Understanding

School Violence

Fact Sheet   *2008*

In the United States, an estimated 55 million students are enrolled in pre-kindergarten through 12th grade.[1] Another 15 million students attend colleges and universities across the country.[2] While U.S. schools remain relatively safe, any amount of violence is unacceptable. Parents, teachers, and administrators expect schools to be safe havens of learning. Acts of violence disrupt the learning process and have a negative effect on students, the school itself, and the broader community.

School violence is a subset of youth violence, a broader public health problem. Youth violence refers to harmful behaviors that may start early and continue into young adulthood. It includes a variety of behaviors such as bullying, slapping, punching, weapon use, and rape. Victims can suffer serious injury, significant social and emotional damage, or even death. The young person can be a victim, an offender, or a witness to the violence—or a combination of these. Detailed information about youth violence is available online at www.cdc.gov/injury.

What is the extent of school violence in the United States?

The first step in preventing school violence is to understand the extent and nature of the problem. The Centers for Disease Control and Prevention (CDC), the Department of Education, and the Department of Justice gather and analyze data from a variety of sources to gain a more complete understanding of school violence.

School Environment

- Approximately 38% of public schools reported at least one incident of violence to police during 2005-2006.[1]

- In 2005, 24% of students reported gangs at their schools.[1] Students in urban schools were more likely to report gang activity than suburban and rural students.[1]

- From 2003-2004, 10% of teachers in city schools reported that they were threatened with injury by students, compared with 6% of teachers in suburban schools, and 5% in rural schools.[1]

Risk Behaviors

In 2005, a nationwide survey of students in grades 9-12 reported the following risk behaviors:

- 6.5% of students carried a weapon on school property in the 30 days preceding the survey. Weapons included a gun, knife, or club.[3]

- 7.9% of students were threatened or injured with a weapon on school property in the 12 months preceding the survey.[3]

- 13.6% of students were involved in a physical fight on school property in the 12 months preceding the survey.[3]

- 8.4% of students attempted suicide one or more times in the 12 months preceding the survey.[4]

- 25.4% of students were offered, sold, or given an illegal drug on school property in the 12 months preceding the survey.[5]

Nonfatal Victimization

- In 2005, students ages 12-18 were the victims of about 628,200 violent crimes at school.[1] This included rape, both sexual and aggravated assault, and robbery.

- About 30% of students reported moderate ("sometimes") or frequent ("once a week or more") bullying. This included 13% as a bully, 10.6% as a victim, and 6.3% as both.[6]

- Young people who bully are more likely to smoke, drink alcohol, and get into fights.[7, 8]

- Children who bully are more likely to get into fights, vandalize property, skip school, and drop out of school.[8]

- 60% of boys who were bullies in middle school had at least one criminal conviction by the age of 24.[8]

- Among the student perpetrators of school-associated violent deaths, 20% were known to have been victims of bullying.[9]

Violent Deaths

- Violent deaths at schools accounted for less than 1% of the homicides and suicides among children ages 5-18.[10, 11]

- During the past seven years, 116 students were killed in 109 separate incidents—an average of 16.5 student homicides each year.[11]

- Rates of school-associated student homicides decreased between 1992 and 2006. However, they have remained relatively stable in recent years. Rates were significantly higher for males, students in secondary schools, and students in central cities.[11]

- Most school-associated violent deaths occur during transition times—before and after the school day and during lunch.[9]

- Violent deaths are more likely to occur at the start of each semester.[12]

- Nearly 50% of homicide perpetrators gave some type of warning signal, including making a threat or leaving a note, prior to the event.[9]

What are the short- and long-term health effects?

School-associated violent deaths are only part of the problem. A number of students seek medical care for nonfatal, violence-related injuries. Some of these injuries are relatively minor and include cuts, bruises, and broken bones. Other injuries, like gunshot wounds and head trauma, are more serious and can lead to permanent disability.

Not all injuries are visible. Depression, anxiety, and many other psychological problems, including fear, can result from school violence. In 2005, 6% of high school students participating in a nationwide survey reported that they did not go to school on one or more of the previous 30 days because they feared for their safety.[3] Student fears about safety increased between 1993 and 2005, but have not changed significantly since 2005.[3] Another study found that as many as 160,000 students go home early on any given day because they are afraid of being bullied.[13]

What are the risk factors for perpetrating youth violence?

