



## Complete Summary

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### GUIDELINE TITLE

NIH State-of-the-Science Conference Statement on preventing violence and related health-risking social behaviors in adolescents.

### BIBLIOGRAPHIC SOURCE(S)

NIH State-of-the-Science Conference Statement on preventing violence and related health-risking social behaviors in adolescents. NIH Consens State Sci Statements 2004 Oct 13-15;21(2):1-34. [PubMed](#)

### GUIDELINE STATUS

This is the current release of the guideline.

## COMPLETE SUMMARY CONTENT

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## SCOPE

### DISEASE/CONDITION(S)

Adolescent violent behavior

### GUIDELINE CATEGORY

Prevention  
Risk Assessment  
Treatment

### CLINICAL SPECIALTY

Family Practice  
Pediatrics

Preventive Medicine  
Psychiatry  
Psychology

## **INTENDED USERS**

Advanced Practice Nurses  
Allied Health Personnel  
Health Care Providers  
Nurses  
Patients  
Physician Assistants  
Physicians  
Psychologists/Non-physician Behavioral Health Clinicians  
Social Workers

## **GUIDELINE OBJECTIVE(S)**

To provide health care providers, patients, and the general public with a responsible assessment of currently available data on preventing violence and related health-risking social behaviors in adolescents

## **TARGET POPULATION**

Adolescents ages 12 through 17 in the United States

## **INTERVENTIONS AND PRACTICES CONSIDERED**

1. Successful violence intervention programs:
  - Are derived from sound theoretical rationales
  - Address strong risk factors
  - Involve long-term treatments, often lasting a year and sometimes much longer
  - Work intensively with those targeted for treatment and often use a clinical approach
  - Follow a cognitive/behavioral strategy
  - Are multimodal and multicontextual
  - Focus on improving social competency and other skill development strategies for targeted youth and/or their families
  - Are developmentally appropriate
  - Are not delivered in coercive institutional settings
  - Have the capacity for delivery with fidelity
2. Violence intervention programs that fail:
  - Aggregate high-risk youth in ways that facilitate contagion
  - Implement protocols that are not clearly articulated
  - Staff are not well-supervised or held accountable
  - Are limited to scare tactics
  - Are limited to toughness strategies
  - Consist largely of adults lecturing to youth

## **MAJOR OUTCOMES CONSIDERED**

- Rates of adolescent violence
- Rate of death due to homicide
- Rates of co-occurrence
- School drop-out rate
- Economic cost of adolescent violence

## METHODOLOGY

### METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

### DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

**Note from the National Guideline Clearinghouse (NGC):** A systematic review of the literature was prepared by the Southern California Evidence-based Practice Center for the Agency for Healthcare Research and Quality's Evidence-based Practice Centers Program for use by the National Institutes of Health (see the "Availability of Companion Documents" field).

The National Library of Medicine (NLM) performed all the searches that were used for this evidence review. Librarians from NLM met with project staff via teleconference to discuss the evidence review, the scope of the review, and the key questions. They also worked with project staff to select the literature databases that were ultimately used and evaluated the search strategies that had been developed by the project team.

NLM searched four electronic databases—MEDLINE®, PsychINFO, SocioAbstracts, and ERIC—in April/May of 2003 and again in October/November 2003. Refer to Table 1 of the Evidence Report (see the "Availability of Companion Documents" field). For "youth," the following search terms were used: adolescent, teen, juvenile, and youth. For "violence," the following terms were used: violence, school violence, dangerous behavior, rape, homicide, domestic violence, courtship violence, dating violence, interpersonal violence, date rape, rape, raping, rapes, rapist, bully, bullies, bullied, bullying, physical assault, physical attack, physical aggression, direct aggression, overt aggression, knifing, stabbing, gunshot, brutality, bludgeoning, and murder.

The review was limited to studies conducted in the United States and focused on violent behavior perpetrated by adolescents, ages 12 through 17 years. Thus, this review excluded studies of violence perpetrated by children, preadolescents, and young adults.

Three inclusion criteria were applied for citations and manuscripts: published in 1990 or thereafter, related to the range of risk and protective factors associated with perpetrators of youth violence and violence-related crimes between ages 12 and 17 years, and conducted in the United States only. Excluded were case reports, unpublished program evaluations, editorials, letters, reviews, practice guidelines, non-English language publications, and papers from which data could not be abstracted.

For the questions on risk factors, the assessment was based on prospective longitudinal cohort studies, because of the general consensus that cross-sectional studies would not allow us to identify temporal predictors of youth violence. For the evaluation of the effectiveness of interventions, findings from randomized controlled trials (RCTs) as well as non-RCTs or single-group time series in which a control group was used either concurrently or prospectively were examined.

