

SUICIDE IN MONTANA: GUNS MATTER

BY DAPHNE HERLING

Montana is persistently in the top three states in terms of youth dying by suicide. There has been continuous dialogue between schools, administrators, elected officials, state agency programs, communities and families on how to lower this rate – yet Montana youth keep killing themselves.

This issue brief will look at existing data on the means youth use to die by suicide. Overwhelmingly, the means are firearms. Preventing Montana's youth from dying by suicide should and must be a priority, yet in America nothing sets off an ideological divide like the mention of guns. It's difficult to talk about suicide, however, without discussing the means by which youth kill themselves. In this case, that would include guns and how to reduce access to them when a young person makes a plan to attempt suicide.

There are proven policies and best practices that focus on access which can lower suicide rates. The only way to completely ensure against a youth using a firearm to kill themselves is to prevent that child or teen from getting their hands on one. Some approaches include reducing the number of households with unlocked or loaded guns; controlling the age at which youth can buy or possess a firearms; or targeted educational campaigns.



The most common means by which people died by suicide in Montana were firearms (62 percent).

Montana KIDS COUNT understands that suicide prevention requires a multifaceted approach. These include providing mental health services, building youth resiliency, providing additional supports for at-risk youth, as well as other legislative and non-legislative modalities that are vital in a holistic suicide prevention program.

However, the fact remains that nationally in 2016, 51 percent of all suicides were completed using firearms. In 2014 alone, over 21,000 suicide deaths in the U.S. resulted from self-inflicted gunshot wounds. This pattern is even more extreme in Montana.

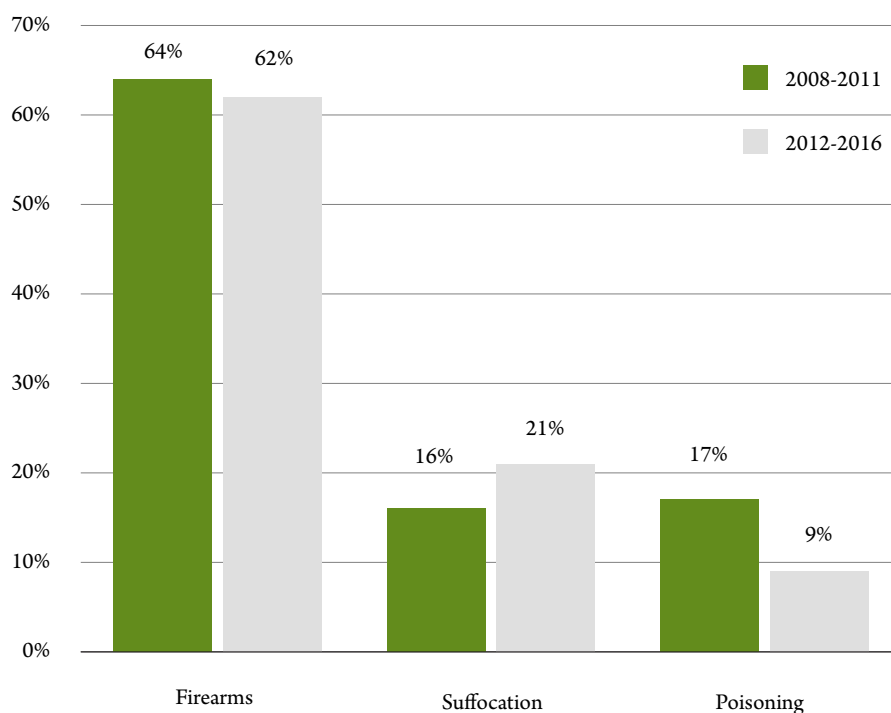
During the period 2012-16, the most common means by which people died by suicide in Montana

were firearms (62 percent), suffocation (21 percent) and poisoning (9 percent). The percentage of firearms used to successfully complete suicide has stayed consistently high for many years (Figure 1), but the numbers of people dying has risen significantly (Figure 2).

