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HOUSE OF REPRESENTATIVES

COMMONWEALTH of PENNSYLVANIA

House Democratic Policy Committee Hearing

Gun Violence Intervention

Monday, August 12, 2024 | 1:00 p.m. Rep. Danielle Friel Otten, Rep. Anthony Bellmon

OPENING REMARKS

1:00 p.m. Rep. Danielle Friel Otten, D-Chester

Rep. Anthony Bellmon, D-Philadelphia

PANEL ONE

1:10 p.m. Mary Kenah, Legislative Counsel

Everytown for Gun Safety

Adam Garber, Executive Director

Ceasefire PA

Q & A with Legislators

PANEL TWO

1:40 p.m. Deion Sumpter, Director

Group Violence Intervention

Dr. Vivek Ashok, Affiliate Trainee

CHOP PolicyLab

Q & A with Legislators

PANEL THREE

2:10 p.m. Scott Bohn, Executive Director

Pennsylvania Chiefs of Police Association

Q & A with Legislators



Testimony Prepared By:

Vivek Ashok, MD, FAAP

Attending Physician, General Pediatrics, Children's Hospital of Philadelphia Affiliate Trainee, PolicyLab at Children's Hospital of Philadelphia Fellow, Center for Violence Prevention at Children's Hospital of Philadelphia

Introduction:

Good afternoon,

My name is Vivek Ashok, and I am a pediatrician at Children's Hospital of Philadelphia (CHOP), as well as a researcher at CHOP's PolicyLab and Center for Violence Prevention. My research focuses on understanding the broad role health systems play in addressing community violence and how policies impact injuries and deaths from firearms.

I'd like to thank Representative Ryan Bizzarro and the entire House Democratic Policy Committee for the opportunity to discuss the impact of firearm violence on children and families, and to offer evidence-based approaches to reducing gun violence.

I will begin by discussing my experience caring for children impacted by firearm violence in both Pittsburgh and Philadelphia, then share what the research tells us about the spillover health impacts of firearm violence on family and community members. Throughout my testimony, I will also comment on the gun incident reporting system, and offer details on evidence-based policies shown to reduce mortality from firearm injury.

Personal Experiences

I have heard many stories from my patients about how firearms and firearm violence have impacted them. I will share two.

As a pediatric resident, I cared for a 16-year-old from Pittsburgh. During a routine visit in my primary care clinic in Turtle Creek, PA, we confirmed that he had type 1 diabetes. He was visibly and appropriately scared and distraught because his father died from the same disease. He kept muttering "what was the point of all of this." His sister picked him up to go to the emergency room; however, his mom called the office later that day saying he never arrived at the hospital. I vividly remember his mother saying that there was a gun in the home, and she was terrified that her son would use it to kill himself. Yet, there was no way for the boy's care team or mother to ensure that this firearm was removed from their home or support his family in appropriately securing the firearm to prevent access. At the time I did not have resources to help, like offering a cable lock from our clinic to secure the firearm or a mechanism to temporarily remove the firearm from the home.

- As a primary care pediatrician at CHOP's practice in South Philadelphia, I took care of a 14-year-old male patient, whose mother told me she homeschooled him for fear he would get shot on his walk to school. She felt as though nowhere around her was safe, leading to her son feeling isolated, depressed, and anxious. I felt powerless, unable to protect my patient from the gun violence in his community and its threats to his physical and mental health. The best I could offer at the time was follow-up and mental health resources, yet no solutions to the societal issues that drive community violence.

