World Health Organization's TEACH-VIP

Contributing to Capacity Building for Youth Violence Prevention

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Abstract: Youth violence is a major public health problem in every region of the world, yet it is especially prevalent in specific settings. Youth homicide rates exceeding 10.0/100,000 occur most often in countries that are low or middle income, or which are experiencing rapid economic or social change. Particularly in low- and middle-income countries, the capacity to develop and implement the comprehensive, multisectoral strategies to prevent youth violence is only just emerging.

The prevention of youth violence requires multidisciplinary approaches and a variety of trained professionals. A public health approach to training in the area of injury prevention focuses on providing professionals and paraprofessionals a common understanding of essential skills and knowledge. One important benefit of this is that it addresses a major gap in current public health training that until recently has devoted relatively little attention to injury prevention. Another benefit is that it allows professionals from a variety of backgrounds to work together more effectively to reduce injury.

This article will provide a broad overview of youth violence in low- and middle-income countries and will discuss the existing level of capacity within healthcare and public health sectors for responding to these problems. It concludes with a discussion of next steps for increasing capacity and a profile of the World Health Organization (WHO) training curriculum on injury and violence prevention called TEACH-VIP, an acronym for Training, Education, and Advancing Collaboration in Health on Violence and Injury Prevention, as one important effort undertaken by WHO and global injury partners to build capacity.

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Introduction

The overarching difficulty with providing a sense of the scale of the problem of youth violence, or any kind of violence for that matter, in low- and middle-income settings is the quality and availability of data. It is estimated that 199,000 youth murders, where youth is defined as an individual aged between 10 and 29 years, took place globally in the year 2000.[1] Whereas this gives a global rate of 9.2/100,000, estimated rates for Africa and Latin America were 17.6/100,000 and 36.4/100,000, respectively.[1] These regional figures obscure variable situations within individual countries. For example, youth homicide rates in Colombia are 84.4/100,000 and in El Salvador are 50.2/100,000. Within low- and middle-income settings, as in high-income countries, males are much more likely than females to be the victims of youth homicides. The ratio of male youth homicide rates to that of females ranges from 16 to 1 in selected countries within Latin and Central America and the Philippines, with significantly greater ratios in some countries. For example, in Venezuela one study found that 95% of homicide victims were men and 70% were aged between 15 and 29 years.[2]

World Health Organization (WHO) data from 66 countries for homicide among those aged 10 to 24 years between 1985 and 1994 reveal an increase over time, considerably more marked in males than females and typically greater in those aged 15 to 19 years and 20 to 24 years.[1] The same dataset contains information on the method of attack for 46 counties. These data show that firearm-related homicides have increased over time, from approximately 36% in 1985 to approximately 43% by 1994.

Between 20 and 40 young people receive hospital treatment for injuries related to nonfatal youth violence for each young person who dies as a result of violence, with substantially greater ratios in some countries (Israel, New Zealand, and Nicaragua).[3–5] Although the ratios tend to be somewhat lower than those

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observed for fatalities, males are much more likely than females to receive hospital treatment for nonfatal forms of youth violence. In Kenya the ratio of male to female victims of nonfatal youth violence has been reported at 2.6:1,[6] and in Jamaica the comparable ratio has been reported at 3:1.[7]

Rates of nonfatal forms of youth violence tend to increase substantially during mid-adolescence and young adulthood. A household survey in Johannesburg found that whereas 3.5% of victims of violence were 13 or younger, 21.9% and 52.3% were aged 14 to 21 years and 22 to 35 years, respectively.[8] Among those surviving to reach hospital with nonfatal forms of youth violence, firearm-related causes seem to be less prevalent. In Colombia, for example, one study has reported 5% of nonfatal assaults being firearm-related whereas over 80% of youth homicides were firearm-related.[9]

Apart from health sector reporting, victimization surveys also provide an indication of the extent of youth violence in low- and middle-income countries. One survey across 10 cities in Brazil found that 20% of individuals aged 16 to 24 years had witnessed a murder in the prior 12 months.[10] Within the same survey among those aged 16 to 19 years, a total of 14% knew someone who had committed a murder.

