Violence and Unintentional Injury Prevention

Abstracts of Active Projects

FY 1993

National Center for Education in Maternal and Child Health
in conjunction with
MCHB
Maternal and Child Health Bureau

Violence and Unintentional Injury Prevention

Abstracts of Active Projects FY 1993

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PREFACE

This publication provides information regarding the violence and unintentional injury prevention projects supported by the Federal Maternal and Child Health Bureau (MCHB), Health Resources and Services Administration. Title V of the Social Security Act, passed in 1935, has provided ongoing funding for child health services as part of health programs for mothers and children. Such support continues today through the Maternal and Child Health Services Block Grant, with 85 percent of the appropriation allocated to State health agencies to assist them in promoting, improving, and delivering maternal and child health care and services for children with special health needs. Fifteen percent is set aside for the Maternal and Child Health Bureau to award on a competitive basis to special projects of regional and national significance (SPRANS).

Since injury disproportionately strikes the young and because it is a major cause of death and disability for children and adolescents, MCHB initiated a special programmatic effort through SPRANS grants and cooperative agreements to prevent injury to children and adolescents. Projects range in scope from the prevention of traumatic brain injury to adolescent violence prevention, from research on drowning prevention to technical assistance in developing State-based maternal and child health injury prevention programs.

The purpose of this monograph is to identify and describe projects that address the violence and unintentional injury prevention efforts supported by the Maternal and Child Health Bureau. MCHB currently funds 22 such projects. In addition to the projects currently funded, 3 were completed in FY 1992 and 10 in FY 1991. Abstracts of these completed projects are included in the appendix.

The project abstracts are organized into categories of demonstration projects, research projects, training projects, Children's Safety Network technical assistance projects, and other injury prevention projects. These project descriptions should facilitate communication among persons interested in injury prevention and help to disseminate exciting and innovative ideas.

Demonstration Projects

PACT Violence Prevention Project
Contra Costa County Health Services Department
Prevention Program
75 Santa Barbara Road
Pleasant Hill, CA 94523
(510) 646-6511

MCHIP
MCJ-063A09
10/01/90–09/30/95
Project Director(s):
Larry Cohen, M.S.W.
Nancy Baer, M.S.W.

PROBLEM: Intentional injuries among adolescents are a serious concern nationally and in Contra Costa County, California. Recent local statistics reveal that intentional injuries are the second leading cause of death among adolescents 15–19 years of age, and that firearms and cutting/piercing cause 39 percent of all deaths among this population. The same local study revealed that black males have the highest risk of fatal injury. Yet deaths from intentional injury represent only the top of the pyramid. It is estimated that for every death due to injury in children 0–19 years of age, there are 45 hospitalizations and 1,300 emergency room visits (Guyer et al., 1990). Sexual assault is concealed, yet the overall rate of rape in the United States increased 21 percent from 1977 to 1984. One in five girls 12–19 years of age report someone trying to force them to have sex.

GOALS AND OBJECTIVES: Reducing intentional injuries among adolescents in the high-risk region of west Contra Costa County is the health status goal of the PACT Violence Prevention Project. The specific long-term objectives are reduction of assault/homicide and dating violence/acquaintance rape among adolescents. The project will work to:

1. Decrease these problems among youth in seven target neighborhoods in Richmond, San Pablo, and North Richmond, California;
2. Increase community participation in violence prevention efforts;
3. Establish and institutionalize violence prevention programs and policies within all appropriate sectors of the community;
4. Develop a model for collaboration on intentional injury prevention between the Contra Costa County Health Services Department and the State of California Department of Health Services; and
5. Evaluate project efforts related to the above goals.

METHODOLOGY: This project uses a coordinated systems approach to the prevention and control of intentional injury among high school age adolescents. Project activities are a collaborative effort among the Contra Costa County Health Services Department (CCHSD) Prevention Program, west Contra Costa County organizations and leaders, and the California Department of Health Services. Local implementation of project activities is guided by a coalition comprised of local human service providers, members of a community problem-solving project sponsored by the United Way, in conjunction with project staff. CCHSD Prevention Program staff are responsible for overall coordination of the project, while direct services are provided through contract with human service organizations in the Richmond area. The California Department of Health Services staff serve as project advisors, with strong involvement in evaluation and dissemination of project information to other California communities.

Complementing funding from the Maternal and Child Health Bureau, funding from the Office of Minority Health has enabled us to create a companion project to address violence issues within the middle school age population. The two projects are designed to be implemented side by side, increasing the potential for creating a strong local violence prevention effort. The cornerstone of the project is Violence Prevention Leadership Training, which involves young people of African American, Laotian, and Latino heritage. Trainees assist in implementing a violence prevention module within their "home agency" and participate in

broader levels of community involvement, including violence prevention councils, community forums and conferences, and newsletters. Trainees also participate in the development of innovative performing arts works on violence prevention, and other outreach activities.

Youth activities are supported by adult outreach to relevant institutions and organizations, including city and school district leaders. Activities include the development of three model neighborhood partnerships involving businesses, citizens, policymakers, and neighborhood groups. These activities enhance youth efforts and contribute to the overall goal of developing communitywide participation in violence prevention. In addition, the business partnerships are designed to develop funding sources to provide additional financial support.

EVALUATION: Evaluation is a substantial component of the PACT project. The design focuses on evaluating two critical components of the project—the community-based coalition and the youth. Each component uses several methodologies.

The success of the coalition approach is measured by: (1) A network survey that assesses participation of community-based organizations; (2) a key event analysis that assesses community-wide outcomes; and (3) two special studies exploring the relationship between county government and community organizations in the context of initiating the project, and the impact of initiating a substantial new project on the organizational development of small community-based agencies.

The youth participating in Violence Prevention Leadership Training complete questionnaires before and after the training to assess changes in their knowledge, attitudes, and beliefs about violence. To analyze the trainees' ability to transmit knowledge gained through training to peers and others in the community, the trainees will identify three persons with whom they have discussed violence, and project staff will conduct a telephone survey with them.

Violence is an issue of great concern, with complex causes. There is a lack of knowledge concerning the prevention of violence. Consequently, the process of implementing the project is receiving significant attention. Strategies, approaches, successes, and barriers associated with project implementation are recorded in minutes of team meetings and in individual staff logs. These will be used both as a management tool and as a means of summarizing lessons learned in the emerging field of violence prevention. Records kept by direct service providers and by the county health department document the involvement of young people, parents, agencies, and other community leaders in project activities, and record the overall success of the activities in helping the project meet its goals.

The project has collected and analyzed hospital discharge data to create *Status Report on Childhood Injury,* a profile of intentional injury among youth in Contra Costa County (April 1992).

EXPERIENCE TO DATE: The initial project year entailed extensive planning and shifts in thinking and project direction. The youth skills development model was modified to emphasize local application of skills for preventing violent incidents, increase content on the racial and economic roots of violence, and amplify the cross-cultural context for violence prevention training. Project activities are taking place in neighborhood and community organizations rather than within schools as originally planned. Seven high-risk target neighborhoods have been selected as sites of project activities. The planning phase involved a summer pilot project in which 22 youth participated in Violence Prevention Leadership Training and educational and cultural field trips.

The second project year began with the development of a Request for Application and the subsequent negotiating process which led to contracts with nine community-based agencies to provide direct violence prevention services. Because of the collaborative nature of the project, the complexity of facilitating working agreements between county government and community-based agencies, and the cumbersome nature of the contracting process, implementation of activities was later than anticipated. In January 1992, contracts became effective with nine agencies that reflect the cultural diversity for the Richmond area and thus serve black, Latino, and Asian populations.

Each agency conducts an in-house program with a violence prevention component that complements their existing programming. These activities include youth and parent councils; educational and cultural field

trips; community forums, conferences, and festivals; violence prevention discussion groups; classes and projects expressing violence prevention themes through performing arts; and journalism.

Eighteen young persons selected from member agencies participated with others from the middle school project in Violence Prevention Leadership Training and followup activities. These youth live in the target neighborhoods and are selected by their "home" contract agency to participate in training with youth from other agencies. The training and followup activities assist these high-risk youth to focus on the issue of violence in their own lives, develop skills to reach out to other youth and adults, and develop their own strategies for violence prevention.

Activities involving adults include community forums and festivals in target neighborhoods and among specific cultural groups, a Laotian parents council, a community organization effort to involve businesses and other groups in the target neighborhoods, and a violence prevention play developed and presented by PACT youth.

Outreach efforts to the broader community have included: (1) Involving local elected officials and other key community leaders in a press conference announcing the initiation of contracts with community-based agencies, (2) participating in related efforts hosted by other projects (e.g., the local libraries' Youth-At-Risk Project and the Asian Crime Task Force), and (3) collaborating with the school district and city employees on complementary projects.

During this project year, the initial planning and contracting process has flourished in terms of active agency programs and extensive youth participation. Planning is well underway to build on this foundation during the third project year. A second level of youth training will help young persons who have completed the initial course to increase their skills, participate in more sophisticated forms of outreach, and carry greater responsibility for violence prevention efforts within the community. Added responsibility will also bring greater recognition in the form of a banquet and award ceremony with broad participation by community leaders.

A dynamic agenda of relevant meeting topics will be provided for participating agencies and other interested community organizations. Case studies, panel discussions, and other formats will assist in generating broader discussion of key violence prevention issues with the goal of stimulating further involvement and mobilizing existing resources.

Partnerships in Injury Prevention
Maryland Department of Health and Mental Hygiene
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Baltimore, MD 21201
(410) 225-5780

MCHIP
MCJ-243A07
10/01/90–09/30/94
Project Director(s):
Ellen R. Schmidt

PROBLEM: Injuries are the leading cause of death for children, claiming 44 percent of all deaths among children 1–4 years of age, 51 percent of deaths among children ages 5–9 years, and 58 percent of deaths among children 10–14 years of age. Deaths from injury, however, represent only part of the problem. For every injury death among children under 20 years of age, there are 45 hospitalizations, 1,300 emergency department contacts, and even greater numbers of physician contacts and untreated injuries. Leading causes of injuries and disability among children include motor vehicle injuries, drownings, house fires, suffocation, homicide, suicide, poisonings, and falls.

Most current knowledge about injuries is based on national data. The Maryland Injury Prevention and Control Program (MIPCP) plans to use a combination of epidemiologic surveillance systems, needs assessments, proven interventions, and education to reduce the mortality and morbidity due to injuries among Maryland residents. Presently, MIPCP relies on existing statewide data sources and is not focused on childhood injuries.

In addition to addressing injuries at the State level, MIPCP has begun to develop State and local partnerships in injury prevention and control. MIPCP recognizes that the injury problem may best be defined and addressed at the local level. Currently, little is known about the leading causes of injuries in Maryland's 24 counties. In addition to the lack of adequate data, the State and counties are finding it difficult to implement new programs due to growing fiscal constraints. Despite these constraints, intensive surveillance efforts have been initiated at the State level, and MIPCP has begun to provide consultation and technical expertise to counties that have expressed interest in injury control.

GOALS AND OBJECTIVES: The goal of the Partnerships in Injury Prevention (PIP) project is to reduce morbidity and mortality due to selected childhood injuries in four Maryland counties. The PIP project will:

1. Assist selected local health departments to develop and sustain childhood injury prevention programs including surveillance, community involvement, intervention, and evaluation;
2. Use an organizational behavioral management (OBM) approach and a seven-step community-based model to help counties develop these programs; and
3. Evaluate the effectiveness of providing varying levels of human and financial resources to selected counties in sustaining community-based childhood injury prevention programs.

METHODOLOGY: To reduce the morbidity and mortality caused by intentional and unintentional injuries among children, it is necessary to develop a broad-based surveillance system, identify those groups who are at high risk for injury and target effective intervention strategies toward these groups, and enlist the community's support and commitment to action and resource development. Using an OBM approach, PIP will develop State, local, and community partnerships to create and sustain childhood injury prevention activities within selected counties. The OBM approach promotes teamwork and links various prevention strategies for program implementation and surveillance at individual, organizational, and community levels.

Allegany, Garrett, Queen Anne's, and Talbot Counties were selected, based on the interest of the local county health officer and on data indicating the importance of injuries within each county. These four rural counties are located at opposite ends of the State. Training of local groups will help to identify and develop

community resources to mobilize this injury prevention effort. The State will provide baseline data using existing surveillance data sources. The county health department will maintain local surveillance systems, and the community will implement and evaluate interventions for targeted injuries.

Initial education and training needs will be supported by MIPCP through existing funding from the Centers for Disease Control. This includes the Johns Hopkins University Summer Institute on Injury Prevention, an annual conference entitled "Injury in Maryland," and the newly developed curriculum entitled "Educating Professionals in Injury Control (EPIC)." In addition, consultation will be provided by MIPCP staff, the Johns Hopkins University, the University of Maryland, and the existing local health department injury prevention projects in Montgomery and Baltimore Counties and Baltimore City.

EVALUATION: Both process and outcome evaluations are ongoing and integral parts of the community model used in the OBM approach. Based on actual experiences, the project expanded that community model from seven steps to eight. A recent effort has integrated the OBM and Communities for Child Safety (CCS) approaches into a joint evaluation model. Quarterly reports by participating counties, describing the results of the community-based needs assessment and the progress in establishing childhood injury prevention programs, will enable the PIP project to track program activities over the course of the grant. The report *Injuries in Maryland* will be used as baseline data for evaluating the program. The PIP project will evaluate the effectiveness of various training modules. A quasi-experimental design will be developed to evaluate the effectiveness of providing human and financial resources to selected communities in sustaining a childhood injury prevention program.

EXPERIENCE TO DATE: Major activities during the second year of the project include:

1. Successful presentation of CCS training for 21 participants at 2 sites in Maryland;
2. Subsequent and successful ongoing community-based injury prevention activities in Allegany, Garrett, Queen Anne's, and Montgomery Counties;
3. Identification of a community liaison in Talbot County for community-based injury prevention activities;
4. Technical support for advocacy for the successful passage of Maryland's first rural bicycle helmet law in Allegany County;
5. Development of an enhanced joint OBM/CCS evaluation model;
6. Successful targeting by CCS teams of local and State resources, including minigrant funding through the Centers for Disease Control;
7. Organization and funding of training programs for MIPCP and PIP staff as well as State, county, and local health personnel and interested groups, including participation in the first Maryland Injury Prevention Workshop; the Maternal and Child Health Bureau's Violence and Unintentional Injuries Prevention Meeting in Arlington, Virginia; and the Johns Hopkins Summer Institute in Injury Prevention;
8. Continuation of work to implement mandated E-coding to strengthen use of hospital discharge data base information to define and target problems for prevention activities; and
9. Further consideration of means of enhancing Maryland's injury data by using other statewide data sources, including information from the Maryland Department of Transportation and the Office of the Chief Medical Examiner as well as local sources such as hospital emergency department data and school health records.

Massachusetts Adolescent Violence Prevention Project

Massachusetts Department of Public Health
150 Tremont Street
Boston, MA 02111
(617) 727-1246

MCHIP
MCJ-253A11
10/01/90-09/30/95
Project Director(s):
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Cynthia Rodgers, M.P.H.

PROBLEM: More than one-third of all injury-related deaths result from intentional injuries; of these, two out of five are homicides. Homicide is the third leading cause of injury-related death in Massachusetts, as in the Nation. It is also the leading cause of death among black males and females ages 15–34 years in the United States, and among Massachusetts black males and females ages 15–19 years.

Public health practitioners have a responsibility to assist in preventing violence. The Massachusetts Department of Public Health has addressed issues of violence through the Statewide Comprehensive Injury Prevention Program (SCIPP), the Women's Health Division, and the Office of Violence Prevention (OVP). Although violence manifests itself in many forms, the primary focus of this project is to address interpersonal violence among adolescents.

Information on applying and evaluating violence prevention measures is scarce; however, the literature does suggest that this problem is most effectively addressed through a systems approach at the community level. Presently, at the local level, there is no coordinated response to the issue of violence. With proper support, community members can define the problems and develop and implement an appropriate, community-based response. Greater coordination, collaboration, and intensification of efforts are needed to effectively stem the rising tide of adolescent violence.

GOALS AND OBJECTIVES: The Adolescent Violence Prevention Project will strengthen the capacity of communities to prevent adolescent interpersonal violence by providing staff, technical assistance, and training to two communities. The project uses an approach that includes (1) developing community-based coalitions; (2) developing comprehensive, community-based prevention plans; and (3) implementing and evaluating interventions.

METHODOLOGY: The etiology of violence among adolescents is complex, reflecting the risk taking and power testing that are typical of adolescence, as well as factors in the broader community associated with violence. Furthermore, adolescents are increasingly exposed to criminogenic products such as drugs, alcohol, and weapons. A coordinated response to adolescent violence prevention must be culturally sensitive and multidisciplinary, and must involve key leaders in health, human services, education, and government, as well as the adolescent members and social fabric of the community.

Public health practitioners play a unique role that includes applying epidemiologic techniques in order to understand violence, using surveillance and other data collection systems to identify high-risk groups, developing and implementing strategies, and effectively using the existing health care system. Critical to the success of the community response is the building of a coalition that reflects the diversity of the community and works toward developing a consensus on the problem and its solutions.

Two communities have been targeted: Boston and Lawrence. These are cities in which the Office of Violence Prevention has established links and in which the Massachusetts Department of Public Health (MDPH) provides funding and assistance to other programs. Each community's capacity to manage this project will be strengthened by funding a coordinator with expertise in community development and receiving technical assistance from OVP, SCIPP, and other MDPH programs.

Four phases of operation will be conducted:

1. Coalition development: This phase involves enlisting key community leaders; training in community development, collaboration, empowerment, violence prevention, and cultural sensitivity; and developing and implementing a needs assessment.
2. Planning: Based on the needs assessment and known effective models, an implementation plan with specific interventions and their evaluations will be developed. Securing funds for implementation will be the responsibility of the coalition, with assistance from MDPH.
3. Implementation of interventions: Interventions may include educational, technological, and legislative and/or regulatory strategies. MDPH staff will assist coalitions in selecting interventions that have proven effective.
4. Dissemination and replication: All aspects of the project will be described in a manual to be disseminated among State MCH directors, injury prevention programs, and other relevant organizations.

EVALUATION: The evaluation will monitor development of the coalitions, assess the impact of interventions on injury incidence rates, and include both process and outcome measures. Overall impact will be determined by the degree to which the objectives have been achieved and by changes in the health system problems.

Because the two communities selected for this project are involved in the Sentinel Injury Surveillance System (SISS) for Gunshot Wounds and Sharp Instrument Injuries (funded by the Centers for Disease Control), the project will be able to use hospital and police data collected through the SISS as outcome measures.

A guide to developing an effective program for the prevention of adolescent injuries will be produced, documenting the experiences of the two coalitions. This tool will be made available for replication in other communities.

