

Gun Violence: A Public Health Crisis that Demands Physician Advocacy and Action

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Disclosures:

• I have no financial relationships to disclose

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Objectives

- Recognize the impact of gun violence on children in the US
- Describe evidence-based strategies to prevent gun violence among children in the US
- Break down the steps to becoming a physician advocate
- Justify political action for children's well-being



There is an ocean of difference between using kids for politics and using politics for kids.

The NEW ENGLAND JOURNAL of MEDICINE

SPECIAL REPORT

The Major Causes of Death in Children and Adolescents in the United States

Rebecca M. Cunningham, M.D., Maureen A. Walton, M.P.H., Ph.D., and Patrick M. Carter, M.D.



Table 1. The 10 Leading Causes of Child and Adolescent Death in the United States in 2016, in Order of Frequency.*

Cause of Death	No. of Deaths	Rate per 100,000 (95% CI)	Percent of Deaths
All causes	20,360	26.06 (25.70-26.42)	
All injury-related causes	12,336	15.79 (15.51-16.07)	60.6
Motor vehicle crash	4,074	5.21 (5.06-5.38)	20.0
Firearm-re l ated injury	3,143	4.02 (3.88-4.16)	15.4
Homicide	1,865	2.39 (2.28-2.50)	
Suicide	1,102	1.41 (1.33-1.50)	
Unintentional	126	0.16 (0.13-0.19)	
Undetermined intent	50	0.06 (0.05-0.09)	
Malignant neop l asm	1,853	2.37 (2.27-2.48)	9.1
Suffocation†	1,430	1.83 (1.74-1.93)	7.0
Suicide	1,110	1.42 (1.34-1.51)	
Unintentional	235	0.30 (0.26-0.34)	
Drowning	995	1.27 (1.20-1.36)	4.9
Drug overdose or poisoning	982	1.26 (1.18-1.34)	4.8
Suicide	123	0.16 (0.13-0.19)	
Unintentional	761	0.97 (0.91-1.05)	
Congenital anomalies	979	1.25 (1.18-1.33)	4.8
Heart disease	599	0.77 (0.71-0.83)	2.9
Fire or burns	340	0.44 (0.39-0.48)	1.7
Unintentional	272	0.35 (0.31-0.39)	
Chronic lower respiratory disease	274	0.35 (0.31-0.40)	1.3

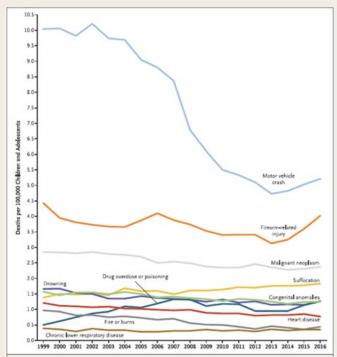


Figure 1. Mortality Rates (Deaths per 100,000 Children and Adolescents) for the 10 Leading Causes of Death in the United States from 1999 to 2016.

Data were obtained from the Wide-ranging Online Data for Epidemiologic Research (WONDER) system of the Centers for Disease Control and Prevention (CDC), known as CDC WONDER, according to the codes of the International Classification of Diseases, 10th Revision (ICD-10), for the leading causes of death among children and adolescents. Age was restricted to children and adolescents 1 to 19 years of age.

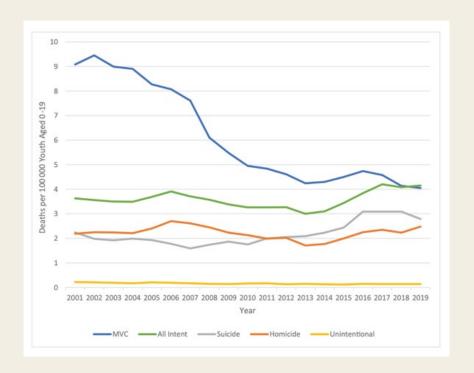


Pediatric Firearm Injury Mortality Epidemiology

Annie L. Andrews, MD, MSCR,^a Xzavier Killings, MS,^b Elizabeth R. Oddo, MD,^a Kelsey A.B. Gastineau, MD,^c Ashley B. Hink, MD, MPH^d

