100,000), Hispanics (5.6 per 100,000), and NH Asians (1.7 per 100,000) victims.

Homicide rates were highest in the following age groups: 20 to 24 years (16.2 per 100,000), 25 to 34 years (13.8 per 100,000), and infants younger than one (11.8 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 6.6 times greater among males than females.

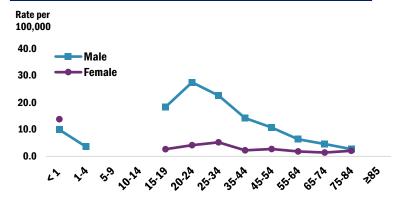
The most common event circumstances surrounding homicides were an argument, abuse or conflict (43.2%), precipitated by another serious crime (32.1%), intimate partner violence-related (15.0%), and drug involvement (17.8%). Homicides occurred most often in a house or apartment (55.5%), a street, road, sidewalk or alley (11.0%), or a motor vehicle (13.3%).

Figure vi: Homicide rates by sex and race/ethnicity in North Carolina, 2019



**Note:** The number of homicide deaths for sex and race/ethnicity were high enough to support a rate calculation.

# Figure vii: Homicide rates in North Carolina: Age group by sex, 2019



**Note:** The number of deaths was too small to support a rate calculation for male ages 5-9 and 10-14, and females ages 1-4, 5-9, and 10-14.

# Legal Intervention

Twenty-nine North Carolina residents died in 2019 from legal intervention. These victims were killed by law enforcement officers acting in the line of duty. Most legal intervention victims were male (97.3%), all victims were from 20 to 44 years of age, and over half were NH white (51.4%). All but four legal intervention deaths occurred by firearm; of the total firearms involved (n=37), handguns were used most frequently (53.7%).

<sup>\*</sup> Non-Hispanio

# **Executive Summary**

# **Unintentional Firearm Deaths**

In 2019, 15 North Carolinians (0.1 per 100,000) died from a firearm injury sustained in a shooting not intentionally directed at the victim. The most common firearm involved in the deaths was a handgun (80.0%) followed by a shotgun (13.3%) and an unknown firearm (6.7%).

#### **Child Violent Deaths**

In North Carolina in 2019, 107 children (4.7 per 100,000) ages 0 to 17 died from violence. Homicide (59.8%) and suicide (32.7%) and were the leading causes of child violent death (Figure viii). Firearm (50.0%), hanging, strangulation, or suffocation (22.6%), and personal weapons (18.9%) were the most common methods of child death.

Male children were 2.8 times as likely to be victims of violent death as female children (6.8 vs. 2.4 per 100,000, respectively). The violent death rate per 100,000 was 4.1 times higher for NH Black children (10.2 per 100,000) than for NH white children (2.5 per 100,000).

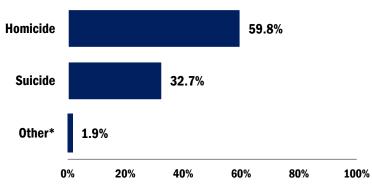
#### **Undetermined Intent**

A total of 60 deaths of undetermined intent (0.6 per 100,000) were reported in North Carolina in 2019. The leading methods of undetermined intent deaths were poisoning (55.0%) and firearm (16.7%).

#### **Violent Deaths Over Time**

The overall annual violent death rate in North Carolina averaged 20.2 per 100,000 residents from 2007 to 2019. The overall violent death rate was 20.4 per 100,000 in 2007, 18.8 per 100,000 in 2010, and 20.8 per 100,000 in 2019.

# Figure viii: Manner of violent death among children in North Carolina, 2019



\* Other includes undetermined intent and unintentional firearm.

# NC-VDRS Data Dashboard

The interactive NC-VDRS Data Dashboard was launched in November of 2021 and provides aggregate information on violent deaths for all 100 counties in North Carolina from 2004 through 2019.

The dashboard can be accessed <u>here</u>, or with the following QR code:



# Introduction

In 2019, there were more than 47,511 suicides and 19,141 homicides nationwide, many of which were preventable. In North Carolina, more than 19,288 residents died from suicide or homicide in the 10-year period from 2010 to 2019. In that same period, suicide and homicide ranked as the state's 12<sup>th</sup> and 16<sup>th</sup> leading causes of death, respectively. Among specific age groups, violent death constitutes an even greater risk. In North Carolina in 2019, suicide was the second leading cause of death for children ages 10 to 14 and for adults ages 25 to 34. Suicide was the third leading cause of death for young adults ages 15 to 24 and the fourth leading cause for adults ages 35 to 54. Homicide was the state's fourth leading cause of death for children ages one to four. Homicide was the second 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 2019, suicide was the ninth leading cause of death, compared to the sixteenth leading cause among females. Homicide was the ninth leading cause of death in NH Blacks, and suicide was the eleventh leading cause of death in NH whites in North Carolina in 2019. Among Hispanics in North Carolina, homicide and suicide were respectively the fifth and ninth leading causes of death in 2019.

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 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, 2019, to December 31, 2019. The 2019 data file used for this report was generated in August 2021. Note that if changes are made to the 2019 data in NC-VDRS after this date, the 2019 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 among residents of North Carolina during 2019. 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 NC 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

# **Methods**

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

# **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 2019) 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.

# NC-VDRS Data Dashboard

The NC-VDRS Data Dashboard was launched in November of 2021 and provides aggregate information on violent deaths for all 100 counties in North Carolina from 2004 through 2019. The interactive dashboard was created to make data more accessible to public health partners to inform the development, implementation and evaluation of prevention efforts around violence and safety. Data are broken out by demographic group, including sex, race/ethnicity, and age group, and provide information by manner, mechanism, geographic area, and circumstances surrounding these deaths. Additionally, data from the figures and tables can be downloaded from the dashboard to support additional analysis and use for informing violence prevention efforts.

The dashboard can be accessed <u>here</u>, or with the following QR code:



For more information on how to use the NC-VDRS Data Dashboard, please see the NC-VDRS Dashboard User Guide which includes frequently asked questions about the data dashboard, or the How-to video which provides detailed information on how to navigate between the pages of the dashboard and filter the data.

# **Acknowledgements**

The NC-VDRS is funded by the National Center for Injury Prevention and Control at the CDC and is operated by the Injury and Violence Prevention Branch, Division of Public Health, NC 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, Mecklenburg 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

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 Fuguay-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

Concord 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 Perguimans 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
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 2019 and the period of the data close-out (2019-2021), the NC-VDRS Advisory Board provided input and assistance. A full listing of the advisory board is found in Appendix B. Special thanks to the steering committee consisting of Stephen Marshall and Anna Waller. Special acknowledgement to Alan Dellapenna and to 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 2019 by demographic characteristics of sex, race/ethnicity and age. The 2019 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.

#### **Kev Findings:**

- A total of 2,186 North Carolinians (21.4 per 100,000) died as a result of violence in 2019.
- Males were 3.8 times as likely to die from violence as females (33.5 versus 8.9 per 100,000, respectively).
- Non-Hispanic (NH) Blacks had the highest violent death rate per 100.000 (27.3) followed by NH American Indians (24.9), NH whites (20.6), Hispanics (10.9), and NH Asians (8.0).
- Adults ages 20 to 24 years had the highest violent death rate per 100,000 (35.1), followed by adults ages: 25 to 34 (30.8), 35 to 44 (26.5), 45 to 54 (24.6), and 85 and older (24.3).
- Among children under the age of 15, children less than one year old had the highest violent death rate (13.5 per 100,000).

Table 2 lists the manner and method of violent deaths in North Carolina in 2019. NC violent deaths in 2019 are presented in Figure 3 by manner of death and in Figure 4 by method of death. The type of firearm used in firearm violent deaths is shown in Table 3.

#### **Key Findings:**

- The leading causes of violent death were suicide (62.1%) followed by homicide (32.8%).
- The leading methods of violent death were firearm (63.1%), hanging, strangulation or suffocation (16.0%), and poisoning (9.9%).
- The most common firearm involved in violent firearm deaths was a handgun (74.4%).

Table 4 characterizes adult violent death victims (18 years or older) in North Carolina in 2019 by the number of years of completed education, marital status and veteran status.

#### **Kev Findings:**

- Most adult victims at least completed high school (79.3%) while 36.6% completed at least some college.
- Over one-fourth of adult violent death victims were married, in a civil union, or a domestic partnership (27.0%). About three-sevenths of adult violent victims were never married (43.0%). Fewer victims were divorced (18.0%) or widowed (5.7%).
- Military veterans accounted for 13.3% of North Carolina adult violent death victims in 2019.

Table 5 and Figure 5 show the overall violent death rates in 2019 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).

# **Key Findings:**

• For the 79 counties where the number of resident deaths was sufficient to support a rate calculation, the average rate of violent deaths by North Carolina county of residence was 23.2 deaths per 100,000 with a range from 0.0 to 44.9 deaths per 100,000.

Table 1: Demographics of violent death victims in North Carolina, 2019

	Number	%	Rate	95% CI
Sex				
Female	479	21.9	8.9	8.1 - 9.7
Male	1,707	78.1	33.5	31.9 - 35.1
Race/Ethnicity				
White*	1,375	62.9	20.6	19.5 - 21.7
Black*	634	29.0	27.3	25.2 - 29.5
Asian*	31	1.4	24.9	16.1 - 33.6
American Indian*	28	1.3	8.0	5.1 - 11.0
Hispanic	112	5.1	10.9	8.9 - 12.9
Other/Unknown	6	0.3		
Age Group (Years)				
< 1	16	0.6	13.5	6.9 - 20.1
1-4	12	0.3	2.4	1.1 - 3.8
5-9	6	1.0	1.0	0.2 - 1.7
10-14	22	5.9	3.3	1.9 - 4.7
15 - 19	129	11.2	18.7	15.5 - 22.0
20 - 24	245	20.0	35.1	30.7 - 39.4
25 - 34	436	15.8	30.8	27.9 - 33.7
35 - 44	345	15.4	26.5	23.7 - 29.3
45 - 54	336	14.0	24.6	22.0 - 27.3
55 - 64	307	8.5	22.5	20.0 - 25.1
65 - 74	185	4.6	17.7	15.1 - 20.2
75 - 84	101	2.1	19.6	15.8 - 23.4
85 +	46	100.0	24.3	17.3 - 31.3
Total Deaths	2,186	100	20.8	20.0 - 21.7

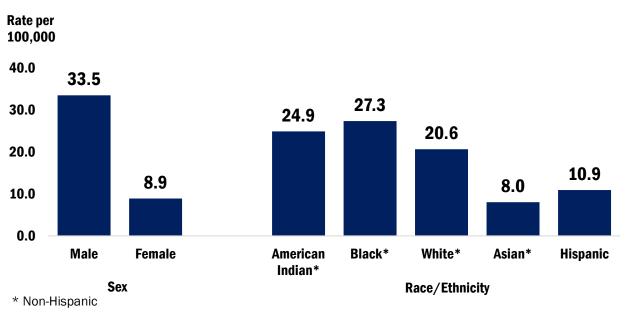
Sex, race/ethnicity and age-specific crude rates per 100,000 NC population 95% CI = 95% Confidence Interval for the Rate

**Note:** The number of violent deaths for sex, race/ethnicity, and age was high enough to support a rate calculation

<sup>\*</sup> Non-Hispanic

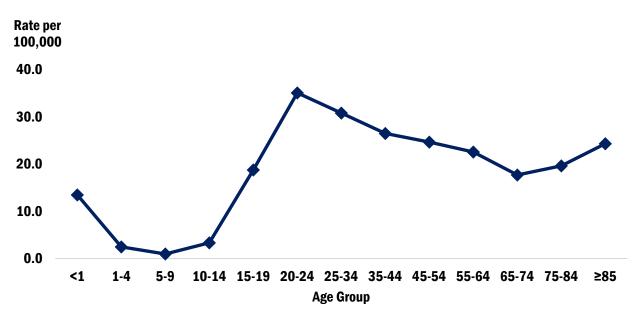
# **Section I**

Figure 1: Crude overall violent death rates by sex and race/ethnicity in North Carolina, 2019



**Note:** The number of violent deaths for sex and race/ethnicity was high enough to support a rate calculation.

Figure 2: Age-specific crude overall violent death rates by age group in North Carolina, 2019



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

Table 2: Manner and method of violent death in North Carolina, 2019

	Number	%
Manner of Death		
Suicide	1,358	62.1
Homicide	716	32.8
Undetermined Intent	60	2.7
Legal Intervention	37	1.7
Unintentional Firearm	15	0.7
Method of Death		
Firearm	1,379	63.1
Hanging, Strangulation, Suffocation	350	16.0
Poisoning	216	9.9
Sharp Instrument	105	4.8
Blunt Instrument	21	1.0
Personal Weapons	45	2.1
Fall	17	0.8
Motor Vehicle	12	0.6
Fire or Burns	11	0.5
Other Transport Vehicle	8	0.4
Drowning	15	0.7
Intentional Neglect	4	0.2
Violent Shaking	1	0.1
Other/Unknown	2	0.1
Total Deaths	2,186	100

