

**Youth Violence Prevention and Reduction:
Strategies for a Safer Baltimore**

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Executive Summary

Between 1980 and 1994, the United States and particularly its cities experienced an “epidemic” in youth violence. Since 1994, these rates have declined, in many cases dropping below 1980s levels. Nevertheless, homicide remains among the top two leading causes of death among blacks, whites, and Hispanics age 15 to 18, and young people continue to commit a disproportionate share of violent crimes. In Baltimore, rates of youth violence and youth homicide have not dropped dramatically. The rate of homicides involving youth age 10 to 19 in Baltimore remained relatively constant between 1993 and 1999, dropping slightly between 1999 and 2000 (Baltimore City Data Collaborative 2003). From 1993 to 2000, the percentage of Maryland’s youth homicides occurring in Baltimore increased steadily (with the exception of 1994), from 51 percent to 65 percent. As worrisome, the number of youth under 18 killed in Baltimore more than doubled between 2001 and 2002, from 18 to 38, dropping slightly in 2003 to 33 (Kane 2004; Wilber 2003).

A wide spectrum of strategies has been developed to combat youth violence across the country. Some interventions focus on preventing violent behavior in the first place, while others focus on reducing such behavior after it has developed. Interventions fall into three broad categories: individual-level interventions, neighborhood-level interventions, and gun and police strategies. Individual-level interventions include parent training, prenatal and early childhood interventions, and social-cognitive and behavioral training. Each of these types of intervention has been associated with reductions in antisocial behavior or violence. Neighborhood interventions include comprehensive strategies and school-based programs. Comprehensive strategies—which provide extensive services to youth and their families and aim to improve social and economic conditions within neighborhoods—have gained popularity over the past decade. Because of their complexity, these types of strategies are difficult to implement and evaluate. School-based interventions are widespread and research suggests that they can help reduce risk factors associated with violence and violence itself. Lastly, many cities have implemented strategies involving gun and police policies. Some of these, including intensive patrols targeting gun possession and gun crimes, have been shown to be very promising.

Baltimore currently has in place strategies targeted at the individual and neighborhood level. Although it has minor gun and police interventions, its large scale efforts on this front have recently been cut. The city’s most significant current intervention is a comprehensive strategy it launched in late 2002. Operation Safe Kids is run by the Baltimore City Health Department and involves a broad range of other city and state agencies. Other major interventions include home visitation programs, numerous programs in schools, and a new truancy assessment center.

The research reviewed has several important implications for Baltimore and cities like it. Because of the wide range of programs that have been found to help reduce violence, cities do not need to focus all their resources on any one type of intervention. City leaders should keep in mind that not all popular programs have been found effective. For example, evidence suggests that mentoring programs help reduce substance abuse, but they have not been shown to reduce violence. As for gun buyback programs, evidence suggests they do not reduce violence either. Public resources might be better spent on other types of interventions. Additionally, policy makers and service providers should keep in mind that evidence suggests that parent training

may not benefit families if parents have limited economic resources, mental health problems, little social support, or serious marital conflict. Given that these conditions are prevalent in Baltimore, parenting training may not be a successful strategy. The evidence from Baltimore and the rest of the country suggests that a successful violence prevention strategy for Baltimore should include at least five components:

- Wrap-around services for youth most at risk of violence
- Targeted handgun patrols in high-violence areas
- Home visitation by nurses and paraprofessionals
- Evidence-based prevention instruction in schools
- Intensive family therapy

Evidence from Baltimore also suggests that attention needs to be paid to continuity of programming over time, communication and collaboration among agencies and organizations, monitoring of programs, and sharing of information from past and current efforts. If Baltimore addressed these communication and programming issues and implemented, with integrity, the five strategies described above, the city could greatly improve its chances of significantly reducing the number of young people killed in its neighborhoods.

Background

Between 1980 and 1994, the United States and particularly its cities experienced an “epidemic” in youth violence. While adult crime rates remained relatively stable or declined, rates of violence among youth rose dramatically. The number of juvenile arrests for violent crimes rose 64 percent between 1980 and 1994. Juvenile arrest rates for murder rose 99 percent over that period. During this crime epidemic, fear of juvenile “superpredators” and a “crime time bomb” was widespread (Butts and Travis 2002). Crime researchers, politicians, and pundits warned against a continued surge in youth violence because the juvenile population was increasing. In response, Congress and many state legislatures passed new gun control laws, established boot camps, and began waiving children as young as 10 out of the juvenile justice system and into adult criminal courts (U.S. Surgeon General’s Office 1999). However, the epidemic proved short-lived in the United States. Starting in the mid-1990s, overall rates of youth violence began to decline, returning by 2000 to rates sometimes lower than 1980 levels.

In Baltimore, however, rates have not dropped as dramatically. The rate of homicides involving youth age 10 to 19 in Baltimore remained relatively constant between 1993 and 1999 and dropped slightly between 1999 and 2000 (Baltimore City Data Collaborative 2003). Meanwhile, the number of youth under 18 killed in Baltimore more than doubled between 2001 and 2002, from 18 to 38, dropping slightly in 2003 to 33 (Kane 2004; Wilber 2003).

Definitions

Youth

Youth is usually defined in terms of age, although the age range varies. The U.S. Surgeon General’s Office uses a range of 10 to 17 years old. The U.S. Bureau of Justice Statistics and the Federal Bureau of Investigation use several categories: under 14, 14 to 17, and 18 to 24. The

Baltimore City Data Collaborative uses the category 10 to 19. All the categories are meant to capture individuals who are still developing—that is, those who are not yet adults in a legal or more general sense. Whether a person is considered a youth or not is significant for developing responses to violent behavior. An individual's status as a youth is thought to reduce his or her criminal culpability for a given act; it also increases society's interest in making investments in his or her development (Moore and Tonry 1999).

