



Policy Pathways to Address American Youth Firearm Injury and Death

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This brief reviews the impact of gun violence on youth across the United States and articulates the evidence base for gun safety policies. These policies would strengthen federal legislation to protect American youth from suicide, homicide, and unintentional firearm injury and death:

- Child access prevention
- Safe storage
- Universal background checks
- Permits to purchase
- Extended waiting periods prior to firearms purchase
- Extreme risk protection orders
- Assault weapon and high-capacity magazine ban

Background

Every day, 83 children are injured or killed by guns in the United States.¹

Firearm-related injuries are a leading cause of child and adolescent deaths, second only to motor vehicle crashes totaling 3,000 children and teens dying every year.² Of these deaths, homicide and suicide account for 59% and 35% respectively; the remainder are unintentional or undetermined causes.² Reducing gun violence injuries and deaths among American youth is imperative and requires a multifaceted approach.

Global Context

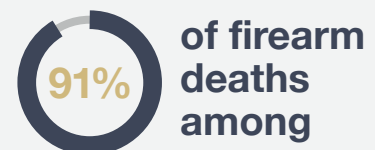
The burden of firearm violence and death are uniquely American problems.

The mortality rate from guns is notably higher in the U.S. compared to other countries. Over 91% of firearm deaths among children and adolescents in high income countries occurred in the United States.³ Despite similar overall crime rates, the gun homicide rate is about 25 times higher in the U.S. than other Western democracies, and 49 times higher for those aged 15-24 years.³ For example, the U.S. has 10 times the rate of gun homicides than Japan, Germany, and the United Kingdom combined.³ In 2016, the U.S. had the highest gun suicide rate compared to 189 other countries.

THE TOLL OF GUN VIOLENCE ON YOUTH IN THE U.S.

A child or adolescent is killed with a gun every

2 hours and 48 minutes in the U.S.



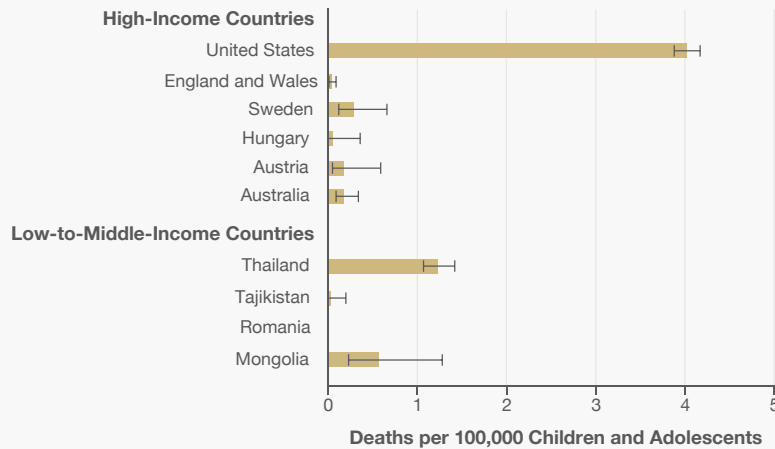
all high-income countries worldwide occur in the U.S.



Firearm-related deaths are the

leading cause of mortality among Black youth

Global Comparison of Firearm Mortality, 2016²



Access to Firearms in the U.S.

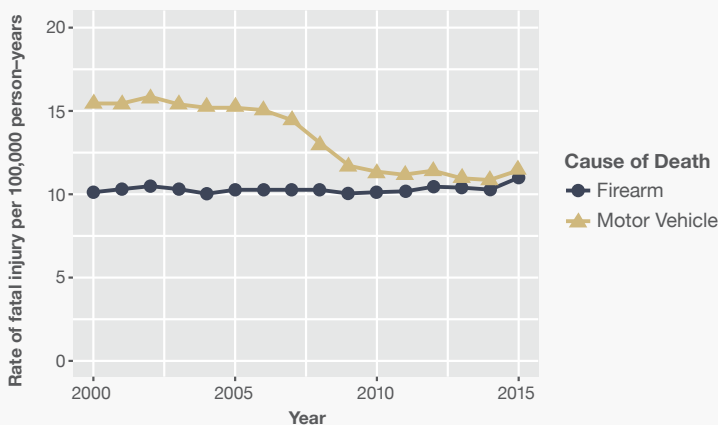
Youth in America have unusually high rates of access to firearms. There are approximately 4.6 million children living in U.S. homes with at least one loaded, unlocked firearm.⁴ Youth can access firearms at startling rates: in families where guns are kept in the home, 75% of children aged 5-14 years know where firearms are stored and 22% report handling a gun in the home without their parents' knowledge.⁵

