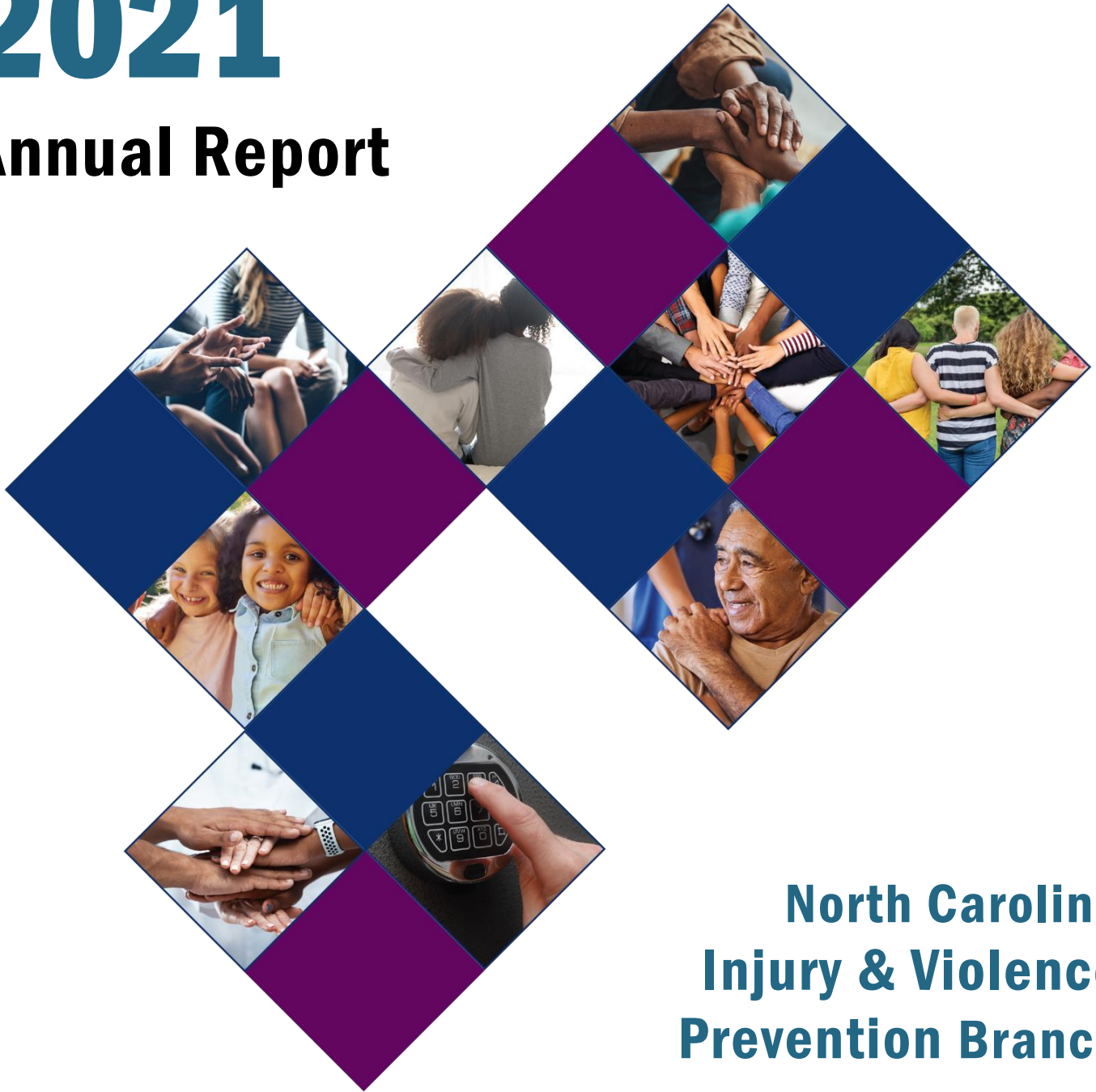


# North Carolina

## Violent Death Reporting System

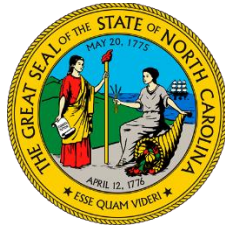
# 2021

## Annual Report



**North Carolina  
Injury & Violence  
Prevention Branch**





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



## **Annual Report 2021**

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

**June 2024**

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# Executive Summary

## North Carolina Violent Death Reporting System, 2021

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 2021.

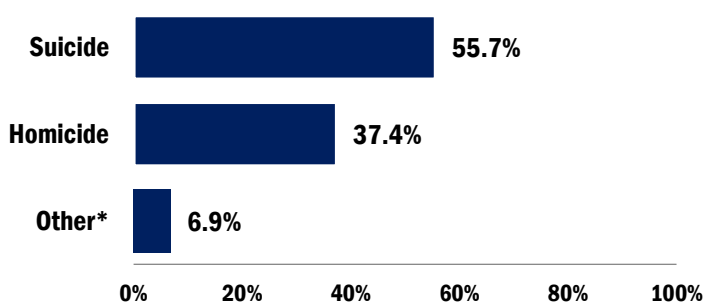
### Overall Violent Deaths

In 2021, 2,537 North Carolina residents (24.0 per 100,000) died as a result of violence. The leading causes of violent death were suicide (55.7%) followed by homicide (37.4%) (Figure i). Leading methods of violent death were firearm (70.1%), hanging, strangulation or suffocation (13.1%), and poisoning (7.5%). The most common firearms involved in firearm deaths were handguns (75.6%), shotguns (7.3%), and rifles (9.6%).

Males were 4.0 times as likely to die from violence as women (38.9 vs. 9.7 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) American Indian (42.7), NH Black (35.9), NH White (22.5), Hispanic (16.5), and NH Asian (8.1).

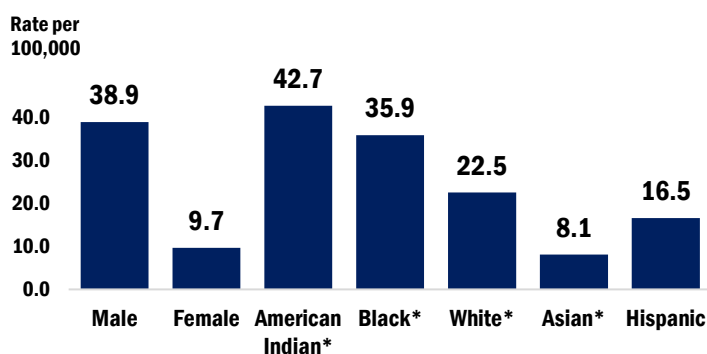
Adults from ages 15 to 54 years had the highest violent death rates by age per 100,000 as follows: 20 to 24 (40.3), 25 to 34 (38.5), 15 to 19 (31.3), 35 to 44 (27.6), and 45 to 54 (26.8). The violent death rate trend by age differed by sex, with male victims showing higher rates than female victims across nearly all age groups (Figure iii).

**Figure i: Manner of violent death in North Carolina, 2021**



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

**Figure ii: Overall violent death rates by sex and race/ethnicity in North Carolina, 2021**



\* Non-Hispanic

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

## Executive Summary

### Suicides

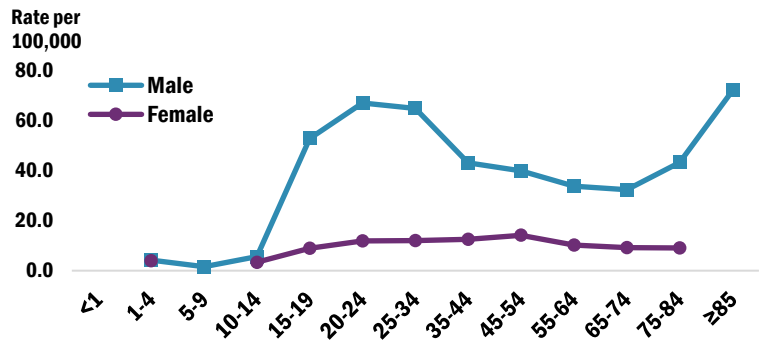
Suicide was the cause of death for 1,412 North Carolinians (15.4 per 100,000) in 2021. The most common method of suicide was firearm (63.8%), followed by hanging, strangulation, or suffocation (22.2%), and poisoning (8.4%). A handgun was the most common firearm, involved in 80.2% of suicide firearm deaths. Opiates were the most common substance category present in suicide poisonings (34.5%), followed by antidepressants (27.7%) and anticonvulsants (21.8%).

Men were 4.4 times more likely to die from suicide than women (25.0 versus 5.7 per 100,000, respectively) (Figure iv). Among suicide victims, 80.8% were male, and 78.5% were NH White. The suicide rate per 100,000 was highest among NH Whites (18.7) and NH American Indians (15.4), and lower among Hispanics (10.7), NH Blacks (8.5), and NH Asians (7.7).

The age group with the highest suicide rate was those 85 and older (24.8 per 100,000), followed by ages 75 to 84 (20.3 per 100,000) and ages 20 to 24 (18.8 per 100,000). The suicide rate was higher for men than women across all age groups, however men ages 85 and older were at greatest risk with a rate of 70.3 per 100,000 (Figure v).

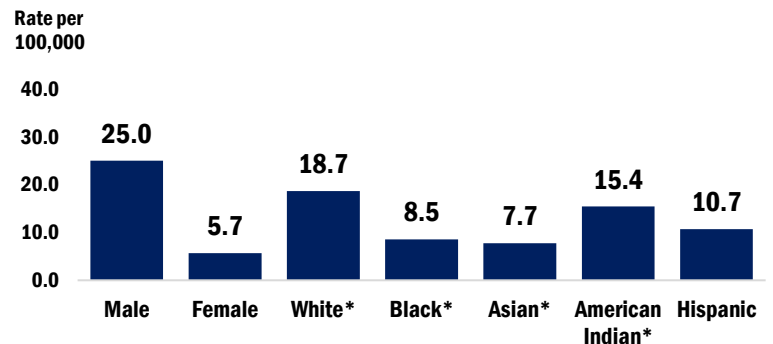
The most common circumstances of suicide were having ever been treated for mental illness (61.4%), current mental health problem (60.6%), a recent crisis (44.7%), a history of suicidal thoughts (32.1%), and current treatment for mental illness (28.8%). Most with a current mental health problem had depression (78.6%). Other common circumstances of suicide were problems with an intimate partner (27.3%), physical health problem (23.0%), an alcohol problem (16.2%), or other substance abuse problem (18.5%).

**Figure iii: Overall Violent Death Rates in North Carolina: Age Group by Sex, 2021**



**Note:** The number of deaths was too small to support a rate calculation for male infants younger than one and female infants younger than one, ages 5-9, and 85 and older.

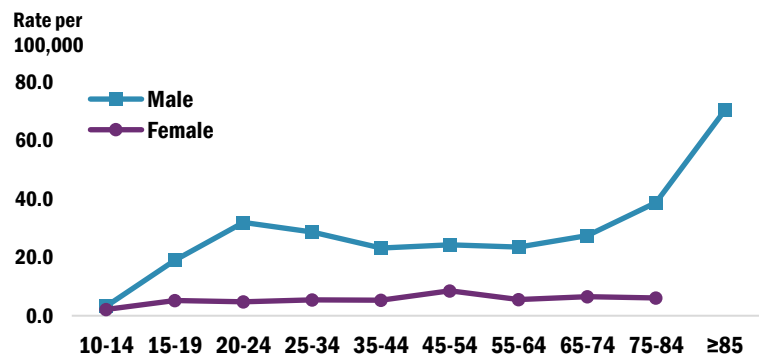
**Figure iv: Suicide rates by sex and race/ethnicity in North Carolina, 2021**



\* Non-Hispanic

**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, 2021**



**Note:** The number of suicide deaths was too small to support a rate calculation for female ages 85 and older.



Of the 91.4% of suicide victims tested, 25.8% had alcohol present at the time of death. Most (76.7%) injuries resulting in suicide occurred in a house or apartment.

### Homicides

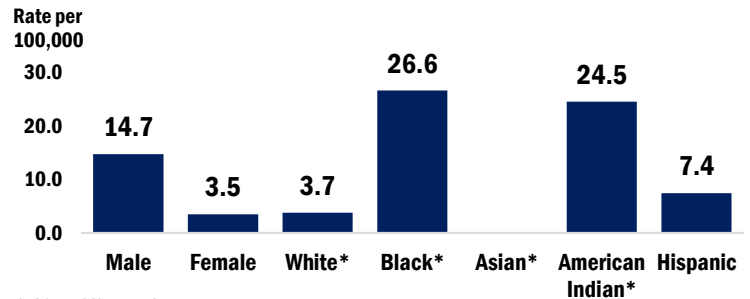
A total of 950 North Carolinians (9.0 per 100,000) were homicide victims in 2021. Firearms (85.5%) and sharp instruments (6.4%) were the most common homicide methods. Handguns accounted for 71.6% of firearms used in homicide firearm deaths.

Men accounted for 80.3% of homicide victims and were 4.2 times more likely to die from homicide than women (14.7 vs. 3.5 per 100,000, respectively) (Figure vi). Unlike suicide rates, homicide rates were higher among NH Black (26.6 per 100,000) and NH American Indian (24.5 per 100,000) than in NH White (3.7 per 100,000), and Hispanic (7.4 per 100,000) victims.

Homicide rates were highest in the following age groups: 20 to 24 years (19.9 per 100,000), 25 to 34 years (18.7 per 100,000), and 15-19 years (17.6 per 100,000). Males had a higher homicide rate across all age groups. (Figure vii). Among 20- to 24-year-olds, the homicide rate was 5.6 times greater among males than females.

The most common event circumstances surrounding homicides were an argument, abuse, or conflict (42.1%), precipitated by another serious crime (28.9%), intimate partner violence-related (17.2%), and drug involvement (15.6%). Homicides occurred most often in a house or apartment (54.0%), a motor vehicle (16.6%), or a street, road, sidewalk, or alley (9.1%).

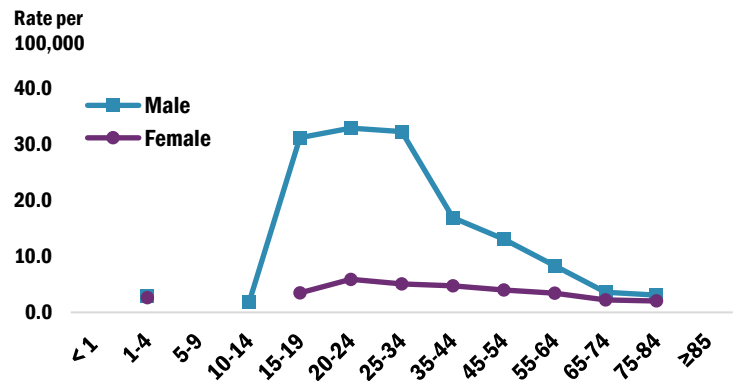
**Figure vi: Homicide rates by sex and race/ethnicity in North Carolina, 2021**



\* Non-Hispanic

Note: The number of homicide deaths was too small to support a rate calculation for NH Asians.

**Figure vii: Homicide rates in North Carolina: Age group by sex, 2021**



Note: The number of homicide deaths was too small to support a rate calculation for male infants younger than one, ages 5-9, and 85 and older, and female infants younger than one, ages 5-9, ages 10-14, and 85 and older.

### Firearm Violent Deaths

Most violent deaths involve a firearm. In 2021, there were 1,779 firearm deaths, accounting for 70.1% of all violent deaths. Most firearm violent deaths were suicides (50.7%), followed by homicides (45.6%) (Figure viii).

Males were more likely than females to experience a violent death with a firearm (29.1 per 100,000 versus 5.0 per 100,000, respectively). Handguns were the most common type of firearm used (75.5%).

## Executive Summary

Overall firearm death rates are highest among NH American Indian (35.4 per 100,000) and NH Black (30.5 per 100,000) victims, followed by NH White (14.1 per 100,000), Hispanic (10.7 per 100,000), and NH Asian (4.5 per 100,000) victims.

Firearm death rates were highest among ages 20 to 24 (32.1 per 100,000) and ages 25 to 34 (28.0 per 100,000).

### Firearm Suicide

Firearms were used in 63.8% of the 1,412 suicides in 2021 (N=901). The most commonly used firearm type was a handgun (80.2%).

Males were 6.6 times more likely than females to die from firearm suicide (17.0 versus 2.6 per 100,000). NH White victims had the highest firearm suicide rate (12.0 per 100,000). This was 2.0 times greater than the firearm suicide rate among NH Black (6.0 per 100,000) victims.

Firearm suicide rates were highest among adults ages 85 and older and 75 to 84 (20.0 and 16.6 per 100,000). Among males, firearm suicide rates were highest for those 85 and older (55.9 per 100,000), whereas for females, the firearm suicide rate was highest among those ages 55-64 (3.3 per 100,000).

### Firearm Homicide

A total of 812 North Carolinians were victims of firearm homicide in 2021. Firearm homicides accounted for 85.5% of all homicide incidents. Handguns were the most common firearm type (71.6%).

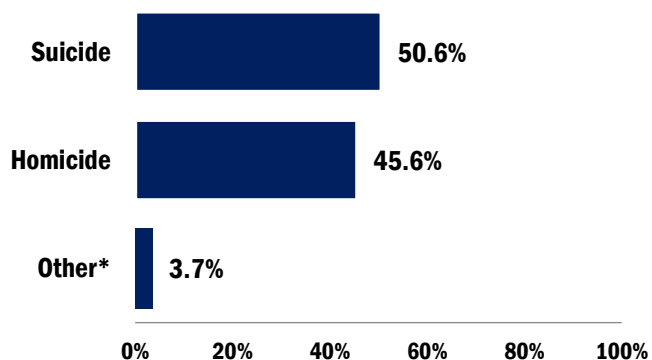
Males were 5.1 times more likely than females to be a victim of firearm homicide (14.7 and 2.9 per 100,000 respectively). Males ages 20 to 24 were 5.8 times more likely to die from firearm homicide than

females of the same age (31.1 and 5.3 per 100,000 respectively).

NH Black (27.6 per 100,000) and NH American Indian (26.7 per 100,000) victims had higher firearm homicide rates than Hispanic (7.0 per 100,000) and NH White (3.0 per 100,000).

Firearm homicide rates were highest among those ages 20 to 24 (18.6 per 100,000) and 25 to 34 (17.5 per 100,000).

**Figure viii: Manner of violent death among firearm deaths in North Carolina, 2021**



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

### Unintentional Firearm Deaths

In 2021, 32 North Carolinians (0.3 per 100,000) died from a firearm injury sustained in a shooting not intentionally directed at the victim. Handguns (71.9%) were most commonly involved in unintentional firearm deaths, followed by shotguns (15.6%) and rifles (12.5%); the type of firearm was unknown in 0.0% of unintentional firearm deaths.

In 2021, there were 25 firearm legal intervention deaths (1.4%) and 9 firearm deaths of undetermined intent.

### Legal Intervention

Thirty-two North Carolina residents died in 2021 from legal intervention. These victims were killed by police or other law enforcement officers acting in the line of duty. Most legal intervention victims were male (96.9%), all victims were from 20 to 74 years of age, and over half were NH White (59.4%). All but seven legal intervention deaths occurred by firearm; of the total firearms involved (n=28), handguns were used most frequently (42.9%).

### Child Violent Deaths

In North Carolina in 2021, 168 children (7.4 per 100,000) ages 0 to 17 died from violence. Homicide (51.2%) and suicide (36.3%) and were the leading causes of child violent death (Figure ix). Firearm (70.2%), hanging, strangulation, or suffocation (12.5%), and personal weapons (4.8%) were the most common methods of child death.

Male children were 2.6 times as likely to be victims of violent death as female children (10.6 vs. 4.0 per 100,000, respectively). The violent death rate per 100,000 was 3.7 times higher for NH Black children (16.9 per 100,000) than for NH White children (4.6 per 100,000).

\*Personal weapons include hands, fists, and feet.

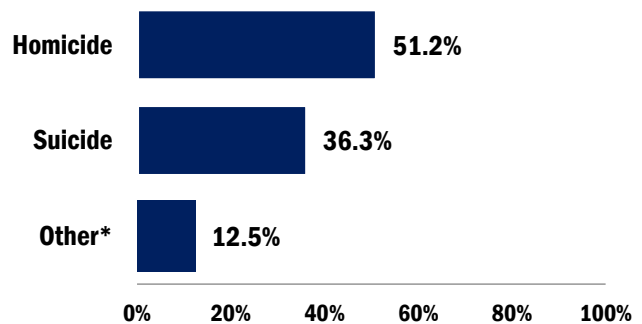
### Undetermined Intent

A total of 111 deaths of undetermined intent (1.1 per 100,000) were reported in North Carolina in 2021. The leading methods of undetermined intent deaths were poisoning (64.0%), firearm (8.1%), and blunt instrument (8.1%).

### Violent Deaths Over Time

The overall violent death rate in North Carolina remained fairly stable from 2012 to 2021, averaging 21.3 per 100,000 per year. The overall violent death rate was 19.9 per 100,000 in 2012, 18.8 per 100,000 in 2010, and 24.0 per 100,000 in 2021.

**Figure ix: Manner of violent death among children in North Carolina, 2021**



\* 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 2021.

The dashboard can be accessed [here](#), or with the following QR code:



## Executive Summary

### Introduction

In 2021, there were more than 48,183 suicides and 26,031 homicides nationwide, many of which were preventable. In North Carolina, more than 20,535 residents died from suicide or homicide in the 10-year period from 2012 to 2021. In that same period, suicide and homicide ranked as the state's twelfth and seventeenth leading causes of death, respectively. Among specific age groups, violent death constitutes an even greater risk. In North Carolina in 2021, suicide was the second leading cause of death for children ages 10 to 14. Suicide was the third leading cause of death for young adults ages 15 to 24 and adults ages 25 to 34, and the fifth 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 2021, suicide was the tenth leading cause of death, compared to the seventeenth leading cause among females. Homicide was the ninth leading cause of death in NH Blacks, and suicide was the thirteenth leading cause of death in NH Whites in North Carolina in 2021. Among Hispanics in North Carolina, suicide and homicide were respectively the seventh and eighth leading causes of death in 2021.

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 NCDHHS Division of Public Health, Injury and Violence Branch would like to acknowledge that generations of social, economic, and environmental inequities contribute to disparities in violent deaths. When interpreting the data, it is crucial to recognize and acknowledge these systemic, avoidable, and/or unjust factors. Although the purpose of this report is not to analyze these factors, the [CDC](#) and the [US Department of Health and Human Services](#) have compiled resources on social determinants of health, and the [North Carolina State Center for Health Statistics dashboard](#) has social determinants of health data publicly available that is specific to North Carolinians. These and other resources can provide important context on community and societal level factors that contribute to disparities in violence-related deaths.

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, 2021, to December 31, 2021. The 2021 data file used for this report was generated in August 2023. Note that if changes are made to the 2021 data in NC-VDRS after this date, the 2021 violent death data could change in future reports. Improvements were made to the NC-VDRS case definitions to capture NC violent deaths more accurately. Starting with the 2020 annual report, there may be slight differences in counts and rates for previous data years compared to data included in previously published NC-VDRS data products.

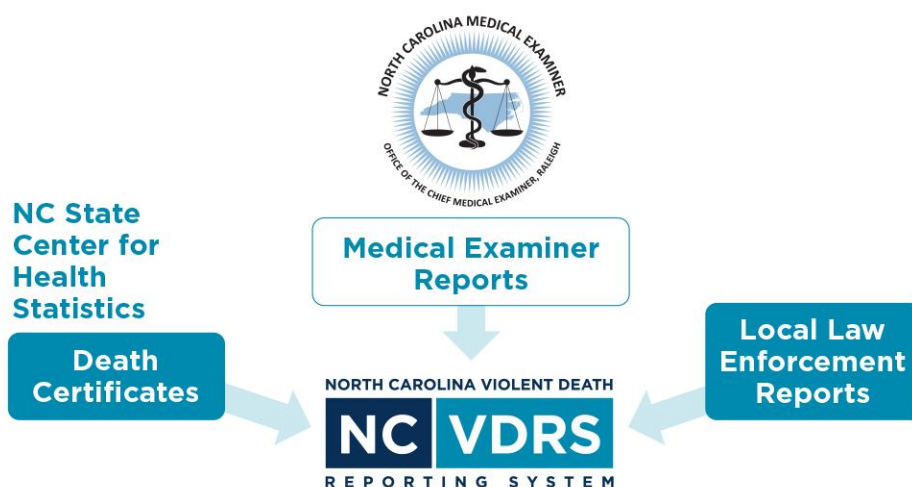
A glossary of the terms used in this report is shown in Appendix C.

## Methods

### Case Identification

This report provides a comprehensive summary of all violent deaths among residents of North Carolina during 2021. 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) percent of total deaths for each manner of death and by specific demographic characteristics; and 3) rate of violent deaths for each manner of death and by demographic characteristics, where possible. Demographic characteristics include age, sex, race/ethnicity, years of completed education, marital status, and North Carolina county 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 2021) 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=2,537).
- **Occurrent deaths** capture all deaths that occur within North Carolina during the specified time, regardless of the residential status of the decedent (N=2,595).

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 2021. 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 [here](#), 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

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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        | Concord Police Department          |
| Albemarle Police Department             | Conover Police Department          |
| Alexander County Sheriff's Office       | Cornelius Police Department        |
| Alleghany County Sheriff's Office       | Craven County Sheriff's Office     |
| Angier Police Department                | Cumberland County Sheriff's Office |
| Anson County Sheriff's Office           | Currituck County Sheriff's Office  |
| Apex Police Department                  | Dallas Police Department           |
| Asheboro Police Department              | Davidson County Sheriff's Office   |
| Asheville Police Department             | Davie County Sheriff's Office      |
| Avery County Sheriff's Office           | Dunn Police Department             |
| Beaufort County Sheriff's Office        | Duplin County Sheriff's Office     |
| Benson Police Department                | Durham County Sheriff's Office     |
| Bertie County Sheriff's Office          | Durham Police Department           |
| Beulaville Police Department            | Eden Police Department             |
| Black Mountain Police Department        | Edenton Police Department          |
| Bladen County Sheriff's Office          | Edgecombe County Sheriff's Office  |
| Brevard Police Department               | Elizabeth City Police Department   |
| Brunswick County Sheriff's Office       | Elkin Police Department            |
| Buncombe County Sheriff's Office        | Elon Police Department             |
| Burke County Sheriff's Office           | Enfield Police Department          |
| Burlington Police Department            | Fairmont Police Department         |
| Cabarrus County Sheriff's Office        | Fayetteville Police Department     |
| Caldwell County Sheriff's Office        | Fletcher Police Department         |
| Carteret County Sheriff's Office        | Forest City Police Department      |
| Cary Police Department                  | Forsyth County Sheriff's Office    |
| Caswell County Sheriff's Office         | Franklin County Sheriff's Office   |
| Catawba County Sheriff's Office         | Franklinton Police Department      |
| Chapel Hill Police Department           | Fuquay-Varina Police Department    |
| Chatham County Sheriff's Office         | Garner Police Department           |
| Cherokee County Sheriff's Office        | Gaston County Police Department    |
| Cherryville Police Department           | Gastonia Police Department         |
| Clay County Sheriff's Office            | Gates County Sheriff's Office      |
| Clayton Police Department               | Gibsonville Police Department      |
| Cleveland County Sheriff's Office       | Goldensboro Police Department      |
| Clinton Police Department               | Graham Police Department           |
| Clyde Police Department                 | Granville County Sheriff's Office  |
| Charlotte Mecklenburg Police Department | Greene County Sheriff's Office     |
| Columbus County Sheriff's Office        | Greensboro Police Department       |

## Acknowledgements

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

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

## Acknowledgements

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

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

NC-VDRS is fortunate to have a dedicated and professional staff. Program Manager Tammy Norwood oversees all operational aspects of the NC-VDRS and is chiefly responsible for data quality and program integrity. Data abstractors, Dana Dandeneau, April Allgood, Ahamefule Anyanwu, and Taylor Davis 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 2021 and the period of the data close-out (2021-2023), 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 Glorina Stallworth 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 2021 by demographic characteristics of sex, race/ethnicity, and age. The 2021 overall rate of violent deaths per 100,000 people in North Carolina is displayed in **Figure 1** by sex and race/ethnicity and in **Figure 2** by age group.

### Key Findings:

- A total of 2,537 North Carolinians (24.0 per 100,000) died as a result of violence in 2021.
- Males were 4.0 times as likely to die from violence as females (38.9 versus 9.7 per 100,000, respectively).
- Non-Hispanic (NH) American Indians had the highest violent death rate per 100,000 (42.7) followed by NH Blacks (35.9), NH Whites (22.5), Hispanics (16.5), and NH Asians (8.1).
- Adults ages 20 to 24 years had the highest violent death rate per 100,000 (40.3), followed by adults ages: 25 to 34 (38.5), 35 to 44 (27.6), 45 to 54 (26.8), and 85 and older (26.4).
- Among those under the age of 15, children less than one year old had the highest violent death rate (5.2 per 100,000).

**Table 2** lists the manner and method of violent deaths in North Carolina in 2021. NC violent deaths in 2021 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 (55.7%) followed by homicide (37.5%).
- The leading methods of violent death were firearm (70.1%), hanging, strangulation or suffocation (13.1%), and poisoning (7.5%).
- The most common firearm involved in violent firearm deaths was a handgun (75.6%).

**Table 4** characterizes adult violent death victims (18 years or older) in North Carolina in 2021 by the number of years of completed education, marital status, and veteran status.

### Key Findings:

- Most adult victims at least completed high school (78.7%) 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 (25.9%). Nearly one-half of adult violent victims were never married (47.2%). Fewer victims were divorced (17.3%) or widowed (4.6%).
- Military veterans accounted for 13.1% of North Carolina adult violent death victims in 2021.

**Table 5** and **Figure 5** show the overall violent death rates in 2021 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 18 counties was too small to support a rate calculation (greater than zero, but less than 5).

**Key Findings:**

- For the 82 counties where the number of resident deaths was sufficient to support a rate calculation, the average rate of violent deaths by North Carolina County of residence was 29.4 deaths per 100,000 with a range from 12.9 to 73.3 deaths per 100,000.

Note: Rounding of percentages found in tables/figures may result in totals more or less than 100.