Figure 3: Manner of violent death in North Carolina, 2019

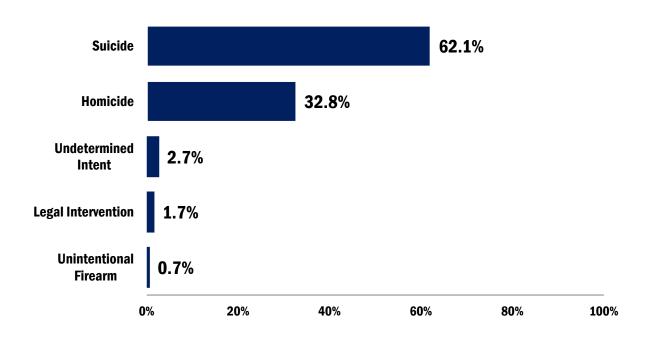
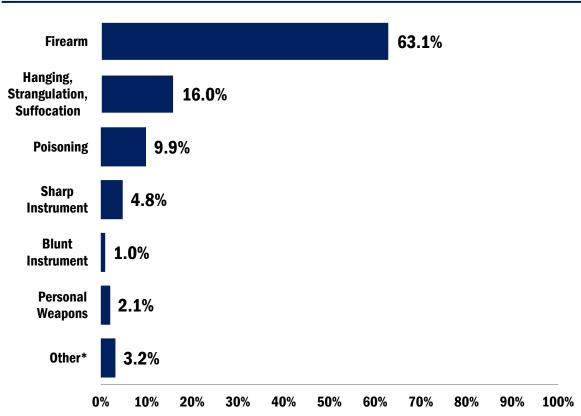


Figure 4: Method of violent death in North Carolina, 2019



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

Table 3: Type of firearm involved in violent firearm deaths in North Carolina, 2019

	Number	%
Firearm Type		
Handgun	1,039	74.4
Shotgun	126	9.0
Rifle	107	7.7
Other/Unknown Type	125	8.9
Total Firearms Involved, All Violent Deaths	1,397	100

Table 4: Completed education, marital status and veteran status of adult violent death victims (ages 18 or older) in North Carolina, 2019

	Number	%
Education Level		
8th Grade or Less	58	2.8
9th – 12th Grade	354	17.0
High school or GED graduate	889	42.8
Some college credit	311	15.0
Associate degree	176	8.5
Bachelor degree	181	8.7
Master degree	63	3.0
Doctorate degree	29	1.4
Unknown	18	0.9
Marital Status		
Never Married	893	43.0
Married*	561	27.0
Divorced	375	18.0
Widowed	119	5.7
Married, but separated	107	5.2
Unknown	24	1.2
Veteran Status		
Non-Veteran	1,790	86.1
Veteran	276	13.3
Unknown	13	0.6
Total Adult Deaths (ages 18 or older)	2,079	100

<sup>\*</sup>Married includes: married, in a civil union or a domestic partnership

# **Section I**

Table 5: Overall violent deaths by county of residence in North Carolina, 2019

County	Number	Rate	County	Number	Rate	County	Number	Rate
Alamance	40	23.6	Franklin	17	24.4	Pamlico	3	*
Alexander	10	26.7	Gaston	42	18.7	Pasquotank	6	15.1
Alleghany	5	44.9	Gates	3	*	Pender	19	30.1
Anson	9	36.8	Graham	3	*	Perquimans	3	*
Ashe	8	29.4	Granville	13	21.5	Person	7	17.7
Avery	3	*	Greene	3	*	Pitt	36	19.9
Beaufort	12	25.5	Guilford	123	22.9	Polk	4	*
Bertie	3	*	Halifax	13	26.0	Randolph	28	19.5
Bladen	9	27.5	Harnett	29	21.3	Richmond	15	33.5
Brunswick	35	24.5	Haywood	19	30.5	Robeson	48	36.7
Buncombe	66	25.3	Henderson	27	23.0	Rockingham	20	22.0
Burke	20	22.1	Hertford	7	29.6	Rowan	29	20.4
Cabarrus	32	14.8	Hoke	13	23.5	Rutherford	13	19.4
Caldwell	15	18.3	Hyde	0	0.0	Sampson	11	17.3
Camden	1	*	Iredell	32	17.6	Scotland	7	20.1
Carteret	19	27.3	Jackson	8	18.2	Stanly	13	20.7
Caswell	5	22.1	Johnston	35	16.7	Stokes	7	15.4
Catawba	36	22.6	Jones	1	*	Surry	13	18.1
Chatham	16	21.5	Lee	14	22.7	Swain	4	*
Cherokee	4	*	Lenoir	17	30.4	Transylvania	8	23.3
Chowan	4	*	Lincoln	20	23.2	Tyrrell	2	*
Clay	3	*	McDowell	10	21.9	Union	36	15.0
Cleveland	23	23.5	Macon	10	27.9	Vance	19	42.7
Columbus	21	37.8	Madison	3	*	Wake	157	14.1
Craven	20	19.6	Martin	4	*	Warren	5	25.3
Cumberland	78	23.2	Mecklenburg	197	17.7	Washington	2	*
Currituck	6	21.6	Mitchell	1	*	Watauga	17	30.3
Dare	7	18.9	Montgomery	7	25.8	Wayne	24	19.5
Davidson	31	18.5	Moore	19	18.8	Wilkes	18	26.3
Davie	11	25.7	Nash	35	37.1	Wilson	12	14.7
Duplin	6	10.2	New Hanover	63	26.9	Yadkin	9	23.9
Durham	70	21.8	Northampton	4	*	Yancey	4	*
Edgecombe	15	29.1	Onslow	42	21.2			
Forsyth	84	22.0	Orange	24	16.2			

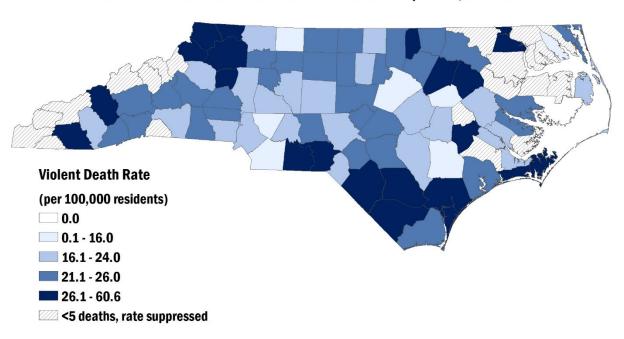
Crude rate per 100,000 population in NC county

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

<sup>\*</sup> The number of deaths was too small to support a rate calculation.

Figure 5: Map of overall violent death rates in North Carolina by county of residence, 2019

# North Carolina 2019 violent death rate: 20.8 deaths per 100,000 residents



# **Section I**

# Race/Ethnicity and Sex of Violent Death Victims

**Table 6** and **Figure 6** summarize the characteristics of violent death victims in North Carolina in 2019 stratified by race/ethnicity and sex.

#### **Key Findings:**

- NH whites (62.9%) and males (78.1%) represented the majority of violent death victims, as shown in Table 1.
- NH whites accounted for 60.1% of male violent death victims and 72.9% of female victims, while NH Blacks comprised 31.5% of male victims and 20.0% of female victims.
- Among males, NH Black males had the highest violent death rate per 100,000 (49.6) followed by NH American Indian males (43.5), NH white males (31.5), Hispanic males (17.8), and NH Asian males (10.6).
- Among females, NH white females had the highest violent death rate per 100,000 (10.2) followed by NH Black females (7.8), NH American Indian females (7.7), NH Asian females (5.6), and Hispanic females (3.6).
- The violent death rate was higher for males than for females of the same race/ethnicity by 6.4 for NH Blacks, 5.6 times for NH American Indians, 4.9 times for Hispanics, 3.1 times for NH whites, and 1.9 times for NH Asians.

# Age and Sex of Violent Death Victims

**Table 7** stratifies the North Carolina violent death victims in 2019 by age group and sex. **Figure 7** illustrates the 2019 rate of violent deaths per 100,000 in North Carolina by age group and sex.

# **Key Findings:**

- Most male violent death victims were ages 25 to 34 (20.9%) and 35 to 44 (15.3%) years old followed by males ages 45 to 54 (14.0%), 55 to 64 (13.5%), 20 to 24 (12.4%), and 65 to 74 (8.6%).
- Among females, most violent death victims were ages 45 to 54 (20.3%) years old followed by females ages 35 to 44 (17.3%), 25 to 34 (16.5%), 55 to 64 (15.9%), 65 to 74 (8.1%), and 20 to 24 (7.1%).
- Among males, the violent death rate per 100,000 by age group was highest for ages 20 to 24 (58.5) followed by ages 85 and older (54.0) and 25 to 64 (50.6).
- For females, the violent death rate trend by age reached a peak of 17.2 per 100,000 for ages less than one year followed by ages 45 to 54 years (13.9) and 35 to 44 (12.4).
- Males were more likely to experience violent death than females by 6.0 times for ages 15 to 19, 5.8 times for ages 20 to 24, 4.7 times for ages 75 to 84, 4.5 times for ages 25 to 34, and 4.4 times for ages 65 to 74.

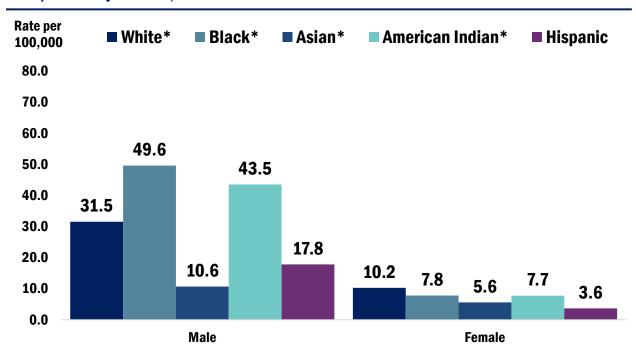
Table 6: Race/ethnicity of violent death victims in North Carolina by sex, 2019

		Male			Female	
	Number	%	Rate	Number	%	Rate
Race/Ethnicity						
White	1,026	60.1	31.5	349	72.9	10.2
Black*	538	31.5	49.6	96	20.0	7.8
Asian*	18	1.1	10.6	10	2.1	5.6
American Indian*	26	1.5	43.5	5	1.0	7.7
Hispanic	94	5.5	17.8	18	3.8	3.6
Other/Unknown	5	0.3	-	1	0.2	-
Total Deaths	1,707	100	33.5	479	100	8.9

Sex and race/ethnicity-specific crude rate per 100,000 NC population

Note: The number of violent deaths for sex and race/ethnicity was high enough to support a rate calculation.

Figure 6: Crude overall violent death rates in North Carolina, stratified by race/ethnicity and sex, 2019



<sup>\*</sup> Non-Hispanic (NH)

Note: The number of violent deaths for sex and race/ethnicity was high enough to support a rate calculation.

<sup>\*</sup> Non-Hispanic

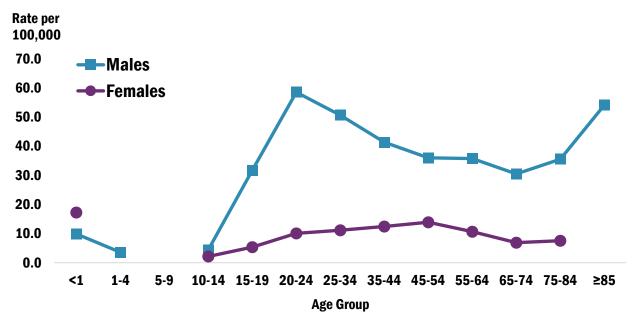
# **Section I**

Table 7: Age group of violent death victims in North Carolina by sex, 2019

		Male			Female	
	Number	%	Rate	Number	%	Rate
Age Group (years)						
<1	6	0.4	9.9	10	2.1	17.2
1-4	9	0.5	3.6	3	0.6	*
5-9	6	0.4	*	0	0.0	*
10-14	15	0.9	4.4	7	1.5	2.1
15-19	111	6.5	31.7	18	3.8	5.3
20-24	211	12.4	58.5	34	7.1	10.1
25-34	357	20.9	50.6	79	16.5	11.1
35-44	262	15.3	41.3	83	17.3	12.4
45-54	239	14.0	36.0	97	20.3	13.9
55-64	231	13.5	35.7	76	15.9	10.6
65-74	146	8.6	30.5	39	8.1	6.9
75-84	79	4.6	35.5	22	4.6	7.5
≥85	35	2.1	54.0	11	2.3	*
Total Deaths	1,707	100	33.5	479	100	8.9

Sex and age-specific crude rate per 100,000 NC population

Figure 7: Age-specific crude overall violent death rates in North Carolina, stratified by age group and sex, 2019



**Note:** The number of violent deaths was too small to support a rate calculation for males ages 5-9, and for females ages 14, 5-9 and 85 and older.

<sup>\*</sup> The number of violent deaths was too small to support a rate calculation for males ages 5-9, and for females ages 14, 5-9 and 85 and older.

# **Section II: Suicide**

# **Basic Characteristics of Suicides**

**Table 8** describes suicides in 2019 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 2019 is illustrated by race/ethnicity and sex in **Figure 8** and by age group in **Figure 9**.