YOUTH SUICIDE AND FIREARMS

In the United States, the proportion of teens who die from firearms increased nearly 30 percent from 2013 to 2016 – from a rate of 10 per 100,000 to a rate of 13 per 100,000. Nationally, 39 percent of youth ages 11-17 use a firearm to kill themselves, whereas in Montana 63 percent use firearms.

Figure 1. All Montana suicides as a percentage completed with firearms, suffocation and poisoning; 2008-11 and 2012-16. Source: Center for Disease Control and Prevention, WISQARS Fatal Injury Reports, National, Regional and State.



The rates of youth ages 10-18 who kill themselves with a firearm are shown by gender in Figure 3. What is significant is the rate by which both male and female Montanans ages 10-18 kill themselves with firearms. Nationally, females ages 10-18 years old die by suicide with firearms at a lower rate than suffocation (0.57 and 1.61 per 100,000 respectively), whereas Montana females ages 10-18 die by suicide with firearms at a higher rate than suffocation (3.67 and 3.14 per 100,000 respectively). As the figure shows, Montana females die by suicide at a significantly higher rate than they do nationally and their method of choice is firearms.

Another factor affecting Montana suicide rates is that rural areas have higher rates of firearm suicide than urban areas and CDC data shows that the rate increases as a county becomes more rural. All Montana counties are considered rural and in 2012-16 eight Montana counties had suicide rates higher than 30 per 100,000: Deer Lodge (40), Rosebud (39),

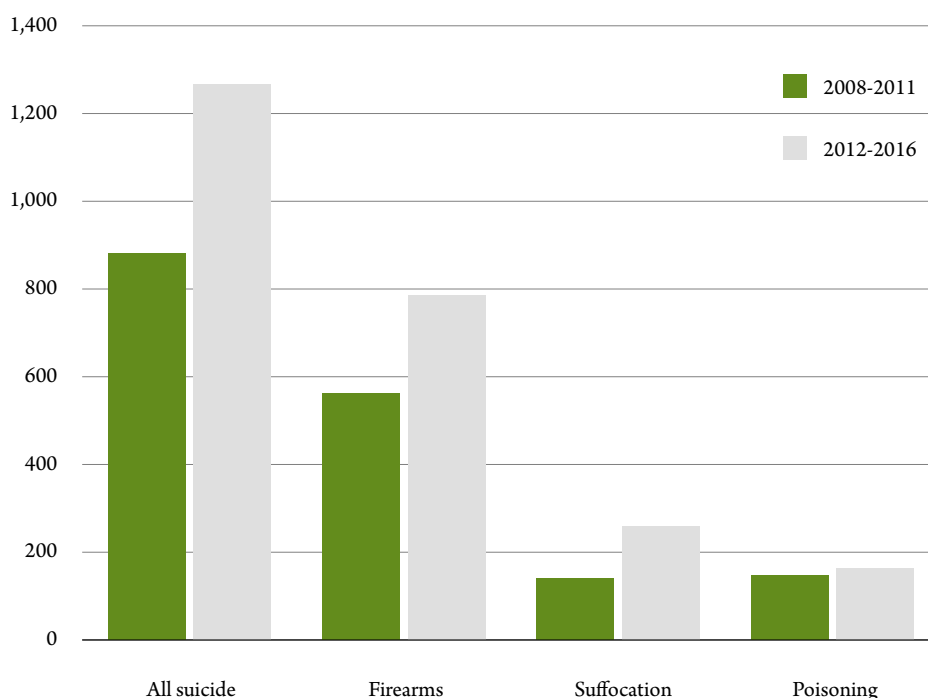
Roosevelt (38), Stillwater (35), Park (33), Custer (32), Lincoln and Silver Bow (31).

