Recommendations to Reduce Violence Through Early Childhood Home Visitation, Therapeutic Foster Care, and Firearms Laws

Task Force on Community Preventive Services

Introduction

Reducing violence-related morbidity and mortality is a major goal of public health. This report evaluates three approaches to the prevention of violence by means of community interventions—specifically firearms laws, early childhood home visitation, and therapeutic foster care. The interventions reviewed might be useful in reaching several of the objectives outlined in Chapter 15, "Injury and Violence Prevention," of *Healthy People 2010*, the nation's prevention agenda.[1] (Details of specific interventions are provided in tables in the accompanying articles.[2–4])

In 2001, the most recent year for which complete mortality data are available, intentional and unintentional injury accounted for 2.1% of all deaths in the United States and for 8.7% of years of potential life lost before age 75.[5,6] Among injury deaths with known intent, 33.3% were intentional—20.0% from suicide and 13.3% from homicide. Of these, firearms were the cause of 55.4%.[6] Rates of unintentional injury from all causes peak at ages 15 to 24, and then increase to higher levels only after age 64. Rates of suicide reach a plateau at ages 35 to 44, and then increase to higher levels only after age 74. Rates of homicide reach a maximum at ages 15 to 24; rates of firearms injury are similarly highest at ages 15 to 24 years.[7]

Although crime is not commonly thought of as a public health issue, the threat and consequences of violent crime make it a public health concern. Therefore, we assessed the effects of various interventions in reducing violent crime, as reported in the research literature. In 2000, 2.9% of the U.S. population aged ≥12 years were the victims of violent crimes, including assault, robbery, and rape (but not murder).[8] By far, the majority of this crime—80.8%—was assault. In this survey,[8] victims report almost one third (32.3%) of perpetrators of violent crime to be aged ≥20 years.

Violence against women and violence against children are substantial problems in the United States. During her lifetime, one out of four women in the United States will be the victim of partner violence. Violent victimization of women, including threats of rape and sexual assault, is highest among women aged 16 to 19 years. In 1995, 4.6% of children (aged <18) were reported to be victims of maltreatment.[9] Such violence generates adverse physical and mental health consequences among those abused.[10,11]

The recommendations in this report represent the work of the Task Force on Community Preventive Services (the Task Force). An independent, nonfederal group, the Task Force is developing the *Guide to Community Preventive Services* (the *Community Guide*) with the support of the U.S. Department of Health and Human Services (DHHS) in collaboration with public and private partners. Although the Centers for Disease Control and Prevention (CDC) provides staff support to the Task Force for development of the *Community Guide*, the recommendations presented in this report were developed by the Task Force, and are not necessarily the recommendations of CDC, DHHS, or collaborating agencies or partners. The specific methods for and results of the reviews of evidence on which these recommendations are based are provided in the accompanying articles.[2–4]

Intervention Recommendations

The Task Force evaluated the evidence of effectiveness of three types of intervention: firearms laws, early childhood home visitation, and therapeutic foster care. The methods for conducting evidence reviews and translating the evidence of effectiveness into recommendations for the *Community Guide* have been published,[12] and methods specific to each review are reported in the accompanying articles in this supplement.[2–4]

Firearms Laws

A complex array of federal, state, and local laws and regulations regulate the manufacture, distribution, sale, acquisition, storage, transportation, carrying, and use of firearms in the United States. The Task Force reviewed studies that examined the effects of selected

From the Centers for Disease Control and Prevention, Atlanta, Georgia

Address correspondence to: Robert Hahn, PhD, CDC, Community Guide, 1600 Clifton Road, MS E-90, Room 4403, Atlanta GA 30333. E-mail: RHahn@cdc.gov.

0749-3797/05/$–see front matter
doi:10.1016/j.amepre.2004.10.001

federal and state firearms laws on violence-related public health outcomes, noting also reported effects on other outcomes, such as property crime, apprehension of criminals, and school expulsion.