#### **Key Findings:**

- In 2019, a total of 1,358 North Carolinians (14.7 per 100,000) died from suicide.
- Males were 3.5 times as likely to die from suicide as females (23.3 vs. 6.7 per 100,000).
- NH whites had the highest suicide rate (18.8 per 100,000) followed NH American Indians (10.2 per 100,000), NH Asians (7.3 per 100,000), NH Blacks (7.3 per 100,000), and Hispanic (6.0 per 100,00) victims.
- Adults ages 85 and older had the highest rate of suicide (20.1 per 100,00) followed by those ages 20 to 24 (17.6 per 100,000), 75 to 84 (17.3 per 100,000), and 35 to 44 (17.1 per 100,000).

**Table 9** and **Figure 10** summarize the method of death for suicide victims in North Carolina in 2019. **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 (57.3%), hanging, strangulation or suffocation (24.7%), and poisoning (13.4%).
- Men more often died from suicide by a firearm (63.6%) or hanging, strangulation or suffocation (25.6%) and less frequently died from suicide by poisoning (6.4%).
- Women more commonly died from suicide by firearm (36.7%) or poisoning (36.4%), compared to hanging, strangulation or suffocation (21.6%).
- Considering only suicide firearm deaths, a handgun was the most common firearm used in 78.4% of all deaths; handguns accounted for 76.1% of male deaths and 91.5% of female deaths.
- Most suicide poisoning deaths (32.4%) involved opiates (either illicit or prescription). The second most common substance was antidepressants (31.3%), followed by benzodiazepines (23.1%), and alcohol (11.0%).

**Table 12** characterizes the 1,323 adult suicide victims (age 18 or older) in North Carolina in 2019 by education level, marital status and veteran status.

#### **Key Findings:**

- The majority (86.5%) of adult suicide victims at least graduated high school or received their GED.
- Suicide victims were most often married, in a civil union or domestic partnership (33.5%) and less frequently never married (31.4%), divorced (21.3%), or widowed (6.2%).
- Military veterans accounted for 17.4% of adult suicide victims.

# **Section II**

**Table 13** and **Figure 11** show the suicide rates in 2019 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 30 counties was too small to support a rate calculation. Furthermore, county suicide rates are influenced by small populations with 9 of the 20 counties with the highest suicide rates having less than 50,000 residents in 2019.

# **Key Findings:**

• For the 67 counties where the number of suicides was sufficient to support a rate calculation, the average suicide rate by North Carolina county of residence was 16.4 deaths per 100,000 with a range from 0.0 to 30.6 deaths per 100,000.

Table 8: Demographics of suicide victims (ages 10 or older) in North Carolina, 2019

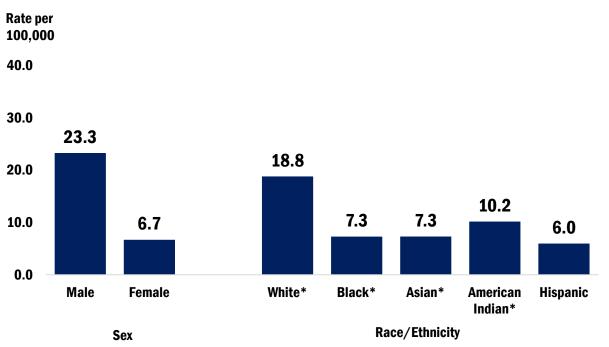
	Number	%	Rate	95% CI
Sex				
Female	319	23.5	6.7	5.9 - 7.4
Male	1,039	76.5	23.3	21.8 - 24.7
Race/Ethnicity				
White*	1,129	83.1	18.8	17.7 - 19.9
Black*	147	10.8	7.3	6.1 - 8.5
Asian*	22	1.6	7.3	4.2 - 10.3
American Indian*	11	0.8	10.2	4.2 - 16.2
Hispanic	48	3.5	6.0	4.3 - 7.6
Other/Unknown	1	0.1	-	-
Age Group (Years)				
10-14	15	1.10	2.3	1.1 - 3.4
15 - 19	52	3.83	7.6	5.5 - 9.6
20 - 24	123	9.06	17.6	14.5 - 20.7
25 - 34	211	15.54	14.9	12.9 - 16.9
35 - 44	223	16.42	17.1	14.9 - 19.4
45 - 54	231	17.01	16.9	14.8 - 19.1
55 - 64	229	16.86	16.8	14.6 - 19.0
65 - 74	147	10.82	14.0	11.8 - 16.3
75 - 84	89	6.55	17.3	13.7 - 20.9
≥85	38	2.80	20.1	13.7 - 26.4
Total Deaths	1,358	100	14.7	13.9 - 15.5

Sex, race/ethnicity and age-specific crude rates per 100,000 NC population 95% CI = 95 % confidence interval for the rate.

**Note:** The number of suicide deaths for sex, race/ethnicity, and age was high enough to support a rate calculation.

<sup>\*</sup> Non-Hispanic

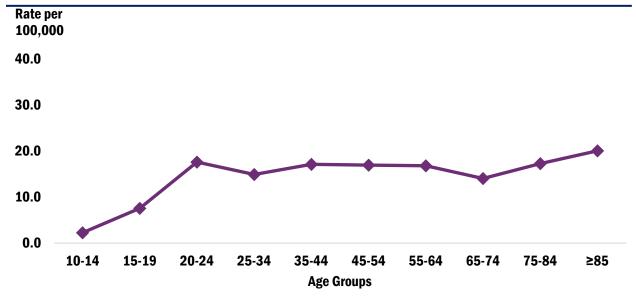
Figure 8: Crude suicide rates (ages 10 or older) in North Carolina by sex and race/ethnicity, 2019



\* Non-Hispanic

**Note:** The number of suicide deaths for sex and race/ethnicity was high enough to support a rate calculation.

Figure 9: Age-specific crude suicide rate (ages 10 or older) in North Carolina by age group, 2019



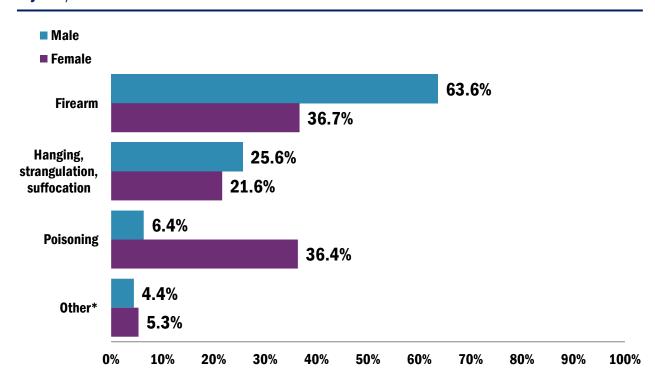
Note: The number of suicide deaths for all ages was high enough to support a rate calculation.

# **Section II**

Table 9: Method of death for suicide victims (ages 10 or older) in North Carolina by sex, 2019

	Mal	е	Fema	ale	Tota	al
	Number	%	Number	%	Number	%
Method of Death						
Firearm	661	63.6	117	36.7	778	57.3
Hanging, strangulation, suffocation	266	25.6	69	21.6	335	24.7
Poisoning	66	6.4	116	36.4	182	13.4
Sharp instrument	15	1.4	4	1.3	19	1.4
Fall	11	1.1	5	1.6	16	1.2
Drowning	7	0.7	4	1.3	11	0.8
Motor vehicle including buses, motorcycles	1	0.1	2	0.6	3	0.2
Fire or burns	5	0.5	1	0.3	6	0.4
Other	7	0.7	1	0.3	8	0.6
Total Deaths	1,039	100	319	100	1,358	100

Figure 10: Method of death for suicide victims (ages 10 or older) in North Carolina by sex, 2019



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

Table 10: Type of firearm involved in suicide firearm deaths (ages 10 or older) in North Carolina by sex, 2019

	Male		Female		Total	
	Number	%	Number	%	Number	%
Firearm Type*						
Handgun	503	76.1	107	91.5	610	78.4
Shotgun	89	13.5	9	7.69	98	12.6
Rifle	60	9.1	0	0	60	7.7
Other/Unknown	9	1.4	1	0.86	10	1.3
Total Firearms Involved in Suicides	661	100.0	117	100	778	100.0

Table 11: Fatal substances in suicide poisoning deaths (ages 10 or older) in North Carolina by sex, 2019

	Male		Female		Total	
	Number	%	Number	%	Number	%
Category of Fatal Substance*						
Opiate**	17	25.8	42	36.2	59	32.4
Antidepressant	14	21.2	41	35.3	55	30.2
Benzodiazepines	10	15.2	31	26.7	41	22.5
Barbiturates	2	3.0	3	2.6	5	2.8
Carbon Monoxide	16	24.2	3	2.6	19	10.4
Alcohol	7	10.6	12	10.3	19	10.4
Amphetamine	1	1.5	6	5.2	7	3.9
Cocaine	2	3.0	3	2.6	5	2.8
Other Poison***	3	4.6	4	3.5	7	3.9

<sup>\*</sup> Category of substance that directly caused or was suspected to cause suicide poisoning. There were 56 suicide poisonings (30.8%) where more than one substance caused the death in 2019, with as many as four fatal substances present in a given case (2.2%).

<sup>\*\*</sup> Opiate includes both prescription opioids and illicit substances such as heroin

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

# **Section II**

Table 12: Completed education, marital status and veteran status of adult suicide victims (ages 18 or older) in North Carolina, 2019

	Number	%	
Education Level			
8th Grade or Less	152	11.5	
9th - 12th Grade	539	40.7 16.5	
High school or GED graduate	218		
Some college credit	145	11.0	
Associates degree	159	12.0	
Bachelor degree	50	3.8	
Master degree	28	2.1	
Doctorate degree	6	0.5	
Unknown	6	0.5	
Marital Status			
Never Married	415	31.4	
Married*	443	33.5	
Divorced	282	21.3	
Married, but Separated	90	6.8	
Widowed	82	6.2	
Unknown	11	0.8	
Veteran Status			
Non-Veteran	1,086	82.1	
Veteran	230	17.4	
Unknown	7	0.5	
Total Adult Deaths (ages 18 or older)	1,323	100	

<sup>\*</sup> Married includes: married, civil union, or domestic partnership.

Table 13: Suicides (ages 10 or older) in North Carolina by county of residence, 2019

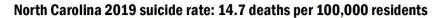
County	Number	Rate	County	Number	Rate	County	Number	Rate
Alamance	22	14.7	Franklin	12	19.4	Pamlico	3	*
Alexander	3	*	Gaston	33	16.7	Pasquotank	4	*
Alleghany	3	*	Gates	2	*	Pender	17	30.6
Anson	3	*	Graham	1	*	Perquimans	2	*
Ashe	7	28.2	Granville	9	16.6	Person	4	*
Avery	2	*	Greene	1	*	Pitt	20	12.5
Beaufort	8	19.0	Guilford	57	12.0	Polk	4	*
Bertie	2	*	Halifax	6	13.5	Randolph	17	13.4
Bladen	4	*	Harnett	21	18.1	Richmond	7	17.8
Brunswick	23	17.5	Haywood	16	28.5	Robeson	13	11.5
Buncombe	56	23.8	Henderson	22	20.8	Rockingham	14	17.2
Burke	14	17.1	Hertford	3	*	Rowan	17	13.5
Cabarrus	20	10.7	Hoke	5	10.8	Rutherford	11	18.3
Caldwell	10	13.6	Hyde	0	0.0	Sampson	5	9.1
Camden	1	*	Iredell	27	16.8	Scotland	1	*
Carteret	15	23.7	Jackson	6	15.0	Stanly	8	14.4
Caswell	4	*	Johnston	23	12.7	Stokes	6	14.5
Catawba	26	18.4	Jones	0	0.0	Surry	10	15.6
Chatham	12	17.9	Lee	7	13.0	Swain	4	*
Cherokee	3	*	Lenoir	10	20.3	Transylvania	7	22.2
Chowan	1	*	Lincoln	17	22.2	Tyrrell	1	*
Clay	2	*	McDowell	9	21.9	Union	24	11.4
Cleveland	14	16.2	Macon	9	27.8	Vance	6	15.4
Columbus	9	18.2	Madison	2	*	Wake	113	11.6
Craven	12	13.4	Martin	1	*	Warren	4	*
Cumberland	48	16.7	Mecklenburg	86	8.9	Washington	0	0.0
Currituck	6	24.5	Mitchell	1	*	Watauga	14	26.7
Dare	6	17.9	Montgomery	3	*	Wayne	18	16.8
Davidson	25	16.8	Moore	15	16.9	Wilkes	16	26.0
Davie	9	23.5	Nash	15	18.0	Wilson	7	9.7
Duplin	5	9.8	New Hanover	48	22.7	Yadkin	7	20.9
Durham	26	9.2	Northampton	4	*	Yancey	3	*
Edgecombe	5	11.0	Onslow	34	20.4			
Forsyth	41	12.2	Orange	17	12.7			

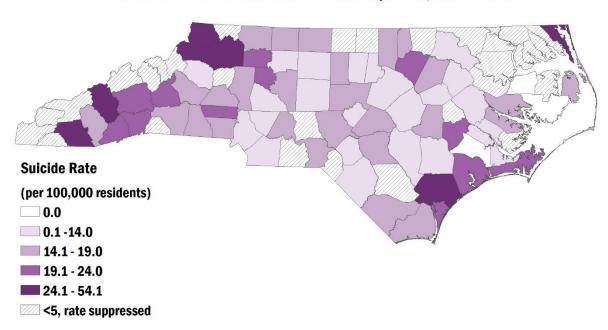
Crude rate per 100,000 population in NC county

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

<sup>\*</sup> The number of deaths was too small to support a rate calculation.

