

Eastern Association for the Surgery of Trauma firearm injury prevention statement

Eastern Association for the Surgery of Trauma

Firearm violence is a public health crisis of epidemic proportions. Over 30 000 Americans die from gunshot wounds every year, and countless others are injured.

Surgeons and trauma care providers are a diverse group, encompassing a wide range of ages, all sexes, all races and ethnicities, and differing political beliefs. At the Eastern Association for the Surgery of Trauma (EAST), we feel that our current efforts to reduce firearm-related injuries and violence are insufficient. EAST believes that saving individual lives without addressing the underpinnings of violence and the obvious vector, firearms, is contributing to the ongoing suffering.

Therefore, as an organization of providers who care for the patient with injuries, and specifically victims of firearm injury, we are committed to the health and safety of our patients and their communities. EAST makes the following statement:

Firearm-related injury and death are a complex public health problem.

- ▶ EAST supports evidence-based strategies to reduce firearm injuries including the following:
- ▶ Federal funding of firearm-related research to inform solutions.
- ▶ Violence and injury prevention programs that address conflict resolution.
- ▶ Programs that teach non-violent conflict resolution, coping strategies, and anger management.
- ▶ Improved access and quality of mental health services.
- ▶ Recognition of the other factors that affect these issues including structural violence, domestic violence, and mental health.
- ▶ Limited access to firearms through mandatory safe storage (keeping guns unloaded in a safe with ammunition stored in a separate locked device), gun locks, trigger locks, and other safe storage practices.

- ▶ Expanded universal background checks to include all firearms sales in any venue.
- ▶ Mandatory waiting periods and universal background checks for acquisition of firearms.
- ▶ Limited civilian access to highly lethal firearms and firearm accessories, such as high velocity rifles, high-capacity magazines, trigger cranks, and bump stocks.
- ▶ Limited dissemination of technology to enhance lethality or bypass standard safety and/or screening (eg, three-dimensional printing firearms).

We hope you will join EAST to develop non-partisan and evidence-based solutions for our patients. Standing by and becoming increasingly numb to the rising injury and death toll being witnessed across this country is not an option. Please stand with EAST to affect change.

SUPPORTING STATEMENTS

American College of Surgeons <https://www.facs.org/quality-programs/trauma/violenceprevention>

American College of Surgeons Committee on Trauma Consensus-Based Approach to Firearm Injury: An Introduction <http://bulletin.facs.org/2017/10/a-consensus-based-approach-to-firearm-injury/>

American Association for the Surgery of Trauma https://journals.lww.com/jtrauma/Citation/publishahead/AAST_Statement_on_Firearm_Injury.98601.aspx/

Society of American Gastrointestinal and Endoscopic Surgeons <https://www.sages.org/statement-firearm-safety/>

American Trauma Society <https://www.amtrauma.org/page/PosState132??> <https://www.amtrauma.org/news/409018/ATS-SubmitsComment-to-ATF.htm>

Funding The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

Editor's note Approved by the EAST Board of Directors September 25, 2018 as was in the original PDF.

Competing interests None declared.

Patient consent Not required.

Ethics approval This Study has been approved by the EAST Board of Directors, September 26, 2018.

Provenance and peer review Commissioned; internally peer reviewed.



OPEN ACCESS

Open access This is an open access article distributed in accordance with the Creative Commons Attribution Non Commercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited, appropriate credit is given, any changes made indicated, and the use is non-commercial. See: <http://creativecommons.org/licenses/by-nc/4.0>

© Author(s) (or their employer(s)) 2019. Re-use permitted under CC BY-NC. No commercial re-use. See rights and permissions. Published by BMJ.