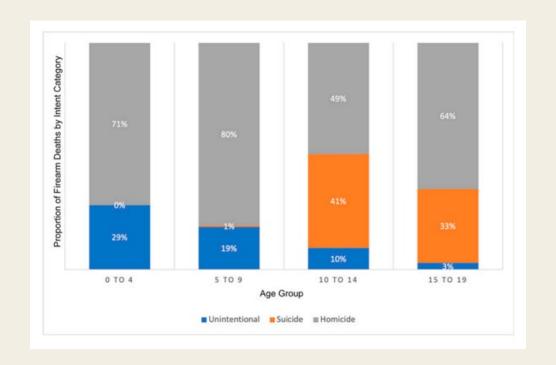


Firearm Injury and Motor Vehicle Collision Mortality Rates from 2001-2019 for US Youth Age 0-19



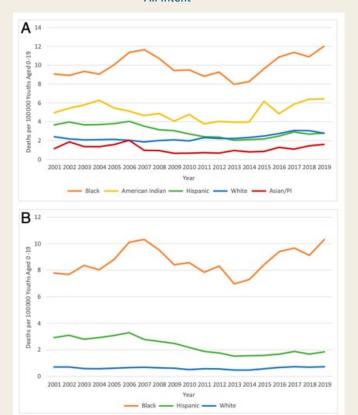


Firearm Violence Death by Age and Intent, CDC 2001-2019



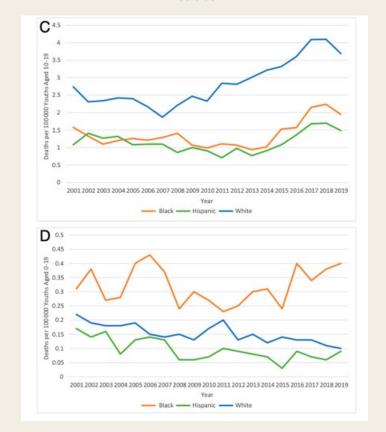


All Intent





Suicide



Unintentional



The Numbers

- Firearms are the leading cause of death for ALL American children and the rate is increasing more quickly for Black youth compared to White youth
- When American children are killed with guns the majority are homicides
- 1/3 of these deaths are suicide
- Approximately 5% of these deaths are related to unintentional shootings

CDC. National Centers for Injury Prevention and Control, Web-based Injury Statistics Query and Reporting System (WISQARS) Fatal Injury Reports. Data from 2017.

CDC. National Centers for Injury Prevention and Control, Web-based Injury Statistics Query and Reporting System (WISQARS) Fatal Injury Reports. A yearly average was developed using five years of most recent available data: 2013 to 2017.



The Numbers: Firearm Access

- 13 million US children live in a household with a gun
- 4.6 million US children live in a household with at least one loaded, unlocked gun
- The majority of children in gun-owning households are aware of where their parents store their guns
- More than 1/3 reported handling their parents' guns
- 1/4 of these parents did not know that their children had handled the gun in their house

Azrael D, Cohen J, Salhi C, Miller M. Firearm Storage in Gun-Owning Households with Children: Results of a 2015 National Survey. *J Urban Health*. 2018;95(3):295-304.

Baxley F, Miller M. Parental misperceptions about children and firearms. Archives of pediatrics & adolescent medicine. 2006;160(5):542-547





The Risks of Firearm Access

- Nearly 90% of unintentional gun deaths and injuries in children occur in the home
- The firearm used in youth suicide comes from the home 9 out of 10 times
- In incidents of gunfire on school grounds, 78% of shooters under the age of 18 obtained the gun from their home or the home of a friend or relative

Li G, Baker SP, DiScala C, Fowler C, Ling J, Kelen GD. Factors associated with the intent of firearm-related injuries in pediatric trauma patients. *Archives of pediatrics & adolescent medicine*. 1996;150(11):1160-1165.

Grossman et al. Self-inflicted and Unintentional Firearm Injuries Among Children and Adolescents: The Source of the Firearm. JAMA Pediatrics. 1999

Everytown for Gun Safety, Gunfire on School Grounds Database. 2013-2018.