CONSEQUENCES OF USING GUNS TO KILL ONESELF

The high rate of firearm use is significant because people who attempt suicide with firearms are far more likely to actually die than if they were to use other means. Although somewhat outdated, a Harvard School of Public Health study from 1997 shows that 83 percent of suicide attempts using firearms result in death compared to 66 percent by drowning, 61 percent by suffocation and 35 percent by jumping. In other words, the means by which someone attempts suicide matters.

Suicidology literature has long established the fact that people who survive suicide are unlikely to attempt it again. Approximately 7 percent of attempters eventually died by suicide, approximately 23 percent reattempted but do not die, and 70 percent

Figure 2. Number of people in Montana dying by suicide with firearms, by suffocation or poisoning; 2008-11 and 2012-16. Source: Center for Disease Control and Prevention, WISQARS Fatal Injury Reports, National, Regional and State.



had no further attempts. But if attempters use firearms they are more likely to succeed on the first try.

MEANS AND CULTURAL NORMS

Why people choose the means by which they plan to die by suicide is a complex interaction of seriousness of intent, availability of means, cultural norms or acceptability of means and preconceived notions of lethality. The choice of firearms as a mean has high potential for success (seriousness), they are readily available (42 percent of American and 58 percent of Montanans live in households with guns), and firearms are culturally acceptable in America (the Second Amendment to the U.S. Constitution enshrines the right to keep and bear arms).

The opening sentence to an extensive 2017 survey research report from the Pew Research Center on the subject says, “As a nation, the U.S. has a deep and enduring connection to guns.” Culture plays a large part in what means are chosen by people who intend

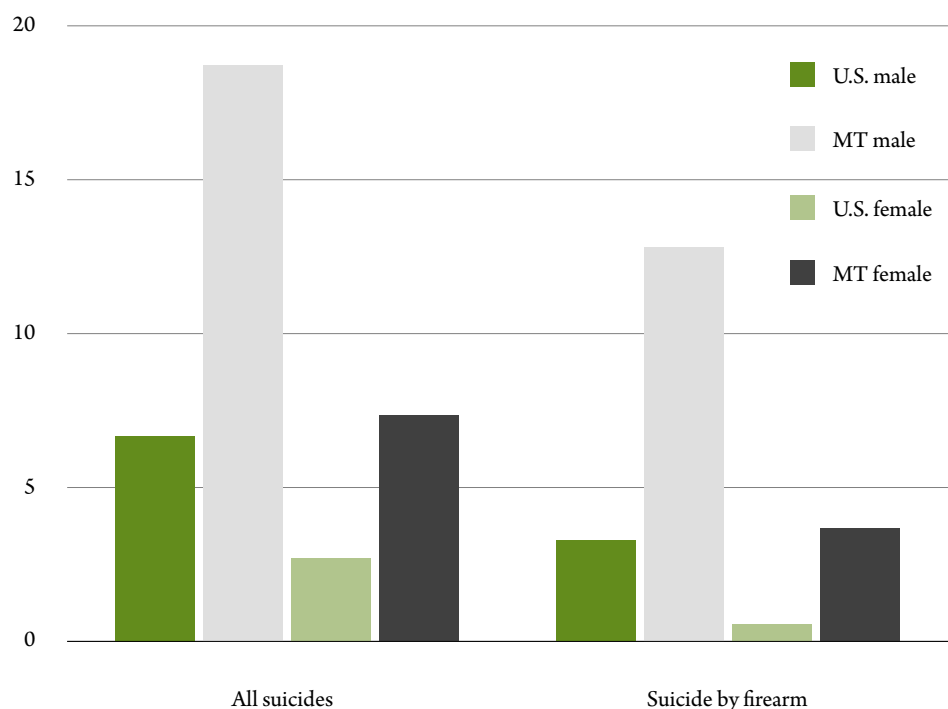
to die by suicide, especially in the context of youth suicide in Montana.

Fifty-two percent of Montanans who own guns say that all or most of their friends do also. Thus, many Montanans live in a social context where gun ownership is the norm. Given that experience with guns starts at a relatively early age for those who grow up in a gun owning household, a high proportion of Montana’s youth are exposed to and have experience with firearms through friends, family and their community.