Violence

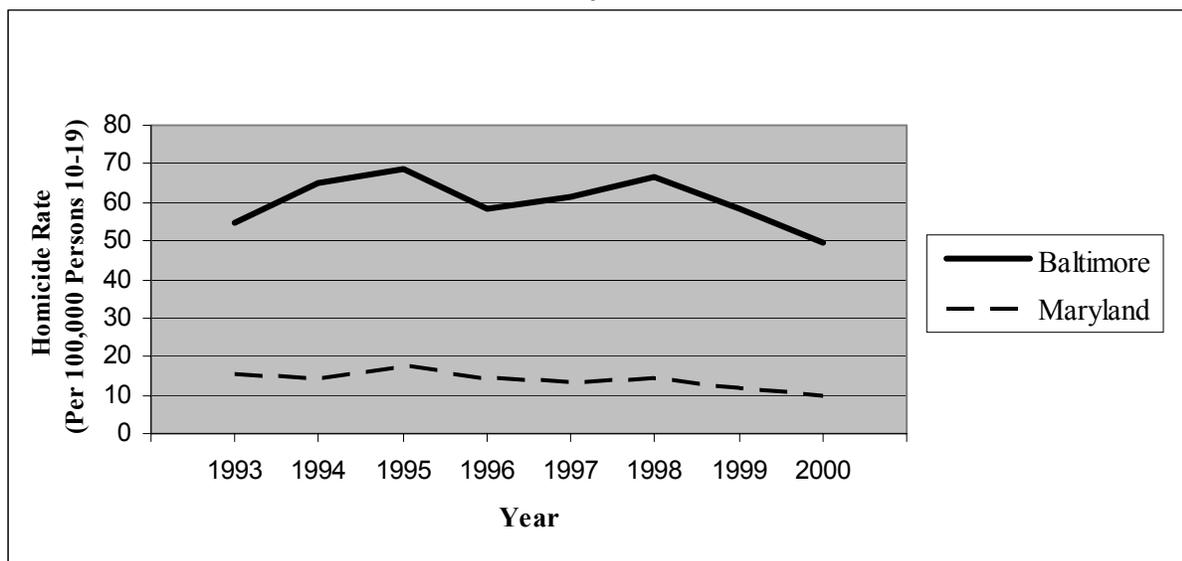
The term “violence” generally refers to behavior that is intended to cause or actually does cause physical trauma or injury. The U.S. Surgeon General's Office defines youth violence as behavior covered by four crimes—criminal homicide, robbery, aggravated assault, and forcible rape (U.S. Surgeon General's Office 1999). These crimes often result in injury; someone is killed, or receives broken bones or a gun, knife, or stab wound. But violent crimes do not necessarily involve physical trauma (Farrington 1998). Robbery, rapes, or aggravated assaults may involve only the threat of the use of a weapon. Because they involve the intentional or threatened injury, they are categorized as violent crimes. Crimes that result in injury but do not involve threat or intention are not considered violent. In this paper, the greatest emphasis will be placed on homicides, as it is the most severe form of violence.

Scope of the Problem

From 1990 to 1999, nearly 34,000 youth under age 18 were homicide victims in the United States. The number of juvenile homicide victims peaked in 1993 at 2,900, or about 4 murders for every 100,000 people under the age of 18 (Snyder and Sickmund 1999). By 1997, this figure had dropped to 2,100, or 3 murders per 100,000 people under 18. Despite this decline, homicide was the second-leading cause of death in the U.S. among young people age 15 to 19 in 1999, and it was the primary cause of death for black youth in that age group (National Center for Injury Prevention and Control 2003). As crime has declined in the United States, so have juvenile arrests—particularly for violent crimes. Between 1994 and 2000, juvenile arrests for murder declined 68 percent to 1,200; juvenile arrests for forcible rape dropped 25 percent to 4,500; juvenile arrests for robbery dropped 51 percent to 26,800; and juvenile arrests for aggravated assault dropped 22 percent to 66,300 (Butts and Travis 2002).

Baltimore has not enjoyed a similar decline in youth crime or violence. As shown in Figure 1, youth homicide rates in Baltimore remained relatively constant between 1993 and 2000 and were significantly higher than in the rest of Maryland. Between 1993 and 2000, Baltimore experienced rates of violence between three and four times that of Maryland. In 2000, approximately ten youth age 10 to 19 were killed for every 100,000 in that age category in Maryland, compared to a rate of 50 per 100,000 in Baltimore. Rates of youth violence in Baltimore appear to be significantly higher than in the United States as well, although the different definitions of youth used to measure national and local data make direct comparison difficult. As mentioned above, in 1999 the national rate of homicides for youth under 18 was three per 100,000. The two “youth” categories differ, but it is worth noting that in 1999 Baltimore's homicide rate for youth age 10 to 19 was much higher, at 58 per 100,000.

Figure 1
Youth Homicide Rate: Maryland and Baltimore, 1993-2000



Source: Baltimore City Data Collaborative, 2003

While Figure 1 indicates that the rate of homicides for youth ages 10 to 19 in Baltimore remained relatively constant between 1993 and 2000, Figure 2 shows that Baltimore's share of youth homicides in Maryland increased steadily between 1993 and 2000 (with the exception of 1994), from 51 percent to 65 percent. As worrisome, the number of homicides of youth under age 18 more than doubled from 2001 to 2002, from 18 to 38 per year, dropping slightly to 33 in 2003,¹ while adult homicides remained relatively constant over that period (Kane 2004; Wilber 2003).²

Figure 2
Homicides, Persons Ages 10-19, Baltimore and Maryland, 1993-2001

	1993	1994	1995	1996	1997	1998	1999	2000
Baltimore, number of homicides	50	59	65	55	58	63	55	47
Maryland, number of homicides	98	93	130	107	101	106	88	72
Percentage of Maryland homicides occurring in Baltimore	.51	.63	.50	.51	.57	.59	.63	.65

Source: Baltimore City Data Collaborative, 2003

Between 1996 and 2000, Baltimore's number of total homicides dropped from 330 to 261, as did the percentage of victims aged 14 to 17. In 1996, this age group represented 9.9 percent of homicide victims, and in 1997 they represented 10.7 percent. In 1998, that figure dropped to 7.6 percent and to 6.7 percent in 2000 (Bureau of Justice Statistics 2003). Despite these declines, the percentage of homicide victims in Baltimore age 14 to 17 remains among the highest for large cities. In 2000, 6.7 percent of Baltimore homicide victims were age 14 to 17,

¹ While the Baltimore City Data Collaborative categorizes youth homicides as homicides of people ages 10 to 19, the Baltimore City Police Department uses the category "juvenile homicides," or homicides of people under 18.

