What Health Professionals Should Know

Core Competencies for Effective Practice in Youth Violence Prevention

Lyndee M. Knox, PhD, Howard Spivak, MD

Background: Youth violence has been identified as a critical health concern in the United States; however, few training resources are available for preparing health professionals to contribute to prevention efforts in their professional practices. Identification of core competencies for health professionals in youth violence prevention can be used to support the development of training resources in this area of professional practice.

Methods: In 2001, experts in youth violence, health care, and health professional education from eight of the ten Academic Centers of Excellence on Youth Violence Prevention met to develop a list of core competencies that health professionals need for effective practice in youth violence prevention. Experts participated in a 2-day facilitated session to identify these competencies.

Results: The group identified 40 core competencies that health professionals should acquire for effective practice in youth violence prevention. The competencies were organized across seven domains of practice and at three levels of expertise.

Conclusions: Training is needed to prepare health and public health professionals to contribute to efforts in youth violence prevention in the United States. The core competencies identified by the Academic Centers of Excellence Working Group can support the development of curricula in this area.

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Introduction

In 2002 in the United States, nearly 900,000 young people aged 10 to 24 years suffered injuries from violent acts. One third of these youths required hospitalization as a result of this violence. Homicide is the second leading cause of death for young persons aged 15 to 24 years, and the leading cause of death among African-American youths aged 15 to 19 years. Suicide is the third leading cause of death among youngsters aged 10 to 24 years.[1–3] In light of these disturbing statistics and the often-devastating health and mental health consequences of violence, health professional organizations have begun to examine the role health professionals should play in preventing youth violence in the United States. In 1999, with support from the Robert Wood Johnson Foundation, the American Medical Association (AMA) convened the Commission for the Prevention of Youth Violence. The commission issued its findings in a report published in 2000. In it the commissioners listed 14 actions that health professionals should undertake to prevent youth violence. These include counseling and screening patients and their families on prevention of violent behaviors and victimization, from the prenatal period through adulthood. The commissioners also encouraged medical, nursing, and public health schools, and professional societies "to provide undergraduate, graduate, and continuing education in the causes and prevention of violence and competencies in understanding and working with communities."[4]

Similarly, many professional health associations such as the AMA, American Academy of Pediatrics (AAP), and American Academy of Family Physicians (AAFP) have developed policy statements that call for their members to incorporate youth violence prevention into their practices. Although in its most recent report the U.S. Preventive Services Task Force (USPSTF) does not find enough evidence to recommend for or against counseling youth and families on youth violence prevention, it recommends that clinicians should screen for risk factors such as problem drinking, be alert to the signs and symptoms of drug abuse, and inform their patients of the risks associated with maintaining firearms in the home. It also recommends that clinicians ask adolescents and young adults who live in high-

From the Department of Family Medicine (Knox), University of Southern California, Los Angeles, California; and Tufts New England Medical Center (Spivak), Tufts University Center for Children, Boston, Massachusetts

Address correspondence and reprint requests to: Lyndee M. Knox, PhD, University of Southern California, Los Angeles, California, 1000 S. Fremont A7, Alhambra CA. 90803. E-mail: Knox@usc.edu

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Table 1. Core competencies in knowledge and attitudes related to youth violence prevention

Domain	Level	Core competency
Core **knowledge** about youth violence and methods of prevention	Level 1	1. Recognize violence as a public health problem. 2. Describe interconnections among different types of violence. 3. Identify risk and protective factors for youth violence including the socio-emotional competencies that research suggests are protective against violence. 4. List interventions that have been found to be effective in the prevention of youth violence and know the characteristics common to effective interventions. 5. Know possible roles for health professionals in youth violence prevention and the evidence supporting them. 6. Know legal requirements for health professionals as they relate to youth violence. 7. Identify existing community programs/resources for violence prevention and know effective procedures for referral. 8. Examine personal beliefs and experiences with violence and know their impact on professional practice and attitudes.
Core **attitudes** needed to intervene effectively to prevent youth violence	Level 1	1. Believe that violence is not inevitable and that it can be prevented. 2. Believe that people do not want to live in a violent environment, nor do they want their families to live in a violent environment. 3. Believe that violence prevention is an appropriate and important role for health professionals, and that this role occurs in the context of larger multi-sector efforts to prevent violence. 4. Perceive youth, families and communities as useful resources and partners/colleagues with health professionals in reducing risk, increasing protection and preventing violence. 5. Recognize the value of research and evaluation on violence prevention.

