

Differences in Firearm Injuries by Injury Intent

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Firearm Injury

Firearm injury is a mechanism, or type, of injury that IVPB monitors.

Firearm injury can be explained further by injury intent, which helps us understand why an injury happened.

- Injury mechanism and intent are concepts used to understand how and why injuries occur.
- These concepts help us to design programs that respond to injury problems and prevent future injuries.
- For more information, visit [Injury Mechanism and Intent](#).

Firearm-Related Deaths by Injury Intent

The intent of a firearm injury describes if the injury happened on purpose (intentional) or not (unintentional).

- **Unintentional** firearm injuries can include:
 - Hunting accidents
 - Getting hurt when a gun goes off while cleaning it
 - Getting hurt when a gun goes off while playing with it or showing it to someone
- Intentional firearm injuries include:
 - **Self-inflicted injuries** - when someone harms themselves
 - **Assaults** - injuries caused by another person on purpose
- There are also firearm injuries due to **legal intervention** (deaths caused by police or other law enforcement officers while on duty) or where the intent is **undetermined**.



The majority of firearm-related deaths are intentional.

Most firearm deaths in NC are suicides (57%) followed by homicides (39%) (NC Violent Death Reporting System [NC-VDRS], 2023).

The intent of firearm injuries is often very different than for other kinds of injuries.

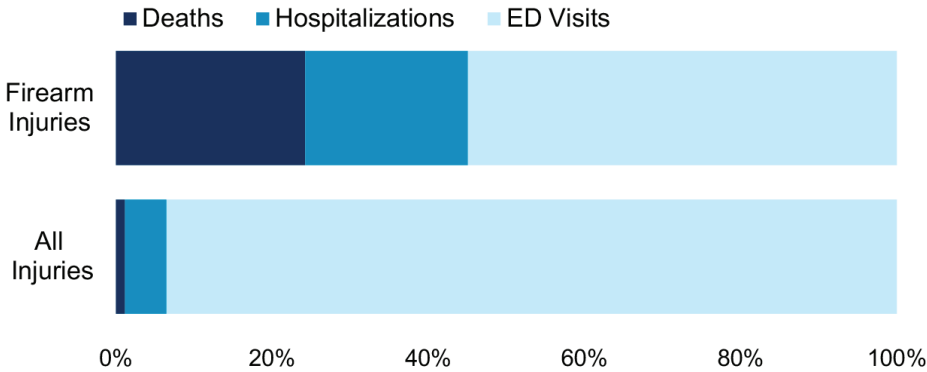
- Most injuries from other mechanisms, like motor vehicle crashes, drownings, and overdoses, are unintentional.
- For example, 77% of all injury deaths were unintentional, compared to only 1.2% of firearm injury deaths in NC in 2023.

Firearm injuries are more likely to result in a death.

Because most firearm injuries are intentional and tend to cause more serious harm than other injuries, they are more likely to result in serious outcomes, including death.

While only 1% of all injuries result in death, the percentage of firearm injuries resulting in death is much higher, at around 24% (estimated using 2023 death certificate, hospital discharge, and ED visit data).

Firearm Injuries Compared to All Injuries by Injury Severity, NC, 2023



Source: State Center for Health Statistics (SCHS), Vital Statistics Death Certificate Data; SCHS Hospital Discharge Data; NC DETECT, ED Visit Data

Note: Limited to NC Residents. Categories are not mutually exclusive. A person seen for a firearm injury emergency department (ED) visit may have gone on to die from the same or another firearm injury in the same year. Firearm injuries are included in the All Injuries category.

The seriousness of firearm injuries varies by intent.

