Achieving Public Health Impact in Youth Violence Prevention Through Community–Research Partnerships

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Centers for Disease Control and Prevention

Abstract

Problem: Violence is a leading cause of death and disability for U.S. youth. The U.S. Centers for Disease Control and Prevention (CDC)'s Division of Violence Prevention (DVP) is committed to developing communities' capacity to engage in evidence-based youth violence (YV) prevention.

Purpose: We discuss the characteristics of communities that exert influence on the development and epidemiology of YV, and discuss opportunities for how community–research partnerships can enhance efforts to prevent violence in communities.

Key Points: The needs for YV prevention are unique; the nature and phenomenology of violence are community specific. Communities also vary widely in infrastructure and systems to support coordinated, evidence-based YV pre-

vention strategies. These conditions highlight the need for community–research partnerships to enhance community capacity, employ local resources, and engage community members in the research process.

Conclusion: DVP is committed to working towards creating communities in which youth are safe from violence. Approaches to YV prevention that emphasize community–research partnerships to build capacity and implement evidence-based prevention strategies can provide a supportive context for achieving that goal.

Keywords

Community–research partnerships, youth violence, evidence-based programs, violence prevention

Rates of YV resulting in homicide have generally declined in most regions of the United States in the past 15 years, but rates of violence perpetration and associated injuries among youth remain unacceptably high. For instance, there were nearly 700,000 violence-related injuries to youth ages 10 to 24 treated in U.S. emergency departments in 2008.[1] There are also substantial racial and socioeconomic disparities in violence among youth.[2] Homicide is the leading cause of death among African American youth ages 10 to 24, the second leading cause of death for Hispanic youth, and the third leading cause of death for American Indian, Alaska Native, and Asian/Pacific Islander youth.[1] Youth who are victims of serious violence or who witness violence

in their communities suffer many consequences, including serious physical injuries and emotional maladjustment,[3,4] and may suffer long-term health problems associated with the biopsychosocial effects of such exposure.[4] YV also affects the health of entire communities by increasing health care costs, decreasing property values, and disrupting social services.[5]

The Division of Violence Prevention (DVP) within the National Center for Injury Prevention and Control at the CDC is committed to achieving a future in which every community in the United States has the capacity to prevent YV. DVP's public health approach has unique features, which include an emphasis on primary prevention of violence perpetration, commitment to developing a rigorous science base, a

cross-cutting perspective, and a population-based approach. Part of public health's broad view is an emphasis on population health—not just the health of individuals. Violence is experienced acutely by individuals, yet its consequences and potential solution affect communities and society as a whole. DVP's work in violence prevention emphasizes and relies on the social–ecological model, recognizing the importance of individual, relationship, community, and societal factors in understanding and preventing violence. This model elucidates factors that influence violence and the effect of potential prevention strategies.[6] The social–ecological model considers the complex interplay between factors at different levels and highlights opportunities for prevention. These four interconnected levels have mutual influence, while representing separate, but complementary, avenues for prevention.

Efforts to reduce YV in communities are often limited in their intended audience or approach. The intended targets of most YV interventions are violent offenders. Strategies for this population frequently involve identifying, incarcerating, and/or rehabilitating known juvenile offenders to prevent them from repeating violent acts. Although such criminal justice efforts are important, evidence-based primary prevention strategies have the potential to prevent YV from occurring in the first place. Many interventions are also limited by an approach that focuses solely on individual- or relationship-level factors. Research indicates that prevention should attend to the accumulation of risk factors across multiple levels of the social ecology (individual, relationship, community, societal), as youth with multiple risk factors are more likely to become violent than youth exposed to only one risk factor.[7] Although it is important to pay attention to individual and relationship factors (e.g., early aggressive behavior, social skill deficits, affiliation with delinquent peers), attention to the role larger sociocultural, economic, and community factors play in the development of YV is also important.

