



## Gun Violence: A Pediatric Health Care Crisis that Demands Physician Action

Annie L. Andrews, MD MSCR  
Associate Professor of Pediatrics  
Medical University of South Carolina

[andrewsan@musc.edu](mailto:andrewsan@musc.edu)

 @AnnieAndrewsMD

Poornema Ramasamy, MD MBA FACP  
Wound Care Physician and Hospitalist  
Prisma Health Midlands  
[poornema.ramasamy@prismahealth.org](mailto:poornema.ramasamy@prismahealth.org)

# Disclosures

- ▶ We have nothing to disclose



# Objectives

- ▶ Brief update on Pediatric Firearm Injury Mortality
- ▶ Understand the Role of Secure Storage Counseling in Reducing Youth Firearm Morbidity and Mortality
- ▶ BeSMART successes in SC



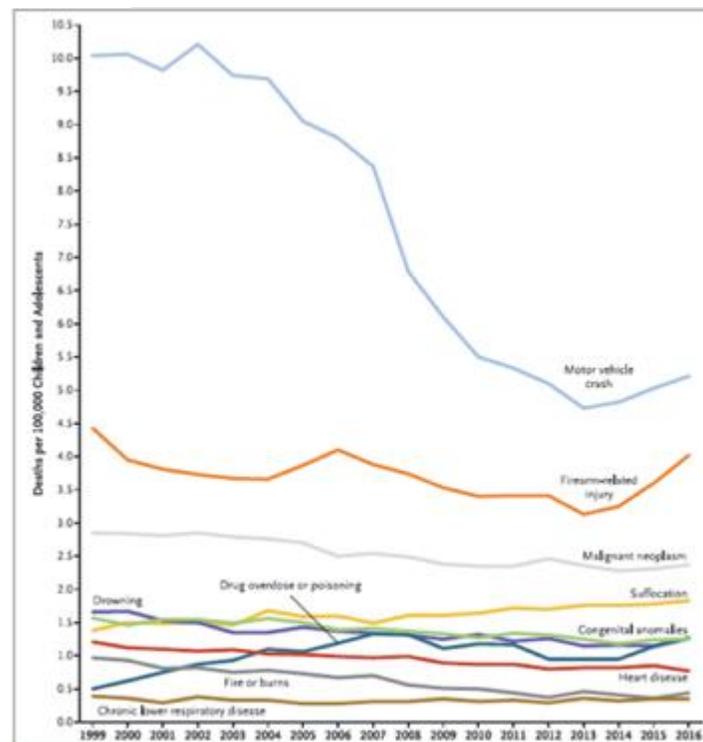
## SPECIAL REPORT

## 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.

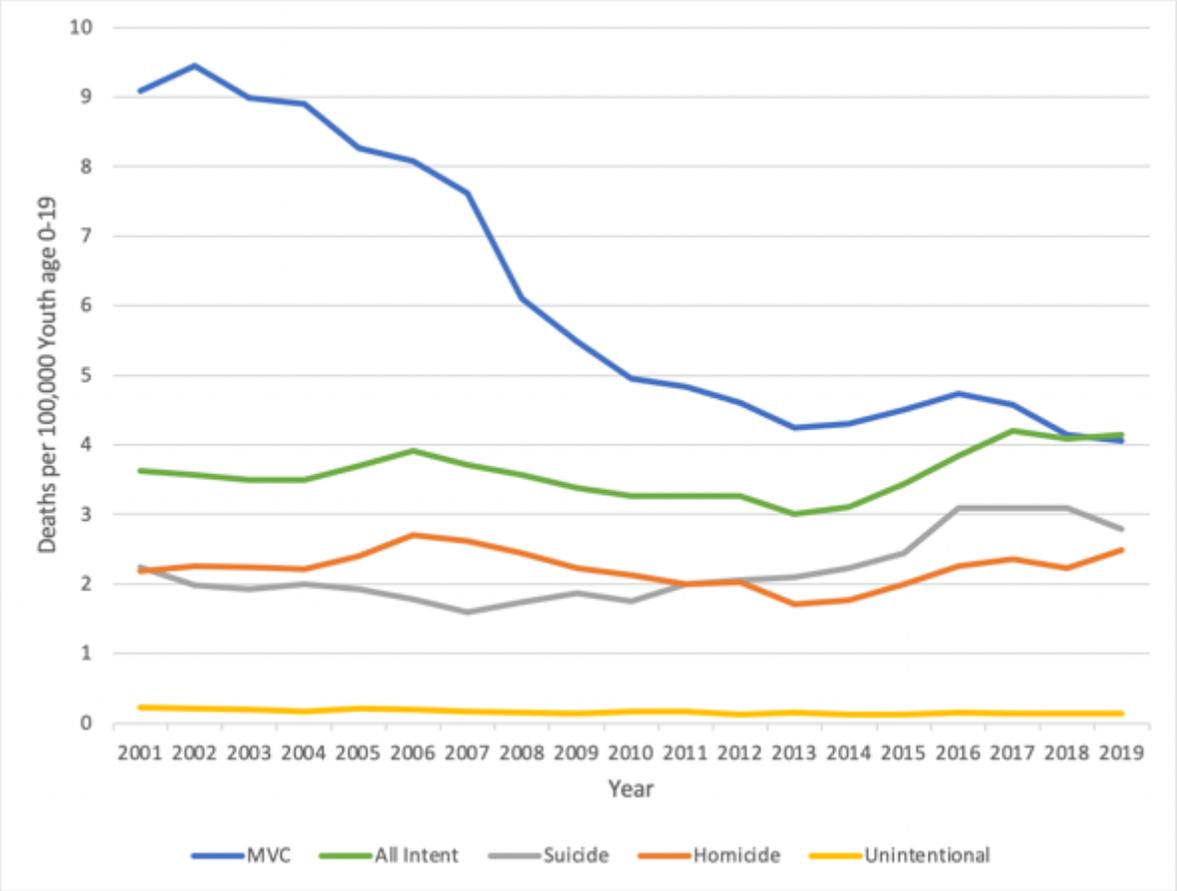
**Table 1.** The 10 Leading Causes of Child and Adolescent Death in the United States in 2016, in Order of Frequency.\*

