

***NEVER TOO EARLY, NEVER TOO LATE:  
RISK FACTORS AND SUCCESSFUL  
INTERVENTIONS FOR SERIOUS AND VIOLENT  
JUVENILE OFFENDERS***

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## Chapter 11

## Comprehensive Community and School based Interventions to Prevent Antisocial

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The knowledge base for developing effective interventions to prevent antisocial behavior among children and adolescents has expanded dramatically in recent years (e.g., Hawkins, Arthur, & Catalano, 1995; Howell, Krisberg, Hawkins, & Wilson, 1995; Institute of Medicine [IOM], 1994; Jessor, 1993; Pepler & Rubin, 1991). Longitudinal research has revealed a consistent set of predictors of the development of antisocial behavior (Farrington, 1996; Loeber, 1990). Risk factors that predict increased likelihood of antisocial behavior have been identified at the individual, family, school, peer group, and community levels (see chapters by J. David Hawkins and colleagues, Chapter 7, this volume, and Lipsey and Derzon, Chapter 6, this volume). The research also indicates that the likelihood of serious antisocial behavior is substantially greater among those exposed to multiple risk factors (Bry, McKeon, & Pandina, 1982; Howell, 1995; IOM, 1994; Newcomb, Maddahian, & Bentler, 1986). Moreover, many of the same risk factors predict adolescent delinquency, violence, and substance abuse, and also predict dropping out of school, early sexual involvement, and teen pregnancy (Cairns, Cairns, & Neckerman, 1989; Coie et al., 1993; Dryfoos, 1990; Hawkins, 1995; Yoshikawa, 1994).

Studies have revealed, however, that many children avoid serious involvement in antisocial behavior despite exposure to multiple risk factors (e.g., Garmezy, 1985; Rutter, 1985; Werner & Smith, 1992). These studies have explored protective factors that appear to buffer against or mitigate the negative effects of risk exposure. Protective factors have been identified within individuals and within the social environment. Individual protective factors against antisocial behavior include female gender, high IQ, a resilient temperament, and a positive social orientation (Garmezy, 1985; Rutter, 1985). Social protective factors include warm, supportive relationships and social bonding to adults (Rutter, 1979; Werner & Smith, 1992), recognition for involvement in positive extracurricular activities (Rae-Grant, Thomas, Offord, & Boyle, 1989), and social institutions such as peer groups, schools, and communities that emphasize positive social norms, prosocial behavior, and educational

success (Brewer, Hawkins, Catalano, & Neckerman, 1995; Rutter, Maughan, Mortimore, Ouston, & Smith, 1979). Preventive interventions should focus on enhancing protective factors while reducing risk factors.

The research suggests that interventions that reduce risk factors while enhancing protective factors in family, school, peer and community environments over the course of infant, child and adolescent development hold promise for preventing multiple adolescent health and behavior problems (Howell et al., 1995; Yoshikawa, 1994). A current challenge is to apply this knowledge base to reducing the prevalence of adolescent antisocial behavior (Biglan, 1995; Hawkins, Catalano, & Associates, 1992; Howell, 1995). Comprehensive interventions that support enduring community-level reductions in risk factors and increases in protective factors are required to achieve sustained reductions in the prevalence of antisocial behavior (Flay et al., 1989; Hawkins, Arthur, & Catalano, 1995; IOM, 1994).

The most promising comprehensive prevention models have been adapted from the field of public health (Hawkins, Arthur, & Olson, in press; IOM, 1994; Moore, 1995). Comprehensive programs focused on reducing risk factors for heart and lung disease have demonstrated that community level risk reduction is a viable prevention strategy (e.g., Farquhar, Fortmann, & Flora, 1990; Lefebvre, Lasater, Carleton, & Peterson, 1987; Perry, Kelder, Murray, & Klepp, 1992; Puska et al., 1989; Vartiainen, Pallonen, McAlister, & Puska, 1990). Given the success of these comprehensive interventions in reducing risk factors for heart disease, comprehensive interventions designed to reduce risk factors for violence, delinquency, and drug abuse are currently being implemented (Hawkins, Catalano, & Associates, 1992; Howell, 1995). The challenges presented by this approach include: 1) utilizing theories that are comprehensive and include both individual and environmental causes of problem behavior; 2) creating local ownership of the prevention efforts; and 3) providing community members with the skills needed to design a strategically selected, coordinated package of interventions that include effective risk reduction and protective factor enhancement strategies, to implement the selected interventions broadly with fidelity, and to monitor the effects of the community's efforts and adjust them appropriately.

This chapter reviews comprehensive school and community interventions to reduce risks and enhance protection in order to prevent adolescent antisocial behavior. Although few of these programs have examined their impact on SVJ offending, these types of programs which address multiple risk factors in multiple domains may be the most effective approaches for preventing such problems from developing. Suggestions and promising leads for research and intervention with SVJ offenders will be addressed. Antisocial behavior includes conduct problems, violence, delinquency, and substance abuse in recognition of the interrelationships among these problems and the risk and protective factors that predict them. In this chapter, comprehensive interventions are defined as: "interventions designed to change the social conditions and institutions (e.g., families, peers, social norms, clubs, [schools and other organizations]) that influence offending in residential communities" (Farrington, 1995). Since both schools and the broader community have been the setting for comprehensive preventive interventions, the chapter is divided into two sections; one on comprehensive school-based interventions and one on comprehensive community-based interventions.

To place this review of current interventions in perspective, the recent history of comprehensive approaches to reduce antisocial behavior in America is reviewed first. Interventions that have shown promising results in studies employing experimental or quasi-experimental designs are reviewed next. Then, methodological limitations of current research in studying and evaluating comprehensive interventions are discussed. Finally, conclusions about the state of the field and directions for further research and intervention are discussed.

The Chicago Area Project of the 1930's played a vital role in broadening delinquency prevention efforts to include social ecological factors (Shaw & McKay, 1969). The Chicago Area Project was founded on the observation that a large proportion of delinquents in Chicago resided in poor, inner city neighborhoods characterized by rapid residential turnover, high unemployment, and a lack of citizen involvement. Sociologist Clifford Shaw hypothesized that the high rates of delinquency in these neighborhoods were caused by a breakdown in the communities' abilities to supervise and transmit prosocial values to youths. To address these problems, the project focused on mobilizing adults in the neighborhoods to increase their daily involvement with youths in order to

restore the supervision and socializing structures missing in the neighborhoods. In order to motivate local adults to participate, project staff recruited community members to share in decision making and lead the intervention efforts.

This landmark effort stood in sharp contrast to the child guidance clinics that were popular at that time, in that the Chicago Area Project attempted to prevent antisocial behavior by changing the social environment rather than changing the behavior of individual youths. It was the first large scale, planned community intervention to prevent antisocial behavior (Krisberg & Austin, 1978).

In the late 1950's and early 1960's a second major attempt to mobilize community members to address neighborhood poverty and other risks for delinquency was mounted in New York City as the Mobilization for Youth Project. Although this attempt met with resistance from some local officials threatened by the efforts to give residents a voice in defining their problems and desired solutions, it laid the groundwork for subsequent efforts to mobilize communities to prevent antisocial behavior (Krisberg & Austin, 1978). The Mobilization for Youth project marked the first time the federal government invested large sums of money (about \$2 million per year) in attempting to prevent antisocial behavior. These efforts were supported by the emergence of sociological theories, such as Cloward and Ohlin's (1960) strain theory, that shifted the causal emphasis from individual factors to social structural factors such as the inequality of opportunities to achieve aspirations and attain goals through legitimate means.

The 1960's brought the War on Poverty and a broad array of interventions to address poverty, including efforts to prevent school failure through programs such as Head Start (Zigler & Valentine, 1979). Youth Service Bureaus were created to bring together local residents and social service agency staff to develop necessary services within the community for local youth and families (Krisberg & Austin, 1978). The Youth Service Bureaus emphasized diversion of youths from the juvenile justice system, but efforts were limited by lack of adequate funding and conflict between community residents and agency staff over program goals. Despite these community-based efforts to reduce antisocial behavior, the country's primary response to juvenile antisocial behavior remained the juvenile justice system.

In the 1980s and 1990s the community's responsibility for preventing juvenile delinquency and drug abuse has become firmly entrenched in current policies and practice (Howell, 1995). For instance, Title V of the Juvenile Justice and Delinquency Prevention Amendments of 1992, the Office of Juvenile Justice and Delinquency Prevention's "Comprehensive Strategy for Serious, Violent and Chronic Offenders," the "Weed and Seed" program of the Bureau of Justice Assistance, the Center for Substance Abuse Prevention's "Community Partnership Demonstration Program," and the Robert Wood Johnson Foundation's "Fighting Back" and "Healthy Nations" initiatives all emphasize community involvement in planning comprehensive strategies to prevent antisocial behavior, and represent significant investment in community prevention efforts. A recent survey of community drug prevention activities in America identified over 1,250 coalitions representing communities in every state (Join Together, 1992). The increase in community prevention programming since the late 1980s has created demand for information about effective intervention models and strategies.

Efforts to prevent antisocial behavior through comprehensive school and community interventions have shown positive results on reducing risk while enhancing protection and, in studies with long-term follow-up, on reducing juvenile crime and substance use. These studies are reviewed briefly in the next two sections. Where the data reported in the original documents allow it, significant changes in key outcomes are described in quantitative terms, either as percentages or as effect sizes (ES). Effect sizes are calculated as follows:  $ES = (\text{mean}_{\text{post}} - \text{mean}_{\text{pre}}) / \text{StDev}_{\text{pre}}$ . Although limited by the many methodological challenges confronting the evaluation of comprehensive interventions, these studies provide evidence that comprehensive interventions have the potential to reduce the prevalence of antisocial behavior within communities.

#### School-Wide Interventions to Improve School Bonding and Academic Achievement and to Reduce Antisocial Behavior

One important locus for prevention programming is the school which provides universal access and is a setting where critical developmental tasks are completed (Dryfoos, 1990). Weissberg and Greenberg (1997) point out that high quality instruction and learning environments that foster the acquisition of basic skills are important objectives of school-based interventions. Moreover, as

demonstrated in a meta-analysis by Maguin and Loeber (1995), academic failure is related to the prevalence and onset of delinquency, as well as the escalation in the frequency and seriousness of offending, and interventions that improve academic performance have been shown to reduce delinquency. As compulsory institutions that permit sustained contact with most young people during the formative years of development (Rutter et al., 1979), schools may be ideal sites for comprehensive prevention and positive youth development programming (Bond & Compas, 1989; Dryfoos, 1994, 1995; Durlak, 1995; Zigler & Finn-Stevenson, in press; Zins & Forman, 1988).

Preventive interventions have been used in schools to improve both behavior and achievement. Five different kinds of school-wide, non-classroom based interventions have been evaluated: structured playground activities; behavioral consultation; behavioral monitoring and reinforcement of attendance, academic progress, and school behavior; metal detectors in schools; and school-wide organizational changes. These school-based interventions can address the protective factors of bonding to school, opportunities for active involvement, social and cognitive competencies, recognition of positive behavior, and positive norms regarding behavior, and several risk factors including, transitions, academic failure, alienation and rebelliousness, low commitment to school, norms favorable to antisocial behavior, association with violent and delinquent peers, and early and persistent aggressive behavior.

#### Structured Playground Activities

Murphy, Hutchison, and Bailey (1983) evaluated a playground program at an elementary school in Tallahassee, Florida, to reduce aggressive behavior among 344 kindergarten through second-grade boys and girls. The program consisted of organized games (jump rope and running races) for the children who arrived on the playground during the 40 minutes before school started. Three aides supervised these activities and used a time-out procedure for students who committed particularly unruly behaviors.). Observers recorded students' disruptive behavior including aggression, property abuse such as taking someone else's books, and violations of school rules. Most of the disruptive incidents involved aggression. The mean number of disruptive incidents per observation period during the experimental periods was significantly less (53%) than during the baseline periods.

### Behavioral Consultation

Mayer and Butterworth (1979) evaluated a program in which graduate student consultants trained in applied behavioral analysis and behavioral consultation worked with elementary school teams to develop classroom and school-wide anti-vandalism programs. The behavioral interventions and training focused on: 1) matching academic materials to students' skill levels; 2) increasing positive reinforcement for appropriate classroom behavior and academic progress; 3) reducing the use of punishment; 4) applying various learning and behavioral management principles; and 5) educating school counselors/psychologists in behavioral consultation methods.

The evaluators used a true experimental design to assess program impact. Nineteen elementary schools in Los Angeles County participated in the study, with 10 randomly assigned to the program and 9 randomly assigned to the control group. In most study schools, students were predominantly from low-income African-American or Latino families.

Vandalism costs decreased by 57 percent for experimental schools but increased by 320 percent for control schools. However, the statistical significance of these findings was not reported, and it should be noted that vandalism costs are highly sensitive to single, very expensive incidents. During the program year, observer-rated disruptive behavior significantly decreased ( $ES = -.66$ ) for experimental students relative to control students, and experimental students' on-task classroom behavior (as rated by observers) increased significantly ( $ES = .48$ ) in comparison to controls.

Mayer, Butterworth, Nafpaktitis, and Sulzer-Azaroff (1983) evaluated essentially the same type of program as the one described by Mayer and Butterworth (1979). The evaluators used a delayed intervention control group design. Eighteen elementary and junior high schools from 12 school districts in Los Angeles County participated in the study, with 9 schools randomly assigned to the experimental group (group I) and 9 schools randomly assigned to the control group (group II). Group I schools received the program for three continuous years and group II schools received the program for the second and third years.

Following initiation of the program, significantly more experimental (6/9) than control schools (1/9) reduced their vandalism costs in the first project year. A similar decrease appeared when the

program began for group II schools in the second project year. In comparison to baseline levels, vandalism costs (adjusted for school size) decreased in project schools by 79% on average during the years the program was in place. Relative to controls in Group II schools, experimental students in Group I schools significantly decreased their disruptive and off-task behavior after the program was in place. Program effects on student behavior were maintained in following years of the project.

#### Behavioral Monitoring and Reinforcement of Attendance, Academic Progress, and School Behavior

Bry (1982) evaluated a two-year behavioral intervention focused on low-achieving, disruptive seventh grade students who had low bonding to their families. Program staff interviewed participants' teachers weekly about participants' tardiness, class preparedness, class performance and behavior. Program staff then met with participants in weekly small group sessions to review their behavior at school. Participants earned points for positive ratings from the teacher interviews, attendance, and lack of disciplinary referrals, as well as lack of inappropriate behavior during the weekly meetings. Participants could use the points they accumulated during the school year for an extra school trip of their own choosing. Program staff contacted participants' parents periodically to inform them of their child's progress. During the year after the two year intervention period, program staff conducted teacher interviews biweekly and offered small group "booster" review sessions biweekly.

The evaluation used a true experimental design. Twenty-two male and 11 female pairs of identified at-risk students from the same classrooms were matched on academic achievement and school attendance, and one student in each pair was randomly assigned to the experimental group and the other to the control group. Approximately half of the study youths were from an urban school system and the other half were from a suburban school system. Forty-two percent of the study youths were African-American and the rest were white.

At the end of the program, experimental youths had significantly better school grades and attendance than controls (Bry & George, 1979, 1980), and program impacts were uniform across race, sex, socioeconomic, and achievement motivation groups. In the year after the main program intervention, experimental youths displayed significantly fewer problem behaviors at school (i.e., suspensions, academic failure, poor attendance, and tardiness as determined from school records) than

controls. In the 1 1/2 years after the main program period, experimental youths self-reported significantly less abuse of illegal drugs (3% versus 16%) and less criminal behavior (11 instances versus 45 instances for control youths) (Bry, 1982). These significant program impacts on delinquency were long-term: five years after the main program period ended, experimental youths were 66% less likely than control youths to have a juvenile record with the county probation office (Bry, 1982). Although the sample was somewhat small, the study had a very strong design and very little attrition of study participants.

### Metal Detectors in Schools

Another type of school-wide intervention to reduce violence in the schools involves the use of metal detectors. Metal detector programs usually entail security personnel or school staff searching some or all students for metal weapons, such as guns and knives, with metal detectors. In schools with a metal detector program, a team of security officers scans randomly selected students with hand-held metal detectors as they enter the school building. These programs are targeted at reducing the availability of firearms within the school building. Ginsberg and Loffredo (1993) conducted a survey of a representative sample of all New York City high school students, stratified by schools with and without metal detector programs. Sixty-seven percent of students in 3 schools with a metal detector program and in 12 schools without a metal detector program participated in the survey.

The students in schools with and without metal detector programs were virtually identical in terms of their self-reports of being threatened or involved in fights at school or away from school. Students in the two groups also were equally likely to have reported carrying a gun, knife, and/or another kind of weapon somewhere in the previous 30 days. However, self-reported weapon carrying at school was significantly less prevalent in schools with a metal detector program than in those without. Students in schools with a metal detector program were approximately half as likely to carry a gun, knife, and/or other weapon inside, to, or from school as students in schools without a metal detector program. Although schools were not randomly assigned to receive a metal detector program, students in schools with and without a metal detector program were very similar in their overall experience with interpersonal violence and weapon carrying. The results from this survey imply that

metal detector programs may have a site-specific impact on weapon availability, an important risk factor for serious and violent delinquency, which might decrease the escalation and lethality of interpersonal conflicts at such sites. However, the effects of this situational prevention strategy do not appear to influence weapon-carrying behavior in other settings.

### School Organization

A fifth category of school-wide interventions focuses on changing the organizational structure of schools. School organization approaches can involve a wide variety of interventions, including: changes in school ecology; parent involvement; development and communication of school policies; and teams of school administrators, teachers, and parents that plan and implement school policies and programs.

Cauce, Comer, and Schwartz (1987) and Comer (1988) evaluated a comprehensive school organization intervention which included four primary program components: 1) a social calendar that integrated arts and athletic programs into school activities; 2) a parent program in support of school academic and extracurricular activities, which fostered interaction among parents, teachers, and other school staff; 3) a multidisciplinary mental health team that provided consultation, especially for school staff, in managing student behavior problems, and 4) a representative governance and management team composed of school administrators, teachers, support staff, and parents that oversaw the implementation of the other three program components. This team identified and assessed problems and opportunities in the school, developed and allocated resources, created programs to address problems and opportunities, evaluated these program outcomes, and modified such programs as necessary. The intervention was implemented in two inner-city public elementary schools in New Haven, Connecticut. Ninety-nine percent of students at these schools were African-American and the overwhelming majority came from low-income families. Before the program, these schools were characterized by poor attendance, low achievement, discipline problems, and high teacher turnover.

The researchers used a nonequivalent comparison group design in evaluating program effects. Study youths were seventh grade students in the same division of a middle school. Experimental students had attended the program elementary school, while comparison students had attended some

other elementary school. Comparison students were matched with experimental students on age and sex. The outcomes showed that experimental students had significantly higher middle school grades, academic achievement test scores, and self-perceived social competence than comparison students. These results, however, are limited by the small sample size and questions about whether the study groups were comparable in terms of characteristics other than sex and age.

Another comprehensive, school-wide approach to prevent violence, in this case bullying, was evaluated by Olweus (1991). Bullying has been defined as repeated negative actions by one person to one or more others who are younger or weaker (Olweus, 1991). Bullying is a prevalent aggressive behavior among children and youth, especially in elementary school. In order to reduce bullying, a large-scale anti-bullying program was conducted in Norway. The five components of the program were: 1) a booklet for school personnel distributed to all Norwegian comprehensive schools (grades 1 to 9) which described bully/victim problems, provided suggestions about what teachers and the school could do to counteract and prevent such problems, and dispelled myths about the nature and causes of bullying; 2) an information and advice packet about bullying distributed to all families in Norway with school-age children; 3) a video cassette depicting episodes from the daily lives of two early adolescent bullying victims available for purchase or rental at a highly subsidized price; 4) a brief anonymous questionnaire about bullying problems administered to students in all comprehensive schools and used to inform school and family interventions; and 5) a meeting between project staff and school staff in Bergen, Norway, held 15 months after the program was first offered to schools, to provide feedback on the program and emphasize main program principles and components.

The evaluation used a quasi-experimental design employing time-lagged contrasts between age-equivalent groups. The program was implemented nationwide at the same time, so the design involved comparisons among successive cohorts of children for particular grade levels. Data were collected from approximately 2500 students originally belonging to grades 4 to 7 in 42 Bergen schools. Time 1 measurements were made 4 months before the program began and time 2 and 3 measurements were made one and two years after time 1, respectively.

Significantly fewer students (approximately 50% less in most comparisons) reported being

victims and bullies at 8 and 20 months after the program began (Olweus, 1991). There were corresponding decreases in students' estimates of the number of classmates who were bullies and victims. Students also reported significantly decreased delinquent behavior (vandalism, theft, truancy) at 8 and 20 months after the program began, although the magnitude of these changes is hard to interpret from the scale scores reported. In sum, the intervention appeared to reduce both aggressive and general delinquency. Since bullying often involves repeated assaults, this program appears to have directly reduced the risk factor "early and persistent antisocial behavior" as well as violent, assaultive behavior itself.

Gottfredson (1986) evaluated Project PATHE (Positive Action Through Holistic Education), a comprehensive school organization intervention for secondary schools. PATHE's six main components were: 1) teams composed of teachers, other school staff, students, parents, and community members which designed, planned, and implemented school improvement programs, with the assistance of two full-time project staff; 2) curriculum and discipline policy review and revision, including student participation in the development of school and classroom rules and ongoing inservice training for teachers in instructional and classroom management practices; 3) school-wide academic innovations, including study skills programs and cooperative learning techniques; 4) school-wide climate innovations, including expanded extracurricular activities, peer counseling, and a school pride campaign intended to improve the overall image of the school; 5) career-oriented innovations, including a job-seeking skills program and a career exploration program; and 6) special academic and counseling services for low-achieving and disruptive students.

The evaluation used a nonequivalent comparison group design involving four middle schools and four high schools in low-income, predominantly African-American urban and rural areas in Charleston County, South Carolina. One school at each level was designated as a comparison school. In addition, in experimental schools a selective preventive component was experimentally tested. Students experiencing academic and behavioral problems were randomly assigned to an experimental group which received the special academic and counseling services or a control group which did not.

Gottfredson (1986) reported changes in outcomes over time for experimental and comparison

schools separately, but did not directly compare the outcomes for experimental and comparison schools, making interpretation of results difficult. Over the course of the program, students in experimental high schools reported significant decreases in delinquency ( $ES = -.12$ ) and drug involvement ( $ES = -.10$ ), and significantly fewer school suspensions ( $ES = -.23$ ) and punishments ( $ES = -.14$ ). Students in experimental middle schools reported significant declines in suspensions ( $ES = -.11$ ) only. Students in comparison schools did not show the same reductions in these outcomes.

The students in experimental schools who received special academic and counseling services reported significantly higher grades ( $ES = .09$ ) and were less likely to repeat a grade ( $ES = -.15$ ) than control group students in the experimental school. Seniors who received these services were significantly more likely to graduate (76%) than seniors in the control group (42%). However, there were no significant differences between those students who received the special services and their respective controls on self-reported delinquency or court contacts.

Gottfredson (1987) also evaluated Project CARE, a two-year school organization intervention for secondary schools. Within the context of an organizational development activity (Program Development Evaluation), a team of teachers, administrators, and other school staff planned and implemented school improvement programs. The two major components implemented were classroom management techniques (Assertive Discipline and Reality Therapy) and cooperative learning. Several additional components were partially implemented, including a parent volunteer program, a community support and advocacy program, and other programs used by Project PATHE (Gottfredson, 1986). The evaluation used a nonequivalent comparison group design involving two junior high schools in low-income, predominantly African-American areas in Baltimore, Maryland. One school was designated the experimental school and the other was designated the comparison school. In the experimental school, the program was primarily implemented in only one of three physically separate units of the school. A cohort of students from other units in the school was used for comparison with the students in the experimental unit.

Gottfredson (1987) did not report direct comparisons between experimental and control

schools in terms of outcomes. Over the course of the program, students' self-reports of delinquency decreased significantly in the experimental school ( $ES = -.20$ ) but increased significantly in the comparison school ( $ES = .11$ ). Comparison school students reported a significant increase in rebellious behavior ( $ES = .15$ ), while students in the experimental school did not change. Experimental school teachers reported a significant increase in classroom orderliness ( $ES = .50$ ) over the program period, compared to no change in the comparison school.

Within the experimental school, students in the experimental unit reported significantly more office referrals (perhaps as a result of the classroom management strategies) but significantly fewer suspensions than comparison cohort students (2% versus 5%). The lack of direct comparisons between experimental and comparison schools again hampers the assessment of program effects. Furthermore, the control school may not have been adequately comparable to the experimental school given the control school staff's resistance to the program.

Gottfredson, Karweit, and Gottfredson (1989) evaluated another multicomponent school organization intervention for middle schools. The four main program components were: 1) a school discipline policy review and revision to develop school rules (including provisions for systematically rewarding positive student behavior) that were clear, specific, administered fairly, and coordinated with individual classroom policies; 2) a behavior tracking system for recording individual students' positive and negative referrals to the office and disciplinary actions which was used for notifying parents of their child's school behavior; 3) classroom organization and management which focused on clear and effectively communicated rules and procedures, monitoring, clear instruction, activity transitions, fair grading, and frequent and systematic feedback on student academic progress; and 4) behavioral modification techniques in which teachers reinforced positive behavior and consistently responded to misbehavior according to the communicated rules and consequences. These components were implemented in the context of an organizational development activity (Program Development Evaluation) intended to increase school staff commitment to and ownership of the program and equip them with the skills and information needed to manage program implementation effectively.

The evaluators used a nonequivalent comparison group design. This intervention included

eight study schools in Charleston County, South Carolina, selected for their high levels of student punishment. Six of these schools were assigned to the program and two were designated as comparison schools. Comparison schools were roughly similar to experimental schools in terms of school size and unspecified demographic factors. The experimental program ran for three years. Over the project period, students in experimental schools perceived significant increases in classroom order ( $ES = .35$ ), classroom organization ( $ES = .31$ ), and rule clarity ( $ES = .40$ ). In contrast, students in comparison schools reported similar, though mostly nonsignificant, changes in these variables. The evaluators did not report any direct comparisons between experimental and control schools, and did not report program effects on students' behavior.

However, Gottfredson, Gottfredson and Hybl (1993) examined the same program's impact on classroom environment and students' behavior, comparing the three schools that fully implemented the intervention (high implementation), the three experimental schools that experienced visible implementation problems or low levels of administrative support (medium intervention), and the two control schools (low implementation). They found that the program's positive effects on classroom order and organization appeared only for the high implementation schools, while the increases in rule clarity appeared in both the high and medium implementation schools. They also found that teacher ratings of students' on-task behavior increased significantly ( $ES = .09$ ) in the high implementation schools, but did not change significantly in the medium or low implementation schools. Moreover, teacher ratings of students' disruptive behavior decreased significantly ( $ES = -.12$ ) in the high implementation schools, increased significantly ( $ES = .12$ ) in the medium implementation schools, and did not change in the low implementation schools (Gottfredson, Gottfredson, & Hybl, 1993).

The Multimodal School Based Prevention Demonstration was a school based multicomponent prevention program operating in a middle school in Charleston, SC. The program's major objective was reduction of problem behaviors, and program components included interventions aimed at academic achievement, social competency development and social bonding (Gottfredson, Gottfredson & Skroban, 1996). Academic achievement was addressed through instructional improvement interventions such as cooperative learning techniques, a Career and Educational Decision Skills

program, and one-on-one tutoring. Social bonding was addressed through social support interventions including prosocial adult models who taught appropriate skills and behaviors, and a mentoring program. Social competence promotion was addressed through a Life Skills Training course to all sixth grades, augmented by a 29-session cognitive self management course for seventh graders. A cognitive self instruction course for all students and a 21-lesson violence prevention curriculum were also included to increase self regulation skills. Organization development strategies including frequent feedback regarding the quality and quantity of program implementation and "forcefield analysis" to identify obstacles to implementation and resources that would help promote it were used to strengthen the integrity of implementation.

Although still below the intended level of implementation, the third year of the program was judged by the authors as ready for outcome evaluation. Outcome measures were taken from surveys, teacher checklists, and school archives. Gottfredson, et al. (1996) caution that the control and experimental schools were not equivalent, particularly by the end of the measurement period, due to factors such as highly transient populations. The evaluation results to date indicate a positive effect of the program on GPA ( $ES = .33$ ) and a decrease in peer drug influence for high risk program students as compared with high risk comparison students.

Another group of studies funded by the Center for Disease Control and Prevention (CDCP) have just gotten underway and provide examples of current directions for comprehensive school-based interventions to prevent violence. CDCP is currently supporting 15 evaluation projects in 12 cities to promote reduction of youth violence. Evaluations are designed as two year assessments. Of the total 15, three have comprehensive school components and are briefly described here as no follow-up data are yet available.

Students for Peace Project is a violence prevention program for urban middle school students in Texas (Kelder et al., 1996). The Students for Peace intervention included four components: modification of the school environment, a violence prevention curriculum, peer leadership, and parent education. It is using a nested cross-sectional and cohort design in which schools were randomized to intervention and control conditions, and are the unit of design, allocation and analysis. The project

includes eight schools, four intervention and four control.

The Self Enhancement program in Albina, Oregon focuses on "building relationships and resilience" to prevent youth violence through providing classroom and community activities designed to enhance protective factors (Gabriel, Hopson, Haskins, & Powell, 1996) The program components include mentoring, proactive education, classroom exposure to agencies that deal with the causes and consequences of violence in the community, and social competence promotion including anger management, conflict resolution and problem solving.

The Resolving Conflict Creatively Program (RCCP) is a comprehensive, school based program in Conflict Resolution and "intercultural understanding" (Aber, Brown, Chaudry, Jones, & Samples, 1996; Fetzer Institute, 1994). The study involves 9600 children, 5-12 years, in 15 schools. The components include teacher training, classroom instruction and staff development, training for administrators, parents and peer mediators. Primary outcome objectives of RCCP were to achieve a long-term reduction in violence and violence related behavior, to promote caring and cooperative behavior among children, adolescents and adults in and out of school, and to promote intergroup understanding and positive intergroup relations.

#### Summary of School-Wide Interventions

These comprehensive school-based preventive interventions vary in their degree of demonstrated effectiveness. Monitored, structured activities outside of the classroom, such as on the playground, may reduce antisocial behavior, particularly aggression, in these contexts. In addition, behavioral consultation in elementary and secondary schools may have the potential to improve students' school behavior and reduce school vandalism. Behavioral monitoring and reinforcement of attendance, academic progress, and school behavior is effective in improving attendance, school behavior, and academic achievement for both elementary and secondary school children. Also, metal detectors in schools appear to reduce weapon-carrying within and around the schools themselves, but do not appear to influence weapon-carrying or violence in other contexts.

School organization interventions are noteworthy for their comprehensiveness and system-oriented prevention approach. In several evaluations, various school organization interventions

appeared to reduce risk factors and increase protective factors including reductions in academic failure, dropout, and rebelliousness, and increases in commitment to school and attendance. Two of the Gottfredsons' studies showed significant decreases in delinquency. Olweus' (1991) evaluation of a multicomponent anti-bullying program presented evidence of significant reductions in violent and delinquent behavior. However, none of these evaluations used a true experimental design, and several evaluations did not report a complete analysis of the outcome data, which hinders a clear interpretation of evaluation results. Although school organization interventions are potentially promising, future evaluations of such programs should use more rigorous designs and include thorough data analysis. Interestingly, a recent meta-analysis of alternative education programs (Cox, Davidson, & Bynum, 1995) found no impact of these programs on delinquency.

Although none of the programs examined effects specifically on serious or violent delinquency, two programs were selective interventions working with students at risk for developing serious delinquent behavior. In one program, regular behavioral monitoring and reinforcement of appropriate school behavior and performance promoted positive outcomes, including less officially reported delinquency, for adolescents at risk by virtue of academic failure, persistent behavior problems, and low bonding to family (Bry, 1982). Also, Olweus (1991) found significant reductions in both aggressive and general antisocial behavior following a comprehensive effort to reduce bullying in Norwegian schools.

#### Community Interventions to Reduce Risks and Enhance Protection Against Antisocial Behavior

Current community interventions to prevent antisocial behavior have been heavily influenced by public health efforts to prevent cardiovascular disease. These strategies have often been based on social learning, community development, and innovation diffusion theories of behavior change emphasizing social norm changes and citizen participation in the change efforts (Hyndman et al., 1992; Perry, Klepp, & Sillers, 1989). Community-wide health education, policy change, policing, and media interventions have been designed to change community and personal norms in order to promote healthy lifestyles over health risk behaviors, while community mobilization strategies have been employed to encourage community ownership of the change efforts, thus increasing adoption and

diffusion of behavior change messages. Mentoring and after-school recreational programs have also been employed in community settings to encourage increased opportunities for positive involvement and bonding.

Studies reviewed here include a range of antisocial behaviors because specific evaluative information on the impact of these approaches on SVJ offending is often not examined. The studies provide valuable information about both the potential and the difficulties of this approach.

Community mobilization, situational prevention, comprehensive community intervention, mentoring, after-school recreation, policing strategies, policy change and mass media interventions have shown promise as community-wide prevention strategies that can influence risk and protective factors at multiple levels.

#### Community Mobilization

Community mobilization strategies encompass a diversity of programs which seek to prevent crime and violence by organizing citizens for grassroots efforts. Community mobilization approaches may address the risk factors of low community attachment and community disorganization, availability of drugs and firearms, and laws and norms favorable to crime and violence. Protective factors addressed can include opportunities for involvement in the community, bonding to community, skills to monitor and positively influence neighborhoods, and healthy beliefs and clear standards for behavior. To date only two kinds of community mobilization approaches to crime and violence prevention have been evaluated: neighborhood block watch and citizen patrol.

Neighborhood block watch. These programs are based on the rationale that residents are in the best position to monitor suspicious activities and individuals in their neighborhood. Social connections among residents made as a result of block watch meetings also might facilitate neighborhood monitoring and communication about suspicious events.

Lindsay and McGillis (1986) evaluated the effectiveness of a neighborhood block watch program in Seattle, Washington. Professional community organizers affiliated with the city police department initiated the formation of block watch groups by recruiting interested residents. After the recruitment phase, block watch groups held organizing meetings during which the community

organizer discussed neighborhood burglary problems and burglary prevention techniques, informational materials about home security were distributed, residents elected a block watch captain and exchanged telephone numbers, and appointments were made to use a property engraver. Organizers also visited participating residents' homes to perform brief home security inspections. Project organizers also produced a newsletter which was given to block watch captains to distribute to neighbors and organized follow-up meetings.

The evaluation used a nonequivalent comparison group design. A few census tracts in Seattle with high burglary rates were targeted to receive the intervention. Two tracts were designated as comparison areas that were adjacent and similar in burglary rates to some of the experimental tracts. Residents in experimental areas who participated in the program reported significant reductions in burglary to their residences. There was a 33% reduction in burglary victimization overall in experimental tracts compared with a 5% reduction in adjacent comparison tracts, although neither of these reductions was statistically significant. The authors did not directly compare the experimental and comparison areas for changes in victimization over time.

Rosenbaum, Lewis, and Grant (1986) tested a similar block watch program implemented in middle and lower-middle class neighborhoods in Chicago, Illinois. The intervention lasted one year and consisted of block watch meetings every month or few months. In their evaluation, the researchers used a quasi-experimental design with five experimental areas selected on the basis of having well-established volunteer community organizations, interest in a block watch program, and resources/support to be able to carry out such a program. One set of comparison neighborhoods included areas which met only the first criterion. Another set of citywide comparison areas was selected for each program area, including three census tracts with similar demographic characteristics (ethnicity, age, home value, and rental rate) chosen randomly from a set of tracts throughout the city sharing these characteristics.

The intervention did not produce any consistent changes in residents' crime prevention activities or neighborhood social cohesion. Overall, there were no program effects on victimization or perceived disorder. Residents in experimental areas did report significant increases in perceived

crime and fear of crime, and displayed significant decreases in attachment to their neighborhoods relative to residents in comparison areas.

Another neighborhood mobilization intervention similar to block watch programs was the police-initiated community organization in Houston (Wycoff et al., 1985b). Program staff, including four police officers and an urban planner, helped organize 13 small neighborhood meetings which were attended by six to 18 residents and two to three officers over an 8 month period. The program also mailed newsletters which discussed neighborhood crime problems to approximately 8% of area households. Approximately 20 residents from the neighborhood meetings agreed to form a neighborhood task force that worked without program staff's direct involvement. This neighborhood task force held a drug information seminar, designated 30 "safe houses" where children could go for assistance, organized a one-month trash and junk clean-up effort in the neighborhood, and promoted property marking and resident ride-alongs with police officers.

Survey results showed that residents in the experimental area perceived significantly decreased crime and social disorder and significantly increased police service in comparison to comparison area residents. However, there were no decreases in victimization or increases in satisfaction with the area associated with the program. The authors discussed several difficulties in implementing the program, including no permanent organization location/office, only moderate levels of perceived crime in the experimental area, no previously existing neighborhood organizations, and program staff's lack of familiarity with the area.

Citizen patrols. Another community mobilization strategy is the active patrolling of neighborhoods by citizens who are not sworn law-enforcement officers. One controlled study has evaluated the impact of the Guardian Angels, a non-professional foot patrol organization (Pennell, Curtis, Henderson, & Tayman, 1989). The Guardian Angels consist of unarmed racially diverse youths who wear red berets and patrol the streets. The organization specifically seeks to prevent or deter crimes which involve force or personal injury. Using a quasi-experimental design, Pennell et al. (1989) compared an experimental area where Guardian Angels patrolled with an area not patrolled by the Guardian Angels in San Diego, California. Details on the study areas were not provided by

the authors. The researchers obtained data on the reported crimes for a baseline period six months prior to the onset of the Guardian Angels' patrol and for three years of Guardian Angels patrol. The level of patrol over the three year period was less than that recommended in the Guardian Angels' guidelines. Outcomes indicated a 22% decline in major violent offenses in the experimental area, but a 42% decline in the comparison area. For property crimes, there was a 25% decline in the experimental area and a 15% reduction in the comparison area. Statistical significance was not reported for any of these results.

#### Summary of Community Mobilization

The three controlled evaluations of block watch programs did not produce evidence of significant effects on crime in experimental neighborhoods. The only available evaluation of a citizen patrol also failed to demonstrate a significant preventive effect on crime. Clearly, more evaluations with more rigorous, randomized research designs are required to determine the preventive effects of these community mobilization approaches. Furthermore, other types of community organizing, such as strategies which involve community leaders and grassroots citizens in comprehensive crime risk assessment and risk reduction planning and action strategies should be evaluated for their delinquency and violence prevention potential.

#### Situational Prevention

Police agencies and communities have also explored methods to control crime and reduce antisocial behavior by focusing on techniques that increase the risk and difficulty of offending through reducing the opportunities for criminal or antisocial activities. Such control methods were originally developed through the strategies of target hardening, and more recently have been integrated within the broader theoretical framework called situational prevention (Clarke, 1995). While the primary aim of situational prevention is to reduce criminal opportunities, it also aims to affect criminal decision making by changing contributing factors, such as the perceived difficulty of committing the act or the perceived risk of being caught (Farrington, 1995). Target hardening was once a strategy primarily associated with law enforcement, but it has become one of a number of techniques embraced within the newer police-community collaboration models.

Clarke (1995) reviews the effectiveness of situational prevention techniques, describing a total of 12 techniques, including target hardening, that represent well delineated methods of situational prevention. The other techniques of situational prevention include access control, deflecting offenders, controlling facilitators, entry/exit screening, formal surveillance, surveillance by employees, natural surveillance, target removal, property identification, the removal of inducement, and rule setting. Target hardening reduces opportunity through the implementation of physical barriers. An example of its effectiveness has been demonstrated in studies in West Germany, in which the introduction of steering locks into the country produced a substantial decline in the country's rate of car theft from 1963 to 1994 (Webb, 1994; Webb & Laycock, 1992). Similarly, access control is a central component of the concept of defensible space, and incorporates recent developments in sophisticated technology, such as using electronic personal identification numbers for access to computerized systems. Poyner and Webb (1987) reported significant reductions in vandalism and theft through combining access controls for a London public housing project, including entry phones, strategic fencing, and electronic garage access.

Strategies for deflecting offenders focus on channeling people's behavior in socially appropriate directions to minimize the potential for antisocial actions, such as the separation of rival soccer fans into different enclosures at a sports stadium (Clarke, 1983). Effective crowd management at Disney has been shown to reduce the potential for antisocial behavior in this recreational setting. Control methods include the use of pavement markings, signs, physical barriers, and instructions from Disney employees (Shearing & Stenning, 1984). The technique of controlling facilitators operates on the principle that certain materials facilitate criminal or antisocial activity, and their control will produce corresponding harm reduction. Applications have ranged from exchanging glass beer mugs for plastic to prevent their use as weapons (Scottish Council on Crime, 1975), to restricting alcohol, automobiles, checks and credit cards, and telephones (Clarke, 1995).

Entry/exit screening is distinct from access control in that the purpose is less to exclude potential offenders than to increase the likelihood of detecting those who are not in conformity with entry/exit requirements. Developments in electronics permit widespread use of this situational

technique in retailing, reflected in merchandise tagging, bar coding, and electronic point of sales systems (Hope, 1991). The implementation of surveillance techniques now includes its formal application, as with police and security forces; its use with employees who perform roles within specified business settings; and natural surveillance, in which the physical environment is manipulated to capitalize on observations provided by people going about their everyday business. Surveillance methodology has broader applications across a number of settings, as with improved street lighting (Ramsay, 1991). An apartment watch program that combined natural surveillance with target hardening showed a reduction of 82% in reported burglaries in four apartment blocks in Ottawa (Meredith & Paquette, 1992).

Target removal has been successful as a technique in crime prevention programs such as the introduction of safes with locks in Australian betting shops, which substantially reduced robberies (Clarke & McGrath, 1990). Identifying property has proven effective in auto theft reduction, as when Illinois became one of the last states to require vehicle registration and thefts dropped from 28,000 to 13,000 in one year (Hall, 1952). Prevention through removing inducements has been proven with graffiti control, as in the New York Transit Authority's effective policy of immediate cleansing of its subway cars (Sloan-Howitt & Kelling, 1990). Rule setting has been applied to events such as the Australian Motorcycle Grand Prix, which offered motorcyclists the opportunity to set their own rules for conduct in advance of the event, and contributed to a trouble-free event for that year (Veno & Veno, 1993).

#### Summary of Situational Prevention

There is now an extensive review literature indicating possible relationships between crime and the physical environment (Clarke, 1995). However, the field of situational prevention has a number of ongoing issues and challenges. First, much of the research has been correlational and suffers from a variety of confounding possibilities that have been inadequately addressed (Taylor & Gottfredson, 1986). The failure to test the linkages in the model -- that is, that environmental design promotes natural surveillance and that natural surveillance deters crime (Hope, 1995) -- has hindered the further development of the model. Moreover, the multidimensional nature of most programs has

made it difficult to isolate the dynamics of the components effects.

The challenge for research is to help practitioners avoid potential pitfalls by providing a sounder base of knowledge on which to act. What is currently known is that some measures work well in certain conditions, but as Tilley (1993) points out, what is ideally needed is to know which measures work best, in which combination, deployed against what kinds of crime and under what conditions (Poyner, 1993). Farrington (1995) suggests that situational prevention may need to focus more on identifying risk and protective factors. Wikström (1995) said that situational prevention is unlikely to be very useful for people with high self-control, who basically will not offend no matter what the temptation or risk, or for people with low self-control, who basically will offend in spite of any opportunity reducing measures used. Wikström suggests that situational prevention was most likely to be effective for people with medium self-control. Further, Farrington (1995) warns that the effects of changing situational factors may wear off as committed offenders work out how to overcome other impediments. As Taylor and Gottfredson conclude, "Simple effects of physical environment on crime range from small to moderate. It appears that alteration of physical environment features cannot have stand-alone crime prevention effectiveness. Resident dynamics are the key mediators of the environment-crime linkage" (quoted in Bottoms & Wiles, 1988, p.86).

#### Comprehensive Community Interventions

Another approach to community-wide prevention of antisocial behavior involves mounting a coordinated set of mutually-reinforcing preventive interventions throughout the community. For example, the Midwestern Prevention Project (Pentz et al., 1989b) was a multi-level community intervention to prevent substance abuse. The project was initiated in 1984 in 42 public middle/junior high schools in 15 school districts in the Kansas City area, using a quasi-experimental design. Project components included: 1) mass media programming; 2) school based educational curricula; 3) parent education and organization; 4) community organization; and 5) health policy. These components were introduced sequentially into communities over four years, starting with the mass media, school curricula, and parent interventions delivered during the middle/junior high school years (Pentz et al., 1989c).

After the first year of mass media and school-based intervention, prevalence rates for monthly use of cigarettes (17% versus 24%), alcohol (11% versus 16%), and marijuana (7% versus 10%) were significantly lower for the intervention schools than for schools in the control condition that received the media intervention only. Over the one-year period the net increase in drug use prevalence among intervention schools was half that of delayed intervention (control) schools (Pentz et al., 1989a). In subsequent analyses examining only the eight schools randomly assigned to study condition three years following initiation of the interventions, significant differences between conditions were found for cigarette and marijuana use, but not alcohol use. Similar reductions in use were observed for youth with different levels of 11 risk factors measured at baseline (Johnson et al., 1990). The results indicated that the comprehensive community-based approach was more effective than the media intervention alone at preventing the onset of substance abuse among both high risk and general populations of students.

A second series of studies of comprehensive community interventions to prevent adolescent smoking and alcohol use has been implemented in Minnesota by Perry and her colleagues (Perry et al., 1992; Perry et al., 1993; Perry et al., in press; Williams et al., in press). The Class of 1989 study was part of the Minnesota Heart Health Program (MHHP), a research and demonstration project designed to reduce cardiovascular disease in three communities from 1980 to 1993 (Luepker et al., 1994; Perry et al., 1992). The Class of 1989 study was designed to evaluate the combined impact of a classroom-based social influence smoking prevention curriculum delivered to the Class of 1989 during their sixth, seventh, and eighth grades and the community-wide cardiovascular health promotion activities of the MHHP. Community-wide activities included seven strategies: 1) cardiovascular risk factor screening for adults; 2) grocery and restaurant point-of-purchase food labeling for health education; 3) community mobilization and task forces to create annual risk factor education campaigns; 4) continuing education of health professionals to promote community awareness of cardiovascular disease risk factors and prevention; 5) mass media education campaigns; 6) adult education; and 7) youth education. Using a quasi-experimental design, a single intervention community was matched with a reference community.

Seven annual surveys were conducted from 1983 to 1989, following the cohort of students who were in sixth grade in 1983. All students in both the intervention and comparison communities were eligible to be surveyed each year. Identifying information was collected at each survey administration, allowing the data to be analyzed as a longitudinal cohort design for the students present at multiple years, or as repeated cross-sectional designs including all students present at each time point. Analyses of both the cohort and cross-sectional data revealed significant differences in smoking prevalence between the intervention and comparison communities. At the end of the seven-year period when the students were seniors in high school, 14.6% of the cohort in the intervention community smoked compared to 24.1% of the cohort in the reference community (Perry et al., 1992). The findings suggest that the combined school and community interventions produced a significant reduction in smoking prevalence among middle and high school youths. However, the findings are limited by the study design, which matched a single pair of communities and relied on data analysis at the individual rather than community level.

A second study, Project Northland, is using a similar combination of community-based and classroom interventions, along with a parent intervention component, to prevent alcohol use among adolescents in several small communities from six counties in northeastern Minnesota with a high prevalence of alcohol-related problems (Perry et al., 1993). The multi-level, multi-year intervention recruited 20 school districts and their surrounding communities to participate. The 20 districts were blocked by size and randomized to treatment and delayed-treatment control conditions (Perry et al., 1993; Perry et al., in press).

The three-year, multi-component intervention program was initiated in 1991 with sixth grade students. It consisted of (1) social behavioral curricula in schools, (2) peer leadership, (3) parental involvement/ education, and (4) community-wide task force activities. All students in the grade cohort were surveyed at baseline in the Fall of 1991, and then in the Spring of 1992, 1993, and 1994. The data were analyzed using mixed model ANCOVA, with combined school district specified as a nested, random effect (e.g., Koepsell et al., 1991; Murray & Wolfinger, 1994).

After three years of intervention, students in the intervention school districts reported

significantly lower scores on a Tendency to Use Alcohol scale, and significantly lower prevalence of monthly (23.6% versus 29.2%) and weekly (10.5% versus 14.8%) alcohol use (Perry et al., in press). Significant differences in the hypothesized direction were also observed for survey scales measuring peer influences to use alcohol, perceived norms regarding teen alcohol use, parents communicating sanctions for their child's alcohol use, and reasons for teens not to use alcohol (Perry et al., in press). These effects on alcohol-related attitudes and behaviors are noteworthy, given the wide prevalence of alcohol use among adolescents. Differences between the intervention and comparison groups in cigarette use, smokeless tobacco use, marijuana use, perceived self-efficacy, and perceived access to alcohol were not significant.

#### Summary of Comprehensive Community Interventions

Three tests of comprehensive community-wide interventions have been conducted. These preventive interventions have targeted norms against substance use and social influences to use. The interventions have comprehensively addressed these risk factors in multiple domains including the community, school, parents, the media and peers. By taking this comprehensive approach they have generally affected the outcomes they targeted. These preventive interventions have primarily effected cigarette use, with two studies showing effects on alcohol use, and one on marijuana use. Effects of these interventions on delinquency or violence were not examined. Similar interventions targeting delinquency and violence by addressing multiple risk factors across multiple domains may hold promise, but have yet to be evaluated.

#### Mentoring

Mentoring programs typically involve nonprofessional volunteers spending time with individual youths in a supportive, nonjudgmental manner while acting as role models. Mentoring interventions may address several risk factors, including alienation, academic failure, low commitment to school, and association with delinquent and violent peers, as well as the protective factors of opportunities for prosocial involvement, skills for and recognition of prosocial involvement, bonding to prosocial adults, and healthy beliefs and clear standards for behavior.

Evidence from ten evaluations consistently indicates that noncontingent, supportive mentoring

relationships do not have desired effects on such outcomes as academic achievement, school attendance, dropout, various aspects of child behavior including misconduct, or employment (Dicken, Bryson, & Cass, 1977; Goodman, 1972; Green, 1980; McPartland & Nettles, 1991; Poorkaj & Bockelman, 1973; Rowland, 1991; Slicker & Palmer, 1993; Stanwyck & Anson, 1989). This lack of demonstrated effects has occurred whether mentors were paid or unpaid and whether mentors were college undergraduates, community volunteers, members of the business community, or school personnel.

However, when mentors used behavior management techniques in one small, short-term study, students' school attendance improved. Fo and O'Donnell (1975) evaluated the Buddy System mentoring program designed for multi-ethnic youths aged 11-17 with behavior management problems. Mentors included men and women ranging in age from 17 to 65 who were diverse in terms of ethnicity and socioeconomic status. The program paid mentors up to \$144 per month for making weekly contact with each of the participants; submitting weekly behavioral data on and completing weekly assignments with each of their the participants; submitting weekly log sheets, and attending biweekly sessions. Mentors received eighteen hours of training before the program began and biweekly training sessions on behavior management throughout the program.

In two Hawaiian cities, youths exhibiting behavior problems were referred to the program from the schools, police, courts, social welfare agencies, community residents and parents for behavior problems such as truancy. The researchers used a true experimental design in which youths were randomly assigned to one of three experimental groups or a no-treatment control group. In the three experimental groups, mentors were given \$10 to spend on each participant each month. The three experimental groups were 1) relationship only, where mentors established warm and positive relationships and spent the \$10 per month on the participant in a way not contingent on the participant's behavior; 2) social approval, where mentors responded to the participants warmly and positively contingent on appropriate and desired behavior, but spent the \$10 monthly allotment for the participant in a noncontingent manner; and 3) social and material reinforcement, where mentors provided social approval and the \$10 monthly allotment contingent on appropriate and desired

behavior. Study youths' school attendance rates were monitored for three consecutive six week periods: baseline, first intervention period (where experimental youths received one of the three mentor interventions), and second intervention period (where all experimental youths received the social and material reinforcement mentoring intervention).

Truancy decreased significantly from baseline to the first intervention period for the social approval and social and material reinforcement experimental groups, but increased nonsignificantly for the control group. During the first intervention period, the social approval and social and material reinforcement experimental groups had significantly lower truancy rates than the relationship only and control groups. Truancy decreased significantly for the relationship only group from the first intervention period to the second intervention period, when mentors in this group began to use the social and material reinforcement intervention. There were no significant differences among experimental groups for truancy in the second intervention period, but each experimental group had significantly lower truancy rates than the control group. Thus, truancy was reduced when mentoring relationships included reinforcement contingent on appropriate behavior, but not when mentoring relationships did not include contingent reinforcement. This evaluation was limited by the short intervention periods, a very small sample (26 youths participated in the whole study), and no information on implementation. More evaluations with randomized designs are needed to test conclusions about mentoring.

#### After-school Recreation Programs

After-school recreation programs for youths can address the risk factors of alienation and associating with delinquent and violent peers. Protective factors addressed may include opportunities for involvement with prosocial youths and adults, skills for leisure activities, and bonding to prosocial others.

Jones and Offord (1989) evaluated the effects of an after-school recreation program which targeted low-income children ages 5 to 15 residing in a public housing project in Ottawa, Ontario. Program staff actively recruited all children in the housing development to participate in structured after-school courses for improving skills in sports, music, dance, scouting, and other nonsport areas.

After children reached a certain skill level, they were encouraged to participate in on-going leagues or other competitive activities in the surrounding community. The 32-month long program was evaluated with a nonequivalent comparison group design. The experimental housing project was matched with another public housing project which had only minimal city-provided recreational services.

The number of arrests for juveniles residing in the experimental complex during the program declined significantly from the two years before the intervention, while the number of arrests for youths residing in the comparison project increased over the same time period (there was a 75% decrease in the experimental project but a 67% increase in the comparison project). There were no such differences in the number of arrests for adults, lending credence to the effect of the program. In addition, the number of security reports due to juveniles at the experimental complex declined significantly after the intervention began in comparison to the control. Sixteen months after the program had ended, these positive changes had diminished significantly. The reductions in antisocial behavior in the experimental complex did not carry over to home and school. Parent- and teacher-rated social behavior of youths in the experimental complex did not change significantly over the course of the intervention. The authors also show that the financial benefits of the program far exceeded the program costs.

From these results, it seems likely that the program impact was due to the program providing prosocial opportunities for youths in the after-school hours where these opportunities had not previously existed. Providing these opportunities appears to have reduced youths' involvement in delinquent behavior in the community. After-school recreation programs which aggressively recruit youths and maintain high participation rates may be a promising intervention for preventing delinquency and violence, but should be evaluated further with research designs employing random assignment to study groups.

#### Policing Strategies

In recent decades, various innovations in policing practices have been used in attempts to reduce crime. Three of these policing strategies have been evaluated and are reviewed here:

intensified motorized patrol, field interrogation, and community policing, including foot patrol, neighborhood storefront police stations, and citizen contact patrols. These strategies may address the risk factors of community disorganization and low neighborhood attachment, and norms tolerant of crime and violence. Protective factors addressed may include healthy beliefs and clear standards for behavior, opportunity for citizens' involvement with police, and citizens' bonding to police.

Intensified motorized patrol. Four controlled evaluations of intensified motorized patrol have been conducted. The Kansas City, Missouri, Preventive Patrol Experiment was a well-documented, quasi-experimental evaluation of different levels of motorized patrol (Kelling, Pate, Dieckman, & Brown, 1974). The three patrol conditions were normal (one car per beat), reactive (police responded only to service calls, with no regular car on the beat except for one patrolling a beat's perimeter), and intensive (two to three cars per beat). In all conditions, police cars were marked. There were five sets of three beats and one beat in each set was assigned to a different patrol condition. All beats in a set were matched for level of crime, number of calls for service, ethnic composition, income, and transiency of population. Overall, the beats were diverse in terms of residents' income level and ethnicity. The intervention lasted twelve months.

There were no significant differences between conditions in rates of victimization, officially reported crime, arrests for an array of offenses including serious and violent crimes, or traffic accidents. There also were no significant differences across conditions in citizen and business perceptions of the police, quality of their interactions with police, or police response time to service calls.

Schnelle, Kirchner, McNees, and Lawler (1975) evaluated the effectiveness of an intensified motorized home-burglary patrol in Nashville, Tennessee. Over a period of five weeks, plainclothes officers patrolled experimental zones in unmarked cars at levels four to eight times greater than normal during the 8:00 a.m. and 4:00 p.m. shift. Patrolling officers also were provided with information on suspects frequenting the patrol areas. Time-series analyses were conducted on officially recorded home-burglaries for three experimental zones during the saturation patrol shift and during other shifts, and for three randomly chosen comparison zones in the city. There were no

significant changes in officially recorded burglaries associated with the intervention in the experimental zones or in comparison zones. Burglary arrests increased significantly after the saturation patrols began in the experimental zones and increased nonsignificantly in the comparison zones.

Schnelle, Kirchner, Casey, Uselton, and McNees (1977) investigated another intensified motorized patrol intervention in Nashville, Tennessee. In this intervention, four additional marked patrol cars were assigned to patrol zones which normally had one patrolling car. Officers in these preventive saturation patrol cars were instructed not to respond to ordinary service calls, except for emergencies and crimes in progress. Saturation patrol cars were to patrol areas at sustained slow speeds. The saturation patrol was tested in four patrol zones which had consistently high rates of serious crime. Two patrol zones were randomly assigned to day saturation patrol (from 9 a.m. to 5 p.m.) and the other two zones were assigned to night saturation patrol (from 7 p.m. to 3 a.m.). The saturation patrols lasted for ten days in each zone.

Reported serious crimes decreased significantly during night saturation patrols in comparison to the baseline and post-saturation patrol periods. There were no significant increases in crime in zones adjacent to zones with night saturation patrol, so it is unlikely that this decrease in crime represented displacement of crime to other neighborhoods. However, there were no significant changes in reported serious crimes for day saturation patrols. Furthermore, the number of arrests did not change significantly in any of the patrol zones over the course of the experiment.

Sherman and Weisburd (1990) (cited in Sherman, 1992) conducted a randomized trial of targeting patrol at very specific high crime locations or "hot spots" in Minneapolis, Minnesota. These hot spots were characterized by high frequencies of reported crimes over a period of two years. The hot spots were no larger than one half block in each direction from an intersection and no hot spot was visible from any other. Intensive hot spot patrols were to provide three hours of intermittent patrol presence between 11 a.m. and 3 a.m. Officers left the location to answer service calls, but returned to the hot spot at unpredictable intervals to write reports, talk with pedestrians, and generally maintain a presence. The intervention lasted one year. The researchers used a true experimental

design to evaluate the program. Observational data showed that crime or disorder was reduced from 4% to 2% of addresses.. Although crime-related calls to the police increased, the increase was lower for the extra patrol group, 5% versus 17% growth (Sherman & Weisburd, 1992). This evaluation did not assess the possibility that crime was displaced to other areas.

Field interrogation. Boydston (1975) evaluated the effects of field interrogation (FI) in San Diego, California. FI involved officers stopping persons who were suspicious in the officer's opinion, questioning them about their activities, and sometimes searching them and/or their vehicles. If the person's explanations were satisfactory to the officer, no record of the contact was made, but if reasonable cause existed, the officer could arrest the person. If an officer did not have reasonable cause for an arrest but still found the person suspicious, the officer filed a FI report that recorded the contact. FI was a regular part of motorized patrol officers' activities in San Diego in the early 1970s.