Factors Contributing to Youth Violence

There are a number of specific factors that merit deeper consideration in relation to the experience of youth violence in low- and middle-income countries and settings and the capacity of healthcare and public health sectors to engage in the prevention of youth violence. One such factor is the influence of rapid economic and social change. Comparison of regional trends in youth homicide between Western Europe and some countries of the former Soviet bloc from 1985 to 1995 illustrates this point. In the Russian Federation, homicide rates in the 10 to 24 age bracket increased by over 150% from 1985 to 1994. In Latvia, they increased by 125% over the same period.[1] In both these settings, the proportion of homicides attributable to firearms more than doubled. In contrast, homicide rates and the proportion attributable to firearms within Western Europe remained generally low and stable.

Youth gangs are a prominent feature in many settings in low- and middle-income countries where social opportunity and economic prospects for youth are poor. Illicit trade in contraband such as firearms or drugs in such settings is a rational alternative to the formal economy, and the combination of gang activities, illicit drugs, and the ready availability of firearms seems to be a potent mixture escalating the risk of youth violence.[1]

Economic development in low- and middle-income settings, although seeming to promise diversification of economic opportunity and realistic alternatives to gangs and a criminal life for youth, is heavily dependent on factors such as foreign direct investment. A study of predictors of foreign direct investment indicates that poor rule of law and corruption are most detrimental for investment,[11] implying the prospect of a vicious circle of escalating rates of youth violence linked to poor economic conditions further undermining the potential for economic development.

Another factor that merits consideration in terms of youth violence in low- and middle-income settings is the basic development challenge of responding to pressures imposed by urbanization. Although the largest cities were located in high-income countries until the 1960s, this is no longer the case. Today some of the world's largest cities and the mega-cities of the future are found in the developing world.[12] The capacity to accommodate rapid urban growth can be and often is stretched even in high-income countries. Planning for and achieving urban growth without allowing urban areas to become cut off from essential public services, thus disenfranchising the populations inhabiting these areas, is an enormous challenge for low- and middle-income settings. The growth in these peri-urban areas and the correlations between various measures of relative socioeconomic deprivation and urban violence has been well documented. It has been estimated that every 5 years, 60% of inhabitants of cities in low- and middle-income countries with populations of 100,000 or more become victims of violence.[12]

Infrastructure for Preventing Youth Violence

Preventing youth violence and violence in general requires multisectoral collaboration and coherent strategies within a society. In many low- and middle-income settings there is very little infrastructure that allows for the development of such approaches. Data collection by police forces typically is seen as little more than a bureaucratic task. Criminal sector and health ministries often do not have mechanisms for sharing information and using information to shape policies. Appropriate legislation and tools to enforce such legislation are too often lacking. There are very few settings with national focal points or plans of action to prevent violence.

Added to the above is a profound degree of global neglect in terms of investment in violence prevention and associated research. This has affected the entire injury field, which has lagged well behind other health outcomes when considering global research expenditure per disability-adjusted life year (DALY).[13] Indeed, the scale of this neglect is striking: on a per-DALY basis, health research funding spent on road traffic injuries was respectively 12, 16, and 103 times smaller than research on blindness, asthma, or HIV.[13] Perhaps not surprisingly, this relative under-investment has been well documented in low- and middle-income settings such as sub-Saharan Africa despite the relatively higher injury burden.[14]

The net result of this historical backdrop of neglect set against a complex problem such as youth violence, which demands coherent multisectoral strategies, is a severely hampered capacity of healthcare and public health sectors to engage in the prevention of youth violence in the settings that need to do so the most. This fundamental deficit is compounded further by the fact that much of the evaluative research on prevention of youth violence has taken place in high-income settings and may have only limited generalizability to low- and middle-income countries.

WHO Efforts to Build Capacity for Youth Violence Prevention

In 1996, the World Health Assembly (WHA) adopted Resolution WHA 49.25, declaring violence a global public health priority, followed a year later by WHA 50.19, which endorsed the World Health Organization's integrated plan of action for a science-based public health approach to the prevention of violence. A further consolidation occurred in 2000 with the establishment of the Department of Injuries and Violence Prevention at WHO. One of the initial steps taken by this Department has been the creation of the first ever *World Report on Violence and Health*.[15] The *Report* provides a comprehensive overview of the global extent of violence, and highlights the central yet frequently overlooked role of the health sector both in responding to violence and preventing it.

