

Keeping Families and Communities Safe:

Public Health Approaches to Reduce Violence and Firearm Misuse Leading to Injury and Death

Introduction

“There is a wail a mother makes when you tell her that her child has died. It is specific, distinct and soul crushing. And I hope I never have to hear it again.”
— North Carolina Emergency Medicine physician

Everyone wants to feel safe. We all want to keep our families and communities out of harm’s way. We will do whatever we can to protect them.

The data shows, however, that we are feeling more anxious and less safe. From 2019 to 2021, the percentage of American adults with symptoms of anxiety or depression nearly quadrupled. 39% of Americans feel less safe than they did five years ago. Nationwide and in North Carolina, we’ve seen increasing rates of relationship-based violence, mental illness, substance abuse, suicide, and violent deaths. Many of these issues are compounded because of access to and misuse of firearms.

However, progress is possible. A [public health approach](#) offers promise.

A public health approach has decreased deaths per mile traveled from vehicle crashes by 70 percent since the 1970s. We acted based on data. We layered strategies to reduce injuries and deaths. The federal government started a database on motor vehicle deaths. It invested in research. Risks were identified and prioritized, leading to widespread adoption of seatbelts, airbags and other safety features. Changes to the drinking age, speed limit, and seatbelt laws were enacted. Dramatic increases in car safety are now counted among the biggest American public health achievements.

We can do the same thing in our efforts to improve community safety. We can follow the data to choose layered approaches to cut down gun misuse, reduce suicide, and mitigate violence. Together, we can find consensus to keep our families and communities safer.





Firearm deaths and injuries are a public health problem.

- 5 North Carolinians per day die from a firearm-related death, more than 1,700 in 2020.
- Overall, more than half of firearm-related deaths are suicides and more than 4 in 10 are homicides.
- Men account for 86% of all firearm deaths and non-fatal injuries.



Children and families are among those most impacted.

- 116 North Carolina children died of a firearm related injury in 2021. Firearms are the leading cause of child injury death and are increasing.
- Child firearm injury hospitalizations have increased by 120% from 2016-2020 and child emergency department visits for firearm injury have increased by 68% from 2017-2021.
- Among youth, more than 50% of suicides and 80% of homicides in 2021 involved a firearm.
- The percent of youth involved with juvenile justice with a firearm charge has increased from 4% to 14%.
- 58% of intimate partner homicides involve a firearm.



Firearm deaths and injuries are a health equity issue.

- Black North Carolinians are almost twice as likely as white North Carolinians to be killed by a gun.
- Veterans' suicide rates in North Carolina, were 250% higher than the general population from 2016-2020. For those ages 18 to 34, it was 610% higher than the general population. The use of firearms as a method of suicide is 73.8%, compared to 53.6% for non-veterans.

On November 7, 2022, Governor Roy Cooper and the North Carolina Department of Health and Human Services (NCDHHS) convened a roundtable of health, education, and law enforcement professionals to discuss promising efforts already underway. Three key takeaways from this discussion included:

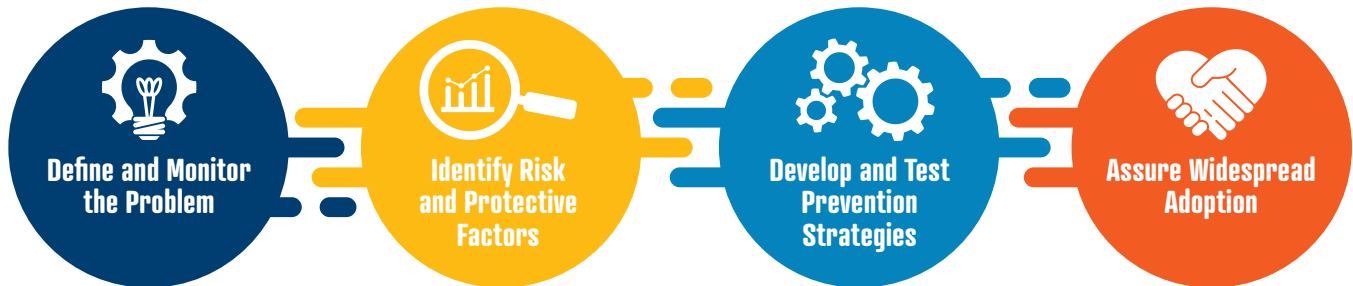
- **Build on common ground:** People want to feel safe. The desire to protect one's family is a strongly held conviction. We can build from these areas of broad agreement to achieve a deeper understanding of each other's concerns. Working together, we can save lives.
- **Broaden existing efforts:** Several tactics respect people's beliefs, give them options, and are proven to reduce firearm misuse. Firearm safes allow rapid access for appropriate use. Some communities offer safe-shooting education for youth. Violence intervention efforts in hospitals connect victims of gun violence with resources. Expanding these efforts is important.
- **Band together:** We are tackling the same issues from different points of view: public health, community groups, law enforcement, and advocacy. Working together we can identify and scale the most effective ideas. Central access to data and a directory of initiatives will help us succeed together.