The evaluators used a quasi-experimental design involving three comparison areas to assess program impacts. In one comparison area FI was maintained as usual, in another comparison area FI was maintained but patrolling officers were given supplementary training in how to reduce friction between FI subjects and officers, and in a third area FI was discontinued entirely for nine months. The three areas were noncontiguous patrol beats which were matched in terms of demographic, physical, and crime history characteristics. The evaluators collected data on reported crime rates and total arrests in the three areas for seven months prior to and five months after the nine month intervention period. The evaluators also conducted separate probability sample surveys on residents' victimization and attitudes toward police before and after intervention.

The researchers observed a significant increase (from 75/month to 104/month) during the intervention period in reported "suppressible" crimes in the area where FI was discontinued in comparison to the comparison areas where FI was maintained. When FI was reinstated in the area where it had been discontinued, reported crime decreased significantly (from 104/month to 81/month). Arrest rates did not vary significantly as a result of the FI program. Experience with crime (as a witness or victim) and perceptions of the level of crime increased significantly in the FI-discontinued area and, counter to expectation, in one area where FI was maintained. Fear of crime

also increased over time in the neighborhood where FI was discontinued. FI was not related to any changes in residents' attitudes toward police. Although the tactics of FI can be controversial and have been described as unconstitutional (Skolnick & Bayley, 1988), this evaluation provides evidence that the tactics can be carried out in a respectful manner. However, these techniques require close managerial oversight.

#### Summary of Policing Strategies

Of the various policing strategies reviewed, intensified motorized patrol by marked cars during high-crime times in high-crime, densely populated areas, appears to be effective in preventing various types of serious crime. The related practice of field interrogation also may be a potentially promising crime prevention tactic. These results suggest that increased police presence must be judiciously directed at high-risk times, areas, and people to deter crime. Simply increasing the number of police is not likely to prevent crime (Wycoff, 1982).

In general, community policing interventions were associated with decreases in residents' perceived crime and fear of crime and, in many cases, improved evaluations of the police. Three community policing evaluations examined physical and social disorder and satisfaction with the area (Pate et al., 1985; Skogan & Wycoff, 1986; Wycoff et al., 1985a), and all three studies documented reductions in physical and social disorder, whereas two studies reported positive effects on resident satisfaction with the area. Only one of the four community policing evaluations with victimization data showed reductions in victimization rates. The main component of this program (Wycoff et al., 1985a) was a citizen contact patrol in which police officers visited residents at their homes to inquire about crime problems. Given the current popularity of community policing, it is imperative that rigorous evaluations of this strategy be undertaken. Finally, it should be pointed out that while crime reductions are based on reported crime, the portion due to juveniles is unknown.

#### Policy Change Interventions

Changing policies and laws governing the availability, sale, and use of alcohol, cigarettes, and firearms have shown some evidence of effectiveness at preventing antisocial behavior. Social norms are codified to some degree in policies and laws that influence behavior.

Regulation of the use of alcohol and cigarettes. Changes in state policies regarding liquor taxes (Cook & Tauchen, 1982; Grossman, Coate, & Arluck, 1987; Levy & Sheflin, 1985), liquor sales outlets (Holder & Blose, 1987; Wagenaar & Holder, 1991), and the legal drinking age (Hingson, Heeren, Howland, & Winter, 1983; Saffer & Grossman, 1987; Williams & Lillis, 1986) have been shown to influence rates of alcohol consumption and alcohol-related traffic accidents (George, Crowe, Abwender, & Skinner, 1989; O'Malley & Wagenaar, 1991).

For example, O'Malley & Wagenaar examined annual data for the years 1976-1987 from the Monitoring the Future national surveys of high school seniors and found a significantly higher prevalence of self-reported alcohol use in states with a minimum drinking age of 18 compared to states with a minimum drinking age of 21. Moreover, these differences disappeared and prevalence rates declined after the early 1980's when all states raised their minimum drinking age to 21 (O'Malley & Wagenaar, 1991). They also found that archival rates of single vehicle night-time crashes, a proxy measure for alcohol-related car crashes, showed declines similar to the declines in self-reported alcohol use following the law changes in states that raised the minimum drinking age. Studies of alcohol taxation and alcohol outlets also indicate that policies that reduce alcohol availability are associated with reduced consumption and problems associated with alcohol use (Gruenewald, Ponicki, & Holder, 1993; Wagenaar & Holder, 1991; Watts & Rabow, 1983). Given the correlational nature of these studies it is impossible to infer causality, yet the consistency of the observed relationships suggests that policy interventions to reduce availability and communicate norms against teen alcohol use can be an effective prevention strategy.

Regulations on the purchase and sale of firearms. Some studies of the impact of firearm regulations have also revealed positive results (Brewer et al., 1995). Sloan et al., (1988) compared rates of violent crime in Seattle, Washington and Vancouver, British Columbia between 1980 and 1986, and suggested that laws restricting the sale and purchase of handguns prevented violent, gun-related crime. This conclusion is supported by Loftin, McDowell, Wiersema, & Cottey (1991), who evaluated a 1977 Washington D.C. ordinance which set prohibitions against the purchase, sale, transfer and possession of handguns by civilians unless they already owned a handgun. Sixty days

after the law was passed, new purchases of hand guns became illegal for all but military and police personnel. A multiple time-series design was used to examine monthly frequencies of firearm homicides in Washington, DC and in adjacent metropolitan areas in Virginia and Maryland from 1968 to 1987. The analysis revealed that homicides in Washington, D.C. decreased by 25% immediately after institution of the law, and the reduction was maintained through 1987.

In contrast, however, McDowall, Lizotte, and Wiersema (1991) did not find an impact on rates of assault with or without firearms following passage of a 1981 Morton Grove, Illinois law that banned the sale of handguns as well as their possession by private citizens. A time-series design was conducted, beginning five years before and ending five years after passage of the law. The authors reported no change in assault rates, but did find that reported burglaries decreased significantly. They cited minimal enforcement of the law in interpreting the lack of impact on assaults. Jung and Jason (1988) used a time-series design (30 months) to examine a similar change in the law in Evanston, Illinois. They compared prevalence of firearm assaults and firearm robberies in Evanston and Rock Island, a city that did not change its laws. Firearm assaults in Evanston decreased significantly during the pre-intervention period, attributed to intensive media coverage of the new law, but showed no change in the post-intervention period. Firearm assaults did not change significantly in Rock Island, but the evaluation did not include direct comparisons between pre- and post-intervention periods for either city. The lack of consistent findings regarding the impact of laws regulating handgun purchases and ownership may reflect weak enforcement of the laws in some areas (Brewer et al., 1995).

Regulations on the place and manner of carrying firearms. Regulations on the place and manner of carrying firearms have been enacted by state and local governments in efforts to reduce the number of persons who carry and use firearms in public. O'Carroll et al., (1991) evaluated a 1986 Detroit ordinance implemented at the beginning of 1987 which imposed a mandatory 30-90 day jail sentence and \$100-500 fine for anyone convicted of carrying a concealed, loaded pistol on one's person or carrying a loaded firearm in a car. The researchers performed an interrupted time-series analysis of monthly homicide frequencies in Detroit from 1980 through 1987. Two time-series

analyses were conducted: one compared inside (private) to outside (public) homicides, while the other compared gun homicides to non-gun homicides. When the ordinance went into effect, homicides were increasing in Detroit. While the ordinance did not reverse the increasing trend in homicides, it was related to a lower rate of increase for outside homicides (10% increase,  $p = .418$ ) than for inside homicides (22% increase,  $p = .006$ ). In addition, non-gun homicides increased slightly and nonsignificantly (16% increase) as did gun homicides (13% increase). Although 1,020 persons were charged under the ordinance in 1989, only 22 defendants were sentenced to jail.

Jung and Jason (1988) evaluated the impact of an East St. Louis, Illinois, law which required a mandatory \$500 fine and possible six month jail term for persons found carrying a firearm on the street. The researchers used a time-series design to examine intervention effects on firearm assaults and firearm robberies in East St. Louis and Rock Island, a city which had a level of reported crime similar to East St. Louis. In East St. Louis, firearm assaults declined significantly approximately one year before the law went into effect, and then increased significantly approximately five months after the law went into effect. Changes in East St. Louis firearm robberies over time paralleled those for firearm assaults. The evaluators also mentioned that there were no significant substitution effects (i.e., replacing firearms with other weapons) for assaults and robberies in East St. Louis. Jung and Jason (1988) suggested that the pre-intervention decline might be attributable to media coverage of the proposed law, although they did not report how much this coverage coincided with the decrease in gun-related crime. In Rock Island, there was no significant variation in firearm assaults and firearm robberies in either the pre- or post-intervention periods. This evaluation, however, did not include direct comparisons between pre- and post-intervention periods for either city.

Mandatory sentencing laws for felonies involving firearms. At both the federal and state levels, mandatory sentencing laws have been enacted that impose more stringent sentences for offenders who use or carry a firearm during the commission of a felony. Fife and Abrams (1989) evaluated the effects of New Jersey's 1981 Graves Amendment which mandated a minimum prison sentence for any person convicted of one of several serious crimes who was in possession of a firearm or used a firearm during the commission of the crime. The evaluators examined annual percentages

of homicides which involved a firearm from 1974 to 1986 for New Jersey and the U.S. as a whole. The proportion of New Jersey homicides which involved firearms increased nonsignificantly from 1974 to 1980, but decreased significantly from 1980 to 1986. The difference between these rates of increase and decrease was significant. For the U.S. as a whole, the proportion of homicides which involved firearms decreased significantly in the pre-intervention period and decreased at a slightly lower (but nonsignificant) rate for the post-intervention period. The difference between the pre- and post-intervention decreases for the whole U.S. was not significant. However, the evaluators did not examine the patterns of firearm homicide rates over time and compare them with the corresponding patterns of non-firearm homicides. Additionally, the time-series included few (13) observations.

McDowall, Loftin, and Wiersema (1992) and Loftin, McDowall, and Wiersema (1993) performed a meta-analysis of their evaluations of mandatory sentencing laws that imposed strict, mandatory sentences for felonies committed while in possession of a firearm (Loftin, Heumann, & McDowall, 1983; Loftin & McDowall, 1984). The researchers combined the time-series results of intervention impacts on homicide, aggravated assault, and robbery in six cities (Detroit, Jacksonville, Tampa, Miami, Philadelphia, and Allegheny County). Gun homicides decreased in all six cities after mandatory enhancement sentencing laws were enacted and the overall effect across studies was substantial and significant (mean effect size =  $-.69$ ). Non-gun homicides decreased only in two cities after mandatory sentencing laws were passed, and the overall effect across evaluations was virtually nonexistent (mean effect size =  $-.03$ ). The effects of the sentencing laws on aggravated assault and robbery were estimated by cumulating results from Detroit, Jacksonville, Miami, Tampa, and the state of Pennsylvania. After the laws were adopted, gun assaults declined in four of the five jurisdictions, but the overall intervention effect was modest and nonsignificant (mean effect size =  $-.36$ ). Other types of assaults decreased in only two of the five jurisdictions and did not change appreciably after the laws were passed (mean effect size =  $-.06$ ). Armed robberies decreased in two of the five jurisdictions, and the combined effect was essentially null (mean effect size =  $.08$ ). Unarmed robberies increased in all five jurisdictions, and the aggregated effect was moderate but nonsignificant (mean effect size =  $.68$ ). For each of these six subtypes of crimes, there was

significant variation in the magnitude of intervention effects among the cities.

While the aggregate effects of the sentencing laws on aggravated gun assaults and armed robberies were not significant or large, they were more in the preventive direction than the aggregate effects for other assaults and unarmed robberies. As McDowall et al., (1992) noted, the homicide data are probably more completely and accurately reported than the assault or robbery data. Greater inaccuracies in the assault and robbery data might have masked the impact of the sentencing laws on these crimes. Furthermore, in these evaluations armed robbery did not specifically refer to robberies committed with a gun (except for the Pennsylvania data), and this additional imprecision in coding could further mask intervention effects.

#### Summary of Policy Change Interventions

There is evidence that community policy change interventions can prevent juvenile antisocial behavior. For example, changing policies regulating the availability and legal use of tobacco and alcohol appears to have some impact on juvenile use of these substances, although most studies in this area are correlational rather than experimental and none of the studies reviewed looked at impact on SVJ offending. There are mixed findings from studies of regulations on the purchase and sale of firearms, suggesting that local community support and enforcement of these laws may mediate their effects. Similar results are found concerning regulations on the place and manner of carrying firearms, suggesting again that community norms and local enforcement of these regulations influence their effectiveness.

In contrast, mandatory sentencing laws for crimes involving firearms appear to prevent homicides involving firearms. Such laws also may prevent other types of violent crime involving firearms, but the available evaluations do not yet permit this conclusion. As McDowall et al. (1992) urged, more research on the impact of sentencing laws with probability samples of jurisdictions is needed to identify the key mechanisms of the laws, their publicity, and/or their enforcement which bring about the preventive impact. Unfortunately these studies do not allow differentiation between juvenile-perpetrated crime and adult-perpetrated crime. In each of these areas, more research is needed to determine the impact of local norms and enforcement on the effectiveness of these policy

change interventions.

### Media Interventions

An eighth community level prevention strategy that has shown positive effects is use of the media to change public attitudes, educate community residents, and support other community interventions. Although none of these interventions were aimed at changing attitudes or behaviors related to serious juvenile offending they illustrate a promising direction for future research related to changing community antiviolenence norms and behaviors. The media and advertising industries have cooperated in a national project, The Partnership for a Drug Free America, to encourage negative attitudes toward the use of illegal drugs through the use of anti-drug advertising (e.g., "This is your brain on drugs"). Results of mall intercept surveys indicate that saturation advertising in ten markets was accompanied by significant changes in norms and by attitudes less favorable to marijuana and cocaine when compared with other markets over a one-year period (Black, 1989). However, others have questioned the motives and effectiveness of such attempts to change individuals' health behavior through advertisements emphasizing individual, rather than social and environmental, factors (Dorfman & Wallack, 1993). Although media campaigns have shown limited effectiveness as isolated strategies (Schilling & McAlister, 1990), they have been found to enhance the effects of related school- and community-based prevention programs (Flynn et al., 1992; Goodstadt, 1989; Pentz et al., 1989c; Perry et al., 1992; Vartiainen et al., 1986, 1990) and to increase participation and exposure to parent training programs (Didier, 1990; Hawkins, Catalano, & Kent, 1991).

Flynn et al. (1992; Flynn, Worden, Secker-Walker, Badger, & Geller, 1995), evaluated the effectiveness of a combined school and mass media intervention to prevent cigarette smoking in adolescence in four widely separated communities. Over the course of four years, beginning with grades five, six and seven, students in two communities received both interventions while students in two other matched communities received only the school intervention. The school intervention consisted of grade specific, four-session curricula delivered in grades five through ten. The sequence of units covered smoking and health knowledge; decision-making skills; social influence and stress management skills; smoking cessation skills; and social support for nonsmokers. The media program

consisted of 30- and 60-second radio and television messages addressing the same objectives as the classroom curricula and designed to appeal to six target age and gender groups using a variety of formats (e.g., comedy, music videos, cartoons, testimonials, and drama). An average of 190 television, 350 cable, and 350 radio broadcasts were purchased in each of the four intervention years in each of the two program condition media markets.

The results indicated that significantly fewer students in the combined media and school intervention condition than the school intervention only condition initiated smoking by the end of the intervention (grades 8-10) (Flynn et al., 1992), and by the two-year follow up (grades 10-12) (Flynn et al., 1995). Moreover, students in the combined intervention condition reported less favorable norms and attitudes toward smoking than students in the school intervention only condition. The findings suggest that targeted media messages can enhance the effectiveness of school prevention curricula.

Media intervention can also be used to influence community attitudes regarding other prevention initiatives. Casswell and her colleagues (Casswell, Gilmore, Maguire, & Ransom, 1989) evaluated an intervention in New Zealand designed to educate community members about alcohol-related problems and the need for regulation of alcohol sales and advertising. Two sets of three matched communities were assigned to receive a media campaign, a media campaign plus a full time paid community organizer, or a no-treatment comparison group. The study found that residents in the four communities that received the media or media plus community organizing intervention maintained supportive attitudes toward stricter regulations on alcohol sales, price and advertising, while attitudes among residents of the two comparison communities and the broader country shifted in favor of greater access to alcohol (Casswell et al., 1989).

#### Summary of Media Interventions

Media interventions have primarily been used alone or in combination to affect cigarette and alcohol use. Interventions conducted to date have found that media interventions can be effective in reducing favorable norms regarding smoking and alcohol use, and in combination with classroom curricula have been found to reduce smoking initiation. To date, no quasi-experimental evaluations of

media interventions that target delinquency or violence have been conducted.

Summary: Characteristics of Effective Community Prevention Programs

Experimental and quasi-experimental studies of community interventions to reduce risk and enhance protection against antisocial behavior have demonstrated positive effects of community mobilization, situational, comprehensive, policing, policy change, and media interventions.

Generally, these interventions have targeted risk factors including easy availability of firearms and drugs, community disorganization, and favorable community norms and attitudes toward antisocial behavior. They have also targeted protective factors of social bonding and clear norms against antisocial behavior. These studies suggest that multiple prevention strategies crossing multiple domains that are mutually reinforcing and that are maintained for several years produce the greatest impact. If comprehensive community interventions are to reduce SVJ offending, mutually reinforcing messages against violence would need to be included: messages such as it isn't healthy to hit in families, and that solving problems nonaggressively and alternatives to physical fighting are preferred. Although not studied directly, intensive media campaigns related to changes in firearm laws appear to play some role in reducing firearm related offenses as seen in time series analyses indicating decreases in offenses prior to law enactment and after the media campaign concluded (Jung & Jason, 1988).

Limitation of Current Research on Comprehensive Interventions to  
Prevent Serious Violent Juvenile Offending

Mobilization and Readiness for Prevention

Comprehensive intervention strategies frequently involve mobilizing community members to participate actively in planning and widely implementing prevention activities (e.g., Fawcett, Paine, Francisco, & Vilet, 1993; Giesbrecht & Ferris, 1993; Hawkins, Catalano, & Associates, 1992). Thus, local "ownership" is a vital component of successful comprehensive prevention interventions (Haglund, Weisbrod, & Bracht, 1990; Watt & Rodmell, 1988). Mobilization is believed to increase the impact of preventive interventions by reducing social disorganization, promoting strong community norms against antisocial behavior, and creating community ownership and investment in prevention activities.

Yet there are gaps in the theoretical and empirical knowledge base regarding community mobilization approaches to prevention. We know that community members who feel they can influence how their community's problems are defined and how these problems are addressed are more likely to support such efforts (Hyndman et al., 1992) and that women, longer-term residents, homeowners, and those who perceived greater problems on the block, a greater sense of community, and greater political efficacy are more likely to participate in block organizations (Perkins, Florin, Rich, Wandersman, & Chavis, 1990; Wandersman, Florin, Freidmann, & Meier, 1987). Yet we know little about strategies to promote these feelings of efficacy, empowerment, need or community attachment to create an environment that embraces mobilization. While prevention planners and researchers have recognized that readiness for change is an important determinant of successful community interventions (Haglund et al., 1990; Oetting et al., 1995; Price & Lorion, 1989), less research has been conducted to examine factors that influence a community's readiness to implement such initiatives (Arthur et al., 1996; Oetting et al., 1995). Little research has been done to develop a systematic framework for understanding, measuring, and addressing readiness for prevention at the community level (Fortmann, Flora, & Winkleby, 1995; Oetting et al., 1995). Research on readiness for change is more advanced in the areas of individual and organizational development (Bandura, 1986; Prochaska, DiClemente, & Norcross, 1992; Rogers, 1995).

Theoretical and practical approaches to mobilization and readiness for change have been developed; however, empirical evaluation of these approaches is in early stages (Bracht & Kingsbury, 1990; Fawcett et al., 1993; Rothman & Tropman, 1987; Thompson & Kinne, 1990). Two important principles emerge from the literature regarding readiness for change. First, communities can be described as complex, open systems with multiple interrelated subsystems. Thus, prevention can be conceptualized as systems change. Second, both attitudinal characteristics and structural characteristics are consistently reported to be important influences on communities' abilities to change. Further study of factors related to citizen participation and community readiness is needed to develop the knowledge and theory base for comprehensive prevention initiatives. (Biglan, 1995).

#### Methodological Issues

Knowledge of the effectiveness of community interventions has been limited by a number of methodological concerns (Connell, Kubisch, Schorr, & Weiss, 1995). Community intervention research involves study designs that must address threats posed by measurement constraints, mixed units of analysis, and implementation integrity as well as the interpretive challenge presented by heterogeneous effects across populations and along the developmental life course. Each of these issues and potential methods for addressing them are discussed in the following sections.

Measurement issues. Focusing on the individual as the unit of measurement is appropriate for intervention and research designs that focus on creating and documenting changes in individuals and/or their perceptions of their environments. However, for interventions and research that emphasize changes in social environments and community systems, community level measures are needed to assess such changes adequately. Recently, efforts have been made to develop and validate community level indicators of important independent and dependent measures (Cairns et al., 1990; Coulton, 1995; McAuliffe et al., 1993; Six State Consortium for Prevention Needs Assessment Studies [SSC], 1994).

For example, for the past three years the authors have been collaborating with a consortium of six states to identify, collect, and validate standardized survey and archival indicators of risk and protective factors, drug abuse, crime and violence, with funding from the Center for Substance Abuse Prevention (Arthur et al., 1997b; Pollard, Catalano, Hawkins, & Arthur, 1997; SSC, 1994). This effort reflects a triangulation approach utilizing household and student surveys and archival records to comprehensively measure risk and protective factors and antisocial behavior at the community and individual levels in order to support coordinated prevention strategies. It represents one potential solution to obtaining multi-level, multi-informant measurements that match the multi-level constructs of interest. However, while valid and reliable measures of multiple risk and protective factors and antisocial behavior now exist, they have not yet been utilized in comprehensive prevention experiments.

Mixed units of analysis. Studies of comprehensive prevention initiatives operate simultaneously at multiple ecological levels. In many published studies of comprehensive prevention

programs a basic premise of experimental design—that the unit randomized to experimental condition is the unit of analysis—is violated. Communities, schools or classrooms are often the unit of random assignment to experimental or control condition, but analyses of the impact of the intervention are often assessed using the individual as the unit of analysis. Community, school, or classroom differences are thus confounded with program effects on individuals (Biglan & Ary, 1985). Some studies have addressed this problem by assigning multiple communities, schools, or classrooms to each condition, then analyzing at the same level at which randomization occurs (Biglan et al., 1987; Botvin, Baker, Renick, Filazzola, & Botvin, 1984; Hansen, Johnson, Graham, & Sobel, 1988; Pentz et al., 1989b; Perry et al., 1993). Careful assessment of the power of the research design is an important step in studies using small numbers of randomized communities (Koepsell et al., 1991; Murray & Hannan, 1990).

When scarce resources impose limits on the number of units that can be randomly assigned, some alternative solutions have been suggested, including matching communities prior to randomization on variables related to the outcomes of interest (Peterson, Hawkins, & Catalano, 1992), randomized block and factorial designs to stratify communities by factors known to affect key outcomes (McKinlay, Stone, & Zucker, 1989), mixed model analyses of variance (Koepsell et al., 1991), hierarchical linear modeling (Bryk & Raudenbush, 1992), and generalized estimating equations (Liang & Zeger, 1986) to estimate both the individual and group level components of variation. Alternatively, to account for variability attributable to the community, multiple investigators conducting similar studies with different populations in comparable or contrasting community settings could build a collective case for the general effectiveness of a given approach (Coie et al., 1993; Conduct Problems Prevention Research Group, 1992). Clear specification of the settings and careful attention to implementation integrity are included. While methods and strategies have been developed, they have been infrequently applied.

Heterogeneity of effect across different populations. Some prevention studies have shown differential effectiveness with different demographic, gender, class, and racial/ethnic groups. Such differences can mask the effects of community level interventions delivered to diverse populations.

When sample sizes are sufficiently large, researchers can investigate directly the differential effects of preventive interventions on different groups. When subgroups are not large enough for such analysis, Dwyer et al. (1989) have proposed statistical methods using combined logistic and multiple regression models to estimate interaction effects between intervention condition and baseline risk levels.

Oversampling of smaller demographic groups can also be used to generate large enough samples to investigate differential program impact. Ultimately, replication studies are needed to confirm the utility of specific prevention strategies with different populations. Again, these analytic strategies have been infrequently applied to the evaluation of comprehensive preventive interventions.

Systematic attrition, accretion, and ecological validity. Problems of attrition are acute in community- and school-based studies that are designed to follow longitudinal cohorts including those who make frequent residential changes and truants. Many published studies of community-based prevention interventions have not addressed attrition, reporting results only for youths remaining in experimental and comparison conditions. The external validity of results from many school- and community-based preventive interventions has been compromised by systematic attrition of those at highest risk for antisocial behavior. This is especially true in neighborhoods with high rates of alcohol and other drug use, crime, and violence.

Where attrition has been investigated, studies have consistently shown that subjects with higher baseline levels of antisocial behavior are most likely to be lost at follow up (Ary et al., 1990; Biglan et al., 1987; Hansen et al., 1988; Tebes, Snow, & Arthur, 1992), raising questions as to the generalizability of reported results to those at greatest risk. Several solutions to this problem have been proposed though they have not yet been utilized extensively. McKinlay et al. (1989) recommend the "intention-to-treat" approach, in which all subjects in the original cohort are assessed and retained for the analysis, even if they have left the community or opted out of the intervention, to avoid the bias of differential attrition and preserve the integrity of the randomization. Alternatively, direct observation of the effects of missing data due to attrition may be obtained by including a dummy-coded variable for subjects lost to the study in the analysis (Raymond, 1987). Estimates of attrition effects on external validity can also be derived from analyses of accretion samples (i.e., subjects that

are added to the setting and data collection after baseline data collection, randomization, or intervention), since accretion and attrition samples typically have similar characteristics (Tebes, Snow, Ayers, & Arthur, 1996). Recent advances in statistical methods for imputing missing data (e.g., Graham & Donaldson, 1993; McArdle & Hamagami, 1991) provide another alternative for adjusting estimates of program impact that are threatened by participant attrition and accretion.

Intervention implementation integrity and intensity. Prevention studies should also investigate the effects of differential intervention implementation integrity and intensity (IOM, 1994; McKinlay et al., 1989; Peterson et al., 1992). Given the multiple factors likely to influence comprehensive prevention program implementation, this issue is particularly important for community prevention studies. By randomly and independently selecting samples of residents in intervention communities at each measurement point, factors hypothesized to influence the impact of the intervention may be examined (e.g., length of exposure, level of teacher training, variety of media employed). In our own prevention studies, we have proposed and used three steps in examining implementation: (a) collection of data to assess degree of implementation; (b) reporting of data on implementation for each dimension of the intervention; and (c) inclusion of implementation data in the tests of efficacy (Hawkins, Abbott, Catalano, & Gillmore, 1991; Hawkins & Lam, 1987).

#### Current Directions and Implications for Future Work

Although limited by the difficulties inherent in evaluating comprehensive interventions, the research suggests that comprehensive school-wide and community interventions can reduce risk factors, enhance protective factors, and prevent adolescent antisocial behavior (Wasserman & Miller, Chapter 10, this volume). Moreover, these interventions appear to have the greatest impact when multiple strategies are employed simultaneously in a coordinated fashion. The current challenge for prevention is to develop theoretical and implementation models that can guide community members in the design, implementation, and evaluation of comprehensive, coordinated, multi-component prevention strategies.

If communities are to prevent SVJ offending they must utilize the entire knowledge base to take an approach which targets the most virulent risk factors or weakest protective factors in

communities where children are exposed to multiple risk factors. After this targeting communities must utilize preventive interventions with demonstrated effects on targeted risk and protective factors. To date, only one approach has utilized this knowledge base comprehensively in communities:

#### Communities That Care.

Our research team has developed a model, called Communities That Care (CTC) (Hawkins, Catalano, & Associates, 1992), for comprehensive community intervention to reduce risk and enhance protection based on the social development model (Catalano & Hawkins, 1996; Hawkins & Weis, 1985). The social development model organizes identified risk and protective factors into a theoretical model of antisocial behavior that specifies four submodels for different developmental periods from birth through adolescence.

The CTC strategy consists of three phases. In the first phase, key community leaders including the mayor, superintendent of schools, chief law enforcement officer, judges, and business and other community leaders are provided a half-day orientation to the project. If they commit to implementing it, they decide as a group to become the oversight body for the project and to appoint a prevention board of diverse members of their community. During the second phase, the community prevention board is constituted and trained to conduct a community risk and resource assessment. Over a six-month period the board gathers archival and survey data on indicators of the risk and protective factors for adolescent health and behavior problems in the community. Based on these data, the board prioritizes risk and protective factors for preventive action. The board then designs its prevention strategy to address targeted risk factors and enhance protective factors, selecting preventive interventions from a menu of programs and strategies that have shown positive effects in adequately controlled studies. In the third phase, the board implements and evaluates the combined effects of the selected preventive strategies, using task forces composed of community members with a stake in the outcome and expertise in the particular intervention component. Baseline risk assessment data serves as the benchmark against which to judge community progress in risk reduction in subsequent years.

With funding from the U.S. Dept. of Education, we field tested an early version of the

strategy in Washington State (Harachi-Manger, Hawkins, Haggerty, & Catalano, 1992). We demonstrated that key community leaders (i.e., mayors, police chiefs, school superintendents, business leaders, etc.), could be successfully involved in creating community boards (29 of 32 participating communities formed community boards). We also showed that the community boards would use the risk reduction and protective factor enhancement approach to prevention and the social development model as tools for assessing and reducing risks and enhancing protective factors and processes in the community.

From this demonstration, we learned important lessons regarding communities' organizational and technical assistance needs. First, it became clear that risk assessments should be solidly grounded in empirical epidemiological evidence and not dependent on personal judgments of board members. Hence, we developed an archival data-based risk and resource assessment process for use in communities implementing the strategy. These data allow for an empirically grounded prioritization of risk and protective factor indicators to be targeted for strategic preventive intervention.

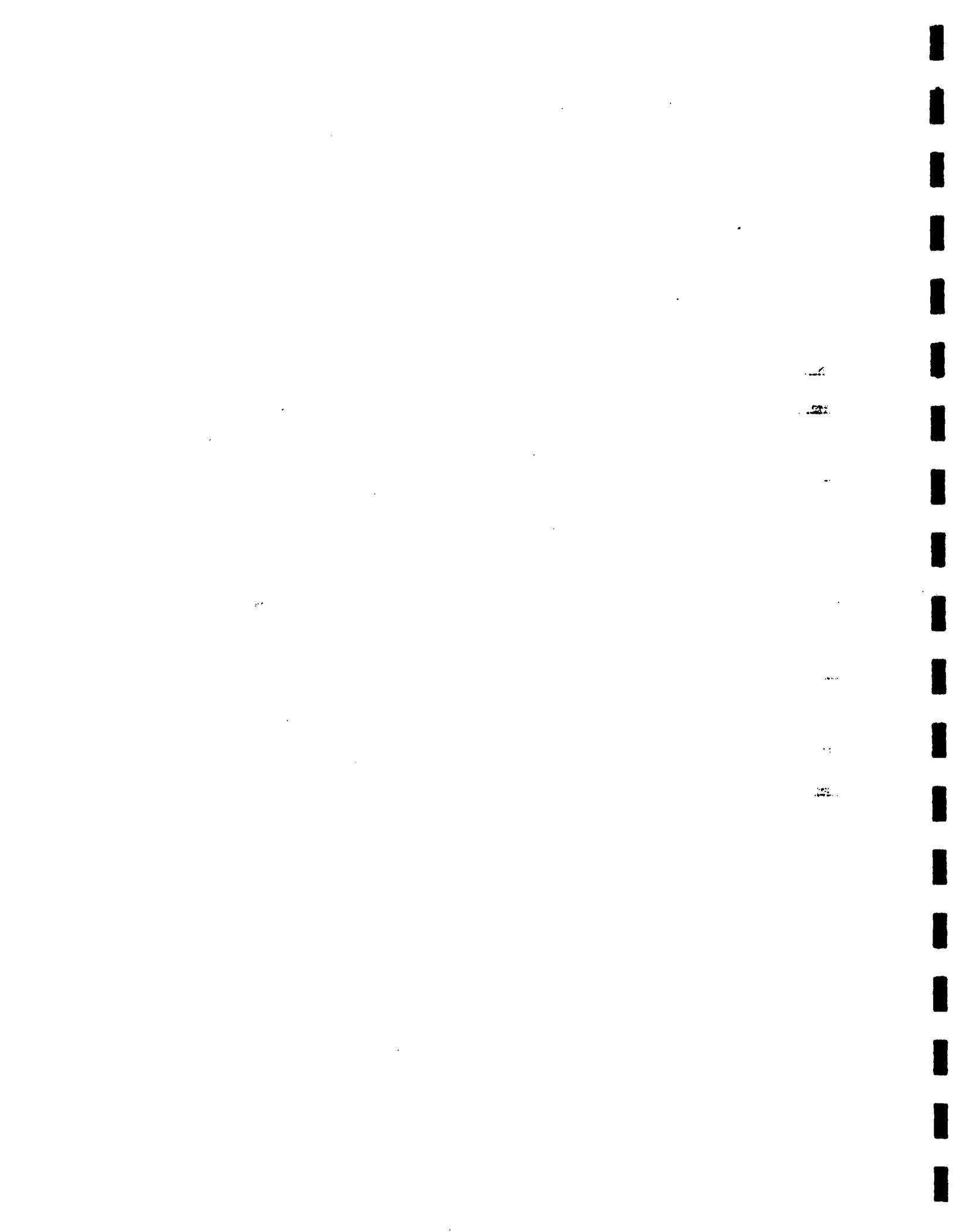
In this first demonstration, communities also requested assistance in identifying empirically tested preventive interventions to address the risk factors they had prioritized. The investigative team's reviews of risk reduction interventions led to the identification of a set of effective interventions for risk reduction that simultaneously enhance protective factors (see Brewer et al., 1995; Developmental Research and Programs, 1996; Hawkins, Arthur, & Catalano, 1995; Hawkins, Catalano, & Associates, 1992; Hawkins, Catalano, & Brewer, 1995; Hawkins, Catalano, & Miller, 1992). These approaches have been included in CTC to enable communities to select effective preventive interventions for inclusion in their comprehensive risk reduction and protective factor enhancement strategies.

We extensively revised the training and technical assistance package to address issues emerging from the Washington pilot (Harachi-Manger, 1991; Harachi-Manger et al., 1992), and field tested it in Oregon under a demonstration grant from the Center for Substance Abuse Prevention. Forty communities were invited to send key leaders to an orientation in 1990, and 37 of those communities formed 36 community boards (one pair of communities decided to form a joint board).

Thirty-five community boards attended both of the project's board trainings, 34 communities developed action plans identifying prevention programs to reduce specified risk factors, and 21 (60%) had implemented effective risk reduction programs within one year after receiving the training, even though they had not been provided funding to implement programs (Arthur, Ayers, Graham, & Hawkins, 1997a). Moreover, 31 boards were still active in their communities four years later, monitoring community risks and resources and implementing risk reduction prevention programs (Harachi, Ayers, Hawkins, Catalano, & Cushing, 1995). By comparison, in a similar project in Washington state using a different community risk reduction strategy, only 13 (23%) of 56 community teams that received training, technical assistance, and funding for programs had implemented at least one promising risk reduction strategy by the one-year follow up (Arthur et al., 1997a).

Our experience with these projects has revealed the importance of ongoing training and proactive technical assistance during the first few years of the community mobilization process to ensure the institutionalization of risk and protection focused prevention. It also has indicated the importance of developing epidemiological methods for assessing risk and protective factors in the community to guide the prioritization of targets for preventive intervention. Currently, through the Six State Consortium project (funded by the Center for Substance Abuse Prevention), we have developed and validated a standardized risk and protective factor assessment system that incorporates and integrates archival, student, and household survey data on risk and protective factors and prevalence of antisocial behavior (Arthur et al., 1997b; Pollard et al., 1997). These standardized data allow local communities to plot their own unique profiles and trends in risk and protective factors relative to state and national averages and in relation to other communities.

This experience suggests the utility of the approach, which combines community mobilization and epidemiologically-based social planning approaches with preventive interventions with evidence of effectiveness. This strategy empowers communities to develop theory-based, empirically grounded prevention systems that coordinate multiple prevention strategies and that address the specific epidemiological risk and protective factor profiles of each community. Based on this field experience



and the empirical and theoretical basis of the risk and protective factors and effective prevention programs, the Office of Juvenile Justice and Delinquency Prevention chose CTC training for community coalitions as a way of assisting these coalitions to plan for spending Title V delinquency prevention block grants. A report by the Government Accounting Office (GAO) reported early results from this effort. GAO (1996) found that communities targeted a variety of risk and protective factors, used strategies with demonstrated effectiveness, and that the federal dollars leveraged close to an equal amount of community. In addition, CTC has been chosen as the prevention component of OJJDP's Comprehensive Strategy to reduce SVJ offenders (Wilson & Howell, 1993). Although controlled studies have yet to be conducted, the Rowntree Foundation in Great Britain has approved funding for a test of the CTC process.

In order for communities to become protective environments for healthy development, community members will ultimately have to take responsibility for identifying, prioritizing, and addressing risk and protective factors in the community as well as for implementing strategies with demonstrated effectiveness to reduce salient risks and enhance salient protective factors. Recent advances in prevention science and health epidemiology are providing knowledge communities can use to plan and implement strategic, outcome-focused plans for reducing the prevalence of serious, violent antisocial behavior among adolescents and young adults. The interventions reviewed in this chapter provide evidence that risk factors can be reduced and protective factors enhanced by comprehensive school and community interventions.

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## Chapter 12

## Promising Programs for Youth Gang Violence Prevention and Intervention

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The United States has seen rapid growth of youth gangs<sup>1</sup> since 1980. During this period, the number of youth gang problem cities has increased from an estimated 286 with over 2,000 gangs and nearly 100,000 members (Miller, 1982) to about 2,000 cities, towns, and counties with more than 23,000 gangs and membership totaling nearly 665,000 in 1995 (National Youth Gang Center, 1997). The 1995 National Youth Gang Survey covered over 4,000 law enforcement agencies in the U.S., 58% of which reported gang youth problems in their jurisdiction, using their own definition (National Youth Gang Center, 1997).

Preventing and controlling youth gangs is important because recent studies show that gang members, who represent a minority of adolescent samples, account for the majority of all self-reported offenses among urban juveniles in gang problem cities, and from about half to over two-thirds of all serious and violent offenses committed by adolescents in Denver (Esbensen & Huizinga, 1993), Rochester (Thornberry, Chapter 8, this volume), and Seattle (Battin, Hill, Abbott, Catalano, & Hawkins, 1996). Moreover, studies in all three of these sites show an increase in the incidence of serious and violent offending while adolescents are active gang members (Esbensen & Huizinga, 1993; Hill, Hawkins, Catalano, Kosterman, Abbott, & Edwards, 1996; Thornberry, Krohn, Lizotte, & Chard-Wierschem, 1993). In Rochester, nearly two-thirds of chronic violent offenders self-reported gang membership at some point in their adolescent years (Thornberry, Huizinga, & Loeber, 1995).

Can the youth gang problem be solved? Miller (1974) suggests that "it happens that great nations engage in national wars for almost identical reasons [that gangs do]. personal honor, prestige, and defense against perceived threats to one's homeland....When a solution to this problem [of fighting nations has been found], we will at the same time have solved the problem of violent

crimes in city gangs" (p. 112). Is there basis for more optimism than Miller expresses?

The history of efforts to solve the youth gang problem in the United States is largely filled with frustration and failure. Early in our Nation's history youth gang work emphasized prevention. These programs were followed by interventions designed to reintegrate particular gangs into conventional society. Then a major shift occurred as programs, led by the police, aimed to suppress youth gangs. Currently, a mixture of approaches is being tried across the nation, predominantly police suppression programs (Spergel & Curry, 1993). None of these approaches has been demonstrated conclusively through rigorous research to be effective. Two factors appear to account for this: the difficulties associated with gang intervention work and the complexity of program evaluation in this area.

Youth gang intervention is a very formidable enterprise. Because we lack a clear understanding of why and how youth gangs form, preventing their formation is problematic. Gang interventions rarely are based on theoretical assumptions. This lack of knowledge impedes efforts to disrupt existing gangs and divert youth from them. Gangs dissolve and disappear for reasons that are poorly understood. In some cities, youths who join gangs leave them within about one year. Yet we do not understand why. Future youth gang research must address the formation of gangs, disruptive forces, and factors that account for diversion of youths from gangs.

Evaluation of youth gang interventions is an equally complex undertaking. Not only must gang formation, dissolution, and diversion be shown, but also delinquency prevention or reduction. Because each youth gang is unique and each community is different in some respects, obtaining comparable comparison groups or communities is difficult. Measurement problems abound. There is no commonly accepted definition of a youth gang; therefore, comparing study results is problematic. Most important, very few rigorous evaluations of youth gang programs have been undertaken.

With these caveats in mind, we review the existing literature. Evaluations of youth gang programs and new approaches for preventing and reducing youth gang problems are reviewed. A

youth gang prevention and intervention program strategy is recommended based on this review. The general questions guiding this review are: What can we learn from what has been tried? What has failed? What looks promising? In the next section, we review gang program evaluations. That section is followed by recommended approaches our review suggests. Three strategies are recommended: targeting gang problems directly; targeting gang problems within a comprehensive strategy for dealing with serious, violent and chronic juvenile delinquency; and targeting gang-related (and motivated) homicides. Our third program recommendation is based in part on an "Epidemiology of Youth Gang Homicides" at the end of this chapter (Table 12.2).

### A Review of Gang Program Evaluations

Space limitations here preclude a detailed review of all gang program evaluations. See Table 12.1 for summary information on selected evaluations.

#### Prevention and Intervention Programs

Prevention. The early history of gang programming in the United States emphasized preventing both gang emergence and joining, based on the gang and delinquency research conducted by Shaw (1930), with his colleague, McKay (Shaw & McKay, 1931), and Thrasher (1927). The "Chicago Area Project (CAP)," created in 1934 by Clifford Shaw, was designed to implement the community organization theory he and his colleagues developed on "social disorganization," including the notion that community organization could be a major tool for reducing crime and gang problems. CAP was designed to involve local community groups, that is, indigenous community organizations, in improving neighborhood conditions that Shaw believed permitted the formation of youth gangs. "Tying informal community structures to formal agencies—schools, enforcement, welfare—would provide the social structure for healthy socialization and vitiate the need for gangs and other forms of deviance" (Klein, 1995, p. 139). CAP invented "detached workers" (agency representatives detached from their offices and assigned to communities). CAP also originated the community gang worker role." Indeed, the concept of 'detached workers' or 'gang workers' ...became the more narrow

essence of major gang projects for decades to come" (Klein, 1995, p. 140).

CAP was a massive program. Because its influence and program activities extended throughout Chicago, one must wonder if it could be evaluated except in comparison with another similar city. Nevertheless, Kobrin's (1959) 25-year retrospective assessment concluded that the project had been successful, on "logical and analytical" grounds (see Alinsky, 1946; Klein, 1995, p. 139-140). Claims of the success of the CAP program continue to be publicized (Sorrentino, 1959; Sorrentino & Whittaker, 1994) despite the absence of rigorous evaluation results. The program is still operating, which says something about views of its value among Chicago officials.

More important, CAP created a legacy in gang programming in its emphasis on the role of the community and its private organizations. As Witmer (quoted in Klein, 1995, p. 141) put it, CAP demonstrated that "Local residents can organize themselves with effective mechanisms for dealing with youth problems. Such organizations can endure over long periods of time. Local talent can be discovered and enlisted in the battle. One need not be dependent on existing bureaucratic entities." Literally hundreds of community committees were formed, which emphasized different community concerns (Klein, 1995, p. 140). Local workers became the staff of community programs. Local programs sponsored recreation opportunities, community self-renewal, mediation, and advocacy before government agencies, especially school, probation, and parole officials (Schlossman & Sedlak, 1983a, 1983b). Most of these efforts were directed at community improvements, securing services for residents, and organizing direct intervention in delinquency and gang activity (Klein, 1995, p. 140).

Another community-based gang program that, like CAP, relied on indigenous community organizations was established much later. The "House of Umoja" began operating in Philadelphia during the 1970s (Spergel, 1995). It consists of a residential and nonresidential program for gang and other delinquent youths, providing a "sanctuary" for them from street life, while also assisting target youths through a comprehensive program that included educational development, career development,

employment assistance, and individual counseling. The House of Umoja is a unique grassroots program initiated by community residents (David and Falaka Fattah). Based on the extended family concept and a "new concept of peace," the program organized a gang summit, resulting in a gang warfare truce (Spergel, 1995; Woodson, 1981, 1986). Woodson's (1981) assessment concluded that the truce and other House of Umoja activities were instrumental in reducing the number of gang deaths in the city from an average of 39 per year in 1973, to 6 in 1976, and to only one in 1977. Although other programs claimed credit for part of this reduction in gang homicides, there is no doubt that House of Umoja played a key role. The 1974 gang summit leading to the truce drew 500 members from 75% of the city's gangs (Fattah, 1987). No gang members died during the 60-day truce that resulted.

Only one program designed to prevent youths from joining gangs has been evaluated rigorously and shown to have promise. It was a component of Project Broader Urban Involvement and Leadership Development (BUILD) (Brewer, Hawkins, Catalano, & Neckerman, 1995; Ribisl & Davidson, 1993). The prevention component consisted of a gang prevention curriculum and an afterschool program. The school gang prevention curriculum consisted of 12 classroom sessions conducted over 12 weeks that focused on background information on gangs, gang violence, and substance abuse in gangs; gang recruitment strategies and methods of resisting gang recruitment; consequences of gang membership; and values clarification. Most classroom sessions were led by project staff, others were led by a prosecuting attorney and by ethnic minority guest speakers who held various positions in the community. The curriculum was taught to eighth grade students in Chicago middle schools located in lower- and lower-middle class areas with high levels of gang activity. Following completion of the curriculum component, youths from the classrooms considered to be at high-risk for joining a gang were invited to participate in an afterschool program. It provided recreational activities, job skills training workshops, educational assistance programs, and social activities. At-risk youth were identified by teachers and project staff (using gang rosters compiled by

detached street gang workers on the basis of interviews with gang members). The selected youth were not already gang members, to the best knowledge of project staff and teachers.

Thompson and Jason's (1988) evaluation of the program incorporated a "nonequivalent comparison group" design, in which three pairs of public middle schools were matched on the basis that the same gang actively recruited members from both schools in a pair. One school in each pair was randomly assigned to be an experimental school, and the other was designated as a comparison school. The researchers assessed gang membership again at the end of the school year using the same method as was used to select at-risk youth. All of the at-risk youth received the school curriculum, and 51% of them participated in at least one of the several afterschool activities. Results showed that experimental youth were less likely to join a gang than comparison youth, but the difference was only marginally statistically significant. The evaluation was limited by the short-term follow up period and the relatively small sample size (74 experimental youth and 43 comparison youth), given the low prevalence of gang membership (4 of the 43 comparison youth had joined gangs by the end of the school year and only 1 of the 74 experimental youth had). This kind of intervention appears to hold promise for preventing adolescents from joining gangs. A more recent evaluation of a gang prevention curriculum produced a stronger basis for curricular approaches.

Evaluation of the Bureau of Alcohol, Tobacco, and Firearms' Gang Resistance Education and Training Program (G.R.E.A.T), initiated in 1991 by Phoenix law enforcement agencies, has shown positive preliminary results (Esbensen & Osgood, 1997). The G.R.E.A.T. program is a school-based intervention gang program in which uniformed law enforcement officers teach a nine week curriculum to middle school students. These weekly sessions consist of nine lessons: 1) an Introduction acquainting students with the G.R.E.A.T. program and the presenting officer; 2) Crime/Victims and your Rights—in which students learn about crimes, their victims, and their impact on the school and neighborhood ; 3) Cultural Sensitivity/Prejudice—teaching students how cultural differences affect their school and neighborhood; 4) Conflict Resolution (2 lessons)—students learn

how to create an atmosphere of understanding that would enable all parties to better address interpersonal problems and work together on solutions; 5) Meeting Basic Needs—teaching students how to satisfy their basic social needs without joining a gang; 6) Drugs/Neighborhoods—students learn how drugs affect their school and neighborhood; 7) Responsibility—students learn about the diverse responsibilities of people in their school and neighborhood; and 8) Goal setting—teaching students the need for personal goal setting and how to establish short and long term goals.

Police instructors are trained in the G.R.E.A.T. curriculum in a management training session. They are taught how to use role playing techniques and group exercises. This teacher training includes learning how to prepare students to present a lesson in the G.R.E.A.T. program, preparing them for later teaching in their own classrooms. The G.R.E.A.T. curriculum concludes with a graduation ceremony.

Evaluation of the G.R.E.A.T. program incorporated a quasi-experimental research design (Esbensen & Osgood, 1997). A cross-sectional survey of nearly 6,000 students in 315 classrooms in 42 different schools was conducted in eleven geographically- and population-representative sites after the G.R.E.A.T. curriculum was administered. Since the G.R.E.A.T. program was taught in the seventh grade, eighth grade students were surveyed to allow for a one-year follow up, while guaranteeing that none of the sample was currently enrolled in the program. Two ex-post facto comparison groups were created to allow for evaluation of program effects. Because preventing adolescents from joining gangs and engaging in criminal activity was the major goal of the program, a self-reported measure of gang joining and involvement in illegal activity was included in the cross-sectional survey.

Creation of the two comparison groups of students in the 42 schools (one group that received the G.R.E.A.T. curriculum and another that did not receive it), resulted in nonequivalent comparison groups. Comparison of sex, race, age, family status, and family education background characteristics of students in the two samples revealed that they differed on race and family socio-economic status.

Therefore, analyses controlled for between school differences. Schools also were found to vary substantially in terms of the number of students who completed the G.R.E.A.T. program. Therefore all analyses were replicated, limiting the total sample to a restricted sample of 28 schools in which there were at least 15 participants and non-participants. This procedure tended to strengthen the magnitude of the programmatic effect.

Students who completed the G.R.E.A.T. program reported lower levels of gang affiliation and self-reported delinquency, including drug use, minor offending, property crimes, and crimes against persons. Compared to the control group, the treatment group reported more positive attitudes to the police, more negative attitudes about gangs, having more friends involved in pro-social behavior, higher levels of perceived guilt at committing deviant acts, more commitment to school, higher levels of attachment to both mothers and fathers, more communication with parents about their activities, fewer friends involved in delinquent activity, less likelihood of acting compulsively, lower likelihood of engaging in risky behavior, and lower levels of perceived blockages to academic success.

The study authors caution that these results are preliminary and need to be viewed with caution. First, significant differences existed between the two groups. Second, a quasi-experimental design has been implemented in the longitudinal phase of the evaluation, in a prospective panel design at six representative sites. Both pre- and post-test measures have been obtained. Adding strength to this design, post-program measures will be obtained in a planned 3-year follow up.

Interventions using detached workers. A significant shift in youth gang program approaches, from prevention through community organization to interventions relying almost exclusively on detached workers, occurred in the late 1940s with the establishment of the New York City Youth Board (1960). Created to combat the city's growing number of fighting gangs, this city-run program relied on detached workers to transform street gangs, most of which was to be done in the streets, where gangs met, played, and hung out. Worker activities included going fishing with gang members, securing health care, employment counseling, advocacy work with the police and court,

and most any other action that might transform gangs or woo juveniles away from them (Geis, 1965). The Youth Board's gang program "lost the community focus [of the Chicago CAP] and developed instead a rather narrowly focused worker program which, nonetheless, became the model for future street work programs" (Klein, 1995, p. 142). Although the program was never evaluated it served as a forerunner of detached worker programs.

The Boston detached worker program was evaluated (Miller, 1962), in perhaps the most rigorous gang program evaluation ever conducted. For three years project staff in the "Midcity Project" (established in Roxbury, Boston in 1954) worked with 400 members of 21 corner gangs, providing intensive services to 7 gangs. This "total community" project consisted of three major program components: community organization, family service, and gang work. The project aimed to open channels of access to legitimate opportunities, especially in the education and employment areas. The project plan was comprehensive and unusually well-implemented. However, Miller's (1962) evaluation proved the project to be ineffective. All of his measures of delinquency—disapproved actions, illegal behavior, during-project court appearances, before-during-after court appearances, and control group court appearances—provided consistent support for a finding of "negligible impact" (p. 187). The results were very disappointing to the field because of the quality of the program.

Evaluation of a California detached worker program brought into even more serious question the value of this approach. The "Group Guidance Program" of the Los Angeles Probation Department was evaluated by Klein (1969; 1971; 1995). The program, begun in 1961, was designed to employ "group guidance" by street workers in an attempt to intervene in the emergence of Black gangs in South Central Los Angeles. Group activities, including weekly club meetings, sports activities, tutoring, individual counseling, and advocacy with community agencies and organizations were designed to "de-isolate" gang members from their community institutions. Klein found that officially recorded arrests of gang members increased during the project period. He concluded that "increased group programming leads to increased cohesiveness (both gang growth and gang

'tightness'), and increased cohesiveness leads to increased gang crime" (Klein, 1995, p. 145).

The "Ladino Hills Project," created in South-Central Los Angeles in 1961, was an experiment Klein (1968; 1971; 1995) designed to test his gang cohesiveness hypothesis, that if gang cohesiveness could be reduced through nongroup interventions, then gang delinquency would be reduced. Project staff, working with a gang that had the highest rate of commitments to correctional facilities of any gang in Los Angeles County, were to work individually with gang members. Interventions included helping gang members get jobs, tutoring, recreation in established agencies, and individual therapy. Program implementation was relatively successful. Klein's (1995) evaluation showed that gang cohesiveness was reduced by about 40%. Although individual arrest rates remained relatively constant, an overall reduction of 35% in gang member arrests was observed (attributed mainly to fewer members). However, several years later, the gang reassumed its pre-project gang-ridden character. Klein (1995, p. 147) concluded that: "We had affected the [gang members] but not their community. The lesson is both obvious and important. Gangs are by-products of their communities: They cannot long be controlled by attacks on symptoms alone; community structure and capacity must also be targeted." Because of the success of his experiment, Klein has repeatedly warned practitioners against any activities that might contribute to gang cohesion, because these might increase gang delinquency. However, his findings have been challenged (Moore, 1978). Several other detached worker programs have been evaluated, generally with negative results (see Table 12.1).

Although there is disagreement concerning the effectiveness of detached worker programs (see Goldstein & Glick, 1994; Bursik & Grasmick, 1993), we must conclude that this program model, in its original concept, has not produced positive results. Indeed, evaluation of a Chicago detached worker program (Caplan, Deshaies, Suttles, & Mattick, 1967; Gold & Mattick, 1974; Mattick & Caplan, 1962) and another one in Los Angeles (Klein, 1969) showed that they may have increased delinquency. Numerous reasons have been offered to account for the ineffectiveness of this strategy. Klein (1971; see also Spengel, 1966) suggests that it was unclear whether these programs were

designed to control gangs, treat gang member personality problems, provide access to social and cultural opportunities, transform values, or prevent delinquency. Conflicting program objectives made evaluation difficult.

Spergel (1995) contends that a detached worker strategy by itself is inadequate to deal with complex problems such as remedial education, job preparation and development, and community issues. Perhaps this is why the detached worker concept has been expanded over the past 30 years to incorporate other interventions (Fox, 1985), including temporary shelters for low-income youths, mentoring programs, activity centers, post-sentencing social services, drug treatment programs, and intergang mediation (Spergel & Curry, 1990). Detached worker programs with these augmentations have not been evaluated, although one modified approach (gang transformation within a comprehensive youth services program) has shown positive results (Goldstein & Glick, 1994) in an initial trial. The authors believe the positive results they observed are attributable to the combination of skill streaming (a broad array of interpersonal and daily living skills), anger control, and moral reasoning. However, important details of the evaluation are not presented, such as how the treatment and control samples were selected and their comparability. The significance of the results is also dampened by small samples.

### Crisis Intervention

In the next era of youth gang programming detached workers were put in vehicles and sent to "hot spots" of gang activity. Philadelphia's "Crisis Intervention Network (CIN)," established in 1974, pioneered the new approach assigning gang workers to areas, not gangs. They were to patrol "hot spots" in radio-dispatched cars, attempting to defuse potentially violent situations. Although the CIN was not evaluated, it was acclaimed to be successful, though this conclusion has been challenged (Klein, 1995; Needle & Stapleton, 1983; Spergel, 1995).

Spergel (1986) evaluated the Crisis Intervention Services Project (CRISP) (see Ribisl & Davidson, 1993) which operated in a gang-ridden section of Chicago. Spergel (1995) described the

program as a "mixed social intervention or crisis intervention approach, with strong deterrent and community involvement characteristics." Staff patrolled areas where gang violence was likely to erupt during evening and late-night hours, attempting to mediate conflicts. Secondary components of the program included intensive counseling for gang youth and their families referred from juvenile court, mobilization of local neighborhood groups, and establishment of a neighborhood advisory group that oversaw the project. The program focused on several target areas in four police precincts characterized by high levels of gang activity.

The evaluation (Spergel, 1986) compared the number and type of gang incidents in the target area with a matched set of nontarget areas. Offenses were categorized as Type I, serious violent crimes (homicide, robbery) and Type II, less serious violent crimes (simple assault, intimidation, gang recruitment). Spergel's evaluation showed that gang crimes and overall crime increased in both the target and comparison areas. However, he found a significant reduction in the rate of increase in Type I offenses in the project areas compared to the control areas, comparing the pre-project period with the project period. Little difference in Type II offenses was found between the experimental and control areas. Comparisons within the target areas suggested that the positive effects of the program were greater in the areas where program implementation closely followed the original design. The program appeared to be more effective for juveniles than for young adults, but it appeared to have little effect on nongang crime. Nevertheless, these were the most encouraging gang intervention results to date.

#### Gang Suppression Programs

The use of gang suppression techniques originated in the Philadelphia "Crisis Intervention Network" program, with its deployment of mobile units to gang crisis areas. California criminal justice officials soon expanded the concept (Klein, 1995) in prosecution and police programs. Operation Hardcore, a prosecutorial gang suppression program, was created by the Los Angeles District Attorney's Office in 1979 and is still operational today (Genelin, 1993). It was the first

prosecution program to target serious, violent juvenile gang-related offenses (Klein, Maxson, & Miller, 1995). Modeled after "major crime units" established in other cities' district attorney's offices, its distinctive features include vertical prosecution, reduced caseloads, additional investigative support, and resources for assisting victims.

An independent evaluation of the program (Dahmann, 1981) compared handling of defendants and cases by Operation Hardcore with other cases in Los Angeles handled by nonprogram attorneys both before and during program operations. It showed that Operation Hardcore had more convictions, fewer dismissals, more convictions to the most serious charge, and a higher rate of state prison commitments than the normal prosecutorial process. Dahmann concluded that "these results suggest that selective prosecution has been an effective strategy in Los Angeles and that the Operation Hardcore program has obtained demonstrable improvements in the criminal justice handling of gang defendants and their cases" (p. 303). Operation Hardcore remains a highly regarded program.

Evaluation of the program has not examined its impact on gang crimes (Klein, 1995).

Police gang suppression programs (see Klein, 1995) drew impetus from the apparent growth of youth gang problems in the Southwest in the early 1980s. Gang Units (see Jackson & McBride, 1985) were created in law enforcement departments, carrying out gang intelligence, investigation, suppression, and prevention functions (Klein, 1995). Deliberate suppression tactics employed by the Los Angeles Police Department's CRASH (Community Resources Against Street Hoodlums) operations took the form of "gang sweeps," "hot spot targeting," and "intensified patrol" to apply "excruciating pressure" on gangs. Other terms used to characterize police "crackdowns" include saturation, special surveillance, zero tolerance, and caravanning (cruising neighborhoods in a caravan of patrol cars) (Klein, 1995).