EXPERIENCE TO DATE: The following summarizes both ongoing and completed efforts:

1. Resource directory. The *Violence Prevention Resource Directory,* which lists existing adolescent violence prevention initiatives and experts in Boston and Lawrence, was produced in 1992 and will be updated annually. This objectives of the directory are to: (1) Describe existing violence prevention initiatives and expertise, (2) monitor the growth of expertise and violence prevention initiatives over time, (3) assist in selecting coalition members, and (4) create a pool of people and organizations that can provide training and other assistance to the coalition.

   While drafting the resource directory, a large telephone information and referral system was identified. The *Violence Prevention Questionnaire* was developed, piloted, and distributed to an initial contact list of 200 organizations. The data base for the violence prevention initiatives and experts has been completed and data entry has begun. The data base will be expanded continually. Information on more than 100 individuals and organizations has been updated and entered into the system. An initial distribution was made to survey respondents, and broader distribution at conferences and presentations is planned.
2. Tracking system. Various procedures have been designed to track project and coalition activities and to assist staff in monitoring and assessing progress. The *Violence Prevention Coalition Implementation Guide* will assist in developing other community-based violence prevention coalitions and initiatives by reporting the strategies of this project and indicating generic problems and solutions of this approach to violence prevention. These instruments allow project staff to log project activities in a structured format. The evaluation specialist evaluates the information collected and is developing a reporting format to present a useful summary of the information. Monthly summary reports of project activities are produced.
3. Baseline data collection and comparative analysis. Planning and data collection were initiated to produce baseline reports and community profiles for the coalitions. The reports will provide baseline data to assess the change in community violence over the course of the project. The profiles will incorporate a variety of public health indicators to provide a broad picture of each community, which

will serve as the context for project efforts in prevention of adolescent violence. Progress has been made in identifying and collecting data for both the baseline and community profile reports, and completion of this objective is scheduled for the third year of the project.

4. Identification, recruitment, and maintenance of coalition.

   Lawrence: A coordinator for the Lawrence Violence Prevention Task Force was hired in April 1991. A resident of Lawrence for 10 years, the coordinator is based at the Lawrence Psychological Center and is bilingual in Spanish and English.

   The task force, which had been meeting before the coordinator was hired, voted to expand its ranks and become a coalition committed to the community wheel coalition concept. Recruitment meetings were conducted with key leaders of organizations, grassroots groups, and community gatekeepers. Project staff consistently demonstrated the crucial role of the participants in the success of the project and made numerous presentations on violence prevention in Spanish and English.

   The project continues to identify and recruit other potential coalition members. An average of 30–45 community members attend the meetings, and more than 200 are involved in a number of subcommittees. Because of extensive outreach efforts into the Hispanic community, Latinos comprise more than 50 percent of the members at coalition meetings.

   Boston: The Boston Coalition has an active membership of 25 and a mailing list of more than 125 constituents. This multicultural and multidisciplinary group includes media, social services, universities, government, youth services, senior citizens, families, youth, church, law enforcement, and recreational programs. Special outreach targets legislators, school officials, bus' sses, private foundations, and medical services for membership in the coalition. Identifying and recruiting potential coalition members is an ongoing activity.

5. Training and technical assistance to the coalition for planning and interventions.

   Lawrence: The Lawrence Coalition planned a retreat to gain a better understanding of violence and to bring the coalition together. Staff facilitated a brainstorming session for the coalition to discern their training needs and formed a subcommittee to organize the training. More than 35 people attended the first training session, held in August 1991. A followup formal needs assessment was presented at the beginning of the training. A followup survey has subsequently been designed and translated into Spanish. It will be presented to new coalition members at the orientation/retreat during summer 1992.

   In September 1991, the Federal Office for Substance Abuse Prevention sponsored a community-based conference on building prevention skills. The coalition sponsored 10 coalition members as participants. Five of them now serve as cochairs of the Violence Prevention Coalition Subcommittee.

   In February 1992, the Massachusetts Department of Public Health and the Massachusetts Adolescent Violence Prevention Project sponsored a seminar entitled "Adolescent Violence Prevention—What Works?" The Lawrence Coalition sent 10 representatives to the session.

   The Lawrence Coalition organized Violence Prevention Awareness Week to (1) educate the community about violence prevention, (2) involve the community in the intervention planning process, and (3) begin to build a coalition action plan. The week included community forums, panel presentations, videotapes and movie discussions, and nonviolent activities to educate, stimulate, and mobilize the community. All activities were culturally and linguistically appropriate for the community.

   The violence prevention awareness week subcommittees, involving more than 100 new individuals, met during August, September, and October 1991. Thirty-five members of the coalition participated in two training sessions led by "Facilitation Skills," a volunteer group of youth, parents, and agencies that facilitated "buzz" groups attended by 250 participants during the summit. As a result of community participation in Violence Prevention Awareness Week, a list of recommendations and concerns was compiled.

   Subsequently, the coalition elicited support from elected officials during a legislative breakfast in March 1992. Its purpose was to present the summit recommendations expressed by the community to local and State elected officials and to obtain, on the record, their recommendations and support for the proposed interventions. The dialog with the elected officials during the breakfast resulted in a combined list reflecting the ideas of both the community members and their elected officials.

Boston: A survey was designed to assess the training needs of coalition members. The survey tool was reviewed and revised. Training sessions have been scheduled monthly to accommodate interests and identified needs in building skills.

Because of the delay in hiring the project coordinator, the Boston site has been unable to plan interventions. Project staff, however, have nurtured relationships in the Boston community to ensure that agencies and community residents are ready to participate in planning and implementing interventions after the coordinator is hired.

To date, there have been several meetings and presentations with a variety of health and human service providers in the Boston area. These include a presentation to a citywide networking meeting of organizations providing violence prevention activities; meetings with Boston Public Schools; meetings with representatives of the Massachusetts Bar and the Boston Bar Associations; meetings with potential grantors and funding sources; presentation to the City of Boston's Adolescent Services Collaborative; and meetings with State legislators and related State offices, including the Department of Youth Services, the Department of Social Services, the Department of Criminal Justice-Probation, the Department of Mental Health, and the Department of Education.

6. Advisory Board. The main role of this activity is to provide leadership, advice, and access to key community leaders and institutions to ensure the success of the coalitions' work.

7. Resource Library. The Injury Prevention Resource Library was established to promote continued growth of injury control efforts in Massachusetts. It is one component of a multifaceted approach to make injury prevention an integral part of State and local public health practice. Since the library was established, about 100 violence-related materials have been added to the collection, expanding subject headings to include such topics as coalition building, rape, sexual assault, conflict mediation, and gangs.

Children's Community Bridge Project
New Hampshire Division of Public Health Services
Health and Welfare Building
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Concord, NH 03301-6527
(603) 271-4268

MCHIP
MCJ-333A16
10/01/91–09/30/94
Project Director(s):
Roger Taillefer
Joan H. Ascheim

PROBLEM: The magnitude of the problem of child abuse and neglect in New Hampshire is staggering and on the rise. New Hampshire has seen a 141 percent increase in the number of reports of child abuse and neglect in the 10-year period from 1979 to 1989. This parallels national trends. Reports in our State have increased in number as well as in seriousness. The majority of reports are for children 12 years of age and younger. The percentage of substantiated reports in New Hampshire (24 percent) is far below the national average of 49 percent. We concur with the literature that many of the unsubstantiated reports could be genuine cases of maltreatment and that these children are at risk for injury due to abuse and/or neglect. In addition, New Hampshire's manual reporting system prevents us from completing accurate and timely reports or tracking occurrences such as subsequent reports on the same victims or perpetrators. Factors that contribute to child abuse and neglect are complex and can encompass issues relative to the child, the parent, and society. Comprehensive, coordinated, community-based programs are needed to address some of these factors, such as social isolation, inappropriate disciplinary techniques, and lack of parenting skills.

GOALS AND OBJECTIVES: The Children's Community Bridge Project will create a communitywide service system to meet the complex needs of families at risk. The system aims to prevent subsequent reports on previously unsubstantiated cases of abuse/neglect among children 12 years of age and younger, to improve and measure changes in family support systems and parent-child interaction, and to decrease parental stress levels.

METHODOLOGY: To decrease the risk of child abuse/neglect among the target population, a broad range of core services will be provided to 40 families in the project community, including weekly home visits to provide support and education, child care, after-school care, recreational opportunities for children, and respite care. Referrals to other services will be made and discretionary funds will be available to meet any needs not specifically funded by the grant. Home visits, referrals, and case management will be carried out by a visiting nurse agency in the project community. Four instruments will be used to measure desired changes in the target group contrasted with a comparison group of 40 families in the same community. The comparison group will simply be referred to available services. An automated central registry for child abuse reports will be created as part of this project and will be piloted in the project community.

EVALUATION: A project assessment tool, comprised of a series of scales, will be used to measure desired outcomes. These scales include: The Family Needs Scale, the Family Support Scale, the Pearlin Parental Stress Scale, the Parental Coping Scale, the Physical Child Scale, the Discipline and Emotional Care of Children Scale, the Parent-Child Support Scale, and the Child-Parent Support Scale. Measurements will be administered on four occasions, at 6-month intervals, to allow for analysis of both short- and long-term changes. Quarterly reports will be produced by the new automated central registry of the Division for Children and Youth Services to monitor subsequent reports of alleged abuse/neglect for the project clients. Project activities will be monitored through monthly reports from the community visiting nurse agency to the State project coordinator. Quarterly meetings of all service providers will take place to assess the project's progress. Families will complete semiannual evaluations of project services. Home visitors will complete semiannual evaluations to assess their training and supervision needs.

Positive Emotional Capacity Enhancement Training
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MCHIP
MCH-393A15
10/01/91–09/30/94
Project Director(s):
Cheryl A. Boyce

PROBLEM: This project addresses the disproportionate risk of morbidity and early mortality among black youth, resulting from violence. Homicide is the leading cause of death for all blacks between the ages of 15 and 34 years . Within this general group, the subpopulation at greatest risk is composed of adolescent and young adult males. This approach is designed specifically to reduce the risk of expressive violence or primary homicide that occurs as a result of loss of control between family, friends, and acquaintances. Such incidents represent a greater threat to adolescents than violence related to the commission of another crime. Studies of violence among adolescents have found that assaults and murders of youth in this age group tend to be committed by known same-age peers and to be precipitated by arguments.

GOALS AND OBJECTIVES: The Ohio Commission on Minority Health will coordinate a culturally specific violence prevention program designed to reduce the actual and potential levels of injury or early mortality for black adolescents at risk for becoming victims or perpetrators of violence. One project goal and related objectives involve the continued development, evaluation, and refinement of two pilot projects in urban communities, one at the primary level and one at the secondary level. These culturally specific violence prevention projects have demonstrated success in pilot initiatives in education and skills development to modify the attitudes and behavior of potential disputants so that conflicts that potentially threaten health or life can be resolved nonviolently.

The three major goals of the project are to:

1. Refine the curriculums and evaluate the effectiveness of primary and secondary level culturally specific prevention programs designed to reduce actual or potential violence experienced by black youth;
2. Enhance the capability of youth service providers, including educators and providers of health, criminal justice, and mental health services, to provide culturally competent violence prevention activities within their service settings; and
3. Promote the development of systems change that will allow violence prevention activities to be incorporated into youth-serving systems.

METHODOLOGY: The specific objectives of the project are related to the following activities:

1. Providing intensive violence prevention education and training services directly serving at-risk youth through the two demonstration projects.
2. Developing training materials on the approaches in the demonstration models to be used in training practitioners in health, education, criminal justice, mental health, or other youth services in culturally sensitive approaches to violence prevention for minority youth.
3. Facilitating a statewide conference targeting field practitioners for the purpose of raising awareness of issues related to violence among minority youth and improving audience knowledge and skills to implement violence prevention programming.
4. Conducting additional indepth training and technical assistance workshops for health service providers, teachers, other school personnel, or law enforcement/juvenile justice personnel on specific approaches and techniques of the demonstration projects.

5. Producing and disseminating replication materials including a classroom curriculum guide describing content, group processes, timing/scheduling considerations, cultural adaptations, and considerations related to diverse service settings; applications of the program for education of preprofessionals of various disciplines; and guidelines for institutionalization of the direct service programs/violence prevention curriculums into the regular programs of youth-serving institutions.
6. Coordinating with the State Maternal and Child Health Bureau, Ohio Department of Health, to incorporate information about violence among black youth and approaches to culturally sensitive programming into their planning for the block grant process.

EVALUATION: Data on the pretraining skills of youth participants in avoiding conflict will be collected and compared with their exit level skills. Data will also be examined for comparison with the pretraining and posttraining skills of untrained youth with similar characteristics. In addition, information will be gathered on the youths' behavior related to violence, including records of aggressive behavior at school and involvement in juvenile crime. The outcome evaluation will also examine measures of systems change relative to developing new violence prevention programming in the diverse settings that serve youth within the target population.

Oklahoma Childhood Traumatic Brain Injury Prevention Program
Oklahoma State Department of Health
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MCHIP
MCH-403A17
10/01/91–09/30/94
Project Director(s):
Sue Makintubee, R.N., M.P.H.

PROBLEM: Injuries claimed the lives of 3,892 Oklahoma children 0–19 years of age during the 10-year period from 1980 to 1989. In 1989, injuries accounted for 39 percent (358 out of 918) of the total deaths occurring among children under 20 years of age, and 35 percent (18,739) of the total 53,739 years of potential life lost (YPLL). Childhood injury deaths accounted for more years of potential life lost before 65 years of age than the combined total from congenital anomalies (6,320 years), sudden infant death syndrome (5,200 years), prematurity (3,445 years), and all infectious diseases (2,567 years). Motor vehicle incidents were the leading cause of injury death for all age groups. In 1989, an estimated total of 1,319 children 0–19 years of age were hospitalized or died as a result of a traumatic brain injury (TBI) rate of 136 per 100,000 population; 170 (13 percent) of these TBIs were fatal. In 1989, TBI accounted for 19 percent of the total 918 deaths among children, and 47 percent of the 358 injury deaths among children. A total of 6,247 years of potential life were lost due to TBI in children, accounting for 12 percent of YPLL due to all causes of death among children (52,894 years) and 34 percent of YPLL due to all injuries among children (18,284 years). The most common causes of TBI among children were motor vehicle crashes (32 percent), falls (23 percent), and bicycle-related TBI (9 percent). One out of every 500 adolescents 15–19 years of age suffers a traumatic brain injury in Oklahoma each year.

GOALS AND OBJECTIVES: The Childhood Traumatic Brain Injury Prevention Program will attempt to reduce childhood TBI due to motor vehicle and bicycle crashes among high-risk populations. The specific goals are to:

1. Develop and evaluate a model adolescent education program that increases safety belt use and decreases traffic violations and crashes among adolescents;
2. Develop and evaluate a model bicycle helmet program that increases bicycle helmet use among children 5–14 years of age;
3. Develop and evaluate a model community child car restraint program that increases correct child car restraint use among children 0–4 years of age;
4. Increase general injury prevention counseling by public health nurses working in county health departments in Oklahoma.

There are four project objectives, three of which specifically target health status and a fourth that targets health systems. The objectives are to:

1. Increase safety behavior and decrease risk-taking behavior among adolescents 15–19 years of age living in four metropolitan and rural areas of Oklahoma by implementing an adolescent education program targeting high-risk behavior. The project will (a) increase safety belt use among the target population by at least 25 percent 1 week following the intervention and sustain an increased safety belt use of at least 15 percent by March 1992; (b) decrease the number of traffic violations among targeted youth 15–19 years of age by 10 percent by October 1992; and (c) decrease traffic crashes among targeted youth 15–19 years of age by 10 percent by October 1992.
2. Increase local bicycle helmet use in three targeted rural/nonremote communities to at least 15 percent among children 5–14 years of age by May 1993.

3. Increase child car restraint use in three targeted rural/nonremote communities by at least 50 percent among children 0–4 years of age by October 1993.
4. Increase general injury prevention counseling by public health nurses working in targeted county health departments by at least 25 percent by August 1994.

METHODOLOGY: To improve the health status of Oklahoma children and, specifically, to reduce TBI among children, the program will evaluate four different methods of increasing adolescent bicycle helmet use, child car restraint use, and safety belt use among targeted high-risk populations.

Adolescent Education Program: A program will be implemented in the high schools of two rural, two nonmetropolitan, and two metropolitan communities; three additional communities will serve as comparison (control) communities (i.e., no intervention). The Oklahoma Head and Spinal Cord Injury (SCI) Prevention Program consists of an assembly in which the magnitude, causes, and prevention of TBI and SCI are discussed. A film, *Harm's Way,* and a TBI or SCI survivor reemphasize these issues as well as the effects of the injury on their lives. Observational seat belt surveys will be conducted in all six communities prior to implementation of the program, as well as 1 week and 3 months after implementation . Analysis of adolescent traffic violations and crashes prior to and after the program will also be conducted. Attitude/behavior surveys will be compared prior to and 3 months after the program.

Bicycle Helmet Project: Three intervention strategies were selected for implementation and evaluation in three rural/nonremote communities. A fourth, similar community was selected as a comparison community. Two of the interventions include making available free or low-cost bicycle helmets for elementary school-age children. These two interventions will also include a large educational component. The third intervention strategy will consist of the educational campaign only. Bicycle helmet use among elementary school-age children will be observed and compared in all four communities prior to and 6 and 9 months after the interventions. Attitude/behavior surveys will also be compared before and after the interventions.

Child Restraint Project: Four communities were selected from the portion of the State (the northwest) having the lowest child car restraint use. Three different intervention strategies—child car restraint giveaway, low-cost child car restraint availability, and intensive community education—will be used in three different communities. A fourth community will serve as a comparison group. Observational and attitude/behavior surveys regarding child car restraint use will be conducted in all four communities prior to and 1 and 2 years after the interventions.

Health Systems: The program will assess whether childhood injury prevention counseling by public health nurses (PHNs) increases in counties when a specific injury intervention is implemented. A questionnaire will be administered to PHNs in the target communities prior to and after the interventions.

EVALUATION: Evaluation of the bicycle and child restraint projects will include primarily observational studies of prevalence of bicycle helmet use and child car restraint use prior to and following the community interventions. In addition, analyses will be conducted on adolescent traffic violations and crashes. Comparisons of knowledge, attitude, and behavior will be analyzed prior to and following interventions for all four objectives.

EXPERIENCE TO DATE:

Adolescent Education Program: The Oklahoma Head and Spinal Cord Injury Prevention Program was implemented and evaluated in seven community high schools; three comparison communities which received no intervention were also evaluated. Evaluation of traffic crashes and violations prior to and following the interventions are pending.