The public health approach

SOURCE: CENTERS FOR DISEASE CONTROL AND PREVENTION

The public health approach has four basic steps:



STEP 1: Define and Monitor the Problem: The first step in preventing violence is to understand it. Data can demonstrate how frequently violence occurs, where it occurs and other trends. It also tells us about the people who are victims and who commit firearm violence.

STEP 2: Identify Protective and Risk Factors: Certain factors protect people or put them at risk for experiencing or committing violence. These factors help identify where to focus prevention efforts. Risk factors do not cause violence. They mean that a person has a greater chance of being involved in it.

STEP 3: Develop and Test Prevention Strategies: We can use data and research to show us which actions are likely to work. First, we identify existing strategies or develop new ones. Then we evaluate each strategy to determine if it is effective. We may find a way to improve the action.

STEP 4: Assure Widespread Adoption: This same evidence can guide communities as they select programs and actions to prevent violence. Some techniques will rise to the top. Partners statewide can promote adoption of the most successful techniques. Training, networking, and technical assistance can further bolster success.

Harm reduction is intrinsic to the public health approach. It identifies practical ways to reduce the negative consequences of an action. The public health approach to car crashes didn't ask people to stop driving. Instead, it made cars and drivers safer to reduce crashes and their severity. Harm reduction for firearms uses safety and interventions to reduce misuse of firearms for unintentional injury, violence or suicide.

How NC is applying a public health approach to firearm deaths and injuries

Unintentional firearm injury and death, intentional injury and homicide, and intentional self-injury and suicide can be prevented. Taking a public health approach can save lives in North Carolina. Fortunately, it's already underway across the state and includes:

- 1. Define and monitor the problem:** NCDHHS uses data and research to understand firearm injuries and violence. North Carolina collects data on emergency department visits in North Carolina Disease Event Tracking and Epidemiologic Collection Tool (NC DETECT). Non-fatal firearm-related injuries are tracked in NC Firearm-Related Injury Surveillance Through Emergency Rooms (NC-FASTER). Violent deaths are monitored through North Carolina Violent Death Reporting System (NC-VDRS). Together, these three systems reveal when and where firearm deaths and injuries happen. We can identify unequal impact in groups of people and communities. These data help NCDHHS and our partners see trends, guide priorities, understand risk factors, and develop and evaluate targeted prevention strategies. [NC DETECT/NC-FASTER reports](#)

2. **Identify risk and protective factors:** Data analysis and research identify factors that increase or decrease the risk of firearm death and injury. National and state data show that this is a health equity issue with disproportionate impact in some communities and populations.

RISK FACTORS

- **Several populations are at higher risk for firearm injuries and deaths.** Men account for 86% of all firearm deaths and non-fatal injuries. Black North Carolinians are almost twice as likely as white North Carolinians to be killed by a firearm. They also make up 55% of emergency department visits related to firearms. 18- to 24-year-olds are more than three times as likely to visit the ED for a firearm injury than other age groups. Firearms are the leading cause of child injury death, and firearm-related child deaths are increasing.
- **Firearm suicide rates are higher for certain populations,** including adults, American Indians or Alaska Natives, non-Hispanic white people, and veterans. Veterans are more likely than non-veterans to commit suicide and to use a firearm to do so.
- **Rural communities and socially vulnerable communities are at higher risk.** Rural counties experience higher rates of ED visits per person for firearm-related injuries. Counties with higher levels of social vulnerability, such as poverty, unemployment, and lower educational levels are also have higher rates.
- **Mental health and substance use can play a role.** People who attempt to harm themselves or others with a firearm may be going through a mental health crisis. People with mental illness are three times more likely to be a victim of firearm or other violence than to be a perpetrator. Alcohol and drug use increase the risk of violence, including firearm violence.
- **Healthcare workers** are [five times more likely](#) to experience workplace violence, which includes firearms, than employees in other industries. The rate of injuries from violent attacks against medical professionals grew by 63% from 2011 to 2018. Medical professionals also are two to three times more likely to commit suicide compared with the general population.