In contrast, law enforcement suppression activities can be incorporated in a balanced approach, such as in the activities of the Los Angeles Sheriff Department's Operation Safe Streets (OSS). Based on gang crime statistics, it appears that the OSS has done a more effective job in

combating gang violence than CRASH (Klein, 1995). This could be expected, given that police crackdowns have shown limited effectiveness, generally short-term (Sherman, 1990). In contrast, OSS employs "street-level intelligence, carefully nurtured" (Klein, 1995). OOS officers employ tactics attuned to the nature of gangs. They often work in the same community many years, know the gangs and their members very well, and thus are better able to diffuse volatile situations (see Jackson & McBride, 1985).

Operation Hammer, perhaps the worst example of a police suppression program, is described by Klein (1995). It was a Los Angeles Police Department CRASH antigang street sweep, launched in the south central section of the City in 1988. It consisted of a force of one thousand police officers who swept through the area on a Friday night and again on Saturday, arresting likely gang members on a wide variety of offenses, including already-existing warrants, new traffic citations, gang-related behaviors, and observed criminal activities. A total of 1,453 arrests resulted. All those arrested were taken to a mobile booking operation adjacent to the Memorial Coliseum. Most of the arrested youths were released without charges. Almost half were not gang members. There were only 60 felony arrests, and charges were filed in only 32 instances (Spergel, 1995:). "This remarkably inefficient process was repeated many times, although with smaller forces—more typically one hundred or two hundred officers" (Klein, 1995, p. 162).

The newest gang suppression strategy is gun control. A Boston Gun Project (Kennedy, Braga, & Piehl, in press) consists of a coordinated strategy based on analysis of the city's youth violence problem and illicit gun market. Research on Boston's youth violence problem has centered on youth gangs and their use of firearms. Mapping of gang territories and homicides revealed the central role gangs play in the city's youth gun problem. The Gun Project working group developed use-reduction and gun market disruption schemes that are being implemented and evaluated. Coerced use-reduction targeting gang members is the main strategy.

In sum, suppression programs have not been rigorously evaluated; therefore, their

effectiveness is unknown. Following his review of the basic tenets of deterrence theory and tests of its viability, Klein (1993) concluded that "it is not so much that suppression does or does not 'work:' evidence one way or another is sorely lacking. There are logical, as well as experiential, reasons to believe that suppression programs can have deterrent effects and thus, by our reasoning, can contribute substantially to gang and drug activity prevention" (p. 100). Several researchers have noted that youth gang problems have not decreased in the areas where suppression programs have been implemented (Klein, 1995; Moore, 1978, 1991; Spergel, 1995). However, as Jackson and McBride (1985) note, gangs accept punishment when it is justified.

### Legislative Approaches

A recent summary by the National Conference of State Legislatures (NCSL, 1995; see also Hunzeker, 1993) indicates that enforcement suppression has been a predominant theme in new legislation over the past few years (see also Johnson, Webster, & Connors, 1995). States including California, Nevada, Florida, Georgia and Illinois, and Louisiana have enhanced penalties for crimes carried out in participation with or at the direction of gangs. The California "Street Terrorism Enforcement Act (STEP)" of 1988 (California Penal Code, sec. 186.22) has served as a model for emulation by Florida, Georgia, Illinois, and Louisiana. A unique notification process is used to inform persons that they can be prosecuted under the STEP Act (Klein 1995): Police and/or prosecutors gather evidence that a targeted gang fits the Act's definition. This information is presented to the court, resulting in an enabling judicial order. Known gang members are then notified in writing that they are members of such a group. Following such notice, the Act can then be applied to these members, enhancing penalties for subsequent offenses.

A number of states have enacted new youth gang prevention measures (NCSL, 1995). Florida created gang prevention councils in 1990 through which judicial circuits develop strategies to reduce gang activities. The State of Washington enacted a "Youth Gang Reduction Act" in 1991 that targets elementary and secondary students. Oregon enacted a statute in 1995 that provides tax credits

for employers who hire gang-involved or gang-affected youth. A 1995 Texas law provides for the establishment of a gang information system. Hawaii also established legislatively a comprehensive program in 1991 that includes a statewide law enforcement task force on youth gangs, prosecution efforts that target career gang criminals, school-based prevention programs, and parks and recreation programs. A two-pronged strategy is embodied in the Hawaii Youth Gang Response System: prosecution of hard-core gang criminals, and reducing the growth of gangs through prevention and education focused on younger kids. Although preliminary results of a process evaluation of Hawaii's program are encouraging, outcome results are yet preliminary (Chesney-Lind, Marker, I. R. Stern, Yap, Song, H. Reyes, Y. Reyes, J. Stern, & Taira, 1992; Chesney-Lind, Marker, I. R. Stern, Song, H. Reyes, Y. Reyes, J. Stern, Taira, & Yap, 1992; Chesney-Lind, Leisen, Allen, Brown, Rockhill, Marker, Liu, & Joe, 1995a; Chesney-Lind et al., 1995b). These statutory changes show some states' interest in a combination of prevention and intervention approaches although most of the recent legislation favors suppression tactics. Gang suppression legislation has not been evaluated.

#### National Assessment of Youth Gang Programs

Only one national survey of youth gang programs has been conducted. Spergel and his colleagues (Spergel and Curry, 1993; Spergel, 1991) conducted a nationwide assessment of youth gang prevention, intervention, and suppression programs under Office of Juvenile Justice and Delinquency Prevention (OJJDP) support. The assessment (conducted in 1988) included a survey of 254 respondents in 45 communities and 6 special program sites regarding strategies they employed and their perception of the most effective strategies they used. All surveyed sites were jurisdictions that had a youth gang problem and an organized response to the problem. Responses were categorized into the major program types that Spergel (1991) identified in his literature review of gang programs: community organization, social intervention, opportunities provision, and suppression. A fifth response category was added by the survey team: organizational change and development.

Suppression was the most frequently employed strategy in the 51 jurisdictions (44%), followed by social intervention (31%), organizational change and development (11%), community organization (9%), and opportunities provision (5%). "Chronic gang problem" cities tended to combine suppression, social intervention, and community organization strategies, whereas "emerging gang problem cities" favored singular approaches, either community organization, organizational development, or suppression (Spiegel, Curry, Chance, Kane, Ross, Alexander, Simmons, & Oh, 1994). Respondents were also asked to assess the effectiveness of the approaches they had tried. Provision of social opportunities was perceived to be most effective in chronic gang problem cities. Community organization (mobilization) was also believed to be an effective strategy, but only when social opportunities were also provided. In contrast, respondents in emerging gang problem cities saw community organization (mobilization) as the most effective strategy. Overall, respondents were not confident that their anti-gang efforts were particularly productive. Only 23% of the police and 10% of all other respondents believed their community's gang situation improved between 1980 and 1987.

Spiegel and Curry (1993) conducted a validity check on respondents' perceived effectiveness of program interventions by comparing responses to actual changes in five empirical indicators—numbers of gangs, gang members, gang-related homicides, gang-related assaults, and gang-related narcotics incidents—in a random sample of 21 cities in the survey. Their analysis of the data (which were reasonably complete for most of the variables) showed that perceptions correlated perfectly with the empirical indicators, whether there was improvement or deterioration in the gang situation.

In another component of the national assessment, in seven of the study sites, Curry (1990) surveyed a sample of current and former gang members who were identified through service agency contacts with them. According to client reports, the most commonly received services were recreation and sports. These services, together with job placement, were viewed as most helpful in curtailing gang activity. Service recipients were mainly males under age 21. Although Hispanic

youth reported receiving fewer services than other youths, they rated the services they received as more helpful than black or white recipients toward achieving their employment goals.

As a result of the national assessment, Spergel and his colleagues developed a "Comprehensive Community-Wide Approach to Gang Prevention, Intervention, and Suppression Program" that consists of 12 program models for police, prosecutors, judges, probation, parole, corrections, schools, youth employment, community-based youth agencies, and a range of grassroots organizations (Spergel, Chance, Ehrensaft, Regulus, Kane, Laseter, Alexander, & Oh, 1994). Two of the models, general community design, and community mobilization, are cross-cutting systemwide models that encompass planning and coordination efforts. Each of the 12 models identifies program rationales, policies, procedures, and leadership roles appropriate for implementing each of them. Spergel and his colleagues also recommended that communities create a community-based youth agency to provide a continuum of services to gang and gang-prone youth.

Because gang migration is an important aspect of the youth gang problem, law enforcement views of programs that might work are valuable. In the course of their national gang migration study, Maxson, Woods, and Klein (1995) conducted interviews with law enforcement representatives in 211 cities that have experienced street gang migration, and community representatives in about one-fourth of these cities. Respondents were asked to assess the use and effectiveness of several gang policies and practices. Most respondents said operational coordination with local, state, and federal law enforcement agencies was relatively common. However, few law enforcement officers viewed this as effective in reducing gang migration or illegal activities. Selective law violations (e.g., narcotics laws) were targeted in three-fourths of the surveyed departments, but only 42% of them viewed this strategy as effective. Enforcement of specific gang laws (e.g., STEP) was not viewed as a particularly effective response. About 40% of the surveyed law enforcement agencies used gang sweeps and other suppression strategies, which were believed to be effective by a majority of officers. Almost two-thirds of the 211 street gang migration cities employed community collaboration

strategies, and over half believed these to be effective.

In sum, the only strategies perceived to be effective by a majority of law enforcement respondents were community collaboration (54%), crime prevention activities (56%), and street sweeps (62%) or other suppression tactics (63%). Interviews with community respondents did not identify any innovative or promising strategies to address gang migration. Most respondents cited collaborative approaches that targeted overall gang activity or youth crime in general as holding promise.

Klein (1995) cites five reasons for the current tendency to embrace suppression as the favored approach to youth gangs: 1) the lack of demonstrated success of the community organization and detached worker programs, 2) the proliferation of gangs in more and more cities, 3) the perceived increase in gang violence and victimization of innocent bystanders, 4) the crack cocaine epidemic and the purported involvement of gangs in drug trafficking, and 5) the swing of the sociopolitical pendulum to more conservative philosophies. Yet Klein has noted the resurfacing of community organization approaches that target weaknesses in community structures including employment, schools, social services, health programs, and the like. He believes that improvements in these areas hold much more promise than suppression because "street gangs are by-products of partially incapacitated communities. Until we dedicate the state and federal resources necessary to alter these community structures, gangs will continue to emerge despite value transformation, suppression, or other community efforts" (Klein, 1995, p. 153).

Klein contends that much of the interest in community-centered approaches that seek improvements in social and economic systems is emanating from the law enforcement community. For example, he cites Los Angeles Sheriff, Sherman Block, who said: "As long as gang cultures exist, we are chasing our tails. Law enforcement cannot break the cycle, only social improvements can break it" (Sahagun, 1990, cited in Klein 1995, p. 152) and the Los Angeles Undersheriff, Robert Edmunds: "Our experience is ill-suited to preventing the emergence of new gangs or the increased

membership of existing gangs.... Obviously, we miscalculated the solution.... What is needed are partnerships involving all segments of our society" (Sahagun, 1990, cited in Klein 1995, p. 152).

There is considerable disagreement over the issue of whether or not social improvements through community organization can be achieved, although the importance of social conditions to gang organization and violence is not disputed. Short (1990, p. 224) reminds us that, like individuals, "communities, too have careers in delinquency." In addition to community factors, Short's (1990, 1995a, 1995b, 1996) analysis of the critical features of the youth gang problem specifies individual characteristics and group processes that must be taken into account in developing gang prevention and intervention programs. Short contends that community factors that contribute to gang delinquency and violence consist of both macro- and micro-level influences. Macro-level forces that produce youth gangs include the spread of gang culture, youth culture, and a growing underclass (Short, 1995b, 1996).

More than ever before in history, young people, targeted for commercial exploitation and isolated from mainstream adult roles and institutions, confront economic conditions beyond their control. Economic decline, severe unemployment, and the unavailability of "good jobs," are associated not only with street gangs, but with their transformation into "economic gangs" (including drug gangs), and with ethnic, racial, and class-related antagonisms that lead to other types of collective violence. These same forces alter both intergang relationships and relationships between gangs and their communities (Short, 1995b, p. 19).

Quantifying these forces and connecting them to gang problems is difficult. Group processes operate at the micro-level (individual, peer group), influenced by the macro-level (community) forces, and interact to produce gang violence (Short, 1990, 1995b, 1996). Thus Short urges development of comprehensive programs targeting both levels (such as the Chicago Area Project) and multi-faceted early intervention programs such as the Beethoven Project in the Chicago Robert Taylor Homes—a public housing community (Center for Successful Child Development, 1993).

Miller (1993) argues that the primary target of change should be the behavior of individuals rather than institutions, organizations, or structural features of the larger society, such as the employment situation, income distribution, health delivery systems, and the like. Not that these social system features are less important; changes in them should be supported, but are outside the scope of his specific proposal. Second, efforts to alter the balance between pro-crime and anti-crime incentives should be directed not at the general category of criminal behavior, but at specific offenses such as theft, armed robbery and assault. Third, incentives to commit crimes derive from the community subculture. He argues that a substantial reduction in criminal behavior could be achieved by interrupting the intergenerational transmission of subcultural features in the lower-class. If this intergenerational transmission (of criminal culture) could be interrupted or modified, the incentive balance could shift toward strengthening anti-crime incentives.

Miller (1993) proposes a four-component program focused on the strategy of weakening pro-crime incentives and strengthening anti-crime incentives: 1) reducing pro-crime incentives at the community subcultural level, 2) increasing anti-crime incentives at the community level, 3) reducing pro-crime incentives at the national level, and 4) increasing anti-crime incentives at the national level. He contends that "incentives that appear to be clearly related to motivation for crime appear to be amenable to change, and can be feasibly acted on become the high priority targets for change" (p. 14). Miller suggests that this strategy could be implemented and tested most easily in small or medium-size cities, in high-gang neighborhoods. The first-priority target group would be preschool children (aged 1-5), then preadolescent (6-11), and adolescents (12-19). He suggests that program interventions could be added to or made part of programs already involving the target groups, such as Boys and Girls Clubs, afterschool programs, Head Start, etc. Because there is some evidence that the provision of incentives to high-risk youth can enhance academic success (see for example Taggart, 1995; Greenwood, Model, Rydell, & Chiesa, 1996), Miller's proposed approach merits testing.

We have reviewed in this section the results of the only national survey of youth gang

programs and a national survey of law enforcement agencies. To these results, we added the perspectives of the most experienced gang researchers. None of these information sources prescribes interventions for particular types of gangs (e.g., violent, nonviolent) nor specific gang crimes (e.g., drug sales, assault, robbery). The state-of-the-art of gang programming has not been advanced to the level of linking program interventions to specific gang types and criminal patterns. In the next section, we recommend three gang intervention strategies that the literature reviewed in this section suggests might work in combating gang problems in general.

### Recommended Strategies and Programs

No single program has been demonstrated through rigorous evaluation to be effective in preventing or reducing gang violence. There are several reasons for this. Like many other social problems, youth gang problems remain unsolved (Miller, 1990). The complexity of gang problems makes prevention and intervention difficult. Finally, as we saw in the last section, few rigorous evaluations of gang interventions have been conducted.

Nevertheless, our literature review suggests that youth gang problems can be ameliorated; that is, reduced in prevalence and severity (Miller, 1990). Three promising gang program strategies are recommended based on this review. The first one targets gang problems directly. The second one targets gang problems within a comprehensive strategy for dealing with serious, violent and chronic juvenile delinquency. The third approach targets gang-related (and motivated) homicides.

#### The Comprehensive Community-Wide Approach to Gang Prevention, Intervention, and Suppression Program

This program model (see earlier discussion) was designed specifically to target youth gang problems, as the product of a nationwide assessment of youth gang prevention, intervention, and suppression programs in the late 1980s (Spergel, 1991, 1995; Spergel & Curry, 1993; Spergel, Curry, Chance, Kane, Ross, Alexander, Simmons, & Oh, 1994). As already mentioned, twelve program components developed by Spergel and his colleagues (Spergel, Chance, Ehrensaft, Regulus,

Kane, Laseter, Alexander, & Oh, 1994) are available for the design and mobilization of community efforts by police, prosecutors, judges, probation and parole officers, corrections officers, schools, employers, community-based agencies, and a range of grassroots organizations (Spergel, Chance, Ehrensaft, Regulus, Kane, & Alexander, 1992). Technical assistance manuals are available to support local program development (Spergel, Chance, Ehrensaft, Regulus, Kane, & Laseter, 1992). Variations of these models are currently being implemented and tested in Bloomington, IL; Mesa, AZ; Tucson, AZ; Riverside, CA; and San Antonio, TX. An independent evaluation is being conducted by the University of Chicago.

The most promising gang violence prevention and intervention program is being conducted in the Little Village area of Chicago, a low income and working class community of about 90% Mexican-Americans (Spergel & Grossman, 1994, 1995, 1996). Called the "Gang Violence Reduction Program," it is administered by the Research and Program Development Division of the Chicago Police Department. The program targeted over 200 of the "shooters," "influentials," or gang leaders (aged 17-24) of two of the City's most violent Latino gangs. These two gangs account for almost 70% of the gang homicides and other violent gang crimes in the community.

The Gang Violence Reduction Program consists of two coordinated strategies: 1) targeted control of violent or potentially hard-core violent youth gang offenders, in the form of increased probation department and police supervision and suppression, and 2) provision of a wide range of social services and opportunities for targeted youth, to encourage their transition to conventional legitimate behaviors through education, jobs, job training, family support, and brief counseling. Managed by the Neighborhood Relations Unit of the Chicago Police Department, the project is staffed by tactical police officers, probation officers, community youth workers (from the University of Chicago), and workers in Neighbors Against Gang Violence, a new community organization established to support the project. The program incorporates a complement of prevention, intervention, and suppression strategies, based on a comprehensive model Spergel and his colleagues

developed (Spergel et al., 1994). These multiple strategies are "employed interactively" (Spergel & Grossman, 1995, p. 3).

Preliminary evaluation results (after 4 years of program operations) are positive (Spergel & Grossman, 1996). Program interventions "have been associated with a decline, or at least a reduction in the rate of increase, in gang violence" (p. 24). Overall, gang-motivated violence arrests increased by 32% in Little Village, compared to an increase of 77% in the control area (p. 28). Compared to nontargeted gangs, the two gangs targeted in the program were still responsible for the preponderance of serious violent gang crimes in the area, but generally experienced a smaller combined rate of increase in number of offenders involved in gang homicides and other violent crimes. Examination of arrests among program clients in both gangs showed an increase in the average number of arrests over a 3-year period (Spergel & Grossman, 1997). However, reductions were observed for gang members over 19 years of age. Thus, by this measure, the project was much more successful with older gang members.

Self-reported measures among program subjects showed significant reductions in both violent and property-related crimes between the first time interval and the last one. Among program clients, reductions in total crime and violence were almost twice as great for those who received services or contacts from both police and gang workers compared to youth who did not receive such coordinated contacts. The reduction in drug selling was more than 8 times greater for youth receiving combined services from police and gang workers, compared to program youth receiving non-coordinated or alternate forms of services (Spergel & Grossman, 1996).

In sum, the Little Village Gang Violence Reduction Program appears to have been successful in reducing gang crime, during a period in which gang violence was increasing significantly in the Little Village area. The success of the program is much more evident by self-reported measures than by arrest data. However, Spergel and Grossman (1996) note that arrest increases may partially be accounted for by a change in police data collection practices instituted in 1993, and by organizational

policy changes in police practices resulting in more emphasis on suppression activities.

OJJDP's Comprehensive Strategy for Serious, Violent, and Chronic Juvenile Offenders

Targeting gang problems within a community's comprehensive strategy for dealing with serious, violent and chronic juvenile offenders is the second recommended approach. OJJDP's "Comprehensive Strategy for Serious, Violent, and Chronic Juvenile Offenders" (Wilson & Howell, 1993) provides a framework for strategic community planning and program development. OJJDP's Guide for Implementing the Comprehensive Strategy for Serious, Violent, and Chronic Juvenile Offenders (Howell, 1995) is a resource for carrying out the OJJDP Comprehensive Strategy. It contains numerous promising and effective program models that will help prevent and reduce gang problems while targeting serious, violent, and chronic juvenile offenders.

The theoretical foundation of the Comprehensive Strategy is the "social development model" (Catalano & Hawkins, 1996; Hawkins & Weis, 1985), a risk-focused approach to delinquency that identifies risk factors contributing to delinquency, prioritizes them, and specifies ways to buffer and reduce those risks. The Comprehensive Strategy consists of prevention and graduated sanctions components, encompassing the entire juvenile justice and human service fields. The graduated sanctions component uses Structured Decision Making tools (risk and needs assessments) to achieve the best match between public safety risks offenders present and treatment needs in a continuum of sanctions and program options.

Because separate causal pathways to gang participation versus nongang serious and violent offending have not been identified, programs found to be effective or promising for preventing and reducing serious and violent delinquency in general may hold promise in combating gang delinquency and violence. Promising programs that might be included in a comprehensive youth gang program follow. These address known risk factors for gang participation.

Prevention Component. The prevention component of the Comprehensive Strategy incorporates a risk- and protective-factor approach for systematically assessing community risk

factors, identifying and prioritizing the most prevalent risk factors, then selecting from promising and effective interventions those that best target the priority risk factors and strengthen protective factors.

"Communities That Care" (Hawkins & Catalano, 1992) is a structured process for analysis of risk factors and the development of approaches that reduce them and buffer their negative effects by increasing protective factors. The major risk factors for gang involvement are found in the individual, family, school, peer group, and community domains (see Thornberry, Chapter 8, this volume). Promising programs that seek to reduce these risk factors are noted below.

A public education campaign is needed to educate national, state, and local leaders, parents, children and adolescents about the risks associated with gang participation. This educational campaign should be based on the elevated risk of homicide among gang members: 60 times the risk of homicide among the general population (Morales, 1992), and focus particularly on inner-city and low-income areas of cities and towns.

Discouraging children and young adolescents from joining gangs is the most cost-effective approach to reducing serious gang crime (National Drug Intelligence Center, 1994). As we saw earlier, two gang prevention curricula (Project BUILD and G.R.E.A.T.) have showed positive results (Esbensen & Osgood, 1997; Thompson & Jason, 1988).

A number of promising family-based early intervention programs have been identified (see Hawkins, Catalano, & Brewer, 1995: 52-60; Horne, 1993), including: pre- and perinatal medical care, intensive health education for the mother, child immunizations, parent training, child cognitive development activities, home visitation (Olds, Henderson, Tatelbaum, & Chamberlin, 1988), and home-based parent training and skills training for juveniles (Tremblay, Vitaro, Bertrand, LeBlanc, Beauchesne, Boileau, & David, 1992). These aim mainly to strengthen family management, and can reduce the likelihood that offspring will join gangs (see Yoshikawa, 1995).

Promising school programs include the Perry pre-school project (Schweinhart, Barnes, & Weikart, 1993); the Syracuse University Family Development Research Program (Lally, Mangione, &

Honig, 1988); a variety of classroom organization, management, and instructional interventions, including school-based behavioral interventions (for a review and summary, see Brewer et al., 1995); graduation incentives for high-risk youths (Taggart, 1995; see also Greenwood et al., 1996); and an anti-bullying program (Olweus, 1992).

Promising peer group and individual-focused programs include manhood development (Watts, 1991); employment training, education, and counseling (Corsica, 1993); conflict resolution and peer mediation in tandem (Hawkins, Farrington, & Catalano, in press); alternatives to gang participation (Klein, 1995); equipping peers to help one another (Gibbs, Potter, & Goldstein, in press; Leeman, Gibbs, & Fuller, in press); and techniques for separating youths from gangs (Hunsaker, 1981; Kohn & Shelly, 1991).

Community programs must increase social and economic alternatives to gang involvement. Promising programs include community reconstruction (Eisenhower Foundation, 1990), Empowerment Zones (revitalization of communities through economic and social services) and Enterprise Communities (promoting physical and human development). Empowerment Zones and Enterprise Communities are large-scale programs supported through the federal Department of Housing and Urban Development (see OJJDP, 1995) that aim to reconstruct selected inner-city areas. Other programs are needed that help improve social and economic conditions in impoverished communities, providing "social capital" for young people (Short, 1995b), enabling them to reach "turning points" such as gainful employment in pathways to success outside gangs (Sampson & Laub, 1993). Community norms supporting gang crime and violence must also be changed. Strengthening anti-crime incentives and weakening pro-crime incentives may work (Miller, 1993).

Promising programs designed to prevent gang problems in particularly low-income areas and public housing projects include the Beethoven Project in Chicago's Robert Taylor Homes (Center for Successful Child Development, 1993); Neutral Zone (Thurman, Giacomazzi, Reisig, & Mueller, 1996); a Community Outreach Program (Kodluboy & Evenrud, 1993); and Boys and Girls Clubs:

Targeted Outreach (Feyerherm, Pope, & Lovell, 1992).

Community policing is an essential component of a comprehensive gang prevention program. Several community policing programs appear to have realized some success in dealing with youth crime problems (see Cronin, 1994, for three promising models). One of these is the Norfolk Police Assisted Community Enforcement (PACE) program, focused in low-income housing areas. Although the PACE program has not been evaluated, crime has decreased by an estimated 29% in the targeted neighborhoods (Cronin, 1994). Police report fewer service calls and a significant drop in on-street drug trafficking and gunfire in the targeted areas. One key to the apparent success of the PACE program is the formation of partnerships between police and neighborhood organizations, empowering neighborhoods through community mobilization to develop in concert with the police and other city agencies solutions to gang and other crime problems. These solutions include social and human service needs.

Another community policing model that specifically targets youth gangs is the Reno, Nevada program (Weston, 1995). Through the formation of a Community Action Team (CAT), the Reno Police Department involves minority neighborhoods, community service agencies, and political leaders in a community solution to the City's serious youth gang problem. The CAT program, developed in response to gang problems, had two strategies: 1) creation of a highly specialized team of officers to target the top 5% of violent gang members in a repeat offender program, and 2) a prevention and early intervention program that targeted the City's estimated 80% of local gang members who were not involved in criminal activity and not considered to be "hard core." Neighborhood Advisory Groups provide feedback from community residents, and an interagency group coordinates prevention and intervention resources. Although the program has not been independently evaluated, Weston (1995, p. 300) reports that "it would appear that limited violence and limited growth in gang membership is related to the many success stories resulting from intervention efforts." Neighborhood block watch also appears to be a useful community crime



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prevention technique (Lindsay & McGillis, 1986; Rosenbaum, Lewis, & Grant, 1986).

Successful prevention of gang problems cannot be accomplished without involving community leaders and neighborhood organizations, because of the integral relationship between gangs and community conditions and dynamics (Spergel, Chance, Ehrensaft, Regulus, Kane, Laseter, Alexander, & Oh, 1994). Thus community mobilization is a key component of a comprehensive gang prevention program. It is a process of consciousness raising, objective identification of gang problem dimensions, and developing a community commitment to take action. "The essence of the community mobilization process is to reinvigorate or reorganize community structures so that community energies and resources are developed to address the youth gang problem, and these resources are integrated and targeted on the gang problem" (Spergel et al., 1994, p. 6).

It is also critical that gang prevention program developers solicit input from gang members. Gang leaders have identified program strategies they believe would be most valuable in their communities. These included gutting and burning abandoned structures, building counseling centers and recreation areas, beautification of the neighborhood, renovation of educational facilities, tutoring programs, health care facilities, replacement of welfare programs with state-sponsored employment, economic development programs, and an increased role for residents in law enforcement activities (Bursik & Grasmick, 1993, p. 178).

Graduated Sanctions Component. The Graduated Sanctions component should consist of structured sanctions, including priority arrest, adjudication, intensive probation, incarceration, and aftercare for juvenile offenders (see Howell, 1995; OJJDP, 1995b). Vertical prosecution of older chronic, serious, and violent gang offenders should be pursued in the criminal justice system (Genelin, 1993; Weston, 1995). A continuum of juvenile corrections treatment options should be provided in an Intensive Supervision Program (Krisberg, Neuenfeldt, Wiebush, & Rodriguez, 1994).

Interpersonal skills training appears to hold promise for improving social skills, reducing anger, and possibly violence reduction among street gang youth and with institutionalized populations,

some of which have included gang members (Goldstein, 1993; Goldstein & Glick, 1994). In a recent experiment, Aggression Replacement Training (ART) was tested as a gang intervention program with 10 aggressive juvenile gangs in New York City. Goldstein and Glick (1994) report a reduction in arrest rates, as well as other evaluation results, supporting the effectiveness of a 2-year project using the ART intervention approach. In an 8-month follow-up, 13% of the ART group were rearrested, compared to 52% of the control group. On other measures, compared to the control group, the ART group showed significant improvements in community functioning, and slightly better improvements in interpersonal skills and anger control. The ART model teaches gang members anger control and other skills, and attempts to turn their real-world reference group, the gang, from an antisocial group into a prosocial one (Gibbs et al., in press).

The Multisystemic Therapy (MST) Program appears to be a promising treatment and rehabilitation program for gang members even though it has not specifically targeted them. MST has been found to be effective in treating multiple problems of serious and violent juvenile offenders in different settings (Henggeler, Melton, & Smith, 1992; Henggeler, Melton, Smith, Schoenwald, & Hanley, 1993). A Columbia, Missouri program (Borduin, Mann, Cone, Henggeler, Fucci, Blaske, & Williams, 1995) targeted chronic serious juvenile offenders referred to the project by juvenile court personnel. Two hundred families were randomly assigned to the treatment program or to the control group. Therapeutic interventions were based on the multisystemic approach to the prevention and treatment of childhood and adolescent behavioral problems (Henggeler & Borduin, 1990). The follow-up (four years later) showed that 22% of MST youth were re-arrested, compared to 72% of youths who received individual counseling, and 87% of youths who refused either treatment (Borduin, et al, 1995).

MST incorporates a socio-ecological view in which antisocial behavior in youth is seen as linked to multiple systems in which the youth is embedded, i.e., the key characteristics of youth and the family, peer, school, and neighborhood systems. MST uses interventions that are present-focused

and action-oriented, directly addressing intrapersonal (i.e., cognitive) and systemic (i.e., family, peer, school) factors known to be related to adolescent antisocial behavior. Empowering parents with the skills and resources to independently address the difficulties of rearing adolescents is an overriding treatment goal. Although multiple systems may be involved, MST involves a single therapist for each client, providing brief (about four months) but intensive treatment, generally in the home or in community locations (e.g., school or recreation center) (Borduin et al., 1995).

MST appears to have applicability as a juvenile justice system rehabilitation approach for youth gang members. Treatment groups in various MST experiments have included gang members. This discovery provided the basis for fielding an experiment specifically targeting gang members. Thus the MST model is currently being tested in Galveston, Texas in the "Second Chance" program, which targets gang-involved youth (Thomas, 1996).

The "8% Solution" program in Orange County, California implements the graduated sanctions component of the Comprehensive Strategy. The program is based on an analysis of court referrals showing that 8% of referred adolescents account for more than half of all repeat offenses in the County (Kurz & Moore, 1994). Risk assessment and analysis of the characteristics of the 8% group (who had four or more court referrals in the following 3 years) showed that four factors correctly classified 70% of the chronic recidivists who were under 16 years of age: 1) school performance, 2) family problems, 3) substance abuse, and 4) antisocial behavior (stealing, running away, gang affiliation). Thus the 8% program targets initial court referrals under age 16 with these characteristics because they are at risk of becoming chronic juvenile offenders (and adult offenders as well, 53% in a 6-year follow-up). Potential 8% cases are initially identified during probation intake and verified through a comprehensive assessment process.

Once youths are admitted to the 8% Solution program, the initial goal is to bring their behavior under control and in compliance with probation terms and conditions, while working to achieve stability in the adolescent's home (Orange County Probation Department, 1995). From that

point a broad range of sanctions options (from day reporting to community confinement) are used in conjunction with a continuum of program options for the juvenile and family members to achieve habilitation goals, while providing intensive case supervision. These options include individual incentives, family problem assessment and intervention services, family preservation and support services (including home-based intervention, respite care, and parent aids), individualized treatment for particular problem behaviors (e.g., mental health, and drug and alcohol abuse), and a wide range of community service opportunities for the project clients.

A preliminary evaluation comparing a pilot group of program clients with the original study group shows about a 50% reduction in new offenses, court petitions, probation violations, and subsequent correctional commitments among the 8% program group in a 12-month follow-up (Orange County Probation Department, 1996). An independent assessment of the 8% program (Greenwood et al., 1996) concluded that it is cost-effective. Greenwood and his colleagues estimate (p. 38) that the program costs about \$14,000 per serious crime prevented (about 70 serious crimes per million dollars). The California legislature recently appropriated funds for replication and testing of the program in six other counties within the state.

The gang component of the 8% Solution program targets gang leadership and the most chronic recidivists through a coordinated program of gang interdiction, apprehension, and prosecution (Capizzi, Cook, & Schumacher, 1995). These three strategies are integrated and coordinated by TARGET (the Tri-Agency Resource Gang Enforcement Team), consisting of the Westminster Police Department, the Orange County District Attorney and the County Probation Department. The Gang Incident Tracking System (GITS) identifies and tracks gang members, providing the information base for the TARGET program, which supports gang interdiction, apprehension, and prosecution. TARGET uses intelligence gathering and information sharing to identify and select appropriate gang members and gangs for intervention. Civil abatement procedures are used to suppress the criminal activities of entire gangs.

During its first two years of operation the TARGET program 1) identified and verified 647 individual gang members; 2) targeted 77 verified gang members for intensive investigation, probation supervision and prosecution, 69% of whom were placed in custody; 3) prosecuted 145 cases involving 168 gang member defendants and achieved a 99% conviction rate; 4) supervised an average caseload of 52 probationers regarded as hardcore gang members; and 5) documented a 62% decrease in serious gang-related crime (Kent & Smith, 1995). Begun in Westminster, TARGET is being replicated in six other cities within Orange County. Klein et al. (1995) suggest that "focused efforts of this type can produce positive effects in smaller gang cities."

Effective police and agency interventions can be enhanced by sound, current gang information. The Chicago Early Warning System (Block & Block, 1991) is a model for this purpose, and it can be replicated in other jurisdictions. This system, stimulated by earlier research in Chicago (see Curry & Spergel, 1988) is based on a statistical model that consolidates spatial information and uses automated "hot spot area" identification and other geographic statistics to predict potential crisis areas. The Early Warning System is used in the Chicago Police Department's "Police Area Four" project, in which the police identify problem areas, then target prevention efforts in those areas. Up-to-the minute information is necessary for targeting specific neighborhoods, because of knowledge that gang violence changes over time, following a pattern of escalation, retaliation and revenge that often occurs across a spatial border that also changes over time (Block & Block, 1993). Information provided by the Early Warning System is used to inform police and community agency interventions to head off the cycle of retaliation and retribution, if possible, through the use of mediation and crisis intervention. The Chicago Early Warning System effectively supports the Little Village project (discussed above) by providing timely information on criminal gang activity (see Spergel & Grossman, 1997).

The main target crime in the Police Area Four project is gang-related homicides. Although conventional wisdom suggests that homicide cannot be prevented, the Blocks disagree (Block &

Block, 1991). They contend that homicides can be prevented by targeting efforts on: 1) the "specific Homicide Syndromes [e.g., expressive] that are the most dangerous and have the highest chance of successful prevention, 2) specific neighborhoods in which the risk of being murdered is especially high, and 3) on specific groups who are at the highest risk of victimization" (p. 57).

These conclusions are supported by extensive gang homicide research the Blocks have conducted in Chicago, principal findings of which Block and Block (1993) summarized as follows:

First, most of Chicago's street gang crime can be identified with the city's four largest gangs. From 1987 to 1990 they accounted for 69% of all street gang-motivated crimes and for 56% of all street gang-motivated homicides, although they represent only about 10% of the "major" Chicago youth gangs and 51% of the estimated number of street gang members.

Second, gangs varied in the types of criminal activities in which they engaged. Some specialized in instrumental crimes. Most gang violence was emotional defense of one's identity as a gang member, defense of the gang and gang members, defense and glorification of the reputation of the gang, gang member recruitment, and territorial expansion. Except for the Vice Lords, a majority of street gang offenses for all other gangs in the city were turf-related.

Third, "the connection between street gangs, drugs, and homicide was weak and could not explain the rapid increase in homicide in the late 1980s" (p. 4). Only 3% of gang-motivated homicides between 1987 and 1990 were related to drugs.

Fourth, the most lethal areas were along disputed boundaries between small street gangs. These were mainly Latino gangs fighting among themselves over limited turfs.

Fifth, neighborhood characteristics were associated with specific types of gang crime." Street gangs specializing in instrumental violence were strongest in disrupted and declining neighborhoods. Street gangs specializing in expressive violence were strongest and most violent in relatively prospering neighborhoods with expanding populations" (p. 8).

Sixth, the most lethal violence (and highest level) occurred in neighborhoods where turf

battles occurred, not in those where street gang activity focused on drug offenses.

Seventh, although street gang assaults did not increase during the period, and gang-related homicides did, the increase in deaths was attributed to an increase in the lethality of weapons, mostly high-caliber, automatic or semiautomatic weapons.

Eighth, many areas that had high levels of gang-related homicides had low levels of other types of homicide.

Ninth, the predominant type of street gang activity in neighborhoods often changed from year to year, or even month to month, and tended to occur sporadically.

Gun access and use reduction is an essential component of a comprehensive strategy. Recent studies have shown the proliferation and use of firearms among youth gangs (Block & Block, 1993; Maxson, Gordon, & Klein, 1985). Gang members are significantly more likely than nonmembers to own a gun illegally (Bjerregaard & Lizotte, 1995). Adolescents who own guns for protection are more likely to be involved in gangs and to commit serious crimes (Lizotte, Tesoriero, Thornberry & Krohn, 1994). Therefore, limiting gun access and use is an important means of reducing lethal gang violence.

Numerous proposals for firearms reduction have been made that merit testing (Cook, 1981a, 1981b, 1991; Cook & Nagin, 1979; Newton & Zimring, 1969; Zimring, 1985, 1993, 1995; Zimring & Hawkins, 1987). Several approaches suggested recently have particular applicability to the youth gang firearm problem. Police seizures of illegally carried guns in "hot spot" areas have been found to reduce gun crimes, homicides and drive-by shootings, though not significantly (Sherman, Shaw & Rogan, 1995). "Coerced use reduction" may be effective (Kennedy et al., in press). Undercover purchases of firearms from adolescents, control of the supply channels, creation of ammunition scarcity, bilateral buy-back agreements, and nonuse treaties with financial compliance incentives hold promise (Zimring, 1995). Interdicting supply channels may be more feasible than commonly assumed because of the newness of guns used in gang homicides and their purchase within the state (Kennedy

et al., 1996; Zimring, 1976). Equally important, research is needed on the relationship between firearms and violent street gang activity, on the extent of youth gun ownership and use, and patterns of acquisition of guns by minors in the gang gun inventory environment (Zimring, 1993, 1995).

Multi-agency coordination of investigations, prosecutions, and sanctioning criminal gang members is important for effective and efficient law enforcement. One model, the JUDGE (Jurisdictions United for Drug Gang Enforcement) targets drug-involved gang members in San Diego. The multi-agency task force enforces conditions of probation and drug laws and provides vertical prosecution for probation violations and new offenses involving targeted offenders. Evaluation of the JUDGE showed vertical prosecution to be a cornerstone for successful implementation, and the advantages of a multi-agency approach (Office of Justice Programs, 1996).

The gang program model that holds the most promise is likely to contain multiple components, incorporating prevention, social intervention, treatment, suppression, and community mobilization approaches. Involvement of all sectors of the community is essential (Bursik & Grasmick, 1993). To work, gang program components must be integrated in a collaborative approach, supported by a management information system.

#### A Strategy to Prevent and Reduce Youth Gang-Related (or Motivated) Homicides

Because of recent increases in gang homicides (see Howell, in press), a third gang program strategy for targeting them is recommended. Of course, reducing youth gang-related (or motivated) homicides should be a priority wherever they occur. But studies in Chicago and Los Angeles indicate that these two cities disproportionately account for gang-related homicides in the U.S. In Chicago, the number of street gang-motivated<sup>2</sup> homicides increased almost five fold between 1987 and 1994, from 51 to 240 (Block, Christakos, Jacob, & Przybylski, 1996). Gang-related homicides in Los Angeles County more than doubled from 1987 to 1992, from 387 to 803 (Klein, 1995). Chicago and Los Angeles alone accounted for nearly 1,000 gang homicides in 1992. Hutson, Anglin, Kyriacou, Hart, & Spears (1995) concluded that "gang-related homicides in Los Angeles County have reached

epidemic proportions and are a major health problem" (p. 1031).

The "Epidemiology of Youth Gang Homicides" (Table 12.2) summarizes demographic information and research on risk factors for gang homicides. The major risk factors are community conditions (weapon availability/lethality, social disorganization, racial and class discrimination, immigrant adjustment, changing economic situation, drug market conditions), communities where gangs and gang violence are most prevalent, and where gangs are involved in turf disputes in closely concentrated geographical areas within specific years and specific age groups. Consideration of these risk factors with available knowledge of promising and effective programs, suggests a strategy that may work to prevent and reduce youth gang-related homicides. They are preventable (Block & Block, 1993; Hutson, Anglin, & Mallon, 1992).

Chicago's "Gang Violence Reduction Program" appears to be a promising program model for targeting gang-motivated violence and homicides (Spiegel & Grossman, 1995, 1996, 1997). It should be replicated and tested in other Chicago communities, in specific Los Angeles communities, and in other cities experiencing significant levels of gang homicides. One key to its success is the Early Warning System Gearchive of the Illinois Criminal Justice Information Authority, which provides up-to-date information on "hot spots" of gang violence for targeted intervention efforts by the police and other agencies.

This literature review has identified other promising interventions that should be considered in designing a comprehensive gang homicide prevention and reduction program. A hospital emergency room intervention program for injured victims that could be established by adding a gang specialist to Suspected Child Abuse and Neglect Team—SCAN—now found in many hospitals (Morales, 1992), serving to initiate entry into programs to break the cycle of gang violence (Hutson et al., 1995); and counseling for victims of drive-by shootings to reduce the traumatic effects of victimization and discourage retaliation (Groves, Zuckerman, Marans, & Cohen, 1993; Hutson, Anglin, & Pratts, 1994; Pynoos & Nader, 1988).

Access to firearms by violent street gangs should be reduced by legislation, regulation, and community education; and removing illegal guns from the possession of gang members. A number of promising strategies have been recommended (Block & Block, 1993; Cook, 1981a, 1981b, 1991; Cook & Nagin, 1979; Hutson et al., 1995; Kennedy et al., in press; Sheley & Wright, 1993; Sherman et al., 1995; Wright, 1995; Zimring, 1976; 1993, 1995; Zimring & Hawkins, 1987). A firearm wounding and fatality reporting system should be established to determine sources of weapons and assist interdiction efforts (Teret, Wintemute, & Beilenson, 1992; see also American Academy of Pediatrics, 1992; Cristoffel, 1991; Kellerman, Lee, Mercy, & Banton, 1991).

Effective program strategies must be built on continuously updated information, because of the frequently changing patterns (Block & Block, 1993). Short-term successes can be realized by targeting the causes of acute escalation in violence levels (Block & Block, 1993). As the Blocks have shown, programs must take into account the instrumental and expressive characteristics of gang violence. "For example, a program to reduce gang involvement in drugs in a community in which gang members are most concerned with defense of turf has little chance" (Block & Block, 1993, p. 9). Because juveniles tend to shoot others of their own ethnic group (Hutson, Anglin, & Eckstein, 1996), prevention programs must be culture-specific (Soriano, 1993) and age-appropriate (Block & Christakos, 1995; Centers for Disease Control, 1990; Hutson et al., 1994, 1995; Klein & Maxson, 1989).

Several studies have refuted the supposed strong correlation between gang-related homicides and drug trafficking. Analyses of arrests in Boston (Miller, 1994), Chicago (Block & Block, 1993; Block et al., 1996), Miami (Dade County Grand Jury, 1985, 1988; Inciardi, 1990), and Los Angeles (Hutson et al., 1995; Klein, Maxson, & Cunningham, 1991; Maxson, 1995; Meehan & O'Carroll, 1992) have consistently shown a low correlation between gang-related homicides and drug trafficking (see Howell, in press, for a detailed review). Therefore, gang homicides and narcotics trafficking involving adolescents and young adults should be addressed as separate risk factors for homicide

rather than as interrelated cofactors (Meehan & O'Carroll, 1992).

### Summary

This review of the gang program literature suggests that comprehensive gang programs can be structured in two ways. One method involves gearing them specifically toward gang problems; the other one aims to reduce gang delinquency within a broader strategy aimed at serious, violent, and chronic juvenile offenders. The program model that proves to be most effective is likely to contain multiple components, incorporating prevention, social intervention, treatment, suppression, and community mobilization approaches. Gang program components must be integrated in a collaborative approach with full interagency coordination, supported by a management information system and rigorous program evaluation.

The "Comprehensive Community-wide Approach to Gang Prevention, Intervention, and Suppression Program" developed by Spengel and his colleagues targets gang problems. It emphasizes community change as its main theoretical approach. The original model contains twelve program components for the design and mobilization of community efforts by police, prosecutors, judges, probation and parole officers, corrections officers, schools, employers, community-based agencies, and a range of grassroots organizations. Technical assistance manuals are available to support local program development. Variations of these models are currently being implemented and tested in five sites under OJJDP support. Another version of this comprehensive model, the "Gang Violence Reduction Program," has been implemented in Chicago, and is showing very promising results.

The second approach, reducing gang delinquency by targeting serious, violent, and chronic delinquency is accomplished by implementing the OJJDP "Comprehensive Strategy for Serious, Violent, and Chronic Juvenile Offenders." A number of program options are suggested, based on this literature review. This paper organized these options under the prevention and graduated sanctions components of the Comprehensive Strategy. Its theoretical underpinnings are grounded in the "social development model," a risk- and protection-factor approach, fashioned after the public health model.

The graduated sanctions component uses risk and needs assessments as management tools to place offenders in a continuum of graduated sanctions and treatment options.

The 8% Solution program implements the graduated sanctions component of the OJJDP Comprehensive Strategy for Serious, Violent, and Chronic Juvenile Offenders. Assessment of gang involvement is included in the criteria for early intervention services. The gang component of the 8% Solution program targets gang leadership and the most chronic recidivists. The program uses intelligence gathering and information sharing to identify and select appropriate gang members and gangs for intervention.

Finally, a Strategy to Prevent and Reduce Youth Gang-Related (or Motivated) Homicides is recommended. It incorporates program strategies that look promising for preventing and reducing gang homicides. The central program intervention is the Chicago "Gang Violence Reduction Program." To be effective, it must be supported by up-to-date information on "hot spots" of gang violence for targeted intervention efforts by the police and other agencies. Replication of the Early Warning System Geocache of the Illinois Criminal Justice Information Authority is recommended for this purpose. It is recommended that the proposed homicide reduction strategy be implemented in specific Chicago and Los Angeles communities, where gang homicides have reached epidemic proportions.

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Footnotes

1. The term "youth gang" is commonly used interchangeably with "street gang," referring to neighborhood or street-based youth groups. Motorcycle gangs, prison gangs, racial supremists, and other hate groups are excluded. Our operational definition for this review coincides closely with Miller's (1982) definition: "A youth gang is a self-formed association of peers, united by mutual interests, with identifiable leadership and internal organization, who act collectively or as individuals to achieve specific purposes, including the conduct of illegal activity and control of a particular territory, facility, or enterprise" (p. 21).

2. Law enforcement agencies in Los Angeles and Chicago define gang homicides differently (see Maxson & Klein, 1990). In Los Angeles, the basic element is evidence of gang membership on the side of either the suspect or the victim. Maxson and Klein call this a "gang member" definition (pp. 77). In Chicago, a homicide is considered gang-related only if the preponderance of evidence indicates that the incident grew out of a street gang function; that is, gang-motivated (Block et al., 1996).

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Table 12.1.

Selected Gang Program Evaluations: 1936-1997.

<u>Program</u>	<u>Study</u>	<u>Design</u>	<u>Type of intervention</u>	<u>Results</u>
New York City Boys Club	Thrasher (1936)	Descriptive and case study	Prevention-- general delinquency	Negligible impact
Community Area Project	Kobrin (1959) Schlossman & Sedlak (1883a, 1983b)	Descriptive and case study	Prevention-- community organization	Indeterminable
Total Community Delinquency Control Project (Midcity Project)	Miller (1962)	Field observation and quasi- experimental	Prevention-- community org., family service & detached worker	Negligible impact
Chicago Youth Development Project	Caplan, Deshaies, Suttles, & Mattick (1967) Gold & Mattick (1974) Mattick & Caplan (1962)	Quasi- experimental community comparison	Prevention-- detached worker and community organization	No differential impact
Chicago YMCA Program for Detached Workers	Short (1963) Short & Strodtbeck (1965)	Field observation and quasi- experimental observation	Prevention-- detached worker	Early results encouraging; No final results: eval. suspended

<p><b>Group Guidance Program</b></p>	<p><b>Klein (1969) Klein (1971)</b></p>	<p><b>Quasi- experimental</b></p>	<p><b>Prevention-- detached worker</b></p>	<p><b>Significant increase in gang delinquency</b></p>
<p><b>Ladino Hills Project</b></p>	<p><b>Klein (1968)</b></p>	<p><b>Quasi- experimental</b></p>	<p><b>Prevention-- detached worker</b></p>	<p><b>Significant reduction in gang delinquency</b></p>

Community Action Program (Woodlawn Organization)	Spergel, Turner & Brown (1969) Spergel (1972)	Descriptive statistical trends	Social intervention	Ineffective
Wincroft Youth Project (U.K.)	Smith, Farrant, & Marchant (1972)	Quasi-experimental	Prevention--detached worker	No differential impact
Gang Violence Reduction Program	Torres (1981, 1985)	Quasi-experimental	Suppression and crisis intervention	Declines in gang homicides and intergang viol.
House of Umoja	Woodson (1981, 1986)	Descriptive, case study, statistical trends	Prevention, crisis intervention & social intervention	Effectuated truce among warring gangs; reduced homicides; sanctuary
Operation Hardcore	Dahmann (1981)	Quasi-experimental (process)	Suppression (vertical prosecution)	Successful gang prosecution process
San Diego Street Youth Program	Pennell (1983)	Quasi-experimental community comparison	Prevention--detached worker	Indeterminable
Crisis Intervention Services Project	Spergel (1986)	Quasi-experimental community comparison	Crisis intervention and suppression	Some reduction in serious and violent crimes

Gang prevention curriculum	Thompson & Jason (1988)	Quasi-experimental school comparison	Prevention—discouraging adols. from joining gangs	Marginal reduction
Youth Gang Drug Prevention Program (ACYF)	Cohen, Williams, Bekelman & Crosse (1994)	Quasi-experimental treatment & control comparison	Prevention—discouraging adols. from joining gangs; comm. mobil.	Little/no effects on gang involvement; some delinq. reduction

Aggression Replacement Training	Goldstein & Glick (1994)	Quasi- experimental treatment & control comparison	Skillstreaming, anger control, & moral education	Preliminary results w/ membs. of 10 gangs positive
General Reporting Evaluation and Tracking (GREAT) System	Kent & Smith (1995)	Quasi- experimental(pro cess)	Suppression-- targeting gang membs. for prosecution & supervision	Successful targeting process
Gang Violence Reduction Program	Spergel & Grossman (1995, 1996)	Quasi- experimental community comparison	Prevention, social intervention, & suppression	Prelim. results positive; best results w/ combined approach
Youth Gang Drug Intervention and Prevention Program for Female Adols.	Curry, Williams, & Koenemann (1996, 1997)	Quasi- experimental (in Pueblo, CO; Boston, & Seattle)	Prevention & social intervention	Pueblo program showed positive results w/ culture-based prog. for Mexican-Amer. females

<b>Gang Resistance Education and Training Program (G.R.E.A.T.)</b>	<b>Esbensen &amp; Osgood (1997)</b>	<b>Quasi- experimental treatment &amp; control comparison</b>	<b>Prevention-- discouraging adols. from joining gangs</b>	<b>Prelim. results are positive</b>
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Table 12.2.

Epidemiology of youth gang homicide

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- I. United States..... Is one of the most violent countries in the world, #5 among 41 countries<sup>a</sup>  
                                     Has highest homicide rate in the world<sup>b</sup>
- A. Prevalence..... Gang members are 60 times more likely to die of homicide than are  
                                     members of the general population (600 per 100,000 gang members)<sup>c</sup>  
                                     Gang homicide rate in St. Louis is 1,000 times higher than U.S. rate<sup>d</sup>  
                                     In 1989-1993, 33% of L.A. gang-related homicides were drive-bys.<sup>e</sup>  
                                     In 1985-1994, 7% of Chicago gang-motivated homicides were drive-bys<sup>f</sup>
- B. Incidence..... Chicago had 240 street gang-motivated homicides in 1994<sup>g</sup>  
                                     Los Angeles Co. had 803 gang-related homicides in 1992<sup>h</sup>
- C. Victim/offender... 75% of Chicago gang-related homicides are intergang; 14%, nongang  
                                     victims, and 11%, intragang<sup>i</sup>  
                                     Peak age of homicide offenders is 18<sup>j</sup>  
                                     64% of Chicago gang-related homicide victims are age 15-19<sup>k</sup>  
                                     82% of juvenile gang homicides in L. A. are intraracial<sup>l</sup>  
                                     63% of gang homicides in L.A. result from intergang interactions<sup>m</sup>  
                                     23% of L.A. drive-by shooting victims are innocent bystanders<sup>n</sup>  
                                     64% of gang homicide victims are gang members<sup>o</sup>
- D. Weapons..... Firearms used in 95% of gang-related homicides;<sup>p</sup> use of fully- or semi-  
                                     automatic weapons increased 13 fold in Chicago from 1987 to 1994<sup>q</sup>

II. Risk Factors

In addition to the risk factors for gang membership, fatalities mainly related to turf disputes in

closely concentrated geographical areas within specific years and specific age groups<sup>f</sup>  
expressive violence in relatively prospering neighborhoods with expanding populations, acts of  
instrumental violence (e.g., drug disputes) in disrupted/declining neighborhoods<sup>g</sup>; racial and  
class discrimination, immigrant adjustment, changing economic situation, drug market  
conditions<sup>h</sup>; setting and participant characteristics<sup>i</sup>; weapon availability/lethality, more gangs  
and gang violence<sup>j</sup>; and social disorganization (immigrant resettling)<sup>w</sup>. Drug trafficking is not  
strongly correlated with youth gang homicides.<sup>x</sup>

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<sup>a</sup>Rosenberg & Mercy (1986). <sup>b</sup>Hutson et al. (1995). <sup>c</sup>Morales (1992). <sup>d</sup>Decker & Van Winkle (1996).  
<sup>e</sup>Hutson et al. (1996). <sup>f</sup>Block et al. (1996). <sup>g</sup>Block et al. (1996). <sup>h</sup>Klein (1995). <sup>i</sup>Block et al. (1996).  
<sup>j</sup>Block et al. (1996). <sup>k</sup>Block et al. (1996). <sup>l</sup>Hutson et al. (1995). <sup>m</sup>Hutson et al. (1995). <sup>n</sup>Hutson et al.  
(1996). <sup>o</sup>Hutson et al. (1995). <sup>p</sup>Hutson et al. (1995). <sup>q</sup>Block et al. (1996). <sup>r</sup>Block (1993). <sup>s</sup>Block &  
Block (1993). <sup>t</sup>Block & Block (1993). <sup>u</sup>Maxson et al. (1985). <sup>v</sup>Block & Block (1993). Hutson et al.  
(1995), Miller (1982). <sup>w</sup>Curry & Spergel (1988). <sup>x</sup>Block (1993), Block & Block (1993), Hutson et al.  
(1995), Klein et al. (1991), Hutson et al. (1994), Meehan & O'Carroll (1992), Miller (1994).

## Chapter 13

## Effective Intervention for Serious Juvenile Offenders: A Synthesis of Research

Mark W. Lipsey and David B. Wilson

While not all juvenile offenders recidivate, the proportions are sufficient to warrant concern (Snyder, 1988). Effective intervention with such offenders as an integral part of the dispositions and sanctions applied by the juvenile justice system, or as an adjunct to that process, is therefore an important tactic in any strategy to diminish the incidence of delinquency. This is especially true for juveniles whose offenses have been of a serious nature. These juveniles have already demonstrated a capability to engage in harmful behavior, have the potential for long criminal careers, and, even when apprehended and incarcerated for a serious offense, are likely to be on the streets again while still within the age period of peak offending.

What, however, constitutes effective intervention with serious juvenile offenders? Indeed, is there any effective intervention for such delinquents? The recent generation of research reviews has affirmed the ability of some intervention programs to lower recidivism with youthful offenders (Andrews et al., 1990; Cullen & Gilbert, 1982; Garrett, 1985; Gendreau & Ross, 1987; Lipsey, 1992; Palmer, 1994). But, these reviews have typically been oriented to the question of whether intervention is, or can be, generally effective in reducing the rate of subsequent offending among offenders and preoffenders. This is hardly surprising, given the history of doubt about this matter (Lipton, Martinson, & Wilks, 1975; Martinson, 1974). The result, however, is that little systematic attention has been given to reviewing the evidence for effectiveness with distinctive types of offenders, especially those most serious offenders who might be presumed among the most resistant to treatment. A further problem is that relatively little intervention research has been conducted specifically with serious offenders. Even when research samples are selected in such a way as to include serious offenders, they are often mixed in with less serious cases and not separately identified and analyzed.

Nonetheless, the issue of whether intervention of a feasible sort is able to decrease recidivism for the most serious delinquents is an important one. The purpose of this paper is to review what pertinent intervention research is available to address that issue. It focuses on two basic questions: (a) Does the evidence indicate that intervention programs generally are capable of reducing the reoffending rates for serious delinquents; and, (b) if so, what types of programs are most effective? These are questions that are answered most convincingly by experimental or quasi-experimental studies in which the subsequent offending rate of juveniles given treatment is contrasted with that of an otherwise comparable control group not given treatment. Such research yields statistical findings that represent the magnitude of the treatment effect observed in each study. In essence, the questions for this review, then, are whether the average size of the effects of intervention with serious offenders is positive and, if so, for which types of interventions it is largest.

One very direct way of addressing questions of this sort is through meta-analysis, the systematic synthesis of quantitative research results. In meta-analysis, the statistical findings of each research study are coded as effect sizes along with other pertinent descriptive information, e.g., the nature of the intervention studied and the characteristics of the subject sample to which it was applied. This information is compiled in a database that can itself be statistically analyzed to examine mean effect size, the relationship between effect size and the type of intervention, and so forth. The review reported in this paper used techniques of meta-analysis to synthesize experimental and quasi-experimental research on the effectiveness of intervention for serious juvenile offenders. Two different circumstances of intervention were examined: (a) programs for offenders in the community, though possibly on probation or parole, and (b) programs for institutionalized juvenile offenders.

#### Procedures

This review updated the data collection from a more extensive meta-analysis of the effects of intervention on delinquency (Lipsey, 1992, 1995) and analyzed a subset of research studies selected for relevance to serious juvenile offenders. Since few studies in the intervention research literature

deal exclusively with serious offenders, the approach taken here was to identify those studies from the meta-analytic database that involved the high end of the severity continuum as it appears in the delinquency intervention research. That is, while few studies have focused specifically on the effects of intervention on serious offenders, many studies have included such offenders within a more diverse sample of delinquents. In particular, studies were selected with the following characteristics:

(1) The great majority, or all, of the juveniles were reported to be adjudicated delinquents.

In addition, most, or all, of the juveniles had a record of prior offenses and those offenses involved person or property crimes, or an aggregate of all offenses, but not primarily substance abuse, status offenses, or traffic offenses.

(2) The referral to the intervention program was made by a juvenile justice source (not schools, parents, etc.) or the juveniles were recruited directly by the researcher.