To cite *Trauma Surg Acute Care Open* 2019;4:e000294. doi:10.1136/tsaco-2018-000294

Received 31 December 2018

Accepted 31 December 2018

Trauma Surg Acute Care Open 2019;4:e000294. doi:10.1136/tsaco-2018-000294

REFERENCES

1. Violence in America: a public health crisis--the role of firearms. the violence prevention task force of the Eastern Association for the Surgery of Trauma. *J Trauma* 1995;38:163–8.
2. Aneja A, Donohue JJ, Zhang A. The impact of right-to-carry laws and the NRC report: lessons for the empirical evaluation of law and policy. *American Law and Economics Review* 2011;13:565–631.
3. Armed forces health surveillance center (AFHSC). Deaths by suicide while on active duty, active and reserve components, U.S. armed forces, 1998–2011. *MSMR* 2012;19:7–10.
4. Azrael D, Hemenway D, Miller M, Barber CW, Schackner R. Youth suicide: insights from 5 years of Arizona child fatality review team data. *Suicide Life Threat Behav* 2004;34:36–43.
5. Brent DA, Perper JA, Allman CJ, Moritz GM, Wartella ME, Zelenak JP. The presence and accessibility of firearms in the homes of adolescent suicides. A case-control study. *JAMA* 1991;266:2989–95.
6. Chapman S, Alpers P, Agho K, Jones M, Australia's JM. Australia's 1996 gun law reforms: faster falls in firearm deaths, firearm suicides, and a decade without mass shootings. *Inj Prev* 2015;21:355–62.
7. Crandall CS, Jost PF, Broidy LM, Daday G, Sklar DP. Previous emergency department use among homicide victims and offenders: a case-control study. *Ann Emerg Med* 2004;44:646–55.
8. Crandall M, Eastman A, Violano P, Greene W, Allen S, Block E, Christmas AB, Dennis A, Duncan T, Foster S, et al. Prevention of firearm-related injuries with restrictive licensing and concealed carry laws: an eastern association for the surgery of trauma systematic review. *J Trauma Acute Care Surg* 2016;81:952–60.
9. Crifasi CK, Meyers JS, Vernick JS, Webster DW. Effects of changes in permit-to-purchase handgun laws in Connecticut and Missouri on suicide rates. *Prev Med* 2015;79:43–9.

Correspondence to Eastern Association for the Surgery of Trauma, Chicago, IL 60611, USA; ceme@east.org