The DVP's strategy involves fostering connections between empirical evidence, scientific approaches to understanding and preventing violence, and community leaders, systems, and stakeholders. This strategy relies on effective, mutually beneficial partnerships between researchers and community members to achieve mutual or reciprocal violence prevention goals. For example, community-based participatory research (CBPR) approaches that incorporate interrelated components

of participation, research, and action make efforts to integrate these components into community–research partnerships in systematic and explicit ways.[8] Many of DVP's efforts in addressing violence prevention in communities highlight the importance of engaging and empowering communities to prevent YV. Community–research partnerships have the potential to systematically address the relevance of prevention strategies for a particular community and the community-specific barriers to implementation of prevention strategies. Additionally, such partnerships can inform the adoption, effectiveness, and sustainability of evidence-based prevention strategies within a particular community. Community–research partnerships can provide a context for reciprocally beneficial relationships that can educate researchers about community needs while educating community members about the value of implementing and evaluating evidence-based approaches to violence prevention.

CDC is not only a research agency; we also fund programs in communities. To fulfill its varied mission, DVP has a number of structures that emphasize community perspectives and ensure connections between research, practitioners, and communities. Although a thorough discussion of these is outside the scope of the present article, two examples highlight the efforts to link research and community voices and emphasize the community perspective. The Urban Networks to Increase Thriving Youth (UNITY) program is designed to strengthen, support, and sustain the efforts of cities to prevent YV (available from: http://www.preventioninstitute.org/UNITY.html). UNITY convenes young people and city representatives to prioritize strategies to prevent violence before it occurs. This project builds stakeholder support and community capacity to engage in prevention. In addition, DVP is developing a national public health strategy to prevent YV, entitled STRYVE: Striving to Reduce Youth Violence Everywhere (available from: http://www.cdc.gov/violenceprevention/STRYVE). STRYVE is a guide for communities, states, and the country to use in developing and implementing evidence-based strategies, programs, and policies for preventing YV. STRYVE is based on the expertise of numerous stakeholders in YV prevention, including community members and community organizations. These are two examples of efforts to make connections between research efforts and communities, and to ensure community input into the process and DVP's strategic plans.

In the following sections, we discuss characteristics of communities that influence violence, and the relevance of community–research partnerships for addressing these characteristics. We then address opportunities and approaches to using community–research partnerships to prevent violence.

RELEVANCE OF COMMUNITY–RESEARCH PARTNERSHIPS IN ADDRESSING VIOLENCE

A key challenge in addressing the problem of YV in communities is that the phenomenology of YV is largely a place-based issue. Physical, social, demographic, and political characteristics of local environments exert a powerful influence on the development and epidemiology of violence.[9,10] These characteristics also interact with individual and relationship risk factors to influence the manifestation of violence in terms of burden, location, and type.[6,8] Research consistently finds that understanding the community context is critical for YV prevention.[10,11] Understanding neighborhood and community dynamics is important for determining how these contexts influence violence and the specific mechanisms through which these effects occur. A number of community factors can influence rates of YV, including high levels of neighborhood disorganization,[12] greater availability of drugs[13] and illegal firearms,[14] substandard community economic conditions,[15] low levels of community cohesion and connectedness,[10,16] low community levels of educational attainment and workforce participation, as well as particular physical characteristics of the environment.[11,17] These factors exert considerable influences on individuals living within a community, and interact with individual and family risk factors to yield critical risks for violence. In the next section, we review characteristics of communities that impact the manifestation of YV and/or have relevance for the implementation and effectiveness of YV prevention efforts. These characteristics include (1) the demographic characteristics of residents within a community, (2) the physical features of communities, (3) the availability of resources, and (4) psychosocial mechanisms. These four types of characteristics are described in greater detail, where we also discuss how effective community–research partnerships can provide promise in addressing the challenges and leveraging the strengths of communities.