(3) If not otherwise selected by the above criteria, studies were added for which coding showed an aggressive history for "most" or "all" of the juveniles or that the thrust of the intervention under study was to attempt to change aggressive behavior.

This selection resulted in 200 experimental or quasi-experimental studies of intervention with samples that involved serious juvenile offenders to some degree. While more stringent criteria might have produced a set of studies with a still denser concentration of serious cases, the smaller number selected under such criteria would not have supported meta-analysis as well and, moreover, would narrow the range of situations and interventions represented.

### Analysis and Results

#### Profile of Studies in the Database

Table 13.1 presents a summary of the characteristics of the 200 studies that comprised the database for this meta-analysis. The more general features of this pool of studies are as follows:

(1) The majority of the studies was conducted in the USA by psychologists, criminologists, or sociologists and published since 1970 as journal articles, book chapters, or technical

reports.

(2) The juvenile samples were largely male, mostly Anglo or of mixed ethnicity, and with an average age in the 14 to 17 range. Most or all of the juveniles had prior offenses, usually reported as an aggregate of mixed offenses or as predominantly property crimes. For two-thirds of the samples, there were indications that some or all of the juveniles had a prior history of aggressive behavior.

(3) In most studies, the intervention under investigation was mandated and the juveniles were under the authority of the juvenile justice system at the time of treatment, usually probation or institutionalization. Treatment was administered by juvenile justice personnel for more than one-third of the groups, by public or private agency mental health personnel for about one-fifth, and by other counselors, lay persons, or researchers.

(4) The predominant types of intervention studied with noninstitutionalized juveniles were counseling, skill-oriented programs (tutoring, social skills, vocational skills, drug abstinence), and multiple services. For institutionalized juveniles they were counseling, skill-oriented programs, and community residential programs. The typical treatment program lasted from 1 to 30 weeks and involved either continuous (institutional) contact or sessions ranging from daily to 1-2 per week for 0.5 to 10 hours total weekly contact time.

(5) Nearly half of the studies used random assignment to experimental conditions with most of the remainder employing some form of matching. Control groups typically received "treatment as usual," e.g., regular probation or institutional programs without the enhancement that constituted the experimental treatment. The recidivism outcome variables measured most frequently were police contact/arrest, court contact, or parole violations. Treatment group sample sizes generally ranged from 10 to 100 (though a few were quite large) and control group samples were similar.

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Insert Table 13.1 about here

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### Recidivism Effect Size

To avoid problems of statistical dependency, only one recidivism outcome measure was selected from each study in the database. Police contact/arrest recidivism was selected if available (since this was the most common outcome measure) and, if not, the outcome most comparable to police arrest was used, e.g., officially recorded contact with juvenile court, offense-based probation violations, or the like.

The effect size index used to represent the outcome for each study was the difference between the treatment and control group means on the selected recidivism measure, standardized by the pooled standard deviation. This standardized mean difference effect size is commonly used for representing the results of experimental comparisons (Cooper & Hedges, 1994) and takes the following form:

$$d = (X_t - X_c) / \sigma_p$$

Hedges' (1981) small sample correction was applied to each effect size and all computations with effect sizes were weighted by a term representing the sampling error associated with the estimate in order to reflect the greater stability of estimates based on larger samples (Hedges & Olkin, 1985; Shadish & Haddock, 1994). For the 200 effect sizes representing intervention effects on recidivism for the entire set of studies, the following summary statistics were obtained:

Weighted mean effect size:	.12
95% confidence interval:	.10 to .15
Heterogeneity ( $Q$ ):	679.66 ( $p < .001$ by Chi-square test)

The overall mean recidivism value for treated juveniles was thus .12 standard deviation units less than that for the control group, and this effect was statistically significant. To put this value in perspective, a mean effect size of .12 is equivalent to the difference between a 44% recidivism rate

for treated juveniles versus a 50% rate for the untreated control group. This six percentage-point difference represents a 12% decrease in recidivism (6/50), which does not seem trivial, but is not especially impressive either.

This overall result gives a simple answer to the question of whether intervention, generally, can reduce recidivism rates for serious juvenile offenders. The grand mean effect size was positive, statistically significant, and large enough to be meaningful even if not enormous. The most important finding of this analysis, however, was the large variability (heterogeneity) of the effect sizes around the grand mean. Thus some of the studies reported effects much larger than the overall mean while others reported much smaller effects. The remainder of this paper explores the nature of that variability in observed effects and attempts to identify the characteristics of the interventions that have the largest effects on recidivism.

#### Variation in Study Methods and Procedures

The first, but least interesting, source of effect size variability that must be addressed stems from differences among studies in method and procedure. Some studies may generate larger effects than others because of their methodological characteristics rather than the effectiveness of the interventions they investigate. To the extent that this happens, comparison of effect sizes across studies can be very misleading if differences are taken as indications that one intervention is more effective than another. To obtain a clearer view of actual intervention effects, therefore, it is desirable to first identify the variability in effect sizes attributable to differences between study method and then statistically control that variability in the effect size analysis. This was done using multiple regression to "predict" effect size solely from the methodological and procedural features of the studies, then subtracting the predicted value from each effect size. The resulting regression model included five variables that accounted for about 12% of the variance in effect sizes. It showed that the effect sizes were at least partially a function of the following features of study method (see Table 1 for breakdowns on the variables referred to here):

- (1) The nature of the assignment to experimental groups. Studies with random assignment to conditions produced smaller effect sizes than those using matching or other quasi-experimental comparisons.
- (2) Attrition. Studies with more subject attrition between the time of assignment to experimental conditions and the time of outcome measurement reported lower effect sizes.
- (3) Type of delinquency outcome measure. Studies that measured recidivism using police contact or arrest information showed larger effect sizes than those that measured recidivism with some other indicator, e.g., court contact, parole violation, etc.
- (4) Sample size. Studies that used larger samples tended to yield smaller effect sizes.
- (5) Statistical power. Studies rated by coders as having high statistical power, based on sample size and application of variance control techniques (e.g., use of analysis of covariance), exhibited smaller effect sizes.

Using the regression equation resulting from this analysis (not shown), it was possible to estimate what the mean effect size over the 200 studies would be if all the studies were uniform with regard to the methodological variables represented in that equation. For this purpose, we assumed a situation in which subjects were assigned randomly to experimental conditions, there was no attrition between the time of that assignment and outcome measurement, recidivism outcomes were measured using police contact/arrest records, the total sample size was 130 (the median for the 200 studies), and statistical power was rated at the mean for all studies ('moderate'). Entering the respective values for these circumstances into the regression equation resulted in an estimate of the mean effect size as .18, somewhat larger than the observed mean of .12. This indicates that most of the departures from the method profile assumed for this estimate act to degrade the observed effect size. If the estimate of the mean effect size under uniform study methods is added to the residual value for each effect size, we have estimates of the effect sizes that would be observed if the studies did not vary on the method variables used in the regression model. These method-adjusted effect sizes were then

analyzed in relation to various treatment variables to determine which were associated with larger effects.

### Intervention for Noninstitutionalized Juveniles

The characteristics associated with effective intervention may be different for programs provided to juvenile offenders in institutional custody than for noninstitutional programs. Not only are the circumstances of treatment different, but the nature and response of the juveniles who receive the treatment may differ as well. The database, therefore, was divided into studies of intervention with noninstitutionalized juveniles ( $N=117$ ) and studies of intervention with institutionalized juveniles ( $N=83$ ). This section reports the analysis of the effects of noninstitutional treatment using the method-adjusted effect size values described above and exploring four categories of variables in relationship to effect size: (a) the characteristics of the juvenile offenders, e.g., the proportion with prior offense records, the proportion with indications of prior aggressive behavior, gender mix, mean age, and ethnic mix; (b) general program characteristics, e.g., the age of the program, who provides treatment (criminal justice, mental health, or other personnel), and whether the juveniles are under juvenile justice authority while in the program; (c) treatment type, e.g., restitution, counseling, behavioral programs, and multiple services; and (d) the amount of treatment, e.g., average number of weeks from first to last treatment event, frequency of treatment, and coders' rating of integrity of treatment implementation.

The task of identifying the characteristics associated with intervention programs that showed large effects on recidivism was approached initially by determining the relative magnitude of the relationship between each of the above clusters of variables and effect size. The procedure for accomplishing this was hierarchical weighted multiple regression with the items in the clusters listed above stepped in group-wise as predictor variables and the method-adjusted effect size as the dependent variable. The regression model resulting from this procedure is summarized in Table 13.2. It is very informative with regard to the general factors that are related to differences among

studies in the magnitude of the treatment effects they report, as follows:

- (1) More than half of the variation among method-adjusted effect sizes across studies is related to variables in the four clusters. Given that the remaining variance includes sampling error and unreliability in the measures represented in the effect sizes, this model provides a good account of between-study differences in effect size and indicates that they should be largely understandable in terms of the study characteristics represented in the four clusters.
- (2) Each of the four clusters of predictor variables added significantly to the Q value of the model (Q-added, the analog of R-square added). Thus, none of these four broad domains of intervention characteristics appears to be redundant or irrelevant in accounting for differences among studies in the size of the intervention effects reported.
- (3) The largest proportion of the effect size variance was associated with the characteristics of the juveniles who received treatment. Further analysis, reported below, sheds additional light on the characteristics of the juveniles responding more and less favorably to intervention.
- (4) The cluster of variables identifying specific types of treatment showed the next largest relationship to effect size, followed closely by the cluster representing the amount of treatment delivered. This finding justifies an attempt to determine which modes and doses of treatment generally reduce recidivism the most. This too was examined in further analysis reported below.
- (5) The cluster of general program characteristics was stepped into the model last on the hypothesis that, once treatment type and amount and the characteristics of the recipients were accounted for, these more general features of the program would not add anything else. Though the proportion of effect size variance associated with this cluster was the smallest of the four, it was nonetheless not negligible. Various aspects of the way in which a program is organized, staffed, and administered, then, appear to have some independent influence on intervention effects.

therefore, the effects seemed to be larger for more serious offenders than for the less serious.

(2) Regarding amount of treatment, three variables showed strong, independent, but somewhat contradictory relationships with effect size. Duration of treatment ("total weeks," median=23) was positively associated with effect size while the mean number of hours per week of treatment (median=5-10 hrs) was negatively correlated; that is, fewer contact hours were associated with larger effects. Reported difficulties in treatment delivery (information in the research report indicating that some juveniles may not have received the intended treatment protocol) were associated with smaller effects, as would be expected.

(3) The only variable from among general program characteristics to make a significant, independent contribution to effect size in the reduced model was the researcher's role in the treatment (four categories: delivered, planned & supervised, influential but did not design or supervise, independent). The less involved the researcher was in the design, planning, and delivery of treatment, the smaller the effect size. This variable appears to distinguish those projects carefully constructed by the researcher for demonstration or research purposes from ongoing "real world" programs with which the researcher is involved primarily as an evaluator.

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Insert Table 13.3 about here

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#### Type of Treatment and Effects on Recidivism

The regression model shown in Table 13.3 allows the mean effect size to be predicted on the basis of the juvenile and program characteristics most strongly associated with effect size. It reflects the method adjustments that were made earlier to statistically control for method and procedural variation among the studies and it accounts for the differences in intervention effects expected on the basis of different juvenile characteristics, amount of treatment, and the role of the researcher in the

program. Because this 'reduced model' was designed to represent the most important and robust variables related to treatment effects, and because it "levels the playing field" by adjusting for between-study differences that make direct comparison of observed effect sizes ambiguous, it will be the primary basis for drawing conclusions about the most effective types of treatment for noninstitutionalized serious juvenile offenders.

To compare different treatments using the regression model of Table 13.3, the dummy-code for each treatment type was added to the variables already in the model and the regression equation was refit. This resulted in separate regression equations for each treatment type in which all the variables were the same except for treatment type itself. From these, the mean effect size associated with each treatment type could be estimated for conditions in which the values on all the other variables were the same simply by plugging in the across-study means on those variables. We can thus compare the mean effect expected for individual counseling with that for, say, behavioral programs when both are assumed to be provided for the same number of weeks, same number of hours per week, to juveniles with the same prior offense histories, and so forth for all the variables in Table 13.3. We will call these estimates the equated effect sizes. This meta-analysis also generated two other forms of effect size estimates that could be broken down by type of treatment. One is simply the original effect size computed from the statistics presented in each study, that is the observed effect sizes. The other is the method-adjusted effect sizes used as the dependent variable for the regression analyses shown in Table 13.3 and which attempted to control for between-study differences in method and procedure.

Each of these different estimates has advantages and disadvantages. The observed effect sizes are most descriptive of the findings reported in the original research studies, but comparisons between types of treatments on this index may be distorted by other differences between studies that also influence the effects. The method-adjusted effect sizes simulate a situation in which uniform methods and procedures were used in each study and thus give the best comparison of the effects produced by

the different types of treatment as those they were actually delivered in the various studies. As such, however, they do not separate differences in effectiveness associated with the specific types of treatment and those associated with differences in the characteristics of the juveniles receiving treatment, different amounts of treatment, and the like. The equated effect sizes, in turn, simulate a situation in which method and procedure were similar across studies and juvenile characteristics, amount of treatment, etc. were uniform as well. They thus give the best indication of the differential effects of specific types of treatment, but may represent unrealistic scenarios with regard to the characteristics of the juveniles to whom those treatments are likely to be given, the customary amounts, and so forth.

The approach taken here is to use all three of these estimates to examine the different treatment types in relation to three considerations. The first consideration is the magnitude of the mean effect for each treatment type according to each estimate, assessed in part by statistical significance testing. The second is the variance around each of those means for the respective effect estimates from the individual studies. Homogeneity tests (Q test) can be applied for this purpose; they indicate whether the effects estimated from different studies differ by more than expected on the basis of sampling error. The third consideration is the extent of agreement across the three different effect size estimates. Agreement indicates that the different statistical controls associated with the different estimates have not made much difference and, hence, the effect size findings are relatively robust to between-study differences on other characteristics. Disagreement means that such between-study differences are confounded with treatment effects and create ambiguity about the actual size of the treatment effect.

The mean effect size for each treatment type for each effect size estimation procedure is shown in Table 13.4. This table first presents the number of studies for each type of treatment as a reminder that they are few—most of these treatments have not often been studied in application to noninstitutionalized serious juvenile offenders. The different types of treatment are then grouped

according to the pattern of findings across the effect size estimates. The top group consists of those treatment types that show consistent positive treatment effects. All the means for all the estimates are statistically significant (indicated as \*) and notably larger than the means across all the treatment types together (at the bottom of the array). Moreover, the effect sizes averaged into each of these means are homogeneous (indicated as °), showing no significant variance across studies around that mean. These are the treatment types with the strongest evidence of effectiveness in reducing the recidivism of noninstitutionalized serious juvenile offenders. Ranked according to the mean equated effect size, this top group was comprised of interpersonal skills training (with only three studies), individual counseling, and behavioral programs.

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Insert Table 13.4 About Here

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Close behind this top group was a second tier of treatment types for which the evidence was also rather convincing. Each showed statistically significant mean effects on all of the effect size estimates. Not all these mean effect sizes were based on homogeneous sets of individual effect sizes, however. Though this is in part due to the larger number of studies in these categories, giving the Q test more statistical power for rejecting the hypothesis of homogeneity, it does raise some question since not all the studies represented in these groups agreed on the size of the effect. The two treatment types in this tier are multiple services (e.g., service brokerage, multimodal service) and restitution programs for juveniles on probation or parole.

The bottom group in Table 13.4 consists of those treatment types with means based on homogeneous effect size estimates, but not significantly different from zero (except one case that is significantly negative). These treatment types show the strongest and most consistent evidence that they were not effective in reducing the recidivism of noninstitutionalized serious juvenile offenders. This group included wilderness/challenge programs, early release from probation or parole (only two

studies), deterrence programs (mostly shock incarceration), and vocational programs. We should note that vocational programs are distinct from employment-related programs in this categorization.

Programs that provided vocational training, career counseling, job search and interview skills, and the like were classified as vocational. Only those that actually involved paid employment were classified as employment.

The second tier from the bottom in the groupings includes only one treatment type, reduced caseload programs for juveniles on probation or parole. The different effect size estimates agreed in finding no significant positive mean effects for these programs (but one significant negative effect). However, the individual effect sizes averaged into these means were not homogeneous, indicating that some of the studies showed significantly larger effects than others.

In the middle of Table 13.4 is a group of treatment types that presented mixed or ambiguous evidence. While some of their effect size means were statistically significant and some were homogeneous, especially for the equated effect size estimates, there was inconsistency across the various estimation procedures. This indicates that the statistical adjustments being applied by the different effect size estimation procedures are relatively large and, therefore, differences among these treatment types are confounded with differences in study method or other characteristics of the intervention, such as amount of treatment or characteristics of the juvenile recipients. On the positive side, the equated effect size estimate is the one designed to smooth out these differences as much as possible and it showed results that were generally favorable for the treatment types in this group. However, without a better accounting of the source of the differences in the various estimates of mean effect sizes, it is uncertain whether the mean effects shown for treatment types in this group represent actual treatment effects or artifacts.

In the concluding section of this paper we return to the issue of which interventions are most effective for serious juvenile offenders. More detail is given there about the nature of the interventions that generated the largest effect sizes in Table 13.4. First, however, we review the

findings regarding intervention with institutionalized offenders.

### Intervention for Institutionalized Juveniles

Of the 200 studies investigating intervention with serious juvenile offenders, 83 dealt with programs for institutionalized youth. Of those, 74 studied programs in juvenile justice institutions and 9 involved residential facilities under private or mental health administration. The typical study of intervention with institutionalized juveniles compared a control group receiving the usual institutional program with an experimental group receiving that plus some additional service that was the treatment of interest in the research.

The same analysis procedures were followed for these studies as are described above for studies involving noninstitutionalized juvenile offenders. The first step was to construct a hierarchical weighted multiple regression model that included all the variables describing characteristics of the juvenile clients and the treatment and program circumstances that had been identified in preliminary screening as potentially important on either conceptual or empirical grounds. These variables were added to the regression analysis stepwise as full clusters to determine if each successive cluster added a significant, independent increment to the model's account of between study variation in the method-adjusted effect sizes. The results of this omnibus regression analysis are shown in Table 13.5. The major findings presented there regarding the relative contribution of each of these clusters of predictor variables are as follows:

- (1) As with the corresponding analysis earlier, a large proportion of the variation among method-adjusted effect sizes across studies was systematically related to variables in the four clusters. The overall R-Squared for the full regression model was .51, indicating that about half the variance was associated with the predictor variables in this model.
- (2) Each of the four clusters of predictor variables except the first added significantly to the Q value of the model (Q-added). The first cluster, characteristics of juveniles, was only marginally significant ( $p = .07$ ).

(3) The smallest proportion of the effect size variance accounted for in the model was associated with the characteristics of the juveniles who received the intervention programs. This was in marked contrast to the results for intervention with noninstitutionalized juveniles (Table 13.2), where this cluster made the largest contribution. It may well be that there is much less variation among samples of institutionalized juveniles than among noninstitutionalized ones and, therefore, less scope for their differences to be related to effect sizes. In any event, this finding indicates that treatment effects are much the same for a given program whatever the sample characteristics.

(4) The cluster of general program characteristics showed the strongest global relationship with effect size. Again, this stands in sharp contrast with the results shown in Table 13.2 for intervention with noninstitutionalized juveniles, where this cluster was the weakest. For intervention with institutionalized juveniles, therefore, certain aspects of the way in which a program is organized, staffed, and administered are importantly related to the size of the recidivism effects above and beyond that accounted for by the specific type of treatment and the amount of that treatment delivered.

(5) The cluster of variables identifying specific types of treatment was in the middle with regard to its relationship to effect size, and was very similar in magnitude to that found for intervention with noninstitutionalized juveniles. The cluster representing the amount of treatment delivered showed a similar middling relationship.

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Insert Table 13.5 about here

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The analysis shown in Table 13.5 demonstrates the overall contribution of the different clusters of variables and sheds some light on their relative importance. As in the application to noninstitutional juveniles earlier, however, this model included too many incidental variables to

provide a good summary representation of the data and a basis for properly estimating the treatment effects to be expected under different circumstances. A "reduced" model was therefore developed following the same procedure described earlier, that is, individual variables with trivial zero-order correlations were dropped, the weakest predictors in each cluster individually were pruned, then all remaining variables were entered together in the prediction model and any nonsignificant in this competition were also omitted. The final regression model resulting from this procedure is shown in Table 13.6. It gave a good accounting of the between-study variation in method-adjusted effect sizes with only four predictor variables, all having to do with amount of treatment and general program characteristics. What it revealed about the variables with the most important, independent relationship to the size of the intervention effects is the following:

- (1) None of the variables describing the characteristics of the juveniles made sufficiently large contributions to be included in this model, despite a procedure that gave them equal opportunity with variables in the other clusters. The most important implication of this finding is that the conclusions this model yields about treatment effects need not be differentiated according to such characteristics of the juveniles treated as age, gender and ethnic mix, and history of prior offenses within the range of typical variation found among serious institutionalized offenders.
- (2) Two of the variables related to amount of treatment proved important in this model. The strongest was the integrity of the treatment implementation, i.e., the extent to which there was monitoring to ensure that all juveniles received the intended treatment. Studies in which there was indication of high monitoring yielded larger effects than those in which implementation integrity was rated as low. The duration of treatment in number of weeks was also related to the size of the treatment effect, with greater duration associated with larger effects. The median length of treatment for the studies in this sample was 25 weeks, and the frequency and hours of weekly contact were mostly rated as "continuous," indicating that treatment was

spread over or integrated into the institutional regimen.

(3) Among general program characteristics, the largest treatment effects were found for programs that were relatively well established (two years or older). The variable that was most strongly related to effect size, among all those in the model, however, was administration of the treatment by mental health personnel (in contrast, primarily, to juvenile justice personnel). This latter finding is quite striking considering that most of these juveniles were being treated in juvenile justice institutional settings. It may be that justice personnel, as the authorities in these institutional settings, are in a role that makes effective treatment more difficult.

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Insert Table 13.6 about here

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#### Type of Treatment and Effects on Recidivism

As in the earlier application, the reduced regression model can generate estimates of the treatment effect sizes that would be expected for each type of treatment under uniform treatment conditions (e.g., type of juvenile recipient, amount of treatment) studied with uniform methodology (since the method-adjusted effect sizes were used in this model). To make estimates of expected effect sizes with the regression model reported in Table 13.6, the predictor variables were set to the mean values across the 83 studies of intervention with institutionalized juveniles and the regression equation was used to calculate the expected effect size for that situation. The mean treatment effect sizes that result are shown in Table 13.7 along with those from the two other estimation procedures described earlier.

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Insert Table 13.7 about here

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As in the version of this table for noninstitutionalized juveniles (Table 13.4), the different types of treatment were grouped according to the magnitude of the mean effect sizes and the consistency of the estimates within and between those averaged values. It is worth emphasizing once again the small number of studies upon which many of these estimates were based. While it is useful to draw what insights we can from these empirical findings, many more studies of intervention with institutionalized serious offenders will be needed before strong conclusions can be reached.

The top group of treatment types in Table 13.7 showed relatively large, statistically significant mean effect sizes across all the estimation procedures that were based on homogeneous sets of individual effect sizes. The two types of treatment in this group were interpersonal skills programs and the teaching family home. Interpersonal skills training, recall, was also one of the stronger treatments for noninstitutionalized juveniles (Table 13.4). In the next tier were treatment types with consistently significant mean effects for all the estimation procedures, but some had significant heterogeneity among the individual effect sizes that were averaged into the mean. While these, too, represent very favorable results, the heterogeneity across studies indicates that different studies of this treatment type found significantly different results, some larger and some smaller than the mean values shown. The types of treatment in this grouping were multiple service programs, community residential programs (mostly non-juvenile justice), and the miscellaneous category for "other" treatments that could not be classified elsewhere.

At the bottom of Table 13.7 is one treatment type that showed consistent null effects (milieu therapy) and, in the tier above, three types of treatment that did not show statistically significant mean effects, but with means that were based on heterogeneous distributions. Thus some studies of these types of treatments found effects significantly larger than the mean values shown, while others found significantly smaller effects. This grouping includes drug abstinence programs, wilderness/challenge programs, and employment-related programs (which showed larger effects for the noninstitutionalized offenders).

The middle tiers of treatment types in Table 13.7 showed mixed evidence. Some mean effect sizes were statistically significant, some were averaged over homogeneous findings from the different studies, and some were consistent across the three estimation procedures. None, however, met all of these criteria. Therefore the evidence was ambiguous for these groups of treatment types. In the case of behavioral programs, the problem may simply be too few studies (2) because, other than the failure of the relatively high effect size means to reach statistical significance in two instances, the positive evidence was generally consistent. For the three counseling varieties (individual, group, and guided group), however, the effect size estimates were quite inconsistent. Some were positive and statistically significant, some near zero; none were consistent across the estimation procedures; and only one was based on a homogeneous set of individual effect sizes. Observed effects in the studies in these groups appear to be confounded with other study characteristics so that it is difficult to disentangle the actual treatment effects.

#### Summary and Discussion

The meta-analysis reported in this paper reviewed the statistical findings of 200 experimental or quasi-experimental studies of the effects of intervention with serious juvenile offenders and attempted to answer two questions: (a) Can intervention programs reduce the reoffending rates of serious delinquents? (b) If so, what programs are most effective?

The first of these questions can be answered rather easily and convincingly, even though the answer is not very informative. The studies examined in this meta-analysis represented a large portion, if not virtually all, of the interventions with serious delinquents that have been studied with methods that yield some assessment of their impact on recidivism. The average intervention effect for these studies was positive, statistically significant, and equivalent to a recidivism reduction of about six percentage points, e.g., from 50% to 44% (mean effect size = .12). The variation around this overall mean, however, was considerable. Some studies and groups of studies reported effects much larger than this and others reported effects very much smaller. The average effect, therefore, does

not provide a good summary of what can be expected from intervention with this juvenile population. The interesting question, then, is the second one above— given a range of results from very bad to very good, what types of programs are the best for reducing recidivism?

That question was much more difficult to answer. While 200 research studies might appear quite sufficient for the purpose, in fact, it is not an altogether satisfactory number. The range and diversity of intervention programs represented in these studies, the differences among the samples of juveniles, and the assortment of methods and procedures used to study the results all interact to produce a bewildering variety of combinations and permutations. As a result, there were relatively few studies of any one type of intervention, and those generally differed appreciably among themselves with regard to the juvenile samples represented and the research methods applied. This circumstance must be kept firmly in mind as the findings of this meta-analysis are interpreted because it makes virtually all of the principal conclusions tentative. It might be said, therefore, that the first finding of this meta-analysis is that sufficient research has not yet been conducted on the effects of intervention with serious juvenile offenders.

With this caveat in mind, we turn to those findings of the meta-analysis that address the issue of which intervention programs are most effective for reducing the recidivism of serious juvenile offenders. The first finding has to do with the differentiation of those intervention programs administered to offenders who were institutionalized and those administered to offenders in the community, that is, those not institutionalized. The former were primarily incarcerated in juvenile justice facilities, while the latter were mostly on probation or parole. The circumstances of intervention were so different for these two situations that they were analyzed separately. The mean effect sizes were similar, however: .14 for noninstitutional intervention and .10 for institutional intervention. Even though the latter is smaller in magnitude, the difference was not statistically significant.

The contrast between these two situations became most apparent in the omnibus analyses

examining the relationship of the intervention effect sizes to four clusters of variables that generally provided a profile of (a) the characteristics of the juveniles in the treatment samples, (b) the amount of treatment, (c) the type of treatment, and (d) the general program characteristics. For noninstitutional intervention, effects were most strongly related to the characteristics of the juveniles, especially their prior offense histories. The influence of treatment type and amount was intermediate, and general program characteristics were only weakly related to effect size. For intervention with institutionalized juveniles, however, this ordering was reversed. General program characteristics showed the strongest relationship to the size of the intervention effects, especially the age of the program and whether service was administered by mental health or juvenile justice personnel. The type and amount of treatment displayed moderate relationships to the size of the intervention effects, and the characteristics of the juveniles were not especially important.

More detail will be provided shortly about the characteristics associated with effective intervention in each of these situations. What is important to note here is that the program characteristics most closely connected with success in reducing the reoffense rates of serious offenders were quite different for institutional programs with incarcerated offenders than for noninstitutional programs for offenders on probation and parole in the community. Furthermore, those characteristics were not fully embedded in the nature of the intervention, e.g., counseling, restitution, or drug abstinence, but were part of the administrative context for the intervention or related to the makeup of the juveniles to whom that intervention was applied. Effective intervention, therefore, requires more than a 'magic bullet' program concept— it also depends upon a good match between program concept, host organization, and the clientele targeted.

#### Intervention with Noninstitutionalized Offenders

Whereas institutionalized offenders, almost by definition, represented relatively serious cases, there is some question about whether the noninstitutionalized offenders in the 117 studies selected for this meta-analysis can be characterized as serious offenders. Few intervention studies deal exclusively

with serious offenders, especially outside of institutional settings. Thus, in order to give some representation to the range of relevant intervention programs, the selection criteria for the studies in this analysis were not highly restrictive. With only a few exceptions, all that was required was that the intervention sample be at least "predominantly" adjudicated delinquents, that "most" or "all" have prior offenses involving person or property crimes, and that the referral for services be made by a juvenile justice source, e.g., law enforcement. While these criteria excluded very lightweight cases, e.g., first offenders, they nonetheless selected studies involving juvenile samples that varied considerably in the severity of their offense records.

For those interventions that were found in this meta-analysis to be effective in reducing the recidivism of these juveniles, therefore, a question arises as to whether they would be equally effective if applied only to the most serious offenders. Given the limited volume of research addressing that issue directly, we have no assurance that the answer is necessarily yes. However, the analysis of the effect size data provided some important indications that the interventions identified as most effective overall for the noninstitutionalized juveniles were also effective for the subset of serious offenders. In particular, the regression analyses reported in Tables 13.2 and 13.3 examined the extent to which the magnitude of treatment effects across studies was associated with the characteristics of the samples of juveniles to which the treatment was applied. If there were significant differential effects for more vs. less serious offenders, we would expect to see some substantial correlations between effect size and the sample characteristics related to offense severity. However, most of the sample characteristics were not significantly related to effect size in these regression analyses, including extent of aggressive history and the gender, age, and ethnic mix represented.

The most telling results were those involving the prior offense records of the juveniles in the samples. The variables relating to this issue were "proportion with prior offenses" and "type of prior offenses," each indicating that a sample had a greater or lesser concentration of serious offenders.

These two critical variables, in fact, did show significant, independent correlations with intervention effect size in the regression analyses. However, the direction of that correlation was such that intervention effects were larger for the samples with greater concentrations of serious offenders. If anything, then, it would appear that the typical intervention in these studies was more effective with serious offenders than with less serious offenders. Combined with the fact that little differentiation was found with respect to other characteristics of the juvenile samples (i.e., extent of aggressive history; gender, age, and ethnic mix), these results indicate that the effects of the interventions studied in this meta-analysis were much the same for different juvenile samples except that those effects tended to be larger for samples of more serious offenders. Therefore, despite the fact that not every intervention found effective for noninstitutionalized delinquents in this meta-analysis dealt with the most severe offenders, there is good reason to believe that they would be at least equally effective if applied exclusively to such a population.

#### Effectiveness of Different Treatment Types with Noninstitutionalized Offenders

Table 13.8 presents a summary of the various groupings of treatment type that were developed in this meta-analysis and a summary of the average size of their effects on recidivism. For intervention with noninstitutionalized offenders, the treatments in the top two groupings showed the most impressive effects overall. This list looks much like the ranking generated in earlier meta-analysis work on the effects of intervention for general delinquency (Lipsey, 1992). What works for delinquents in general, therefore, also seems to work for noninstitutionalized serious offenders. Correspondingly, what does not work for general delinquents also does not work for these more serious offenders. The one rather striking departure from this generalization has to do with the effects of individual counseling. Among studies of general delinquency, this treatment was not found to have especially large effects. Curiously, for these noninstitutionalized serious offenders it seems to be much more effective— indeed, emerged as one of the most effective treatments. This apparent discrepancy warrants further examination, but that goes beyond the scope of the present review.

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Insert Table 13.8 about here

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Given an identification of the treatment types and circumstances that appear to produce the largest effects on the reoffense rates of noninstitutionalized serious offenders, it is relevant to ask just how large those effects are in practical terms. As Table 13.8 summarizes, the standardized mean difference effect size index that was the statistical indicator of effect size used in this meta-analysis was found to have mean values of around .40 for the most effective types of treatment. These values are more readily interpretable if they are transformed into equivalent recidivism rate values. For this purpose, we assumed that the untreated control groups in these studies had a police contact/arrest reoffense rate of .50 during the first year after intervention. In fact, the actual value was very near this for the subset of studies reporting police contact/arrest as proportions. With this baseline, the reoffense rate of the treatment group could be determined as the proportion which, when contrasted with .50, yields the mean effect size value actually found for the treatment of interest. Cohen (1988) provides arcsine tables that make this procedure straightforward. This conversion was made for each summary effect size mean displayed in Table 13.8.

As is evident, the magnitude of the effects on recidivism for the best treatments was appreciable when viewed in terms of relative reoffense rates. The most effective treatment types had an impact on recidivism that was equivalent to reducing a .50 control group baseline to around .30. In other words, we estimated that without treatment the recidivism rate for these juveniles would have been 50%. If they received the most effective of the treatments reviewed in this meta-analysis, their recidivism would drop to about 30%. Clearly this is a rather substantial drop; indeed, the rate is nearly cut in half. If we proportion the 20 percentage point decrease against the 50% baseline (20/50), we find that these treatments reduced recidivism by about 40%. Given that the juveniles involved were on the upper end of the severity continuum, this is a rather impressive effect.

Multiple services.

(1) A probation program offered 24 different treatment techniques with no juvenile receiving more than twelve or less than four. The core procedure, used with almost fifty percent of the youths, trained responsible citizens from the community to act as unofficial counselors, friends, and role models. Other treatments included group counseling, work crews, alcohol awareness, and vocational training. (Morris, 1970).

(2) Project New Pride provided three months of intensive services to probationed youth, followed by approximately nine months of follow-up services. The primary services included educational testing and remediation, disability testing and remediation, employment counseling, pre-vocational training, job development and placement, personal counseling, cultural education, recreation, and client advocacy. (Browne, 1975).

(3) Youth were placed under intensive case management and received an array of services to meet their particular needs. Some categories of treatment were recreation, after school programs, inpatient therapy, outpatient child therapy, outpatient family therapy, supervised group and independent living services, and vocational placement. (Weisz et al., 1990).

Intervention with Institutionalized Offenders

The 83 studies of the effects of intervention with institutionalized offenders examined in this meta-analysis included 74 that involved juveniles in the custody of juvenile justice institutions and nine that involved residential institutions administered by mental health or private agencies. While the juveniles within such institutions varied with regard to the severity of their offense histories and, especially, the extent of their violent behavior, all, of course, have committed offenses sufficiently serious to convince the authorities that they must be either confined or closely supervised in an institutional facility.

Effectiveness of different treatment types with institutionalized offenders. Table 13.8 (introduced earlier) presented the various groupings of treatment type that were developed in this

meta-analysis and a summary of the average size of their effects on recidivism. The treatment types in the top three groupings showed the largest mean effects overall but the results were somewhat inconsistent for all but the top group. Once again, the relatively small number of studies in each category when the full set was subdivided by treatment type made it difficult to draw any firm conclusions about the relative effectiveness of different treatment types for institutionalized offenders.

Table 13.8 also summarizes the results for each treatment type on the standardized mean difference effect size index used in this meta-analysis. This was found to have mean values of .35-.40 for the most effective types of treatment, a notch lower than for the corresponding category of intervention with noninstitutionalized offenders. Viewed in terms of the equivalent recidivism rate differentials, the most effective treatment types had an impact on recidivism that was equivalent to reducing a .50 control group baseline to around .30-.35. That is, if we assume that the recidivism rate for these juveniles would have been 50% without treatment, the most effective of the treatments reduced it to 30-35%. This is a considerable decrease, especially in light of the fact that it applies to institutionalized offenders who can be assumed to be relatively serious delinquents.

To furnish additional details about the nature of the intervention programs represented in the top groups in Table 13.8 for institutionalized offenders, the authors' description of the treatment has been summarized below for a selection of the research reports represented in the five treatment types in the two highest groups.

#### Interpersonal skills.

(1) Adolescent boys living in a community home school participated in 12 one-hour sessions of social skills training over a 6-week period. Training was carried out in groups of four and involved the use of instructions, discussion, modeling, role-played practice, videotaped feedback, social reinforcement, and homework tasks. (Spence & Marzillier, 1981).

(2) Adolescent boys at the Youth Center participated in Aggression Replacement Training, a multimodal, psychoeducational intervention. The intervention was made up of three components:

structured learning training, anger control training, and moral education. There were 30 sessions over a 10 week period. (Glick & Goldstein, 1987).

(3) The Social Interactional Skills Program was a structured didactic program that encouraged youths to recall past experiences which were problematic and identify the aversive social stimulus which impinged on their social interaction. This was followed by systematic desensitization using imagery techniques and cognitive reappraisal. They were then taught to enhance their behavior repertoire by experimenting with new behaviors. (Shivrattan, 1988).

#### Teaching family home.

(1) Achievement Place was a community based, family-style, behavior modification, group home for six to eight delinquents. This program was administered by a couple, referred to as "teaching-parents," who develop positive teaching relationships with the youths in order to impart needed behavioral skills, assume responsibility for the youths, and act as advocates for them in the community. Youths were able to return to their own homes on the weekend and remain in their local schools. (Kirigin, Braukmann, Atwater, & Worl, 1982).

(2) Adjudicated delinquents went to a community-based, family-style, behavior modification group home where "teaching parents" utilized a token economy while closely monitoring the youths' progress in school and working individually to counsel the youths on difficulties they have in their lives. (Wolf, Phillips, & Fixson, 1974).

#### Behavioral programs.

(1) Incarcerated male and female adolescents participated in a 12-week cognitive mediation training program involving small discussion groups ranging in size from 10 to 14 youth. The program focused on remediating those social problem solving skill deficits and modifying those beliefs that supported the use of aggression through instruction and structured discussion. (Guerra & Slaby, 1990).

(2) Institutionalized male delinquents participated in a stress inoculation training program that

included defining anger, analyzing recent anger episodes, reviewing self-monitoring data, and constructing an individualized 6-item anger hierarchy. Specific coping skills taught were self-instructions, relaxation, backward counting, pleasant imagery, assertive responding, and self-reinforcement. Role playing and modeling were also used. (Schlicter & Horan, 1981).

(3) Girls in a correctional institution were trained in reinforcement therapy principles and acted as peer counselors for newer incoming wards. As the newer girls progressed they were exposed to the techniques through their peer counselors and by the staff, eventually achieving the role of peer counselor themselves. (Ross & McKay, 1976).

#### Community residential programs.

(1) The treatment center was a community-based all girls group home. Residents were provided advocacy, counseling, educational support, and vocational support. (Minnesota Governor's Commission on Crime Prevention and Control, 1973).

(2) Institutionalized youths were placed in a 32-bed therapeutic community setting in an inner city neighborhood where they received individual and group counseling, remedial education services, vocational assessment and training, and other needed services. (Auerbach, 1978).

(3) A community based residential treatment center for adjudicated youths utilized extensive group discussion as a therapeutic community and emphasized progressive assumption of self-responsibility. (Allen-Hagen, 1975).

#### Multiple services.

(1) Camp Fenner was an experimental program of the Probation Department. Its distinctive aspects were the provision of supportive services, including vocational training, skill oriented education, and job placement by a private contractor; cottage living; and enriched probation department staffing. (Kawaguchi, 1975).

(2) Institutionalized boys were treated in a multifaceted program to overcome academic, vocational, and psychological deficits. Various therapeutic methods were available to meet their

particular needs, as well as education, training, work opportunities, and supervision from a community volunteer upon release (Thambidurai, 1980).

(3) The Planned Re-Entry Program was a short-term 52-bed living unit that included cottage living, counseling, education and recreation activities. The counseling component consisted of individual and small group counseling. The educational component taught everyday survival skills such as basic reading and math, consumer education, problem solving, and job getting and keeping. The recreational program was designed to enhance the youths' use of leisure time. The program emphasized time management, interpersonal relationships, personal responsibility, and rule conformity (Seckel & Turner, 1985).

#### The Challenge of Effective Intervention with Serious Juvenile Offenders

Andrews et al (1990) described the "risk principle" as one of the elements of effective therapeutic intervention with juvenile delinquents. According to the risk principle, treatment for delinquent behavior is most effective when the juveniles to whom that treatment is administered have appreciable risk of actually reoffending. This principle reflects, in part, the truism that there must be potential for bad behavior before bad behavior can be inhibited. The contrary view is often expressed—that it is the more serious, "hardened" cases that will be least amenable to treatment. The 200 studies of intervention with serious offenders in this meta-analysis supported the risk principle over the view that serious delinquents cannot be helped to reduce their offending. For both institutionalized and noninstitutionalized offenders, the 'average' intervention program represented in the research literature produced positive, statistically significant effects equivalent to about a 12% reduction in subsequent reoffense rates. The effects of the average program, however, were not representative of the impact achieved by the best programs. These were capable of reducing recidivism rates by as much as 40%, an accomplishment of considerable practical value in terms of the expense and social damage associated with the delinquent behavior of these juveniles. On the other hand, the 'below average' programs generally had negligible effect on recidivism, indicating

that success is not ensured in this domain. This paper has attempted to quantify and summarize the evidence that intervention can reduce the recidivism of serious offenders, and to identify the characteristics of effective intervention in a way that can aid the design and implementation of useful programs.

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Appendix

Juvenile Delinquency Meta-analysis Bibliography

Part I: Intervention with Noninstitutionalized Offenders

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Table 13.1: Characteristics of the 200 Studies Used in the Meta-Analysis

Variable	Number	Proportion	Variable	Number	Proportion
<i>General Study Characteristics</i>			<i>Juveniles in Treatment (continued)</i>		
<b>Publication Year</b>			<b>Mean Age of Juveniles at Time of Treatment</b>		
1950-59	4	.02	10.0-12.9	4	.02
1960-69	28	.14	13.0-13.9	11	.06
1970-79	81	.41	14.0-14.9	34	.17
1980-89	62	.31	15.0-15.9	47	.23
1990-95	19	.10	16.0-16.9	46	.23
Missing	6	.03	17.0-17.9	14	.07
<b>Type of Publication</b>			18.0-18.9	10	.05
Book	16	.08	19.0-19.9	12	.06
Journal/book chapter	79	.40	20.0-20.9	3	.02
Dissertation/thesis	21	.11	21.0-21.9	2	.01
Technical report	83	.41	Missing	17	.09
Conference paper	1	.01	<b>Predominant Ethnicity of Juveniles</b>		
<b>Discipline of Senior Author</b>			Anglo	77	.39
Psychology	58	.29	Black	28	.14
Criminology	38	.19	Hispanic	3	.02
Sociology	17	.08	Mixed	44	.22
Education	15	.07	Missing	48	.24
Psychiatry/Medicine	7	.04	<b>How Many Juveniles With Prior Offenses</b>		
Political Science	5	.03	None	1	.01
Social Work	3	.02	Most	43	.22
Other	1	.01	All	155	.77
Missing	56	.28	Missing	1	.01
<b>Country in which the Study was Conducted</b>			<b>Predominant Type of Prior Offense</b>		
USA	180	.90	No priors	1	.01
Canada	8	.04	Mixed	116	.58
Britain	10	.05	Person crimes	7	.04
Other	2	.01	Property crimes	71	.35
			Missing	5	.03
<i>Juveniles in Treatment</i>			<b>Juveniles with Indications of Aggressive History</b>		
<b>Gender Mix Among Juveniles</b>			None	38	.19
No males	7	.04	Some	110	.55
Some males	3	.02	Most or all	21	.11
Mostly males	67	.34	Missing	31	.16
All males	107	.53			
Missing	16	.08			

**Table 13.1 (continued): Characteristics of the 200 Studies Used in the Meta-Analysis**

Variable	Number	Proportion	Variable	Number	Proportion
<i>Treatment Characteristics</i>			<i>Treatment Characteristics (continued)</i>		
<b>Source of Juveniles Treated</b>			<b>Type of Treatment—</b>		
CJ referral, voluntary	69	.35	<b>Institutionalized Juveniles</b>		
CJ referral, mandatory	123	.62	Counseling, all types	17	.20
Solicited by researcher	8	.04	Skill-oriented treatment, all types	15	.18
<b>Juveniles Under Juveniles Justice Authority at Time of Treatment</b>			Behavioral treatment, all types	2	.02
Yes	126	.63	Community residential	14	.17
No	74	.37	Guided group, milieu therapy	10	.12
<b>Personnel Who Administer Treatment</b>			Multiple services	6	.07
Juvenile justice	74	.37	All other	19	.23
School	3	.02	<b>Weeks from First to Last Treatment Event</b>		
Mental health, public	20	.10	1-10	39	.19
Mental health, private	26	.13	11-20	46	.23
Non MH counselors	22	.11	21-30	34	.17
Laypersons	33	.16	31-40	15	.08
Researcher	8	.04	41-50	12	.06
Other	7	.04	51-100	39	.19
Missing	7	.04	Missing	15	.08
<b>Type of Treatment— Noninstitutionalized Juveniles</b>			<b>Frequency of Treatment Contact</b>		
Reduced caseload, probation/parole	12	.10	Continuous	54	.27
Restitution, probation/parole	10	.09	Daily	24	.12
Deterrence programs, shock incarceration	6	.05	2-4 per week	20	.10
Counseling, all types	31	.26	1-2 per week	62	.31
Behavioral programs, all types	7	.06	Less than weekly	14	.07
Skill-oriented programs, all types	20	.17	Missing	26	.13
Multiple services	17	.15	<b>Mean Hours per Week of Treatment Contact</b>		
All other	14	.12	≤ 1.0	38	.19
			1.1-2.0	18	.09
			2.1-4.0	12	.06
			4.1-10.0	14	.07
			10.1-20.0	6	.03
			20.1-40.0	9	.05
			40.1-60.0	5	.03
			Continuous	57	.28
			Missing	41	.21

Table 13.1 (continued): Characteristics of the 200 Studies Used in the Meta-Analysis

Variable	Number	Proportion	Variable	Number	Proportion
<i>Methods and Procedures</i>			<i>Methods and Procedures (continued)</i>		
<b>Procedures for Assignment to Experimental Conditions</b>			<b>Recidivism Outcome: Type of Delinquency</b>		
Random	89	.45	Unofficial delinquency	12	.06
Regression discontinuity	2	.01	Police contacts/arrests	86	.43
Waiting list control	4	.02	Probation contact	10	.05
Matching subjects	48	.24	Court contact	41	.21
Equated groupwise	10	.05	Parole contact	23	.12
Other nonrandom	47	.24	Institutional infraction	8	.04
			Institutionalization	18	.09
			Other	2	.01
<b>What the Control Group Receives</b>			<b>Treatment Group Sample Size</b>		
Nothing, wait list or minimal contact	19	.10	4-49	91	.45
Placebo	14	.07	50-99	57	.29
Treatment as usual, probation	43	.22	100-199	28	.14
Treatment as usual, institutional	72	.36	≥200	24	.12
Treatment as usual, other	52	.26			
			<b>Control Group Sample Size</b>		
			4-49	97	.48
			50-99	51	.26
			100-199	33	.17
			≥200	19	.10

**Table 13.2: Hierarchical Weighted Multiple Regression Results for Predicting Method-Adjusted Effect Sizes for Intervention with Noninstitutionalized Offenders**

Variable Cluster	Q-Added for Each Cluster	df	p	Proportion of Total Q for Model
Characteristics of Juveniles	77.79	7	<.001	.40
Amount of Treatment	37.70	8	<.001	.20
Treatment Type	49.60	14	<.001	.26
General Program Characteristics	28.19	9	<.001	.15
<i>Overall Model</i>	193.28	38	<.001	1.00
<i>Residual</i>	156.01	73 <sup>a</sup>	<.001	
<i>R-Squared</i>	.55			

*Characteristics of Juveniles Cluster:* proportion with prior offenses, type of prior offenses, extent of aggressive history, proportion of males, mean age, ethnic mix, and heterogeneity rating.

*Amount of Treatment Cluster:* total weeks of treatment, frequency of treatment, mean hours/week, mean hours total contact, rated amount meaningful contact, rated intensity of treatment event, integrity of treatment implementation, and difficulties in treatment delivery.

*Treatment Type Cluster:* reduced caseload—probation/parole, restitution—probation/parole, academic programs, early release—probation/parole, employment related, deterrence programs, vocational programs, individual counseling, interpersonal skills, group counseling, drug abstinence, family counseling, wilderness/challenge, advocacy/social casework, multiple services, and behavioral programs.

*General Program Characteristics Cluster:* program age, demonstration program, criminal justice agency program, criminal justice facility, criminal justice treatment personnel, mental health treatment personnel, juvenile justice authority, voluntary vs. mandatory, and researcher's role.

Notes:  $\beta$ =standardized regression coefficient; B=unstandardized regression coefficient; Q=Homogeneity statistic indicating the amount of variance associated with each predictor variable; Q is tested as Chi-square at the indicated df to determine the statistical significance of the regression coefficient.

<sup>a</sup> For Chi-square test, 5 degrees of freedom were subtracted to account for methods model fit previously.

**Table 13.3: Weighted Multiple Regression 'Reduced Model' for Predicting Method-Adjusted Effect Sizes for Intervention with Noninstitutionalized Offenders**

Variable	$\beta$	B	Q(df)	p
Proportion with prior offenses	.1252	.0755	4.80 (1)	.029
Type of prior offenses	-.2446	-.1441	18.58 (1)	.001
Total weeks of treatment	.1565	.0014	7.96 (1)	.005
Mean hours/week contact	-.2142	-.0456	10.90 (1)	.001
Difficulties in Tx delivery	.1678	.0622	9.08 (1)	.003
Researcher's role	-.2187	-.0639	12.37 (1)	.001
<i>Regression constant</i>		.5450		
<i>Overall Model</i>			87.06 (6)	.001
<i>Residual</i>			262.22 (105 <sup>a</sup> )	.001
<i>R-Squared</i>	.25			

Notes:  $\beta$ =standardized regression coefficient; B=unstandardized regression coefficient; Q=Homogeneity statistic indicating the amount of variance associated with each predictor variable; Q is tested as Chi-square at the indicated df to determine the statistical significance of the regression coefficient.

<sup>a</sup> For Chi-square test, 5 degrees of freedom were subtracted to account for methods model fit previously.

**Table 13.4: Mean Effect Sizes for Different Treatment Types for Observed and Statistically Adjusted Effect Size Estimates (Noninstitutionalized Juvenile Offenders)**

Treatment Type	N	Observed Effect Size	Method Adjusted Effect Size	Equated Effect Size
Interpersonal skills	3	.46**	.38**	.49**
Individual counseling	8	.52**	.43**	.40**
Behavioral programs	7	.49**	.43**	.35**
Multiple services	17	.26*	.32*	.25**
Restitution, probation/parole	10	.16**	.17**	.13*
All other	14	.08	.25*	.37*
Employment related	4	.13	.14	.30**
Academic programs	2	.10	.19	.29**
Advocacy/social casework	6	.11	.15**	.27**
Group counseling	9	.02	.04	.18*
Family counseling	8	.24*	.27*	.11
Reduced caseload, probation/parole	12	-.09*	.00	.02
Wilderness/challenge	4	.13°	.07°	.17°
Early release, probation/parole	2	.10°	.11°	-.05°
Deterrence programs	6	-.03°	-.02°	-.10°
Vocational programs	4	-.17°	-.20**	-.16°
<i>Overall</i>	117	.14*	.18*	.18*

\*  $p < .05$  (statistical significance)

°  $Q > .05$  (homogeneity)

**Table 13.5: Hierarchical Weighted Multiple Regression Results for Predicting Method-Adjusted Effect Sizes for Intervention with Institutionalized Offenders**

Variable Cluster	Q-Added for Each Cluster	df	p	Proportion of Total Q for Model
Characteristics of Juveniles	13.08	7	.070	.10
Amount of Treatment	34.22	8	<.001	.27
Treatment Type	32.50	12	.001	.26
General Program Characteristics	45.26	9	<.001	.36
<i>Overall Model</i>	125.05	36	<.001	1.00
<i>Residual</i>	119.01	38 <sup>a</sup>	<.001	
<i>R-Squared</i>	.51			

*Characteristics of Juveniles Cluster:* proportion with prior offenses, type of prior offenses, extent of aggressive history, proportion of males, mean age, ethnic mix, and heterogeneity rating.

*Amount of Treatment Cluster:* total weeks of treatment, frequency of treatment, mean hours/week, mean hours total contact, rated amount meaningful contact, rated intensity of treatment event, integrity of treatment implementation, and difficulties in treatment delivery.

*Treatment Type Cluster:* guided group, milieu therapy, teaching family home, community residential, individual counseling, group counseling, behavioral programs, employment related, interpersonal skills, drug abstinence, wilderness/challenge, and multiple service.

*General Program Characteristics:* program age, demonstration program, criminal justice agency program, criminal justice facility, criminal justice treatment personnel, mental health treatment personnel, juvenile justice authority, voluntary vs. mandatory, and researcher's role.

Notes:  $\beta$ =standardized regression coefficient; B=unstandardized regression coefficient; Q=Homogeneity statistic indicating the amount of variance associated with each predictor variable; Q is tested as Chi-square at the indicated df to determine the statistical significance of the regression coefficient.

<sup>a</sup> For Chi-square test, 5 degrees of freedom were subtracted to account for methods model fit previously.

**Table 13.6: Weighted Multiple Regression 'Reduced Model' for Predicting Method-Adjusted Effect Sizes for Intervention with Institutionalized Offenders**

Variable	$\beta$	B	Q(df)	p
Total weeks of treatment	.2041	.0025	9.61 (1)	.002
Integrity of Tx implementation	.2589	.0965	14.40 (1)	.001
Program age	.2568	.1390	13.87 (1)	.001
Mental health Tx personnel	.2581	.1643	15.05 (1)	.001
<i>Regression constant</i>				
<i>Overall Model</i>		-2985	48.09 (4)	.001
<i>Residual</i>			195.97 (73 <sup>a</sup> )	.001
<i>R-Squared</i>	.20			

Notes:  $\beta$ =standardized regression coefficient; B=unstandardized regression coefficient; Q=Homogeneity statistic indicating the amount of variance associated with each predictor variable; Q is tested as Chi-square at the indicated df to determine the statistical significance of the regression coefficient.

<sup>a</sup> For Chi-square test, 5 degrees of freedom were subtracted to account for methods model fit previously.

**Table 13.7: Mean Effect Sizes for Different Treatment Types for Observed and Statistically Adjusted Effect Size Estimates (Institutionalized Juvenile Offenders)**

Treatment Type	N	Observed Effect Size	Method Adjusted Effect Size	Equated Effect Size
Interpersonal skills	3	.40 <sup>oo</sup>	.36 <sup>oo</sup>	.42 <sup>oo</sup>
Teaching family home	6	.41 <sup>oo</sup>	.32 <sup>oo</sup>	.26 <sup>oo</sup>
Multiple services	6	.11*	.19*	.29*
Community residential	8	.24*	.32*	.24*
All other	19	.10*	.16*	.23*
Behavioral program	2	.21 <sup>o</sup>	.34 <sup>o</sup>	.44 <sup>oo</sup>
Individual counseling	8	.09 <sup>o</sup>	.21*	.19*
Group counseling	9	-.01	.08	.10*
Guided group	7	.13*	.15*	.03
Drug abstinence	5	.02	.11	.14
Wilderness/challenge	5	.04	.12	-.01
Employment related	2	.18 <sup>o</sup>	.11	.13
Mileau therapy	3	.02 <sup>o</sup>	.12 <sup>o</sup>	.13 <sup>o</sup>
<i>Overall</i>	83	.10*	.17*	.17*

\*  $p < .05$  (statistical significance)  
<sup>o</sup>  $Q > .05$  (homogeneity)

**Table 13.8: Summary of Most and Least Effective Types of Treatment and the Size of the Effects They are Estimated to Produce on Recidivism Rates**

Noninstitutionalized Offenders			Institutionalized Offenders		
Treatment Type	Midpoint of Estimated Effect Sizes	Equivalent Tx/Control Recidivism Contrast <sup>a</sup>	Treatment Type	Midpoint of Estimated Effect Sizes	Equivalent Tx/Control Recidivism Contrast <sup>a</sup>
<i>Positive Effects, Consistent Evidence</i>					
Individual counseling	.46	.28/.50	Interpersonal skills	.39	.31/.50
Interpersonal skills	.44	.29/.50	Teaching family home	.34	.33/.50
Behavioral programs	.42	.30/.50			
<i>Positive Effects, Less Consistent Evidence</i>					
Multiple services	.29	.36/.50	Behavioral programs	.33	.34/.50
Restitution, prob/parole	.15	.43/.50	Community residential	.28	.36/.50
			Multiple services	.20	.40/.50
<i>Mixed but Generally Positive Effects, Inconsistent Evidence</i>					
Employment related	.22	.39/.50	Individual counseling	.15	.43/.50
Academic programs	.20	.40/.50	Guided group	.09	.45/.50
Advocacy/casework	.19	.41/.50	Group counseling	.05	.47/.50
Family counseling	.19	.41/.50			
Group counseling	.10	.45/.50			
<i>Weak or No Effects, Inconsistent Evidence</i>					
Reduced caseload, prob/parole	-.04	.52/.50	Employment related	.15	.43/.50
			Drug abstinence	.08	.46/.50
			Wilderness/challenge	.07	.46/.50
<i>Weak or No Effects, Consistent Evidence</i>					
Wilderness/challenge	.12	.44/.50	Mileau therapy	.08	.46/.50
Early release, prob/parole	.03	.48/.50			
Deterrence programs	-.06	.53/.50			
Vocational programs	-.18	.59/.50			

<sup>a</sup> Recidivism of treatment group in comparison to assumed control group recidivism of .50.

## Chapter 14

### The Impact of the Juvenile Justice System and Prospects for Graduated Sanctions in a Comprehensive Strategy

Barry Krisberg and James C. Howell

This chapter examines the effectiveness of the juvenile justice system in handling serious, violent, and chronic juvenile offenders. This review focuses on traditional juvenile corrections and recent policy and procedural changes in traditional features of the juvenile justice system, consisting of targeted arrest and prosecution, and transferring juveniles to the criminal justice system.

After addressing these areas we provide an overview of programs that jurisdictions might consider in implementing the graduated sanctions component of the Comprehensive Strategy for Serious, Violent, and Chronic Juvenile Offenders (Wilson & Howell, 1993). We include promising and effective programs not covered in Altschuler's (Chapter 15, this volume) review of "intermediate sanctions," and highlight some of the most effective programs in Lipsey and Wilson's (Chapter 13, this volume) review that illustrate how the Comprehensive Strategy can be implemented. We conclude with some suggestions for a research agenda on juvenile justice system handling of serious, violent, and chronic juvenile offenders.

#### The Impact of Juvenile Corrections

Conceptualizing the impact of juvenile corrections on SVJ offenders is no simple task. Juvenile corrections consists of a range of facilities that vary widely with respect to their size, location, security levels, and staffing patterns. Juvenile corrections encompasses fifteen-bed secure facilities in Massachusetts and individual California Youth Authority institutions that hold over 1,000 youthful offenders. There are training schools, detention centers, camps, ranches, wagon trains, environmental institutes, group homes, boot camps, residential programs for emotionally disturbed youths, chemical dependency programs, correctional sailing ships, and independent living arrangements. While most juvenile facilities are run by government agencies, an increasing share of

the residential "market" is held by non-profit and for-profit organizations. Most SVJ offenders are confined in facilities operated by state juvenile corrections agencies, but the current trend is creation of special institutions for SVJ offenders and others for older juveniles and young adults that are operated by adult departments of corrections (Torbet et al., 1996).