Figure 11: Map of suicide rates (ages 10 or older) in North Carolina by county of residence, 2019





# Race/Ethnicity and Sex of Suicide Victims

Table 14 and Figure 12 describe suicide victims in North Carolina in 2019 by race and sex.

#### **Key Findings:**

- Of all suicide victims, 83.1% were NH white and 76.5% were male, as shown in Table 8.
- Most male suicide victims were NH white (81.9%) as compared to NH Black (11.7%). Similarly, most female suicide victims were NH white (87.1%) as compared to NH Black (7.8%).
- For males, the suicide rate per 100,000 from highest to lowest by race/ethnicity was NH white males (29.1), NH American Indian males (19.4), NH Black males (13.1), Hispanic males (10.0), and NH Asian males (9.7).
- For females, the suicide rate per 100,000 from highest to lowest by race/ethnicity was NH white females (9.0), NH Asian females (5.1), NH Black females (2.3), and Hispanic females (1.5). There was one suicide among NH American Indian females in 2019, which was too small to compute a rate.
- The suicide rate was higher for males than for females of the same race by 6.5 times for Hispanics, 5.7 times for NH Blacks, 3.2 for NH whites, and 1.9 times for NH Asians. The rate ratio could not be calculated for NH American Indians due to NH American Indian females having an unstable rate.

# Age and Sex of Suicide Victims

**Table 15** portrays the suicide victims in North Carolina in 2019 by age group and sex. **Figure 13** plots the 2019 suicide rates per 100,000 in North Carolina by age group and sex.

#### **Key Findings:**

- Among males, most suicide victims were ages 25 to 64 with a rank order by age group of: 25 to 34 (16.5%), 55 to 64 (16.5%), 35 to 44 (15.6%), and 45 to 54 (15.0%).
- Similarly, among females most suicide victims were ages 25 to 64 with a rank order by age group of: 45 to 54 (23.5%), 35 to 44 (19.1%), 55 to 64 (18.2%), and 25 to 34 (12.5%).
- For males, the suicide rate increased by age group and peaked among those ages 85 and older (49.4 per 100,000).
- The suicide rate by age group for females peaked at 45 to 54 (10.7 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 85 years and older with the rate being 10.3 times higher among males than females (49.4 versus 4.8 per 100,000, respectively).

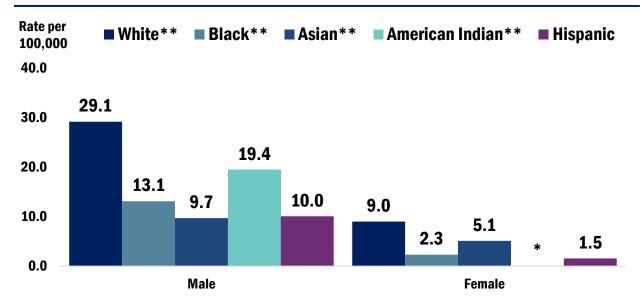
### **Section II**

Table 14: Race of suicide victims (ages 10 or older) in North Carolina by sex, 2019

	Male				Female	
	Number	%	Rate	Number	%	Rate
Race/Ethnicity						
White**	851	81.9	29.1	278	87.1	9.0
Black**	122	11.7	13.1	25	7.8	2.3
Asian**	14	1.3	9.7	8	2.5	5.1
American Indian**	10	1.0	19.4	1	0.3	*
Hispanic	42	4.0	10.0	6	1.9	1.5
Other/Unknown	0	0.0	-	1	0.3	-
Total Deaths	1,039	100	23.3	319	100	7.3

Sex and race-specific crude rate per 100,000 NC population

Figure 12: Crude suicide rates (ages 10 or older) in North Carolina stratified by race/ethnicity and sex, 2019



<sup>\*</sup> The number of deaths was too small to support a rate calculation for Non-Hispanic American Indian females.

<sup>\*</sup> The number of deaths was too small to support a rate calculation for Non-Hispanic American Indian females.

<sup>\*\*</sup> Non-Hispanic

<sup>\*\*</sup> Non-Hispanic

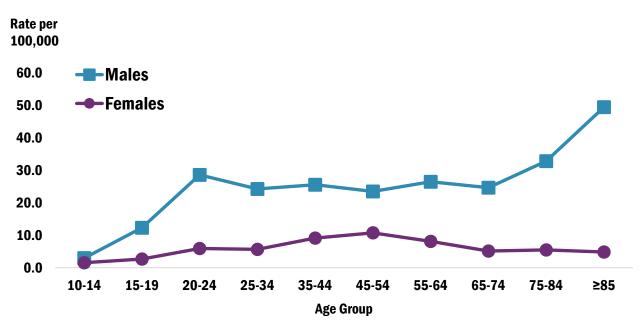
Table 15: Age group of suicide victims (ages 10 or older) in North Carolina by sex, 2019

		Male			Female	
	Number	%	Rate	Number	%	Rate
Age Group (Years)						
10-14	10	1.0	2.9	5	1.6	1.5
15-19	43	4.1	12.3	9	2.8	2.7
20-24	103	9.9	28.6	20	6.3	5.9
25-34	171	16.5	24.2	40	12.5	5.6
35-44	162	15.6	25.5	61	19.1	9.1
45-54	156	15.0	23.5	75	23.5	10.7
55-64	171	16.5	26.4	58	18.2	8.1
65-74	118	11.4	24.6	29	9.1	5.1
75-84	73	7.0	32.8	16	5.0	5.5
≥85	32	3.1	49.4	6	1.9	4.8
Total Deaths	1,039	100	23.3	319	100	6.7

Sex and age-specific crude rates per 100,000 NC population

**Note:** The number of suicide deaths for each age by sex was high enough to support a rate calculation.

Figure 13: Age-specific suicide rates (ages 10 or older) in North Carolina stratified by age group and sex, 2019



**Note:** The number of suicide deaths for each age by sex was high enough to support a rate calculation.

#### **Section II**

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

NC-VDRS collects data on the circumstances surrounding suicides. In 2019, 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 ages 10 or older stratified by sex and based on the number of cases reporting circumstances in North Carolina in 2019. **Table 17** lists the mental health problem at the time of the suicide for both males and females in 2019.

#### **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 2019 is shown by sex in **Table 18** and by age and race/ethnicity in **Table 19**.

#### **Key Findings:**

- Alcohol was tested in 88.1% of all suicides. Testing was relatively infrequent for other substances. Of those victims tested, alcohol was present in 28.0% of all suicide victims, 29.4% of male victims and 23.5% of female victims.
- Ages 20 to 54 had the highest percentage of suicide victims with alcohol present, with a range from 38.5% to 41.3% of those age groups testing positive for alcohol. Alcohol was present in those victims tested by race as follows: NH whites (32.2%), NH Blacks (30.0%), NH Asians (15.8.4%), NH American Indians (44.4%), and Hispanics (32.6%).

Table 20 lists the location of the injury resulting in death for suicide victims in North Carolina in 2019.

## **Key Findings:**

• The majority (76.8%) 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, 2019

	Ma	le	Fema	ale	Tot	Total	
Circumstance*	Number	%	Number	%	Number	%	
Mental Health							
Ever treated-Mental health	473	46.9	232	75.1	705	53.5	
Current Mental health problem	448	44.4	222	71.8	670	50.8	
Current depressed mood	369	36.6	111	35.9	480	36.4	
Current treatment MH	360	35.7	189	61.2	549	41.7	
Substance Abuse/Addiction							
Alcohol problem	184	18.2	46	14.9	230	17.5	
Other substance problem	176	17.4	66	21.4	242	18.4	
Other addiction problem	3	0.3	0	0.0	3	0.2	
Interpersonal							
Intimate partner problem	272	27.0	65	21.0	337	25.6	
Other relationship problem	15	1.5	3	1.0	18	1.4	
Perpetrator of intimate partner violence	38	3.8	0	0.0	38	2.9	
Death of family/friend	61	6.1	33	10.7	94	7.1	
Suicide death of family/friend in past 5 years	12	1.2	9	2.9	21	1.6	
Life Stressor							
Physical Health problem	313	31.0	103	33.3	416	31.6	
Job problem	94	9.3	14	4.5	108	8.2	
Criminal/Legal Problem	100	9.9	11	3.6	111	8.4	
Financial Problem	64	6.3	11	3.6	75	5.7	
Legal Problem, Other	48	4.8	12	3.9	60	4.6	
School Problem	17	1.7	3	1.0	20	1.5	
Recent Crisis	436	43.21	109	35.28	545	41.35	
Suicide Event							
Left a Suicide Note	294	29.1	109	35.3	403	30.6	
Suicide Disclosed	290	28.7	96	31.1	386	29.3	
History of Suicide Attempt	147	14.6	88	28.5	235	17.8	
History of Suicidal Thoughts	375	37.2	127	41.1	502	38.1	

<sup>\*</sup> Circumstances were available for 97.1% (1,009/1,039) of male victims, 96.9% (309/319) of female victims, and 97.1% (1,318/1,358) of all suicide victims. The percentage of circumstances for suicide victims is based on the number of cases reporting circumstances in North Carolina in 2019.

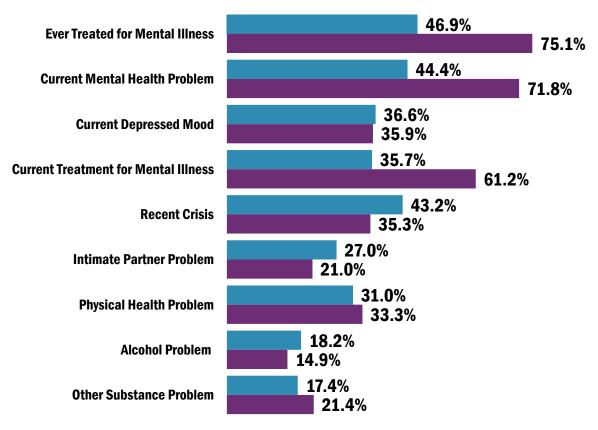
#### **Section II**

Figure 14: Circumstances of suicide victims (ages 10 or older) in North Carolina by Sex, 2019

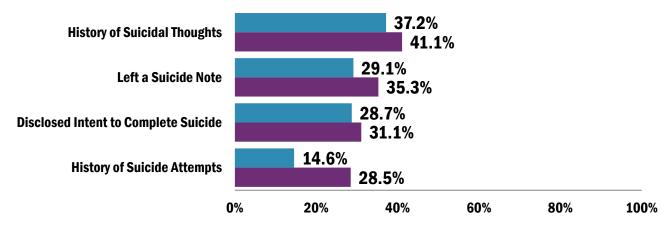
Male

**■** Female

#### SUICIDE CIRCUMSTANCE



#### **SUICIDE EVENT**



**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.

Table 17: Current mental health problems at the time of suicide (ages 10 or older) in North Carolina by sex, 2019

	Male		Fema	ale	Tota	al
	Number	%	Number	%	Number	%
Current Mental Health Problem *						
Depression / Dysthymia	327	73.0	168	75.7	495	73.9
Bipolar Disorder	54	12.1	43	19.4	97	14.5
Schizophrenia	30	6.7	5	2.3	35	5.2
Anxiety Disorder	67	15.0	47	21.2	114	17.0
Post-Traumatic Stress Disorder	19	4.2	6	2.7	25	3.7
Attention Deficit Disorder (ADD) or Hyper-Reactivity Disorder	10	2.2	4	1.8	14	2.1
Eating Disorder	0	0.0	1	0.5	1	0.1
Other/Unknown	42	9.4	17	7.7	59	8.8

<sup>\*</sup> For 549 males, 291 females, and 840 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, 2019

	Male		Female		Total	
	Number	%	Number	%	Number	%
Alcohol						
Tested with results	924	88.9	272	85.3	1,196	88.1
Alcohol present in those tested	305	29.4	75	23.5	380	28.0
Amphetamines						
Tested with results	7	0.7	11	3.5	18	1.3
Amphetamines present in those tested	7	0.7	11	3.5	18	1.3
Antidepressant						
Tested with results	24	2.3	63	19.8	87	6.4
Antidepressant present in those tested	24	2.3	63	19.8	87	6.4
Cocaine						
Tested with results	49	4.7	88	27.6	137	10.1
Cocaine present in those tested	6	0.6	4	1.3	10	0.7
Opiates						
Tested with results	50	4.8	94	29.5	144	10.6
Opiates present in those tested	22	2.1	43	13.5	65	4.8
Other substances*						
Tested with results	71	6.8	100	31.3	171	12.6
Other drugs present in those tested	36	50.7	49	49.0	85	49.7

<sup>\*</sup>Other substances include carbon monoxide, barbiturates, benzodiazepines, and marijuana.