Research on youth violence has increased our understanding of the factors that make some populations more likely to commit violent acts. Having such risk factors increases the likelihood that a young person will become violent, but these factors are not necessarily direct causes of youth or school violence.[14, 15] Such risk factors include:

Individual Risk Factors

- History of violent victimization
- Attention deficits, hyperactivity, or learning disorders
- History of early aggressive behavior
- Association with delinquent peers
- Involvement in gangs
- Involvement with drugs, alcohol, or tobacco
- Low IQ
- Poor academic performance

- Low commitment to school or school failure
- Poor behavioral control
- Deficits in social, cognitive, or information-processing abilities
- High emotional distress
- Antisocial beliefs and attitudes
- Social rejection by peers
- Exposure to violence and conflict in the family
- Lack of involvement in conventional activities

Relationship Risk Factors

- Harsh, lax, or inconsistent disciplinary practices
- Low parental involvement
- Low emotional attachment to parents or caregivers
- Low parental education and income
- Parental substance abuse or criminality
- Poor family functioning (e.g., communication)
- Poor monitoring and supervision of children

Community/Societal Risk Factors

- Diminished economic opportunities
- High concentrations of poor residents
- High level of transiency
- High level of family disruption
- Low levels of community participation
- Socially disorganized neighborhoods[15, 16, 17]

How can we prevent school violence?

The goal for school violence is simply to stop it from happening in the first place. Prevention efforts should ultimately reduce risk factors and promote protective factors. In addition, prevention should address all levels of school violence: individual, relationship, community, and society.

Individual Level Strategies

Universal, school-based prevention programs have been found to reduce rates of aggression and violent behavior among students.[18] These programs are delivered to all students in a school or a particular grade and focus on many areas, including emotional self-awareness, emotional control, self-esteem, positive social skills, social problem solving, conflict resolution, and teamwork. Many of these programs help children learn social skills by having them observe and interact with others. Some programs incorporate didactic teaching, modeling, and role-playing to enhance social interaction, teach nonviolent methods for resolving conflict, and strengthen nonviolent beliefs among young people.

Relationship Level Strategies

Parent- and family-based interventions are designed to improve family relations. There is growing evidence that these interventions, especially those that start early and recognize all the factors that influence a family, can have substantial, long-term effects in reducing violent behavior.[19]

Mentoring is the pairing of a young person with a volunteer who acts as a supportive, nonjudgmental role model. This strategy may provide children and adolescents with positive adult influences when they do not otherwise exist.[19] The quality of mentoring programs can vary and success depends, in part, on properly training mentors and equal participation by all parties. Research has shown that mentoring, when implemented correctly, can significantly improve school attendance and performance, reduce violent behavior, decrease the likelihood of drug use, and improve relationships with parents and friends.[19]

Community Level Strategies

Strategies at this level focus on modifying community characteristics, including school settings that either promote or inhibit violence. Schools have made numerous efforts to improve the overall environment and to reduce negative outcomes, such as violence. These include improved classroom management practices, promoting cooperative learning techniques, teacher/staffing practices, student monitoring and supervision, and reducing bullying by involving parents/caregivers.[20]

In addition to the social environment of a school, research has shown that proper environmental design can reduce crime and fear.[21] An effectively-designed environment can improve the overall quality of life. Environmental design considers many factors including (1) *natural surveillance* or the placement of physical features to maximize visibility; (2) *access management* which involves guiding people by using signs, well-marked entrances and exits, and landscaping; (3) *territoriality*, defined as the clear delineation of space, expressions of pride or ownership, and the creation of a welcoming environment; (4) *physical maintenance* which includes repair and general upkeep of space; and (5) *order maintenance* or attending to minor unacceptable acts and providing measures that clearly state acceptable behavior. Studies are underway to determine if environmental design can be used to prevent school violence.

Schools are imbedded within a larger community environment by which they are influenced. As a result, broader efforts to change the physical and social environment of communities can also benefit schools. Strategies to change the broader community environment include increasing community participation; providing more formal and informal supervision for youth through afterschool programs and recreational opportunities; reducing youth access to alcohol and drugs; and improving financial, housing, and employment opportunities in impoverished areas.

Societal Level Strategies

Strategies to change the social and cultural climate to reduce youth violence are often difficult and infrequently used. Examples of strategies that may facilitate lasting change include addressing social norms via public information campaigns; reducing media violence; and reforming educational systems at the institutional level.[14]

What does CDC do to prevent school violence?

CDC uses a four-step approach to address public health problems like school violence:

Step 1: Define the Problem
The first step in preventing school violence is to understand it. Grasping the magnitude of the problem involves analyzing data such as the number of violence-related behaviors, injuries, and deaths. Data can demonstrate the frequency of school violence, where it occurs, and trends, and can suggest likely victims and perpetrators. When defining the problem of school violence, it is also important to understand available programs and policies at the district level.