Health Impacts of Firearm Violence

Firearm violence, which encompasses suicides and self-inflicted injury, homicides, and unintentional injury deeply impacts the health and wellbeing of children, families, and communities. Studies estimate that nearly all people in the U.S. will know a victim of gun violence in their lifetime. In fact, a single neighborhood incident of firearm violence can affect as many as 200 people in the community. 2

Starting from birth, firearm violence disproportionately impacts Black children and adolescents because of policies and practices rooted in structural racism that have led to economic disinvestment, educational inequities, and opportunity gaps.^{3,4} At the community level, individuals who live in neighborhoods impacted by gun violence have higher rates of anxiety, depression, post-traumatic stress disorder, poorer mental health and sleep.^{5,6,7}

In fact, a study conducted by my CHOP colleague Dr. Aditi Vasan combined data on firearm violence in Philadelphia available through the city's OpenDataPhilly repository with electronic health record data and found that in the two months following a shooting, children living in the surrounding 4-6 blocks were almost twice as likely to come into CHOP's emergency room for mental health symptoms such as anxiety, depressed mood, insomnia, and intentional self-harm. This association was strongest for children living within 2-3 blocks of the shooting, in the two weeks immediately after the shooting, and for children exposed to multiple shootings.

¹ Kalesan, B., Weinberg, J., & Galea, S. (2016). Gun violence in Americans' social network during their lifetime. *Preventive Medicine*, *93*, 53-56. https://doi.org/10.1016/j.ypmed.2016.09.025

² Lane, S. D., Rubinstein, R. A., Bergen-Cico, D., Jennings-Bey, T., Fish, L. S., Larsen, D. A., Fullilove, M. T., Schimpff, T. R., Ducre, K. A., & Robinson, J. A. (2017). Neighborhood Trauma Due to Violence: A Multilevel Analysis. *Journal of Health Care for the Poor and Underserved*, *28*(1), 446-462. https://doi.org/10.1353/hpu.2017.0033

³ Masho, S. W., Cha, S., Chapman, D. A., & Chelmow, D. (2017). Understanding the role of violence as a social determinant of preterm birth. *American Journal of Obstetrics and Gynecology*, *216*(2), 183.e1-183.e7. https://doi.org/10.1016/j.ajog.2016.10.001

⁴ Reddy, A. R. (2024). Child opportunity index is associated with pediatric firearm injury in Philadelphia, Pennsylvania. *Frontiers in Public Health*, *12*. https://doi.org/10.3389/fpubh.2024.1339334

⁵ Abba-Aji, M., Koya, S. F., Abdalla, S. M., Ettman, C. K., Cohen, G. H., & Galea, S. (2024). The mental health consequences of interpersonal gun violence: A systematic review. *SSM - Mental Health*, *5*, 100302. https://doi.org/10.1016/j.ssmmh.2024.100302

⁶ Venkataramani, A. S., Bair, E. F., Bor, J., Jackson, C. L., Kawachi, I., Lee, J., Papachristos, A., & Tsai, A. C. (2024). Officer-Involved Killings of Unarmed Black People and Racial Disparities in Sleep Health. *JAMA Internal Medicine*, *184*(4), 363. https://doi.org/10.1001/jamainternmed.2023.8003

⁷ Vasan A, Mitchell HK, Fein JA, Buckler DG, Wiebe DJ, South EC. Association of Neighborhood Gun Violence With Mental Health–Related Pediatric Emergency Department Utilization. *JAMA Pediatr*. Published online September 20, 2021. doi:10.1001/jamapediatrics.2021.3512

Economic Impacts of Firearm Violence

While I see the health and well-being impact of firearm violence as paramount, it is also worth noting that it has a high financial cost for our society and to those that experience it.⁷ Child survivors and their caregivers face increased economic burdens compared to their peers.⁸ Another study conducted by Dr. Vasan showed that youth exposed to violence had higher rates of unmet health needs, trouble paying medical bills, delayed medical and mental health care, and increased use of acute care medical services.⁹

One hospitalization for a survivor of gun violence can cost \$35,000. 10 This does not include follow-up visits or care for co-victims. In 2020, the total cost of firearm-related injuries and deaths in the U.S. was \$493.2 billion, with \$78 billion attributed to youth firearm injuries. 11,12 These costs are mostly incurred by public health insurance programs – specifically Medicare and Medicaid. 13,14

Evidence-Based Clinical Interventions to Reduce Firearm Violence

Many local and state-level policies have proven effective in reducing firearm injuries. As a pediatrician, I will first focus on how clinicians and healthcare systems have intervened to ensure the safety and well-being of children. Counseling patients and families on injury prevention is a crucial part of my job. During office visits, I routinely counsel families on how to protect their children from injuries related to motor vehicles and bicycles, drowning, poisoning, and other hazards. Pediatricians have also recognized the need to do more to protect our patients from firearm injury.