One outcome of the *Report* has been the adoption by the WHA of WHA 56.24 entitled "Implementing the recommendations of the World Report on Violence and Health." Among other violence prevention measures, WHA 56.24 calls for the nomination of focal points for violence prevention with in ministries of health and for the strengthening of data collection and research, primary prevention, emergency services, capacity development, and exchange of information.

As discussed earlier, a central challenge in preventing youth violence from a global perspective is the inherent lack of capacity to deal coherently with a complex problem requiring multisectoral approaches and collaboration. Although measures such as WHA Resolutions can serve as an important policy document that can be used within Member States to guide activities, WHO is also making available a number of other tools designed to advance violence prevention at the global level.

One of these tools is TEACH-VIP, a modular training curriculum on violence and injury prevention.

TEACH-VIP

Background

Training, Education, and Advancing Collaboration in Health on Violence and Injury Prevention (TEACH-VIP) is a modular violence and injury prevention and control curriculum developed by the World Health Organization in response to numerous requests from Member States and professional groups for educational tools to build capacities for preventing injuries and violence. The curriculum was developed with a primary training audience of public health students in mind but can also be used with allied health professionals, injury prevention practitioners, and staff within government agencies. It is expected that trainers in the settings in which the materials will be used will select those lessons most appropriate to their training audience needs and that the materials will be translated and adapted to a wide variety of contexts as needed.

Development of TEACH-VIP

The WHO convened a global consultative meeting among experts in injury prevention in April 2002. Participants included: injury prevention researchers; practitioners, policymakers and experts working on a range of injury topics; and representatives from a variety of healthcare and health sector settings from Africa, Latin America, North America, Asia, Europe, the Middle East, and Oceania to discuss capacity building in the area of injury and violence prevention. The

Table 1. Regional adaptation of TEACH-VIP: PAHO-GTZ Project on Youth Development and Violence Prevention in Latin America

Youth violence prevention is a central health and policy concern in almost all countries in Latin America. Among the most commonly cited contributing factors that have been identified are the lack of employment and education options, the dearth of social controls, and weak family structures, with a preponderance of victims from low-income households. The prevalence of violence is viewed as undermining the democratic foundations of a society; and is responsible for enormous human, economic and social costs to the region.
TEACH-VIP's module on youth violence prevention is currently undergoing adaptation within the Latin American context and youth needs, as part of a larger, regional project on youth development and violence prevention in partnership with the Pan American Health Organization (PAHO). The regional project is underway in Nicaragua, El Salvador, Honduras, Colombia, Peru and Argentina, and is being funded by Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ), a private company owned by the German Federal Government, which works on a public benefit basis, using all funds generated as profits exclusively for projects in international cooperation and sustainable development. Local teams made up of PAHO, GTZ, and local non-governmental agency experts on youth violence and youth development have been established to deepen the skill sets and knowledge base to develop effective prevention efforts. Along with international experts from the other parts of the Americas, the project teams are validating and adapting TEACH-VIP. The objective is to develop the youth violence component further, contextualizing the module to the violence and youth experience in Central and South America.

Table 2. Core curriculum

Area of knowledge	Sections	Lesson topics
Foundations and fundamentals of injury prevention, control, and safety promotion	I. Basic principles and approach to injury prevention, control, and safety promotion	History, definitions, principles of prevention, injury classification systems
		Exposure measurement of injuries and social measures of disease burden
	II. Methodologic approaches: injury research and monitoring; information systems	Data collection mechanisms, general approach to using community surveys, and design and development of injury surveillance systems
	III. Methodologic approaches: measurement and evaluation tools for injury prevention, control, and safety promotion	General aspects on methods for studying and evaluating injury prevention control and safety promotion interventions
	IV. Ethical issues involved in injury prevention, control, and safety promotion	Ethical issues related to surveillance, research, care, access to services
Specialized areas	V. Applications of injury prevention, control, and safety promotion	Road traffic injuries
		Other injuries: falls, burns, animal bites, drowning, and poisoning
		Introduction to violence prevention; child abuse and elder abuse
		Sexual violence, intimate partner violence
		Youth violence
		Suicide, self-inflicted harm, and collective violence
		Work injuries and violence prevention in urban and rural settings
Foundations and fundamentals of injury prevention, control, and safety promotion	VI. Injury care and rehabilitation	Pre-hospital care, emergency medical services and acute care, mid- and long-term care and rehabilitation.
		Injury severity scores
	VII. Inter-disciplinary approach to injury prevention	Role of education, the law, and other disciplines: communication across divides
	VIII. Policy development and advocacy	Role of advocacy in policy development, the process of developing policies and their evaluation

