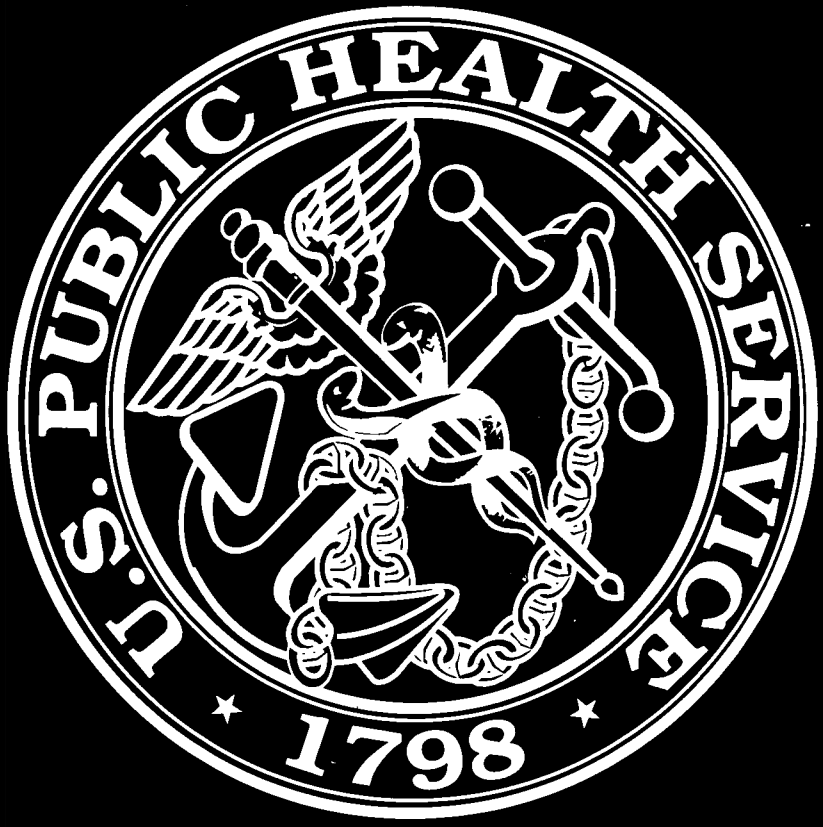
Youth Violence: A Report of the Surgeon General

Executive Summary



Department of Health and Human Services

YOUTH VIOLENCE

A REPORT OF THE SURGEON GENERAL

EXECUTIVE SUMMARY

DEPARTMENT OF HEALTH AND HUMAN SERVICES
U.S. Public Health Service

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Message from Donna E. Shalala

Secretary of Health and Human Services

The first, most enduring responsibility of any society is to ensure the health and well-being of its children. It is a responsibility to which multiple programs of the Department of Health and Human Services are dedicated and an arena in which we can claim many remarkable successes in recent years. From new initiatives in child health insurance and Head Start, to innovative approaches to child care, to the investment in medical research that has ameliorated and even eliminated the threat of many once lethal childhood diseases, we have focused directly and constructively on the needs of millions of children. Through programs designed to enhance the strength and resiliency of families and family members across the life span and through our investments in diverse community resources, we are also helping to enhance the lives and enrich the opportunities of millions more of our children.

Although we can take rightful pride in our accomplishments on behalf of U.S. youths, we can and must do more. The world remains a threatening, often dangerous place for children and youths. And in our country today, the greatest threat to the lives of children and adolescents is not disease or starvation or abandonment, but the terrible reality of violence.

We certainly do not know all of the factors that have contributed to creating what many citizens—young and old alike—view as our culture of violence. It is clear, however, that as widespread as the propensity for and tolerance of violence is throughout our society—and despite efforts that, since 1994, have achieved dramatic declines in official records of violence on the part of young people—every citizen must assume a measure of responsibility for helping to reduce and prevent youth violence. Information is a powerful tool, and this Surgeon General's report is an authoritative source of information.