PROTECTIVE FACTORS

- **Increased firearm storage and reduced access to lethal means:** One of the most important protective factors is ensuring that firearms are safely stored in a secure place. They should not be accessible to anyone but the owner of the firearm, such as when stored in a locked gun safe. Safe storage creates a safe environment for families with curious young children. It also prevents guns from being stolen from a car. Controlling access to a firearm may also help prevent suicide.
- **Increased access to mental health and substance use disorder services:** Mental health and substance use issues are a risk factor. On the other hand, treatment is a protective factor. Fast, easy access to mental health crisis services reduces risk of violence. Access to prevention services can keep people from reaching a crisis point.
- **Prevention and support services for populations with higher risk of firearm injuries:** Community programs can reduce the risk of future gun violence. These include mentoring and youth development programs, social support to victims and families, and restorative justice programs. Those who committed violence and/or their families should be key participants. Programs can also protect survivors of intimate partner violence from firearm death.

3. Develop and test prevention strategies: Many groups are adopting public health strategies proven to prevent firearm death and injury. We must continue to gather data and evaluate outcomes to build on these strategies and to change behavior. North Carolina's approach to violence prevention has three main goals:

ENCOURAGE SAFE STORAGE TO REDUCE ACCESS TO LETHAL MEANS: North Carolina has the [Safe Storage Law 14-315](#). NCDHHS is supporting local Firearm Safety Teams and a statewide coalition to promote safe storage in communities. Training called Counseling on Access to Lethal Means guides people at risk and their families to create a safe home environment when suicide risk is higher. NCDHHS and partners provide training, which is crucial for health care providers. About 45% of people see a medical provider in the 30 days prior to suicide.

An interactive [North Carolina's Firearm Safe Storage Map](#) identifies locations where firearms can be stored for a short time. This puts distance between a person in crisis and lethal means. [Project ChildSafe](#) gives out free gun locks and safety instructions.

[Stop Soldier Suicide](#) works to decrease veteran suicide. Tactics include veteran firearm safety teams, CALM training for health care providers, and outreach campaigns.

The statewide [4-H Shooting Sports Program](#) teaches youth safe and responsible use of firearms. Families are central to the 4-H program, and life skills are taught as part of it. To expand its work, North Carolina 4-H has also formed a partnership with the American Foundation for Firearm Injury Reduction in Medicine. This partnership will develop and test curricula.

INCREASE PROTECTION FOR THOSE AT THE HIGHEST RISK OF VIOLENCE: Programs that prevent or interrupt violence are emerging across North Carolina. Mecklenburg County created the [Public Health Office of Violence Prevention](#). It's using the [Cure Violence Model](#) to stop violence on three levels. Primary strategies use youth development and mentoring programs to prevent violence. They also respond to violence and disrupt violent situations. Long-term strategies include restorative justice and re-entry programs. Guilford County and UNC-Greensboro have created the [Violence and Trauma Prevention Initiative](#). Raleigh, Henderson, and Edenton are developing similar efforts.

Health systems are also building violence interruption programs based in hospitals. One at Duke University Health System intervenes with victims of gun violence. Staff assess social needs and link the victim and the families to community resources. Atrium/Wake Forest Baptist has programs in Charlotte and Winston-Salem. Other health systems are looking to develop similar programs.

To protect victims of intimate partner violence from further attacks, North Carolina passed [S.L. 2003-410 \(S919\)](#). This law prohibits people subject to certain domestic violence protective orders from owning or possessing any firearms or ammunition. It requires them to surrender to the county sheriff within 4 hours any firearms, ammunition, and permits.

STRENGTHEN OUR MENTAL HEALTH CRISIS SYSTEM: People at risk for, or in crisis need easily available services. In July 2022, North Carolina launched the 9-8-8 hotline phone number for those having a mental health crisis. The three digits make it faster and easier to access crisis services.