Seat belt use was higher among students at metropolitan schools (35 percent) than among nonmetropolitan students (21 percent) and rural students (15 percent). Overall, a 4 percent increase in seat belt use was observed at 1 week and 3 months following the program; among comparison schools, seat belt use dropped 2 percent during the same time. Three months following the project, seat belt use had increased more among rural students (7 percent) than among metropolitan students (4 percent) and nonmetropolitan students

(2 percent). There was a 10 percent increase in knowledge regarding high-risk groups and activities resulting in injury in project schools, yet no substantial change in self-reported risk taking behavior such as seat belt use and drinking and driving was reported; the knowledge level did not change among control schools. Reported seat belt use was found to be 9 percent higher than the use observed among project schools before and after the program; there was no substantial difference in observed and reported use among control schools.

Bicycle Helmet Project: Bicycle helmet projects are currently being implemented in three rural/nonremote communities. Observational surveys have been conducted in these three communities and in the comparison community.

Child Restraint Project: The Child Restraint Project was implemented in three communities in June 1992. Letters to parents of children under 5 years of age were sent from the local health department administration, educating parents regarding the law, the importance of child restraint use, and the availability of car restraints (when applicable). Observational surveys were conducted in all of these communities in May 1992 and are being conducted again in September 1992 and May 1993.

Health Systems: Nurses in all of the counties implementing the bicycle helmet and child restraint projects were surveyed regarding the perceived importance and frequency with which they provide childhood injury prevention counseling to clients. The nurses will be surveyed again in May 1993.

Safe at Home
Focus on Renewal/STO-ROX Family Health Center
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MCHIP
MCJ-423A26
10/01/92-09/30/96
Project Director(s):
Tanya Ashby

PROBLEM: Today's children, trapped in a vicious cycle of violence, represent a population with rapidly increasing health risks. Violence is particularly prevalent in the black community where it is concentrated within various housing projects. The continuous cycle of violence derives its energy from and manifests itself within the family, school, and community. The concept of cyclical violence is supported by the social learning theory, which asserts that violence begets violence. Intentional injury and homicide are the leading causes of death among adolescent and young adult black males. Recent literature indicates that drug abuse and poverty are also crucial factors in violence, and stresses the need for preventive interventions. Each contributing factor to violence detrimentally affects the physical, psychological, social, and economic well-being of the child. Consequently, early intervention to decrease the incidence of violence is vital to improving the health and well-being of black male children.

GOALS AND OBJECTIVES: The overall goal of the Safe at Home project is to address the health status of black male children and youth by increasing the community's awareness of the serious, long-term, and often fatal effects of violence in the lives of black male children and to decrease the incidence of violence in the lives of these children.

To accomplish its goals, the project has identified these objectives:

1. Provide a family support center within two predominantly black housing communities as a place for education, recreation, and preschool activity;
2. Empower parents to assume leadership for peer support groups and to form parent advocacy groups to combat violence in the community;
3. Educate parents about alternatives to violence with a culturally sensitive, nonviolent parenting program in order to reduce the legacy of violence in the black household;
4. Educate children ages 3–12 years on conflict resolution and alternatives to violence, using a classroom setting;
5. Increase community awareness of violence as a public health problem; and
6. Mobilize other groups working in the community to form a coalition to deal with the problem of violence.

METHODOLOGY: Through activities in the two neighborhood-based family support centers, the project will provide the middle link in the Focus on Renewal/STO-ROX Family Health Center's overall efforts to address morbidity and mortality in the black community. Building on our Healthy Start/Healthy Beginnings Plus programs for perinatal care, the Early and Periodic Screening, Diagnosis and Treatment (EPSDT) program for low-income children, and the new outreach for health care for the underserved black male, Safe at Home will help to complete the continuum of primary prevention programming.

The project targets three areas—the home, the community, and the school (all places where young children historically have experienced violence)—as arenas in which to redefine responses to violence. Through parent education, parent advocacy groups, a preschool curriculum, neighborhood activities, and peer conflict resolution programs in the schools, the project will reduce the amount of violence in the children's lives and

reduce their risk of reverting to violence during the adolescent years. In addition, the project will raise community awareness of violence as a public health problem through presentations at local civic meetings, to parent groups, and to children themselves.

The family support center's services will include preschool children, women's groups, parent support and education groups, counseling, and recreation, and will ensure after-school and homework time for elementary children, and a place of refuge for all family members in crisis.

EVALUATION: The evaluation will focus on changes in attitudes and responses to situations of dispute and conflict. Parents and children will receive preprogram and annual evaluations of their perceptions of violent behavior and their acceptance of that behavior. Parental beliefs regarding the use of physical punishment will be tested using Bavolek's Adult-Adolescent Parenting Inventory. To track behavioral differences in families and children, the project also will conduct surveys of parents and school personnel which will include information on accidental injuries, involvement with shelters for battered women, involvement with Children and Youth Services, judicial involvement, aggressive behaviors in school, and school suspensions or disciplinary actions.

Research Projects

Spouse Abuse and Pregnancy Outcomes: A Prediction Study

University of Louisville Research Foundation
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Research
MCJ-210600
10/01/90–09/30/93
Project Director(s):
Gabriel Smilkstein, M.D.
Cheryl Aspy, Ph.D.

STUDY OBJECTIVE: The aim of this 3-year prospective study is to assess the impact of spouse abuse, biomedical risk, and psychosocial stresses and resources upon pregnancy outcomes. The specific dependent variables are low birthweight (LBW), prematurity (Dubowitz scale), Apgar (1 minute and 5 minute), and consequences of uterine dysfunction. It is hypothesized that a spouse-abused gravid woman's psychosocial risk, alone and in combination with biomedical risk, is associated with maternal and infant complications of pregnancy. The effect of spouse abuse during pregnancy is unknown but is hypothesized to be an additional stressor that may contribute to other risk factors. Past studies have established psychosocial risk as contributing to medical complications of pregnancy. The primary weakness of these studies, however, is their failure to control for concomitant lifestyle and biomedical risk. Furthermore, there is a need to clarify the components of psychosocial risk as well as to show the relationship between these risks and other risk factors.

METHODOLOGY: In this study, a global screening instrument will be used to identify spouse/partner abuse in gravid women who are utilizing the services of the university prenatal clinic. Approximately 4,400 women will be screened, and a sample of 400 abused gravidas will be matched with an equal number in a control group for age, race, marital status, parity, and gravidity. The spouse-abused group will be further tested to determine the type and intensity of abuse. A standard biomedical risk protocol will be used to quantify biomedical risk. Psychosocial instruments that have been validated previously will be used to measure personal resources (e.g., self-esteem and locus of control), anxiety, depression, stressful life events, and social resources. Initial measures will be collected prenatally for both groups at 32–36 weeks. At delivery, all subjects will be assessed for pregnancy outcomes as specified above.

ANALYSIS: Logistic and multiple regression analyses will be the principal techniques used to assess the contributions of spouse abuse, biomedical risk, and psychosocial factors after controlling for lifestyle and demographic characteristics. The long-term goal of the study is a more effective alerting system to identify women at high risk for delivery complications, thus facilitating earlier and more appropriate intervention for mother and infant.

Behavioral and Familial Predictors of Injuries in Children

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Research
MCJ-240591
11/01/89–04/30/93
Project Director(s):
Penelope M. Keyl, Ph.D.

STUDY OBJECTIVE: This study will involve a prospective, longitudinal design to test the following hypotheses:

1. Is injury liability increased for children who exhibit shy behavior, aggression, hyperactivity, risk-taking behavior, or anxiety?
2. Is the relationship of injury liability to aggression, hyperactivity, risk-taking behavior, or anxiety strengthened if the behavior is severe, persistent, or pervasive?
3. Is injury liability increased for children living in families characterized by less control, poor child supervision, extreme styles of conflict resolution, or extremes of discipline practices?
4. Is there an independent effect of family structure or socioeconomic status on injury liability net of family functioning?
5. Is there an interaction between child behavior and family environment?

METHODOLOGY: The sample for the study is drawn from an existing longitudinal study of a cohort of first grade children attending public schools in five areas of eastern Baltimore, designed to investigate the impact of two population-based preventive interventions directed at early behavior on subsequent problem behavior. The ongoing study was begun in the fall of 1985 and will continue through the 1991–92 academic year when the study children are 12 or 13 years of age. This ongoing longitudinal study is being conducted by the Preventive Intervention Research Center (PRC), which is based in the Department of Mental Hygiene of the John Hopkins University School of Hygiene and Public Health.

Five different areas within one large elementary school district in eastern Baltimore that vary considerably in terms of ethnic and economic characteristics were selected for the PRC trial. Area 1 is a predominantly white area, characterized by low- to middle-income married couple families living in well-maintained rowhouses in close proximity to extended family members. Area 2 is a predominantly black area with low-income multigenerational families living in large public housing projects. Area 3, a totally black area, includes middle-income multigenerational families residing in fairly well-maintained rowhouses, but has undergone a gradual decline in income levels and home ownership in recent years. Area 4 is an integrated area, characterized by middle-income married couple families living in detached frame houses. Area 5 is a predominantly white area with moderate-income married couple families living in small detached or semidetached homes.

A sample of 710 children were identified from the PRC as being eligible for the injury study. At each wave of data collection for the injury study, data are collected for 85–90 percent of these children.

Children and their parents were interviewed at several points in time during the study period. The time of interview and the data obtained at each interview are outlined below.

1. Family interview, spring 1990: Data obtained include family structure; family environment (conflict, control); circumstances of the child's birth (birthweight, admission to the neonatal intensive care unit); patterns of health care utilization; parent assessment of child behavior (shyness, aggressiveness, poor concentration, depression, anxiety, hyperactivity, risk-taking behavior); parent report of family behavior management (rule setting, monitoring, discipline); parent report of child activities (sports, hobbies,

clubs, and organizations); housing environment; and injury data for injuries occurring during the previous 6 months.

2. Child interview, spring 1990: Data obtained include child activities; child report of behavior; performance test of motor coordination; and child report of family behavior management.
3. Family interview, fall 1990: Data obtained include family structure; and injury data for injuries occurring during the previous 6 months.
4. Family interview, spring 1991: Data obtained include family structure; family environment; patterns of health care utilization; child health status (number of illnesses, use of eyeglasses and/or hearing aids, height and weight); parent assessment of child behavior; parent report of family behavior management; parent report of child activities; housing environment; and injury data for injuries occurring during the previous 6 months.
5. Child interview, spring 1991: Data obtained include child activities; child report of behavior; performance test of motor coordination; and child report of family behavior management.
6. Family interview, fall 1991: Data obtained include family structure; and injury data for injuries occurring during the previous 6 months.
7. Family interview, spring 1992: Data obtained from parents include family structure, family environment, family behavior management (e.g., monitoring, discipline), housing environment, assessment of child's behavior (same items as in previous interviews, plus new risk taking scale), report of child's activities, child's height, use of eyeglasses, use of hearing aids, and incidence of child's injuries during the previous 6 months.
8. Child interview, spring 1992: Data obtained direct measurement of child's height and interviewer's perception of child's weight using a body type chart. No other data were obtained for the child injury study.

Analysis of data is in progress.

Recovery from Traumatic Brain Injury in Children

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Research
MCJ-390611
12/01/91–11/30/96
Project Director(s):
Hudson Jerry Taylor, Ph.D.

STUDY OBJECTIVE: Children who sustain moderate-to-severe traumatic brain injury (TBI) are at high risk for a variety of long-term neurobehavioral sequelae. Little is known, however, about the impact of pediatric TBI on families, or the extent to which recovery of brain function in children is influenced by the postinjury family social environment. This project is designed to fill this void. Two hypotheses will be tested. The first hypothesis is that moderate-to-severe TBI will adversely affect the family social environment and will lead to more parental psychological distress than traumatic orthopedic injuries not involving insult to the central nervous system (CNS). The second hypothesis is that postinjury family characteristics will predict outcomes for children with TBI, even after injury severity and preinjury behavior and school performance are taken into account. Although family factors are also hypothesized to predict outcomes in children with orthopedic injuries, the more negative family consequences of TBI are expected to contribute to group differences in sequelae.

METHODOLOGY: Child and family assessments will be carried out at an appropriate time as soon as possible after the injury (baseline) and at 6- and 12-month followups. Preinjury child behavior and school performance will be estimated from parent and teacher ratings completed at study entry. Assessments of child outcomes will include tests of neuropsychological abilities and academic achievement, followup ratings of behavior and school performance, and determination of postinjury educational treatment. Families of children in the TBI and orthopedic injury groups will be compared in terms of parent ratings of the impact of injury on the family, family functioning, and parent psychological distress. Additional family measures will include sociodemographic status, concurrent stressors and resources, and parent coping strategies.

All procedures have proved feasible and are well tolerated by participants. Preliminary review of data suggests that the project will yield new information regarding trauma outcomes, process of adjustment, and service needs.

To date, 25 children and their families have been recruited into the study. Nearly all families contacted by the project have consented to participate. Compliance with assessment procedures is excellent, and parents view the project as providing effective and necessary support. Coordination with hospital staff has been essential to recruitment. Schools have cooperated in sending records and teacher ratings of preinjury behavior.

ANALYSIS: Multivariate analyses of cross-sectional findings and of changes over time will shed light on environmental influences on recovery from childhood brain injury and on the effects of serious head and orthopedic trauma on families.

Prevention of Drowning of Young Children
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Research
MCJ-530607
09/01/91–08/31/93
Project Director(s):
Frederick P. Rivara, M.D., M.P.H.

STUDY OBJECTIVE: Because drowning is the third leading cause of death among children ages 0–4 years, several countermeasures have received considerable attention. Of these, the teaching of swimming and water safety to young children has been the most vigorously promoted, but its effectiveness has never been empirically evaluated. The purpose of this study is to determine whether preschool children trained in swimming/water safety are less likely to drown than those who have not been trained.

METHODOLOGY: Children who are 2 and 3 years of age will be randomized to receive either 8 or 12 weeks of swimming/water safety training. The children's water safety skills will be assessed before, immediately after, and 12 weeks following the training program. These measurements will assess the child's risk of falling into a pool and ability to recover and get to safety after falling into the pool. The study will also assess the effect of a number of mediating variables on the water safety skills. The variables include impulsivity, conduct problems, temperament, developmental level, prior exposure to swimming, and parents' swimming ability.

This study has major implications for the future direction of drowning prevention programs in this country.

Training Projects

Domestic Violence Training Program for Maternal and Child Health Care Staff
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Training
MCJ-369311
10/01/92–09/30/95
Project Director(s):
Karla M. Digirolamo

PROBLEM: Domestic violence is the single major cause of injury to women, exceeding motor vehicle injuries, muggings, and rapes combined. Domestic violence affects 8–12 million women in this country and results in annual medical costs of more than $44 million. Battering often begins or escalates during pregnancy and is frequently linked to miscarriages, low birthweight, and other pregnancy complications. Although battering is one of the most significant public health problems for women in this country, research indicates that the majority of victims are not identified by health care providers. Those women who are identified often receive symptomatic treatment that fails to address battering as the primary cause of their injuries or illnesses.

This project is designed to improve the health care delivered to victims of domestic violence by providing training to maternal and child health care professionals in New York State. Training for health care professionals has been found to dramatically increase their ability to identify victims of battering, thus resulting in more appropriate treatment and referral. This training will assist maternal and child health care staff in implementing a protocol on domestic violence within their clinical settings.

GOALS AND OBJECTIVES: The goal of this training program is to improve the maternal and child health care systems' response to victims of domestic violence in order to prevent further injury, illness, permanent disability, or death, and to reduce the incidence of complications associated with pregnancy.

Project objectives have been established for the training program. Maternal and child health care professionals who have completed the training program will:

1. Develop an understanding of the nature, extent, and impact of battering on women;
2. Develop an understanding of the common misconceptions about domestic violence and how these beliefs affect delivery of care to patients who are victims of domestic violence;
3. Develop an understanding of the potential adverse effect of battering during the perinatal period;
4. Identify and list the four stages of battering and the traditional medical response to victims presenting at each stage;
5. List and describe ways to identify and appropriately treat patients who are victims of domestic violence;
6. List and describe the four steps necessary for successful intervention with victimized patients; and
7. Facilitate the adoption and implementation of a domestic violence protocol within their clinical practice setting.

METHODOLOGY: A 1-day training program on adult domestic violence will be designed specifically for maternal and child health care professionals. The training will be limited to a maximum of 30 participants in order to encourage group interaction. Training will be cofacilitated, using a variety of educational methods including didactic lecture, experience sharing and guided discussion, case analysis, videotaped presentation and analysis, and audience participation exercises. These methods will help to increase knowledge and understanding of the problem as well as to effect the attitudinal change necessary to improve clinical practice.

The following is an outline of the training program:

Unit I: The Problem of Woman Battering

Session I: Introductory Concepts

A. Definition of Family Violence
B. Background Information
C. Myths and Realities Survey
D. Effects on Pregnancy/Children

Session II: Nature and Dynamics of the Problem

A. Types of Abusive Behavior
B. The Pattern of Abuse
C. Video Analysis: "It's Not Okay"

Unit II: The Medical Response

Session III: Impact on Victims/The Stages of Battering

A. Injury
B. Illness
C. Isolation
D. Serious Psychosocial Problems

Session IV: Appropriate Interventions

A. Interviewing Guidelines
B. Identification and Assessment
C. Healthcare Resources/Protocol
D. Community Resources/Referral

Each student will receive an extensive training packet of materials that support and supplement the course information. The packet will include current journal articles, a health-related bibliography on domestic violence, resource listings for referrals, materials to assist victims in self-identification, interview guidelines, and a draft protocol for maternal-infant care facilities. This protocol was drafted in cooperation with the New York State Department of Health, Bureau of Standards Development, for future dissemination to health care facilities serving this population. The protocol will serve as a model for implementation within trainees' individual clinical settings. Following the training, technical assistance will be offered to help participants modify and implement the protocol in their clinical practice.

EVALUATION: A pretest and posttest will be administered immediately before and after training. Evaluation by participant trainees also will be conducted and analyzed. A followup survey will be administered by mail to a random sample of trainees 3 months and 6 months after training. The survey will measure the rate of trainee identification and referral of victims accessing health care service.

Workshops for Child Day Care Safety in the Southeast

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Training
MCJ-379310
10/01/92–09/30/93
Project Director(s):
Carol W. Runyan, Ph.D.

PROBLEM: More than 10 million children under 6 years of age receive out-of-home child care in the United States. Ensuring a safe and healthy environment for these children is a State-level responsibility. Current State day care regulations are inadequate (Runyan et al., 1991), underscoring the need to encourage States to adopt improved day care safety and health standards such as those recently developed by a joint panel of the American Academy of Pediatrics (AAP) and the American Public Health Association (APHA).