Weapons obtained from the home are more often the choice for suicide or homicide than a firearm obtained illegally. Approximately 80% of children who completed suicide did so with a gun obtained from their home, usually a parent's gun.⁶ Similarly, a U.S. government review of 37 school shootings between 1974 and 2000 found that 68% of attackers acquired the firearm from their own home.⁷

Avoiding Preventable Deaths: A Lesson from the Auto Industry

Firearm related injuries and death are preventable. During a period of only five years, the annual motor vehicle death rate declined despite a 10-fold increase in the number of miles traveled and an 11-fold increase in the number of motor vehicles on U.S. motorways.² This contrasts with increasing rates of firearm related injury and death. Motor vehicle tragedies have been averted because of research, evidence-based policies, and vehicle safety innovations. Applying a similar approach will reduce gun violence in our communities.

Comparison of Firearm and Motor Vehicle Fatal Injuries, 2000-2015¹



Age-adjusted rate of fatal injuries per 100,000 person-years in the U.S.

The History of Firearm Policy in the United States⁸

1791

Bill of Rights

- Amended the U.S. Constitution; the Second Amendment states “A well regulated Militia, being necessary to the security of a free State, the right of the people to keep and bear Arms, shall not be infringed.”

1871

National Rifle Association

- Formed by the union army to promote and encourage marksmanship

1934

National Firearms Act

- Passed by Franklin D. Roosevelt as a part of the “New Deal for Crime”; the first piece of national gun control legislation
- Imposed a tax on manufacturing, selling, and transporting specific types of firearms, including of machine guns, short-barrel shot guns, and rifles

1938

Federal Firearms Act

- Required gun manufacturers and dealers to obtain a license
- Prohibited felons convicted of violent crimes from purchasing guns

1968

Gun Control Act

- Repealed the Federal Firearms Act
- Prohibited all convicted felons, drug users, and those who are psychologically unstable from buying guns
- Raised age to purchase handguns from a federally licensed dealer to 21
- Required serial numbers on all manufactured or imported guns

Inequities in Firearm Injuries

Gun-related injuries and deaths are not equally distributed across populations. Male children and adolescents are five times more likely to die from firearms than females or younger children, respectively.² Black children are 10 times more likely to die from gun-related homicides than White children.⁹ Firearm-related deaths are the leading cause of mortality among Black youth.²

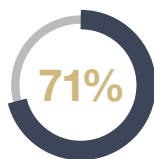
Suicide is more prevalent among White and Native American children compared to other racial groups. While the rates of total firearm-related deaths are similar between rural and urban populations, the rate of suicide is twice as high among rural youth. Meanwhile, firearm-related homicides are twice as high in urban youth.²

Differences in risk of injury and death by firearms among American children reflect underlying social and economic disparities, access to care, environmental exposures, and societal constraints. However, proactive firearm policies can minimize risk for all children.

Suicide: A Myth of Inevitability

We live in a time of increasing suicide rates. Suicide by firearm is a leading cause of death for children 10 years and older. A misconception exists that suicides occur after long and thoughtful contemplation followed by a clear decision to end their life resulting in inevitable premature death. This is false; suicide is a hasty response to an acute stressor. Forty-eight percent of nearly-lethal suicide attempt survivors deliberated for less than 20 minutes; 71% attempted suicide within the first hour.¹⁰ More than 90% of those who survive a suicide attempt will not go on to die from suicide.^{10,11} This points to the fact that suicidal impulse is short-lived, even in the presence of chronic underlying risk factors.

This impulsive action is far more likely to be lethal when using a firearm as compared to other means. In a study of suicide attempts and deaths in eight states, only 6% involved a firearm yet accounted for over 50% of all deaths from suicide - a case fatality rate of 83%. In comparison, suicide attempts by drug overdoses had less than 2% fatality rate.¹²



of people attempt suicide within an hour of deciding to do so¹⁰

Use of a gun for attempted suicide results in death 83% of the time¹²



over two-thirds of survivors never attempt suicide again¹¹

Mobilizing Policy Action

Reducing injury and death by firearms in children requires commitment from a wide variety of stakeholders, including policy makers at the federal, state and local levels, healthcare providers, researchers, law enforcement officers, educators, community leaders, families, and even youth themselves.