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-related 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 neoplasm	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

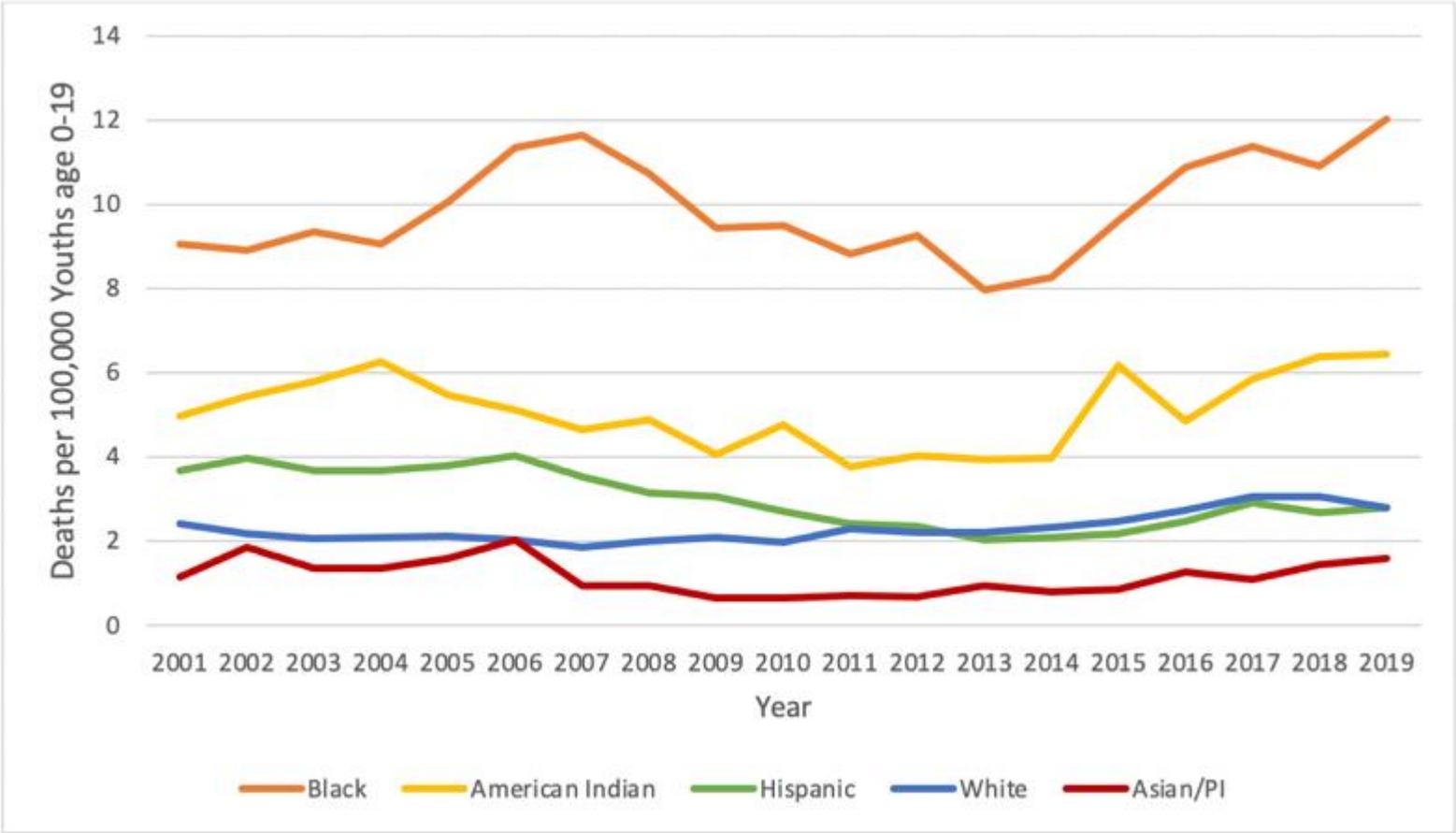
**Figure 1.** Mortality Rates (Deaths per 100,000 Children and Adolescents) for the 10 Leading Causes of Death in the United States from 1999 to 2016.

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,<sup>2</sup> according to the codes of the International Classification of Diseases, 10th Revision (ICD-10),<sup>1</sup> for the leading causes of death among children and adolescents. Age was restricted to children and adolescents 1 to 19 years of age.

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



# Firearm Injury Mortality Rates from 2001-2019 for US Youth Age 0-19 by Race/Ethnicity



# Gun Violence in South Carolina

- ▶ Annual deaths: 908
- ▶ Annual non-fatal injuries: 1780
- ▶ 13<sup>th</sup> highest rate of gun violence in the US
  
- ▶ From 2010-2019:
  - ▶ rate of gun deaths increased 42%
  - ▶ rate of gun suicides increased 19%
  - ▶ rate of gun homicides increased 83%

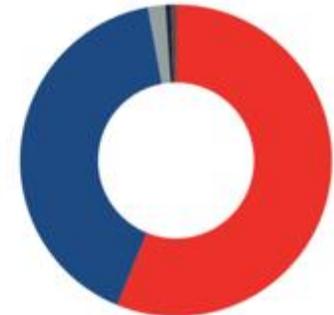
## COST OF GUN VIOLENCE

South Carolina has the 14<sup>th</sup>-highest societal cost of gun violence in the US at \$1,220 per person each year. Gun deaths and injuries cost South Carolina \$6 billion, of which \$298 million is paid by taxpayers.

