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ABSTRACT

This report contains a summary of a survey of violence prevention programs and a conference on the state of the art in evaluating such programs, as well as conclusions and recommendations. The survey of 51 violence prevention programs focused on evaluation activities. Analysis of the data indicated: frequently the goals have not been used to refine objectives that can be used in evaluation design; there have been few attempts to employ multiple measures of impact; and there has been little attempt to examine the differential effects of interventions on subgroups of youth at risk. The conference summary includes texts of presentations by four individuals and findings from the discussion. These conclusions and recommendations are presented: (1) funding and technical assistance should be made available to review identified promising programs; (2) the provision of resources for the expanded evaluation of promising programs is a task beyond the capacity of any single funding source; and (3) the identified promising projects should be used as laboratories for the development of intermediate outcome measures, for the validation of existing measures, and for the development of new evaluation methods. Specific product recommendations made include a handbook on violence prevention and a catalog on culturally sensitive measures in evaluation. Recommended activities include convening an annual meeting; conducting a summer institute; developing interdisciplinary research centers; increasing outreach to and recruitment of minority students and faculty; and conducting rigorous evaluations of model programs. (ABL)

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**VIOLENCE PREVENTION FOR YOUNG ADOLESCENTS:
THE STATE OF THE ART OF PROGRAM EVALUATION**

**STU COHEN
RENÉE WILSON-BREWER**

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THE STATE OF THE ART OF PROGRAM EVALUATION**

**STU COHEN
RENÉE WILSON-BREWER**

September 1991

This paper was prepared by the Education Development Center, Inc., for the conference, "Violence Prevention for Young Adolescents," held in Washington, D.C., July 12-13, 1990, supported by Carnegie Corporation of New York.

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VIOLENCE PREVENTION FOR YOUNG ADOLESCENTS PROJECT

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"My belief is that we surely do have enough knowledge, evidence, and experience now to make things better than we are doing at the present time. . . . This is the time when we simply have to make the synthesis between research, existing best practice experience, to take the richness of recent innovations and make a serious national effort."

David Hamburg, M.D., president of the Carnegie Corporation

"Children grow up in situations they didn't create but are reacting to. We try to intervene with them and to measure the changes as if the children are the problem. But adults are responsible."

Paul Bracy, M.Ed., director, Office of Violence Prevention,
Massachusetts Department of Public Health

"How do we, in the formative phases of an area such as violence prevention, foster programs that will be worthy of evaluation and develop methodologies that can eventually demonstrate outcomes, without killing the buds that might flower in the future?"

Deborah Prothrow-Stith, M.D., assistant dean for government and community programs,
Harvard School of Public Health

ACKNOWLEDGMENTS

The conference on violence prevention for young adolescents grew from a question raised by staff of the Carnegie Corporation during a conversation with senior staff members of Education Development Center. "What have we learned," they asked, "from the evaluations of existing violence prevention programs that might inform what we do in the future?"

The exploration sparked by that question led to the development of an outline for a conference on violence prevention for young adolescents, to be held under the auspices of the Carnegie Council on Adolescent Development. Filling in that outline, and bringing the project to fruition, could only have been accomplished with the support of Carnegie Corporation President David Hamburg, M.D.; Special Advisor to the President Elena O. Nightingale, M.D.; Executive Director of the Council on Adolescent Development Ruby Takanishi, Ph.D.; and Program Associate Lyn Mortimer. We also acknowledge Delbert Elliott, Ph.D., of the Institute of Behavioral Science, University of Colorado, for the skill and good humor with which he chaired the conference.

In revising an earlier draft of this and a companion report for publication as Council working papers, we have continued to benefit from the comments and suggestions of Drs. Takanishi and Nightingale. In addition, we acknowledge the assistance of two reviewers, Alice Hausman, M.P.H., Ph.D.; and Ronald Slaby, Ph.D.

An advisory committee assisted EDC staff in planning the conference and in resolving many difficulties, both conceptual and practical. The success of the survey of violence prevention programs conducted in preparation for the conference owes much to their participation. For their expert guidance and generosity of time, we thank Paul Bracy, M.Ed; Felton Earls, M.D.; Alice Hausman, M.P.H., Ph.D.; Massachusetts Representative Barbara Hildt; Linda Bishop Hudson, M.P.H.; Paulette Johnson, M.Ed.; Linda Nathan, M.A.; Lydia O'Donnell, Ph.D.; Marc Posner, Ph.D.; Deborah Prothrow-Stith, M.D.; Ronald Slaby, Ph.D.; and Peter Stringham, M.D.

At EDC, Dr. O'Donnell and Irene Goodman participated in preparing the conference background paper and provided important insights into the nature of evaluation research. Analysis of the early survey results benefitted also from the skill and suggestions of Lorenz Finison, Ph.D. Ruth Rappaport, conference coordinator, saw to it that the meeting was both organized and pleasant and efficiently conducted. As administrative assistant, Betty Chouinard provided invaluable assistance at every stage of the project. A special acknowledgment is due EDC vice president Cheryl Vince Whitman for her enthusiastic support and participation in this project from its conception through its completion.

Finally, we wish to thank all of the participants. Their names and affiliations are listed in Appendix A.

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EXECUTIVE SUMMARY

By any measure, violence is a significant public health problem. Adolescents, particularly African American males and those living in poverty, are at the greatest risk for being either the victim or the perpetrator of an act of violence. This growing problem is threatening the safety, the health, and the lives of America's next generation of adults.

In February 1990, Carnegie Corporation of New York funded Education Development Center, Inc. (EDC), to investigate the state of the art of violence prevention programs for young adolescents (ages 10-15 years). By examining the recent proliferation of intervention programs aimed at preventing or reducing violent behavior among this population and identifying those that have been evaluated, our purpose was to generate thoughtful recommendations for next steps.

The project was informed by and designed to build upon past Corporation activities in this area. The Corporation's "Conference on Adolescent Violence: Research and Public Policy," held in February 1987, brought together researchers, service providers, and public officials to examine the problem of adolescent violence from these three perspectives and to collaborate in setting priorities for programs of research and service. A major recommendation of that group was that it would be scientifically more valid and socially more useful to design programs for a broader population than the future violent adolescent: "Programs designed for an entire grade or school or neighborhood would seem likely to be more effective than those seeking to pick out potentially violent individuals from among their peers." Encouraging prosocial behavior in addition to eliminating antisocial behavior was recommended.

"Prevention of Violence in Young Adolescents," the Carnegie Council on Adolescent Development's May 1989 workshop, reviewed the scientific evidence on the causes of violence--biological, psychological, and social--and began to explore a range of possible interventions. Many programs were discussed during the two-day meeting. However, there was insufficient time for an in-depth review of evaluation findings and the workshop was not devoted specifically to the development of programmatic goals and methods for intervention.

To continue to build on the substantial foundation laid by these two previous meetings, it was necessary to examine in more depth the evaluation of violence prevention programs.

"Violence Prevention for Young Adolescents: A Review of the State of the Art," the working conference held on July 12-13, 1990, allowed individuals "on the front lines" of violence prevention theory, practice, and policymaking to share their expertise and experiences with evaluation, and to discuss and debate existing knowledge, current practice, and other important issues. The recommendations informed by the conference, and by the survey of violence prevention programs carried out in preparation for the meeting, address programmatic issues, such as the identification of existing programs for which expanded evaluations should be funded and that can serve as laboratories for the development of new

evaluation techniques. In addition, specific products were recommended, such as a handbook on violence prevention evaluation to be developed collaboratively by practitioners and evaluation researchers and activities, and the convening of an annual meeting of violence prevention program practitioners.

CONCLUSIONS AND RECOMMENDATIONS

Between 1987 and 1990, staff at EDC participated in two reviews of the state of the art in violence prevention interventions: *Injury Prevention: Meeting the Challenge* and the background papers prepared for the CDC's Youth Violence in Minority Communities: A Forum on Setting the Agenda for Prevention (see page 9). The Carnegie conference on violence prevention for young adolescents, however, was perhaps the first attempt to systematically address the question of how these programs have been evaluated. As such, the project, and the two resulting Council working papers,¹ deal primarily with the process and content of the evaluations themselves. Much of the conference discussion focused on what could be learned from these evaluations to inform and improve future efforts.

During the conference another and different question was posed by Dr. Elena Nightingale, special advisor to the president of Carnegie Corporation. Of all of the programs investigated, she asked, were there any that in whole or in part warrant greater dissemination? Which of these programs, she was asking in effect, had been subjected to rigorous process and outcome evaluation and been found to be effective in preventing violence among young adolescents?

The direct answer is that none of the programs surveyed has been so evaluated. Therefore, given the limitations of existing evaluations of violence prevention programs, it would be premature to come to closure about what works and what doesn't. That does not mean that we lack any indicators of which programs are promising. Nor does it mean that we should abandon programs that are currently reaching large numbers of persons. It does raise the question of what steps can be taken to improve our understanding of these programs and their effectiveness. And it poses two central challenges for violence prevention practitioners, researchers, and funding agencies: how to identify current, promising programs and strengthen their efforts while simultaneously designing new programs so well conceived and carefully implemented as to be worth the expenditure of resources for the kind of full-scale, rigorous evaluation that has been so rare.

¹ This paper is complemented by a separate Council Working Paper focused on the survey of violence prevention programs carried out in preparation for the Carnegie Conference on Violence Prevention for Early Adolescents. See Wilson-Brewer R, Cohen S, O'Donnell L, and Goodman IF. (1991). *Violence Prevention for Early Teens: The State of the Art and Guidelines for Future Program Evaluation*. Washington, D.C.: Carnegie Council on Adolescent Development.

To search for answers to these questions within the activities described in this paper alone would be insufficient. Evaluation is an important component--indeed, a critical one--for any project focused on achieving social change. But the questions we must answer are about design and implementation of approaches as well as evaluation.

To truly understand both whether a violence prevention program was effective and the likelihood that it could be replicated, we must know the following:

- How was the program developed? What theoretical or empirical body of knowledge informed its creation?
- How were the intervention(s) and target populations selected? What indications existed that the fit between intervention and population were the most appropriate? What, for example, was the role of formative evaluation?
- What were the program's objectives and how were they carried out? What was the role of process evaluation?
- What effects did the program produce? What was the role of outcome evaluation?

Taken together, the Carnegie conference and the Centers for Disease Control's forum (see p. 9) provide the broader view that is necessary. In addressing Dr. Nightingale's questions and in providing the most useful context for the Carnegie conference's specific recommendations reported below, we will draw upon some of the points raised in the materials prepared for the CDC forum.

In addressing the application of principles of community-based programs to violence prevention in minority communities, the EDC background paper drew upon several sources. These included the general injury prevention program model described in *Injury Prevention: Meeting the Challenge*, a model for diffusing health information in minority communities,² and CDC's Planned Approach to Community Health Program (PATCH).³

² National Heart, Lung, and Blood Institute. (1987). *Strategies for Diffusing Health Information to Minority Populations: A Profile of a Community-Based Diffusion Model*. Washington, D.C.: U.S. Department of Health and Human Services.

³ Centers for Disease Control. (n.d.). *Planned Approach to Community Health*. Atlanta: U.S. Public Health Service. See also: Nelson CF, Kreuter MW, Watkins NB, and Stoddard RR. (1986). A Partnership Between the Community, State, and Federal Government: Rhetoric or Reality? *International Journal of Health Education*; 5:27-31.

The process for developing community violence prevention programs described as background for the CDC forum includes a series of elements: developing leadership, identifying the problem, devising a strategic plan to address the problem, translating the plan into action by designing an intervention or program of interventions, implementing that intervention successfully, and evaluating its effects.⁴

It should be stressed--and the point was emphasized by participants in the Carnegie conference--that although evaluation is always named last in the series of steps (e.g., design, implementation, and evaluation), it must be seen as an integral part of the process. "The time to plan an evaluation," concluded the National Committee for Injury Prevention and Control, "is in the very earliest stages of program design."⁵

We must, however, return to the initial question: What can the evaluations of existing violence prevention programs tell us about what directions are promising? If the evaluations alone are insufficient to identify promising programs, then what else do we need to know to improve our understanding and move the field forward?