## **Section II**

Table 19: Alcohol toxicology testing and results for suicide victims (ages 10 or older) in North Carolina by age group and race, 2019

	Alcohol tested	d with results	Alcohol present	in those tested
	Number	%	Number	%
Age Group (Years)				
10-14	13	86.7	0	0.0
15 - 19	45	86.5	7	15.6
20 - 24	109	88.6	45	41.3
25 - 34	187	88.6	72	38.5
35 - 44	189	84.8	74	39.2
45 - 54	202	87.4	78	38.6
55 - 64	207	90.4	72	34.8
65 - 74	126	85.7	25	19.8
75 - 84	83	93.3	6	7.2
≥85	35	92.1	1	2.9
Race/Ethnicity				
White*	1,004	88.9	323	32.2
Black*	120	81.6	36	30.0
Asian*	19	172.7	3	15.8
American Indian*	9	40.9	4	44.4
Hispanic	43	89.6	14	32.6
Other/Unknown	1	100.0	0	0.0

<sup>\*</sup>Non-Hispanic

Table 20: Injury location for suicide victims (ages 10 or older) in North Carolina, 2019

	Number	%
njury Location		
House, apartment	1,043	76.8
Motor Vehicle (Excluding School Bus and Public Transportation)	104	7.7
Natural Area (e.g., Field, River, Beach, Woods)	57	4.2
Hotel/Motel	20	1.5
Jail, Prison, Detention Facility	21	1.6
Park, Playground, Public Use Area	17	1.3
Other Commercial Establishment (e.g., grocery store, retail outlet, laundromat)	16	1.2
Street/Road, Sidewalk, Alley	19	1.4
Parking Lot/Public Parking Garage	1	0.1
Highway/Freeway	6	0.4
Hospital or Medical Facility	6	0.4
Synagogue, Church, Temple	1	0.1
Other Specified*	37	2.7
Other/Unknown	10	0.7
otal Deaths	1,358	100

<sup>\*</sup>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 2019 for North Carolina residents by demographics of sex, race/ethnicity, and age. The homicide rate in 2019 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 2019, 716 North Carolinians (6.2 per 100,000) were victims of homicide.
- Males were 4.4 times as likely to be victims of a homicide as females (11.3 versus 2.6 per 100,000, respectively).
- NH Blacks (19.8 per 100,000) had higher homicide rates than NH American Indians (12.8 per 100,000), Hispanics (5.6 per 100,000), NH Whites (2.6 per 100,000), and NH Asians (1.7 per 100,000).
- Homicide rates per 100,000 were highest for adults ages 20 to 24 years (16.2 per 100,000) and 25 to 34 years (13.8 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 (11.8 per 100,000).

The method of death for homicide victims in North Carolina in 2019 is shown in **Table 22** and **Figure 17**. The type of firearm involved in homicide firearm deaths in North Carolina in 2019 is listed in **Table 23**.

#### **Key Findings:**

- The leading methods of homicide were firearm (75.8%), sharp instrument (11.7%), personal weapons (5.7%), blunt instrument (2.8%), and hanging, strangulation, and suffocation (1.7%).
- Most male and female homicide victims died by firearm (80.1% and 58.0% respectively), or sharp instrument (9.2% and 22.5% respectively).
- Considering only homicide firearm deaths, a handgun was the most common firearm used (69.6%).

**Table 24** describes adult homicide victims (18 years or older) in North Carolina in 2019 by education level, marital status and veteran status.

#### **Key Findings:**

- Among adult homicide victims, 47.1% graduated high school or received their GED, 19.8% completed at least some college credit, and 31.9% completed up to 12<sup>th</sup> grade but did not graduate.
- About two thirds of homicide victims were never married (66.0%) as compared to married, civil union, or domestic partnership (14.9%), divorced (10.3%), married but separated (2.3%), or widowed (5.2%).
- Military veterans accounted for 6.0% of adult homicide victims.

**Table 25** and **Figure 18** display the homicide rates in 2019 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 45 counties was too small to support a rate calculation. Five of the 20 counties with the highest rates had less than 50,000 residents in 2019.

## **Key Findings:**

• For the 55 counties where the number of homicides was sufficient to support a rate calculation, the average homicide rate by North Carolina county of residence was 7.6 deaths per 100,000 with a range from 0.0 to 26.9 deaths per 100,000.

Table 21: Demographics of homicide victims in North Carolina, 2019

	Number	%	Rate	95% CI
Sex				
Female	138	19.27	2.6	2.1 - 3.0
Male	578	80.73	11.3	10.4 - 12.3
Race/Ethnicity				
White*	174	24.3%	2.6	2.2 - 3.0
Black*	459	64.1%	19.8	18.0 - 21.6
Asian*	6	0.8%	1.7	0.3 - 3.1
American Indian*	16	2.2%	12.8	6.5 - 19.1
Hispanic	57	8.0%	5.6	4.1 - 7.0
Other/Unknown	4	0.6%	-	-
Age Group (Years)				
< 1	14	2.0	11.8	5.6 - 17.9
1-4	11	1.5	2.2	0.9 - 3.6
5-9	6	0.8	1.0	0.2 - 1.7
10-14	5	0.7	0.8	0.1 - 1.4
15-19	73	10.2	10.6	8.2 - 13.0
20-24	113	15.8	16.2	13.2 - 19.2
25-34	196	27.4	13.8	11.9 - 15.8
35-44	105	14.7	8.1	6.5 - 9.6
45-54	90	12.6	6.6	5.2 - 8.0
55-64	54	7.5	4.0	2.9 - 5.0
65-74	30	4.2	2.9	1.8 - 3.9
75-84	12	1.7	2.3	1.0 - 3.6
≥85	7	1.0	3.7	1.0 - 6.4
Total Deaths	716	100.0	6.8	6.3 - 7.3

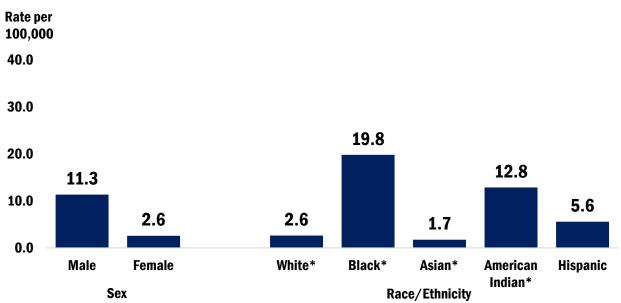
Sex, race/ethnicity and age-specific crude rates per 100,000 NC population 95% CI = 95 % confidence interval for the rate

**Note:** The number of homicide deaths for each sex, race/ethnicity, and age was high enough to support a rate calculation.

<sup>\*</sup> Non-Hispanic

## **Section III**

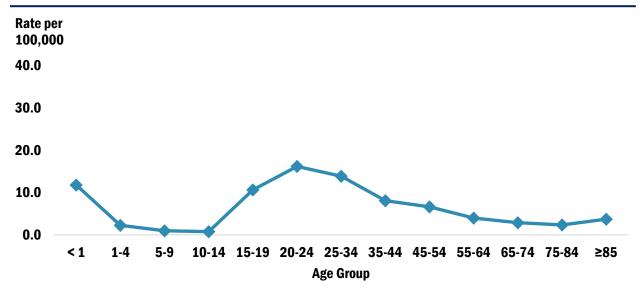
Figure 15: Crude homicide rates in North Carolina by sex and race/ethnicity, 2019



\* Non-Hispanic

**Note:** The number of homicide deaths for sex and race/ethnicity was high enough to support a rate calculation.

Figure 16: Age-specific crude homicide rates in North Carolina by age group, 2019



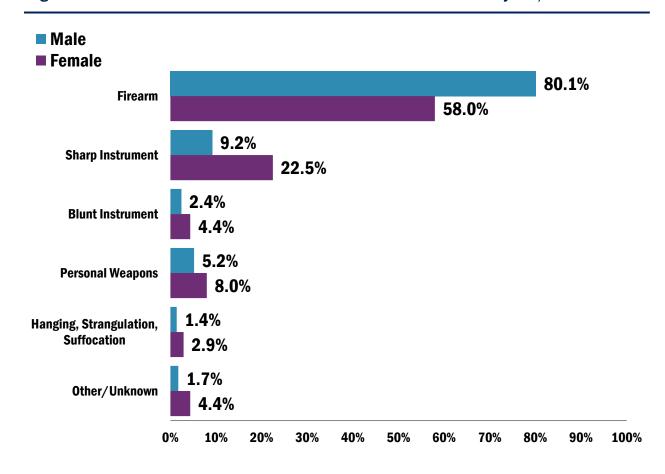
Note: The number of homicide deaths for all ages was high enough to support a rate calculation.

Table 22: Method of death for homicide victims in North Carolina by sex, 2019

	Male		Fem	Female		al
	Number	%	Number	%	Number	%
Method of Death						
Firearm	463	80.1	80	58.0	543	75.8
Sharp instrument	53	9.2	31	22.5	84	11.7
Blunt instrument	14	2.4	6	4.4	20	2.8
Personal weapons	30	5.2	11	8.0	41	5.7
Hanging, strangulation, suffocation	8	1.4	4	2.9	12	1.7
Fire or burns	2	0.4	0	0.0	2	0.3
Intentional Neglect	2	0.35	2	1.45	4	0.6
Other*/ Unknown	6	1.0	4	2.9	10	1.4
Total Deaths	578	100	138	100	716	100

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

Figure 17: Method of death for homicide victims in North Carolina by sex, 2019



## **Section III**

Table 23: Type of firearm involved in homicide firearm deaths in North Carolina by Sex, 2019

	Male		Fem	ale	Total		
	Number	%	Number	%	Number	%	
Firearm Type*							
Handgun	335	69.2	62	72.1	397	69.6	
Shotgun	19	3.9	4	4.7	23	4.0	
Rifle	34	7.0	6	7.0	40	7.0	
Other/Unknown	96	19.8	14	16.3	110	19.3	
Total Firearms Involved in Homicides	484	100	86	100	570	100	

<sup>\*</sup> Multiple firearm types were reported for twenty-one male homicide deaths and six female homicide deaths; therefore, the total number of firearms exceeds the number of homicide firearm deaths (n=543).

Table 24: Completed education, marital status and veteran status of adult homicide victims (age 18 or older) in North Carolina, 2019

	Number	%
Education Level		
8th Grade or Less	27	4.1
9th - 12th Grade	181	27.8
High school or GED graduate	307	47.1
Some college credit	79	12.1
Associates degree	26	4.0
Bachelor degree	14	2.2
Master degree	9	1.4
Doctorate degree	1	0.2
Unknown	8	1.23
Marital Status		
Never Married	430	66.0
Married*	97	14.9
Divorced	67	10.3
Married, but Separated	15	2.3
Widowed	34	5.2
Single, not otherwise specified	0	0.0
Unknown	9	1.4
Veteran Status		
Non-Vet	609	93.4
Vet	39	6.0
Unknown	4	0.6

<sup>\*</sup> Married includes married, civil union or domestic partnership.

Table 25: Homicides in North Carolina by county of residence, 2019

County	Number	Rate	County	Number	Rate	County	Number	Rate
Alamance	15	8.8	Franklin	4	*	Pamlico	0	0.0
Alexander	7	18.7	Gaston	7	3.1	Pasquotank	2	*
Alleghany	1	*	Gates	0	0.0	Pender	2	*
Anson	6	24.5	Graham	2	*	Perquimans	0	0.0
Ashe	0	0.0	Granville	4	*	Person	2	*
Avery	1	*	Greene	2	*	Pitt	12	6.6
Beaufort	4	*	Guilford	62	11.5	Polk	0	0.0
Bertie	1	*	Halifax	7	14.0	Randolph	8	5.6
Bladen	3	*	Harnett	8	5.9	Richmond	7	15.6
Brunswick	10	7.0	Haywood	2	*	Robeson	31	23.7
Buncombe	9	3.4	Henderson	3	*	Rockingham	5	5.5
Burke	6	6.6	Hertford	4	*	Rowan	9	6.3
Cabarrus	10	4.6	Hoke	8	14.5	Rutherford	2	*
Caldwell	2	*	Hyde	0	0.0	Sampson	6	9.4
Camden	0	0.0	Iredell	5	2.8	Scotland	6	17.2
Carteret	3	*	Jackson	2	*	Stanly	5	8.0
Caswell	1	*	Johnston	10	4.8	Stokes	1	*
Catawba	10	6.3	Jones	1	*	Surry	3	*
Chatham	3	*	Lee	5	8.1	Swain	0	0.0
Cherokee	1	*	Lenoir	7	12.5	Transylvania	0	0.0
Chowan	3	*	Lincoln	1	*	Tyrrell	1	*
Clay	1	*	McDowell	1	*	Union	12	5.0
Cleveland	8	8.2	Macon	1	*	Vance	12	26.9
Columbus	12	21.6	Madison	0	0.0	Wake	36	3.2
Craven	7	6.9	Martin	2	*	Warren	1	*
Cumberland	25	7.5	Mecklenburg	100	9.0	Washington	2	*
Currituck	0	0.0	Mitchell	0	0.0	Watauga	2	*
Dare	1	*	Montgomery	2	*	Wayne	6	4.9
Davidson	5	3.0	Moore	4	*	Wilkes	2	*
Davie	1	*	Nash	17	18.0	Wilson	4	*
Duplin	1	*	New Hanover	12	5.1	Yadkin	1	*
Durham	41	12.8	Northampton	0	0.0	Yancey	1	*
Edgecombe	9	17.5	Onslow	7	3.5			
Forsyth	35	9.2	Orange	3	*			