It is important to note that growing up with firearms does not make an individual more prone to suicide. But if firearms are present in a household, having access to them is an important consideration in examining youth deaths by suicide using a firearm.

“Availability” in the context of this paper refers to the number of firearms in the home or in the community. “Access” is the means by which a person can easily get ahold of a gun during a suicidal crisis.

Figure 3. U.S. and Montana suicide rates by gender 2012-16, ages 10-18 for all suicides and suicides by firearms per 100,000. Source: Center for Disease Control and Prevention, WISQARS Fatal Injury Reports, National, Regional and State.



Delaying access is important, especially access to lethal firearms. Almost half of all people who survive a suicide attempt report that there was less than 10 minutes of deliberation between the emergence of suicidal thoughts and the actual attempt. Therefore, delaying access is important so those considering suicide have more time to consider their actions.

63 percent of gun owners said they have at least one gun in the home that is not kept locked up.

FIREARM ACCESS AND CHILDREN

According to a survey by the Pew Research Center, 63 percent of gun owners said they have at least one gun in the home that is not kept locked up. Fifty-five percent said there was at least one gun in their home that was kept loaded.

Notably, responses differed between gun owners who have or do not have children under 18 in their home (Figure 4). While a majority of gun owners with children were careful to unload and lock up their firearms, 46 percent of gun owners with children did not keep their guns locked and 47 percent kept a loaded firearm in their home. Thirty-eight percent of

gun owners reported that they always kept a loaded gun within easy reach, whether they had children in the home or not.

POLICIES TO REDUCE SUICIDE BY FIREARMS

As discussed earlier, firearms are the most lethal means by which youth die by suicide. Policies restricting youth access to firearms fall into three categories: minimum purchase/sale age, minimum possession age and Child Access Prevention (CAP).

Figure 4. Among gun owners with/without children younger than 18 at home. Source: Pew Research Center Social & Demographic Trends. *America's Complex Relationship with Guns*. 2017.

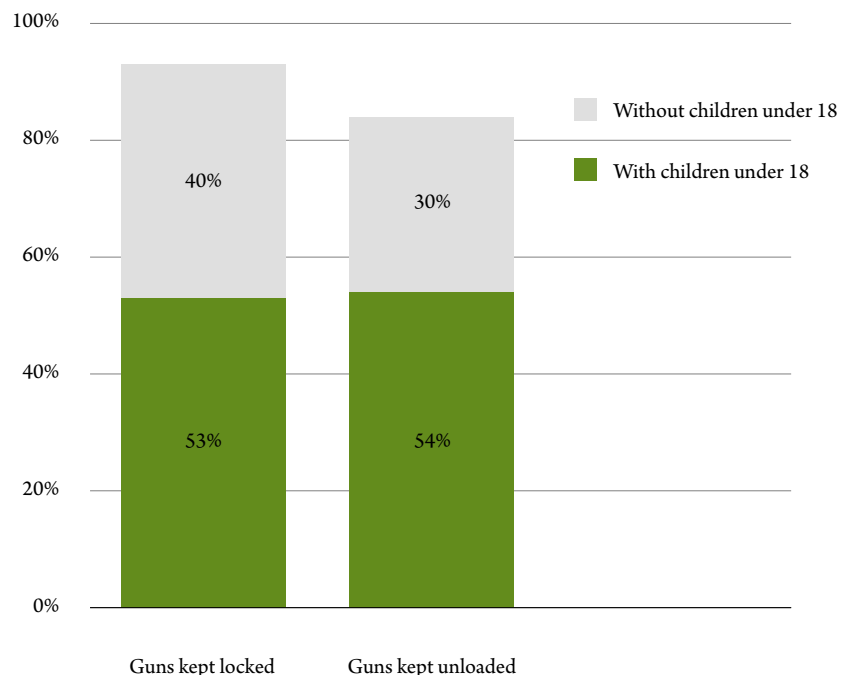


Table 1. Strength of evidence on suicides across gun policies and outcomes. Source: *Gun Policy in America: The Relationship Between Firearm Availability and Suicide*, The Rand Corporation, 2018.