primary recommendation that emerged from this meeting was that WHO should coordinate the development of a comprehensive modular curriculum that addressed injury prevention and control that could be easily adapted to help meet the needs and issues in a wide variety of countries and regions. They suggested the curriculum should be designed such that it would be appropriate for diverse training audiences with anywhere from little or no prior training in injury prevention and public health, to audiences who have had considerable prior professional training in these areas and related fields.

Participants outlined content areas that should be covered by the curriculum, as well as the pedagogic approach. The WHO then oversaw the creation of the TEACH-VIP content and training materials, which came from both WHO personnel and a network of global experts. Peer review of the material was carried out in early 2004 by a team of external reviewers who were identified as experts in the particular areas addressed by the lessons. After the consolidation of the changes necessary based on the peer review process, the materials were put into a pilot testing phase in over 20 settings worldwide, which began in September 2004 and ended in June 2005.

TEACH-VIP Curriculum

The learning objectives for TEACH-VIP are to prepare students, government officials and professionals/paraprofessionals in the health and social sectors to: (1) identify the basic principles of injury prevention, control, and safety promotion; (2) differentiate basic methods to study injury problems in the community; (3) diagnose problems from a multidisciplinary perspective; (4) design, implement, and evaluate injury prevention and safety promotion interventions; (5) identify and compare effective injury prevention and control interventions (products, programs, policies); and (6) identify relevant sources of information (scientific literature, guidelines and recommendations, summaries of research, websites) and critically appraise them.

The TEACH-VIP curriculum consists of a core curriculum and an advanced curriculum. It is distributed via a CD-ROM that, in addition to the training curric-

Table 3. Advanced curriculum

Area of knowledge	Module	Lesson topics
Foundations and fundamentals of injury prevention, control, and safety promotion	I. Injury prevention: general principles and methods	Injury prevention: general principles Injury research methods: data collection Injury research methods: study design
	II. Injury information systems	Injury coding and classification Trauma scoring and injury surveillance Communicating injury surveillance information for public health action
Specialized areas	III. Road traffic injuries	Determinants and risk factors Planning and implementing road traffic injury interventions Putting knowledge into practice
	IV. Injuries due to falls and burns	Injuries due to falls Injuries due to burns Falls and burns: program planning
	V. Drowning, poisoning, and animal-related injuries	Drowning-related injuries Child poisoning Animal-related injuries
	VI. Child abuse and neglect	Child abuse and neglect 1 Child abuse and neglect 2 Child abuse and neglect 3
	VII. Elder abuse and neglect	Elder abuse as a social phenomenon Interventions for elder abuse prevention Prevention, ethics, and policy in elder abuse situations
	VIII. Youth violence	Youth as victims and victimizers Exposure to violence in youth Preventing youth violence, preventing victimization
	VIIII. Gender-based violence	Gender-based violence: definitions, patterns, and prevalence Understanding gender-based violence as a public health problem and a human rights violation The health sector response to gender-based violence
	X. Suicide and self harm	A stress-vulnerability model and the development of the suicidal process The public health approach: primary prevention Suicide prevention in healthcare and psychiatry: secondary and tertiary prevention
Foundations and fundamentals, of injury prevention, control, and safety promotion	XI. Injury care and rehabilitation	Trauma care systems Pre-hospital care Facility-based care: acute care and rehabilitation
	XII. Ethical issues in violence and injury prevention	Self inflicted injuries, suicide attempts, and suicide Unintentional injuries Violence
	XIII. Policy and advocacy	Media advocacy case studies Case studies in developing networks of pressure Dealing with powerful opposition

ulum, also includes capacity-building resources and a series of questionnaires to allow for the evaluation of the curricular content. The core curriculum consists of 21 individual lessons covering injury-related fundamentals and related specialized topics in the field. The advanced curriculum consists of 39 hours of additional teaching that broaden and deepen the learner's exposure to all topics in the field. Each lesson within TEACH-VIP follows an identical format. The course material is designed using a classroom instruction model, with PowerPoint (Microsoft, Redmond, WA, USA) slide presentations, supporting lecture notes for the trainer, and student handouts providing core competencies and objectives for each lesson, sample exercises and full-text abstracts of approximately 600 of the references cited within the lessons.