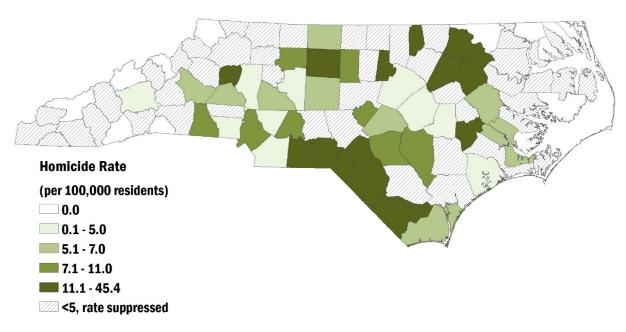
Crude rate per 100,000 population in NC county

<sup>\*</sup> 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, 2019

## North Carolina 2019 homicide rate: 6.8 deaths per 100,000 residents



## Race/Ethnicity and Sex of Homicide Victims

**Table 26** and **Figure 19** describe the 2019 North Carolina homicide victims by sex and race/ethnicity.

#### **Key Findings:**

- Of all homicide victims 80.7% were male, 64.1% were NH Black, and 24.3% were NH white as shown in **Table 19**.
- Most male homicide victims were NH Black (68.2%) as compared to NH white (20.4%),
  Hispanic (8.0%), NH American Indian (2.1%), and NH Asian (0.7%). Almost half of female
  homicide victims were NH Black (47.1%) followed by NH white (40.6%), Hispanic (8.0%), NH
  American Indian (2.9%), and NH Asians (1.4%).
- The homicide rates per 100,000 were 10.0 times higher for NH Black males (36.3 per 100,000) and 5.5 times higher for NH American Indian males (20.1 per 100,000), than NH white males (3.6 per 100,000).
- NH Black females were 3.2 times as likely to be homicide victims compared to NH white females (5.3 versus 1.6 per 100,000, respectively).
- The homicide rate was 6.9 times higher for NH Black males than for NH Black females. The homicide rate was 2.2 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 2019 are categorized in **Table 27**. The 2019 homicide rates per 100,000 in North Carolina are stratified by age group and sex in **Figure 20**.

#### **Key Findings:**

- Most male homicide victims were ages 20 to 54 years, with a rank order by age group of: 25 to 34 (27.5%), 20 to 24 (17.1%), 35 to 44 (15.6%), 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 (26.8%), 45 to 54 (13.8%), 35 to 44 (10.9%), 20 to 24 (10.1%), and 55 to 64 (9.4%).
- Males had higher homicide rates than females across all age groups besides <1 year (9.9 and 13.8 per 100,000 respectively).
- The homicide rate by age for males peaked among ages 20 to 24 years (27.4 per 100,000) and then declined to 2.7 per 100,000 for ages 75 to 84.

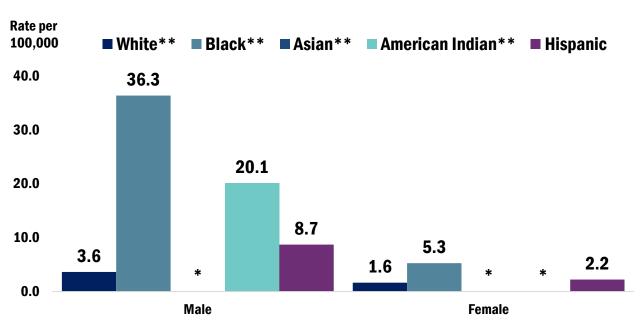
#### **Section III**

Table 26: Race/ethnicity of homicide victims in North Carolina by sex, 2019

	Male			Female		
	Number	%	Rate	Number	%	Rate
Race/Ethnicity						
White**	118	20.4	3.6	56	40.6	1.6
Black**	394	68.2	36.3	65	47.1	5.3
Asian**	4	0.7	*	2	1.4	*
American Indian**	12	2.1	20.1	4	2.9	*
Hispanic	46	8	8.7	11	8	2.2
Other/Unknown	4	0.7	-	0	0	-
Total Deaths	578	100	11.3	138	100	2.6

Sex and race-specific crude rate per 100,000 NC population

Figure 19: Crude homicide rates in North Carolina stratified by race/ethnicity and sex, 2019



<sup>\*</sup> The number of deaths was too small to support a rate calculation for Non-Hispanic Asian males and females, as well as Non-Hispanic American Indian females.

<sup>\*</sup> The number of deaths was too small to support a rate calculation for Non-Hispanic Asian males and females, as well as Non-Hispanic American Indian females.

<sup>\*\*</sup> Non-Hispanic

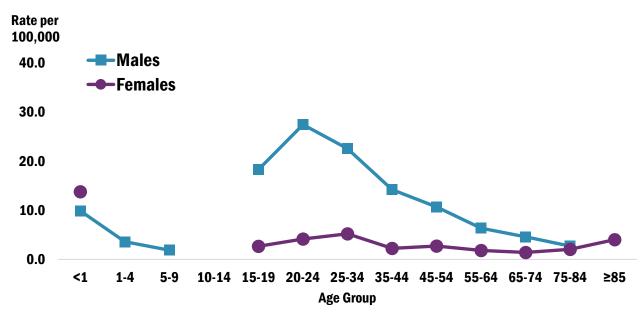
<sup>\*\*</sup> Non-Hispanic

Table 27: Age group of homicide victims in North Carolina by sex, 2019

		Male		Female		
	Number	%	Rate	Number	%	Rate
Age Group (Years)						
<1	6	1	9.9	8	5.8	13.8
1-4	9	1.6	3.6	2	1.4	*
5-9	6	1	1.9	0	0	*
10-14	3	0.5	*	2	1.4	*
15-19	64	11.1	18.3	9	6.5	2.7
20-24	99	17.1	27.4	14	10.1	4.1
25-34	159	27.5	22.5	37	26.8	5.2
35-44	90	15.6	14.2	15	10.9	2.2
45-54	71	12.3	10.7	19	13.8	2.7
55-64	41	7.1	6.3	13	9.4	1.8
65-74	22	3.8	4.6	8	5.8	1.4
75-84	6	1	2.7	6	4.3	2.1
≥85	2	0.3	*	5	3.6	4.0
Total Deaths	578	100	11.3	138	100	2.6

Sex and age-specific crude rates per 100,000 NC population

Figure 20: Age-specific crude homicide rates in North Carolina stratified by age group and sex, 2019



**Note:** The number of deaths was too small to support a rate calculation for males ages 10-14 and 85 and older, and for females ages 1-4, 5-9, and 10-14.

<sup>\*</sup> The number of deaths was too small to support a rate calculation for males ages 10-14 and 85 and older, and for females ages 1-4, 5-9, and 10-14.

#### **Section III**

## **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 2019, 94.0% 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 2019. 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 2019.

#### **Key Findings:**

- The most common event circumstances surrounding homicides for males were an argument, abuse, or conflict (44.1%), precipitated by another serious crime (33.3%), drug involvement (19.9%), gang related (10.0%), and intimate partner violence-related (8.7%).
- For females, the most common event circumstances surrounding homicides were intimate partner violence-related (40.0%), an argument, abuse or conflict (40.0%), precipitated by another serious crime (27.4%), drug involvement (9.6%), and jealousy (lovers triangle) (4.4%).
- The most common crimes that precipitated homicide for male victims were robbery (40.5%), burglary (18.0%), drug trade (15.8%), and motor vehicle theft (9.5%),
- The most common crimes that precipitated homicide for female victims included robbery (22.2%), burglary (22.2%), motor vehicle theft (20.0%), rape or sexual assault (8.9%), and drug trade (8.9%),
- Common victim circumstances surrounding homicides were: the victim used a weapon (12.2%), justifiable self-defense (4.0%), and the victim was a bystander (0.7%).

Table 30 summarizes the location of the injury resulting in death for homicide victims in North Carolina in 2019.

#### **Key Findings:**

- Most injuries resulting in death occurred in a house or apartment (55.5%).
- Other common locations where injuries resulting in death occurred were: a motor vehicle (13.3%), a street, road, sidewalk or alley (11.1%), other commercial establishments such as a grocery store or laundromat (6.0%), bars/nightclubs (2.4%), a parking lot or public parking garage (2.4%), a hotel/motel (2.2%), and natural areas such as a field or woods (2.0%).

Table 28: Circumstances of homicides victims in North Carolina by sex, 2019

		Mal	е	Fema	ale	Tota	al
Circums	tance*	Number	%	Number	%	Number	%
Event							
O	Other Argument, Abuse, Conflict	237	44.1	54	40.0	291	43.2
Р	Precipitated by Another Serious Crime	179	33.3	37	27.4	216	32.1
D	Orug Involvement	107	19.9	13	9.6	120	17.8
Ir	ntimate Partner Violence-Related	47	8.7	54	40.0	101	15.0
Je	ealousy (Lovers Triangle)	13	2.4	6	4.4	19	2.8
G	ang Related	54	10.0	3	2.2	57	8.5
В	Brawl (Mutual Physical Fight)	15	2.8	0	0.0	15	2.2
N	Nercy Killing	0	0.0	0	0.0	0	0.0
Victim							
V	ictim Used a Weapon	74	13.8	8	5.9	82	12.2
V	ictim was a Bystander	4	0.7	1	0.7	5	0.7
Jı	ustifiable Self-Defense	27	5.0	0	0.0	27	4.0
Ir	ntervener Assisting Crime Victim	0	0.0	0	0.0	0	0.0

<sup>\*</sup> Circumstances were available for 93.1% (538/578) of male victims, 97.8% (135/138) of female victims and 94.0% (673/716) of all homicide victims. The percentage of circumstances for homicide victims is based on the number of cases reporting circumstances in North Carolina in 2019.

**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, 2019

	Male		Fema	ale	Tota	al
	Number	%	Number	%	Number	%
Crime*						
Robbery	90	40.5	10	22.2	100	37.5
Burglary	40	18.0	10	22.2	50	18.7
Drug trade	35	15.8	4	8.9	39	14.6
Motor vehicle theft	21	9.5	9	20.0	30	11.2
Assault, homicide	13	5.9	3	6.7	16	6.0
Rape, sexual assault	8	3.6	4	8.9	12	4.5
Arson	8	3.6	3	6.7	11	4.1
Gambling	1	0.5	0	0.0	1	0.4
Other	6	2.7	2	4.4	8	3.0

<sup>\*</sup> For 179 males, 37 females and 216 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%.

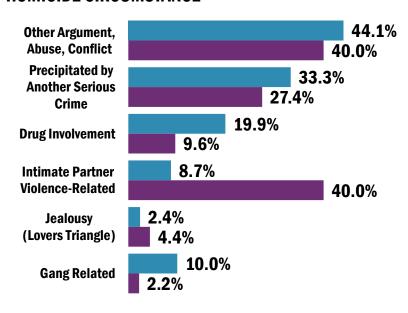
#### **Section III**

Figure 21: Circumstances of homicide victims and crimes precipitating homicides in North Carolina by sex, 2019

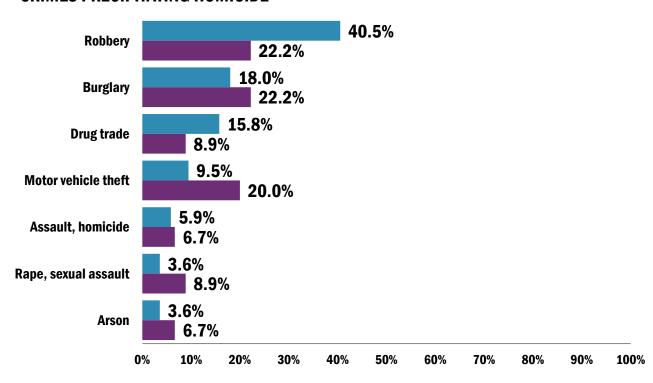
#### Males

#### **■** 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.

 Table 30: Injury location for homicide victims in North Carolina, 2019

	Number	%
Injury Location		
House, apartment	397	55.5
Motor vehicle (excluding school bus, 15, and public transportation, 21)	95	13.3
Street/road, sidewalk, alley	79	11.0
Other commercial establishment (e.g., grocery store, retail outlet, laundromat)	43	6.0
Parking lot/public parking garage	17	2.4
Bar, nightclub	17	2.4
Hotel/motel	16	2.2
Natural area (e.g., field, river, beaches, woods)	14	2.0
Unknown	9	1.3
Park, playground, public use area	7	1.0
Jail, prison, detention facility	6	8.0
Hospital or medical facility	2	0.3
Supervised residential facility (e.g., shelter, halfway house, group home)	2	0.3
College/University, including dormitory, fraternity/sorority	2	0.3
Other/Unknown	10	1.4
Total Deaths	716	100

# **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 2019. 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 2019. **Table 33** lists the number of legal intervention deaths in 2019 by North Carolina county of residence.

### Key Findings:

- In 2019, 37 residents of North Carolina (0.4 per 100,000) died from legal intervention.
- All but one of the victims were male, and most were from 25 to 34 years of age (45.9%).
- All but four legal intervention deaths occurred by firearm. Of the total firearms involved (n=33), handguns were the most frequently used (59.5%).