Investing in Public Health Research

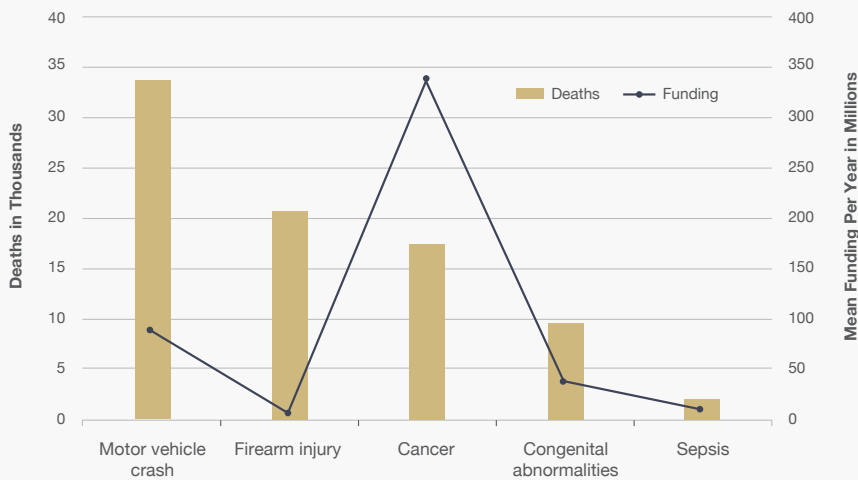
A key obstacle in preventing firearm-related childhood death and injuries is the paucity of scientific work due to the scarcity of research funding.

An analysis of federal funding for leading causes of child and adolescent mortality revealed firearm injury research received only 3.3% of the predicted amount based on mortality burden in 2008 to 2017.¹³ Cancer, the third leading cause of death, was granted \$335 million in annual federal funding whereas research into preventing firearm injuries, the second leading cause of death, received only \$12 million in federal funding over the ten years.¹³

As a sign of progress in December 2019, the United States Congress approved \$25 million for gun violence research for fiscal year 2020. This is a slow thaw on the 20-year quiescence from the federal government and new funding has been welcomed by the Centers for Disease Control and Prevention, and the National Institute of Health.

Firearm injury prevention deserves funding to match the gravity of the problem.

Federal Research Awards and Corresponding Mortality Among Children and Adolescents, 2008-2017¹³



The relationship between federal research funding and mortality in children and adolescents, 2008-2017.



“Federal funding is a catalyst for additional private sector funding. It builds core research capacity and tends to fund high quality researchers. Federal funding for research is a statement that the research is of broad national importance. In the end one hopes the results will inform ways to make firearms safer as a tool; people safer with their firearms; and society safer with firearms and people in it. The health goal is meaningful reductions in both morbidity and mortality from firearms; both unintentional and intentional.”¹⁴

– Georges Benjamin, MD and CEO of the American Public Health Association

1986

Firearm Owners Protection Act

- Prohibited a national registry of dealer records
- Allowed licensed dealers to sell firearms at gun shows

1990

Gun-Free School Zone Act

- Prohibited unauthorized individuals from possessing a gun in a school zone

1993

Brady Handgun Violence Prevention Act

- Mandated background check before a gun is purchased from a licensed dealer, manufacturer, or importer (not required for unlicensed private sales)
- Established the National Instant Criminal Background Check System (NICS) which is maintained by the FBI

1994

Violent Crime Control and Law Enforcement Act

- Prohibited the manufacturing/transferring of 19 types of semiautomatic assault weapons for 10 years
- Banned high-capacity ammunition magazines greater than 10 rounds

2004

Sunset of the Assault Weapons Ban

- Lifted the assault weapon and high-capacity ammunition magazine ban, a provision of the Violent Crime Control and Law Enforcement Act

2005

Protection of Lawful Commerce in Arms Act

- Prevented gun manufacturers from being named in a civil suit by victims of crimes committed with firearms

2008

District of Columbia v. Heller

- Upheld the Second Amendment giving individuals the right to possess a firearm unconnected with service in a militia and for traditionally lawful purposes
- Struck down the District of Columbia's handgun ban as unconstitutional

2020

Congressional Appropriations Act

- Allocated \$25 million to the Centers for Disease Control and Prevention and the National Institutes of Health for firearm research

Physicians Promoting Safety

In February 2017, the U.S. Court of Appeals for the Eleventh Circuit in Florida issued a vote affirming that physicians are protected by the First Amendment and allowed to speak with their patients about firearms.¹⁵ Having been given back the right to provide counsel on firearms, many physician organizations encourage screening for firearm access while providing firearm safety counseling.