Demographic Characteristics

YV rates vary dramatically across neighborhoods. Aspects of the physical and social environments in which families raise their children exert influences on risk for antisocial behavior. In particular, there is considerable evidence that variations in the social organization and crime in neighborhoods are correlated with antisocial behavior and maladaptive youth development.[18–20] For example, crime and violence tend to be higher in areas where at least 20% of the residents are poor.[21] These areas are often characterized by high concentrations of unemployment, residential instability, family disruption, crowded housing, drug distribution networks, low community participation,[13,22] high rates of school dropouts, substance abuse, and teenage pregnancy.[23–25]

Effective approaches to YV prevention must take the demographic characteristics of a particular community into account in selecting, planning, and implementing strategic approaches to prevention. Community–research partnerships can enable a process through which demographic characteristics of communities are taken into consideration when identifying and selecting evidence-based YV prevention approaches that have the greatest likelihood of meeting the needs of individuals living in those communities. For example, the evidence-based Strengthening Families Program (SFP) has effectively engaged community partnerships. SFP is an evidence-based family skills training program found to significantly reduce problem behaviors, delinquency, and substance abuse in youth. SFP has engaged communities in the process of developing systematic adaptations for ethnic minority populations. The partnerships have provided an opportunity to develop and test SFP for unique cultural groups, including African American and Pacific Islander families.[26,27] Through effective community–research partnerships, which often employ CBPR processes, the expertise of researchers and community stakeholders can be combined. Researchers bring an understanding of the evidence supporting particular approaches, whereas community stakeholders recognize the needs and infrastructure of the community. Additionally, empirical evidence about "what works" and "for whom" can be applied through effective community–research partnerships to identify the prevention strategies that have been found to be effective with populations that match those of the particular community. Finally, an understanding of the specific characteristics of individuals living within a community can guide efforts for the high-quality implementation of evidence-based prevention strategies in the community.

Physical Characteristics

The physical features of a neighborhood can also influence YV in various ways,[28] including the design and structure of buildings, the presence of lead in housing, and the availability of lighting, sidewalks and other physical structures.[29] Community-based YV approaches can identify physical features of the environment that may impact violence rates, and that can influence the potential efficacy and effectiveness of violence prevention approaches. This requires the development and fostering of partnerships with community leaders who can influence policies and processes to change and improve physical features of the environment. For example, Jeffery's Crime Prevention Through Environmental Design (CPTED)[30] approach involves identification of characteristics of environments that influence the risk of crime and violence. This approach requires active participation by community members and community leaders to engage in a process to analyze characteristics and implement changes. Common environmental changes made through CPTED involve, among many others, improving lighting and windows in public spaces, creating landscape designs that provide surveillance opportunities, improving safety and accessibility for points of entry and exit in public spaces, improving visibility, and using vehicular traffic to minimize congestion and improve surveillance opportunities. Although the impact of CPTED strategies on violence has not been rigorously evaluated, promising evidence of the impact on robberies suggests that these approaches can have positive impact on violence, as well.[31]

Availability of Resources

YV rates can also be influenced by the availability of resources within communities, which can have dramatic effects on the adoption, efficacy, and sustainability of violence prevention efforts. The quality and availability of social services within a community can influence individual and family risk and protective factors. For example, community policing efforts can vary across neighborhoods. Some disadvantaged neighborhoods have lower quality and quantity of policing, whereas others experience the opposite effect, which is dependent on the proactive steps of local leaders and policymakers to assign a greater concentration of resources to such high-risk areas.[32] These variations across communities are critical factors in determining the best strategy for implementing evidence-based prevention programs. Community-based prevention efforts must engage in a process for determining quality of fit between prevention strategies and the resources within a community; the community–research partnerships at the heart of CBPR approaches may provide useful guidance for such efforts.[33,34] This connection and the relevance of addressing community resources is particularly relevant for community-based and community-wide implementation of evidence-based violence prevention efforts. Daniels and Sandler[35] describe a process for translating efficacious programs to effective services in communities. This process involves input from stakeholders, community members, service agencies and providers, and researchers to effectively identify and leverage systems and resources available in communities.