NCDHHS is creating a real-time list of facilities statewide with open beds for psychiatric care. This will more quickly connect people needing care with appropriate mental health treatment. Now, a patient may wait for care in the emergency department.

Legislation in the NC General Assembly ([HB525](#)) would allow Extreme Risk Protection Orders to be issued. This would place a short-term restriction on a person's access to firearms. The bill states there must be a preponderance of evidence that the person poses

a danger of physical harm to self or to others, including, but not limited to recent acts or threats of violence and evidence of serious mental illness or substance use.

- 4. Assure widespread adoption:** Agencies and groups across North Carolina have taken multiple actions to address firearm violence. Measures that work are shared and used widely. The Department of Public Safety led the creation of a statewide [Action Plan for School Safety](#). It is also developing a statewide firearm safe storage campaign. NCDHHS lists safe storage resources on its webpage [Firearm Safety Awareness and Education](#). The [NC Suicide Prevention Action Plan](#) posits multiple ways to reduce injury and death by suicide. Encouraging firearm safe storage is a priority recommendation of the Child Fatality Task Force to the General Assembly. Nationally, the [Be Smart campaign](#) and [Everytown for Gun Safety](#) lead outreach campaigns.

Key public health actions to reduce firearm death and injury in North Carolina

The above actions are strong steps forward. A few more policy steps and targeted investments are key to reducing firearm deaths and injuries.

- 1. Expand firearm safe storage initiatives:** There is a public health consensus on safe firearm storage. Laws that require safe storage to prevent access by children can reduce injury and death. Wider safety awareness campaigns, more safe storage options, and counseling and training for health care providers will enhance laws. Areas that require safe storage report a drop in unintentional deaths related to firearms of up to 59%.

Three steps better protect teenagers from suicide attempts. Unload firearms to store them. Keep them separate from ammunition. Put them in a locked place or secure them with a safety device. An estimated [32%](#) of youth firearm suicides and unintentional firearm deaths could be prevented through safe storage.

Primary care providers, emergency medicine doctors and other clinicians can influence families to store guns safely. This is more effective when [gun locks and other safety devices are provided](#).

Young children benefit most from firearm locks. Older children and adults are better able to bypass a lock. Gun safes or biometric access that grant access to only one person will improve safety for this age group. More funding to develop these features is needed.

The General Assembly has introduced [HB 427](#). If passed, this bill would further efforts to improve awareness of firearm safety and safe storage. It would also distribute more safe storage devices.

- 2. Expand community-based programs:** Community programs that intervene in and prevent violence can reduce firearm injuries by up to 50%. Programs focus on those most affected by gun violence, especially Black and Hispanic communities. Trauma-informed intervention is provided. Team members screen families for unmet social needs such as food, housing, education, and employment. Then, they connect them to agencies and services that can help. This partnership can identify high priority neighborhoods for focused interventions. Education efforts can increase knowledge and comfort with reaching out if someone suspects risk of violence. North Carolina has several successful programs, and these could be expanded.



3. Expand violence intervention programs in hospitals: Patients with firearm injuries are often treated in hospitals. These programs use multiple approaches to prevent future violence. Medical staff and community partners provide safety planning and other services. This trauma-informed approach takes into account the impact of trauma on a person's mental and physical state and continues after patients are treated. Follow-up activities include links to services, home visits, assistance finding referrals and connections to community violence prevention programs. The programs often address social drivers of health, including social inequities, economic and educational opportunities, safe and stable housing. This approach decreases the risk of repeated violence and is supported by the American Hospital Association. Some health systems are running these programs in North Carolina.

4. Strengthen implementation of protective orders for survivors of intimate partner violence: The presence of a gun in a domestic violence situation [increases the risk of homicide by 500%](#). Restricting access to firearms when a protective order is issued can reduce this risk. Research associates these constraints with a 10-12% reduction in intimate partner homicides.

North Carolina law [S.L. 2003-410 \(S919\)](#) provides this protection. Defendants in domestic violence protective orders can have their access to firearms limited in certain cases. However, only [38.6%](#) of such orders in North Carolina require firearm surrender. Firearm possession was prohibited in only [69.5%](#) of the cases. Measures to improve consistency and awareness, including training, is needed to keep survivors safe. Also, perpetrators of domestic violence have a higher risk of suicide. This measure would protect them as well.