The American Academy of Pediatrics advises families with firearms in the home that the ideal storage practices are keeping a firearm locked in a safe or locker, unloaded, and separate from ammunition.¹⁵ Yet, fewer than 1 in 3 U.S. homes with children follow these guidelines and more

⁸ Song, Z., Zubizarreta, J. R., Giuriato, M., Koh, K. A., & Sacks, C. A. (2023). Firearm Injuries In Children And Adolescents: Health And Economic Consequences Among Survivors And Family Members. *Health Affairs*, 42(11), 1541-1550. https://doi.org/10.1377/hlthaff.2023.00587

⁹ Khazanchi, R., South, E. C., Cabrera, K. I., Winkelman, T. N., & Vasan, A. (2024). Health Care Access and Use Among U.S. Children Exposed to Neighborhood Violence. *American Journal of Preventive Medicine*, 66(6), 936-947. https://doi.org/10.1016/j.amepre.2024.01.009

¹⁰ Spitzer, S. A., Vail, D., Tennakoon, L., Rajasingh, C., Spain, D. A., & Weiser, T. G. (2019). Readmission risk and costs of firearm injuries in the United States, 2010-2015. *PLOS ONE*, *14*(1), e0209896. https://doi.org/10.1371/journal.pone.0209896

¹¹ Miller, G. F., Barnett, S. B. L., Florence, C. S., McDavid Harrison, K., Dahlberg, L. L., & Mercy, J. A. (2024). Costs of Fatal and Nonfatal Firearm Injuries in the U.S., 2019 and 2020. *American Journal of Preventive Medicine*, 66(2), 195-204. https://doi.org/10.1016/j.amepre.2023.09.026

¹² Parker, E. M., Xu, L., D'Inverno, A., Haileyesus, T., & Peterson, C. (2024). The Health and Economic Impact of Youth Violence by Injury Mechanism. American Journal of Preventive Medicine, 66(5), 894-898. https://doi.org/10.1016/j.amepre.2023.12.019

¹³ Spitzer, S. A., Staudenmayer, K. L., Tennakoon, L., Spain, D. A., & Weiser, T. G. (2017). Costs and Financial Burden of Initial Hospitalizations for Firearm Injuries in the United States, 2006–2014. *American Journal of Public Health*, 107(5), 770-774. https://doi.org/10.2105/ajph.2017.303684

¹⁴ Spitzer, S. A., Vail, D., Tennakoon, L., Rajasingh, C., Spain, D. A., & Weiser, T. G. (2019). Readmission risk and costs of firearm injuries in the United States, 2010-2015. *PLOS ONE*, *14*(1), e0209896. https://doi.org/10.1371/journal.pone.0209896

¹⁵ https://www.aap.org/en/patient-care/gun-safety-and-injury-prevention/

than one third of adolescents report being able to access a loaded household firearm in less than 5 minutes. 16,17

Discussing secure firearm storage has become an increasingly common practices among pediatricians. And the evidence shows us that secure firearm storage works. If 20% of households that store at least one unlocked gun moved to locking all guns, in a single year 72 to 135 youth firearm fatalities and 235 to 323 youth firearm shootings could be prevented.¹⁸

While acknowledging that this recommendation is not feasible for all firearm owners, pediatricians and firearm owners have a responsibility to collaborate and find family-centered firearm storage firearms solutions. That is why CHOP physicians including Drs. Dorothy Novick, Joel Fein, and Ani Reddy have incorporated universal screening, safe storage counseling, and cable lock distribution in the emergency room, primary care, and pediatric intensive care settings.