States vary widely in their juvenile correctional policies (Krisberg et al., 1984). For instance, the ages defining the jurisdiction of juvenile corrections vary tremendously — and laws setting these age ranges are changing rapidly. States differ on the mix of correctional programs operated by state versus county government. States such as Ohio, Pennsylvania, and California operate many correctional programs at the local level, whereas state agencies in Georgia, Florida, Massachusetts, Louisiana, and Tennessee control virtually all juvenile corrections programs in their jurisdictions. In Maryland, most juvenile corrections facilities are operated by private agencies. Massachusetts contracts out about half of its secure beds and all of its community-based programs to non-profit groups, whereas California and Missouri utilize few, if any, private providers. States also differ on the extent to which they provide aftercare or post-release services. As noted earlier, there is substantial variability in the size of facilities, the security of these programs, and the quality and quantity of educational and treatment resources.

The general status of juvenile corrections is not very good. A national study of the conditions of confinement revealed that many juvenile correctional facilities were not meeting minimal professional standards (Parent et al., 1994). Other data suggest that juvenile corrections facilities are becoming more crowded, especially the larger urban facilities. In the competition for tax dollars, juvenile corrections has lost out to prisons and jails. There has been little new construction or renovation of juvenile facilities, increasing the number of youthful inmates housed in unsafe and deteriorated institutions. Reports of institutional violence and escapes, which have plagued juvenile corrections from its inception, continue to the present day (Krisberg, 1996).

Whether juvenile confinement halts or accelerates juvenile criminal behavior has been debated since the mid-19th century. Advocates of alternatives to incarceration from Charles Loring Brace to Jane Addams to Jerome Miller have argued that institutionalization breeds crime (Krisberg & Austin, 1993). Defenders of juvenile corrections have claimed that confinement, even in terrible conditions, exerts a deterrent effect (Murray & Cox, 1979; DiIulio, 1995). Defenders of juvenile corrections have asserted that institutional treatment is a useful response to youth crime (Rhine, 1996). This policy debate has rarely been informed by empirical data.

Presumably, reoffending rates would be instructive in calculating the impact of juvenile corrections on SVJ offenders, but there is no agreement among practitioners on how to measure recidivism or the crime control effects of incapacitation for serious and chronic offenders. Studies examining the success of juvenile corrections have employed a number of different indicators to gauge subsequent criminality. The most frequently employed measures include (1) the proportion of youths who are crime free during a specified follow-up period, (2) the incidence or frequency of reoffending before and after correctional interventions, and (3) the severity of the crimes committed before and after intervention. Other researchers have examined "survival rates," which measure the distribution of time until the next criminal event. The vast majority of studies employ official data to measure recidivism and are subject to the known limitations of these data. In particular, official data are as much indicative of justice system policies and practices as they are descriptive of individual behavior (Lerman, 1975). Few researchers have employed self-report data to measure post-program performance (Barton & Butts, 1988; Austin et al., 1988; Gottfredson & Barton, 1992). However, the interpretation of self-report delinquency data when used in program evaluations raises many additional methodological concerns. For instance, offenders subject to intensive community supervision are not likely to reveal all of their current lawbreaking behavior to researchers (Austin et al., 1988). Due to the well-known problems of virtually all recidivism measures, it is generally advisable to use multiple indicators, although this advice has rarely been followed (Maltz, 1984).

The main empirical findings on the impact of juvenile corrections derive from follow-up studies on cohorts of youths released in a given year. While each of these studies has limitations, especially weak research designs, they offer some important insights.

Tollett (1987) examined recidivism among a cohort of 1,664 youths released from a variety of Florida juvenile correction programs in 1984. Recidivism was defined as having been placed on probation or confined in an adult or juvenile facility within one year of the date of exit from the original juvenile corrections placement. During this period 44 percent of the sample were convicted (or had sustained delinquency petitions) for new charges. The study does not indicate how many others were arrested and whether these charges resulted in convictions. However, only 26 percent of the group were recommitted to a correctional facility in the one-year period. Tollett also found that two non-residential programs had the lowest failure rates and that the worst results were recorded for youths released from Florida's most secure juvenile facilities. These findings must be viewed cautiously because the research did not control for the differing risk levels of youths in different programs.

The Pennsylvania Juvenile Court Judges Association sponsored a study of ten residential placement programs (Goodstein & Sontheimer, 1987). The measure of recidivism was rearrest and reconviction within the first twelve to eighteen months after release. The study consisted of random samples of youths released from ten programs. The final sample contained approximately one-third of all those released from these programs in 1984. By the end of the follow-up period, 55 percent of the sample had been arrested; 48 percent were arrested during the first twelve months. Nearly one-third of the study sample were convicted of a new offense during the follow-up period. Juveniles with the most extensive prior arrest records were much more likely to be arrested, convicted, or incarcerated during the follow-up period. The same finding held true for youths with more extensive histories of residential placements. The younger the age of first arrest, the higher the failure rates. Poor school performance and difficulties in adjusting to institutional placements were predictive of

higher recidivism rates.<sup>4</sup> Race was not predictive of differential failure rates. Goodstein and Sontheimer (1987) did not find statistically significant differences among the ten programs in terms of recidivism data, although the small sample sizes from each program would have permitted them to detect only large differences among the programs. The study authors note that inter-program differences may be masked because judges actually have a very narrow range of options for individual cases. They suggest that "future research should direct itself to performing 'head to head' comparisons of placements which pose themselves as real choices for judges to make" (p. 58).

Many other studies have confirmed the finding of very high rates of failure for graduates of the secure juvenile corrections programs. The National Council on Crime and Delinquency (NCCD) examined the post-release behavior of 2,200 youths from the California Youth Authority (CYA) between 1981 and 1982. The CYA wards had experienced an average of fourteen months confinement in large training schools. Within twelve months of their release, 70 percent of this group were arrested (Baird, 1988). Another NCCD study found that 79 percent of those released from Utah's secure juvenile facilities were arrested in the subsequent twelve months (Austin et al., 1988). A study of youths released from the Massachusetts training schools, before they were closed by Jerome Miller's reforms, revealed rates of subsequent arraignments of 66 percent (Coates et al., 1978). This same Harvard University study revealed that the failure rate of youths placed in the early community-based programs was 74 percent. However, later research involving a cohort of Massachusetts youths released from the community-based programs in the mid-1980s reported a rearraignment rate of 51 percent (Austin et al., 1991).

More recent data from the OJJDP Juveniles Taken Into Custody Research Program (JTIC) expands the coverage of states reporting recidivism data (Krisberg et al., 1996). This project tracks individual data on youths entering and exiting juvenile corrections in thirty-five states. By examining those states that report comparable data each year, it is possible to calculate the proportion of youths who exited a youth corrections system and who were readmitted to that same system within one year

of their release dates. This is a very conservative measure of failure. It is limited to those juveniles whose new crimes result in commitments to state juvenile institutions and does not cover youngsters who are transferred to the adult system or who "age out" of the jurisdiction of the juvenile court; notwithstanding these limitations, the JTIC database shows a robust rate of juvenile recidivism.

There were twenty states in the JTIC reporting program that share age 18 as the upper age of juvenile jurisdiction, permitting readmission rates to be calculated over a reasonable time period. Of the 8,057 youths released in 1992 (who were younger than 17 years and thus had at least one more year's eligibility to be sent back to the juvenile corrections system), 27 percent were readmitted within one year of their release. Male readmission rates were much higher than for females (28 percent and 16 percent, respectively). Property and drug offenders had the highest failure rates. There was a strong relationship between the number of prior correctional commitments and readmission rates.

Analyses of similar data from seven states whose upper age of juvenile court jurisdiction was age 17 showed similar results. There were two exceptions in these states: (1) the overall readmission rates were higher, and (2) failure rates for these younger juveniles charged with violent offenses were as high as for property offenders.

A somewhat different picture is observed if one looks at the incidence of recidivism rather than its prevalence. Put simply, the prevalence measures reviewed above examine the issue of absolute desistance from justice system contacts during a specific period. Thus they do not measure declines in the incidence of reoffending (the rate of crimes per time period), as well as changes that might occur in the severity of the offenses being committed. Corrections policy might well be posed as a problem in managing chronic illnesses (i.e., if we cannot cure the disease, can we at least lessen the frequency and severity of relapse?). Murray and Cox (1979) were among the first to popularize this measure, calling it "the suppression effect. They reported substantial reductions in the frequency of offending (67.5%) of Illinois youths when comparing their arrest patterns one year before and one

year after correctional interventions. This suppression effect held up for youths placed in secure training schools and other intensive residential placements. Youngsters placed on probation also showed suppression effects, but these were of much smaller magnitude than the incarcerated juveniles.

Murray and Cox's (1979) work set off a professional firestorm, in part because much of the book is a polemic on behalf of deterrence strategies. Liberals, who had always argued that incarceration made troubled youngsters become more hardened criminals, did not like the idea that locking up youths might exert positive influences. Researchers, most notably Michael Maltz (1984), attempted to illustrate that the suppression effect was a statistical artifact (produced by regression to the mean) or was produced by maturation (in theory, rates of offending slow down with aging). The methodological debate was inconclusive.

In a replication of the Illinois research, the National Council on Crime and Delinquency (NCCD) conducted a study of all youths adjudicated in the Salt Lake City, Utah, Juvenile Court (Austin et al., 1988). The results were remarkably similar to those reported by Murray and Cox (1979). Probation showed small suppression effects, compared to the much larger declines in the rate of offending for youths placed in residential programs. Similar to the Illinois research, large suppression effects were seen for youths who had short-term residential stays, as well as longer periods of institutionalization. The NCCD research also indicated that minimal supervision produced the same crime reductions as intensive forms of probation supervision and services. The Salt Lake City data suggested that maturation and regression to the mean explained some, but not all, of the reduced frequency of offending for juveniles committed to state correctional programs. Interestingly, Utah correctional programs tended to involve smaller facilities and were more community-based than the Illinois correctional programs.

NCCD's study of the Massachusetts Department of Youth Services (DYS) replicated the findings of the Utah and Illinois studies. Youths showed sharp reductions in the frequency and severity of their offending after leaving the DHS program, compared to the last twelve months prior

to incarceration (Austin et al., 1991). Compared to the pre-program period, the number of offenses declined by more than half in the first twelve months that they were in the community after DYS placement. The number of offenses committed by these youths remained at the lower level for the next two years. While regression to the mean and maturation exerted some impact on these Massachusetts recidivism data, these two explanations were insufficient to explain the observed results.

The most extensive follow-up study conducted to date was completed by Haapanen (1990) based on samples of youths released from the California Youth Authority in the 1960s. He found that over 96 percent of the sample continued to be arrested into their adult years. Haapanen (1990) examined the entire juvenile court histories of his study group and compiled arrest records on them for approximately fifteen years after their release from the Youth Authority. Thus, his research maps the criminal careers of a large cohort of serious juvenile offenders.

Long-term crime patterns differed among the racial groups in Haapanen's (1990) sample, with African Americans having the highest proportion of violent offending. Offending rates declined steadily over time, and a strong maturation effect was evident in the data. Criminal careers exhibited a high degree of instability over time, making it very difficult to predict which offenders would be high-rate offenders in the future. In general, the frequency of offending increased rapidly in the years immediately before commitment to the Youth Authority and dropped off just as rapidly in the years immediately following release from correctional facilities.

Haapanen (1990) concluded that the observed decline in the frequency of offending was partly due to maturation and regression to the mean, but that strong correctional interventions did appear to suppress some criminal behavior. But the sharp decline in offending rates and the general instability of crime rates did not support the idea that longer sentences would produce further crime reductions. Haapanen (1990) estimates that adding more years to the incapacitation of these youths would be a very expensive policy that would produce 1 to 3 percent reductions in the crime rate. The study also

raised serious questions as to whether selective incapacitation programs would enhance the crime control potential of the Youth Authority. Haapanen (1990) notes:

Under these conditions, it would be difficult (if not impossible) to identify "high-rate offenders for differential sentencing. It would also be difficult to take seriously models that forecast the effects of lengthening prison sentences for various offenders, since their behavior cannot be counted on to stay the same (Haapanen, 1990, p. 147).

The Haapanen study lends considerable support to similar findings in the Illinois, Utah, and Massachusetts studies. His study illustrates that most serious and high-rate offenders slow down their rate of offending after correctional interventions. While there is some instability or lack of predictability in offending rates, the best prediction one could make is that over time serious offenders continue to offend, albeit at lower frequency rates and with less serious offenses.

This research review raises as many questions as it resolves. Overall, we note that large percentages of serious juvenile offenders continue to commit crimes and come back into the juvenile justice system. Further, there is some evidence that intensive correctional interventions do not stop criminal careers, although these interventions may slow the rate and severity of offending.

Studies of released offenders can offer only a very incomplete view of how correctional experiences mold future behavior. We need to open the corrections "black box" and describe the experience of confinement in juvenile facilities. Is it the benign treatment world portrayed by many administrators, or is it a world of violence, sexual exploitation, and cruelty, as described by current and former inmates and youth advocates? What are we really measuring when we attempt to gauge the impact of the corrections experience on young people? Far more detailed descriptive as well as evaluative data on educational, vocational, drug treatment, counseling, and family reunification services provided by juvenile corrections agencies are needed. The lack of data on these specific components of juvenile corrections makes it quite difficult to defend current practices, particularly against those who argue that juveniles should be placed in adult prisons and jails.

### Targeted Arrest and Prosecution

Studies of programs designed to target arrest and prosecution of serious, violent and chronic juvenile offenders have not produced impressive results. Research conducted by Cronin et al. (1988) examined the Habitual Serious and Violent Juvenile Offender Program (HSVJOP) funded by the Office of Juvenile Justice and Delinquency Prevention (OJJDP). This project examined targeted prosecution models in several cities. The study found that targeted prosecution programs were able to overcome the initial resistance of the juvenile justice system and became institutionalized components of the local justice systems. There have been subsequent iterations of the HSVJOP approach known as SHO/DI (Serious Habitual Offender Drug Involved Program) and SHO/CAP (Serious Habitual Offender Comprehensive Action Program) that have been less well researched but have yielded similar results.

Cronin and her colleagues (1988) found that the key ingredients to the success of these programs were more experienced prosecutors, more case preparation resources, greater interaction with victims and witnesses, and greater continuity in case handling. In some locations this led to speedier prosecution of habitual, serious juvenile offenders and contributed to increases in conviction rates, as well as increases in the numbers of youths transferred to criminal courts. However, it was less clear whether the program increased sentences in the juvenile justice system. Further, OJJDP had hoped that comprehensive treatment responses would complement the prosecution efforts; these did not materialize. Cronin and her colleagues (1988) suggested that case screening and identification criteria were overly broad and produced more cases than the project's resources could handle.

The evaluation of the HSVJOP could not answer a number of crucial policy concerns. The projects were able to select high-rate offenders (those who had committed a large number of offenses). However, it is less clear whether the screening criteria are the best predictors of criminal involvement in the future. Other selection criteria might have been employed, such as violent offenders with no prior convictions, or offenders with long histories of misdemeanors but no serious

offenses. Cronin et al. (1988) could not predict the consequences of focusing on different offender groups. The study also could not answer questions about the consequences, intended and unintended, of holding youths in juvenile facilities for longer periods of time or placing them in adult facilities. Ultimately, the HSVJOP research could not determine if targeted prosecution programs actually deter youths from continued criminal behavior. The core questions that must be resolved are whether traditional juvenile correctional interventions or adult-style punishments exert positive, neutral, or negative impacts of youthful criminal careers. For example, if correctional interventions are criminogenic, as some advocates have asserted, then getting more youngsters into "schools for crime" for longer stays seems self-defeating. But if one can demonstrate crime suppression effects of correctional interventions, then successful and speedy prosecutions may make a difference.

Other researchers have raised similar concerns about prioritized prosecution programs. Chaiken and Chaiken (1987) studied programs aimed at career criminals in Los Angeles, California, and Middlesex, Massachusetts. They found that information contained in case files was not very helpful in discriminating between high-rate and lower-rate offenders. The Chaikens were better able to identify the much smaller group of high-rate offenders that committed the most serious crimes (see also Weiner, 1996). The best predictors of future violence were the frequency and severity of violence in the youth's recent past.

A recent study exploratory by Rasmussen and Yu (1996) appears to lend some support to the claim that timely intervention for high-risk youths and increased incarceration of juvenile habitual offenders can have large public safety benefits. The authors use economic modeling techniques to conclude that the efforts of Florida's Duval County State's Attorney's Office and the Sheriff's Department led to preventing over 7,200 robberies, burglaries, and motor vehicle thefts by incarcerating habitual juvenile offenders between 1992 and 1995. The researchers arrived at these estimates by comparing the experience in Duval County with two other Florida counties that did not have a similar program. Rasmussen and Yu admit that their analysis is more suggestive than

conclusive. They were unable to control for a broad range of other community factors that may have produced the observed reductions in youth crime. Further, the juvenile justice system in Duval County simultaneously introduced a number of innovations, making it impossible to attribute the results to only one aspect of this multifaceted program. It should also be noted that the incarceration program in Duval County contained extensive educational and mentoring services. Moreover, Duval County youths sent to this program may have spent less time in custody in the local Sheriff's facility than if they had been placed in the custody of the Florida Department of Juvenile Justice. In addition, youths exited the Duval County program with the record of this conviction expunged. Reducing the effects of a punitive criminal conviction may have played some role in the positive results.

Not surprisingly, policies of targeting the dangerous few have generated intense support among law enforcement officials and politicians. Unfortunately, the ample investments in these programs have not been matched with adequate research designs. We know little more today about the efficacy of targeted enforcement and suppression programs than we did two decades ago (see Klein, 1995 for a review of youth gang suppression programs). One of the problems is that few SVJ offenders are arrested specifically for this type of offense (only 6 percent in the Denver Youth Study, see Huizinga et al., 1996). Among juveniles who injured someone in this Denver sample, 74 percent were arrested at some point. But about one-fourth were arrested before they committed a serious violent offense, about one-fourth were arrested during the same year, and about one-fourth were arrested after initiating their serious and violent offending.

Prosecutor-run programs need to be evaluated because the current trend is to mount more and more of them. The Duval County program is an innovative one that combines early intervention and diversion programs with criminal court prosecution of juveniles, followed by supervision and aftercare in conjunction with probation and parole (Shorstein, 1995). It needs more rigorous

evaluation." Community prosecution" is also a new concept that is being tried in Portland, Manhattan, Boston, and Indianapolis (Boland, 1996). These need to be evaluated.

Innovative local law enforcement and community policing programs are also being implemented (OJJDP, 1996a). Several are curfew centers, which are being evaluated. Others that are receiving considerable attention include Boston's Operation Night Light, a cooperative effort between the city's Police Youth Violence Strike Force and the Probation Department; and the New Haven program of delinquency prevention through child-centered community policing. These, too need rigorous evaluation.

#### Transfer of Juveniles to the Criminal Justice System

Few juvenile justice policies have received more political and media attention in recent years than the idea of shifting juveniles to the adult system. Yet no one knows for sure how many juveniles are transferred to the adult court system, and very little about the consequences. Current estimates are no better than the first national studies of transfers (Hamparian et al., 1982) because data are kept only on one of three transfer mechanisms: judicial waivers, legislative exclusion from juvenile court jurisdiction, and prosecutor direct files. Data are not available on legislative exclusion of juvenile court jurisdiction nor prosecutor direct files. Snyder and Sickmund (1995:155) estimate that as many as 176,000 youths below the age of 18 were tried in adult courts in 1991 in states that set the upper age of juvenile court jurisdiction at ages 16 or 17. (Others are transferred because legislatures exclude certain juvenile offenses from juvenile court jurisdiction.) In comparison, in 1991 juvenile court judges waived just 9,700 cases to criminal courts. In 1994, 12,300 cases waived from juvenile courts to the adult system (Butts et al., 1996), an increase of 27 percent in the three-year period. In Florida there were 7,000 prosecutor direct files in 1993 (Snyder & Sickmund, 1995:156). In 1993, slightly over 5,200 adolescents age 17 or younger were confined in adult prisons, about twice as many as in 1982 (National Institute of Corrections, 1995).

A recent review of studies of the three transfer mechanisms noted above (Howell, 1996) found that, of fifty studies reported to date, thirty-six examined judicial waiver, three assessed legislative exclusion, and five studies examined prosecutorial direct file. Only a handful of studies have compared juvenile and criminal justice handling. Only judicial waiver has been definitively examined.

Howell (1996) concluded that studies to date suggest that judges appear to be more adept than prosecutors or state legislatures in selecting serious, violent, and chronic offenders for transfer. Recidivism rates are much higher among juveniles judicially waived to criminal court than among those retained in the juvenile justice system. The few comparative studies suggest that waived juveniles are more likely to reoffend, more quickly, at a higher rate, and perhaps with more serious offenses than juveniles retained in the juvenile court. Thus, the short-term public safety benefits of waiver and incarceration is offset by higher recidivism rates. Although SVJ offenders retained in the juvenile justice system are less likely to be incarcerated, some type of sanction is more likely to be imposed, more quickly, and recidivism rates are lower than in the criminal system. However, this does not necessarily show that adult court is less effective. An evaluation of the effectiveness of the adult court for SVJ offenders is inherently complicated because certain types of offenders and not others are selected and processed by this type court.

The higher success rate with SVJ offenders in the juvenile justice system may be partly because of judges' use of graduated sanctions. In finding that, compared to juveniles who are retained in juvenile court, juvenile offenders transferred to criminal court in Minnesota had significantly higher recidivism rates, Podkopacz and Feld (1995:170) offered three possible explanations: (1) by emphasizing prior records, juvenile courts may succeed in identifying the most chronic offenders for transfer, (2) the greater effectiveness of treatment in the juvenile justice system, or (3) the failure of criminal justice system punishment to deter juveniles from committing future offenses.

Studies suggest that legislation which excludes certain offenses from juvenile court jurisdiction has the least chance of success (Howell, 1996). The main reason is that these statutes generally target a single violent offense for transfer, and the current offense is the worst predictor of a subsequent violent offense. Snyder (Appendix, this volume) found that among juveniles referred to the Phoenix juvenile court over a sixteen-year period, only 17 percent were referred for a second violent offense. Few state legislatures incorporate chronicity into excluded offense criteria (Fritsch & Hemmens, 1995).

Although it is the least researched transfer method, prosecutorial direct file has not yet demonstrated the ability to select the most serious, violent, and chronic juvenile offenders for transfer. The lack of success may result from prosecutors' lack of familiarity with the offending history, provision of and response to treatment, and the importance of weighing a variety of key factors in making these decisions. Studies of prosecutorial direct file have been conducted only in Florida. The most recent of these studies (Bishop et al., 1996) found that the transferred group had higher rates of recidivism, committed more serious subsequent offenses, and experienced a shorter time to failure than the matched sample of non-transfer youths. Consequently, Bishop et al. (1996) concluded that Florida's transfer policy had little deterrent value. They noted that the short-term benefits of incapacitating juvenile offenders in the adult system were negated quickly as the transferred youths returned to the community and committed many more crimes than their juvenile justice system counterparts.

Data on the comparative outcomes of those transferred to the criminal court system versus those handled in the juvenile court system are rare. An early study by White (1985) compared juveniles charged with very serious crimes in the juvenile justice system with similar cases involving young adults in criminal courts. White (1985) found that criminal courts were slightly more likely to convict and incarcerate young defendants than juvenile courts. The young adults served considerably more time in prison than the juveniles in state training schools. The young adult offenders had a

recidivism rate that was much higher than that of the juveniles. In another study, Fagan (1995) contrasted the handling of SVJ offenders in New York and New Jersey. He looked at almost 1,200 felony offenders who were ages 15-16, arrested for robbery or burglary, in matched counties. Because of state laws, the New Yorkers would be more likely to be handled in the adult system, and the New Jersey youths were mostly processed by the juvenile justice system. In fact, Fagan (1995) discovered that the sanctions were more certain and more severe for the New Jersey sample, compared with the New York sample. However, the New York youths had higher recidivism rates, committed more new offenses, and were crime-free for a shorter time period than the New Jersey offenders (Fagan, 1995). While these results are intriguing, the findings are clouded by the inability to truly match offenders from the same jurisdiction. It is difficult to interpret the results: Were they produced by the lesser penalties of the New York system, the adverse consequences of adult correctional interventions, or other differences between the New York and New Jersey youths?

There are also unintended consequences of juvenile incarceration in adult prisons that have not yet been fully researched. Forst and his colleagues (1989) interviewed non-transferred youths subsequently incarcerated in juvenile training schools and youths transferred to criminal court, who were later imprisoned. Juveniles were far more likely to be violently victimized in adult prisons than in juvenile correctional facilities (Forst et al., 1989). Although property crime victimization rates were about the same for the two groups, 37 percent of the juveniles in training schools versus 47 percent of juvenile prison inmates suffered violent victimization, including violence at the hands of staff. Sexual assault was five times more likely in prison, beatings by staff nearly twice as likely, and attacks with weapons almost 50 percent more common.

In sum, there is remarkably little empirical evidence that transferring juveniles to the criminal justice system produces any positive benefits. More evaluation of criminal court sanctions is needed, particularly of the prosecutorial direct file method, and of innovative methods of transfer that are currently being developed. Current research in Florida is evaluating the effectiveness of the state's

"blended sentencing" approach to treatment of transferred juveniles (see Thomas & Bilchik, 1985, for a description), " through a three-tiered approach that gives prosecutors expanded discretionary power in making jurisdictional decisions as the age of defendants and the severity of offenses increases" (OJJDP, 1996b, p. 27). Minnesota enacted a blended sentence law in 1995 that creates a new offender category called "extended sentence jurisdiction juveniles" for serious chronic offenders over age 14. Once convicted of a crime, this offender category receives both a juvenile disposition and a suspended criminal sentence. If they do not successfully meet the conditions of the juvenile disposition, offenders can be incarcerated under the criminal sentence. Juvenile court jurisdiction is extended to age 21 (OJJDP, 1996b, p. 27).

#### A Comprehensive Strategy

The above review and other chapters in this volume suggests that the OJJDP Comprehensive Strategy for Serious, Violent, and Chronic Juvenile Offenders (Wilson & Howell, 1993) holds considerable promise for dealing with the subjects of this volume. The Comprehensive Strategy incorporates two principal components: (1) preventing youths from becoming delinquent by focusing prevention programs on at-risk youths; and (2) improving the juvenile justice system response to delinquent offenders through a system of graduated sanctions and a continuum of treatment alternatives that include immediate intervention, intermediate sanctions, and community-based corrections sanctions, incorporating restitution and community service when appropriate.

The initial target population for prevention programs is juveniles at risk of involvement in delinquent activity. While primary delinquency prevention programs provide services to all youths wishing to participate, maximum impact on future delinquent conduct can be achieved by seeking to identify and involve in prevention programs youths at greatest risk of involvement in delinquent activity. The next target population is youths, both male and female, who have committed delinquent (criminal) acts, including juvenile offenders who evidence a high likelihood of becoming, or who already are, serious, violent, or chronic offenders.

### Graduated Sanctions

The efficacy of graduated sanctions is substantiated in a wide array of studies. Many of these are referenced in Lipsey and Wilson's (Chapter 13, this volume) review of institutional and non-institutional programs. Indeed, several of the examples of programs their meta-analysis showed to be most effective incorporate graduated sanctions. These include the contingency contracting program (Jessness et al., 1975), Achievement Place (Kirigin et al., 1982), teaching parents (Wolf et al., 1974), and the Planned Re-Entry Program (Seckel & Turner, 1985). Several other reviews and evaluations of juvenile justice system programs show the effectiveness of graduated sanctions (Altschuler & Armstrong, 1994; Hamparian, 1984; Mahoney, 1987; Pennell et al., 1990). However, there is one important exception. Schneider (1990) found a differential response to graduated sanctions in restitution programs, depending on the self-image of the juvenile. Detention may have damaged youths' self-image, leaving incarceration with about the same results as less coercive policies such as restitution and probation. Graduated sanctions may not work for all adolescents; moreover the effects of the most severe sanctions, detention and incarceration, are not well understood.

Perhaps the best example of an effective juvenile justice system program of graduated sanctions is the Illinois Unified Delinquency Intervention Services (UDIS) program for chronic inner-city juvenile offenders studied by Murray and Cox (1979). Their evaluation compared three levels of graduated sanctions. Level I sanctions consisted of less drastic interventions, such as arrest and release. Level II comprised the UDIS program of community-based services for those who recidivated in Level I. Level III, to which those who failed in Level II were transferred, consisted of placement in the Illinois Department of Corrections. Murray and Cox's analysis showed that more crimes were "suppressed" at each subsequent level of sanctions.

The Comprehensive Strategy's graduated sanctions component consists of the following levels of interventions: immediate intervention, intermediate sanctions, secure care, and aftercare. These gradations (and sub-levels within them) are viewed as forming a continuum of intervention options (or

graduated sanctions) that needs to be paralleled by a continuum of treatment options. As offenders progress in the graduated sanctions system, treatments must become more structured and intensive, to effectively deal with the more intractable problems that more difficult and dangerous offenders present.

A key premise of the Comprehensive Strategy is that a combination of interventions can achieve a larger measure of overall juvenile crime reduction than is possible by means of a single intervention. A recent cost-benefits study of juvenile delinquency prevention and treatment programs illustrates the cumulative benefits of multiple program approaches. RAND researchers (Greenwood, Model, Rydell, & Chiesa, 1996) found that a combination of only four delinquency prevention and treatment programs achieve the same level of serious crime (violent crimes plus burglary) reduction as California's "three strikes" law - at less than one-fifth the cost. The successful interventions Greenwood and his colleagues identified are home visits and day care, parent training (see Wasserman & Miller, Chapter 10, this volume, for reviews of these two interventions), school graduation incentives (Taggart, 1995), and delinquent supervision (the 8% Early Intervention Program, reviewed below).

To achieve a high level of effectiveness, a continuum of program options must be combined with graduated sanctions in a comprehensive framework. Placement of offenders in a system of graduated sanctions is determined by state juvenile codes that prescribe sanctions for specific offenses, risk assessment instruments, and assessments of treatment needs. Risk assessment instruments sort offenders into groups with differing probabilities of reoffending (Wiebush, Baird, Krisberg, & Onok, 1995), using a predetermined set of scale items known to have a statistical relationship with recidivism. These instruments are designed to estimate the likelihood of reoffending within a given time period (say, 18-24 months) and are based on the statistical relationship between youth characteristics and recidivism rates (see Wiebush et al, 1995: 181-183 for a discussion of the essential properties of assessment and classification systems). Wiebush and his colleagues illustrated the use

of risk and needs assessment instruments in a Model Case Management System developed by the National Council on Crime and Delinquency (Baird, 1984). We next discuss a system of graduated sanctions with several of the most promising and effective programs that are appropriate at the various levels. Aftercare programs are not discussed here (see Altschuler, Chapter 15, this volume).

Immediate Intervention. The target group for intermediate intervention is first-time delinquent offenders (misdemeanors and non-violent felonies) and non-serious repeat offenders (generally misdemeanor repeat offenses).

Immediate intervention with early onset delinquents is illustrated in the "8 percent Solution" in Orange County, California Probation Department. This program is based on an analysis of court referrals showing that 8 percent of referred adolescents account for more than half of all repeat offenses among probationers (Kurz & Moore, 1994). Potential 8 percent cases are identified during probation intake and verified through a comprehensive assessment process using a risk assessment instrument based on an analysis of characteristics of the 8 percent group.

A broad range of sanctions (from day reporting to community confinement) is used in conjunction with a continuum of program options for the juvenile and family members to achieve habilitation goals, while providing intensive case supervision. These options include individual incentives, family problem assessment and intervention services, family preservation and support services (including home-based intervention, respite care, and parent aids), individualized treatment for particular problem behaviors (e.g., mental health, and drug and alcohol abuse), and a wide range of community service opportunities for the 8 percent minors. A preliminary evaluation comparing a pilot group of program clients with the original study group shows about a 50 percent reduction in new offenses, court petitions, probation violations, and subsequent correctional commitments among the 8 percent program group in a twelve-month follow-up (Orange County Probation Department, 1996).

Some jurisdictions, such as Florida cities, are using Juvenile Assessment Centers (JAC, Dembo & Rivers, 1996) to perform a complete psychosocial assessment on youths apprehended by the police, insure that their service needs are addressed in dispositional recommendations, refer at-risk youths and their families to needed services, and track outcomes of these problem identification and program linking activities. Juveniles who are in early stages of pathways to delinquency (for example, truants) are specifically targeted for alternative services. In the Florida JAC, a wide range of services is made available including substance abuse treatment, mental health services, mental retardation services, literacy training, and other educational services. Youths referred for services are tracked for the purpose of assessing services and program development. It is important that mechanisms like the Florida JACs be established at the entry level of immediate sanctions to integrate the juvenile justice, mental health, social services, child welfare, and education systems because they often have the same clients, even simultaneously – both the children and their families – yet may be working at cross purposes or duplicating services.

Intermediate sanctions. Offenders who are inappropriate for immediate intervention (first-time serious or violent offenders) or who fail to respond successfully to immediate intervention as evidenced by reoffending (such as repeat property offenders or drug-involved juveniles) would begin with or be subject to intermediate sanctions.

The San Diego County Probation Department (1996) operates a Juvenile Correctional Intervention Program (JCIP) that incorporates five levels of sanction and treatment options for such offenders, beginning at the point of delinquency adjudication. In the first level, the probationer is enrolled in a community program, REFLECTIONS (intensive in-home parent development and family support services). Home detention is required in the second level, along with a stayed commitment to a correctional facility. In the third level, offenders with a stayed commitment are placed in secure detention for a maximum of thirty days, then released to home confinement. The fourth level carries a commitment to a minimum-security facility (for boys) or a local correctional facility (for girls),

followed by admission to an aftercare transition program. In the fifth level, the probationer is committed to either a boys or girls minimum security facility. An Assessment Team recommends a specific option level and a treatment plan, based on risk-needs assessments. The Probation Department's graduated sanctions plan also specifies intensity of supervision in each sanction level. Offenders are moved up the sanction levels when behavior does not improve; they are moved down the levels commensurate with behavioral improvements.

For more SVJ offenders, Multi-Systemic Therapy (MST, see Wasserman & Miller, Chapter 10, this volume) is one of the effective programs identified by Lipsey and Wilson (Chapter 13, this volume). Consistent with family preservation models, MST directly addresses intrapersonal (e.g., cognitive) and systemic (i.e., family, peer, school) factors that are known to be associated with adolescent antisocial behavior. It has been found to be effective in a number of clinical trials in treating multiple problems of SVJ offenders in different settings (Family Services Research Center, 1995), including violent offenders (Borduin, et al., 1995). MST has also been shown to be much more cost effective than incarceration. Its cost per client is about \$3,500 compared to nearly \$18,000 for institutional placements (Henggeler et al., 1992), thus the efficacy of this model as an alternative to incarceration has been demonstrated.

There is a substantial body of research indicating that many incarcerated adolescents can be managed in well-structured community-based programs. Table 14.1 summarizes the results of perhaps the most referenced studies in this area. These studies, often making a direct comparison with juvenile justice system incarceration (or restrictive supervision), led researchers to conclude that alternatives to secure confinement for serious and chronic juveniles are at least as effective in suppressing recidivism as incarceration, but are considerably less costly to operate. These include studies in Illinois (Murray & Cox, 1979), Massachusetts (Coates et al., 1978; and Austin et al., 1991), Utah (Austin et al., 1988) and Michigan (Barton & Butts, 1988). Only a few studies such as Gottfredson and Barton (1992), have found that institutionalized youths in Maryland performed better

than those in community-based programs. But their results may be a function of a very sudden move to deinstitutionalization in Maryland and the less-than-ideal implementation of the community alternatives. Early studies of the Massachusetts reforms showed similar results (Coates et al., 1978). Lipsey and Wilson (Chapter, 13, this volume) report that programs over two years of age produce larger positive effects than newer programs.

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Insert Table 14.1 about here

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More important, Lipsey and Wilson's review shows that among programs producing consistent evidence of positive effects for SVJ offenders, non-institutional programs produced greater reductions in recidivism than institution-based programs. Compared to control groups, the better institutional programs reduced recidivism by 34 to 38 percent; in contrast, the better non-institutional programs reduced recidivism by 40 to 44 percent. More rigorous research on both institutional and non-institutional programs is needed, even though it is clear that community-based interventions for serious and chronic offenders can be safely expanded, and produce enormous cost savings. For example, a South Carolina study (Rivers & Trotti, 1995) found that if the state could reduce graduation of juveniles from juvenile probation into the criminal justice system just five percentage points, from 33 to 28 percent, the state could save \$37 million in adult prison and probation costs over a ten-year period.

It will be important to evaluate if the effectiveness of correctional interventions can be further enhanced through improved aftercare and community-reentry services (Altschuler, Chapter 15, this volume; Armstrong & Altschuler, 1994; and Greenwood et al., 1993). Miller and Ohlin (1985, p. 1) summarize this view as follows:

Delinquency is a community problem. In the final analysis the means for its prevention and control must be built into the fabric of community life. This can only happen if the community

accepts its share of responsibility for having generated and perpetuated paths of socialization that lead to sporadic criminal episodes for some youths and careers in crime for others.

Secure care. The criminal behavior of many serious, violent, and chronic juvenile offenders requires the application of secure sanctions to hold these offenders accountable for their delinquent acts and to provide a structured treatment environment. As we noted earlier, large congregate-care juvenile facilities (training schools, camps, and ranches) have not proven to be particularly effective in rehabilitating juvenile offenders. Although some continued use of these types of facilities will remain a necessary alternative for those juveniles who require enhanced security to protect the public, the establishment of small community-based facilities to provide intensive services in a secure environment offers the best hope for successful treatment of those juveniles who require a structured setting. Secure sanctions are most effective in changing future conduct when they are coupled with comprehensive treatment and rehabilitation services.

Application of risk assessment instruments to correctional populations in fourteen states (Krisberg, Onek, Jones, & Schwartz, 1993) revealed that an average of 31 percent of juveniles housed in these facilities were at low risk for subsequent offending, and thus could be placed in less secure settings at much less cost. An excellent example of such a facility is the Thomas O'Farrell Youth Center. It is a thirty-eight-bed, unlocked, staff-secure residential program for male youths committed to the Maryland Department of Juvenile Services. The typical O'Farrell juvenile has numerous prior court referrals, generally for property crimes and drug offenses. Graduated sanctions are built into the O'Farrell treatment program. The program begins with an orientation phase of about one month. In Phase I, about sixty days, youths acquire more knowledge about O'Farrell and its normative system. To move to Phase II, residents must demonstrate consistent and positive behavior in all aspects of O'Farrell life, including school attendance, work details, group meetings, etc. In Phase II, youths must demonstrate high levels of success in on-campus jobs and are encouraged to find part-time employment in the community. Aftercare (Phase III) lasts for six

months and includes assistance in reentering school, vocational counseling, crisis intervention, family counseling, transportation, and mentoring.

Even confined violent juvenile offenders can be effectively controlled and rehabilitated in a secure correctional confinement. One secure treatment model is the OJJDP Violent Juvenile Offender (VJO) program that provided treatment for violent and property felony offenders, beginning with small secure facilities, followed by gradual reintegration into the community through community-based residential programs, then intensive neighborhood supervision. Evaluation of the program (Fagan, 1990) showed that in the two sites that best implemented the program design, VJO youths had significantly lower recidivism rates, for less serious offenses, and less quickly than the control group.

The Florida Environmental Institute (FEI), also known as the "Last Chance Ranch," serves some of the State's most serious and violent juvenile offenders, most of whom are referred back from the adult system for treatment under a special provision in Florida's law. Almost two-thirds of FEI youths are committed for violent crimes; the remainder, for chronic property or drug offenses (Krisberg et al., 1995). FEI, an environmentally secure program (located in a swamp in a remote area of the State), provides a highly structured program with a low staff-to-student ratio consisting of several phases. After about a year of therapeutic hard work, educational and vocational training, restitution, and reintegration programming, clients are assisted with community living in an extensive aftercare phase. Evaluation of the program has shown quite promising results (dampened only by small sample sizes and lack of an experimental design in the research). FEI has produced much lower recidivism rates than other Florida programs. The State of Florida is convinced of its effectiveness and is replicating it in other parts of the State.

#### Benefits of the Comprehensive Strategy

The graduated sanctions component of the comprehensive strategy is premised on a firm belief that the juvenile justice system can effectively handle delinquent juvenile behavior through the

judicious application of a range of graduated sanctions and a full continuum of treatment and rehabilitation services. Expected benefits of this approach include (Wilson & Howell, 1993):

Increased juvenile justice system responsiveness. This program will provide additional referral and dispositional resources for law enforcement, juvenile courts, and juvenile corrections. It will also require these system components to increase their ability to identify, process, evaluate, refer, and track juvenile offenders.

Increased juvenile accountability. Juvenile offenders will be held accountable for their behavior, decreasing the likelihood of their development into serious, violent, or chronic offenders and tomorrow's adult criminals. The juvenile justice system will be held accountable for controlling chronic and serious delinquency while also protecting society. Communities will be held accountable for providing community-based prevention and treatment resources for juveniles.

Decreased costs of juvenile corrections. Applying the appropriate graduated sanctions and developing the required community-based resources should reduce significantly the need for high-cost beds in training schools. Savings from the high costs of operating these facilities could be used to provide treatment in community-based programs and facilities.

Increased responsibility of the juvenile justice system. Many juvenile offenders currently waived or transferred to the criminal justice system could be provided opportunities for intensive services in secure community-based settings or in long-term treatment in juvenile training schools, camps, and ranches.

Increased program effectiveness. This volume adds considerable information to knowledge of the characteristics of chronic, serious, and violent offenders; and effective programs for their treatment and rehabilitation. However, more must be learned about what works best for whom under what circumstances to intervene successfully in the criminal careers of serious, violent, and chronic juvenile offenders. Follow-up research and rigorous evaluation of programs implemented as part of this strategy should produce valuable information to inform future interventions.

The combined effects of delinquency prevention and increased juvenile justice system effectiveness in intervening immediately and effectively in the lives of potential chronic offenders should result in measurable decreases in delinquency in sites where the above concepts are demonstrated. In addition, long-term reduction in crime should result from fewer serious, violent, and chronic delinquents becoming adult criminal offenders.

#### Concluding Observations

This review summarizes the state of our knowledge about the effects of the juvenile justice system on SVJ offenders. While there is some evidence that strong justice system sanctions reduce the rate of subsequent criminal offending, there is not much support for the thesis that traditional sanctioning policies reduce the likelihood of subsequent offending or recommitments. Given the enormous fiscal and human consequences of various sanctioning approaches, it is tragic that our research base is so slender. In particular, juvenile corrections policies and practices, and the movement to transfer more youths to adult prisons are informed by anecdotes, flawed research, and media-popularized fads. Juvenile and criminal justice policies freely and quickly move from "scared straight" to "tough love," from boot camps to chain gangs.

The research agenda to remedy the present knowledge gap must be bold and ambitious. The largely unexplored world of the juvenile justice system needs to be opened up for research. Despite the increase in humanistic rhetoric about the value of funding more prevention, the justice system will continue to expend the lion's share of state and local tax dollars in the near term. It is in our communal interest to attempt to minimize the damage done by some justice system operations (e.g., discriminatory practices toward minorities, violent victimization of adolescents in facilities, unhealthy conditions of confinement) and to promote those interventions that genuinely advance public safety.

Researchers should develop models to help policymakers forecast the likely impacts of policy changes (e.g., mandatory waiver laws, new truancy and curfew laws, or school expulsion policies) on various components of the justice and social service systems. Work should be commenced to measure

the relative cost effectiveness of new expenditures in law enforcement, incarceration, treatment, or prevention programs. The work of Greenwood and his colleagues (1996) is a very important first step in this direction.

Experimental studies are essential for developing knowledge of "what works" with youthful offenders. Three issues deserve priority attention: (1) determining the most cost-effective length of stay in correctional facilities, (2) measuring the utility of earlier or more immediate responses to juvenile law breaking, and (3) the appropriate mix of residential and home-based services for different types of offenders. It is likely that states and communities will continue to devote substantial funding in these areas without much guidance from research. Experimental studies should also be launched to refine offender classification and risk assessment systems to better identify the fit of treatment responses to different types of offenders.

In particular, future programs should incorporate randomized designs to test whether special handling of selected offenders produces any measurable deterrent effects. Moreover, researchers need to critically examine the current decision-making processes used by these programs, especially the relationship of these criteria to predicting future criminal behavior. Whether the addition of comprehensive treatment components improves the productivity of these programs remains to be determined. The additive effects of aftercare services should also be examined. Studies that cover much longer follow-up periods in offender careers are needed. Further, cohort studies in the future should collect detailed data on the extent of various correctional interventions among the general youth population and among high-risk youths. These studies have implicitly assumed that criminal misconduct is somehow independent from the social response to that behavior (but see Lemert, 1951).

Investments that have already been made in specifying the causes and correlates of criminal behavior must be expanded to include data collection on the impact of societal interventions on criminal careers. Previous longitudinal research has delivered important, albeit largely ignored,

insights on effective prevention strategies. This situation can be remedied by enhancing the existing longitudinal research to gather data on the experiences of subjects in these studies in the child welfare system, child protective services, mental health, and other social programs.

Improvements in the design and methods of studies need to be made. There is an obvious need to use stronger experimental designs to assess the relative effectiveness of different institutional correctional programs for different types of youths. Another pressing research priority is more sophisticated use of self-report data in correctional evaluations. Data on desistance and continuity in criminal behavior are woefully inadequate. Not surprisingly, Sampson and Laub (1993) needed to utilize Sheldon and Eleanor Glueck's data from the 1930s to examine the transition from juvenile crime to adult criminal careers. Although their findings are valuable, there are enormous social and economic factors separating the Glueck's samples from contemporary youths. Studies are needed that examine the effects of criminogenic environments to which youths return to upon their release from custody. Existing longitudinal studies in Denver, Rochester, Pittsburgh, and Seattle, should be enhanced to follow youths into adulthood, to examine the impact of confinement on criminal careers.

More fundamentally, the policy and practitioner communities need to work with researchers to establish standard measures of success and failure. Justice system administrators and researchers also need to work together to develop standards to assess the performance of a wide range of interventions. Good public policy choices cannot be made if misleading, and oftentimes meaningless, data are offered as proof that one or another program is "working. Objective evaluations must be routinized in the operations of justice system agencies. The necessary information and data systems should be integrated in correctional programs to permit accurate comparisons of different programs and policies.

Current work by OJJDP in the area of performance-based standards for juvenile corrections is an excellent start toward improving measurement of successful programming. Ideally, these performance-based standards would be derived from rigorous research and would be tested to

determine the levels of compliance that improve longer-term outcomes for youths passing through correctional programs. These studies should inform policy on areas of needed cost savings and streamlining, as well as programmatic areas in which higher levels of service should be delivered. Future research should answer questions about the best mix of services for different offender populations and should provide guidance on the optimum timing, duration, and intensity of justice system interventions.

It is important to remember that several studies document the successes of small-scale programs aimed at SVJ offenders, and that research indicates that intensive community-based sanctions are more effective in reducing recidivism as more restrictive and expensive policies of long-term confinement. Indeed, the effective programs Lipsey and Wilson (Chapter 13, this volume) identify are add-ons to traditional institutional (correctional) and non-institutional (probation and parole) juvenile justice system components. In addition to numerous programs Lipsey and Wilson identify, so are most all of the promising approaches for serious, violent, and chronic juvenile offenders are identified in Howell et al. (1995) and Montgomery et al. (1994).

OJJDP is presently helping a large number of communities apply best practices in local and state juvenile justice systems by implementing the Comprehensive Strategy. The progress of these field tests needs to be carefully monitored and evaluated. It remains to be seen whether or not the juvenile justice system, particularly juvenile corrections, can improve fundamentally practices that lack precision (e.g., risk assessment) and put to good use available knowledge summarized in this volume. The latter challenge means achieving a much better match between offender risks and needs and effective programs. Although this volume moves the field a step closer to specifying what works best for whom under which conditions, much remains to be learned.

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Table 14.1

**MAJOR RESEARCH ON ALTERNATIVES TO INSTITUTIONALIZATION  
FOR SERIOUS JUVENILE OFFENDERS**

STUDY	INTERVENTION	SETTING	SUBJECT	OUTCOME MEASURES	RESULTS
Palmer, 1975*	Intensive, long-term counseling, group homes in lieu of state institutions	4 northern California	13-19 years old	prevalence of recidivism, attitudinal changes, parole behavior, school adjustment, employment	Program clients performed better on all measures, except employment, than institutionalized youths. Both groups were equivalent on employment measures.
Empey and Lubeck, 1971*	Community-based group home in lieu of traditional training school	Los Angeles, California	10-17 years old	incidence and prevalence of delinquency	Large and equivalent drops in the incidence of reoffending in both groups; comparable results in both groups on prevalence measures.
Empey and Erickson, 1972*	Intensive supervision plus daily counseling vs. traditional probation	Provo, Utah	10-17 years old	incidence and prevalence of recidivism	Intensive group performed better on all measures compared to traditional probation supervision with a matched group of youths.
Coates et al., 1978	A range of community-based sanctions begun after closure of training schools	Massachusetts statewide	7-17 years old	prevalence of recidivism, attitudes towards conformity	Recidivism rates of training school releases were lower than new community programs; community program youths showed better attitudinal improvement than institutionalized youths.
Murray and Cox, 1979	A range of sanctions for juvenile offenders	Illinois statewide	10-17 years old	incidence of recidivism	Large reductions in incidence of recidivism; the most intensive community programs produced equivalent suppression effects to institutionalization.
Greenwood and Turner, 1987	Wilderness program in lieu of county correctional facility	San Diego, California	10-17 years old	prevalence of recidivism	VisionQuest clients performed better than comparison group.
Krisberg et al., 1988	A range of community-based and small secure programs	Utah statewide	7-17 years old	incidence and prevalence of recidivism	Large declines in the incidence of recidivism after correctional intervention.
Barton and Butts, 1988	3 versions of intensive supervision in lieu of commitment to state facilities	Wayne County, Michigan	10-17 years old	incidence of recidivism, self-reported delinquency	Experimentals performed comparably to controls on official recidivism measures; the intensive supervision group performed better on self-report delinquency measures.
Krisberg and Austin, 1989	Community-based small secure program	Massachusetts statewide	7-17 years old	incidence and prevalence of recidivism	Youths in DYS programs showed sustained declines in incidence of recidivism; prevalence rates were lower than other states studied.

\* Studies involve random assignment to experimental and control groups; other studies used post-test only or non-random companion groups.

## Chapter 15

## Intermediate Sanctions and Community Treatment for SVJ Offenders

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This chapter reviews intermediate sanctions and different forms of community treatment for SVJ offenders. Various intermediate sanctions such as electronic monitoring, house arrest, home detention, drug and alcohol testing, community tracking, intensive supervision, boot camps, split sentences, day treatment/reporting centers, community service and restitution are increasing being used across the country with juvenile offenders as alternatives to 1) institutionalization, 2) routine probation, and 3) routine parole or aftercare. Used as an alternative to institutionalization, intermediate sanctions are typically (though not exclusively) intended for nonviolent, as well as chronic but still relatively less serious, delinquents who are considered "incarceration-bound." For the institution-bound class of offenders, the intent is generally to reserve limited and expensive bed space for others deemed more appropriate and thus the strategy is one largely designed to address institutional crowding and save money: this is the classic intermediate sanctions as an institutional population control mechanism.

By contrast, intermediate sanctions in juvenile corrections are also used as an alternative to routine probation, where they are conceived as the means to provide greater accountability (punishment if you like), control (through more monitoring) and public safety (achieved through deterrence, treatment or both). For the probation-bound class of offenders, the fundamental intent of intermediate sanctions is to get at least serious, if not tougher, with juvenile probationers than would ordinarily be possible through routine probation. In a similar vein, the very same intermediate sanctions are increasingly being used as an alternative to traditional juvenile parole and aftercare (the terms "parole" and "aftercare" are used interchangeably), when it is believed it is necessary to offer more accountability, control and public safety than that routinely available through standard parole.

Juvenile repeat offenders who have committed serious and even violent offenses as well as those at risk of committing such offenses, are in fact, represented to various degrees among those who receive intermediate-type sanctions. Juveniles on probation, incarcerated and on parole display wide variation in terms of the extent and nature of both their criminal record and their risk of recidivism. This chapter is intended to clarify how and in what ways intermediate sanctions can be used with SVJ offenders in each of the three populations, who should be included and what are some of the major issues that must be addressed from the standpoint of program design, management, cost, implementation and evaluation.

#### Background and Context

It is important to emphasize at the outset that so-called intermediate sanctions are not entirely new to either juvenile or adult corrections. While some of the sanctions such as electronic monitoring (Baumer & Mendelsohn, 1992; Vaughn, 1991) and boot camps—also known as shock incarceration—(MacKenzie & Parent, 1992) came on board in the mid-80s and are of relatively recent vintage, intensive supervision programs for adult offenders actually go back to the 1960s (Armstrong, 1991; Clear & Hardyman, 1990; Lurigio & Petersilia, 1992; Morris & Tonry, 1990). Intensive probation supervision (IPS) programs for adult and juvenile offenders have been around the longest and are one of the most popular intermediate sanctions, though no one has to be reminded that correctional boot camps have caught on like wildfire in both the juvenile and adult corrections systems (MacKenzie & Hebert, 1996; Cowles & Castellano, 1995; Thomas et al., 1996). It should also be noted that various intermediate sanctions are often combined in practice so, for example, intensive supervision may utilize some electronic monitoring and community service. Community tracking programs may incorporate drug and alcohol testing. Moreover, individual programs can include both institution-bound juvenile offenders and those who are candidates for routine probation.

The net effect of mixing different intermediate sanctions and classes of offenders is that intermediate sanction programs not only vary considerably from one to another, but individual programs frequently combine goals that can operate at significant cross purposes. Intermediate sanction programs designed principally as an institutional population reduction mechanism would obviously want to target for diversion the likely institution-bound offenders, not customary probation cases. This is because of the intent of intermediate sanctions to alleviate institutional crowding. By contrast, intermediate sanction programs designed principally as enhancements to probation would want to target those customary probation cases exhibiting the highest risk potential for public safety, but not institution-bound offenders. This is because of the intent to provide more public safety than does traditional probation. To the extent that intermediate sanction programs attempt to achieve both aims, it can be much more difficult to accomplish either one optimally. For example, intermediate sanctions emphasizing electronic monitoring, drug testing and intensive supervision—some of the staples of surveillance-oriented intermediate sanctions—constitute a terrible waste of resources when applied to lower-risk offenders. Yet, many of the intermediate sanction programs are being used for the "easier, less risky, or safe" type offenders (Austin & Krisberg, 1982; Clear & Byrne, 1992; Erwin, 1987; Pearson, 1988). The problem, however, is when low-risk offenders on enhanced probation end up incarcerated only on the basis of technical violations, and as a result, institutional crowding problems are exacerbated. Clear and Byrne (1992) suggest that a plausible solution involves disentangling each intermediate sanction with respect to the aims they can best serve.

There is no doubt that both juvenile and adult corrections are witnessing an enormous expansion in both the numbers of offenders under their jurisdiction and the use of intermediate sanctions. These two developments are obviously not unrelated as correction systems increasingly scramble to somehow meet the population onslaught. Perhaps less obvious is that at least some of the approaches being used may well be contributing to the population explosion itself. For example,



when intensive probation supervision is the intermediate sanction used as the means to alleviate institutional crowding, it obviously places a greater burden on the probation system itself. Bulging offender populations, of which institutional crowding is one symptom, has not skipped probation. The number of juvenile cases placed on probation, both formal and informal, increased 21 percent, from 428,500 in 1989 to 520,600 in 1993 (Torbet, 1996).

According to Torbet (1996), beyond providing probation to these half million cases, probation departments also screened most of the nearly 1.5 million delinquency cases handled by juvenile courts in 1993, made detention decisions on some, prepared investigation reports on most, and delivered aftercare services to many of the juveniles released from institutions. Probation has and continues to be the overwhelming sanction of choice for the nation's juvenile courts, where 56 percent of all cases adjudicated for a delinquency offense received probation, 28 percent were placed in some type of residential facility, and 12 percent received some other disposition (e.g., restitution). While most cases (54 percent) placed on formal probation in 1993 involved juveniles adjudicated for property offenses, probation officers are finding more violent youth on their caseloads. Indeed, it is among cases involving person offenses (homicide, rape, robbery, assault, kidnaping, etc.) that reflect the largest percentage increase (45 percent) since 1989. It is likely that the push to alleviate institutional crowding along with increases in the amount and type of juvenile crime coming to the juvenile court is resulting in the sentencing of more serious offenders to probation. As probation receives more cases overall and more serious cases in particular, the obvious question is its capability and capacity to provide in addition to traditional probation supervision and its other duties, intermediate sanctions that serve both as alternatives to institutional confinement and enhanced probation.

In many respects, intermediate sanctions pose similar challenges and opportunities for juvenile aftercare as they do for probation. In fact, innovation and experimentation in intensive aftercare—though still in its infancy—has substantially drawn from the earlier experiences and lessons of

intermediate sanctions used with adults and juvenile probationers (Altschuler & Armstrong, 1991; Armstrong, 1991.) There are some notable organizational and structural differences, however (Hurst IV & Torbet, 1993). While probation is administered at the county level or a combination<sup>1</sup> of the counties and state government in 40 states, predominantly under the judiciary, juvenile aftercare services are predominantly provided by the same state executive department that oversees the state juvenile correctional facilities. The authority for the administration of state institutions for juveniles rests with the executive branch of state government in all 50 states, mostly within a social service agency (22 states and the District of Columbia) followed by a corrections department or a separate youth services department (11 states).

Since the authority over state juvenile correctional facilities and aftercare predominantly rests with state government (in contrast to probation), discussions regarding the use of intermediate sanctions as an alternative to routine parole (i.e., intensive aftercare) most always broach concerns over how to handle the transition from a state-run correctional facility back to the home community. The transition issues can become quite complex since frequently authority over the case can simultaneously involve parole, the local judiciary, state corrections and sometimes additional review boards. Not infrequently, fundamental disagreements erupt over what constitutes the appropriate balance between accountability, rehabilitation/treatment and public safety. While it is easy in the abstract to call for a balanced approach (Maloney, Romig & Armstrong, 1988), it is quite another matter in actual practice to provide an acceptable balance among all goals.

Intermediate sanctions involving probation, whether at its front end as an alternative to routine probation or its back end as an alternative to institutionalization, are certainly not immune to the conflict over the use of intermediate sanctions as punishment versus intermediate sanctions as intensified treatment, service provision and support. Quite to the contrary, this issue has permeated the whole debate over the proper use of intermediate sanctions overall and its implications for what

types of offenders, services, staff, workload, policies and procedures are required (Petersilia, Lurigio & Byrne, 1992; Clear, 1991; Armstrong, 1991; Lurigio & Petersilia, 1992; Byrne & Pattavina, 1992; Petersilia, 1987).

#### Research Findings on Intermediate Sanctions

Byrne and Pattavina (1992) reviewed the basic findings about recidivism, cost-effectiveness and diversionary impact from 18 evaluations of intermediate sanction programs for adult offenders as of 1989. They found that the majority of the evaluations did not show intensive supervision significantly reducing the risk of offender recidivism. Speculating on why, Byrne and Pattavina suggested that the day-to-day emphasis of the programs was more on offender surveillance and control (e.g., drug and alcohol testing, electronic monitoring, curfew checks, strict revocation policies) and less on treatment and services related to substance abuse, employment, and family problems. That intensive supervision did not generally reduce recidivism in their review of 18 studies as well as most other studies (see, for example, Neithercutt & Gottfredson, 1973; Banks, et al., 1977; Byrne, Lurigio & Baird, 1989; Petersilia, 1987; Petersilia & Turner, 1990; Petersilia, Turner & Deschenes, 1992; Byrne & Kelly, 1989) prompt Byrne and Pattavina to suggest that perhaps surveillance and control accompanied by treatment might make the difference.