In its 1987 survey of the state of the art in injury prevention, the National Committee for Injury Prevention and Control studied a wide range of existing countermeasures against all forms of injury, most of which had not been rigorously evaluated. In categorizing these interventions, the committee used the following terms: "proven effective," "promising," "ineffective," or "unknown or insufficiently studied." For each intervention, a recommendation included both a statement of efficacy and suggestions for further use. Thus,

- an intervention that is proven effective (e.g., bicycle helmets) should be used and the program should be routinely monitored (i.e., a process evaluation is necessary, but not an outcome evaluation)
- an intervention that is promising (e.g., raising excise taxes on alcohol to reduce its availability) should be used, monitored (i.e., through process evaluation), and its outcomes should be rigorously evaluated
- an intervention that is ineffective or counterproductive (e.g., painted lines at crosswalks) should not be used

⁴ Cohen S and Lang C. (1990). Application of the Principles of Community-based Programs. A background paper prepared for the Forum on Youth Violence in Minority Communities: Setting the Agenda for Prevention, p. 6. Available from the Division of Injury Control, CDC.

⁵ National Committee for Injury Prevention and Control. (1989). *Injury Prevention: Meeting the Challenge*. New York: Oxford University Press, p. 78.

- an intervention whose efficacy is unknown or insufficiently studied (e.g., designated driver and safe-ride programs) should be the subject of further research⁶

The categories used by the committee were deliberately broad because the evidence available on which to make judgments about interventions was often extremely limited. In many cases, only a single article (or unpublished document) existed about a specific intervention. Committee working groups worked hard to find a reasonable basis on which to assign each intervention to a category. The number of proven effective or completely ineffective interventions was small. Much remains to be learned about the others.

An attempt to describe the 51 projects surveyed in these terms reveals that the vast majority are of unknown or insufficiently studied value in preventing violence among young adolescents. As most of these projects have not been evaluated, this conclusion is not surprising.

However, based upon existing--albeit incomplete--evaluation data, it is possible to identify a smaller number of projects whose assessments suggest that 1) their results to date have been promising, and (2) further study could yield valuable information about the development, implementation, and evaluation of future programs. These projects include

- The Paramount Plan: Alternatives to Gang Violence (Paramount, California)
- Project Stress Control School-Based Curriculum (Atlanta)
- Resolving Conflict Creatively Program (New York City)
- Second Step: A Violence Prevention Curriculum (Seattle)
- Viewpoints Training Program (Santa Barbara, California)
- Violence Prevention Curriculum Project (Newton, Massachusetts)
- Violence Prevention Project (Boston)⁷

These projects should be continued and should be monitored through process evaluation and, most important, new or expanded outcome evaluations. At the same time, a study of their conceptual, theoretical, and research bases should be undertaken to answer a series of

⁶ National Committee for Injury Prevention and Control. *op. cit.*, p. 113.

⁷ Descriptions of these projects are contained in Wilson-Brewer R, Cohen S, O'Donnell L, and Goodman IF. *op. cit.*

questions: What are the behaviors that the programs are intended to change? What are the probable or known causes of those behaviors and to what extent did that research base influence the selection of interventions and target populations? Which specific considerations informed the selection of interventions? To what extent does the community in which the program operates feel any sense of ownership of violence prevention, in general, and the program specifically?

Only by answering such questions will it be possible to identify model projects that could be disseminated widely without the need to conduct a full outcome evaluation in each new setting. And, only by asking such questions will it be possible to close the gap--identified by several--between violence prevention research in the behavioral sciences and practice in the field. As commented Ron Slaby, we wouldn't think of dealing with an AIDS prevention program, at this point without being informed of the research base about how AIDS is contracted. With AIDS, our practice is guided by the state of research evidence. That is often not the case with regard to violence prevention.

With these considerations in mind, we present the following recommendations for action. They are of two types. The program recommendations were developed by the authors during a reanalysis of the survey data. The products and activities, on the other hand, were suggested by the working groups and refined during subsequent plenary discussion.

PROGRAM RECOMMENDATIONS

1. Funding and technical assistance should be made available to review the programs listed above with a view to determining which among them are sufficiently promising to make the expenditure of resources for new or additional outcome evaluations worthwhile.
2. The provision of resources for the expanded evaluation of promising programs is a task beyond the capacity of any single funding source. Because this need is both national and resource-intensive, the effort should be coordinated by a consortium of government agencies and foundations.
3. The identified promising projects should be used as laboratories for the development of intermediate outcome measures, for the validation of existing measures, and for the development of new evaluation methods. Such efforts will require the collaboration of program practitioners, individual researchers, and public and private research institutions.

SPECIFIC PRODUCT RECOMMENDATIONS

1. A handbook on violence prevention evaluation should be developed as a collaborative

effort of evaluators and practitioners. Such a volume is necessary to aid violence prevention practitioners and to advance the state of the art. Such a handbook would assist program staff to carry out evaluation tasks, as well as to collaborate with evaluation research specialists in the development and implementation of evaluation designs. It should contain information on available resources, including a list of evaluation researchers and their specific areas of expertise. General purpose primers on evaluation fail to provide good outcome and process measures that are relevant to violence prevention programs or identify qualitative evaluation strategies. A useful model for such a handbook is *Evaluating AIDS Prevention Programs*, published by the National Research Council.⁸

2. A primer and catalog on the identification and use of culturally sensitive measures in conducting formative and outcome evaluations should also be created. This document will review the evidence on how cultural differences in values and behavioral norms among ethnic and racial groups can affect the design and implementation of violence prevention interventions. It will identify measures that have been used successfully with different groups, and detail the critical steps in developing new measures.

ACTIVITIES

1. Convene an annual meeting of violence prevention practitioners to improve communication and problem solving.
2. Conduct a summer institute in program development and evaluation for violence prevention practitioners, to help them develop and enhance skills in carrying out evaluation tasks, and work effectively with specialists to plan evaluation designs.
3. Develop interdisciplinary research centers to focus on the evaluation of violence prevention programs.
4. Increase the outreach to and recruitment of minority students and faculty and provide scholarships to encourage study in the field of violence, especially in research and evaluation.
5. Conduct rigorous evaluations of model programs already underway.

Each of these recommendations speaks to a specific need that must be met if we are to improve the evaluation of violence prevention programs and, through improved evaluations, affect the development and implementation of more effective strategies. No single recommendation is sufficient, however.

⁸ Coyle SL, Boruch RF, and Turner CF (eds). (1991). *Evaluating AIDS Prevention Programs (Expanded Edition)*. Washington, D.C.: National Academy Press.

If, as Dr. Hamburg suggested, there is a need to bring coherence to the nascent national effort to prevent violence among young adolescents, that is no less true of program evaluation. Increasing the capacity of program practitioners to learn from each other, to understand and benefit from evaluation research, and to collaborate fruitfully with researchers are related priorities. So too is the need for researchers to learn from violence prevention practice, not only to advance the development of theory, but to help develop new and innovative strategies for program evaluation. The identification of intermediary objectives--short-term gains that presage the longer-term goal of preventing violence--is a particularly critical need. How to organize these pressing tasks remains to be considered.

INTRODUCTION

In late 1989, the *Boston Globe* reported that "When you go into a Boston high school and [ask] how many kids know of someone who has died of homicide, nearly all the hands go up in the room."⁹ Boston is not unique; the question would be answered similarly in many of America's urban areas.

Epidemiologic evidence supports the anecdotal. According to the National Center for Health Statistics, over 30 years, death rates decreased in every age group except among 15-24 year olds. For them, increased mortality was caused primarily by violence. Increasingly, the analogy is being drawn between life in America's poor urban neighborhoods and the battle zones of such countries as Lebanon, Northern Ireland, Afghanistan, and Burma.¹⁰ The symptoms of post-traumatic stress syndrome are being observed among children for whom violence is the inescapable context of daily life.

By any measure, violence is a significant public health problem. And adolescents, particularly African American males and those living in poverty, are at the greatest risk for being either the victim or the perpetrator. This growing problem is threatening the safety, health, and lives of America's next generation of adults.

There have been numerous attempts to address the threats of violence. For example, *Healthy People 2000*, which outlines health promotion and disease prevention objectives for the nation, calls for reductions in (1) homicide rates among African American men ages 15-34 (from 90.5/100,000 to 72.4/100,000), (2) assaultive injuries among people age 12 and older (from 11.1/100,000 to no more than 10/100,000), and (3) the incidence of physical fighting and weapon carrying among adolescents ages 14-17 (both by 20 percent). However, doing so, the report acknowledges, will require extending "coordinated, comprehensive violence prevention programs to at least 80 percent of local jurisdictions with populations over 100,000."¹¹

That America's history has been a violent one has long been accepted. However, acknowledgment that violence is a public health problem because of the enormous toll it

⁹ *Boston Globe*. (October 31, 1989). p. 22.

¹⁰ Stanley A. (June 18, 1990). Child Warriors. *Time*, p. 30-52.

¹¹ U.S. Public Health Service. (1990). *Healthy People 2000: National Health Promotion and Disease Prevention Objectives*. Washington, D.C.: U.S. Department of Health and Human Services, p. 240.

takes in terms of morbidity and mortality is more recent.¹² And acknowledgement that violence among youth is one of the nation's most pressing problems, one that requires innovative, well-designed intervention strategies, is even more recent.

Adolescence can be an extremely difficult period--a fact to which many adults can attest. Add to the physical and emotional changes young people are experiencing the new demands that society is placing on them and it is not surprising that it is considered a time of turmoil. However, little attention has been paid to early adolescence (ages 10-15 years), a time of transition when many of the important developmental tasks associated with adolescence are often being accomplished or, at the very least, attempted. During this time, young people are seeking autonomy, independence, and separation from parents as new identities are formed.¹³ "For many youth, early adolescence is one of the last real opportunities to affect their educational and personal trajectory."¹⁴ When one adds to this picture of early adolescence statistics on violence and its effects, what we see is an age group whose limitless potential is increasingly in jeopardy.

Surely, the statistics are by now familiar. Still, they must be restated, however briefly. Homicide is the most devastating and permanent violence outcome. It is the 12th leading cause of death in the United States, at a rate of 10.6 per 100,000. However, it is the second leading cause of death for 15- to 24-year-olds; for African American males in that same age group, it is the leading cause of death. Homicide is not distributed evenly throughout the population. It takes its greatest toll among African Americans, males, and the young.¹⁵ Among children, those under three and over 14 years old are most vulnerable to murder.¹⁶

¹² See Rosenberg M. (December 1988). Violence is a public health problem. *Transactions and Studies of the College of Physicians of Philadelphia*, 10(1-4):147-68. Also Prothrow-Stith D, Spivak H, and Hausman A. (April 1987). Adolescent Violence: The Evaluation of Health Education as a Public Health Strategy. *New England Injury Prevention Research Center Working Paper No. 4*.

¹³ McCandless BR. (1970). *Adolescents: Behavior and Development*. Hinsdale, IL: Dryden. See also: Csikszentmihalyi M, and Larson R. (1984). *Being Adolescent: Conflict and Growth in the Teenage Years*. New York: Basic Books.

¹⁴ Jackson AW, and Hornbeck DW. (1989). Educating Young Adolescents: Why We Must Restructure Middle Grade Schools. *American Psychologist*; 44(5):831-36.

¹⁵ Rosenberg, ML, et al. (1987). Violence: Homicide, Assault, and Suicide. In Amler, RW and Dull, HB (Eds.), *Closing the Gap: The Burden of Unnecessary Illness*. New York: Oxford University Press, 164-178.

¹⁶ U.S. Department of Justice. (1980). *Crime in the United States: FBI Uniform Crime Reports*. Washington, D.C.: U.S. Department of Justice.

Other figures developed by the Bureau of Justice Statistics are starkly instructive. When the FBI estimated, in 1985, the *lifetime* risk of becoming a victim of homicide, the following ranking emerged (from least risk to greatest):¹⁷

White females	1 chance in 450
White males	1 chance in 164
Nonwhite females	1 chance in 117
Nonwhite males	1 chance in 28

These numbers reflect homicide statistics of more than a decade ago (1978-1980). While the risk has decreased somewhat overall in recent years, it has *increased* for African American males. Unpublished FBI data indicate that as of 1989 the lifetime risk of becoming a victim of homicide was

White females	1 chance in 496
White males	1 chance in 205
African American females	1 chance in 117
African American males	1 chance in 27

More male adolescents die from gunshots than from all natural causes. In 1988, nearly half of all 15-19-year old African American males who died were killed by guns. Between 1984 and 1988, gun-related deaths within this group of African American adolescents increased by 100 percent.¹⁸

Much less information is available about nonfatal intentional injuries. Even the magnitude of the problem is unclear. For example, the FBI provides a figure for the total number of "serious assaults" in its Uniform Crime Reports. However, when researchers compared FBI assault data with hospital records for the same period, it was found that nearly four times as many assault injuries are recorded in hospital records than had been reported to the police.¹⁹

¹⁷ Langan PA, and Innes CA. (1985). *The Risk of Violent Crime. Bureau of Justice Statistics Special Report* (NCJ-97119). Washington, D.C.: U.S. Department of Justice.