## GUN DEATHS BY INTENT

In South Carolina, 56% of gun deaths are suicides and 41% are homicides. This is compared to 60% and 38% nationwide, respectively.

● Suicides	56%
● Homicides	41%
● Unintentional	2%
● Undetermined	1%
● Shootings by Police	1%



Gun violence costs South Carolina **\$6.1 billion** each year, of which **\$297.5 million** is paid by taxpayers.

SOURCE: TED R. MILLER ANALYSIS OF CDC FATAL INJURY: 2018 AND HCUP NONFATAL INJURY: 2017.



# The Numbers: Firearm Access

- ▶ 13 million US children live in a household with a gun
- ▶ 5.4 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-Ownning 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.



# 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: Responsible Storage

- ▶ Responsible 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 Pediatricians 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-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.

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

**ASK**  
ASKINGSAVESKIDS

1 in 3 homes with children in America have guns, many unlocked or loaded.

17,500 children and teens are injured or killed each year due to gun violence.

**ASK:**  
Is there an unlocked gun where my child plays?

**IF THE ANSWER IS "NO"**  
that's one less thing you have to worry about.

**IF THE ANSWER IS "YES"**  
make sure all guns are stored unloaded and locked, ideally in a gun safe, with ammunition locked separately.

If there are any doubts about the safety of another home, invite the kids to your house instead.

Hiding guns is not enough. Just talking to kids is not enough. Kids are curious and if they find guns they're likely to play with them.

For more information on how to keep your kids safe visit [WWW.ASKINGSAVESKIDS.ORG](http://WWW.ASKINGSAVESKIDS.ORG).

Source: Johnson R, Zayas-Bonny E, Purpus C. Effectiveness and Design Practices. U.S. Firearm, 1992-2005. A National Survey. AFM 07A0113 1/17/06. Very rough, non-peer reviewed. From CDC, NIOSH, NIOSH/NIJ, under 2014 for CDC. <http://www.cdc.gov/niosh/>

BE SMART

**BE**  
**SMART**

**SECURE**

**all guns in  
your homes  
and vehicles**

**MODEL**

**responsible  
behavior**

**ASK**

**about  
unsecured  
guns in  
other homes**

**RECOGNIZE**

**the role  
of guns  
in suicide**

**TELL**

**your peers  
to Be SMART**

BE SMART

S

**Secure all guns in your  
homes and vehicles**

- 13 million households with children contain at least one gun.<sup>1</sup>
- One study found that the majority of children in gun-owning households knew where the gun was stored.<sup>2</sup>
- Store guns locked and unloaded, store ammunition separately.
- Hiding a gun is not “securing” a gun.

1. Azrael D, et al. Firearm storage in gun-owning households with children: Results of a 2015 national survey. *Journal of Urban Health*. 2018.

2. Baxley F, et al. Parental misperceptions about children and firearms. *Archives of Pediatrics & Adolescent Medicine*. 2006.

BE SMART



**M**

**Model responsible  
behavior**

- It is always an adult's responsibility to prevent unauthorized access to guns, not a curious child's responsibility to avoid guns.
- Make it part of the normal safety conversation you have with your children.
- Keep the language simple; for example: "If you see a gun, don't touch it. Tell an adult right away."

BE SMART

A

**Ask about unsecured  
guns in other homes**

- Make it part of your general safety conversation you have when sending your child to a new home.
- Try email or text.
- 5.4 million U.S. children live in a household with at least one loaded, unlocked gun.<sup>1</sup>

1. Personal communication from Deborah Azrael and Matthew Miller to Everytown based on 2021 National Firearm Survey, August 11, 2021.

BE SMART

R

**Recognize the role of  
guns in suicide**

- Most people who attempt suicide do not die—unless they use a gun.<sup>1</sup>
- 90% of suicide attempts with a gun result in death—a much higher fatality rate than any other means of self-harm.<sup>2</sup>
- This contributes to the fact that 40% of child suicides involve a gun.<sup>3</sup>

1. Everytown for Gun Safety, *Disrupting Access: Addressing Firearm Suicide in the U.S.* 2018.

2. Conner A, et al., "Suicide Case-Fatality Rates in the United States, 2007 to 2014: A Nationwide Population-Based Study," 2019.

3. CDC, *Underlying Cause of Death, 2015 to 2019.*

**A survey of high school students found that**

**17%**

**had seriously considered attempting suicide within the last year.<sup>1</sup>**

**And one study showed that**

**41%**

**of adolescents in gun-owning households report having "easy access" to the guns in their home.<sup>2</sup>**

1. Kann L, et al. Youth Risk Behavior Surveillance — United States, 2017.

2. Simonetti JA, et al. Psychiatric comorbidity, suicidality, and in-home firearm access among a nationally representative sample of adolescents. *JAMA Psychiatry*. 2015.

BE SMART

T

**Tell your peers  
to Be SMART**

- Your voice and all voices are critical.
- Research shows that law enforcement, the military, and hunting or outdoor groups are particularly effective at communicating safe storage practices.<sup>1</sup>
- Someone hears the Be SMART message every 21 minutes.

