Preventing Firearm-Related Death and Injury: A Call to Action for Wisconsin Health Systems and the Wisconsin Hospital Association

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eaths and injuries related to firearms in the United States have reached epidemic proportions and continue to rise. Approximately 40,000 people die in the US, and an estimated 100,000 people are injured from firearms annually. In 2021, Wisconsin firearm injuries increased by 11% over 2020; 2020 firearm injuries reflected a 71% increase over 2019. The number of people killed with firearms in Wisconsin increased in 2020 by 48% over 2019; and 2021 fatalities from firearms increased by 34% over 2020.1

Although injuries from motor vehicle crashes and falls outnumber all other patient injuries in Wisconsin adult trauma centers, it is the lethal nature of firearms (high case fatality ratio) that distinguishes them from other causes of injury. Firearms account for less than 10% of suicidal acts but 50% of deaths—the highest case fatality ratio of any other method. It is well documented that access to firearms increases

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the risk of death by suicide by 3 times. With a reported 64% increase in gun purchases (22 million) in 2020 over 2019 and a 30% increase in unintentional shooting deaths of children between March and December 2020 over 2019, the forecast is dire.² Despite these alarm-

calling on health systems to create training and leverage resources to prevent these injuries from occurring.

In Wisconsin, we can and need to do more. Recently, with support from the Kaiser Permanente health system and the American

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ing trends, as most firearm injuries are intentional, there are opportunities for intervention and prevention utilizing a comprehensive public health approach to address this epidemic.

Our nation's health care systems manage the care of patients with violent injuries, most notably injuries from bullets. Our health systems also care for these patients long after the initial injury has occurred. We also care for and mobilize resources for the countless indirect victims – the family members and friends of victims and the witnesses of violence. The trauma system/regional trauma systems in Wisconsin initially and definitively manage the biology of firearm injuries and continue to make progress in saving lives, minimizing physical disabilities, and preventing death. Rather than sitting back and treating the downstream impact of growing gun violence in our communities, we are

Hospital Association, the National Academy of Medicine published a workshop that identifies ways health care systems can actively engage in firearm injury prevention. More recently, the Association of American Medical Colleges president and the chief executive officer of the Ascension health care system have opined about the importance of health care systems in preventing gun violence. Finally, Northwell Health and several other health care systems across the United States have begun to commit to violence prevention—specifically gun violence prevention (Northwell Center for Gun Violence Prevention).³

There is a unique opening for hospital emergency departments (ED) and inpatient care providers to intervene at a moment when patients who have suffered firearm injuries may be particularly responsive to options and interven-

74 WMJ • JULY 2022

tions. A highly successful approach to hospital-based firearm injury interventions engages community partners with lived experience who provide culturally proficient peer support to patients and family members beginning in the hospital and continuing with community-based intensive case management. The first hospital violence intervention programs (HVIP) were established in the 1990s.⁴ They embrace a public health approach to prevention and have been evaluated and proven effective at reducing intentional firearm injury.

In addition, primary care physicians—along with other health care professionals providing care in ambulatory care settings—have a crucial role to play in screening for all forms of injury prevention. The American Medical Association. American Academy of Family Physicians, American Academy of Pediatrics, and American Public Health Association all recommend that clinicians screen their patients for firearm injury prevention and safe storage. 5,6 To save the lives of hundreds of Wisconsinites per year, Wisconsin's health care systems should encourage primary care providers and other physicians and clinicians to perform brief screening for firearm ownership followed by counseling on firearm injury prevention. This intervention is crucial for patients at risk for self-harm and intimate partner violence and patients with mental illness (including dementia and depression), as well as homes with children or adolescents.7 A comprehensive firearm-related injury prevention program is centered on strengthening patient care, genuine community engagement, and advancing research, education, and policy.

Principles to address and reduce gun violence and achieve gun safety in all Wisconsin communities through a comprehensive approach include the following:

- Employ a public health approach (define the problem, identify risk and protective factors, develop and test prevention strategies, assure widespread adoption) in partnership with other sectors of civil society, including public health agencies, communitybased violence prevention organizations, law enforcement, fire department, schools, faith-based organizations, and businesses (including qun shop owners).
- Provide trauma-informed care for all patients and families: inpatient/outpatient/ community.

- Consider vicarious trauma prevention strategies for staff treating patients with firearm injuries.
- Involve all aspects of the health care systems in genuine community engagement initiatives to help make our communities healthy and safe for everyone.
- Educate, communicate, and collaborate within your health care organization and your community.

