

NC Violent Death Reporting System

Frequently Asked Questions - NC-VDRS Data

About NC-VDRS

What is the North Carolina Violent Death Reporting System (NC-VDRS)?

What kind of data does NC-VDRS collect?

What do people do with NC-VDRS data?

How do I learn more about national-level data on violent death?

Accessing the data

What do I need to know before working with NC-VDRS data?

What are the limitations of working with the NC-VDRS data?

How do I request access to NC-VDRS data?

Do I need IRB review?

Do I need a Data Use Agreement (DUA)?

Where do I store the NC-VDRS data once I receive them?

Working with the data

For what years is data available?

Why are there missing values?

How do I read in the formats to SAS?

Can I use R?

How are data structured within NC-VDRS?

What is the unique identifier in the data set?

How do I determine manner of death?

What are the narrative variables?

What are the circumstance variables?

Sharing findings

Are there recommended best practices for presenting my findings?

How do I acknowledge NC-VDRS when I present my findings?

Finishing up a project

After I've done my proposed project, can I perform new, additional analyses?

What happens after the DUA termination date?

NC Violent Death Reporting System

About NC-VDRS

What is the North Carolina Violent Death Reporting System (NC-VDRS)?

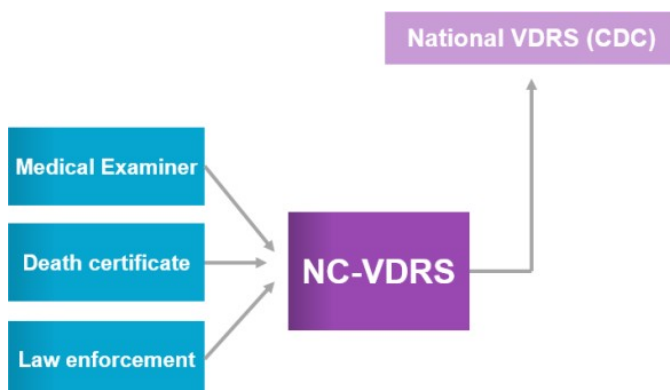
The North Carolina Violent Death Reporting System (NC-VDRS) is a population-based, public health reporting system that captures information on violent deaths including homicides, suicides, unintentional firearm deaths, deaths from legal intervention (excluding death penalty executions), and deaths for which the intent and cause are undetermined. To the extent such information is available, NC-VDRS includes information on the victim, suspect(s), weapons, and the circumstances surrounding the fatality. These data are assembled by abstractors from three different sources including law enforcement records, death certificates, and Medical Examiner's records. The National Violent Death Reporting System (NVDRS) is coordinated by the United States Centers for Disease Control and Prevention (CDC), using data collected at the state-level and contributed by participating states.

What kind of data does NC-VDRS collect?

NC-VDRS uses a novel approach to injury surveillance, drawing from three primary data sources:

1. Law enforcement records, which can provide information on what happened before the death, including the circumstances surrounding the violent event, potential relationships between the suspect and victim, and the weapons used to commit the act of violence.
2. Medical Examiner's records, which provide information which was collected after the death, including information about wounds, weapons, and toxicology results.
3. Death certificates, which provide demographic information, including the victim's age, sex, and race/ethnicity.

A team of trained professional abstractors review information from these primary data sources, code abstracted information using an abstraction methodology developed by the CDC, draft written narratives, and enter data generated during the abstraction process into NC-VDRS and into the national system, NVDRS.



NC Violent Death Reporting System

What do people do with NC-VDRS data?

The North Carolina Department of Health and Human Services (NC DHHS), Division of Public Health (DPH) uses NC-VDRS data to monitor trends in violent death across the state. NC DPH produces annual reports and factsheets on specific issues and special populations, which are available on the NC-VDRS [website](#). Local health departments often use these data to inform planning efforts around violence prevention and safety. Community-based organizations and non-profits also use NC-VDRS reports and factsheets to inform local program planning, and advocacy efforts.. Researchers use NC-VDRS data to study trends in violent deaths, to examine risk factors, and to identify vulnerable populations within North Carolina. For more information on existing projects that have been completed using NC-VDRS data, please see our [Selected Projects List](#).

How do I learn more about national-level data on violent death?

The CDC maintains a website called the Web-based Injury Statistics Query and Reporting System (WISQARS). It is an online, interactive database that provides national-level data on fatal and nonfatal injury, violent death, and the cost of injury.