Suicide	Child access prevention laws	Minimum age requirements on purchasing
Total suicides	↓L	
All firearm suicides	↓M	
Firearm suicides among children	↓M	↓L
Firearm self-injuries among children (nonfatal)	↓S	
Firearm self-injuries (including suicides)	↓S	

Legend

L = Limited evidence. At least one study meeting inclusion criteria and not otherwise compromised by serious methodological problems reported a significant effect of the policy on the outcome.

M = Moderate evidence. When two or more studies found significant effects in the same direction and contradictory evidence was not found in other studies with equivalent or strong methods.

S = Supportive evidence. This designation was made when at least three studies found suggestive or significant effects in the same direction.

↓= The policy decreases the outcome.

So what policies show a reduction in suicides? A study by the Rand Corporation reviewed research covering 13 policies or laws that had already been implemented. Researchers examined the effects of each on eight different outcomes – suicide being one. Their goal was to find strong, valid studies that showed the policy having an impact on reducing youth suicides (Table 1). Two policies out of the 13 researched showed they lowered youth suicide rates.

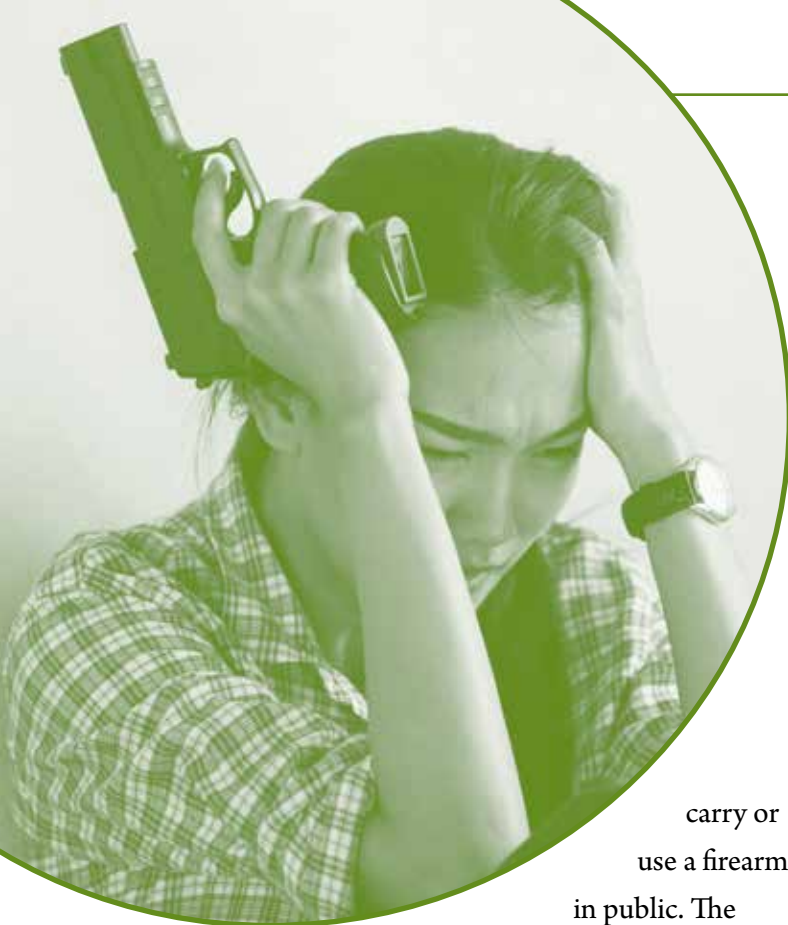
Based on this review of research, the policies that have been shown to impact youth suicide are child-access prevention laws and minimum age requirements for purchasing a firearm. Child-access prevention laws lower both the total number of suicides and suicides with firearms in all suicides and youth suicides.