COMMUNITY-BASED APPROACHES

Community-based approaches include the following:

- Be an active and essential partner in genuine community engagement initiatives.
 - Address upstream social determinants of health and structural racism that underpin the cycle of violence and establish programs to address these obstacles to achieve health and safety.
 - Partner with public health, law enforcement, hospital EDs, and community leaders to implement the Cardiff Model (which has been shown to reduce violence/injuries by 30% to 40%) across cities in Wisconsin.⁸ The Cardiff Model combines and maps anonymous hospital and law enforcement data (location, time, date, mechanism of injury) to help create and evaluate local place-based solutions for preventing violent injuries.⁹
 - As an extension of biopsychosocial care of patients who are injured from bullets, employ behavioral interrupters with lived experience in real time that continue trauma-informed care into the community, linking patients to resources that can address safety, food, housing, employment insecurity, cognitive behavioral therapy, and other needs that can reduce the risk of future violence.
 - Create opportunities for system-wide health care and community conversations about preventing firearm injuries.
 Partner with gun shop owners to establish safe gun storage programs and help in identifying and implementing realistic strategies for preventing firearm injuries in your communities.
 - Consider sponsoring Stop the Bleed¹⁰ training in communities.
 - · Empower or dedicate a portion of a staff

- position to focus on firearm injury prevention.
- Use your voice and experiences to inform local, regional, and state organizations and policy leaders on evidence-based gun safety programs and policies.¹¹
- Work in partnership with community-based organizations and academic leaders to provide health care professionals education and staff training on community-based interventions, including effective screening strategies for assessing firearm injury risk and trauma (eg, acute, historical, adverse childhood experiences).
- Partner with academic resources/centers to advocate for resources to advance research through rigorous evaluation of communitybased firearm violence prevention interventions.
- Contribute to, and actively participate in, regional, state, and national coalitions of health system-based organizations working on firearm violence prevention efforts, such as HAVI and Northwell's Gun Violence Prevention initiative.³
- Strengthen health systems' participation in the state's trauma care system.¹²

DIRECT PATIENT-CARE APPROACHES

Direct patient-care approaches include the following:

- In the hospital and ED settings, employ the biopsychosocial model to strengthen discharge planning of patients with partnerships with and referrals to community resources (eg, trauma treatment, sexual/ domestic/community violence and child abuse prevention programs, suicide prevention, basic needs).
- Strengthen the care of patients with traumainformed care throughout the spectrum of care.
- Strengthen staff/clinician education (inpatient/ED/outpatient) on best practices for screening/counseling on safe firearm storage, identifying high-risk patients, and lethal means restriction training.¹³ During clinical encounters, clinicians should do the following:
 - Inquire about firearms in the home; ask about the plan to keep the gun and ammunition safe and away from unintended users. 14,15

VOLUME 121 • NO 2 75

- Clinicians should also screen to ensure high-risk individuals are safe with firearm(s) in the home. This includes screening for mental health concerns or suicidal ideation, intimate partner violence, or children/adolescents in the home. Certain higher-risk patients may wish to have a voluntary transfer of their firearm to a trusted individual so their firearm can be held during a period of increased risk for injury from the firearm 16,17
- Exam rooms can include handouts or posters with QR codes that highlight the key elements of safe firearm storage.
- Consider providing gun locks for patients and information about resources for local gun shops that offer safe storage programs.
- Strengthen staff/clinician education (inpatient/ED/outpatient) on trauma-informed care and the range of community resources that address gun injury prevention (eg, trauma treatment, sexual/intimate partner/community violence and child abuse prevention programs, suicide prevention).
- Leverage the electronic medical record capabilities to streamline universal screening questions regarding gun access and safety and link to local resources.

COLLABORATION/ADVOCACY/ RESEARCH

- Join the Gun Violence Prevention Learning Collaborative for Health Systems and Hospitals that is committed to learning from other health care organizations with the "intention of developing and implementing best practices for firearm safety and gun violence prevention." 18
- Engage gun owners within your health care system to help identify strategies for addressing firearm injury prevention in the community and strategies for health care providers.
- Advocate for appropriate research funding as part of the federal budget for firearmrelated injury and violence prevention research.¹⁹
- Collaborate across health care organizations to foster evidence-based public policy and programs to decrease gun violence. These might include Extreme Risk

Protection Order (ERPO)²⁰ policies, means restriction training, and other strategies to reduce violence.

THE TIME TO ACT IS NOW

Deaths and injuries from firearms only continue to increase in Wisconsin. There is clear evidence to guide what can be done and how to focus efforts to reduce both intentional and unintentional firearm injuries through a multifaceted approach grounded in public health. Wisconsin health care organizations and the Wisconsin Hospital Association can play a vital role in advancing and implementing this gun injury/violence prevention model for Wisconsin and its health care systems.

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76 WMJ • JULY 2022



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