The call for intensified treatment to accompany intensive supervision has many proponents, but it remains abundantly clear that in practice most intermediate sanction programs—even those for juveniles—are first and foremost, surveillance and control oriented. Even juvenile intensive probation programs, which at least in theory, emerge from a model in which counseling and rehabilitation is at least on an equal footing with control and punishment, succumb to surveillance-oriented intermediate sanctions (Armstrong, 1991). In a 1986 survey of 157 juvenile probation departments throughout the United States, more than one-third reported providing a juvenile intensive probation supervision (JIPS) component, and of those with JIPS, 78 percent stated their primary goal was intensifying the

level of surveillance (Armstrong, 1988). This is hardly surprising and is consistent with Byrne, Lurigio and Baird's (1989) observation that "IPS is quite compatible with broad changes in correctional policies that emphasize community protection over offender rehabilitation" (p.8). Lurigio and Petersilia (1992, pp.9-10) sum it up by acknowledging that most IPS models advocate control and that "in essence, IPS has become a way for probation administration to combat long-standing negative perceptions, to restore public and judicial confidence in probation as a meaningful and 'tough' sentence, and to 'revitalize probation, establishing it again as a powerful cog in the machinery of justice' (Clear & Hardyman, 1990, p.47)."

As noted above, introducing intermediate sanctions into a juvenile aftercare context takes the form of using intensive aftercare as an alternative to routine aftercare. One substantial difference with probation is that only a minority of probationers are returning directly from a correctional facility, while all parolees have been incarcerated and thus parole has the added responsibility and formidable challenge of bridging the gap between the institution and the community, as well as easing the transition. Integrating and coordinating institutional and parole services directly effects how two very distinct parts of the juvenile justice system operate (i.e, institutions and parole), neither of which has been particularly open to change (Altschuler & Armstrong, 1995). Even when institutions and parole are lodged within the same agency, the culture and orientation of each are often fundamentally at odds. In short, intensive aftercare has as many major implications for the way institutions operate and function as it does for parole. Institutional and community corrections can literally be worlds apart, a formidable challenge for intensive aftercare.

As earlier chapters (Lipsey & Derzon, Chapter 6; Hawkins et al., Chapter 7, this volume) make clear, risk and protective factors associated with SVJ offenders include much more than criminal history characteristics (e.g., early age of onset, number of prior referrals to juvenile services, number of prior commitments to juvenile facilities) alone. Rather, it is the combination of

justice system contact factors and particular problem/need factors—so-called criminogenic (Andrews and Bonta, 1994) or instability factors (Krisberg et al., 1989)—that cumulatively place a juvenile into a "high risk" category. It is not the presence of one factor but the potent combination of several that seems to make the difference. Among the several risk/need factors that are commonly included in the potent combination are those involving family functioning, participation in school and/or work, nature of peer group, and drugs. Consequently, it seems logical to pose one central question: to what extent and how do intermediate-type sanctions address the combination of factors (i.e., risk and protective) commonly found to predict SVJ offending?

First, it is obvious that punishment and surveillance alone are not intended to address, at least directly, the risk/need factors. Rather, the aim is "...that IPS—its case monitoring, coupled with threats of detection and subsequent incarceration—will influence the crime-related choices by individuals participating in the program" (Lurigio & Petersilia, 1992, p.9). But, the research to date on intermediate supervision strongly suggests that the predominantly surveillance-oriented intermediate sanctions that have been employed are, on the whole, not producing lower recidivism. This finding is certainly consistent with the view that when intermediate sanctions reflect the classic deterrence strategy, they are largely not succeeding. To be sure, as Lurigio and Petersilia (1992) remind us, the close supervision, increased probability of detection and swift revocation are regarded by some as an incentive for participants to be employed, go to school, attend counseling and perhaps be rehabilitated, but IPS is not counting on rehabilitation and treatment to ensure public safety and as already suggested, the surveillance orientation has generally edged out concerns over treatment and rehabilitation.

Byrne and Pattavina have speculated that it is the combination of treatment, surveillance and control that can produce lower recidivism and as evidence for this, they point to the evaluation of the Massachusetts Intensive Probation Supervision program (Byrne & Kelly, 1989), where surveillance

(i.e., contacts) and more intensive treatment provision (i.e., changes in employment, substance abuse and marital/family problems) best predicted success. But the questions remain: Is it possible, in practice, to combine punishment with treatment and how might this be accomplished? On a practical basis, is it even possible to differentiate clearly between intermediate sanctions that serve punishment purposes and those that are predominantly treatment oriented? Clear (1991) proposes an interesting test to differentiate intermediate sanctions on the basis of their punishment and treatment orientation:

...even if we knew beforehand that restitution (or community service, for that matter) would not change a particular juvenile's attitude, we would still impose the intervention. The reasoning would be something like this: "Just because the kid's attitude is bad doesn't mean that he can avoid paying back the victim or the community. He has to pay that price because his actions deserve it." The underlying rationale is clearly punitive, although we are pleased that in many instances the imposition of such punishment seems to have a remarkably ameliorative effect on juvenile attitudes. Yet even without the ameliorative effect, we would feel justified in imposing these sanctions because they demonstrate the unacceptableness of the behavior (emphasis added)(p.39).

In contrast, it is hard to imagine that treatment and various rehabilitation components, such as family therapy, job placement, educational remediation, drug counseling, anger management, conflict resolution and social skills training, would be imposed only because some delinquent action warranted it; rather, a positive rehabilitative outcome is quite explicitly being sought.

The point is that punitive interventions and sanctions need not demonstrate an ameliorative effect in order to justify their use, but treatment and rehabilitation are expected to demonstrate success in order to justify their use. The result is that it is common for punishment to be accepted for punishment's sake and it requires neither further justification nor an independent demonstration of success while treatment is held to an entirely different standard. But what about the feasibility of an

intermediate sanction system in which punishment through intensive surveillance co-exists with enhanced treatment provision: can it be implemented and what outcomes are possible? After all, punishment and treatment goals have been traditionally pitted against each other and viewed as thoroughly inconsistent and incompatible. But if, as some claim, intermediate sanctions provide in concept a means by which punishment—expressed through intensive surveillance and control—can be reasonably balanced and reconciled with treatment and rehabilitation, the question remains as to whether it is possible, in practice, to implement such a balance.

#### Intensive Aftercare

A number of recent studies specifically on intensive aftercare are instructive. Rand conducted a four-year evaluation of two experimental intensive aftercare programs, one in Michigan and the other in Pennsylvania (Greenwood et al., 1993). In one of the programs, the average age at first arrest was 14.4 and the participants averaged 2.5 prior arrests. Over half of the participants were known to be drug dealers, nearly half had a drug use problem and the current offense of just over half was a crime against persons. In the other program, the average age of first arrest was 14 and the participants averaged 4.6 prior arrests and 3.7 adjudications. Their current offense was most frequently a property crime. The study found no difference between experimental and control groups in the proportion of youth arrested, self-reporting offenses or drug use during a 12-month follow-up period. Equally important, compared to the controls, youth in the experimental programs did not participate any more frequently in educational or work activities. Also, most of the families viewed delinquency as the youth's problem to deal with and were not interested in making major changes, and in neither of the two sites did the aftercare program have a significant effect on the youth's associations with delinquent peers. In the one program that did not use early release, there were no apparent cost savings in residential placement costs and the aftercare program resulted in an overall increase in cost per placement. In the other program, the reduced time in residential placement

produced a slight reduction in total placement costs.

It could well be argued that not having impacted participation in school and work, family involvement, and delinquent peer associations, there is in fact very little reason to expect lowered recidivism. Greenwood et al. (1993) concluded that a number of factors could explain what happened. These include: 1) aftercare workers provided only general support and assistance, rather than targeting specific problems that were contributing to risk, 2) aftercare workers devoted less attention to programming that addressed risk factors more directly related to delinquent behavior, such as substance abuse treatment and anger management, 3) inappropriateness of a surveillance/casework model, particularly when faced with the kind of problems and temptations encountered by the youth in their home communities, and 4) the need for more formal methods of ongoing needs and progress assessments, including drug testing, reports by third parties, or tests of specific skills.

In another experimental design study, Sontheimer and Goodstein (1993) found that compared to traditional aftercare in Philadelphia, intensive aftercare reduced the average number of rearrests, but not the percentage of subjects rearrested. They concluded that although the program did not turn youths away from their propensity to commit crime, it appears to have prevented youths in the community from incurring multiple arrests. The mean number of annualized rearrests was less for the experimental group (1.65 versus 2.79). as was the mean number of felony arrests (0.41 versus 0.76). To be eligible for the program, the incarcerated juveniles had to have at least one prior adjudication for aggravated assault, rape, involuntary deviate sexual intercourse, arson, robbery, or a felony-level narcotics offense, or at least two prior adjudications for burglary.

Sontheimer and Goodstein (1993) propose two models or mechanisms through which recidivistic behavior might be reduced by intensive aftercare. There is the "aftercare effect" model,

whereby close surveillance deters crime commission and rehabilitation prompts behavioral change. Collectively, according to Sontheimer and Goodstein, specific deterrence and rehabilitation would produce an actual change in the propensity to commit crime and this aftercare effect would be apparent in a lower percentage of subjects rearrested. In contrast, the "system response" effect model does not assume reduced propensity to criminality, but rather an officer's quick response (e.g., house arrest, court review) to a violation or relapse would serve to reduce the number of offenses a juvenile would have the opportunity to commit.

Though study data support a system response effect using the researchers own decision rules, Sontheimer and Goodstein (1993) reject the idea that intensive aftercare officers merely revoke all intensive aftercare offenders after the first arrest subsequent to release and do away with service delivery. They believe that the reduced number of offenses committed by the experimental group can be attributed to both the increased knowledge of each case gained by the supervising officer and the officers' ability to devote considerable attention to each case. The question remains, however, why the program—much like the two programs studied by Rand—did not reduce the propensity to reoffend?

One possibility can be gleaned from the finding that the average number of reported contacts completed fell substantially short of the minimum number mandated, leading the researchers to comment that this situation raised serious questions about program implementation. In fact, the reason for the low contact rates was that during a two-month period the six person intensive aftercare team experienced complete turnover, and as a result, many of the participants had no supervising officers for extended periods. Moreover, this astounding turnover problem and the difficulties likely to have both preceded and followed it, must have created enormous programmatic turmoil and confusion, including questionable commitment from staff, and at best, uneven staff training and accountability. In fact, aftercare staff reportedly received few guidelines about the philosophy or mission of the program (Sontheimer and Goodstein, 1993, p. 204):

The program was not defined, for example, as emphasizing a social control or rehabilitative perspective. No effort was made to articulate whether the emphasis of the program would be on enhancing family ties and prosocial relationships, on facilitating educational or vocational growth, on increasing probationers' perceptions of accountability through surveillance, or on some other combination of principles assumed to reduce criminality.

Supervising officers were simply given the contact requirements and they followed a fairly traditional casework approach. Indeed, it is hard to imagine how the program could not have faltered under such circumstances.

The experience in Philadelphia draws particular attention to the philosophical and programmatic thrust of the program, the type of services provided, and the allegiance, commitment and orientation of staff. It is no wonder that recidivism has been so difficult to impact. Part of the problem is the tendency for intensive supervision programs to function much more as surveillance-enhancement than treatment-enhancement. It has also been shown that the traditional probation/parole casework model is not oriented toward the direct immersion into the family, peer group, daily routine, and neighborhood spanning weekends and all hours.

It has unfortunately not been uncommon for programs that have attempted to transition juvenile offenders from various forms of residential placement into community aftercare to encounter difficulties in providing the very treatment services in the community that are deemed so critical in breaking the cycle of recidivism. It is this fact that is often cited to explain why gains made in various residential programs tend to dissipate. For example, a Rand study (Deschenes, Greenwood & Marshall, 1996) of a Michigan program designed to test the impact of three months of wilderness challenge followed by nine months of intensive community-based aftercare, found that alternative program participants only received formal substance abuse treatment during the residential phase and that compared to juveniles in traditional residential placements, apparently less family counseling took

place in the alternative program. Over time, moreover, families of youths in both the experimental and comparison groups showed a general decline in family functioning.

There also was a substantial problem encountered by the alternative program in successfully retaining participants during the first 12 months (including residential and community phases). A staggering 60 percent of youth in the alternative program were either transferred or placed in another custodial program during the first year and an additional 10 percent were rearrested during the second 12 months of the total 24-month study period. By contrast, the traditional residential program participants that comprised the comparison group exhibited a 16 percent unsuccessful completion rate (where length of stay averaged 15.5 months) and a 14 percent rearrest rate during the remaining months in the 24-month study period. The Rand analysis suggests that the main weakness in the alternative program was related to the community phase, which of course, is the ultimate test of any sanction or disposition. During that phase, the traditional residential program participants were rearrested at about the same rate. The researchers concluded that regardless of the intervention, youths who were released back into the same environment faced the same difficulties with readjusting to the community setting without relapse. They recommend strengthening the community phase, particularly with reference to substance abuse treatment, family functioning, and targeting younger juveniles.

As has been shown, issues regarding the inadequacy of the service model and orientation of the program along with the quality and fidelity of the implementation are never far removed from evaluations attempting to explain the "no-difference on recidivism" finding. The reason is that many of the individual evaluations of alternative programs have not consistently found that recidivism is less when compared to some traditional or routine sanction. The research response has taken several distinct directions. More and more research is looking at the extent, nature and quality of the implementation, as well as the conceptual logic linking a program's orientation with the desired

outcome (Fagan, 1990). Some research is sorting out which type of offender is succeeding and under what circumstances in individual programs (Palmer, 1992). Other researchers are using meta-analysis to see if patterns may be detected from looking at groups of studies that meet certain criteria and standards (see Lipsey & Wilson, this volume). Still others are employing cost-benefit analysis to understand more fully how one approach or method compares to another on a variety of possible impacts including multiple measures of recidivism; behavioral, psychological and cognitive changes; institutional population projections and crowding; and the public's perceptions about crime, safety and justice (Greenwood et al., 1996).

#### Alternatives to Commitment

Barton and Butts (1990) evaluated three in-home intensive supervision programs that served as alternatives to state commitment for adjudicated delinquents in Wayne County (Detroit) Michigan. Over two-thirds of the youths in the study sample had been on regular probation prior to the evaluation, averaging 3.2 prior delinquency charges, with nearly one-fourth having five or more priors. While the emphasis, range and intensity of services varied among the three programs, on all counts they exceeded what would be expected from routine probation. However, comparing the randomly assigned in-home program youth with others committed to the state, the researchers found no substantial differences in terms of: official and self-reported recidivism (controlling both for seriousness of the offense and amount of time in the community over the two year study period), family relationships, school participation, attachment and performance, conventional and deviant values, self-concept and aspirations. Concluding that after two years it seemed to make little difference whether commitment-bound youths were diverted into community-based programs or were committed and incarcerated as intended, Barton and Butts (1991) argue that at about one-third the cost, the in-home programs were able to achieve case outcomes at least no worse than those of commitment. At the same time, they acknowledge that the primary cost is a marginal loss of

incapacitation, in which despite the equivalence of recidivism, the in-home program youth have more opportunity to commit new offenses immediately following their assignment to the programs. Barton and Butts (1991) concluded that the bottom-line policy question is how effective do intermediate sanctions have to be for cost advantages and rehabilitative potential to outweigh the short-term public safety benefit of taking some young offenders off the streets for a time.

The question remains, however, as to whether or not the lack of differential outcome may be a consequence of poorly conceptualized program designs, inadequate client targeting, incompetent management, or flawed implementation. Little is reported about these aspects of the three programs and unfortunately all the outcome data are reported for participants in all three programs combined. Combining outcome data is problematic because the three programs differed in service emphasis; one focused primarily on monitoring school attendance and court-ordered counseling, another emphasized job training and preparedness as well as educational and recreational activities, and the third adopted a therapeutic approach stressing youth and family counseling. Is it possible that the program might have produced superior results if more of an effort had been made to match up juveniles whose risks and needs corresponded most directly with the orientation of each of the programs? Is it also possible that more flexible service provision in the programs might have made a difference?

One study that attempted to sort out the effects of implementation integrity on outcome was an experimental evaluation of the federally funded Violent Juvenile Offender (VJO) program (Fagan, 1990). Eligible youth were assigned randomly to experimental programs, which were initially small secure facilities followed by transitional residential programs and intensive supervision in the community. Participants were selected after adjudication for a Part I offense felony and had a prior adjudication for at least one other designated "major" felony. The intervention model incorporated case management procedures, multi-phased programming and community reintegration strategies. Four sites were involved in the study and each was ranked on the extent to which it adhered to the

intervention model. The well implemented programs (two of the four sites) demonstrated significant reductions in the number and severity of arrests for experimental youths, as well as in significantly greater time until rearrest. The researchers report that it was complications in establishing the program elements that produced the weak implementation in the two other sites.

What is becoming more and more evident is that reducing the number of clients on a caseload, increasing the frequency of contact and expanding the surveillance, monitoring arsenal is not likely to produce superior results unless and until the traditional, "business as usual" probation/parole casework model is reformed within both a corrections system and community context. While evidence on intermediate sanctions points to the potential for cost savings without increasing the risk to public safety, it still must be asked what it would take to achieve superior results through various intermediate sanctions. What would probation/parole reform within a corrections system and community context look like? What changes would be needed and are they possible?

### Boot Camps

Here again existing research is instructive, though by no means definitive. Based on an eight state evaluation of adult shock incarceration programs funded by the National Institute of Justice, MacKenzie and Souryal (1994) speculate that devoting a considerable amount of time to rehabilitation and treatment-oriented programming (e.g., education, employment, substance abuse, problem-solving/decisionmaking skills) followed-up by intensive supervision and continued educational, employment and treatment opportunities, may explain why participants in particular programs did better than comparison cases on at least some measures of recidivism. While other factors might influence effectiveness including the length of the program, whether or not participation is voluntary and the extent of boot camp drop-outs and wash-outs, MacKenzie and Souryal (1994, p.30) concluded that "if success is measured in terms of recidivism alone, there is little evidence that the in-prison phase of boot camp programs have been successful. Unfortunately, however, since individual level

data were not available on supervision intensity in several of the sites and the comparison groups were not intensively supervised, it was not possible for the study to disentangle the effects of intensive community supervision from the in-prison boot camp phase. Still, the researchers point out, if the boot camp phase alone had an impact on participants, one would anticipate that they would have lower recidivism rates than their comparison groups, but this did not occur. In fact, in several of the sites the boot camp graduates did worse (i.e., had more technical revocations) than prison parolees.

In an OJJDP funded demonstration initiative, three juvenile boot camps were developed, implemented and evaluated using an experimental design (Thomas et al., 1996; Peters et al., 1996; Peters et al., 1996a; Peterson, 1996). The boot camps were located in Cleveland, Ohio, Denver, Colorado and Mobile, Alabama and focused on adjudicated, nonviolent offenders under the age of 18. The programs were designed as highly structured, three-month residential programs followed by 6 to 9 months of community aftercare. All three programs experienced considerable difficulty in their aftercare component, both in terms of the transition into aftercare from the boot camp and the linkage between aftercare operations and the local community. In none of the boot camps did graduates exhibit less recidivism than the control group and in one site boot camp graduates did worse. The evaluation points to a number of implications for future boot camp projects, notable among them that more attention be paid at the outset to developing the aftercare and transition strategy and to anticipating likely problems and challenges related to procuring critically needed, high quality support services involving education, employment and counseling.

As shown, the question concerning the role of treatment and attempts to address various criminogenic factors is commonly addressed in research on intermediate sanctions. It appears that treatment frequently plays a very subsidiary role relative to surveillance and control, and it has been pursued both halfheartedly and unevenly. This is certainly not surprising given the fact that the funding for treatment services is thin, the communities themselves lack adequate resources to deliver

essential treatment services, existing treatment programs in communities are minimal, and the capacity of community corrections agencies is low.

### Treatment and Intensive Supervision

The dominance of surveillance in adult intensive supervision and parole and, ironically, the potential benefit related to treatment, when available and delivered, was documented in a national demonstration project sponsored by the Bureau of Justice Assistance and evaluated for the National Institute of Justice by Rand using an experimental design (Petersilia & Turner, 1993). The demonstration involved 14 programs in nine states, ran from 1986 to 1991, and involved about 2,000 adult offenders. The study revealed that participation in treatment components, while not high in the experimental ISPs (e.g., less than half of the ISP offenders received some counseling during the follow-up period), exceeded that involving the control participants. Rand conducted an analysis of the programs in California and Texas, which indicated a relationship between treatment participation and recidivism. The analysis revealed that higher levels of treatment participation, not just referral, were associated with a 10-to-20 percent reduction in recidivism. Importantly, however, it was not possible to determine whether the lower recidivism was attributable to the treatment or the type of offender in treatment, because offenders were not randomly assigned to receive treatment. Still, as Petersilia and Turner point out, the results are consistent with literature indicating the positive outcomes of treatment.

The Rand study of ISP certainly raises the question of whether more resources devoted to treatment and rehabilitation would prompt higher levels of participation in treatment, and equally important, whether high levels of participation in rehabilitation services would produce even better outcomes. As already shown, resource strapped communities and traditional casework-oriented community corrections have produced intermediate sanction programs in which the level and type of treatment actually provided has fallen considerably short of what many would expect from

intermediate sanctions in a community treatment context. Since in general there has been more surveillance than treatment in intermediate sanctions to date and the outcomes have generally not shown that predominantly surveillance-oriented intermediate sanctions are producing superior results, it seems reasonable to ask two questions: 1) what is known about the extent and type of treatment that could be more fully incorporated into intermediate sanctions and 2) what policy and operational changes would be needed to ensure that such treatment would be available and actually delivered in the community?

#### Treatment and Service Provision in a Risk-Based Context

Earlier chapters (Lipsey & Derzon, Chapter 6; Hawkins et al., Chapter 7, this volume) have shown that SVJ offenders, as a group, tend to exhibit a variety of risk factors that when accumulated over time, produced an increased likelihood for anti-social and offending behavior. The four domains that seem to consistently emerge include family, peers, school and community. While it is obviously critical to know the domains that require attention and intervention, more specific information is still required in order to understand what kind of strategy and programs are most likely to reduce individual offending and protect the public. The Lipsey and Wilson analysis (Chapter 13, this volume) is instructive in this regard because it points to certain types of treatment that show promise in lowering recidivism when compared to customary or more traditional and routine forms of sanctioning. Most notable among those types of interventions for noninstitutionalized juveniles that produced the greatest reduction in recidivism was the grouping of evaluated programs that included interpersonal skill training (Chandler, 1973; Delinquency Research Group, 1986), behavioral contracting (Barton et al., 1985; Gordon et al., 1987; Jesness et al., 1975; Kantrowitz, 1980; Schwitzgebel & Kolb, 1964), and individualized counseling that is cognitive-behavioral oriented (Bean, 1988; Borduin et al., 1990; Kemp and Lee, 1975; Lee & Haynes, 1978; Lee & Haynes, 1978a; Lee & Olejnik, 1981; Moore, 1987; Moore & Levine, 1974; Piercy & Lee, 1976). It is the

noninstitutional community treatment settings where enhanced probation, intensive aftercare and institution diversion cases are likely to be placed and thus it is Lipsey and Wilson's noninstitutional category that initially seems most relevant for providing guidance on an appropriate intermediate sanctioning strategy.

Common to the types of treatment that displayed the most positive results was their highly structured and focused emphasis around the development of basic social skills, behavior specific management through contingency contracting, and individual counseling in which conduct, attitudes and perceptions are confronted and addressed in an ongoing way. The treatments mostly involved highly trained staff (including some volunteers) who largely maintained a sharp focus on skills, conduct and attitudes relating to a variety of settings and influences, such as family, peers, school, work and community. It should be noted that the evaluated programs included in the meta-analysis represent only those programmatic efforts that meet certain methodological standards and consequently the programs have likely been developed and implemented under relatively optimal circumstances with better than average treatment integrity. In fact, among the noninstitutional programs, the more successful programs were those that involved the researcher in the design, planning and delivery of the treatment. These more successful programs can thus be contrasted with many operational programs in which the researcher is only involved in the evaluation. One implication is that the quality and integrity of program implementation, as well as the competence and quality of the staff, are necessary ingredients in effective programming. This should serve as a caution in thinking that any program claiming to provide the identified treatments can expect success.

Lipsey and Wilson (Chapter 13, this volume) also subjected to meta-analysis a variety of institutional programs, but of course, these would not be directly applicable to intermediate sanctions related to enhanced probation and institutional diversion. Enhanced and intensive parole/aftercare is a distinct case, however, because the transition from the institution, as well as the connection of

institutional services and culture to aftercare services and supervision, are all potentially important aspects of institutional life that may impact success in the community. Several of the more successful programs included in Lipsey and Wilson's institutional meta-analysis focused to varying degrees on community reentry. Moreover, and quite interesting, was the fact that among those types of treatments in institutional settings that produced the greatest reduction in recidivism was the grouping of evaluated programs that included interpersonal skill training (Glick & Goldstein, 1987; Shivrattan, 1988; Spence & Marzillier, 1981), teaching family homes (Kirigin et al., 1982; Wolf, et al., 1974), and cognitive behavioral approaches (Guerra & Slaby, 1990; Schlicter & Horan, 1981). As already noted, two of these types of treatment were also among those included in the most successful noninstitutional programs. Also included among the most successful type institutional programs were multimodal approaches (Grunhut, 1955; Kawaguchi, 1975; Moore, 1978; Seckel & Turner, 1985; Thambidurai, 1980), which were among the treatments offered by the second most effective group of noninstitutional programs.

In short, the overlap of effective treatment types between the institutional and noninstitutional programs would suggest the potential for stronger and more lasting recidivism reduction if effective institutional programs were followed up with quality (noninstitutional) aftercare programs. The overlap of treatment types also suggests that from a treatment modality and programmatic standpoint, aftercare programs and their staff have a sound basis for their being integrated into the institutional setting. The goal would be to establish direct continuity and reinforcement across the institutional and noninstitutional settings. The outstanding research question that must be asked, however, is whether the types of treatment among those found most effective in either institutional or noninstitutional programs could be even more effective and enduring when linked in a full-fledged reintegrative-oriented intervention. It is research that answers this question that will directly address the value of transition and aftercare over and above what has been gained

during confinement.

### **Critical Issues in System Reform, Program Design and Implementation**

The research and program literature as well as the experience of decades of correctional practice have highlighted a number of implications absolutely crucial to the development of sound and workable intermediate sanction policy and day-to-day operations. The implications can be grouped into five basic areas: a) jurisdictional authority and control, organizational turf and interagency collaboration; b) targeted population, assessment and classification; c) managing technical violators and devising guidelines on both graduated consequences and incentives; d) differentiating surveillance and monitoring from treatment provision and service delivery within an overall accountability framework; and e) staff roles and responsibilities, training, workload, and caseload.

### **Politics, Bureaucracy and Structure**

Whether the intermediate sanctions are a form of enhanced probation, prison diversion, enhanced parole or some combination, the complexity and fragmentation of the justice system tends to work against the collaboration and continuity necessary to achieve a multi-faceted intensive sanctioning system. If the intent is to develop and fully implement intermediate sanctions, not merely intensive surveillance, then it is likely to require alliances and partnership among departments, organizations and interests not ordinarily accustomed to cooperating with one another.

As the existing system is presently structured in most states, however, administering and managing juvenile justice poses particularly tough challenges. The division of authority and responsibility is dispersed among state and local levels of government, conflicting bureaucratic and organizational interests, as well as divergent professional orientations. Depending upon the state, the key decisionmakers involved with juvenile justice include judges, prosecutors, state youth corrections agencies, institution staff, parole authorities and community review boards, county government and court service staff, plus other public and private service providers. The sheer size and organizational

complexity of the juvenile justice "system" make it exceedingly difficult to achieve basic communication, much less collaboration. Furthermore, the forces that support leaving institutional corrections to function as it always has, are well organized, entrenched and formidable (Miller, 1991).

There are also pressures and directives affecting juvenile corrections that emanate from still other sources, including the public, judiciary, public defenders and private defense attorneys, governors, legislatures and state agencies, career civil servants, unions, private sector contractors and service providers, victims groups, child advocates and the media. They represent an almost overwhelming collection of vying interests and countervailing forces, many of which by their very nature are adversarial. The net effect is a kind of inherent organizational fragmentation, that if not very consciously, carefully and properly treated and soothed, can result in chaos, fingerpointing and scapegoating. Public accountability is often lacking.

It will take strong commitment from the top, policy-making levels of the system along with buy-in and support at both the mid-level manager and line staff levels to offset the longstanding and deep-seated differences among the various stakeholders and interests involved in different parts of the system. One strategy is to establish special interagency teams representing all the parties with decisionmaking authority and jurisdiction over targeted offenders from the point of first contact with the system all the way to official termination. Vesting such teams with authority and flexible resources to cover the full range of needed services, both surveillance and treatment, can create a powerful incentive for cooperation, mutual support and a collective interest in seeing that success lies with promoting community protection through offender change. In short, a successful development and implementation effort will likely require strong leadership within the program, coupled with the involvement of key stakeholders both in and outside the program and ties to the wider political and bureaucratic structure within which the program operates.

### Target Population and Classification

Explicit criteria specifying the type of offenders eligible to participate in an intermediate sanctions program should be directly related to the ultimate purpose and goals of the program. In the event of multiple goals, understanding how each criterion relates to every goal is important in clarifying any potential inconsistencies or conflicts. Common goals associated with intermediate sanctions include relieving institutional crowding, creating alternatives to incarceration, lowering correctional costs, strengthening or toughening probation/parole, and reducing recidivism. Intermediate sanction programs vary on their eligibility criteria, having accepted a wide range of offenders including those who are violent and nonviolent, serious and minor, chronic and first-timers, probation and parole violators, high and low risk, and high and low need.

Eligibility criteria are relevant to the attainment or displacement of particular goals in several different ways. An example of one of the most obvious ways is where an intermediate sanction program designed principally to relieve institutional crowding draws from an offender pool that is, in fact, prison bound. An example of a less obvious way that eligibility criteria can impede goal attainment is the situation where a relatively low-risk offender is placed into an intermediate sanction as a form of enhanced probation and ends up revoked on the basis of a technical violation. If the enhanced probation is more costly than routine probation and if the revocation results in even lengthier supervision or some form of incarceration for the violator, the intermediate sanction may neither be saving money, reducing the use of more restrictive sanctions, or promoting public safety.

Assessment and classification for risk is only one aspect of eligibility, but its overall significance in the use and abuse of intermediate sanctions looms large for SVJ offenders. Since juveniles who have committed certain felonies are included in the serious offense category (see Loeber & Farrington, Chapter 2, this volume), such juveniles might well be considered eligible for intermediate sanctions, but research suggests that it is by no means clear that these serious type

offenders represent a high risk for committing future crimes. Moreover, it is also an open question as to whether such serious type offenders typically are incarcerated and whether they should be. Consequently, the eligibility of such offenders for intermediate sanctions depends upon the specific goals and purposes chosen.

Probation/Parole Conditions, Technical Violations and Graduated Consequences

It is precisely because of the finding that intermediate sanctions are likely to produce a high rate of technical violators (and violations) that it becomes imperative to build into intermediate sanction correctional policy and program design a structured system of both graduated consequences for technical violators and incentives to prevent technical violations from occurring in the first place. It is commonplace for juvenile offenders on probation or parole to be given a variety of conditions, violation of which can result in a revocation of the probation or parole status and a period of incarceration. It is equally commonplace that the conditions are the same for everyone and that it is left to the discretion of the P.O. to decide on the extent and nature of enforcement.

The problem, as many P.O.s know, is that some of the conditions are unrealistic, largely unenforceable or highly unlikely to be met (Altschuler & Armstrong, 1990; Krisberg et al., 1989) and that frequently the violations have no bearing on the likelihood of offenders actually committing additional crimes (Lurigio & Petersilia, 1992; Turner & Petersilia, 1992; Petersilia & Turner, 1991). Classic examples of the problem include violations on the basis of a positive drug test when no drug treatment was made available, and not attending school when the school environment is clearly unsuitable for the youngster and unresponsive to specific educational needs. The result is that with some notable exceptions, P.O.s are left either to ignore some violations or to respond disproportionately to the violation. Either response is obviously counterproductive. It is also important to note that, as rare as graduated sanctions are, recognition of achievement is more so.

Intermediate sanction programs need policy driven guidelines that specifically address: the

establishment of realistic and enforceable individualized conditions, a hierarchy of violations that incorporate the risks posed to public safety, a continuum of graduated responses and a range of incentives used routinely to acknowledge and reward positive behavior. Efforts that begin to go in this direction for adult corrections have been underway for some time by the National Institute of Corrections (Burke, in press) and are part of the intensive juvenile aftercare demonstration initiative (Altschuler & Armstrong, 1994).

#### The Surveillance, Control and Treatment Nexus

The reviewed research makes clear that there is a fundamental distinction between surveillance and monitoring on the one hand and treatment provision and service delivery on the other. While punishment and immediate risk control form one important part of the justice sanctioning system, so too does treatment and service delivery focused on the specific risk factors associated with a case. It seems clear that intermediate sanctions that are predominantly punishment and surveillance are insufficient in general in producing lower recidivism, though there is some evidence that as an alternative to incarceration it is possible—under the right circumstances—to realize some cost savings. As discussed, however, the research suggests that when treatment is provided, additional benefits in the form of reduced recidivism may accrue. While further research is needed, the signs are encouraging and certainly sufficient to justify a large-scale rigorously tested demonstration initiative. It should be pointed out that general P.O. contacts, drug and alcohol testing, curfews, electronic monitoring, and at least according to some, community service and restitution, are largely punishment and control strategies. This is not to say that they do not have a rehabilitative impact or that they cannot be part of a broad-based sanctioning strategy in which treatment, surveillance, and control were all firmly in place.

#### Staffing and Workload

Finally, staff roles and responsibilities, training requirements, workload, and caseload size must

be given the utmost consideration and attention. The debate on the role of probation and parole agents as case manager versus direct service provider, police officer versus counselor, and tracker/community outreach worker versus traditional office-based, standard hours worker is not new, but assumes particularly critical importance for intermediate sanction kinds of programs. The various roles assumed by staff must be carefully and thoughtfully delineated. Intermediate sanctions that are interagency oriented, cross-disciplinary and multi-faceted, require openness, creativity and flexibility. Consequently, job descriptions that carefully specify day-to-day responsibilities and role expectations should be used to establish the criteria on which hiring, retention and promotions will be based.

Both potential staff and employers must have a clear sense of the rather extreme demands that intermediate sanctions place on the kind of jobs involved and the type of difficulties encountered in the workplace. Therefore, the recruitment, screening, training and performance review process needs to place emphasis on hiring and retaining individuals who are committed to the goals and approaches that characterize the unique aspects of the intermediate sanction working environment and culture. One problem frequently encountered in selecting qualified and committed staff relates to workplace and staff rules, regulations, and job protection. In some civil service and unionized environments, as well as in procurement and contracting procedures, there can be immutable or excessively rigid rules and policies regarding hiring, job responsibilities, transfer and firing. However, intermediate sanctions, particularly with its implications for highly coordinated teamwork requires flexibility and accommodation. Operational issues that must be addressed include: job classification; lines of authority; use of volunteers, paraprofessionals, and contract workers; performance reviews; and privatization.

It is clear from earlier research that smaller caseloads do not necessarily produce more contacts between P.O.s and clients (see, for example, Banks et al., 1977) and that increased contacts may have no bearing on either the level or type of treatment actually provided. Thus, intermediate sanction

staffing strategies clearly need to consider caseload size, number of contacts, purpose of contacts and services provided, time and place of contacts, and the resulting skills and qualifications that staff will need. It is also imperative that interdisciplinary and interagency teams require a great deal of attention on how members will collectively function, share authority and provide feedback. Staff qualifications may well vary depending on the role and responsibility of the particular team members. Requirements by way of credentials, training, experience, and aptitude will likely differ by type of position. Personnel policy must accommodate such differences. Some team members may, in fact, be paraprofessionals or volunteers and some needed services may be available through contract or agreement with various other public and private agencies. Regardless of the staffing and agency mix, however, the division of labor and sharing of authority must be carefully delineated to avoid confusion, discontinuity and mixed messages.

### Conclusion

It would be easy and a misreading of the evidence discussed in the chapter to conclude that it is not possible to craft an implementable intermediate sanction program that addresses directly the risk and protective factors, as well as the surveillance and control requirements associated with SVJ offenders who are high risk. It does require, however, heeding the lessons learned and insights gained from existing research, analysis and evaluation. Truly intervening with families, maintaining active participation in education and employment, keeping focus on the peer group, providing drug treatment (not just testing), incorporating various cognitive-behavioral and skill-oriented techniques, and handling all the transitions from facilities to community so to facilitate information flow, consistency and transferability are crucial.

Also critical is having ready access to information on the extent and quality of day-to-day implementation as well as outcome. Some very basic questions concerning implementation, impact and costs associated with intermediate sanctions remain unanswered. Future research on intermediate

sanctions needs to carefully examine these questions, which means that the research should be designed and initiated at the same time that the intermediate sanction program is designed and initiated. As noted, existing research on intermediate sanctions strongly suggests that treatment availability and participation are associated with lower recidivism, but three problems in particular have compelled researchers to present a less than definitive response. First, the lack of existing treatment and appropriate services in the community, the frequency with which offenders did not receive the prescribed treatment and services, the paucity of resources allocated specifically for treatment, and the generally subordinate role treatment has played in intermediate sanctions have led to programs exhibiting much less treatment than surveillance. The lack of treatment intensity has extended both to the percentage of offenders left untreated (Petersilia & Turner, 1993) and the generally low level of treatment provided to those who receive it (Petersilia, Turner & Deschenes, 1992). Future intermediate sanction programs and research on them would benefit from having risk-based treatment services playing a prominent role in philosophy, design and implementation. Such risk-based treatment service, as noted in earlier chapters, would be directed toward family, peers, school and/or work, and neighborhood-based social institutions. Second, the research on intermediate sanction programs has generally suffered from too few participants, so that it becomes exceedingly difficult to generate any statistically significant differences in the analysis. Stated differently, in order to conclude that one group of offenders has performed better than another, differences are required in small-sample studies that exceed those one might reasonably expect to find. The solution is to launch a large enough effort so that a sufficient number of participants will be assured.

Finally, disentangling the effect of particular program components can be crucial to determining the relative importance of different aspects of intermediate sanctions. The reviewed research was mostly designed to evaluate the effect, for example, of intermediate sanctions to the

extent that they combined surveillance and treatment, or boot camps to the extent they may have included transition and intensive aftercare. It would be useful for future efforts, for example, to test specifically and systematically the impact of differential levels of treatment and surveillance and the effect of boot camps with and without intensive aftercare. Random assignment to surveillance-oriented and treatment-oriented intermediate sanctions or very different kinds of boot camps would represent a move in this direction. It would also be advisable to directly incorporate into future research and program efforts those offenders who are first screened on the basis of risk and then placed randomly into either an experimental intermediate sanction or a regular correctional program. In addition, focusing specifically on strategies designed to prevent and respond to technical violations is another aspect that would benefit from intermediate sanction research and programming.

Footnotes

1. The combination is usually juvenile court administration in urban counties and a state executive system of probation in smaller counties.

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## Chapter 16

### Serious Violent Juvenile Offenders: Gaps in Knowledge and Research Priorities

Nancy G. Guerra

One approach to identifying gaps in knowledge about serious and violent juvenile offenders (SVJ) is to focus on "missing information" in the empirical literature. It would be quite easy, in fact, to compile a long list of research questions covering a diverse set of topics. This is an important task that is necessary in recommending future research priorities. However, I propose that future research questions are best viewed through a lens that frames the issues in terms of gaps in our approach to understanding the problem of serious juvenile crime.

In this chapter, I first attempt to provide this lens by identifying and discussing three key points related to how we think about serious and violent juvenile offending. I propose that a framework for understanding this problem requires (a) a specific focus on SVJ offenders that incorporates issues of definition, heterogeneity, and co-occurrence with other behavior problems; (b) an understanding of the social ecology of serious juvenile crime in terms of the complex interaction between individual, situational, and contextual influences over time; and (c) an awareness of the relevance of research to services, systems, and policies that must include an appreciation of how research can be informed by the daily lives of people who experience or address problems of serious juvenile crime.

The overarching theme of this chapter is that research and practice must be interconnected in a feedback loop that allows each to inform the other. The research endeavor must be collaborative, and the common goal must be to forge an understanding of the dynamics of serious juvenile offending in order to formulate promising action strategies and develop responsive policies. Although there are endless possibilities for theoretical contemplation, the ultimate utility of research on social problems lies in its ability to inform practices so as to prevent or reduce the problem at hand.

Because any strategy to ameliorate serious juvenile crime rests on a complete picture of the

nature and scope of the problem, gaps in knowledge about patterns and trends in youth crime are reviewed, particularly as this relates to SVJ offenders and available sources of data. Following this, limitations of the currently used risk assessment and classification instruments and methods are examined. Next, gaps in research on the causes and correlates of serious juvenile crime are reviewed, with particular emphasis on the strengths and limitations of a risk-focused approach and alternative models for use with SVJ offenders. Finally, needed research on the efficacy and effectiveness of prevention and intervention strategies is discussed.

Rather than conclude with a laundry list of gaps in research, I attempt to illuminate a set of research priorities and directions for future research that integrate gaps in how we approach the problem of serious and violent youth crime with specific gaps in knowledge related to patterns and trends, prediction, etiology, and intervention. Drawing on relevant literature as well as comments by participants at the OJJDP study group meetings, specific needs in each area and recommended actions are discussed. These are summarized in Table 16.1. It should be noted that these represent research priorities, and not recommendations for specific programs or services.

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Insert Table 16.1 about here

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## A Framework for Understanding Serious and Violent Juvenile Offending

### Focusing on Serious and Violent Offenders

In Chapter 1 of this volume, Farrington and Loeber provide an overview of the mission of the OJJDP Study Group. They juxtapose what we know about recent trends in youth crime with what we know about etiology and intervention, and highlight what could be considered a deep chasm. Against a backdrop of steep increases in juvenile violent crime over the last decade and public outcries for solutions, we are faced with an almost "generic" literature on juvenile delinquency that has not, to date, provided clear guidance for understanding serious, violent, and chronic offending. As they

state, "It is likely that much of our knowledge about risk/protective factors and prevention/intervention programs does not apply specifically to SVJ juvenile offenders" [(p.7)]. Herein lies a basic problem in our approach to understanding serious juvenile offending. We must refocus research efforts towards understanding those individuals, events, and settings most connected to the true picture of youth violence and serious/violent offending at this time.

A prime example of this shortcoming can be found in the prevention and intervention literature. In a recent review of programs to prevent or reduce adolescent violence, Tolan and Guerra (1994) noted the difficulty in finding programs that specifically measured impact on serious violence. In fact, it is common practice for programs to use outcomes such as attitudes about violence or delinquency, responses to hypothetical decision-making scenarios, or minor and age-normative problem behaviors as indices of effectiveness, and to conclude that change in these proximal outcomes indicates that the program "works" as an anti-violence intervention. This is not to imply that changes in attitudes about violence are not an important component of a strategy to prevent or mitigate SVJ offending; however, it is unlikely that these programs alone will impact actual offending.

Of course, there are several reasons why it is difficult to measure program impact vis a vis violent or serious delinquent behavior, particularly during the early years before such behavior is evident. Nevertheless, several accommodations are warranted both in terms of types of outcomes measured, long-term follow-up, and program impact on youth with the most extreme behavior problems. These issues are carefully examined later in this chapter, and are presented at this time to highlight the need to focus efforts on understanding the causes and potential solutions to the problem of serious and violent juvenile offending.

To begin with, redirecting research efforts along these lines first requires some degree of consensus about the operational definition of this categorization as well as relevant subgroupings or classification typologies. In Chapter 2 of this volume, Loeber, Farrington and Waschbusch underscore the need for unambiguous definitions while highlighting the difficulties inherent in setting

some type of cut score or threshold for inclusion. Still, they offer a set of recommendations for distinguishing serious and violent offenders based on predetermined standards regarding type and/or number of offenses. Adopting a common definition would at the very least allow for comparability across studies and uniformity across policies.

It should be noted that adoption of categorical definitions of serious and violent juvenile offenders and accompanying typologies (e.g., property vs. violent; life course persistent vs. adolescence limited) still results in an offense-based typology. Reporting is based on either official records of the crime an individual is arrested for or self-reported incidents of behavior, with each source of data presenting an incomplete picture of actual behavior (Huizinga, 1991). In addition to being offense-based, the resulting categorizations may still be too crude to permit more fine-tuned analyses. Greater specificity may be needed, particularly when moving beyond documentation of patterns and trends towards an understanding of causes, correlates, and effective solutions. For instance, are factors leading to predatory violence such as robbery (when the victim is a stranger) similar to those leading to interpersonal violence (when the victim is an acquaintance, friend, or relative)? If not, should training youth in conflict resolution skills have any impact whatsoever on predatory violence? In any case, it is important to consider carefully the level of specificity needed to address different types of research questions and to refine definitions and classifications accordingly.

A related issue arises from the use of any classification scheme that defines and labels individuals based on commission of an offense. In other words, when the "problem" is labeled as understanding serious and violent "offenders" rather than the dynamics of serious and violent offending, co-occurring behavioral problems, situational, and contextual factors that may have contributed greatly to this pattern of offending are easily overlooked. Clearly, there is a sizeable literature suggesting that a small group of offenders repeatedly commit a large percentage of serious and violent crimes (see Chapter 2), and it is important to understand how these criminal career patterns develop (Blumstein, Cohen, & Farrington, 1988; Farrington, 1986; Moffitt, 1993).

However, any typology must permit consideration of the range of individual, contextual, and situational influences that impact onset, occurrence, and desistance of SVJ offending.

### Understanding the Social Ecology of Crime

Theories of delinquent and criminal behavior range from those that focus largely on individual attributes (e.g., Moffitt, 1993) to others that emphasize situational factors or events (e.g., Felson, 1993), and still others that highlight the role of contextual influences (e.g., Sampson & Laub, 1993). Regardless of their primary thrust, almost all recent theories of crime and delinquency at least acknowledge the interplay between individual, situational, and contextual factors, suggesting that an understanding of serious juvenile crime requires consideration of the full range of influences on an individual's behavior.

Most frequently, one or several contextual influences are postulated at different points in development. For example, there is a large body of research documenting the role of family factors such as coercive child management practices in the etiology of early aggressive behavior (Patterson, 1982). In developmental studies, this pattern has been shown to generalize from minor opposition at home to more serious noncompliance at home and in other settings (Patterson, Reid, & Dishion, 1992). Other studies have investigated the influence of peers. Several studies have documented a link between early aggression, rejection by peers, and subsequent escalation of problem behaviors (see Parker & Asher, 1987 for a review). During adolescence, association with antisocial peers rather than peer rejection, has been found to be one of the strongest predictors of delinquent behavior (Lipsey & Derzon, Chapter 6, this volume).

Other research has focused on the role of contextual and systemic factors outside the family and peer group. Social, cultural, and economic forces have been implicated in the etiology of antisocial and criminal behavior, particularly as they can account for the higher crime rates among poor, urban minorities (Hammond & Yung, 1991). Several characteristics of distressed urban settings have been linked with crime and violence. For instance, the chronic and persistent poverty that

characterizes some inner city neighborhoods portends multiple stressors that, in turn, have been found to predict future problem behaviors (Guerra, Huesmann, Tolan, Van Acker, & Eron, 1995). In addition to multiple stressors, community-level social disorganization and social isolation, particularly as they impact informal social control and the development of illegitimate social organizations, have been implicated in the learning and escalation of crime and violence (Sampson and Laub, 1993). Furthermore, the lack of economic opportunities coupled with variations in cultural history and cultural norms may promote involvement with gangs and other illegal acts (Anderson, 1990).

Not only do parents, peers, communities, and culture exert independent influences on children's antisocial behavior, these contexts are also interconnected and overlapping, making the picture even more complex. Children live in families that reside in specific neighborhoods with certain cultural and social opportunities and constraints. Because social contexts overlap, events taking place in one context such as the parent's workplace can impact parent-child interactions and indirectly impact the child, even though he or she has no direct participation in the parent's workplace.

The ecological organization of social contexts makes it difficult to ascertain the myriad of potential interactions across contexts as they relate to individual antisocial behavior. In addition to multiple contextual influences, individuals also experience contexts differently. Thus, a simultaneous focus on the person and the context in which development and action occur is necessary in order to understand SVJ offending in terms of the dynamic interaction between individuals and the settings in which they live.

Such an approach stretches the limits of quantitative methodologies, and may be better served by a strategy that combines comparative longitudinal and ethnographic methods that consider the full range of contextual influences. At the very least, quantitative studies should be augmented by qualitative efforts that provide narrative accounts of how identified risk factors play out in daily life. Furthermore, these studies should incorporate situational and functional factors that contribute to SVJ

offending, and describe how these interact with individual and contextual influences.

The Relevance of the Research Enterprise to Services, Systems, and Policies Impacting SVJ Offenders

Given the truly lethal consequences of SVJ offending, there is an urgent need for research that is useful for prevention and intervention efforts in the field. A central issue confronting social scientists is the extent to which research simultaneously advances knowledge and informs policy and practice in this area. Towards this goal, researchers must pay attention to a number of issues including: (a) the need for research to be informed by the daily lives of children and families; (b) the need for replication of findings; (c) building in sensitivity to the generalizability of findings across cultures and settings; (d) considering practical concerns such as costs and ease of implementation for interventions or system changes; and (e) developing methods of dissemination that are readily understood in the field.

Too often there has been a poor fit between researchers' assumptions about the dynamics of serious and violent juvenile offending and the perspectives and voices of those who commit such crimes. For example, a primary focus of prevention science is the "systematic study of potential precursors of dysfunction" (Coie et al., 1993). Models such as this equate violence with psychopathology and disorder. Yet, field studies utilizing narrative interviews suggest that in some contexts violence may serve a number of practical functions including maintaining status and respect, acquisition of material goods, and management of conflicts (Fagan & Wilkinson, 1996). Preventive interventions in these settings that do not acknowledge the functional aspects of violence for some youth will likely be doomed to failure.

In addition to grounding research in the daily lives of participants, it is important to promote replication studies. Policies and practices should not be driven by one or two studies with significant results. Unfortunately, studies that fail to replicate findings are often difficult to publish, particularly in intervention research. Consistent with a need for replication is a need to establish the generalizability of findings across cultures and settings. Critics have often noted that many basic

assumptions about human development and criminal behavior are rooted in research conducted with largely white, middle-class children (Rogoff & Morelli, 1989). More research is needed that carefully examines the role of culture in the etiology and prevention of SVJ offending (Laub & Lauritsen, 1993).

Research on SVJ offenders must be extended to include determinations of real-world feasibility. For example, rather than assessing a panoply of risk factors for SVJ offending, it would be useful to focus on those risk factors that are most readily modifiable. At the very least, it is important to distinguish risk factors useful for identification of populations (e.g., urban, economically-disadvantaged) or subgroups of individuals (e.g., males), from risk factors to be targeted by an intervention (e.g., family management practices). Similarly, prevention and intervention studies must consider the extent to which such programs or strategies are easily implemented in the field, as well as associated costs. Field testing programs that are prohibitively costly to implement does not provide useful guidance for service providers. Along these lines, researchers must also incorporate mechanisms for dissemination of findings via user-friendly manuals and materials that can be useful for translating research into practice, and include dissemination plans in research grant applications.

#### Gaps in Research

##### Patterns and Trends in SVJ Offending

Given a perspective that emphasizes the need to focus on SVJ offenders, to consider offending within a social ecological framework, and to conduct studies that are most relevant for policy and practice, let us now turn to a discussion of current gaps in knowledge about patterns and trends in SVJ offending.

First, it is important to note that available national level data on SVJ offending are derived primarily from either official records or victimization surveys, and generally are not available for youth under age 12. There have been few systematic efforts to collect national data utilizing self-report measures. Yet, there are several problems with available data, particularly official records.

As Loeber, Farrington, and Waschbusch (Chapter 2, this volume) point out, arrest or adjudication records reflect only a small percentage of actual SVJ offending when compared with self-reported offending. Such records are also extremely sensitive to changes in official law enforcement and judicial practices, and do not provide a window into early delinquent involvement. Local policies for collecting information such as ethnicity (particularly as this relates to nuances in ethnic affiliation and how these are identified) and gang involvement also vary and limit the breadth of information available. Thus, large-scale self-report surveys that include SVJ offending and oversample in high-risk communities would be a necessary and much-needed complement to data based on official records. A practical strategy to accomplish this task would be to incorporate relevant questions in compatible survey research studies, such as is currently accomplished by the co-funding by OJJDP of a new Department of Labor study.

Still, although self-report measures have gained popularity as valid measures of delinquent behavior, they are also subject to potential biases in responding and administration (e.g., school-based surveys miss those who are not in school). Because of these limitations, another important step is to continue to develop and validate self-report measures and methods that are best suited to assessing SVJ offending and related characteristics of interest. Research is also needed that examines specific types of response biases and how best to increase accuracy of reporting. For example, some research has shown that compared to White youth, African-American youth tend to agree in response to agree-disagree items and to favor the extreme ends of response scales (Bachman & O'Malley, 1984). More generally, there is some evidence of differential under-reporting by African-American youth (for a review of this and recent self-report of delinquency results, see Farrington, Loeber, Stouthamer-Loeber, Van Kammen, & Schmidt, 1996).

Data that document behavior problems that co-occur with SVJ offending would be particularly useful in determining prevention and intervention strategies. As Huizinga and Jakob-Chien (Chapter 3, this volume) noted, in studies where data are available on co-occurring problems, a significant

number of SVJ offenders have been found to experience other problems, particularly school problems. In fact, school problems combined with other problems involve 80% of delinquent youth in some of the samples studied. This is quite important in that it suggests a potential mechanism for identifying at-risk youth in school settings (e.g., those having school problems and additional problems) as well as types of interventions recommended. However, as they note, more data are needed, particularly in terms of the overlap between SVJ offending and other areas of difficulty, such as mental health problems.

### Risk Assessment and Classification of SVJ Offending

In Chapter 9 of this volume, Le Blanc reviewed the current state of the art regarding measures and methods of screening for serious, violent, and chronic offenders. He noted (p. 37), "In sum, there is much technical work still to be done before we develop appropriate screening instruments for the identification of potential offenders or the classification of offenders. Some strategies and instruments are promising, but no specific recommendation can be made to policy-makers and practitioners." As he carefully points out, there are virtually no screening instruments to date that have been designed for and validated with SVJ offenders. Yet, because of the widespread use of screening for assignment to prevention and intervention programs across multiple institutions (e.g., schools, juvenile justice), it is imperative that efforts be directed towards the improvement of assessment measures and techniques, particularly as related to SVJ offending. In addition to developing an array of intervention options, well-designed and validated assessment procedures are needed to assess and classify youth in order to maximize the impact of these interventions.

Risk assessments are used in different settings and for different purposes, and specialized measures must be developed and validated in each setting. At the prevention stage, techniques and strategies have been developed for both community-level assessment for universal, population-based programs and individual level risk assessment for targeted programs. Known factors at the community level that are associated with higher rates of SVJ offending such as low income, social

disorganization, and social isolation have been used to select specific communities for prevention programming. Within communities, strategies such as Communities that Care have been implemented to describe in more detail the specific risk factors at the community, family, and individual level, and document programmatic needs (Hawkins & Catalano, 1992).

It is generally easier to identify community factors that portend high risk than to screen for those individuals who are most likely to become SVJ offenders. The low base rate of SVJ offending makes it difficult to predict accurately future offending, particularly with younger children. Multiple gating methods have been advocated as a cost-effective screening mechanism to identify risk groups. This approach involves beginning with a relatively inexpensive screening (the first gate) for a designated population, followed by a more expensive and sophisticated screening with a pool of individuals identified at the first gate (Loeber, 1990). Such an approach is bolstered by the use of multiple informants and multiple variable domains.

This procedure is widely used in prevention screening. However, as Le Blanc (Chapter 9, this volume) points out, four practical questions remain that suggest directions for future research: The number of gates to retain, the age at which to screen, the location of screening, and the best predictors to include. The age at which to screen and optimal location will, most likely, depend on the specific focus of the planned intervention or activities. Because of concern over relatively high rates of false positives and false negatives, however, more research is needed to examine various combinations of predictors and gates for children from diverse backgrounds and age groups. More gates and more variables do not necessarily increase prediction accuracy. For example, in one recent child screening study with kindergarten children, Lochman et al. (1995) found that a 2-step procedure using teacher and parent behavior ratings effectively predicted negative behavioral outcomes over one year later, although an additional parenting practices screening measure did not add to prediction accuracy. Studies such as this provide important information for minimizing intrusiveness and maximizing accuracy of risk screening procedures. However, the utility of screening measures



(particularly for young children) for predicting SVJ offending still must be demonstrated.

Perhaps nowhere is there a more critical need to improve risk assessment and classification practices that impact SVJ offenders than in the juvenile justice system. Structured decision making for placement and services, based on formalized risk assessment tools, is now the norm in state juvenile corrections agencies. Several instruments have been developed that revolve around a core set of risk predictors complemented by different site-specific factors. Although progress has been made in empirical validation of these scales, several problems remain. In particular, because of the low base rates of SVJ offending, it is difficult to predict violent and serious future offending. Rather, scales typically predict general outcomes such as re-arrest. Furthermore, although these general outcomes can be reasonably estimated at the aggregate level, a given individual's future behavior is extremely difficult to predict. Because risk factors often include static contextual variables (e.g., neighborhood violence, income level), minority youth from poor urban neighborhoods are likely to score higher on risk, which should also result in higher false positive rates for those groups of juveniles.

Beyond simply assessing likelihood of reoffending, screening instruments are used to predict the need for temporary detention, appropriate placements, custody needs within correctional facilities, and specific types of interventions and services recommended. In most cases, these instruments have been developed by state and local agencies, and are typically not based on empirical research. However, the limited number of empirical studies support the utility of continuing to develop reliable and valid measures for all phases of justice system services.

Another area in need of further development concerns the use of assessment to determine appropriate services. Assignment to treatment generally is determined through either a classification system or checklist of individual needs from a needs assessment scale. Ease of implementation has been enhanced by keeping most scales short and simple. However, several limitations to this procedure should be addressed. In particular, most needs assessments focus on broadly defined

deficits across multiple domains of functioning, with one or two questions in each domain. It is unlikely that a useful typology presenting a true picture of individual needs can emerge from such assessments. Even more troubling is the fact that such assessments rarely focus on strengths, that is, assets or supports that can be mobilized to promote healthy development. Perhaps a more useful approach would be to compile a developmental profile beginning with earliest justice system contacts that details an individual's specific strengths and weaknesses across multiple domains.

### Causes and Correlates of SVJ Offending

A range of methodologies has been employed to examine causes and correlates of offending. Over the last several decades, a multitude of cross-sectional studies have identified and replicated correlates of offending, including those specific to SVJ offending. The causal role of these factors has also been implicated in longitudinal studies that in some cases have relied on relatively short windows of time such as a few years, and in other cases have followed the life course pathways of selected individuals for several decades. Still other studies have tested causality through experimental manipulation via interventions designed to impact proposed antecedent factors.

From this array of studies has come a unifying framework focused on risk factors and protective factors for delinquent behavior (i.e., a risk-focused approach) that has dominated the field over the last decade (Coie et al., 1993; Howell, Krisberg, Hawkins, & Wilson, 1994). Such a framework represents a clear advance over vague theories of criminal behavior that were often difficult to test empirically and provided little clear direction for prevention and intervention. However, although making many contributions, this framework has several limitations that need to be overcome in order to advance our knowledge of the causal processes that contribute to SVJ offending. These limitations can be discussed while keeping in mind the three points mentioned earlier in this chapter related to the need to focus specifically on SVJ offending, to understand such behavior in terms of ecological influences, and to ground empirical studies in the practical experiences of those involved.