CHILD ACCESS PREVENTION (CAP) LAWS

CAP laws are designed to prevent youth from accessing firearms and include laws imposing criminal liability when a child gains access to a firearm as a result of negligent firearm storage. These laws prevent people from providing firearms to minors and impose safe storage requirements that apply to all firearms in a household.

A state’s definition of a “minor” may range from children under 14 to those under 18. Twenty-seven states have passed some type of CAP law, but there are no federal CAP laws. One study showed states with CAP laws saw an 8.3 percent reduction in suicide rates among youth ages 14-18.

Montana law prohibits anyone who has charge of a child under 14 years old from allowing that child to



carry or use a firearm in public. The

exception is if the child is accompanied by a legal guardian or parent or is being supervised by a qualified firearms safety instructor or someone else who has “charge or custody” of the minor. A violation constitutes a misdemeanor.

Safe storage laws are a subset of CAP laws and refer specifically to laws requiring firearm locking devices to be in place or requiring gun owners to keep their firearms out of the reach of others, such as children or prohibited persons. State laws may apply only to certain types of guns, such as handguns or assault weapons, and may be required during gun sales by dealers and/or private gun sales.

A 2005 federal law makes it unlawful for any licensed dealer to sell or transfer a handgun, unless the buyer is given a secure gun storage or safety device. However, the law does not apply to private sellers and does not require that buyers use the device. Additionally, there are no current federal standards or industry guidelines for locking devices. Eleven states

have specific laws concerning firearm locking devices. Five have set standards for the design of a locking device or requiring such devices to be approved by a state agency for effectiveness. Most states follow the federal law.

Montana does not require a locking device to accompany the sale of a firearm and no Montana statute requires firearm owners to lock or secure their weapons, although the federal law applies.

MINIMUM AGE REQUIREMENTS FOR PURCHASING FIREARMS

Laws imposing minimum age requirements for the possession and purchase of a firearm are intended to decrease access by young people. Federal law distinguishes between handguns and rifles or shotguns, with age requirements being more stringent on handguns. A dealer may not sell a handgun to a person under the age of 21 and any unlicensed person is prohibited from selling a handgun or its ammunition to someone they believe to be under 18. The rules around rifles and shotguns are different. Dealers are not allowed to sell them to anyone under 18 years old, but there is no age restriction for unlicensed people to sell the weapons to someone under 18 years old. Montana imposes no specific age restrictions on the purchase or possession of any firearm.

RESEARCH NEEDS

More research into the connection between firearm laws and suicide is needed to help inform gun policy. Currently federal agencies are constrained in what data they may or may not collect. For instance, the Center for Disease Control and Prevention is restricted by Congress from gathering data on gun violence – a restriction that should be lifted. The

National Violent Death Reporting System, which provides detailed information on suicide deaths, is only used in 18 states – it should be expanded to cover all 50. Additionally, the Behavioral Risk Factor Surveillance System has not asked questions about gun ownership rates and storage practices since 2004 – such questions should be repeated every 2 years.

Legislation has been passed or introduced in 15 states that limit a physician’s ability to ask their patients about gun ownership. Montana has a statute on how firearm information can be collected and stored, but does not prohibit a doctor from talking about gun safety. However, no federal or state statute prohibits physicians from asking about firearms when such information is relevant to the health of the patient or others.

NON-LEGISLATIVE APPROACHES

With the public’s view on gun policy being widely divergent, this chasm in attitudes dictates that non-legislative approaches may be our best interim hope until Americans can overcome the polarization that exists around the topic of gun laws.

Non-legislative approaches do not require passing a law and they are less likely to be misinterpreted as gun control. These approaches include counseling at-risk youth and their families, educational campaigns and partnering with other key players, such as providers, gatekeepers and gun owner groups.