This project is developing a set of workshop activities to engage State leaders in health and child care within the Southeast Region (Alabama, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee) to work toward improving child care in their States. The project is stimulated by a recent international conference sponsored by the Centers for Disease Control (CDC) which addressed the urgency of implementing the AAP/APHA standards.

The project will draw upon the existing Southeastern Regional Injury Control Network (SERICN), organized in part by the University of North Carolina Injury Prevention Research Center, as a means of disseminating current injury control initiatives to States in the region to foster local action.

GOALS AND OBJECTIVES: The goal of this project is to improve child day care quality throughout the Southeastern States by facilitating the development of State plans for child care that incorporate the recently developed AAP/APHA standards.

The project has identified specific objectives for the training workshops. Upon completing the program, participants will be able to:

1. Identify discrepancies between their States' existing day care safety/health policies and the nationally recommended standards;
2. Articulate components that help or hinder modification and implementation of day care health and safety policies; and
3. Organize their State workshops to:
   a. Summarize the major health and safety concerns of children in day care settings and the possibilities for preventive interventions;
   b. Consider the current status of day care quality in their States;
   c. Involve key State personnel who can form alliances to continue to improve day care health and safety at the local level via regulatory change and training activities; and
   d. Develop a blueprint for State action to upgrade child care regulations and/or implement nonregulatory measures to improve child care health and safety.

METHODOLOGY: The project methods include reviewing current regulations within the eight Southeastern States and providing each State with a summary document describing areas where the regulations fail to meet the AAP/APHA standards. Followup will be conducted with State health and day care representatives to help identify problem areas and opportunities for change.

EVALUATION: Evaluation will focus on assessing process and outcome and will be centered around telephone followup with participants several months after the workshop, thus providing an opportunity to assess actions taken at the State level. An internal resource committee will provide technical advice to project staff and will solicit the involvement of CDC staff and other scientific advisors in child development and day care as needed.

Impact of the program upon the participants will be assessed qualitatively via their response to the delphi process, the SERICN meeting, the evaluation of State workshops, and the followup telephone contact. It is not possible to assess the impact over a longer term within this 12-month project period. However, the ongoing nature of the Southeast Regional Injury Control Network should provide a forum for monitoring progress beyond the 12-month period. Although the initial focus is on injury prevention, activities related to infection control and health concerns of day care workers also can be monitored by incorporating other specialties through the process described above.

Childhood Injury Prevention for Family Day Care

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Training
MCJ-519313
10/01/92–09/30/93
Project Director(s):
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PROBLEM: According to a 1989 study by the Virginia General Assembly, the majority of children in out-of-home care in Virginia are placed with family day care providers. Historically, family day care providers are not subject to regulation and, in many cases, are not trained, in part because many do not see the need for training, in part because funding is difficult to obtain, and in part because locating providers can be very difficult. Under current regulations, family day care health and safety standards are minimal. Providing education and consultation in injury prevention, especially by those who are recognized resources in child care issues, may effect significant changes in provider behaviors and lead to a higher level of injury prevention efforts than required by current standards.

GOALS AND OBJECTIVES: The goal of this project is to increase awareness of childhood injury, its causes, and prevention strategies among family day care providers and the parents they serve. This is to be accomplished through direct in-home intervention to identify and correct unsafe situations, thereby decreasing the incidence of childhood injury.

The project objectives are to:

1. Develop, within 6 months of starting the project, a statewide network of approximately 100 individuals with knowledge of injury prevention strategies and consultation techniques in order to work with family day care providers;
2. Obtain and distribute, within 1 year of starting the project, 8,000 information packets on childhood injury prevention to support this effort for both providers and the parents they serve; and
3. Evaluate and consult with 500–800 providers to correct potentially unsafe situations in monitored family day care homes within 1 year of starting the project.

METHODOLOGY: The components of the project include:

1. Conference. A 1-day symposium on childhood injury prevention will be held. Participants will include those who work directly in the home with family day care providers, such as licensing specialists, registration contracting agencies, extension agents, representatives of family day care associations, resource and referral training staff, and U.S. Department of Agriculture Food Program sponsors.
2. Focus topics. The conference will focus on injury prevention for children ages birth to 12 years. Topics will include:
   a. Major statistical causes of fatal and nonfatal childhood injury in Virginia,
   b. Generally accepted strategies for injury prevention, including education, modification of the environment, and legislative efforts;
   c. Approaches to consultation in the family day care homes; and
   d. Print and other media and agency resources available.
3. Followup. The conference will include these followup measures:
   a. Quarterly newsletter articles on injury prevention;

b. Injury prevention information packets for providers, including community resources and help/hotline information, as well as information for parents; and

c. Development of a speaker's network on injury prevention, composed of participant trainees

EVALUATION: The project will use the following evaluation measures:

1. Conference: Evaluation will use pretests and posttests on injury prevention to determine areas where further information is needed. Followup questionnaires in 6 months will elicit information about situations observed, corrective action taken, barriers to change, and response to consultation.
2. Home visits: Evaluation will include a home safety checklist adapted or developed to identify common safety problems in the home, type of consultation by the trainee, and, if applicable, corrective action by the providers. It will also identify barriers to correcting the problem. Approximately 500–800 of these checklists will be completed in home visits and statistics will be compiled for possible publication.
3. Injury prevention: Injury prevention packets will contain postage-paid questionnaires on the usefulness of materials included, unsafe situations identified/observed (after receiving the materials), and corrective actions taken, if any.

Results of the studies will be compiled and used to provide future direction for the project.

Children's Safety Network
National Technical Assistance Projects

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MCHIP
MCJ-117007
08/01/90–07/31/95
Project Director(s):
Laurie Duker, M.P.P.M.
NCEMCH Principal Investigators:
Rochelle Mayer, Ed.D.
John Queenan, M.D.

PROBLEM: Injury is the leading cause of death for children over 1 year of age and is a significant cause of mortality and morbidity for infants and mothers as well. Only recently have injury and violence been recognized as predictable, preventable public health problems.

Although State maternal and child health agencies are responsible for needs assessment, resource development, standard setting, training, advocacy, and professional consultation related to the health of mothers and children in their States, many State MCH agencies are currently doing little to reduce injury and violence among the populations they serve. MCH agencies are in a unique position to provide leadership and expertise in childhood injury prevention, to support and guide efforts to implement programs at the local level, and to integrate injury prevention into existing MCH services.

GOALS AND OBJECTIVES: The goal of the Children's Safety Network at the National Center for Education in Maternal and Child Health (CSN at NCEMCH) is to assist MCH agencies in developing and implementing effective unintentional injury and violence prevention initiatives within the agencies and their States. To achieve this goal, CSN has identified nine key activities essential to an effective, comprehensive MCH injury prevention program. CSN provides technical assistance focused on assisting State and county MCH agencies to implement these activities, such as conducting a needs assessment based on State and local injury mortality and morbidity rates, data on high-risk behavior, and available services.

METHODOLOGY: CSN at NCEMCH will accomplish its goals and objectives using the following means: (1) Technical assistance to State MCH agencies and organizations on a range of topics, including collecting and using injury data for program development, engaging in strategic planning, integrating injury prevention into ongoing child and adolescent services, developing materials, planning advocacy and public policy strategies, and evaluating programs; (2) materials development; and (3) continued development of the national reference collection on injury and violence prevention materials and dissemination of a wide range of materials through the National Maternal and Child Health Clearinghouse.

New materials to be developed and disseminated this year include: *Case Studies in Integrating Injury and Violence Prevention into MCH Programs; A Guide to Injury Prevention for State Legislators: Why Injury Prevention is Important, and What You Can Do in Your State; The Impact of Community Violence on African American Children and Families: A Workshop Summary; Violence and Unintentional Injury Prevention: Abstracts of Active Projects FY 1993;* proceedings from the Surgeon General's conference "Keeping Kids Safe"; slides based on *A Data Book of Child and Adolescent Injury*; a series of technical assistance bulletins on a range of injury topics; and a series of annotated bibliographies of materials available on various injury topics.

EVALUATION: A needs assessment of MCH directors was undertaken in 1991, in conjunction with the Children's Safety Network at Education Development Center (CSN at EDC) in Massachusetts, to determine the status of injury prevention programming and activities in State MCH agencies. The initial results of this survey were used to focus CSN activities, and a followup survey will assess progress with respect to CSN's nine key activities for State MCH agencies.

Process evaluation of technical assistance includes documentation and annual analysis of all technical assistance and resources provided, written training and workshop evaluations, written questionnaires to a subset of technical assistance recipients, and review of workplans and progress to date by the CSN Advisory Committee.

EXPERIENCE TO DATE: In the past year, CSN at NCEMCH has responded to more than 350 requests from State and local MCH agencies and national organizations for services and information on injury and violence prevention.

CSN at NCEMCH publications, developed in conjunction with CSN at EDC, include *A Data Book of Child and Adolescent Injury; Including Injury in FY 92 Title V Grant Applications; A Directory of Injury Prevention Professionals; MCH Program Interchange: Focus on Injury Prevention; MCH Program Interchange: Focus on Violence Prevention; Injury Prevention Outlook: An Assessment of Injury Prevention in State MCH Agencies;* and *Violence and Unintentional Injury Prevention: Abstracts of Active Projects FY 1992.*

CSN at NCEMCH surveyed 150 foundation and corporate donor members of Grantmakers in Health to assess the extent to which members currently fund injury and violence prevention work, and to identify foundations and donors interested in learning more about injury and violence prevention. Based on the survey results, a resource guide was developed for use by Grantmakers in Health members.

CSN at NCEMCH staff organized and led many injury and violence prevention workshops and panels at national, regional, and State conferences in the past year, including the American Public Health Association Annual Conference; the National SAFE KIDS Conference; the Healthy Mothers, Healthy Babies National Membership Meeting; the Rocky Mountain Child, Adolescent, and Family Injury Prevention Network; and the Region IV Public Health Service Networking meeting. Both CSN sites organized and conducted training for injury prevention SPRANS grantees on program evaluation and public policy.

CSN has developed a computerized data base of more than 500 resources on prevention of unintentional and violence-related child and adolescent injuries. Since 1990, CSN at NCEMCH has worked with the National Maternal and Child Health Clearinghouse to disseminate more than 17,000 copies of injury and violence prevention publications to maternal and child health professionals and the public.

Children's Safety Network National Injury and Violence Prevention Resource Center
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MCHIP
MCJ-253A21
10/01/92-09/30/97
Project Director(s):
Susan S. Gallagher, M.P.H.

PROBLEM: Unintentional and violence-related injuries are a major public health problem among children and adolescents, especially those who represent low-income and minority groups. Maternal and child health agencies, because of their basic mandate to address the health of children and adolescents and because of new Federal directives related to the *Healthy People 2000* objectives and other policy initiatives, need to address prevention of childhood injuries to a greater extent than is currently being done. Inadequate service systems within MCH agencies (especially the lack of a designated coordinator, the inability to conduct needs assessments, and limited prevention strategies), lack of trained staff, and inadequate linkages with other organizations involved in injury prevention contribute to an insufficient response, given the scope of the child and adolescent injury problem.

GOALS AND OBJECTIVES: The long-term goal of the Children's Safety Network at the Education Development Center (CSN at EDC) is to ensure that objectives in the Maternal and Child Health Bureau (MCHB) *Ten Year Plan for Injury Prevention* are addressed and that MCH agencies make measurable progress toward meeting the *Healthy People 2000* objectives. The primary target groups are MCH directors, State MCH injury contacts, injury prevention liaisons in the 10 Public Health Service regional offices, State adolescent health coordinators, the Association of Maternal and Child Health Programs, and new Injury Prevention Targeted Resource Centers.

Goal 1: Provide MCH agencies with information and assistance on both injury content and program process to increase their ability to address the *Healthy People 2000* objectives concerning injury.

Goal 2: Increase the knowledge base in unintentional injury and violence prevention in MCH academic and practice settings.

Goal 3: Enhance the linkage between State MCH agencies and other agencies that address child and adolescent health, and help articulate the role that each can play in injury prevention.

Goal 4: Continue to communicate with and respond to MCHB and the CSN Advisory Committee. Coordinate activities with MCHB, the Children's Safety Network at the National Center for Education in Maternal and Child Health (CSN at NCEMCH), and the other Injury Prevention Targeted Resource Centers.

The project objectives are to: (1) Provide technical assistance on injury content and program process; (2) conduct needs assessments and assist agencies in conducting needs assessments; (3) help to integrate and target injury prevention in materials and services; (4) provide guidance in program evaluation; (5) facilitate networking and collaboration among individuals and organizations; (6) identify and develop resources and curriculums for graduate level training and for continuing education of practitioners; (7) provide training; (8) maintain an injury prevention resource library and computerized data bases; (9) share information on programs and procedures; (10) advocate to include injury prevention in the action agenda of State and national organizations; (11) explore opportunities to collaborate with other agencies and groups with whom CSN at EDC has not yet developed a working relationship; (12) respond to new directives and needs of MCHB; and (13) disseminate information on CSN at EDC activities, products, and other resource materials nationwide.

METHODOLOGY: Building upon staff expertise, CSN at EDC will accomplish its goals and objectives through the following methods: Developing and disseminating materials; conducting regular mailings; making presentations at State, regional, and national meetings and conferences; providing telephone and onsite proactive and reactive technical assistance; making referrals to other experts; conducting advocacy and outreach for policy and program development; developing and facilitating training workshops; and collecting and cataloging materials for the CSN at EDC Resource Library and Key Resources data base.

New resources to be developed in the first project year include *The MCH Injury Prevention State Profile Guides; MCH Injury Prevention Coordinators: Strategies for Designating a Coordinator and Possible Roles; Injury Data: Obtaining and Utilizing Available Sources; Integrating Injury Prevention into MCH Programs; Annotated List of Violence Prevention Protocols for Health Care Providers; Guidance for Evaluating Injury Prevention Programs;* and the *Training Resource Packet.*

EVALUATION: Process and outcome evaluations will be conducted through an annual analysis of CSN at EDC's computerized contact forms tracking data base, monthly progress reports, resource material evaluations by target audiences, written workshop evaluations, and feedback from target groups and the CSN Advisory Committee. In addition, during the third and fifth years of the cooperative agreement, the project will replicate the 1991 national assessment of injury prevention activities in MCH agencies.

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MCHIP
MCJ-063A24
10/01/92-09/30/95
Project Director(s):
Janice Yuwiler, M.P.H.

PROBLEM: Injuries remain the leading cause of death and disability among children and adolescents in the United States. There is a growing recognition nationally of the need to systematically address injuries as a public health problem. The key to this systematic approach is the ability to obtain and use injury data to target, develop, and evaluate injury prevention interventions. While mortality data are generally available, morbidity data are not, and data on the circumstances of injury events are missing almost entirely. Yet, it is an understanding of who, what, where, when, how, and why that has guided the injury field's most stunning successes (e.g., break-away bases, flame-retardant sleepwear, packaging of aspirin in nonlethal doses, and the multiple local successes in redesigning roadways and lighting to prevent motor vehicle crashes). A concerted effort is needed to improve the quantity and quality of injury data available to program planners, to bring together the leaders in the field to share existing knowledge, and to provide technical assistance to State and local communities on obtaining and using injury data in injury prevention/intervention.

GOALS AND OBJECTIVES: The main goal of this project is to reduce intentional and unintentional injuries of children and adolescents in the United States by enhancing the ability of State and local communities to obtain and use injury data to develop effective intervention strategies and programs. The project will provide training and technical assistance in a variety of areas, including: Obtaining and using existing mortality and morbidity data to determine target injuries, populations, and geographic locations; gathering detailed circumstantial data on the contributing factors and typical scenarios that surround the targeted injury, population, and location; and using the circumstantial data to assist in designing, implementing, monitoring, and evaluating a program.

The second focus of the technical assistance center is to work with and strengthen existing data sources and injury surveillance and prevention expertise. Specifically, we will: (1) Work with the injury control community to enhance the ability of existing data sources to provide needed injury data, (2) work with the existing infrastructure of the injury control community to strengthen and support the ability of identified injury control lead agencies and surveillance experts to provide technical assistance to their constituents on collecting and using injury data, and (3) coordinate project activities with the Maternal and Child Health Bureau (MCHB), the Children's Safety Network, and ongoing national and State efforts.

METHODOLOGY: The project uses core faculty to provide focused technical assistance on injury data use to State and local communities targeted as priorities through the cooperative agreement with MCHB and the Children's Safety Network. Technical assistance will include telephone and onsite consultations, technical assistance documents, a national conference on injury surveillance and data use, and integration of injury surveillance and data use for program planning into ongoing professional training and continuing education programs.

Our ability to provide technical assistance will be strengthened through coordination with national, State, and local experts, and through enhancement of the capability of regional experts and injury control lead agencies to provide technical assistance to their constituencies on injury data collection and use for program planning, development, and evaluation.

We will work with national, State, and local experts, agencies, and professional organizations to develop and implement strategies to enhance the ability of existing data sources to provide needed data on the nature,

cause, severity, cost, and circumstances of injuries. In addition, we will conduct a monthly teleconference between MCHB and members of the Children's Safety Network to ensure coordination, maximum use of resources and expertise, and immediate dissemination of findings and technical assistance strategies.

Project results will be disseminated nationwide through the Children's Safety Network, the professional literature, the national conference, technical assistance documents, and links established with experts in the field and with identified national, State, and local injury control lead agencies.

EVALUATION: The evaluation does not attempt to show a reduction in child and adolescent injuries because of the project's 3-year timespan and lack of available population-based, cause-specific injury morbidity data. The basic evaluation will determine: (1) Whether State and local communities receiving focused technical assistance are accessing and using injury data to develop well-targeted injury prevention programs, and (2) the strength and impact of links established and the ability of regional experts and identified lead agencies to provide technical assistance to their constituencies. The project will maintain logs of technical assistance provided and materials distributed. Impact will be determined by changes in the use of data by State and local communities targeted for technical assistance; the type and nature of technical assistance requests received by the project, regional experts, and injury control lead agencies; and the quantity and quality of injury data available to program planners. These factors will be evaluated annually, and technical assistance approaches will be adjusted as needed. The evaluation also will document difficulties in addressing specific data issues and the strategies that were used successfully. We will carefully document progress, extract findings for national dissemination, and develop final recommendations to MCHB regarding the direction of future efforts to support and strengthen the ability of State and local communities to access and use injury data in order to target, develop, and evaluate injury interventions.

Children's Safety Network Third-Party Payers Injury Prevention Resource Center
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MCHIP
MCJ-113A36
10/01/92–09/30/95
Project Director(s):
Ted Miller, Ph.D.