Table 31: Demographics of legal intervention death victims in North Carolina, 2019

	Number	%	Rate	95% CI
Sex				
Female	1	2.7	*	*
Male	36	97.3	0.7	0.5 - 0.9
Race/Ethnicity				
White**	19	51.4	0.3	0.2 - 0.4
Black**	12	32.4	0.5	0.2 - 0.8
Asian**	0	0.0	0.0	-
American Indian**	1	2.7	*	*
Hispanic	4	10.8	*	*
Other/Unknown	1	2.7	-	-
Age Group (Years)				
15-19	0	0.0	*	*
20-24	3	8.1	*	*
25-34	17	45.9	1.2	0.6 - 1.8
35-44	3	8.1	*	*
45-54	6	16.2	0.4	0.1 - 0.8
55-64	7	18.9	0.5	0.1 - 0.9
65-74	1	2.7	*	*
75-84	0	0.0	0.0	-
≥85	0	0.0	0.0	-
Total Deaths	37	100	0.4	0.2 - 0.5

Sex, race/ ethnicity and age-specific crude rates per 100,000 North Carolina population 95% CI = 95 % confidence interval for the rate

<sup>\*</sup> The number of deaths was too small to support a rate calculation for females, Non-Hispanic American Indians, Hispanics, and ages 15-19, 20-24, 35-44, and 65-74.

<sup>\*\*</sup> Non-Hispanic

Table 32: Type of weapon for legal intervention deaths in North Carolina, 2019

Weapon Type	Number	%
Firearm		
Handgun	22	53.7
Rifle	10	24.4
Shotgun	2	4.9
Unknown firearm type	3	7.3
Other, non-firearm weapons	4	9.8
Total Weapons Involved in Legal Intervention Deaths*	41	100

<sup>\*</sup>Multiple firearm types were reported for some legal intervention fatalities in 2019; 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, 2019

County	Number	County	Number
Bladen	1	Nash	1
Brunswick	1	New Hanover	1
Caldwell	1	Onslow	1
Craven	1	Orange	1
Cumberland	1	Perquimans	1
Davidson	1	Pitt	2
Durham	2	Randolph	3
Forsyth	1	Robeson	1
Gaston	1	Wake	3
Guilford	3	Watauga	1
Johnston	1	Wilson	1
Lee	1		
Lincoln	1		
Mecklenburg	4		
Montgomery	1		
Nash	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 2019 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 2019. **Table 36** provides the number of unintentional firearm deaths in 2019 by North Carolina county of residence.

#### **Key Findings:**

- In 2019, 15 North Carolinians (0.1 per 100,000) died from an unintentional firearm injury.
- Unintentional firearm victims were 86.7% male, 60.0% NH white, and 26.7% NH Black.
- Deaths from an unintentional firearm injury occurred among those ages 20 to 44.
- The most common firearm involved in unintentional firearm deaths was a handgun (80.0%) followed by a shotgun (13.3%).

NC-VDRS collects data on the circumstances surrounding unintentional firearm deaths to help understand the underlying causes of death. Fourteen of the fifteen 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 2019.

#### **Key Findings:**

- The most common circumstance among mechanisms of unintentional firearm injuries resulting in death included: the victim unintentionally pulled the trigger (42.9%), the shooter thought the magazine was unloaded (14.3%), the gun discharged when dropped (7.1%), the shooter thought the gun was unloaded (unspecified reason) (7.1%), the gun had a defect or malfunctioned (7.1%), or the gun went off while holstering/unholstering (7.1%).
- Among contexts of unintentional firearm injuries resulting in death, the most common contexts included: the injury occurred while playing with a firearm (28.6%), while cleaning the firearm (21.4%), while showing the firearm to others (7.1%), or the gun fired while loading or unloading (7.1%).

Table 34: Demographics of unintentional firearm death victims in North Carolina, 2019

	Number	%	Rate	95% CI
Sex				
Female	2	13.3	*	*
Male	13	86.7	0.3	0.1 - 0.4
Race/Ethnicity				
White**	9	60.0	0.1	0.0 - 0.2
Black**	4	26.7	*	*
Asian**	0	0.0	0.0	-
American Indian**	0	0.0	0.0	-
Hispanic	2	13.3	*	*
Other/Unknown	0	0.0	-	-
Age Group (Years)				
< 1	1	0.1	0.0	0.0
1-4	0	0.0	0.0	*
5-9	0	0.0	0.0	*
10-14	1	0.1	0.0	0.0
15-19	0	0.0	0.0	*
20-24	3	0.2	*	*
25-34	3	0.2	*	*
35-44	3	0.2	0.0	0.0
45-54	1	0.1	0.0	0.0
55-64	1	0.1	*	*
65-74	2	0.1	*	*
75-84	0	0.0	0.0	0.0
≥85	0	0.0	0.0	0.0
Total Deaths	15	100	0.1	0.1 - 0.2

Sex, race/ethnicity and age-specific crude rates per 100,000 North Carolina population 95% CI = 95% confidence interval for the rate

<sup>\*</sup> The number of deaths was too small to support a rate calculation for females, Non-Hispanic Blacks, Hispanics, and ages 20- 24. 25-34, 55-64, and 65-74.

<sup>\*\*</sup> Non-Hispanic

## **Section V**

Table 35: Type of firearm in unintentional firearm deaths in North Carolina, 2019

	Number	%
Firearm Type		
Handgun	12	80.0
Rifle	0	0.0
Shotgun	2	13.3
Other/Unknown	1	6.7
Total Firearms Involved in Unintentional Firearms*	15	100.0

<sup>\*</sup>Multiple firearm types were not reported for any unintentional firearm fatalities in 2019; Therefore, the total number of firearms equals the number of unintentional firearm deaths (n=15).

Table 36: Unintentional firearm deaths in North Carolina by county of residence, 2019

County	Number	County	Number
Ashe	1	Lincoln	1
Carteret	1	Madison	1
Cumberland	2	Mecklenburg	1
Forsyth	3	Montgomery	1
Franklin	1	Rowan	1
Gaston	1	Wake	1

Table 37: Circumstances of unintentional firearm deaths in North Carolina, 2019

Circumstances*	Number	%
Context		
Occurred while playing with gun	4	28.6
Occurred while cleaning gun	3	21.4
Gun fired while loading or unloading	1	7.1
Occurred while showing gun to others	1	7.1
Grand Total	9	64.3
Other context	8	57.1
Mechanism		
Gun discharged when dropped	1	7.1
Shooter thought gun was unloaded, unspecified reason	1	7.1
Unintentionally pulled trigger	6	42.9
Shooter thought magazine was unloaded	2	14.3
Gun had defect or malfunctioned	1	7.1
Occurred while holstering/unholstering	1	7.1
Other mechanism	4	28.6

<sup>\*</sup>Circumstances were available for 14/15 (93.3%) of unintentional firearm deaths in North Carolina during 2019.

**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 2019 by sex, race/ethnicity and age.

#### **Key Findings:**

- In 2019, 107 children in North Carolina (4.7 per 100,000) died as a result of violence.
- Male children were 2.8 times as likely to be victims of violent death as female children (6.8 vs. 2.4 per 100,000, respectively).
- The violent death rate for children per 100,000 was 4.1 times higher for NH Blacks (10.2 per 100,000) than for NH whites (2.5 per 100,000).
- The highest death rate was for infants ages less than one year (13.5 per 100,000). The lowest rate was for children ages five to nine (1.0 per 100,000).

Manner of violent death for child victims in North Carolina in 2019 is displayed in Figure 22, and it is shown stratified by sex in Table 39, by race/ethnicity in Table 40 and by age group in Table 41.

#### **Key Findings:**

- The most common causes of violent death for all child victims were homicide (59.8%) followed by suicide (32.7%).
- Homicide was the cause of violent death for the majority of NH Black children (77.2%).
- Homicide was the leading cause of violent death for infants less than one year (87.5%), for children ages one to four (97.7%), children ages five to nine (100.0%), and children ages 15-17 (54.9%)
- Suicide was the cause of violent death in the majority NH white children (64.5%).
- Suicide was the leading cause of violent death for children ages 10 to 14 (68.2%)

Method of child violent death in North Carolina in 2019 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 (50.5%), hanging, strangulation or suffocation (22.4%), and personal weapons (i.e., abuse by a caretaker) (18.7%).
- Firearm was the leading method of child violent death for males (57.5%), NH Blacks (59.7%), and Hispanics (40.0%).
- Personal weapons (50.0%) were the leading method of violent death in infants less than one year. For children ages one to four, personal weapons (91.7%), and firearms (8.3%) were the leading methods of death. There were seven child deaths for ages five to nine, attributed to firearms (66.7%), personal weapons (16.7%), and intentional neglect (16.7%). Firearms (59.1%) and hanging, strangulation, or suffocation (36.4%) were the top causes of violent child death for ages 10 to 14, as well as for ages 15 to 17 (66.7% and 27.5% respectively).

Table 38: Demographics of child (under age 18) violent deaths in North Carolina, 2019

	Number	%	Rate	95% CI
Sex				
Female	27	25.2	2.4	1.5 - 3.3
Male	80	74.8	6.8	5.3 - 8.3
Race/Ethnicity				
White**	31	29.0	2.5	1.6 - 3.4
Black**	57	53.3	10.2	7.5 - 12.8
Asian**	0	0.0	*	*
American Indian**	4	3.7	*	*
Hispanic	15	14.0	3.9	1.9 - 5.8
Other/Unknown	0	0.0	-	-
Age Group (Years)				
<1	16	15.0	13.5	6.9 - 20.1
1-4	12	11.2	2.4	1.1 - 3.8
5-9	6	5.6	1.0	0.2 - 1.7
10-14	22	20.6	3.3	1.9 - 4.7
15-17	51	47.7	12.9	9.3 - 16.4
Total Deaths	107	100	4.7	3.8 - 5.5

Sex, race, Hispanic ethnicity and age-specific crude rates per 100,000 North Carolina population 95% CI = 95% confidence interval for the rate

Table 39: Manner of child (under age 18) violent death in North Carolina by sex, 2019

	Male		Fem	ale	Tot	:al
	Number	%	Number	%	Number	%
Manner of Death						
Homicide	49	61.3	15	55.6	64	59.8
Suicide	26	32.5	9	33.3	35	32.7
<b>Undetermined Intent</b>	4	5.0	2	7.4	6	5.6
Unintentional Firearm	1	1.3	1	3.7	2	1.9
Total Deaths	80	100	27	100	107	100

<sup>\*</sup> The number of deaths was too small to support a rate calculation for Non-Hispanic Asians and Non-Hispanic American Indians.

<sup>\*\*</sup> Non-Hispanic

## **Section VI**



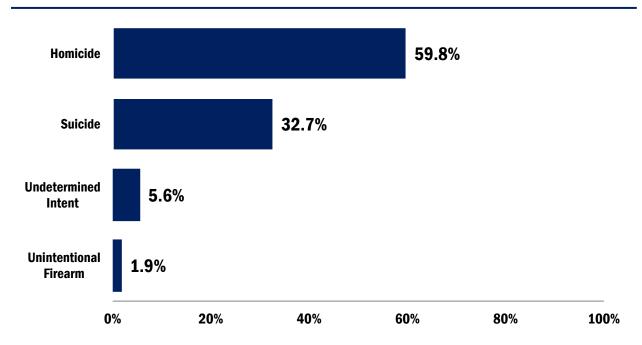


Table 40: Manner of child (under age 18) violent death in North Carolina by race/ethnicity, 2019

	White* Black*		<b>(</b> *	American Indian*		Asian*		Hispanic		
	Number	%	Number	%	Number	%	Number	%	Number	%
Manner of Death										
Homicide	8	25.8	44	77.2	2	50.0	0	0.0	10	66.7
Suicide	20	64.5	8	14.0	2	50.0	0	0.0	5	33.3
Undetermined Intent	2	6.5	4	7.0	0	0.0	0	0.0	0	0.0
Unintentional Firearm	1	3.2	1	1.8	0	0.0	0	0.0	0	0.0
Total Deaths	31	100	57	100	4	100	0	0	15	100

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

<sup>\*</sup> Non-Hispanic

Table 41: Manner of child (under age 18) violent death in North Carolina by age group, 2019

	<1		1-4	1-4		5-9		10-14		.7
	Number	%	Number	%	Number	%	Number	%	Number	%
Manner of Death										
Homicide	14	87.5	11	91.7	6	100.0	5	22.7	28	54.9
Suicide	0	0.0	0	0.0	0	0.0	15	68.2	20	39.2
Undetermined Intent	1	6.3	1	8.3	0	0.0	1	4.6	3	5.9
Unintentional Firearm	1	6.3	0	0.0	0	0.0	1	4.6	0	0.0
Total Deaths	16	100	12	100	6	100	22	100	51	100

Table 42: Method of child (under age 18) violent death in North Carolina by sex, 2019

	Ма	le	Fem	ale	Tot	al
	Number	%	Number	%	Number	%
Method of Death*						
Firearm	46	57.5	8	29.6	54	50.5
Hanging, strangulation, suffocation	18	22.5	6	22.2	24	22.4
Personal Weapons	11	13.8	9	33.3	20	18.7
Poisoning	0	0.0	1	3.7	1	0.9
Sharp instrument	0	0.0	2	7.4	2	1.9
Blunt Instrument	0	0.0	0	0.0	0	0.0
Intentional Neglect	2	2.5	0	0.0	2	1.9
Violent Shaking	1	1.3	0	0.0	1	0.9
Other/Unknown	2	2.5	1	3.7	3	2.8
Total Deaths	80	100	27	100	107	100

<sup>\*</sup> Only the first method is included in this table. Two children had multiple methods of death.