Psychosocial Mechanisms

Psychosocial mechanisms can also play a role in the manifestation of violent behavior. High-risk communities tend to be characterized by high levels of social disorganization, which refers to the absence or breakdown of communal institutions and relationships (e.g., family, school, church, and local government) that traditionally encourage cooperative relationships among people. As a result of social disorganization, high-risk communities frequently lack effective social controls.[20,36,37] High levels of social disorganization can limit the ability of community residents to supervise and control adolescent peer groups, especially gangs.[15] For example, research on collective efficacy focuses on the relationships between adults and youth in communities, such as through the willingness of adults to enforce shared values among children.[20,38] Work in this area has found that one of the best predictors for variation in violence across communities is the neighborhood's degree of informal social control in combination with social cohesion and trust.[20] Levels of collective efficacy seem to mediate the effects of community attributes, such as poverty and education levels, on violence and crime.[39,40]

A promising strategy for community-based prevention may involve a process by which collective efficacy is leveraged to positively influence the efficacy of prevention strategies, in the context of mutually beneficial community–research partnerships. Implementing effective prevention strategies

in communities with low levels of collective efficacy and high levels of social disorder may prove difficult, yet the CBPR process employed in community–research partnerships may help to mobilize and empower communities to take action. For example, data from surveillance systems can build community capacity to identify the nature of YV within a specific community, and can build efforts to mobilize action for prevention. In an effective example of this approach, the Columbia University Center for Youth Violence Prevention (funded by DVP) has partnered with the New York City Department of Health and Mental Hygiene to collect and analyze violent injury data as part of its Injury Surveillance System. The collaboration involves monitoring violence indicators in a defined community and providing timely, accurate surveillance data on indicators and trends. The partnership has made use of these data and pursued shared goals to identify opportunities to develop policies and programs to prevent violence in the community. Community–research partnerships allow researchers to provide technical assistance, tools, and technology to community partners to help establish and use surveillance data. Such systems allow communities to identify whom to target for prevention approaches, when, and how.

COMMUNITY PARTNERSHIP STRATEGIES FOR EVIDENCE-BASED VIOLENCE PREVENTION

Although research in identifying evidence-based YV prevention approaches has made significant progress in the past 20 years,[41–43] important challenges remain in demonstrating community-wide reductions in YV. Comprehensive prevention approaches are needed to address the confluence of risk factors in high-risk communities. Moreover, prevention approaches designed to have community-wide effects on YV need to have the potential for broad-reaching implementation necessary to achieve desired preventive effects.

One of the major challenges for prevention is that unlike other domains of youth functioning, YV prevention lacks a singular, coherent infrastructure for public health prevention efforts. Schools are the natural setting and context for addressing educational development of youth in communities, and have the requisite expertise for providing evidence-based academic curricula. However, evidence-based strategies for YV can be offered within various settings, including schools, recreational centers, community agencies, and juvenile justice departments. Although the diffusion of services across settings allows for flexibility in selection and implementation of evidence-based approaches to fit the specific needs of communities, the lack of a coherent unit to lead the coordination of efforts can minimize the integration and undermine the effectiveness of prevention strategies. Therefore, effective implementation of prevention strategies necessitates not only a focus on high-quality delivery of services, but also on building effective partnerships for coordination of efforts across sectors and stakeholders, ensuring support of community leaders and stakeholders, and accessing critical expertise in implementation and evaluation of violence prevention strategies.

DVP's approach promotes community–research partnerships to develop and apply the evidence base for creating communities in which youth are safe from violence. This strategy is organized around three general themes: Applying and adapting what we know, creating and evaluating new approaches, and building community capacity. To leverage effective community–research partnerships to have greater influences on evidence-based violence prevention adoption, effectiveness, and sustainability, efforts must focus on a number of important next steps for the field of YV prevention.

