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Trauma Center-Community Partnerships to Address Firearm Injury: It can be Done

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Trauma Center-Community Partnerships to Address Firearm Injury: It can be Done

Abstract

Firearm violence is often framed as a problem of the inner cities and of the criminal justice system. However, this focus may direct attention away from smaller communities that also face firearm violence, including suicide. Ten years ago, the Firearm and Injury Center at Penn (FICAP) developed and implemented a model program in three smaller cities, using trauma centers to spearhead community partnerships. This Issue Brief describes the development and implementation of these partnerships, and highlights one community's ongoing activities to reduce firearm injury.

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Trauma Center-Community Partnerships to Address Firearm Injury: It Can Be Done

Editor's Note: Firearm violence is often framed as a problem of the inner cities and of the criminal justice system. However, this focus may direct attention away from smaller communities that also face firearm violence, including suicide. Ten years ago, the Firearm and Injury Center at Penn (FICAP) developed and implemented a model program in three smaller cities, using trauma centers to spearhead community partnerships. This Issue Brief describes the development and implementation of these partnerships, and highlights one community's ongoing activities to reduce firearm injury.

***Despite the impact of
firearm injury, smaller
communities do not
recognize firearm violence as
their problem***

Firearm injury is the second leading cause of injury-related death, accounting for roughly 30,000 deaths each year in the U.S. Although these deaths are preventable, many barriers exist to launching and sustaining prevention efforts, especially outside of urban areas.

- A highly politicized debate about gun rights has polarized individuals and communities. Although all sides in this debate should be interested in reducing firearm violence, the debate itself often overshadows and complicates efforts to understand the nature of firearm injury and possible interventions.
- Progress has been hampered by the lack of comprehensive data sources at national, state, and local levels. Firearm injury surveillance lags behind well-established data systems applied to motor vehicle crashes.
- Media attention is focused on firearms and urban crime. However, firearm violence is not restricted to urban areas, and no community or trauma center is untouched by firearm injury. Gun suicides disproportionately affect Americans outside of major cities and have managed to outnumber gun murders every year for the past two decades in the U.S.

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Academic trauma research center develops model of trauma center-community partnerships

To overcome some of these obstacles, the Firearm & Injury Center at Penn (FICAP) developed a model of collaboration with smaller communities to help them understand firearm violence at the local level and begin to reach consensus on possible interventions. Known as the Medical Professionals as Advocates Program (MPAP), it features active partnerships between health professionals and community members to address local firearm violence.

- This project drew conceptually on the World Health Organization's Safe Communities model, which advocates the value of building on structures and organizations that already exist in communities.
- The model used local trauma centers as lead organizations in their communities. Trauma centers were selected because of their clinical focus, and because accreditation guidelines require trauma centers to lead injury prevention activities.
- The trauma centers spearheaded efforts to acquire community-specific information on firearm injury, and worked with community leaders to frame firearm violence as a public health problem.
- Three sites were selected, in counties containing and surrounding three small cities: Bethlehem, Pennsylvania; Youngstown, Ohio; and Cedar Rapids, Iowa.

Model calls for data collection, community coalitions, and community profiles of firearm violence

Each trauma center-based team included a physician director and coordinator who established a local advisory board, collected data, built community coalitions, and developed local plans and initiatives.

- The advisory board created a cadre of regional leaders who provided guidance, sought additional advisory board members, identified local funding sources, and developed interventions.
- Each site implemented a data collection system by working with medical examiners/coroners, law enforcement agencies, and crime laboratories. Linked data provided information about the victim, the shooter, the type and source of firearm and bullets, and the context in which the shooting occurred. For suicides, the data included narratives of suicide notes, family interviews, and police investigations.
- The project featured close working relationships among the site teams and FICAP personnel to standardize processes. FICAP provided training in injury prevention and intellectual resources from a variety of academic disciplines (such as epidemiology, nursing, criminology, and public health) to complement the community expertise of the site teams. FICAP analyzed the data and provided each site with community-specific profiles of firearm violence.

Five-year profiles highlight community-specific data

In the first five years (1994-1998), the project collected data from a total of 468 neighborhoods that experienced 1,025 intentional deaths from firearms (396 firearm homicides and 629 firearm suicides).