violence communities or settings about previous violent behavior or victimization, current alcohol and drug use, the availability of handguns and other firearms, and provide counseling and education on the risks of violent injury associated with firearms and with substance use.[5]

The Association of Schools of Public Health (ASPH) has also recognized the need for increased professional training in injury prevention and, within this, youth violence prevention. One of the recommendations of its Injury Advisory Workgroup is to create new graduate and undergraduate courses on injury prevention that include content on violence as injury.[6]

The American Association of Colleges of Nursing includes competencies relevant to youth violence in its core competencies for primary care nurse practitioners. They include: identifying significant violence-related events in a child's life and their impact on health and development; assessing children for signs of abuse and neglect and effects of violence; assessing patients' and families' knowledge and behavior in the areas of injury and violence; providing interventions to modify behaviors associated with health risks such as violence; and serving as an advocate for the child and family, particularly in accessing services to provide for the safety and protection of the child.[7]

The Association of American Medical Colleges (AAMC) does not have a formal position on youth violence training for medical students, residents, and physicians; however, the Liaison Committee on Medical Education (LCME), the accrediting body for medical schools that is run by the AAMC and the AMA, has standards that medical schools follow. The LCME standards address violence in broad terms: "The curriculum must prepare students for their role in addressing the medical consequences of common societal problems, for example, providing instruction in the diagnosis, prevention, appropriate reporting, and treatment of violence and abuse."[8]

Similarly, the Accreditation Council for Graduate Medical Education, which evaluates and accredits medical residency programs in the United States, does not specifically address youth violence prevention. Its family practice requirements state that instruction must include "Family violence including child, partner, and elder abuse (physical and sexual), as well as neglect, and its effect on both victims and perpetrators."[9]

In the past 2 decades there has been an overall trend toward addressing violence, domestic violence, gun violence, and elder abuse, in public health and medical arenas as well as in the criminal justice and law enforcement fields. Training and practice resources in these areas include the core competencies for domestic violence outlined by Brandt et al.,[12] the Institute of Medicine's 2001 report on educating health professionals about family violence, and the Family Violence Prevention Fund's updated guidelines on responding to domestic violence. In addition, similar efforts to develop core competencies for the broader area of injury prevention also exist, including the National

Table 2. Core competencies in communication and clinical interventions

Domain	Level	Core competency
Competencies in **communication**	Level 1	1. Demonstrate skill in culturally appropriate and empowering communication with youth and their families around issues of violence. 2. Engender "hope" in youth and families regarding violence prevention.
	Level 2	1. Communicate and collaborate effectively with other professionals working in violence prevention. 2. Communicate and interact in an empowering manner with youth, families, and community residents about issues of violence.
Competencies in **clinical interventions** to prevent youth violence[8]	Level 2	1. Assess young patients' progress on key socio-emotional competencies identified as protective against involvement in violence. 2. Obtain a basic patient history to determine exposure to violence and involvement in violence either as victim or perpetrator. 3. Screen patients for risk behaviors associated with violence, such as substance abuse, and make appropriate referrals including referrals for mental health services. 4. Educate parents and other caregivers on healthy socioemotional development in children and youth and teach them methods for strengthening their development. 5. Counsel parents and other caregivers on risk factors associated with violence and strategies for reducing risk including counseling on the risks associated with firearms and safe storage procedures; the impact of media violence on youth and methods for reducing exposure; and the effects of observing violence in the home and community and methods for modeling non-violent solutions to conflict. 6. Facilitate crisis intervention efforts for young perpetrators and victims of violence to address psychological and social morbidity and reduce the probability of future incidents. 7. Make referrals to community-based services that reflect characteristics researchers have identified as common to effective youth violence prevention programs.