¹⁸ Fingerhut LA, Kleinman JC, Godfrey E, and Rosenberg H. (1991). *Firearm Mortality Among Children, Youth, and Young Adults 1-34 Years of Age, Trends and Current Status: United States, 1979-88. Monthly Vital Statistics Report; 39(11), supplement:1-16.* Hyattsville, MD: National Center for Health Statistics.

¹⁹ Barancik JI, Chatterjee BF, Greene YC, Michenzi EM, and Fife D. (1983). *Northeastern Ohio Trauma Study: I. Magnitude of the Problem. American Journal of Public Health; 73(7):746-51.*

Nor are physical injuries the only type of nonfatal outcome. Psychological damage is inadequately assessed and, subsequently, undervalued when estimating violence outcomes.

In 1984, youth below the age of 16 were responsible for 59 percent of all cases handled by the juvenile courts. More specifically, this under-16 age group was responsible for 59 percent of all crimes against persons, 63 percent of all property crimes, 41 percent of all public order crimes, and 62 percent of all status offense cases. Males were charged with 81 percent of all delinquency cases; they were responsible for the majority of cases in all but one offense category: runaway.²⁰

And in 1987, statistics indicate that more than 1.8 million 12- to 19-year-olds--again, the majority of them males--were involved in violent crimes; approximately one-third of them involved the use of a weapon.²¹ In a violent crime, a teen is more likely to be physically attacked than an adult--and far less likely to report the crime. Only one in three victims ages 12-15 years old told police about the crime, compared to half of all adults. And these young people often know their attacker. Approximately 45 percent recognized or knew the offender, with 83 percent of African American teen victims reporting African American assailants and 76 percent of white teen victims reporting white assailants.²²

At school, many children's greatest fear is aggression by other children. Those fears are often well-founded. One-third of assaults against younger adolescents occur in school. In one study, almost half of the boys and one-fourth of the girls surveyed reported having been in at least one violent altercation during the past year, 34 percent reported having been threatened, 41 percent of boys and 24 percent of girls said they could easily obtain a handgun, 23 percent of boys reported carrying a knife, and three percent reported carrying a gun to school.²³

The last national study of school violence, conducted 12 years ago, found that 50 percent of assaults and 68 percent of robberies to 12- to 15-year-olds occurred in school. Typically, the

²⁰ Snyder HN, Finnegan TA, Nimick EH, Sickmund MH, Sullivan DP, and Tierney NJ. (August 1987). *Juvenile Court Statistics 1984*. Washington, D.C.: U.S. Department of Justice, Office of Juvenile Justice and Delinquency Prevention.

²¹ U.S. Department of Justice, Bureau of Justice Statistics. (March 1988). *Report to the Nation on Crime and Justice*. 2nd ed. Washington, D.C.: Government Printing Office.

²² Calhoun J. (1988). *Violence, Youth and a Way Out*. Washington, D.C.: National Crime Prevention Council.

²³ American School Health Association. (1988). *National Adolescent Student Health Survey*. Washington, D.C.: American School Health Association, Association for the Advancement of Health Education, Society for Public Health Education.

violence takes place as the result of an argument and students are known to one another.²⁴ A more recent survey of teachers found middle schools to be the locus of significant levels of violence; teachers reported more physical violence among middle-schoolers than at the high school level.²⁵

Still, reported instances of interpersonal violence in the schools, like arrest statistics, reflect only a small part of the problem, and most statistics do not distinguish between student and teacher victims. The U.S. Census Bureau's 1987 National Crime Survey found close to 184,000 staff, students, and visitors were injured as a result of school crime.²⁶

We know the risk factors for violence involvement: being young, being male in a society that glorifies winning at any cost, being unemployed, being poor, being an African American,²⁷ being the resident of an urban area, and having previously been a victim of violence. We also know what many of the contributing factors are: lack of social support networks; poor aggression and conflict management skills; widespread availability of weapons, alcohol, and other drugs; and exposure to potentially life-threatening people and situations.

THE ROLE OF CARNEGIE CORPORATION

Recent studies indicate that certain violent behavior patterns appear early in childhood and that early intervention may prevent violent behavior in later years. As a result, *Healthy*

²⁴ National Institute of Education. (1978). *Violent Schools--Safe Schools: The Safe School Study Report to the Congress*. Washington, D.C.: U.S. Department of Health, Education, and Welfare.

²⁵ Office of Educational Research and Improvement. (1987). *Public School Teacher Perspectives on School Discipline*. Washington, D.C.: U.S. Department of Education.

²⁶ Foley D. (May 1990). Danger: school zone. *Teacher Magazine*, p. 58.

²⁷ Although African Americans have disproportionately high rates of homicide, several studies suggest that homicide rates are strongly correlated with poverty and low socioeconomic status. When the homicide rates of African-American and white groups with the same socioeconomic status have been compared, researchers have found rates for both groups have been almost equal. See Centerwall BS. (1984). Race, socioeconomic status, and domestic violence, Atlanta 1971-72. *American Journal of Public Health*; 74:813-15. Loftin C and Hill RH. (1974). Regional subcultures and homicide: An examination of the Castil-Hackney thesis. *American Social Review*; 39:714-24. Willin KR. (1984). Economic sources of homicide: Reestimating the effects of poverty and equality. *American Social Review*; 49:283-89. Parker RN and Smith MD. (1979). Deterrence, poverty, and type of homicide. *American Journal of Sociology*; 85:614-24.

People 2000 calls for the teaching of nonviolent conflict resolution skills (preferably as part of a comprehensive school health education program) in at least 50 percent of the nation's elementary and secondary schools by the decade's end.²⁸

We hope to reduce violent behavior and increase violence prevention skills. At the same time, however, we must recognize the conclusion of *Injury Prevention: Meeting the Challenge*, the National Committee for Injury Prevention and Control's two-year study of the state of the art in injury prevention. "There are few models and much uncertainty about the effectiveness of many available interventions [against interpersonal violence]. Therefore, the greatest need is for interventions that are designed with specific, measurable objectives. Evaluations of these interventions should be widely disseminated."²⁹

It is time, therefore, to examine carefully the recent proliferation of intervention programs and materials aimed at preventing or reducing violent behavior. Progress toward "coordinated, comprehensive violence prevention" must be based on a review of existing evaluated programs and the thoughtful development of recommendations for next steps. That was Carnegie Corporation's purpose in convening the working conference "Violence Prevention for Young adolescents: A Review of the State of the Art."

In February 1990, Carnegie Corporation of New York funded Education Development Center, Inc. (EDC), with headquarters in Newton, Massachusetts, to conduct the following activities over an eight-month period:

1. Identify violence prevention programs for young adolescents (ages 10-15 years) in the United States.
2. Collect data about each program, including goals, target populations, major activities, and evaluation methodology and outcomes.
3. Produce a workshop document that describes these programs, summarizes evaluation findings, critiques methodologies, and addresses such issues as barriers to effective program design, implementation, and evaluation.
4. Convene an interdisciplinary group of violence prevention practitioners, violence and aggression researchers, program evaluators, and government representatives to discuss lessons learned and to collaborate in setting priorities for programs of service and research.

²⁸ U.S. Public Health Service. *Ibid.*

²⁹ National Committee for Injury Prevention and Control. (1989). *Injury Prevention: Meeting the Challenge*. New York: Oxford University Press.

5. Prepare a final report for public distribution.

Conference participants were selected from a wide variety of fields and areas of expertise (see Appendix A). Only by bringing together such a diverse group for discussion and debate can this critically important field advance. Clearly, there were many other individuals whose participation would have added much to the discussions. However, it was necessary to limit the total number of participants while also drawing on people from a range of regions and disciplines--and with a range of experiences and perspectives to share.

This conference was informed by and designed to build upon a recent series of Carnegie Corporation activities. The first is the report of the Carnegie Council on Adolescent Development's Task Force on Education of Young Adolescents. Entitled *Turning Points: Preparing American Youth for the 21st Century*, it examines all aspects of middle grade education and proposes a comprehensive set of reforms covering school organization, curriculum, classroom practices, health and counseling services, relations with families, and community linkages.³⁰ Although the report did not focus on violence prevention interventions, *per se*, it did acknowledge that violence has become a serious problem that schools cannot solve in isolation, and cited several programs that are employing new approaches to address the issue. The need for greater efforts and more resources was also noted, as was the association of crime and violence with poverty and limited opportunities.

The Council reports *Life Skills Training: Preventive Interventions for Young Adolescents*³¹ and *School and Community Support Programs that Enhance Adolescent Health and Education*,³² in combination with an earlier related paper, *Teaching Decision Making to Adolescents: A Critical Review*,³³ also provided important insights for this current report. All three focused to some extent on the importance of violence prevention, although those words were not always used.

For example, life skills training, as defined in the report cited above, is "the formal teaching

³⁰ Carnegie Council on Adolescent Development. (1989). *Turning Points: Preparing American Youth for the 21st Century*. Washington, D.C.: Carnegie Council on Adolescent Development.

³¹ Hamburg B. (1989). *Life skills Training: Preventive Interventions for Young Adolescents*. Washington, D.C.: Carnegie Council for Adolescent Development.

³² Price R, Cioci M, Penner W, and Trautlein B. (1990). *School and Community Support Programs that Enhance Adolescent Health and Education*. Washington, D.C.: Carnegie Council on Adolescent Development.

³³ Beyth-Marom R, Fischhoff B, Jacobs M, and Furby L. (1989). *Teaching Decision Making to Adolescents: A Critical Review*. Washington, D.C.: Carnegie Council on Adolescent Development.

of requisite skills for surviving, living with others, and succeeding in a complex society."³⁴ Social competence, a major category of life skills, involves nonviolent conflict resolution, friendship formation, peer resistance, assertiveness, and renegotiation of relationships with adults. Social support programs, operating in schools and community-based organizations, are designed to reduce the risk of both educational failure and poor health. Few of the programs reviewed in the report stated violence prevention as an explicit goal; however programs did address such violence-related goals as reducing discipline problems, reducing child abuse and neglect, and decreasing dropout rates. And effective decision-making skills (also a major category of life skills) are also essential for adolescents as they are presented with seemingly endless opportunities to take risks--many of which could affect their lives and the lives of those with whom they are in conflict--be they friends, family members, acquaintances, or strangers.

Finally, several Council efforts, culminating in the May 1989 workshop, "Prevention of Violence in Young Adolescents," reviewed the scientific evidence on the biological, psychological, and environmental causes of violence, and began to explore a range of possible interventions. Many programs were introduced or discussed during the two-day meeting. However, there was not sufficient time for an in-depth review of evaluation findings and the workshop was not devoted specifically to the development of programmatic goals and methods for intervention.

In these recent initiatives, the Carnegie Council on Adolescent Development has explored the theoretical bases of violence, a major category of interventions (life skills programs), and the middle school context in which much youth violence takes place. To continue along this path, it is necessary to integrate the results of these activities with the theoretical and practical expertise of individuals "on the front lines" of violence prevention theory, practice, and policy making.

In a time of many vexing and tragic societal problems, the need to prevent violence by and against young adolescents takes on a special urgency. The stakes are high. In truth, the future of a generation of young people, many of them African American males, is at risk, as are the communities in which they live and the nation as a whole.

In a crisis, the pressure to act--to develop a new program or replicate an existing one--may be overpowering. In such a climate, evaluation may be an afterthought or, more frequently, not a thought at all. Yet, it is under precisely such circumstances, that is, when the need to respond is great, that program evaluation is most important. Otherwise, ineffective programs will be replicated widely based on an appearance of success, thereby reducing the impetus and the resources that should be devoted to designing and evaluating better interventions.

³⁴ Hamburg B. op. cit., p. 3.

It was the purpose of this Carnegie-sponsored conference, therefore, to take stock of what has been learned thus far from existing violence prevention programs and to consider especially the barriers to conducting good process and outcome evaluations and how those barriers might be overcome.