In directing the Surgeon General to prepare a scholarly report that would summarize what research can tell us about the magnitude, causes, and prevention of youth violence, President Clinton sought a public health perspective on the problem to complement the extraordinary work and achievements in this area that continue to be realized through the efforts of our criminal and juvenile justice systems. Over the past several months, the Department of Health and Human Services has worked with many hundreds of dedicated researchers, analysts, and policy makers whose interests and expertise lie outside the traditional domains of health and human services. What has become clear through our collaboration is that collectively we possess the tools and knowledge needed to throw safety lines to those young Americans who already have been swept up in the currents of violence and to strengthen the protective barriers that exist in the form of family, peers, teachers, and the countless others whose lives are dedicated to the futures of our children.

This Surgeon General's report seeks to focus on action steps that all Americans can take to help address the problem, and continue to build a legacy of health and safety for our young people and the Nation as a whole.

Foreword

The opportunity for three Federal agencies, each with a distinct public health mission, to collaborate in developing the Surgeon General's report on youth violence has been an invigorating and rewarding intellectual challenge. We and our respective staffs were pleased to find that the importance that we collectively assign to the topic of youth violence transcended any impediments to a true, shared effort. Obstacles that one might have anticipated—for example, difficulties in exchanging data and discussing concepts that emanate from many different scientific disciplines—proved to be surmountable. Indeed, many of the differences in perspective and scientific approach that distinguish the Centers for Disease Control and Prevention (CDC), the National Institutes of Health (NIH), and the Substance Abuse and Mental Health Services Administration (SAMHSA), when combined, afforded us a much fuller appreciation of the problem and much firmer grounds for optimism that the problem can be solved than is obvious from within the boundaries, or confines, of a single organization.

The mission of CDC is to promote health and quality of life by preventing and controlling disease, injury, and disability. The NIH, of which the National Institute of Mental Health (NIMH) is one component, is responsible for generating new knowledge that will lead to better health for everyone. SAMHSA is charged with improving the quality and availability of prevention, treatment, and rehabilitation services in order to reduce illness, death, disability, and cost to society resulting from substance abuse and mental illnesses. Common to each of the agencies is an interest in preventing problems before they have a chance to impair the health of individuals, families, communities, or society in its entirety. Toward this end, CDC, NIH/NIMH, and SAMHSA each support major long-term research projects involving nationally representative samples of our Nation's youth. These studies, which are introduced and described in the report that follows, are designed both to monitor the health status of young Americans and to identify factors that can be shown to carry some likelihood of risk for jeopardizing health—information that lends itself to mounting effective interventions.

The designation of youth violence as a public health issue complements the more traditional status of the problem as a criminal justice concern. Here again, it has been satisfying for all of us in the public health sector to reach across professional and disciplinary boundaries to our colleagues in law, criminology, and justice and work to meld data that deepen our understanding of the patterns and nature of violence engaged in by young people throughout our country.

What has emerged with startling clarity from an exhaustive review of the scientific literature and from analyses of key new data sources is that we as a Nation have made laudable progress in gaining an understanding of the magnitude of the problem. We have made great strides in identifying and quantifying factors that, in particular settings or combinations, increase the probability that violence will occur. And we have developed an array of interventions of well-documented effectiveness in helping young people whose lives are already marked by a propensity for violence as well as in preventing others from viewing violence as a solution to needs, wants, or problems.

CDC, NIH/NIMH, and SAMHSA look forward to continuing collaborations, begun during the development of this report, that will extend further the abilities of policy makers, communities, families, and individuals to understand youth violence and how to prevent it.

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Preface

from the Surgeon General
U.S. Public Health Service

The immediate impetus for this Surgeon General's Report on Youth Violence was the Columbine High School tragedy that occurred in Colorado in April 1999, resulting in the deaths of 14 students, including 2 perpetrators, and a teacher. In the aftermath of that shocking event, both the Administration and Congress requested a report summarizing what research has revealed to us about youth violence, its causes, and its prevention.