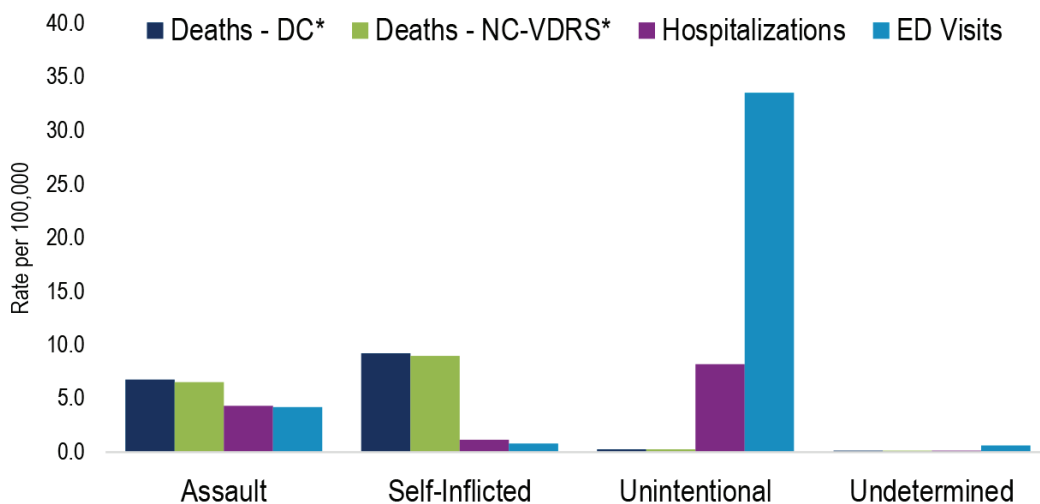
Intentional firearm injuries are more likely to result in a death than unintentional firearm injuries.

Most unintentional firearm injuries result in an ED visit or hospitalization.

- It is expected that there would be more ED visits for unintentional firearm injury than deaths, since intentional firearm injuries are usually very serious.
- However, some of the differences between fatal and non-fatal firearm injury intent is because of how these injuries are coded to group visits by diseases and conditions (ICD-10 codes for deaths and ICD-10-CM codes for non-fatal data).
 - The intent of some non-fatal firearm injuries may have been coded incorrectly because of previous ICD coding rules.
 - For more information, see the [Injury Intent for Non-Fatal Firearm Injuries](#) section below.

For more information on differences in firearm injuries by intent, see the [2023 NC-FASTER Annual Report](#).

Firearm Injuries in NC by Data Source and Intent, 2023



Source: State Center for Health Statistics (SCHS), Vital Statistics Death Certificate Data; NC Violent Death Reporting System Data; SCHS Hospital Discharge Data; NC DETECT, ED Visit Data

Note: Limited to NC Residents; Firearm injury rates for different data sources may overlap. The same person could appear in more than one data source for firearm injury. Coding for hospitalizations and ED visits by unintentional and undetermined intent changed on October 1, 2025. Data on unintentional firearm injuries and firearm injuries of undetermined intent from before and after October 1, 2025 should not be directly compared.

Injury Intent for Non-Fatal Firearm Injuries

IVPB firearm data resources include the following intents for non-fatal firearm-related injuries:

- **Unintentional** - when someone is accidentally injured
- **Self-inflicted** - when someone harms themselves
- **Assaults** - injuries caused by another person on purpose
- **Undetermined/Unknown Intent** - injuries where the intent is not known or is not specified. This category includes both:
 - Firearm injuries of undetermined intent - includes records that have an ICD-10-CM code for undetermined intent.
 - Firearm injuries of unknown intent - includes records that do not have an ICD-10-CM code with intent information.

Some differences in the intent of non-fatal firearm injury and firearm-related deaths are because of how non-fatal firearm injuries are coded.

The national guidance for coding non-fatal firearm injuries was updated on October 1, 2025.

Previous Firearm Injury Intent Coding Guidelines

Before October 1, 2025, the intent for all injuries, including firearm-related injuries, defaulted to unintentional injury.

- For example, if the intent was not documented in the medical record, a firearm-related injury ED visit was coded as an unintentional firearm injury.

Defaulting to unintentional injury did not accurately describe firearm injuries, which are more likely to be intentional compared to other causes of injury.