THE FORUM ON YOUTH VIOLENCE IN MINORITY COMMUNITIES: SETTING THE AGENDA FOR PREVENTION

This working paper also takes note of a separately organized but related "Forum on Youth Violence in Minority Communities: Setting the Agenda for Prevention." The forum was co-sponsored in December 1990 by the Centers for Disease Control and the Minority Health Professions Foundation with the Morehouse School of Medicine. Held in Atlanta, Georgia, December 10-12, 1990, the forum brought together 110 participants from public health, criminal justice, social service, academic organizations, foundations, and minority communities. There is, however, a direct link between the Carnegie Corporation and CDC gatherings. In preparation for the CDC conference, and with partial support from the Carnegie Corporation, EDC staff prepared six background papers to guide the discussion, one of which, on the evaluation of violence prevention programs, drew extensively on the results of the Carnegie Conference.³⁵

The forum has been described in detail in *Public Health Reports*,³⁶ and the background papers prepared by EDC are available from the Centers for Disease Control. Consequently, we summarize the forum briefly here.

The forum proceeded from the following critical assumption:

Despite an urgent need, there is little guidance currently available for communities that wish to develop their own violence prevention programs. The absence of useful guidance is attributable to three factors. First, we know

³⁵ The CDC conference papers, which are available from the Division of Injury Control, are: Wilson-Brewer R and Jacklin B. *Violence Prevention Strategies Targeted at the General Population of Minority Youth*; Northrop D, Jacklin B, Cohen S, and Wilson-Brewer R. *Violence Prevention Strategies Targeted Toward High-Risk Minority Youth*; Northrop D and Hamrick K. *Weapons and Minority Youth Violence*; Hendrix K and Molloy PJ. *Interventions in Early Childhood*; Cohen S and Lang C. *Application of Principles of Community-Based Programs*; and O'Donnell L, Cohen S, and Hausman A. *The Evaluation of Community-Based Violence Prevention Programs*.

³⁶ Forum on Youth Violence in Minority Communities: Setting the Agenda for Prevention. December 10-12, 1990, Atlanta, Georgia. Summary of the Proceedings. *Public Health Reports*; 106(3) May/June 1991.

less than we would like about how to effectively prevent death and injuries resulting from youth violence. Second, what is known about prevention--based on innovative efforts by a variety of communities as well as scientific research to date--has not been assembled in a clear, concise way for communities to use. Third, there has been no accepted locus of responsibility for helping communities address the primary prevention of violent death and injuries.³⁷

Thus, the purpose of the gathering was to "(1) summarize what is known about violence prevention so that information can be immediately applied by minority communities and (2) determine priorities for the evaluation of violence prevention programs so that future research can be appropriately targeted."³⁸

The forum combined plenary sessions and working group meetings. Five working groups were organized: (1) principles of community intervention, (2) violence prevention strategies focused on minority youth in general, (3) violence prevention strategies targeted toward high-risk populations of minority youth, (4) weapons and youth violence, and (5) interventions in early childhood. EDC staff provided detailed background papers for each of these sessions, as well as a sixth paper that focused on the evaluation of violence prevention programs.

The units of analysis of the Carnegie survey and conference were programs explicitly focused on violence prevention or in which violence prevention was one of several goals (i.e., conflict resolution programs seen as a vehicle for violence prevention). Further, these programs were considered without regard to whether they relied upon a single intervention or a strategy of multiple interventions.

The unit of analysis for the CDC conference, on the other hand, was for the most part the single intervention. Thus, the background paper and working group on violence prevention strategies targeted at the general population of minority youth reviewed educational interventions (e.g., interventions to build male self-esteem, mentoring, teaching conflict resolution skills), environmental/technological interventions (e.g., the use of metal detectors in schools), recreational interventions (e.g., Boys Clubs), and legal interventions (e.g., youth curfews).³⁹

Several of the other working groups shared this focus on interventions. The high-risk minority youth group reviewed interventions for gang members, potential gang members, drug and alcohol abusers, drug dealers, juvenile offenders, youth with a history of fighting or victimization, weapons carriers, youth abused or neglected as children, and a loosely defined high-risk group composed of school dropouts and unemployed males. For each group (where

³⁷ *Public Health Reports*. op. cit.

³⁸ *Ibid.*

³⁹ Wilson-Brewer R and Jacklin B. op. cit.

appropriate) the following types of interventions were discussed: outreach, legal interventions, recreational interventions, work/academic interventions, media interventions, and environmental interventions.⁴⁰

The weapons and minority youth group explored educational/behavioral, legal, and technological interventions.⁴¹ The working group on interventions in early childhood reviewed a wide range of educational, public awareness, media, and therapeutic interventions.⁴² However, despite this difference in focus from the Carnegie project, the background papers reported a similar conclusion: "Based on the lack of evaluation data, it is premature to make definitive statements about what types of interventions are most effective."⁴³

The two remaining background papers are discussed below. They focus on the principles of community intervention and evaluation of violence prevention programs (the latter was distributed to all participants at the CDC forum and was not the subject of a separate working group) are discussed below. They also provide a useful context for to discussing the conclusions and recommendations from the Carnegie project.

The following pages contain a summary of the two activities carried out by EDC, through Carnegie Corporation's Violence Prevention For Young Adolescents Project: a survey of violence prevention programs and a conference on the state of the art in evaluating such programs.

In the final section, we detail the Carnegie project's conclusions and recommendations. At the same time, we draw upon some of the important considerations raised at the Forum on Youth Violence for the wider context they provide for these conclusions and recommendations.

⁴⁰ Northrop D, Jacklin B, Cohen S, and Wilson-Brewer R. op. cit.

⁴¹ Northrop D and Hamrick K. op. cit.

⁴² Hendrix K and Molloy PJ. op. cit.

⁴³ Wilson-Brewer R and Jacklin B. op. cit., p. 35.

THE SURVEY OF VIOLENCE PREVENTION PROGRAMS⁴⁴

METHODOLOGY

To survey the state of the art of violence prevention programs, a questionnaire and an initial list of programs were developed, based upon the staff's prior experience, a literature search, and recommendations from experts in the field. The questionnaire solicited basic information about each program's goals, target populations, major activities, settings, funding sources, staff size, and guiding philosophy. It also asked whether the program and its products had been evaluated and what kinds of data have been or are being collected. During a second stage of data collection, programs for which evaluations had been conducted were contacted for more detailed information.

Eighty-three violence prevention programs were identified and sent questionnaires in April and May 1990. We believe this list includes the majority of existing programs. It is likely, however, that despite the best efforts, some programs were missed. Fifty-one of the programs contacted completed and returned the questionnaire, for a response rate of 61 percent.

FINDINGS

For the purpose of this paper, we are concerned solely with what the survey revealed about the evaluation of violence prevention programs. For a detailed account of the survey and the picture of violence prevention activities around the country that it presents, see the Council working paper cited above.

When respondents were asked the nature of their program evaluation activities, they responded as follows:

⁴⁴ The survey of violence prevention programs, summarized here, is reported more fully in a separate Council working paper: Wilson-Brewer R, Cohen S, O'Donnell L, and Goodman IF. (1991). *Violence Prevention for Early Teens: The State of the Art and Guidelines for Future Program Evaluation*. Washington, D.C.: Carnegie Council on Adolescent Development.

Nature of the Evaluations Conducted

<u>Response</u>	<u>Number</u>	<u>Percent</u>
No evaluation conducted	8	16
Evaluation data unavailable	7	14
Number of subjects counted	5	10
Participant feedback collected	8	16
Monitoring & participant feedback	12	23
Outcome evaluation conducted	11	21

Although staff at the majority of programs surveyed indicated that some kind of evaluation activities were ongoing, process evaluation and program monitoring are most prevalent and outcome evaluation is relatively rare. Ideally, evaluations should be designed prior to program implementation. However, for most part, the evaluation component of programs surveyed was either an afterthought or dispensed with entirely because of lack of suitable staff and funds.

For example, 15 programs either conducted no evaluation or collected data that are outdated or unavailable. Five tracked only the number of people served. Twenty ask participants to complete evaluations at the conclusion of training sessions. Only 11 reported conducting some form of outcome evaluation. However, in most of these cases the evaluations consist of simple pre- and posttest measurements of the attitudes and knowledge of program attendees. Often, this method employs unvalidated measures with no control group comparisons. In short, there have been only a handful of programs that have been evaluated at a level approaching rigorous experimental design. None would meet the most rigorous methodologic standards of outcome evaluation. However, definitions of what constitute evaluation ranged widely. Nonetheless, there is much to be learned from these attempts at evaluation, both about the barriers to evaluating school- and community-based violence prevention programs and about how those barriers might be overcome.

In addition to the survey, case studies were prepared detailing the evaluation experiences of 11 programs (these are presented in the above-cited related Council working paper). The programs listed below were not selected because their evaluations were exemplary in method or result. Rather, in each case the evaluation revealed important concerns or barriers that could be addressed by the conference participants--and that must be overcome if the field is to progress. The programs are

Boston Conflict Resolution Program (Cambridge, Massachusetts)

Conflict Management/Peer Mediation Program (Topeka, Kansas)

Gang Prevention and Intervention Program (Garden Grove, California)

The Paramount Plan: Alternatives to Gang Membership (Paramount, California)

Project Stress Control: School-Based Curriculum (Atlanta)

Project Stress Control: Youth Development Centers (Atlanta)

Resolving Conflict Creatively Program (New York City)

Second Step: A Violence Prevention Curriculum (Seattle)

Viewpoints Training Program (Santa Barbara, California)

Violence Prevention Curriculum Project (Newton, Massachusetts)

Violence Prevention Project (Boston)

Analysis of the survey results and case studies indicated that quantitative evidence of program effectiveness is rare. Such evidence of program effectiveness is limited in a number of ways:

- Although most programs have clearly stated overall goals, frequently these goals have not been used to refine specific long- and short-term objectives that can be used to inform the evaluation design. Outcomes are often defined broadly (e.g., improvements in self-esteem) and are not related to specific program objectives and content. This makes it difficult to identify the key elements of programs that contribute to desired outcomes.
- Even when outcomes are clearly defined, they are often specific to a given program, as are the indicators used to assess whether they have been achieved. Thus, there is little opportunity to compare results across different programs or to build a convincing body of empirical evidence indicating what works best.
- Interpretation of changes in knowledge, attitudes, and behavior is often limited by deficiencies in the evaluation design, including lack of random assignment, lack of control groups, the extent to which participants simply repeat the answers they have been taught are socially desirable etc.
- Given the complexity of violent behaviors and violence prevention, there have been few attempts to employ multiple measures of impact (e.g., knowledge and attitudinal changes, behavioral observations, reductions in disciplinary actions).

- Because of ease of measurement, the primary findings reported in most evaluations are short-term changes in knowledge, attitudes, and self-reported behaviors. However, the extent to which these are correlated with or predictive of violent behavior, either at the time of the test or over a more prolonged period, is uncertain.
- Given age, developmental, gender, and ethnic differences in the target audiences, there has been little attempt to examine the differential effects of interventions on subgroups of youth at risk. Little baseline data are collected from participants.

Further, a basic assumption underlying violence prevention programs for young adolescents remains untested. Most programs assume--or at least hope--that by intervening with boys and girls during or prior to early adolescence, it is possible to shape attitudes and build skills that will reduce their involvement in violence as they mature, and before violent behaviors become even more destructive. Yet there are virtually no longitudinal studies of the impact of interventions at this age. Program staff express frustration with not being able to follow youth to see if their work really does make a difference. However, such longitudinal evaluation requires a commitment of resources that goes far beyond what is currently available for most programs.

The limitations of existing evaluations are largely due to the restricted resources that have been directed to the evaluation of violence prevention programs, particularly those that were spawned at a local level to address an increasing public health threat to the community. Whether housed in community centers or schools, these programs have placed an emphasis on reaching as many participants as possible. Indeed, raising funds to continue service delivery is a constant problem and drain on limited staff resources.

Resources are not the only limiting factor. Too often, program staff lack the information and/or skills to develop and implement either formative or outcome evaluations that would inform their work and the field, despite access to large numbers of youth at risk of violence and ongoing prevention programs. And many violence prevention programs, with their commitment to service delivery and public health perspectives, do not use to their advantage the growing body of research on aggressive behaviors that includes a number of carefully designed intervention studies.

Although some programs do make reference to prior research findings and at times even include measures of intermediate outcomes drawn from this literature, this is seldom the case, based on our review. For example, self-esteem and locus of control scales are often used as pre-post measures of changes in attitudes as a result of the program. However, these references to the literature are often vague. The question of how to apply research findings in the design of programs and their evaluations is typically unaddressed.