5. Enable extreme risk protection orders (ERPO): People in a crisis are 30 to 40 times more likely to attempt suicide. This group is also a higher risk for carrying out a firearm-related assault. Thus, an important tool in preventing violence is a temporary civil order. This temporarily restricts access to firearms when a person is at a higher risk of committing violence or harming themselves. ERPO laws have passed with public consensus and community input in 19 states and the District of Columbia.

[HB525](#) is pending in the NC General Assembly and would authorize these orders when warranted. The federal Bipartisan Safer Communities Act provides funding to states to launch ERPO laws. There is broad support for this concept, including from many in North Carolina's law enforcement community. As in other areas, North Carolina can reach consensus around specific language and enact this law.

6. Research: Programs are providing evidence for which strategies are the most effective. More data, research, and evaluation is still needed. Key partners across agencies can share information more widely, extending impact.

7. Expand Medicaid: Mental health treatment is a significant gap in North Carolina. One in five people will experience a mental illness each year – that's about 2 million North Carolinians. Yet, in 2020, more than 55% of people with such needs did not receive treatment. The number one reason people went without treatment is cost.

States that have expanded Medicaid have seen significant behavioral health benefits. Suicide rates have decreased, and access to substance use disorder treatment increased. Medicaid expansion is also associated with a [reduction in in-hospital mortality from firearm injuries](#).

If the state expands Medicaid, there would be an estimated \$430-480 million more per year for behavioral health services to help make treatment more affordable and accessible.

Round Table Participants

- Governor Roy Cooper
- Secretary Kody H. Kinsley, NC Department of Health and Human Services
- Secretary Eddie M. Buffaloe, Jr., NC Department of Public Safety
- Elizabeth Tilson, NCDHHS, State Health Director/Chief Medical Officer
- Willa Robinson Allen, Durham County Department of Public Health, Program Manager for Health Promotion & Wellness
- Charles Blackwood, Orange County Sheriff, President of NC Sheriffs' Association
- Garrett Franklin, Raleigh Medical Group/Cary Medical Group, Family Physician
- Jeffrey Swanson, Duke University School of Medicine, Professor in Psychiatry and Behavioral Sciences
- Kella Hatcher, Child Fatality Task Force, Executive Director
- Uzuri Holder, Duke Violence Recovery Program, Program Manager
- Kevin Hollis, Anesthesiology Consultants of NC, Anesthesiologist
- Keith Hotle, Stop Soldier Suicide, Chief Program Officer
- Billy Lassiter, NC Department of Public Safety, Deputy Secretary, Division of Juvenile Justice and Delinquency Prevention
- Harrell Lightfoot, Cone Health, Cardiothoracic Surgeon
- Beth Moracco, UNC Injury Prevention Research Center, Associate Director and the UNC Gillings School of Global Public Health
- Madjimbaye Namde, WakeMed Cary, North Carolina College of Emergency Physicians
- Rebecca Palmer, Wake Forest Baptist Health Medical Center, Pediatrician
- Osi Udekwu, WakeMed, Trauma Physician
- Raynard Washington, Mecklenburg County Health Department, Director
- Damon Williams, NC Central University Police Chief, President of NC Association of Chiefs of Police
- Mike Yoder, 4-H Association Director & State Program Leader



Learn more

American Public Health Association -

- Evidence-based for interventions/policies [Overview](#), [Policies 1](#), [Policies 2](#), [APHA Fact Sheet](#)
- Fact sheet: [Who Gets Killed in America? The National Violent Death Reporting System is Keeping Track](#)

[ASTHO Preventing Firearm Misuse, Injury, and Death Policy Statement](#)

Centers for Disease Control and Prevention

- [The Public Health Approach to Violence Prevention](#)
- [County-Level Social Vulnerability and Emergency Department Visits for Firearm Injuries](#)
- [Preventing Suicide: A Technical Package of Policy, Programs, and Practices](#)

[Community-Based Violence Intervention Programs](#)

Everytown - [Gun Safety](#)

Harvard Medical School - [A Public Health Approach to Gun Violence](#)

Justice Policy Center - [Engaging Communities in Reducing Gun Violence A Road Map for Safer Communities](#)

[Safe States Policy Recommendations to Prevent Firearm Related Injuries and Violence](#)

RAND synthesis of the Science of Gun Policy - www.rand.org/pubs/research_reports/RR2088-1.html

Urban Institute - [Evaluating Community-Level Solutions for Gun Violence](#)