² There were a total of 256 homicides in Baltimore in 2001, and 253 in 2002 (Wilber 2003). In 2003, there were 271 homicides (Baltimore Sun 2004).

compared to 2.2 percent in Dallas, 3.3 percent in Detroit, 4.4 percent in Philadelphia, 4.5 percent in Atlanta, and 5.0 percent in New York (Bureau of Justice Statistics 2003).

Causes of Youth Violence

Theories of youth violence fall into two categories, psychological and sociological. These theories variously explain the onset of violent behavior by the presence or absence of role models, faulty child-parent bonds, incomplete development of self-control, cultural demands, and structural inequalities (National Center for Injury Prevention and Control 2003). Other research into causation of youth violence has focused on individual risk factors for youth violence, which are characteristics or conditions that predispose a child toward violent behavior. These risk factors vary slightly depending on what category an offender falls into. Researchers divide offenders into two main categories, life-course-persistent or adolescent-limited (Howell and Hawkins 1998). Adolescent-limited offenders have no childhood history of antisocial behavior and engage in delinquent behavior only during their adolescent years and only as long as the costs of antisocial behavior remain low. When prosocial responses become more rewarding than their opposite, these youth abandon their antisocial behavior (Moffitt 1993). On the other hand, life-course-persistent offenders develop antisocial behaviors early in childhood and those behaviors intensify with age. Although few in absolute numbers, life course persistent offenders account for a great majority of crimes committed.

For life-course-persisters, risk factors include prenatal and perinatal difficulties, such as pre-term delivery and low birth weight, according to Howell and Hawkins (1998), who conducted a critical review of research on youth violence prevention. The research they reviewed suggests that minor physical abnormalities and brain damage (such as from infectious disease, traumatic head injury, or pre- or postnatal exposure to heavy metals, alcohol, tobacco, or cocaine) may increase the risk of early and persistent violence, as may poor family management practices, parent-child conflict, parental criminality, and childhood maltreatment.³ Other evidence suggests that these factors can be exacerbated when children live in poverty or in disorganized, economically disadvantaged neighborhoods.⁴ For adolescent-limited offenders, risk factors include antisocial behavior (delinquency, aggression, and physical violence), poor parent-child relations, poor performance in or attachment to school, association with antisocial peers, and psychological conditions.⁵ Research has not shown antisocial parents or drug use to predispose youth to violence. Nor has race been found to be related to violence when income level, family background, school achievement, and neighborhood safety have been controlled for (Howell and Hawkins 1998). On the flip side, researchers have identified protective factors, or conditions that interact with risk factors to reduce their influence of violent behavior (Leaf 2002). These factors may or may not have a direct effect on violence. Protective factors for both life-course-persistent and adolescent-limited offenders include supportive relationships with parents, commitment to school, and positive social orientation.

³ Howell and Hawkins (1998) cite studies by Farrington (1989), Institute of Medicine (1994), Lipsey and Derzon (1998), Loeber and Hay (1997), Moffitt (1990, 1991, 1993), Smith and Thornberry (1995), Thornberry (1994), and Yoshikawa (1994, 1995).

⁴ Howell and Hawkins (1998) cite studies by Loeber and Hay (1997) and Shannon (1998, 1991).

⁵ Howell and Hawkins (1998) cite meta-analyses by Lipsey and Derzon (1998) and Maguin and Loeber (1996).

Interventions to Prevent or Reduce Youth Violence

Because the set of factors leading to youth violence is complex and not completely understood, developing and implementing strategies to reduce or prevent violence is difficult. Nevertheless, violence levels can be reduced by various types of interventions, as empirical research has shown. These interventions fall into three general categories—approaches focused on individual youth and their families, approaches focused on neighborhoods and communities, and approaches focused on guns and law enforcement. Since experts generally agree that violent behavior is learned, these interventions have one of two broad aims. They seek to teach children that violence is not an appropriate means of solving problems or controlling the behavior of others, and they seek to ameliorate the social conditions that generate and support violent lifestyles (Elliott 1994). When implemented together, these interventions may be mutually reinforcing and therefore more effective.

Individual-Level Interventions

These interventions seek to prevent or reduce violence by improving the social, emotional, or cognitive skills of youth and their families. Such interventions include parent training and prenatal and early childhood interventions. Solid evidence suggests that such interventions can be very effective in reducing violent behavior among youth (Howell and Hawkins 1998; Olds et al. 1998; Sherman et al. 1997). In Baltimore, these programs include home visitation programs, parent training, and school-based programs for building children's emotional and social capacities. These capacity-building programs will be addressed with other school-based programs in the section on neighborhood-level interventions.

Prenatal and Early Childhood Interventions

Youth violence can be traced to prenatal and early childhood problems. Interventions focusing on these areas, such as the home visitation program developed by Olds and his colleagues (Olds et al. 1998), are therefore likely to be useful in reducing youth violence. Specifically, they address pre- and postnatal causes of neurological deficits that have been linked to persistent antisocial behavior. As well, these interventions focus on early child-parent bonds, which have been found to be necessary for the development of cognitive functioning, trust, empathy, and resistance to deviant peers. Another justification for these interventions is that aggressive tendencies often crystallize by age eight, after which youth become more resistant to treatment.