<http://www.cdc.gov/injury/wisqars/index.html>

In addition, a national Restricted Access Data (RAD) file can be obtained from CDC for all states participating in the CDC VDRS program. <https://www.cdc.gov/violenceprevention/nvdrs/RAD.html>

Accessing the data

What do I need to know before working with NC-VDRS data?

Consult the [NC-VDRS General Use Dataset Codebook](#) for information on our General-Use Dataset before undertaking a project using NC-VDRS data. In many cases, the General-Use Dataset will contain the fields necessary to answer most research questions. Researchers are also encouraged to review the Codebook to help develop good sense for which variables you are interested in working with, what those variables mean, and how they fit into your research questions. The General-Use Dataset is available as a single “flat file” that is typically victim-based.

If you are interested in accessing a tailored data set or a data set that includes variables that are not included in our General-Use Dataset, please email NC-VDRS program (scott.proescholdbell@dhhs.nc.gov or beinjuryfreenc@dhhs.nc.gov) for more information.

The NC-VDRS data are packaged for use by researchers or statisticians; if you do not have training in data management, research methodology, or statistics, then this may not be the right dataset for your project. While the General-Use Dataset is more user-friendly, please be sure that you have the proper technical capacity and/or personnel available to undertake a research project with NC-VDRS data. At the NC DPH Injury and Violence Prevention Branch, we have limited capacity for training and technical assistance.

The first thing you should do when you receive the NC-VDRS data is to try to recreate some of the analysis reported on past factsheets. This can help to check your understanding of basic variable structures and their meaning. We recommend using an older factsheet because new information about a recent violent death may emerge months after the fatality, causing shifts in more recent data.

NC Violent Death Reporting System

Even when examining incidents from past years, there may be slight differences in the data between when the factsheet was originally created, and when the data you requested was downloaded. Make sure the descriptive statistics you run are at least close to what is reported on your chosen factsheet.

What are the limitations of working with the NC-VDRS data?

There are a number of limitations with this dataset.

- The context and circumstances of a death may not be known or available for some cases. This may be due to sparse or preliminary reporting in the sourced documents or there may simply be few facts available on the case, in general.
- Toxicology testing is not performed on all people who die from a violent death and, as such, some of these data will be missing.
- Mental and physical health variables are often based on information reported by people who knew the victim personally and reported this information to law enforcement. This information is not usually taken from health care professionals or official medical records.
- Some variables have higher levels of missing data (e.g., census tract and block, firearm information, survival time, sexual orientation).
- There is a substantial delay from when a violent death occurs to when it is captured and reported in NC-VDRS. The NC-VDRS system does not include information about open law enforcement investigations, so there may be a time lag before final information about a case can be reviewed, abstracted and coded, and added to our system.

How do I request access to NC-VDRS data?

For researchers seeking access to NC-VDRS data:

1. Reach out to NC-VDRS [program](#) about your potential project(s).
2. If NC-VDRS line level data are still needed, complete Data Request Form and submit to the NC-VDRS program via e-mail.
3. The information provided in your Data Request Form is used to populate DPH's standard Data Use Agreement (DUA). Once the DUA is finalized, it will be circulated for signatures.
4. Once signed, a fully executed DUA exists, and data can be shared.

In some circumstances, it may be more appropriate to request aggregate statistics over email from DPH instead of getting access to the dataset itself. This can be discussed with the NC-VDRS program staff and the requestor on a case-by-case basis.

Requests from media outlets should be referred to the Department's Communications Office at news@dhhs.nc.gov.

NC Violent Death Reporting System

Do I need IRB review?

Researchers seeking to use NC-VDRS data should obtain review of their project from an institutional review board (IRB) that has jurisdiction to review the researchers' project and in accordance with their institution's policies.

Where do I store the NC-VDRS data once I receive them?

Data should be password protected and stored on a secure server or machine at all times. The entire hard drive where the data are stored should be encrypted. Pursuant to a research DUA, only personnel who are listed on the project's DUA may have access to the data.

Working with the data

For what years are data available?

NC-VDRS was funded in 2003, and NC DPH has been working with the NC State Center for Health Statistics, the Office of the Chief Medical Examiner, and local law enforcement agencies to collect data on all deaths from violence that occur in North Carolina since 2004. Due to the time it takes to collect, process, and clean the data, the most recent complete data are typically available 18 months after the end of the prior calendar year.

Why are there missing values?