A comprehensive users' guide is available for instructors. It provides a general overview of the curriculum, recommendations for using the curriculum most effectively, and places TEACH-VIP within the wider context of capacity building for injury prevention. Information on how to obtain the users' guide with an accompanying copy of the TEACH-VIP CD-ROM is available at: www.who.int/violence_injury_prevention/capacitybuilding/en/.

Content Specific to Youth Violence Prevention

The curriculum includes modules and lesson topics that directly address youth violence including youth as victims and victimizers, exposure to violence in youth, and preventing youth violence. It also includes content on specific applications of prevention, control, and safety promotion on the topics of child abuse and neglect, gender-based violence, suicide and self-harm, and youth and collective violence. Finally, it includes training on fundamental public health skills that are critical to the prevention of youth violence such as general principles of injury prevention, injury information systems, injury care and rehabilitation, ethical issues, and policy and advocacy.

The curriculum emphasizes the interconnections among different forms of violence (child abuse and later youth violence, domestic violence, and youth violence) as well as the need for the involvement of the multiple sectors of healthcare, law enforcement, public health, social services, and families in prevention efforts. The material addresses key issues at the primary, secondary and tertiary levels of prevention.

Because many low- and middle-income countries may lack basic infrastructure needed to support general injury prevention efforts as well as youth violence prevention efforts, TEACH-VIP incorporates infrastructure development in violence prevention such as development of information systems for recording violent and other injuries.

The material on youth violence, similar to the material of the larger curriculum, is designed to be adaptable for use in multiple countries where the dynamics and characteristics of youth violence may vary considerably along with cultural values and norms. An example of a regional utilization of the TEACH-VIP material in Latin America is provided in Table 1. Core and advanced curricula are noted in Tables 2 and 3.

Evaluation of TEACH-VIP

The WHO conducted a pilot testing phase for TEACH-VIP during 2004 and 2005. The training sessions were held in a variety of settings including medical schools, departments of health, area hospitals, and schools of public health in universities. This pilot testing made use of the evaluation questionnaires embedded within the TEACH-VIP CD-ROM. Among the questionnaires administered were two that elicited feedback from training participants. The first of these was a 7-item intake questionnaire whereas the second was a post-lesson questionnaire consisting of 14 items administered at the conclusion of receiving the final lesson.

Data are available from the intake questionnaire for 582 individuals from 14 countries (Kenya, South Africa, Colombia, USA, Pakistan, Iran, United Kingdom, Spain, Israel, Sri Lanka, India, Thailand, China, and Vietnam). The mean age of participants was aged 29 years with a range of 20 to 58 years. Fifty-eight percent were male; 42% were female. Sixty-six percent of participants were students, 21% were government officials, and approximately 6% were injury response or injury service providers. Less than 20% of participants had received more than 6 hours of injury training previously.

Data are available from the post-lesson questionnaire for 372 individuals and reveal that 71% (262) of participants agreed that the training was "relevant to my vocation/professional needs" with only 14% (53) disagreeing. Eighty-three percent (307) of participants expected to use the information they learned in the training in their work setting, with only 7% (27) disagreeing. Eighty-eight percent (80) of government officials, 97% (33) of injury prevention service providers, 85% (6) of injury response service providers, and 79% (168) of students indicated the training "met an important unmet need."

Discussion

The TEACH-VIP program is a training curriculum that provides a basic, uniform framework that can serve as a departure point to train health and other sectors on how to study, inform, develop, and evaluate more targeted efforts addressing multiple and specific forms of interpersonal, self-directed, and collective violence by, among, and against youth in low- and middle-income settings. By building capacity in core precepts informing global violence and injury prevention efforts, TEACH-VIP can assist in the tailoring of more specialized prevention efforts for particular child and youth populations that are poorly understood (such as child soldiers or children in organized armed violence), and in a variety of contextual settings experiencing rapid urbanization. If implemented alongside other activities that target the development of systems, key skill sets, and support for networks and collaboration, WHO believes it can play a vital role within an integrated strategy to prevent injury among youth.

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