- Most firearm-related injury ED visits were coded as unintentional injuries, followed by firearm injuries with unknown intent.
- Many ED visits for firearm injuries do not have a documented intent.
 - ED providers may be hesitant to document a specific intent for a firearm injury, even when there's strong evidence that the injury was intentional.
 - Without documented intent, these visits were coded as unintentional injuries.
- Too many firearm injuries were marked as unintentional and not enough were marked as intentional, including assaults and self-inflicted firearm injury.

Current Firearm Injury Intent Coding Guidelines

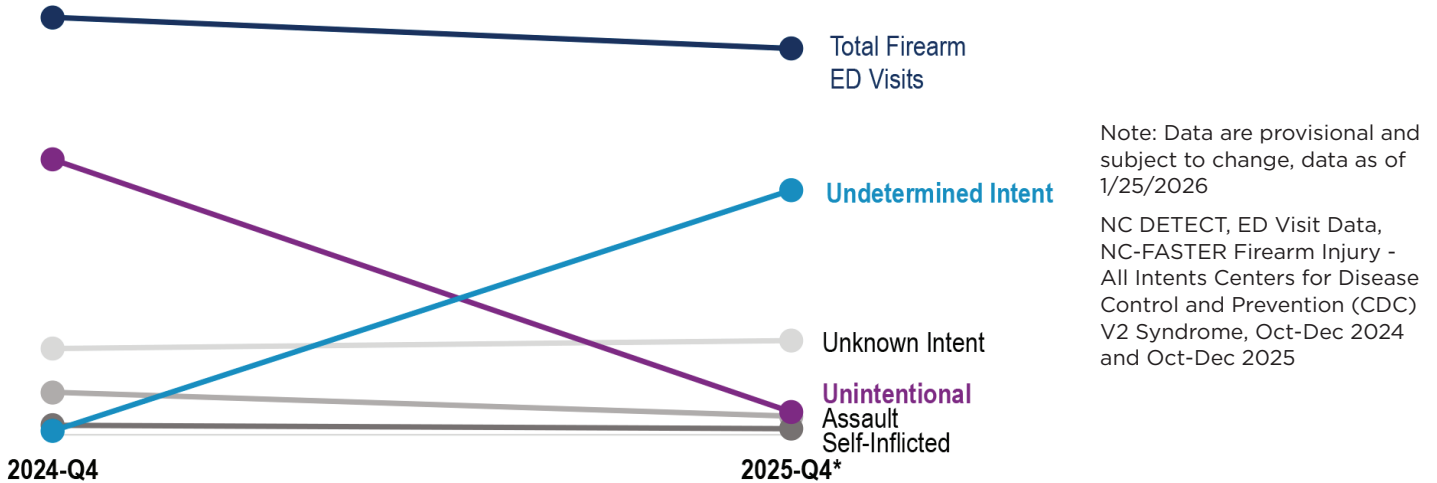
As of October 1, 2025, the intent of firearm injuries defaults to undetermined.

- For example, if the intent was not documented in the medical record, a firearm-related injury ED visit will now be coded as a firearm injury of undetermined intent.
- This change aligns with what information is documented in the patient record.
 - Automatically coding these records as assault or self-inflicted could have caused those types of firearm ED visits to seem higher than they really are.



The change in firearm coding guidance causes more firearm injuries to be coded as undetermined intent and fewer to be coded as unintentional firearm injuries.

Number of Firearm Injury ED Visits in NC by Injury Intent Before (October 1-December 31, 2024) and After (October 1-December 31, 2025) Firearm Coding Change



- Before the October 1, 2025 change, counts of undetermined firearm injuries were very low.
- Data on unintentional firearm-related injuries and firearm-related injuries of undetermined intent from before and after the change on October 1, 2025 should not be directly compared.
 - We cannot control these changes and are unable to apply them to historical data the way we can for changes to injury surveillance case definitions.
 - For more information on case definitions, visit [Understanding Injury Surveillance Case Definitions](#).