Olds's program was developed to address three specific risk factors associated with early development of antisocial behavior: adverse maternal health-related behaviors during pregnancy that are associated with neuro-psychological deficits in children; child abuse and neglect; and troubled maternal lifecourse. Olds found that his intervention, involving nurses who visited women and their children in semi-rural New York, resulted in improved maternal functioning and fewer arrests, convictions, and probation violations among children. Other research has shown that infant weekly home visitation reduces child abuse and injuries, both risk factors for youth violence. In a review of 18 rigorous evaluations of visitation programs, Sherman et al. (1997) found that all 18 programs had positive effects on some measures of crime by children

when they entered adolescence, child abuse during or shortly after the visitation period, or risk factors for delinquency.

In Baltimore, home visitation programs take two primary forms—those that send nurses into homes and those that send paraprofessionals. Under the Baltimore City Health Department's Maternal and Infant Nursing Programs, 13 nurses visit the homes of pregnant women at risk of adverse health outcomes (Squires 2004). Because the program receives approximately 5,000 referrals per year, its nurses target those mothers deemed most at risk. Under the Health Department's Healthy Start program, nurses provide pre- and postnatal services to women and their children, including home visitation, in two Baltimore neighborhoods. The Success by Six program also provides home visitation in seven other neighborhoods, although its home workers are paraprofessionals and not nurses (Safe and Sound Campaign 2002). The program is being implemented by the Family League of Baltimore City, the Safe and Sound Campaign, and the United Way of Central Maryland. The Johns Hopkins School of Medicine has begun collecting outcome and impact data, although it has yet to publish its initial findings (Squires 2004).

Family and Parent Programs

Success by Six and other programs in Baltimore, such as the Family League of Baltimore City's Comprehensive Youth Strategy, focus on strengthening family relationships and improving parenting skills. Such family-based interventions are a logical method of violence prevention, given the role that parent-child bonds (or the lack of them) play in the development of antisocial and violent behavior. The evidence that these programs can reduce violence is mixed (Wasserman, Miller, and Cothorn 2000). One of the most common family-focused interventions is parent training. These programs may include instructing parents on how to set clear expectations for their children's behavior, monitor behavior, reinforce positive behavior, and develop effective communications skills. Such training has been found to reduce poor family parenting practices, early aggressive behaviors, and conduct problems (Howell and Hawkins 1998). On the other hand, other research has shown that families are less likely to benefit from parent training if the parents have limited economic resources, mental health problems, little social support, or serious marital conflict (Wasserman, Miller, and Cothorn 2000). These families may benefit from more intensive interventions, such as family functional therapy or multisystemic therapy.

Another common family-focused intervention is family functional therapy (FFT). This program, which aims to increase communication and problem solving in families, is one of the model programs included in University of Colorado's Center for the Study and Prevention of Violence's Blueprints for Violence Prevention model programs.⁶ Research has suggested that FFT can reduce antisocial and violent behavior among youth and prevent adolescents from entering the adult criminal justice system (Center for the Study and Prevention of Violence 2003). It has also been found to improve family communications and lower recidivism among youth (Wasserman, Miller, and Cothorn 2000). Multisystemic therapy (MST) is another model program in the Blueprints series. It may involve community members, but its central focus is on

⁶ The Blueprints series includes a dozen programs selected from a review of 600 violence prevention programs. The programs were selected for having been rigorously evaluated and for having provided evidence of reductions in violent behavior, delinquency, or drug abuse among youth.

a youth's family. It specifically targets chronic, violent, or substance abusing youth aged 12 to 17. Therapists with low caseloads work closely with families in their homes in an effort to identify the individual, family, peer, school, and neighborhood factors that are contributing to a youth's problems (Randall, Swenson, and Henggeler 1999). Some research has shown MST helps reduce abuse and neglect of elementary-school aged children (Howell and Hawkins 1998). Other studies have found it reduces long-term rates of rearrest by 25 to 70 percent among serious juvenile offenders, as well as reducing out-of-home placements, improving family functioning, and decreasing mental health problems (Henggeler et al. 1998). In January 2004, neither FFT nor MST was being implemented on a large-scale in Baltimore (Dawson 2004).

Neighborhood-Level Interventions

Because violent youth often come from poor, disorganized neighborhoods where rates of crime, unemployment, drug use, and family discord are high, some experts believe it is unlikely that any single, individually-focused intervention can prevent or reduce violent behavior. In response to this complex set of problems, "multimodal" strategies have been developed. These interventions—also called wraparound or comprehensive strategies—show promise, having been found to help improve outcomes (Lipsey 2003; Sherman et al. 1997). Other interventions that operate at a community-level include school-based programs and mentoring.

Wraparound Initiatives

Programs that provide comprehensive services face an inherent challenge of coordination among the various city agencies, nonprofit organizations, and community groups involved in their planning and implementation. Because of their multiple goals and broad scope, these interventions are difficult to implement, and even harder to evaluate. An example of one such program is the New Futures Initiative, in which the Annie E. Casey Foundation provided \$5 million to \$25 million over five years to ten mid-sized cities. The funding was meant to improve the life chances of disadvantaged youth by reducing correlates of youth violence, such as high school dropout rates and low academic performance (Howell and Hawkins 1998). To address these problems, the ten sites—all of which had high poverty rates, high dropout rates, and large minority populations—were charged with forming new local governance collaboratives composed of parents, elected officials, and representatives from local agencies, neighborhood organizations, and businesses. Although the collaboratives succeeded in implementing discrete interventions, they were unable to develop or implement comprehensive action plans.

In Baltimore, wraparound programs include the Department of Juvenile Services' Intensive Aftercare Program; the University of Maryland, Baltimore County's Choice Program; and the Health Department's Operation Safe Kids. The Choice Program provides intensive services to court-involved youth and their families; case managers carry small caseloads and contact their clients daily. An internal evaluation indicates that over the past four years youth in the Choice program have been arrested at much lower rates than youth receiving traditional probation services (Choice Program 2003).