**Table 1: Demographics of violent death victims in North Carolina, 2021**

|                          | Number       | %          | Rate        | 95% CI             |
|--------------------------|--------------|------------|-------------|--------------------|
| <b>Sex</b>               |              |            |             |                    |
| Female                   | 522          | 20.6       | 9.7         | 8.9 - 10.5         |
| Male                     | 2,015        | 79.4       | 38.9        | 37.2 - 40.6        |
| <b>Race/Ethnicity</b>    |              |            |             |                    |
| White*                   | 1,475        | 58.1       | 22.5        | 21.4 - 23.7        |
| Black*                   | 805          | 31.7       | 35.9        | 33.4 - 38.4        |
| Asian*                   | 29           | 1.1        | 8.1         | 5.1 - 11.0         |
| American Indian*         | 47           | 1.9        | 42.7        | 30.5 - 54.9        |
| Hispanic                 | 172          | 6.8        | 16.5        | 14.1 - 19.0        |
| Other/Unknown            | 9            | 0.4        | --          | --                 |
| <b>Age Group (Years)</b> |              |            |             |                    |
| < 1                      | 6            | 0.2        | 5.2         | 1.0 - 9.3          |
| 1-4                      | 19           | 0.8        | 4.0         | 2.2 - 5.8          |
| 5-9                      | 9            | 0.4        | 1.5         | 0.5 - 2.4          |
| 10-14                    | 30           | 1.2        | 4.5         | 2.9 - 6.1          |
| 15 - 19                  | 220          | 8.7        | 31.3        | 27.1 - 35.4        |
| 20 - 24                  | 296          | 11.7       | 40.3        | 35.7 - 44.9        |
| 25 - 34                  | 544          | 21.4       | 38.5        | 35.2 - 41.7        |
| 35 - 44                  | 367          | 14.5       | 27.6        | 24.8 - 30.4        |
| 45 - 54                  | 361          | 14.2       | 26.8        | 24.1 - 29.6        |
| 55 - 64                  | 294          | 11.6       | 21.6        | 19.1 - 24.0        |
| 65 - 74                  | 217          | 8.6        | 19.9        | 17.2 - 22.5        |
| 75 - 84                  | 125          | 4.9        | 23.9        | 19.7 - 28.1        |
| 85 +                     | 49           | 1.9        | 26.4        | 19.0 - 33.9        |
| <b>Total Deaths</b>      | <b>2,537</b> | <b>100</b> | <b>24.0</b> | <b>23.1 - 24.9</b> |

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

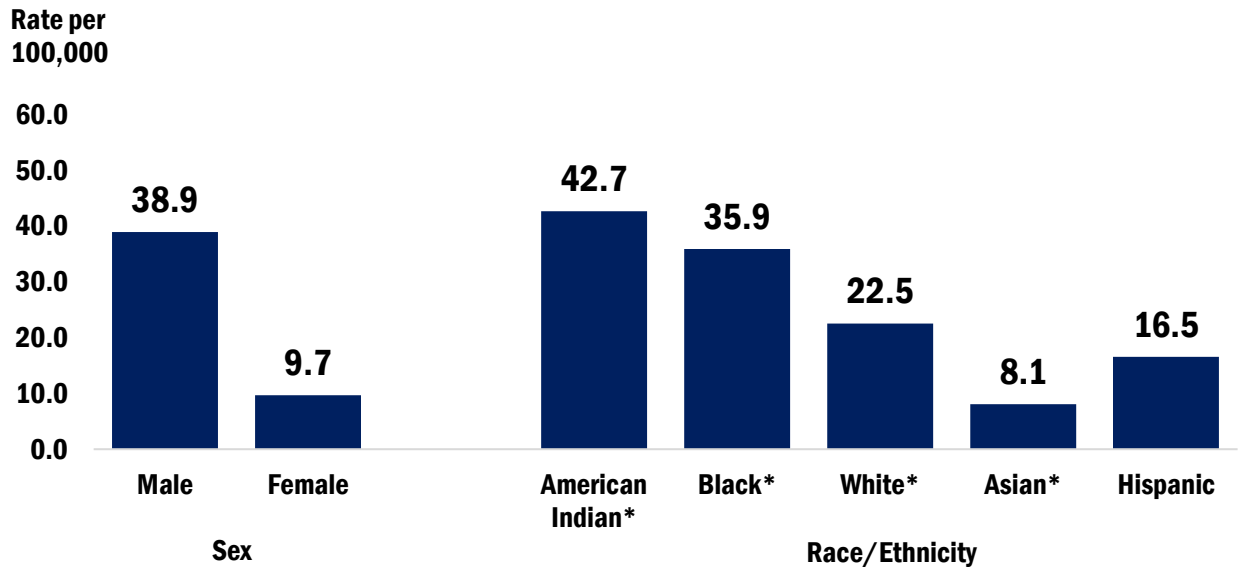
95% CI = 95 % Confidence Interval for the Rate

\* Non-Hispanic

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

## Section I

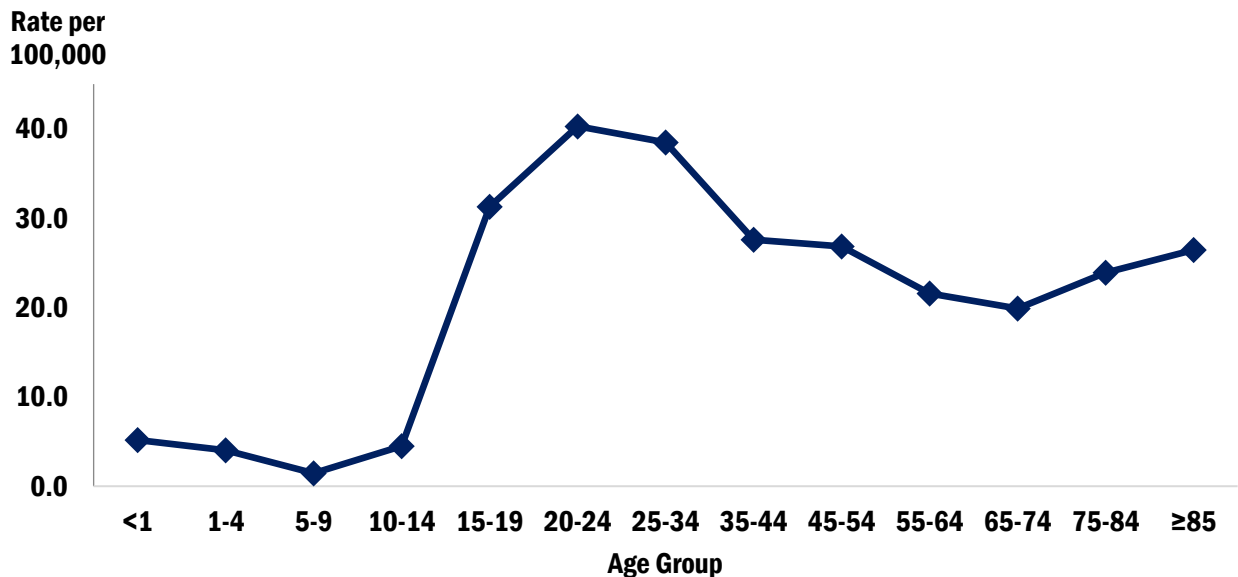
**Figure 1: Crude overall violent death rates by sex and race/ethnicity in North Carolina, 2021**



\* Non-Hispanic

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, 2021**



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

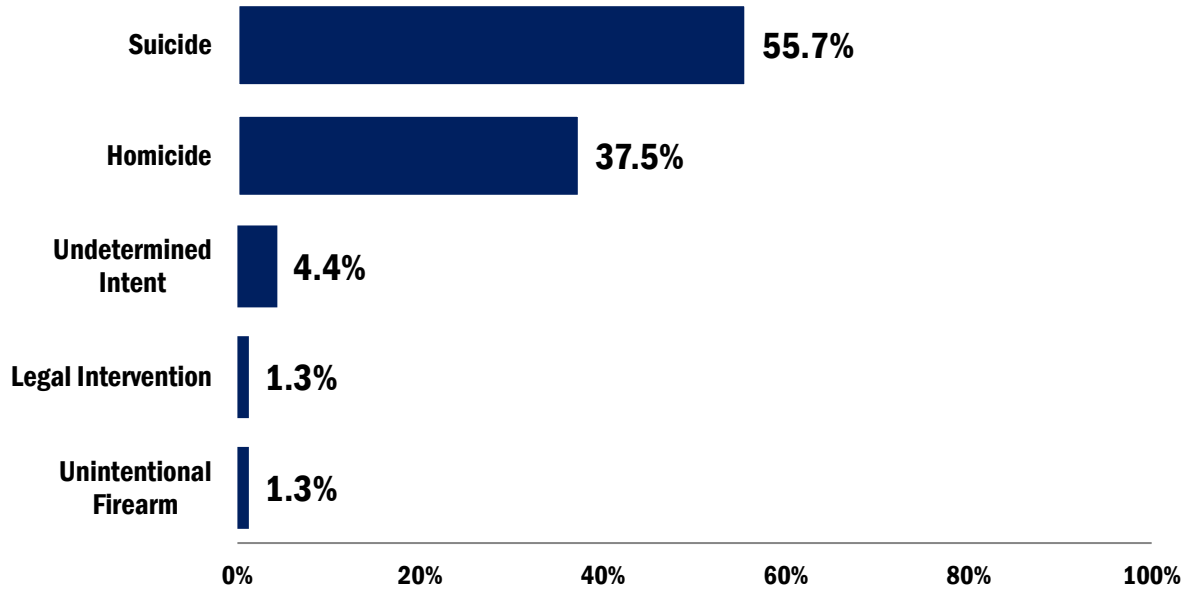
**Table 2: Manner and method of violent death in North Carolina, 2021**

|                                     | Number       | %          |
|-------------------------------------|--------------|------------|
| <b>Manner of Death</b>              |              |            |
| Suicide                             | 1,412        | 55.7       |
| Homicide                            | 950          | 37.5       |
| Undetermined Intent                 | 111          | 4.4        |
| Legal Intervention                  | 32           | 1.3        |
| Unintentional Firearm               | 32           | 1.3        |
| <b>Method of Death</b>              |              |            |
| Firearm                             | 1,779        | 70.1       |
| Hanging, Strangulation, Suffocation | 333          | 13.1       |
| Poisoning                           | 190          | 7.5        |
| Sharp Instrument                    | 82           | 3.2        |
| Blunt Instrument                    | 34           | 1.3        |
| Personal Weapons                    | 26           | 1.0        |
| Fall                                | 25           | 1.0        |
| Motor Vehicle                       | 25           | 1.0        |
| Fire or burns                       | 14           | 0.6        |
| Other Transport Vehicle             | 4            | 0.2        |
| Drowning                            | 15           | 0.6        |
| Intentional Neglect                 | 2            | 0.1        |
| Violent Shaking                     | 2            | 0.1        |
| Other/Unknown                       | 6            | 0.2        |
| <b>Total Deaths</b>                 | <b>2,537</b> | <b>100</b> |

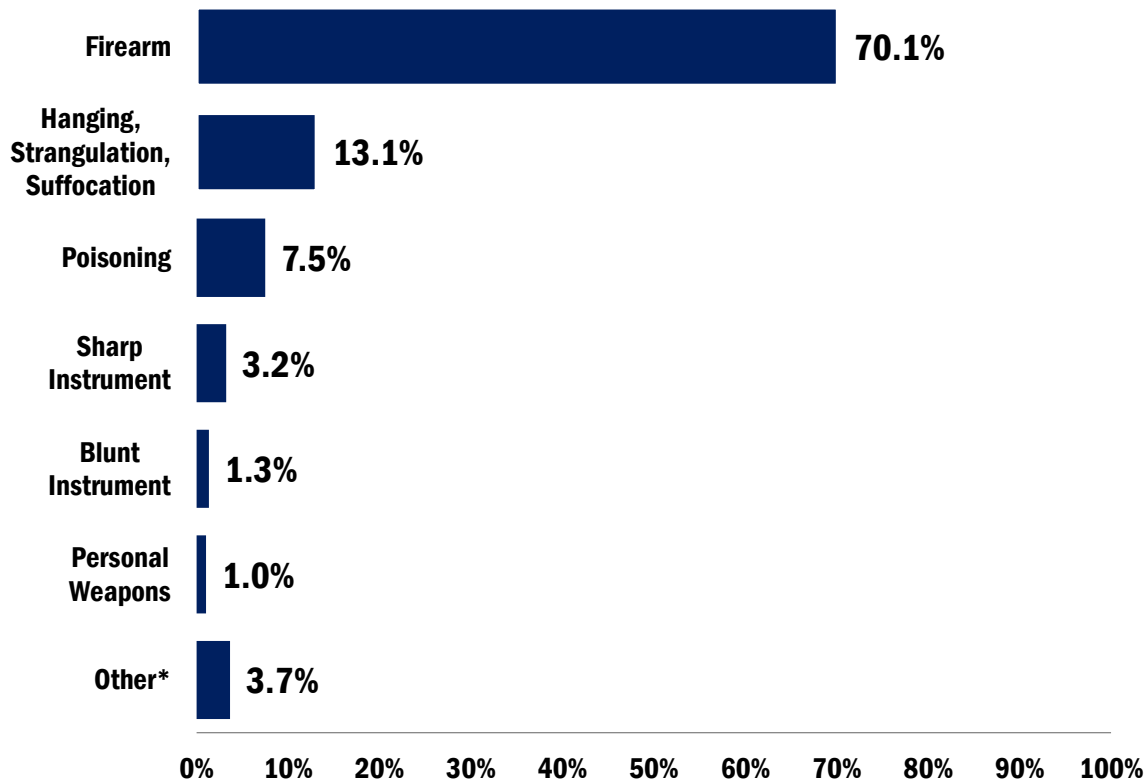


## Section I

### Figure 3: Manner of violent death in North Carolina, 2021



### Figure 4: Method of violent death in North Carolina, 2021



\* 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, 2021**

|  | Number       | %          |
|--|--------------|------------|
| <b>Firearm Type*</b>                               |              |            |
| Handgun  | 1,350        | 75.6       |
| Shotgun  | 130          | 7.3        |
| Rifle  | 171          | 9.6        |
| Other/Unknown Type                                 | 135          | 7.6        |
| <b>Total Firearms Involved, All Violent Deaths</b> | <b>1,786</b> | <b>100</b> |

\* Multiple firearm types were reported for seven violent firearm deaths; therefore, the total number of firearms exceeds the number of firearm deaths (n=1,779).

**Table 4: Completed education, marital status, and veteran status of adult violent death victims (ages 18 or older) in North Carolina, 2021**

|  | Number       | %          |
|--|--------------|------------|
| <b>Education Level</b>                       |              |            |
| 8th Grade or Less                            | 79           | 3.3        |
| 9th – 12th Grade                             | 411          | 17.4       |
| High school or GED graduate                  | 996          | 42.0       |
| Some college credit                          | 372          | 15.7       |
| Associate’s degree                           | 178          | 7.5        |
| Bachelor’s degree                            | 227          | 9.6        |
| Master’s degree                              | 72           | 3.0        |
| Doctorate degree                             | 19           | 0.8        |
| Unknown                                      | 15           | 0.6        |
| <b>Marital Status</b>                        |              |            |
| Never Married                                | 1,118        | 47.2       |
| Married*                                     | 614          | 25.9       |
| Divorced                                     | 410          | 17.3       |
| Widowed                                      | 109          | 4.6        |
| Married, but separated                       | 96           | 4.1        |
| Unknown                                      | 22           | 0.9        |
| <b>Veteran Status</b>                        |              |            |
| Non-Veteran                                  | 2,039        | 86.1       |
| Veteran                                      | 311          | 13.1       |
| Unknown                                      | 19           | 0.8        |
| <b>Total Adult Deaths (ages 18 or older)</b> | <b>2,369</b> | <b>100</b> |

\*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, 2021**

| County            | Number | Rate | County           | Number | Rate | County            | Number | Rate |
|-------------------|--------|------|------------------|--------|------|-------------------|--------|------|
| Alamance          | 40     | 23.0 | <b>Franklin</b>  | 27     | 37.6 | <b>Pamlico</b>    | 7      | 56.7 |
| Alexander         | 7      | 19.2 | Gaston           | 64     | 27.7 | Pasquotank        | 11     | 27.0 |
| Alleghany         | 4      | *    | Gates            | 1      | *    | Pender            | 16     | 25.4 |
| <b>Anson</b>      | 10     | 44.9 | Graham           | 1      | *    | Perquimans        | 1      | *    |
| <b>Ashe</b>       | 12     | 44.8 | <b>Granville</b> | 21     | 34.2 | Person            | 13     | 33.2 |
| Avery             | 5      | 28.6 | Greene           | 1      | *    | Pitt              | 31     | 18.0 |
| Beaufort          | 13     | 29.3 | Guilford         | 137    | 25.2 | Polk              | 5      | 25.4 |
| <b>Bertie</b>     | 8      | 45.9 | Halifax          | 15     | 31.0 | Randolph          | 39     | 26.9 |
| <b>Bladen</b>     | 13     | 44.0 | Harnett          | 35     | 25.8 | Richmond          | 12     | 28.0 |
| Brunswick         | 39     | 26.9 | Haywood          | 18     | 28.8 | <b>Robeson</b>    | 51     | 43.9 |
| Buncombe          | 56     | 20.6 | Henderson        | 27     | 23.1 | Rockingham        | 24     | 26.3 |
| Burke             | 20     | 22.8 | Hertford         | 7      | 33.1 | Rowan             | 48     | 32.4 |
| Cabarrus          | 35     | 15.1 | Hoke             | 11     | 20.7 | Rutherford        | 16     | 24.8 |
| <b>Caldwell</b>   | 32     | 39.7 | Hyde             | 1      | *    | Sampson           | 16     | 27.1 |
| Camden            | 2      | *    | Iredell          | 40     | 20.8 | <b>Scotland</b>   | 17     | 49.7 |
| Carteret          | 14     | 20.4 | Jackson          | 8      | 18.8 | Stanly            | 12     | 19.0 |
| Caswell           | 2      | *    | Johnston         | 48     | 21.1 | <b>Stokes</b>     | 15     | 33.6 |
| Catawba           | 46     | 28.4 | Jones            | 1      | *    | Surry             | 15     | 21.1 |
| Chatham           | 14     | 17.9 | Lee              | 16     | 25.0 | Swain             | 2      | *    |
| Cherokee          | 3      | *    | Lenoir           | 14     | 25.6 | Transylvania      | 8      | 24.1 |
| Chowan            | 1      | *    | Lincoln          | 17     | 18.9 | Tyrrell           | 3      | *    |
| Clay              | 2      | *    | McDowell         | 12     | 26.9 | Union             | 32     | 13.1 |
| Cleveland         | 28     | 27.9 | <b>Macon</b>     | 19     | 50.7 | Vance             | 13     | 30.9 |
| <b>Columbus</b>   | 17     | 34.0 | Madison          | 4      | *    | Wake              | 149    | 12.9 |
| Craven            | 27     | 26.9 | Martin           | 4      | *    | Warren            | 2      | *    |
| <b>Cumberland</b> | 117    | 34.7 | Mecklenburg      | 246    | 21.9 | <b>Washington</b> | 8      | 73.3 |
| Currituck         | 7      | 23.6 | Mitchell         | 3      | *    | Watauga           | 12     | 21.8 |
| Dare              | 9      | 23.8 | Montgomery       | 8      | 30.9 | Wayne             | 29     | 24.8 |
| Davidson          | 45     | 26.3 | Moore            | 25     | 24.3 | Wilkes            | 13     | 19.8 |
| Davie             | 6      | 13.8 | Nash             | 23     | 24.2 | <b>Wilson</b>     | 30     | 38.3 |
| Duplin            | 15     | 30.9 | New Hanover      | 49     | 21.3 | <b>Yadkin</b>     | 15     | 40.3 |
| Durham            | 87     | 26.4 | Northampton      | 11     | 64.4 | <b>Yancey</b>     | 8      | 42.6 |
| <b>Edgecombe</b>  | 26     | 53.8 | Onslow           | 50     | 24.4 |                   |        |      |
| Forsyth           | 110    | 28.5 | Orange           | 27     | 18.2 |                   |        |      |

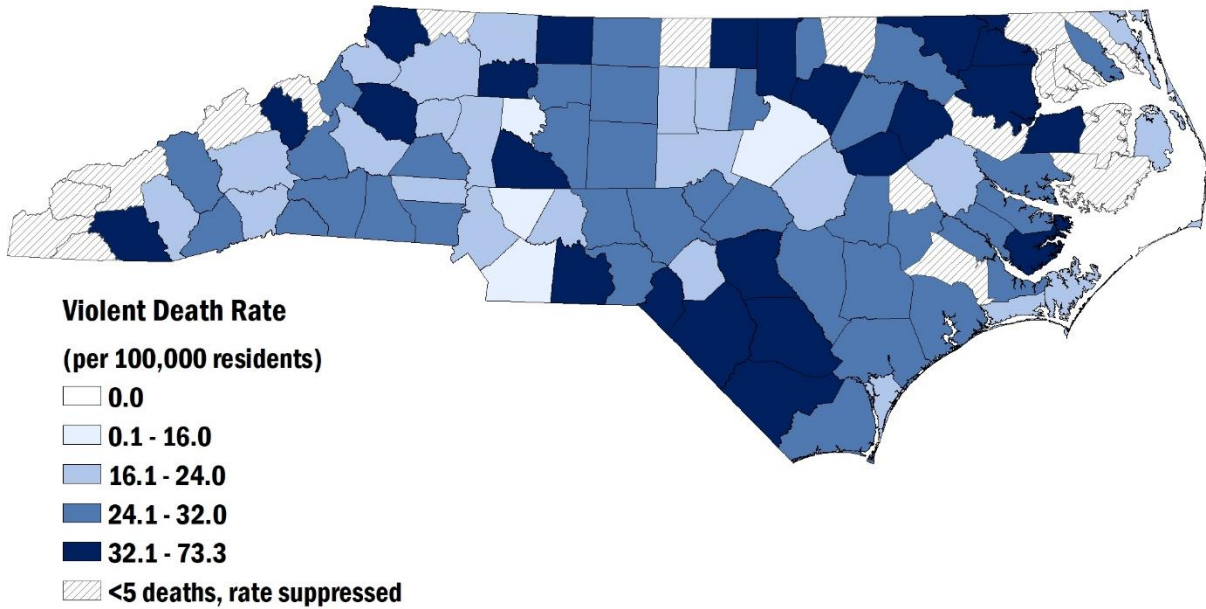
Crude rate per 100,000 population in NC county

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

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

**Figure 5: Map of overall violent death rates in North Carolina by county of residence, 2021**

**North Carolina 2021 violent death rate: 24.0 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 2021 stratified by race/ethnicity and sex.

#### **Key Findings:**

- NH Whites (58.1%) and males (79.4%) represented the majority of violent death victims, as shown in Table 1.
- NH Whites accounted for 55.9% of male violent death victims and 66.7% of female victims, while NH Blacks comprised 33.8% of male victims and 23.6% of female victims.
- Among males, NH American Indian males had the highest violent death rate per 100,000 (67.4) followed by NH Black males (64.5), NH White males (35.0), Hispanic males (26.4), and NH Asian males (11.9).
- Among females, NH American Indian females had the highest violent death rate per 100,000 (19.4) followed by NH White females (10.5), NH Black females (10.4), Hispanic females (6.0), and NH Asian females (4.4).
- The violent death rate was higher for males than for females of the same race/ethnicity by 6.2 for NH Blacks, 4.4 times for Hispanics, 3.5 times for NH American Indians, 3.3 times for NH Whites, and 2.7 times for NH Asians.

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

**Table 7** stratifies the North Carolina violent death victims in 2021 by age group and sex. **Figure 7** illustrates the 2021 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 (22.8%) and 35 to 44 (14.0%) years old followed by males ages 45 to 54 (13.2%), 20 to 24 (12.6%), 55 to 64 (11.0%), and 15 to 19 (9.4%).
- Among females, most violent death victims were ages 45 to 54 (18.4%) years old followed by females ages 25 to 34 (16.3), 35 to 44 (16.1%), 55 to 64 (13.8%), 65 to 74 (10.3%), and 20 to 24 (8.0%).
- Among males, the violent death rate per 100,000 by age group was highest for ages 85 and older (71.9) followed by ages 20 to 24 (66.9) and 25 to 34 (64.8).
- For females, the violent death rate trend by age reached a peak of 14.1 per 100,000 for ages 45 to 54 followed by ages 35 to 44 (12.5) and 25 to 34 (12.0).
- Males were more likely to experience violent death than females by 5.9 times for ages 15 to 19, 5.7 times for ages 20 to 24, 5.4 times for ages 25 to 34, 4.7 times for ages 75 to 84, and 3.5 times for ages 65 to 74.

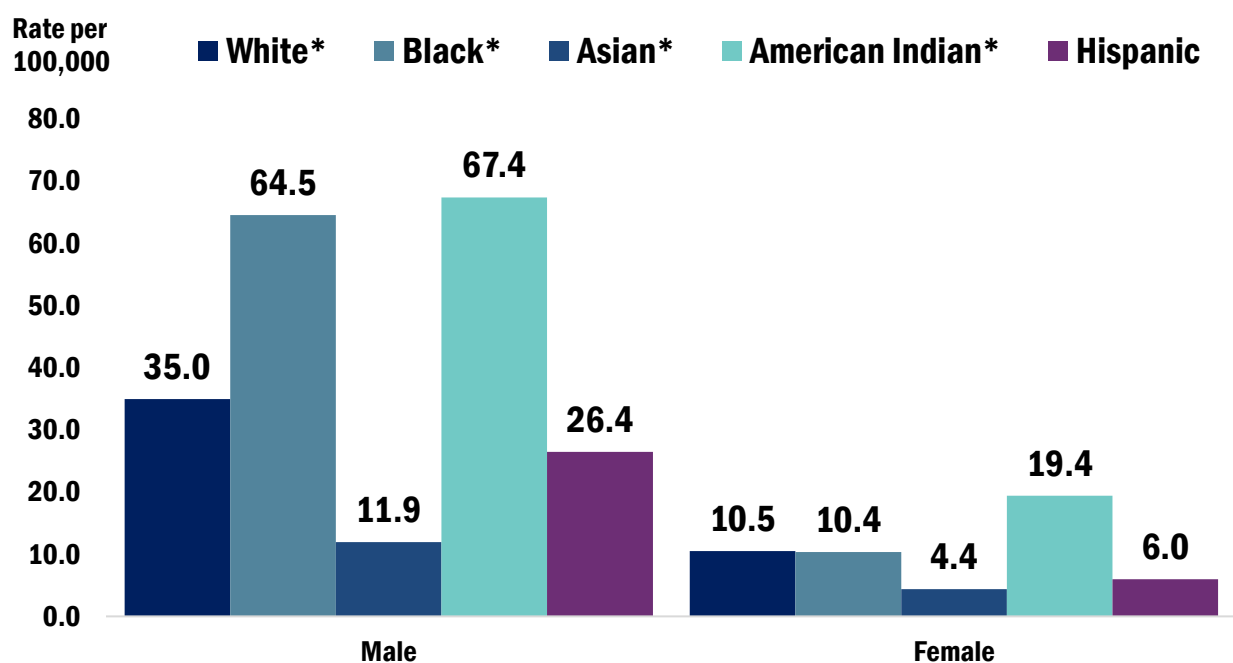
**Table 6: Race/ethnicity of violent death victims in North Carolina by sex, 2021**

| Race/Ethnicity      | Male         |            |             | Female     |            |            |
|---------------------|--------------|------------|-------------|------------|------------|------------|
|                     | Number       | %          | Rate        | Number     | %          | Rate       |
| White*              | 1,127        | 55.9       | 35.0        | 348        | 66.7       | 10.5       |
| Black*              | 682          | 33.8       | 64.5        | 123        | 23.6       | 10.4       |
| Asian*              | 21           | 1.0        | 11.9        | 8          | 1.5        | 4.4        |
| American Indian*    | 36           | 1.8        | 67.4        | 11         | 2.1        | 19.4       |
| Hispanic            | 142          | 7.0        | 26.4        | 30         | 5.7        | 6.0        |
| Other/Unknown       | 7            | 0.3        | -           | 2          | 0.4        | -          |
| <b>Total Deaths</b> | <b>2,015</b> | <b>100</b> | <b>39.9</b> | <b>522</b> | <b>100</b> | <b>9.9</b> |

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

\* Non-Hispanic

**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, 2021**

\* Non-Hispanic (NH)

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

## Section I

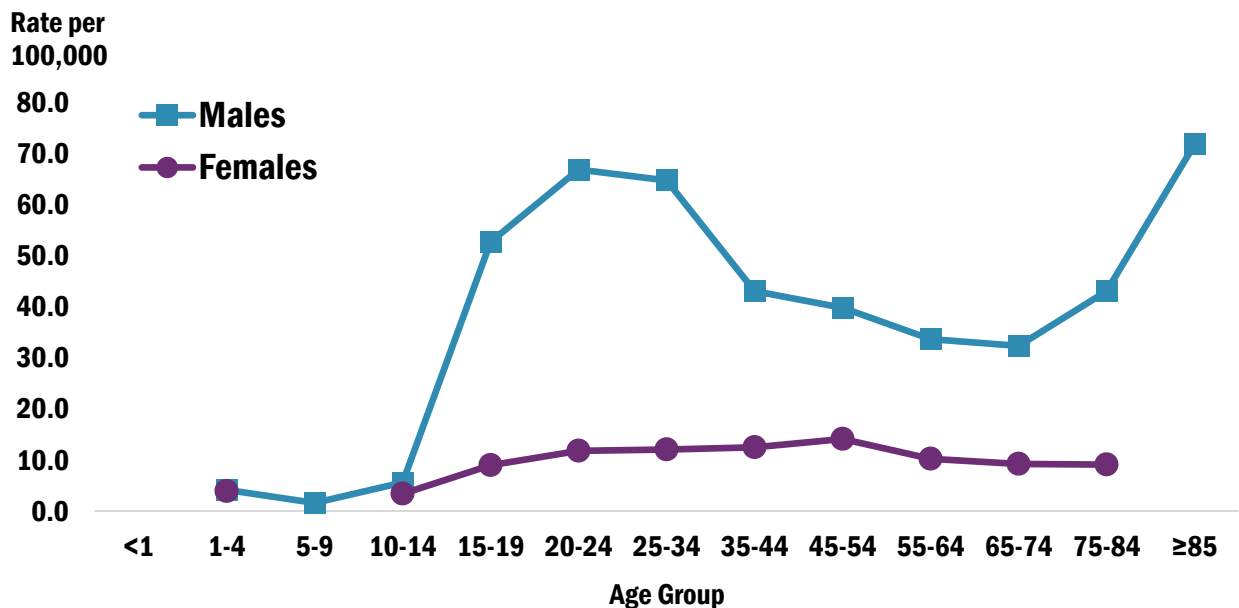
**Table 7: Age group of violent death victims in North Carolina by sex, 2021**

| Age Group (years)   | Male         |            |             | Female     |            |            |
|---------------------|--------------|------------|-------------|------------|------------|------------|
|                     | Number       | %          | Rate        | Number     | %          | Rate       |
| <1                  | 3            | 0.1        | *           | 3          | 0.6        | *          |
| 1-4                 | 10           | 0.5        | 4.2         | 9          | 1.7        | 3.9        |
| 5-9                 | 5            | 0.2        | 1.6         | 4          | 0.8        | *          |
| 10-14               | 19           | 0.9        | 5.6         | 11         | 2.1        | 3.4        |
| 15-19               | 189          | 9.4        | 52.7        | 31         | 5.9        | 9.0        |
| 20-24               | 254          | 12.6       | 66.9        | 42         | 8.0        | 11.8       |
| 25-34               | 459          | 22.8       | 64.8        | 85         | 16.3       | 12.0       |
| 35-44               | 283          | 14.0       | 43.1        | 84         | 16.1       | 12.5       |
| 45-54               | 265          | 13.2       | 39.8        | 96         | 18.4       | 14.1       |
| 55-64               | 222          | 11.0       | 33.7        | 72         | 13.8       | 10.2       |
| 65-74               | 163          | 8.1        | 32.4        | 54         | 10.3       | 9.2        |
| 75-84               | 98           | 4.9        | 43.1        | 27         | 5.2        | 9.1        |
| ≥85                 | 45           | 2.2        | 71.9        | 4          | 0.8        | *          |
| <b>Total Deaths</b> | <b>2,015</b> | <b>100</b> | <b>38.9</b> | <b>522</b> | <b>100</b> | <b>9.7</b> |

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

**Note:** The number of violent deaths was too small to support a rate calculation for male infants younger than one, and for female infants younger than one, ages 5-9 and 85 and older.

**Figure 7: Age-specific crude overall violent death rates in North Carolina, stratified by age group and sex, 2021**



**Note:** The number of violent deaths was too small to support a rate calculation for male infants younger than one, and for female infants younger than one, ages 5-9 and 85 and older.

## Section II: Suicide

### Basic Characteristics of Suicides

**Table 8** describes suicides in 2021 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 2021 is illustrated by race/ethnicity and sex in **Figure 8** and by age group in **Figure 9**.

#### Key Findings:

- In 2021, a total of 1,412 North Carolinians (15.1 per 100,000) died from suicide.
- Males were 4.4 times as likely to die from suicide as females (25.0 vs. 5.7 per 100,000).
- NH Whites had the highest suicide rate (18.7 per 100,000) followed NH American Indian (15.4 per 100,000), Hispanic (10.7 per 100,000), NH Black (8.6 per 100,000), NH Asian (7.7 per 100,000) victims.
- Adults ages 85 and older had the highest rate of suicide (24.8 per 100,000) followed by those ages 75 to 84 (20.3 per 100,000), 20 to 24 (18.8 per 100,000), and 25 to 34 (17.0 per 100,000).

**Table 9** and **Figure 10** summarize the method of death for suicide victims in North Carolina in 2021. **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 (63.8%), hanging, strangulation or suffocation (22.2%), and poisoning (8.4%).
- Men more often died from suicide by a firearm (68.1%) or hanging, strangulation or suffocation (22.5%) and less frequently died from suicide by poisoning (4.3%).
- Women more commonly died from suicide by firearm (45.8%) or poisoning (25.8%), compared to hanging, strangulation or suffocation (21.0%).
- Considering only suicide firearm deaths, a handgun was the most common firearm used in 80.2% of all deaths; handguns accounted for 78.5% of male deaths and 91.1% of female deaths.
- Most suicide poisoning deaths (32.8%) involved opiates (either illicit or prescription). The second most common substance was antidepressants (27.7%), followed by anticonvulsants (21.9%), and benzodiazepines (17.7%).

**Table 12** characterizes the 1,412 adult suicide victims (age 18 or older) in North Carolina in 2021 by education level, marital status, and veteran status.

#### Key Findings:

- The majority (86.7%) of adult suicide victims at least graduated high school or received their GED.
- Suicide victims were most often never married (35.3%) and less frequently married, in a civil union or domestic partnership (32.6%), divorced (20.4%), or widowed (6.3%).
- Military veterans accounted for 19.3% of adult suicide victims.



## Section II

**Table 13** and **Figure 11** show the suicide rates in 2021 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 11 of the 20 counties with the highest suicide rates having less than 50,000 residents in 2021.

### Key Findings:

- For the 68 counties where the number of suicides was sufficient to support a rate calculation, the average suicide rate by North Carolina county of residence was 19.1 deaths per 100,000 with a range from 0.0 to 53.1 deaths per 100,000.