We reviewed scientific evidence for the effectiveness of firearms laws selected on the basis of heterogeneity and, to the extent possible, a focus on juveniles: bans on specified firearms or ammunition, restrictions on firearm acquisition, waiting periods for firearm acquisition, firearm registration and licensing of firearm users, "shall issue" concealed weapon carry laws, child access prevention laws, and zero tolerance laws for firearms in schools. We also assessed whether more firearms laws in a jurisdiction result in lower rates of violence and unintentional injuries than are found in jurisdictions with fewer laws. We found insufficient evidence in each topic reviewed to determine effectiveness; additional research is needed in all areas. Although the *Community Guide* review of violence prevention focuses on juvenile violence prevention, few studies report age-specific effects of firearms laws. Juvenile-specific findings are indicated where information is available.

Bans on specified firearms or ammunition: insufficient evidence to determine effectiveness. Bans prohibit the acquisition and possession of certain categories of firearms (e.g., handguns or assault weapons) or ammunition (e.g., large-capacity magazines). Bans are intended to decrease the availability of specified firearms or ammunition to potential offenders, thus reducing the capacity of these people to commit crimes. Evidence was insufficient to determine the effectiveness of bans on specified firearms and ammunition for the prevention of violence, because of a small number of studies and inconsistent findings.

Acquisition restrictions: insufficient evidence to determine effectiveness. Acquisition restrictions exclude people with specified characteristics—thought to indicate high risk of illegal or other harmful use of firearms—from purchasing firearms. Restriction characteristics include criminal histories (e.g., felony conviction or indictment, domestic violence restraining order, fugitive of justice, conviction on drug charges); personal histories (e.g., persons adjudicated to be "mentally defective," illegal immigrants, those with dishonorable military discharge); or other characteristics (e.g., juveniles). The evidence, consisting of a small number of qualifying studies with limitations in their design and execution, was insufficient to determine the effectiveness of acquisition restrictions on violent outcomes.

Waiting periods for firearm acquisition: insufficient evidence to determine effectiveness. Waiting periods for firearm acquisition require a specified delay between application for and acquisition of a firearm. Waiting periods have been established by the federal government and by states to allow time to check the applicant's background or to provide a "cooling-off" period for people at risk of committing suicide or an impulsive act against others. The evidence, consisting of a small number of studies with limitations in their design and execution, was insufficient to determine the effectiveness of waiting periods in preventing diverse violent outcomes.

Firearm registration and licensing of firearm owners: insufficient evidence to determine effectiveness. Registration requires that records of the owners of specified firearms be created and retained by appropriate authorities. Licensing requires a person to obtain formal authorization or certification to purchase or possess a firearm.[13] Although the federal government has no requirements for registration or licensing, several states have laws that require the licensing of gun owners, registration of guns, or both. Registration and licensing might reduce firearms violence by increasing the likelihood of legal and legitimate firearms use, allowing the tracking of firearms abuse, and deterring unlawful users from firearms acquisition. The evidence, consisting of a small number of studies with limitations in their design and execution, was insufficient to determine the effectiveness of licensing and registration in reducing violence.

"Shall issue" concealed-weapons carry laws: insufficient evidence to determine effectiveness. "Shall issue" concealed-weapon carry laws ("shall issue laws") require the issuing of a concealed-weapon carry permit to all applicants not disqualified by specified criteria. Shall issue laws are usually implemented in place of "may issue" laws, in which the issuing of a concealed weapon carry permit is discretionary (based on criteria such as the perceived need or moral character of the applicant). Evidence was insufficient to determine the effectiveness of shall issue laws in the prevention of violence. Several available studies are based on a single source of county-level crime data, which has been found to be unreliable for evaluation research. Problems with study execution and inconsistent findings by outcome and state also limit the interpretation of available studies.

Child access prevention (CAP) laws: insufficient evidence to determine effectiveness. CAP laws are designed to limit children's access to and use of firearms in homes. The laws require firearms owners to store their firearms locked, unloaded, or both, and make the firearm owner liable when a child uses a household firearm to threaten or harm him- or her-self or another. The number of available studies of CAP laws, and limitations in their design suitability and execution, provided insufficient evidence to determine the effectiveness of the laws in reducing violence or unintentional firearm injury.