According to a 2017 report by the Pew Research Center, there is consensus on specific legislation, though the survey did not ask about CAP or safe storage laws specifically. In terms of a minimum age requirement for purchasing or possessing a firearm, 72 percent said that most people should be able to legally own guns and 56 percent said people should be able to carry guns almost everywhere or most places.

However, there is agreement between gun owners and non-gun owners when it comes to gun safety. Agreement is high particularly when it comes to children in the household, but drops off significantly about whether or not to advise visitors about the presence of a firearm.

Table 2 gives a list of possible non-legislative approaches to increasing gun safety. Other studies suggest training on lethal means counseling for

Table 2. Percent of gun owners and non-gun owners who say each measure is essential for gun owners. Source: Pew Research Center Social & Demographic Trends. America’s Complex Relationship with Guns. June 22, 2017.

Key responsibility of gun owners	Households with children	
	Gun owners	Non-gun owners
Talk to their children about gun safety	95%	89%
Take gun safety courses	59%	79%
Keep all of their guns in a locked place	66%	90%
Keep all of their guns unloaded	44%	73%
Store guns and ammunition separately	43%	69%
Keep their shooting skills up-to-date	41%	48%
Advise visitors with children that there are guns in the house	26%	48%
Advise visitors that there are guns in the house	5%	24%

providers, teachers, coaches, clergy, emergency responders, primary and urgent care providers, and others in the community and collaborating with gun owner groups on suicide prevention and means restrictions. However, the research is lacking on the efficacy of what intervention works best, how the intervention is best communicated to which groups and how to document the outcomes of the interventions.

Montana Efforts to Prevent Youth Suicide
Despite the lack of legislation specific to suicide prevention, Montana has made progress through non-legislative efforts. The Suicide Prevention Coordinator and Prevention Resource Center offer materials to help schools, workplaces, parents and youth trying to respond to suicide warning signs or the aftermath of a suicide. A list of available resources is available on their website: www.dphhs.mt.gov/suicideprevention.

Some recent examples of non-legislative approaches to reducing youth access to lethal means in Montana are:

- In 2018, a pediatric group in Bozeman partnered with the Rural Institute for Veteran Education and Research to provide 1,000 trigger locks to families of children under 12.
- Since 2007, Department of Public Health and Human Services has distributed over 20,000 gun locks with suicide prevention tags. Free gun locks are available at most local health departments, and police and fire stations across Montana.
- In 2017, with funding provided by the legislature, Montana funded several suicide prevention programs around the state focusing on mental health. Additionally, it was used to launch a media

campaign to spread awareness about suicide prevention. The campaign used radio and television ads focusing on firearms safety, recognizing the signs of suicide and addressing suicide risk among veterans and youth. One ad stated, “If a loved one is depressed, ask to temporarily store guns away from home.”

However, these examples are insufficient when it comes to moving the bar in reducing youth access to lethal means. For instance, a search for gun safety courses in Montana comes up with trainings focused on concealed weapons or operating firearms safety; not safe storage of firearms.

Budget cuts made in 2018 to Montana’s Department of Public Health and Human Services severely undermined suicide prevention efforts with 100 mental health professionals being laid off across the state and 10 rural health care programs closing. Mental health services for youth in crisis were affected by these cuts. Additionally, during the Montana 2019 session, two pieces of legislation aimed at impacting Montana’s high suicide rates were introduced but tabled in committee. One looked to establish a mental health screening program for students and the other to establish evaluation criteria for applications for funding of suicide prevention initiatives. Both bills included funding for a youth suicide prevention program.

CONCLUSION

Youth suicide and access to firearms is a public health crisis. Keeping guns out of the hands of youth who are having suicidal thoughts is common sense and delaying action has proven to give youth time to reassess their choices.

There is a lot that can be done legislatively in Montana to strengthen our laws on this issue, such as child access restriction laws, safe storage laws and minimum age requirement laws. But given the current political climate, it is unlikely Montana would have the political will to pass such laws. However, Montanans are good at community efforts, they know how to

work together and nobody wants another youth to die by suicide by any means. Thus, until broader laws can be passed, the best approach might be community level education and discussion, and higher state funding levels for Montana's suicide prevention efforts. ■

SOURCES

Miller M, Azrael D, Hemenway D. The Epidemiology of Case Fatality Rates for Suicide in the Northeast. *Annals of Emergency Medicine*. 2004; 43(6): 723-30.