Applying and Adapting What We Know Works

Community-based YV prevention strategies must involve high-quality implementation of evidence-based programs in specific communities. A great deal of research has informed effective violence prevention programs[39,43]; however, there is much to be done to support the implementation of effective prevention strategies in communities where the programs are intended to work. Community–research partnerships can also ensure that the unique expertise of researchers, community members, and community leaders can guide the adoption and evaluation of community-based implementation of prevention strategies. Research is needed to build knowledge on methods, structures, and processes to implement evidence-based strategies. Effective community–research partnerships can aid in high-quality implementation and continued evaluation of evidence-based programs.[43,44] This research is intended to bridge the gap between prevention research and everyday practice by building a knowledge base about the dissemination, implementation, and support for widespread use of evidence-based YV prevention strategies by communities and policy makers.

Effective community–research partnerships are necessary for this process of systematic, high-quality implementation, because it necessitates expertise to guide the implementation process and to ensure adherence to program goals, as well as knowledge of the unique needs and strengths of the particular community to inform and support high-quality implementation.[43,44]

Creating and Evaluating New Approaches to Prevention

YV prevention must involve identifying and evaluating programs, strategies, and policies that focus on community influences. Universal, selected, and indicated YV interventions and policies should include a focus on community and social factors in high-risk communities such as the built environment (e.g., changes to physical characteristics of the environment), the role of illicit drug markets, the nature and quality of public housing, the role of norms, and the influence of business development. Furthermore, there is a critical need for rigorous evaluation of comprehensive, community-based YV prevention approaches that involve community–research partnerships, implement strategies targeted at multiple risk factors in coordinated efforts, and build community capacity and infrastructure for effective and sustainable efforts to prevent violence.

YV prevention research has also begun to identify and understand protective and promotive factors that protect youth from violence and/or buffer the effects of violence victimization. Why, for example, do some youth who grow up in very risky environments never perpetrate violence? This line of research holds the promise of helping us devise prevention programs and policies that focus on enhancing and building positive community environments rather than only focusing on reducing risks. For example, research has indicated that factors such as connectedness with caring adults,[45,46] parental monitoring,[47,48] and school achievement and connectedness[49] can play an important role in buffering the negative effects of growing up in high-risk environments. Further work is needed to incorporate this knowledge about protective and promotive factors into prevention strategies. Moreover, communities themselves are often more responsive to policies and programs that emphasize positive youth development as opposed to focusing on reducing risk factors. Community–research partnerships can leverage the expertise of researchers and community partners to develop and rigorously evaluate prevention strategies that can build on protective factors.

One of the most critical issues facing communities with regard to implementing prevention programs involves cost. Given that violence prevention resources are limited, information on the economic efficiency of prevention strategies and policies is critical for ensuring that available resources are used efficiently. Information on economic efficiency also helps to address which YV strategies achieve the greatest benefit with the smallest cost. Research and community partners can work together to identify the best way to allocate limited public health resources within the community, and to make data-informed decisions. Additionally, research is needed to determine the potential economic effects of prevention strategies that rely on community–research partnerships. For example, although these approaches require greater resources at the front end, they are intended to lead to greater effectiveness and sustainability of prevention strategies.

An additional benefit of using community–research partnerships is that they can create mutual accountability for prevention efforts. Partnership with individuals who have methodological and research expertise can aid communities in developing sound evaluation plans to determine the impact of prevention efforts in reducing violence-related morbidity and mortality, and in building infrastructure and capacity for prevention. For researchers, community partnerships can ensure that research efforts are relevant for local communities and generate information that is directly applicable to key issues in the community.