Impacts of Changes to the Coding Guidance on CDC Firearm Syndrome Case Definitions

- Syndrome case definitions, like those used by NC-FASTER and the CDC, use key words as well as ICD-10-CM codes to identify ED visits related to firearm injury.
 - Syndromes identify more ED visits related to firearm injury than when using ICD-10-CM codes alone.
 - Visits identified using only key words often do not have information about the intent of the injury.
 - For more information on syndromes, visit [Understanding Injury Surveillance Case Definitions](#).
- CDC currently includes firearm injuries of undetermined intent in the unintentional firearm injury syndrome definition.
 - CDC definitions have not been updated based on the changes to the ICD coding guidance on October 1, 2025.
 - Firearm injury ED visits identified using CDC syndromes will still show more unintentional injuries than other injury intents because the unintentional injury syndrome includes firearm injuries of undetermined intent.

NC-FASTER reports have been updated to account for the change in the coding guidance for firearm injuries.

- Firearm injuries identified using keywords are grouped by injury intent based on the ICD-10-CM codes assigned to the record.
- The labeling of intent categories in NC-FASTER reports was updated to more accurately describe the data.
 - Before the coding change, records with key words for firearm injury but no ICD-10-CM code for injury intent were labeled as “Undetermined” intent.

- “Undetermined” intent will now describe firearm injuries that were specifically coded as firearm injuries of undetermined intent.
- NC-FASTER data may not match data shared by CDC based on the differences in firearm syndrome definitions.

Some ED visits may have more than one medical code for firearm injuries for different intents.

- This can happen when the ED visit record includes details about the injury event, not just what happened to the person being treated for firearm injury.
 - For example, if someone shoots another person and accidentally shoots themselves during the same incident.
- IVPB handles these records differently for ICD-10-CM code-based firearm injury case definitions and for NC-FASTER definitions that also consider key words.
 - For ED visits identified with only ICD-10-CM codes, the visit is counted once in each intent category that applies (such as for total firearm assaults or total unintentional firearm injuries), but only once in the total number of firearm injury ED visits.
 - For ED visits identified using NC-FASTER definitions, intent defaults to an intentional category (e.g., self-inflicted, assault) if an ED visit includes information for intentional firearm injury and another intent category.

For more information, visit [What Should I Know Before Using Firearm Injury Data?](#).

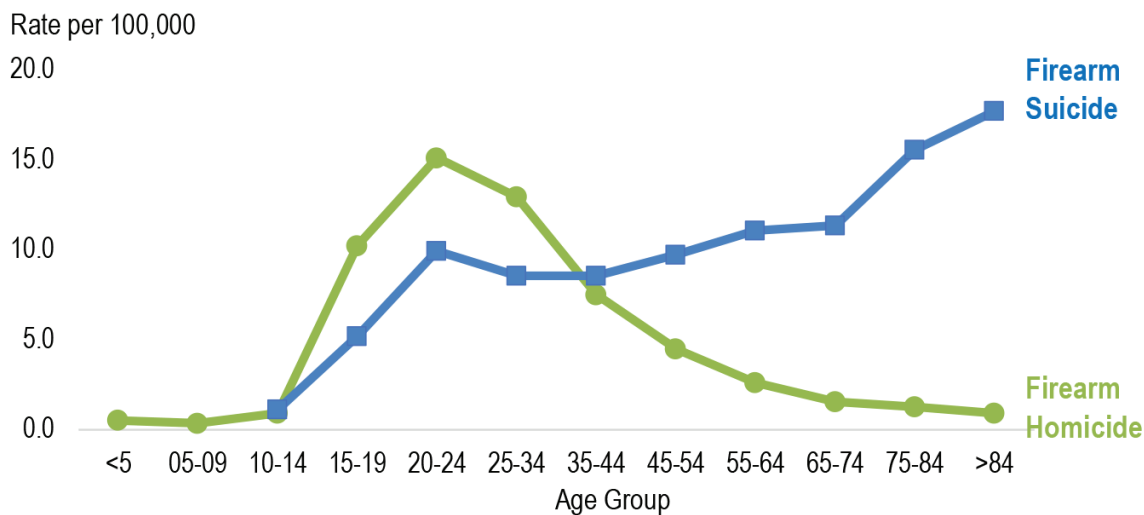
Populations in NC experience firearm injuries differently

Differences in Firearm Injury Intent by Age

Firearm homicide and firearm suicide follow different patterns with respect to age.

