Health care providers and clinicians have a large role in screening for and prevention of firearm violence.

- Social determinants of health influence risk for firearm violence.
- Health care providers serve as frontline gatekeepers to identify those at risk for firearm violence.
- Health care providers often lack resources necessary to address firearm violence during the patient visit.

Each year, Americans experience the tragedy associated with firearm violence. Mass shooting events raise public awareness; however, these events account for 1-2% of firearm related deaths. According to the Centers for Disease Control and Prevention (2017) most firearm-related deaths (60%) occur due to suicide followed by homicide (33%). Studies indicate that certain factors increase risk for firearm violence. Some of these factors include a history of violent victimization, poorly controlled mental illness, and interpersonal violence. Societal elements, specifically social determinants of health, increase these risk factors. Social determinants of health refer to how a person’s background such neighborhood, socioeconomic status, and education influence health outcomes. Exposure to stressful events combined with a history of victimization influences coping mechanisms. These stressful events combined with prior social history, such as interpersonal violence, increase the risk for firearm violence.

Patients at risk for firearm violence frequently interact with clinicians. At least 45% of suicide victims received care from a health care provider at least one month prior to death. Eighty percent of suicide patients experienced a health care encounter one year prior to death. These factors provide clinicians the opportunity to screen patients at risk for firearm violence and direct patients to appropriate resources to reduce suicide risk. However, clinicians report that they lack the tools to address these patients during office visits. Studies show that clinicians do not educate or screen patients for firearm violence due to lack of training and lack of confidence in discussing the topic without offending the patient. Reports also indicate clinicians feel powerless to address firearm violence.
ROOT CAUSE OF FIREARM VIOLENCE

Lack of clinician training prevents health care providers from screening and directing patients to appropriate community-based resources, which contributes to firearm violence as shown by statistics. As of 2019, firearm violence is now the second leading contributor of death among teens and children in the United States.9 Firearm-related suicide and homicide continues to serve as one of the top ten causes of death across the lifespan.1 Social determinants of health greatly influence firearm-related suicide and homicide rates. Fifty percent of homicides of women occur due to intimate partner violence.10 African-American men account for 90% of firearm-related homicides, whereas 90% of suicides occur among white middle-aged and geriatric men.11 Sociodemographic stressors such as social isolation and bereavement combined with impaired decision-making increase suicide risk among the elderly.12 An inability to influence physical decline of the aging process also contributes to depression among geriatric white men.13 Risk factors such as feelings of hopelessness, isolation, and recent crisis within the past two weeks all increase firearm suicide risk.14 Identifying patients with these risk factors allows clinicians to intervene and guide these patients to specific social resources.

Clinicians require training that assists with screening and discussing firearm violence. Health care providers need to know how to differentiate between patients with acute risk factors and patients with generalized individual risk factors. Categorizing patients in this manner allows clinicians to screen high-risk individuals during any given encounter. Individual risk factors include history of violent behavior, history of violent victimization, abusive partners, misuse of alcohol or drugs, and inadequately controlled mental illness.2 Under stressful scenarios, these individual risk factors place patients at risk for firearm violence.4 These risk factors contribute to the rising cost of firearm violence, an estimated $229 billion annually or 1.4% of the gross domestic product.15

ROLE OF HEALTH POLICY

Providing health care providers with resources that assist with screening and counseling patients at risk for gun violence can save lives. A clinical trial entitled Emergency Department-Safety Assessment and Follow-up Evaluation (ED-SAFE) utilized a suicide screening tool along with specific interventions to address suicide risk.16 Screening for suicide risk allowed clinicians to identify at-risk individuals who otherwise would remain undetected. Another study indicated screening did not impair clinician productivity.17 Results from these studies suggest that screening for suicide risk in a health care setting identifies at-risk individuals and allows clinicians to refer patients to appropriate resources.18,19 Studies also indicate that patients welcome this discussion as part of the health care visit.7 The Consortium for Risk Based Firearm Policy report entitled Breaking Through Barriers: The Emerging Role of Health care Provider Training Programs in Firearm Suicide Prevention provides detailed instructions to assist administrators and clinicians with discussing firearm safety.20 These types of resources provide guidance for screening patients at risk for firearm violence.
ROLE OF HEALTH CARE SYSTEM

Health care systems can make use of training sessions that address how to incorporate firearm violence screening into the office visit. University of California Davis Health introduced an initiative entitled What You Can Do that provides resources such as educational material, continuing education credit, and evidence-based literature that assists in screening and counseling patients for firearm violence.21 This initiative provides training on how to discuss safe firearm storage when short-term crisis, which increases the risk for firearm violence, occurs.

TEACHING STRATEGIES

Applying evidence-based tools such as the Ottawa Decision Support Framework serves as another strategy where health care systems assist providers with firearm violence prevention.22 This decision support tool guides clinicians and patients with decision making, coaching, and counseling regarding safe firearm storage.8 Access to guns in the home increases risk for death. An initiative entitled Counseling on Access to Legal Means (CALM) teaches parents of teenagers about safe gun storage. These types of teaching strategies equip clinicians with resources to initiate conversations regarding firearm safety and violence prevention.

DATA ANALYTICS AND SOCIAL RESOURCES

Data analytics from community-based data banks allow clinicians to identify and address social barriers to care within a local population. This type of information provides greater insight regarding regional health care disparities that contribute to firearm violence. By applying data analytics to identify health disparities within a region, Atrium Health could collaborate with local community health programs to create grant proposals addressing health disparities.23 This type of data analysis from local databanks equips health care institutions with information regarding patients at risk for firearm violence. For example, extracting local data such as police reports of domestic violence, restraining orders, and firearm registration identifies patients at risk for firearm violence and intimate partner violence. Data analysis also extracts information regarding local community resources within a region, such as mental health clinics and domestic violence shelters, allowing clinicians to provide patients at risk for firearm violence direct contacts to local resources during the office visit.

CONCLUSION

Providing health care providers training to screen and counsel patients at risk for firearm violence allows health care providers to implement interventions that prevent firearm death and injury. Screening can empower health care providers to partner with community stakeholders to address the structural issues of violence that impact social determinants of health. Connecting patients to local community resources, developing policies that address health care disparities, using data analytics, and incorporating health care provider training are strategies that can reduce firearm violence.