Our review of the scientific literature supports the main conclusion of this report: that as a Nation, we possess knowledge and have translated that knowledge into programs that are unequivocally effective in preventing much serious youth violence. Lest this conclusion be considered understated or muted, it is important to realize that only a few years ago, substantial numbers of leading experts involved in the study and treatment of youth violence had come to a strikingly different conclusion. Many were convinced then that nothing could be done to stem a tide of serious youth violence that had erupted in the early 1980s. During the decade extending from 1983 to 1993, arrests of youths for serious violent offenses surged by 70 percent; more alarmingly, the number of young people who committed a homicide nearly tripled over the course of that deadly decade. In many quarters, dire predictions about trends in youth violence yielded to resignation; elsewhere, fear and concern prompted well-meaning officials and policy makers to grasp at any proposed solutions, often with little, if any, systematic attention to questions of the efficacy or effectiveness of those approaches.

Fortunately, the past two decades have also been distinguished by the sustained efforts of researchers, legislators, and citizens from all walks of life to understand and address the problem of youth violence. One seminal contribution to these efforts was an initiative taken by one of my predecessors, Surgeon General C. Everett Koop, to address violence as a public health issue; that is, to apply the science of public health to the treatment and prevention of violence. As evident throughout this report, that endorsement was key to encouraging multiple Federal, state, local, and private entities to invest wisely and consistently in research on many facets of youth violence and to translate the knowledge gained into an exciting variety of intervention programs.

Although much remains to be learned, we can be heartened by our accomplishments to date. For one, our careful analyses, together with those conducted by components of the justice system, have demonstrated the pervasiveness of youth violence in our society; no community is immune. In light of that evidence, it has been most encouraging to me to see that the citizens with whom I have interacted in hundreds of communities around the Nation want us to find answers that will help *all* of our youth. There is a powerful consensus that youth violence is, indeed, our Nation's problem, and not merely a problem of the cities, or of the isolated rural regions, or any single segment of our society.

Equally encouraging have been our findings that intervention strategies exist today that can be tailored to the needs of youths at every stage of development, from young childhood to late adolescence. There is no justification for pessimism about reaching young people who already may be involved in serious violence. Another critical bit of information from our analyses of the research literature is that all intervention programs are not equally suited to all children and youths. A strategy that may be effective for one age may be ineffective for older or younger children. Certain hastily adopted and implemented strategies may be ineffective—and even deleterious—for all children and youth.

Understanding that effectiveness varies underscored for us the importance of bridging the gap between science and practice. Only through rigorous research and thorough, repeated evaluations of programs as they operate in the real world will we be assured that we are using our resources wisely.

In presenting this Surgeon General's report, I wish to acknowledge our indebtedness to the many scientists who have persisted in their work in this difficult, often murky area and whose results we have scrutinized and drawn on. We are also immensely grateful to the countless parents, police officers, teachers, juvenile advocates, health and human service workers, and people in every walk of life who recognize the inestimable value of our Nation's youth and the importance of peace, security, and comity in their lives.

David Satcher, M.D., Ph.D.
Surgeon General

EXECUTIVE SUMMARY

YOUTH VIOLENCE: A REPORT OF THE SURGEON GENERAL

Youth violence is a high-visibility, high-priority concern in every sector of U.S. society. No community, whether affluent or poor, urban, suburban, or rural, is immune from its devastating effects. In the decade extending from roughly 1983 to 1993, an epidemic of violent, often lethal behavior broke out in this country, forcing millions of young people and their families to cope with injury, disability, and death (Cook & Laub, 1998). This epidemic left lasting scars on victims, perpetrators, and their families and friends. It also wounded entire communities and, in ways not yet fully understood, the United States as a whole.

Since 1993, when the epidemic peaked, youth violence has declined significantly nationwide, as signaled by downward trends in arrest records, victimization data, and hospital emergency room records. But the problem has not been resolved. Another key indicator of violence—youths' confidential reports about their violent behavior—reveals no change since 1993 in the proportion of young people who have committed physically injurious and potentially lethal acts. Moreover, arrests for aggravated assault have declined only slightly and in 1999 remained nearly 70 percent higher than pre-epidemic levels. In 1999, there were 104,000 arrests of people under age 18 for a serious violent crime—robbery, forcible rape, aggravated assault, or homicide (Snyder, 2000). Of these, 1,400 were for homicides committed by adolescents (Snyder, 2000) and, on occasion, even younger children (Snyder & Sickmund, 1999). But viewing homicide arrests as a barometer of all youth violence is quite misleading, as is judging the success of violence prevention efforts solely on the basis of reductions in homicides.