Zero tolerance of firearms in schools: insufficient evidence to determine effectiveness. Laws such as the Gun-Free Schools Act of 1994 require that participating schools expel for ≥1 year students identified as carry-

ing a firearm in school. Laws that stipulate zero tolerance of firearms in schools might reduce school violence by removing potentially violent students, and by deterring the carrying of guns in schools. We found no study assessing the effects of zero tolerance laws on violence in schools.

Combinations of firearms laws: insufficient evidence to determine effectiveness. This review addresses whether a greater degree of firearms regulation in a jurisdiction results in a reduction of violence in the same jurisdiction. The evidence, based on national law assessments, international comparisons, and index studies (those that develop indices of regulation), is currently insufficient to determine the effectiveness of the degree of firearms regulation in preventing violence. The number of available studies was small, and they showed limitations in their execution and inconsistent findings.

Early Childhood Home Visitation

In this report, "home visitation" refers to a program that includes visitation of parent(s) and child(ren) in their home by trained personnel (i.e., professionals, paraprofessionals, or community peers) who provide some combination of the following: information, support, or training about child health, development, and care. Home visitation has been used to improve the home environment, support family development, and prevent child maltreatment and child behavior problems.[14,15] The accompanying review[4] assesses studies examining any of four violent outcomes:

1. Violence by the visited child
2. Violence by the visited parent (other than child maltreatment)
3. Intimate partner violence against the visited parent
4. Violence against the child (i.e., maltreatment, which includes all forms of child abuse and neglect)

Early childhood home visitation to prevent violence by the visited child: insufficient evidence to determine effectiveness. Home visitation programs aim to reduce violent acts by visited children by improving the quality of the relationship between child and parents through (1) guidance and examples of child care that visitors provide to parents, and (2) strengthening of social support for parents. Available evidence was insufficient to determine the effectiveness of home visitation programs for the prevention of child violence, because the small number of studies provided inconsistent findings.

Early childhood home visitation to prevent violence by visited parents: insufficient evidence to determine effectiveness. Home visitation programs try to reduce violence by visited parents by (1) facilitating the development of parental life skills, (2) strengthening family social support, and (3) facilitating links to community services. Evidence was insufficient to determine the effectiveness of home visitation programs for the prevention of violence by visited parents. Although a single study of greatest design suitability and good execution indicated some reductions in violence, these results were statistically significant only in a study subsample (i.e., that of single, low-socioeconomic-status mothers).

Early childhood home visitation to prevent intimate partner violence: insufficient evidence to determine effectiveness. Home visitation programs might reduce violence between visited parents by (1) facilitating the development of parental life skills, (2) strengthening family social support, and (3) facilitating links to community services. Evidence was insufficient to determine the effectiveness of home visitation programs for the prevention of violence between visited partners. A single study of greatest design suitability and good execution indicated no statistically significant effect.

Early childhood home visitation to prevent violence against the child (maltreatment): recommended (strong evidence of effectiveness). Home visitation programs try to decrease the likelihood of child maltreatment by (1) providing parents with guidance for and examples of caring and constructive interaction with their young children, (2) facilitating the development of parental life skills, (3) strengthening social support for parents, and (4) linking families with social services. Early childhood home visitation programs are recommended to prevent child maltreatment on the basis of strong evidence that these programs are effective in reducing violence against visited children. Programs delivered by professional visitors (i.e., nurses or mental health workers) seem more effective than programs delivered by paraprofessionals, although programs delivered by paraprofessionals for ≥2 years also appear to be effective in reducing child maltreatment. Home visitation programs in our review were offered to teenage parents; single mothers; families of low socioeconomic status (SES); families with very low birthweight infants; parents previously investigated for child maltreatment; and parents with alcohol, drug, or mental health problems.

Therapeutic Foster Care

In therapeutic foster care programs, youth who cannot live at home because of behavioral or emotional problems are placed in homes in which foster parents have been given special training to provide a structured environment for learning social and emotional skills. Youth eligible for therapeutic foster care programs are not regarded by justice personnel as of sufficient threat to themselves or the community to require secure institutionalization. Program components usually include close monitoring of the participant's activities and active support by program personnel to foster parents and others in the participant's environment. Notable differences from residential group home care, the standard treatment for this population, include,

among other things, the training and support given to foster parents; only one or, at most, two juveniles placed in the foster home; low case loads for program supervisors; and the separation of participating juveniles from delinquent peers.