Training Initiative for Injury and Violence Prevention (NTIJVP) at the Injury Prevention Center at the University of North Carolina, which recently released a set of core competencies for injury and violence prevention training,[10] the Core Competencies for Public Health Professionals project,[11] and the Indian Health Services' Core Competencies for Injury Prevention.[10] Training resources also exist such as the domestic violence curriculum available through the Virtual Lecture Hall that provides physicians with on-line continuing medical education (CME) on domestic violence.[13–17]

In contrast to the progress made in child abuse, domestic violence, and elder abuse, significantly fewer resources have been created to support health professional training and practice in youth violence prevention, particularly in the area of youth-on-youth and community violence.[18] Some reasons for this include the fact that youth violence prevention has not yet been fully accepted by the health professional community as relevant to public health and healthcare practice. Youth violence continues to be viewed by many as a social or criminal problem, not a public health problem, and competing priorities such as HIV prevention, obesity, and smoking prevention have been viewed as more central to healthcare practice. Consistent with this, there has not been aggressive advocacy within the health professions to address more fully the topic in the education of their professionals. Finally, youth violence, particularly youth-on-youth violence, lacks a strong constituency not just in the medical community but also in the general population. Even though violent injury is the second-leading cause of death among young persons in this country, it is viewed by many as a racial or socioeconomic problem and therefore as "someone else's problem." Its impact is felt most greatly in low-income communities and communities of color. As noted earlier, violent injury is the leading cause of death for African-American youths. The size of the disparity becomes evident when homicide rates are compared across racial groups. In 2002, the homicide rate for African-American males aged 15 to 19 years was approximately 53:100,000 compared to 8:100,000 for white males.[1]

The 10 Academic Centers of Excellence on Youth Violence Prevention (ACEs) funded by the Centers for Disease Control and Prevention (CDC) in 2000 were charged in part with assisting in the development of training resources for health professionals on youth violence prevention. As one of many activities designed

Table 3. Core competencies in practice management and working with communities

Domain	Level	Core competency
Competencies in **practice management** in relation to youth violence prevention	Level 2	1. Analyze practice for resources for violence prevention. 2. Introduce changes into procedures/structures to support violence prevention protocols and interventions. 3. Collaborate with other health professionals and support staff in making changes. 4. Evaluate implementation and effects of changes.
Competencies **working with communities**	Level 2	1. Identify needs and assets for violence prevention in the community. 2. Work effectively in non-traditional health care settings, such as schools and community centers to deliver violence prevention interventions. 3. Work collaboratively with community residents, neighborhood associations, faith-based institutions, city leaders, and diverse professionals (police, educators, city officials, etc.) to prevent youth violence. 4. Work with community coalitions, comprehensive community initiatives and community-based organizations to prevent youth and other forms of violence.
	Level 3	1. Build coalitions among community residents, service providers, and institutions to support implementation and evaluation of comprehensive youth violence prevention services in the community.

to fulfill this mandate, the ACEs joined with outside experts from organizations including the AMA and the Commission for the Prevention of Youth Violence as part of the Health Professional Training in Youth Violence Prevention Working Group (the Working Group). Their objective was to identify the specific core competencies that health professionals should acquire for effective practice in youth violence prevention, and to guide the development of new training materials in this area. Funding for the Working Group was provided by the ACEs and the University of Southern California. Core competencies define the minimum knowledge, skills, and attitudes necessary for health professionals to provide effective professional service and patient care, and they are most often developed as a first step to guide curriculum development in a particular area. This article reports on the core competencies defined by the working group.