1. Crifasi CK, et al. Storage practices of US gun owners in 2016. *American Journal of Public Health*. 2018.

# Be SMART Success in SC

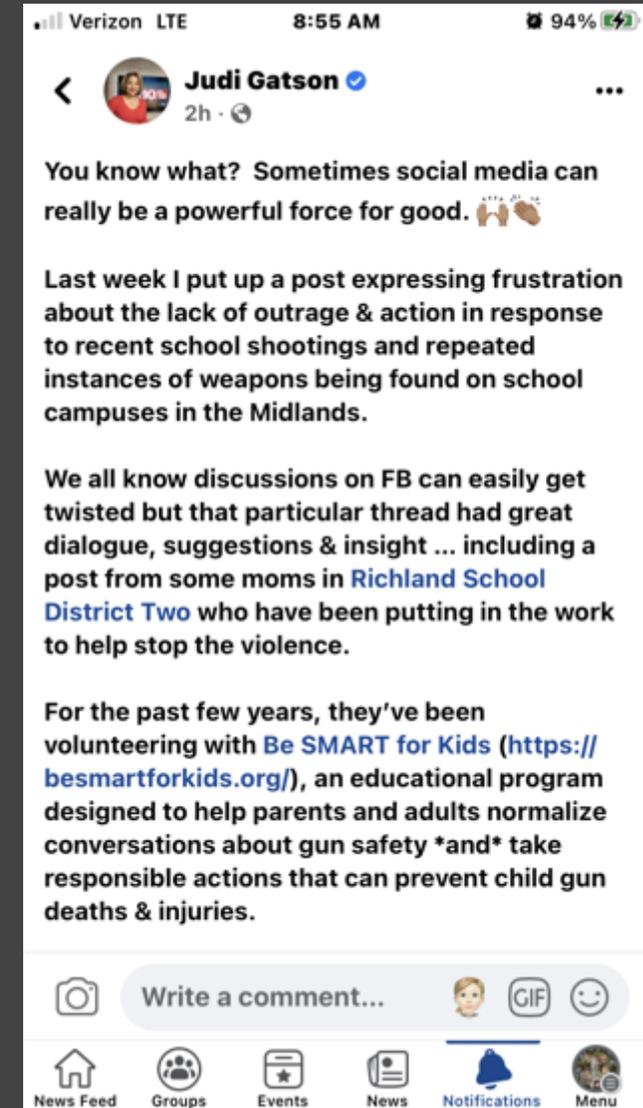
- Partnership with Charleston county (Charleston chapter) and Be SMART materials regularly distributed in Charleston schools
- Partnership with Richland two school district and have done presentations and tabling events in different schools and district events. Be SMART material available in their website.
- MUSC adopting Be SMART education with patients in Children's Hospital
- Partnership with Prisma Health where we have materials with their logo on the digital copy of the post card and poster which are available for printing through their intranet
- SC AAP endorsement and presentations regularly in AAP chapter meeting to improve provider knowledge. QTIP practices have adopted Be SMART and are regularly giving out materials in their offices
- Multi organizational Partnership in Midlands- Creation of the MOU with multiple organizations spearheaded by the school superintendent of richland 2 school dist.





MOU signing on Dec 9th 2021 included 8 school districts, 12 law enforcement agencies and 4 hospitals

# Social Media Support



## Links

### Websites of Interest

 [AAP Critical Updates on COVID19](#)

 [American Academy of Pediatrics](#)

 [Be SMART for Kids Gun Safety Campaign](#)

your peers to BeSMART.

 For more information about the program visit [besmartforkids.org](#).



**BE SMART**

Secure	Model	Ask	Recognize	Tell
all guns in your home and vehicles	responsible behavior around guns	about the presence of unsecured guns in other homes	the role of guns in suicide	your peers to be SMART

For more information on what you can do to keep kids safe, visit [BeSmartForKids.org](#)



# How to locate and order Be SMART resources in Prismahealth system

Prisma Health network then some of these tools may not be accessible to you.

Connect

Search Prisma Health Connect... Go

Experience Team Member Resources Departments and Locations News and Even

Workday People Portal Clinical Resources Call Schedules Citrix - Remote Access Kronos - Midlands Kronos - Upstate

Prisma Health Heroes

Prisma Health Heroes: Xavier Pearson

Prisma Health Heroes

Make Connections using eCards

Make your choices count

View All Tools

A B C D E F G H I J K L M N O P Q R S T U V W X Z

A

Abbreviations to Avoid - Upstate

Finance Directives Forms - Upstate

This screenshot shows the Prisma Health Connect homepage. A search bar is at the top. Below it are navigation tabs for Experience, Team Member Resources, Departments and Locations, and News and Even. A sidebar on the right lists various tools like Workday, People Portal, Clinical Resources, Call Schedules, Citrix - Remote Access, Kronos - Midlands, and Kronos - Upstate. A green circle highlights the 'View All Tools' link in the sidebar. A large black arrow points from this link to the next screenshot. Another large black arrow points from the 'Clinical Resources' link in the sidebar to the alphabetical index. A green circle highlights the letter 'D' in the index. A red text box at the top right states: 'Prisma Health network then some of these tools may not be accessible to you.'

connect.prismahealth.org/team-member-resources/tools-and-resources

D

DebMed

Device Days Entry Tool - Midlands

DigiPath

DMAI

Drug Screen Clients

prismahealth.rocsoft.com

PRISMA HEALTH

Search for Items

Entire Catalog

be SMART

Search

User Tools

Training Guide

View Order History

Manage Account

Stationery

Inventory

This screenshot shows the 'D' category page on connect.prismahealth.org. The list of tools includes DebMed, Device Days Entry Tool - Midlands, DigiPath (circled in green), DMAI, and Drug Screen Clients. A large black arrow points from the 'DigiPath' link to the right. On the right side, there is a search bar for items with a dropdown menu showing 'Entire Catalog' and 'be SMART' (circled in green). Below the search bar are 'User Tools' links: Training Guide, View Order History, and Manage Account. To the right of the search bar are images for 'Stationery' and 'Inventory'.

