

Objectives: Participants will learn the epidemiology of firearm injuries nationally and locally, within the St. Louis area region. They will also learn about the STL-HVIP-DR through our regional, multi-centered HVIP program. Lastly, they will identify key disparities in demographic and clinical risk factors associated with repeat firearm injury within the pediatric population.

A National Study of Firearm Presence and Storage Practices in Rural Adolescent Homes



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Background: Firearm-related unintentional and suicide death rates are greater in rural areas, and firearm access greatly increases the risk of suicide. A major factor in preventing these tragedies is safe firearm storage. Our study objective was to evaluate firearm exposure and storage practices in the homes of rural adolescents including those living on farms and ranches.

Methods: An anonymous survey was administered to a convenience sample of attendees at the 2021 National FFA (formerly Future Farmers of America) Convention & Expo at the University of Iowa Stead Family Children's Hospital injury prevention booth. The data was entered into Qualtrics and then imported into Stata 15.1 (StataCorp, College Station, Texas) for descriptive (frequencies), bivariate (chi-square, Fisher's exact test) and multivariable logistic regression analyses.

Results: 3,206 adolescents who were 13-18 years old participated; 45% lived on a farm, 34% lived in the country but not a farm and 21% lived in a town. In their homes, 87% of participants reported having rifles/shotguns, 71% had handguns and 69% had both rifles/shotguns and handguns. Those living on farms were 7.5x and 2x more likely to have rifles/shotguns and handguns, respectively, as compared to those from towns. Other U.S. Census Regions were at least 2.3x and 1.6x more likely to have rifles/shotguns and handguns, respectively, as compared to those from the Northeast. Rifles/shotguns and handguns were stored unlocked and/or loaded at least some of the time in 66% and 64% of homes, respectively. Those from farms were 1.5x and 1.7x more likely to have rifles/shotguns and handguns stored unlocked and loaded, respectively, as compared to those from town. The South, West and Midwest were 5.9x, 3.2x and 2.8x more likely to have rifles/shotguns and 8.1x, 5.2x and 4.3x more likely to have handguns stored loaded and unlocked, respectively, as compared to the Northeast. For homes with unlocked rifles/shotguns and unlocked handguns, 37% and 36% also stored ammunition unlocked, respectively.

Conclusions: Our study found that the vast majority of rural adolescents surveyed lived in homes with firearms, and a large proportion of those firearms were not stored safely. There were significant differences regarding the presence and storage of firearms by demographic factors, especially the region where youth lived and their home setting (i.e., farms and ranches). Unsafe storage practices are likely contributing to the higher

unintentional and suicide death rates seen in rural areas. Widespread efforts are needed to educate rural families about the importance of proper firearm and ammunition storage.

Objectives:

1. To understand the degree of firearm/rifle and handgun presence in the homes of rural youth.
2. To be able to state the storage patterns of firearms/rifles and handguns in rural homes where youth live.
3. To be able to list at least two factors that are associated with an increase in the proportion of homes of rural youth with firearms/rifles and handguns being present, as well as improperly stored.

Youth Firearm Suicide in the United States



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Background: Each year, thousands of young people die by firearm suicide, and over the past decade, the firearm suicide rate among young people increased faster than for any other age group. Ongoing stressors, like navigating changes in school learning environments and hardships associated with the COVID-19 pandemic posed unique challenges for America's youth. American Indian and Alaska Native (AI/AN) youth have the highest firearm suicide rates, followed by white and Black youth. In addition, certain subgroups of young Americans face sharp increases in firearm suicide, such as children ages 10 to 14. The purpose of this project is to increase the understanding of firearm suicide among young people ages 10-24 in the United States from 2018 to 2021, and to analyze the unique effects the pandemic had on this rising crisis. To do this, this study will compare firearm suicide trends among youth overall, and those in age groups that saw large increases, such as those 10-14, as well as demographic subgroups, and associations with regional differences and gun laws, and discuss injury prevention such as BeSMART.

Methods: Data with suicide as the underlying cause of death among persons aged 10 to 24 years from 2018 to 2021 was obtained from the Web-based Wide-Ranging Online Data for Epidemiologic Research (WONDER) of the Centers for Disease Control and Prevention. Annual numbers of suicides were obtained, as well as age, race, ethnicity, sex, region and suicide method such as use of firearms. Gun safety policies came from Everytown's Gun Law Rankings, which are based on a comprehensive survey of 50 gun safety laws in all states.

Results: More than 3,300 young people die by firearm suicide each year. From 2018-2021, the rate of firearm suicide among young people increased by 18%. During this time, there were increases in firearm suicide rates among all racial groups: 59% increase for Black youth, 10% increase for white youth, 25% increase for Latinx youth, 35% increase for AI/AN youth, and