The need to bridge the gap between researchers and practitioners must be addressed in future efforts. At the same time, however, research projects are often limited in time, scope, and population reached. Better ways must be found to translate findings and replicate promising approaches in community settings.

THE CONFERENCE

OPENING REMARKS

David Hamburg, M.D., president, Carnegie Corporation of New York

This is the third in a series of conferences on this subject that have been held under the auspices of the Carnegie Council on Adolescent Development. The first conference, in 1987, was on a very broad scale. In 1989 we held one focused on what was worthwhile in preventative interventions, and on what research base existed for formulating preventative interventions. Now we have moved on to evaluation and the use of evaluation in practice.

Each time I've found it's very easy to say it's timely. On Sunday, July 8th, a lead story in the *News of the Week in Review* section [of the *New York Times*] was, "A rising tide of violence leaves more youths in jail." It begins, "A rising number of the country's adolescents are being arrested for violent crimes, with a record 100,000 of them being confined in correctional institutions on any given day."⁴⁵

It's quite horrible if you think about it. It's as if a whole city of 100,000 were in jail today. Then the story relates it to poverty, drug use, to single-parent families. It talks about the baby boomers' babies and the expected population growth in the next decade and its effect on the cost of maintaining and expanding jails.

Interestingly, it quotes a police official in Boston who says, "We've never had the violence among young people that we are experiencing today." He goes on, "Youth violence is rising because the problems that cause it aren't being addressed--lack of education, training for jobs with a future, housing, recreational facilities, drug treatment," and so on. We are hearing more of that sort of thing from the police than we ever did. And for a variety of reasons, there is some sense of turning toward preventive interventions by different sectors of society. Maybe combining some of the earlier humane compassionate reasons with reasons of cost and national interest have led people to ask if this problem might be addressed earlier and in a more preventive mode. And that's what we are about.

We know enough to provide some useful guidelines for preventive interventions to reduce substantially the present casualties among both victims and perpetrators of violence. We've tried to look at clues from a variety of sources--from direct observation, research, and from practice. We've looked at the etiology of violence, at risk factors, at development conducive to the violent outcomes, including detecting factors in high-risk populations, and a careful study of current innovations to provide models of preventive intervention. And now we get

⁴⁵ Diesenhause S. (July 8, 1990). A Rising Tide of Violence Leaves More Youths in Jail. *New York Times*.

to the evaluation of evaluations, looking at differentiated assessments of such efforts and how that can be fed back into the system so that we may improve as we go along.

Now, with respect to adolescent violence, it's clear that it is concentrated in poor and very poor--persistently poor--communities, but by no means limited to them. And most adolescents are not violent, even in the most poor communities. So, it's necessary to keep those differentiations in mind and try to understand how they come about. And yet there is a relationship between violence and what William Julius Wilson calls poverty concentration areas⁴⁶--there is a very high density of these problems in poverty concentration areas--in some ways paradoxically exacerbated by modern technology: the attractive modeling of violence on television, the ready availability of drugs, the ready availability of weapons, which turn a minor hassle into major violence. All that against a background of certain fundamental needs of adolescents that probably haven't changed much over the millennia: a need for some sense of worth as a person, some sense of belonging to a group, some skills that are compatible with survival, skills that facilitate your getting along in life.

Society at large, a heterogeneous society, provides a lot of ways to win: many sources of self-esteem, many valued skills, many groups for belonging. But how can we make the options a reality, make the choices real, provide access to nonviolent choices on an informed basis?

It's a hard problem. It's emotionally charged, complex, and multi-faceted. But we are not likely to do very well if we can't get the facts as straight as possible in time. What we have tried in this enterprise, and in the work we have supported, is to get the facts straight. Only then is it possible to build on the facts--some proven or promising lines of preventive intervention at different levels--individual, family, community, society--and even to try to think of some that are just beyond our present vision or our grasp.

Now, when I read the background paper focused on evaluation, there were a few implications that struck me. One is the paucity of involvement of universities and major research institutes. Mainstream establishments, strong research institutions, seem to have quite a marginal involvement. At least there is not much indication that this is high on their agendas. And in fact, we know very well they don't have it high on their agendas. I also do not see evidence of a major thrust by the funding agencies, either public or private. Perhaps that is an unfair assessment, but to me it doesn't look like a big subject on the agendas of the major funding agencies.

⁴⁶ Wilson WJ. (1987). *The Truly Disadvantaged*. Chicago: University of Chicago Press. See also: Wacquant LJD and Wilson WJ. The Cost of Racial and Class Exclusion in the Inner City. In Wilson WJ. (ed). *The Ghetto Underclass: Social Science Perspectives*. *Annals of the American Academy of Political and Social Science*; 501:8-25 (January 1989).

Nor do I see evidence reflected here of an organized constituency, either for research or for service, or for evaluation of the service. And yet we all know, and it is borne out in the survey data, that this is one of the highest public concerns in this country.

So, there is some kind of wild, even crazy, discrepancy here between the high level of public concern and the lack of an organized constituency or a major thrust on the part of the funding agencies, and a very marginal, hands-off involvement of the universities and research institutes, as if this were some kind of a low-brow activity.

How can this national concern be converted into constructive actions? What estimates can be made along the most promising lines of inquiry and innovation? Must we wait for definitive longitudinal research before we take serious action on a national basis? Can we move now on the lessons learned so far from the evaluations, limited though they are, and learn as we go to make a long-term commitment to improve these preventive interventions?

Before I conclude, I want to say something about the generic interventions that are addressing the wider context of serious adolescent problems and to underline the predisposing factors for a damaging way of life. It is quite clear that, to a considerable degree, these adolescent problem behaviors are interrelated. Violence is not usually isolated from other aspects of a damaging way of life. And so, violence and related problems have to be, to some extent, thought of together in terms of generic interventions to make differences in the lives of kids. How do kids grow up, particularly in poverty concentration areas? Can you improve the life chances in substantial ways that would diminish the risk of their becoming involved in violence and other risks as well?

That's very important. We need to be asking ourselves, what are the conditions under which kids can grow up to be healthy, vigorous, inquiring, constructive people? To what extent and in what ways are these conditions lacking in the inner city or other high-risk situations? Are there feasible steps that can be taken to diminish damaging influences and improve a child's chances?

Surely a major element in this is the erosion of families and community support. The human attachment and constructive models of adaptive behaviors, and mediators for child development that are provided under fortunate circumstances by intact, cohesive families, are to a certain degree, and often to a great degree, lacking in poverty concentration areas. And therefore, we've got to think of other ways either to strengthen them--through parent education and social supports for the family--or to substitute experiences that can meet essential needs for children and adolescents if it's out of the question for the family to do so. That is a fundamental challenge.

One piece of prevention has to do with making the health care system more adept. It is important in its own right, of course, because of the high concentration of all kinds of disease and disability problems in the high-poverty concentration areas. But also because a health care system, if it functions well, can be a point of entry for various kinds of help. I

especially emphasize the importance of a new vision of prenatal care, which must reach out to bring in poor young mothers early, and which has a strong educational counseling component to it.

The emergency room is obviously important as the first point of contact for some of these poor people. It needs to be better linked with educational and social services; to be a gateway to needed services for child and adolescent development. And, of course, the third particularly crucial point is the school-related health facilities, like the clinics based in our schools.

Another fundamental aspect in addressing this problem is the current move toward school restructuring. I think the best example can be found in the intervention of Jim Comer and his colleagues in New Haven. That, in my judgment, is the best restructuring effort. It's been going on for more than 20 years. I think it is the most important educational reform innovation of the past quarter century in this country. It, in essence, is the building of supportive bonds between children, parents, and the school staff. The key ingredients include a governance team, ways of involving the parents in the school, a mental health team. It recombines the more traditional educational approaches with knowledge of child development and adolescent development and extends it from the elementary school to the junior high school. It began in 1968, and by 1990 there were dramatic changes in academic performance and attendance at these inner-city schools that were among the worst when they began. And serious behavior problems had diminished enormously.⁴⁷

Now, this very broad, multi-faceted, humane, practical intervention is being disseminated to a number of districts throughout the country, and is being evaluated in a more sophisticated, subtle way that will further extend our understanding of what's crucial. And I call it to your attention because, in thinking generically about the conditions and influences upon violence and other serious problem behaviors in adolescents, reforms in health and education both have to be thought about as having real power for this problem and for the remaining problems.

I also want to alert you to a new report, which we had the privilege of supporting. It's called *Education that Works: An Action Plan for the Education of the Minorities* and it came out a couple of months ago.⁴⁸ It was put together by a very broad advisory council with heavy involvement from a number of minority communities. Basically, it's a consensus on

⁴⁷ Comer JP. (1980). *School Power: Implications of an Intervention Project*. New York: The Free Press. See also: Hamburg BA. (1990). *Life Skills Training: Preventive Interventions for Young Adolescents*. A Working Paper of the Carnegie Council on Adolescent Development. Washington, D.C.: The Carnegie Corporation of New York.

⁴⁸ Quality Education for Minorities Project. (1990). *Education that Works: An Action Plan for the Education of Minorities*. Cambridge, Mass: Massachusetts Institute of Technology.

everything we've learned that works, that improves education in disadvantaged minority communities. So, I commend it to you. I think it's the best platform we're going to have to run on for the next decade in any sort of campaign to improve minority education, and it's formulated in a way that's good for all kids. The report is both cognitive and social. It deals with social support as a crucial feature of making schools really effective. It touches on the problem of drug abuse prevention as well.

All of these efforts, tapping the hardest problems: disadvantaged minority education, poverty concentration areas, substance abuse problems (all of which are related to adolescent violence), require that we strengthen our research efforts, particularly evaluation research. At the same time, I think we have to face the fact that in matters as complex, difficult, and as interrelated as these, the evidence is almost always going to be less than optimal.

So you can say, and I do hear from time to time, especially in this city, "Well, you know, someday, when we know more, we'll be able to intervene efficiently and at a lower cost and let's wait for that day." But, we simply have to ask, how much preventable damage is going to occur in that length of time?

So, that's the wrong criteria. You can let the perfect become the enemy of the good. I'm all for changing social priorities and changing science policy to address these interrelated problems more effectively. But I think the right question to ask is, can we do better than we're doing now? If we apply existing knowledge effectively, could we do better than we are now doing with respect to the casualties of adolescent violence? And since those casualties are so heavy and so serious, I think that there is an urgency that is very special.

My belief is that we surely do have enough knowledge, evidence, and experience now to make things better than we are doing at the present time and to provide conditions in which children, especially poor children, can grow up healthy and vigorous, inquiring and problem-solving, decent and constructive.

And of course, we won't be able to prevent all the damage that's inflicted by badly worked environments. And if we really address these problems correctly, we will be a lot better in 20 years, vastly better in 50 years. But this is the time when we simply have to make the synthesis between research, existing best practice experience, to take the richness of recent innovations like those under discussion here, and make a serious national effort. And we must be determined to utilize the research to improve it year by year, decade by decade--by taking advantage of evaluations of other research--to make improvements and build in the corrections as we go.

I'm sure this conference will be a step in that direction. I'm grateful to Renée Wilson-Brewer, Cheryl Vince, and their colleagues at Education Development Center; to Elena Nightingale; and to Del Elliott who have made this meeting possible. And I'm deeply grateful to all of you for taking the time out of your busy schedules to come here and help all of us help each other in this very difficult and challenging task.

Renée Wilson-Brewer, senior project director, Education Development Center, Inc. This project began to develop over a year ago when the Carnegie Council on Adolescent Development held a two-day workshop here in Washington, D.C., on the prevention of violence in young adolescents.

The participants focused on several areas. One was the research on aggression, including longitudinal studies on the antecedents to aggressive behavior, and violence in early adolescents. They discussed the major approaches to reduce violence in adolescents, with the focus on schools. Finally, they considered federal, state, and local policy options with respect to the prevention of early adolescent violence, and the roles that foundations, the business community, the media, and others can play in addressing the problem.

An important area that was noted, but not discussed in any detail, was program evaluation. Opinion was divided on even the most basic question of how many violence prevention programs had been rigorously evaluated. Therefore, one purpose in conducting this project was to attempt to answer that evaluation question. A second, and equally important, goal was to bring together practitioners, researchers, evaluators, and government representatives in an effort to encourage greater collaboration in addressing the problem.

We hope this working conference will build some new networks. Many of us know one another, but I think more often than not, researchers know researchers, practitioners know practitioners, and evaluators know evaluators. So, I hope that in this day and a half, we really begin to make some efforts to bridge some of those gaps.