PROBLEM: Injury is the leading killer of children ages 0–21 years. Injuries also cause approximately 550,000 child hospitalizations annually. Despite the importance of injury as a health problem and its susceptibility to preventive measures, third-party payers fund few injury prevention measures.

GOALS AND OBJECTIVES: This project's goal is to increase third-party coverage and funding of childhood injury prevention measures. In pursuing this goal, our first-year objectives are to:

1. Develop and disseminate a strategy guidance document for State and local agencies working toward our goal;
2. Perform detailed benefit-cost analyses, from an insurer's perspective, of at least two preventive measures and preliminary benefit-cost screens of at least three more;
3. Provide technical assistance to at least 25 State MCH agencies and other organizations working toward our goal;
4. Work proactively on our goal with Medicaid and private health insurers in at least two States; and
5. Work proactively on our goal with at least three large auto insurers or insurance rating bureaus.

Project objectives in subsequent years will be similar.

METHODOLOGY: This project will be guided by the Children's Safety Network Advisory Board. We also will seek input from the 128 State and local injury coalitions and 70 national organizations that comprise the National Coalition to Prevent Childhood Injury. The coalition is coordinated by our subcontractor, the National SAFE KIDS Campaign. Thus, the project will benefit from extensive input by consumer, health, and safety organizations. To elicit adequate input from third-party payers, we will organize an ad hoc supplemental advisory group with 10 members divided equally between health and property casualty payers. We define third-party payers to include health maintenance organizations.

The strategy guidance will explain insurance jargon, the regulatory constraints binding third-party payers, and effective ways to influence payer decisions. The document will deal separately with Medicaid, private health care payers, auto insurers, and residential/commercial property insurers.

The initial benefit-cost analyses will examine how deeply insurers can cost-effectively subsidize two or three preventive measures: Child safety seats, sobriety checkpoints, and bicycle helmets. Sobriety checkpoints reduce both child and adult injury, and therefore yield greater benefits for third-party payers. We already have conducted or accessed preliminary benefit-cost analyses that suggest that these measures merit incentives. Since auto insurers will save more than health insurers, they can provide larger subsidies.

We will screen additional safety measures to determine whether benefit-cost analyses are feasible, and whether significant subsidies are likely to be cost-effective. Major constraints on feasibility include lack of proven effectiveness for the intervention and lack of good data on injury incidence. For incidence data, we will draw primarily on National Electronic Injury Surveillance System (NEISS) data on injuries associated with consumer products, on National Highway Traffic Safety Administration (NHTSA) crash data collection systems, and on statewide hospital discharge data with mandatory coding of injury causes.

Technical assistance will range from providing entree for insurers to performing preliminary cost-benefit analyses of prevention measures, and from strategizing and networking to providing a legal perspective on regulatory constraints. If our technical assistance capacity becomes limited, federally funded MCH providers and agencies targeting low-income or minority populations will receive priority for technical assistance support.

Our proactive activities with third-party payers will consist of cooperative efforts involving interested members of the National SAFE KIDS Campaign's State and local injury prevention coalitions and the National Coalition to Prevent Childhood Injury, as well as local chapters of National Coalition members and other interested groups and individuals. We will also collaborate with Children's Safety Network members. Our most direct efforts will target central policymaking organizations such as the U.S. Health Care Financing Administration and auto and residential property insurers. In addition to promoting subsidies for the devices evaluated through benefit-cost analysis, we will urge insurers to increase funding for safety. For example, residential property insurers could develop guidebooks that help parents assess and improve home safety.

EVALUATION: We will assess progress toward our quantified process goals quarterly. We also will send a one-page evaluation form to those receiving technical assistance. We will track outcomes (e.g., changes in third-party payer support for injury prevention). Any changes will be public and visible.

Children's Safety Network Adolescent Violence Prevention Resource Center
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MCHIP
MCJ-253A23
10/01/92–09/30/95
Project Director(s):
Renée Wilson-Brewer, M.A.

PROBLEM: Adolescent violence is a significant public health problem that takes an enormous toll in terms of morbidity and mortality. Although State maternal and child health agencies are not adequately addressing this public health problem, they are in a position to play a major role in preventing adolescent violence. Many possess both the desire and infrastructure but lack the necessary information, resources, and technical assistance.

GOALS AND OBJECTIVES: The Education Development Center (EDC) will develop an Adolescent Violence Prevention Resource Center to provide State MCH agencies with information, resources, materials, and technical assistance that will result in developing new programs and improving current efforts throughout the health system and within communities. The resource center's ultimate mission—to improve the science and practice of youth violence prevention—will be accomplished in collaboration with the Maternal and Child Health Bureau (MCHB) by meeting the following objectives:

1. Establish strong links with State MCH agencies to accurately determine needs and provide appropriate assistance;
2. Develop data bases of State MCH agency information, violence statistics and research, program and intervention information, and violence prevention experts, in order to inform MCHB, State MCH agencies, and their constituencies within the States;
3. Analyze special issues related to youth violence, and develop programmatic approaches to prevention and reduction;
4. Develop and disseminate adolescent violence prevention information via such products as an annotated bibliography, strategies booklet, newsletter, technical assistance documents, and program manual;
5. Capture and distill knowledge from current and past MCH intentional injury prevention grantees to inform future work;
6. Provide technical assistance to State MCH agencies through site visits, regional workshops, and phone and mail contact in order to foster development and inclusion of adolescent violence prevention strategies into MCH services and programs;
7. Encourage communication, resource and information sharing, and problem solving with the Children's Safety Network (CSN) and MCHB by establishing a computer network and actively participating in semiannual meetings of the CSN Advisory Committee and annual meetings of the MCH injury prevention grantees, and conducting ongoing consultations;
8. Develop linkages with regional MCH injury prevention liaisons, State-designated MCH injury prevention coordinators, adolescent health coordinators, and others in order to build a network to share knowledge and experiences, make mutually beneficial connections, and create relationships and practices that promote adolescent violence prevention; and
9. Promote effectiveness of the Adolescent Violence Prevention Resource Center through staff activities that require regularly scheduled progress reviews.

METHODOLOGY: To meet these objectives, the project will conduct the following activities:

1. State MCH agency annual plans and assessments designed by the resource center will be reviewed to determine areas of need and to create violence prevention technical assistance priority areas.
2. The four data bases will be used to maintain up-to-date information and provide appropriate and timely technical assistance.
3. The products developed will help State MCH agencies to determine their specific needs (e.g., through data collection and analysis), devise an action plan, implement interventions, design and conduct evaluations, and disseminate findings.
4. Site visits and regional workshops will be conducted to provide hands-on technical assistance to State MCH agencies, foster collaboration and mutual problem solving among States, and promote leadership development in the area of adolescent violence prevention.
5. Staff and consultants will provide technical assistance to aid State MCH agencies in implementing and institutionalizing violence prevention activities. Assistance will include one-to-one telephone consultations, conference calls, and followup mailings.
6. Collaborations will be developed with regional MCH injury prevention liaisons as well as State-designated MCH injury prevention and adolescent health coordinators and national health and adolescent health groups to encourage joint efforts such as cosponsored workshops.

EVALUATION: Formative, process, and impact evaluation activities will be conducted to determine: (1) The information, resources, technical assistance, and training needs of State MCH agencies and others to improve their ability to prevent and reduce adolescent violence, and the way in which these needs evolve over time; (2) the responses of the resource center to these needs; and (3) the impact of the resource center in strengthening and increasing the violence prevention activities conducted by State MCH agency staff and others.

Thus, the project will be able to monitor progress in meeting its stated objectives, assess the effectiveness of center activities, and respond to the changing needs of State MCH agencies.

Children's Safety Network Rural Injury Prevention Resource Center
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MCHIP
MCJ-553A22
10/01/92–09/30/95
Project Director(s):
Barbara C. Lee, R.N., M.S.N.

PROBLEM: The primary cause of death and disability among children in the United States is injury. Children in rural and agricultural settings face many hazards not experienced by urban children. In addition to risks of drowning, bicycle injuries, motor vehicle accidents, fires, and recreational/sports injuries, many rural children suffer minor or major injuries associated with rural traffic patterns, animal care, farm machinery, all-terrain vehicles and snowmobiles, large structures (often used as playgrounds), and adverse weather conditions. Some of these injuries result from children's participation in family chores characteristic of rural or farm life. Within rural America, special groups such as Hispanic, Native American, and Amish populations experience specific injury patterns associated with cultural beliefs and practices. It is estimated that nearly 1.5 million people under 20 years of age reside in rural or farm settings in the United States. This segment of our population would benefit significantly from injury prevention initiatives that specifically target the unique injury experience of young people in rural America.

GOALS AND OBJECTIVES: The goal of the Rural Injury Prevention Resource Center (RIPRC) is to reduce the incidence of intentional and unintentional injury and death among rural and farm children under 20 years of age in the United States. RIPRC will enhance current efforts and stimulate development of new initiatives that address rural and farm safety for children and adolescents through State maternal and child health agencies, the Children's Safety Network at NCEMCH, and other privately or publicly funded injury prevention programs in rural settings. RIPRC will address specific topic areas based on an assessment of injury statistics and available injury prevention resources. During the first two project years, RIPRC will focus primarily on recognition of agricultural hazards, the safety issues concerning all-terrain vehicles (ATV) and snowmobiles, and safe handling of large animals (horses and cows). During the third year, additional injury topic areas in either intentional or unintentional injury will be added at the discretion of the Maternal and Child Health Bureau project officer.

METHODOLOGY: RIPRC staff will accomplish the overall goal through the following objectives and related activities: (1) Providing technical assistance to agencies involved in rural childhood injury prevention, (2) conducting outcome-oriented evaluations of rural injury programs, (3) developing new youth-oriented education resources designed for rural and farm injury prevention, (4) disseminating rural child injury prevention resource materials, (5) using state-of-the-art communication systems to transfer data and other relevant information, (6) conducting a "train-the-trainer" rural injury prevention conference, (7) supporting community-based, grassroots efforts in rural child injury prevention programs through formal and informal mechanisms, (8) developing annual estimates of rural and agricultural injuries and fatalities among children under 20 years of age, and (9) identifying relevant policy issues associated with rural child injury prevention.

Program activities will be administered by the National Farm Medicine Center (NFMC), which has an established record of conducting applied research and developing, disseminating, and evaluating agricultural health and safety initiatives. Staff of the NFMC and its sponsoring organization, Marshfield Clinic, are eager to expand current childhood farm injury prevention initiatives to the broader target population of rural children. The organizational resources and commitment of Marshfield Clinic and the NFMC will enable the project to achieve its stated goals and objectives in a qualitative and efficient manner. This combination of

commitment, quality, and experience will enhance the desired outcomes of Children's Safety Network system funded by the Maternal and Child Health Bureau.

EVALUATION: Each component of the project will be subjected to formative evaluation. Systematic record keeping and management of resource materials will facilitate submission of routine, comprehensive program reports to the MCHB project officer. Where possible, summative evaluation will be conducted in order to validate the ultimate legitimacy of interventions. In addition to individual activity evaluations, the full program will be evaluated on a regular basis for organizational and management achievements and the contributions of RIPRC toward meeting the overall goals of the Children's Safety Network.

Other Injury Prevention Projects

Determining the Effects of a Program to Prevent Youth Violence

Washington Hospital Center
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Washington, DC 20010-2975
(202) 877-6424

BHRD/MCHB
PO HR 92-1107
09/25/92–05/25/93
Project Director(s):
Howard Champion, M.D.

PROBLEM: Homicides and injuries from interpersonal violence have increased dramatically during recent years in many U.S. cities. Perhaps no city has experienced as rapid and as dramatic an increase in violence as Washington, DC, where the homicide rate per 100,000 individuals grew from 24 in 1985 to 78 in 1990. This epidemic of violence has placed tremendous burdens on trauma centers. At the Washington Hospital Center's level I trauma center, admissions for gunshot wounds tripled from 1986 to 1990, during which time District of Columbia homicide rates for black males ages 15–19 years increased more than fivefold. Homicide is the leading cause of death for black male teenagers in the District of Columbia and in the United States. In an 80-county study, the District was shown to have the highest rate (227.2 per 100,000) of firearm homicide among young black males ages 15–19. Overall, the nation's homicide rate has more than doubled in the past 10 years.

The epidemic of youth violence has prompted interest in public health models that emphasize prevention, advocate a multidisciplinary approach, and focus on high-risk groups. Unfortunately, many prevention programs for youth violence lack a sound scientific base for determining the attitudes, social skills, and behaviors that should be targeted for change and for effecting change in these areas. Furthermore, few interventions have been evaluated rigorously; these have commonly employed measures that have not been validated and, typically, have had no control groups.

GOALS AND OBJECTIVES: This project is jointly funded by the Bureau of Health Resources Development and the Maternal and Child Health Bureau. The project will evaluate the immediate and postintervention effects of a violence prevention intervention among seventh grade students at a junior high school in inner-city Washington, DC.

METHODOLOGY: The Washington Community Violence Prevention Program (SCVPP) is a community-based initiative whose goal is to reduce the incidence of homicide and intentional injury in the District of Columbia, particularly among youth, adolescents, and young adults. The program, which first offered classes in area junior high schools in 1989, was created by Washington Hospital Center's MedSTAR Trauma Unit. The course addresses (1) social problem-solving skills and beliefs supportive of aggression, (2) access to weapons, (3) drug and alcohol abuse, and (4) participation in the illicit drug trade.

EVALUATION: Measures will include developing and administering questionnaires to intervention and control groups prior to participation in the class, and administering a posttest 1–2 weeks after course completion. The instrument will be readministered 8 months later to both intervention and control groups. Data will be analyzed to assess the impact of the course.

Marketing and Distributing the Child Pedestrian Injury Prevention Program

Harborview Injury Prevention
and Research Center
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Seattle, WA 98104
(206) 223-8388

NHTSA/MCHB
MCH-92-10-92
12/01/91–11/30/93
Project Director(s):
Frederick Rivara, M.D., M.P.H.

PROBLEM: Pedestrian injuries are a significant cause of mortality and morbidity in children. Each year in the United States, more than 50,000 children are injured as pedestrians; approximately 1,800 of these children die, 18,000 are admitted to the hospital, and 5,000 have significant long-term sequelae. Pedestrian injuries are the most common cause of death from trauma in children ages 5–9 years, and are second only to cancer as the overall killer of school-age children. Yet, despite the importance of the problem, the issue of pedestrian safety has met with a surprising lack of response.

Children are at special risk for pedestrian injury because their limited developmental skills prohibit them from making sound judgments in complex traffic situations. Children have difficulty in judging the speed or distance of moving vehicles, identifying the direction of sounds, and seeing and recognizing approaching vehicles (because children have a narrower field of vision).

Parents' inappropriate expectations of their children's behavior in traffic also contribute to special risks faced by children. The mismatch between parents' expectations and their children's actual abilities often results in children being placed in traffic situations that they do not have the skills to negotiate.

A comprehensive school-based curriculum can be an important tool in improving child pedestrian safety. A curriculum that includes both classroom lessons and a parental component has been proven effective in improving street-crossing skills of young children and in increasing parents' awareness of their children's limitations. The curriculum must be geared to the developmental level of each age group and encompass a multifaceted approach to teaching youngsters basic pedestrian skills.

Injury prevention programs are seldom evaluated on a comprehensive basis (i.e., measuring a change in the actual behavior of the target audience). This is particularly true for pedestrian injury, which is a complex problem lacking any clear, tangible solutions.

In addition, injury prevention programs that have been evaluated and shown to be effective are often specific to a particular community and irrelevant to others who are interested in learning from the experiences of those programs. Finally, when programs are designed as a national model, they often languish in the originating community or State and, for a variety of reasons, are seldom replicated. This hinders solutions to the injury problem.

GOALS AND OBJECTIVES: This project is jointly funded by the National Highway Traffic Safety Administration and the Maternal and Child Health Bureau. The goal of this project is to disseminate nationally a school-based pedestrian safety curriculum that has proven successful in improving street-crossing behavior of young children. The curriculum, designed to be replicated in communities across the country, consists of classroom lessons and a parental component.

Only through such a proven, evaluated program can we hope to impact on the enormous national problem of child pedestrian injuries. The project objectives include: (1) Educating teachers, school officials, and other health, safety, and traffic specialists about the magnitude of pedestrian injuries in childhood and their important role in addressing the problem; (2) increasing national awareness of the availability of the curriculum; (3) developing a clear and easy mechanism for distributing the curriculum so that it will be available on a continuing basis for schools interested in implementing the program. The project is a

collaborative effort with the Children's Safety Network and the National Center for Education in Maternal and Child Health.

METHODOLOGY: The project will focus primarily on educators and school officials in distributing the pedestrian safety curriculum most effectively. The program's outreach component also will target Federal and State agencies, traffic safety experts, and health and injury prevention personnel. The dissemination plan will specifically target national organizations with State and local chapters because of their vast potential audience and their effective outreach networks.

In order to educate professionals about the importance of the problem and to increase awareness about the curriculum, several strategies will be employed:

1. Personal contact: Organizations will be contacted directly to ascertain their level of knowledge about the child pedestrian injury problem and possible solutions, including the role of our school-based curriculum.
2. Informational articles: The project will provide informative articles to newsletters and other publications at national, State, and local levels. The initial target groups for this information include education, health, traffic safety, and injury prevention organizations.
3. Direct mail: Organizations at national, regional, and State levels will be personally contacted to determine the most effective dissemination strategies for their specific groups. Subsequently, these target organizations will receive information about the curriculum.
4. Presentations and displays: Information about the curriculum will be displayed and distributed at meetings of target organizations.
5. Technical assistance: The project will provide technical assistance and consultation to national and State organizations through telephone consultation and meetings concerning the curriculum and methods of obtaining and implementing the curriculum. This strategy is critical because reaching the parent organization potentially means reaching thousands of individual members at State and local levels.

Examples of target organizations include: State Title V agencies, American School Nurses Association, National Education Association, National Association of Elementary School Principals, American Alliance for Health Educators, Governors' Highway Safety Representatives, National SAFE KIDS Campaign, National Association of State Directors of Pupil Transportation, American Federation of Teachers, National Parent-Teacher Association, and State Departments of Education (specifically, offices of health or traffic safety).

A clear and easy mechanism for ongoing distribution of the curriculum will be developed in partnership with the Children's Safety Network at the National Center for Education in Maternal and Child Health (CSN/NCEMCH). NCEMCH has already established a nationally known and respected clearinghouse for information on maternal and child health issues. In addition to assembling the curriculum packages, they will handle all requests for the curriculum via their established clearinghouse telephone information lines. In addition to donating the costs of initial mailings of approximately 1,000 free curriculums for nationwide dissemination, the clearinghouse will continue to stock the curriculum and mail it to those interested in implementing the curriculum. Thus, "institutionalization" will be achieved after investigating the most efficient and effective targets for national distribution.