To ensure that articles published during the course of this project were included, the NLM conducted a second supplemental search in October of 2003, using the same search strategies and databases. This search yielded an additional 344 citations; thus a total of 11,196 citations were identified during the course of this project.

Two members of the team independently screened each citation. One screener was a member of the faculty with specific expertise related to adolescent development and/or youth violence, and the other screener had a masters degree in public health or was a doctoral student in the field of psychology, public health, or prevention research. The Task Order Manager or the Task Order Coordinator compared the screening results of the two screeners, resolved discrepancies, and recorded the decisions in the Excel master file. For the rejected citations, the reason for rejection was recorded (i.e., the first reason for rejection that was identified by the screeners). This protocol was followed throughout all screening processes.

Refer to Chapter 2 in the Evidence Report (see the "Availability of Companion Documents" field) for further information.

## **NUMBER OF SOURCE DOCUMENTS**

Full-length articles included in evidence assessment: n=67

- Risk factors: 35 articles
- Interventions: 32 articles

## **METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE**

Weighting According to a Rating Scheme (Scheme Not Given)

## **RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE**

Not applicable

## **METHODS USED TO ANALYZE THE EVIDENCE**

Review of Published Meta-Analyses  
Systematic Review with Evidence Tables

## **DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE**

**Note from the National Guideline Clearinghouse (NGC):** A systematic review of the literature was prepared by the Southern California Evidence-based Practice Center for the Agency for Healthcare Research and Quality's Evidence-based Practice Centers Program for use by the National Institutes of Health (see the "Availability of Companion Documents" field).

The quality of individual studies was evaluated using the criteria set forth in the Procedures for EPC Reports for Office of Dietary Supplements and Office of Medical Applications of Research (OMAR). Because all the prospective longitudinal cohort studies included in our review satisfied four of the seven criteria in the same ways, we used the three remaining criteria—follow-up rate of 80 percent or more, valid and reliable instruments used, and appropriate control of confounding factors—to assess the quality of individual studies. For studies that assessed the effectiveness of interventions, we used the OMAR criteria for RCTs and observational studies.

According to OMAR guidelines, the rating of the strength of scientific evidence remains the prerogative of the Consensus Panel. However, two sensitivity analyses were conducted to assist the Consensus Panel to assess the strength of the scientific evidence in our review. First, the data excluding the studies with sample size below the thresholds set at 1,100 for the general population and 500 for the at-risk population were reanalyzed, to restrict the analyses to the studies with the greatest power to detect significant predictors. Second, the findings using only studies with good quality were reassessed.

Risk factor identification. To identify homogeneous subgroups for data pooling, the eligible studies were stratified according to the following criteria: demographics of the study population; characteristics of the study; outcomes; and type of analysis. We used a systematic approach to summarize the findings. When findings for a single cohort were reported in multiple articles, the cohort was considered the unit of analysis. In the summary, findings for one cohort that were reported in more than one article were counted as only one article. However, if several articles reported findings for one cohort but each reported the findings for different outcome measures, each was counted. When a risk factor was assessed using both bivariate and multivariate analysis, the results of the multivariate analysis took precedence. Findings were considered significant if the p statistic was less than 0.05.

For summarizing the evidence, a factor was considered to be consistently associated with violence if 75 percent or more of the cohort studies reported a significant association for the factor. Likewise, factors reported not to be associated with violence in at least 75 percent of the studies under consideration were considered not associated with violence. Otherwise, the findings were considered inconclusive.

Consistency was evaluated for factors that were reported in two or more cohort studies. Evidence was considered inadequate if the results for a particular factor were reported in only one cohort study.

For evaluating the effectiveness of interventions. The accepted studies were stratified by the level of intervention and the type of study design. Initially, the plan was to stratify the studies further by the various characteristics of

interventions that might ultimately contribute to the effectiveness of the intervention (such as intervention setting and target population). However, many of the reports omitted mention of these study characteristics.

Because of the diversity of the studies, findings across studies were not pooled. Instead, the findings of the programs were summarized as effective or ineffective. An intervention was considered to be effective if one or more violence outcome indicators was reported to be significantly different at the  $p < 0.05$  level, based on the findings reported in the article(s). If none of the violence outcome indicators was reported to be significantly different, we considered the program ineffective.

Refer to Chapter 2 in the Evidence Report (see the "Availability of Companion Documents" field) for additional information.