The first step in this project was to identify programs. However, before we could do that, we had to reach agreement on what constitutes a violence prevention program. As we noted in the working paper, in the broadest sense, any program that seeks to address or ameliorate any of the risk factors for violence is really aiding the cause of violence prevention. So, for instance, a self-esteem development program will qualify, using this very broad definition.

However, for the purposes of this review, we developed--with the assistance of our advisory committee--a narrower definition. We focused on programs whose explicit goal is or includes violence prevention. Using that definition and based on our knowledge of the field, we were able to produce a preliminary list of approximately 35 programs. We then shared this list with our advisory committee, as well as many of you, and came up with additions to the list.

In quite a few cases, neither we nor others who suggested the names of programs knew exactly how they were designed or who the target population was. For some programs, the only information we had was name and address. In other cases, it was just a name and a city. Sometimes we were successful in locating them and sometimes we weren't. Or we had a telephone number, but we called and there was no answer. It just rang, and rang, and rang. Or we mailed out correspondence that was returned with no forwarding address.

When we sent out the questionnaire, we enclosed our list of programs and asked respondents to identify any other programs of which they were aware. As completed questionnaires came in, we were then able to add to the program list, with the final total being 83. And of the 83 programs to which questionnaires were sent, we received a total of 51 responses.

You may have noticed that we found the most programs in Massachusetts. You might conclude that we wanted to make Massachusetts look good. Now, in saying that, I don't mean to suggest that having numerous violence prevention programs is a plus; rather that there is a great deal of effort being directed toward the problem in our state. It is quite possible that there are more programs in Massachusetts. But, I think a more likely conclusion is that we have more contacts within our own state and therefore we were able to identify several small-scale local programs, the likes of which may exist in other cities as well, but we just were not able to get that kind of information.

So, clearly, we didn't identify all programs, or come up with a definitive answer to the question of what is the state of the art of violence prevention in the United States. But our goal was to take the first step--to begin to identify the programs, to obtain some basic data, and then to gain and review program evaluation information. Our hope is that with your assistance, we can now move on to the next step, and that is to respond to the information gained, to add to it, and then to address several key questions about program development, implementation, and evaluation.

Delbert Elliott, Ph.D., Institute of Behavioral Science, University of Colorado, and conference chair

In the next day and a half, we will focus very sharply upon what it is that we can learn from the evaluation of existing violence prevention programs. We will consider the ways in which we can improve the kinds of evaluations we do and the quality of programs whose objective is the reduction of violence on the part of adolescents. We come from different backgrounds, and bring very different perspectives informed by our experiences.

We will need to listen carefully to one another. This workshop is unique in bringing together researchers and practitioners to talk to one another. Very often we don't do that well. And the researchers have a different agenda and a different set of objectives. We, the researchers, are typically concerned with rules of evidence and scientific kinds of standards that often force us to be very hesitant in saying "This is what we know about that has some relationship to the termination of violent behavior" or "We know this factor is related to the onset of violent behavior."

And as a result, there is often a great tension between those who are dealing with the immediate problem--with kids standing in front of them who need help--and researchers who say "We don't know enough yet to give you any definitive answer."

So, my primary concern is that we share our knowledge and try to focus very specifically on what it is we know about the programs which are currently under way that will help us to do fine tuning, to make adjustments, to refocus, in an effort to improve the evaluation of violence prevention programs and, through that, the quality of the programs themselves.

As Renée mentioned, another important objective is to build new kinds of networks. My hope is that we will talk with one another. We will learn what each of us is doing and in the process we will establish a whole new set of social networks, so that we can continue our dialogue, we can continue to share information, continue to share our findings with one another, over the coming years.

While the focus is upon adolescent violence, I would like to reiterate David Hamburg's point that violence does not appear in isolation. It is, in fact, one manifestation of a more general adolescent lifestyle, which incorporates a whole series of problem behaviors: minor violence, alcohol, substance use, multiple-drug use, precocious sexual behavior, and risk-taking behavior in a very general sense.

So that given an effective program for preventing violence, one is likely to also have an impact upon these other behaviors, and that may have some implications for how we evaluate programs, because it may very well be that outcomes in which we are interested are much broader than just looking at violence, even though violence is one component, and it happens to be one which has such serious consequences that we focus upon it more. But from my perspective at least, we are looking at a general lifestyle pattern which includes other kinds of behaviors. And the implications of that for our treatment strategies and for research I think need to be remembered.

It is also the case that there are in fact multiple etiological paths into violent behavior. There is not a single set of circumstances which consistently accounts for this particular outcome. I just talked about the problem of adolescent violence with a reporter from *People* magazine who kept asking, "What is the single common denominator?" as if there were some specific thing that we could identify that was both sufficient and necessary to produce violent behavior.

Well, I don't believe that's the case. I believe there are multiple etiologies. That has implications for the way we approach the onset of violence--or primary prevention--as compared to the continuity of violence behavior, the escalation of violent behavior, or the termination of violent behavior, each of which may involve different etiological processes, different causes, and different circumstances.

Primary prevention, for that reason, may look different than secondary prevention because we may be dealing with different issues and different social, individual factors related to those two separate phenomenon, and the awareness that there may be separate phenomenon.

I think in the research community we now have a substantial amount of evidence to indicate that the etiological factors are different for the continuity of behavior than for the onset or the initiation of that behavior, and that has implications for both primary and secondary prevention efforts.

However, from the research perspective, we know very little about the termination of behavior. We have been so caught up in trying to account for variation in levels of violence that we have just recently begun to focus upon different parameters of violent behavior. Yet, termination of behavior is the issue, in many respects, which is most crucial to intervention attempts. So, the researchers might comment specifically on what we know about termination issues, as they relate to the kinds of programs which we are attempting to initiate.

So, my hope is that we can enter into a careful dialogue, that each of us will listen very carefully to one another, so that the dialogue between the research community and those of you who are actively involved in working with adolescents to reduce levels of violence might be a fruitful one, and that at the end of our time together, we can all go away with a better appreciation for the complexities that we are forced to attend to as we address the problem of adolescent violence.

THE PANEL PRESENTATIONS

Following the opening remarks, five panelists discussed what they have learned from their program evaluations. The panelists were

- Kathy Beland, M.Ed., director of research and development, Committee for Children, Seattle
- Anthony D. Borbon, program director, Turning Point Family Services, Garden Grove, California
- Alice Hausman, M.P.H., Ph.D., assistant professor of pediatrics, Children's Hospital, Philadelphia, and evaluator, Violence Prevention Project, Boston
- Deborah Prothrow-Stith, M.D., assistant dean for community and government Programs, Harvard School of Public Health, and co-founder, Violence Prevention Project, Boston
- Ronald Slaby, Ph.D., lecturer at Harvard University, senior scientist at Education Development Center, and a designer and evaluator of the Viewpoints Training Program.

Panelists were asked to consider what they would have done differently in their own evaluations, as well as to offer suggestions of more general applicability. Their answers to the question "What would you have done differently?" were wide ranging. They touched upon the need to hire an outside evaluator and the inevitable tensions that result from vesting program and evaluation responsibilities in the same staff. The need to better document the program implementation process and its problems was raised. Panelists considered how program evaluations that focus on perpetrators of violence can be expanded to look at the roles played by bystanders and victims. The question of how to separately evaluate each component of a multi-component program was posed by the panelists, as was how to properly screen, prepare, and monitor those who are delivering the program. How to design, implement, and fund long-term evaluations to effectively measure change was also raised.

A great deal of discussion centered around the issue of developing better methods of detecting actual behavior changes--among change agents as well as adolescents. The panelists agreed that most programs are not in a position to measure long-term change and that this can limit our sense of a program's effectiveness. Program-initiated reductions in gang violence, said Anthony Borbon, will not be seen this year or next year.

Panelists also agreed that the role of those delivering the violence prevention education--teachers, counselors, health care providers, community-based program staff, or others--is often ignored when behavior change is measured. Providers are very important, said Dr. Hausman. They are the first step in violence prevention. If we view the providers as the people who are actually going to be effecting change in adolescents, then we really should know how successful we are in changing those change agents. She explained that it became clear through observational data that providers had begun to critically examine how they dealt with violence. A focus on the providers and how effective the project was in affecting their knowledge and attitudes as well as their behavior toward violence prevention would have given us at least some measure of how far along the process the project was in achieving violence prevention among adolescents. She suggested that such information could serve as a proxy measure of how effective a program could be in the long term.

Seconding Dr. Hausman's comments, Dr. Prothrow-Stith emphasized that the transition change agents go through, in and of itself, is worth evaluating. The police, the physicians and nurses in the emergency rooms, the teachers in the classrooms, the parents, and the people in the political system in our communities feel overwhelmed and believe that the violence is inevitable. If we can change that attitude--if the provider in the emergency room stops treating the violence as inevitable and starts treating it as preventable--if the police start treating the violence as preventable, that's an impact that will carry us a long way in actually changing behavior. Dr. Prothrow-Stith also stated that in thinking not only about program design but also about evaluation methodology, some attention must be placed on finding new ways to measure adolescent change witnessed by providers. We must develop methodologies to study the impact that providers know occurs in young people, she said.

Placing more emphasis on collecting qualitative data (e.g., in-depth interviews with small samples of youth) and quantifying that data was discussed. Often a great deal of resources and effort are devoted to obtaining limited information on a large number of adolescents. What is sacrificed in the process is the opportunity to obtain in-depth information on a smaller number of young people. New methodologies for obtaining such information, such as the use of drama, was also suggested. A proponent of in-depth interviews, Kathy Beland was nonetheless cautious. The interview approach is very time consuming, she said, so the nature of our pilot study was, not surprisingly, ruled by time and money.

Dr. Ronald Slaby discussed the need for more formative research to build bridges between research evidence and practice. Describing a program in which his grant included funds to hire teachers to provide feedback on a proposed intervention, Dr. Slaby recounted two lessons. "We learned that the practitioner is always right about the clarity, relevance, and utility of the material. And we also learned that the practitioner is not always right about which topic to address, about the ideas behind it, or about how to implement it." Although scientific research findings and formulations provide the foundations upon which effective interventions can be built, practitioners must be involved in developing interventions, if they are to be both implementable and effective.

Among the other issues raised during this discussion were the need to begin violence prevention education early, the possible role of peer leaders in violence prevention programs, the impact of dysfunctional families on violent behavior in young people, the failure of community institutions to play a major role in teaching socialization skills to youth, the prolonged exposure of a large percentage of homicide victims and perpetrators to the government welfare/social services system, and the population of young people who are difficult to reach because they move from school to school or have dropped out of school.

This section of the conference concluded with a special presentation on bullying and victimization, given by Dan Olweus, Ph.D., professor in the Department of Psychosocial Science, University of Bergen, Norway. A highly-regarded violence prevention researcher, Dr. Olweus offered a perspective that stimulated much discussion.

DR. OLWEUS' PRESENTATION ON BULLY/VICTIM INTERVENTIONS

Dr. Olweus described a national study of bullying and victimization in Norway and Sweden to determine the frequency of bullying. He also described his evaluation of an intervention program to prevent bully/victim problems that followed three cohorts of boys (N=900) from birth to age 23. The results of his study indicate that bullying is not a kind of childish play behavior, but has long-term negative outcomes.

A student is bullied, Dr. Olweus explained, when he or she is exposed, repeatedly and over time, to negative actions of some kind from one or several students. Approximately 15 percent of students were involved in bully/victim interactions during a given time. He

cautioned against relying on popular hypotheses, which may turn out to be false leads. Thus, bully/victim behavior was unrelated to class size or to particular external factors such as the victim's appearance, or to the bully's failure in school. The effectiveness of his program in reducing bullying by 50 percent, he said, was related to several factors: the program is theory-driven; it focuses primarily on students' bullying, aggressive behavior rather than on assumed factors such as lack of self-esteem; there are consistent and strong sanctions from adults regarding unacceptable behavior; and it focuses on several levels of the school system.

In the question-and-answer period following these presentation, the transferability of Dr. Olweus' work to the United States was considered, with a specific focus on how his work on bullying and victimization might be related to homicide perpetration and victimization. Bullying is part of a more general antisocial behavior pattern, said Dr. Olweus. When you follow the former school bullies to age 23, you find a four-fold increase in criminal behavior.

THE DISCUSSION

The questions addressed by the panelists and other participants provided a focus for small- and large-group discussions on July 12 and 13. In addition to the general plenary sessions, each participant was assigned to one of three working groups:

Group I (facilitated by Delber. Elliott): How should violence prevention programs be evaluated?