Firearm Access and Suicide

- Firearms are the most lethal method of suicide attempt
- >80% case fatality rate compared to 61% for suffocation/hanging,
 1.5% for ingestion
- Overwhelming evidence that the presence of a firearm in the home significantly increases risk for youth suicide
- Systematic review found access to firearms has a pooled risk of >3x for completed suicide

Spicer et al. Suicide Acts in 8 States: Incidence and Case Fatality Rates by Demographics and Method. American Journal of Public Health. 2000

A. Knopov et al. Household gun ownership and youth suicide rates at the state level, 2005–2015 Am J Prev Med 2019.

Anglemyer et al. The Accessibility of Firearms and Risk for Suicide and Homicide Victimization Among Household Members. Annals of Internal Medicine. 2014

Manuteaux et al. Association of Increased Safe Household Firearm Storage With Firearm Suicide and Unintentional Death Among US Youths. JAMA Pediatrics 2019.

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Firearm Access and School Shootings

 While school shootings represent a fraction of pediatric firearm injuries and deaths, from 2013 to 2019, there were 549 incidents of gunfire on school grounds

Of these, 347 occurred on the grounds of an elementary, middle, or high school, resulting in 129 deaths and 270 people wounded

 In a study analyzing 41 incidents of targeted school violence from 2008 through 2017 finding that of the 25 incidents that involved firearms, 76 percent of shooters acquired the gun(s) used in the incidents from their home or that of a relative

National Threat Assessment Center, "Protecting America's Schools: A US Secret Service Analysis of Targeted School Violence" (US Secret Service, Department of Homeland Security, 2019), https://bit.ly/2U7vnwa.







Prevention



Prevention Strategies: Firearm Access

- Preschool aged children, observed 1 week after informational intervention where they were told not to play with guns ("just say no")
 - No difference in gun-playing behavior
- 4-7 year old children went through a week-long skills based gun safety training program
 - Just as likely as children with no training to approach or play with a handgun
- 4-5 year old children in two different gun safety programs
 - Able to verbally repeat gun safety message could not demonstrate gun safety skills in real-life assessments

Hardy MS, Armstrong FD, Martin BL, Strawn KN. A firearm safety program for children: they just can't say no. *J Dev Behav Pediatr*. 1996;17(4):216-221. Hardy MS. Teaching firearm safety to children: failure of a program. *J Dev Behav Pediatr*. 2002;23(2):71-76. Himle MB, Miltenberger RG, Gatheridge BJ, Flessner CA. An evaluation of two procedures for training skills to prevent gun play in children. *Pediatrics*. 2004;113(1 Pt 1):70-77.

Prevention Strategies: Secure Storage

- Secure storage is storing a gun LOCKED, UNLOADED and SEPARATE from ammunition.
- Responsible storage is associated with decreased risk of firearm suicide and unintentional firearm injury among children
- Households with locked firearms and separate locked ammunition:
 - 78% lower risk of self-inflicted firearm injuries
 - 85% lower risk of unintentional firearm injuries

Grossman DC, Mueller BA, Riedy C, et al. Gun storage practices and risk of youth suicide and unintentional firearm injuries. *JAMA*: the journal of the American Medical Association. 2005;293(6):707-714.

Parikh K, Silver A, Patel SJ, Iqbal SF, Goyal M. Pediatric Firearm-Related Injuries in the United States. Hosp Pediatr. 2017;7(6):303-312



How Can Child Healthcare Providers Help?

- Brief physician counseling combined with distribution of a cable gun lock is effective in increasing safe storage of home firearms
- AAP recommends pediatricians routinely screen for access to firearms and counsel about risk reduction
- On ASK day, June 21, the first day of summer, the AAP reminds parents to ensure their kids are safe by asking about gun safety and storage



Barkin SL, Finch SA, Ip EH, et al. Is office based counseling about media use, timeouts, and firearm storage effective? Results from a cluster-industrial randomized, controlled trial. Pediatrics. 2008;122

Parikh K, Silver A, Patel SJ, Iqbal SF, Goyal M. Pediatric Firearm-Related Injuries in the United States. Hosp Pediatr. 2017;7(6):303-312.