- Firearm suicides are more common among older adults, while firearm homicides happen more often among younger ages.
- Firearm suicides are limited to those ages 10 and older.

Firearm Death Rates (per 100,000) by Manner and Age Group, NC-VDRS, 2014-2023



Limited to NC residents
 Source: NC-VDRS, 2014-2023; U.S. Census non-bridged population estimates, 2014-2023

Differences in Firearm Injury Intent by Sex

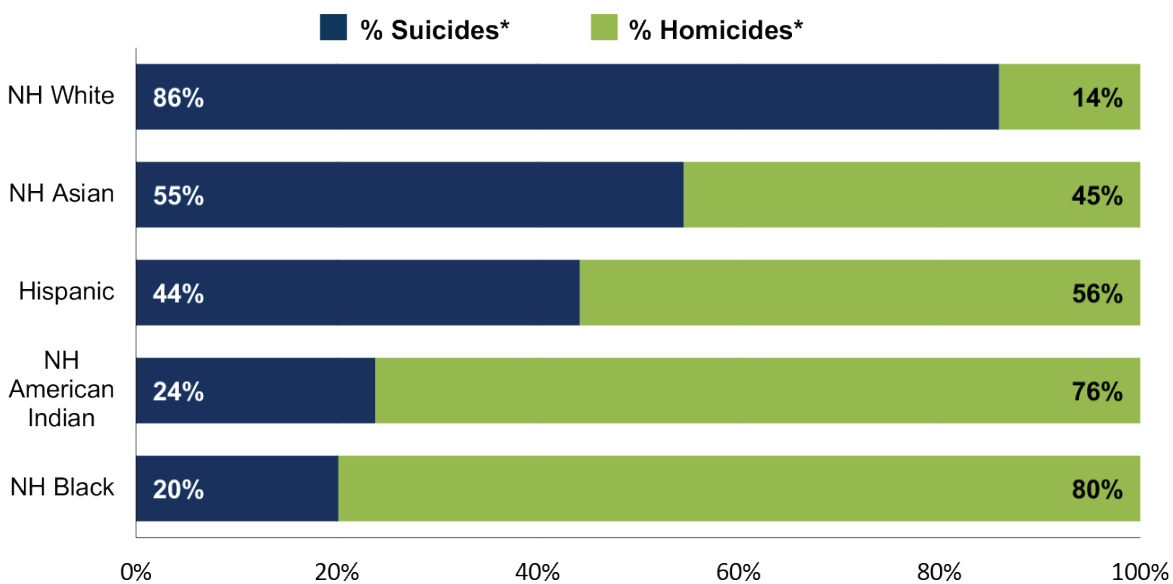
- Males tend to have higher rates of firearm injuries across all injury intents.
- More female firearm-related deaths are homicides than males.
- More male firearm-related deaths are suicides than females.

Differences in Firearm Injury Intent by Race and Ethnicity

There are large differences in the intent of firearm injuries between racial/ethnic groups.

- Among non-Hispanic white residents, most firearm-related deaths are suicides.
- Among historically marginalized communities, firearm-related deaths are more often caused by interpersonal violence (homicide).
- There are similar racial and ethnic differences for non-fatal firearm injury.

Suicide and Homicide Firearm-Related Deaths by Race/Ethnicity, NC-VDRS 2023



The figure shows the proportion of homicide and suicide deaths by race and ethnicity, which accounted for 96% of all firearm injuries in NC in 2023. Firearm injuries from other intents are excluded from this figure.



FOR MORE RESOURCES:
Visit our [Injury Data Users Toolkit](https://dph.ncdhhs.gov/injury-and-violence-prevention-branch-data-users-toolkit)