# 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

JUL 2, 2018



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

BUY NOW

WADE SPEES

**PRISMA**  
HEALTH.

 **PRISMA HEALTH.**  
Children's Hospital

 **MUSC**  
Children's Health  
Medical University of South Carolina

Changing What's Possible

[MUSCKids.org](https://MUSCKids.org)



# 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

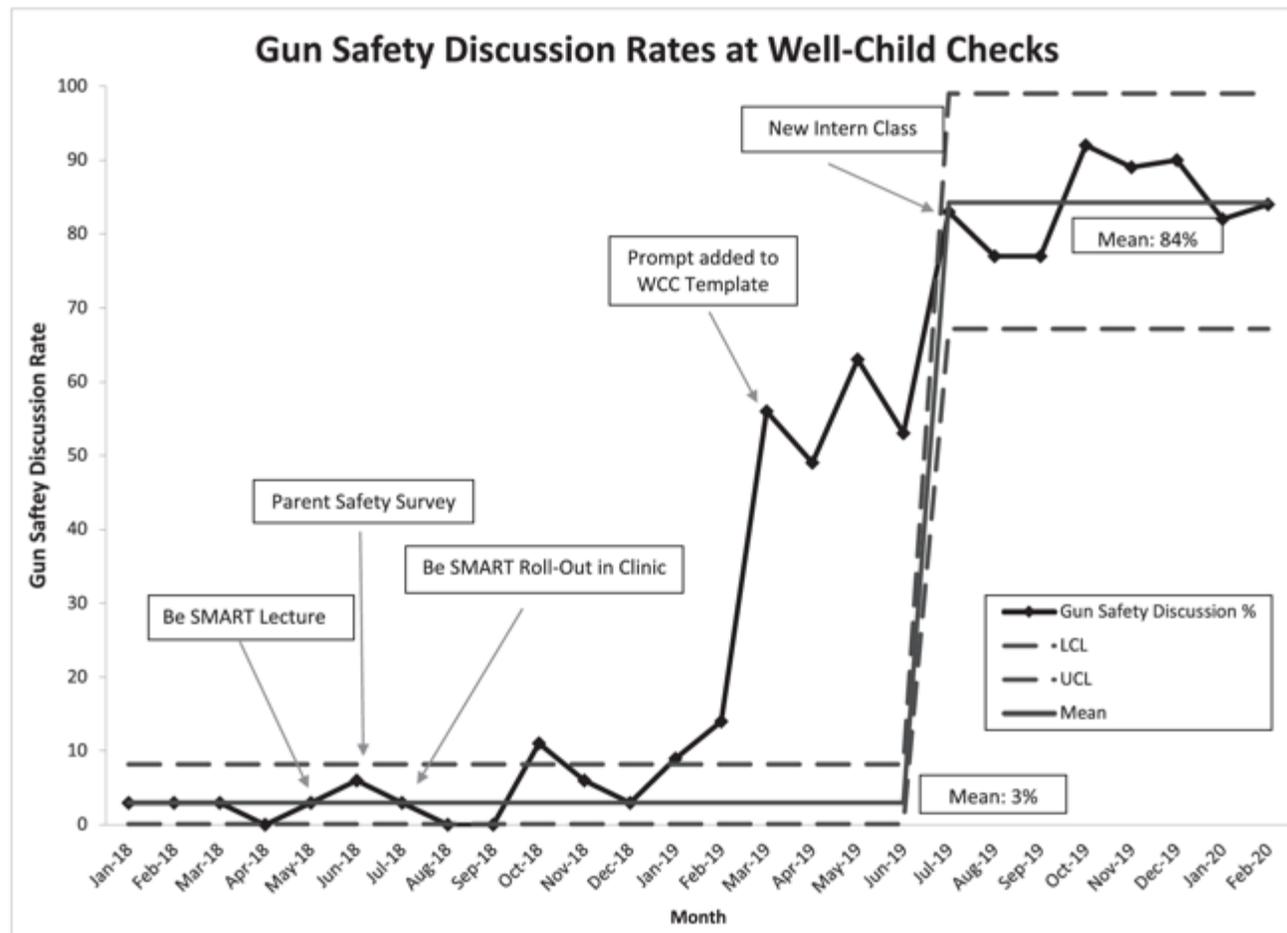


Figure 4. Statistical process control chart. LCL indicates lower confidence limit; UCL, upper confidence limit; and WCC, well-child check.



“Anger that is motivated by compassion or a desire to correct social injustice, and does not seek to harm the other person, is a good anger that is worth having”

-The Dalai Lama



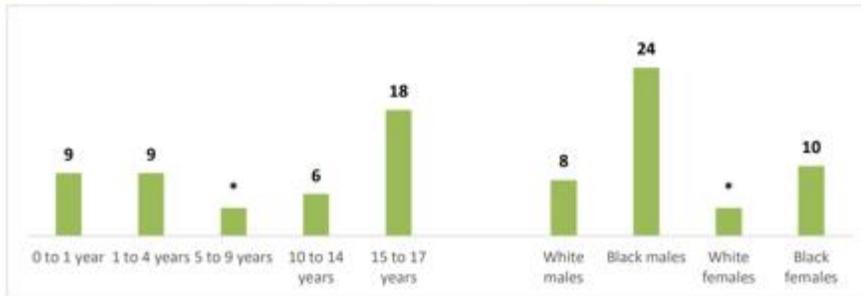
## Child Homicide

### S.C. CHILD HOMICIDE (2018)



- 46 homicide deaths, an increase of 5 deaths from 2017.
- 27 or 59% homicide deaths were caused by discharge of firearms.
- 2<sup>nd</sup> leading cause of death for children aged 1 to 4 years and 15 to 17 years.
- 3<sup>rd</sup> leading cause of death for children aged 0 to 1 year.
- 4<sup>th</sup> leading cause of death for children aged 10-14 years.