**Table 8: Demographics of suicide victims (ages 10 or older) in North Carolina, 2021**

|                          | Number       | %          | Rate        | 95% CI             |
|--------------------------|--------------|------------|-------------|--------------------|
| <b>Sex</b>               |              |            |             |                    |
| Female                   | 271          | 19.2       | 5.7         | 5.0 - 6.3          |
| Male                     | 1,141        | 80.8       | 25.0        | 23.6 - 26.5        |
| <b>Race/Ethnicity</b>    |              |            |             |                    |
| White*                   | 1,109        | 78.5       | 18.7        | 17.6 - 19.7        |
| Black*                   | 169          | 12.0       | 8.5         | 7.3 - 9.8          |
| Asian*                   | 24           | 1.7        | 7.7         | 4.6 - 10.8         |
| American Indian*         | 15           | 1.1        | 15.4        | 7.6 - 23.2         |
| Hispanic                 | 89           | 6.3        | 10.7        | 8.5 - 12.9         |
| Other/Unknown            | 6            | 0.4        | -           | -                  |
| <b>Age Group (Years)</b> |              |            |             |                    |
| 10-14                    | 18           | 1.27       | 2.7         | 1.4 - 3.9          |
| 15 - 19                  | 86           | 6.09       | 12.2        | 9.6 - 14.8         |
| 20 - 24                  | 138          | 9.77       | 18.8        | 15.6 - 21.9        |
| 25 - 34                  | 241          | 17.07      | 17.0        | 14.9 - 19.2        |
| 35 - 44                  | 188          | 13.31      | 14.1        | 12.1 - 16.2        |
| 45 - 54                  | 219          | 15.51      | 16.3        | 14.1 - 18.4        |
| 55 - 64                  | 194          | 13.74      | 14.2        | 12.2 - 16.2        |
| 65 - 74                  | 176          | 12.46      | 16.1        | 13.8 - 18.5        |
| 75 - 84                  | 106          | 7.51       | 20.3        | 16.4 - 24.1        |
| ≥85                      | 46           | 3.26       | 24.8        | 17.7 - 32.0        |
| <b>Total Deaths</b>      | <b>1,412</b> | <b>100</b> | <b>15.1</b> | <b>14.3 - 15.9</b> |

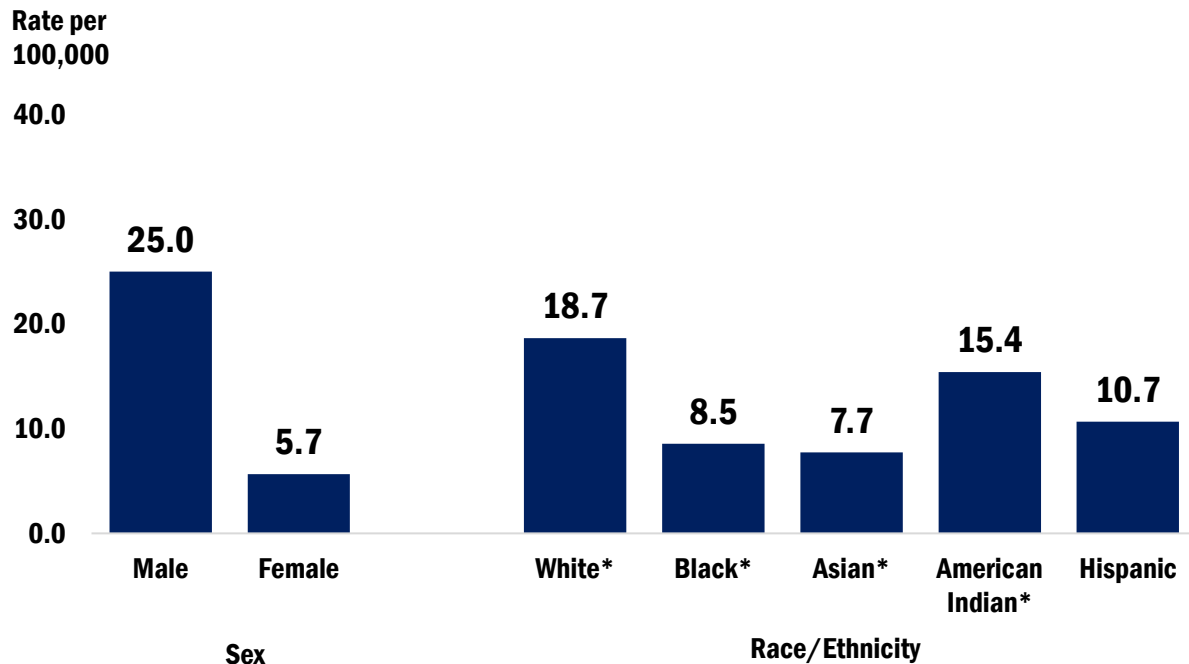
Sex, race/ethnicity, and age-specific crude rates per 100,000 NC population

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

\* Non-Hispanic

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

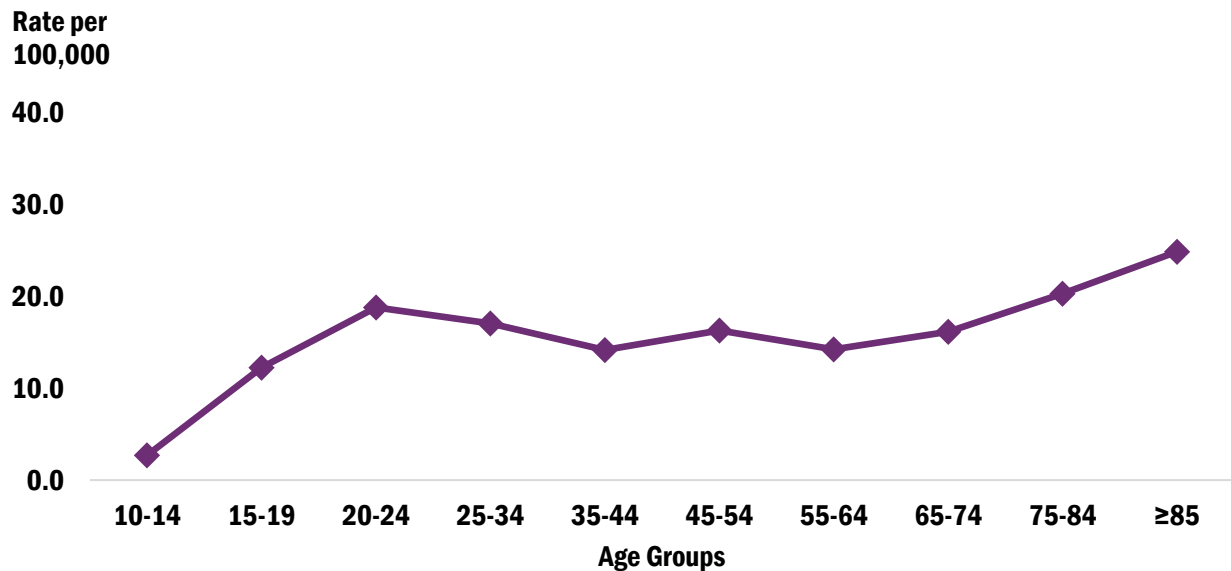
**Figure 8: Crude suicide rates (ages 10 or older) in North Carolina by sex and race/ethnicity, 2021**



\* 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, 2021**



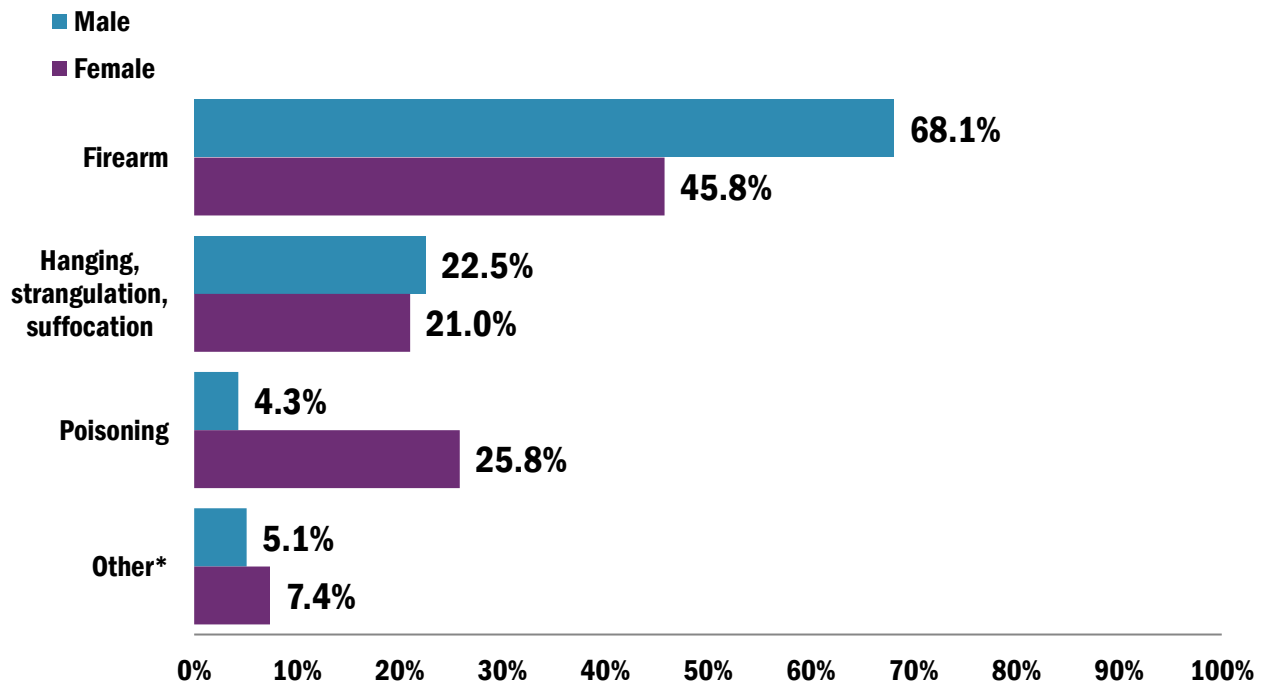
**Note:** The number of suicide deaths for all ages was high enough to support a rate calculation.

## Section II

**Table 9: Method of death for suicide victims (ages 10 or older) in North Carolina by sex, 2021**

| Method of Death                            | Male         |            | Female     |            | Total        |            |
|--|--------------|------------|------------|------------|--------------|------------|
|  | Number       | %          | Number     | %          | Number       | %          |
| Firearm                                    | 777          | 68.1       | 124        | 45.8       | 901          | 63.8       |
| Hanging, strangulation, suffocation        | 257          | 22.5       | 57         | 21.0       | 314          | 22.2       |
| Poisoning                                  | 49           | 4.3        | 70         | 25.8       | 119          | 8.4        |
| Sharp instrument                           | 15           | 1.3        | 5          | 1.9        | 20           | 1.4        |
| Fall                                       | 13           | 1.1        | 6          | 2.2        | 19           | 1.3        |
| Drowning                                   | 7            | 0.6        | 6          | 2.2        | 13           | 0.9        |
| Motor vehicle including buses, motorcycles | 9            | 0.8        | 2          | 0.7        | 11           | 0.8        |
| Fire or burns                              | 8            | 0.7        | 1          | 0.4        | 9            | 0.6        |
| Other                                      | 6            | 0.5        | 0          | 0.0        | 6            | 0.4        |
| <b>Total Deaths</b>                        | <b>1,141</b> | <b>100</b> | <b>271</b> | <b>100</b> | <b>1,412</b> | <b>100</b> |

**Figure 10: Method of death for suicide victims (ages 10 or older) in North Carolina by sex, 2021**



\* 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, 2021**

| Firearm Type*                              | Male       |              | Female     |              | Total      |              |
|--|------------|--------------|------------|--------------|------------|--------------|
|  | Number     | %            | Number     | %            | Number     | %            |
| Handgun                                    | 610        | 78.5         | 113        | 91.1         | 723        | 80.2         |
| Shotgun                                    | 87         | 11.2         | 3          | 2.4          | 90         | 10.0         |
| Rifle                                      | 72         | 9.3          | 7          | 5.6          | 79         | 8.8          |
| Other/Unknown                              | 8          | 1.0          | 1          | 0.8          | 9          | 1.0          |
| <b>Total Firearms Involved in Suicides</b> | <b>777</b> | <b>100.0</b> | <b>124</b> | <b>100.0</b> | <b>901</b> | <b>100.0</b> |

\* Multiple firearm types were reported in zero firearm suicide deaths; therefore, the total number of firearms does not exceed the number of suicide firearm deaths (n=901).

**Table 11: Fatal substances in suicide poisoning deaths (ages 10 or older) in North Carolina by sex, 2021**

| Category of Fatal Substance* | Male   |       | Female |       | Total  |       |
|------------------------------|--------|-------|--------|-------|--------|-------|
|                              | Number | %     | Number | %     | Number | %     |
| Opiate**                     | 10     | 20.4  | 29     | 41.4  | 39     | 32.8  |
| Antidepressant               | 10     | 20.4  | 23     | 32.9  | 33     | 27.7  |
| Benzodiazepines              | 5      | 10.2  | 16     | 22.9  | 21     | 17.7  |
| Anticonvulsants              | 7      | 14.29 | 19     | 27.14 | 26     | 21.85 |
| Alcohol                      | 6      | 12.2  | 5      | 7.1   | 11     | 9.2   |
| Carbon Monoxide              | 13     | 26.5  | 4      | 5.7   | 17     | 14.3  |
| Antipsychotics               | 4      | 8.16  | 6      | 8.57  | 10     | 8.4   |
| Muscle Relaxant              | 1      | 2.04  | 5      | 7.14  | 6      | 5.04  |
| Barbiturates                 | 0      | 0.0   | 0      | 0.0   | 0      | 0.0   |
| Amphetamine                  | 1      | 2.0   | 1      | 1.4   | 2      | 1.7   |
| Cocaine                      | 0      | 0.0   | 1      | 1.4   | 1      | 0.8   |
| Other Poison***              | 16     | 32.7  | 25     | 35.7  | 41     | 34.5  |

\* Category of substance that directly caused or was suspected to cause suicide poisoning. There were 53 suicide poisonings (44.5%) where more than one substance caused the death in 2021, with as many as five fatal substances present in a given case (2.5%).

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

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

## Section II

**Table 12: Completed education, marital status, and veteran status of adult suicide victims (ages 18 or older) in North Carolina, 2021**

|  | Number       | %          |
|--|--------------|------------|
| <b>Education Level</b>                       |              |            |
| 8th grade or less                            | 35           | 2.6        |
| 9th – 12th grade                             | 145          | 10.7       |
| High school or GED graduate                  | 525          | 38.9       |
| Some college credit                          | 235          | 17.4       |
| Associate degree                             | 137          | 10.1       |
| Bachelor’s degree                            | 192          | 14.2       |
| Master’s degree                              | 61           | 4.5        |
| Doctorate degree                             | 16           | 1.2        |
| Unknown                                      | 5            | 0.4        |
| <b>Marital Status</b>                        |              |            |
| Never married                                | 477          | 35.3       |
| Married*                                     | 440          | 32.6       |
| Divorced                                     | 275          | 20.4       |
| Married, but separated                       | 66           | 4.9        |
| Widowed                                      | 85           | 6.3        |
| Unknown                                      | 8            | 0.6        |
| <b>Veteran Status</b>                        |              |            |
| Non-Veteran                                  | 1,079        | 79.9       |
| Veteran                                      | 261          | 19.3       |
| Unknown                                      | 11           | 0.8        |
| <b>Total Adult Deaths (ages 18 or older)</b> | <b>1,351</b> | <b>100</b> |

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

**Table 13: Suicides (ages 10 or older) in North Carolina by county of residence, 2021**

| County           | Number | Rate | County           | Number | Rate | County              | Number | Rate |
|------------------|--------|------|------------------|--------|------|---------------------|--------|------|
| Alamance         | 20     | 13.0 | <b>Franklin</b>  | 18     | 28.2 | <b>Pamlico</b>      | 5      | 43.6 |
| Alexander        | 5      | 15.2 | Gaston           | 33     | 16.2 | Pasquotank          | 2      | *    |
| Alleghany        | 4      | *    | Gates            | 1      | *    | Pender              | 11     | 19.7 |
| Anson            | 4      | *    | Graham           | 1      | *    | Perquimans          | 1      | *    |
| <b>Ashe</b>      | 11     | 44.8 | <b>Granville</b> | 14     | 25.4 | Person              | 5      | 14.3 |
| Avery            | 1      | *    | Greene           | 0      | 0.0  | Pitt                | 16     | 10.5 |
| Beaufort         | 7      | 17.5 | Guilford         | 52     | 10.8 | Polk                | 4      | *    |
| Bertie           | 2      | *    | Halifax          | 5      | 11.6 | <b>Randolph</b>     | 28     | 21.8 |
| Bladen           | 2      | *    | Harnett          | 22     | 18.9 | Richmond            | 1      | *    |
| Brunswick        | 27     | 20.1 | <b>Haywood</b>   | 14     | 24.7 | Robeson             | 11     | 10.9 |
| <b>Buncombe</b>  | 37     | 15.0 | Henderson        | 19     | 17.9 | <b>Rockingham</b>   | 19     | 23.2 |
| Burke            | 13     | 16.4 | Hertford         | 1      | *    | <b>Rowan</b>        | 27     | 20.6 |
| Cabarrus         | 21     | 10.4 | Hoke             | 1      | *    | Rutherford          | 9      | 15.5 |
| <b>Caldwell</b>  | 21     | 29.1 | Hyde             | 0      | 0.0  | Sampson             | 6      | 11.7 |
| Camden           | 2      | *    | Iredell          | 27     | 15.8 | Scotland            | 4      | *    |
| Carteret         | 9      | 14.3 | <b>Jackson</b>   | 8      | 20.6 | Stanly              | 8      | 14.3 |
| Caswell          | 1      | *    | Johnston         | 35     | 17.6 | <b>Stokes</b>       | 10     | 24.7 |
| Catawba          | 29     | 20.2 | Jones            | 1      | *    | Surry               | 11     | 17.3 |
| Chatham          | 12     | 17.0 | Lee              | 8      | 14.2 | Swain               | 2      | *    |
| Cherokee         | 3      | *    | Lenoir           | 3      | *    | <b>Transylvania</b> | 7      | 22.9 |
| Chowan           | 1      | *    | Lincoln          | 13     | 16.2 | Tyrrell             | 2      | *    |
| Clay             | 2      | *    | McDowell         | 8      | 19.9 | Union               | 18     | 8.4  |
| <b>Cleveland</b> | 18     | 20.3 | <b>Macon</b>     | 18     | 53.1 | Vance               | 3      | *    |
| Columbus         | 8      | 17.9 | Madison          | 3      | *    | Wake                | 96     | 9.5  |
| <b>Craven</b>    | 19     | 21.5 | Martin           | 2      | *    | Warren              | 1      | *    |
| Cumberland       | 58     | 20.1 | Mecklenburg      | 126    | 12.8 | <b>Washington</b>   | 5      | 51.2 |
| <b>Currituck</b> | 7      | 26.7 | Mitchell         | 3      | *    | Watauga             | 8      | 15.5 |
| Dare             | 5      | 14.5 | Montgomery       | 4      | *    | Wayne               | 11     | 10.8 |
| Davidson         | 29     | 19.1 | Moore            | 17     | 18.7 | Wilkes              | 8      | 13.5 |
| Davie            | 3      | *    | Nash             | 11     | 13.0 | Wilson              | 14     | 20.3 |
| Duplin           | 6      | 14.1 | New Hanover      | 29     | 13.9 | <b>Yadkin</b>       | 9      | 27.1 |
| Durham           | 39     | 13.3 | Northampton      | 6      | 38.6 | <b>Yancey</b>       | 6      | 35.4 |
| Edgecombe        | 6      | 14.0 | Onslow           | 35     | 20.1 |                     |        |      |
| Forsyth          | 53     | 15.5 | Orange           | 20     | 14.8 |                     |        |      |

Crude rate per 100,000 population in NC county

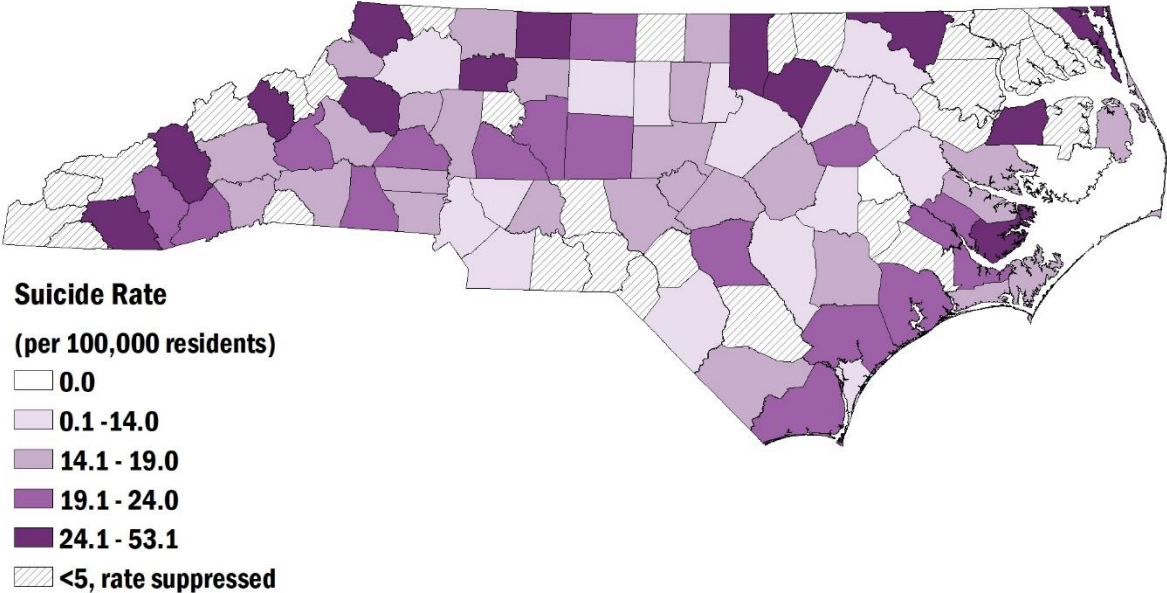
\* The number of deaths was too small to support a rate calculation.

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

**Section II**

**Figure 11: Map of suicide rates (ages 10 or older) in North Carolina by county of residence, 2021**

**North Carolina 2021 suicide rate: 15.1 deaths per 100,000 residents**



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

**Table 14** and **Figure 12** describe suicide victims in North Carolina in 2021 by race and sex.

### **Key Findings:**

- Of all suicide victims, 78.5% were NH White and 80.8% were male, as shown in **Table 8**.
- Most male suicide victims were NH White (78.6%) as compared to NH Black (12.2%). Similarly, most female suicide victims were NH White (78.2%) as compared to NH Black (11.1%).
- For males, the suicide rate per 100,000 from highest to lowest by race/ethnicity was NH White males (30.8), NH American Indian males (23.4), Hispanic males (16.6), NH Black males (15.1), and NH Asian males (11.9).
- For females, the suicide rate per 100,000 from highest to lowest by race/ethnicity was NH White females (7.0), Hispanic females (4.2), NH Asian females (3.8), and NH Black females (2.8). There were four suicides among NH American Indian females in 2021, which was too small to compute a rate.
- The suicide rate was higher for males than for females of the same race by 5.3 times for NH Blacks, 4.4 times for NH Whites, 3.9 times for Hispanics, and 3.2 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 2021 by age group and sex. **Figure 13** plots the 2021 suicide rates per 100,000 in North Carolina by age group and sex.

### **Key Findings:**

- Among males, most suicide victims were ages 25 to 64 with a rank order by age group of: 25 to 34 (17.8%), 45 to 54 (14.1%), 55 to 64 (13.6%), and 35 to 44 (13.3%).
- Similarly, among females most suicide victims were ages 25 to 74 with a rank order by age group of: 45 to 54 (21.4%), 55 to 64 (14.4%), 25 to 34 (14.0%), 65 to 74 (14.0%), and 35 to 44 (13.3%).
- For males, the suicide rate peaked among those ages 85 and older (70.3 per 100,000).
- The suicide rate by age group for females peaked at 45 to 54 (8.5 per 100,000).
- Males had higher suicide rates than females across all age groups with the largest sex disparity occurring among those ages 20 to 24 with the rate being 6.7 times higher among males than females (31.9 versus 4.8 per 100,000, respectively).



## Section II

**Table 14: Race of suicide victims (ages 10 or older) in North Carolina by sex, 2021**

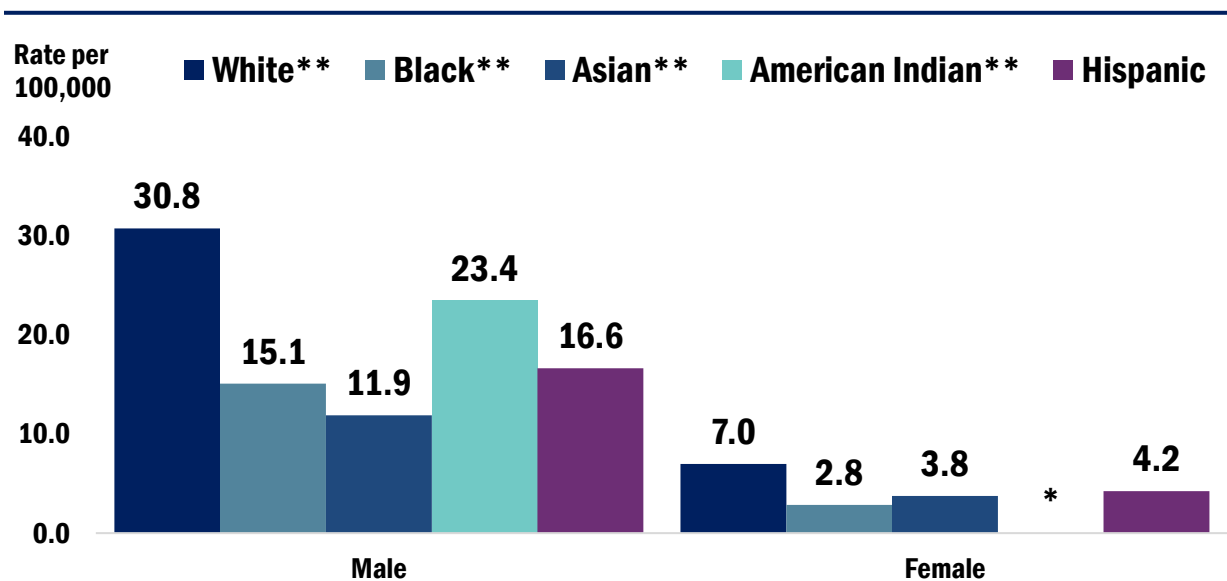
| Race/Ethnicity      | Male         |            |             | Female     |            |            |
|---------------------|--------------|------------|-------------|------------|------------|------------|
|                     | Number       | %          | Rate        | Number     | %          | Rate       |
| White**             | 897          | 78.6       | 30.8        | 212        | 78.2       | 7.0        |
| Black**             | 139          | 12.2       | 15.1        | 30         | 11.1       | 2.8        |
| Asian**             | 18           | 1.6        | 11.9        | 6          | 2.2        | 3.8        |
| American Indian**   | 11           | 1.0        | 23.4        | 4          | 1.5        | *          |
| Hispanic            | 72           | 6.3        | 16.6        | 17         | 6.3        | 4.2        |
| Other/Unknown       | 4            | 0.4        | -           | 2          | 0.7        | -          |
| <b>Total Deaths</b> | <b>1,141</b> | <b>100</b> | <b>25.0</b> | <b>271</b> | <b>100</b> | <b>6.3</b> |

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

\* The number of deaths was too small to support a rate calculation for NH American Indian females.

\*\* Non-Hispanic

**Figure 12: Crude suicide rates (ages 10 or older) in North Carolina stratified by race/ethnicity and sex, 2021**



\* The number of deaths was too small to support a rate calculation for NH American Indian females.

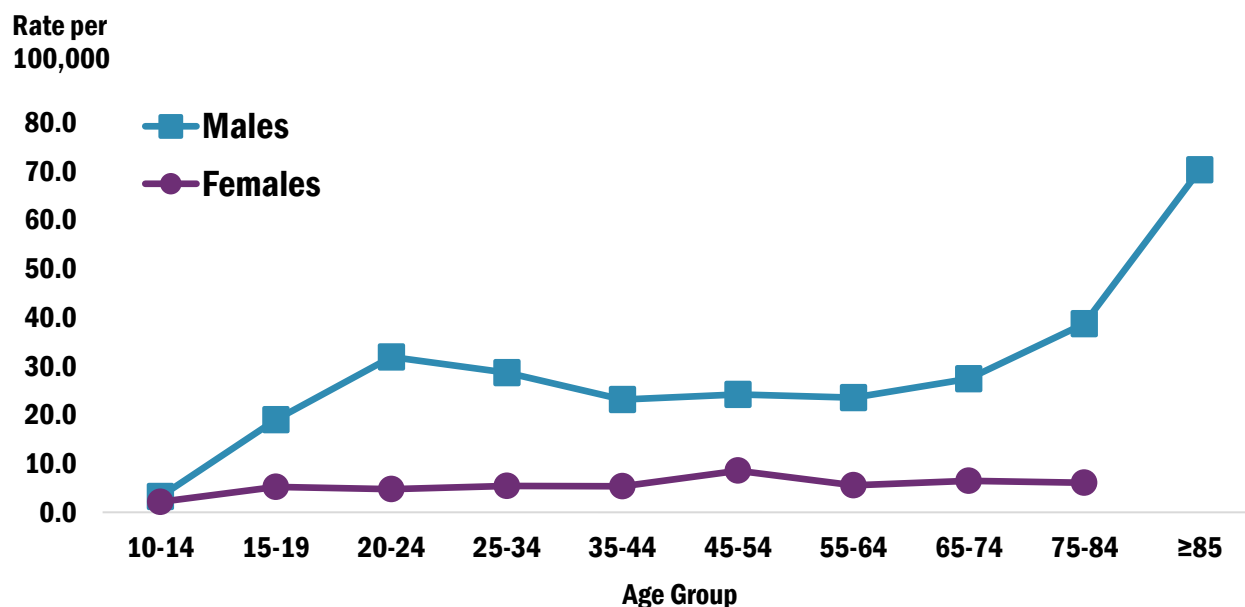
\*\* Non-Hispanic

**Table 15: Age group of suicide victims (ages 10 or older) in North Carolina by sex, 2021**

| Age Group (Years)   | Male         |            |             | Female     |            |            |
|---------------------|--------------|------------|-------------|------------|------------|------------|
|                     | Number       | %          | Rate        | Number     | %          | Rate       |
| 10-14               | 11           | 1.0        | 3.2         | 7          | 2.6        | 2.1        |
| 15-19               | 68           | 6.0        | 19.0        | 18         | 6.6        | 5.2        |
| 20-24               | 121          | 10.6       | 31.9        | 17         | 6.3        | 4.8        |
| 25-34               | 203          | 17.8       | 28.7        | 38         | 14.0       | 5.4        |
| 35-44               | 152          | 13.3       | 23.2        | 36         | 13.3       | 5.3        |
| 45-54               | 161          | 14.1       | 24.2        | 58         | 21.4       | 8.5        |
| 55-64               | 155          | 13.6       | 23.5        | 39         | 14.4       | 5.5        |
| 65-74               | 138          | 12.1       | 27.4        | 38         | 14.0       | 6.5        |
| 75-84               | 88           | 7.7        | 38.7        | 18         | 6.6        | 6.1        |
| ≥85                 | 44           | 3.9        | 70.3        | 2          | 0.7        | *          |
| <b>Total Deaths</b> | <b>1,141</b> | <b>100</b> | <b>25.0</b> | <b>271</b> | <b>100</b> | <b>5.7</b> |

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

**Note:** The number of suicide deaths was too small to support a rate calculation for female ages 85 and older.

**Figure 13: Age-specific suicide rates (ages 10 or older) in North Carolina stratified by age group and sex, 2021**

**Note:** The number of suicide deaths was too small to support a rate calculation for female ages 85 and older.

## Section II

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

NC-VDRS collects data on the circumstances surrounding suicides. In 2021, 96.0% 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 2021. **Table 17** lists the mental health problem at the time of the suicide for both males and females in 2021.

#### **Key Findings:**

- The most common circumstances of suicide for male victims were ever being treated for mental illness (57.4%), current mental health problem (56.7%), experienced a recent crisis (44.6%), history of suicidal thoughts (30.6%), and intimate partner problem (28.4%).
- The most common circumstances of suicide for female victims were ever being treated for mental illness (78.7%), current mental health problem (77.5%), current treatment for mental illness (48.8%), experienced a recent crisis (45.0%), and history of suicidal thoughts (38.4%).
- A suicide note was left by 26.5% of male victims and 46.1% of female victims. Intent to commit suicide was disclosed by 22.5% of male victims and 31.0% of female victims. A total of 13.8% of male victims and 27.5% of female victims reported a history of suicide attempts, while 30.6% of male victims and 38.4% of female victims had a history of suicidal thoughts.