Screening for firearm access has also been integrated into the CHOP Adolescent Health Questionnaire (AHQ) to develop a novel and systematic way to capture health risks in this population. ¹⁹ The AHQ provides a feasible and acceptable method for adolescents and healthcare institutions to collaborate in information gathering. Using this tool, CHOP researchers found among children seen at CHOP Care Network Practices in Southeastern Pennsylvania, 1 in 8 adolescents at urban practices and 1 in 6 adolescents at suburban practices self-report having a firearm in their home. ²⁰ For this hearing, we also gathered data from three localities around Downingtown, PA, and report the percentage of households with a firearm and the percentage of adolescents aged 13 and older with access to that firearm: Coatesville (26% and 5%), Pottstown (25% and 4%), and West Chester (14% and 3%).

Evidence-Based Policy Interventions to Reduce Firearm Violence

Clinical interventions such as safe storage counseling are critical, but more needs to be done to protect our most vulnerable patients. Fortunately, there are proven policy solutions that can help reduce firearm violence and thereby protect children's health and well-being. Many of these are outlined in the CHOP PolicyLab and Center for Violence Prevention Evidence-to-Action brief.²¹ These include evidence-based public health interventions, such as secure firearm storage and background check laws, extreme risk protection orders, place-based interventions like home

¹⁶ Scott, J., Azrael, D., & Miller, M. (2018). Firearm Storage in Homes With Children With Self-Harm Risk Factors. *Pediatrics*, *141*(3). https://doi.org/10.1542/peds.2017-2600

¹⁷ Salhi, C., Azrael, D., & Miller, M. (2021). Parent and Adolescent Reports of Adolescent Access to Household Firearms in the United States. *JAMA Network Open*, *4*(3), e210989. https://doi.org/10.1001/jamanetworkopen.2021.0989

¹⁸ Monuteaux, M. C., Azrael, D., & Miller, M. (2019). Association of Increased Safe Household Firearm Storage With Firearm Suicide and Unintentional Death Among US Youths. *JAMA Pediatrics*, *173*(7), 657. https://doi.org/10.1001/jamapediatrics.2019.1078

¹⁹ Jenssen, B. P., DiFiore, G., Powell, M., Luberti, A., Rapposelli, A., Lawton, G., Dalembert, G., Wood, S., Ford, C. A., Biggs, L., & Fiks, A. G. (2024). Accelerating Innovation in Primary Care to Support Adolescent Health Discussions. *Pediatrics*. https://doi.org/10.1542/peds.2023-064285

²⁰ DiFiore, G., Wood, S., Jenssen, B. P., Fiks, A. G., & Mayne, S. L. (2023). Cumulative Health Vulnerabilities Among Adolescents by Age and Neighborhood Opportunity. *Pediatrics*, *152*(6). https://doi.org/10.1542/peds.2023-062657

 $^{^{21}\} https://policylab.chop.edu/evidence-action-briefs/preventing-unintentional-firearm-injury-death-among-youth-examining-evidence$

remediation and vacant lot greening, and community-based violence prevention programs. While there are a number of phenomenal programs led by community partners, I'll also highlight CHOP's Violence Intervention Program and Drexel's Helping Hurt People.²²

A robust body of literature shows that child access prevention (CAP) laws help reduce firearm suicides, violent crime, and unintentional injury and death and suicides among all ages, and especially youth aged 14-17 and young adults aged 18-20.²³ 85% of unintentional firearm deaths in children ages 12 and younger occur in the home and 82% of firearms involved in adolescent shootings are obtained by theft from relatives.^{24,25} By instituting a policy that promotes responsible firearm ownership in households with youth and prevents negligent firearm storage, lawmakers can improve the health and safety of children.