Building Community Capacity

One of the most critical endeavors for community–research partnerships involves building community receptivity and capacity to implement evidence-based approaches to YV prevention. Broad-based approaches to YV prevention are quite rare, and often do not rely on evidence to guide decisions about efficacious programs and practices. Efforts are needed to help communities and their leaders to understand the long-term benefits of investing in prevention and the tools needed to apply these strategies. Building community capacity through leveraging community–research partnerships facilitates the implementation of evidence-based prevention strategies. These efforts can maximize the opportunity for adoption of effective prevention strategies, in both the selection of evidence-based strategies that have the greatest likelihood of efficacy as well as in the implementation of

those strategies through building an infrastructure within community agencies.[50] Additionally, effective community–research partnerships can be used to identify, address, and clarify barriers to implementation of effective strategies by working systematically to foster a multidisciplinary, collaborative approach to YV prevention.

The development of community capacity and competence to successfully prevent YV through effective, supportive community–research partnerships are integral components of DVP's research initiatives. For example, the 10 National Academic Centers of Excellence in Youth Violence Prevention (ACEs; available from: www.cdc.gov/violenceprevention/ACE/index.html) are charged with fostering multidisciplinary collaboration and engaging a wide variety of community partners (e.g., health professionals, educators, police, legislators, parents, youth, business leaders, and social service organizations) in YV prevention research and program activities. ACEs conduct research on YV prevention, collect and analyze surveillance data, and foster relationships with local community partners to help develop, implement, and evaluate promising prevention efforts. ACEs are distinct from traditional research centers because partnerships, community mobilization, and CBPR are key components.

ACEs are expected to establish and maintain partnerships with local institutions that rely on CBPR approaches. ACEs also facilitate the development of a community committee that forms, nurtures, and advances partnerships with the community to implement evidence-based violence prevention strategies and promising programs. ACEs have a unique ability to connect communities and researchers to build infrastructure and support broader community development. The CBPR work taking place at the ACEs can serve as models for successful partnerships in the field of YV prevention and health promotion fields. For example, the Center for Prevention of Youth Violence at The Johns Hopkins University has built effective and mutually beneficial partnerships with local government agencies (e.g., Baltimore City Health Department, Mayor's office) and nonprofit community organizations (such as the Cherry Hill Community Trust) to implement and evaluate Baltimore's Safe Streets Program, a replication of Chicago CeaseFire. The project has provided opportunities for positive involvement in the community by youth, and has built community capacity to implement community-wide community

outreach and prevention efforts. In 2008, the *American Journal of Preventive Medicine* published a supplement that highlights the key characteristics and accomplishments of community partnerships occurring at the ACEs.[51,52]

SUMMARY

Research in YV prevention has made some important progress in evaluating and identifying evidence-based strategies to prevent violence in communities. Most of these approaches address risk factors at the individual and family level, yet individuals at high risk for violence are often influenced by risk factors in neighborhoods and communities. To have potential for broad-based impact on YV at the community level, strategies must be employed that address risk factors at multiple levels, including neighborhood and community risk. Community–research partnerships can provide key opportunities to identify community needs, leverage resources, and implement comprehensive strategies employing evidence-based components. The involvement and expertise of researchers can provide timely and rigorous data to evaluate efforts. The contribution of community members and leaders can ensure prevention efforts are relevant to the community and fit with the community's needs and resources. The community–research partnership can provide opportunities to educate both researchers and communities through reciprocal contributions and the unique expertise of each partner. The shared expertise inherent in such participatory approaches can leverage the mutual goals and expertise of communities and academics. One of the key challenges in establishing such effective partnerships is overcoming historical tensions between academic institutions and communities; researchers must work to actively address perceptions that they do not respect the community's perspective and needs. Additionally, despite the potential promise of community–research partnerships for building community capacity and implementing violence prevention approaches, limited information is available about the potential success of such efforts. Rigorous, controlled evaluations of prevention efforts that employ community–research partnerships are needed to inform the most promising strategies for preventing violence. Additionally, these research efforts must work to develop and/or adapt measures that can effectively capture the impact of community–research partnership efforts on community capacity.

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