An intimate partner problem was a circumstance of suicide for 28.4% of males and 22.5% of females. A substance problem other than alcohol was a circumstance of suicide for 18.2% of males and 19.8% of females. Other common circumstances of suicide for males and females, respectively, were alcohol problem (17.1% and 12.4%), physical health problem (22.7% and 24.4%), recent criminal-related legal problem (8.4% and 1.9%), job problem (7.6% and 5.4%) and financial problem (4.3% and 5.0%).

At the time of suicide, the most common mental health problems were depression or dysthymia (78.6%), anxiety disorder (14.8%), bipolar disorder (10.3%), post-traumatic stress disorder (3.3%), and schizophrenia (3.2%).

Toxicology testing was performed on suicide victims at the medical examiner's direction to identify substances believed to have contributed to the death or circumstances surrounding the death. A positive test for a substance does not necessarily indicate that the substance was present at a lethal level. Testing of North Carolina suicide victims in 2021 is shown by sex in **Table 18** and by age and race/ethnicity in **Table 19**.

#### **Key Findings:**

- Alcohol was tested in 91.4% of all suicides. Testing was relatively infrequent for other substances. Of those victims tested, alcohol was present in 25.8% of all suicide victims, 27.1% of male victims and 20.3% of female victims.
- Ages 20 to 54 had the highest percentage of suicide victims with alcohol present, with a range from 35.5% to 38.8% of those age groups testing positive for alcohol. Alcohol was present in those victims tested by race as follows: NH Whites (28.3%), NH Blacks (24.8%), NH Asians (22.7%), NH American Indians (20.0%), and Hispanics (36.1%).

Table 20 lists the location of the injury resulting in death for suicide victims in North Carolina in 2021.

**Key Findings:**

- The majority (76.7%) of injuries resulting in death occurred in a house or an apartment.

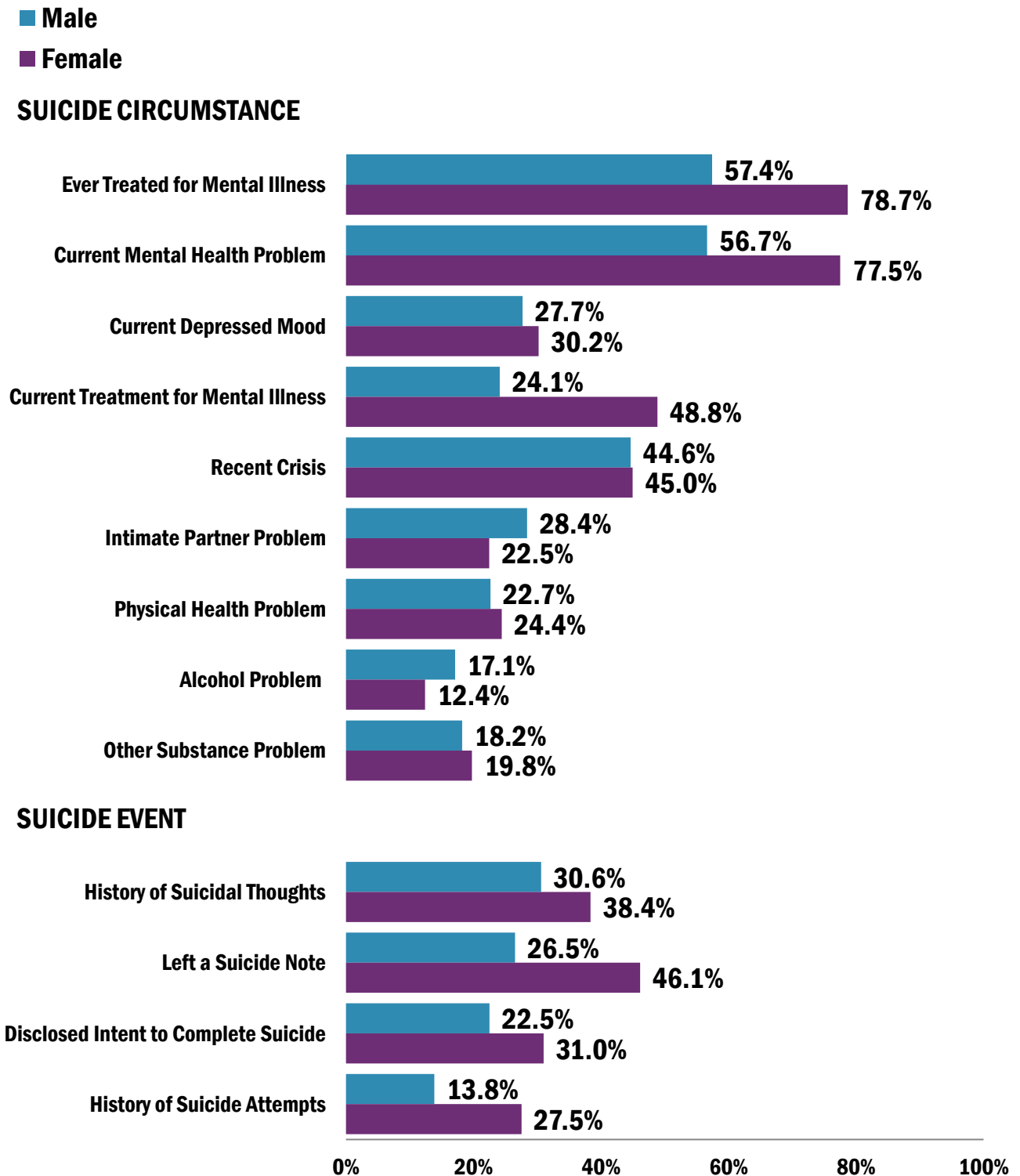
**Table 16: Circumstances of suicide victims (ages 10 or older) in North Carolina by Sex, 2021**

| Circumstance*                                  | Male   |      | Female |      | Total  |       |
|--|--------|------|--------|------|--------|-------|
|  | Number | %    | Number | %    | Number | %     |
| <b>Mental Health</b>                           |        |      |        |      |        |       |
| Ever treated - mental health                   | 630    | 57.4 | 203    | 78.7 | 833    | 61.4  |
| Current mental health problem                  | 622    | 56.7 | 200    | 77.5 | 822    | 60.6  |
| Current depressed mood                         | 304    | 27.7 | 78     | 30.2 | 382    | 28.2  |
| Current treatment MH                           | 265    | 24.1 | 126    | 48.8 | 391    | 28.8  |
| <b>Substance Abuse/Addiction</b>               |        |      |        |      |        |       |
| Alcohol problem                                | 188    | 17.1 | 32     | 12.4 | 220    | 16.2  |
| Other substance problem                        | 200    | 18.2 | 51     | 19.8 | 251    | 18.5  |
| Other addiction problem                        | 1      | 0.1  | 1      | 0.4  | 2      | 0.2   |
| <b>Interpersonal</b>                           |        |      |        |      |        |       |
| Intimate partner problem                       | 312    | 28.4 | 58     | 22.5 | 370    | 27.3  |
| Other relationship problem                     | 22     | 2.0  | 7      | 2.7  | 29     | 2.1   |
| Perpetrator of intimate partner violence       | 55     | 5.0  | 3      | 1.2  | 58     | 4.3   |
| Death of family/friend                         | 67     | 6.1  | 16     | 6.2  | 83     | 6.1   |
| Suicide death of family/friend in past 5 years | 15     | 1.4  | 1      | 0.4  | 16     | 1.2   |
| <b>Life Stressor</b>                           |        |      |        |      |        |       |
| Physical health problem                        | 249    | 22.7 | 63     | 24.4 | 312    | 23.0  |
| Job problem                                    | 83     | 7.6  | 14     | 5.4  | 97     | 7.2   |
| Criminal/legal problem                         | 92     | 8.4  | 5      | 1.9  | 97     | 7.2   |
| Financial problem                              | 47     | 4.3  | 13     | 5.0  | 60     | 4.4   |
| Legal problem, other                           | 34     | 3.1  | 12     | 4.7  | 46     | 3.4   |
| School problem                                 | 20     | 1.8  | 2      | 0.8  | 22     | 1.6   |
| Recent crisis                                  | 490    | 44.6 | 116    | 45.0 | 606    | 44.69 |
| <b>Suicide Event</b>                           |        |      |        |      |        |       |
| Left a suicide note                            | 291    | 26.5 | 119    | 46.1 | 410    | 30.2  |
| Suicide disclosed                              | 247    | 22.5 | 80     | 31.0 | 327    | 24.1  |
| History of suicide attempt                     | 152    | 13.8 | 71     | 27.5 | 223    | 16.5  |
| History of suicidal thoughts                   | 336    | 30.6 | 99     | 38.4 | 435    | 32.1  |

\* Circumstances were available for 96.2% (1,098/1,141) of male victims, 95.2% (258/271) of female victims, and 96.0% (1,356/1,412) of all suicide victims. The percentage of circumstances for suicide victims is based on the number of cases reporting circumstances in North Carolina in 2021.

## Section II

**Figure 14: Circumstances of suicide victims (ages 10 or older) in North Carolina by Sex, 2021**



**Note:** For Table 16 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, 2021**

|   | Male   |      | Female |      | Total  |      |
|---|--------|------|--------|------|--------|------|
|   | Number | %    | Number | %    | Number | %    |
| <b>Current Mental Health Problem *</b>                        |        |      |        |      |        |      |
| Depression/Dysthymia  | 479    | 77.0 | 167    | 83.5 | 646    | 78.6 |
| Bipolar Disorder  | 61     | 9.8  | 24     | 12.0 | 85     | 10.3 |
| Schizophrenia   | 25     | 4.0  | 1      | 0.5  | 26     | 3.2  |
| Anxiety Disorder  | 81     | 13.0 | 41     | 20.5 | 122    | 14.8 |
| Post-Traumatic Stress Disorder                                | 25     | 4.0  | 2      | 1.0  | 27     | 3.3  |
| Attention Deficit Disorder (ADD) or Hyper-Reactivity Disorder | 21     | 3.4  | 0      | 0.0  | 21     | 2.6  |
| Eating Disorder   | 1      | 0.2  | 2      | 1.0  | 3      | 0.4  |
| Other/Unknown   | 78     | 12.5 | 35     | 17.5 | 113    | 13.7 |

\* For 771 males, 272 females, and 1,043 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, 2021**

|  | Male   |      | Female |      | Total  |      |
|--|--------|------|--------|------|--------|------|
|  | Number | %    | Number | %    | Number | %    |
| <b>Alcohol</b>                         |        |      |        |      |        |      |
| Tested with results                    | 1,042  | 91.3 | 248    | 91.5 | 1,290  | 91.4 |
| Alcohol present in those tested        | 309    | 27.1 | 55     | 20.3 | 364    | 25.8 |
| <b>Amphetamines</b>                    |        |      |        |      |        |      |
| Tested with results                    | 20     | 1.8  | 8      | 3.0  | 28     | 2.0  |
| Amphetamines present in those tested   | 12     | 1.1  | 6      | 2.2  | 18     | 1.3  |
| <b>Antidepressant</b>                  |        |      |        |      |        |      |
| Tested with results                    | 26     | 2.3  | 43     | 15.9 | 69     | 4.9  |
| Antidepressant present in those tested | 25     | 2.2  | 43     | 15.9 | 68     | 4.8  |
| <b>Cocaine</b>                         |        |      |        |      |        |      |
| Tested with results                    | 84     | 7.4  | 79     | 29.2 | 163    | 11.5 |
| Cocaine present in those tested        | 5      | 0.4  | 2      | 0.7  | 7      | 0.5  |
| <b>Opiates</b>                         |        |      |        |      |        |      |
| Tested with results                    | 83     | 7.3  | 72     | 26.6 | 155    | 11.0 |
| Opiates present in those tested        | 21     | 1.8  | 31     | 11.4 | 52     | 3.7  |
| <b>Other substances*</b>               |        |      |        |      |        |      |
| Tested with results                    | 107    | 3.1  | 84     | 15.5 | 191    | 4.8  |
| Other drugs present in those tested    | 34     | 1.0  | 35     | 6.5  | 69     | 1.7  |

\* Other substances include carbon monoxide, barbiturates, benzodiazepines, and marijuana.  
**Note:** Testing refers to conducted toxicology tests of suicide victims.

## Section II

**Table 19: Alcohol toxicology testing and results for suicide victims (ages 10 or older) in North Carolina by age group and race, 2021**

|                          | Alcohol tested with results |       | Alcohol present in those tested |      |
|--------------------------|-----------------------------|-------|---------------------------------|------|
|                          | Number                      | %     | Number                          | %    |
| <b>Age Group (Years)</b> |                             |       |                                 |      |
| 10-14                    | 14                          | 77.8  | 0                               | 0.0  |
| 15 - 19                  | 79                          | 91.9  | 9                               | 11.4 |
| 20 - 24                  | 129                         | 93.5  | 50                              | 38.8 |
| 25 - 34                  | 220                         | 91.3  | 79                              | 35.9 |
| 35 - 44                  | 172                         | 91.5  | 61                              | 35.5 |
| 45 - 54                  | 197                         | 90.0  | 73                              | 37.1 |
| 55 - 64                  | 184                         | 94.8  | 52                              | 28.3 |
| 65 - 74                  | 163                         | 92.6  | 30                              | 18.4 |
| 75 - 84                  | 94                          | 88.7  | 9                               | 9.6  |
| ≥85                      | 38                          | 82.6  | 1                               | 2.6  |
| <b>Race/Ethnicity</b>    |                             |       |                                 |      |
| White*                   | 1,012                       | 91.3  | 286                             | 28.3 |
| Black*                   | 157                         | 92.9  | 39                              | 24.8 |
| Asian*                   | 22                          | 91.7  | 5                               | 22.7 |
| American Indian*         | 10                          | 66.7  | 2                               | 20.0 |
| Hispanic                 | 83                          | 93.3  | 30                              | 36.1 |
| Other/Unknown            | 6                           | 100.0 | 2                               | 33.3 |

\*Non-Hispanic

**Table 20: Injury location for suicide victims (ages 10 or older) in North Carolina, 2021**

|   | Number       | %          |
|---|--------------|------------|
| <b>Injury Location</b>  |              |            |
| House, apartment  | 1,083        | 76.7       |
| Motor vehicle (excluding school bus and public transportation)                  | 100          | 7.1        |
| Natural Area (e.g., field, river, beach, woods)                                 | 75           | 5.3        |
| Hotel/motel   | 17           | 1.2        |
| Jail, prison, detention facility  | 24           | 1.7        |
| Park, playground, public use area   | 5            | 0.4        |
| Other commercial establishment (e.g., grocery store, retail outlet, laundromat) | 13           | 0.9        |
| Street/road, sidewalk, alley  | 18           | 1.3        |
| Parking lot/public parking garage   | 15           | 1.1        |
| Highway/freeway   | 11           | 0.8        |
| Hospital or medical facility  | 4            | 0.3        |
| Synagogue, church, temple   | 1            | 0.1        |
| Other specified*  | 40           | 2.8        |
| Other/unknown   | 6            | 0.4        |
| <b>Total Deaths</b>   | <b>1,412</b> | <b>100</b> |

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



## Section III: Homicide

### Basic Characteristics of Homicides

**Table 21** characterizes the homicides in 2021 for North Carolina residents by demographics of sex, race/ethnicity, and age. The homicide rate in 2021 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 2021, 950 North Carolinians (9.0 per 100,000) were victims of homicide.
- Males were 4.2 times as likely to be victims of a homicide as females (14.7 versus 3.5 per 100,000, respectively).
- NH Blacks (26.6 per 100,000) had higher homicide rates than NH American Indians (24.5 per 100,000), Hispanics (7.4 per 100,000), and NH Whites (3.7 per 100,000). There were two homicides among NH Asians in 2021, which was too small to compute a rate.
- Homicide rates per 100,000 were highest for adults ages 20 to 24 years (19.9 per 100,000) and 25 to 34 years (18.7 per 100,000). Among children younger than 14 (for age groups where rates could be calculated), the rate was highest in children ages 1 to 4 years (2.8 per 100,000).

The method of death for homicide victims in North Carolina in 2021 is shown in **Table 22** and **Figure 17**. The type of firearm involved in homicide firearm deaths in North Carolina in 2021 is listed in **Table 23**.

#### Key Findings:

- The leading methods of homicide were firearm (85.5%), sharp instrument (6.4%), personal weapons (2.6%), blunt instrument (2.6%), and hanging, strangulation, and suffocation (1.6%).
- Most male and female homicide victims died by firearm (88.2% and 74.3% respectively), or sharp instrument (5.5% and 10.2% respectively).
- Considering only homicide firearm deaths, a handgun was the most common firearm used (71.6%).

**Table 24** describes adult homicide victims (18 years or older) in North Carolina in 2021 by education level, marital status, and veteran status.

#### Key Findings:

- Among adult homicide victims, 47.6% graduated high school or received their GED, 20.0% completed at least some college credit, and 31.5% completed up to 12<sup>th</sup> grade but did not graduate.
- About two thirds of homicide victims were never married (65.4%) as compared to married, civil union, or domestic partnership (16.8%), divorced (12.2%), married but separated (2.6%), or widowed (1.9%).
- Military veterans accounted for 4.9% of adult homicide victims.

**Table 25** and **Figure 18** display the homicide rates in 2021 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 26 counties was too small to support a rate calculation. Thirteen of the 20 counties with the highest rates had less than 50,000 residents in 2021.

**Key Findings:**

- For the 57 counties where the number of homicides was sufficient to support a rate calculation, the average homicide rate by North Carolina County of residence was 10.0 deaths per 100,000 with a range from 0.0 to 35.1 deaths per 100,000.

**Table 21: Demographics of homicide victims in North Carolina, 2021**

|                          | Number     | %            | Rate       | 95% CI           |
|--------------------------|------------|--------------|------------|------------------|
| <b>Sex</b>               |            |              |            |                  |
| Female                   | 187        | 19.7         | 3.5        | 3.0 - 4.0        |
| Male                     | 763        | 80.3         | 14.7       | 13.7 - 15.8      |
| <b>Race/Ethnicity</b>    |            |              |            |                  |
| White*                   | 245        | 25.8         | 3.7        | 3.3 - 4.2        |
| Black*                   | 597        | 62.8         | 26.6       | 24.5 - 28.7      |
| Asian*                   | 2          | 0.2          | *          | *                |
| American Indian*         | 27         | 2.8          | 24.5       | 15.3 - 33.8      |
| Hispanic                 | 77         | 8.1          | 7.4        | 5.8 - 9.1        |
| Other/Unknown            | 2          | 0.2          | -          | -                |
| <b>Age Group (Years)</b> |            |              |            |                  |
| < 1                      | 4          | 0.4          | *          | *                |
| 1-4                      | 13         | 1.4          | 2.8        | 1.3 - 4.3        |
| 5-9                      | 6          | 0.6          | 1.0        | 0.2 - 1.7        |
| 10-14                    | 9          | 0.9          | 1.3        | 0.5 - 2.2        |
| 15-19                    | 124        | 13.1         | 17.6       | 14.5 - 20.7      |
| 20-24                    | 146        | 15.4         | 19.9       | 16.6 - 23.1      |
| 25-34                    | 265        | 27.9         | 18.7       | 16.5 - 21.0      |
| 35-44                    | 143        | 15.1         | 10.8       | 9.0 - 12.5       |
| 45-54                    | 114        | 12.0         | 8.5        | 6.9 - 10.0       |
| 55-64                    | 79         | 8.3          | 5.8        | 4.5 - 7.1        |
| 65-74                    | 31         | 3.3          | 2.8        | 1.8 - 3.8        |
| 75-84                    | 13         | 1.4          | 2.5        | 1.1 - 3.8        |
| ≥85                      | 3          | 0.3          | *          | *                |
| <b>Total Deaths</b>      | <b>950</b> | <b>100.0</b> | <b>9.0</b> | <b>8.4 - 9.6</b> |

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

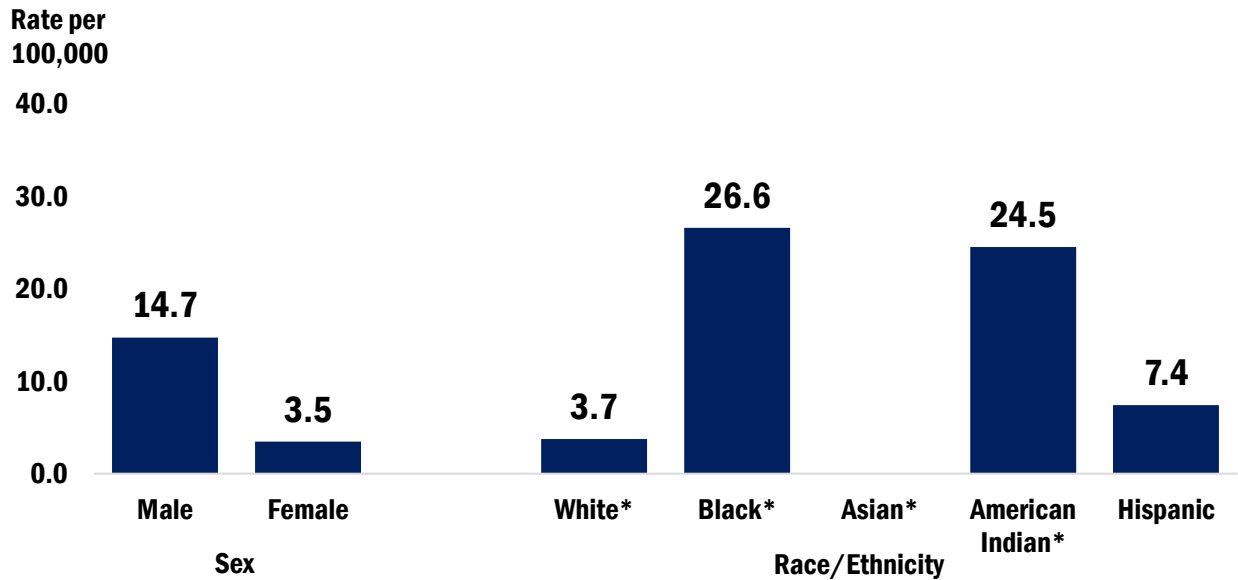
95% CI = 95 % confidence interval for the rate

\* Non-Hispanic

**Note:** The number of homicide deaths was too small to support a rate calculation for NH Asians, and for infants younger than one and ages 85 and older.

### Section III

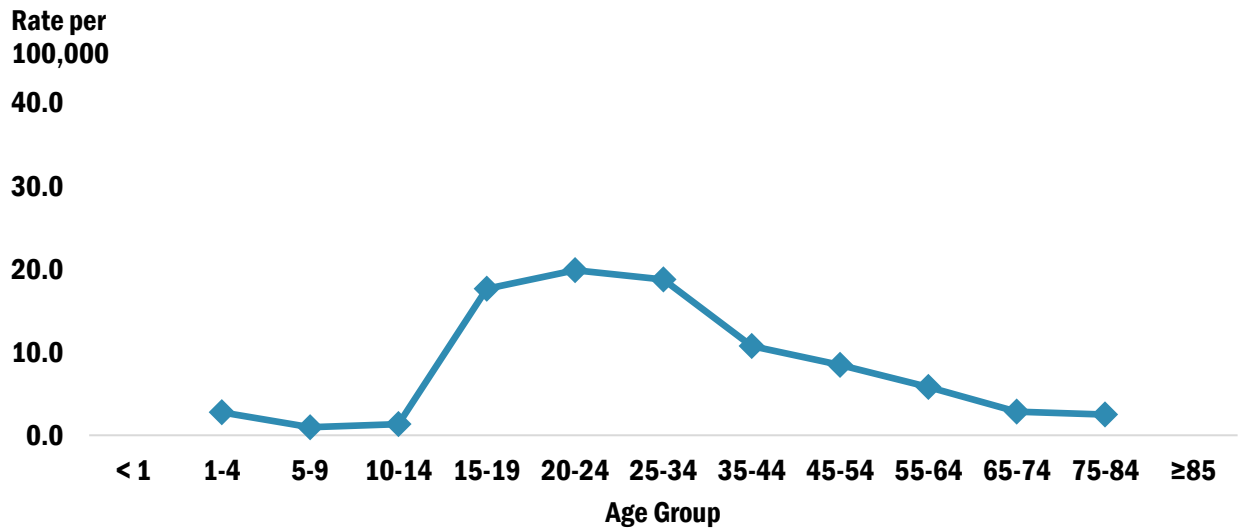
**Figure 15: Crude homicide rates in North Carolina by sex and race/ethnicity, 2021**



\* Non-Hispanic

**Note:** The number of homicide deaths was too small to support a rate calculation for NH Asians.

**Figure 16: Age-specific crude homicide rates in North Carolina by age group, 2021**

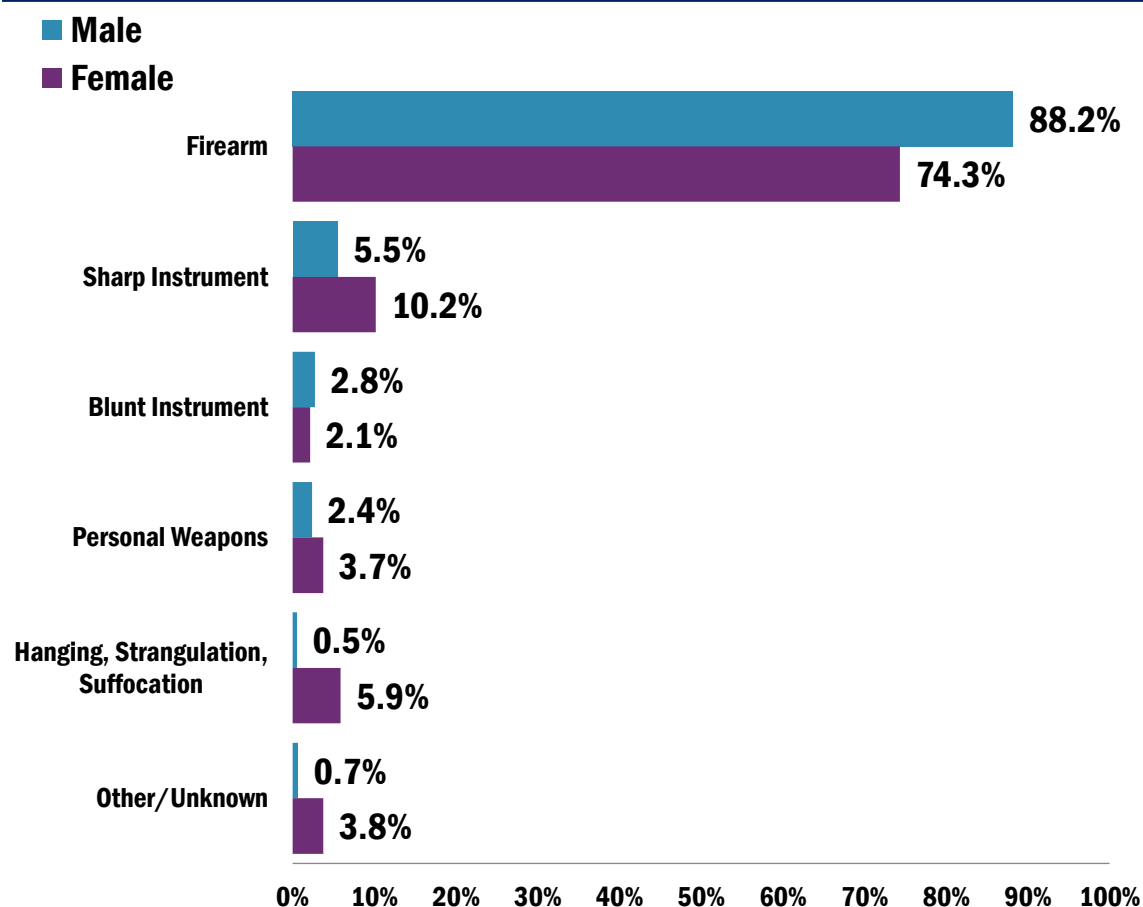


**Note:** The number of homicide deaths was too small to support a rate calculation for infants younger than one and ages 85 and older.

**Table 22: Method of death for homicide victims in North Carolina by sex, 2021**

| Method of Death                     | Male       |            | Female     |            | Total      |            |
|-------------------------------------|------------|------------|------------|------------|------------|------------|
|                                     | Number     | %          | Number     | %          | Number     | %          |
| Firearm                             | 673        | 88.2       | 139        | 74.3       | 812        | 85.5       |
| Sharp instrument                    | 42         | 5.5        | 19         | 10.2       | 61         | 6.4        |
| Blunt instrument                    | 21         | 2.8        | 4          | 2.1        | 25         | 2.6        |
| Personal weapons                    | 18         | 2.4        | 7          | 3.7        | 25         | 2.6        |
| Hanging, strangulation, suffocation | 4          | 0.5        | 11         | 5.9        | 15         | 1.6        |
| Fire or burns                       | 1          | 0.1        | 0          | 0.0        | 1          | 0.1        |
| Intentional neglect                 | 0          | 0.0        | 1          | 0.5        | 1          | 0.1        |
| Other*/unknown                      | 4          | 0.5        | 6          | 3.2        | 10         | 1.1        |
| <b>Total Deaths</b>                 | <b>763</b> | <b>100</b> | <b>187</b> | <b>100</b> | <b>950</b> | <b>100</b> |

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

**Figure 17: Method of death for homicide victims in North Carolina by sex, 2021**

## Section III

**Table 23: Type of firearm involved in homicide firearm deaths in North Carolina by Sex, 2021**

| Firearm Type*                               | Male       |            | Female     |            | Total      |            |
|---|------------|------------|------------|------------|------------|------------|
|   | Number     | %          | Number     | %          | Number     | %          |
| Handgun                                     | 490        | 72.3       | 95         | 68.3       | 585        | 71.6       |
| Shotgun                                     | 23         | 3.4        | 9          | 6.5        | 32         | 3.9        |
| Rifle                                       | 62         | 9.1        | 15         | 10.8       | 77         | 9.4        |
| Other/Unknown                               | 103        | 15.2       | 20         | 14.4       | 123        | 15.1       |
| <b>Total Firearms Involved in Homicides</b> | <b>678</b> | <b>100</b> | <b>139</b> | <b>100</b> | <b>817</b> | <b>100</b> |

\* Multiple firearm types were reported for five male homicide deaths and zero female homicide deaths; therefore, the total number of firearms exceeds the number of homicide firearm deaths (n=812).