EVALUATION: This school-based pedestrian safety curriculum has already been evaluated for its effectiveness in improving street-crossing behavior in young children. A similar evaluation on a national level would be time consuming, enormously expensive, duplicative, and virtually impossible to implement. Thus, this project will be evaluated for its success in terms of the number of organizations/individuals who received information about the curriculum program, number of copies disseminated, and number of pedestrian safety programs initiated as a result of this effort.

This tracking system will include numbers of: (1) National, State, and local organizations (including the membership of those organizations) who received consultation and assistance, (2) meetings at which information was presented and/or distributed, (3) newsletter articles submitted and published,

(4) organizations that received direct mailings, (5) curriculums distributed, (6) States and school districts with the curriculum in operation, and (7) students and families receiving instruction.

This comprehensive tracking system to monitor the number of people affected will help to determine the efficacy of the project in reaching stated goals and objectives.

Appendix: Projects Completed in FY 1991 and FY 1992

Arizona Child/Adolescent Injury Prevention Initiative
Arizona Department of Health Services
Office of Maternal and Child Health
1740 West Adams
Phoenix, AZ 85007
(602) 542-1880

MCHIP
MCJ-043888
10/01/87-09/30/92
Project Director(s):
Doris Evans-Gates, M.S.

PROBLEM: Unintentional injuries are the leading cause of death and disability among children and adolescents in the United States. Arizona children are at particular risk for injury morbidity and mortality. The Arizona injury death rate for children exceeds the national average. More than three out of four injury deaths (76.7 percent) among persons under 20 years of age are attributable to unintentional injuries. In 1988, Arizona residents were 23 times more likely to die from an unintentional injury (e.g., motor vehicle injury) than all U.S. residents.

In 1990, motor vehicle-related injuries were the leading cause of death among Arizona children ages 0–14 years; drowning was the second leading cause of death in this age group. A diverse ethnic population and largely rural geography pose additional unique problems.

In spite of the serious injury morbidity to children and adolescents, preventive programming in Arizona has been limited. Existing efforts have been fragmented, with few attempts to coordinate or integrate programs. In addition, only injury mortality data have been studied by the Arizona Department of Health Services. Further assessment and analysis of available child/adolescent injury morbidity data systems are needed to determine their potential relevance for injury prevention program planning.

GOALS AND OBJECTIVES: The goal of the initiative is to reduce injuries and deaths among children and adolescents in Arizona and to integrate injury prevention into ongoing maternal and child health (MCH) programs. The program objectives are to:

1. Increase awareness of child/adolescent injury problems in Arizona by providing professional training, developing an injury prevention clearinghouse, and facilitating injury prevention programs in local communities;
2. Establish a mechanism for interagency and intraagency coordination in injury prevention programs;
3. Assess existing injury data and develop a data base plan for childhood/adolescent injury morbidity within Arizona; and
4. Facilitate expansion of peer-based adolescent injury prevention programs.

METHODOLOGY: This initiative provides an opportunity for child/adolescent injury prevention to be integrated and institutionalized within ongoing programs of the Office of Maternal and Child Health, Division of Family Health Services, Arizona Department of Health Services. The Office of Maternal and Child Health has assigned a staff member to work on injury prevention, thereby increasing the agency's capabilities to assess injury morbidity data, promote public awareness of the issue, assist in planning and developing injury prevention programs in the State, and collaborate with other interested agencies.

The program manager for the Arizona Child/Adolescent Injury Prevention Initiative works with several coalitions of agencies to accomplish project objectives. One of these coalitions, the Arizona Coalition for Injury Prevention, facilitates improved communication/coordination among agencies, assesses injury data, and promotes injury prevention programs. An injury prevention section has been established within the Arizona Public Health Association for Public Health Professionals. The injury prevention program manager has been designated the State coordinator of the National Safe Kids Campaign for Arizona. The program

manager also promotes program development through consultation with county health departments and other provider resources. Injury prevention programs are supplemented by using Maternal and Child Health Block Grant funds to support injury prevention demonstration projects in selected areas throughout the State.

EVALUATION: Within the scope of the project, it may not be possible to significantly decrease injury morbidity and mortality among children and adolescents. Therefore, evaluation of the initiative currently uses ongoing output and process indices. The initiative has the opportunity to integrate injury prevention into programs within the Office of Maternal and Child Health, including early childhood, child health, adolescent health, and school health programs.

A statewide child/adolescent health needs assessment, involving nearly 75 health professionals in a year-long effort, identified injuries as a priority and recommended implementation of specific injury prevention strategies. Five-year injury prevention projects have been initiated with Maternal and Child Health Block Grant support. An injury prevention section was developed and included in the school health guidelines manual, distributed to 90 percent of the school nurses in Arizona.

All coalition meetings have been documented. Progress in implementing programs, sponsoring workshops, and developing reports has also been documented. Specific preprogram and postprogram evaluations have been completed for classes, conferences, and other educational events.

EXPERIENCE TO DATE: Perhaps the most noteworthy accomplishment of the initiative to date is the continued development and implementation of injury prevention programs in selected areas throughout the State, including three rural counties. The programs focus on drowning prevention, school safety materials, motor vehicle safety, and restraint/seat belt education. The counties are conducting an assessment of the specific injury morbidity to be addressed and have continued to implement prevention programs during 1990, 1991, and 1992.

The following activities have been completed:

1. Co-coordination of the first annual statewide conference entitled "Arizona Highway and Traffic Safety: Meeting the Challenge";
2. Application for and receipt of a research grant from the Arizona Disease Control Research Commission;
3. Participation in the Johns Hopkins research study entitled "Implementation of Injury Prevention/Control Programs in State Health Agencies";
4. Revision of the Early Childhood Health and Safety Training modules and coordination of a 2-day Health and Safety Training Institute;
5. Development of a pilot playground safety surveillance program in Yavapai County; and
6. Distribution of the bimonthly *Arizona Injury Prevention Newsletter.*

In addition, the following activities have been initiated this year:

1. Developed a report, *The Nature, Incidence, and Consequences of Elementary School Playground-Related Injuries in Arizona,* as a part of the Arizona Disease Control Research Commission research grant (September 1992);
2. Developed and made available a videotape of the Early Childhood Two-Day Health and Safety Training Institute;
3. Coordinated a multimedia event to celebrate Child Health Day (October 7, 1991) and developed a videotape of the event;
4. Cosponsored the Tucson SAFE KIDS Conference (January 1992);
5. Planned, developed, and coordinated the Statewide Child Safety Seat Program;
6. Delivered a presentation on the Arizona Injury Prevention Program at the Fifth Annual New Mexico Conference; and
7. Participated in two Rocky Mountain Injury Prevention Cluster Meetings (August 1991 and February 1992).

Youth Violence Prevention Project
Contra Costa County Health Services Department
Prevention Program
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MCHIP
MCJ-063220
10/01/87–09/30/91
Project Director(s):
Larry Cohen, M.S.W.
Nancy Baer, M.S.W.

PROBLEM: Developmentally, socially, and politically, adolescents are at risk for becoming victims of violence. Developmentally, they are at risk because adolescence is a time of exploration and experimentation as well as role confusion. Socially, they are at risk because they are surrounded by pressure to engage in high-risk behavior and because we as a society do not structure socially productive roles for them. Politically, they are at risk because young people are not accorded the same rights and civil liberties as adults, and self-affirming routes for protesting this discrimination are often blocked. Their higher risk is certainly borne out by the statistics. Rates of homicide, suicide, and accidents (frequently related to risk-taking behavior) for adolescents have reached crisis proportions.

The epidemic proportions of violent injury and the growing recognition of its multiple causality have prompted social systems beyond law enforcement to reconsider their role and their responsibility in the problem. The health of a community is a composite of physical, psychological, social, and economic variables. Responsibility for overall community health therefore resides in a number of systems, including the family, education, health, community service, work, criminal justice, and social service systems.

While not one of these systems remains unscathed in the current epidemic, there is still as yet no common vision in defining the problem, without which a true systems response is stalled. A systems response requires not simply coordinating what currently exists but stimulating the development across systems of that which as yet does not exist—for example, belief in prevention, understanding of violence as a health issue, knowledge about the multidetermined nature of the problem, and awareness of the systemic roots of the problem.

GOALS AND OBJECTIVES: The extent of the current crisis requires reorienting the systems which impact youth toward prevention. The Youth Violence Prevention Project (YVPP) has identified the following goals and objectives of such an effort:

1. Reduce rates of adolescent suicide, date rape, and fighting/assault in our target communities in Contra Costa County, California;
2. Raise overall community awareness about the preventability of violence (with particular focus on community-based, multidisciplinary training and the effective use of the media);
3. Empower youth (through peer education strategies) to become the prime movers in organizing their peers and networking with the larger community to promote alternatives to violence; and
4. Stimulate violence prevention policies and activities across multiple systems using multiple strategies (e.g., families, schools, workplaces, neighborhood groups, and city/county government).

The premises underlying these objectives are: (1) That the various forms of interpersonal violence which account for increasing deaths and injuries to adolescents—assault/homicide, suicide, and sexual violence—have common roots, requiring an interdisciplinary approach most effectively operationalized via a coalition; (2) that those most affected by increasing youth interpersonal violence—young people themselves—are the most important actors for achieving change; and (3) that change requires the use of multiple strategies across multiple systems.

METHODOLOGY: The comprehensive approach described herein inspired the development of creative strategies fitted to the contours of the various systems arenas in which we work. Our strategies fall within the following categories: (1) Building coalitions, (2) youth empowerment/peer education, (3) communitywide training, (4) use of media activities as a youth and community empowerment strategy, (5) supporting parents, (6) policy change, (7) resource development, and (8) project dissemination.

Of these, the first six involved the design of interventions directed toward key systems within our target communities—schools, community organizations, health, and business. This is by no means a sufficiently inclusive list of key systems. Other systems which must over the long term become partners in a communitywide violence prevention effort are the family, social services, criminal justice, and the political system.

Given unlimited resources, assessing the limitations and potential of each system toward the augmentation of a general communitywide violence prevention response would be ideal. Such an assessment would then point the way to the strategies needed for maximizing the potential.

This level of response, however, takes time. Not every system can be pulled in at once. Planned phase-in for developing a systems response is realistic and achievable. Strategic prioritizing has allowed YVPP to develop a base in two or three systems from which to expand the definition of violence and frame it clearly as a health issue.

EVALUATION: Evaluation presents some unique challenges when the unit of analysis is the community itself. Techniques include pretesting and posttesting of high school students receiving 1 hour of training to assess changes in knowledge and skills; schoolwide surveys in our two target high schools; tracking intentional injury indicators such as calls to suicide and rape crisis hotlines, and juvenile arrests for sexual assault, assault, and homicide; numbers of adolescent suicides and homicides; and emergency room data. In addition to outcome measures, it is equally important to capture the processes developed to build community involvement. These include issues of coalition formation and management, building cooperative relationships with school districts and other systems, coordination in service delivery systems, building a prevention orientation across systems, developing parent involvement in community education efforts, and internal project management. During our fourth and final year of project activities, we will prioritize the analysis and documentation of the "California Model" of community-based youth violence prevention. It is hoped that YVPP's experience and recommendations will serve to provide guidance to other communities endeavoring to mobilize a systems response to violence.

EXPERIENCE TO DATE:

School activities: The second annual Violence Prevention Month, celebrated in one school district, was organized by student planning committees at each of the district's five high schools. These groups of 20–40 students printed flyers soliciting student participation in multimedia assemblies; planned the assemblies; distributed flyers promoting YVPP's rap, graphics, and journalism contests; coordinated and judged rap rallies; and represented their schools at the districtwide "Teen Speak-Out."

The presentation by the Alternatives to Violence and Abuse Coalition (AVAC) of a 15-part series on teen violence and abuse presentation to health classes in another school district occurred for the second consecutive year, directly affecting 120 students each year. The young people receiving this training have provided the backbone of the school's new peer support program, inaugurated in the spring of 1990 through the joint efforts of YVPP staff, a school counselor, and the school nurse. The program has succeeded in garnering the enthusiastic acceptance of the student body and in successfully intervening in incipient emotional crises. The most common problems peer supporters found in their first year were attempted suicide and suicidal thoughts, alcohol abuse in family members, conflict with stepparents, and date rape.

Community activities: Developing community awareness of violence as a health issue has occurred through two key organizations—AVAC, a countywide network of agencies addressing the problem of violence in its many guises; and Opportunity West, a west Contra Costa County capacity-building project. YVPP has worked with both organizations to sharpen awareness of the crisis facing youth and has expanded their repertoire of strategies for involving youth in prevention activities. With AVAC, this has meant exposure to the deescalation intervention developed by a local martial artist. Deescalation skills enable the deceleration

of potentially violent situations and have been particularly effective with youth coping with high levels of physical violence. A deescalation training in February drew almost 80 human service providers and teachers from the Richmond area.

YVPP's approach of mobilizing youth through a communitywide media campaign is reflected in a kindred effort cosponsored by Opportunity West and the United Way's Adolescent Substance Abuse and Violence Prevention Task Force. The Youth Violence Prevention Media Project is designed to stimulate the development across the west county region of youth-produced video public service announcements and posters. This collaborative effort of youth-serving agencies in a key subregion of Contra Costa County marks an important juncture in the development of community awareness of the preventability of violence.

Influencing the health system: The most significant way YVPP has influenced the health system has simply been by its being placed within the county's health department. The primary development within the health system resulting from YVPP has been the expansion of the violence prevention focus of a maternal, child, and adolescent health program—the TeenAge Program (TAP). TAP health facilitators are based in the county's high schools and work with adolescent health councils to organize health promotion campaigns on campus. AVAC training of the health facilitators has dramatically sensitized them to issues of violence and to the potential for organizing youth to address these issues. This development of TAP has been accompanied by an expanded role of TAP in coordinating the scheduling of AVAC's cross-agency educational activities, such as the 15-part series on adolescent violence. In the coming year, we hope to finalize an interagency agreement for collaboratively delivering this violence prevention series beyond grant funding.

Influencing the business sector: Sponsorship by the United Way of YVPP's workplace component has been enormously successful. The Workplace Prevention Program is now well established, and its coordinator, in conjunction with the United Way Adolescent Substance Abuse and Violence Prevention Task Force, has been effective in expanding employer outreach. Workshops (1–5 hours in length) for parents in workplaces have involved approximately 1,500 employees. A conference highlighting model employee assistance programs from across the country, held in November 1989, presented innovative attempts to broaden the health focus of these programs to include violence prevention. Not content to address the problem through workplaces alone, however, the task force moved to create options for youth by developing the United Way West County Youth Violence Prevention Media Project to coordinate media activities of west county youth.

In conclusion, primary activities have included youth education and empowerment, workplace presentations for parents, maintaining a coalition of violence prevention agencies, professional and paraprofessional training, and assisting in the development of a regional youth media project.

A final report will be available in early 1992. The following are some of the lessons learned from the project that may apply to other communitywide violence prevention efforts: (1) Violence prevention must be institutionalized throughout several systems to effect change; (2) effecting policy change can be done only after building sufficient community awareness of violence as a preventable health issue; (3) working within a concentrated geographic area produces a more manageable project and attainable goals; (4) it is best to concentrate efforts in the most high-risk areas; (5) a coalition of community agencies can access diverse skills and community contacts; and (6) cosponsorship of programs among agencies is a cost-effective way of offering services.

The Youth Violence Prevention Project continues its violence prevention work through the PACT Project.

Regionalization of Care for Abused Children

Indiana University
Research and Sponsored Programs
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MCHIP
MCJ-183902
10/01/88–09/30/91
Project Director(s):
Roberta A. Hibbard, M.D.

PROBLEM: Over one million children per year are victims of child abuse and neglect in the United States. The scope of the problem makes it unrealistic for specialized centers to provide all of the necessary care. Community providers must be prepared to deal with the problem of coordinating the care and services for a potentially large number of victims. Medical and mental health professionals, however, often have a difficult time working with social and legal professionals to protect children from child abuse and neglect. As a result of poor communication, lack of knowledge, and poor coordination of services among medical, mental health, social, and legal professionals, many child abuse victims receive inadequate evaluation, care, and protection.

GOALS AND OBJECTIVES: The ultimate goal of the project is to regionalize care for the evaluation of child abuse victims so that every child abuse victim will have thorough medical evaluation and treatment by knowledgeable health care providers who coordinate services with social, legal, and mental health professionals.

The project objectives are to:

1. Increase by 1991 the number of children reported to the Marion County Welfare Department Child Protective Services who receive medical and mental health evaluations by expanding the network of professionals who regularly communicate and coordinate services for the multidisciplinary, interagency evaluation of child abuse victims; and
2. Design, develop, and submit a research proposal that can assess the impact of regionalized care on health status outcomes and that is acceptable to the board of national advisors.

METHODOLOGY: A coalition-building technique incorporating established networks, relationships, and programs is being used to enhance communication and improve knowledge through four levels. The board of national advisors offers a quaternary level of expertise to provide guidance regarding project development, implementation, and generalizability. A local advisory board is the tertiary level for education, expertise, and service. The liaison child abuse forum with representatives from all hospitals, the county public health department, the State board of health, mental health centers, the prosecutor's office, law enforcement agencies, and the welfare department is the secondary level of local expertise. The forum meets monthly to identify needs, implement solutions, and create informal networks. The professionals selected for the forum are in ideal positions to influence care, disseminate information, and provide the seeds for expanding educational and cooperative efforts into primary care environments. These professionals have established key channels for interagency communication and serve as resources within their agencies. The primary level professionals are the social, medical, mental health, law enforcement, and legal professionals who provide direct care to abused and neglected children.

The research proposal design and development proceeded along the following recognized patterns of research implementation: Literature review, hypothesis generation, study design, identification of measurable variables, identification of appropriate populations for study, methodology, data collection, and data analysis. Extensive literature review of quality of care measures related to child abuse and to specific consequences of child abuse (e.g., sexually transmitted diseases, fractures, anemia, failure to thrive, mental health problems, and the like) were carried out. A proposal to evaluate the health status of maltreated children was submitted.

EVALUATION: Expert opinion and experience indicate that increased knowledge, coordination, and communication result in changes in professional behavior that will improve the care and outcome for children. Communication and knowledge will be measured by: (1) Participation in project activities, (2) satisfaction, (3) attitudes and beliefs, and (4) preprogram to postprogram changes in knowledge.

Coordination of care by professionals will be measured by: (1) Community satisfaction, (2) numbers of abused children receiving medical evaluations, and (3) the outcome of subsets of abused and neglected children. Improved health status is reflected in the latter two measures. Progress in assessing measures of coordination of care will reflect progress in development of the new proposal.