In reviewing qualifying studies, we identified two related but distinct interventions, referred to by the review team as "cluster therapeutic foster care" and "program-intensive therapeutic foster care," which differed both in certain program components and in populations treated. Studies reviewed measured one or more of the following violent outcomes or proxies for violent outcomes:

Violent crime and violence (assault, homicide, robbery, rape)
Conduct disorder (violating others' rights or major social norms or rules)
Externalizing behavior (rule-breaking behaviors and conduct problems)
Rates of delinquency
Rates of arrest
Rates of conviction
Rates of incarceration

Cluster therapeutic foster care for children with severe emotional disturbance: insufficient evidence to determine effectiveness. In the cluster therapeutic foster care interventions, groups of five families cooperated in caring for five young children (ages 5 to 13 years) with severe emotional disturbance. On the basis of too few studies and inconsistent findings, we found insufficient evidence to determine the effectiveness of cluster therapeutic foster care in improving violent outcomes among participants.

Program-intensive therapeutic foster care for chronically delinquent juveniles: recommended (sufficient evidence of effectiveness). In program-intensive therapeutic foster care, juveniles (aged 12 to 18 years) determined to be chronically delinquent were placed in foster homes and systematically isolated from their delinquent peers. Program personnel worked closely with the foster parents and others in the participant's environment (e.g., teachers) to train and support them in providing an environment structured for social and emotional learning. The Task Force found sufficient evidence to recommend use of this intervention: violent outcomes among juveniles in therapeutic foster care were reduced by a median of 72% compared with juveniles in group homes. This intervention was only evaluated in one setting, and applicability cannot necessarily be extended to other settings.

Additional Reviews

Task Force reviews are underway to assess (1) the effectiveness of school-based programs for the development of prosocial skills (e.g., conflict resolution, tolerance) in preventing violence, and (2) the effects on subsequent violence of treating juveniles as adults in the judicial system. Reviews are also planned to assess the effectiveness of intensive, multicomponent programs for children, families, and schools at high risk for committing or being victims of violence; community policing; community organizing projects to address violence; antidiscrimination and antihate crime interventions; and counseling after traumatic events, including therapy for children who witness or are victims of violence.

Interpreting and Using the Recommendations: The Need for Further Research

This report summarizes the findings of systematic reviews of the effects of firearms laws, early childhood home visitation, and therapeutic foster care on violent outcomes. Given that violence, particularly violence by and against juveniles, is widespread and causes considerable morbidity and mortality in the United States, the findings and recommendations in this report should be relevant to most communities. This report and other related publications provide guidance from the Task Force to a variety of audiences, including healthcare systems, state and local health departments, state and federal legislators, and others responsible for improving the health and well-being of juveniles or adults through the reduction of violence.

Home visitation has been shown to produce substantial beneficial effects in preventing child abuse and neglect. On the basis of three risk factors for child abuse and neglect (single mother, young mother, and low educational achievement), we can estimate the U.S. population that might benefit from home visitation programs to be large, at $\geq$1.7 million children annually. The question remains whether home visitation might be beneficial and economically justified for populations at higher socioeconomic and educational levels, where risk is not indicated. Evidence of the effects of early childhood home visitation on violent behaviors by visited children and their parents, including partner violence, is as of yet insufficient to determine whether the intervention works. The potential benefits of early childhood home visitation on suicidal behaviors by visited children have not yet been investigated and merit attention.

Given the high levels at which youth are perpetrators of violence—in the United States, 10- to 17-year-olds commit approximately 25% of serious violent offenses—the reductions in violent outcomes among chronically delinquent juveniles who complete therapeutic foster care programs offer substantial promise in the area of violence prevention. More research is needed to determine the effectiveness of therapeutic foster care for youth with severe emotional disturbance. Further

research may also clarify which components of program-intensive therapeutic foster care programs are most effective.