Indicators of School Crime and Safety
CDC contributes to the Department of Education's annual report on school crime and student safety. This report provides the most recent data available from a variety of independent sources. *http://nces.ed.gov/programs/crimeindicators/*

School-Associated Violent Death Study
Since 1992, CDC has collaborated with the Departments of Education and Justice to monitor school-associated violent deaths at the national level. Information is collected from media databases, police, and school officials. A case is defined as a fatal injury (e.g., homicide or suicide) that occurs (1) on school property; (2) on the way to/from school; or (3) during or on the way to/from a school-sponsored event. Only violent deaths associated with U.S. elementary and secondary schools are included. Data obtained in this study have identified trends and helped to inform preventive measures. *www.cdc.gov/ncipc/dvp/sch-shooting.htm*

School Health Policies and Programs Study
The School Health Policies and Programs Study (SHPPS) is the largest, most comprehensive assessment of school health policies and programs and is conducted at state, district, school, and

classroom levels nationwide. The study, sponsored by CDC, provides data to help improve school health policies and programs. SHPPS is conducted every six years; the first administration was in 1994 and the most recent, in 2006. The study assesses eight components of school health programs at the elementary, middle/junior, and senior high school levels, that are related to a variety of adolescent risk behaviors, including violence. These components are health education, physical education, health services, mental health and social services, school policy and environment, food services, faculty and staff health promotion, and family and community involvement.

Findings from the 2006 SHPSS include:
- 83.6% of elementary school, 83.8% of middle school, and 85.0% of high school districts required violence prevention education.
- 30.6% of schools had or participated in a program to prevent gang violence.
- 77.3% of elementary and middle schools participated in a program to prevent bullying.
- 71.7% of elementary school, 79.3% of middle school, and 81.9% of high school districts had staff or adult volunteers monitoring school hallways between classes.[22]

Youth Risk Behavior Surveillance System
CDC monitors risk behaviors, such as violence, that contribute to the leading causes of death among youth in the United States. A nationwide survey is administered every two years in public and private high schools. CDC examines behaviors related to fighting, weapon carrying, dating and sexual violence, and suicide.
www.cdc.gov/HealthyYouth/yrbs/index.htm

Step 2: Identify Risk and Protective Factors
It is not enough to know the magnitude of a public health problem. It is important to understand what factors protect people or put them at risk for experiencing or perpetrating school violence so that prevention efforts can be focused on these factors.

Bullying and Sexual Violence Project
The Bullying and Sexual Violence Project, funded by CDC and conducted at the University of Illinois at Urbana-Champaign, is designed to 1) assess the association between bullying (e.g., from the perspective of both the bully and the victim) and co-occurring and subsequent sexual violence perpetration; and to 2) test associations between these forms of violence and potentially modifiable risk and protective factors from multiple levels of the social ecology (i.e., individual, family, peer, and community factors). Participants in the three-year study will include 3,500 middle school students (6th through 8th grade) in 140 classrooms and their teachers from two school districts. Students and teachers will complete surveys at multiple time points to assess bullying attitudes and behaviors, frequency of bullying and victimization, sexual harassment victimization and perpetration, and measures of proposed risk (e.g., anger, attitudes toward violence), and protective factors (e.g., empathy). Data from this project will allow researchers to determine whether certain risk and protective factors are shared or unique to bullying experiences and the perpetration of sexual violence.

Crime Prevention Through Environmental Design
CDC supported the development of a tool to measure environmental design principles in schools to better understand how the physical environment may contribute to fear and violence among students. Work is now underway to determine the extent to which scores on this tool are associated with fighting, weapon carrying, substance abuse, and fear in schools.
www.cdc.gov/ncipc/dvp/CPTED.htm

The Student Health and Safety Survey
The Student Health and Safety Survey is a cross-sectional, self-administered, 174- item survey designed to assess the overlap between different types of violent behavior (dating violence, same-sex peer violence, and suicide). In addition to examining

the extent to which youth engage in these different types of violent behaviors, the survey also assessed potential risk and protective factors for these behaviors. The survey was administered to a sample of 7th, 9th, 11th, and 12th grade students from a public school district in a high-risk community (risk based on several community level indicators such as poverty, unemployment, and the prevalence of serious crimes). Data were collected from 4,131 students. Survey results will help researchers determine whether certain risk and protective factors are shared or if they are unique to different types of violence.

Step 3: Develop and Test Prevention Strategies

Research data and findings from needs assessments, surveys, stakeholder interviews, and focus groups are useful for designing prevention programs. Using these data and findings is known as an evidence-based approach to program planning. Once programs are developed, they are evaluated rigorously to determine their effectiveness. The following are examples of CDC programs and tools.