Some variables have high levels of missingness. Make sure to check how many missing values there are in the key variables you intend to use before running analyses. Some variables known to have less than 40% completeness include: census tract and block, firearm information (e.g., gun model, gun owner, gun stolen), survival time, sexual orientation, and external cause of injury codes. In many cases, these data are not routinely collected or documented in the three primary data sources that NC-VDRS abstractors use. Furthermore, NC-VDRS does not utilize the CDC's modules on Child Fatality Review or Intimate Partner Violence (only a minority of states do).

The variables in the General-Use Dataset tend to be fairly complete and will have lower levels of missingness because they are consistently documented and reported.

How do I read in the formats to SAS?

If you are working with the General-Use Dataset, you only need to use one format file. Read this into SAS after your initial LIBNAME statement. In the example below, we have named our library "NCVDRSlib" and told SAS to look in that library for our formatting information. Remember to replace the file pathway in the example with the pathway on your computer for the library you are using.

```
libname NCVDRSlib 'C:\Windows\SASuser\Documents\NCVDRSdata'; options fmtsearch= (NCVDRSlib);
```

If you request variables that are not included in the general-use dataset, you may need to read in

NC Violent Death Reporting System

multiple format files within the same options statement.

```
options fmtsearch=(fmt.nvdrs_formats,fmt.pdo_2016_formats_64);
```

Can I use R or other software?

Data users can choose from several software packages besides SAS. The General-Use Datafile can be provided in a generic CVS format that can be used by most statistical software. R is an open source and increasingly popular software package. Users should use the software that they are most familiar with. Historically, NC-VDRS programs in SAS and as such, most of our technical expertise is based on SAS.

How are data structured within NC-VDRS?

Violent incidents may involve multiple victims, suspects, and weapons. Because of this, the raw NC-VDRS data are stored within relational data tables for incident, victim, weapon, suspect, and toxicology information, allowing for information to be captured at the incident level for violent events. Unique identifiers generated by NC-VDRS are stored within each of these tables to allow information from across tables to be linked. See below for a list of unique identifiers.

If you receive multiple files, be sure to consult NC-VDRS program staff about additional documentation so that you are fully informed about the data structure and appropriate steps for linkages. When using the General-Use Datafile, some of this linkage has already been done. The General-Use Dataset is organized as a “flat file.” If you imagine the dataset as a spreadsheet, each line represents the violent death of a single person. For each violent death (or on each line), there will be information on the victim, and if requested/available, some suspect and weapon data as well.

What is the unique identifier in the data set?

The variable “PersonID” is a unique numeric identifier generated by NC-VDRS for each victim or suspect. The variable “IncidentID” is a unique numeric identifier generated by NC-VDRS for each incident. There may be multiple victims or suspects associated with a single incident. For example, a mass shooting would have one IncidentID but potentially several PersonIDs. It is also possible that multiple weapons or means (including multiple drugs) would be listed as having been used in the death of a single person.

How do I determine manner of death?

The variable “deathmannerabstractorlabel” records the primary manner of death (i.e. homicide, suicide, legal intervention, unintentional injury) as assigned by the data abstractor. This value is assigned based on a thorough review of all available data across several data sources. There are very few instances in which manner of death conflicts between data sources. In these situations, NC-VDRS abstractors follow the abstraction and coding methodology developed by the CDC. For more information, see the [NC-VDRS General Use Dataset Codebook](#).

NC Violent Death Reporting System

What are the narrative variables?

There are two variables that capture qualitative narratives about a violent death. Both narratives are drafted by NC-VDRS program staff based on detailed information from two similar but different sources. One narrative is based on information gathered and abstracted from the medical examiner report and the other is written based on the law enforcement report. Each source may provide different levels of detail depending on the investigative processes and priorities within those respective agencies and the partnerships between states and local agencies. Local variation in terms of completeness of information exists, too, and should be taken into account when examining or comparing narratives across jurisdictions.

Because of the variability in the primary data sources that are used to develop narratives, the narrative variables are not provided in the General-Use Dataset and must be specifically requested. These qualitative narratives can sometimes contain identifying information and therefore should be used with caution and sensitivity. It is recommended that specific narrative case information never be presented publicly. If used publicly, it must be made more generic and less specific.

What are the circumstance variables?