Operation Safe Kids is currently the flagship youth violence prevention and reduction program in the city. This collaborative, launched in November 2002, aims to identify the city's

youth most at risk of being involved in fatal youth violence. Begun with a two-year, \$1.5 million grant from the U.S. Department of Labor, the initiative recently was given \$800,000 by the Crane Foundation to increase the number of youth served. Headed by the Baltimore City Health Department, the initiative also involves the Maryland Office of Employment Development, the Baltimore City Police Department, the Maryland Department of Juvenile Services, and Baltimore City State's Attorney's Office (Baltimore Workforce Investment Board Youth Council 2003). The intervention has two main components: (1) joint patrols by police officers and Department of Juvenile Services agents to make sure youth obey their court-ordered curfews and other conditions of their parole or probation; and (2) case management by Health Department staff. Case managers have low caseloads of approximately ten youth, who they help with employment, family matters, health, and education. The initiative targets high-risk youth age 13 to 17 with two or more arrests for violent crimes in several areas with high rates of youth involvement in the juvenile justice system. Target area youth who have had any involvement in the drug trade are also eligible. In December 2003, the program had 66 participants, and had served a total of approximately 77 youth during the first program year. (Estimates of youth at risk of violence in Baltimore vary. Some officials estimate that 1,200 to 1,600 youth are at risk, which is the number of youth on probation (Fine 2004), while others place the figure closer to 2,500, the approximate number of youth arrested for drug violations or crimes against persons (Holleman 2004).)

Operation Safe Kids targets Harlem Park and the area surrounding Johns Hopkins Medical Institutions, although program administrators intend to use the Crane grant to open another target area in Park Heights and to increase the number of participants to 150 (Fine 2003). What distinguishes the program from other neighborhood initiatives in Baltimore is the involvement of the leadership from participating government agencies. Each week, "KidStat" meetings are run by high-level officials from the Health Department, the mental health and substance abuse systems, the Department of Social Services, the public defender and state's attorney's offices, and the juvenile justice system, among other agencies. Line-staff from these and other participating agencies are also present. At these meetings, participants review individual cases to determine what services are needed. If a child is determined in need of some particular service, the official from the relevant agency is charged with ensuring that that service is provided as quickly as possible. Services have also been extended to families, with limited receptiveness and success (Fine 2003). As of December 2003, the Health Department had yet to gather complete outcome data related to violence or criminal activity among participating youth. Program administrators were in the process of gathering information on homicides, shootings, and connection to services. They did report that curfew observation of participating youth increased from 38 percent in November 2002 to 61 percent in November 2003, and school attendance increased from 49 percent to 56 percent over the same period (Fine 2003).

School-Based Programs

School-based programs are a community-level strategy much more easily evaluated than comprehensive programs. Schools are a natural setting for violence prevention, as they provide regular access to children throughout their developmental years (Sherman et al. 1997). Some interventions focus on school performance, others on improving the capacity of schools to control their levels of disorder, and still others on changing individual behaviors. This last

category, behavioral interventions, includes methods aimed at changing thinking strategies, behavior modification, peer counseling, mediation, leadership training, recreation, and academic enrichment. Research has shown that three types of programs reduce crime and delinquency among children: (1) programs aimed at building school capacity to initiate and sustain innovation; (2) programs that clarify behavioral norms by establishing school rules, improving the consistency of their application, or publicizing norms through school-wide campaigns; and (3) long-term comprehensive instructional programs focusing on social competency skills such as self-control, stress-management, decision-making, problem-solving, and communication.

Baltimore's public schools provide an assortment of individually-focused violence prevention programs in their classrooms, which fall largely into the third category mentioned above. During the 2002-2003 school year, these included Second Step, a violence prevention curriculum for Head Start Centers citywide, life skills training for sixth through eighth graders, and a prosocial skills development program (Baltimore City Public School System 2003a). The school system has also implemented the Promoting Alternative Thinking Strategies (PATHS) in 12 elementary schools (Baltimore City Public School System 2003b). This is one of the model programs included in the University of Colorado's Center for the Study and Prevention of Violence's Blueprints series. It is a comprehensive program designed to promote emotional and social competencies and to reduce aggression and other behavioral problems. Research suggests that PATHS programs reduce several risk factors and improve protective factors associated with violent behavior. These outcomes include improved self-control; improved understanding and recognition of emotions; improved conflict-resolution, thinking, and planning skills; and reduced conduct problems (Center for the Study and Prevention of Violence 2003).

Evidence from Baltimore supports these national findings. An assessment by the Johns Hopkins Bloomberg School of Public Health and the Baltimore City Public School System found that students in the 12 elementary schools using the PATHS curriculum were less likely to exhibit antisocial behavior if they received greater "exposure" to the curriculum (Baltimore City Public School System 2003b). (The curriculum was used in kindergarten through third grade.) Classrooms were categorized as "high exposure" if teachers delivered at least 53 PATHS sessions during the school year and as "low exposure" if teachers taught fewer sessions. Overall, children in high exposure classrooms were less likely to be referred to the principal: Teachers in high exposure classrooms referred 16 percent of their students to the principal during the 2001-2002 school year, compared to 24 percent in low exposure classrooms.⁷ The difference was greatest for older children. For example, second-grade teachers in high exposure classrooms referred 20 percent of their students to the principal, while 33 percent were referred in low exposure classrooms. The number of schools implementing PATHS dropped from 12 in the 2001-2002 school year to eight in 2002-2003 school year. Because the federal funding supporting the PATHS curriculum (a five-year grant under the Safe Schools/Healthy Students Initiative, sponsored by the U.S. Departments of Education, Justice, and Health and Human Services) expired at the end of the 2002-2003 school year, the programs ceased in the remaining eight schools. Five different elementary schools began implementing a PATHS curriculum in the fall of 2003, funded by a grant from the Family League of Baltimore City. The Family League

⁷ Within the 12 schools, 40 kindergarten through third grade classrooms were categorized as providing "high" exposure to PATHS and 53 were categorized as "low," according to surveys returned by teachers from the 12 PATHS schools. The evaluators do not indicate how many teachers did not return surveys.

hopes to be able to sustain funding so that several cohorts of children receive consistent and continuous instruction through elementary school (Dawson 2004).