Methods

The Southern California Center of Academic Excellence and the University of Southern California Department of Family Medicine convened the Working Group in 2001 for a 2-day facilitated discussion session in Los Angeles to identify core competencies in youth violence prevention and make recommendations for their incorporation into health professional training. Participant knowledge of the existing research evidence on effective practice in youth violence prevention in a variety of settings (schools, communities, and healthcare settings) and research in the related practice area of domestic violence, the recommendations from summary reports such as the U.S. Surgeon General's 2001 report on youth violence, the Commission for the Prevention of Youth Violence's report, *Youth and Violence: Medicine, Nursing and Public Health: Connecting the Dots to Prevent Violence*,[4,19] and group members' own substantial clinical and training experience served as the starting point for the group's discussions. The content of the 2 days of deliberations was audiotaped and transcribed. Key content and themes were identified and summarized into a working list of competencies. These competencies were then circulated among group members for discussion until consensus was reached among group members regarding specific core competencies and training recommendations. The report from the Working Group was published in 2001.[18] This article describes the key recommendations contained in that report.

Results

Core Competencies for Effective Practice

The competencies identified by the Working Group are intended to cut across professional and disciplinary lines and to be relevant to a broad range of health professionals including physicians, nurses, physician assistants, allied health professionals, and public health professionals. The nature of practice, opportunities for intervention, and training needs vary across these groups, so it is also expected that educators from each discipline will translate the competencies into training curricula specific to their particular discipline. The group has defined competencies that are intended to support health professionals working in a wide variety of settings and across multiple levels of the human ecology. This includes: the child's immediate social context, including his or her family and close friends; relationships and interactions at child care, school, or work settings; relationships among the individuals within these settings and their interactions with others

Table 4. Core competencies in policy/system/societal change

Domain	Level	Core competency
Competencies in **policy/system/societal** change	Level 1	1. Demonstrate basic knowledge and skill in social and political advocacy for the health of youth, families, and communities.
	Level 2	1. Demonstrate more advanced knowledge and skill in social and political advocacy for the health of youth, families, and communities.
	Level 3	1. Evaluate the efficacy and effectiveness of health care interventions to prevent youth violence and disseminate findings. 2. Teach health professionals and students core competencies in youth violence prevention. 3. Raise public awareness of the causes of violence and methods for preventing it. 4. Advocate with local, state and federal policymakers for resources and policy changes, including the development of an integrated system of youth violence prevention services. 5. Research the causes of and methods for preventing youth violence and disseminate findings.

in the child's immediate community; and the beliefs, pressures, and policies of the larger encompassing society.

The competencies include skills that health professionals need to interact effectively with patients and their families on the topic of youth violence and to introduce changes in their practice or professional settings to support work in youth violence prevention. Because risk for youth violence and protection from harm occur within communities as well as families, skills in working with communities are considered essential to effective practice in youth violence prevention. The competencies thus prepare health professionals to work with community coalitions and community organizations, as well as with professionals and trained lay people who may work in schools, public health clinics, or outreach programs that try to reach homeless youth living on the street. Finally, the list includes competencies needed to work effectively with policy makers and the public to raise awareness and promote strategies that facilitate violence prevention among young persons.

Recognizing that health professionals' needs for particular competencies and skills vary based on discipline, specialty, and individual practice settings and patterns, the group identified three levels of competence as outlined in Tables 1 through 4. The levels are hierarchical, each building on the one that precedes it. They are designed to accommodate variations in the scope and nature of practice of the different health-related disciplines, and of individuals within those disciplines. An ecologic framework, presented in Figure 1, further divides the three competency levels into five domains.

Level One competencies (generalist level). At this level, health professionals should understand the relationship between youth violence and other forms of violence such as child abuse, intimate partner abuse, community violence, and elder abuse; be able to identify factors that place youth at risk for involvement in violence as a perpetrator or victim; and be able to identify factors that are protective against the same. Health professionals should understand how their personal histories and exposure to violence can affect their work with patients on this topic. Health professionals also should be competent in culturally appropriate communication with patients, families, other professionals, and community program leaders about youth violence and other related health risk behaviors such as alcohol and drug abuse. All health professionals, regardless of specialty or nature of practice, should acquire Level One or generalist competencies in youth violence prevention.