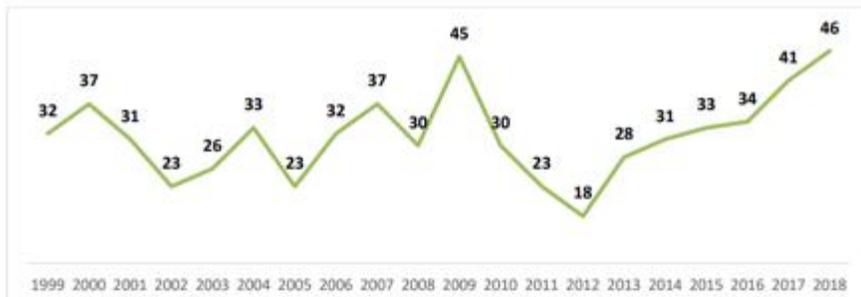
### S.C. CHILD HOMICIDE DEATHS BY AGE, GENDER AND RACE (2018)



### COMPARED TO NATIONAL DATA (2018)

S.C. child homicide death rate (n=46): 4.16 per 100,000 population  
**HIGHER THAN**  
 National rate (n=1,597): 2.18 per 100,000 population

### S.C. CHILD HOMICIDE DEATHS BY YEAR



## Child Homicide

### S.C. CHILD HOMICIDE (2019)

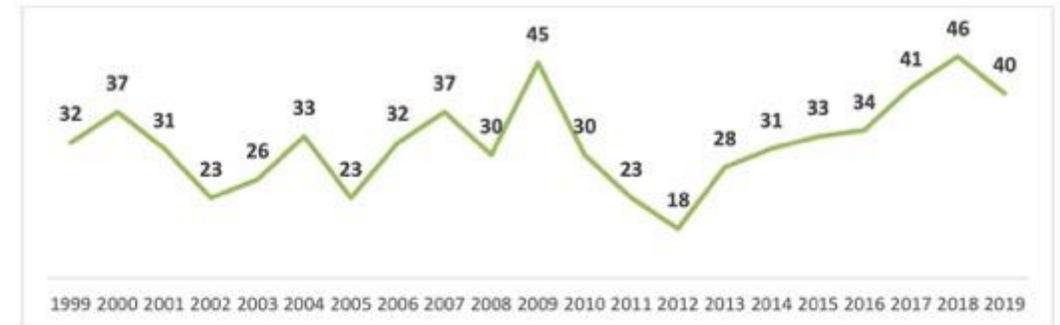


- 40 homicide deaths, a decrease of 6 deaths from 2018.
- 25 or 63% homicide deaths were caused by discharge of firearms.
- 1<sup>st</sup> leading cause of death for children aged 1 to 4 years.
- 2<sup>nd</sup> leading cause of death for children aged 5 to 9 years.
- 3<sup>rd</sup> leading cause of death for children aged 15 to 17 years.
- 4<sup>th</sup> leading cause of death for children aged 0 to 1 year and 10 to 14 years.

### COMPARED TO NATIONAL DATA (2019)

S.C. child homicide death rate (n=40): 3.6 per 100,000 population  
**HIGHER THAN**  
 National rate (n=1,611): 2.21 per 100,000 population

### S.C. CHILD HOMICIDE DEATHS BY YEAR (1999-2019, N=673)



# 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. Screening for access to firearms by pediatric trainees in high-risk 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 visits. 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



## Effectiveness of firearm safety education and intervention for safe practices by healthcare providers

**Albright, Teresa L., and Sandra K. Burge. "Improving firearm storage habits: impact of brief office counseling by family physicians." The Journal of the American Board of Family Practice 16.1 (2003): 40-46.**

**Methods:** Of the 1,233 patients who completed the enrollment questionnaire, 156 (13%) reported they had guns in their household and agreed to participate in the study. Post-intervention survey instruments were completed by 127 (81%) of participants. Participants received either no counseling, verbal counseling alone, or counseling and a gun safety brochure from their physician. Firearm storage habits were measured at baseline and 60 to 90 days after intervention.

**Results:** At the post-intervention interview, 64% of the group receiving verbal counseling and 58% of the group receiving verbal counseling plus written information made a safe change in gun storage compared with 33% of participants in the no-intervention group ( $P = .02$ ). A logistic regression model controlling for demographics and gun ownership showed that compared with the no-intervention group, intervention participants were three times more likely to make safe changes.

**Conclusions:** Family physicians' brief counseling efforts made a significant positive impact in the firearm storage habits of their patients. With a verbal or written recommendation, a significant improvement was observed in firearm storage.

**Rowhani-Rahbar, Ali, Joseph A. Simonetti, and Frederick P. Rivara. "Effectiveness of interventions to promote safe firearm storage." Epidemiologic reviews 38.1 (2016): 111-124**

Counseling augmented by device provision can effectively encourage individuals to store their firearms safely.



# Firearm safety discussions in a healthcare setting

- The National Firearms Survey included 4030 adult respondents, all of whom lived in homes with firearms (completion rate, 65%); 4011 answered all firearm safety questions.
- Of all respondents, 7.5% (95% CI, 6.6% to 8.6%) had ever discussed firearm safety with a provider (12.0% [CI, 9.9% to 14.6%] of those living with children vs. 5.3% [CI, 4.4% to 6.3%] in homes without children)
- Most encounters involved an outpatient medical visit
- Of respondents spoken to about firearms, 48.0% (CI, 41.1% to 54.9%) said that locking all firearms was discussed at their most recent visit, 31.8% (CI, 23.6% to 38.7%) that storing ammunition separately from firearms was discussed, and 15.9% (CI, 11.3% to 21.9%) that removing firearms from the home was covered
- Removing firearms was rarely discussed when the patient was a child (4.1% [CI, 1.1% to 9.4%]); when the patient was the respondent or another adult, however, conversations about removal were reported by one quarter or half of respondents, respectively.