**Table 24: Completed education, marital status, and veteran status of adult homicide victims (age 18 or older) in North Carolina, 2021**

|                             | Number | %    |
|-----------------------------|--------|------|
| <b>Education Level</b>      |        |      |
| 8th grade or less           | 36     | 4.2  |
| 9th – 12th grade            | 236    | 27.3 |
| High school or GED graduate | 411    | 47.6 |
| Some college credit         | 108    | 12.5 |
| Associate degree            | 30     | 3.5  |
| Bachelor’s degree           | 23     | 2.7  |
| Master’s degree             | 10     | 1.2  |
| Doctorate degree            | 2      | 0.2  |
| Unknown                     | 8      | 0.93 |
| <b>Marital Status</b>       |        |      |
| Never married               | 565    | 65.4 |
| Married*                    | 145    | 16.8 |
| Divorced                    | 105    | 12.2 |
| Married, but separated      | 22     | 2.6  |
| Widowed                     | 16     | 1.9  |
| Unknown                     | 11     | 1.3  |
| <b>Veteran Status</b>       |        |      |
| Non-Vet                     | 816    | 94.4 |
| Vet                         | 42     | 4.9  |
| Unknown                     | 6      | 0.7  |

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

**Table 25: Homicides in North Carolina by county of residence, 2021**

| County            | Number | Rate | County          | Number | Rate | County          | Number | Rate |
|-------------------|--------|------|-----------------|--------|------|-----------------|--------|------|
| Alamance          | 16     | 9.2  | Franklin        | 7      | 9.7  | Pamlico         | 0      | 0.0  |
| Alexander         | 0      | 0.0  | Gaston          | 24     | 10.4 | Pasquotank      | 5      | 12.3 |
| Alleghany         | 0      | 0.0  | Gates           | 0      | 0.0  | Pender          | 4      | *    |
| <b>Anson</b>      | 6      | 27.0 | Graham          | 0      | 0.0  | Perquimans      | 0      | 0.0  |
| Ashe              | 1      | *    | Granville       | 6      | 9.8  | Person          | 3      | *    |
| Avery             | 4      | *    | Greene          | 1      | *    | Pitt            | 8      | 4.6  |
| Beaufort          | 5      | 11.3 | Guilford        | 71     | 13.1 | Polk            | 1      | *    |
| <b>Bertie</b>     | 5      | 28.7 | <b>Halifax</b>  | 9      | 18.6 | Randolph        | 9      | 6.2  |
| <b>Bladen</b>     | 9      | 30.4 | Harnett         | 11     | 8.1  | <b>Richmond</b> | 9      | 21.0 |
| Brunswick         | 6      | 4.1  | Haywood         | 3      | *    | <b>Robeson</b>  | 36     | 31.0 |
| Buncombe          | 16     | 5.9  | Henderson       | 5      | 4.3  | Rockingham      | 5      | 5.5  |
| Burke             | 5      | 5.7  | <b>Hertford</b> | 6      | 28.3 | Rowan           | 17     | 11.5 |
| Cabarrus          | 13     | 5.6  | <b>Hoke</b>     | 9      | 16.9 | Rutherford      | 7      | 10.8 |
| Caldwell          | 9      | 11.2 | Hyde            | 0      | 0.0  | Sampson         | 6      | 10.2 |
| Camden            | 0      | 0.0  | Iredell         | 10     | 5.2  | <b>Scotland</b> | 12     | 35.1 |
| Carteret          | 3      | *    | Jackson         | 0      | 0.0  | Stanly          | 3      | *    |
| Caswell           | 1      | *    | Johnston        | 13     | 5.7  | Stokes          | 4      | *    |
| Catawba           | 16     | 9.9  | Jones           | 0      | 0.0  | Surry           | 2      | *    |
| Chatham           | 2      | *    | Lee             | 8      | 12.5 | Swain           | 0      | 0.0  |
| Cherokee          | 0      | 0.0  | <b>Lenoir</b>   | 10     | 18.3 | Transylvania    | 0      | 0.0  |
| Chowan            | 0      | 0.0  | Lincoln         | 4      | *    | Tyrrell         | 1      | *    |
| Clay              | 0      | 0.0  | McDowell        | 2      | *    | Union           | 13     | 5.3  |
| Cleveland         | 7      | 7.0  | Macon           | 1      | *    | <b>Vance</b>    | 10     | 23.8 |
| <b>Columbus</b>   | 9      | 18.0 | Madison         | 1      | *    | Wake            | 49     | 4.3  |
| Craven            | 6      | 6.0  | Martin          | 2      | *    | Warren          | 1      | *    |
| <b>Cumberland</b> | 53     | 15.7 | Mecklenburg     | 108    | 9.6  | Washington      | 3      | *    |
| Currituck         | 0      | 0.0  | Mitchell        | 0      | 0.0  | Watauga         | 4      | *    |
| Dare              | 4      | *    | Montgomery      | 4      | *    | <b>Wayne</b>    | 17     | 14.5 |
| Davidson          | 10     | 5.9  | Moore           | 8      | 7.8  | Wilkes          | 5      | 7.6  |
| Davie             | 3      | *    | Nash            | 8      | 8.4  | <b>Wilson</b>   | 13     | 16.6 |
| <b>Duplin</b>     | 8      | 16.5 | New Hanover     | 15     | 6.5  | <b>Yadkin</b>   | 5      | 13.4 |
| <b>Durham</b>     | 46     | 14.0 | Northampton     | 5      | 29.3 | Yancey          | 2      | *    |
| <b>Edgecombe</b>  | 16     | 33.1 | Onslow          | 10     | 4.9  |                 |        |      |
| Forsyth           | 51     | 13.2 | Orange          | 5      | 3.4  |                 |        |      |

Crude rate per 100,000 population in NC county

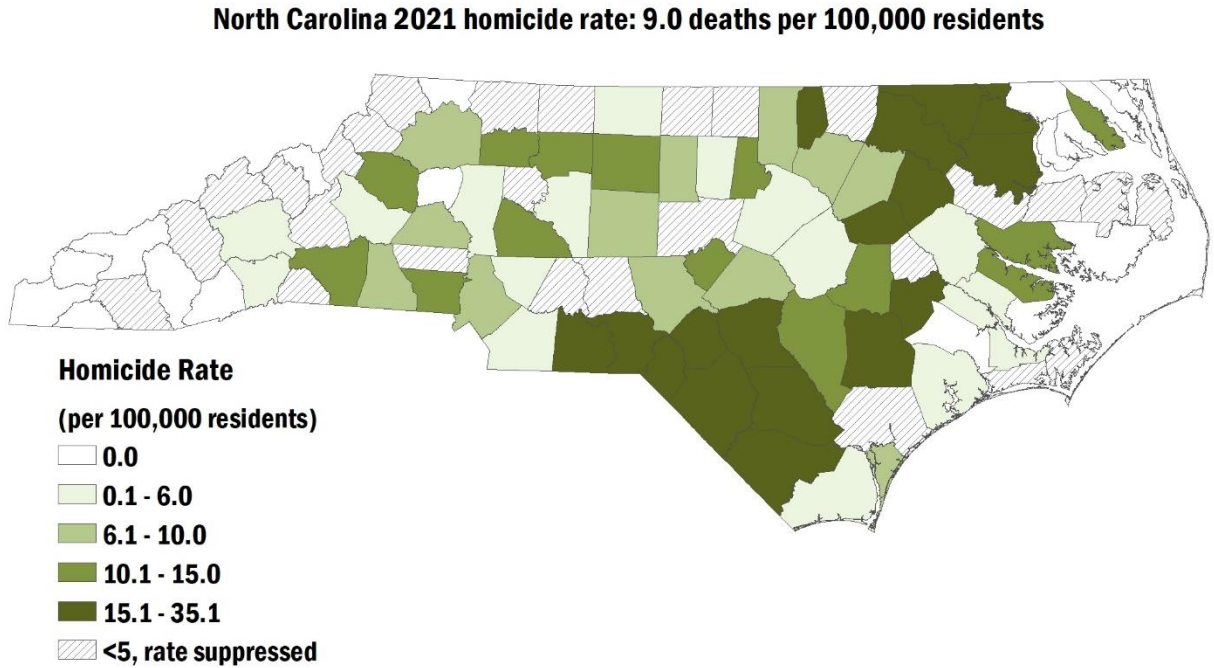
\* Number of deaths was too small to support rate calculation.

Top 20 counties with the highest crude homicide rates are shown in bold.

### Section III

**Figure 18: Map of homicide rates in North Carolina by county of residence, 2021**

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

Table 26 and Figure 19 describe the 2021 North Carolina homicide victims by sex and race/ethnicity.

### **Key Findings:**

- Of all homicide victims 80.3% were male, 62.8% were NH Black, and 25.8% were NH White as shown in **Table 19**.
- Most male homicide victims were NH Black (67.4%) as compared to NH White (21.0%), Hispanic (8.4%), and NH American Indian (2.9%). Almost half of female homicide victims were NH White (45.5%) followed by NH Black (44.4%), Hispanic (7.0%), and NH American Indian (2.7%). There were two homicides among NH Asians in 2021, which was too small to compute rates.
- The homicide rates per 100,000 were 9.8 times higher for NH Black males (48.6 per 100,000) and 8.3 times higher for NH American Indian males (41.2 per 100,000), than NH White males (5.0 per 100,000).
- NH American Indian females were 3.4 times as likely (8.8 per 100,000) and NH Black females 2.7 times as likely (7.0 per 100,000) to be homicide victims compared to NH White females (2.6 per 100,000, respectively).
- The homicide rate was 7.0 times higher for NH Black males than for NH Black females. The homicide rate was 1.9 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 2021 are categorized in **Table 27**. The 2021 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 15 to 54 years, with a rank order by age group of: 25 to 34 (30.0%), 20 to 24 (16.4%), 15 to 19 (14.7%), 35 to 44 (14.5%), and 45 to 54 (11.4%).
- Among females, most homicide victims were ages 20 to 64 years with a rank order by age group of: 25 to 34 (19.3%), 35 to 44 (17.1%), 45 to 54 (14.4%), 55 to 64 (12.8%), and 20 to 24 (11.2%).
- Males had higher homicide rates than females across all age groups, where the number of deaths was large enough to support rate calculation.
- The homicide rate by age for males peaked among ages 20 to 24 years (32.9 per 100,000) and then declined to 3.1 per 100,000 for ages 75 to 84.



## Section III

**Table 26: Race/ethnicity of homicide victims in North Carolina by sex, 2021**

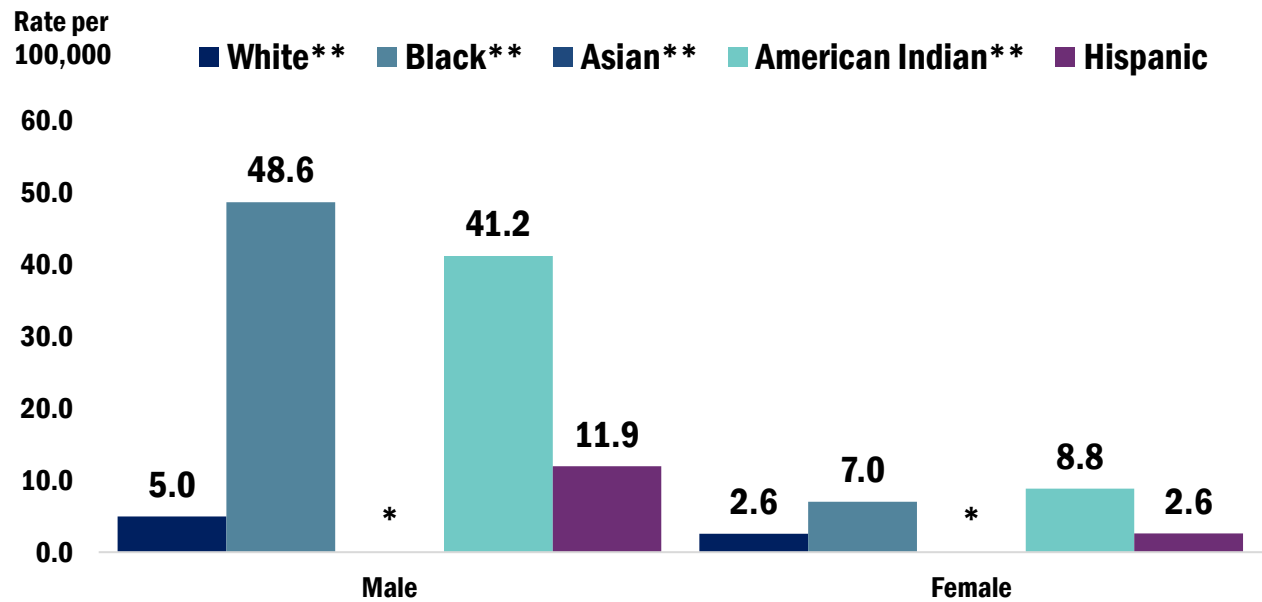
| Race/Ethnicity      | Male       |            |             | Female     |            |            |
|---------------------|------------|------------|-------------|------------|------------|------------|
|                     | Number     | %          | Rate        | Number     | %          | Rate       |
| White**             | 160        | 21.0       | 5.0         | 85         | 45.5       | 2.6        |
| Black**             | 514        | 67.4       | 48.6        | 83         | 44.4       | 7.0        |
| Asian**             | 1          | 0.1        | *           | 1          | 0.5        | *          |
| American Indian**   | 22         | 2.9        | 41.2        | 5          | 2.7        | 8.8        |
| Hispanic            | 64         | 8.4        | 11.9        | 13         | 7          | 2.6        |
| Other/Unknown       | 2          | 0.3        | -           | 0          | 0          | -          |
| <b>Total Deaths</b> | <b>763</b> | <b>100</b> | <b>14.7</b> | <b>187</b> | <b>100</b> | <b>3.6</b> |

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

\* The number of deaths was too small to support a rate calculation for NH Asian males and females.

\*\* Non-Hispanic

**Figure 19: Crude homicide rates in North Carolina stratified by race/ethnicity and sex, 2021**



\* The number of deaths was too small to support a rate calculation for NH Asian males and females.

\*\* Non-Hispanic

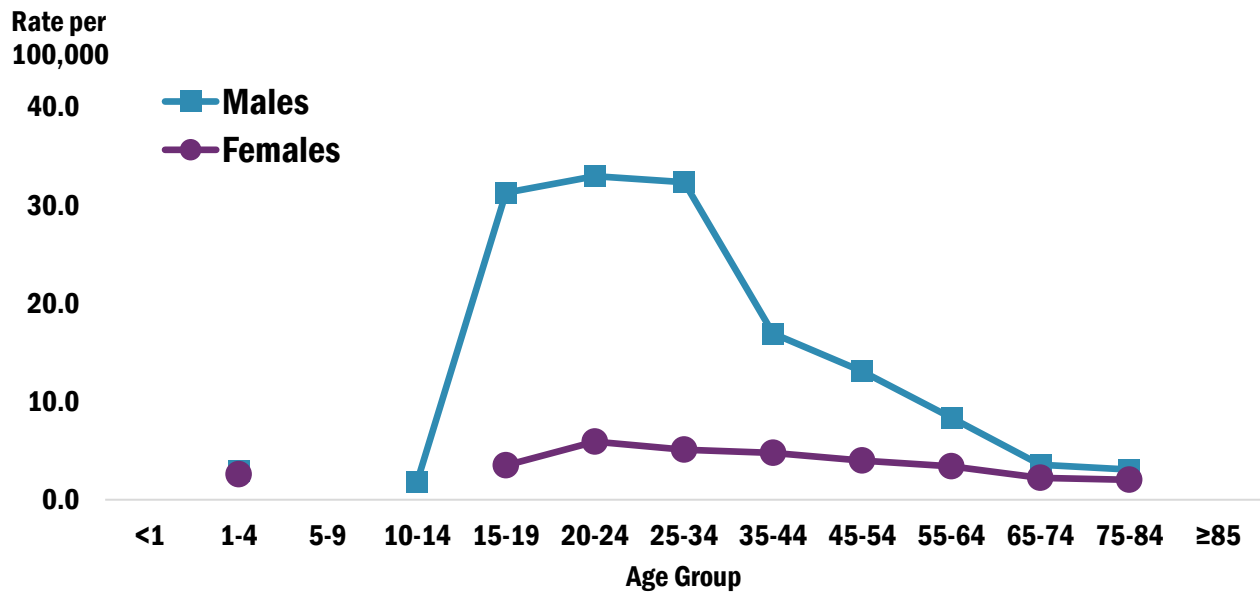
**Table 27: Age group of homicide victims in North Carolina by sex, 2021**

| Age Group (Years)   | Male       |            |             | Female     |            |            |
|---------------------|------------|------------|-------------|------------|------------|------------|
|                     | Number     | %          | Rate        | Number     | %          | Rate       |
| <1                  | 2          | 0.3        | *           | 2          | 1.1        | *          |
| 1-4                 | 7          | 0.9        | 2.9         | 6          | 3.2        | 2.6        |
| 5-9                 | 3          | 0.4        | *           | 3          | 1.6        | *          |
| 10-14               | 6          | 0.8        | 1.8         | 3          | 1.6        | *          |
| 15-19               | 112        | 14.7       | 31.2        | 12         | 6.4        | 3.5        |
| 20-24               | 125        | 16.4       | 32.9        | 21         | 11.2       | 5.9        |
| 25-34               | 229        | 30         | 32.3        | 36         | 19.3       | 5.1        |
| 35-44               | 111        | 14.5       | 16.9        | 32         | 17.1       | 4.8        |
| 45-54               | 87         | 11.4       | 13.1        | 27         | 14.4       | 4.0        |
| 55-64               | 55         | 7.2        | 8.3         | 24         | 12.8       | 3.4        |
| 65-74               | 18         | 2.4        | 3.6         | 13         | 7          | 2.2        |
| 75-84               | 7          | 0.9        | 3.1         | 6          | 3.2        | 2.0        |
| ≥85                 | 1          | 0.1        | *           | 2          | 1.1        | *          |
| <b>Total Deaths</b> | <b>763</b> | <b>100</b> | <b>14.7</b> | <b>187</b> | <b>100</b> | <b>3.5</b> |

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

\* The number of deaths was too small to support a rate calculation for male infants younger than one, ages 5-9 and 85 and older, and for female infants younger than one and ages 5-9, 10-14, and 85 and older.

**Figure 20: Age-specific crude homicide rates in North Carolina stratified by age group and sex, 2021**



**Note:** The number of deaths was too small to support a rate calculation for male infants younger than one, ages 5-9 and 85 and older, and for female infants younger than one and ages 5-9, 10-14, and 85 and older.

## 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 2021, 94.2% of homicide victims had data available for at least one circumstance related to the homicide. Since each victim may have had 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 2021. **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 2021.

#### **Key Findings:**

- The most common event circumstances surrounding homicides for males were an argument, abuse, or conflict (43.5%), precipitated by another serious crime (31.2%), drug involvement (18.3%), intimate partner violence-related (9.8%), and gang related (9.3%).
- For females, the most common event circumstances surrounding homicides were intimate partner violence-related (45.9%), an argument, abuse, or conflict (36.6%), precipitated by another serious crime (20.2%), drug involvement (5.5%), and gang related (4.9%).
- The most common crimes that precipitated homicide for male victims were robbery (44.6%), burglary (20.4%), assault or homicide (13.0%), and drug trade (10.8%).
- The most common crimes that precipitated homicide for female victims included burglary (31.3%), robbery (25.0%), assault or homicide (14.6%), rape or sexual assault (8.3%), and arson (8.3%).
- Common victim circumstances surrounding homicides were the victim used a weapon (15.6%), justifiable self-defense (4.6%), and the victim was a bystander (2.5%).

**Table 30** summarizes the location of the injury resulting in death for homicide victims in North Carolina in 2021.

#### **Key Findings:**

- Most injuries resulting in death occurred in a house or apartment (54.0%).
- Other common locations where injuries resulting in death occurred were a motor vehicle (16.6%), a street, road, sidewalk, or alley (9.1%), other commercial establishments such as a grocery store or laundromat (4.5%), a parking lots or public parking garage (4.1%), a hotel/motel (2.2%), natural areas such as a field or woods (2.2%), and bars/nightclubs (1.7%).

**Table 28: Circumstances of homicides victims in North Carolina by sex, 2021**

| Circumstance*                         | Male   |      | Female |      | Total  |      |
|---------------------------------------|--------|------|--------|------|--------|------|
|                                       | Number | %    | Number | %    | Number | %    |
| <b>Event</b>                          |        |      |        |      |        |      |
| Other argument, abuse, conflict       | 310    | 43.5 | 67     | 36.6 | 377    | 42.1 |
| Precipitated by another serious crime | 222    | 31.2 | 37     | 20.2 | 259    | 28.9 |
| Drug involvement                      | 130    | 18.3 | 10     | 5.5  | 140    | 15.6 |
| Intimate Partner Violence-Related     | 70     | 9.8  | 84     | 45.9 | 154    | 17.2 |
| Jealousy (lovers triangle)            | 18     | 2.5  | 7      | 3.8  | 25     | 2.8  |
| Gang-related                          | 66     | 9.3  | 9      | 4.9  | 75     | 8.4  |
| Brawl (mutual physical fight)         | 13     | 1.8  | 0      | 0.0  | 13     | 1.5  |
| Mercy killing                         | 0      | 0.0  | 2      | 1.1  | 2      | 0.2  |
| <b>Victim</b>                         |        |      |        |      |        |      |
| Victim used a weapon                  | 135    | 19.0 | 5      | 2.7  | 140    | 15.6 |
| Victim was a bystander                | 14     | 2.0  | 8      | 4.4  | 22     | 2.5  |
| Justifiable self-defense              | 41     | 5.8  | 0      | 0.0  | 41     | 4.6  |
| Intervener assisting crime victim     | 4      | 0.6  | 0      | 0.0  | 4      | 0.5  |

\* Circumstances were available for 93.3% (712/763) of male victims, 97.9% (183/187) of female victims and 94.2% (895/950) of all homicide victims. The percentage of circumstances for homicide victims is based on the number of cases reporting circumstances in North Carolina in 2021.

**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, 2021**

| Crime*               | Male   |      | Female |      | Total  |      |
|----------------------|--------|------|--------|------|--------|------|
|                      | Number | %    | Number | %    | Number | %    |
| Robbery              | 120    | 44.6 | 12     | 25.0 | 132    | 41.6 |
| Burglary             | 55     | 20.4 | 15     | 31.3 | 70     | 22.1 |
| Drug trade           | 29     | 10.8 | 0      | 0.0  | 29     | 9.1  |
| Motor vehicle theft  | 8      | 3.0  | 3      | 6.3  | 11     | 3.5  |
| Assault, homicide    | 35     | 13.0 | 7      | 14.6 | 42     | 13.2 |
| Rape, sexual assault | 2      | 0.7  | 4      | 8.3  | 6      | 1.9  |
| Arson                | 4      | 1.5  | 4      | 8.3  | 8      | 2.5  |
| Gambling             | 0      | 0.0  | 0      | 0.0  | 0      | 0.0  |
| Other                | 16     | 5.9  | 3      | 6.3  | 19     | 6.0  |

\* For 222 males, 37 females and 259 total victims whose homicide was precipitated by another serious crime.

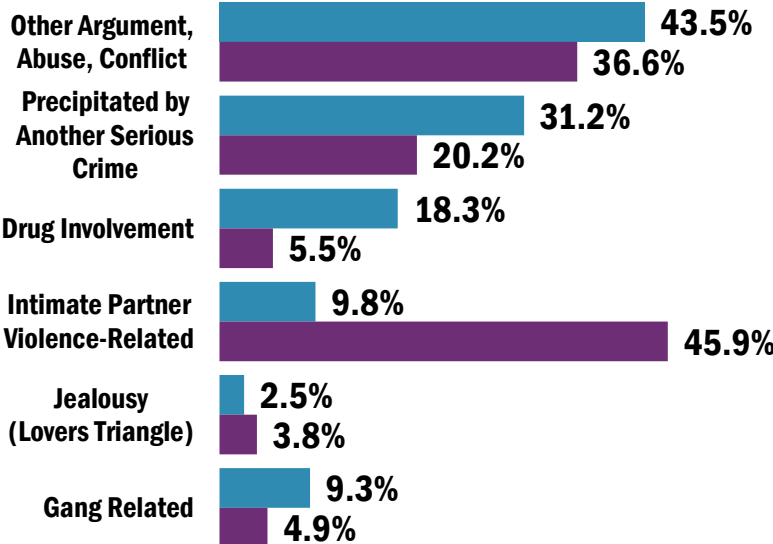
**Note:** Each homicide may be precipitated by more than one crime. Accordingly, the total number of crimes may exceed the total number of homicides, or responses may exceed 100%.

**Section III**

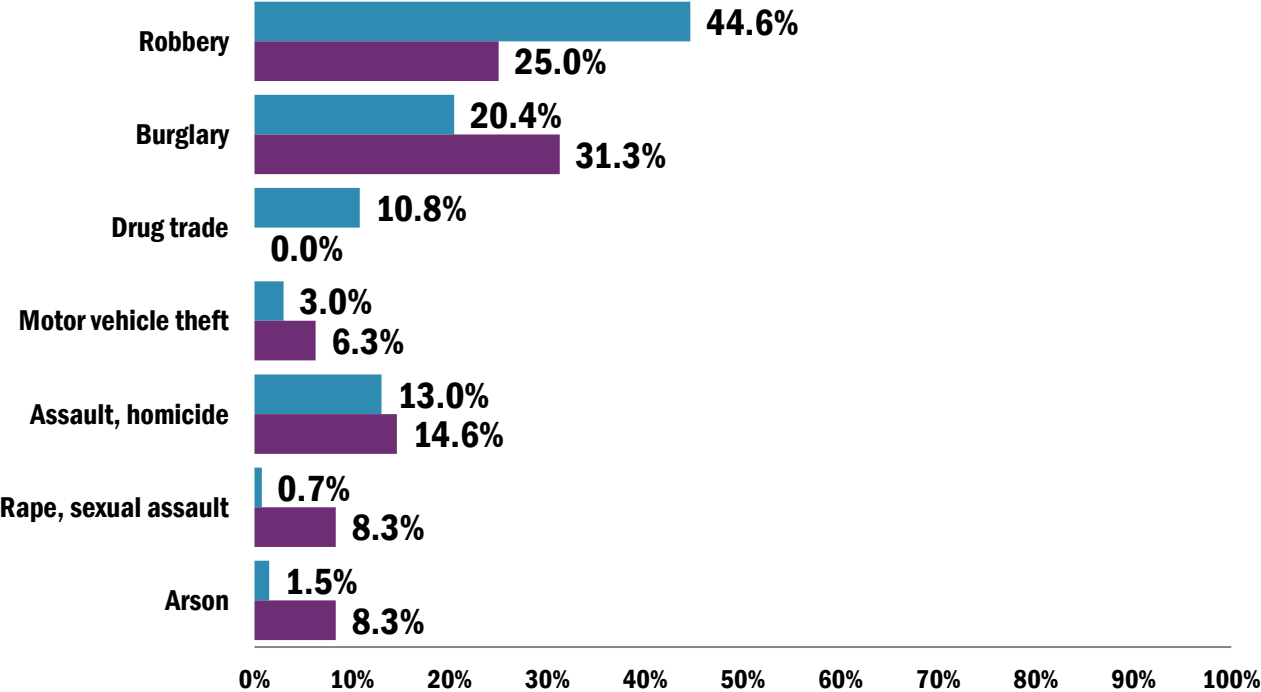
**Figure 21: Circumstances of homicide victims and crimes precipitating homicides in North Carolina by sex, 2021**

- 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, 2021**

|   | Number     | %          |
|---|------------|------------|
| <b>Injury Location</b>  |            |            |
| House, apartment  | 513        | 54.0       |
| Motor vehicle (excluding school bus and public transportation)                  | 158        | 16.6       |
| Street/road, sidewalk, alley  | 86         | 9.1        |
| Other commercial establishment (e.g., grocery store, retail outlet, laundromat) | 43         | 4.5        |
| Parking lot/public parking garage   | 39         | 4.1        |
| Hotel/motel   | 21         | 2.2        |
| Natural area (e.g., field, river, beaches, woods)                               | 21         | 2.2        |
| Bar, nightclub  | 16         | 1.7        |
| Park, playground, public use area   | 11         | 1.2        |
| Service station   | 9          | 1.0        |
| Abandoned house, building, or warehouse   | 7          | 0.7        |
| Industrial or construction areas (e.g., factory, warehouse)                     | 2          | 0.2        |
| College/university, including dormitory, fraternity/sorority                    | 2          | 0.2        |
| High school, including school dormitory, residential school                     | 1          | 0.1        |
| Other/unknown   | 21         | 2.2        |
| <b>Total Deaths</b>   | <b>950</b> | <b>100</b> |

## Section IV: Firearm Deaths

**Table 31** and **Figure 22** display the manner of firearm deaths among North Carolina residents in 2021.

**Table 32** characterizes firearm deaths by firearm type.

### Key Findings:

- Half of firearm deaths were suicides (50.7%), followed by homicides (45.6%).
- Handguns were involved in 75.5% of all firearm deaths.

**Table 33** characterizes violent deaths involving a firearm in 2021 among North Carolina residents by demographics of sex, race/ethnicity, and age. The overall firearm death rate per 100,000 North Carolina residents is displayed by race/ethnicity and sex in **Figure 23** and by age group in **Figure 24**.

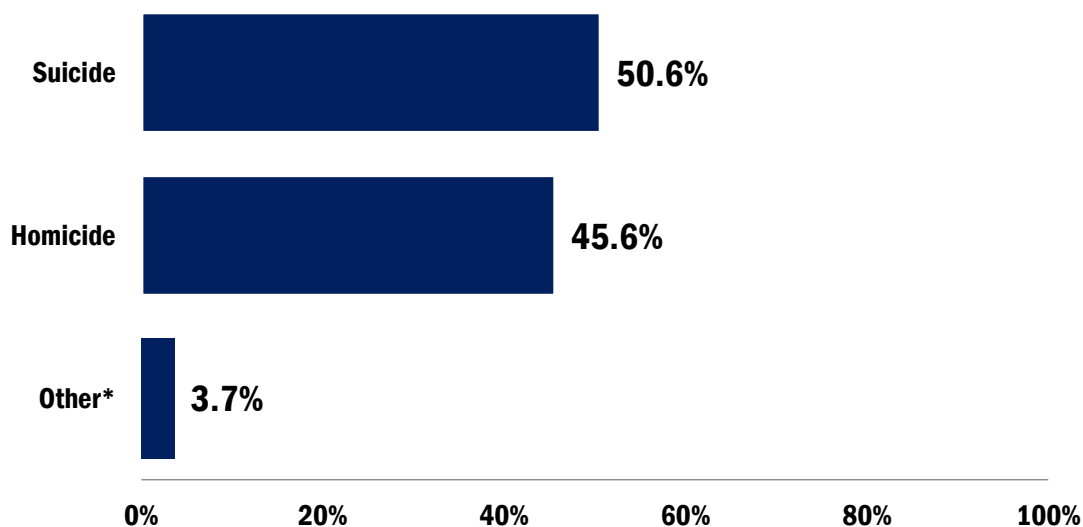
### Key Findings:

- In 2021, 1,779 North Carolinians died due to an injury from a firearm (16.8 per 100,000), representing 70.1% of all violent deaths.
- Males were 5.8 times more likely to die from firearm violence than females (29.1 versus 5.0 per 100,000, respectively).
- NH American Indian residents had the highest firearm violent death rate per 100,000 (35.4), followed by NH Black (30.5), NH White (14.1), Hispanic (10.7), and NH Asian residents (4.5).
- By age group, younger adults ages 20 to 24 had the highest firearm death rate per 100,000 (32.1), followed by those ages 25 to 34 (28.0), and 15 to 19 (25.6).

**Table 34** provides counts and rates of firearm deaths by North Carolina county of residence in 2021.

**Table 31: Manner of Firearm Death in North Carolina, 2021**

| Manner              | Number       | %          |
|---------------------|--------------|------------|
| Suicide             | 901          | 50.6       |
| Homicide            | 812          | 45.6       |
| Legal Intervention  | 25           | 1.4        |
| Unintentional       | 32           | 1.8        |
| Undetermined        | 9            | 0.5        |
| <b>Total Deaths</b> | <b>1,779</b> | <b>100</b> |

**Figure 22: Manner of Firearm Death in North Carolina, 2021**

\*Other includes legal intervention, unintentional, and undetermined firearm deaths.

**Table 32: Type of firearm involved in firearm death in North Carolina, 2021**

| Firearm Type*                                    | Number       | %          |
|--|--------------|------------|
| Handgun  | 1,350        | 75.5       |
| Rifle  | 171          | 9.6        |
| Shotgun  | 130          | 7.3        |
| Other/Unknown                                    | 136          | 7.6        |
| <b>Total Firearms Involved in Firearm Deaths</b> | <b>1,787</b> | <b>100</b> |

\*Multiple firearm types were reported in 8 violent deaths; therefore, the total number of firearms exceeds the number of suicide firearm deaths (n=1,779).