Mentoring

In Baltimore, the Mayor's Office of Children, Youth, and Families has touted a church-based mentoring program begun in April 2001, Baltimore Rising, as an important violence reduction strategy (Dewar 2003). As of August 2, 2003, the program had enrolled 1,000 youth of whom about 300 had violent criminal records or were repeat offenders, according to comments by the program director reported in The Baltimore Sun.⁸ The program also claims to have found part-time or full-time summer jobs for about 500 youth, helped 258 families obtain drug treatment, and reduced the number of school days missed from more than 40 days per child to about 20. Arrests for participants seem to have declined. In August, the program was facing a shortage of mentors; of the city's 800 churches, only 42 were participating. While mentoring programs are appealing, little evidence exists suggesting that they reduce violent behavior or delinquency. Research, including a national evaluation of the Big Brothers/Big Sisters program, has shown that while they reduce drug abuse among youth, they do not reduce violent or delinquent behavior (Sherman et al. 1997).

Gun and Police Interventions

Because much of the most serious violence perpetrated by youth involves guns, interventions aimed at reducing the prevalence of gun-ownership among youth are likely to be effective at reducing youth violence, especially fatal violence. Police patrols directed at gun seizures can reduce gun-related violence, as the Kansas City Gun Experiment, discussed below, demonstrated. Research suggests youth are attuned to such actions (Webster 2002). Surveyed youth report that they are more likely to leave their guns at home when police presence is heightened in their neighborhoods.

Multi-Faceted Initiatives

In the mid 1990s, Boston developed and implemented a comprehensive intervention, Operation Ceasefire, as part of its Boston Gun Project. The Boston Gun Project was a "problem-oriented" policing initiative involving the Boston Police Department, the Massachusetts department of parole and probation, federal and state prosecutors' offices, the Boston School Police, the Massachusetts Department of Juvenile Services, and gang outreach and prevention workers, among others (Braga et al. 2001). In addition to assembling an interagency working group, the Project assessed the nature and causes of youth violence in Boston, developed and implemented the Operation Ceasefire initiative, and evaluated its impact (an independent evaluation was not conducted). The Ceasefire initiative was targeted at all areas in the city with high rates of youth violence, which meant that no control or comparison group existed for the evaluation. Under Operation Ceasefire, law enforcement officials stepped up their efforts against intra-state firearms trafficking. The program also involved the provision of social services to

⁸ The Office of Children, Youth, and Families did not return numerous phone messages left inquiring about client outcomes and requesting confirmation of the statistics reported in The Baltimore Sun.

gang members by project street workers, probation and parole officers, community groups, and church members. Although the initiative was seemingly promising, there were significant problems with its evaluation. The evaluators found—after controlling for regional or national trends—that the Ceasefire intervention was associated with a 25 percent decrease in the monthly number of city-wide assaults, a 32 percent decline in the number of citywide shots-fired calls for service, and a 44 percent decrease in the monthly number of youth gun assaults in one district. However, because the study lacked a comparison group, the results are of questionable value.

A similar initiative was launched in Baltimore in 1995, with funding from the U.S. Department of Justice, under the Youth Firearms Violence Initiative. The initiative provided up to \$1 million to police departments in ten cities, including Baltimore; Cleveland; San Antonio; and Inglewood and Salinas, California (Dunworth 2000). Under it, participating police departments were encouraged to work in conjunction with other city agencies to promote education, prevention, and intervention programs related to handguns and handgun safety. Specific strategies varied across the ten cities, so it was not surprising that the results were inconsistent. Reductions were greatest in Inglewood, where the target areas experienced a 49 percent decline in gun crimes, compared to a 23 percent decline citywide. At the other end of the spectrum was Baltimore, where crime declined 2 percent citywide, 8 percent in one of the two target areas, Park Heights, and remained constant in the other target area, Cherry Hill. The poor results in Cherry Hill may, in part, have been attributable to a population increase, due to the reopening of a public housing complex (Foster 2004). It may also have been due the police department's failure to engage the probation department, as Inglewood did. In Inglewood, full-time probation officers worked with police in scrutinizing gang members on probation, which led to the detection of a significant number of probation violations.

Another now-defunct effort is the Comprehensive Communities Program. Funded largely by a 1995 grant from the U.S. Department of Justice's Bureau of Justice Assistance, the program focused on Boyd Booth, Carrolton Ridge, Fayette Street, Franklin Square, Harlem Park, and New Southwest. It employed several general crime reduction strategies, such as community policing foot patrol officers, community organizing, reclamation of public space, citizen patrols, and youth programming (Office of Juvenile Justice and Delinquency Prevention 2003a). The HotSpot Communities program succeeded the Comprehensive Communities Program in 1995. That initiative involved community mobilization, community policing, intensive supervision of juveniles and adults on probation, afterschool programs, and truancy and curfew enforcement. The program was initially touted as promising, although it eventually drew strong criticism for failing to meet its goals and for being overly political (Muhlhausen 2003). The Governor's Office of Crime Control and Prevention has maintained the program, in reduced form, under the name Collaborative Supervision and Focused Enforcement (CSAFE). In 2003, \$3 million went toward the program, as opposed to \$8 million in previous years. In Baltimore, only three of its 12 HotSpot sites were continued (Maryland Department of Legislative Services 2003). The program—in any of its three manifestations—has not been evaluated (Muhlhausen 2003).