**Table 1. Proportion of U.S. Adults Living in Households With Firearms Who Have Been Spoken to by a Physician or Other Health Care Provider About Firearm Safety (n = 4011)\***

Characteristic	Patients, n (weighted %)	Discussed Firearm Safety (95% CI), %
All	4011 (100)	7.5 (6.6-8.6)
Gender		
Female	1840 (48.0)	8.2 (6.9-9.8)
Male	2171 (52.0)	6.8 (5.6-8.3)
Age		
18-29 y	281 (16.0)	8.0 (5.2-12.2)
30-44 y	170 (22.7)	11.5 (9.2-14.2)
45-59 y	1145 (28.1)	7.5 (5.9-9.5)
≥60 y	1815 (33.3)	4.3 (3.6-5.6)
Race/ethnicity		
Non-Hispanic White	3351 (76.8)	7.4 (6.4-8.6)
Non-Hispanic Black	232 (7.7)	6.9 (3.7-12.5)
Non-Hispanic other	178 (3.1)	10.7 (5.6-19.0)
Hispanic	250 (10.3)	6.7 (4.1-10.9)
Marital status		
Married/partnered	3032 (74.7)	7.6 (6.5-8.7)
Separated/widowed	602 (11.5)	6.7 (4.7-9.5)
Never married	377 (13.8)	7.8 (4.9-12.2)
Children in household		
None aged <18 y	3007 (67.4)	5.3 (4.4-6.3)
Any aged <18 y	1004 (32.4)	12.0 (9.9-14.6)
Any aged 0-5 y	399 (13.1)	12.4 (9.4-16.3)
Any aged 6-12 y	480 (15.7)	12.4 (9.5-16.0)
Any aged 13-17 y	453 (14.4)	12.7 (9.6-17.0)
Education		
Less than bachelor's degree	2337 (69.2)	7.0 (5.8-8.4)
Bachelor's degree or higher	1674 (30.9)	8.6 (7.1-10.4)
Household income		
<\$50 000	1066 (25.4)	7.9 (5.9-10.5)
\$50 000 to <\$85 000	1009 (25.2)	6.3 (4.8-8.3)
\$85 000 to <\$150 000	1221 (29.3)	7.5 (6.0-9.5)
≥\$150 000	733 (20.1)	8.4 (6.3-10.9)
Lives in a metropolitan statistical area		
No	1799 (20.5)	6.7 (4.7-9.4)
Yes	3213 (79.5)	7.2 (6.7-8.9)
U.S. region		
New England	120 (3.0)	6.6 (3.3-13.0)
Mid-Atlantic	383 (8.9)	5.4 (3.5-8.1)
East-North Central	644 (14.8)	6.3 (4.4-9.0)
West-North Central	397 (9.8)	9.8 (7.0-13.6)
South Atlantic	184 (20.2)	8.6 (6.5-11.4)
East South Central	285 (7.4)	7.5 (4.3-12.7)
West South Central	503 (14.7)	6.3 (4.0-9.8)
Mountain	374 (9.3)	10.4 (7.0-15.1)
Pacific	521 (12.9)	6.3 (4.2-9.4)
Personally owns a firearm		
No	1076 (32.5)	7.5 (5.8-9.5)
Yes	2935 (67.5)	7.5 (6.4-8.8)

\* Survey data include weighting variables for generation of national estimates. Percentages may not sum to 100 due to rounding.

**Table 2. Advice Given by Physician or Other Health Care Provider During Discussion With Respondent Regarding Firearm Safety, Stratified by Respondent's Relationship to the Patient, During the Clinical Encounter (n = 244)**

Clinical Advice Recalled*	Patient During Visit (95% CI), %†			
	Self (n = 150)	Child (n = 100)	Another Adult (n = 26)	Any (n = 244)
Storing all firearms in a safe or lock box	46.1 (36.5-56.0)	74.4 (62.1-83.7)	67.6 (32.5-79.4)	48.0 (41.1-54.9)
Storing ammunition separately from firearms in a locked container	32.0 (23.4-42.1)	46.4 (35.2-57.9)	51.6 (27.8-74.7)	31.8 (23.6-38.7)
Storing firearms away from home if you or someone in your family was going through a hard time	26.3 (18.0-36.7)	4.1 (1.7-9.4)	55.7 (30.9-77.9)	15.9 (11.3-21.9)
Other	27.0 (19.0-37.0)	9.1 (4.4-18.0)	24.9 (8.1-55.5)	17.0 (12.3-23.1)
Do not remember	21.4 (14.6-30.3)	7.6 (3.7-15.0)	6.2 (1.3-24.3)	12.3 (8.7-17.3)

\* For each patient type reported (self, another adult, or child), respondents were asked to recall the most recent encounter and asked if the clinician specifically spoke about household firearms or firearm storage. For example, if a respondent indicated that they had spoken to a health care provider about firearm safety during an emergency department visit in which they were the patient and also during an outpatient visit in which a child was the patient, they were asked follow-up questions regarding each visit. For each encounter in which the respondent reported that a provider had spoken to them, they were asked what the provider spoke about. Respondents were allowed to select >1 answer choice for each reported encounter; thus, percentages may sum to >100%.

† Respondents who answered affirmatively to our stem question regarding whether or not they had ever discussed firearm safety with a health care provider were asked to indicate the setting in which the conversation occurred ("During an outpatient visit with a primary care physician or medical specialist," "During an outpatient visit with a mental health counselor such as a psychiatrist, psychologist or social worker," "During a visit to the emergency department," or "Some other type of setting") and who the patient was ("You were the patient," "Another adult was the patient," or "A child was the patient"). Respondents could select >1 setting-patient answer combination.