Another policy that promotes responsible firearm ownership requires firearms dealers to provide gun locks with every handgun sale in Pennsylvania. However, this requirement does not extend to long gun sales. By providing point-of-sale locks to long gun purchasers, this policy promotes an evidence-based approach to protecting children and youth. Lastly, extreme risk protection orders (ERPO) temporarily remove firearms from persons at risk to self or others. One study estimated that for every 22 ERPO petitions filed, one firearm suicide is prevented.²⁶ Furthermore, there is some evidence that ERPOs have reduced mass shootings and violent crime.²⁷

Data Limitations and the Gun Incident Reporting System

Evaluating the effectiveness of policies and interventions to reduce firearm injury is hindered by the availability and limitations of current data sources. Currently the best data sources on fatal and nonfatal firearm injuries include the Gun Violence Archive, the Centers for Disease Control and Prevention Web-Based Injury Statistics Query and Reporting System, and the Agency for Healthcare Research and Quality Healthcare Cost and Utilization Project databases. However, each of these sources has limitations.

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²² South EC, MacDonald J, Reina V. Association Between Structural Housing Repairs for Low-Income Homeowners and Neighborhood Crime. *JAMA Netw Open.* 2021;4(7):e2117067. doi:10.1001/jamanetworkopen.2021.17067 https://www.rand.org/research/gun-policy/analysis/child-access-prevention.html

²⁴ Wilson, R. F., Mintz, S., Blair, J. M., Betz, C. J., Collier, A., & Fowler, K. A. (2023). Unintentional Firearm Injury Deaths Among Children and Adolescents Aged 0–17 Years — National Violent Death Reporting System, United States, 2003–2021. *MMWR. Morbidity and Mortality Weekly Report*, 72(50), 1338-1345. https://doi.org/10.15585/mmwr.mm7250a1

²⁵ Klein, B. R., Trowbridge, J., Schnell, C., & Lewis, K. (2024). Characteristics and Obtainment Methods of Firearms Used in Adolescent School Shootings. *JAMA Pediatrics*, *178*(1), 73. https://doi.org/10.1001/jamapediatrics.2023.5093

²⁶ Miller, M., Zhang, Y., Studdert, D. M., & Swanson, S. (2024). Updated Estimate of the Number of Extreme Risk Protection Orders Needed to Prevent 1 Suicide. *JAMA Network Open*, 7(6), e2414864. https://doi.org/10.1001/jamanetworkopen.2024.14864

²⁷ Zeoli, A. M., Frattaroli, S., Barnard, L., Bowen, A., Christy, A., Easter, M., Kapoor, R., Knoepke, C., Ma, W., Molocznik, A., Norko, M., Omaki, E., Paruk, J. K., Pear, V. A., Rowhani-Rahbar, A., Schleimer, J. P., Swanson, J. W., & Wintemute, G. J. (2022). Extreme risk protection orders in response to threats of multiple victim/mass shooting in six U.S. states: A descriptive study. *Preventive Medicine*, *165*, 107304. https://doi.org/10.1016/j.ypmed.2022.107304

The Gun Violence Archive sources from news coverage of firearm incidents, thus events that are not reported do not appear in the dataset, thereby likely underestimating the true number of firearm injuries. Centers for Disease Control data is limited to fatal firearm injury and lacks incidents of nonfatal firearm injury for many years, states, and counties. The Agency for Healthcare Research and Quality database and other hospital databases often do not capture all nonfatal firearm injuries, as they exclude patients discharged directly from the emergency room and those who do not seek medical care.

To develop evidence-based policy solutions for firearm injury prevention, there is a need for inclusive and comprehensive data. A gun incident reporting system has potential to be an impactful step in this direction, and it is essential that these data are made available to researchers and public health professionals, in addition to other relevant actors

Conclusion

Pediatricians work tirelessly to secure healthy futures for their patients and families, yet there is only so much we can do to prevent gun injury and death without more supportive public policy. We are exhausted from witnessing children's futures being cut short by firearm violence. In your role as Pennsylvania legislators, you have the opportunity to ensure that the Commonwealth serves as a model for the rest of the country in safeguarding the health and well-being of our children through promoting responsible firearm ownership and safety. Thank you so much again for this invitation, and I look forward to taking your questions.