Arrest records give only a partial picture of youth violence. For every youth arrested in any given year in the late 1990s, at least 10 were engaged in some form of violent behavior that could have seriously injured or killed another person, according to the several national research surveys in which youths report on their own behavior. Thus, despite reductions in the lethality of violence and consequent arrests, the number of adolescents involved in violent behavior remains disconcertingly high, underscoring the urgency of this report.

This is no time for complacency. The epidemic of lethal violence that swept the United States from 1983 to 1993 was fueled in large part by easy access to weapons, notably firearms. If the sizable numbers of youths still involved in violence today begin carrying and using weapons as they did a decade ago, this country may see a resurgence of the lethal violence that characterized the violence epidemic.

To address the troubling presence of violence in the lives of U.S. youths, the Administration and Congress urged the Surgeon General to develop a report on youth violence, with particular focus on the scope of the problem, its causes, and how to prevent it. Surgeon General Dr. David Satcher requested three agencies, all components of the Department of Health and Human Services, to share lead responsibility for preparing the report. The agencies are the Centers for Disease Control and Prevention (CDC), the National Institutes of Health (NIH), and the Substance Abuse and Mental Health Services Administration (SAMHSA).

Under Dr. Satcher's guidance, these agencies established a Planning Board comprising individuals with expertise in diverse disciplines and professions involved in the study, treatment, and prevention of

youth violence. The Planning Board also enlisted individuals representing various Federal departments, including particularly the Department of Justice (juvenile crime aspects of youth violence), the Department of Education (school safety issues), and the Department of Labor (the association between youth violence and youth employment, and out-of-school youth). Invaluable assistance was obtained as well from individual citizens who have founded and operate nonprofit organizations designed to meet the needs of troubled and violent youths. Most important, young people themselves accepted invitations to become involved in the effort. All of these persons helped to plan the report and participated in its prepublication reviews.

This report—the first Surgeon General's report on youth violence—is a product of extensive collaboration. It reviews a massive body of research on where, when, and how much youth violence occurs, what causes it, and which of today's many preventive strategies are genuinely effective. Like other reports from the Surgeon General, this report reviews existing knowledge to provide scientifically derived bases for action at all levels of society. Suggesting whether and how the areas of opportunity listed in the final chapter might lend themselves to policy development to reduce youth violence is beyond the report's purview.

Report Perspectives

Focus on Violence by Youths

The research described here focuses on physical assault by a youth that carries a significant risk of injuring or killing another person. It includes a wealth of studies into the many individual, family, school, peer group, and community factors associated with serious violence—aggravated assault, robbery, rape, and homicide—in the second decade of life, when most such violence emerges.[1] Thus, the young people who are the focus of this report are principally children and adolescents from about age 10 through high school. Appropriate interventions during as well as before this period stand a good chance of helping redirect violent young people toward healthy and constructive adult lives. The window of opportunity for effective interventions opens early and rarely, if ever, closes.

The Developmental Perspective

This report views violence from a developmental perspective. To understand why some young people become involved in violence and some do not, it examines how youths' personal characteristics interact over time with the social contexts in which they live. This perspective considers a range of risks over the life course, from prenatal factors to factors influencing whether patterns of violent behavior in adolescence will persist into adulthood. The developmental perspective has enabled scientists to identify two general onset trajectories of violence: one in which violent behaviors emerge before puberty, and one in which they appear after puberty. The early-onset trajectory shows stronger links between childhood factors and persistent, even lifelong involvement in violent behavior. Identifying such pathways to violence can help researchers target interventions to the periods in development where they will be most effective.

The Public Health Approach

This report reflects the responsibilities and spirit of the Surgeon General's public health mission: to protect and improve the Nation's health. The designation of youth violence as a public health concern invites an approach that focuses more on prevention than on rehabilitation. Primary prevention identifies behavioral, environmental, and biological risk factors associated with violence and takes steps to educate individuals and communities about, and protect them from, these risks. Central to this process is the principle that health promotion is best learned, performed, and maintained when it is ingrained in individuals' and communities' daily routines and perceptions of what constitutes good health practices.