Academic Centers of Excellence on Youth Violence Prevention

CDC funds 10 Academic Centers of Excellence on Youth Violence Prevention (ACE) to bring together academic and community resources to study and create lasting ways to prevent youth violence. ACEs are unique compared to traditional research centers because they work with community members and many educational, judicial, and social work partners to develop action plans, partnerships, and priorities to prevent youth violence and to learn about effective preventive strategies. Some ACE projects are directly related to the issue of school violence, such as the evaluation of school-wide systems for enhancing positive behaviors.
www.cdc.gov/ncipc/res-opps/ACE/ace.htm

Best Practices of Youth Violence Prevention: a Sourcebook for Community Action

CDC's Best Practices of Youth Violence Prevention: A Sourcebook for Community Action is the first of

its kind to look at the effectiveness of specific violence prevention practices in four key areas: parents and families; home visiting; social and conflict resolution skills; and mentoring.
www.cdc.gov/ncipc/dvp/bestpractices.htm

Blueprints for Violence Prevention

CDC provided funding for the Blueprints for Violence Prevention, which identified 11 model prevention programs that meet a strict scientific standard of program effectiveness. The scientific standard is based upon an initial review by the Center for the Study and Prevention of Violence at the University of Colorado and a final review by a distinguished Advisory Board comprised of seven experts in the field of violence prevention. The 11 model programs, called "Blueprints," have been effective in reducing adolescent violent crime, aggression, delinquency, and substance abuse. To date, more than 600 programs have been reviewed. The Blueprints has currently identified another 18 programs that show promise.
www.colorado.edu/cspv/blueprints/index.html

Multisite Violence Prevention Project

CDC is collaborating with four universities to explore whether the largest reductions in school-based violence in middle schools result from (1) a universal prevention program to change school norms related to aggression and violence that includes all middle school students and teachers in a specific grade; (2) a selective program that is implemented only with students at the highest risk for perpetrating violence; or (3) a program that combines both approaches.

School Health Guidelines to Prevent Unintentional Injuries and Violence

CDC's School Health Guidelines to Prevent Unintentional Injuries and Violence include information about preventing adolescent violence, suicide, and unintentional injury; why it is important to focus on schools; and what schools do to prevent injuries and violence.
www.cdc.gov/HealthyYouth/injury/guidelines/index.htm

School Health Index

CDC's School Health Index (SHI) is a self-assessment and planning guide that enables schools to identify the strengths and weaknesses of their health promotion policies and programs; helps them develop an action plan for improving student health; and involves teachers, parents, students, and the community in improving school policies, programs, and services. The SHI covers five health topic areas: physical education and physical activity, healthy eating, tobacco use prevention, unintentional injuries and violence prevention, and asthma.

http://apps.nccd.cdc.gov/shi/default.aspx

The Effectiveness of Universal School-Based Programs for Preventing Violence

During 2004-2006, the Task Force on Community Preventive Services reviewed published scientific evidence on the effectiveness of universal school-based programs to reduce or prevent violent behavior. These programs have been shown to decrease rates of violence and aggressive behavior among school-age children. All grade levels demonstrated the effectiveness of the programs, and an independent meta-analysis confirmed and supplemented these findings.

www.thecommunityguide.org

Step 4: Ensure Widespread Use of Evidence-Based Prevention Strategies

Once prevention programs have been proven effective, they must be disseminated and properly implemented. Techniques to promote widespread use include synthesis and translation of research findings; communication and networking; and capacity building to ensure quality implementation (e.g., training, technical assistance, and coaching). Process and outcome evaluation ensure that strategies in the field are being implemented as planned and continue to achieve their desired impact.

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www.colorado.edu/cspv/blueprints/index.html

National Youth Violence Prevention Resource Center

The National Youth Violence Prevention Resource Center is funded by CDC and provides a single point of access for information about youth violence prevention for students, parents, researchers, and others. Information is offered in both English and Spanish.

www.safeyouth.org

Where can I learn more?

Centers for Disease Control and Prevention
Division of Adolescent and School Health
www.cdc.gov/healthyyouth

Division of Violence Prevention
www.cdc.gov/ncipc

Department of Education
www.ed.gov

National Youth Violence Prevention Resource Center
www.safeyouth.org

Stop Bullying Now Campaign
www.stopbullyingnow.hrsa.gov

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1. Department of Education. Indicators of school crime and safety: 2007. NCES 2008-021. Department of Education and Justice (US); 2007. Washington (DC): US Government Printing Office.