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Prevention Strategies: Physician Counseling

- The majority of health care providers agree they should provide firearm counseling, but they report many barriers:
 - lack of time
 - inadequate training
 - uncertainty of the effect
- A recent study demonstrated poor pediatric resident documentation of screening for firearm access in patients with suicidal ideation or homicidal ideation
- Another recent study demonstrated low rates of firearm screening and safe storage counseling by pediatric residents in the inpatient setting

Webster DW et al. Firearm injury prevention counseling; a study of pediatricians' beliefs and practices. Pediatrics. 1992 Naureckas Li C et al. Screnning for access to firearms by pediatric trainees in high-risck patients. Academic Pediatrics. 2019. Monroe KK et al. Firearms screening in the pediatric inpatient setting. Hospital Pediatrics. 2020.



Prevention Strategies: Physician Counseling

- A 2019 study showed that when prompts for firearm screening and smoke alarms were added to the Electronic Health Record (EHR), pediatricians and residents were significantly less likely to document firearm screening than smoke alarm counseling
- A 2020 study assessed the impact of a firearm safety counseling workshop on pediatric resident knowledge, self-efficacy and self-reported practice patterns
 - In pre-post analysis they found participants were 5x more likely to counsel their patients on firearms (6 months post compared to pre)
 - Reported greater comfort in asking about firearms

Stipelman CH et al. Home gun safety queries in well-child visists. JAMA Pediatrics. 2019.

McKay S et al. Addressing Firearm Safety Counseling: Integration of a Multidisciplinary Workshop in a Pediatric Residency Program. Journal of GME. 2020

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SEART





All guns in your home and vehicle



Model

Responsible behavior



Ask

Unsecured guns in other homes



Recognize

The role of guns in suicide



Tell

Your peers to Be SMART





The Post and Courier

- FOUNDED 1803 🕦 WINNER OF THE PULITZER PRIZE -

MUSC doctors will ask questions about guns in the home with new safety campaign

BY MARY KATHERINE WILDEMAN MKWILDEMAN@POSTANDCOURIER.COM



MUSC physician Annie Andrews started an effort to encourage fellow pediatricians to open more conversations about gun safety with their patients parents. Wade Spees/Staff WARLS SPEES.

Improving the Frequency and Documentation of Gun Safety Counseling in a Resident Primary Care Clinic

Kelsey A.B. Gastineau, MD; Cassandra L. Stegall, DO; Laura K. Lowrey, MD; Barbra K. Giourgas, MD; Annie Lintzenich Andrews, MD. MSCR

- 1. Is there a gun in the home or vehicles? Yes/No
- 2. Is the gun stored locked, unloaded and separate from ammunition? Yes/No
- Was a gunlock or other additional gun safety information such as Be SMART materials provided? Yes/No?
 - a. If yes, what additional materials were provided:

Figure 3. EHR prompt for firearm safety screening questions. EHR indicates Electronic Health Record.

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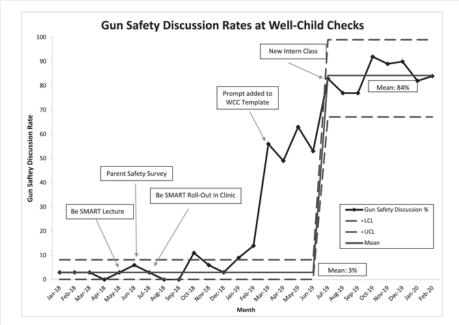


Figure 4. Statistical process control chart. LCL indicates lower confidence limit; UCL, upper confidence limit; and WCC, well-child check.









Specific Language Tips

Instead of asking "Do you have a firearm in the home?" ask "If firearms are present where your child lives or plays, how are they stored?"

- If they say their firearms are kept away from children, that is great. Explore how they are stored, emphasizing the importance of safe storage such as keeping firearms locked, unloaded, and with the ammunition stored separately.
- If they say their firearms are not stored away from children, then there is an opportunity for education about safe storage.
- If the response is "we don't own firearms," then the provider should still
 encourage the parents to talk to other family and friends where their child visits
 to ask about safe storage of firearms in those homes. About two out of five
 homes have firearms in the US, and that number could be higher depending on
 the location.