## **METHODS USED TO FORMULATE THE RECOMMENDATIONS**

Expert Consensus (Consensus Development Conference)

### **DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS**

The National Institutes of Health (NIH) convened a State-of-the-Science Conference on "Preventing Violence and Related Health-Risking Social Behaviors in Adolescents" on October 13–15, 2004. The National Institute of Mental Health and the Office of Medical Applications of Research of the NIH were the primary sponsors of this meeting. The Agency for Healthcare Research and Quality (AHRQ), the Centers for Disease Control and Prevention, the National Institute on Alcohol Abuse and Alcoholism, the National Institute of Child Health and Human Development, the National Institute on Drug Abuse, the National Institute of Nursing Research, the National Library of Medicine, the Office of Behavioral and Social Sciences Research, the Substance Abuse and Mental Health Services Administration, the U.S. Department of Education, and the U.S. Department of Justice were the cosponsors.

AHRQ supported the NIH State-of-the-Science Conference on Preventing Violence and Related Health-Risking Social Behaviors in Adolescents through its Evidence-based Practice Center program. Under contract to the AHRQ, the Southern California Evidence-based Practice Center (SC-EPC) and its partner, Children's Hospital Los Angeles, developed the systematic review and analysis that served as one of the references for discussion at the conference.

The National Library of Medicine, in collaboration with the SC-EPC and Children's Hospital Los Angeles conducted the literature search for the systematic review.

The 2 1/2-day conference at the NIH examined and assessed the current state of knowledge regarding adolescent violence and related health-risking social behavior and identified directions for future research.

An impartial, independent panel was charged with reviewing the available published literature in advance of the conference, including a systematic literature review commissioned through the AHRQ.

Answering the Key Questions below, the non-Department of Health and Human Services, nonadvocate 13-member panel representing the fields of community and family medicine, pediatrics, nursing, psychiatry, behavioral health, economics, juvenile justice, outcomes research, and a public representative drafted a statement based on scientific evidence presented in open forum and on the published scientific literature:

- What are the factors that contribute to violence and associated adverse health outcomes in childhood and adolescence?
- What are the patterns of co-occurrence of these factors?
- What evidence exists on the safety and effectiveness of interventions for violence?
- Where evidence of safety and effectiveness exists, are there other outcomes beyond reducing violence? If so, what is known about effectiveness by age, sex, and race/ethnicity?
- What are the commonalities among interventions that are effective and those that are ineffective?
- What are the priorities for future research?

The draft statement was read in its entirety on the final day of the conference and circulated to the audience for comment. The panel then met in executive session to consider the comments received, and released a revised statement later that day at <http://consensus.nih.gov>.

Refer to the original guideline document and Chapter 2 in the Evidence Report (see the "Availability of Companion Documents" field) for additional information.

## **RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS**

Not applicable

## **COST ANALYSIS**

Guideline developers reviewed published cost analyses.

## **METHOD OF GUIDELINE VALIDATION**

External Peer Review  
Internal Peer Review

## **DESCRIPTION OF METHOD OF GUIDELINE VALIDATION**

To identify a group of Peer Reviewers, nominations were solicited from the Technical Expert Group, the Panel Chair, and national associations recommended by the Project Officer (including the American Academy of Pediatrics, the American Public Health Association, the American Association of Health Plans, the American Academy of Family Physicians, the American Society of Internal Medicine, the American Psychological Association, and the American College of Physicians, and the Society of Adolescent Medicine). The role of Peer Reviewers is to provide independent feedback about the report. As a result of these solicitations, Evidence-based Practice Center staff received nominations for 24

individuals. These individuals represented federal agencies, academia, philanthropy, clinical practice, and managed care. From this list, the Task Order Project Director invited eight individuals — representing a variety of expertise and geography — to participate. This list of peer reviewers was approved by the Task Order Officer.

A copy of the draft evidence report was mailed to each peer reviewer, along with an instruction sheet (refer to Appendix B-10 of the Evidence Report (see the "Availability of Companion Documents" field) for reviewing the draft evidence report. A copy of the draft evidence report was also mailed to the members of the Technical Expert Group. All reviewers were asked to respond within three weeks. Six of the eight peer reviewers, six of the nine technical experts, and one Agency for Healthcare Research and Quality-appointed peer reviewer provided comments. Appendix D-2 of the Evidence Report (see the "Availability of Companion Documents" field) lists the names and affiliations of the six peer reviewers who submitted their comments.

Upon receipt of all responses from the peer reviewers and technical experts, the project staff compiled a summary of the comments and changes and revised the draft evidence report accordingly. A complete copy of each reviewer's comments, together with the report of disposition of those comments, were submitted to the Task Order Officer for review and approval.