Intensive Police Patrols

Research suggests that when police patrols targeting gun carrying and violence are increased, youth may be more likely to leave their weapons at home—and therefore less likely to

use the weapon in a confrontation. One intervention testing this theory was the Kansas City Gun Experiment, which used extra police patrols in an 80-block hotspot area with a homicide rate—177 per 100,000 people—about 20 times the national average. The extra patrols were meant to seize guns and deter gun carrying. During the 29-week experimental period in 1992 and 1993, police increased gun seizures by 65 percent in target areas. Meanwhile gun crimes declined 49 percent in the target areas, while they went up 4 percent in a control area. Homicides declined 67 percent in target areas. Evaluators found no evidence of displacement of crimes from the target area to surrounding areas (Sherman et al. 1995). The program has since been replicated in Indianapolis, Philadelphia, and California.

Evidence from Baltimore supports the Kansas City findings. In the mid 1990s, David Kennedy, the Harvard University criminologist who helped develop Boston's Operation Ceasefire, came to Baltimore to help the city establish more effective violence reduction strategies. In response, several police squads were created or reconfigured, including the Handgun Recovery Squad and the Youth Violence Strike Force. The Handgun Recovery Squad began by seizing guns all over Baltimore; when that proved ineffective, the squad focused on two of the highest crime police posts in the city, both in East Baltimore. Firearms seizures at first increased, then dwindled as gun-related crime began to drop in the target areas (Office of Juvenile Justice and Delinquency Prevention 2003b). It was the impression of the squad officers and supervisors that people in the area were leaving their guns at home (Hennlein 2004; Marcus 2004). When the squad was disbanded in 2000, its members were dismayed, for they felt that the program had become fine-tuned and effective over the years.

A similar effort, the Youth Violence Strike Force, was created in 1997 in response to an analysis of internal data indicating that over 50 percent of victims and suspects in shootings were age 24 or younger. This analysis also indicated that most violence was caused by violent drug "crews" that were using handguns to settle disputes. In an effort to identify and target gang members and other violent offenders for arrest and incarceration, the strike force's members worked with the U.S. Attorney's Office; the Federal Bureau of Investigation; the U.S. Bureau of Alcohol, Tobacco, and Firearms; the Baltimore City School Police; and the Maryland State Department of Juvenile Justice (now the Department of Juvenile Services). It also worked closely with parole and probation officers, judges, and youth. As of December 2003, the strike force had been dismantled and its efforts had not been evaluated.

Baltimore Truancy Assessment Center

On November 5, 2003, a new truancy center in East Baltimore opened. Though not explicitly targeted at violence reduction, those involved in its planning and administration hope it will cut down on juvenile crime in general, including violence. Children picked up between 9 and 11 a.m., as a result of stepped-up truancy patrols by police, are held at the center while their parents are called. The center has school police officers and guidance counselors, as well as staff from the Department of Juvenile Services, Department of Social Services, the Housing Authority, Social Security Administration, and Office of Employment Development (White 2003). Social workers at the center evaluate whether the children need mental health counseling, academic tutoring, medical care, housing, or other services. As well, police officers run checks on a criminal database to determine if any of the youth have arrest warrants.

Buyback Programs

Although buyback programs are common and although they do encourage people to turn in guns, research has not shown them to reduce rates of violence. Buyback programs are based on two hypotheses: (1) the more guns a community has, the greater its levels of violence; and (2) offering cash for guns will reduce the number of incidents in which guns are used in a particular city (Sherman et al. 1997). While substantial evidence supports the first hypothesis, the same is not true for the second hypothesis. Four evaluations of moderate methodological rigor reviewed by Sherman et al. (1997) showed no effects of buyback programs on gun-related homicides, assaults, or injuries.⁹ These buyback programs included 1991 and 1994 programs in St. Louis, in which 7,500 and 1,200 guns were bought back, respectively. Sherman notes that in addition to being ineffective in reducing gun-related violence, these programs are expensive.

Conclusion and Recommendations

The evidence reviewed above has several important implications for Baltimore and other cities experiencing high levels of youth violence. First, the problem should be attacked on multiple fronts. Cities should not focus all their resources on any one type of intervention. Rather, they need to employ a broad array of interventions, including early childhood and home visitation programs, school-based programs, neighborhood-level programs, and targeted police patrols. Because youth violence stems from a host of factors—from neurological deficits to parent-child bonds to neighborhood conditions—strategies to reduce violence should be more than one-dimensional. The weight of the evidence to date suggests that several types of programs can help prevent and reduce youth violence. Alone, each type has been shown effective. If employed simultaneously, they may well be mutually reinforcing.

Although cities will continue to implement mentoring programs, they should recognize their shortcomings; while evidence suggests they help reduce substance abuse, it does not suggest these programs reduce violence. As for gun buyback programs, evidence suggests they do not reduce violence. Public resources might be better spent on other types of interventions. Additionally, policy makers and service providers should keep in mind that evidence suggests that parent training may not benefit families if parents have limited economic resources, mental health problems, little social support, or serious marital conflict. Given that these conditions are prevalent in Baltimore, parenting training may not be a successful strategy. The evidence from Baltimore and the rest of the country suggests that a successful violence prevention strategy for Baltimore should include at least five components:

⁹ Sherman's analysis employs a methodological rigor score, of one to five, where five is the highest score. The rating is based primarily the study's ability to control extraneous variables, its minimization of measurement error, and its statistical power to detect meaningful differences. The score also takes into consideration response and attrition rates. The buyback program studies mentioned above all rated three. To reach this level, a study had to use a control or comparison group to test and refute the rival theory that crime would have had the same trend without the crime prevention program. The study also had to make an effort to control for obvious differences between comparison groups and to account for measurement and attrition issues. If the comparison was to more than a small number of matched or almost randomized cases, the study was given a score of four. If the comparison was to a large number of randomized cases, the study received a five (Sherman et al. 1997).