From AAP SAFER



Counseling Tips

- Ask questions to understand the patient's perspective.
- Share solutions that work for their situation.
- Provide concrete options for safe storage.
- Assess interest with open-ended questions.

Swimming Pools

Frame the conversation of safe storage in terms of risk mitigation. Just as having a pool in the backyard increases the risk of drowning, having a firearm in the home increases the risk of firearm injury. To prevent drowning, you put a fence around the pool and a cover over it. To prevent firearm injury, you secure the firearm away from non-owners by locking it up and removing the ammunition.

From AAP SAFER



From Advocacy to Action to...Politics



	Maine	~	California	~
Rank for gun law strength	#25 Same rank as last year		#1 Same rank as last year	
Gun Law Strength Composite score	Last year: 20.5	20.5	Last year: 86.5	89.5
Gun Violence Rate Gun deaths per 100,000 residents (national average: 14.4)	•••	12	•	8.7



Legislative Solutions

- Expanded Background Checks
- Red Flag Law
- Secure Storage Law
- Assault Weapons Ban
- Funding for HVIPs and CVIPs
- Funding for Gun Violence Prevention Research
- Ending Industry Immunity (Protection of Lawful Commerce in Arms Act)



15 years ago

- 2008
- Pediatric Resident
- Voter
- Presidential Election Watcher











Nov 2nd, 2016



Nov 8th, 2016





November 8th, 2022





MUSC doctor and Mount Pleasant mother will announce Democratic run against SC's Nancy Mace

BY THOMAS NOVELLY TNOVELLY@POSTANDCOURIER.COM
NOV 7, 2021





What I Thought

- Not ready
- Not qualified
- Too introverted
- Could never command a room
- Not brave enough
- Not charming enough
- Not strong enough
- Not enough

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What I Thought

- Not ready
- Not qualified
- Too introverted
- Could never command a room
- Not brave enough
- Not charming enough
- Not strong enough
- Not enough

What I Think

- No one is ever ready
- We are all overqualified
- Introversion is a political strength
- Passion commands a room
- We MUST be braver than we expect our kids to be
- Authenticity is charming
- We have no idea how strong we are
- We are all much more than we think



The moment for children in this country grows more urgent by the day.

If not you, who?

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There is incredible untapped political power within our profession.



Politics isn't a dirty word.

And it's the only way to turn a stack of policy papers into...policy.

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Do something.

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It is a marathon, not a sprint.



Be persistent to the point of wondering if you are obnoxious.



Awareness brings despair but action breeds hope.



There are 73 million children in America and they ALL deserve a bright future.

So let's build it together.*

*But you will have to get political

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There is an ocean of difference between using kids for politics and using politics for kids.



SC Democrat Annie Andrews launches PAC to elect candidates who will advocate for children

BY CAITLIN BYRD CBYRD@POSTANDCOURIER.COM

APR 17, 2023



THEIR FUTURE. OUR VOTE. KIDS FIRST AGENDA

Our Plan to Build a Brighter Future for All Children



BUILDING SAFER COMMUNITIES

- Pass a Federal Secure Storage Law
- Pass a Federal Assault Weapons Ban



PASSING DOWN A LIVABLE PLANET

- Transition to Renewable Energy
- Reduce Health-Harming Pollution



REDUCING CHILD POVERTY

- Expand Access to Quality and Affordable Childcare
- Renew and Strengthen Child Tax Credit



INVESTING IN HIGH-QUALITY EDUCATION

- Expand Access to Pre-K
- Stop Censorship in Schools



LIVING HEALTHIER

- Make the Children's Health Insurance Program Permanent
- Increase Access to School Based Mental Health Services

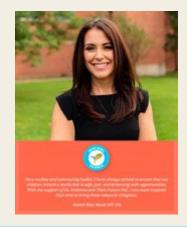


Building a Kids First Majority in 2024













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