2. Jamieson A, Curry A, Martinez G. School enrollment in the United States - social and economic characteristics of students. Department of Commerce (US), Census Bureau (US);1999. Washington (DC): US Government Printing Office.

3. Centers for Disease Control and Prevention. National youth risk behavior survey 1991-2005: trends in the prevalence of behaviors that contribute to violence on school property [cited 2008 Feb 25]. Available from URL: http://www.cdc.gov/HealthyYouth/yrbs/pdf/trends/2005_YRBS_Violence_School.pdf.

4. Centers for Disease Control and Prevention. National youth risk behavior survey 1991-2005: trends in the prevalence of selected risk behaviors [cited 2008 Feb 25]. Available from URL: http://www.cdc.gov/HealthyYouth/yrbs/pdf/trends/2005_YRBS_Risk_Behaviors.pdf.

5. Centers for Disease Control and Prevention. Youth risk behavior surveillance - United States, 2005. MMWR 2006;55(No. SS-5).

6. Nansel TR, Overpeck M, Ramani PS, Ruan WJ, Simons-Morton B, Scheidt P. Bullying behaviors among US youth. JAMA 2001;285:2094-100.

7. Nansel TR, Overpeck MD, Haynie DL, Ruan WJ, Scheidt PC. Relationships between bullying and violence among US youth. Archives of Pediatric Adolescent Medicine 2003;157:348-53.

8. Olweus D. Bullying at school: what we know and what we can do. Malden (MA): Blackwell; 1993.

9. Anderson M, Kaufman J, Simon TR, Barrios L, Paulozzi L, Ryan G, et al. School-associated violent deaths in the United States, 1994-1999. JAMA 2001;286(21):2695-702.

10. Kachur SP, Stennies GM, Powell KE, Modzeleski W, Stephens R, Murphy R, et al. School-associated violent deaths in the United States, 1992 to 1994. JAMA 1996;275(22):1729-33.

11. Centers for Disease Control and Prevention. School-associated student homicides-United States, 1992-2006. MMWR 2008;57(02):33-36.

12. Centers for Disease Control and Prevention. Temporal variations in school-associated student homicide and suicide events - United States, 1992 -1999. MMWR 2001;50(31):657-60.

13. Pollack W. Real boys: rescuing our sons form the myths of boyhood. New York (NY): Henry Holt and Company, LLC; 1998.

14. Mercy J, Butchart A, Farrington D, Cerdá M. Youth Violence. In: Krug E, Dahlberg LL, Mercy JA, Zwi AB, Lozano R, editors. World report on violence and health. Geneva (Switzerland): World Health Organization; 2002. p. 25-56. Available from URL: www.who.int/violence_injury_prevention/violence/world_report/en/.

15. Department of Health and Human Services (US). Youth violence: a report of the Surgeon General [online] [cited 2008 Feb 25]. Available from URL: www.surgeongeneral.gov/library/youthviolence/toc.html.

16. Lipsey MW, Derzon JH. Predictors of violent and serious delinquency in adolescence and early adulthood: a synthesis of longitudinal research. In: Loeber R, Farrington DP, editors. Serious and violent juvenile offenders: risk factors and successful interventions. Thousand Oaks (CA): Sage Publications; 1998. p. 86-105.

17. Resnick MD, Ireland M, Borowsky I. Youth violence perpetration: what protects? what predicts? Findings from the National Longitudinal Study of Adolescent Health. Journal of Adolescent Health 2004;35:424.e1-e10.

18. Centers for Disease Control and Prevention. The effectiveness of universal school-based programs for the prevention of violent and aggressive behavior: a report on recommendations of the Task Force on Community Preventive Services. MMWR 2007;56(RR-7):1-12.

19. Centers for Disease Control and Prevention. Best practices of youth violence prevention: a sourcebook for community action (rev). Atlanta (GA): Centers for Disease Control and Prevention, National Center for Injury Prevention and Control; 2002.

20. Dahlberg LL, Butchart A. State of the science: violence prevention efforts in developing and developed countries. International Journal of Injury Control and Safety Promotion 2005;12(2):93-104.

21. Centers for Disease Control and Prevention. Using environmental design to prevent school violence [cited 2008 Feb 25]. Available from URL: http://www.cdc.gov/ncipc/dvp/CPTED.htm.

22. Centers for Disease Control and Prevention. School health policies and programs study 2006 [cited 2008 Feb 25]. Available from URL: www.cdc.gov/HealthyYouth/shpps/2006/factsheets/pdf/FS_ViolencePrevention_SHPPS2006.pdf.