Group II (facilitated by Mark Rosenberg, M.D.): How can practitioners, researchers, and evaluators connect and then collaborate as truly equal partners in program development and evaluation? What are the major barriers to collaboration?

Group III (facilitated by Paul Bracy): What role should substance abuse and other problems play in violence prevention programs? Should violence prevention be taught in a specific domain or domains, or in its own right?

Each group was asked to develop specific recommendations for discussion among all participants. This general consideration and further development of the recommendations was followed by a final plenary session devoted to the suggestions for implementing the recommendations.

Both because the topics assigned to the working groups were not, by their nature, mutually exclusive, and because of the broad range of the conferees' expertise and experiences, many of the same themes were touched on and later integrated and expanded upon when the groups came together. Indeed, many of these same themes were foreshadowed in Dr. Hamburg's opening remarks. Therefore, rather than present a purely chronological summary of the

discussion, we will consider the work of the conference through the major themes that emerged and informed the recommendations.

The Current State of the Evaluation of Violence Prevention Projects

None of the conference participants was sanguine about the current state of the evaluation of violence prevention projects. There was general agreement among researchers, practitioners, and representatives of foundations and federal agencies that too few evaluations have been completed and that even the small number of more rigorous attempts leave many critical questions unanswered. Voicing a common concern, Dr. Olweus said, It's really disturbing to read that thousands and thousands of students have taken certain programs and there is no evidence at all that they really work. Participants also referred to our inability to measure whether any program has reduced violence or, failing that, to develop acceptable intermediary measures of outcome. At the same time, concerns were raised that evaluation is often perceived as a political exercise to justify a program's continuance or termination. "Evaluation is often perceived as a straight up or down vote," said Dr. Hamburg, "and if you put it that way, any program person in his or her right mind would reject it."

Nor was the need for improved evaluation couched only in terms of new program development. As Dr. Nightingale and other participants noted, the need to improve and expand the evaluations of promising current programs is paramount. Finally, the consensus on the need for evaluation was voiced by Dr. Prothrow-Stith: "How do you, in the formative phases of an area such as violence prevention, foster programs that will be worthy of evaluation and develop methodologies that can eventually demonstrate outcomes, without killing the buds that might flower in the future?"

What Programs Should Be Evaluated?

There was broad agreement that it is neither practical nor scientifically necessary to fully evaluate every intervention program. Certainly, high costs and the limited resources and expertise available militate against doing so. It was suggested that attention be focused on model programs, the results of whose rigorous evaluations could be generalized to new locations and target populations.

However, in restricting full outcome evaluations to a smaller number of carefully selected model programs, it was noted that *all* programs require ongoing process evaluations to assist in monitoring their implementation. "You have to have an evaluation that will at least allow you to determine whether there is program integrity," said Dr. Elliott. And many programs, Dr. Slaby noted, could benefit from conducting formative evaluations with members of their target audiences.

Impediments to Evaluation

"If you look at the objectives of many programs," said Dr. Lydia O'Donnell, "you will find that they are not very different from other programs in other cities or regions of the country. But what they measure is so different that you can't make any comparisons among them. We need to help programs to develop a more consistent set of standards for evaluation." Consistency is required at the very beginning, when programs define their goals and objectives. One of the problems we have is that, if a program doesn't define what it means by violence, we don't know what we are measuring, said Dr. Leonard Eron. Participants noted that existing programs target a broad range of violent behaviors and, for clarity, adopted the following statement:

Because the field of violence prevention is extremely broad in scope, we have adopted the following statement: The primary focus of the violence prevention programs under consideration is the reduction of physical violence intended to cause harm. We do acknowledge the existence of other forms of violence that are appropriate subjects for intervention and evaluation, but they are not the primary focus of this conference.

Participants recommended that each program must carefully and explicitly define what behaviors it has targeted, and then tie its evaluation to goals and outcomes. They noted that the lack of resources to support evaluation is a consistent problem, but that even if funds were widely available, there are other, methodologic difficulties.

The Need for New Approaches to Evaluation

Several compelling issues were raised about the nature of evaluation research and its application to violence prevention programs. The difficulty of searching for short-term results in a long-term process (behavior change and violence reduction) was noted. When you evaluate gang prevention efforts, Anthony Borbon reminded the group, It will take anywhere from five to ten years for us to track individuals in the program, to see if they graduate, if they join mainstream society.

At the same time--controlled comparisons--the most common and rigorous of evaluation techniques may not be applicable to violence prevention evaluations, both for practical and ethical reasons. "Researchers will always push you toward experimental designs because those are the most powerful," cautioned Dr. Elliott, "but those designs imply a no-treatment alternative and it's very difficult to justify that in ethical terms." And Dr. Prothrow-Stith recounted the difficulties experienced by the Violence Prevention Project, which focused on two Boston neighborhoods, when other communities that might have served as controls began requesting services as well.

However, Drs. Elliott, Hausman, and Donald Schwarz, M.D., as well as other researchers, explained that a variety of new or long-accepted evaluation techniques can be drawn on to overcome the barriers imposed by traditional experimental designs. For example, Dr.

Olweus described the age cohort design utilized in his bully/victim intervention. In this design each cohort serves as both treatment and control groups in different comparisons.

In addition to the research design, there was concern about the nature of the evidence gathered for evaluation purposes. Describing her own effort to evaluate the Violence Prevention Project, Dr. Hausman said, "We placed a lot of emphasis on getting a large amount of data on a large number of adolescents. What we sacrificed was getting some really good, qualitative information on a smaller number of kids. I would like to have done in-depth interviews to really understand how a smaller sample really incorporated violence prevention education in their lives." Indeed, the survey of violence prevention programs revealed that practitioners often collect anecdotal and other qualitative evidence from adolescents or their families but see no way to integrate the material with their quantitative evaluation data.

Based on this discussion, participants concluded:

We stress the need to use qualitative data, culturally sensitive measures, and nontraditional evaluation designs to reduce the difficulties and ethical dilemmas that can be imposed by strict experimental designs. We urge the use of multi-level evaluation strategies that include learning from children, parents, teachers, and others. Evaluations must incorporate multiple measures of the reduction or increase of violence, including data collected from many sources, such as self-reports, observations of others, and criminal justice data.

What Are the Outcomes and How Do We Measure Them?

Perhaps the thorniest--and arguably most important--methodologic questions revolved around what an evaluation of a violence prevention program should measure. "If we are looking at the reduction of violent *behavior* as the outcome of these programs," asked Dr. Elliott, "how can we specify the intermediate, intervening, targeted objectives that are theoretically connected to the outcome?" Measuring knowledge and attitudes, while often a useful part of an evaluation, cannot demonstrate a reduction in violence.

Betty Hamburg, M.D., offered an analogy from medicine. Preventing heart attacks and stroke, she noted, depends on such intermediate objectives as weight reduction, smoking reduction, increased exercise, dietary changes, etc. Each of these is an objective that can be measured in its own right (although the causal relationship of each of these factors was not necessarily known even though the association was).

Without specifying intermediate objectives as steps toward violence prevention, our ability to detect any change is severely reduced. Particularly over short time periods, expected effects would not be great, available statistical measures may not be sensitive enough, and target populations may be too small.

A variety of possible intermediate objectives were proposed, although not discussed in detail. They included changes in school climate or at the classroom level, changing rates of teenage pregnancy, and reductions in the amount of graffiti in areas of gang violence, among others.

One often overlooked intermediate objective that was discussed in greater detail was changes, not in the target population itself, but in the change agents (e.g., teachers) through whom that population is reached by a project. "Children grow up in situations they didn't create but are reacting to," noted Paul Bracy. "We try to intervene with them and to measure the changes as if they are the problem. But adults are responsible."

In reviewing the evaluation of the Boston Violence Project, Drs. Hausman and Prothrow-Stith emphasized the importance of evaluating changes in the agents of change. "You can't expect much change in the adolescents if the teachers themselves are not convinced," cautioned Dr. Hausman, adding, "Violence is a very personal issue and often the providers have to go through major changes in how they think about and deal with violence themselves."

Nor was the goal merely to improve evaluation methodology. "We must understand," said Dr. Prothrow-Stith, "that we are so early in this game of violence prevention that if we can actually change the attitudes and practices of service providers, that we've gained a considerable amount and are an important step closer to changing behavior."

Fostering Collaboration between Researchers and Practitioners

The most frequently heard suggestion to improve the relationship between program practitioners and evaluators was to bring them together early--from the very development of the intervention, if possible. If evaluators and program people are going to be friends, they have to work together from the beginning. You have to set up a program so that it can be evaluated, noted Dr. Rosenberg. As an example, Dr. Slaby described the Children's Television Workshop Model (from which such successful programs as "Sesame Street" were developed). "You bring all of the components together from the very beginning and get them to work out a common language," he said. The lack of such a common language, not only among researchers and practitioners but among all of the disciplines involved in violence prevention, was frequently noted by participants.

Such collaboration, it was urged, should extend from the inception of a project to the conclusion of its evaluation. Not only should evaluators be involved in designing an intervention, participants stated, but practitioners should co-author reports and journal articles. Carl Bell, M.D., urged that evaluators work closely with program staff to insure that interpretation of the data is informed by the program's experience. And throughout the implementation of a project, an evaluator's insights can be useful in interpreting and using process data to monitor and adjust activities. Noting that such collaboration can be expensive, Dr. Betty Hamburg said, "I don't think that funders have appreciated [its] importance."

Providing Assistance to Practitioners

A variety of specific products and activities were suggested to assist practitioners in improving evaluation skills and in obtaining expert assistance. These are summarized in the conclusions and recommendations of the conference.

FINDINGS FROM THE DISCUSSION

As is to be expected of any such gathering, no matter how circumscribed the focus, the discussion was wide ranging and thought provoking. For the purposes of this summary, however, attention is placed on those findings that most directly address the evaluation of violence prevention programs for young adolescents.

The general sessions and three conference workshops resulted in the following findings:

- Each program must carefully and explicitly define what behaviors it has targeted, and then tie its evaluation to goals and outcomes. Evaluations and programs must be theoretically informed. A rationale for the selection of immediate targeted objectives and their relationship to the expected outcomes must be specified. If we are looking at a reduction in violent behavior as an outcome, it is necessary to specify intermediate, intervening, targeted objectives that are theoretically connected to the outcome. In addition, both positive and negative unanticipated outcomes, or the side effects of an intervention, must also be taken into account.
- Different levels of evaluation are necessary for different programs. Not all programs require a full outcome evaluation, but all programs require a process evaluation to assist in improving implementation. We must identify or develop model programs for which model evaluations can be carried out.
- We stress the need to use qualitative data, culturally sensitive measures, and nontraditional evaluation designs to reduce the difficulties and ethical dilemmas that can be imposed by strict experimental designs. We urge the use of multi-level evaluation strategies that include learning from children, parents, teachers, and others. Evaluations must incorporate multiple measures of the reduction or increase of violence, including data collected from many sources: self-reports, observations of others, criminal justice data, etc.
- Program evaluation must be a collaboration from the earliest stages, making explicit the conceptualization of the program, the theoretical rationale that will drive the program components, and an appropriate interpretation of the findings.

- We must assist programs to develop evaluation skills and to use expert assistance to maximize the use of limited resources. We need to pool our information on appropriate measures and evaluation methodologies. We must develop mechanisms to encourage and sustain ongoing relationships between practitioners and researchers.
- To assist practitioners and advance the state of the art, it is necessary to develop a handbook for violence prevention program evaluation. Modelled on the National Research Council document *Evaluating AIDS Prevention Programs*, this handbook should be developed in collaboration with a panel of evaluators and practitioners.
- We must address the personnel needs in this area by increasing the supply of researchers and evaluators in the area of violence prevention, as well as the availability of stable, long-term funding for programs. It is especially important that we increase the number of minority researchers, practitioners, evaluators, and social scientists.
- Violence prevention is a multi-disciplinary field in which collaboration among the disciplines has not yet been developed. We must support exchanges of knowledge among fields and the development of a common language and a common body of knowledge.
- The consistent association between substance use/abuse and violence demands that substance abuse prevention education be integrated into violence prevention programs. We must also ensure that violence prevention education is included in programs that focus on substance abuse prevention.
- We must promote programs that provide young people with opportunities for skills development that can lead to economic advancement. Although not violence prevention programs *per se* (e.g., job training, community service), they offer participants prosocial and economically profitable alternatives to violence.
- To address the wider context of violence, it is important to develop and fund interventions that consider the multiple causes and target not only the adolescent but also the family, community, and public policy.
- Violence prevention as a field and in its specific activities remains poorly understood. We must legitimize and "sell" the field of violence prevention by focusing on violence as one of the most serious, life-threatening, injury-producing dysfunctional forms of problem behavior. However, its connection with other variables (e.g., substance abuse, weapon availability) should not be ignored.