First, most variables studied in cross-sectional and longitudinal studies that measure SVJ as an outcome and are used to develop lists of risk factors are largely driven by deficit models of development. Although the notion of "protective factors" or conditions that counteract the effects of exposure to risk has surfaced repeatedly, empirical studies that link specific protective factors to specific domains of risk are virtually non-existent for SVJ offending. It is important to distinguish protective factors that are the opposite of risk factors from those that interact with risk factors to counteract their effects.

A notable advance in this literature would be to enumerate protective factors vis a vis specific risk profiles and contexts. For example, what protective factors reduce risk for children living in high-violence and gang-ridden neighborhoods? Who have family problems? Who attend bad schools? Who display individual deficits such as impulsivity? Who have combined risk profiles? Recent qualitative studies suggest that there may be tremendous individual variation in response to risk even within similar community contexts. For example, Gustin, Guerra, and Attar (in press) interviewed four children who were at-risk for delinquency based on living in high-violence neighborhoods, attending schools with few resources, and experiencing multiple stressors, yet experienced highly successful and adaptive outcomes. For each child the "protective factors" were different and ranged from a supportive family and a close network of friends to an optimistic outlook on life.

Risk-focused approaches must also acknowledge and integrate information on the actual and perceived benefits of involvement in SVJ offending. It is naive to dismiss the potential benefits of criminal activity as well as the specific situational correlates that portend violent or criminal events (Fagan & Wilkinson, 1996). For instance, for children living in low-income, high-violence neighborhoods with high levels of gang activity, carrying a weapon or joining a gang may be motivated primarily out of fear and desire for self-protection. In addition, specific events may promote or inhibit offending.

In most cases, risk-focused approaches tend to be atheoretical, providing lists of risk and

protective factors, although these are sometimes loosely woven together by a general theory.

Unfortunately, these general theories are often tautological, for instance, proposing that children become involved in delinquent acts because they are not involved in non-delinquent acts. Such an orientation provides little clear guidance for distinguishing among risk factors, but rather tends to convey the idea that risk factors are generally independent of each other and of equal value. Thus, targeting any two presumably is better than targeting one alone. However, it is more likely the case that successfully addressing a single strong causal factor may be more effective than targeting three or four variables that have weak or spurious influences. Of course, this is the rationale behind multi-component, multi-level interventions described by Wasserman and Miller (Chapter 9, this volume). However, even the most comprehensive interventions rarely evaluate adequately the relative contribution of different components related to types of risk factors.

Differentiating the impact of risk factors requires advances in both methodology and theory. For instance, as Lipsey and Derzon (Chapter 6, this volume) demonstrate, meta-analyses can be used to synthesize longitudinal research on risk factors in order to provide a ranking of influence based on effect size. Their research is enhanced by the addition of age groupings with quite different predictors emerging for children (ages 6-11) and adolescents (ages 12-14). Indeed, it is striking to note that antisocial parents but not antisocial peers contribute very significantly to the prediction of offending when measured between ages 6 to 11, but this relation virtually reverses for the 12-14 year old age group.

Still, such findings must be understood within the context of theoretical explanations that are sensitive to the heterogeneity of SVJ offending. It has become increasingly clear that no single theory is likely to account for as complex a phenomenon as delinquency. A focus on the social ecology of offending has illustrated the role of contextual influences as well as the need to account for person-in-context interactions. Clearly, theoretical advances are warranted that more clearly specify both indirect effects of variables as well as important interactions that are linked to particular patterns of

offending or offender typologies among discrete populations.

One issue that has emerged in recent years is the need to incorporate developmental questions into theories of delinquent behavior (as is also evident from the results of the Lipsey & Derzon meta-analyses in Chapter 6). Although there is a large developmental literature on problem behavior in children and adolescence, and particularly on the development of aggressive and antisocial behavior, the developmental literature and the criminal justice literature have evolved in two separate strands that have only minimally informed each other. Only recently have researchers begun to reject the notion that the causes of offending do not vary with age. Loeber and LeBlanc (1990) have proposed a "developmental criminology" that examines the effects of identified variables on youth of different ages as well as the differential effects of these variables on processes of offending including initiation, escalation, and desistance. Similarly, Sampson and Laub (1993) have described an age-graded theory of informal social control as applied to offending, and Williams, Guerra, and Elliott (1996) have put forth an ecological model of life course development that emphasizes developmental stages, life course transitions and pathways, and nested social contexts. As these developmental perspectives suggest, it is important to understand how individuals navigate their life course in relation to SVJ offending. This includes questions of when and why individuals begin offending patterns early or later in development, as well as when and why they outgrow them and how these changes can be maintained.

It is also important to study further how risk and protective factors and accompanying developmental processes vary as a function of other key characteristics such as gender, culture, and social class. This requires a more sophisticated operationalization of "sociocultural context" that goes beyond a checklist of ethnicity, a 5-point social class rating index, or a simple contrast of males versus females. Rather than attempting to make generalizations about specific groups of offenders, it is more useful to understand the key aspects of a given sociocultural context that influence the processes of involvement and desistance from SVJ offending.

A good example of the limitations of broad stroke assessments is the complex relation between poverty and SVJ offending. Although crime rates are highest in low-income neighborhoods (Fingerhut & Kleinman, 1990) and relations have been found between poverty and aggression (Patterson, Kupersmidt, & Vaden, 1990), it is likely that the specific sociocultural conditions which exist in certain low-income settings rather than lack of money relate to increased offending. As Jencks (1992, p. 113) notes, "If low incomes alone drove people to crime, graduate students and clergymen would also commit a lot of crimes." Thus, although there is a critical need to understand the concentration of SVJ offending in disadvantaged neighborhoods, it is clear that this must go beyond the assessment of income or social class.

Similarly, the role of gender has often been reduced to comparisons between males and females, with males outscoring females on SVJ offending. Yet further distinctions within each gender are also warranted. For instance, a critical issue is to make better distinctions between males who are SVJ offenders and males whose offending is more temporary, less serious, and more infrequent than SVJ offenders.

In a recent review of longitudinal and comparative research on violent criminal behavior, Laub and Lauritsen (1993) propose a research agenda that examines carefully the sociocultural processes underlying the development of extreme antisocial and violent behavior. They argue for a strategy that combines comparative longitudinal and ethnographic methods in order to examine variations in the interactions between individuals and the sociocultural environment and how these variations influence offending. In particular, they point to the need to examine factors that influence the large within-individual changes in antisocial behavior, despite an overall picture of relative stability within a population. Methodologies that combine quantitative data with life histories of offenders (e.g., Farrington & West, 1993) are particularly illustrative.

Finally, research on causes and correlates of SVJ offending must be sensitive to the practical utility of such endeavors. For example, although the notion of conducting a community-wide risk

assessment is consistent with a risk-focused approach, the community collaboratives that implement such assessments typically do not have the expertise to conduct the surveillance and assessments needed. Consequently, they often use lists of risk and protective factors based on research in other locations, involving groups, circumstances, or offending problems that may not match local community needs. Researchers must develop mechanisms to synthesize more clearly those findings about correlates and causes that could be considered universal and applicable in all settings, as well as influences that may be unique to particular settings.

#### Prevention and Intervention Strategies.

As detailed in several recent reviews of the field (e.g., Guerra, Tolan, & Hammond, 1994; Tolan & Guerra, 1994; Yoshikawa, 1995; Zigler, Taussig, & Black, 1992) as well as Chapters 10-15 of this volume, there is a large and growing empirical literature focused on the prevention and mitigation of antisocial behavior and its precursors. Parallel to this empirical literature, there is also a growing community response to serious youth crime that utilizes a range of programs (Guerra & Williams, 1996). A primary challenge is to increase the collaboration between researchers and practitioners so that community programs, system responses, and research efforts are synchronized. This requires that the scholarly community acknowledge the practical efforts of researchers and their attempts to convey findings in a user-friendly fashion that are responsive to community input. It also requires that service providers and agencies perceive the value of research in order to answer questions relevant to their concerns, and receive guidance in conducting sound evaluations. In either case, it is imperative to promote continued dialogue between researchers and practitioners in order to develop prevention and intervention strategies that are useful and effective in the field.

Research on the prevention and/or mitigation of SVJ offending can be broadly divided into studies that evaluate specific programs or combinations of programs (e.g., preschool enrichment, parent training) and studies that evaluate specific methods, practices, or policies (e.g., diversion, graduated sanctions, corrections). It is important to realize the constraints of this dichotomy,

particularly because the impact of different practices may depend on the specific programs utilized, and this must be considered in evaluation. A good example of this can be found in the diversion literature. Whether or not diversion "works" cannot be answered independently of knowing what programs are provided through diversion (Guerra et al., 1994). Similarly, as Altschuler (Chapter 15, this volume) details, intermediate sanctions involve a range of different responses and their effectiveness hinges on the amount of treatment received, although less is known about the unique contributions of different treatments, an area in need of further investigation.

When considering evaluations of specific prevention and intervention programs that target specific risk or protective factors, their impact on SVJ offending is often unclear. Many programs, particularly post-natal, preschool, or early prevention programs, are designed to boost academic functioning, social competence, or parenting skills. Because SVJ offending does not occur during this age period, only a few studies with long-term follow-up data have been able to assess their ultimate impact on offending, with positive, albeit rather weak, results and limited information about the mediating role of changes in risk and protective factors (for reviews, see Wasserman & Miller, Chapter 10 this volume; Yoshikawa, 1995).

Furthermore, little is known about whether these programs must be extended in time through childhood and adolescence via continued programming or "booster" sessions, or whether they are effective alone if applied during certain optimal periods early in development. Because of the costs and resources involved in providing continuous programming, it is of both theoretical and practical significance to determine the ages during which specific types of interventions (e.g., family, social skills, academic competence) are maximally effective, and to specify the age-appropriate foci of booster sessions. Life course models of development and offending that detail critical developmental contexts and important transitions (e.g., Sampson & Laub, 1993; Williams et al., 1996) provide a framework that can guide the development of programs and specify relevant contexts for children of different ages.

Even when interventions are conducted during developmental periods when SVJ offending is likely to be evident, they often fail to measure this outcome. In many cases the "clinical" or real-world significance of group differences is negligible, particularly when all participants score relatively low on an outcome measure that is related to SVJ offending such as aggression or fighting. In other cases, change in age-normative behaviors (e.g., smoking cigarettes) is interpreted as evidence that a program reduces violence or delinquency (for a review, see Tolan & Guerra, 1994). Thus, programs that make youth a little less aggressive or less likely to initiate cigarette smoking are often touted as effective delinquency prevention programs. Future research must specify SVJ offending outcomes, if appropriate, and utilize measures that directly assess these outcomes if they are to claim to be effective in preventing or reducing this behavior. Along these lines, it is unlikely that SVJ offending can be addressed without dealing with the issue of guns, and the increase in juvenile homicide related to an increase in the use of guns. Yet, models of risk and preventive intervention studies do not adequately account for the role of guns and their relation to recent increases in SVJ offending among youth.

In fact, as offending becomes more serious, the effectiveness of intervention strategies tends to diminish. As Lipsey and Wilson (Chapter 13, this volume) demonstrate via meta-analyses of intervention studies, programs for serious juvenile offenders produce reductions in recidivism of a substantial magnitude only under optimal circumstances, and the effects are virtually eliminated under less than optimal conditions. There are also few effective strategies for preventing SVJ offending among gang-involved youth, with only "promising strategies" to recommend (Howell, Chapter 12, this volume). Thus, more research and development is needed in dealing with youth involved in serious violent and delinquent behavior. Because so many of these youth are involved in the justice system, research on effective intervention strategies must evaluate programs (e.g., job training) and juvenile justice responses (e.g., intensive probation supervision) to determine optimal responses.

This points to one of the most difficult issues in intervention research—how to determine the

relative contributions of different intervention programs and practices and recommended combinations. On the one hand, given that no single factor is likely to cause SVJ offending, the impact of single component, single-context programs is limited. On the other hand, long-term, multi-component, multi-context programs can become difficult to manage with a number of unintended "interventions" (e.g., policy changes, demographic shifts) occurring, and some contexts (e.g., political and economic forces) unamenable to change via the planned intervention. One solution is to provide the most comprehensive intervention possible and to experimentally assess the contribution to change in outcome of each of the hypothesized mediators targeted by the intervention (to the extent that it is possible to measure each variable). Another approach is to utilize a step design, whereby each step adds an additional component, depending on the particular research questions.

In either case, an important issue for future intervention research involves a greater focus on determining the specific moderators of intervention impact. Rather than ask "what works" it is imperative to ask "what works for whom and under what conditions and in what settings." Given the multitude of causal mechanisms, their differential relevance at different stages of development, and the multiple social contexts to which individuals are exposed and experience differently, it is likely that most intervention effects will be interactions rather than main effects.

For example, in a recent analysis of data from the Metropolitan Area Child Study, a large-scale multi-component, multi-context intervention for urban elementary school children, Guerra et al. (1997) failed to find significant main effects for intervention condition when comparing three types of interventions that were progressively more extensive in scope. However, when the child's initial level of aggression was considered, the interventions were found to be increasingly more effective, but only for the most aggressive children. Thus, looking only for main effects would have obscured the impact of this program for some children. In a similar vein, it is likely that most programs work for some youth but not others, and more emphasis should be placed on determining the best "child-intervention match." This may also require a greater emphasis on process evaluations and participant

interviews regarding program impact on their lives, as well as replication studies in similar and different populations.

#### Directions for Future Research

The focus of this chapter has been on identifying gaps in knowledge and research priorities in relation to serious, violent, and chronic juvenile offending. As discussed initially, I believe that setting a research agenda requires a careful examination of how we think about the problem of SVJ offending as well as a delineation of the most pressing research priorities.

First, as previously mentioned, it is critical that research focus more explicitly on SVJ offending as an identified outcome. This task would be facilitated by a consensus in the field regarding the operational definition of this classification, but would still require refinements specific to the nature and purpose of the research. In other words, the associated precursors or level of specificity of behavior would depend on the specific research questions. This focus on SVJ offending points to a methodological gap regarding how we measure SVJ offending. Given the limitations of official arrest and/or conviction data, it seems important to further refine and develop self-report measures that are appropriate at different ages and are sensitive to issues of gender and culture.

Second, researchers have tended to ignore the fact that the low base rates for SVJ offending mean that most children and youth are not involved in this behavior, or age out quite rapidly. In fact, although behaviors such as aggression are quite stable, it is a relative not an absolute stability, and is really only most apparent at the extremes of the distribution (Moffitt, 1993). Rather than focusing solely on why SVJ offending emerges as an outcome, we must focus on why it does not develop, and specifically on what individual and contextual influences impact non-participation and/or desistance. These questions are best addressed by research that combines quantitative and qualitative methods and provides for assessment of the variations in sociocultural contexts and how these influence behavior.

Third, researchers must respond to the practical issues faced by those who deal with SVJ offenders. This includes community agencies, schools, and juvenile justice agencies. Decisions that

impact SVJ offenders are being made daily, often without the benefit of empirical support. A prime example of the need to forge partnerships between researchers and practitioners is in the area of assessment and classification. Although significant progress has been made in the use of structured assessments, there remains a hodgepodge of methods and measures that provide few useful typologies to assign placements or select appropriate services.

Fourth, a focus on practical issues must be extended to an increased emphasis on prevention and intervention research. Programs that are being conducted in the community are infrequently evaluated carefully, and programs developed by researchers are often difficult to infuse or sustain in community settings. These efforts would be greatly enhanced by a partnership between researchers and practitioners. Given a focus on the problem of SVJ offending, a program of research should be defined that evaluates carefully the most promising multi-component programs and permits careful assessment of their "active" ingredients and appropriateness for different types of offenders.

Programs targeted for evaluation should be those that are theoretically grounded, cost effective, easy to implement, "user-friendly," and most consistent with ongoing policies and practices.

Fifth, a program of intervention research with SVJ offenders must be complemented by continued efforts to prevent such behavior. To date, the impact of early prevention on SVJ offending has often been an afterthought rather than a carefully planned component focused on long-term outcomes. Questions about inoculation versus maintenance of effects should be answered through systematic efforts to prevent SVJ offending that begin early in development. Further attempts must be made to enhance screening accuracy when a subset of high-risk individuals are selected for targeted services.

In order to accomplish these goals and delineate a research agenda, we must adopt a framework that permits their consideration simultaneously in a manner that is sensitive to individual differences, contextual influences, and stability and change in SVJ offending. Rather than buying into a single theory of delinquency, it seems more fruitful to adopt a comprehensive model that permits

consideration of the complexity of this behavior. This complexity can only be captured by models that provide for a life course or developmental perspective, whereby serious, violent, and chronic offending is seen as a "developmental outcome"—one of many potential developmental outcomes with a subset of common pathways. Thus, future research can be guided by efforts to identify prototypical pathways to non-delinquent and serious delinquent outcomes, and prevention and intervention studies can be guided by knowledge about age-specific precursors and relevant developmental contexts.

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Table 16.1

Summary of Research Needs and Recommendations

	<i>Need</i>	<i>Recommendations</i>
<b>EPIDEMIOLOGY</b>	<ul style="list-style-type: none"> <li>* National data with oversampling in high-risk areas.</li> <li>* Assess SVJ offending in different age groups.</li> </ul>	<ul style="list-style-type: none"> <li>Tie in surveys with existing national studies such as Dept. of Labor/OJJDP survey</li> </ul>
<b>ASSESSMENT</b>	<ul style="list-style-type: none"> <li>* Develop assessment tools to predict future risk, guide placements, and assess needs.</li> <li>* Determine potential cultural biases.</li> </ul>	<ul style="list-style-type: none"> <li>* Field-testing of instrument development projects that examine cultural influences and include positive features of youth and settings.</li> <li>* Refine prediction tools to increase accuracy</li> </ul>
<b>CAUSES AND CORRELATES</b>	<ul style="list-style-type: none"> <li>* Incorporate qualitative and quantitative data to better understand causes of SVJ offending.</li> <li>* Focus research on why people stop offending and how individuals adapt to risk.</li> <li>* Assess situational factors in crime (time, place).</li> <li>* Link data on youthful offenders with early adult records.</li> </ul>	<ul style="list-style-type: none"> <li>* Augment existing quantitative studies with narrative studies.</li> <li>* Conduct research with individuals and in settings where crime should be high but isn't</li> <li>* Create data bases that permit examination of youth to adult transitions related to SVJ offending</li> </ul>
<b>PREVENTION &amp; INTERVENTION</b>	<ul style="list-style-type: none"> <li>* Determine which programs are appropriate for SVJ offending versus general youth development</li> <li>* Utilize randomized trials when appropriate and specify alternate methods of evaluation</li> <li>* Determine optimal implementation and cost-benefits analyses</li> </ul>	<ul style="list-style-type: none"> <li>* Conduct studies that match outcome assessments to expected benefits</li> <li>* Study impact of different programs on SVJ offending and its developmental precursors</li> <li>* Improve evaluation of community-based, local efforts</li> <li>* Improve evaluation of multi-component programs</li> </ul>

## Chapter 17

### Conclusions and the Way Forward

Rolf Loeber and David P. Farrington

The final chapter summarizes the main points of the preceding chapters and then addresses the extent to which the juvenile justice system can deal with serious and violent juvenile offenders, and the extent to which parents, schools, neighborhoods, and public health approaches can assist in the prevention of serious juvenile offending. It then sets out an agenda for future research on serious and/or violent juvenile (SVJ) offenders.

#### Overview

##### Aims (Chapter 1 by David P. Farrington and Rolf Loeber)

The main aim of this volume is to review knowledge about serious and/or violent juvenile (SVJ) offenders. Knowledge about risk and protective factors, prevention programs, and sanctions is reviewed, with specific attempts to integrate the risk factor and intervention literature. It is hoped that the policy and research recommendations will assist in the further implementation of OJJDP's Comprehensive Strategy.

The main focus of the Study Group is on serious juvenile offenders. Serious violent offenses include homicide, rape, robbery, aggravated assault, and kidnapping. Serious nonviolent offenses include burglary, motor vehicle theft, theft over \$100, arson, drug trafficking, and extortion.

This volume was inspired by OJJDP's Comprehensive Strategy (Wilson & Howell, 1994; Howell, 1995), which is based on five general principles:

- (1) Strengthen the family in its primary responsibility to instill moral values and provide guidance and support to children.
- (2) Support core social institutions (schools, religious institutions, and community organizations) in their roles of developing capable, mature and responsible youth.
- (3) Promote delinquency prevention as the most cost-effective approach to dealing with

juvenile delinquency. When children engage in "acting out" behavior, such as status offenses, the family and community, in concert with child welfare services, must take primary responsibility for responding with appropriate treatment and support services. Communities must take the lead in designing and building comprehensive prevention approaches that address known risk factors and target youth at risk of delinquency.

(4) Intervene immediately and effectively when delinquent behavior occurs, to prevent delinquent offenders from becoming chronic offenders or progressively committing more serious and violent crimes. Initial intervention attempts should be centered on the family and other core social institutions.

(5) Identify and control the small group of serious, violent and chronic juvenile offenders who have failed to respond to intervention and nonsecure community-based treatment and rehabilitation services offered by the juvenile justice system.

OJJDP's Comprehensive Strategy provided an excellent framework for understanding, preventing, and controlling SVJ offending. However, to assist in its widespread implementation, there is a need for more detailed quantitative analyses of risk and protective factors for serious or violent or chronic juvenile offending; most previous reviews focused on delinquency in general rather than on SVJ offenders. Similarly, there is a need for more detailed quantitative analyses of the effectiveness (and cost-effectiveness) of prevention and intervention programs, again focussing on their effects on SVJ offenders. Unfortunately, we found little information on cost-effectiveness, apart from a few major interventions such as the Perry Preschool Program (Schweinhart et al., 1993; see also Greenwood, 1995).

The present volume aims to provide reviews of risk and protective factors and prevention and intervention programs focussing especially on SVJ offenders. It also aims to integrate the two different areas, so that knowledge about risk and protective factors linked to knowledge about prevention and intervention programs, and vice versa. Ideally, prevention/intervention programs

should be based on research on risk/protective factors, and conversely conclusions about causal effects of risk/protective factors should be drawn from knowledge about the effectiveness of prevention/intervention programs. Attempts were made to compare SVJ offenders with other offenders as well as with non-offenders. Because we found little information specifically on SVJ offenders, contributors to this volume carried out special reanalyses of data.

This volume aims to specify the relative importance of different risk and protective factors in the development of SVJ offending, and the relative effectiveness of different prevention/intervention programs. It aims to specify what works best with what types of individuals, at what stages of development, and under what contextual conditions, but information about these topics was limited. It has a developmental focus, reviewing the effects of risk factors and interventions on different stages of development, including the onset, persistence, escalation, de-escalation and desistance of serious offending. It also aims to study key transition points in the development of serious delinquency careers, and optimal points for intervention efforts. The volume also concentrates on the contribution of gang members to SVJ offending, on the effects of joining or leaving a gang on SVJ offending, and on prevention/intervention programs targeted on gangs. We will now briefly summarize each chapter.

#### **Part I: Developmental Course and Risk Factors for Serious and Violent Offending**

##### **Serious and Violent Juvenile Offenders (Chapter 2 by Rolf Loeber, David P. Farrington, and Daniel**

###### **A. Waschbusch)**

Several interrelated questions are addressed:

- (1) How can SVJ offenders best be defined?
- (2) How do SVJ offenders relate to past classification efforts for juvenile offenders?
- (3) How much overlap is there between serious juvenile offenders, violent juvenile offenders, and chronic juvenile offenders?
- (4) What are the major trends in the prevalence of SVJ offenders over the latest decades?

- (5) How well do official records and self-reports of SVJ offenders represent their actual delinquent involvement?
- (6) How much of the total volume of crime do chronic offenders account for?
- (7) What is the geographic distribution of SVJ offenders (and specially juvenile homicide) in the U.S?

Studies show that there is considerable overlap between serious, violent, and chronic offenders, even when court or police records were used. About half of the violent juvenile offenders are also chronic offenders, while about a third of the chronic offenders are also violent offenders. Moreover, about a third of the serious offenders are also chronic offenders. Research by Snyder (1997, Appendix of this volume) on youth referred to juvenile courts in a large southwestern county showed a substantial increase in the proportion of chronic juvenile offenders, especially in the period 1990-1995. The vast majority of chronic offenders committed at least one violent or serious nonviolent crime. Snyder also found that the typical chronic career contained more violent offenses in the 1990s than in the 1980s. However, the vast majority of violent offenders committed only one officially-recorded violent crime. Two cohort studies in Philadelphia have also shown an increase in the proportion of chronic offenders (i.e., those with 6 or more arrests) over time. However, data from major metropolitan areas are needed to show trends in the proportion of chronic offenders.

Because much knowledge of serious, violent, and chronic offending is based on official records (i.e., police or court records), it is important to know to what extent self-reports of offending overlap with those of official records, and in what respects self-reports contain unique information. For example, one study showed that 86% of the juvenile career offenders did not have a record of arrest. The peak period of officially-recorded offending for juveniles usually falls between the ages of 14 and 17 (Farrington, 1986). However, the majority of the self-reported male juvenile persisting serious offenders show an onset of serious offending between ages 8 and 14. Thus, given that most jurisdictions in the U.S. are reluctant to deal with offenders under age 12, this implies that the

juvenile justice system is not likely to deal with many serious juvenile offenders at the beginning of their delinquent careers. However, offenders under age 12 could be dealt with by the juvenile justice system, and are currently dealt with by human service agencies such as child welfare, mental health, and child protection. The fragmentation of services and the lack of comprehensive services for offenders under age 12 is of great concern.

Race and Ethnicity and Serious and Violent Juvenile Offenders (Chapter 3 by Darnell F. Hawkins, John H. Laub, and Janet L. Lauritsen)

This chapter examined what was known about the relationship between race and ethnicity and SVJ offending in the U.S. Using data from the Uniform Crime Reports (UCR) and self-reports of offending and victimization, the chapter presented a descriptive account of the racial distribution of SVJ offending among juveniles. These sources of data reveal longstanding patterns of differential involvement by race, with black (African-American) youths having disproportionately higher rates of SVJ offending. On the other hand, the extent of black-white differences and the degree of stability of the ratio varies over time according to the type of offense. While black-white arrest ratios for the composite index of violent offending and robbery declined between 1983 and 1992, black and white juvenile arrest rates for homicide grew more disparate over these years. This increasing disparity was especially evident from the mid-1980s on. Data for several large U.S. cities also revealed comparatively high homicide rates among Latino youths during the 1980s.

Given the perennial debate regarding the potential for bias in the use of arrest data for examining ethnic and racial differences, the chapter examined recent findings from studies of self-reported offending by juveniles and victim reports of the perceived age characteristics of their assailants in the national victimization survey (NCVS). These sources of data provided reasons to exercise caution in using arrest data alone as an estimate of the extent of racial differences in some serious types of delinquency, including violence. However, on the basis of findings reported from both self-report and victimization surveys it appears that race is an important correlate of SVJ

offending.

The chapter also reviewed various explanations of ethnic and racial differences in SVJ offending. The dominant research tradition in the study of juvenile offending has depended largely on individual-level analyses. This theoretical and analytic orientation has tended to see ethnic and racial differences in SVJ offending and their causes as largely indistinguishable from individual-level explanations. In contrast to this research orientation, the chapter focussed on social ecological explanations which incorporate measures of broader social structural variation and community-specific contexts and cultures. To a large extent, social ecological factors appeared to be important influences on ethnic and racial differences, independently of individual-level factors. Hence, the ideal research design for the study of ethnic and racial differences in juvenile offending should combine traditional individual- and community-level measures of potential correlates. The chapter concluded that black-white comparisons alone were insufficient as a means of analyzing the extent of involvement in serious and violent offending by the nation's juveniles. As the nation's population grows more racially and ethnically diverse, so does the diversity of group involvement in SVJ offending.

Co-Occurrence of Serious and Violent Juvenile Offending and Other Problems (Chapter 4 by David Huizinga and Cynthia Jakob-Chien)

There is substantial co-occurrence or overlap between each of the problems considered in this chapter and serious-violent and serious non-violent juvenile offending. Included are drug use, problem drug use, mental health problems, school problems (poor academic achievement, truancy, suspension and dropout), victimization, and different combinations of these problems. Almost all of these problems overlap with serious delinquency.

With the exception of multiple school problems and combinations of school and other problems, only about half or less of the serious delinquents are also contemporaneously involved in specific problems. Also, although serious offenders are disproportionately represented among the group of youth who have a particular problem, they often make up less than half of all those

experiencing a problem. Thus, although there is clear co-occurrence between serious offending and these other problems, it would be incorrect to characterize serious delinquents as predominantly having a particular problem; and it would be incorrect to characterize the group having a given problem as being made up predominantly of serious delinquents.

The obvious exception to this rule is for those experiencing difficulty in some arena of school. School problems, especially when combined with other problems, characterize 80 per cent or more of serious delinquent youth. It should be carefully observed, however, that the converse is not true. The largest proportion of youth having school problems are not serious delinquents.

As this generalization and other findings indicate, serious offenders are likely to have multiple other problems. Over 90 per cent have at least one other problem and about three quarters have two or more of the problems examined. In this sense, serious offenders are truly multiple problem youth.

Development of Serious and Violent Juvenile Offending Careers (Chapter 5 by Patrick H. Tolan and Deborah Gorman-Smith)

This chapter focusses on the major parameters of involvement that relate to serious and violent offending (frequency, variety, seriousness level), the behavioral precursors to such offending and the emerging understanding of such behavioral development. These parameters and related concepts such as age of onset, desistance, and career length are important aspects of a career perspective on criminal behavior. In particular, there is repeated evidence that such parameters aid in predicting the probability of sustained criminal and other antisocial behavior, including serious and violent acts.

The empirical evidence and related theory about the role of these parameters and important precursors (e.g. aggression, impulsive behavior, oppositional behavior) in distinguishing serious and violent offending from other delinquency and non-offending were reviewed. In addition, developmental theories about the criminal behavior of adolescents were reviewed and the current leading theory, the developmental pathways approach of Loeber and colleagues, was described

(Loeber & Le Blanc, 1990). A test of the application of the theorized trajectories and sequences was undertaken with a sample drawn to be nationally representative of the U.S. and an inner-city high-risk sample. Results indicated that the model was quite consistent with the patterns seen in both samples and was an even better fit to the development of serious and violent offending than offending in general.

The consistency of promising findings about patterns of involvement and career trajectories has to be qualified in several ways. First, most studies focussed on relations between variables. Few attempted to determine the probability of behavior patterns within individuals. Second, because violent and serious offending are such low rate behaviors even among those most actively criminal, there is limited ability to translate these correlational findings into accurate prediction. Third, the bulk of the studies focussed on Caucasian males, raising substantial concerns about the generalizability to females and other ethnic groups.

Predictors of Serious and Violent Juvenile Offending in Adolescence and Early Adulthood: A Synthesis of Longitudinal Research. (Chapter 6 by Mark W. Lipsey and James H. Derzon)

A meta-analysis was presented to synthesize longitudinal research on the predictive risk factors for adolescent and early adult serious criminal behavior. Its purpose was to identify those predictor variables measured on juveniles aged 6-11 and 12-14 that were correlated with the degree of their violent or serious delinquent behavior when they were 15-25 years old. Available longitudinal studies yielded sufficient information to permit examination of four broad categories of predictor variables: (1) early antisocial behavior, (2) personal characteristics of the juveniles, (3) parent and family characteristics, and (4) social characteristics of the juveniles or their families.

Differences among studies in their methodological characteristics and the samples used were associated with effect sizes in ways that made it difficult to assess the relative strength of the various predictors. A multiple regression procedure was, therefore, used to control for these secondary variables and estimate the magnitude of the effect sizes associated with each different predictor

construct for a uniform set of conditions.

In predicting from age 6-11 risk factors to serious delinquency at age 15-25, the best predictors are: (a) a prior delinquent offense; (b) substance use; (c) male gender; (d) low socioeconomic status; and (e) an antisocial parent. In predicting from age 12-14 risk factors to serious delinquency at ages 15-25, the best predictors are: (a) lack of strong social ties; (b) antisocial peers; (c) prior delinquent offenses.

Predictors of Youth Violence (Chapter 7 by J. David Hawkins, Todd Herrenkohl, David P. Farrington, Devon Brewer, and Richard F. Catalano)

This chapter reviewed potentially malleable or changeable predictors of violence and focused on individual, contextual (family, school, peers), situational, and community factors. Among the individual factors, the following predict violence: pregnancy and delivery complications; hyperactivity, concentration problems, restlessness, and risk taking; aggressiveness; early initiation of violent behavior itself; involvement in other forms of antisocial behavior; and beliefs and attitudes favorable to deviant or antisocial behavior including violence.

Within the family, living with a criminal parent or parents, harsh discipline, physical abuse and neglect, poor family management practices, low levels of parental involvement with the child, high levels of family conflict, parental attitudes favorable to violence, and separation from the family, are linked to later violence. As to school factors, academic failure, low commitment to schooling, truancy and early school leaving, and frequent school transitions predict violent behavior. Delinquent siblings, delinquent peers and gang membership also predict violence, though the effects of these factors appear to be greatest in adolescence. Finally, poverty, community disorganization, availability of drugs, neighborhood adults involved in crime, and exposure to violence and racial prejudice in the community are all associated with an increased risk for later violence.

Violent behavior is a result of the interactions of individual, contextual (family, school, peers), situational, and neighborhood factors. Multivariate models that include these factors in

theoretically linked causal sequences need to be tested in order to guide the development of multicomponent violence prevention interventions that can significantly reduce the risk for violent behavior. In addition, more research is needed to identify those factors which function truly in a protective fashion against risk exposure, serving to mediate or moderate the effects of risk. Further, more studies need to focus specifically on the prediction of SVJ offenders as opposed to the prediction of delinquency in general.

Gangs and Serious and Violent Juvenile Offenders (Chapter 8 by Terence P. Thornberry)

Adolescents who join juvenile street gangs are more frequently involved in serious and violent delinquency compared to adolescents who are not gang members. Indeed, gang membership is one of the strongest and most robust correlates of serious delinquency that researchers have uncovered. Moreover, in the past 10-15 years there has been a tremendous spread of gangs throughout American society. Gangs are now found in hundreds of cities, both large and small. Because of this, it is essential that any comprehensive examination of serious and violent delinquency should understand the role that gang membership plays in generating criminal involvement.

Several recent longitudinal studies have found that gang members, while representing a minority of the overall population, are responsible for the vast majority of delinquent acts. In the Rochester Youth Development Study, for example, about 30% of the sample were gang members but they accounted for about 70% to 80% of the instances of serious and violent delinquencies.

This chapter also reviewed the results of several longitudinal studies that examined the processes that might bring about the increased delinquency that gang members exhibit. Gang members have somewhat higher rates of involvement in violence prior to joining the gang but there appears to be a general drop-off in violent delinquency following the period of gang membership. These studies indicate that rates of violent delinquency are particularly high only during periods of active gang membership. The consistency and strength of these results suggest that the gang environment facilitates involvement in delinquency, especially violent delinquency.

The final issues reviewed in this chapter concerned the distinction between delinquent peer groups and street gangs. Longitudinal studies have recently compared gang members to non-members who associate with highly delinquent peer groups to see if gangs are simply another type of delinquent peer group. The results suggested that they are not, at least with respect to levels of offending. Uniformly, gang members report significantly higher rates of violent delinquency than do non-members, even those who associate with highly delinquent peers.

These findings highlight the importance of focussing on juvenile gangs as important targets for prevention and treatment programs. If gang members are indeed responsible for the majority of serious and violent delinquent acts, as suggested by all studies that have examined this topic, it is unlikely that overall rate of serious delinquency can be reduced unless gangs are brought under control.

Screening of Serious and Violent Juvenile Offenders: Identification, Classification, and Prediction

(Chapter 9 by Marc Le Blanc)

Screening has two purposes, the identification of potential SVJ offenders for prevention and the classification of offenders for decisions or programming in the juvenile justice system.

Operational definitions of SVJ offending are regularly used in the juvenile justice system, while many researchers prefer scales. The screening strategy for prevention has to be multistage because potential offenders have to be distinguished from nonoffenders and then SVJ offenders have to be distinguished among offenders.

Criminology and criminal justice have a long experience with the design and implementation of screening methods. From these traditions, there are many lessons that must be kept in mind. The criterion should be appropriate to the question, involve an adequate follow-up period and use a cut-off point that does not excessively lower the base rate. The predictors should involve multiple informants in multiple settings and should rest on solid empirical evidence, as well as on theoretical significance. The reliability of predictors and outcome should be maximized. Research wisdom would recommend

additive methods over multiplicative methods for the combination of predictors. Measuring and reporting predictive accuracy should be a common practice. Finally, the screening device should be validated in a different sample.

Whatever the age group studied for prevention, or the nature of the program envisaged, research indicates that multiple gating, multiple informants, multiple variable domains and multiple methods seem the best solution to the identification of potential SVJ offenders. A candidate screening instrument for chronic offending was identified, and meta-analysis results also suggested potential predictors. The Cambridge screening instrument can be applied only from late childhood and relies on four characteristics that distinguish chronic offenders: Convicted at 10-12, convicted sibling at 10, troublesome at 8-10, and poor junior attainment at 10. The meta-analysis results indicate predictor domains that vary by outcomes.

Over the last decades risk and needs assessment instruments have been developed for detention, probation, parole and placement decisions. Such classification devices are potentially useful at different stages, including court referrals and transfers to adult court. Some existing instruments display a sound face validity, but their reliability and empirical validity have rarely been tested, neither for use in a particular jurisdiction nor for implementation in another juvenile justice system. No screening devices exist specifically for the identification of SVJ offenders. Risk and needs assessments consider multiple variable domains, but these classification instruments may be improved by testing the use of multiple informants, by increasing the variable domains considered, and by testing the usefulness of multiple methods of data gathering.

There is much technical work still to be done before adequate screening instruments can be used for the identification or classification of potential SVJ offenders. Some strategies and instruments are promising, but no specific instrument can be recommended to policy-makers and practitioners. However, more efforts should be made to develop such instruments in community assessment centers.

**Part II. Preventive Interventions and Graduated Sanctions****Prevention of Serious and Violent Juvenile Offending (Chapter 10 by Gail A. Wasserman and Laurie S. Miller)**

This chapter discussed programs that target risk factors for serious and violent offending, as well as those that target risk factors for its precursors. Many programs targeting antisocial behavior are relevant to the prevention of SVJ offending because early antisocial behavior tends to be a precursor of SVJ offending. Since antisocial behavior is likely to be multidetermined, it is unlikely that interventions directed only toward a single system (i.e., child, family, school, peer group) will be successful. The component "building blocks" of successful interventions were described, including those oriented toward parent and family (e.g., parent management, family preservation), those oriented toward child social and academic skills, and classroom-based programs, those that make use of medication for various forms of child Disruptive Behavior Disorders, as well as recently-developed Conflict Resolution and Peer Mediation programs.

Gaps in knowledge are different at each developmental period. For example, during infancy and preschool, there are few programs testing behavioral parent management techniques, and there are few studies focusing specifically on child antisocial behavior, or that carry evaluation into adolescence or beyond, when serious and violent offending is likely to occur. Limitations of programs implemented during the school years include the lowered importance placed on family components in comparison to school directed components. This relative lack of attention to family-oriented treatments is greater when we examine programs for adolescents, which focus quite heavily on the peer group to the exclusion of other risks. Programs oriented toward parenting in the school years and in adolescence are likely to show good results, especially when behavioral change is consistently promoted in both home and school settings. Furthermore, despite great overlap between antisocial behavior and psychiatric diagnosis (especially Attention Deficit Hyperactivity Disorder), most interventions fail to screen or refer for commonly treatable forms of psychopathology.

The chapter considered how successful, methodologically rigorous multi-systemic programs have combined different components to prevent serious antisocial behavior, examining those programs that are oriented toward different developmental periods (before school entry, during school years, adolescence), and those that are offered at different levels of prevention - universal (for everyone), selected (for at risk youth), or indicated (for identified problem youth). The chapter presented a comprehensive table, organized by developmental periods, that lists programs, the risk target, and the results of the intervention. Many multiple component programs are effective. Where available, information about program implementation, attrition rates, and quantification of effectiveness is included.

Community Interventions to Prevent Serious and Violent Juvenile Offending (Chapter 11 by Richard F. Catalano, Michael W. Arthur, J. David Hawkins, Lisa Berglund, and Jeffrey J. Olson)

Research suggests the effectiveness of interventions that reduce risk factors while enhancing protective factors in family, school, peer and community environments in preventing health and behavior problems. Multifaceted interventions that support enduring community-level change are required to achieve sustained reductions in the prevalence of SVJ offending. The most promising current community prevention models have been adapted from the field of public health. Given the success of community interventions in reducing risk factors for heart disease, community interventions designed to reduce risk factors for SVJ offending and drug abuse are currently being implemented. However, intervention at the community level and measurement at the individual level pose key challenges in evaluation.

Experimental and quasi-experimental studies of schoolwide and community interventions indicate that the following interventions have shown positive effects on reducing risk and enhancing protection against adolescent antisocial behavior:

- ◆ behavioral consultation for schools;
- ◆ schoolwide monitoring and reinforcement of prosocial behavior, attendance, and academic

performance;

◆ school organization interventions;

◆ situational crime prevention;

◆ comprehensive community intervention incorporating community mobilization, parent involvement and education, and classroom-based social/behavioral skills curricula;

◆ intensive police patrolling, especially targeting "hot spots;"

◆ policy and law changes affecting the availability and use of guns, tobacco, and alcoholic beverages;

◆ mandatory sentencing laws for crimes involving firearms;

◆ media interventions to change public attitudes.

Generally, these interventions have targeted risk factors including easy availability of firearms and drugs, community disorganization, laws and norms favorable to antisocial behavior, low commitment to school, academic failure, family management problems, early initiation of problem behavior, and favorable attitudes toward antisocial behavior. They have also targeted the protective factors of social bonding and clear norms against SVJ offending.

Pilot work on a comprehensive community prevention strategy called Communities That Care (CTC), consisting of three phases, is highlighted. First, key community leaders are mobilized to become an oversight body and to appoint a prevention board of diverse members of their community. Second, the community prevention board is trained to assess risk and protective factors for adolescent health and behavior problems in the community and to prioritize specific factors to address through preventive action. Third, the board selects and implements preventive interventions that address the prioritized factors from a menu of programs and strategies that have shown positive effects in adequately controlled research studies. After these strategic interventions have been implemented, communities monitor their impact by periodically reassessing levels and trends in the targeted risk and protective factors, and adjust the interventions as needed to achieve greater effects.

Promising Programs for Youth Gang Violence Prevention and Intervention (Chapter 12 by James C. Howell)

Early in our nation's history youth gang work emphasized prevention. These programs were followed by interventions designed to reintegrate particular gangs into conventional society. Then a major shift occurred as programs, led by the police, aimed to suppress youth gangs. Currently, a mixture of approaches is being tried across the nation, predominantly police suppression programs. None of these approaches has been demonstrated conclusively through rigorous research to be effective. Two factors appear to account for this: the difficulties associated with gang intervention work and the complexity of program evaluation in this area.

Three promising gang program models are recommended. The first one targets gang problems directly. The second one targets gang problems within a comprehensive strategy for dealing with serious, violent and chronic juvenile delinquency. The third model targets gang-related homicides.

(1) The comprehensive community-wide approach to gang prevention, intervention and suppression program. This comprehensive program model was designed specifically to target youth gang problems. It was developed as the product of a nationwide assessment of youth gang prevention, intervention, and suppression programs in the late 1980s. Twelve program components developed by Spergel and his colleagues involve the design and mobilization of community efforts by police, prosecutors, judges, probation and parole officers, corrections officers, schools, employers, community-based agencies, and a range of grassroots organizations. Technical assistance manuals are available to support local program development. Variations of these models are currently being implemented and tested in several cities.

The Chicago "Gang Violence Reduction Program" is a version of the comprehensive gang program that Spergel and his colleagues developed. It targets two of the most violent gangs in Chicago. The program consists of two coordinated strategies: a) targeted control of violent or

potentially hard-core violent youth gang offenders, in the form of increased probation department and police supervision and suppression, and b) provision of a wide range of social services and opportunities for targeted youth. Preliminary evaluation of the program suggests that it is effective.

(2) The Office of Juvenile Delinquency and Delinquency Prevention (OJJDP)'s comprehensive strategy for SVJ Offenders. Targeting gang problems within a community's comprehensive strategy for dealing with serious, violent and chronic juvenile offenders is the second recommended approach. OJJDP's "Comprehensive Strategy for Serious, Violent, and Chronic Juvenile Offenders" provides a framework for strategic community planning and program development. OJJDP's Guide for Implementing the Comprehensive Strategy for Serious, Violent, and Chronic Juvenile Offenders is a resource for carrying out the OJJDP Comprehensive Strategy. It contains numerous promising and effective program models that will help prevent and reduce gang problems while targeting serious, violent, and chronic juvenile offenders. It is based on risk-focused prevention and graduated sanctions.

The "8% Early Intervention Program" in Orange County, California implements the graduated sanctions component of the Comprehensive Strategy. The gang component of the 8% Early Intervention Program targets gang leadership and the most chronic recidivists. The Gang Incident Tracking System (GITS) identifies and tracks gang members, providing the information base for the TARGET program, which supports gang interdiction, apprehension, and prosecution. TARGET uses intelligence gathering and information sharing to identify and select appropriate gang members and gangs for interventions.

A reduction in gun access and use is an essential component of a comprehensive strategy. Numerous excellent proposals for firearms reduction have been made that merit testing, including police seizures of illegally carried guns in "hot spot" areas, which have been found to reduce homicides and drive-by shootings. "Coerced use reduction" may be effective. Undercover purchases of firearms from adolescents, control of the supply channels, creation of ammunition scarcity,

bilateral buy-back agreements, and nonuse treaties with financial compliance incentives hold promise. Interdicting supply channels may be more feasible than commonly assumed because of the newness of guns used in gang homicides and their purchase within the state.

(3) A Strategy to Prevent and Reduce Youth Gang-Related Homicides. Because of recent increases in gang homicides, a third gang program strategy for targeting them is recommended. Reducing youth gang-related homicides should be a priority wherever they occur. Studies in Chicago and Los Angeles indicate that these two cities disproportionately account for gang-related homicides in the U.S. A strategy to prevent and reduce gang-related homicides is recommended. It should include the following program components:

- ◆ Chicago's "Gang Violence Reduction Program" appears to be a promising program model for targeting gang-motivated violence and homicides. It should be replicated and tested in other Chicago communities, in specific Los Angeles communities, and in other cities experiencing significant levels of gang homicides.
- ◆ Hospital emergency room intervention may help break the cycle of violence.
- ◆ Counseling for drive-by shooting victims should help reduce the traumatic effects of victimization.
- ◆ Access to firearms by violent street gangs can be reduced by legislation, regulation, and community education; and removing illegal guns from the possession of gang members.
- ◆ A firearm injury and fatality reporting system should be established to determine the sources of weapons and assist interdiction efforts.
- ◆ Vertical prosecution of gang criminal activity has proven to enhance the application of criminal justice sanctions, particularly when combined with multi-agency investigation, prosecution and sanctioning.

Effective Intervention for Serious and Violent Juvenile Offenders: A Synthesis of Research (Chapter 13 by Mark W. Lipsey and David B. Wilson)

This chapter reports a meta-analysis of 200 experimental and quasi-experimental studies that investigated the effectiveness of various interventions for reducing the recidivism of serious juvenile offenders. Two broad categories of intervention were examined: (1) programs and treatments for serious juvenile offenders who were in the community, though possibly on probation or parole, and (2) programs and treatments for institutionalized juvenile offenders.

(1) Interventions for noninstitutionalized offenders. The juvenile and intervention characteristics most closely associated with the size of the observed effects in the 117 studies involving noninstitutionalized serious offenders were as follows: Intervention effects were smaller for juvenile samples with only prior property offenses than those with mixed priors (which included offenses against persons). Effects were larger where the duration of treatment was longer. Curiously, fewer contact hours per week were associated with larger effect sizes.

The different types of intervention programs were categorized into four groups on the basis of the magnitude of their mean positive effects on recidivism as follows:

- ◆ Largest effects: interpersonal skills training, behavioral approaches (mostly behavioral contracting), and individual counseling, and drug abstinence programs.
- ◆ Moderate effects: multiple services and restitution programs.
- ◆ Small or no effects: wilderness challenge programs, deterrence programs (e.g., shock incarceration), early release probation and parole, and vocational programs (not involving work *per se*).

The best types of treatment for serious, noninstitutionalized offenders yield reductions in recidivism from around .50 to .30, a substantial 40% reduction.

(2) Interventions for institutionalized offenders. The juvenile and intervention characteristics most closely associated with the size of the observed effects in the 83 studies involving institutionalized serious offenders were as follows: Intervention effects were greater where there was a longer duration of treatment. Studies in which there was a high level of monitoring of treatment

implementation yielded larger effects than those in which implementation integrity was low. Larger effects were found for programs that were relatively well established (2 years or older), and that used mental health rather than criminal justice personnel to administer the treatment.

The treatments, ordered from those producing the largest effects to those producing the smallest, were as follows:

- ◆ Largest effects: interpersonal skills training, cognitive-behavioral programs and teaching family homes.
- ◆ Moderate effects: group counseling, community residential programs, individual and multiple services, guided group therapy.
- ◆ Small or no effects: employment-related programs, drug abstinence programs, wilderness-challenge programs.

The best types of treatment for serious, institutionalized offenders yield reductions in recidivism from around .50 to .30, a substantial 40% reduction.

The Impact of the Justice System on Serious and Violent Juvenile Offenders and Prospects for Graduated Sanctions in A Comprehensive Strategy (Chapter 14 by Barry Krisberg and James C. Howell)

This chapter examines the effectiveness of the juvenile justice system in handling SVJ offenders. Juvenile correctional facilities generally provide poor conditions of confinement and are becoming more crowded. Post-release recidivism rates are often high, although the rate of offending is often lower after confinement than before. Most serious and high-rate offenders slow down their rate of offending after correctional interventions, although part of this decrease is attributable to maturation and regression to the mean.

It is unclear how far high-rate and low-rate offenders can be predicted in advance in priority prosecution programs. Because of the inadequacy of research designs, the effectiveness of targeted enforcement and suppression programs is also unclear. The effects of promising programs need to be

vigorously evaluated.

Increasingly, serious juvenile offenders are being dealt with in the adult criminal justice system. Juveniles who are more likely to be incarcerated but are also more likely to reoffend.

Further, juveniles in adult prisons are more likely to suffer violent victimization than those in juvenile correctional facilities. Unfortunately, the relative effectiveness of adult and juvenile court is unclear, because no study has been able to compare juveniles dealt with by the two systems.

Following OJJDP's Comprehensive Strategy, it is argued that a continuum of program options must be combined with a system of graduated sanctions, depending on risk and needs assessment. Juvenile Assessment Centers are useful in ensuring that the service needs of juvenile offenders are addressed in dispositional recommendations. Alternatives to secure confinement for serious and chronic juveniles are at least as effective as incarceration in suppressing recidivism, but considerably less costly.

More sophisticated self-report methods should be employed to throw more light on the data on desistance and continuity in criminal behavior. Experimental studies are essential to develop knowledge of what works with juvenile offenders, especially research that determines the most cost-effective length of stay, that measures the utility of immediate intervention, and that determines the appropriate mix of residential and home-based services for different offenders. Existing longitudinal studies of community samples should be enhanced by collecting data on the experiences of subjects in the child welfare, mental health, and justice systems.

Intermediate Sanctions and Community Treatment of Serious and Violent Juvenile Offenders (Chapter 15 by David M. Altschuler)

Various intermediate sanctions such as electronic monitoring, house arrest, home detention, drug and alcohol testing, community tracking, intensive supervision, boot camps, split sentences, day treatment/reporting centers, community service and restitution are increasingly being used across the country with juvenile offenders as alternatives to 1) institutionalization, 2) routine probation, and 3)

routine parole or aftercare. Used as an alternative to institutionalization, intermediate sanctions are typically (though not exclusively) intended for nonviolent, as well as chronic but still relatively less serious, delinquents who are considered "incarceration-bound." For the institution-bound class of offenders, the intent is generally to reserve limited and expensive bed space for those who most require it, and thus the strategy is one largely designed to address institutional crowding and save money. This is the classic use of intermediate sanctions as an institutional population control mechanism.

Juvenile offenders who have committed serious, chronic and even violent offenses, as well as those at risk of committing such offenses, are represented to various degrees in all three populations receiving intermediate-type sanctions. This chapter clarifies how and in what ways intermediate sanctions could be used with serious, chronic and violent offenders in each of the three populations, who should be included and what are some of the major issues that must be addressed from the standpoint of program design, management, cost, implementation and evaluation.

There are strong suggestions in the existing research on intermediate sanctions that treatment availability and participation in treatment are associated with lower recidivism, but three problems in particular have compelled researchers to present a less than definitive response. First, the lack of existing treatment and appropriate services in the community, the frequency with which offenders did not receive the prescribed treatment and services, the paucity of resources allocated specifically for treatment, and the generally subordinate role treatment has played in intermediate sanctions have led to programs exhibiting much less treatment than surveillance. The lack of treatment intensity has extended both to the percentage of offenders left untreated and the generally low level of treatment provided to those who receive it. Future intermediate sanction programs and research on them would benefit if risk-based treatment services played a prominent role in philosophy, design and implementation.

Second, the research on intermediate sanction programs has generally suffered from too few

participants, so that it becomes exceedingly difficult to generate any statistically significant differences in the analysis. Stated differently, in order to conclude that one group of offenders has performed better than another, differences are required in small sample studies that exceed those one might reasonably expect to find. The solution is to launch a large enough effort so that a sufficient number of participants will be assured.

Third, disentangling the effect of particular program components can be crucial to determining the relative importance of different aspects of intermediate sanctions. The research was mostly designed to evaluate the effect, for example, of intermediate sanctions to the extent that they combined surveillance and treatment, or boot camps to the extent that they may have included intensive aftercare. It would be useful for future efforts, for example, to test specifically and systematically the impact of differential levels of treatment and surveillance-oriented and treatment-oriented intermediate sanctions or very different kinds of boot camps. It would also be advisable to incorporate into future research and program efforts those offenders who are first screened on the basis of risk and then placed randomly into either an experimental intermediate sanction or a regular correctional program. In addition, focusing specifically on strategies designed to prevent and respond to technical violations is another aspect that would benefit from intermediate sanction research and programming.

Serious and Violent Juvenile Offenders: Gaps in Knowledge and Research Priorities (Chapter 16 by Nancy Guerra)

This chapter examined gaps in knowledge and research priorities in the areas of: patterns and trends; risk assessment and classification; causes and correlates; and prevention and intervention strategies. Three issues were detailed: (a) the need to focus specifically on SVJ offenders; (b) the need to understand the social ecology of SVJ offending in terms of the interaction between individual, situational, and contextual influences over time; and (c) the need to forge collaborations between researchers, practitioners, and individuals whose lives are affected by SVJ offending.

Several research gaps were identified in examining current data on patterns and trends of youth violence. Addressed were the relative lack of data for youth under age 12, as well as the over-reliance on official records for epidemiological data about SVJ offending for adolescents and young adults. Repeated, large-scale self-reported delinquency studies are needed in high-risk areas. The need to improve self-report measures and increase their developmental and cultural sensitivity was discussed. In addition, the need for assessments that also carefully measure co-occurring behavior problems was underscored.

Although several advances in methodology for screening for prevention services involving at-risk youth have been made (e.g., multiple gating), continued research is warranted, particularly in terms of the ages at which to screen and most appropriate measures and gates to retain. Advances are needed in developing screening tools used to measure risk and classify offenders.

The research on causes and correlates of SVJ offending has occurred most recently using a risk-focused approach. Its strengths and limitations were discussed to the extent that they can guide future research. In particular, the lack of research on protective factors vis a vis specific risk profiles and contexts was highlighted. There is also a need to examine why most children do not engage in SVJ offending, and why many youth desist from offending during specific developmental periods. Risk factors need to be examined as they emerge and change in different sociocultural contexts. Instead of general theories of delinquency, frameworks that are sensitive to life course developmental and sociocultural issues are proposed.

In multiple areas, there is the need to forge partnerships between researchers and practitioners. In intervention research, it is necessary to specify outcomes of SVJ offending at the outset and to provide for appropriate (and sometimes long-term) follow-up. Intervention research would benefit from developmental models that specify appropriate risk factors, contexts, and outcomes for different age groups. The best combinations of risk factors can be investigated in intervention research through sophisticated designs that permit assessments of the independent and

joint contributions to change of different variables. Because it is unlikely that change will be uniform across participants, it is also important to examine potential moderators of change such as age, gender, ethnicity, and initial level of risk.

### Policy and Research Issues

#### Policy Implications

Parents, schools, and neighborhoods are the primary socializing agents to bring up children into nondelinquent individuals. Thus, the actions of parents, schools, and neighborhoods constitute the prime method of preventing juveniles' escalation to serious or violent delinquency. In contrast, the primary function of the juvenile justice system is to deal with those youth who do not benefit from this socialization.

In comparison to parents, schools, and neighborhoods, the juvenile justice system is in a worse position to prevent delinquency. There are several reasons for this. First, it usually deals with adolescent youth only, and not with younger children. Second, juveniles' malleability of behavior may be highest at an early compared to at a later age, although Lipsey and Wilson (1997, chapter 13, this volume) show that interventions with institutionalized offenders can be almost as successful as those carried out earlier. Third, the onset of serious persisting offending for a large proportion of youth takes place between age 7 and 14. Given that the juvenile justice system largely focuses on adolescent populations, this provides too narrow a window for it to identify and respond effectively to many very young offenders.

Fourth, the juvenile justice system responds to delinquents arrested by the police for offenses thought to be sufficiently serious. Thus, it often does not deal with minor or status offenses that can constitute stepping stones toward more serious offenses, particularly for the pre-adolescent population of juveniles. Fifth, the juvenile justice system is hampered by its restricted access only to detected delinquent youth and, therefore, has limited ability to influence community levels of juvenile delinquency. Since about two thirds of serious violent crime does not show up in juvenile justice

records (Elliott, Huizinga, & Morse, 1987; Loeber, Farrington, & Waschbusch, 1997, chapter 2 of this volume), "community-based prevention [rather than prevention through the juvenile justice system] holds the most prospects for reducing the bulk of juvenile crime" (Howell & Krisberg, 1995, p. 275). Lastly, the juvenile justice system's concerns about the causes of SVJ offending are usually limited to the intentions, motivations, and characters of offenders (Moore et al., 1994). Otherwise, it is reactive to juveniles' delinquent acts, and is not geared to influence causes of serious delinquency in the juveniles' families, their schools, or their neighborhoods. In fact, the justice system's ability to address known risk and causal factors for serious juvenile offending is often extremely limited, although the 8% Early Intervention Program in California has shown how this might be achieved.

Having pointed out these limitations of the juvenile justice system, we must also acknowledge its strengths. For those youth who have not benefitted from the socializing functions of the family, school, and neighborhood, the system acts as an arbiter and an administrator of justice and sanctions for serious transgressions. The usual functions of the juvenile justice system, such as diversion, adjudication, placement, and probation need not be elaborated here. There are several ways that the impact of these actions can be gauged, first on the probability of reoffending of the offender, and second on the reduction of SVJ offenders in the community.

The effectiveness of the juvenile justice system can be greatly enhanced by providing intake officers with effective tools to discriminate between less and more serious offenders, and between occasional and frequent offenders, at the time of their first referral. Since the first known offense does not necessarily contain information about where the presenting offense fits in the juvenile's delinquent career, the task is to identify other information that can facilitate intake officers' discrimination. Better screening devices need to be developed and routinely used.

