Overview of IVPB Firearm Injury Data Resources

NCDHHS Division of Public Health, Injury and Violence Prevention Branch (IVPB), Epidemiology, Surveillance, and Informatics (ESI) Unit

Where Can I Find Firearm Injury Data?

The Injury and Violence Prevention Branch (IVPB) firearm data resources can be found on the Firearm Injury and Death Data webpage.

This page includes:

- Statewide and county-level data on firearm injury deaths and emergency department (ED) visits in fact sheets, reports, and PowerPoint slides.
- Interactive firearm injury data tables.
- Resources and tools individuals and communities can use to inform firearm prevention activities.

Additional firearm data from the NC Violent Death Reporting System (NC-VDRS) is available on the Violent Death Data webpage.

For help finding the injury data you need, visit the NC Injury Data Resource Inventory. This interactive tool helps you identify which website or IVPB data resource has the information that best meets your needs.

Overview of Firearm Injury Data Resources and How to Use Them

Quarterly NC Firearm Injury Surveillance Through Emergency Rooms (NC-FASTER) Data Reports

Use these reports for the most up-to-date data on nonfatal firearm injury across the state.

NC-FASTER provides surveillance data in near-real time on ED visits for nonfatal firearm injuries. These fact sheets:

- Use provisional data to monitor what is going on with firearm injury in NC.
- Address important gaps in the timely data availability for nonfatal firearm injury.

Quarterly NC-FASTER Data Reports can be used to:

- Monitor changes in the number of nonfatal firearm injury ED visits happening in NC to know when to respond or act.



IVPB CREATES AND SHARES THESE RESOURCES TO SUPPORT FIREARM INJURY PREVENTION ACROSS NC.

- Permission is not needed to use any of the posted data in your presentations, manuscripts, reports, and other work.
- If you use IVPB published data, please include a version of the following citation:

  NC Department of Health and Human Services, Division of Public Health, Injury & Violence Prevention Branch. '[data resource name].' [webpage data were accessed from]. Accessed [insert access date]. [insert the website address].

- Know where firearm injuries are happening in the state and which groups are experiencing firearm injuries.
- Focus prevention and response activities to groups that are most impacted by firearm injury.

For more information on using provisional data to monitor firearm injuries in NC, visit Using Provisional Data For Monitoring Injuries.

Firearm Injury Slide Sets

Use these prepared PowerPoint slides to include firearm injury data in your next presentation, or as a resource to understand more about firearm injury in NC.



Firearm injury slide sets can be used to incorporate firearm data into your own presentations, grant proposals, reports, or any other way they may be useful.

- Each slide includes detailed notes explaining the information on the slide.
- Technical notes are also available to help with understanding and presenting data.

Slides are updated each year with the most recent annual data.

Firearm Injury Slide Set

The Firearm Injury Slide Set gives a detailed overview on firearm injuries and deaths in NC.

- Use these slides to understand more about firearm injuries in NC.
  - The slides were created to provide basic data trends and public health surveillance around firearm injury in the state.
- Slides include data on:
  - Who is impacted by firearm injuries in NC
  - Where firearm injury occurs
  - Circumstances surrounding firearm injury deaths
  - Differences in firearm injuries and deaths by intent (self-inflicted/suicide, assault/homicide, unintentional injury)
  - Health behaviors related to firearms (safe storage and firearm access)

Child Firearm Injury Slide Set

The Child Firearm Injury Slide Set gives a detailed overview on firearm injuries and deaths among children ages 0-17 in NC and resources to prevent child firearm injury.

- Use these slides to understand more about the burden of firearm injuries specifically among children ages 0-17 in NC.
  - The slides were created to provide basic data trends and public health surveillance around child firearm injury in the state.
- Slides include data on:
  - Firearm involvement in violent injuries and deaths
  - Differences in of firearm injuries and deaths by intent (self-inflicted/suicide, assault/homicide, unintentional injury)
  - Demographic differences (sex, age, race/ethnicity) in child firearm injury
  - Circumstances surrounding firearm injury deaths
  - Relationship between the suspect and the victim
  - Information on safe firearm storage

Firearm Injury and Death Fact Sheet



Use this fact sheet for an overview of the burden of firearm injury and death in NC.

The Firearm Injury and Death Fact Sheet includes the most recent available data on firearm deaths and firearm injury ED visits by demographic group as well as data on firearm ownership and storage practices in NC.