EXPERIENCE TO DATE: Monthly liaison meetings have taken place since October 1988, with an average of 13 participants representing 38 percent of the agencies. Several community level problems have been identified, and solutions are being developed and implemented. One major problem addressed during this project period is the release of medical records of abused and neglected children to social and legal authorities. The project manager assisted the Marion County Prosecutor's Office in coordinating a meeting of hospital attorneys, medical record directors, and the prosecutor's office to educate them regarding the release of these records. Having parents present at the hospital to discuss treatment of a child put in protective custody was discussed, and representatives from the local law enforcement agencies were present to give their suggestions. Many other case management issues have also been discussed and successfully resolved at meetings and in private discussion after the meetings.

Monthly educational programs are scheduled and coordinated by the project manager. We have an average of 41 participants in the educational programs monthly. Syllabus materials are developed for each program. Videotapes, when available, are purchased from suppliers to supplement the programs. Six of the project's programs have been videotaped in a professional studio and televised by our Medical Television Network. Packets containing the videotapes and sample handouts are available for loan from the Professional Child Abuse Library developed by the project. Lists of available materials are disseminated regularly at the monthly educational programs. Member agencies are continually borrowing videotapes for inservice training of their own personnel as well as using the materials to train staff at other agencies.

Three annual community educational symposia have been presented. Yearly attendance has increased steadily, with almost 400 professionals attending the 1991 program. Improvement in knowledge regarding symposia topics has been documented after each program. In general, attitudes and beliefs about the systems providing care to abused children have improved over the project period.

Analysis of services provided to children reported to the Marion County Department of Public Welfare, Child Protective Services Division, as alleged child abuse victims in September 1988 has been completed. Evaluation of 286 cases involving 417 alleged victims revealed that 81 children (19 percent) received medical evaluations. Race, gender, and age were not associated with receiving medical evaluations, but 37 percent of alleged sexual abuse victims and 18 percent of alleged neglect victims received medical care. Most children receiving medical evaluation also received other services including mental health and community agency support. Analysis of services provided shows no significant changes from year 1 (1988) to year 3 (1990). Year 2 was excluded from comparison due to a purge of records and incomplete data.

Injury Prevention for School-Age Children and Youth

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MCHIP
MCJ-203889
10/01/87-09/30/91
Project Director(s):
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PROBLEM: In Kansas, as well as nationally, injuries are the leading cause of death and disability among school-age children. Although no Kansas school accident data have been available since 1981, data prior to this date consistently demonstrate that the frequency of athletic injuries dramatically increases beginning in the seventh grade. Prior to the seventh grade, most school accidents occur on the playground.

Although a routine assessment of health status is required on all student athletes in Kansas prior to first practice, in most communities, no specific effort is directed toward evaluation of previous sports injuries or the demands of the specific sport relative to the physical and psychological maturity of the student. Major promotional efforts to market a more appropriate physical examination process need to be initiated.

While over 230,000 elementary students in Kansas utilize playground facilities, guidance available to school personnel regarding playground safety is very limited. Kansas has no published guidelines on playground safety. Inspection of playgrounds has been conducted in a sporadic fashion throughout the State. Currently, no statistics are available regarding the number, type, or severity of injuries occurring on primary school playgrounds.

GOALS AND OBJECTIVES: The first goal of the project was to reduce the number of nonfatal sports-related injuries to children and youth, grades 7–12, who attend Kansas schools. Objectives for accomplishment of the goal were to: (1) Document the sports-related morbidity rate; and (2) promote the concept of and skills necessary to provide preparticipation physical examinations to student athletes through education of school nurses, coaches, and primary care physicians.

The second goal was to reduce the number of injuries sustained on playgrounds during school hours among children grades K–6. Objectives for accomplishment of this goal were to: (l) Document school playground-related injuries among children grades K–6; (2) develop a manual, *Kansas Guidelines for Playground Safety,* for use by schools; and (3) promote through education the skills necessary to assess playground hazards and develop a plan for remedial action.

In order to document the incidence of sports-related injuries and school playground injuries among school-age children (K–12) in Kansas, a data collection form and surveillance system was created. The instrument and system were tested in selected Kansas schools, revised if necessary, and subsequently used on a voluntary basis to report sports injury data and later school playground injury data. Reports were submitted to the Kansas Department of Health and Environment for analysis and annual publication. Information about the Kansas system was shared with other States in Region VII to determine their interest in creating a regional data base.

The project also promoted, through development of a training videotape and educational seminars, the concept of and skills necessary to provide sports-directed preparticipation physical examinations in Kansas schools. A sports-directed preparticipation history and physical examination form and explanatory manual were adapted to fit Kansas' needs using guidelines suggested by the American Academy of Pediatrics. The professionally produced videotape focused on the structure, function, and content of the examination. The educational component trained local teams of health professionals to develop and implement the preparticipation physical examination process in their community.

The project developed and published *Kansas Guidelines for Playground Safety* and distributed copies to local school districts. University staff were trained as specialists in playground equipment and playing surfaces. These staff members then provided training to local personnel regarding assessment of their own playgrounds. Project and university staff also were available to consult with schools in evaluating their playgrounds and developing plans for remedial action. In addition, at least three regional school health workshops focused on injury prevention in schools.

EVALUATION: The impact of the project was measured through the completion and distribution of a professionally produced videotape, the completion and testing of a data collection instrument, the number of local and State personnel trained through seminars, and the development of the playground manual.

While the injury data base was sparse because of time limitations with the grant, the beginning of a data base was initiated to monitor and assess the status of the school injury problem with the ensuing development of appropriate interventions to address problems over time.

EXPERIENCE TO DATE: An athletic injury reporting form, drafted with the assistance of an 18-member advisory group, was pilot-tested during the 1988–89 school year in 13 Kansas secondary schools. A formal study of athletic injuries in 279 secondary schools in Kansas was conducted during the 1990–91 school year.

A videotape entitled *Play Safe,* demonstrating the process for and procedures involved in conducting sports-directed physical examinations in a group setting, was effectively utilized as part of six regional training sessions held during FY 1989. A total of 151 persons, including physicians, nurses, coaches, and school administrators, participated in the training. A packet of information regarding athletic injuries and preparticipation examinations was provided to each participant. Copies of the videotape and the packet of materials are available on free loan to school districts and health departments in the State.

Input provided by participants in the workshops led to a revision of the form Biannual Athletic Preparticipation History and Physical Examination, utilized to record physical examination findings. The new form more accurately reflects the necessary testing and streamlines the process. Additionally, changes were made in the exam process to comply with recent guidelines from the Sports Committee of the American Academy of Pediatrics which recommend preseason examinations every 2 years, rather than every 3 years.

Considerable networking with professionals in the field of athletic injury prevention was stressed. Groups such as the Athletic Trainers' Association; the Kansas State High School Activities Association; the University of Kansas Medical Center; the School Health Committee of the Kansas Medical Society; the Kansas State Department of Education; the United School Administrators; the Kansas Head Injuries Association; the Kansas Chapter of the American Academy of Pediatrics; the Kansas Academy of Family Practice; the Kansas Association for School Health; and the Kansas Association for Health, Physical Education, Recreation, and Dance were involved in the project activities.

A manual, *Guidelines for Kansas School Playgrounds,* was developed and distributed to all elementary schools and county health departments in the State. A study of playground injuries in southeast Kansas was conducted during the 1990–91 school year. Selected college and university staff strategically located throughout the State were trained in detail about playground equipment and surfacing, safety, and inspections. These staff were facilitated in their efforts to train local school personnel and county health department personnel responsible for playground inspections. The university staff were available for consultation to school districts in the State who wish to contract for playground assessments and remedial plans.

This grant ended on September 30, 1991. Continuing efforts focused on the provision of resource materials, including a videotape on the preseason athletic physical examination and a playground safety manual. Technical assistance to local school districts is available on request. Surveillance information on athletic injuries during the 1990–91 school year is also available upon request.

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MCHIP
MCJ-243306
10/01/88–09/30/92
Project Director(s):
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PROBLEM: Injuries are the leading cause of death among children in the United States. Although distinct geographic, age, race, and gender differences in patterns of injury-related mortality have been demonstrated, there is a lack of population-based data on morbidity associated with injuries. Consequently, it is impossible to obtain a reasonably accurate estimate of the true incidence of injuries. Although many groups collect injury-specific data, there is little evidence of organizational coordination among their disparate efforts. With the lack of available information for estimating the incidence of injuries and the inadequate organization of available data sources, planning for programs to prevent injuries and consequent disability is problematic.

GOALS AND OBJECTIVES: The Region III Childhood Injury Prevention Project (CHIPP-III) will assist the Title V directors in the Region III States and the District of Columbia to:

1. Strengthen States' capacities for injury prevention by assessing existing mortality and morbidity data, describing injury patterns, and identifying other resources on injury prevention;
2. Build coalition activities to help organize State and community involvement in developing injury prevention initiatives; and
3. Create a forum for combined efforts to design and implement local injury prevention efforts.

METHODOLOGY: In August 1986, directors of Region III programs in maternal and child health (MCH) and children with special health needs (CSHN) began to hold quarterly meetings at the Maternal and Child Health Department of the John Hopkins University School of Hygiene and Public Health. Discussions during these meetings led to the development of the DHHS Region III Perinatal Information Consortium (September 1987) and the Childhood Injury Prevention Project (October 1988).

The Title V directors and the Region III Office each designated a representative from their staff for the Project Advisory Council (PAC), which met periodically until spring 1990. The PAC meetings provided the opportunity to share information on State-specific injury prevention activities, to review the results of data analyses, and to plan for future meetings and the regional workshop.

The Childhood Injury Prevention Program represents a collaborative effort between project staff and State representatives. Efforts have been focused on capacity building through data analysis; assessment of available injury prevention resources and activities; and planning, implementation, and evaluation of injury prevention activities designed to meet identified needs. The working relationship between the CHIPP-III project and the Johns Hopkins Injury Prevention Center has continued. In addition to meeting regularly with the information manager for the Injury Prevention Center, the CHIPP-III research assistant has consulted with the childhood injury projects currently underway at the John Hopkins Hospital.

EVALUATION: Program success is measured by four specific objectives. Progress to date includes the following:

1. A childhood injury fatality analysis report, an injury data availability report, and an injury resource compendium have been produced and disseminated;

2. Mechanisms for interagency collaboration and communication have been introduced;
3. Coalition building has begun in selected communities; and
4. There is evidence of State commitment to injury prevention.

EXPERIENCE TO DATE: Title V directors and/or their designees compiled a list of agencies that might collect data/information describing childhood injuries. A survey was completed and the data published in the *CHIPP-III Injury Data Availability Report,* disseminated throughout the region in spring 1990.

CHIPP-III analyzed data from the National Center for Health Statistics on mortality among children due to injury-related causes. These analyses indicated childhood injury deaths by demographic, physical, and geographic parameters for the region, each State, and smaller geopolitical areas. Tables, graphs, and an interpretative analysis were compiled to create the report *Region III Childhood Fatality Analysis.*

Materials describing State and private initiatives in injury prevention were identified and collected in an annotated reference file. Members of the CHIPP-III Project Advisory Council received two reference notebooks and subsequent materials to assist in developing a resource library of injury prevention materials.

The DHHS Region III childhood Injury Prevention Workshop was held on October 25, 1990, to review the current status of childhood injury prevention and strategies and provide a forum for developing State-specific strategies. As a resource for this meeting, a *Regional Profile* was created, describing relevant data, laws, programmatic activities, key individuals, funding sources, and evaluation techniques used in conducting childhood injury-related activities in Region III. Nearly 70 people attended the meeting, including representatives from State and local health departments, the Centers for Disease Control, the Maternal and Child Health Bureau, and the John Hopkins Injury Prevention Center. A conference summary report was developed and disseminated to the participants.

The project has accomplished the following activities within States in Region III :

1. Delaware: CHIPP-III collaborated with the Delaware Safe Kids Coalition Task Force on Public Health to develop the report entitled *Injuries in Delaware.* The report is designed to guide the integration of injury prevention into the current activities of the Delaware Division of Public Health and to increase awareness of injuries in Delaware. The CHIPP-III Project developed the overall group process that guided the activities and outcomes of the Task Force meetings. The meeting materials include data, background readings, and tools for group work based on the publication *Injury Prevention: Meeting the Challenge.*
2. Maryland: Through the Maryland Injury Prevention and Control Program's minigrant project, CHIPP-III assisted the Upper Montgomery County Youth Services in developing a bicycle helmet demonstration project among low-income children in a target community. This project developed a bicycle safety education program and sponsored a bike rodeo where helmets were distributed. Approximately 300 children and their parents participated. A community bike safety committee was organized to assist in developing and evaluating the project.
3. West Virginia: CHIPP-III assisted the West Virginia Department of Health in developing a West Virginia Childhood Injury Coalition, a group of organizations concerned about childhood injury that will define goals and develop a comprehensive State plan for addressing childhood injury. Other coalition activities include developing priority papers on specific injuries and developing an injury track at the coming year's meeting of the State Health Education Coalition. Because of the interest generated by this project, additional funding has been provided by the Office of Epidemiology and Health Promotion to broaden the focus of the project to include all injuries in all age groups.
3. Virginia: CHIPP-III worked with the Division of Maternal and Child Health to develop a request for proposals for projects to reduce the incidence of childhood injuries by combining public education with implementation of community-based strategies. Implementation of community childhood injury prevention projects assists the Division of Maternal and Child Health in achieving the objectives outlined in the Statewide Childhood Injury Prevention Plan, as consistent with the *Healthy People 2000* objectives for the Nation. Of greatest benefit was the development of an accompanying workbook to guide community agencies through the process of developing the proposal. The workbook drew heavily on *Meeting the Challenge* and incorporated many of the resources that have been identified and

collected by CHIPP-III. The workbook has subsequently been reproduced and distributed to all Title V directors nationwide.

4. Pennsylvania: A detailed plan was developed by CHIPP-III staff to assist the Pennsylvania Division of Health Promotion in the Department of Health in (1) conducting an injury-related data analysis project and (2) developing an injury book for the State that would include an action plan and recommendations for a State injury program. A report entitled *Pennsylvania Injury Prevention and Control Profile* was developed by the CHIPP-III staff to serve as a background document for future activities addressing childhood injury.

5. District of Columbia: CHIPP-III collaborated with the Office of Maternal and Child Health to develop alternatives for collecting data and information on the incidence of violence among adolescents in the District. The plan would include strategies for increasing awareness among District health care professionals and locating funding to establish a conflict-resolution program.

The project has continued to provide both technical and financial assistance in Region III to facilitate injury prevention planning, implementation, and evaluation at the State level.

Health Promotion Project for Urban Youth—Violence Prevention Project
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MCHIP
MCJ-253420
10/01/87–04/30/91
Project Director(s):
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PROBLEM: Injury and death from acquaintance violence are problems of major proportions in the United States. Inner-city adolescents living in poverty are at particularly high risk for homicide and intentional injuries. The intimate and behavioral characteristics of acquaintance violence render it unlikely to be affected by punitive, after-the-fact interventions of the criminal justice system, but amenable to prevention and early intervention.

GOALS AND OBJECTIVES: The goals of the project were to reduce the incidence of negative health outcomes of violence by making the clinical setting more responsive to the needs of youth at risk for or engaged in violent behavior, and by linking primary and secondary prevention services to generate a comprehensive approach to the problem.

METHODOLOGY: At least two neighborhood health centers, each located in high-risk neighborhoods, were to become fully functional in violence prevention activities such as education, screening, and referral. All relevant staff received training in violence prevention educational techniques. Violence prevention was to be incorporated into the medical protocol in the form of anticipatory guidance and offered to all adolescent patients. Educational materials, such as posters, pamphlets, and video presentations, specially developed for this project, were deployed in the waiting rooms. A screening instrument was to have been developed to identify high-risk youth who were in need of more supportive services. The tool was also to be used in hospital emergency rooms and possibly in other community agencies. Troubled youth who were identified through these channels were referred to clinical treatment services for secondary level violence prevention services.

A referral network of secondary services was generated to link primary prevention services and clinical treatment services. Both community and hospital providers have been able to access the referral network through a directory and referral protocol made available to them.

All of these activities were supported by a larger violence prevention initiative that has functioned in the two target neighborhoods and, more recently, throughout the city of Boston. Changes in attitudes and behaviors will be supported through the community level efforts.

EVALUATION: The primary outcome of interest was the reduction of intentional injuries to adolescents over time. The project attempted to measure this reduction by means of injury and fight surveillance systems which were tested in Boston City Hospital and in the two neighborhood health centers. Annual medical chart reviews at these health centers provided information on referrals made and recidivism to injury. Because these counting systems were new, there were no data to measure the impact of the program thus far. In the first month of the fight monitoring system, however, compliance at one center where the system was first established was 87 percent; the fight rate among participants was 113 per 1,000 patients, with an injury rate of 15 per 1,000. Only 1.5 percent of the patients asked refused to answer the questions. Informal interviews of center staff have revealed that the system has increased their sensitivity to the problem of violence among their patients.

The referral activities were evaluated by their ability to identify and refer youth who are in need of services. The ability of the clinical treatment services to engage, sustain, and maintain referred youth was also measured. Youth seen in the hospital and by project direction were followed with phone contact. The educational component was monitored in terms of numbers of youth reached, engaged, and sustained in the program. Pretesting and posttesting of youths for impact of knowledge and attitudes concerning violence are being conducted in some settings.

(Note: An intensive evaluation was conducted during the three years of the project's MCHIP funding. Information on the findings is available upon request.)

EXPERIENCE TO DATE:

1. Training of health personnel: Four health centers, two in each of the pilot neighborhoods, have had staff trained in the concepts and messages of the violence prevention curriculum. The training occurred during special inservice sessions with the staff.

   The Education Development Center (EDC) was contracted to work with the Violence Prevention Project (VPP) to develop the provider protocol. EDC and VPP staff met with individual members of two of the health centers (the largest and most involved centers) to identify the parameters of anticipatory guidance and the potential barriers to provider compliance. Following these meetings, a draft of a provider protocol was developed and pilot-tested in a total of three neighborhood health centers and the Adolescent Health Clinic at Boston City Hospital. At the conclusion of the testing period, patient chart reviews were completed to assess the utilization of the protocol. Findings from these chart reviews, as well as provider interviews, were incorporated into the final draft. It appeared that there was a need for additional materials to be used in training providers and educating patients. An audio-slide presentation and sample posters were developed for these purposes, respectively.

   The protocol is intended to acquaint the provider with violence as a public health issue and to offer suggestions as to how to begin a discussion about violence with adolescent patients. It is only one part of a larger violence prevention effort. We found that the protocol raised concerns as to what services, activities, and programs would be available for the adolescent identified to be at risk for violence. In neighborhoods where there had been other agencies trained in violence prevention, we found a greater likelihood of provider compliance. In-house services were also developed to support this initiative in some cases.

