



## **Selected Projects Using North Carolina Violent Death Reporting System (NC-VDRS) Data**

This document lists different projects that used data from the North Carolina Violence Death Reporting System (NC-VDRS). This is just a small sample of projects that have been completed over recent years. NC-VDRS data have been used in many other presentations, articles, master's papers, PhD/dissertations, research projects, and community health efforts which are not all captured here. This document only lists selected projects that used North Carolina data specifically, it does not include projects that used compiled national VDRS data via Restricted Access Data (RAD) file.

NC-VDRS data have been used for a number of projects examining deaths across the following domains:

- Homicide & Suicide
- Intimate Partner Violence
- Firearm-Related Violence
- Police Involved Deaths
- Work with special populations
  - Youth
  - Pregnant women
  - Veterans
  - Former prison inmates
  - First responders
  - Older adults
  - Ethnic/Racial Minorities



## Homicide & Suicide

### **Suicide and Homicide in North Carolina: Initial Findings from the North Carolina Violent Death Reporting System, 2004-2007**

Sandra L. Martin, Scott Proescholdbell, Tammy Norwood, Lawrence L. Kupper, 2010

*Summary:* Researchers used NC-VDRS data to examine the prevalence of suicide and homicide in North Carolina, and to describe the sociodemographic characteristics of victims. Findings suggest that every day in North Carolina, approximately three people die by suicide and approximately 2 people are killed by others. Suicide rates were higher among men and boys, whites, non-Hispanics, and people over the age of 34 years. Homicide rates were higher among men and boys, American Indians, blacks, Hispanics, and people under the age of 25. Firearms were the most common method used in suicides and homicides, accounting for 3 out of 5 of suicides and two thirds of all homicides. Findings were published in the North Carolina Journal of Medicine.

### **Suicide and Self-Inflicted Injury in North Carolina**

Jane Ann Miller, 2018

*Summary:* This presentation outlines NC-VDRS data on suicide circumstances and compares suicide and self-injury reports by gender. The presentation also illustrates how these current trends have informed the 2015 NC Suicide Prevention Plan.

### **Community Health Assessments**

*Summary:* Counties such as Durham County, Carteret County, Henderson County, and many others, use data from the NC-VDRS factsheets and through specific data requests to inform their community health assessments. Using the NC-VDRS data in these helps to identify trends or disparities related to suicide and homicide. Identifying these disparities can be achieved by either examining how statistics for the county differ compared to the state average, or by looking at trends within the county among sub-populations (e.g. examining differences by race/ethnicity, age, gender, veteran status, homelessness). This county-level data can therefore inform and direct tailored prevention efforts.

### **Profile of Suicide Data: The North Carolina Violent Death Reporting System**

Mary Beth Cox, Scott Proescholdbell & Tammy Norwood - 2016

*Summary:* State epidemiologists presented data on suicide trends to the State Epidemiological Workgroup (SEOW, housed within the Division of Mental Health, Developmental Disability and Substance Abuse Services-DH/DD/SAS) on Data Day to inform their prevention planning efforts. The presentation included data comparing demographics of victims and circumstances for suicide and homicide events, as well as shifts in these trends over time. Data were presented both at the state-level, compared with national averages, and across counties in the state of NC.



## **Identifying Emergency Department Care in the Year Prior to Suicide Death**

Dylan Delisle & Anna Waller, 2018

*Summary:* This study examined whether suicide victims in North Carolina had visited the ED in the months leading up to their death. In order to determine how often suicide victims interacted with the ED, the authors linked suicide data from NC-VDRS with Emergency Department (ED) visit data from NC DETECT. The researchers found that about one third of suicide deaths had no indication of ED visit. For the suicide victims that did visit the ED, there were a range of diagnoses for that ED visit, although depression or suicidality was rarely documented. The authors conclude that linking NC DETECT data on ED data to violent death data from NC-VDRS is challenging but feasible, and that there are opportunities to introduce universal screening to identify suicide risk in an ED setting.

## **Intimate Partner Violence**

### **Applications for grant funding related to intimate partner violence prevention programing**

*Summary:* Numerous non-profit organization such as the NC Coalition Against Sexual Assault, the NC Coalition Against Domestic Violence have used data from the NC-VDRS in grant applications to inform their program narrative. By using data from NC-VDRS, these organizations have been able to argue as to why there is a need for more intimate partner violence prevention, and even identify geographical areas or sub-populations that could benefit from additional funding or targeted intervention.

### **Effective Ways to Help Survivors of Intimate Partner Violence (IPV) Beyond the Screening Process**

Glorina Stallworth, 2018

*Summary:* A state-level program manager used data from NC-VDRS in a presentation to Baby Love Plus, a local initiative based in Forsyth County that links families with newborn babies to health care and support services. The NC-VDRS data helped to educate both Baby Love Plus staff and other stakeholders, including community health educators, local health department staff, and school staff, about the importance of dating violence prevention. The data on intimate partner homicide illustrated the need to focus on a component of the initiative's objective to improve women and infant health.