10. Crifasi CK, Pollack KM, Webster DW. Effects of state-level policy changes on homicide and nonfatal shootings of law enforcement officers. *Inj Prev* 2016;22:274–8.
11. Culyba AJ, Miller E, Ginsburg KR, Branas CC, Guo W, Fein JA, Richmond TS, Halpern-Felsher BL, Wiebe DJ. Adult connection in assault injury prevention among male youth in low-resource urban environments. *J Urban Health* 2018;95:361–71.
12. Cummings P, Grossman DC, Rivara FP, Koepsell TD. State gun safe storage laws and child mortality due to firearms. *JAMA* 1997;278:1084–6.
13. Cummings P, Grossman DC, Rivara FP, Koepsell TD. State gun safe storage laws and child mortality due to Firearms. *JAMA* 1997;278:1084–6.
14. Cummings P, Koepsell TD, Grossman DC, Savarino J, Thompson RS. The association between the purchase of a handgun and homicide or suicide. *Am J Public Health* 1997;87:974–8.
15. Flegler EW, Lee LK, Monuteaux MC, Hemenway D, Mannix R. Firearm legislation and firearm-related fatalities in the United States. *JAMA Intern Med* 2013;173:732–40.
16. Gani F, Sakran JV, Canner JK. Emergency department visits for firearm-related injuries in the United States, 2006–14. *Health Aff* 2017;36:1729–38.
17. Grinshteyn E, Hemenway D. Violent death rates: the US compared with other high-income OECD countries, 2010. *Am J Med* 2016;129:266–73.
18. Grossman DC, Cummings P, Koepsell TD, Marshall J, D'Ambrosio L, Thompson RS, Mack C. Firearm safety counseling in primary care pediatrics: a randomized, controlled trial. *Pediatrics* 2000;106:22–6.
19. Grossman DC, Mueller BA, Riedy C, Dowd MD, Villaveces A, Prodzinski J, Nakagawara J, Howard J, Thiersch N, Harruff R. Gun storage practices and risk of youth suicide and unintentional firearm injuries. *JAMA* 2005;293:707–14.
20. Grossman DC, Reay DT, Baker SA. Self-inflicted and unintentional firearm injuries among children and adolescents: the source of the firearm. *Arch Pediatr Adolesc Med* 1999;153:875–8.
21. Hemenway D, Azrael D. The relative frequency of offensive and defensive gun uses: results from a national survey. *Violence Vict* 2000;15:257–72.
22. Hemenway D, Miller and M. Firearm availability and homicide rates across 26 high-income countries. *J Trauma* 2000;49:985–8.
23. Hemenway D, Shinoda-Tagawa T, Miller M. Firearm availability and female homicide victimization rates among 25 Populous high-income countries. *J Am Med Womens Assoc* 2002;57:100–4.
24. Hemenway D, Solnick SJ. The epidemiology of self-defense gun use: evidence from the National crime victimization surveys 2007–2011. *Prev Med* 2015;79:22–7.
25. Hemenway D, Vriniotis M, Miller M. Is an armed Society a polite society? guns and road RAGE. *Accid Anal Prev* 2006;38:687–95.
26. Hepburn L, Azrael D, Miller M, Hemenway D. The Effect of Child Access Prevention Laws on Unintentional Child Firearm Fatalities, 1979–2000. *The Journal of Trauma: Injury, Infection, and Critical Care* 2006;61:423–8.
27. Hepburn L, Miller M, Azrael D, Hemenway D. The effect of nondiscretionary concealed weapon carrying laws on homicide. *J Trauma* 2004;56:676–81.
28. Hutson HR, Anglin D, Pratts MJ. Adolescents and children injured or killed in drive-by shootings in Los Angeles. *N Engl J Med* 1994;330:324–7.
29. Johnson RM, Barber C, Azrael D, Clark DE, Hemenway D. Who are the owners of firearms used in adolescent suicides? *Suicide Life Threat Behav* 2010;40:609–11.
30. Johnson RM, Miller M, Vriniotis M, Azrael D, Hemenway D. Are household firearms stored less safely in homes with adolescents?: analysis of a national random sample of parents. *Arch Pediatr Adolesc Med* 2006;160:788–92.
31. Kellermann AL, Reay DT. Protection or peril? An analysis of firearm-related deaths in the home. *N Engl J Med* 1986;314:1557–60.
32. Kellermann AL, Rivara FP, Lee RK, Banton JG, Cummings P, Hackman BB, Somes G. Injuries due to firearms in three cities. *N Engl J Med* 1996;335:1438–44.
33. Kellermann AL, Rivara FP, Rushforth NB, Banton JG, Reay DT, Francisco JT, Locci AB, Prodzinski J, Hackman BB, Somes G. Gun ownership as a risk factor for homicide in the home. *N Engl J Med* 1993;329:1084–91.
34. Kellermann AL, Rivara FP, Somes G, Reay DT, Francisco J, Banton JG, Prodzinski J, Fligner C, Hackman BB. Suicide in the home in relation to gun ownership. *N Engl J Med* 1992;327:467–72.
35. Kellermann AL, Somes G, Rivara FP, Lee RK, Banton JG. Injuries and deaths due to firearms in the home. *J Trauma* 1998;45:263–7.
36. Kercher C, Swedler DI, Pollack KM, Webster DW. Homicides of law enforcement officers responding to domestic disturbance calls. *Inj Prev* 2013;19:331–5.
37. Lee LK, Flegler EW, Farrell C, Avakame E, Srinivasan S, Hemenway D, Monuteaux MC. Firearm laws and firearm homicides: a systematic review. *JAMA Intern Med* 2017;177:106–19.
38. Lewin NL, Vernick JS, Beilenson PL, Mair JS, Lindamood MM, Teret SP, Webster DW. The Baltimore youth ammunition Initiative: a model application of local public health authority in preventing gun violence. *Am J Public Health* 2005;95:762–5.
39. Miller M, Azrael D, Hemenway D. Rates of household firearm ownership and homicide across us regions and states, 1988–1997. *Am J Public Health* 2002;92:1988–93.
40. Miller M, Azrael D, Hemenway D. Firearm availability and suicide, homicide, and unintentional firearm deaths among women. *J Urban Health* 2002;79:26–38.