The public health perspective provides a framework for research and intervention that draws on the

[1] Hereafter, the report will refer simply to "violent crime," avoiding repetitious use of the term "serious violent crime."

insights and strategies of diverse disciplines. Tapping into a rich, but often fragmented knowledge base about risk factors, prevention, and public education, the public health perspective calls for critically examining and reconciling what are frequently contradictory conclusions about youth violence. Thus, the approach taken in the current report, which blends offender-based research with public health concepts of prevention and intervention, constitutes an effort to bridge the gap between criminology and the social and developmental science approaches on the one hand, and conventional public health approaches on the other.

The public health approach can help reduce the number of injuries and deaths caused by violence just as it reduced the number of traffic fatalities and deaths attributed to tobacco use (CDC, 1999). Broader than the medical model, which is concerned with the diagnosis, treatment, and mechanisms of specific illnesses in individual patients, the public health approach offers a practical, goal-oriented, and community-based strategy for promoting and maintaining health. To identify problems and develop solutions for entire population groups, the public health approach:

- Defines the problem, using surveillance processes designed to gather data that establish the nature of the problem and the trends in its incidence and prevalence;
- Identifies potential causes, through epidemiological analyses that identify risk and protective factors associated with the problem;
- Designs, develops, and evaluates the effectiveness and generalizability of interventions; and
- Disseminates successful models as part of a coordinated effort to educate and reach out to the public (Hamburg, 1998; Mercy et al., 1993).

The chapters in this report are keyed to each of these components of the public health approach.

Myths about Youth Violence

An important reason for making research findings widely available is to challenge false notions and misconceptions about youth violence. Ten myths about violence and violent youth are listed and debunked. Examples of these myths include:

Myth: Most future offenders can be identified in early childhood.

Myth: Child abuse and neglect inevitably lead to violent behavior later in life.

Myth: African American and Hispanic youths are more likely to become involved in violence than other racial or ethnic groups.

Myth: A new, violent breed of young superpredators threatens the United States.

Myth: Getting tough with juvenile offenders by trying them in adult criminal courts reduces the likelihood that they will commit more crimes.

Myth: Nothing works with respect to treating or preventing violent behavior.

Myth: Most violent youths will end up being arrested for a violent crime.

These false ideas are intrinsically dangerous. Assumptions that a problem does not exist or failure to recognize the true nature of a problem can obscure the need for informed policy or for interventions. An example is the conventional wisdom in many circles that the epidemic of youth violence so evident in the early 1990s is over. Alternatively, myths may trigger public fears and lead to inappropriate or misguided policies that result in inefficient or counterproductive use of scarce public resources. An example is the current policy of waiving or transferring young offenders into adult criminal courts and prisons.

Major Research Findings and Conclusions

This report reviews a vast, multidisciplinary, and often controversial research literature. In the process, it seeks to clarify the discrepancies between official records of youth violence and young people's own reports of their violent behaviors. It identifies factors that increase the risk, or statistical probability, that a young person will gravitate toward violence and reviews studies that have begun to identify developmental pathways that may lead a young person into a violent lifestyle. Also

explored is a less well developed area of research—the factors that seem to protect youths from the effects of exposure to risk factors for violence. Finally, the report reviews research on the effectiveness of specific strategies to reduce and prevent youth violence.

The most important conclusion of this report is that youth violence is not an intractable problem. We now have the knowledge and tools needed to reduce or even prevent much of the most serious youth violence, with the added benefit of reducing less dangerous, but still serious problem behaviors and promoting healthy development. Scientists from many disciplines, working in a variety of settings with public and private agencies, are generating needed information and putting it to use in designing, testing, and evaluating intervention programs. However, after years of effort and massive expenditures of public and private resources, the search for solutions to the issue of youth violence remains an enormous challenge. Some traditional as well as seemingly innovative approaches to reducing and preventing youth violence have failed to deliver on their promise, and successful approaches are often eclipsed by random violent events such as the school shootings that have occurred in recent years in communities throughout the country. *Thus, the most urgent need is a national resolve to confront the problem of youth violence systematically, using research-based approaches, and to correct damaging myths and stereotypes that interfere with the task at hand.*

More specific major findings and conclusions are summarized below by chapter.