### **Suicide and Additional Homicides Associated with Intimate Partner Homicide: North Carolina 2004–2013**

Sierra Smucker, Rose E. Kerber & Philip J. Cook, 2018

*Summary:* This paper assesses the prevalence and correlates of perpetrator suicide and additional homicides following intimate partner homicide (IPH). The authors used data from the NC-VDRS, examining homicides that were accompanied by perpetrator suicides, as well as other homicides that were part of the same incidents. This was accomplished by linking deaths with the incident IDs. Almost all IPH-suicide cases were committed by men with guns. Almost one-half of IPHs committed by men with guns ended with suicide. Male-perpetrated



IPH incidents averaged 1.58 deaths if a gun was used, and 1.14 deaths otherwise. It is well-known that gun access increases the chance that a violent domestic relationship will end in death. The current findings demonstrate that gun IPH is often coupled with additional killings. The findings were published in the New York Academy of Medicine.

## **Firearm-Related Violence**

### **Fatal and Nonfatal Firearm Injuries in North Carolina**

Tamera Coyne-Beasley & Abigail C. Lees - 2010

*Summary:* Researchers at UNC Chapel reviewed trends in firearm-related homicide, suicide, and unintentional injuries. In this commentary, they report that nearly two thirds of violent deaths in NC were due to firearm use. The commentary also provides an overview of strategies for reducing the risk of firearm-related injury. Findings were published in the North Carolina Journal of Medicine.

### **Firearm Injuries Among Children and Youth**

Scott Proescholdbell, 2018

*Summary:* A state injury epidemiologist presented NC-VDRS data to the Child Fatality Task Force. The presentation included data on both intentional and unintentional firearm-related fatalities among children and young people aged 0-17 in the state of NC. This data helped inform the Child Fatality Task Force's decision to recommend a statewide program for safe firearm storage to the General Assembly. The same presentation has been given to a firearm safety stakeholder group composed of educators, law enforcement, health experts and advocates on both sides of the gun debate. Ultimately, examining and discussing the data from the NC-VDRS provided a platform for all of these groups to come to consensus and develop a statewide approach to educating the public about firearm safety.

### **A Call for Gun Violence Prevention**

Catherin Clabby - 2018

*Summary:* This news article presented data from NC-VDRS to discuss how gun violence disproportionately affects black citizens in the state of NC. More specifically, the journalist reported that black men in North Carolina aged 20-29 are killed by gun violence at eight times the rate of all other men of that age combined. The journalist also explains that, despite making up only 22 percent of NC's population, most people killed by gun assaults in the state are black. The article includes interviews with representatives from state law enforcement, researchers, and critical care providers. The article was published in North Carolina Health News.



## Police Involved Deaths

### Police Involved Deaths: Comparing CDC Surveillance and Media-Sourced Data

Josie Caves, Mike Dolan Fliss, Shana Greary, Steve Marshall, Scott Proescholdbell & Shabbar Ranapurwala - 2018

*Summary:* Law Enforcement are not mandated to report cases of police involved deaths (sometimes called “legal intervention” deaths). While this data may be captured through certain systems such as NC-VDRS, media-sourced databases have emerged as another important way to document these fatalities. For this project, the researchers compared data on police involved deaths from NC-VDRS with data from Mapping Police Violence, a media-sourced dataset. The researchers found that NC-VDRS captured nearly all of the police involved deaths that were documented by the media-sourced dataset, although the media-sourced dataset included police involved traffic deaths while NC-VDRS categorized those fatalities differently. The researchers concluded that it may be feasible to link national VDRS data on police involved deaths with media-source datasets, and that VDRS data could provide additional context about the circumstances of these deaths that are not available elsewhere.

## Work with special populations

### Youth

#### Violent deaths among youth: Findings from the NC-VDRS

Scott Proescholdbell, Tammy Norwood, 2014

*Summary:* The presentation discusses trends for youth homicide and youth suicide at the state and local level, with focus on Durham, NC. The presentation details differences by gender, race, ethnicity, age, and method. These data were presented at the Duke Pediatric Grand Rounds.

### Pregnant women

#### Improved Ascertainment of Pregnancy-Associated Suicides and Homicides in North Carolina

Anna E. Austin, Catherine J. Vladutiu, Kathleen A. Jones-Vessey, Tammy S. Norwood, Scott K. Proescholdbell, & Kathryn Menard, 2016

*Summary:* This research project identified suicides and homicides that occurred during or up to 1 year after pregnancy in North Carolina. The authors linked NC-VDRS data to traditional maternal mortality surveillance files, and calculated mortality ratios by case ascertainment method. Linking traditional maternal mortality files to NC-VDRS provided a notable improvement in ascertainment of pregnancy-associated violent deaths. Research findings were published in the American Journal of Preventative Medicine



### **Are Pregnant and Postpartum Women: At Increased Risk for Violent Death? Suicide and Homicide Findings from North Carolina**

Ghazaleh Samandari, Sandra L. Martin, Lawrence L. Kupper, Sharon Schiro, Tammy Norwood, Matt Avery, 2010

*Summary:* UNC Chapel Hill researchers worked with representatives from NC DPH (NC Department of Public Health) to examine whether pregnant or postpartum women have higher (or lower) rates of suicide and homicide compared to other reproductive-aged women. Results suggested that, although pregnant and postpartum women are at risk for homicide and suicide death, the highest risk group was non-pregnant/nonpostpartum women. Findings were published in the Journal of Maternal & Child Health.