41. Miller M, Azrael D, Hemenway D. Firearm availability and unintentional firearm deaths, suicide, and homicide among 5–14 year olds. *J Trauma Acute Care Surg* 2002;52:267–75.
42. Miller M, Azrael D, Hemenway D. Firearm availability and unintentional firearm deaths. *Accid Anal Prev* 2001;33:477–84.
43. Miller M, Azrael D, Hemenway D, Vriniotis M. Firearm storage practices and rates of unintentional firearm deaths in the United States. *Accid Anal Prev* 2005;37:661–7.
44. Miller M, Barber C, White RA, Azrael D. Firearms and suicide in the United States: is risk independent of underlying suicidal behavior? *Am J Epidemiol* 2013;178:946–55.
45. Miller M, Hemenway D, Azrael D. State-level homicide victimization rates in the US in relation to survey measures of household firearm ownership, 2001–2003. *Soc Sci Med* 2007;64:656–64.
46. Miller M, Warren M, Hemenway D, Azrael D. Firearms and suicide in US cities. *Inj Prev* 2015;21(e1):e116–9.
47. Rosengart M, Cummings P, Nathens A, Heagerty P, Maier R, Rivara F. An evaluation of state firearm regulations and homicide and suicide death rates. *Inj Prev* 2005;11:77–83.
48. Rowhani-Rahbar A, Fan MD, Simonetti JA, Lyons VH, Wang J, Zatzick D, Rivara FP. Violence perpetration among patients hospitalized for unintentional and assault-related firearm injury: a case-control study and a cohort study. *Ann Intern Med* 2016;165:841–7.
49. Rowhani-Rahbar A, Simonetti JA, Rivara FP. Effectiveness of interventions to promote safe firearm storage. *Epidemiol Rev* 2016;38:mxv006–24.
50. Rowhani-Rahbar A, Zatzick D, Wang J, Mills BM, Simonetti JA, Fan MD, Rivara FP. Firearm-related hospitalization and risk for subsequent violent injury, death, or crime perpetration: a cohort study. *Ann Intern Med* 2015;162:492–500.
51. Rudolph KE, Stuart EA, Vernick JS, Webster DW. Association between Connecticut's Permit-to-Purchase handgun law and homicides. *Am J Public Health* 2015;105:e49–54.
52. Sidman EA, Grossman DC, Koepsell TD, D'Ambrosio L, Britt J, Simpson ES, Rivara FP, Bergman AB. Evaluation of a community-based handgun safe-storage campaign. *Pediatrics* 2005;115:e654–61.
53. Simckes MS, Simonetti JA, Moreno MA, Rivara FP, Oudekerk BA, Rowhani-Rahbar A. Access to a loaded gun without adult permission and school-based bullying. *J Adolesc Health* 2017;61:329–34.
54. Simonetti JA, Mackelprang JL, Rowhani-Rahbar A, Zatzick D, Rivara FP. Psychiatric comorbidity, suicidality, and in-home firearm access among a nationally representative sample of adolescents. *JAMA Psychiatry* 2015;72:152–9.
55. Simonetti JA, Rowhani-Rahbar A, Mills B, Young B, Rivara FP. State firearm legislation and nonfatal firearm injuries. *Am J Public Health* 2015;105:1703–9.
56. Sloan JH, Kellermann AL, Reay DT, Ferris JA, Koepsell T, Rivara FP, Rice C, Gray L, LoGerfo J. Handgun regulations, crime, assaults, and homicide. A tale of two cities. *N Engl J Med* 1988;319:1256–62.
57. Sloan JH, Rivara FP, Reay DT, Ferris JA, Kellermann AL. Firearm regulations and rates of suicide. A comparison of two metropolitan areas. *N Engl J Med* 1990;322:369–73.
58. Swedler DI, Simmons MM, Dominici F, Hemenway D. Firearm prevalence and homicides of law enforcement officers in the United States. *Am J Public Health* 2015;105:2042–8.
59. Tashiro J, Lane RS, Blass LW, Perez EA, Sola JE. The effect of gun control laws on hospital admissions for children in the United States. *J Trauma Acute Care Surg* 2016;81(4 Suppl 1):S54–S60.
60. Tasigiorgos S, Economopoulos KP, Winfield RD, Sakran JV. Firearm injury in the United States: an overview of an evolving public health problem. *J Am Coll Surg* 2015;221:1005–14.
61. Vernick JS, O'Brien M, Hepburn LM, Johnson SB, Webster DW, Hargarten SW. Unintentional and undetermined firearm related deaths: a preventable death analysis for three safety devices. *Inj Prev* 2003;9:307–11.
62. Vernick JS, Webster DW, Hepburn LM. Effects of Maryland's law banning Saturday night special handguns on crime guns. *Inj Prev* 1999; 5:259–63.
63. Villaveces A, Cummings P, Espitia VE, Koepsell TD, McKnight B, Kellermann AL. Effect of a ban on carrying firearms on homicide rates in 2 Colombian cities. *JAMA* 2000;283:1205–9.
64. Violano P, Bonne S, Duncan T, Pappas P, Christmas AB, Dennis A, Goldberg S, Greene W, Hirsh M, Shillinglaw W, et al. Prevention of firearm injuries with gun safety devices and safe storage: an eastern association for the surgery of trauma systematic review. *J Trauma Acute Care Surg* 2018;84:1003–11.
65. Webster D, Crifasi CK, Vernick JS. Effects of the repeal of Missouri's handgun purchaser licensing law on homicides. *J Urban Health* 2014;91:293–302.
66. Webster DW, Gainer PS, Champion HR. Weapon carrying among inner-city junior high school students: defensive behavior vs aggressive delinquency. *Am J Public Health* 1993; 83:1604–8.
67. Webster DW, Starnes M. Reexamining the association between child access prevention gun laws and unintentional shooting deaths of children. *Pediatrics* 2000;106:1466–9.
68. Webster DW, Vernick JS, Hepburn LM. Effects of Maryland's law banning "Saturday night special" handguns on homicides. *Am J Epidemiol* 2002;155:406–12.
69. Webster DW, Vernick JS, Hepburn LM. Relationship between licensing, registration, and other gun sales