- Profiles showed distinct difference among communities. The Ohio site experienced a firearm homicide rate of 12.5 per 100,000 population (far surpassing the national rate), compared to 2.0 in Pennsylvania and 1.1 in Iowa. Firearm suicide rates among the three sites were virtually identical: between 6.5 and 6.8 per 100,000 population (about the same as the national average).
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- Detailed mortality data revealed that firearm homicide was consistently associated with out-of-home, nighttime activity in neighborhoods where many people were likely to be coming and going. Conversely, firearm suicide was consistently associated with in-home, daytime activity in out-of-the-way neighborhoods.
 - Consistent with national data, the handgun was the most common weapon in all firearm deaths, with semiautomatic pistols being the predominant handgun in homicides. Revolvers (a second type of handgun) were the most frequently used weapon for suicide in Ohio and Pennsylvania, while long guns (rifles and shotguns) were the main weapons used for suicide in Iowa.

Spotlight on one community: Bethlehem-Allentown, Pennsylvania

Led by St. Luke's Regional Trauma Center in Bethlehem, PA, this MPAP site exemplifies the results of an effective trauma center-community partnership. The program is directed by a trauma surgeon and a site coordinator, with the guidance of a 22-member advisory board of community leaders. Although formal MPAP funding ended in 2004, St. Luke's continues to fund the site coordinator and the advisory board remains committed to continuing its efforts.

- Local data revealed that half of all homicides occurred in 8% of neighborhoods. This geographic detail allowed FICAP to map homicide "hotspots." These maps guided the advisory board's strategies for homicide reduction, including targeted policing, restructured housing policy, and development of youth programs. These strategies have been endorsed by Allentown city officials, and included in a funding proposal to the State's "Weed & Seed" program (a federal crime-fighting and neighborhood revitalization initiative).
- Data also corrected community misperceptions and redirected efforts. For example, at the beginning of the project, local officials assumed the major cause of firearm death in the community was drug-related homicide. Instead, the data showed that suicide was a much larger community problem, with a firearm suicide rate that was more than three times as great as the firearm homicide rate. The board identified a need for an educational campaign focused on suicide prevention, and charged a subcommittee with devising a campaign strategy, starting with adolescent suicide.
- Board discussions about suicide prevention highlighted a need to learn more about the effectiveness of possible interventions. In response, FICAP analyzed the suicide narratives and identified six major themes of suicide risk (mental illness, physical illness, substance abuse, relationship problems, psychosocial factors, and previous attempts). This "typology of risk" model was used to improve a collective understanding of modifiable risks for suicide, to identify potential points of intervention, and to guide community decision-making.

POLICY IMPLICATIONS

These community case studies demonstrate that trauma centers, when provided resources and support, can function as local firearm injury prevention centers. The MPAP sites served as catalysts in addressing the politically sensitive issue of firearm injury. The project underscores the need for detailed data at the neighborhood level to help communities understand the nature and scope of their firearm injury problem.

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POLICY IMPLICATIONS

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- Local advisory boards are key partners in prevention efforts. The boards are crucial to building political support and reflecting community values and beliefs. Advisors can leverage limited resources, enhance community buy-in, reach target populations, and sustain community ownership of firearm injury prevention programs.
- Establishing community partnerships is essential to move from the acquisition of data to a broader understanding of firearm injury as a public health problem. Initiatives cannot be imposed on communities that are unaware of a problem or unprepared for change.
- The task of data acquisition would be made easier by the implementation of a comprehensive National Violent Death Reporting System (NVDRS). The federal government has funded 13 states to jump-start development of NVDRS, and estimates that it will cost \$20 million a year to fully implement the system in all states. Given the importance of this information in guiding prevention efforts, and the demonstrated ability of communities to use the data, Congress should move quickly to allocate this funding.

This Issue Brief is based on the following articles: T.S. Richmond, C.W. Schwab, J. Riely, C.C. Branas, R. Cheney, M. Dunfey. Effective Trauma Center Partnerships to Address Firearm Injury: A New Paradigm. Journal of Trauma, June 2004, Vol. 56, pp. 1197-1205; C.C. Branas, T.S. Richmond, C.W. Schwab. Firearm Homicide and Firearm Suicide: Opposite but Equal. Public Health Reports, March-April 2004, Vol. 119, pp. 114-124.

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