Optimizing intake officers' discrimination between occasional and repeat offenders, and between minor offenders and serious offenders (given that serious offenders also commit minor offenses at a high rate), can then be more effectively linked to graduated sanctions, i.e., sanctions

appropriate to juveniles' risks, needs, offense frequency and seriousness. If such optimization is not in place, a substantial proportion of frequent juvenile offenders will be dealt with as either first or occasional offenders. The key question is whether it is feasible to apply graduated sanctions in such a way that predicted SVJ offenders are more intensively dealt with than predicted occasional offenders or predicted minor offenders.

OJJDP's Comprehensive Strategy links graduated sanctions to risk and needs assessments (Howell, 1995), which can facilitate juvenile justice personnel's screening of incoming cases in an economical and efficient manner. Risk assessments are based on the seriousness of the delinquent act and the potential for reoffending, as indicators of the risk to public safety. Needs assessments are to ensure that different types of problems are taken into account in the formulation of a case plan. In addition, needs assessments provide a baseline for monitoring a juvenile's progress over time, and stimulate periodic reassessments for the evaluation of treatment effectiveness.

In the case of SVJ offenders, certain components of risk and needs assessment are essential. For juvenile justice personnel to become more efficient in identifying SVJ offenders, additional information is needed above that which is usually collected about the present offense(s), particularly information connected with increased risks of re-offending. Examples are information about gang membership and drug dealing. Research is badly needed to expand the options of legally and ethically permissible information used in screening devices by juvenile justice personnel to identify SVJ offenders on a routine basis.

Several options were reviewed for optimizing the impact of the juvenile justice system on juveniles' frequency and seriousness of offending after probation or release from incarceration (Altschuler, 1997, chapter 15 of this volume). This recidivism-reducing function of the juvenile justice system may address risk factors known to maintain offending, or enhance protective factors associated with a reduction in the frequency and seriousness of offending. It should be noted, though, that typically actions from juvenile justice personnel are restricted to factors that may affect individual

juvenile delinquents rather than neighborhood or peer influences.

The role of the police in dealing with SVJ offenders needs to be strengthened. Programs are needed to remove hand guns, especially among juveniles at risk (Howell, 1997, chapter 12 of this volume), and various ways in which police actions can reduce gangs have been suggested (Howell, 1997, chapter 12 of this volume; Thornberry, 1997, chapter 8 of this volume). In addition, geographic information systems can greatly aid police in identifying "hot spots" of criminal activities and, presumably, the concentration of SVJ offenders (Howell, 1997, chapter 12 of this volume). Finally, policy makers often express the need to get "tough" with SVJ offenders, based on ideas about retribution for delinquent acts committed and deterring other "at risk" youth.

#### Public Health Approaches

There are major differences between public health and justice approaches to serious delinquency and violence (Shepherd & Farrington, 1993; Moore et al., 1994; Reiss & Price, 1996). Public health approaches aim to establish the prevalence and incidence of disease and psychopathology; in the present case, serious and violent offending. This assessment is not necessarily restricted to those youth detected by the juvenile justice system, which is primarily focused on those youth whose behavior fits within a legal classification of offenses (Shepherd & Farrington, 1993).

Public health, unlike most juvenile justice approaches, also focuses on the identification and reduction of risk factors and the identification and promotion of protective factors. Examples of immediate, proximal risk factors for SVJ offending are situational influences such as alcohol or firearms that facilitate violence. Examples of long-term, distal risk factors are poor supervision by parents and chronic conflict among family members. Immediate and long-term causes are approximated in a public health approach by analysis of risk in terms of social, physical, and community factors. In contrast, the justice system is primarily focussed on the control of offenders and on deterrence (Moore et al., 1994).

Public health approaches to delinquency can potentially focus on universal populations, selected or at risk populations, or indicated populations, including youth referred to the juvenile court for delinquency. In contrast, the juvenile justice system is virtually never concerned with primary prevention and, because of a lack of resources, is preoccupied mostly with the prevention of reoffending among those referred to the juvenile court. In recent years, the public health approach to universal prevention of delinquency has been increasingly studied and evaluated (Wasserman and Miller, 1997, chapter 10 of this volume). In contrast, the prevention of SVJ offending in selected, at risk populations, or in indicated populations has been less the focus of systematic evaluations (Shepherd & Farrington, 1993). We will discuss briefly each of the three public health approaches in turn.

(1) Universal approaches. Extensive reviews of primary prevention methods can be found in Hawkins et al. (1995) and in Wasserman and Miller (1997, chapter 10 of this volume). Promising targets for preventing future SVJ offenders are early education and parents' childrearing practices. Universal approaches can be aimed at reducing individuals' propensity to commit crime, and also at reducing the occurrence of criminological situations (Wikström, 1995). Examples of the latter are various community mobilization efforts (Howell, 1997, chapter 12 of this volume; Catalano et al., 1997, chapter 11 of this volume; Hawkins & Catalano, 1992). Another example concerns routine guarding of school playgrounds in order to prevent bullying and physical fighting among school children. However, it should be understood that universal approaches target large populations and therefore cannot be expected to be highly efficient in preventing future SVJ offenders, as Le Blanc (1997, chapter 9 of this volume) argues. Nevertheless, primary prevention can be cost-effective not only in preventing SVJ offenders but also in preventing all the associated problems.

(2) Selected approaches. These approaches are of great importance because only a minority of youth are at risk of becoming SVJ offenders. Therefore, selected approaches aim to identify risk factors that distinguish youth at risk for SVJ offending as distinct from those at risk for less serious

forms of delinquency or nondelinquency. On that basis, populations at high risk for SVJ offending can be identified and given interventions. Such interventions aim to reduce risk factors or enhance protective factors that are known to be associated with (a) a deceleration in the severity and frequency of offending, and/or (b) desistance in offending.

(3) Indicated approaches. Potential targets for prevention in referred populations are deviant or delinquent activities that are known to increase the risk of repeated SVJ offending. Prime examples are: the prevention of repeated victimization (Van Kammen & Loeber, 1995; Wikström, 1995), gang membership (Thornberry, 1997, chapter 8 of this volume; Howell, 1997, chapters 12 of this volume), and drug dealing (Van Kammen & Loeber, 1994).

Wasserman and Miller (1997, chapter 10 of this volume) point out that since SVJ offending is multi-determined, intervention approaches need to address its multiple causes. This implies that several modes of intervention need to be implemented concurrently, such as for example parent training and improving academic attainment. Second, interventions addressing multiple risk factors often need to be implemented simultaneously in several settings. For example, home visits to improve family functioning may have to be combined with classroom management programs for teachers so that the same high risk youth can be targeted in the two settings. One of the advantages of the multiple-setting approach to the reduction of future SVJ offending is a focus on the consistency across settings of child problem behaviors that often are characteristic of those youth most at risk for later serious offending (Loeber, 1982). Other examples of interventions in multiple settings are cooperative programs between schools and the juvenile justice system (Coordinating Council, 1996), between community groups and the police, and the routine resolution of serious domestic disputes by the police.

Finally, better routine data collection that can shed light on SVJ offending is needed. Geographic clustering analyses of victimization surveys can probably help to identify communities in which SVJ offenders are concentrated, as can systematic data collection of injuries reported in

hospital emergency rooms. Police and court records can be better automated and linked across different jurisdictions so that cumulative delinquency records of individual SVJ offenders can be compiled. This will have the great advantage of eliminating the treatment of SVJ repeat offenders as first offenders in one jurisdiction because of their unknown offending elsewhere.

#### Who is Accountable?

SVJ offending is similar to many other problem behaviors in juveniles in that it persists in communities because new recruits emerge within each generation of youth. Yesterday's eight-year olds who become SVJ offenders are soon joined by today's and tomorrow's eight-year olds, and so on from generation to generation. To what extent do traditional public institutions responsible for juveniles cope with these persisting cycles of SVJ offenders?

Traditionally, the juvenile justice system has been seen as the agency primarily responsible for dealing with SVJ offenders. Other agencies, such as child protection or child welfare services, have been assigned to deal with child offenders, and with those juveniles who repeatedly engage in status offenses. In addition, the mental health system deals with juvenile offenders of any age who have mental health problems.

We expressed major reservations about how well the juvenile justice system in its current form is suited to deal with SVJ offenders in general, and young SVJ offenders in particular, and hence to have an impact on levels of SVJ offending in the community. Even less is known about the effectiveness of child protection and welfare services in dealing with very young offenders. Mental health services are not known to affect community levels of SVJ offending. We will briefly discuss the role of these three institutions in preventing the development of SVJ offenders.

A very large proportion of the eventual SVJ offenders start offending as children (under age 10). For that reason, the juvenile justice system typically does not intercept these offenders at the beginning of their criminal career. In 1994, only 25,000 out of about 1.5 million referrals to juvenile courts were of children under age 10 (Snyder, Personal communication, March 1997). Child welfare

services, because of their mandate to concentrate on status offenders, are in a poor position to distinguish between those status offenders who commit few other forms of delinquency and those who also engage in serious and violent offenses. Mental health services also have little impact on SVJ offending in communities, because of (a) a lack of any mandate to be responsible for SVJ offenders; (b) a focus on a medical individual-treatment model rather than on community needs and community-relevant interventions; (c) inconsistent evidence of effectiveness of dealing with known SVJ offenders or preventing SVJ offending in communities; (d) recent reversals in insurance coverage of juveniles diagnosed with known precursor disorders, including Oppositional Defiant Disorder, Conduct Disorder, and Attention-Deficit Hyperactivity Disorder; and (e) a widespread lack of mental health insurance among families in the most disadvantaged inner-cities who often are most at risk of producing SVJ offenders. In fact, a survey of help seeking by parents of seriously delinquent boys showed that three-quarters of the caretakers never sought or received help from a mental health professional, and this also applied to pre-adolescent, seriously delinquent boys (Stouthamer-Loeber, Loeber, & Thomas, 1992).

All three systems – the juvenile justice system, the child welfare system, and mental health services – tend to be reactive in their responses to multiple problem youth, rather than proactive in attempting to prevent their emergence. Thus, in each system, sanctions and treatment are more dominant than preventive efforts. Further, the three systems often operate independently rather than in an integrated fashion and are not held collectively accountable for community levels of SVJ offending. Thus, fragmentation of services and separation of responsibilities among these institutions often is the rule rather than the exception. This state of affairs represents traditional roles of institutions dealing with youth, and is largely based on "old" knowledge of developmental aspects of SVJ offending. Current knowledge about the background and developmental course of young SVJ offenders, presented in this volume, will eventually force a change in the division of responsibilities among the different institutions.

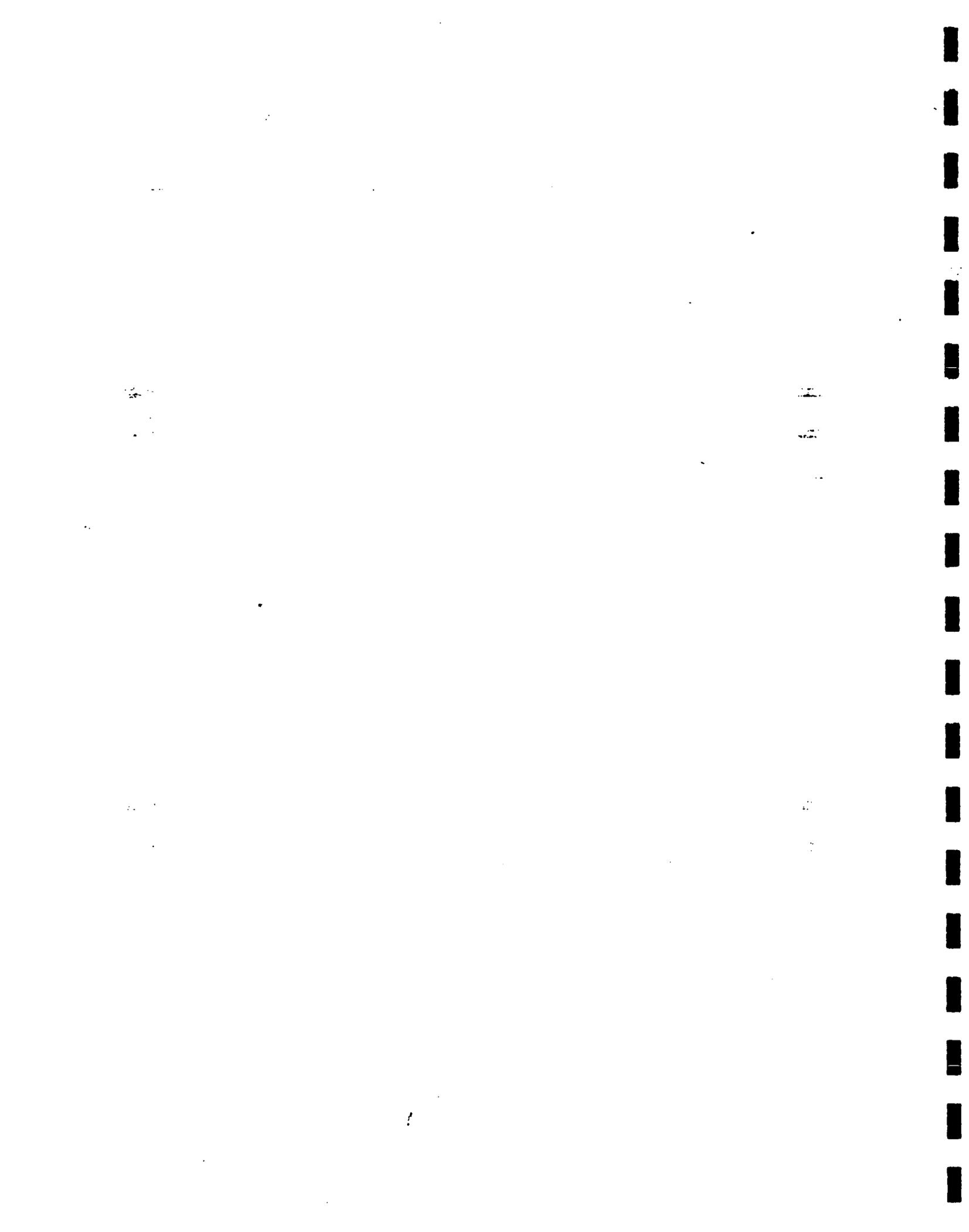
The boundaries between the juvenile justice system, child welfare services, and mental health services in dealing with SVJ offenders are often poorly defined and are more characterized by gaps than by integrated services. As a consequence, there is a lack of accountability of agencies who are responsible for the early offending of this group of juvenile offenders. We do not discount the important efforts played by other organizations, such as school, churches, and other community organizations. Often, schools have adopted programs to deal with high risk youth in elementary classrooms, but in general schools have neither the mandate, resources or specialist knowledge to undertake this task on a routine basis from year to year and from generation to generation of youth.

There is more promise in the Communities That Care (CTC) program which mobilizes efforts within communities to address known risk factors with proven prevention programs. The laudable efforts of CTC often include collaborating with the juvenile justice system, child welfare services, mental health services, and other agencies to divide the work in such a manner that SVJ offending in the community can be dealt with in a comprehensive manner. However, even with CTC there is no guarantee that the accountability of institutions in dealing with SVJ offenders at the level of prevention and intervention is defined, facilitated, enforced and maintained from generation to generation of youth.

We recommend that juvenile justice, child welfare, and mental health services should have clearly defined responsibilities for preventing the development of SVJ offenders, and that they should work in coordination rather than in isolation.

#### Developing a Research Agenda

There are many gaps in knowledge about the development of, and effective interventions for, SVJ offenders, that might be filled by new research projects, by reanalyses of existing studies, or by additional data collection in existing studies. First, there is a need to focus specifically on SVJ offenders and to compare them with other types of offenders. Most existing research on risk/protective factors and prevention/intervention strategies provides information about delinquents



versus nondelinquents rather than about SVJ offenders versus other types (or serious versus nonserious, violent versus nonviolent offenders).

The focus on juvenile offenders follows the legal boundary between juvenile delinquency and adult crime, which is somewhat arbitrary in the context of behavioral development. More research is needed on what are the most useful typologies of offenders for development, explanation, prevention, and intervention purposes. SVJ offenders are important for policy and practice, but other typologies related to them (e.g., life-course persistent versus adolescence-limited offenders) might be more useful for these other purposes. More research is also needed specifically on persistent or chronic juvenile offenders, and on the linkages among violent offending, serious offending, and frequent offending in the juvenile years. A key issue is how serious, violent, or chronic juvenile offenders differ in kind or in degree from other types of offenders.

Most existing typologies of offenders tend to be rather static and specific to a particular age. Dynamic typologies are needed, that take account of developmental transitions between different classes of offenders. Research is needed to describe the usual course of developmental transitions over time, to investigate how far they can be predicted, and to study how far they vary with such factors as gender, ethnicity, and community context. It is important to specify developmental pathways that begin with minor deviance in infancy or early childhood and that are likely to progress to SVJ offending. This will help to determine what SVJ offenders are like in childhood and how early and accurately they can be identified. In addition, it is important to specify the adult criminal careers and adult life experiences of SVJ offenders.

In the past, SVJ offenders have usually been measured using arrest or court data. More self-report research on serious or violent offenders is needed. Previously, such offenders have often been missing from school or community based samples. It is important to assess the concurrent and predictive validity of official and self-report measures of offending, and to derive accurate estimates of the prevalence and incidence of serious and violent offenses in particular inner cities or areas,

where SVJ offenders disproportionately reside and operate. A key issue centers on how much of the total crime problem is accounted for by SVJ offenders. Equally, it is important to study other social problems (e.g., mental health, educational, employment, welfare) of these individuals, in order to derive realistic estimates of their total burden on society. Such estimates are crucial in calculating the cost-effectiveness of prevention/intervention programs. A key question is how far all these problems are functionally related and how far they all have similar origins.

Another key research priority is to establish the most important risk factors for SVJ offenders, compared with other types of offenders and with nonoffenders. It is crucial to determine which of individual, family, peer, school, neighborhood, and community factors are the strongest predictors, and how these different factors have independent, additive, interactive, or sequential effects on SVJ offending. It is also important to determine which factors have differential effects on the onset, persistence, escalation, de-escalation, or desistance of offending, and whether there are different effects at different ages. Results from these investigations should help in developing and improving theories of SVJ offending and screening devices to predict SVJ offenders. It is even more crucial to carry out research to identify protective factors, since these have been sorely neglected in the past and are likely to have important implications for prevention and intervention.

A key research priority is to assess the effects of interventions (from early prevention to aftercare) specifically on SVJ offenders (versus nonserious and nonviolent offenders), and especially on their reoffending. It is important to investigate the relative effectiveness of different types of interventions with different types of offenders at different ages. Different effects within different population subgroups (e.g., males versus females, African Americans versus Caucasians) and in different communities also need to be studied. Promising interventions need to be evaluated in controlled experiments as far as possible. It seems likely that interventions containing several different components (e.g., individual social skills training, parent management training, peer resistance training) will prove to be the most effective.

Generally, longitudinal studies are needed to investigate developmental pathways and risk/protective factors, while experimental studies are required to investigate prevention/intervention strategies. It would be ideal to combine these two approaches and include experimental interventions in longitudinal multiple cohort studies (Farrington, Ohlin, & Wilson, 1986; Tonry, Ohlin, & Farrington, 1991), but the longitudinal-experimental design seems very difficult to mount in practice. Also, the low prevalence of SVJ offenders poses problems for the investigation of risk/protective factors and prevention/intervention strategies.

Some of the key questions about development and risk/protective factors could be addressed by carrying out reanalyses of existing longitudinal studies, as indeed contributors to this volume have done. Some of the key questions about prevention/intervention techniques could be addressed by collecting additional data on SVJ offending in existing experimental studies. However, the designs of many existing studies would not permit urgent questions to be addressed. Existing studies may include too few SVJ offenders, too few females, too few ethnic minorities, a too narrow age range, a too restricted range of risk/protective factors measured, unicomponent or too limited prevention/intervention techniques, too infrequent data collection, and so on.

What types of new projects are needed? A key feature of new longitudinal studies is that they should include multiple cohorts, in order to draw conclusions about the development of different age groups from birth to the teenage years. Also, they should include both males and females and the major racial/ethnic groups. Also, they should measure a wide range of risk and especially protective factors (individual, family, peer, school, community, etc.). Also, they should be based on large, high-risk samples, especially in inner-city areas, incorporating screening methods to maximize the yield of SVJ offenders while simultaneously making it possible to draw conclusions about the total population. Also, they should include long-term follow-ups to permit conclusions about developmental pathways.

A key feature of new experimental studies is that they should include multiple-component interventions and should be designed to evaluate the success of the components as well as the

complete package. Ideally, the components should be targeted on different age ranges, and the interventions should be applied to high-risk youth or high-risk communities. It would be useful to evaluate a very flexible, wide-ranging prevention program such as Communities That Care (Hawkins & Catalano, 1992), although the evaluation of community programs raises special challenges for research (Farrington, 1997). In this program, major risk factors are first assessed in a community, and then prevention strategies are implemented to counteract specific risk factors. This type of program is promising. Evaluating it in high-risk communities or inner-city areas might significantly advance knowledge about the prevention of SVJ offending. While it seems difficult to combine a multiple-cohort longitudinal study with multiple-component interventions, it would be possible to implement multiple-component interventions in a single-cohort longitudinal study. It would also be possible to follow up one or more cohorts of youth within a multiple-cohort intervention study as Communities that Care. Both of these types of longitudinal-experimental studies are worth implementing and evaluating.

In order to advance knowledge and reduce crime in the future, an integrated and coordinated program of data collection, intervention, and research specifically on SVJ offenders should be developed by appropriate federal agencies, advised by scholars from the juvenile delinquency and juvenile justice communities.

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Appendix 1

**Serious, Violent, and Chronic Juvenile Offenders: An Assessment of the Extent of and Trends in Officially-Recognized Serious Criminal Behavior in a Delinquent Population**

**Howard Snyder**

The nationwide growth in the juvenile violent crime arrest rate between 1986 and 1994, after more than a decade of relative stability, has fueled the public's concerns over the viability of the juvenile justice system. To respond to these concerns, most state legislatures have recently made substantial changes in their state's juvenile justice systems. Some legislation has even removed serious and violent offenders from the jurisdiction of the juvenile court and placed these youth under the jurisdiction of the criminal court. Clearly, the future of America's juvenile justice system is being molded by the public's perception of serious and violent juvenile offenders. Therefore, it is important for juvenile justice policy makers, practitioners, and the public to understand the volume of, and growth in, this segment of the juvenile offending population.

This research was designed to place the serious and violent offender in context of the general population handled by the juvenile justice system. Unlike other recent studies that have focused on self-reported delinquent behavior, this work focuses on youth with official records of delinquency. While information about self-reported law-violating behavior is essential to understand the development of law-violating careers, the juvenile justice system can only respond to officially-recognized delinquent behavior. Therefore, a clear picture of serious and violent juvenile behavior from the perspective of the juvenile justice practitioner is necessary to support the development of policies which guide the justice system's response to juvenile offenders.

This descriptive study was designed to answer a set of basic questions often raised in the debates over juvenile justice policies and procedures. These questions include:

(1) What are the proportions of serious and violent offenders in the officially-recognized delinquent population?

- (2) Are these proportions increasing?
- (3) Are serious and violent juvenile offenders in recent years being referred for more serious and violent crimes?
- (4) Are chronic offenders also serious and violent offenders?
- (5) Is the onset of officially-recognized juvenile violence and serious offending occurring at younger ages?

#### Method

To explore officially-recognized serious and violent juvenile offending, this study analyzes the juvenile court careers of all persons born between 1962 and 1977 who were referred to the juvenile court in Maricopa County, Arizona for a delinquency offense prior to their 18th birthday.<sup>1</sup> Another way of classifying this population is to identify each cohort not by its birth year but by the year its members turned 18 years of age and aged out of the original jurisdiction of the juvenile justice system. From this perspective, this study investigates the officially-recognized offending patterns of the juvenile justice graduating classes of 1980 through 1995.<sup>2</sup>

Maricopa County population in 1995 was 2.4 million persons, making it the sixth largest county in the United States. In 1995 the violent crime rate in Maricopa County was 12% greater than the national average and its property crime rate was 75% above the national average. Maricopa County contains a populous central city (Phoenix), a rapidly growing and ethnically-varied population, and faces the range of problems found in most large metropolitan areas in the United States. In many ways, it is typical of urban America.

When a youth is arrested in this jurisdiction, the youth (or paper on the incident) is sent to the juvenile court's intake screening office for processing. By policy law enforcement does not screen the case before sending it to juvenile court intake. Therefore, in this jurisdiction, the rate of juvenile court referral population is comparable to the juvenile arrest population in most other jurisdictions.

To characterize the nature of a juvenile court career, this study counted each of a youth's

referrals to juvenile court intake and classified each referral by the most serious charge in the set of charges presented at intake. The most serious offense in each case was classified into one of three general offense categories:

- (1) Violent offenses include the offenses of murder and nonnegligent manslaughter, kidnapping, violent sexual assault, robbery, and aggravated assault.
- (2) Serious-nonviolent offenses include burglary, serious larceny, motor vehicle theft, arson, weapons offenses, and drug trafficking.
- (3) Nonserious delinquent offenses include such crimes as simple assault, possession of a controlled substance, disorderly conduct, vandalism, nonviolent sex offenses, minor larceny, liquor law offenses, and all other delinquent offenses.

If a referral contained only status offenses (e.g., running away from home, truancy, curfew, underage drinking) or traffic offenses, the referral was excluded from the analyses. All the remaining delinquency referral records were sorted by referral date (earliest referral first) and a rap sheet detailing the youth's juvenile court delinquent career was prepared.

## Results

### Size of the Graduating Classes

A total of 151,209 youth from the juvenile justice graduating classes of 1980 through 1995 had at least one referral to juvenile court intake in Maricopa County for a delinquent offense prior to their 18th birthday (Table A.1a). Thirty percent (or 46,108) of these youth were female (Table A.1b). The number of youth in each class generally increased over time; however, the increases were not consistent from year to year. Overall, there were 35% more youth (28% more males and 54% more females) in the juvenile justice graduating class of 1995 than in the Class of 1980. The sizes of the classes were rather constant between 1980 and 1985. Following a transition year in 1986, the 1987 graduating class was nearly 25% larger than the Class of 1985. This class size was roughly maintained from 1987 through 1994. Once again, in 1995, the size of the graduating class abruptly

changed, moving out of the range observed in the prior eight years, to a level about 10% above the average class size of the prior eight years. While these changes are somewhat related to the growth in the juvenile population within the county during this period, the consistent growth in the general juvenile population within the county can not explain the abrupt changes in the sizes of the juvenile justice graduating classes between 1985 and 1987 and between 1994 and 1995.

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Insert Tables A.1a and A.1b About Here.

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Between 1980 and 1990 the membership in each birth cohort in Maricopa County increased substantially. For example, the decennial census in 1980 found that there were 22,100 seven-year-olds in the county; by 1990 this same birth cohort (who were now aged 17) had 27,900 members — a 26% growth over the 10-year period. These figures indicate a substantial net in-migration (and relatively little out-migration) of young persons with this birth year in the county over the time period when these youth were at risk of juvenile court referral. Certainly, a large proportion of each juvenile justice graduating class lived in the county throughout their juvenile years; while others moved into the jurisdiction during their juvenile years (ages 7 through 17) and stayed until they age out of juvenile court jurisdiction. With an unstable population base, the proportion of youth in a birth cohort that were referred to a juvenile court can not be developed from these data with any precision. However, rough estimates (i.e., assuming the birth cohort was equal to the number of 18-year-olds in the county in the graduation year) indicate over the set of 16 birth cohorts that about one of every three youth had a juvenile court referral for a delinquent offense. Roughly 45% of males and 20% of females had at least one referral to the juvenile court for a delinquency offense prior to their eighteenth birthdays. These estimates also show that the proportion of the birth cohort with a juvenile court referral increased somewhat over the 16-year period.

Age at Onset

It is often heard in many juvenile justice policy debates that juveniles are beginning their court careers at younger ages. Over the graduating classes, was there any evidence that members were referred to juvenile court at earlier ages for their first delinquency referral, their first serious-nonviolent referral, or their first violent referral? On average, across all 16 cohorts, the first delinquency referral occurred at age 15.2 years, the first serious-nonviolent referral occurred at 15.2 years, and the first violent referral occurred at age 15.8 years. There is no evidence that any of these average entry ages changed from the Class of 1980 through the Class of 1995.

In addition, there is no evidence from court records that the proportion of the graduating class that began their-court careers below age 14 has risen to extraordinary levels in recent years. Across the 16 graduating classes, 26.1% of all youth began their officially-recognized delinquent careers below age 14. The Class of 1988 had the smallest proportion of delinquent careers beginning below age 14 (21.9%), while the proportions in the graduating classes in the early 1980s and mid-1990s average about 28%.

Over the 16 graduating classes, 7.1% of referred youth (and 23.9% of those youth ever referred for a serious-nonviolent offense) had their first referral for a serious-nonviolent offense below age 14 (Figure A.1). Over the graduating classes these proportions fell and then increased, staying within a limited range and giving little support for the notion that juveniles in recent years are entering the juvenile justice system at younger ages for serious-nonviolent offenses. Over the 16 graduating classes, 1.1% of referred youth (and 13.5% of those youth ever referred for a violent offense) had their first referral for a violent offense below age 14. As with the serious-nonviolent referrals, these proportions fluctuated within a limited range over the 16 graduating classes, giving no indication of earlier onset of violent referrals in recent years.

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Insert Figure A.1 About Here.

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### Number of Referrals

The 151,209 youth from the juvenile justice graduating classes of 1980 through 1995 were involved in a total of 325,259 delinquency referrals. Twenty-one percent of referrals involved females. The Class of 1995 had 55% more delinquency referrals than the Class of 1980. Between the Class of 1980 and the Class of 1995, the increase in court referrals was greater for females (97%) than for males (46%); however, the male and female increases between the classes of 1986 and 1995 were more consistent, with male referrals increasing 39% and female referrals increasing 49%.

The 55% increase in referrals between the classes of 1980 and 1995 is greater than the 35% increase in the sizes of the graduating cohorts. Thus, youth in the Class of 1995 had a higher average number of referrals per career than did members of the Class of 1980. Across all cohorts, the average career contained 2.15 delinquent referrals, with 60% having only one referral in their court careers. Over the 16 birth cohorts, males averaged more delinquency referrals per career than females (2.43 versus 1.51) and males had a smaller percentage of careers with only one referral (54% versus 73%).

The average number of referrals per career increased significantly across the graduating classes. For the graduating classes in the 1980s the average number of referrals per career was 2.06 (2.32 for males and 1.44 for females), while in the 1990s the average increased to 2.28 (2.60 for males and 1.58 for females). In addition, the proportion of each cohort with only one referral in their careers declined relatively consistently from 62% in 1980 cohort to 56% in the 1995 cohort. Declines in the proportion of single referral careers were observed in both the male (55% to 51%) and the female (79% to 68%) cohorts. Therefore, along with the growth in the number of youth in each birth cohort referred to juvenile court intake, recent graduating classes also averaged more referrals per court career than did previous graduating classes.

### Offense Characteristics of Graduating Classes

Compared to the Class of 1980, the Class of 1995 generated more referrals in each of the

general offense categories (Table A.2). The increases in the number of referrals for violent and for nonserious offenses were greater than the growth in the size of the juvenile justice graduating classes, while the increase in serious-nonviolent referrals paralleled the growth in the size of the referral cohort (Table A.3). As a result of these differential increases, the offense profile of the juvenile justice graduating classes changed in the recent years. Compared to the Class of 1980, the Class of 1995 had not only more referrals per career (2.36 vs. 2.06), it also had more nonserious (1.76 vs. 1.47) and more violent (0.124 vs. 0.095) referrals per career. In contrast, the average number of serious-nonviolent referrals per career changed relatively little between the classes of 1980 and 1995 (0.493 vs. 0.476). Compared to earlier cohorts, the cohorts aging out of the juvenile court's jurisdiction most recently were, on average, brought to court more often for both violent and nonserious delinquent offenses; however, there was no difference in the average frequency with which cohort members were referred for a serious-nonviolent (largely serious property) offenses.

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### Delinquent Career Types

Serious-nonviolent careers. While graduating class averages may be useful in some discussions, the assessments of change may be most useful when focusing on the individual careers. An individual career may have many attributes; for example, a youth may be a violent offender (with one or more violent referrals in his career) while also being a serious-nonviolent offender and a chronic offender. One way to address questions concerning the changes in the character of individual juvenile careers is to study each of several career attributes independently

Over all graduating classes, 29.5% of youth referred had at least one serious-nonviolent referral in their careers (Table A.4). The proportion of serious-nonviolent offenders in each cohort (i.e., the percentage of the cohort with at least one serious-nonviolent referral in their career) showed

no consistent trend over the classes of 1980 through 1995 (Figure A.2). Has the level of serious-nonviolent offending changed within individual careers? That is, were those youth involved in serious-nonviolent behavior referred for more of these acts in the later cohorts? To address this point, the career referral rate for serious-nonviolent offenses (i.e., the average number of serious-nonviolent referrals in careers which had at least one serious-nonviolent referral) was developed for each cohort (Figure A.3). Overall, youth referred for a serious-nonviolent offense were referred an average of 1.69 times for such behaviors in their juvenile court careers. This rate did not change over the 16 cohorts. Therefore, the growth in serious-nonviolent referrals observed from the Class of 1980 through the Class of 1995 was the result of more youth becoming involved these behaviors and was not caused by an increase in the individual level of youth involvement in serious-nonviolent crimes.

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Insert Table A.4 and Figures A.2 and A.3 About Here.

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Violent careers. The court records show that over all graduating classes between 1980 and 1995, 8.1% of all youth referred had at least one referral for a violent offense in their career (Table A.4). The data show, however, that the classes that graduated in the 1990s had a greater proportion of their members charged with a violent offense (Figure A.2). A violent offense referral was found in 6% to 8% of the court careers of the classes of 1980 through 1990. After a transitional class in 1991, the proportion of violent offenders in the classes of 1992 through 1995 increased to the 10%-11% level. Therefore, from the juvenile court's perspective, a greater proportion of youth in the recent graduating classes were involved in violent crime.

Were the increases in violent offense referrals in the later graduating classes the result of increases in the number of referred youth with a violent act in their careers or had the frequency of violent referrals within an individual career increased? Turning once again to the career referral

rates, the average number of violent offense referrals in the careers of youth with a violent offense referral remained constant over the 16 graduating classes, averaging 1.24 violent referrals per career (Figure A.3). Across all cohorts, 83% of violent careers (i.e., careers with at least one violent referral) had only one violent referral in the career. That is, 17% of all violent careers over all graduating classes (or 1.4% of all referred youth) had 2 or more referrals for a violent offense. Over the graduating classes of 1980 through 1995 the proportion of repeat violent offenders fluctuated, reaching a low point of 11% in the Class of 1988 and high points of 20% in 1982 and 1992 (Figure A.4). Therefore, the substantial increases in violent crime referrals between the classes of the 1980s and those of the 1990s were primarily the result of a greater number of youth being referred for a single violent offense and not the result of an increase in the level of repeat violent offending by members of the more recent graduating classes.

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Insert Figure A.4 About Here.

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Very few of the individuals in the 16 cohorts could be characterized as chronically violent offenders. Of the 151,209 youth in these 16 cohorts, 168 had four or more violent referrals in their court records. This was 0.1% of all referred youth and 1.4% of those youth ever referred for a violent offense. Even those with three or more violent referrals in their careers represent just 0.4% of all referred juveniles and 4.8% of violent juvenile offenders.

Chronic offenders. Juvenile policy makers have been actively concerned since the mid-1970s with the chronic offender. Popularized by Wolfgang, Figlio, and Sellin (1972), their study of police contacts in Philadelphia defined chronic offenders as that small portion of a birth cohort who are responsible for the majority of serious crimes committed by the cohort. In the Philadelphia cohort, for example, 18% of all the males with police contacts were responsible for 52% of all delinquent acts committed by the cohort. In the Philadelphia study, chronic offenders were those youth with five

or more police contacts in their juvenile careers. A corresponding definition can be developed using juvenile court referrals. A study of the referral patterns of the complete set of 16 graduating classes finds that 14.6% of youth (those with four or more delinquency referrals before their 18th birthdays) were responsible for a disproportionate number of the cohort's serious referrals. More specifically, these chronic offenders were involved in 44.6% of all referrals, 39.3% of all nonserious referrals, 58.2% of serious-nonviolent referrals, and 60.0% of violent referrals (Table A.5).

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Insert Table A.5 About Here.

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The later graduating classes contained greater proportions of chronic offenders (Table A.6). The court records show that the proportion of each graduating cohort that were chronic offenders (those with 4 or more referrals) remained constant throughout the classes of the 1980s, averaging 13% of all cohort members (Figure A.2). The classes of early 1990s, however, displayed an abrupt increase in their chronic offender proportions, averaging 17% of the careers in the 1992 through 1995 graduating classes. As a result, chronic offenders in the graduating classes of the 1990s were involved in a greater proportion of referrals in all offense categories.

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Insert Table A.6 About Here.

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However, while the number and proportion of chronic careers grew over the cohorts, it is important to realize that the nature of the individual chronic career remained the same. Over the 16 graduating classes, chronic offenders averaged 6.56 referrals in their juvenile court career, were referred for 4.17 nonserious offenses, 1.98 serious-nonviolent offenses, and 0.41 violent offenses (Table A.7). These offense-specific referral rates for chronic offenders did not vary in any consistent manner across the classes, although the number of nonserious offense referrals in these careers did

increase somewhat in the classes of 1993 through 1995. In all, the court records show that the later classes contained more (not more active, or more serious, or more violent) chronic offenders and that chronic offenders were generally responsible for a greater proportion of all types of referrals in the classes of 1992 through 1995 compared to previous classes.

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Insert Table A.7 About Here.

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### Career Attributes of Serious Juvenile Offenders

So far, we have largely been considering selected attributes of delinquent careers without considering their interrelationships. To help visualize the overlapping attributes of delinquent careers, it is useful to divide members of the referral cohorts into 8 career categories which can be labeled using a three character, career index. The first character of the career index is either a "C" or an "X", indicating that the career has either 4 or more referrals (chronic or "C") or less than 4 referrals (not chronic or "X"). The second character of the career index is either an "S" or an "X", indicating whether the career contains a serious-nonviolent offense ("S") or not ("X"). The third character of the career index is either a "V" or an "X", indicating whether the career contains a violent offense ("V") or not ("X"). The career indices are as follows:

XXX: Non-chronic careers with no serious offenses

XSX: Non-chronic careers with at least one serious-nonviolent offense

XXV: Non-chronic careers with at least one violent offense

XSV: Non-chronic careers with at least one serious-nonviolent and one violent offense

CXX: Chronic careers with no serious offenses

CSX: Chronic careers with at least one serious-nonviolent offense

CXV: Chronic careers with at least one violent offense

CSV: chronic careers with at least one serious-nonviolent and one violent offense.

It should be noted that the entire chronic violent offender population is the combination of two groups: CXV and CSV.

Most youth referred to court were never charged with a serious offense (Table A.8 and Figure A.5). Nearly two-thirds (63.9%) of juvenile court careers had fewer than four referrals and had no referrals for a serious offense (XXX). Another 2.5% of careers were chronic offenders with no serious offenses in their careers (CXX). In all, two-thirds (66.4%) of all youth referred to juvenile court intake were never charged with a serious offense.

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Insert Table A.8 and Figure A.5 About Here.

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Chronic and violent offenders (CXV and CSV) were 4.2% of the graduating classes. Although 83.0% of chronic offenders had at least one serious (i.e., violent or serious-nonviolent) referral, the large majority of chronic offenders did not have a violent referral. More than three-fourths (76.7%) of all chronic offenders (i.e., CXV, CSV, CSX, and CXX) had at least one serious nonviolent referral in their careers and 29.0% had at least one violent referral. More than half (52.6%) of all violent offenders were also chronic offenders and this proportion changed little over the 16 graduating classes (Figure A.6). Most (78.3%) of the chronic and violent offenders also had at least one serious-nonviolent referral in their careers (CSV). In fact, the most common career type containing a violent offense referral was CSV, chronic offenders with both a violent and a serious-nonviolent referral in their careers. Nearly 3 of every 5 careers containing a serious-nonviolent offense were not chronic (59.8%), and almost 7 of every 8 serious-nonviolent careers did not contain a violent offense (86.5%).

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Insert Figure A.6 About Here.

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The existence of at least one serious-nonviolent referral in a career was very common, even in relatively short careers. (Figure A.7). The court records show that 62% of careers with four referrals to juvenile court intake had at least one referral for a serious-nonviolent offense. The likelihood of juveniles having a serious-nonviolent offense in their careers was over 90% once the career reached nine referrals. In fact, over half of careers with nine referrals contain at least 3 separate referrals for a serious-nonviolent offense.

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Insert Figure A.7 About Here.

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The existence of a violent referral in a juvenile court career was directly related to the length of a career. As Figure 8 shows, the relation is almost linear and the slope is far more gradual than that between serious-nonviolent referrals and career length. It is as if each new referral to court increases a juveniles' likelihood of having a violent offense in their careers. Youth with three referrals have a 5% greater likelihood of having a violent offense in their career than those with two referrals. Similarly, those with four referrals have a 5% greater likelihood than those with three referrals, as do careers with 12 referrals compared to those with 11 referrals. A similar linear relationship holds for the second violent referral.

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Insert Figure A.8 About Here.

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### Conclusions

If this study's community and its juvenile justice system are typical of other jurisdictions in this country, practitioners and policy makers can take some comfort in the fact that the juvenile justice system is largely achieving its goal of successfully intervening in the lives of delinquent youth. First, the large majority of youth referred to the juvenile justice system were only referred once.

While many of these youth may have desisted from delinquent behavior on their own and some may have committed additional delinquent acts which were not detected by law enforcement, the fact is that 60% of those youth referred to juvenile court intake never returned for a new offense. Even the 8% of all referred youth who were charged with a violent offense rarely returned to court charged with a second violent act. In this community, 5 of every 6 of youth charged with a violent offense never returned on a new violent charge. If the public's concern is for repetitive violent youth, this study should help to put that concern in perspective — only 1% of all court-involved youth in the last 16 juvenile justice graduating classes were charged with two or more violent acts.

Practitioners and policy makers should also consider that the world may not be changing as rapidly as they believe. A larger proportion of youth are becoming involved in the juvenile justice system. However, it is not true that a new type of juvenile offender (e.g., a generation of *violent predators*) is emerging in our communities. Compared to the juvenile justice graduating classes of the early 1980s, those of the early 1990s had a somewhat greater proportion of referred youth charged with a violent offense, but the increase was not dramatic. In this study the juvenile justice graduating classes in the first half of the 1980s had about 8% of their members charged with violent offense, compared to 10% in the first half of the 1990s. This is not evidence of a new type of violent offender, especially when it is remembered that the vast majority of violent offenders in the more recent classes (as in previous classes) were charged with only a single violent act.

If there were a new breed of serious juvenile offenders, the court's workload in serious-nonviolent crime should also have increased; however, the proportion of a graduating class charged with a serious but nonviolent offense did not change over the 16 classes studied. In fact, much of the growth in referrals for the more recent graduating classes was a growth in referrals for nonserious offenses, an indication that the juvenile justice system may be spreading its net wider, bringing in more juveniles, not more serious juvenile offenders.

If our society were facing a new type of delinquent offender, this type of offender should be most apparent in the large urban areas in this country, such as the one studied in this research. Based on this study, the empirical evidence for a new type of offender is not there. Too often changes in policy and practice are based on exceptions and rare events (e.g., the Willie Bosket case in New York or the 6-year-old charged with attempted murder in Richmond, California) — high-profile, unique cases that create the perceptions that drive change. With a growing population and the laws of probability, more of these outlandish events will occur. We must defend against having our understanding of juvenile crime and our evaluations of the juvenile justice system molded by these aberrations.

What we should remember is captured best in this study's finding of the relationship between career length and the existence of a violent crime referral in the career. From this study, it appears that each time a youth returns to court on a new charge there is a greater risk that it will be for a violent crime. To reduce juvenile violence, therefore, we must work to reduce the recidivism of juvenile offenders regardless of the act that has brought them to the attention of the juvenile justice system. And the earlier we successfully intervene in the career, the more effective the intervention will be in reducing the overall level of violence caused by the members of a juvenile justice graduating class. Waiting to intervene until the youth is officially-labeled a violent offender will have little effect on the overall level of officially-recognized violent crime because the large majority of this violence is tied to a youth who will only committed one officially-recognized violent crime. By the time the label can be applied, the youth's officially-recognized violence is over.

Footnotes

1. The data utilized in this paper were housed in and made available by the National Juvenile Court Data Archive, which is maintained by the National Center for Juvenile Justice in Pittsburgh, Pennsylvania, and supported by grants from the Office of Juvenile Justice and Delinquency Prevention, U.S. Department of Justice. The data were originally collected by the Maricopa County Juvenile Court. The Maricopa County Juvenile Court bears no responsibility for the analyses or the interpretations presented herein, although the Court has reviewed a draft of the paper and has given their permission for the author to identify the source of the data.

2. Much of the significant research on the nature of juvenile law-violating careers describes the behavior of youth who passed through their juvenile law-violating years in the 1950s, 1960s, and 1970s. Many policy makers believe that children today are much different than children 20 years ago. This graduating class terminology emphasizes the timeliness of the information in this paper.

**Acknowledgments**

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Class	All Delinquents		
	Careers	Referrals	Referrals/ Career
All	151,209	325,259	2.15
1980	8,312	17,109	2.06
1981	8,160	17,215	2.11
1982	8,523	18,148	2.13
1983	8,385	17,473	2.08
1984	8,193	17,138	2.09
1985	8,191	16,674	2.04
1986	9,071	18,755	2.07
1987	10,100	20,374	2.02
1988	10,700	21,348	2.00
1989	10,312	20,890	2.03
1990	9,801	20,660	2.11
1991	9,678	21,367	2.21
1992	10,091	23,216	2.30
1993	10,019	23,725	2.37
1994	10,429	24,643	2.36
1995	11,244	26,524	2.36

## Trends in Number of Delinquent Careers and Referrals by Sex

Class	Male Delinquents			Female Delinquents		
	Careers	Referrals	Referrals/ Career	Careers	Referrals	Referrals/ Career
All	105,101	255,721	2.43	46,108	69,538	1.51
1980	5,975	13,969	2.34	2,337	3,140	1.34
1981	5,847	13,999	2.39	2,313	3,216	1.39
1982	6,016	14,595	2.43	2,507	3,553	1.42
1983	5,863	13,829	2.36	2,522	3,644	1.44
1984	5,720	13,617	2.38	2,473	3,521	1.42
1985	5,744	13,076	2.28	2,447	3,598	1.47
1986	6,263	14,619	2.33	2,808	4,136	1.47
1987	6,960	15,714	2.26	3,140	4,660	1.48
1988	7,294	16,277	2.23	3,406	5,071	1.49
1989	7,088	15,947	2.25	3,224	4,943	1.53
1990	6,826	16,270	2.38	2,975	4,390	1.48
1991	6,756	16,904	2.50	2,922	4,463	1.53
1992	7,048	18,440	2.62	3,043	4,776	1.57
1993	6,919	18,846	2.72	3,100	4,879	1.57
1994	7,135	19,267	2.70	3,294	5,376	1.63
1995	7,647	20,352	2.66	3,597	6,172	1.72

**Trends in the Offense Characteristics of Delinquency Referrals**

Class	All Referrals	Number of Referrals			Percent of Referrals		
		Serious	Serious Nonviolent	Violent	Serious	Serious Nonviolent	Violent
All	325,259	90,467	75,366	15,101	27.8%	23.2%	4.6%
1980	17,109	4,885	4,097	788	28.6	23.9	4.6
1981	17,215	5,124	4,312	812	29.8	25.0	4.7
1982	18,148	5,200	4,316	884	28.7	23.8	4.9
1983	17,473	4,866	4,111	755	27.8	23.5	4.3
1984	17,138	4,873	4,166	707	28.4	24.3	4.1
1985	16,674	4,728	4,026	702	28.4	24.1	4.2
1986	18,755	5,224	4,443	781	27.9	23.7	4.2
1987	20,374	5,092	4,363	729	25.0	21.4	3.6
1988	21,348	5,388	4,657	731	25.2	21.8	3.4
1989	20,890	5,267	4,514	753	25.2	21.6	3.6
1990	20,660	5,813	4,937	876	28.1	23.9	4.2
1991	21,367	6,287	5,177	1,110	29.4	24.2	5.2
1992	23,216	7,134	5,805	1,329	30.7	25.0	5.7
1993	23,725	7,077	5,689	1,388	29.8	24.0	5.9
1994	24,643	6,767	5,400	1,367	27.5	21.9	5.5
1995	26,524	6,742	5,353	1,389	25.4	20.2	5.2

Note: A career could be counted in more than one category

**Changes Between the Classes of 1980 and 1995**

Size of graduating class	35%
Delinquency referrals	55%
Nonserious referrals	62%
Serious referrals	38%
Serious-Nonviolent referrals	31%
Violent referrals	76%

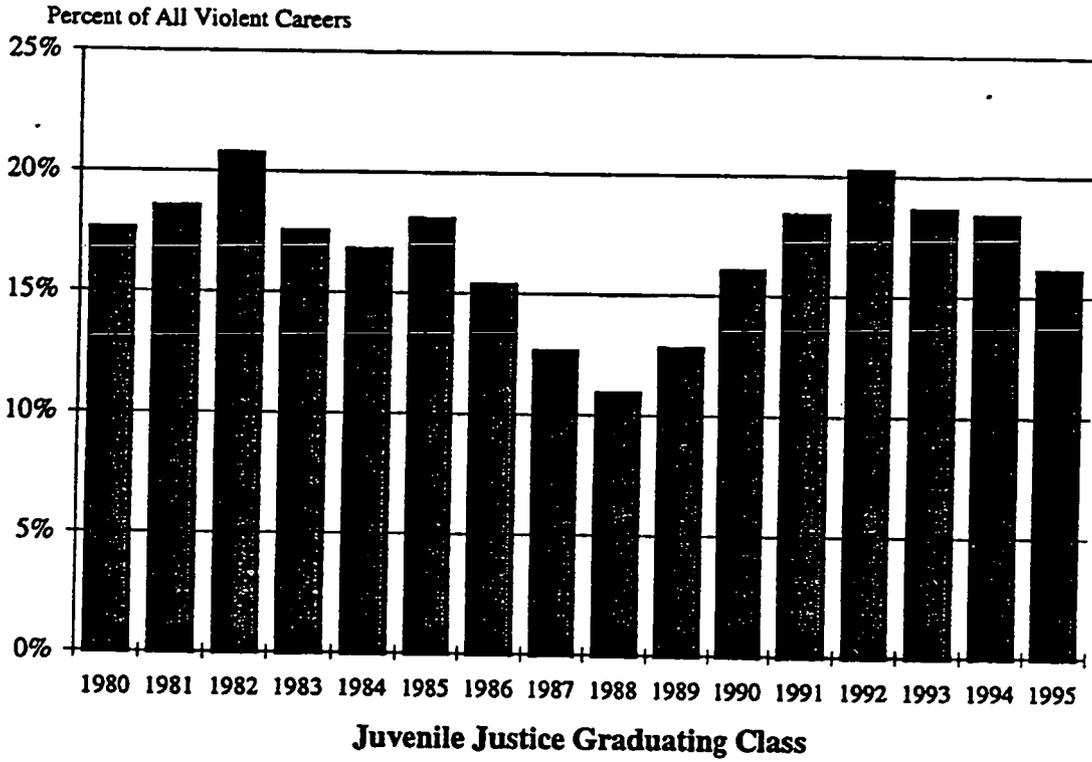
<b>Trends in the Offense Attributes of Juvenile Court Delinquent Careers</b>							
<b>Class</b>	<b>All Careers</b>	<b>Number of Careers</b>			<b>Percent of Careers</b>		
		<b>Serious</b>	<b>Serious Nonviolent</b>	<b>Violent</b>	<b>Serious</b>	<b>Serious Nonviolent</b>	<b>Violent</b>
All	151,209	50,859	44,669	12,212	33.6%	29.5%	8.1%
1980	8,312	2,763	2,421	643	33.2	29.1	7.7
1981	8,160	2,791	2,462	649	34.2	30.2	8.0
1982	8,523	2,852	2,504	685	33.5	29.4	8.0
1983	8,385	2,738	2,455	594	32.7	29.3	7.1
1984	8,193	2,747	2,477	567	33.5	30.2	6.9
1985	8,191	2,723	2,462	554	33.2	30.1	6.8
1986	9,071	2,992	2,667	653	33.0	29.4	7.2
1987	10,100	3,113	2,751	627	30.8	27.2	6.2
1988	10,700	3,238	2,883	644	30.3	26.9	6.0
1989	10,312	3,216	2,857	650	31.2	27.7	6.3
1990	9,801	3,285	2,915	719	33.5	29.7	7.3
1991	9,678	3,504	3,057	888	36.2	31.6	9.2
1992	10,091	3,792	3,283	1,030	37.6	32.5	10.2
1993	10,019	3,704	3,178	1,091	37.0	31.7	10.9
1994	10,429	3,593	3,056	1,085	34.5	29.3	10.4
1995	11,244	3,808	3,241	1,133	33.9	28.8	10.1

<b>Proportion of Referrals Involving Chronic Offenders</b>					
<b>Class</b>	<b>All Delinquency</b>	<b>Nonserious</b>	<b>Serious</b>	<b>Serious Nonviolent</b>	<b>Violent</b>
All	44.6%	39.3%	58.5%	58.2%	60.0%
1980	42.0	36.4	55.9	56.3	53.7
1981	43.8	37.8	57.9	57.8	58.3
1982	44.4	38.6	59.0	58.6	60.6
1983	43.2	37.5	57.7	56.8	62.6
1984	43.1	37.5	57.0	56.3	61.4
1985	40.7	35.3	54.4	53.5	60.1
1986	42.2	36.4	57.4	57.5	57.0
1987	39.4	34.8	53.2	53.7	50.3
1988	38.7	33.4	54.2	54.9	49.8
1989	39.7	35.1	53.4	53.0	55.5
1990	42.9	37.3	57.2	56.8	59.5
1991	46.7	41.2	59.8	59.3	61.9
1992	49.5	43.9	62.1	61.9	62.9
1993	50.4	44.8	63.4	63.3	63.9
1994	50.8	45.4	65.0	64.6	66.5
1995	50.4	46.5	62.1	62.0	62.4

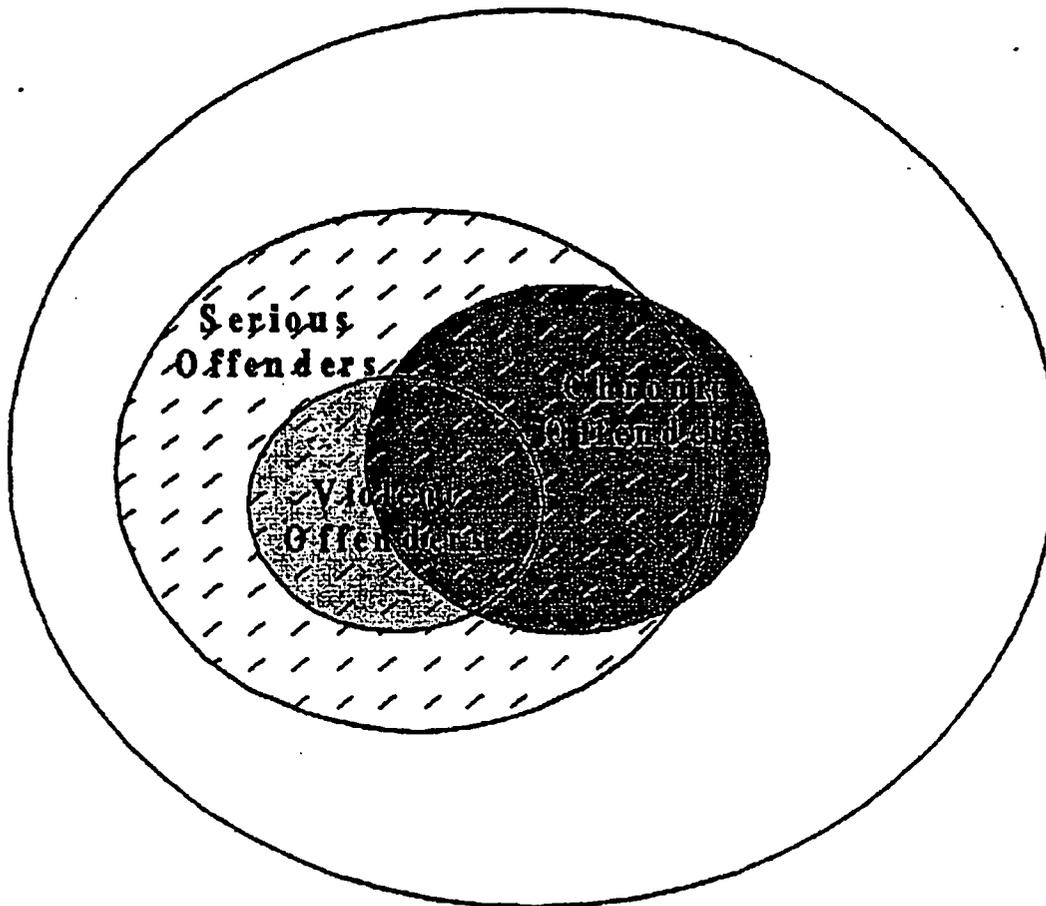
<b>Trends in the Proportion of Chronic Careers</b>			
<b>Class</b>	<b>All Careers</b>	<b>Chronic Careers</b>	<b>Percent Chronic</b>
All	151,209	22,115	14.6%
1980	8,312	1,085	13.1
1981	8,160	1,106	13.6
1982	8,523	1,183	13.9
1983	8,385	1,183	14.1
1984	8,193	1,138	13.9
1985	8,191	1,066	13.0
1986	9,071	1,254	13.8
1987	10,100	1,310	13.0
1988	10,700	1,360	12.7
1989	10,312	1,358	13.2
1990	9,801	1,395	14.2
1991	9,678	1,548	16.0
1992	10,091	1,674	16.6
1993	10,019	1,690	16.9
1994	10,429	1,792	17.2
1995	11,244	1,973	17.5

Average Offense Profile of Chronic Careers					
Class	Referrals/Chronic Career				
	All	Nonserious	Serious	Serious Nonviolent	Violent
All	6.56	4.17	2.39	1.98	0.41
1980	6.62	4.10	2.52	2.13	0.39
1981	6.81	4.13	2.68	2.25	0.43
1982	6.81	4.22	2.59	2.14	0.45
1983	6.38	4.00	2.38	1.98	0.40
1984	6.49	4.04	2.44	2.06	0.38
1985	6.37	3.95	2.41	2.02	0.40
1986	6.32	3.93	2.39	2.04	0.35
1987	6.13	4.06	2.07	1.79	0.28
1988	6.07	3.92	2.15	1.88	0.27
1989	6.11	4.04	2.07	1.76	0.31
1990	6.36	3.97	2.38	2.01	0.37
1991	6.44	4.01	2.43	1.98	0.44
1992	6.86	4.21	2.64	2.15	0.50
1993	7.07	4.42	2.66	2.13	0.52
1994	6.98	4.53	2.45	1.95	0.51
1995	6.78	4.66	2.12	1.68	0.44

### Violent Careers with More Than One Violent Referral



**The Anatomy of Delinquent Careers Highlighting the Joint Attributes of  
Chronicity, Serious-Nonviolent and Violent Referrals**



Note: The outer circle represents all officially-recognized delinquent careers. The portion of the large circle not covered by the chronic, serious, and violent offenders' circles are careers with less than 4 referrals and no referrals for a serious offense. Overlaps represent careers with multiple attributes. The circles and their overlaps are drawn proportional to the number of careers with those attributes.