Use this report to:

- Monitor changes in firearm injury and death over time.
  - Compare rates of firearm death in NC to the U.S. over the most recent 10 years.
  - Compare trends in firearm death by manner of death (suicide, homicide, other firearm death) over the most recent 10 years.
  - Compare trends in child firearm death to motor vehicle traffic deaths, a leading cause of injury death among children over the most recent 10 years.
  - Compare firearm injury ED visits by month over the most recent 3 years.
- Understand differences in firearm injury and death by demographic group.
  - Include data by sex, race/ethnicity, and age group.
  - Compare differences in the manner of firearm death by race/ethnicity.
- Understand firearm ownership in NC, how North Carolinians report that they store those firearms, and how safe storage can help prevent firearm injury and death.

County-Level Firearm Data Tables



Use this tool to access county-level information on firearm injury and death if you are comfortable using data dashboards to query and filter data.

This interactive NC County-Level Firearm Data page includes finalized data over the most recent 7-year period on firearm injury ED visits, hospitalizations, and deaths by county of residence.

- Data are presented for each county by year.
- Detailed instructions on how to filter and query the data are included above the table.
  - Users can customize which counties are displayed in the table.
  - Filter to a single county or select multiple counties to compare data across counties.
- Data can be filtered by data source, data type, and intent.
  - ED visits can be toggled between those with ICD-10-CM codes for firearm injury or NC FASTER ED syndromic data that use keywords and ICD-10-CM codes.
  - The intent filter allows users to query data for firearm injuries due to legal intervention, undetermined intent, and unknown intent (for ED syndromic data only) in addition to self-Inflicted, assault, and unintentional firearm injuries.

Firearm Injury ORION Reports



Use these reports to understand differences in firearm injuries and deaths across groups, statewide and at the county-level.

The NC Firearm Injury and Death Data page include counts and rates of firearm injury ED visits, hospitalizations, and deaths by sex, race/ethnicity, and age group over the most recent 5-year period.

- Statewide reports are available by injury intent, and include:
  - Firearm Injuries, All Intents
  - Firearm Injuries, Assault

  - Firearm Injuries, Self-Inflicted
  - Firearm Injuries, Unintentional
- County-level reports are available for each NC county for firearm injuries of all intents.
- For more information on injury intent, visit Understanding Injury Mechanism and Intent.

NC Violent Death Reporting System (NC-VDRS) Firearm Data



NC-VDRS contains detailed data on firearm deaths, including circumstances surrounding deaths and the types of firearms involved.

NC-VDRS includes data on violent deaths involving firearms as well as on unintentional firearm deaths. These data are included in several NC-VDRS resources, including dashboards, analyzable datasets, factsheets, and reports. Each of these is outlined further below.

For more information on NC-VDRS, visit Data Sources IVPB Uses for Injury Surveillance, or the NC-VDRS webpage.

NC-VDRS Dashboard

Use the interactive NC-VDRS Dashboard to access and data on firearm and other violent deaths if you are comfortable using data dashboards to query and filter data.

- There is a tab of the dashboard dedicated to firearm deaths that can be used to:
  - Filter data by place, statewide or by county.
  - Monitor changes in the number and rate of firearm deaths
    - Compare the rates from 2004 through the most recent final year of data.
    - There are options for single-year, 5-year, and 10-year rates to ensure data are available and can be shared for each county.
    - For more information, visit Data Suppression and Working with Small Numbers.
  - Identify which groups are most impacted by firearm injury.
    - Compare rates by sex, race/ethnicity, and age group
    - Compare metrics across counties.
    - Compare firearm deaths by manner.
- Currently, firearm circumstance data are not included in the dashboard, but will be added in the future.
- Firearm data are also included on the NC-VDRS Metrics, Homicide Trends, and Suicide Trends tab of the NC-VDRS Dashboard.

NC-VDRS Downloadable Aggregate Data File

Use this aggregate data file to conduct your own analyses and create your own data visualizations using NC-VDRS firearm data and data on other violent deaths.

- All of the data used to populate the NC-VDRS Dashboard are included in a downloadable NC-VDRS CSV file.
- Data are available overall and by sex, age group, and race/ethnicity at the state and county level.
- The first sheet of the file is a data dictionary that describes each of the variables included in the downloadable data.
- The second sheet includes all the primary indicators included in the dashboard.
  - Each row represents the data for a given metric for each year, group (sex, age, race/ethnicity), and place (county/statewide).
  - Data include the number of events for each metric, the rate (percentage or rate per 100,000 NC population), and the denominator used to calculate the rate.

- A third sheet includes data on the circumstances of violent deaths.
  - Currently, firearm circumstance data are not included but will be added in the future.
- There is an accompanying data dictionary available that describes each of the variables included in the downloadable data.