- Wraparound services for youth most at risk of violence
- Targeted handgun patrols in high-violence areas
- Home visitation by nurses and paraprofessionals
- Evidence-based prevention instruction in schools
- Intensive family therapy

Evidence from Baltimore also suggests that attention needs to be paid to implementation integrity, continuity of programming over time, communication and collaboration among agencies and organizations, monitoring of programs, and sharing of information from current and past violence prevention and reduction efforts.

Wraparound Services

For Baltimore, Operation Safe Kids is clearly a great step forward. Evidence from the Youth Firearms Violence Initiative suggests that when police officers work closely with probation officers, their efforts can pay off in terms of violence reduction. Results from Boston's Operation Ceasefire provide support for such initiatives, as does evidence from the University of Maryland's Choice Program. Operation Safe Kids administrators should support these partnerships—and ensure that they are fully implemented. City officials may want to consider expanding such partnerships. Operation Safe Kids administrators and all the involved agencies should take heed of the failings of the New Futures Initiative, which foundered because of lack of communication and coordination. The KidStat meetings need to continue to involve both high-level officials as well as line staff. Operation Safe Kids program administrators should also attempt to coordinate their efforts as much as possible with other initiatives, such as the Baltimore Rising mentoring program.

Targeted Handgun Patrols

Evidence from the Kansas City Gun Experiment and Baltimore's Handgun Recovery Squad suggests that police interventions focused on areas experiencing the highest levels of violence can be very effective at reducing gun-related crime and violence. Surveys of Baltimore youth also indicate that youth are more likely to leave their weapons at home if they know that handgun patrols are operating in their neighborhoods. These patrols need not be exceedingly large or costly. The size of the Baltimore Handgun Squad fluctuated during its five years in existence from around eight to 20 officers, who were divided into two teams. According to a supervisor of one of those teams, his team was as effective with four officers as with eight (Marcus 2004). With 3,000 officers on its force, it seems that the Baltimore Police Department has manpower enough to reinstitute these targeted patrols in some form. The mayor and other city officials may also want to concentrate efforts on securing additional state or federal funding to support intensive patrols in more of the city's high-crime neighborhoods.

Home Visitation

By administering Operation Safe Kids from the Health Department, Baltimore has acknowledged that youth violence is a public health issue. This view should be encouraged and public health efforts to reduce youth violence should be expanded. These efforts should include

the expansion of home visitation programs. Evidence suggests that proper prenatal and early childhood care can improve maternal functioning and reduce delinquency among children. These programs can also reduce child abuse and injuries, both risk factors for youth violence. In Baltimore, the Maternal and Infant Nursing Program and Success by Six are a promising start. But, serving roughly 2,000 women each year, these programs and others still leave thousands of at-risk pregnant women without proper care each year (Squires 2004). If pregnant women and their infants received adequate care, the development of violent behavior might be prevented. This, in turn, would reduce the need for and expense of efforts like wraparound initiatives and intensive police patrols in the future.

Evidenced-Based Programs in Schools

There is solid evidence from Baltimore and elsewhere that school-based prevention efforts can help prevent and reduce violence. For the past several years, Baltimore's public schools have employed the Promoting Alternative Thinking Strategy (PATHS), one such evidence-based curriculum, and the school system is encouraged to continue with the program. Research from around the country has demonstrated that PATHS programs can improve self-control, understanding and recognition of emotions, conflict-resolution, and planning skills. The programs can also reduce conduct problems.

Intensive Family Therapy

The evidence presented in the Blueprints series suggests that intensive family therapy, such as multisystemic therapy (MST) and family functional therapy (FFT), can be an effective means of reducing violence. Research has shown MST to help reduce abuse, neglect, rearrest rates, out-of-home placements, and mental health problems. Likewise, rigorous research suggests that FFT can reduce antisocial and violent behavior among youth and prevent adolescents from entering the adult criminal justice system. It has also been found to improve family communications and lower recidivism among youth. Neither program is widely used in Baltimore to date. Baltimore's leaders would be wise not to ignore such strong evidence and should consider investing in these programs or similar ones.

Program Continuity, Coordination, and Data Collection

Research from Baltimore suggests that a significant limiting factor for its violence prevention and reduction efforts is lack of consistent and continuous programming. For example, the PATHS curriculum was taught in 12 elementary schools in 1999, but remained in only eight of these by 2003. The instruction completely ceased in those eight schools at the end of the 2002-2003 school year and began to be implemented in five *different* elementary schools in the 2003-2004 school year. It is likely that the gains made through the instruction in the initial eight schools will be lost because the instruction was cut short. Similarly, several of Baltimore's effective police interventions have been discontinued, not from lack of effectiveness but for political and other reasons. The unpredictability of outside funding, which often supports PATHS and other supplemental programs, certainly complicates continuity. Nevertheless, the school system, the police department, the mayor's office, and outside agencies funding special

programming, among others, should be conscious that programs that are implemented for only a brief period time may have little effect.

Coordination and communication among agencies is another issue that has confounded violence prevention and reduction efforts in the city. Public safety officials should be particularly careful about failing to share information. During the mid 1990s, three major violence reduction programs were run almost simultaneously. Yet the officers and agencies involved seem to have had little contact with or awareness of the efforts beyond the ones they were working on. The KidStat meetings run by Operation Safe Kids are a very promising strategy to improve information sharing and service provision. They should be continued and expanded to other at-risk populations. Lastly, city officials and others involved in violence prevention need to make sure that programs are monitored and outcome data collected. Although tens of millions of dollars have gone toward the HotSpot Communities program, it has yet to be evaluated, as is the case with many major programs implemented in the city over the past decade. If Baltimore addressed these programming and communication issues and implemented with integrity the strategies described above, the city could greatly improve its chances of significantly reducing the number of young people killed in its neighborhoods each year.

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