To uphold the duty of protecting children from harm, physicians must educate themselves on firearms and safe handling, similar to how they have been trained to counsel on car seat and water safety. Respectful counseling is done using the principles of shared decision making after information has been communicated in a nonjudgmental and non-prescriptive manner.¹⁶ Mindful and effective counseling does change practice. Studies show safer gun storage practices in families who have received education from their physician.^{17,18}

Growing Youth Activism

On February 14, 2018, 17 students and faculty were killed and 17 others injured in the mass school shooting at Marjory Stoneman Douglas High School in Parkland, Florida. After the shooting, students from the high school organized a rally, the "March for Our Lives," in Washington DC. The rally inspired hundreds of partner rallies across the country demanding action. During the summer of 2018, youth toured the country, registering people to vote and advocating for firearm safety policies.

Their movement earned the attention of both state and federal legislators and shifted the national dialogue. Since the Parkland shooting, states across the country, with bipartisan leadership, enacted 50 new laws restricting access to guns, ranging from banning bump stocks to allowing authorities to temporarily disarm potentially violent people.¹⁹

Gun Safety Laws Save Lives

Federal and state laws are necessary parts for a prevention strategy to curb firearm-related injuries and death. Promising data demonstrate improved health outcomes related to gun safety laws. Generally, states with strict firearm laws have lower firearm-related injury and mortality rates and significantly fewer potential years of life lost compared to states without strict firearm laws.²⁰ Multiple studies illustrate the protective effects of stronger laws.²¹⁻²³

Lack of consistent federal firearm regulation has resulted in individual states taking on the responsibility. The result is a heterogeneity of laws that vary considerably from state to state with nuances and differences in implementation. This, coupled with insufficient research funding impedes large scale studies and scientific rigor. Drawing from state-based evidence, we can still inform federal policy to prevent firearm-related injury and death in children.

The following policies are found to decrease harm from firearms. None of these policies, when enacted alone, can prevent all injury and loss. However, thoughtful implementation of multi-faceted policies could have a synergistic effect in protecting countless children.

It is important to note that none of these policies would prohibit law-abiding citizens from owning a gun.

Child Access Prevention (CAP)

CAP laws regulate the storage of firearms in households with minors and allow holding adults liable if a minor gains access to a firearm without supervision. As of 2021, 30 states and the District of Columbia have enacted CAP laws.

A state-level, cross-sectional study found negligence-specific CAP laws were associated with a 13% reduction in all-intent firearm fatalities among children aged 0-14.²⁴ Unintentional death dropped more substantially when the law allows for adults to be held criminally liable if a minor accesses an improperly stored firearm. Restricting unsupervised child access has also led to a 12% decrease in suicide rates among children younger than 14 years old.²⁴

Safe Storage

Similar to CAP laws, safe storage laws require gun owners to store their firearms and ammunition responsibly when not in use to prevent minors, thieves, and unauthorized users from gaining access. Safe storage laws, in contrast to CAP laws, specify a storage mechanism intended to mitigate the risk of unsecured firearms.

One in three U.S. households contain at least one firearm.³ Only 3 in 10 firearm containing households with children properly store the firearm locked and unloaded.³ Twenty-two percent of parents who stated that their child had not handled the household gun were contradicted by their children; almost a quarter of children living in a home with a gun handled a firearm without their parents' knowledge.⁴

Safe storage makes a difference. A study of guns used in pediatric suicides and unintentional injuries showed that these guns were more likely to be loaded and easily accessible. The risk of suicide death triples if guns are stored loaded and increases by 50% if firearms are kept unlocked.²⁵ There is significant decrease in unintentional injury, suicide, and homicide if a firearm is stored unloaded, locked, and separate from ammunition.^{26,27}



Massachusetts CAP and Storage Laws

Massachusetts is the only state in the nation that requires that firearms be stored with a locking device in place in all cases when they are not in use. Massachusetts law also penalizes a lawful owner who stores firearms in a place where a person under the age of 18 who does not possess valid firearm identification may gain access.