We found insufficient evidence to determine the effectiveness of any of the firearms laws or law types we examined. Further research is needed in the area of firearms laws because commonly used crime data sources are currently inadequate; many existing studies are of limited design suitability, execution, or both; and many studies examine time periods—the 1960s, 1970s, and 1980s—that may not represent the current firearms environment. A major challenge in this research is the divergence of values, theories, and interests associated with firearms in the United States.[16] Nevertheless, further research is critical to understand what laws might contribute to the reduction of the high rates of firearms-related injury and death in the United States, and how they might be effective. Research must continue not only on the few laws reviewed here, but on other firearms laws as well.

The recommendations and findings in this report should prove a useful and powerful tool for public health policymakers, program planners and implementers, and researchers. The findings that early childhood home visitation can prevent child maltreatment and that therapeutic foster care can reduce violence among chronically delinquent juveniles may help to secure resources and commitment for implementing these interventions, and will provide direction and scientific questions for further empirical research. Findings of insufficient evidence to determine the effectiveness of early childhood home visitation, firearms regulation for several categories of violent outcomes, and of therapeutic foster care for severely emotionally disturbed children indicate areas in need of further research. The lack of a recommendation in these categories does not indicate that the intervention was ineffective, but rather that an insufficient number of high-quality studies exists on which to base a conclusion.

In selecting and designing interventions to meet local objectives, decision makers should consider not only these recommendations and other evidence provided in the *Community Guide*, but also state and local laws and regulations; administrative structures; resource availability; and the economic, cultural, and social environments of organizations and practitioners.

References

1. U.S. Department of Health and Human Services. Healthy people 2010. Washington DC: U.S. Department of Health and Human Services, 2001.
2. Hahn RA, Bilukha O, Crosby A, et al. Firearms laws and the reduction of violence: a systematic review. Am J Prev Med 2005;28(suppl 1):40–70.
3. Hahn RA, Lowy J, Bilukha O, et al. The effectiveness of therapeutic foster care for the prevention of violence: a systematic review. Am J Prev Med 2005;28(suppl 1):71–89.
4. Bilukha O, Hahn RA, Crosby A, et al. The effectiveness of early childhood home visitation in preventing violence: a systematic review. Am J Prev Med 2005;28(suppl 1):11–39.
5. Health, United States, 2003. National Center for Health Statistics. Available at http://www.cdc.gov/nchs/data/hus/tables/2003/03husupdated.pdf. Accessed November 19, 2004.
6. Arias E, Anderson RN, Kung HC, Murphy SL, Kochanek KD. Deaths: final data for 2001. Natl Vital Stat Rep 2003;52:30–33.
7. Minino AM, Arias E, Kochanek KD, Murphy SL, Smith BL. Deaths: final data for 2000. Natl Vital Stat Rep 2002;50:34–45.
8. Pastore AL, Maguire K. Sourcebook of criminal justice statistics 2001. Washington DC: U.S. Department of Justice, Bureau of Justice Statistics, 2002.
9. Office of Juvenile Justice and Delinquency Prevention. Juvenile offenders and victims: 1999 national report. Washington DC: U.S. Department of Justice, 1999.
10. Kelley BT, Thornberry TP, Smith CA. In the wake of child maltreatment. Washington DC: Office of Juvenile Justice and Delinquency Prevention, U.S.Department of Justice, 1997.
11. Council on Scientific Affairs, American Medical Association. Violence against women. Relevance for medical practitioners. JAMA 1992;267:3184–9.
12. Briss PA, Zaza S, Pappaioanou M, et al. Developing an evidence-based Guide to Community Preventive Services—methods. Am J Prev Med 2000;18(suppl 1):35–43.
13. DeFrancesco S, Vernick JS, Weitzel MM, LeBrun EE. Gun policy glossary: policy, legal and health terms. Baltimore MD: Johns Hopkins Center for Gun Policy and Research, 2000.
14. Barnett WS. Long-term effects of early childhood programs on cognitive and school outcomes. Future Child 1995;5:25–50.
15. Yoshikawa H. Long-term effects of early childhood programs on social outcomes and delinquency. Future Child 1995;5:51–75.
16. Cook PJ, Moore MH, Braga AA. Gun control. In: Wilson JQ, Petersilia J, eds. Crime: public policies for crime control. Oakland CA: Institute for Contemporary Studies, 2002.