- laws and the source state of crime guns. *Inj Prev* 2001;7:184–9.
70. Webster DW, Vernick JS, Zeoli AM, Manganello JA. Association between youth-focused firearm laws and youth suicides. *JAMA* 2004;292:594–601.
71. Webster DW, Wintemute GJ. Effects of policies designed to keep firearms from high-risk individuals. *Annu Rev Public Health* 2015;36:21–37.
72. Whitehill JM, Webster DW, Frattaroli S, Parker EM. Interrupting violence: how the CeaseFire program prevents imminent gun violence through conflict mediation. *J Urban Health* 2014;91:84–95.
73. Wintemute GJ, Frattaroli S, Claire BE, Vitti KA, Webster DW. Identifying armed respondents to domestic violence restraining orders and recovering their firearms: process evaluation of an initiative in California. *Am J Public Health* 2014; 104:e113–8.
74. Wintemute GJ, Parham CA, Beaumont JJ, Wright M, Drake C. Mortality among recent purchasers of handguns. *N Engl J Med* 1999;341:1583–9.
75. Zeoli AM, McCourt A, Buggs S, Frattaroli S, Lilley D, Webster DW. Analysis of the strength of legal firearms restrictions for perpetrators of domestic violence and their associations with intimate partner homicide. *Am J Epidemiol* 2018;187:1449–55.
76. Zeoli AM, Webster DW. Effects of domestic violence policies, alcohol taxes and police staffing levels on intimate partner homicide in large US cities. *Inj Prev* 2010;16:90–5.