Universal Background Checks

Universal background checks are supported by the vast majority of Americans. Despite this support, federal law only requires a background check when a person is obtaining a gun from a licensed gun dealer but not from another source – e.g. the gun show loophole. Studies show that 22% to 40% of gun owners obtained their most recent firearm without undergoing a background check.^{28,29}

A select few states have extended their background check laws to include private firearm sales. These laws are heterogeneous among states and have differential implementation. Despite this, multiple studies show that both homicide and suicide rates decrease significantly in states with expanded background check laws.^{30,31}

States that had universal background check laws in place for more than five years witnessed more than 35% drop in the rate of firearm-related deaths in the pediatric population. This remained true even when adjusted for race, ethnicity, education, and poverty levels.²¹

Expanded background checks not only limit firearm availability to those deemed unsuited for lethal weapons, but also decrease guns in the secondary market limiting adolescent access to firearms. A recent study of children in grades 9-12 showed that 5.8% admitted to carrying a gun (excluding hunting and sport use). However, there was a 15% decrease in firearm carriage by adolescents in states with universal background checks.³²

Permit to Purchase (PTP)

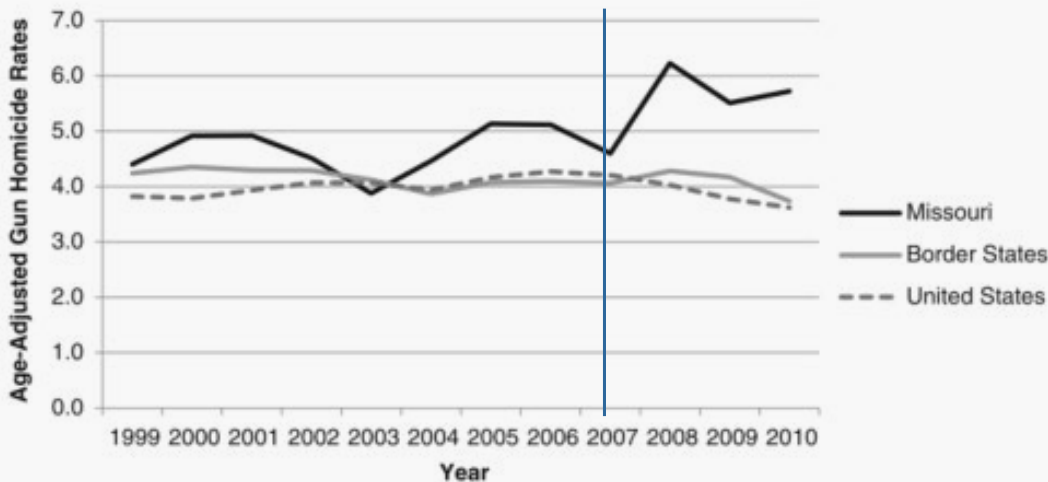
PTP places the onus of a background check on those purchasing a firearm while background check laws require record keeping from a licensed dealer. Fourteen states require individuals purchasing handguns from unlicensed dealers to first obtain a permit. Such laws aim to prevent criminal diversion of firearms and decrease injury and death.



Missouri Permit to Purchase

Missouri had a PTP law in place since 1921 but it was repealed in August 2007. In the first year after the repeal, homicide rates increased by 34% in Missouri. This trend continued with 23% increase in homicide thereafter.³³ This occurred while the U.S. firearm homicide rate remained steady. It is estimated that 55 to 63 additional lives were lost per year between 2008 and 2012 because of PTP repeal in Missouri alone.³³

Firearm Homicide Rates in Missouri, Its Border States, and the United States³³



After the permit to purchase law was repealed in Missouri in 2007, the rates of homicide increased disproportionately in comparison to Missouri's border states and national averages.

Extended Waiting Periods

Waiting period laws require a specified number of days after a gun is purchased before the purchaser may take possession. The goals are to establish a “cooling off period” to prevent impulsive acts and to allow government agencies time to complete a background check.

Federal law allows 3 days for background checks to be completed. If there is no conclusion at the end of these 3 days, “default proceed” allows the dealer to complete a sale without a background check conclusion. As a result of this inadequate time frame, the FBI confiscated 4,170 firearms in 2016 after the completed background check required denial of a firearm sale.³⁴

Studies show that extended waiting periods reduce firearm suicides from 7 to 11%, which is equivalent to 22 to 35 fewer suicides annually for the average state.³⁵ Homicides decreased by 17%, which corresponds to roughly 39 fewer homicides per year for the average state.³⁵

Extreme Risk Protection Orders (ERPO)

Federal law prohibits people with certain mental conditions from owning a gun if a court previously determined the person mentally incapacitated or if that person was involuntarily committed to a mental health treatment facility. Similarly, individuals who committed a felony, domestic violence misdemeanor, or have a domestic violence restraining order are prohibited from possessing a firearm. However, many people fall outside these narrow categories and may still be a threat to themselves and others, especially in acute behavioral crises. Many who are disqualified from gun ownership can still obtain a firearm by subverting background checks. These are the instances when ERPO may be useful.