## Section IV

**Table 33: Demographics of Firearm Deaths in North Carolina, 2021**

|                          | Number       | %            | Rate        | 95% CI             |
|--------------------------|--------------|--------------|-------------|--------------------|
| <b>Sex</b>               |              |              |             |                    |
| Female                   | 272          | 15.3         | 5.0         | 4.4 - 5.6          |
| Male                     | 1507         | 84.7         | 29.1        | 27.6 - 30.6        |
| <b>Race/Ethnicity</b>    |              |              |             |                    |
| White*                   | 925          | 52.0         | 14.1        | 13.2 - 15.0        |
| Black*                   | 684          | 38.4         | 30.5        | 28.2 - 32.8        |
| Asian*                   | 16           | 0.9          | 4.5         | 2.3 - 6.6          |
| American Indian*         | 39           | 2.2          | 35.4        | 24.3 - 46.5        |
| Hispanic                 | 111          | 6.2          | 10.7        | 8.7 - 12.7         |
| Other/Unknown            | 4            | 0.2          | -           | -                  |
| <b>Age Group (Years)</b> |              |              |             |                    |
| < 1                      | 0            | 0.0          | *           | *                  |
| 1-4                      | 7            | 0.4          | 1.5         | 0.4 - 2.6          |
| 5-9                      | 6            | 0.3          | 1.0         | 0.2 - 1.7          |
| 10-14                    | 20           | 1.1          | 3.0         | 1.7 - 4.3          |
| 15-19                    | 180          | 10.1         | 25.6        | 21.9 - 29.3        |
| 20-24                    | 236          | 13.3         | 32.1        | 28.0 - 36.2        |
| 25-34                    | 396          | 22.3         | 28.0        | 25.2 - 30.8        |
| 35-44                    | 233          | 13.1         | 17.5        | 15.3 - 19.8        |
| 45-54                    | 223          | 12.5         | 16.6        | 14.4 - 18.7        |
| 55-64                    | 192          | 10.8         | 14.1        | 12.1 - 16.1        |
| 65-74                    | 150          | 8.4          | 13.8        | 11.5 - 16.0        |
| 75-84                    | 97           | 5.5          | 18.5        | 14.9 - 22.2        |
| ≥85                      | 39           | 2.2          | 21.1        | 14.4 - 27.7        |
| <b>Total Deaths</b>      | <b>1,779</b> | <b>100.0</b> | <b>16.8</b> | <b>16.1 - 17.6</b> |

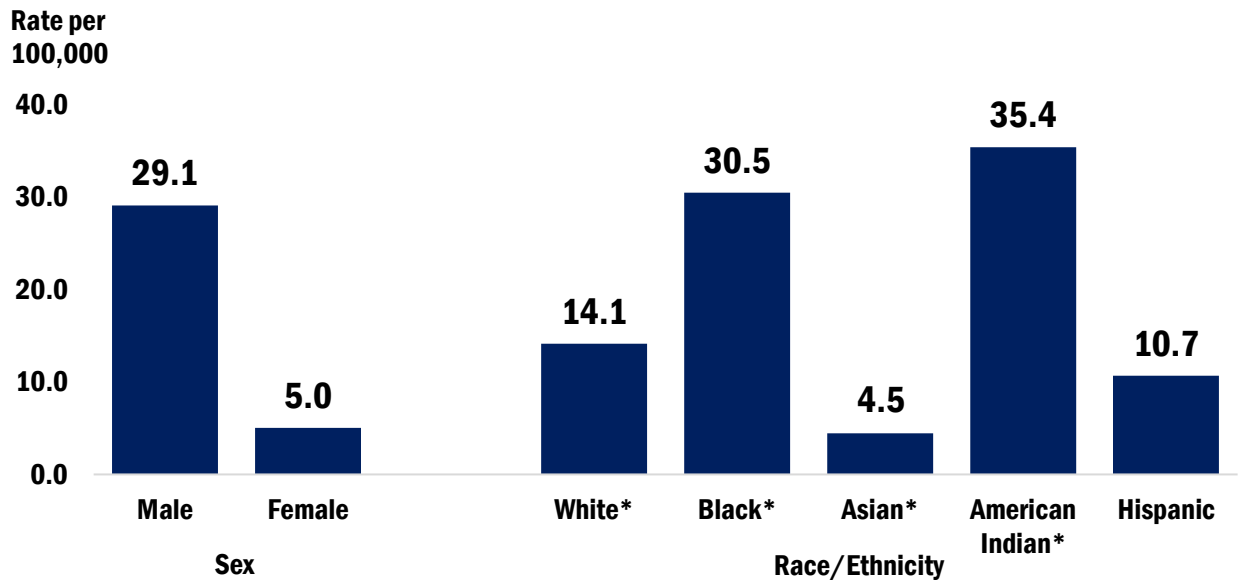
Sex, race/ethnicity, and age-specific crude rates per 100,000 NC population

95% CI = 95 % confidence interval for the rate

\* Non-Hispanic

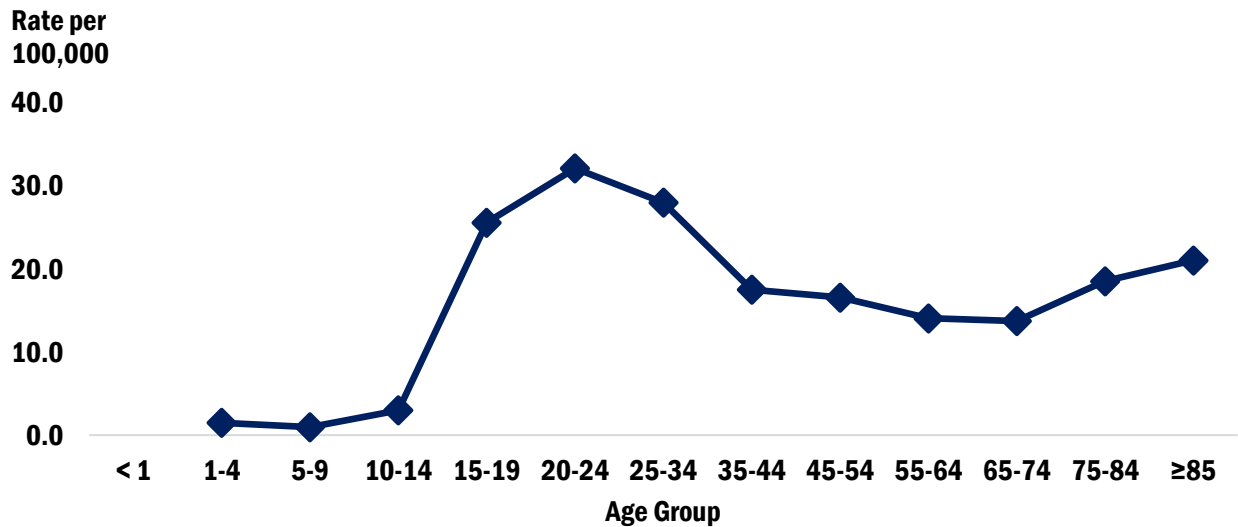
**Note:** The number of firearm-involved deaths was too small to support a rate calculation for infants younger than one.

**Figure 23: Crude firearm death rates in North Carolina by sex and race/ethnicity, 2021**



\* Non-Hispanic

**Figure 24: Age-specific crude firearm death rates in North Carolina stratified by age group, 2021**



**Note:** The number of deaths was too small to support a rate calculation for infants less than one year.

## Section IV

**Table 34: Firearm death counts and rates by North Carolina county of residence, 2021**

| County     | Number | Rate | County      | Number | Rate | County       | Number | Rate |
|------------|--------|------|-------------|--------|------|--------------|--------|------|
| Alamance   | 30     | 17.3 | Franklin    | 19     | 26.5 | Pamlico      | 3      | *    |
| Alexander  | 4      | *    | Gaston      | 49     | 21.2 | Pasquotank   | 8      | 19.6 |
| Alleghany  | 2      | *    | Gates       | 1      | *    | Pender       | 10     | 15.9 |
| Anson      | 7      | 31.5 | Graham      | 1      | *    | Perquimans   | 1      | *    |
| Ashe       | 9      | 33.6 | Granville   | 17     | 27.7 | Person       | 8      | 20.4 |
| Avery      | 4      | *    | Greene      | 1      | *    | Pitt         | 20     | 11.6 |
| Beaufort   | 10     | 22.5 | Guilford    | 98     | 18.1 | Polk         | 5      | 25.4 |
| Bertie     | 5      | 28.7 | Halifax     | 15     | 31.0 | Randolph     | 20     | 13.8 |
| Bladen     | 8      | 27.1 | Harnett     | 27     | 19.9 | Richmond     | 8      | 18.7 |
| Brunswick  | 26     | 18.0 | Haywood     | 15     | 24.0 | Robeson      | 45     | 38.7 |
| Buncombe   | 37     | 13.6 | Henderson   | 20     | 17.1 | Rockingham   | 13     | 14.2 |
| Burke      | 10     | 11.4 | Hertford    | 6      | 28.3 | Rowan        | 32     | 21.6 |
| Cabarrus   | 26     | 11.2 | Hoke        | 10     | 18.8 | Rutherford   | 11     | 17.0 |
| Caldwell   | 20     | 24.8 | Hyde        | 1      | *    | Sampson      | 9      | 15.2 |
| Camden     | 1      | *    | Iredell     | 30     | 15.6 | Scotland     | 16     | 46.8 |
| Carteret   | 8      | 11.6 | Jackson     | 4      | *    | Stanly       | 6      | 9.5  |
| Caswell    | 1      | *    | Johnston    | 36     | 15.8 | Stokes       | 7      | 15.7 |
| Catawba    | 30     | 18.5 | Jones       | 1      | *    | Surry        | 10     | 14.0 |
| Chatham    | 9      | 11.5 | Lee         | 15     | 23.4 | Swain        | 1      | *    |
| Cherokee   | 3      | *    | Lenoir      | 11     | 20.1 | Transylvania | 4      | *    |
| Chowan     | 0      | 0.0  | Lincoln     | 11     | 12.2 | Tyrrell      | 1      | *    |
| Clay       | 2      | *    | McDowell    | 9      | 20.2 | Union        | 20     | 8.2  |
| Cleveland  | 21     | 20.9 | Macon       | 16     | 42.7 | Vance        | 11     | 26.1 |
| Columbus   | 15     | 30.0 | Madison     | 2      | *    | Wake         | 86     | 7.5  |
| Craven     | 19     | 18.9 | Martin      | 4      | *    | Warren       | 1      | *    |
| Cumberland | 90     | 26.7 | Mecklenburg | 182    | 16.2 | Washington   | 8      | 73.3 |
| Currituck  | 4      | *    | Mitchell    | 2      | *    | Watauga      | 5      | 9.1  |
| Dare       | 6      | 15.8 | Montgomery  | 6      | 23.2 | Wayne        | 23     | 19.7 |
| Davidson   | 32     | 18.7 | Moore       | 15     | 14.6 | Wilkes       | 9      | 13.7 |
| Davie      | 5      | 11.5 | Nash        | 16     | 16.8 | Wilson       | 16     | 20.4 |
| Duplin     | 14     | 28.8 | New Hanover | 29     | 12.6 | Yadkin       | 13     | 34.9 |
| Durham     | 62     | 18.8 | Northampton | 8      | 46.8 | Yancey       | 5      | 26.6 |
| Edgecombe  | 19     | 39.3 | Onslow      | 34     | 16.6 |              |        |      |
| Forsyth    | 80     | 20.7 | Orange      | 14     | 9.4  |              |        |      |

Crude rate per 100,000 population in NC county

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

## Firearm Suicides

**Table 35** characterizes suicides involving a firearm in 2021 among North Carolina residents by demographics of sex, race/ethnicity, and age. The firearm suicide rate per 100,000 North Carolina residents is displayed by race/ethnicity and sex in **Figure 25** and by age group and sex in **Figure 26**.

### Key Findings:

- In 2021, 901 North Carolinians died from a suicide involving a firearm, representing 63.8% of all suicides.
- Males were 6.6 times as likely to die of a firearm suicide as females (17.0 versus 2.6 per 100,000, respectively).
- NH Whites had the highest firearm suicide rate (12.0 per 100,000), followed by NH American Indians (9.2 per 100,000), NH Blacks (6.0 per 100,000), Hispanics (5.8 per 100,000) and NH Asians (3.9 per 100,000).
- Adults ages 85 and older had the highest firearm suicide rates per 100,000 (20.0), followed by adults ages 75 to 84 (16.6), 20 to 24 (13.1), 65 to 74 (11.8), and 55 to 64 (9.8).
- Males ages 75 to 84 were 12.9 times as likely to die of a firearm suicide than females of the same age group (34.8 and 2.7 per 100,000, respectively).

**Table 36** characterizes firearm suicides by firearm type.

**Table 37** provides the 10 highest rates of firearm suicides by North Carolina county of residence in 2021.

### Key Findings:

- In 2021, handguns accounted for 80.2% of all firearm suicides.
- Zero firearm suicide victims had used more than one firearm.
- The three highest county firearm suicide rates in 2021 were Washington (51.2 per 100,000), Macon (44.2 per 100,000), and Ashe (32.6 per 100,000).

## Section IV

**Table 35: Demographics of firearm suicide in North Carolina, 2021**

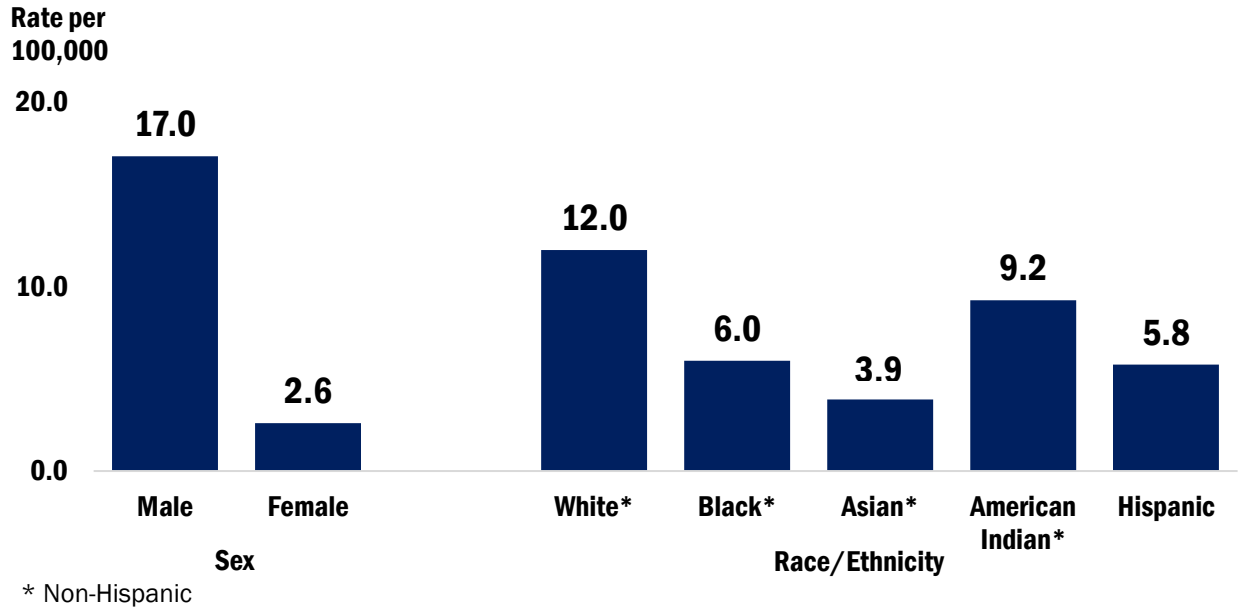
|                          | Number     | %            | Rate       | 95% CI            |
|--------------------------|------------|--------------|------------|-------------------|
| <b>Sex</b>               |            |              |            |                   |
| Female                   | 124        | 13.8         | 2.6        | 2.1 - 3.0         |
| Male                     | 777        | 86.2         | 17.0       | 15.8 - 18.2       |
| <b>Race/Ethnicity</b>    |            |              |            |                   |
| White*                   | 711        | 78.9         | 12.0       | 11.1 - 12.8       |
| Black*                   | 118        | 13.1         | 6.0        | 4.9 - 7.0         |
| Asian*                   | 12         | 1.3          | 3.9        | 1.7 - 6.1         |
| American Indian*         | 9          | 1.0          | 9.2        | 3.2 - 15.3        |
| Hispanic                 | 48         | 5.3          | 5.8        | 4.1 - 7.4         |
| Other/Unknown            | 3          | 0.3          | -          | -                 |
| <b>Age Group (Years)</b> |            |              |            |                   |
| 10-14                    | 9          | 1.0          | 1.3        | 0.5 - 2.2         |
| 15-19                    | 58         | 6.4          | 8.2        | 6.1 - 10.4        |
| 20-24                    | 96         | 10.7         | 13.1       | 10.5 - 15.7       |
| 25-34                    | 134        | 14.9         | 9.5        | 7.9 - 11.1        |
| 35-44                    | 98         | 10.9         | 7.4        | 5.9 - 8.8         |
| 45-54                    | 119        | 13.2         | 8.8        | 7.3 - 10.4        |
| 55-64                    | 134        | 14.9         | 9.8        | 8.2 - 11.5        |
| 65-74                    | 129        | 14.3         | 11.8       | 9.8 - 13.9        |
| 75-84                    | 87         | 9.7          | 16.6       | 13.1 - 20.1       |
| ≥85                      | 37         | 4.1          | 20.0       | 13.5 - 26.4       |
| <b>Total Deaths</b>      | <b>901</b> | <b>100.0</b> | <b>9.6</b> | <b>9.0 - 10.3</b> |

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

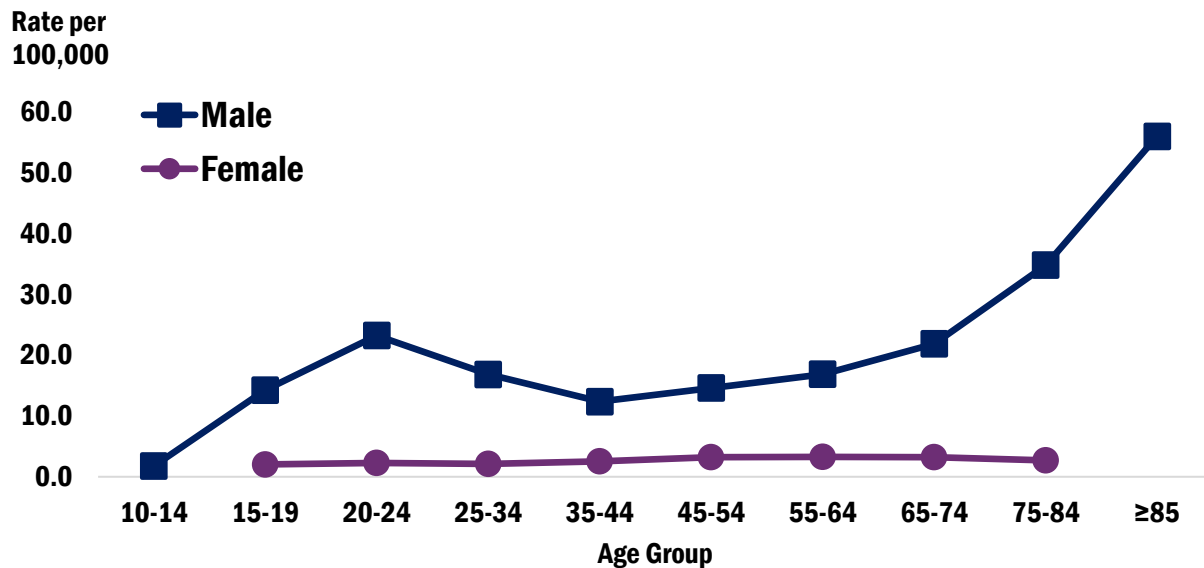
95% CI = 95 % confidence interval for the rate

\* Non-Hispanic

**Figure 25: Crude firearm suicide rates in North Carolina by sex and race/ethnicity, 2021**



**Figure 26: Age-specific crude firearm suicide rates in North Carolina stratified by age group and sex, 2021**



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

## Section IV

**Table 36: Firearm suicide firearm type in North Carolina, 2021**

| Firearm Type*                                      | Number     | %          |
|--|------------|------------|
| Handgun  | 723        | 80.2       |
| Rifle  | 79         | 8.8        |
| Shotgun  | 90         | 10.0       |
| Other/unknown                                      | 9          | 1.0        |
| <b>Total Firearms Involved in Firearm Suicides</b> | <b>901</b> | <b>100</b> |

\*Multiple firearm types were reported in zero firearm suicide deaths; therefore, the total number of firearms does not exceed the number of suicide firearm deaths (n=901).

**Table 37: Ten highest firearm suicide rates in North Carolina by county of residence, 2021**

| County     | Rate | County    | Rate |
|------------|------|-----------|------|
| Washington | 51.2 | Franklin  | 18.8 |
| Macon      | 44.2 | Granville | 18.2 |
| Ashe       | 32.6 | Cleveland | 16.9 |
| Yadkin     | 24.1 | Onslow    | 16.1 |
| Haywood    | 21.2 | Caldwell  | 15.2 |

### Circumstances of Firearm Suicides Compared to Non-Firearm Suicides

Circumstances surrounding suicides varied greatly between those involving firearms and those involving other means. Circumstance data were available for 95.3% of firearm suicides and 97.3% of non-firearm suicides in 2021. **Table 38** and **Figure 27** describe the circumstances for firearm and non-firearm suicide victims ages 10 or older in North Carolina in 2021.

#### Key Findings:

- Firearm suicide victims were less likely than victims of suicides involving other means to have even been treated for a mental health problem (58.0% and 67.4%) or to have been experiencing a current mental health problem (57.5% and 66.0%).
- Firearm suicide victims were slightly more likely to have a current depressed mood (28.3% versus 28.0%), but less likely to be receiving current mental health treatment (25.0% and 35.4%)
- Victims of firearm suicide were less likely to have had a substance use problem other than alcohol (12.6%) compared to suicide victims who used another means (28.8%).
- Firearm suicide victims were slightly more likely to have experienced an intimate partner problem (27.9% versus 26.2%).
- Victims of firearm suicide were more likely to have been experiencing a physical health problem (27.6% versus 15.1%), but slightly less likely to have experienced a recent or imminent crisis within two weeks of their death (44.1% and 45.7%).
- Firearm suicide victims were much less likely to have a history of a suicide attempt(s) than other suicide victims (10.4% versus 27.0%), and less likely to have a history of suicidal thoughts (30.6% versus 34.6%).



## Section IV

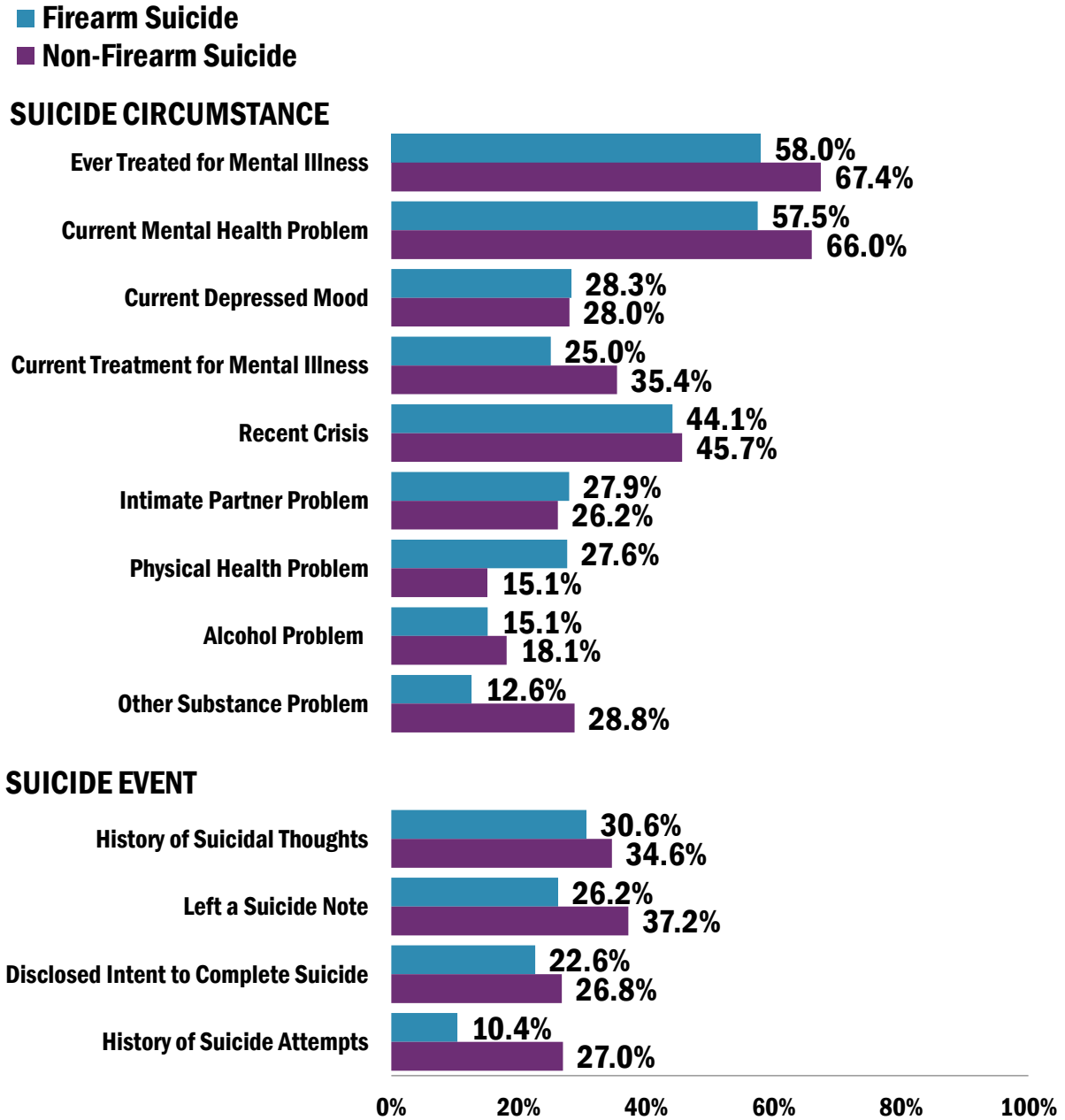
**Table 38: Circumstances of firearm suicide compared to non-firearm\* suicide in North Carolina, 2021**

| Circumstance*                                     | Firearm Suicide |      | Non-Firearm** Suicide |      |
|---|-----------------|------|-----------------------|------|
|   | Number          | %    | Number                | %    |
| <b>Mental Health</b>                              |                 |      |                       |      |
| Ever treated - mental health                      | 498             | 58.0 | 335                   | 67.4 |
| Current mental health problem                     | 494             | 57.5 | 328                   | 66.0 |
| Current depressed mood                            | 243             | 28.3 | 139                   | 28.0 |
| Current treatment MH                              | 215             | 25.0 | 176                   | 35.4 |
| <b>Substance Abuse/Addiction</b>                  |                 |      |                       |      |
| Alcohol problem                                   | 130             | 15.1 | 90                    | 18.1 |
| Other substance problem                           | 108             | 12.6 | 143                   | 28.8 |
| Other addiction problem                           | 1               | 0.1  | 1                     | 0.2  |
| <b>Interpersonal</b>                              |                 |      |                       |      |
| Intimate partner problem                          | 240             | 27.9 | 130                   | 26.2 |
| Other relationship problem                        | 18              | 2.1  | 11                    | 2.2  |
| Perpetrator of intimate partner violence          | 51              | 5.9  | 7                     | 1.4  |
| Death of family/friend                            | 55              | 6.4  | 28                    | 5.6  |
| Suicide death of family/friend<br>in past 5 years | 13              | 1.5  | 3                     | 0.6  |
| <b>Life Stressor</b>                              |                 |      |                       |      |
| Physical health problem                           | 237             | 27.6 | 75                    | 15.1 |
| Job problem                                       | 68              | 7.9  | 29                    | 5.8  |
| Criminal/legal problem                            | 51              | 5.9  | 46                    | 9.3  |
| Financial problem                                 | 38              | 4.4  | 22                    | 4.4  |
| Legal problem, other                              | 19              | 2.2  | 27                    | 5.4  |
| School problem                                    | 13              | 1.5  | 9                     | 1.8  |
| Recent crisis                                     | 379             | 44.1 | 227                   | 45.7 |
| <b>Suicide Event</b>                              |                 |      |                       |      |
| Left a suicide note                               | 225             | 26.2 | 185                   | 37.2 |
| Suicide disclosed                                 | 194             | 22.6 | 133                   | 26.8 |
| History of suicide attempt                        | 89              | 10.4 | 134                   | 27.0 |
| History of suicidal thoughts                      | 263             | 30.6 | 172                   | 34.6 |

\* Circumstances were available for 95.3% (859/901) of firearm suicide victims, and 97.3% (497/511) of non-firearm suicide victims. The percentage of circumstances for suicide victims is based on the number of cases reporting circumstances in North Carolina in 2021.

\*\*Non-firearm includes hanging, strangulation or suffocation, poisoning, sharp instrument, fall, drowning, motor vehicle including buses and motorcycles, fire or burns, or other.

**Figure 27: Suicide circumstances by firearm and non-firearm\* means in North Carolina, 2021**



\*Non-firearm includes hanging, strangulation or suffocation, poisoning, sharp instrument, fall, drowning, motor vehicle including buses and motorcycles, fire or burns, or other.

**Note:** For Table 38 and Figure 27, firearm and non-firearm suicide victims may have more than one circumstance; Therefore, the responses add up to more than 100%. This figure does not include all circumstances.

## Section IV

### Toxicology Testing and Results of Firearm Suicides Compared to Non-Firearm Suicides

Toxicology testing was performed on all suicide victims at the medical examiner's discretion 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 the substance was present at a lethal level. Testing of North Carolina firearm and non-firearm suicide victims in 2021 is shown in **Table 39**.

#### Key Findings:

- Alcohol was tested in 92.2% of firearm suicides. Of those victims tested, alcohol was present in 25.8% of firearm suicide victims (26.3% of male victims and 22.6% of female victims). This is similar to non-firearm suicides, where 89.8% of victims were tested for alcohol, and 25.8% of victims were found to have alcohol present.
- Testing for substances other than alcohol was infrequent in firearm suicides. The average of testing for substances other than alcohol in all firearm suicide victims was 1.6%, and of those tested, substances other than alcohol were present in 0.3% of victims. In non-firearm suicides, substances were tested in 13.7% of victims on average, and of those tests, 5.0% of victims were found to have substances other than alcohol present.
- Substances such as cocaine and opiates were found to be tested more often in non-firearm suicides (2.4% vs. 27.6% for cocaine and 2.4% vs. 26.0% for opiates, for firearm and non-firearm suicides, respectively).
- Overall positive toxicology test results were less frequent for firearm suicide victims (3.5% vs. 6.9%).

**Table 39: Toxicology testing and results by firearm or non-firearm\* suicide in North Carolina, 2020**

|   | Firearm Suicide |      | Non-Firearm* Suicide |      |
|---|-----------------|------|----------------------|------|
|   | Total           | %    | Total                | %    |
| <b>Alcohol</b>                          |                 |      |                      |      |
| Tested with results                     | 831             | 92.2 | 459                  | 89.8 |
| Alcohol present in those tested         | 232             | 25.8 | 132                  | 25.8 |
| <b>Amphetamines</b>                     |                 |      |                      |      |
| Tested with results                     | 7               | 0.8  | 21                   | 4.1  |
| Amphetamines present in those tested    | 4               | 0.4  | 14                   | 2.7  |
| <b>Antidepressant</b>                   |                 |      |                      |      |
| Tested with results                     | 3               | 0.3  | 66                   | 12.9 |
| Antidepressant present in those tested  | 3               | 0.3  | 65                   | 12.7 |
| <b>Cocaine</b>                          |                 |      |                      |      |
| Tested with results                     | 22              | 2.4  | 141                  | 27.6 |
| Cocaine present in those tested         | 3               | 0.3  | 4                    | 0.8  |
| <b>Opiates</b>                          |                 |      |                      |      |
| Tested with results                     | 22              | 2.4  | 133                  | 26.0 |
| Opiates present in those tested         | 5               | 0.6  | 47                   | 9.2  |
| <b>Anticonvulsants</b>                  |                 |      |                      |      |
| Tested with results                     | 22              | 2    | 138                  | 27.0 |
| Anticonvulsants present in those tested | 1               | 0    | 29                   | 5.7  |
| <b>Benzodiazepine</b>                   |                 |      |                      |      |
| Tested with results                     | 22              | 2    | 142                  | 27.8 |
| Benzodiazepine present in those tested  | 2               | 0    | 40                   | 7.8  |
| <b>Other substances*</b>                |                 |      |                      |      |
| Tested with results                     | 2               | 0.2  | 59                   | 2.9  |
| Other drugs present in those tested     | 2               | 0.2  | 59                   | 2.9  |

\* Non-firearm includes hanging, strangulation or suffocation, poisoning, sharp instrument, fall, drowning, motor vehicle including buses and motorcycles, fire or burns, or other.

\*\* Other substances include carbon monoxide.

**Note:** Testing refers to conducted toxicology tests of suicide victims.

## Section IV

### **Firearm Homicide**

**Table 40** characterizes firearm homicides in 2021 among North Carolina residents by demographics of sex, race/ethnicity, and age. The overall firearm homicide rate per 100,000 North Carolina residents is displayed by race/ethnicity and sex in **Figure 28** and by age group and sex in **Figure 29**.

#### **Key Findings:**

- In 2021, 812 North Carolinians were killed in a firearm homicide, representing 85.5% of total homicides.
- Males were 5.1 times more likely to die from firearm homicide than females (14.7 versus 2.9 per 100,000, respectively).
- NH Black residents had the highest firearm homicide rate (27.6 per 100,000), followed by NH American Indian (26.7 per 100,000), Hispanic (7.0 per 100,000) and NH White (3.0 per 100,000). There were two NH Asian firearm homicide deaths in 2021, which was too small to compute a rate.
- Young adults ages 20 to 24 years had the highest firearm homicide rate (18.6 per 100,000), followed by those ages 25 to 34 (17.5 per 100,000), and 15 to 19 (16.2 per 100,000).
- Males ages 15 to 19 were 11.2 times as likely to die from a firearm homicide than females of the same age (29.3 and 2.6 per 100,000, respectively).

**Table 41** characterizes firearm homicides by firearm type.

**Table 42** provides the 10 highest rates of firearm homicides by North Carolina county of residence in 2021.

#### **Key Findings:**

- Handguns accounted for 71.6% of all firearm homicides in 2021.
- More than one firearm was used in five homicide deaths.
- The three highest county firearm homicide rates in 2021 were Scotland (35.1 per 100,000), Edgecombe (31.0 per 100,000), and Robeson (30.1 per 100,000).