Trends in Youth Violence (Chapter 2)

Two distinctly different, complementary ways of measuring violence are used by scientists—official reports and self-reports. Official arrest data are an obvious means of determining the extent of youth violence, and a surge in arrests for violent crimes marked the epidemic of youth violence between 1983 and 1993. Arrests were driven largely by the rapid proliferation of firearms use by adolescents engaging in violent acts and the likelihood that violent confrontations would—as they did—produce serious or lethal injuries. Today, with fewer young people carrying weapons, including guns, to school and elsewhere, violent encounters are less likely to result in homicide and serious injury and therefore are less likely to draw the attention of police. By 1999, arrest rates for homicide, rape, and robbery had all dropped below 1983 rates. Arrest rates for aggravated assault, however, were nearly 70 percent higher than they were in 1983, having declined only 24 percent from the peak rates in 1994.

Youth violence can also be measured on the basis of confidential reporting by youths themselves. Confidential surveys find that 13 to 15 percent of high school seniors report having committed an act of serious violence in recent years (1993 to 1998). These acts typically do not come to the attention of police, in part because they are less likely than in years past to involve firearms. Over the past two decades, the number of violent acts by high school seniors increased nearly 50 percent, a trend similar to that found in arrests for violent crimes. But neither this incident rate nor the proportion of high school seniors involved in violence has declined in the years since 1993—they remain at peak levels. In the aggregate, the best available evidence from multiple sources indicates that youth violence is an ongoing national problem, albeit one that is largely hidden from public view.

Major Findings and Conclusions

1. The decade between 1983 and 1993 was marked by an epidemic of increasingly lethal violence that was associated with a large rise in the use of firearms and involved primarily African American males. There was a modest rise in the proportion of young persons involved in other forms of serious violence.
2. Since 1994, a decline in homicide arrests has reflected primarily the decline in use of firearms. There is some evidence that the smaller decline in nonfatal serious violence is also attributable to declining firearm use.
3. By 1999, arrest rates for violent crimes—with the exception of aggravated assault—had fallen below 1983 levels. Arrest rates for aggravated assault remain almost 70 percent higher than they were in 1983, and this is the offense most frequently captured in self-reports of violence.

4. Despite the present decline in gun use and in lethal violence, the self-reported proportion of young people involved in nonfatal violence has not dropped from the peak years of the epidemic, nor has the proportion of students injured with a weapon at school declined.
5. The proportion of schools in which gangs are present continued to increase after 1994 and has only recently (1999) declined. However, evidence shows that the number of youths involved with gangs has not declined and remains near the peak levels of 1996.
6. Although arrest statistics cannot readily track firearm use in specific serious crimes other than homicide, firearm use in violent crimes declined among persons of all ages between 1993 and 1997.
7. The steep rise and fall in arrest rates for homicide over the past two decades have been matched by similar, but less dramatic changes in some of the other indicators of violence, including arrest rates for all violent crimes and incident rates from victims' self-reports. This pattern is not matched by arrests for selected offenses, such as aggravated assault, or incident rates and prevalence rates from offenders' self-reports.
8. Young men—particularly those from minority groups—are disproportionately arrested for violent crimes. But self-reports indicate that differences between minority and majority populations and between young men and young women may not be as large as arrest records indicate or conventional wisdom holds. Race/ethnicity, considered in isolation from other life circumstances, sheds little light on a given child's or adolescent's propensity for engaging in violence.
9. Schools nationwide are relatively safe. Compared to homes and neighborhoods, schools have fewer homicides and nonfatal injuries. Youths at greatest risk of being killed in school-associated violence are those from a racial or ethnic minority, senior high schools, and urban school districts.

Pathways to Youth Violence (Chapter 3)

Viewed from a developmental perspective, violence stems from a complex interaction of individuals with their environment at particular times in their lives. Longitudinal research has enabled investigators to describe the emergence of violence in terms of two (and possibly more) life-course trajectories. In the early-onset trajectory, violence begins before puberty, whereas in the late-onset trajectory it begins after puberty, at about age 13. These two trajectories offer insights into the likely course, severity, and duration of violence over the life span and have practical implications for the timing of intervention programs and strategies. Some research has examined the co-occurrence of serious violence and other problems, including drug use and mental disorders, and some has looked at factors associated with the cessation of youth violence or its continuation into adulthood. Both of these areas need—and warrant—more study.