Conner, A., Azrael, D., & Miller, M. (2020). [Firearm Safety Discussions Between Clinicians and U.S. Adults Living in Households With Firearms: Results From a 2019 National Survey](#). *Annals of Internal Medicine*.



# Joint Citizens and Legislative Committee on Children-2020 and 2021 Data Reference Book

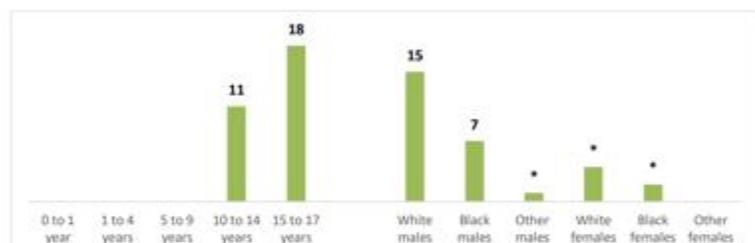
## Child Suicide

### S.C. CHILD SUICIDE (2018)



29 suicide deaths, an increase of 2 deaths from 2017.  
**1<sup>st</sup> leading cause of death for children aged 10 to 14 years.**  
**2<sup>nd</sup> leading cause of death for children aged 15 to 17 years.**  
 13 deaths, or 45% of child suicide deaths were caused by discharge of firearms.

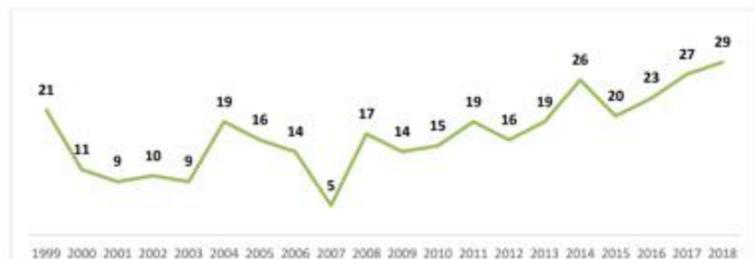
### S.C. CHILD SUICIDE DEATHS BY AGE, GENDER AND RACE (2018)



### COMPARED TO NATIONAL DATA (2018)

S.C. child suicide death rate (n=29): 2.62 per 100,000 population  
**HIGHER THAN**  
 National rate (n=1,834): 2.50 per 100,000 population

### S.C. CHILD SUICIDE DEATHS BY YEAR



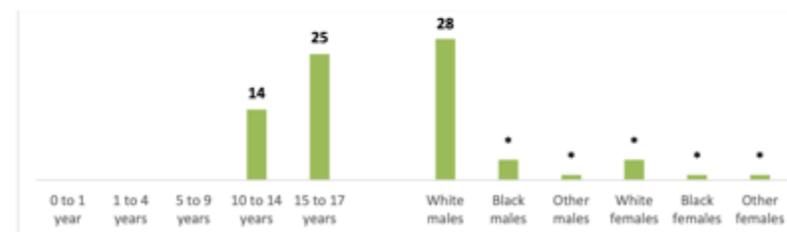
## Child Suicide

### S.C. CHILD SUICIDE (2019)



39 suicide deaths, an increase of 10 deaths from 2018.  
**1<sup>st</sup> leading cause of death for children aged 10 to 14 years and 15 to 17 years.**  
**19 deaths, or 49% of child suicide deaths were caused by discharge of firearms.**

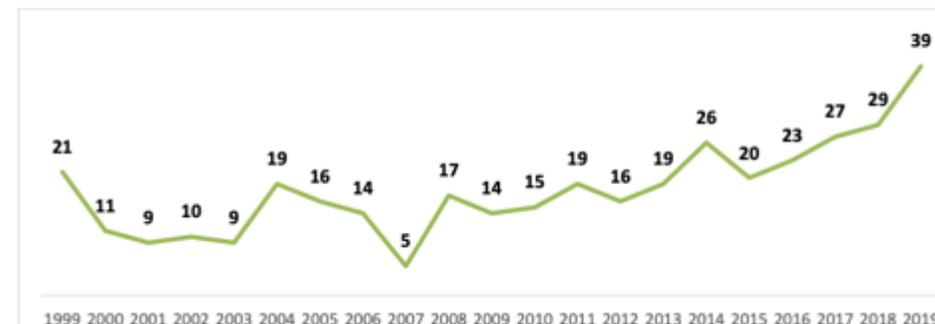
### S.C. CHILD SUICIDE DEATHS BY AGE, GENDER AND RACE (2019)



### COMPARED TO NATIONAL DATA (2019)

S.C. child suicide death rate (n=39): 3.51 per 100,000 population  
**HIGHER THAN**  
 National rate (n=1,646): 2.25 per 100,000 population

### S.C. CHILD SUICIDE DEATHS BY YEAR (1999-2019, N=378)



Committee Website: [sccommitteeonchildren.org](http://sccommitteeonchildren.org)

# 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*

Date	Intervention
Jan-May 2018	Baseline time period
May 2018	Be SMART lecture
June 2018	Resident initial survey
June 2018	Parent Safety Survey Resident follow-up survey Wear Orange Day
July 2018	Be SMART roll-out in PPC clinic
March 2019	EHR prompt added
June 2019	Wear Orange Day
July 2019	New intern class
October 2019	Email reminder prompt to residents
Weekly	Informal in-person reminders

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
3. 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.

Gastineau KAB et al. Improving the Frequency and Documentation of Gun Safety Counseling in a Resident Primary Care Clinic. Academic Pediatrics. Epub 2020