**Table 40: Demographics of firearm homicides in North Carolina, 2021**

|                          | Number     | %            | Rate       | 95% CI           |
|--------------------------|------------|--------------|------------|------------------|
| <b>Sex</b>               |            |              |            |                  |
| Female                   | 139        | 17.1         | 2.9        | 2.4 - 3.4        |
| Male                     | 673        | 82.9         | 14.7       | 13.6 - 15.9      |
| <b>Race/Ethnicity</b>    |            |              |            |                  |
| White*                   | 180        | 22.2         | 3.0        | 2.6 - 3.5        |
| Black*                   | 545        | 67.1         | 27.6       | 25.3 - 29.9      |
| Asian*                   | 2          | 0.2          | *          | *                |
| American Indian*         | 26         | 3.2          | 26.7       | 16.4 - 37.0      |
| Hispanic                 | 58         | 7.1          | 7.0        | 5.2 - 8.8        |
| Other/unknown            | 1          | 0.1          | -          | -                |
| <b>Age Group (Years)</b> |            |              |            |                  |
| < 1                      | 0          | 0.0          | *          | *                |
| 1-4                      | 3          | 0.4          | *          | *                |
| 5-9                      | 3          | 0.4          | *          | *                |
| 10-14                    | 9          | 1.1          | 1.3        | 0.5 - 2.2        |
| 15-19                    | 114        | 14.0         | 16.2       | 13.2 - 19.2      |
| 20-24                    | 137        | 16.9         | 18.6       | 15.5 - 21.8      |
| 25-34                    | 248        | 30.5         | 17.5       | 15.4 - 19.7      |
| 35-44                    | 124        | 15.3         | 9.3        | 7.7 - 11.0       |
| 45-54                    | 93         | 11.5         | 6.9        | 5.5 - 8.3        |
| 55-64                    | 52         | 6.4          | 3.8        | 2.8 - 4.8        |
| 65-74                    | 18         | 2.2          | 1.7        | 0.9 - 2.4        |
| 75-84                    | 9          | 1.1          | 1.7        | 0.6 - 2.8        |
| ≥85                      | 2          | 0.2          | *          | *                |
| <b>Total Deaths</b>      | <b>812</b> | <b>100.0</b> | <b>8.7</b> | <b>8.1 - 9.3</b> |

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

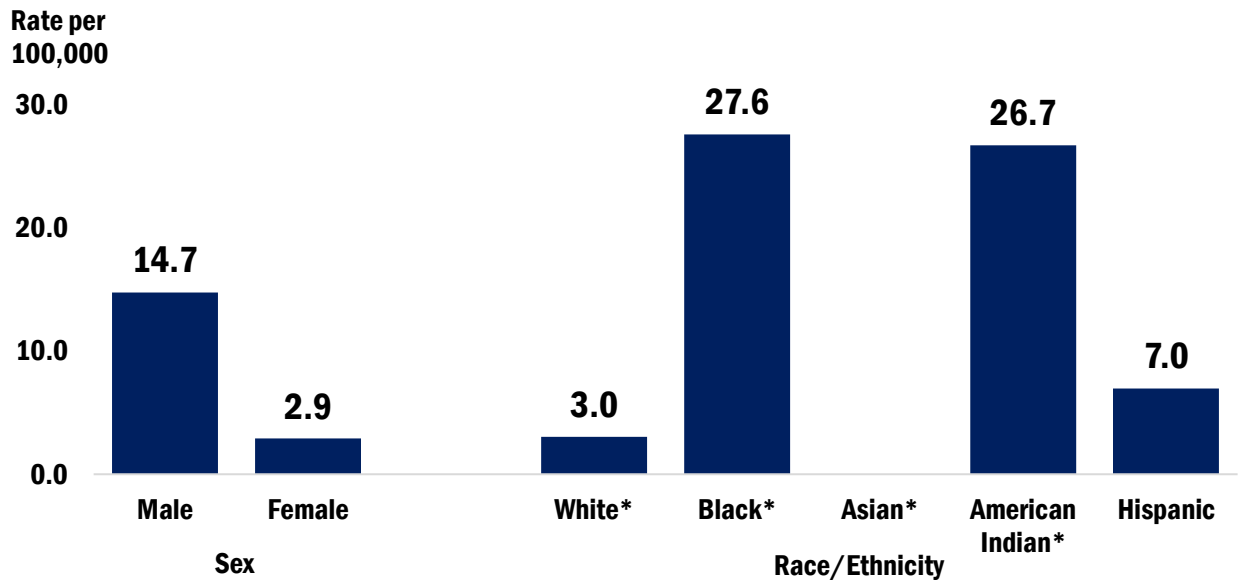
95% CI = 95 % confidence interval for the rate

\* Non-Hispanic

**Note:** The number of firearm-involved deaths was too small to support a rate calculation for infants younger than one and for ages 1-4, 5-9, and 85 and older.

## Section IV

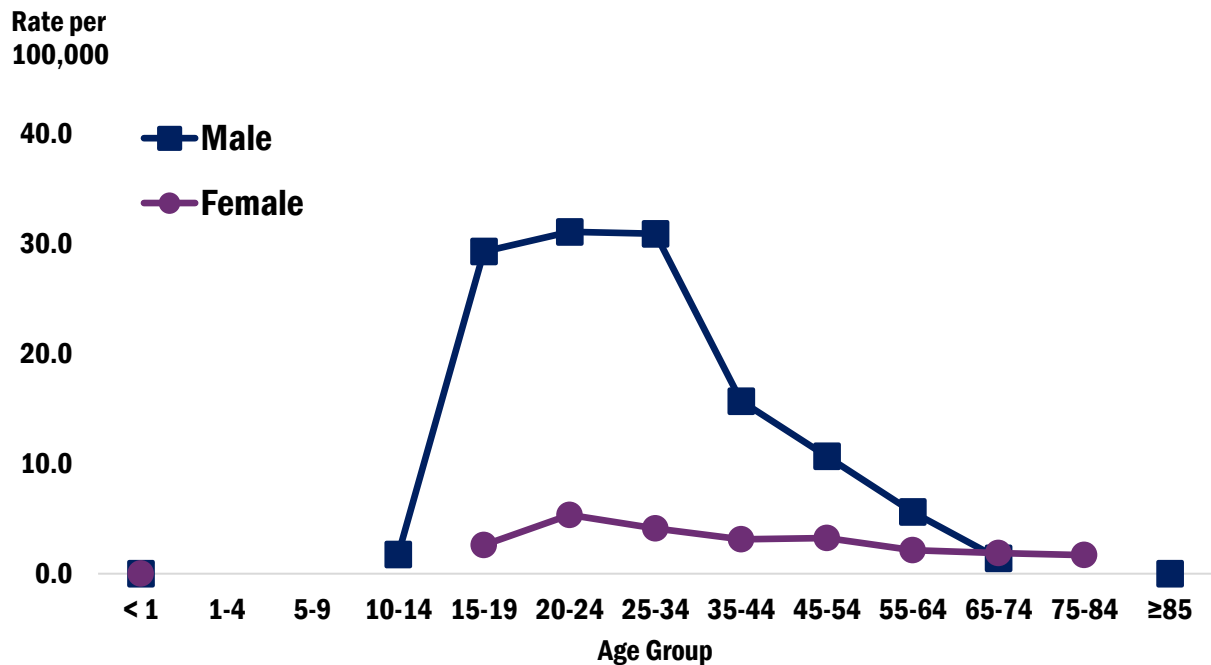
**Figure 28: Crude firearm homicide rates in North Carolina by sex and race/ethnicity, 2021**



\* Non-Hispanic

**Note:** The number of firearm-involved deaths was too small to support a rate calculation for NH Asians.

**Figure 29: Age-specific crude firearm homicide rates in North Carolina stratified by age group and sex, 2021**



**Note:** The number of deaths was too small to support a rate calculation for males ages 1-4, 5-9, and 75-84, and for females ages 1-4, 5-9, 10-14, and 85 and older.

**Table 41: Type of firearm used in firearm homicide in North Carolina, 2021**

|   | Number     | %          |
|---|------------|------------|
| <b>Firearm Type*</b>                                |            |            |
| Handgun   | 585        | 71.6       |
| Rifle   | 77         | 9.4        |
| Shotgun   | 32         | 3.9        |
| Other/unknown                                       | 123        | 15.1       |
| <b>Total Firearms Involved in Firearm Homicides</b> | <b>817</b> | <b>100</b> |

\*Multiple firearm types were reported in five firearm homicide deaths; therefore, the total number of firearms exceeds the number of homicide firearm deaths (n=812).

**Table 42: Ten highest rates of firearm homicide by North Carolina county of residence, 2021**

| County    | Rate | County   | Rate |
|-----------|------|----------|------|
| Scotland  | 35.1 | Anson    | 27.0 |
| Edgecombe | 31.0 | Vance    | 21.4 |
| Robeson   | 30.1 | Bladen   | 20.3 |
| Bertie    | 28.7 | Halifax  | 18.6 |
| Hertford  | 28.3 | Columbus | 18.0 |



## Section IV

### Circumstances of Firearm Homicides Compared to Non-Firearm Homicides

Circumstance of homicides differed based on the involvement of a firearm. Circumstance data were available for 93.5% of firearm homicides, and for 98.6% of non-firearm homicides in 2021. **Table 43** and **Figure 30** describe the circumstances for firearm and non-firearm homicide in North Carolina in 2021.

#### Key Findings:

- Firearm homicides were slightly more likely to have followed an argument, abuse, or conflict than homicides involving other means (42.2% versus 41.9%).
- Firearm homicides were more likely to have been precipitated by another serious crime (29.4% versus 26.5%).
- Drug dealing, drug trade, or drug use (drug involvement) was suspected to have played a role in precipitating the incident in 16.9% of firearm homicides compared to 8.8% in other homicides. Firearm homicides were more likely to have been gang related (9.6% versus 1.5%).
- Firearm homicides were less likely to have been related to intimate partner violence (16.9% versus 19.1%).

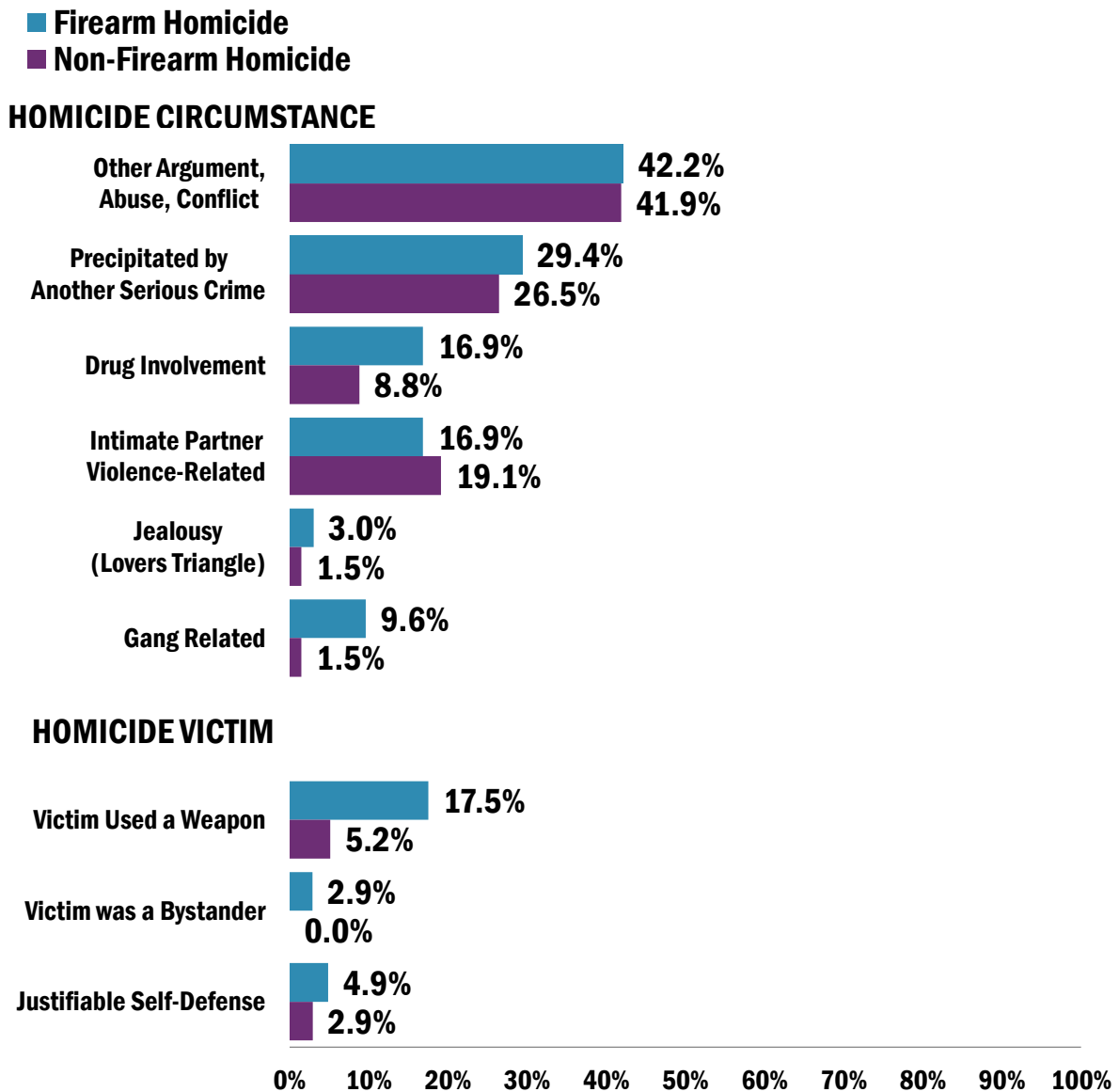
**Table 43: Firearm homicide victim precipitating circumstances in North Carolina, 2021**

| Circumstance*                         | Firearm Homicide |      | Non-Firearm** Homicide |      |
|---------------------------------------|------------------|------|------------------------|------|
|                                       | Number           | %    | Number                 | %    |
| <b>Event</b>                          |                  |      |                        |      |
| Other argument, abuse, conflict       | 320              | 42.2 | 57                     | 41.9 |
| Precipitated by another serious crime | 223              | 29.4 | 36                     | 26.5 |
| Drug involvement                      | 128              | 16.9 | 12                     | 8.8  |
| Intimate Partner Violence-Related     | 128              | 16.9 | 26                     | 19.1 |
| Jealousy (lovers triangle)            | 23               | 3.0  | 2                      | 1.5  |
| Gang-related                          | 73               | 9.6  | 2                      | 1.5  |
| Brawl (mutual physical fight)         | 11               | 1.5  | 2                      | 1.5  |
| Mercy killing                         | 2                | 0.3  | 0                      | 0.0  |
| <b>Victim</b>                         |                  |      |                        |      |
| Victim used a weapon                  | 133              | 17.5 | 7                      | 5.2  |
| Victim was a bystander                | 22               | 2.9  | 0                      | 0.0  |
| Justifiable self-defense              | 37               | 4.9  | 4                      | 2.9  |
| Intervener assisting crime victim     | 4                | 0.5  | 0                      | 0.0  |

\* Circumstances were available for 93.5% (759/812) of firearm homicide victims, and 98.6% (136/138) of non-firearm homicide victims. The percentage of circumstances for homicide victims is based on the number of cases reporting circumstances in North Carolina in 2021.

\*\* Non-firearm includes sharp instrument, blunt instrument, personal weapons, hanging, strangulation or suffocation, fire or burns, intentional neglect, poisoning, motor vehicle including buses and motorcycles, and unknown.

**Figure 30: Firearm and non-firearm\* homicide victim circumstances in North Carolina, 2021**



\* Non-firearm includes sharp instrument, blunt instrument, personal weapons, hanging, strangulation or suffocation, fire or burns, intentional neglect, poisoning, motor vehicle including buses and motorcycles, and unknown.

**Note:** For Table 38 and Figure 27, firearm and non-firearm suicide victims may have more than one circumstance; Therefore, the responses add up to more than 100%. This figure does not include all circumstances.

## Section IV

### Toxicology Testing and Results for Firearm vs. Non-Firearm Homicide Deaths

Toxicology testing was performed on all homicide victims at the medical examiner's discretion 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 the substance was present at a lethal level. Testing of North Carolina firearm homicide and non-firearm homicide victims in 2021 is shown in **Table 44**.

#### Key Findings:

- Alcohol was tested in 95.0% of firearm homicides. Of those victims tested, alcohol was present in 26.6% of firearm suicide victims, 28.1% of male victims and 19.4% of female victims. This is slightly lower when compared to non-firearm homicides, where 85.5% of victims were tested for alcohol, and 29.0% of victims were found to have alcohol present.
- Testing for substances other than alcohol was infrequent in firearm homicides. The average of tests for substances other than alcohol in all firearm homicide victims was 3.0%, and of those tests, positive results were found 0.6% of the time. In non-firearm homicides, substances were tested 17.1% of the time on average, and of those tests, 3.8% were positive.
- Substances such as cocaine and opiates were found to be tested for more often in non-firearm homicides (6.0% vs. 35.5% for cocaine and 5.9% vs. 32.6% for opiates, for firearm and non-firearm homicides, respectively).
- Overall positive toxicology test results were less frequent for firearm homicide victims (3.2% vs. 6.3%).

**Table 44: Firearm homicide victim toxicology testing and results in North Carolina, 2021**

| Toxicology Tests and Results            | Firearm Homicide |      | Non-Firearm* Homicide |      |
|---|------------------|------|-----------------------|------|
|   | Total            | %    | Total                 | %    |
| <b>Alcohol</b>                          |                  |      |                       |      |
| Tested with results                     | 771              | 95.0 | 118                   | 85.5 |
| Alcohol present in those tested         | 216              | 26.6 | 40                    | 29.0 |
| <b>Amphetamines</b>                     |                  |      |                       |      |
| Tested with results                     | 17               | 2.1  | 13                    | 9.4  |
| Amphetamines present in those tested    | 14               | 1.7  | 9                     | 6.5  |
| <b>Antidepressant</b>                   |                  |      |                       |      |
| Tested with results                     | 2                | 0.3  | 5                     | 3.6  |
| Antidepressant present in those tested  | 2                | 0.3  | 4                     | 2.9  |
| <b>Cocaine</b>                          |                  |      |                       |      |
| Tested with results                     | 49               | 6.0  | 49                    | 35.5 |
| Cocaine present in those tested         | 7                | 0.9  | 9                     | 6.5  |
| <b>Opiates</b>                          |                  |      |                       |      |
| Tested with results                     | 48               | 5.9  | 45                    | 32.6 |
| Opiates present in those tested         | 10               | 1.2  | 6                     | 4.4  |
| <b>Anticonvulsants</b>                  |                  |      |                       |      |
| Tested with results                     | 47               | 6    | 47                    | 34.1 |
| Anticonvulsants present in those tested | 5                | 1    | 9                     | 6.5  |
| <b>Benzodiazepine</b>                   |                  |      |                       |      |
| Tested with results                     | 48               | 6    | 46                    | 33.3 |
| Benzodiazepine present in those tested  | 1                | 0    | 3                     | 2.2  |
| <b>Other substances*</b>                |                  |      |                       |      |
| Tested with results                     | 8                | 0.3  | 7                     | 1.7  |
| Other drugs present in those tested     | 8                | 0.3  | 7                     | 1.7  |

\*Non-firearm includes sharp instrument, blunt instrument, personal weapons, hanging, strangulation or suffocation, fire or burns, intentional neglect, poisoning, motor vehicle including buses and motorcycles, and unknown.

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

## Section IV

### ***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 suicide or homicide. **Table 34** describes the unintentional firearm injury victims in North Carolina in 2021 by sex, race/ethnicity, and age. Caution should be used in interpreting rates; rates may be unstable due to the small number of unintentional firearm deaths. **Table 35** displays the type of firearm for unintentional firearm deaths in North Carolina in 2021. **Table 36** provides the number of unintentional firearm deaths in 2021 by North Carolina county of residence.

#### **Key Findings:**

- In 2021, 32 North Carolinians (0.3 per 100,000) died from an unintentional firearm injury.
- Most (78.1%) of unintentional firearm victims were male, 43.8% were NH white, and 40.6% were NH Black.
- Most deaths from an unintentional firearm injury occurred among those ages 5 to 64. Those ages 15 to 19 had the highest proportion of unintentional firearm death (25.0%).
- The most common firearm involved in unintentional firearm deaths was a handgun (71.9%).

NC-VDRS collects data on the circumstances surrounding unintentional firearm deaths to help understand the underlying causes of death. All of the 32 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 2021.

#### **Key Findings:**

- The most common circumstance among mechanisms of unintentional firearm injuries resulting in death included: the victim unintentionally pulled the trigger (18.8%), the shooter thought magazine was unloaded (15.6%), the gun discharged when dropped (9.4%), the shooter thought the gun was unloaded (unspecified reason) (9.4%), the shooter thought the gun was a toy (6.3%), the bullet ricocheted and hit the victim (6.3%), or the gun had a defect or malfunctioned (6.3%).
- Among contexts of unintentional firearm injuries resulting in death, the most common contexts included: the injury occurred while playing with a firearm (43.8%), while showing the firearm to others (21.9%), while cleaning the firearm (6.3%), or while target shooting (6.3%).

**Table 45: Demographics of unintentional firearm death victims in North Carolina, 2021**

|                          | Number    | %          | Rate       | 95% CI           |
|--------------------------|-----------|------------|------------|------------------|
| <b>Sex</b>               |           |            |            |                  |
| Female                   | 7         | 21.9       | 0.1        | 0.0 - 0.2        |
| Male                     | 25        | 78.1       | 0.5        | 0.3 - 0.7        |
| <b>Race/Ethnicity</b>    |           |            |            |                  |
| White**                  | 14        | 43.8       | 0.2        | 0.1 - 0.3        |
| Black**                  | 13        | 40.6       | 0.6        | 0.3 - 0.9        |
| Asian**                  | 0         | 0.0        | 0.0        | -                |
| American Indian**        | 0         | 0.0        | 0.0        | -                |
| Hispanic                 | 2         | 6.3        | *          | *                |
| Other/Unknown            | 0         | 0.0        | -          | -                |
| <b>Age Group (Years)</b> |           |            |            |                  |
| < 1                      | 0         | 0.0        | 0.0        | -                |
| 1-4                      | 4         | 12.5       | *          | *                |
| 5-9                      | 3         | 9.4        | *          | *                |
| 10-14                    | 2         | 6.3        | *          | *                |
| 15-19                    | 8         | 25.0       | 1.1        | 0.3 - 1.9        |
| 20-24                    | 3         | 9.4        | *          | *                |
| 25-34                    | 3         | 9.4        | *          | *                |
| 35-44                    | 2         | 6.3        | *          | *                |
| 45-54                    | 2         | 6.3        | *          | *                |
| 55-64                    | 4         | 12.5       | *          | *                |
| 65-74                    | 1         | 3.1        | *          | *                |
| 75-84                    | 0         | 0.0        | 0.0        | -                |
| ≥85                      | 0         | 0.0        | 0.0        | -                |
| <b>Total Deaths</b>      | <b>32</b> | <b>100</b> | <b>0.3</b> | <b>0.2 - 0.4</b> |

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

95% CI = 95 % confidence interval for the rate

\* Non-Hispanic

**Note:** The number of firearm-involved deaths was too small to support a rate calculation for Hispanics and for ages 1-4, 5-9, 10-14, 20-24, 25-34, 35-44, 45-54 and 65-74.

## Section IV

**Table 46: Type of firearm in unintentional firearm deaths in North Carolina, 2021**

|  | Number    | %            |
|--|-----------|--------------|
| <b>Firearm Type*</b>   |           |              |
| Handgun  | 23        | 71.9         |
| Rifle  | 4         | 12.5         |
| Shotgun  | 5         | 15.6         |
| Other/Unknown  | 0         | 0.0          |
| <b>Total Firearms Involved in Unintentional Firearm Deaths</b> | <b>32</b> | <b>100.0</b> |

\* Multiple firearm types were reported in zero unintentional firearm deaths; therefore, the total number of firearms does not exceed the number of unintentional firearm deaths (n=32).

**Table 47: Unintentional firearm deaths in North Carolina by county of residence, 2021**

| County     | Number | County       | Number |
|------------|--------|--------------|--------|
| Alamance   | 1      | Lenoir       | 1      |
| Craven     | 1      | McDowell     | 1      |
| Cumberland | 1      | Mecklenburg  | 5      |
| Davidson   | 1      | Nash         | 1      |
| Duplin     | 1      | Pasquotank   | 2      |
| Forsyth    | 3      | Pitt         | 1      |
| Gaston     | 1      | Rowan        | 1      |
| Guilford   | 1      | Sampson      | 2      |
| Halifax    | 1      | Scotland     | 1      |
| Henderson  | 1      | Transylvania | 1      |
| Hoke       | 1      | Wake         | 1      |
| Hyde       | 1      | Wilson       | 1      |

**Table 48: Circumstances of unintentional firearm deaths in North Carolina, 2021**

| Circumstances*                                       | Number | %    |
|--|--------|------|
| <b>Context</b>                                       |        |      |
| Occurred while playing with gun                      | 14     | 43.8 |
| Occurred while cleaning gun                          | 2      | 6.3  |
| Occurred while on hunting trip                       | 1      | 3.1  |
| Gun fired while loading or unloading                 | 1      | 3.1  |
| Occurred while showing gun to others                 | 7      | 21.9 |
| Occurred while target shooting                       | 2      | 6.3  |
| Other context  | 4      | 12.5 |
| <b>Mechanism</b>                                     |        |      |
| Gun discharged when dropped                          | 3      | 9.4  |
| Shooter thought gun was unloaded, unspecified reason | 3      | 9.4  |
| Unintentionally pulled trigger                       | 6      | 18.8 |
| Shooter thought gun was a toy                        | 2      | 6.3  |
| Shooter thought magazine was unloaded                | 5      | 15.6 |
| Bullet ricocheted and hit victim                     | 2      | 6.3  |
| Gun had defect or malfunctioned                      | 2      | 6.3  |
| Occurred while holstering/unholstering               | 1      | 3.1  |
| Shooter thought gun safety was engaged               | 1      | 3.1  |
| Other mechanism                                      | 3      | 9.4  |

\*Circumstances were available for 32/32 (100.0%) of unintentional firearm deaths in North Carolina during 2021.

**Note:** Each death may have more than one circumstance, therefore the total number of circumstances may exceed the total number of deaths.



## Section V: 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 49** summarizes the demographics of legal intervention victims in North Carolina in 2021. Caution should be used in interpreting the rates because of the small number of legal intervention deaths. **Table 50** shows the type of weapon used in legal intervention deaths of North Carolina residents in 2021. **Table 51** lists the number of legal intervention deaths in 2021 by North Carolina county of residence.

### Key Findings:

- In 2021, 32 residents of North Carolina (0.3 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 (34.4%).
- All but seven legal intervention deaths occurred by firearm. Of the total firearms involved (n=25), handguns were the most frequently used (42.9%).

**Table 49: Demographics of legal intervention death victims in North Carolina, 2021**

|                          | Number    | %          | Rate       | 95% CI           |
|--------------------------|-----------|------------|------------|------------------|
| <b>Sex</b>               |           |            |            |                  |
| Female                   | 1         | 3.1        | *          | *                |
| Male                     | 31        | 96.9       | 0.6        | 0.4 - 0.8        |
| <b>Race/Ethnicity</b>    |           |            |            |                  |
| White**                  | 19        | 59.4       | 0.3        | 0.2 - 0.4        |
| Black**                  | 8         | 25.0       | 0.4        | 0.1 - 0.6        |
| Asian**                  | 0         | 0.0        | 0.0        | -                |
| American Indian**        | 2         | 6.3        | *          | *                |
| Hispanic                 | 2         | 6.3        | *          | *                |
| Other/unknown            | 1         | 3.1        | -          | -                |
| <b>Age Group (Years)</b> |           |            |            |                  |
| 15-19                    | 0         | 0.0        | *          | *                |
| 20-24                    | 3         | 9.4        | *          | *                |
| 25-34                    | 11        | 34.4       | 0.8        | 0.3 - 1.2        |
| 35-44                    | 6         | 18.8       | 0.5        | 0.1 - 0.8        |
| 45-54                    | 8         | 25.0       | 0.6        | 0.2 - 1.0        |
| 55-64                    | 3         | 9.4        | *          | *                |
| 65-74                    | 1         | 3.1        | *          | *                |
| 75-84                    | 0         | 0.0        | 0.0        | -                |
| ≥85                      | 0         | 0.0        | 0.0        | -                |
| <b>Total Deaths</b>      | <b>32</b> | <b>100</b> | <b>0.3</b> | <b>0.2 - 0.4</b> |

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

95% CI = 95 % confidence interval for the rate

\*\* Non-Hispanic

**Note:** The number of deaths was too small to support a rate calculation for females, NH American Indians, Hispanics and for ages 15-19, 20-24, 55-64 and 65-74.

**Table 50: Type of weapon for legal intervention deaths in North Carolina, 2021**

| Weapon Type   | Number    | %          |
|---|-----------|------------|
| Firearm   |           |            |
| Handgun   | 12        | 34.3       |
| Rifle   | 10        | 28.6       |
| Shotgun   | 2         | 5.7        |
| Unknown firearm type  | 4         | 11.4       |
| Other, non-firearm weapons                                  | 7         | 20.0       |
| <b>Total Weapons Involved in Legal Intervention Deaths*</b> | <b>35</b> | <b>100</b> |

\*Multiple firearm types were reported for two legal intervention fatalities in 2021; therefore, the total number of weapons exceeds the number of legal intervention deaths.

**Table 51: Legal intervention deaths in North Carolina by county of residence, 2021**

| County    | Number | County      | Number |
|-----------|--------|-------------|--------|
| Beaufort  | 1      | McDowell    | 1      |
| Brunswick | 1      | Mecklenburg | 3      |
| Caldwell  | 1      | Pamlico     | 1      |
| Cleveland | 1      | Pasquotank  | 1      |
| Davidson  | 3      | Pender      | 1      |
| Edgecombe | 1      | Person      | 2      |
| Forsyth   | 2      | Pitt        | 1      |
| Gaston    | 3      | Robeson     | 1      |
| Granville | 1      | Rowan       | 1      |
| Guilford  | 5      | Sampson     | 1      |

## Section V

### ***Circumstances of Firearm Legal Intervention Deaths***

Circumstance data were available for all 32 (100%) firearm legal intervention deaths in 2021. **Table 52** and **Figure 31** describe the circumstance(s) surrounding firearm legal intervention deaths in North Carolina in 2021.

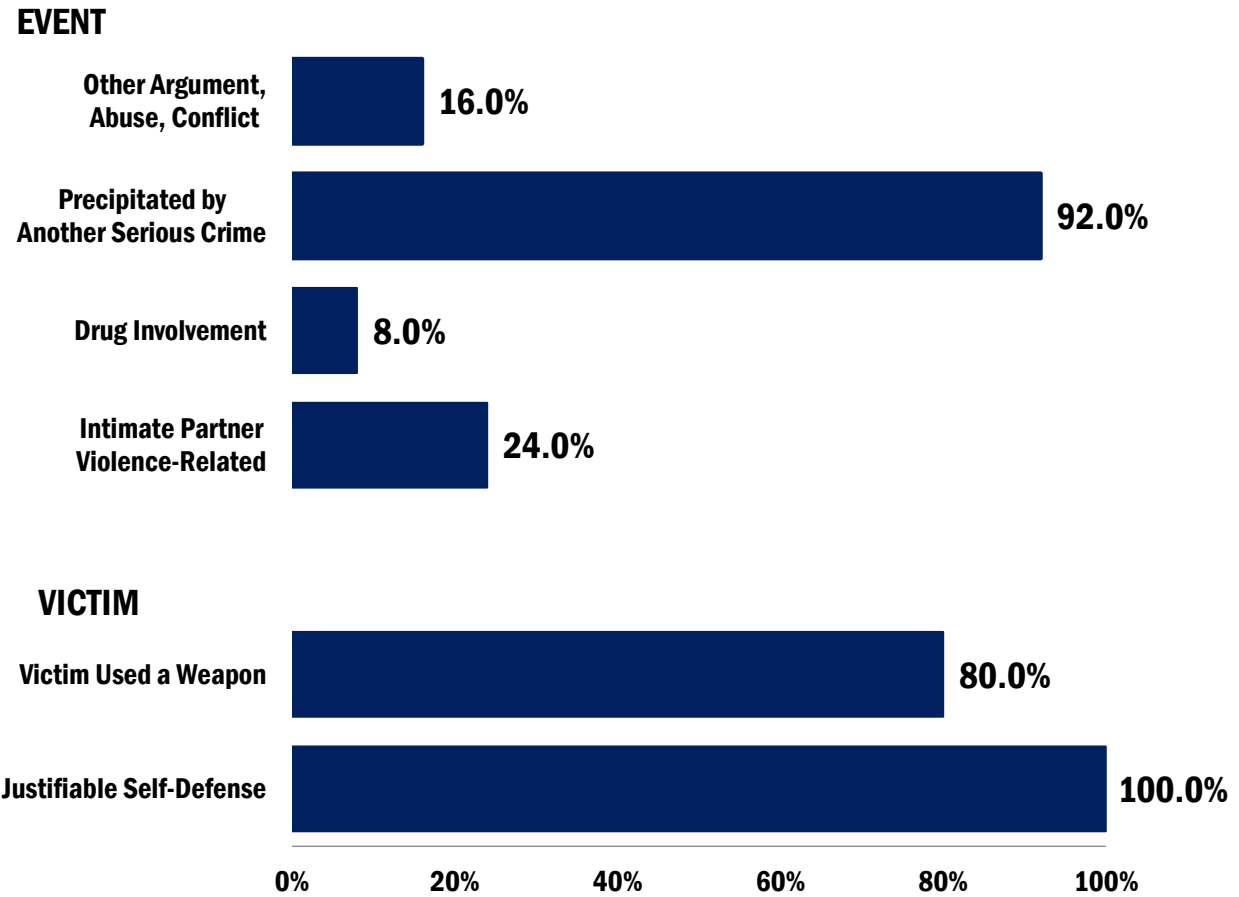
#### **Key Findings:**

- In 2021, 92.0% of firearm legal intervention deaths were precipitated by another serious crime, and 100% were considered justifiable self-defense.
- Less frequent circumstances among firearm legal intervention deaths were intimate partner violence (24.0%), an argument, abuse, or conflict (16.0%), and drug involvement (8.0%).