ERPO is a civil order granted by a judge to prohibit an individual from purchasing or owning a firearms if they pose a risk of hurting themselves or others. It allows law enforcement to ban purchase of new firearms and allows temporary removal of firearms already owned.

Nineteen states and the District of Columbia have enacted ERPO laws thus far with promising results. For every 10 guns removed, one life was saved in Connecticut.^{36,37} Implementation in Indiana and Connecticut has reduced the rate of suicide by 7.5% and 13.7%, respectively.³⁸

Assault Weapon and High-Capacity Magazine Ban

Assault weapon and high-capacity magazine legislation restricts or makes illegal the manufacture, transfer, or possession of assault weapons and high-capacity magazines, commonly defined as ammunition feeding devices holding more than 10 rounds of ammunition. These weapons are frequently used in mass shootings and as such have garnered public support for restricting sales and possession. The Violent Crime Control and Law Enforcement Act included the Federal Assault Weapons Ban from 1994-2004 that has never been successfully reinstated. Nine states and the District of Columbia have enacted laws either banning assault weapons and high-capacity magazines or high-capacity magazines alone.

Data on mass shooting incidents suggests high-capacity magazine restrictions potentially reduce mass shooting deaths by 11% to 15% and total victims shot in these incidents by one quarter.³⁹ High-capacity semiautomatics have grown by as much as 112% as a share of crime guns since the expiration of the federal ban, a trend that has coincided with recent growth in shootings nationwide.³⁹⁻⁴¹

Policies and Priorities

As a country, we aim to promote education, physical safety, and behavioral health in the interest of wellness and longevity so children can achieve their highest potential. Decreasing firearm injury and death is achievable with education, collaboration, research, and policies while protecting the legal and safe use of guns.

An abundance of evidence demonstrates that firearm deaths are preventable. Our society and legal system do not adequately protect children and youth from firearms. Implementing policies that have been tried, tested and are ready for wide-scale adoption will save lives. We must:

- Strengthen federal laws building on evidence from state policies
- Invest in public health firearms research
- Protect current evidence-based state laws from dismantling efforts
- Overcome the inequities suffered by disproportionately affected populations

Policy Actions to Protect Children and Youth

Policy	Action	States with the law
Child Access Prevention	Restrict access to firearms by imposing criminal liability for negligent storage or directly providing a firearm to a minor	CA, CO, CT, DE, DC, FL, GA, HI, IL, IN, IA, KY, MD, MA, MN, MS, MO, NV, NH, NJ, NY, NC, OK, RI, TN, TX, UT, VA, WA, WI
Safe Storage	Keep firearms unloaded, disabled, with a locking device and ammunition stored separately	CA, CT, IL, MD, MA, MI, NJ, NY, OH, PA, RI
Universal Background Checks	Require background checks for point-of-sale purchase or transfer of firearms from licensed and unlicensed sellers	CA, CO, CT, DE, DC, MD, NV, NJ, NM, NY, OR, PA, RI, VT, VA, WA
Permit to Purchase	Obtain a permit for all prospective buyers of a firearm	CA, CT, DC, HI, IA, IL, MD, MA, MI, NC, NE, NJ, NY, RI
Extended Waiting Periods	Require a specified period between purchase and possession of a firearm to reduce impulsive acts and provide adequate time to perform a background check	CA, DC, FL, HI, IA, IL, MD, MN, NJ, RI, WA
Extreme Risk Protection Orders	Temporarily restrict access to firearms for those with significant risk of harming themselves or others	CA, CO, CT, DE, DC, FL, HI, IL, IN, MD, MA, NV, NJ, NM, NY, OR, RI, VT, VA, WA
Assault Weapon and High-Capacity Magazine Ban	Restrict the manufacture, transfer, and possession of assault weapons or devices that alter weapons with high-capacity magazines or bump stocks	CA, CO, ^a CT, DC, HI, MD, MA, NJ, NY, VT ^a

^aban high-capacity magazines for all firearms only

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