Level Two competencies (specialist level). Health professionals such as family physicians, pediatricians, emergency physicians, psychologists, and mental health social workers who work closely with families and youth should acquire Level Two or specialist competencies. At Level Two, health professionals should be able to take a violence history, screen for exposure to/involvement in violence, conduct a danger assessment, and develop safety plans. Level Two skills also include risk-reduction counseling for young people and families on topics such as safe firearm storage/firearm removal and prevention of family violence. Level Two specialists also may counsel parents on ways to discipline their children without using physical punishment, use techniques for early identification of at-risk youth, and make linked referrals into supportive services for the child and his or her family. At Level Two, health professionals should acquire the practice management skills needed to introduce and sustain effective violence prevention practice into their respective healthcare settings. They should be able to collaborate effectively with other disciplines to reduce risk and increase

protective measures not only for individual youth in their practice, but also for the community at-large. Finally, these health professionals should be able to participate in basic political and social advocacy on behalf of children and families likely to be affected by violence.

The particular content of each of the Level Two competencies should be tailored to the unique nature of different disciplines and specialties, and the opportunities they offer for intervention. For example, health professionals such as emergency physicians, nurses, and technicians who work with youth and families in short-term, high-intensity encounters should become skilled in brief interventions that emphasize opportunities to affect youth and families seeking urgent and acute care in their facilities. They also need skills to link at-risk youth to longer-term programs and follow-up.

Professionals such as family physicians, pediatricians, school nurses, school counselors, and psychologists, and community health workers who work with youth and families over extended time periods should become skilled in interventions that take advantage of these ongoing relationships. The AAP's recently released Connected Kids program is an example of such an intervention. Connected Kids, which will be described in greater detail in a case study later in this supplement, is a strengths-based violence prevention counseling intervention that healthcare providers can use with pediatric patients and their parents. Regardless of discipline, all health professionals who require specialist-level competence should learn to coordinate with school- and community-based intervention programs and continue to increase their skill in social and political advocacy to join with others in working toward more effective community resources.

Level Three competencies (scholar level). At Level Three, health professionals should possess all of the Level One and Two competencies, and they should acquire more advanced skills in violence prevention. These include the ability to work closely and continuously with communities, help establish community coalitions, carry out research on the causes of youth violence and the effectiveness of interventions to prevent it, teach the three levels of core competencies to students and practicing professionals, and engage in public education and awareness campaigns on youth violence. Level Three professionals should be able to advocate at the local, state, and national levels for the resources and policies needed to prevent youth violence and other related health risk behaviors, and to develop an integrated system of youth violence prevention services. Health professionals who work in highly specialized settings related to youth violence, or who are seeking to become experts in this area of practice should acquire Level Three competencies. They will become the health professions' teachers, researchers, and public policy leaders in youth violence prevention.

The Education Process

The Working Group also deliberated on optimal strategies for training in these competencies. Their recommendations include:

Training in youth violence prevention should start early, beginning in undergraduate training and proceeding on through health professional school and on into continuing health professional education. Training in Level One competencies should be mandatory for all health professionals, with Level Two and Three competencies added depending on discipline, specialty, and personal interest.

Training in youth violence prevention should be integrated into the mainstream professional curriculum as a core component of health professional education and not taught as a stand-alone workshop or special subject. Working Group members, particularly those with experience working in health professional education on domestic violence and child abuse, emphasized the importance of this concept. For youth violence prevention to be perceived as a central and important part of practice, it must be treated similarly to other topics and illnesses. Working Group members discussed the difficulties they have had in integrating training content on violence into core curricula. Stand-alone special interest workshops have been easier to introduce and maintain but many times are marginalized next to the core curriculum. By structure alone, these special-interest programs communicate to students that skills in these areas are add-ons and not a central part of health professional practice. Similarly, Working Group members who had successfully integrated violence-related content into the core curriculum reported having to constantly guard against "topic drift." For example, a child abuse case developed at one medical school involved a differential diagnosis between abuse and brittle bones, but it "drifted" over the years from a case designed to teach assessment and response to child abuse to a case about osteogenesis imperfecta.