**Table 52: Circumstances surrounding firearm legal intervention deaths in North Carolina, 2021**

| <b>Circumstance*</b>                  | <b>Number</b> | <b>%</b> |
|---------------------------------------|---------------|----------|
| <b>Event</b>                          |               |          |
| Other argument, abuse, conflict       | 4             | 16.0     |
| Precipitated by another serious crime | 23            | 92.0     |
| Drug involvement                      | 2             | 8.0      |
| Intimate Partner Violence-Related     | 6             | 24.0     |
| <b>Victim</b>                         |               |          |
| Victim used a weapon                  | 20            | 80.0     |
| Justifiable self-defense              | 25            | 100.0    |

**Figure 31: Firearm law enforcement victim precipitating homicide circumstances in North Carolina, 2021**



## Section VI: Child Death

**Table 53** characterizes violent deaths for children under the age of 18 years in North Carolina in 2021 by sex, race/ethnicity, and age.

### Key Findings:

- In 2021, 168 children in North Carolina (7.4 per 100,000) died as a result of violence.
- Male children were 2.6 times as likely to be victims of violent death as female children (10.6 vs. 4.0 per 100,000, respectively).
- The violent death rate for children per 100,000 was 3.7 times higher for NH Blacks (16.9 per 100,000) than for NH whites (4.6 per 100,000).
- The highest death rate was for children ages 15 to 19 (25.6 per 100,000). The lowest rate was for children ages five to nine (1.5 per 100,000).

Manner of violent death for child victims in North Carolina in 2021 is displayed in **Figure 32**, and it is shown stratified by sex in **Table 54**, by race/ethnicity in **Table 55** and by age group in **Table 56**.

### Key Findings:

- The most common causes of violent death for all child victims were homicide (51.2%) followed by suicide (36.3%).
- Homicide was the cause of violent death for the majority of NH Black children (70.9%).
- Homicide was the leading cause of violent death for infants less than one year (66.7%), for children ages one to four (68.4%), children ages five to nine (66.7%), and children ages 15 to 17 (51.9%).
- Suicide was the cause of violent death in the majority NH white children (64.2%).
- Suicide was the leading cause of violent death for children ages 10 to 14 (60.0%).

Method of child violent death in North Carolina in 2021 is provided stratified by sex in **Table 57**, by race/ethnicity in **Table 58** and by age group in **Table 59**.

### Key Findings:

- The most common methods of violent death for all child victims were firearm (70.2%), hanging, strangulation or suffocation (12.5%), and personal weapons (i.e., abuse by a caretaker) (4.8%).
- Firearm was the leading method of child violent death for males (78.1%), NH Blacks (79.1%), and Hispanics (66.7%).
- Personal weapons (50.0%) were the leading method of violent death in infants less than one year. For children ages one to four, firearms (36.8%), personal weapons (21.1%), and blunt instrument (21.1%) were the leading methods of death. There were six child deaths for ages five to nine, attributed to firearms (66.7%), blunt instrument (22.2%), and sharp instrument (11.1%). Firearms (66.7%) and hanging, strangulation, or suffocation (33.3%) were the top causes of violent child death for ages 10 to 14, as well as for ages 15 to 17 (81.7% and 9.6% respectively).

**Table 53: Demographics of child (under age 18) violent deaths in North Carolina, 2021**

|                          | Number     | %          | Rate       | 95% CI           |
|--------------------------|------------|------------|------------|------------------|
| <b>Sex</b>               |            |            |            |                  |
| Female                   | 45         | 26.8       | 4.0        | 2.9 - 5.2        |
| Male                     | 123        | 73.2       | 10.6       | 8.7 - 12.4       |
| <b>Race/Ethnicity</b>    |            |            |            |                  |
| White**                  | 53         | 31.5       | 4.6        | 3.3 - 5.8        |
| Black**                  | 86         | 51.2       | 16.9       | 13.3 - 20.4      |
| Asian**                  | 3          | 1.8        | *          | *                |
| American Indian**        | 2          | 1.2        | *          | *                |
| Hispanic                 | 24         | 14.3       | 6.3        | 3.8 - 8.9        |
| Other/unknown            | 0          | 0.0        | -          | -                |
| <b>Age Group (Years)</b> |            |            |            |                  |
| <1                       | 6          | 3.6        | 5.2        | 1.0 - 9.3        |
| 1-4                      | 19         | 11.3       | 4.0        | 2.2 - 5.8        |
| 5-9                      | 9          | 5.4        | 1.5        | 0.5 - 2.4        |
| 10-14                    | 30         | 17.9       | 4.5        | 2.9 - 6.1        |
| 15-17                    | 104        | 61.9       | 25.6       | 20.7 - 30.5      |
| <b>Total Deaths</b>      | <b>168</b> | <b>100</b> | <b>7.4</b> | <b>6.2 - 8.5</b> |

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

95% CI = 95 % confidence interval for the rate

\*\* Non-Hispanic

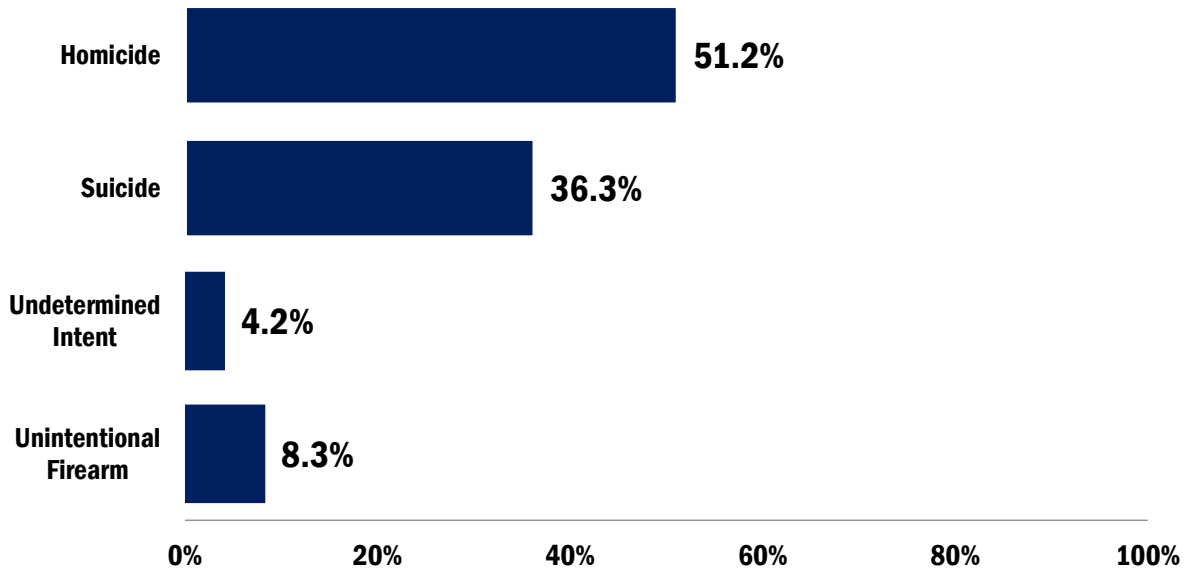
**Note:** The number of deaths was too small to support a rate calculation for NH Asians and NH American Indians.

**Table 54: Manner of child (under age 18) violent death in North Carolina by sex, 2021**

|                        | Male       |            | Female    |            | Total      |            |
|------------------------|------------|------------|-----------|------------|------------|------------|
|                        | Number     | %          | Number    | %          | Number     | %          |
| <b>Manner of Death</b> |            |            |           |            |            |            |
| Homicide               | 65         | 52.9       | 21        | 46.7       | 86         | 51.2       |
| Suicide                | 43         | 35.0       | 18        | 40.0       | 61         | 36.3       |
| Undetermined Intent    | 4          | 3.3        | 3         | 6.7        | 7          | 4.2        |
| Unintentional Firearm  | 11         | 8.9        | 3         | 6.7        | 14         | 8.3        |
| <b>Total Deaths</b>    | <b>123</b> | <b>100</b> | <b>45</b> | <b>100</b> | <b>168</b> | <b>100</b> |

## Section VI

**Figure 32: Manner of child (under age 18) violent death in North Carolina, 2021**



**Table 55: Manner of child (under age 18) violent death in North Carolina by race/ethnicity, 2021**

| Manner of Death       | White*    |            | Black*    |            | American Indian* |            | Asian*   |            | Hispanic  |            |
|-----------------------|-----------|------------|-----------|------------|------------------|------------|----------|------------|-----------|------------|
|                       | Number    | %          | Number    | %          | Number           | %          | Number   | %          | Number    | %          |
| Homicide              | 11        | 20.8       | 61        | 70.9       | 0                | 0.0        | 0        | 0.0        | 14        | 58.3       |
| Suicide               | 34        | 64.2       | 14        | 16.3       | 1                | 50.0       | 3        | 100.0      | 9         | 37.5       |
| Undetermined Intent   | 4         | 7.6        | 3         | 3.5        | 0                | 0.0        | 0        | 0.0        | 0         | 0.0        |
| Unintentional Firearm | 4         | 7.6        | 8         | 9.3        | 1                | 50.0       | 0        | 0.0        | 1         | 4.2        |
| <b>Total Deaths</b>   | <b>53</b> | <b>100</b> | <b>86</b> | <b>100</b> | <b>2</b>         | <b>5.4</b> | <b>3</b> | <b>100</b> | <b>24</b> | <b>100</b> |

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

\* Non-Hispanic

**Table 56: Manner of child (under age 18) violent death in North Carolina by age group, 2021**

|                        | <1       |            | 1-4       |            | 5-9      |            | 10-14     |            | 15-17      |            |
|------------------------|----------|------------|-----------|------------|----------|------------|-----------|------------|------------|------------|
|                        | Number   | %          | Number    | %          | Number   | %          | Number    | %          | Number     | %          |
| <b>Manner of Death</b> |          |            |           |            |          |            |           |            |            |            |
| Homicide               | 4        | 66.7       | 13        | 68.4       | 6        | 66.7       | 9         | 30.0       | 54         | 51.9       |
| Suicide                | 0        | 0.0        | 0         | 0.0        | 0        | 0.0        | 18        | 60.0       | 43         | 41.4       |
| Undetermined Intent    | 2        | 33.3       | 2         | 10.5       | 0        | 0.0        | 1         | 3.3        | 2          | 1.9        |
| Unintentional Firearm  | 0        | 0.0        | 4         | 21.1       | 3        | 33.3       | 2         | 6.7        | 5          | 4.8        |
| <b>Total Deaths</b>    | <b>6</b> | <b>100</b> | <b>19</b> | <b>100</b> | <b>9</b> | <b>100</b> | <b>30</b> | <b>100</b> | <b>104</b> | <b>100</b> |

**Table 57: Method of child (under age 18) violent death in North Carolina by sex, 2021**

|                                     | Male       |            | Female    |            | Total      |            |
|-------------------------------------|------------|------------|-----------|------------|------------|------------|
|                                     | Number     | %          | Number    | %          | Number     | %          |
| <b>Method of Death*</b>             |            |            |           |            |            |            |
| Firearm                             | 96         | 78.1       | 22        | 48.9       | 118        | 70.2       |
| Hanging, strangulation, suffocation | 12         | 9.8        | 9         | 20.0       | 21         | 12.5       |
| Personal weapons                    | 5          | 4.1        | 3         | 6.7        | 8          | 4.8        |
| Poisoning                           | 3          | 2.4        | 4         | 8.9        | 7          | 4.2        |
| Sharp instrument                    | 0          | 0.0        | 2         | 4.4        | 2          | 1.2        |
| Blunt instrument                    | 5          | 4.1        | 1         | 2.2        | 6          | 3.6        |
| Intentional neglect                 | 0          | 0.0        | 1         | 2.2        | 1          | 0.6        |
| Other/unknown                       | 2          | 1.6        | 3         | 6.7        | 5          | 3.0        |
| <b>Total Deaths</b>                 | <b>123</b> | <b>100</b> | <b>45</b> | <b>100</b> | <b>168</b> | <b>100</b> |

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



## Section VI

**Table 58: Method of child (under age 18) violent death in North Carolina by race/ethnicity, 2021**

| Method of Death*                    | White**   |            | Black**   |            | American Indian** |            | Asian**  |            | Hispanic  |            |
|-------------------------------------|-----------|------------|-----------|------------|-------------------|------------|----------|------------|-----------|------------|
|                                     | Number    | %          | Number    | %          | Number            | %          | Number   | %          | Number    | %          |
| Firearm                             | 31        | 58.5       | 68        | 79.1       | 1                 | 50.0       | 2        | 66.7       | 16        | 66.7       |
| Hanging, strangulation, suffocation | 13        | 24.5       | 3         | 3.5        | 0                 | 0.0        | 1        | 33.3       | 4         | 16.7       |
| Personal weapons                    | 2         | 3.8        | 5         | 5.8        | 0                 | 0.0        | 0        | 0.0        | 1         | 4.2        |
| Poisoning                           | 3         | 5.7        | 3         | 3.5        | 1                 | 50.0       | 0        | 0.0        | 0         | 0.0        |
| Sharp instrument                    | 1         | 1.9        | 0         | 0.0        | 0                 | 0.0        | 0        | 0.0        | 1         | 4.2        |
| Blunt instrument                    | 0         | 0.0        | 5         | 5.8        | 0                 | 0.0        | 0        | 0.0        | 1         | 4.2        |
| Intentional neglect                 | 0         | 0.0        | 0         | 0.0        | 0                 | 0.0        | 0        | 0.0        | 1         | 4.2        |
| Other/unknown                       | 3         | 5.7        | 2         | 2.3        | 0                 | 0.0        | 0        | 0.0        | 0         | 0.0        |
| <b>Total Deaths</b>                 | <b>53</b> | <b>100</b> | <b>86</b> | <b>100</b> | <b>2</b>          | <b>100</b> | <b>3</b> | <b>100</b> | <b>24</b> | <b>100</b> |

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

\*\* Non-Hispanic

**Table 59: Method of child (under age 18) violent death in North Carolina by age group, 2021**

| Method of Death                     | <1       |            | 1-4       |            | 5-9      |            | 10-14     |            | 15-17      |            |
|-------------------------------------|----------|------------|-----------|------------|----------|------------|-----------|------------|------------|------------|
|                                     | Number   | %          | Number    | %          | Number   | %          | Number    | %          | Number     | %          |
| Firearm                             | 0        | 0.0        | 7         | 36.8       | 6        | 66.7       | 20        | 66.7       | 85         | 81.7       |
| Hanging, strangulation, suffocation | 0        | 0.0        | 1         | 5.3        | 0        | 0.0        | 10        | 33.3       | 10         | 9.6        |
| Personal weapons                    | 3        | 50.0       | 4         | 21.1       | 0        | 0.0        | 0         | 0.0        | 1          | 1.0        |
| Poisoning                           | 1        | 16.7       | 2         | 10.5       | 0        | 0.0        | 0         | 0.0        | 4          | 3.9        |
| Sharp instrument                    | 0        | 0.0        | 0         | 0.0        | 1        | 11.1       | 0         | 0.0        | 1          | 1.0        |
| Blunt instrument                    | 0        | 0.0        | 4         | 21.1       | 2        | 22.2       | 0         | 0.0        | 0          | 0.0        |
| Intentional neglect                 | 1        | 16.7       | 0         | 0.0        | 0        | 0.0        | 0         | 0.0        | 0          | 0.0        |
| Other/unknown                       | 1        | 16.7       | 1         | 5.3        | 0        | 0.0        | 0         | 0.0        | 3          | 2.9        |
| <b>Total Deaths</b>                 | <b>6</b> | <b>100</b> | <b>19</b> | <b>100</b> | <b>9</b> | <b>100</b> | <b>30</b> | <b>100</b> | <b>104</b> | <b>100</b> |

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

\*\* 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 60** provides the characteristics of undetermined intent deaths in North Carolina in 2021 by sex, race/ethnicity, and age.

### Key Findings:

- In 2021, 111 undetermined intent deaths (1.1 per 100,000) were reported in North Carolina.
- Males and females had undetermined death rates of 1.1 per 100,000 and 1.0 per 100,000, respectively.
- NH whites accounted for 79.3% of undetermined intent victims.
- Among victims whose death was of undetermined intent, one-quarter of deaths were among those ages 35 to 44 (25.2%); the highest undetermined intent death rate by age group was among those ages 35 to 44 years (2.1 per 100,000).

**Table 61** summarizes the method of undetermined intent deaths in North Carolina in 2021. **Table 62** shows the category of the fatal substance that caused the undetermined intent poisoning deaths in North Carolina in 2021.

### Key Findings:

- The leading methods of undetermined intent deaths were poisoning (64.0%), firearm (8.1%), and blunt instrument (8.1%).
- Most undetermined intent poisoning deaths involved an opiate (either illicit or prescription) (56.3%), anticonvulsants (23.9%), or benzodiazepines (22.5%).
- A handgun was involved in seven of the nine undetermined intent firearm deaths that occurred in North Carolina in 2021.
- Multiple firearm types were reported for no undetermined intent fatalities in 2021. Therefore, the total number of firearms is equal to the number of undetermined intent firearm deaths.

**Table 63** provides the number of undetermined intent deaths in 2021 by North Carolina County of residence.

## Section VII

**Table 60: Demographics of undetermined intent death victims in North Carolina, 2021**

|                          | Number     | %          | Rate       | 95% CI           |
|--------------------------|------------|------------|------------|------------------|
| <b>Sex</b>               |            |            |            |                  |
| Female                   | 56         | 50.5       | 1.0        | 0.8 - 1.3        |
| Male                     | 55         | 79.3       | 1.1        | 0.8 - 1.3        |
| <b>Race/Ethnicity</b>    |            |            |            |                  |
| White**                  | 88         | 79.3       | 1.3        | 1.1 - 1.6        |
| Black**                  | 18         | 16.2       | 0.8        | 0.4 - 1.2        |
| Asian**                  | 1          | 0.9        | 0.0        | -                |
| American Indian**        | 2          | 1.8        | *          | *                |
| Hispanic                 | 2          | 1.8        | *          | *                |
| Other/unknown            | 0          | 0.0        | -          | -                |
| <b>Age Group (Years)</b> |            |            |            |                  |
| < 1                      | 2          | 1.8        | *          | *                |
| 1-4                      | 2          | 1.8        | *          | *                |
| 5-9                      | 0          | 0.0        | 0.0        | -                |
| 10-14                    | 1          | 0.9        | *          | *                |
| 15-19                    | 2          | 1.8        | *          | *                |
| 20-24                    | 6          | 5.4        | 0.8        | 0.2 - 1.5        |
| 25-34                    | 24         | 21.6       | 1.7        | 1.0 - 2.4        |
| 35-44                    | 28         | 25.2       | 2.1        | 1.3 - 2.9        |
| 45-54                    | 18         | 16.2       | 1.3        | 0.7 - 2.0        |
| 55-64                    | 14         | 12.6       | 1.0        | 0.5 - 1.6        |
| 65-74                    | 8          | 7.2        | 0.7        | 0.2 - 1.2        |
| 75-84                    | 6          | 5.4        | 1.1        | 1.1 - 1.1        |
| ≥85                      | 0          | 0.0        | 0.0        | -                |
| <b>Total Deaths</b>      | <b>111</b> | <b>100</b> | <b>1.1</b> | <b>0.9 - 1.2</b> |

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

95% CI = 95 % confidence interval for the rate

\*\* Non-Hispanic

**Note:** The number of deaths was too small to support a rate calculation for NH American Indians, Hispanics, for infants less than one, and for ages 1-4, 10-14, and 15-19.

**Table 61: Method of undetermined intent deaths in North Carolina, 2021**

|   | Number     | %            |
|---|------------|--------------|
| <b>Method of Death</b>                      |            |              |
| Poisoning                                   | 71         | 64.0         |
| Firearm                                     | 9          | 8.1          |
| Blunt instrument                            | 9          | 8.1          |
| Motor vehicle including buses, motorcycles  | 5          | 4.5          |
| Fire or burns                               | 4          | 3.6          |
| Hanging, strangulation, suffocation         | 4          | 3.6          |
| Fall  | 3          | 2.7          |
| Personal weapons                            | 1          | 0.9          |
| Shaking, e.g., shaken baby syndrome         | 1          | 0.9          |
| Drowning                                    | 1          | 0.9          |
| Intentional neglect (e.g., starving a baby) | 1          | 0.9          |
| Sharp instrument                            | 1          | 0.9          |
| Other/unknown                               | 1          | 0.9          |
| <b>Total Deaths</b>                         | <b>111</b> | <b>100.0</b> |

**Table 62: Fatal substances in undetermined intent poisoning deaths in North Carolina by sex, 2021**

| Category of Fatal Substance* | Male   |       | Female |       | Total  |      |
|------------------------------|--------|-------|--------|-------|--------|------|
|                              | Number | %     | Number | %     | Number | %    |
| Opiate**                     | 19     | 63.3  | 21     | 51.2  | 40     | 56.3 |
| Anticonvulsants              | 4      | 13.33 | 13     | 31.71 | 17     | 23.9 |
| Antidepressant               | 2      | 6.7   | 5      | 12.2  | 7      | 9.9  |
| Benzodiazepines              | 3      | 10.0  | 13     | 31.7  | 16     | 22.5 |
| Alcohol                      | 3      | 10.0  | 3      | 7.3   | 6      | 8.5  |
| Amphetamine                  | 4      | 13.3  | 11     | 26.8  | 15     | 21.1 |
| Cocaine                      | 0      | 0.0   | 3      | 7.3   | 3      | 4.2  |
| Muscle Relaxant              | 0      | 0     | 1      | 2.44  | 1      | 1.41 |
| Other Poison***              | 4      | 13.3  | 10     | 24.4  | 14     | 19.7 |

\* Category of substance that directly caused or was suspected to cause undetermined intent poisoning deaths. There were 36 undetermined intent poisonings (87.3%) where more than one substance caused the death in 2021, with as many as five fatal substances present in a given case.

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

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

## Section VII

**Table 63: Undetermined intent deaths in North Carolina by county of residence, 2021**

| County     | Number | County      | Number | County   | Number |
|------------|--------|-------------|--------|----------|--------|
| Alamance   | 3      | Edgecombe   | 3      | Person   | 3      |
| Alexander  | 2      | Forsyth     | 1      | Pitt     | 5      |
| Bertie     | 1      | Franklin    | 2      | Randolph | 2      |
| Bladen     | 2      | Gaston      | 3      | Richmond | 2      |
| Brunswick  | 5      | Guilford    | 8      | Robeson  | 3      |
| Buncombe   | 3      | Harnett     | 2      | Rowan    | 2      |
| Burke      | 2      | Haywood     | 1      | Sampson  | 1      |
| Cabarrus   | 1      | Henderson   | 2      | Stanly   | 1      |
| Caldwell   | 1      | Iredell     | 3      | Stokes   | 1      |
| Carteret   | 2      | Mecklenburg | 4      | Surry    | 2      |
| Catawba    | 1      | Nash        | 3      | Union    | 1      |
| Cleveland  | 2      | New Hanover | 5      | Wake     | 3      |
| Craven     | 1      | Onslow      | 5      | Wayne    | 1      |
| Cumberland | 5      | Orange      | 2      | Wilson   | 2      |
| Davidson   | 2      | Pamlico     | 1      | Yadkin   | 1      |
| Durham     | 2      | Pasquotank  | 1      |          |        |

## Section VIII: Violent Death Trend Over Time

**Table 64** shows the number and the rate of violent deaths over time in North Carolina from 2012 to 2021, including overall violent deaths, suicides for people ages 10 or older, and homicides. **Figure 33** plots the overall violent death, suicide, and homicide rates in North Carolina from 2012 to 2021.

### Key Findings:

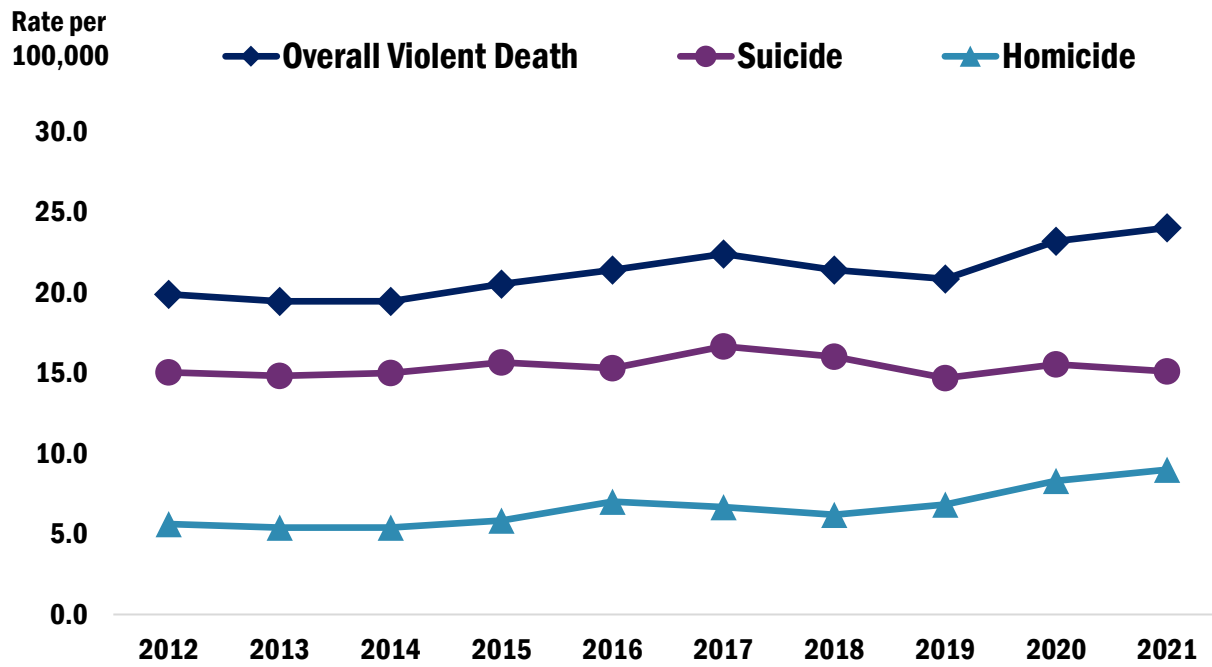
- The overall violent death rate in North Carolina has steadily increased from 2012 (19.9 per 100,000) to 2021 (24.0 per 100,000).
- From 2012 to 2021 in North Carolina, the death rates have remained steady for suicides (range of 15.0 to 15.1 per 100,000 by year) and slightly increased for homicides (range of 5.6 to 9.0 per 100,000 by year).

**Table 64: Trends of violent deaths over time in North Carolina, 2012-2021**

| Year | Overall Violent Deaths |      | Suicides (Ages ≥10) |      | Homicides |      |
|------|------------------------|------|---------------------|------|-----------|------|
|      | Number                 | Rate | Number              | Rate | Number    | Rate |
| 2012 | 1,938                  | 19.9 | 1,277               | 15.0 | 547       | 5.6  |
| 2013 | 1,915                  | 19.5 | 1,273               | 14.8 | 531       | 5.4  |
| 2014 | 1,932                  | 19.5 | 1,303               | 15.0 | 536       | 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               | 16.7 | 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  |
| 2020 | 2,423                  | 23.2 | 1,436               | 15.5 | 867       | 8.3  |
| 2021 | 2,537                  | 24.0 | 1,412               | 15.1 | 950       | 9.0  |

## Section VIII

**Figure 33: Violent death rate trend data for most recent 10 years in North Carolina, 2012 - 2021**



## Appendix A: Population Data for Rate Calculations

### Appendix A: North Carolina 2021 population data by sex, race/ethnicity, and age group

|                          | Total Population  | Population Ages<br>10 or Older<br>(for Suicide Rates) | Child Population<br>(<18 Years of Age) |
|--------------------------|-------------------|---|--|
| <b>Sex</b>               |                   |   |  |
| Female                   | 5,387,543         | 4,796,404   | 1,116,496                              |
| Male                     | 5,178,342         | 4,562,759   | 1,165,115                              |
| <b>Race/Ethnicity</b>    |                   |   |  |
| White*                   | 6,544,996         | 5,945,961   | 1,156,226                              |
| Black*                   | 2,244,089         | 1,976,681   | 510,177                                |
| Asian*                   | 359,006           | 310,462   | 86,220                                 |
| American Indian*         | 110,168           | 97,404  | 24,310                                 |
| Hispanic                 | 1,039,411         | 833,132   | 378,291                                |
| <b>Age Group (Years)</b> |                   |   |  |
| < 1                      | 116,056           | -   | 116,056                                |
| 1-4                      | 471,814           | -   | 471,814                                |
| 5-9                      | 618,852           | -   | 618,852                                |
| 10-14                    | 668,060           | 668,060   | 668,060                                |
| 15-17                    | 406,829           | 406,829   | 406,829                                |
| 15-19                    | 703,310           | 703,310   | -                                      |
| 20-24                    | 734,847           | 734,847   | -                                      |
| 25-34                    | 1,414,144         | 1,414,144   | -                                      |
| 35-44                    | 1,329,957         | 1,329,957   | -                                      |
| 45-54                    | 1,345,466         | 1,345,466   | -                                      |
| 55-64                    | 1,364,066         | 1,364,066   | -                                      |
| 65-74                    | 1,090,866         | 1,090,866   | -                                      |
| 75-84                    | 523,190           | 523,190   | -                                      |
| ≥85                      | 185,257           | 185,257   | -                                      |
| <b>Total Population</b>  | <b>10,565,885</b> | <b>9,359,163</b>                                      | <b>2,281,611</b>                       |

\* Non-Hispanic



## Appendix B: Advisory Board

The list of advisory board members below represents the membership and their positions during the year of this report and during the data collection close-out period (2021).

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

#### **Steering Committee:**

**Stephen Marshall, PhD**

*Professor, Department of Epidemiology, UNC-CH  
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**

**Patrice Andrews**

*Chief of Police, Durham Police Department*

**Michelle Aurelius**

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

**Matthew Avery**

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

**Becky Ceartas**

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

**Jonathan Friedrich**

*Captain, Criminal Investigation Division, Durham Police Department*

**Elizabeth Gifford**

*Assistant Research Professor, Terry Sanford Public Policy, Duke University*

**Phillip Graham**

*Senior Director, Center on Social Determinants, Risk Behaviors, and Prevention Science, RTI International*

**Lisa Macon Harrison**

*Health Director, Granville-Vance District Health Department*

**Kella Hatcher**

*Executive Director, NC Child Fatality Task Force*

**Rodney Jenkins**

*Public Health Director, Durham County Department of Public Health*

**Rebecca Macy**

*Associate Dean for Research & Faculty Development, Associate Professor, School of Social Work, University of North Carolina-Chapel Hill*

**Beth Moracco**

*Associate Professor, Department of Health Behavior, UNC-CH  
Associate Director, Injury Prevention Research Center, UNC-CH*

**Glorina Stallworth**

*Branch Head, Injury and Violence Prevention Branch, NCDHHS Division of Public Health*

**Kevin Strom**

*Director, Center for Policing Research and Investigation Science (CPRIS), RTI International*

## Appendix C: Glossary

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

|                     |   |
|---------------------|---|
| Undetermined intent | A death resulting from the use of force or power against oneself or another person for which the evidence indicating the manner of death was not sufficient to determine intent.                              |
| Violent death       | Intentional use of physical force or power against oneself, another person, or against a group or community. Intentional deaths meeting this definition include suicides, homicides, and legal interventions. |



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Division of Public Health

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**North Carolina Division of Public Health**

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