Circumstances are events that preceded or were determined to be related to a victim's death. Circumstance information applies to the victim and only indirectly to the suspect (i.e., NC-VDRS does not specifically collect suspect circumstances). The circumstance information collected for a violent death depends on the cause of death and is based on available information within law enforcement records and Medical Examiner reports. For example, in the case of a suicide, if there is any information available about current mental health diagnoses, recent death of a family member, and whether the victim left a suicide note, this may be captured by the NC-VDRS circumstance variables. Different circumstance data are available for homicides and these circumstances have changed over time, as some variables have been added or dropped by CDC throughout the course of the program. In general, homicides tend to contain more circumstance information than suicides. This is primarily because homicides are more likely to be investigated and adjudicated than violent deaths that are determined to be suicides. Consult the codebook to see which circumstance data may or may not be relevant for different types of violent death and be sure to review completeness of any variable used in data analyses.

When reporting on the percent of deaths that had specific reported circumstances (for example, *tdepres* = "true", the victim had been perceived by self or friends as depressed), be sure that the denominator is for all suicides (*deathmannerabstractorlabel* = "Suicide or intentional self-harm") with known circumstance information (*tcircum* = "true"). It is best to report any of the circumstance variables within the context of how many deaths had known circumstance information available.

For the circumstance variables, the "t" indicates that multiple data sources were consulted to create a single composite variable. For example, the circumstance variable "tschool" is coded 1 ("yes") if school problems were mentioned in **either** the medical examiner or law enforcement reports. This should be taken into consideration when conducting analyses using the circumstances variables.

NC Violent Death Reporting System

Sharing findings

Are there recommended best practices for presenting my findings?

If you intend to publish or present any findings derived from NC-VDRS data, the NC-VDRS program requests to receive a copy to review prior to publication, preferably at least 30 days before submitting your findings for publication or at least 30 days before the presentation. However, we will work with you to meet other deadlines to the fullest extent possible. If you are a researcher with a DUA in place, the review process will be set out in your DUA.

Out of consideration and respect for the family and friends of people who have died and whose information may be included in NC-VDRS, we recommend that data be presented in aggregate in a way that no individual can be identified. If no more than five deaths are available for a specific county or zip code, then demographic information related to that data should not be reported due to the risk of deductive disclosure of individuals. Similarly, narrative information can be very detailed and specific, providing another potential way for cases to be disclosed. It is recommended that specific narrative case information never be presented without modifying information to make it more generic and less specific.

When reporting rates or making any comparisons between violent incidents and population, be sure to limit your analysis to North Carolina residents only (*residencestate* = 37). There may be violent deaths recorded from out-of-state individuals (e.g., a college student from South Carolina living in Orange County but still registered as a South Carolina resident). If these deaths are included in analyses, then the data cannot be accurately reported as a rate using North Carolina population data in the denominator.

If you are reporting on proportions of cases that have certain circumstances, be sure to include only cases with known circumstances information (*tcircum*= "true") in the denominator. See circumstance question above for more information.

How do I acknowledge NC-VDRS when I present my findings?

The source of the data should be attributed to the NC DPH NC-VDRS. When reporting your findings, include the following disclaimer as outlined in the DUA:

“The findings and conclusions in this [presentation or publication] are those of the author(s) and do not necessarily represent the views of the North Carolina Department of Health and Human Services, Division of Public Health.”

Finishing up a project

After I’ve done my proposed project, can I perform new, additional analyses?

If you are a researcher with a DUA in place, then your DUA likely contemplates use of the data for a specific project described in the DUA. If there are new purposes or potential projects that arise, you

NC Violent Death Reporting System

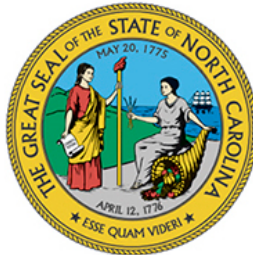
can either submit a new DUA or, in some cases, amend your existing DUA with the NC DPH Injury and Violence Prevention Branch. You can contact the NC-VDRS program to discuss which option makes the most sense for your project.

What happens after the DUA termination date?

The DUA termination date is usually three (3) years after the DUA effective date. At that time, in compliance with the terms of your DUA, you must destroy the NC-VDRS data that you received or return it to NC DPH.

If you need to extend the time period that you have access to the data, get in touch with a representative from the NC DPH Injury and Violence Prevention Branch well before (60-90 days) the DUA termination date to discuss a possible extension of the DUA term.

Remember to provide NC DPH with written confirmation that the data have been destroyed by the DUA termination date as required by the terms of your DUA.



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