Training in youth violence prevention should be coordinated with content on other forms of violence such as child abuse, domestic violence, and elder abuse as well as health risk behaviors such as alcohol and drug use. This recommendation recognizes the intimate connections that often exist among different forms of violence and their often-close association with other risk behaviors. It is very important for health professionals to understand these interconnections in order to intervene effectively. The key concept of the "cycle of violence"—that young perpetrators often are also victims of violence—should be reflected not only in the

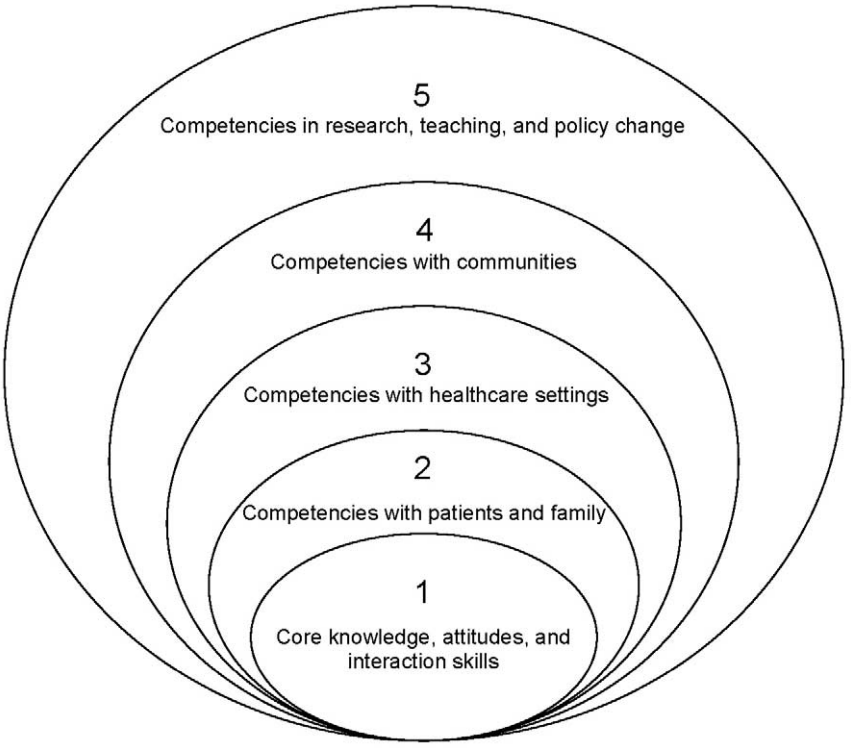

Figure 1. Ecologic framework for competencies for health professionals in the prevention of youth violence.

curriculum content, but also in the structure of the education process itself.

Finally, training should be delivered not only by health professionals in multidisciplinary teams but also by professionals from other sectors such as criminal justice and social work, along with youth and community residents who have been affected by violence. The involvement of community residents in the core faculty not only adds critically important perspectives, but also serves as a model for collaboration with other professional disciplines and specialties, youth, parents, and communities as equal partners in the prevention of violence.

Discussion

Health professionals have a critically important role to play in the prevention of youth violence. They are uniquely positioned to help with the primary prevention of youth violence by identifying young children and youth who are exposed to events and situations that put them at risk for violent victimization. In addition, health professionals are often among the first to respond when children and adolescents have been injured as a result of violence. They are therefore in a position to activate protective responses in the child's environment to reduce the possibility of violent re-injury.

Although the research on effective interventions on the part of health professionals remains limited, there is a growing body of evidence that indicates that certain actions, identifying at-risk children and getting them into comprehensive quality services early, for example, can have positive long-term effects on the life trajectories of our most vulnerable children and families.[19–23] Studies of other complex, behaviorally focused public health problems show that interventions can reduce risk behaviors such as smoking and failure to use a seat belt. Emerging studies are now beginning to show that office-based interventions can reduce violent behavior and injury among children and youths. A recent study examined the effects of screening 7- to 15-year-olds for psychosocial and emotional problems during a primary care visit and then referring their parents to telephone counseling. Compared with controls, children in the intervention group had significant reductions in aggressive behavior, delinquency, physical fighting, fight-related injuries requiring medical care, and child-reported bullying.[24]

External support, including funding for research and the development and implementation of curricula on youth violence prevention, is needed to advance training for health professionals in this area. Research is needed to illustrate not only that providers can have an effect but also which interventions are more or less effective in preventing violence among specific populations. Healthcare associations should continue to raise awareness among their members and encourage the development of training in this area. To advance further training and practice, content on youth vio-

lence also must be included in licensing exams and as a standard part of health professional education at all levels.