## **Section VI**

Table 43: Method of child (under age 18) violent death in North Carolina by race/ethnicity, 2019

	White** Black**		Amerio Indian		Asian	k*	Hispanic			
	Number	%	Number	%	Number	%	Number	%	Number	%
Method of Death										
Firearm	12	38.7	34	59.7	2	50.0	0	0.0	6	40.0
Hanging,										
strangulation,	14	45.2	4	7.0	1	25.0	0	0.0	5	33.3
suffocation										
Personal Weapons	5	16.1	11	19.3	1	25.0	0	0.0	3	20.0
Poisoning	0	0.0	1	1.8	0	0.0	0	0.0	0	0.0
Sharp instrument	0	0.0	2	3.5	0	0.0	0	0.0	0	0.0
Blunt Instrument	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Intentional Neglect	0	0.0	2	3.5	0	0.0	0	0.0	0	0.0
Violent Shaking	0	0.0	1	1.8	0	0.0	0	0.0	0	0.0
Other/Unknown	0	0.0	2	3.5	0	0.0	0	0.0	1	6.7
Total Deaths	31	100	57	100	4	100	0	0	15	100

<sup>\*</sup> Only the first method is included in this table. Two children had multiple methods of death.

Table 44: Method of child (under age 18) violent death in North Carolina by age group, 2019

					, , , , , , , , , , , , , , , , , , , ,					
	<1		1-4		5-9	)	10-1	.4	15-1	<sub>-</sub> 7
	Number	%	Number	%	Number	%	Number	%	Number	%
Method of Death										
Firearm	2	12.5	1	8.3	4	66.7	13	59.1	34	66.7
Hanging, strangulation, suffocation	2	12.5	0	0.0	0	0.0	8	36.4	14	27.5
Personal Weapons	8	50.0	11	91.7	1	16.7	0	0.0	0	0.0
Poisoning	0	0.0	0	0.0	0	0.0	0	0.0	1	2.0
Sharp instrument	1	6.3	0	0.0	0	0.0	0	0.0	1	2.0
Blunt Instrument	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Intentional Neglect	1	6.3	0	0.0	1	16.7	0	0.0	0	0.0
Violent Shaking	1	6.3	0	0.0	0	0.0	0	0.0	0	0.0
Other/Unknown	1	6.3	0	0.0	0	0.0	1	4.6	1	2.0
Total Deaths	16	100	12	100	6	100	22	100	51	100

<sup>\*</sup> Only the first method is included in this table.

<sup>\*\*</sup> Non-Hispanic

<sup>\*\*</sup> 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 2019 by sex, race/ethnicity and age.

#### **Key Findings:**

- In 2019, 60 undetermined intent deaths (0.6 per 100,000) were reported in North Carolina.
- Males and females had undetermined death rates of 0.8 per 100,000 and 0.4 per 100,000, respectively.
- NH whites accounted for 73.3% of undetermined intent victims.
- Among victims whose death was of undetermined intent, one-quarter of deaths were among those ages 55 to 64 (26.7%); the highest undetermined intent death rate by age group was among those ages 55 to 64 years (1.2 per 100,000).

**Table 46** summarizes the method of undetermined intent deaths in North Carolina in 2019. **Table 47** shows the category of the fatal substance that caused the undetermined intent poisoning deaths in North Carolina in 2019.

#### **Key Findings:**

- The leading methods of undetermined intent deaths were poisoning (55.0%) and firearm (16.7%).
- Most undetermined intent poisoning deaths involved an opiate (either illicit or prescription) (66.7%), benzodiazepines (36.4%), or antidepressants (24.2%).
- A handgun was involved in nine of the 10 undetermined intent firearm deaths that occurred in North Carolina in 2019.
- Multiple firearm types were reported for two undetermined intent fatalities in 2019. Therefore, the total number of firearms is two more than the number of undetermined intent firearm deaths.

**Table 48** provides the number of undetermined intent deaths in 2019 by North Carolina county of residence.

## **Section VII**

Table 45: Demographics of undetermined intent death victims in North Carolina, 2019

<u>~ ·</u>				
	Number	%	Rate	95% CI
Sex				
Female	19	31.7%	0.4	0.2 - 0.5
Male	41	68.3%	0.8	0.6 - 1.0
Race/Ethnicity				
White**	44	73.3%	0.7	0.5 - 0.9
Black**	12	20.0%	0.5	0.2 - 0.8
Asian**	0	0.0%	0.0	-
American Indian**	3	5.0%	*	*
Hispanic	1	1.7%	*	*
Other/Unknown	0	0.0%	-	-
Age Group (Years)				
< 1	1	1.7%	*	*
1-4	1	1.7%	*	*
5-9	0	0.0%	0.0	-
10-14	1	1.7%	*	*
15-19	4	6.7%	*	*
20-24	3	5.0%	*	*
25-34	9	15.0%	0.6	0.2 - 1.1
35-44	11	18.3%	0.8	0.3 - 1.3
45-54	8	13.3%	0.6	0.2 - 1.0
55-64	16	26.7%	1.2	0.6 - 1.8
65-74	5	8.3%	0.5	0.1 - 0.9
75-84	0	0.0%	*	*
≥85	1	1.7%	0.0	
Total Deaths	60	100%	0.6	0.4 - 0.7

Sex, race/ethnicity and age-specific crude rates per 100,000 North Carolina population 95% CI = 95 % confidence interval for the rate

<sup>\*</sup> The number of deaths was too small to support a rate calculation for Non-Hispanic American Indians, Hispanics, and ages <1, 1-4, 10-14, 15-19, 20-24, and 75-84.

<sup>\*\*</sup> Non-Hispanic

Table 46: Method of undetermined intent deaths in North Carolina, 2019

	Number	%
Method of Death		
Poisoning	33	55.0
Firearm	10	16.7
Personal weapons	3	5.0
Fire or burns	3	5.0
Drowning	2	3.3
Sharp instrument	2	3.3
Motor vehicle including buses, motorcycles	2	3.3
Hanging, strangulation, suffocation	2	3.3
Fall	1	1.7
Blunt instrument	1	1.7
Other/Unknown	1	1.7
Total Deaths	60	100.0

Table 47: Fatal substances in undetermined intent poisoning deaths in North Carolina by sex, 2019

	Ма	le	Fem	ale	Tot	al
	Number	%	Number	%	Number	%
Category of Fatal Substance*						
Opiate**	13	68.4	9	64.3	22	66.7
Antidepressant	5	26.3	3	21.4	8	24.2
Benzodiazepines	5	26.3	7	50.0	12	36.4
Barbiturates	0	0.0	0	0.0	0	0.0
Carbon Monoxide	1	5.3	1	7.1	2	6.1
Alcohol	1	5.3	4	28.6	5	15.2
Amphetamine	0	0.0	1	7.1	1	3.0
Cocaine	3	15.8	3	21.4	6	18.2
Other Poison***	1	5.3	0	0.0	1	3.0

<sup>\*</sup> Category of substance that directly caused or was suspected to cause undetermined intent poisoning deaths. There were 33 undetermined intent poisonings (55.0%) where more than one substance caused the death in 2019, with as many as three fatal substances present in a given case.

<sup>\*\*</sup> Opiate includes both prescription opioids and illicit substances, such as heroin

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

## **Section VII**

Table 48: Undetermined intent deaths in North Carolina by county of residence, 2019

County	Number	County	Number	County	Number
Alamance	3	Guilford	1	Rowan	2
Alleghany	1	Haywood	1	Transylvania	1
Bladen	1	Henderson	2	Vance	1
Brunswick	1	Johnston	1	Wake	4
Buncombe	1	Lee	1	Yadkin	1
Cabarrus	2	Martin	1		
Caldwell	2	Mecklenburg	6		
Chatham	1	Nash	2		
Cleveland	1	New Hanover	2		
Cumberland	2	Orange	3		
Davie	1	Person	1		
Durham	1	Pitt	2		
Edgecombe	1	Richmond	1		
Forsyth	4	Robeson	3		
Gates	1	Rockingham	1		

## **Section VIII: Violent Death Trend Over Time**

**Table 49** shows the number and the rate of violent deaths over time in North Carolina from 2010 to 2019, 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 2010 to 2019.

#### **Key Findings:**

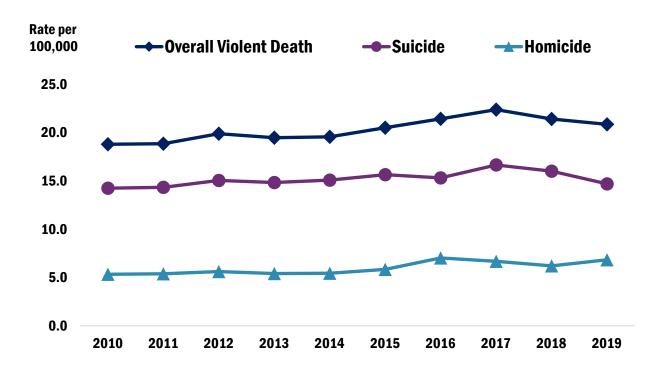
- The overall violent death rate in North Carolina has increased slightly from 2010 (18.8 per 100,000) to 2019 (20.8 per 100,000).
- From 2010 to 2019 in North Carolina, the death rates have remained stable for suicides (range of 14.2 to 14.7 per 100,000 by year) and slightly increased for homicides (range of 5.3 to 6.8 per 100,000 by year).

Table 49: Trends of violent deaths over time in North Carolina, 2010-2019

	Overall Viole	Overall Violent Deaths		\ges ≥10)	Homic	cides
	Number	Rate	Number	Rate	Number	Rate
Year						
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	2,298	22.4	1,503	16.6	685	6.7
2018	2,222	21.4	1,463	16.0	643	6.2
2019	2,186	20.8	1,358	14.7	716	6.8

## **Section VIII**

Figure 23: Violent death rate trend data for most recent 10 years in North Carolina, 2010 - 2019



# **Appendix A: Population Data for Rate Calculations**

Appendix A: North Carolina 2019 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)
Sex			
Female	5,387,820	4,781,166	1,127,895
Male	5,100,264	4,468,282	1,172,820
Race/Ethnicity			
White*	6,668,532	6,013,454	1,237,140
Black*	2,320,112	2,019,504	559,766
Asian*	348,968	301,857	85,032
American Indian*	124,642	108,278	29,909
Hispanic	1,025,830	806,355	388,868
Age Group (Years)			
< 1	118,891	-	118,891
1-4	490,879	-	490,879
5-9	628,866	-	628,866
10-14	665,606	665,606	665,606
15-17	396,473	396,473	396,473
15-19	688,195	688,195	-
20-24	698,865	698,865	-
25-34	1,416,069	1,416,069	-
35-44	1,303,427	1,303,427	-
45-54	1,364,067	1,364,067	-
55-64	1,362,125	1,362,125	-
65-74	1,046,508	1,046,508	-
75-84	515,192	515,192	-
≥85	189,394	189,394	-
Total Population	10,488,084	9,249,448	2,300,715

<sup>\*</sup> 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 (2019).

## **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**

NC 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

#### 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, NC 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, NC Department of Health and Human Services

#### Beth Moracco, PhD, MPH

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

#### Marcia Owen

Community Volunteer, Religious Coalition for Nonviolent Durham

#### **Timothy Parker**

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

#### **Rick Pendergrass**

Deputy Assistant Chief, Durham Police Department

#### Michelle Aurelius, MD

NC Chief Medical Examiner, NC 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.

Decedent was killed by a police officer, military police officer or other Legal intervention

peace officer acting in the line of duty. In North Carolina, legal intervention

includes legal executions.

**NVDRS** National Violent Death Reporting System

NC-VDRS North Carolina Violent Death Reporting System

Occurrent death Death occurred in North Carolina during the specified time frame.

Decedent may or may not have been a resident at the time of death.

Peace officer Person with specified legal authority to use deadly force.

Personal Weapons Any part of the body that may be used to cause a violent death, includes

fists, feet, and hands.

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

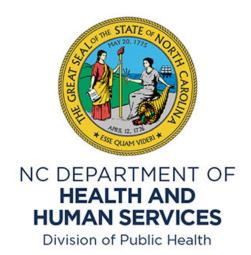
another person for which the evidence indicating the manner of death

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.



State of North Carolina • Roy Cooper, Governor

Department of Health and Human Services • Kody Kinsley, Secretary

Division of Public Health • Elizabeth Cuervo Tilson, M.D., MPH, State Health Director

Injury and Violence Prevention Branch

www.ncdhhs.gov • www.publichealth.nc.gov • www.injuryfreenc.ncdhhs.gov

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



# **North Carolina Division of Public Health**

Violent Death Reporting System 2019 Annual Report

**April 2022**