Major Findings and Conclusions

1. There are two general onset trajectories for youth violence—an early one, in which violence begins before puberty, and a late one, in which violence begins in adolescence. Youths who become violent before about age 13 generally commit more crimes, and more serious crimes, for a longer time. These young people exhibit a pattern of escalating violence through childhood, and they sometimes continue their violence into adulthood.
2. Most youth violence begins in adolescence and ends with the transition into adulthood.
3. Most highly aggressive children or children with behavioral disorders do not become serious violent offenders.
4. Surveys consistently find that about 30 to 40 percent of male youths and 15 to 30 percent of female youths report having committed a serious violent offense by age 17.
5. Serious violence is part of a lifestyle that includes drugs, guns, precocious sex, and other risky behaviors. Youths involved in serious violence often commit many other types of crimes and

exhibit other problem behaviors, presenting a serious challenge to intervention efforts. Successful interventions must confront not only the violent behavior of these young people, but also their lifestyles, which are teeming with risk.

6. The differences in patterns of serious violence by age of onset and the relatively constant rates of individual offending have important implications for prevention and intervention programs. Early childhood programs that target at-risk children and families are critical for preventing the onset of a chronic violent career, but programs must also be developed to combat late-onset violence.
7. The importance of late-onset violence prevention is not widely recognized or well understood. Substantial numbers of serious violent offenders emerge in adolescence without warning signs in childhood. A comprehensive community prevention strategy must address both onset patterns and ferret out their causes and risk factors.

Risk and Protective Factors (Chapter 4)

Extensive research in recent decades has sought to identify various personal characteristics and environmental conditions that either place children and adolescents at risk of violent behavior or that seem to protect them from the effects of risk. Risk and protective factors can be found in every area of life. Exerting different effects at different stages of development, they tend to appear in clusters, and they appear to gain strength in numbers. These risk probabilities apply to groups, not to individuals. Although risk factors are not necessarily causes, a central aim of the public health approach to youth violence is to identify these predictors and to determine when in the life course they typically come into play. Armed with such information, researchers are better equipped to design well-timed, effective preventive programs. Identifying and understanding how protective factors operate is potentially as important to preventing and stopping violence as identifying and understanding risk factors. Several protective factors have been proposed, but to date only two have been found to buffer the effects of exposure to specific risks for violence: an intolerant attitude toward deviance, including violence, and commitment to school. Protective factors warrant, and are beginning to receive, more research attention.

Major Findings and Conclusions

1. Risk and protective factors exist in every area of life—individual, family, school, peer group, and community. Individual characteristics interact in complex ways with people and conditions in the environment to produce violent behavior.
2. Risk and protective factors vary in predictive power depending on when in the course of development they occur. As children move from infancy to early adulthood, some risk factors will become more important and others less important. Substance use, for example, is a much stronger risk factor at age 9 than it is at age 14.
3. The strongest risk factors during childhood are involvement in serious but not necessarily violent criminal behavior, substance use, being male, physical aggression, low family socioeconomic status or poverty and antisocial parents—all individual or family attributes or conditions.
4. During adolescence, the influence of family is largely supplanted by peer influences. The strongest risk factors are weak ties to conventional peers, ties to antisocial or delinquent peers, belonging to a gang, and involvement in other criminal acts.
5. Risk factors do not operate in isolation—the more risk factors a child or young person is exposed to, the greater the likelihood that he or she will become violent. Risk factors can be buffered by protective factors, however. An adolescent with an intolerant attitude toward deviance, for example, is unlikely to seek or be sought out by delinquent peers, a strong risk factor for violence at that age.
6. Given the strong evidence that risk factors predict the likelihood of future violence, they are useful for identifying vulnerable populations that may

benefit from intervention efforts. Risk markers such as race or ethnicity are frequently confused with risk factors; risk markers have no causal relation to violence.