Miller M, Azrael D, Barber C. Suicide Mortality in the United States: The Importance of Attending to Method in Understanding Population-Level Disparities in the Burden of Suicide. *Annual Review of Public Health*. 2012; 33: 393-408.

Rosston, Karl. Suicide in Montana: Facts, Figures, and Formulas for Prevention, August 2018. Suicide Prevention Information and Resources Center. Montana Department of Public Health and Human Resources.

Owens D, Horrocks J, and House A. Fatal and Non-Fatal Repetition of Self-Harm: Systematic Review. *British Journal of Psychiatry*. 2002; 181: 193-199.

Harvard T.H. Chan School of Public Health. Lethality of Suicide Methods: Case Fatality Rates by Suicide Method, 8 U.S. States, 1989-1997.

Kim Parker, Juliana Menasce Horowitz, Ruth Igielnik, Baxter Oliphant and Anna Brown. Pew Research Center Social & Demographic Trends. America's Complex Relationship with Guns. June 22, 2017.

Deisenhammer EA, Ing CM, Strauss R, Kemmler G, Hinterhuber H, Weiss EM. The Duration of the Suicidal Orocess: How Much Time is Left for Intervention between Consideration and Accomplishment of a Suicide Attempt? *The Journal of Clinical Psychology*. 2007; 70(1): 19-24.

Anglemyer A, Horvath T, Rutherford G. The Accessibility of Firearms and Risk for Suicide and Homicide Victimization among Household Members: A Systematic Review and Meta-Analysis. *Annals of Internal Medicine*. 2014; 160: 101-110.

Miller M, Lippman SJ, Azrael D, and Hemenway D. Household Firearm Ownership and Rates of Suicide across the 50 United States. *The Journal of Trauma Injury, Infection, and Critical Care*. 2007; 62(4): 1029-35.

Household Gun Ownership and Youth Suicide Rates at the State Level, 2005–2015. Knopov, Anita et al. *American Journal of Preventive Medicine*, Volume 56, Issue 3, 335 – 342.

Gun Ownership and Social Gun Culture Bindu Kalesan, Marcos D Villarreal, Katherine M Keyes, Sandro Galea 2015. *American Journal of Preventive Medicine*, Online First, published on June 29, 2015 as 10.1136/injuryprev-2015-041586.

Medium. Everybody’s Lying About the Link Between Gun Ownership and Homicide BJ Campbell Mar 13, 2018.

Gun Policy in America: The Relationship between Firearm Availability and Suicide, The Rand Corporation, 2018.

Webster DW, Vernick JS, Zeoli AM, Manganello JA. Association Between Youth-Focused Firearm Laws and Youth Suicides. *JAMA*. 2004; 292(5) :594–601. doi:10.1001/jama.292.5.594.

Barber Catherine W., MPA, Matthew J. Miller, MD, ScD. Reducing a Suicidal Person’s Access to Lethal Means of Suicide: A Research Agenda. *American Journal of Preventive Medicine*. 2014 Sep; S264-72.

Albright Teresa L., Sandra K. Burge Improving Firearm Storage Habits: Impact of Brief Office Counseling by Family Physicians. *Journal of American Board Family Practice* Jan 2003, 40-46

Wintemute GJ, Betz ME, Ranney ML. Yes, You Can: Physicians, Patients and Firearms. *Annals of Internal Medicine*. 205–213.

Ali Rowhani-Rahbar, Joseph A. Simonetti, Frederick P. Rivara; Effectiveness of Interventions to Promote Safe Firearm Storage, *Epidemiologic Reviews*, Volume 38, Issue 1, 1 January 2016, Pages 111–124.