### Veterans

#### **Violent Deaths at Home Among Adolescents and Young Adult Veterans in NC**

Tamera Coyne-Beasley, Phillip Graham, Carol Ford, Kelle Barrick, Stephanie Hawkins, Janelle Shumate, Tammy Norward, 2010

*Summary:* Authors from Research Triangle International (RTI), UNC Chapel Hill, and NC DPH investigated the incidence of violent deaths among adolescent and young adult veterans. A greater proportion of adolescents died of homicide than young adults, although suicide was the most common cause of death overall. The article discusses differences by gender, means of death, and the circumstances surrounding the death. Among suicides, 33% of young adults and 26% of adolescents had a known current mental illness, most commonly depression. These findings were published in the Journal of Adolescent Health.

### Former prison inmates

#### **Mortality Rates and Cause of Death Among Former Prison Inmates in North Carolina**

Mark Jones, Gregory D. Kearney, Xiaohui Xu, Tammy Norwood, Scott K. Proescholdbell, 2017

*Summary:* Researchers from East Carolina University, Texas A&M, and staff from NC DPH led a retrospective cohort study of North Carolina inmates. They linked this data on prison releasees with the NC-VDRS to determine if they died, and to identify the cause of death. The authors found that the death rate among former North Carolina inmates was significantly higher than that of other North Carolina residents, both for deaths overall, but also specifically for heart disease, cancer, suicide, and homicide.

#### **Violent Death Rates and Risk for Released Prisoners in North Carolina**

Steven Edward Lize, Anna M. Scheyett, Candice R. Morgan, 2015

*Summary:* University of South Carolina researchers partnered with representatives from NC DPH to match data from the North Carolina Division of Adult Corrections with data from NC-



VDRS in order to estimate predictors for violent death. Results indicated a potential for decreased homicide risk for every year of age. Being a male and identifying as a minority race increased risk. For suicide, minority race, release without supervision, and substance abuse treatment in prison decreased fatality risk. By contrast, a history of mental illness increased suicide risk.

### First responders

#### **Violent Deaths Among First Responders: Using North Carolina Violent Death Reporting System Data to Inform Injury Programs**

Anna Austin, Scott Proescholdbell, Tammy Norwood, 2015

*Summary:* This NC DPH presentation reported the number of law enforcement officers, firefighters, and EMS personnel who died as a result of violence in recent years. Of these deaths, nearly three quarters were suicides and only about one fifth were homicides. The majority of homicide deaths were among law enforcement officers, with over half having occurred while the officer was on duty. A significantly higher percentage of first responder suicide victims had an intimate partner problem and a job problem compared to all other North Carolina resident suicide victims. The presentation concludes that violent death, and particularly suicide, somewhat disproportionately affects individuals in first responder.

### Older adults

#### **Substance use and suicide prevention among older adults in NC**

Shana Geary, 2017

*Summary:* This presentation examined medication and drug overdose deaths among older adults, investigating patterns in intent, specific substance used, gender, and race.

#### **Elder Maltreatment Surveillance: Linking Adult Protective Services with Mortality Data**

Scott Proescholdbell, 2011

*Summary:* This presentation detailed the process for linking data from NC Adult Protective Services (APS) with data from NC-VDRS to determine the distribution of APS Violent Death Cases across the state. The presentation also detailed differences by gender, age, race, marital status, and the perpetrator relationship to the victim. This data were presented at the NC Conference on Aging, and as a result of these findings, the NC APS created an internal review program to examine potential elder maltreatment deaths.



## Ethnic/Racial Minorities

### **American Indian Homicide in North Carolina: An Examination of the Impact of Structural and Economic Factors**

Brian Pitman with the guidance and mentorship of Carrie Buist, Michael Maume, Kimberly Cook & Christina Lanier - 2015

*Summary:* This master's thesis from UNC Wilmington analyzed NC-VDRS homicide data for census tracts where at least 1% of the population identified as Native American/American Indian. While American Indians are a minority of the population in NC, they had the second highest rate of homicide in North Carolina for 2011. This master's paper tested structural and ecological theories to examine whether income inequality and other measures of strain/deprivation had an influence on homicide in this population. While these theories did not appear significant in the models, results suggest that ethnic heterogeneity may have a significant impact on American Indian homicide in NC.