CONCLUSIONS AND RECOMMENDATIONS

Between 1987 and 1990, staff at EDC participated in two reviews of the state of the art in violence prevention interventions: *Injury Prevention: Meeting the Challenge* and the background papers prepared for the CDC's Youth Violence in Minority Communities: A Forum on Setting the Agenda for Prevention. The Carnegie conference on violence prevention for young adolescents, however, was perhaps the first attempt to systematically address the question of how these programs have been evaluated. As such, the project, and the two resulting Council working papers,⁴⁹ deal primarily with the process and content of the evaluations themselves. Much of the conference discussion focused on what could be learned from these evaluations to inform and improve future efforts.

During the conference another and different question was posed by Dr. Elena Nightingale, special advisor to the president of Carnegie Corporation. Of all of the programs investigated, she asked, were there any that in whole or in part warrant greater dissemination? Which of these programs, she was in effect asking, had been subjected to rigorous process and **outcome** evaluation and been found to be effective in preventing violence among young adolescents?

The direct answer is that none of the programs surveyed has been so evaluated. Therefore, given the limitations of existing evaluations of violence prevention programs, it would be premature to come to closure about what works and what doesn't. That does not mean that we lack any indicators of which programs are promising. Nor does it mean that we should abandon programs that are currently reaching large numbers of persons. It does raise the question of what steps can be taken to improve our understanding of these programs and their effectiveness. And it poses two central challenges for violence prevention practitioners, researchers, and funding agencies: how to identify current, promising programs and strengthen their efforts while simultaneously designing new programs so well conceived and carefully implemented as to be worth the expenditure of resources for the kind of full-scale, rigorous evaluation that has been so rare.

To search for answers to these questions within the activities described in this paper alone would be insufficient. Evaluation is an important component--indeed, a critical one--for any project focused on achieving social change. But the questions we must answer are about design and implementation of approaches as well as evaluation.

⁴⁹ This paper is complemented by a separate Council Working Paper focused on the survey of violence prevention programs carried out in preparation for the Carnegie Conference on Violence Prevention for Early Adolescents. See Wilson-Brewer R, Cohen S, O'Donnell L, and Goodman IF. (1991). *Violence Prevention for Early Teens: The State of the Art and Guidelines for Future Program Evaluation*. Washington, D.C.: Carnegie Council on Adolescent Development.

To truly understand both whether a violence prevention program was effective and the likelihood that it could be replicated, we must know the following:

- How was the program developed? What theoretical or empirical body of knowledge informed its creation?
- How were the intervention(s) and target populations selected? What indications existed that the fit between intervention and population were the most appropriate? What, for example, was the role of formative evaluation?
- What were the program's objectives and how were they carried out? What was the role of process evaluation?
- What effects did the program produce? What was the role of outcome evaluation?

Taken together, the Carnegie conference and the Centers for Disease Control's forum provide the broader view that is necessary. In addressing Dr. Nightingale's questions and in providing the most useful context for the Carnegie conference's specific recommendations reported below, we will draw upon some of the points raised in the CDC forum materials cited above.

In addressing the application of principles of community-based programs to violence prevention in minority communities, the EDC background paper drew upon several sources. These included the general injury prevention program model described in *Injury Prevention: Meeting the Challenge*, a model for diffusing health information in minority communities,⁵⁰ and CDC's Planned Approach to Community Health Program (PATCH).⁵¹

The process for developing community violence prevention programs described as background for the CDC forum includes a series of elements: developing leadership, identifying the problem, devising a strategic plan to address the problem, translating the plan

⁵⁰ National Heart, Lung, and Blood Institute. (1987). *Strategies for Diffusing Health Information to Minority Populations: A Profile of a Community-Based Diffusion Model*. Washington, D.C.: U.S. Department of Health and Human Services.

⁵¹ Centers for Disease Control. (n.d.). *Planned Approach to Community Health*. Atlanta: U.S. Public Health Service. See also: Nelson CF, Kreuter MW, Watkins NB, and Stoddard RR. (1986). A Partnership Between the Community, State, and Federal Government: Rhetoric or Reality? *International Journal of Health Education*; 5:27-31.

into action by designing an intervention or program of interventions, implementing that intervention successfully, and evaluating its effects.⁵²

It should be stressed--and the point was emphasized by participants in the Carnegie conference--that although evaluation is always named last in the series of steps (e.g., design, implementation, and evaluation), it must be seen as an integral part of the process. "The time to plan an evaluation," concluded the National Committee for Injury Prevention and Control, "is in the very earliest stages of program design."⁵³ "It's really unconscionable," commented conference participant Leonard D. Eron, Ph.D., "to start any kind of program without some idea of how you're going to evaluate its results."

We must, however, return to the initial question: What can the evaluations of existing violence prevention programs tell us about what directions are promising? If the evaluations alone are insufficient to identify promising programs, then what else do we need to know to improve our understanding and move the field forward?

In its 1987 survey of the state of the art in injury prevention, the National Committee for Injury Prevention and Control studied a wide range of existing countermeasures against all forms of injury, most of which had not been rigorously evaluated. In categorizing these interventions, the committee used the following terms: "proven effective," "promising," "ineffective," or "unknown or insufficiently studied." For each intervention, a recommendation included both a statement of efficacy and suggestions for further use. Thus,

- an intervention that is proven effective (e.g., bicycle helmets) should be used and the program should be routinely monitored (i.e., a process evaluation is necessary, but not an outcome evaluation)
- an intervention that is promising (e.g., raising excise taxes on alcohol to reduce its availability) should be used, monitored (i.e., through process evaluation), and its outcomes should be rigorously evaluated
- an intervention that is ineffective or counterproductive (e.g., painted lines at crosswalks) should not be used
- an intervention whose efficacy is unknown or insufficiently studied (e.g., designated driver and safe-ride programs) should be the subject of further research.⁵⁴

⁵² Cohen S and Lang C. *op. cit.*, p. 6.

⁵³ National Committee for Injury Prevention and Control. *op. cit.*, p. 78.

⁵⁴ National Committee for Injury Prevention and Control. *op. cit.*, p. 113.

The categories used by the committee were deliberately broad because the evidence available on which to make judgments about interventions was often extremely limited. In many cases, only a single article (or unpublished document) existed about a specific intervention. Committee working groups worked hard to find a reasonable basis on which to assign each intervention to a category. The number of proven effective or completely ineffective interventions was small. Much remains to be learned about the others.

An attempt to describe the 51 projects surveyed in these terms reveals that the vast majority are of unknown or insufficiently studied value in preventing violence among young adolescents. As most of these projects have not been evaluated, this conclusion is not surprising.

However, based upon existing--albeit incomplete--evaluation data, it is possible to identify a smaller number of projects whose assessments suggest that (1) their results to date have been promising and (2) further study could yield valuable information about the development, implementation, and evaluation of future programs. These projects include

- The Paramount Plan: Alternatives to Gang Violence (Paramount, California)
- Project Stress Control School-Based Curriculum (Atlanta)
- Resolving Conflict Creatively Program (New York City)
- Second Step: A Violence Prevention Curriculum (Seattle)
- Viewpoints Training Program (Santa Barbara, California)
- Violence Prevention Curriculum Project (Newton, Massachusetts)
- Violence Prevention Project (Boston)⁵⁵

These projects should be continued and should be monitored through process evaluation and, most important, new or expanded outcome evaluations. At the same time, a study of their conceptual, theoretical, and research bases should be undertaken to answer a series of questions: What are the behaviors that the programs are intended to change? What are the probable or known causes of those behaviors and to what extent did that research base influence the selection of interventions and target populations? Which specific considerations informed the selection of interventions? To what extent does the community in which the program operates feel any sense of ownership of violence prevention, in general, and the program specifically?

⁵⁵ Descriptions of these projects are contained in Wilson-Brewer R, Cohen S, O'Donnell L, and Goodman IF. *op. cit.*

Only by answering such questions will it be possible to identify model projects that could be disseminated widely without the need to conduct a full outcome evaluation in each new setting. And, only by asking such questions will it be possible to close the gap--identified by several--between violence prevention research in the behavioral sciences and practice in the field. As commented Ron Slaby, "We wouldn't think of dealing with an AIDS prevention program, at this point, without being informed of the research base about how AIDS is contracted. With AIDS, our practice is guided by the state of research evidence. That is often not the case with regard to violence prevention."

With these considerations in mind, we present the following recommendations for action. They are of two types. The program recommendations were developed by the authors during a reanalysis of the survey data. The products and activities, on the other hand, were suggested by the working groups and refined during subsequent plenary discussion.

PROGRAM RECOMMENDATIONS

1. Funding and technical assistance should be made available to review the programs listed above with a view to determining which among them are sufficiently promising to make the expenditure of resources for new or additional outcome evaluations worthwhile.
2. The provision of resources for the expanded evaluation of promising programs is a task beyond the capacity of any single funding source. Because this need is both national and resource-intensive, the effort should be coordinated by a consortium of government agencies and foundations.
3. The identified promising projects should be used as laboratories for the development of intermediate outcome measures, for the validation of existing measures, and for the development of new evaluation methods. Such efforts will require the collaboration of program practitioners, individual researchers, and public and private research institutions.

SPECIFIC PRODUCT RECOMMENDATIONS

1. A handbook on violence prevention evaluation should be developed as a collaborative effort of evaluators and practitioners. Such a volume is necessary to aid violence prevention practitioners and to advance the state of the art. Such a handbook would assist program staff to carry out evaluation tasks, as well as to collaborate with evaluation research specialists in the development and implementation of evaluation designs. It should contain information on available resources, including a list of evaluation researchers and their specific areas of expertise. General purpose primers on evaluation fail to provide good outcome and process measures that are relevant to

violence prevention programs or identify qualitative evaluation strategies. A useful model for such a handbook is the recent document, *Evaluating AIDS Prevention Programs*, published by the National Research Council.⁵⁶

2. A primer and catalog on the identification and use of culturally sensitive measures in conducting formative and outcome evaluations should also be created. This document will review the evidence on how cultural differences in values and behavioral norms among ethnic and racial groups can affect the design and implementation of violence prevention interventions. It will identify measures that have been used successfully with different groups, as well as detail the critical steps in developing new measures.

ACTIVITIES

1. Convene an annual meeting of violence prevention practitioners to improve communication and problem solving.
2. Conduct a summer institute in program development and evaluation for violence prevention practitioners, to help them develop and enhance skills in carrying out evaluation tasks, and work effectively with specialists to plan evaluation designs.
3. Develop interdisciplinary research centers to focus on the evaluation of violence prevention programs.
4. Increase the outreach to and recruitment of minority students and faculty and provide scholarships to encourage study in the field of violence, especially in research and evaluation.
5. Conduct rigorous evaluations of model programs already underway.

Each of these recommendations speaks to a specific need that must be met if we are to improve the evaluation of violence prevention programs and, through improved evaluations, affect the development and implementation of more effective strategies. No single recommendation is sufficient, however.

If, as Dr. Hamburg suggested, there is a need to bring coherence to the nascent national effort to prevent violence among young adolescents, that is no less true of program evaluation. Increasing the capacity of program practitioners to learn from each other, to understand and benefit from evaluation research, and to collaborate fruitfully with researchers are related priorities. So too is the need for researchers to learn from violence

⁵⁶ Coyle SL, Boruch RF, and Turner CF. (eds). (1991). *Evaluating AIDS Prevention Programs (Expanded Edition)*. Washington, D.C.: National Academy Press.

prevention practice, not only to advance the development of theory, but to help develop new and innovative strategies for program evaluation. The identification of intermediary objectives--short-term gains that presage the longer-term goal of preventing violence--is a particularly critical need. How to organize these pressing tasks remains to be considered.

APPENDIX A

3

APPENDIX A

CARNEGIE CORPORATION OF NEW YORK

**VIOLENCE PREVENTION FOR EARLY TEENS:
A REVIEW OF THE STATE OF THE ART**

July 12-13, 1990

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APPENDIX B

**VIOLENCE PREVENTION FOR EARLY TEENS
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