## RECOMMENDATIONS

### MAJOR RECOMMENDATIONS

The National Institutes of Health State-of-the-Science Panel highlights the following findings and recommendations:

- Violence affects all of us at some level and represents an issue of vital national and international importance.
- Some interventions have been shown by rigorous research to reduce violence precursors, violence, and arrest. However, many interventions aimed at reducing violence have not been sufficiently evaluated or proven effective, and a few widely implemented programs have been shown to be ineffective and perhaps harmful.
- Programs that seek to prevent violence through fear and tough treatment appear ineffective. Intensive programs that aim at developing skills and competencies can work.
- Interventions to reduce violence may be context dependent. Research must proceed in varying contexts and take account of local culture.
- Attention to diversity among investigators involved in violence prevention research is important. Universities and funding agencies should make improving the situation a priority.
- The panel encourages funding sufficient to promote the dissemination of violence prevention programs that have been shown to be effective through rigorous randomized controlled trial (RCT) research. Funding must include support for research, and monitoring must continue as these programs are more widely implemented.

## CLINICAL ALGORITHM(S)

None provided

## EVIDENCE SUPPORTING THE RECOMMENDATIONS

### TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is not specifically stated for each recommendation.

## BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

### POTENTIAL BENEFITS

Improved knowledge of currently available data on violence prevention and related health-risking social behaviors in adolescents and improved understanding of directions for future research

### POTENTIAL HARMS

Not stated

## QUALIFYING STATEMENTS

### QUALIFYING STATEMENTS

- The statement reflects the panel's assessment of medical knowledge available at the time the statement was written. Thus, it provides a "snapshot in time" of the state of knowledge on the conference topic. When reading the statement, keep in mind that new knowledge is inevitably accumulating through medical and behavioral research.
- This statement is an independent report of the panel and is not a policy statement of the National Institutes of Health (NIH) or the Federal Government. A final copy of this statement is available, along with other recent conference statements, at the same web address of <http://consensus.nih.gov>.

## IMPLEMENTATION OF THE GUIDELINE

### DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

## INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

### IOM CARE NEED

Staying Healthy

**IOM DOMAIN**

Effectiveness  
Patient-centeredness

**IDENTIFYING INFORMATION AND AVAILABILITY**

**BIBLIOGRAPHIC SOURCE(S)**

NIH State-of-the-Science Conference Statement on preventing violence and related health-risking social behaviors in adolescents. NIH Consens State Sci Statements 2004 Oct 13-15;21(2):1-34. [PubMed](#)

**ADAPTATION**

Not applicable: The guideline was not adapted from another source.

**DATE RELEASED**

2004 Oct 13-15

**GUIDELINE DEVELOPER(S)**

National Institutes of Health (NIH) State-of-the-Science Panel - Independent Expert Panel

**SOURCE(S) OF FUNDING**

United States Government

**GUIDELINE COMMITTEE**

National Institutes of Health State-of-the-Science Panel

**COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE**

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## **FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST**

All of the panelists who participated in this conference and contributed to the writing of this statement were identified as having no financial or scientific conflict of interest, and all signed forms attesting to this fact. Unlike the expert speakers who present scientific data at the conference, the individuals invited to participate on National Institutes of Health (NIH) Consensus and State-of-the-Science panels are reviewed prior to selection to assure that they are not proponents of an advocacy position with regard to the topic and are not identified with research that could be used to answer the conference questions.

## **GUIDELINE STATUS**

This is the current release of the guideline.

## **GUIDELINE AVAILABILITY**

Electronic copies: Available from the [National Institutes of Health \(NIH\) Consensus Development Conference Program Web site](#).

Print copies: Available from the NIH Consensus Development Program Information Center, PO Box 2577, Kensington, MD 20891; Toll free phone (in U.S.), 1-888-NIH-CONSENSUS (1-888-644-2667); autofax (in U.S.), 1-888-NIH-CONSENSUS (1-888-644-2667); e-mail: [consensus\\_statements@mail.nih.gov](mailto:consensus_statements@mail.nih.gov).

## **AVAILABILITY OF COMPANION DOCUMENTS**

The following are available:

- Preventing Violence and Related Health-Risking Social Behaviors in Adolescents: An NIH State-of-the-Science Conference. 2004 Oct. 106 p. Available in Portable Document Format (PDF) from the [National Institutes of Health \(NIH\) Consensus Development Conference Program Web site](#).
- Preventing violence and related health-risking social behaviors in adolescents. Evidence Report/Technology Assessment: Number 107. 2004 Sep. Available from the [AHRQ Web site](#).

## **PATIENT RESOURCES**

None available

## **NGC STATUS**

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