7. No single risk factor or combination of factors can predict violence with unerring accuracy. Most young people exposed to a single risk factor will not become involved in violent behavior; similarly, many young people exposed to multiple risks will not become violent. By the same token, protective factors cannot guarantee that a child exposed to risk will not become violent.

Preventing Youth Violence (Chapter 5)

Research clearly demonstrates that prevention programs and strategies can be effective against both early- and late-onset forms of violence in general populations of youths, high-risk youths, and even youths who are already violent or seriously delinquent. Chapter 5 highlights 27 specific youth violence prevention programs that are not only effective at preventing youth violence but cost-effective as well. In a number of cases, the long-term financial benefits of prevention are substantially greater than the costs of the programs. These promising findings indicate that youth violence prevention has an important role to play in overall efforts to provide a safe environment for youths.

Despite these positive findings, current research on youth violence prevention has important limitations. For example, relatively little is known about the scientific effectiveness of hundreds of youth violence programs currently in use in schools and communities in the United States. This situation invites concern because in the past, many well-intentioned youth violence prevention programs were found to have been ineffective or to have had negative effects on youths. Even less is known about the best strategies for implementing effective programs on a national scale without compromising their results.

Major Findings and Conclusions

1. A number of youth violence intervention and prevention programs have demonstrated that they are effective; assertions that "nothing works" are false.
2. Most highly effective programs combine components that address both individual risks and environmental conditions, particularly building individual skills and competencies, parent effectiveness training, improving the social climate of the school, and changes in type and level of involvement in peer groups.
3. Rigorous evaluation of programs is critical. While hundreds of prevention programs are being used in schools and communities throughout the country, little is known about the effects of most of them.
4. At the time this report was prepared, nearly half of the most thoroughly evaluated strategies for preventing violence had been shown to be ineffective—and a few were known to harm participants.
5. In schools, interventions that target change in the social context appear to be more effective, on average, than those that attempt to change individual attitudes, skills, and risk behaviors.
6. Involvement with delinquent peers and gang membership are two of the most powerful predictors of violence, yet few effective interventions have been developed to address these problems.
7. Program effectiveness depends as much on the quality of implementation as on the type of intervention. Many programs are ineffective not because their strategy is misguided, but because the quality of implementation is poor.

A Vision for the Future (Chapter 6)

The most important conclusion of this report is that an array of intervention programs with well-documented effectiveness is now in place to reduce and prevent youth violence. Such programs are the outcome of a large body of research that has examined the paths and trajectories that lead some youths toward lives marred by violence. Multiple studies have identified and examined specific risk factors—personal and environmental features of young people's lives that heighten the statistical probability of their engaging in violent behaviors. Research has also begun to identify protective factors that appear to buffer the effects of expo-

sure to risk. While this information has been accumulating, researchers, youth service practitioners, and others have been actively engaged in designing, implementing, and evaluating a variety of interventions to reduce and prevent the occurrence of youth violence. The best of these interventions target specific populations of young people, as defined by particular constellations of risk and life experience.

Chapter 6 highlights courses of action for the Nation to consider. Given the focus of the report, particular emphasis is placed on consideration of research opportunities and needs. Although effective interventions exist today, only through continued research will all intervention programs be shown to meet a standard of effectiveness—or be discarded. Although the research options and other courses of action suggested here are not formal policy recommendations, they offer a vision that may inform the generation of policies that will build on information we possess today. They are intended for policy makers, service and treatment providers, individuals affiliated with the juvenile justice system, researchers, and, most important, the people of the United States. This vision for the future is presented with the hope that it will engage an expanding number of citizens in the challenge of redressing the problem of youth violence. The following are possible courses of action:

- Continue to build the science base.
- Accelerate the decline in gun use by youths in violent encounters.
- Facilitate the entry of youths into effective intervention programs rather than incarcerating them.
- Disseminate model programs with incentives that will ensure fidelity to original program design when taken to scale.
- Provide training and certification programs for intervention personnel.
- Improve public awareness of effective interventions.
- Convene youths and families, researchers, and private and public organizations for a periodic youth violence summit.
- Improve Federal, state, and local strategies for reporting crime information and violent deaths.

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