NC-VDRS Firearm Violent Death Fact Sheet

Use the NC-VDRS Firearm Violent Death Fact Sheet to access data on firearm deaths by manner and demographic group and monitor trends over time.

- Monitor changes in firearm deaths by manner over time and differences in firearm injury by manner of death.
  - Describes firearm involvement across the manners of violent death using the most recent final year of NC-VDRS data.
  - Includes rates of firearm injury overall and by suicide, homicide, and other manner over the most recent 10 years.
- Understand the most common locations of firearm injury (e.g., apartment or home, street/roadway).
- Identify which groups are most impacted by firearm injury.
  - Highlights differences in firearm death rates between male and female residents by race/ethnicity and age group.
  - Visualizes differences in manner of firearm death by race/ethnicity.

NC-VDRS Annual Report

Use the NC-VDRS Annual Report for more detailed information on firearm deaths in NC.

- The annual report includes comprehensive data on all firearm deaths, firearm suicide, firearm homicide, and unintentional firearm deaths using the most recent final year of NC-VDRS data.
- Use the report to understand the circumstances surrounding firearm deaths and the types of firearms involved.
  - Compare differences between circumstances surrounding firearm suicides and circumstances of non-firearm suicides.
  - Compare differences between circumstances surrounding firearm homicides and circumstances of non-firearm homicides.
  - Understand circumstances surrounding unintentional firearm deaths.
- Use the report to understand differences between groups and across counties.
  - Data are available by sex, race/ethnicity, age group, sex and age group and by county for all firearm deaths, firearm suicide, firearm homicide, and unintentional firearm deaths.

Data on unintentional firearm deaths are also included in the county-level NC-VDRS fact sheets.

- These fact sheets use occurrence rates, and include firearm injuries that happened in a given area, regardless of whether the individuals were residents of that area.
- Most other data resources use resident rates.
- For more information visit, What Should I Know Before Using Firearm Injury Data?

Other Firearm Data Resources



Special Emphasis Report on Firearm Injuries

Use this special emphasis report to understand the impact and magnitude of firearm injury as well as firearm injury prevention strategies and activities happening in NC.

This report can be used to:

- Compare the severity of firearm injury by injury intent.
  - Visualizes firearm deaths, hospitalizations, and ED visits by intent category.

- Understand differences in firearm homicide and suicide by sex, and how trends of firearm injury deaths have changed for males and females over time.
- Understand types of firearms involved in firearm deaths and differences in firearm death by race/ethnicity
- Learn about activities happening in NC related to firearm violence prevention and surveillance, as well as ongoing partnerships and recent accomplishments.

NC Medical Journal (NCMJ) Special Issue on Firearm Injury and Violence Prevention

Use this NC Medical Journal Special Issue to understand potential prevention strategies and other considerations for preventing firearm injury and violence.

- In 2023, NCMJ published a special issue (Vol. 84, Issue 4) dedicated to firearm injury and violence.
- The issue describes the potential for changes to lower the chance of firearm-related injuries and deaths.
- Featured articles include:
  - Current efforts across the state,
  - Evidence-based prevention strategies, and
  - Proposed solutions for at-risk groups such as veterans, adolescents, and young adults.

NC-FASTER Annual Reports

The goal of the NC-FASTER Annual Data Reports was to provide background information to partners and collaborators on the data available to support firearm injury prevention. Annual reports were created in 2022 and 2023.

These reports include:

- More detailed information on nonfatal firearm injury ED visits overall and by demographic groups.
- An overview of fatal and nonfatal firearm injuries across data sources.
- An overview of firearm injury intent coding in the ED visit data.

Currently there are no regularly scheduled updates to this report.

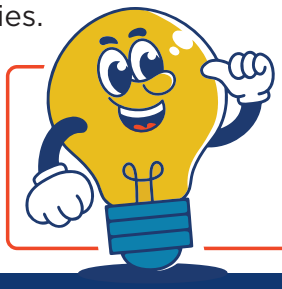
Firearm Injury in North Carolina: Pervasive but Preventable

This Firearm Injury in North Carolina StoryMap serves as a placed-based data visualization to share actional local data on firearm injury Emergency Medical Services (EMS) responses.

Use this tool too:

- Understand where EMS teams respond to firearm injuries at the county and neighborhood (census-tract) level.
- Compare rates of firearm injuries for counties and neighborhoods to that area's social vulnerability, or how likely a community is to have a hard time recovering from problems like natural disasters, violence, or health emergencies.
- Review NC firearm policies.
- Review firearm injury prevention strategies and interventions.

Currently, there are no regularly scheduled data updates to this StoryMap.



FOR MORE RESOURCES:
Visit our Injury Data Users Toolkit