The core competencies report developed by the ACEs stands as one of the first to set out the knowledge, attitudes, and skills that healthcare professionals will need to work effectively to prevent youth violence among their young patients and clients. The competencies should be treated as a starting point rather than an end-point, however, and they should be modified to fit the needs of particular disciplines, specialties, and practice settings. Articles on the core competencies recently published by *Academic Emergency Medicine* and the *Puerto Rico Public Health Journal* begin to do this for emergency medicine and public health professionals in Puerto Rico.[25,26] Our hope is that other disciplines and specialties will follow suit and modify the competencies based on individual disciplines.

In an effort to integrate violence prevention into routine health care, the AAP is developing a primary care protocol (including a flexible schedule of topics, parent information, and guidelines for discussion of topics) for use by pediatricians and other health professions that routinely provide health care for children. Such clinical instruments are essential both for the education of clinicians and the incorporation of new areas of concern into practice. This protocol, which is designed to build protection against involvement in violence as well as the identification of risk, is just one avenue for the training and promotion of increased attention to youth violence prevention. Other such efforts need to be developed for settings such as emergency departments. It is only through enhanced education on youth violence and the development of clinical tools that the role of health professionals will be defined more fully, and their skills will reach the level needed to elevate them to a prominent place in the larger public health violence prevention movement.

The healthcare system has an important role to play in violence prevention. Too many missed opportunities to prevent youth violence occur in healthcare encounters every day. This issue is too important to the health and well being of children and youth for healthcare to remain on the sidelines. There is much that can and needs to be done.

The recommendations in the report were developed during a conference funded by the CDC-supported Southern California Center of Academic Excellence on Youth Violence Prevention and the University of Southern California's Department of Family Medicine. Participants in the Youth Violence Prevention and Health Professions Working Group (held in Los Angeles, California, April 2–3, 2001) include: Elaine Alpert, MD, MPH, Boston University, School of Public Health; Susan Keys, PhD, Johns Hopkins University Comprehensive Center on Youth Violence Prevention; America Bracho, MPH, CDE, Latino Health Access, Community Health Organization; William King, MD, JD, Robert Wood Johnson, Clinical Scholar; Rebecca Cunningham, MD, University of Michigan Developing Center on Youth Violence Prevention; Lyndee Knox, PhD, Southern California Developing Center on Youth Violence Prevention; Kurt Denninghoff, MD, University of Alabama at Birmingham Comprehensive Youth Violence Center; Maria Rodriguez-Frau, EdD, University of Puerto Rico Developing Center on Youth Violence Prevention; Margaret Dolan, MD, Virginia Commonwealth University Developing Center on Youth Violence Prevention; Janet Schneiderman, MN, RN, University of Southern California, School of Nursing; Arthur Elster, MD, American Medical Association, Clinical and Public Health Practice and Outcomes; Dean Sidelinger, MD, University of California, San Diego Developing Center on Youth Violence Prevention; Paul Giboney, MD, Southern California Developing Center on Youth Violence Prevention; Howard Spivak, MD, Harvard University Comprehensive Center on Youth Violence Prevention; Nancy Graff, MD, University of California, San Diego Developing Center on Youth Violence Prevention; Bradley Stein, MD, University of Southern California, Psychiatry and Behavioral Sciences; Nancy Guerra, EdD, Southern California Developing Center on Youth Violence Prevention; Vivian Reznik, MD, MPH, University of California, San Diego Developing Center on Youth Violence Prevention; Maurice Hitchcock, EdD, University of Southern California, Medical Education; Wynne Waugaman, PhD, CRNA, FAAN, University of Southern California, School of Nursing; Arnulfo Irigoyen-Coria, MD, Universidad Nacional Autónoma de México, Family Medicine.

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