   The VPP now is interested in seeking additional funding to reproduce the protocol package and introduce it to other health centers in Boston and elsewhere.

2. Clinical treatment services: Clinical efforts were coordinated with the Barron Assessment and Counseling Center, formed by the Boston Public Schools for youth who have been caught with a weapon in school. From 1989 to 1989, VPP staff provided violence prevention education and counseling at that site. In 1990, the center offered the counselor a full-time position to coordinate all of its violence prevention efforts.

   Youth who have been admitted to the hospital for intentional injuries are recruited for a new program called Project Direction. This program more closely resembles the original clinical treatment services described in the initial SPRANS proposal. Adolescent patients are seen by the VPP clinical care coordinator and then referred to the project direction director for followup. If the patient chooses to participate, he or she may attend regular individual and group counseling sessions which are focused on violence prevention and substance abuse.

   Obstacles sited earlier, such as the lack of a permanent location for the clinic, administrative problems of coordinating the program within the hospital, and general unwillingness of adolescents to come to the hospital, seem to have been overcome. Efforts to make the hospital emergency room more acceptable are continuing. The focus on trauma care and immediate medical treatment renders this environment somewhat unresponsive to adopting prevention activities. Emergency medical personnel have received training by VPP staff, and on occasion, address the issue of violence prevention with patients and the persons who accompany them to the hospital.

3. Secondary service network and directory: Existing secondary prevention services in the communities have been identified and a referral process for community personnel has been established. A workshop

for both the primary prevention and secondary service agency personnel was held April 27, 1988, to encourage networking. A directory of the services was produced and was distributed to community providers during the workshop. At this time, the directory covers 60 agencies. It was decided that annual updating would be necessary due to the rapid changes in programs and contact persons within the social service field. Funding and time constraints, however, made this impossible, and another avenue has been pursued. As of March 1991, the VPP has hosted monthly networking breakfasts which offer individuals working in any aspect of violence prevention an opportunity to share information and obtain support. Building on the success of the breakfasts, the VPP also has begun to publish a bimonthly newsletter, entitled *Against the Tide.* The mailing list for the newsletter includes over 350 names, and an additional 150 copies are distributed at local agencies.

4. Media product development: Two television public service announcements (PSAs) were developed for the project by a major advertising company under the auspices of the Advertising Club of Greater Boston's Public Service Award of 1987. The PSAs have been aired since September of that year. Posters and T-shirts based on the themes of the PSAs have also been designed and produced with the MCHIP funding. The focus is on the ability of friends to both generate conflict situations and to prevent them. The campaign slogan is "Friends for life, don't let friends fight." Additionally, two different brochures have been developed, one directed to adolescents and one to agency personnel.

   With the support of the MCHIP funding, the VPP and WBGH-TV of Boston have developed two productions. One is an hour-long documentary about violence entitled *Private Violence—Public Crisis.* The three 20-minute segments deal with family and adolescent violence and cover effective interventions. This piece was first aired in January 1990 and went on to win awards in the public broadcasting field. The second project was the development of five 5-minute public service announcements based on the different aspects of violence and suggested strategies for prevention. These short, dramatic clips also went on to win awards.

   In addition to being aired, these productions were made available to the project for dissemination in the community as educational tools. Written materials were also designed to be used with the short videotapes and the documentary in more formal educational settings.

   A videotape that was produced by the VPP staff has been played in the waiting rooms of three health centers. The video combines the newscasts that have covered the project over the past 2 years with narratives about violence prevention. The video has been well received, although lately there has been some objection to the labeling of one of the test neighborhoods as "lower class black" by the newscaster. The video has been edited to remove this section.

5. Community-based training: As suggested above, several components of the project were limited in their potential for success unless supported by a larger, more comprehensive effort. The VPP recognized this and has maintained a strong commitment to the training of youth-serving professionals. In the early years of the project, training opportunities were limited to only those individuals from the two communities targeted by the project. In 1990, the mayor of Boston announced a special initiative which would support the project's work in all communities of Boston. In 1991, the project became formally established within the city's Department of Health and Hospitals.

Parent Outreach Project
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MCHIP
MCJ-273020
10/01/87-09/30/91
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PROBLEM: Child maltreatment is a problem of major national concern. The 1988 National Incidence Study indicated significant increases in the incidence of physical and sexual abuse since the 1980 study, with physical abuse increasing by 58 percent and sexual abuse occurring at more than triple its previous rate. While these increases may be due in part to the increased recognition and reporting of child maltreatment, the fact remains that the National Incidence Study found 1,025,900 countable cases of child maltreatment in the United States in 1986. In Ramsey County, Minnesota, the rate of substantiated physical child abuse was 11.5 percent higher in 1987 than in 1986. The pattern of increased reporting of child abuse/neglect thus continues to escalate, and professional treatment services are already overburdened. At the same time, estimates consistently indicate that the number of reported cases may greatly understate the actual incidence of maltreatment. Moreover, cases of emotional or psychological neglect or abuse may rarely be reached by existing child protection or legal services. Childhood maltreatment is increasingly implicated in serious adjustment disturbances later on in life, including problems of delinquency and criminality, early adolescent pregnancy, and psychiatric disturbances. Established patterns of maltreatment in families appear resistant to change, as evidenced by high recidivism rates following treatment programs. The development of preventive methods with the potential for greater community outreach is imperative.

GOALS AND OBJECTIVES: The major goals of the Parent Outreach Project (POP) are to:

1. Develop and demonstrate a replicable, collaborative, interagency preventive intervention model utilizing existing professional casework services, community education, and community-based social support for a population at risk for potential child maltreatment; and
2. Reduce the incidence of parent-child problems and child maltreatment and promote increased positive parent-child interactions in a population at risk for potential child maltreatment, through the application of the collaborative intervention model.

The specific objectives are to:

1. Reduce the incidence of child maltreatment in a sample of at-risk families participating in the Parent Outreach Project program;
2. Achieve normal growth and development of target children in families participating in the program;
3. Reduce the frequency and intensity of parent-child interactional conflicts in families participating in the program;
4. Increase the frequency and quality of positive parent-child interactions and the mutual enjoyment of parent-child activities in families participating in the program; and
5. Increase positive support in the personal social network of the parents participating in the program.

METHODOLOGY: The Parent Outreach Project is a collaborative interagency effort to reach out to parents under stress who are expecting or have young babies. Several important themes have been guiding project development efforts since the initial planning stages. These include:

1. Interagency collaboration and coordination of services;

2. Building on family strengths (empowerment of parents as caregivers), as well as trying to reduce problems before they grow too big;
3. A team approach between professional service providers and volunteer natural helpers ("parent befrienders");
4. A strong program evaluation component;
5. Efforts to build in sustainability of the service model from the early stages of program planning (i.e., to build in an affordable and sustainable model of caregiving); and
6. Public-private agency collaboration.

The Parent Outreach Project is a project of the Wilder Foundation's Division of Services to Children and Families in collaboration with Ramsey County Public Health Nursing, St. Paul Area Council of Churches, and the Early Childhood Family Education Programs of five local school districts in Ramsey County, Minnesota. The Wilder Foundation initiated the development of the Parent Outreach Project through its Prevention Planning Team, an interdepartmental team established in 1985 to study approaches to prevention programming in human services, to develop a prevention resource library, and to make recommendations for demonstration projects to the Wilder Board.

The Parent Outreach Project serves parents under stress who are expecting or who have young babies (birth to 1 year). A public health nurse meets each family in the home and conducts a structured risk assessment interview as part of her nursing assessment of the child and family. The nurse helps with well-baby care and helps monitor the developmental progress of the child. She also discusses a variety of health and parenting concerns with the parents, such as home safety, child immunizations, and child development stages. The nurse maintains the ongoing case management role, working in a team approach with the volunteer befriender and other professional service providers.

After the nurse has visited the family and conducted the initial assessment, the nurse and the coordinator of volunteers match a volunteer parent befriender to each specific client family. The befriender becomes a special friend to the parents, offering support to help build the parents' self-esteem and strengthen parent-child relationships. In addition to providing social and emotional support, befrienders often assist parents in strengthening their personal support network and connecting with other community agencies and resources. The befriender makes a commitment to visit the family once a week for a minimum of 6 months. Parent befrienders are carefully screened, receive 16 hours of initial training, and meet in a monthly supervision/support group with other befrienders and the volunteer coordinator.

The parent befriender and public health nurse also work together to link client families with the Early Childhood Family Education (ECFE) program in their neighborhood. ECFE programs are sponsored statewide through community education and offer "parent-child-together" classes, parent education resources, and learning events for parents and children. ECFE programs place a strong emphasis on building upon family strengths and on parents and children together learning by doing. There are 14 ECFE sites in St. Paul and over 300 sites in Minnesota.

EVALUATION: A full 3-year project demonstration effort is being conducted with approximately 70 families. The evaluation tools include measures of parent-child interaction, social network support, county child protection reports, child development, and home environment.

EXPERIENCE TO DATE: Project accomplishments include the following:

1. Successful negotiation and maintenance of interagency agreements for collaboration have been achieved. There is a strong ongoing commitment from the four collaborating agencies at both administrative and provider levels to carry the project forward through the demonstration phase.
2. Interagency staff training has been conducted. A total of 50 public health nurses and 12 ECFE parent education specialists have been trained in project implementation procedures.
3. Identification and assessment of families have been completed. A total of 207 families have received risk assessments by the public health nurses, and 139 have been determined to be eligible for POP.

4. A 16-hour training program for orientation and training of parent befriender volunteers has been developed. The project has trained a total of 77 parent befrienders, and 30 are currently active with the project. As a staff, we are learning a great deal about operating the volunteer parent befriender program component of the project. Professional service staff and community volunteers are learning to work effectively in a team approach to serve the families.
5. Additional visibility in the community has been gained. The project director and staff continue significant networking activities with other important community leaders in the area of early prevention/intervention to strengthen families and promote healthy child development.
6. A project videotape and Pop Resource Packet of informational materials have been created. The resource packet includes two papers: "Interagency Collaboration to Strengthen Families: Learnings from the Parent Outreach Project" by Kay Andrews and Gene Urbain; and "Parent Befrienders: Social Support for Families at Risk" by Kay Andrews.

Burn Injury Prevention Program for Low-Income Families

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MCHIP
MCJ-363002
10/01/87–09/30/91
Project Director(s):
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PROBLEM: In New York State, as well as nationally, burn-related deaths and injuries predominate among home injuries for children ages birth to 14 years. More specifically, in a 5-year period from 1984 to 1988 in New York, 405 children ages birth to 14 years lost their lives in residential building fires. In 1988, there were 60,172 residential building fires causing 427 deaths. Children under 9 years accounted for the highest percentage of these deaths. Additionally, from 1986 to 1988, there were 2,632 incidents of hot liquid burns (scalds) in children ages birth to 14 years, the predominant type of serious nonfatal burn injury to New York children. The above occurrences are of even greater concern for low-income families, especially those living in rural areas with limited access to health and preventive services.

GOALS AND OBJECTIVES: The overall goal of this community demonstration project in selected low-income and rural service areas of New York State was to reduce risks, morbidity, and mortality from fire, burns, and scald injuries by developing, implementing, and evaluating the proper installation and use of home safety devices and enforcement of building and fire codes.

A secondary project goal was to develop a comprehensive community health education burn prevention and safety demonstration program for low-income populations that reduces burn injury risks.

The New York State Department of Health proposed, during a 3-year period, to reduce by 25 percent the incidence of burn morbidity and mortality in low-income and rural children ages birth to 14 years; increase by 50 percent the number of low-income households that have smoke detectors and hot water temperatures between 120 and 130 degrees; increase by 50 percent the knowledge level of burn prevention and safety measures among low-income parents; and establish a baseline index of burn and scald risk factors among the target population.

METHODOLOGY: To accomplish these objectives, the burn prevention initiative linked to weatherization program services through the department's successful child restraint loaner projects based in local health departments, community action programs, hospitals, Head Start programs, and WIC programs. The department integrated and built upon weatherization services, local health services, and other department-sponsored initiatives such as Home Safe Home and Healthy Neighborhoods, through outreach to low-income, rural, minority, and handicapped populations using "passive" (home safety devices) and "active" (education) approaches. The New York State Health Department contracted with 10 community action programs to identify needy families and to distribute, install, and maintain smoke detectors for a nominal $3 fee. In addition, comprehensive safety education presentations were provided. The overall effectiveness of the project is being monitored and evaluated through several existing surveillance systems.

EVALUATION: One of the primary mechanisms for ongoing monitoring of the burn injury problem among the target population was the Burn Injury Report System (NY-BIRS), developed by the New York State Office of Fire Prevention and Control.

Baseline data included age, sex, county, zip code, time of injury, percentage and degree of sustained burns, and injury severity for burn injury within the following categories of apparent causes:

1. Hot liquid (e.g., hot water, coffee, tea, and hot food);
2. Cooking (e.g., stove, oven, hot plate, barbecue, and hot grease);
3. Structure fires (any uncontained burning within a structure, including smoking accidents and brush fires);
4. Contact with a hot object (e.g., wood stove, stovepipe, furnace, iron, steam pipe, and exhaust pipe);
5. Flammable liquids (e.g., gasoline, kerosene, diesel fuel, jet fuel, and lighter fluid);
6. Gas/vapor explosion (e.g., ignition of flammable gases or liquid vapors); and
7. Other open flame (e.g., matches, lighters, and torches).

To further check the validity of reported burn injury data and to provide an overall review of existing reporting systems, the Department of Health analyzed Bureau of Biostatistics death certificates and hospital discharges in the target counties. In addition, part-time burn prevention technicians, as part of the project's operations, conducted household surveys before and after the intervention program to collect information on the number and type of fire and burn hazards; the presence and functional status of safety devices (e.g., smoke detectors, automatic sprinkler systems, fire extinguishers, low-center-of-gravity coffee makers and cups, and the temperature of hot tap water); and the level of knowledge of family members regarding appropriate behavior for prevention of fires, burns, and scalds at the preepisode, episode, and postepisode stages. Collection instruments developed by the Centers for Disease Control and the New York State Department of Health were used. The same information was collected from similar households in counties which did not receive the intervention.

Tracking of activities was accomplished through review of the following: Monthly reports from the local projects; quarterly site visits to assess progress and offer technical assistance; activities described in the applicant agency's proposal; and criteria set forth in the agency's subcontract with the New York State Health Department and Health Research, Inc.

EXPERIENCE TO DATE: Request-for-continuation applications were forwarded to 10 rural, upstate New York community action programs which sponsor weatherization services. Each community action program was awarded a $7,000 subcontract to provide outreach to children under 15 years of age who are from low-income families using active and passive burn prevention approaches.

Each of the 10 demonstration projects established referral networks, formed local advisory coalitions, and hired part-time staff to carry out program activities.

Training regarding the technical aspects of active and passive approaches, as well as the conduct of presurveys and postsurveys, was provided to the burn prevention technicians by the New York State Department of Health, Office of Fire Prevention Services, and Weatherization Assistance Program.

Ionization, photoelectric, and hearing-impaired smoke detectors, replacement batteries, and aerosol spray for testing smoke detectors were purchased in large amounts for use by the local projects.

The New York State Department of Health formed a burn prevention advisory committee made up of health and human services professionals, fire and burn prevention experts, epidemiologists, media and print production specialists, and representatives of the target population to help guide the development of educational materials and approaches.

Three burn prevention magnetic messages, with the themes "Too Hot for Tots, Keep Small Children Away from Hot Liquids," "Children Are No Match for Fire," and "Too Hot for Tots, Keep Small Children Away from Hot Foods and Objects," were produced for local project use with the low-income target group. A burn prevention coloring book for children was also produced.

A new 35-minute training videotape on how to prevent burn hazards in the home was produced. Burn prevention kits containing smoke detectors, extra batteries, emergency phone numbers, magnetic messages, hot water temperature gauges, brochures, and instructions for installing smoke detectors and lowering hot water heater temperatures are being pilot-tested as a new self-help strategy.

Surveys have been conducted in approximately 3,000 households, and baseline, burn history, knowledge, and room-by-room burn risk observation data have been collected. More than 11,500 smoke detectors and 9,000

replacement batteries have been distributed, with approximately 7,000 smoke detectors installed by burn prevention technicians. Approximately 1,000 hot tap water heater tank temperatures have been lowered and 75 antiscald devices installed. In addition, more than 4,000 burn injury prevention kits have been distributed.

Funding to the localities ended September 30, 1990. Each of the 10 pilot demonstration projects, however, continues to provide comprehensive burn prevention services to the target population.

Five hundred smoke detectors were installed in the homes of low-income families from the three counties in which comparison data were collected but no intervention was provided. This occurred after the pilot demonstration period had ended.

Statistical analysis and epidemiologic evaluation of project outcome measures are nearly completed. Process evaluation is under way as well.

Training EMTs in Primary Prevention of Childhood Injuries

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MCHIP
MCJ-363126
10/10/87-09/30/91
Project Director(s):
Susan Hardman

PROBLEM: The 1990 Health Objectives for the Nation call for a reduction in morbidity and mortality caused by injuries. In New York State, injuries are the leading cause of death and disability among children and young adults. The major categories of unintentional home injuries are falls, scalds, burns, and poisonings.

GOALS AND OBJECTIVES: The overall goal of this project was to reduce morbidity and mortality from childhood home injuries caused by fires, scalds, falls, and poisonings in New York State.

The project objectives were to:

1. Develop a training module on the primary prevention of childhood injuries related to falls, scalds, burns, and poisonings for emergency medical technicians (EMTs) to use in their communities; and
2. Conduct a demonstration project in a target area by mobilizing the community resources of EMTs.

METHODOLOGY: The main component of the project was the development of a slide presentation module for injury prevention training in the primary prevention of childhood injuries. The module was piloted during the State emergency medical services (EMS) conference. It has been adapted for use in a statewide EMS pediatric training course as the prevention segment. The New York State Injury Control Program provided available data, reviews of proven interventions, and technical assistance to any ambulance corps interested in starting a project in their communities.

The demonstration project encouraged EMS personnel to become actively involved in the injury control coalitions being established through the local health units. The coalitions assessed the community's needs, developed strategies, and implemented primary prevention programs to address those needs.

EVALUATION: The attitudes of State and local EMS personnel toward injury prevention were assessed by means of questionnaires and personal interviews. In determining the willingness of EMTs to voluntarily participate and support alternative injury prevention programs, we used the slide presentation module. An evaluation form was completed by all EMTs attending the New York State EMS Conference Prevention Workshop.

A training module evaluation form was completed by all EMTs at the pilot test site. The instructional booklet included a contact sheet to be submitted to the New York State Injury Control Program upon initiation of an injury control project, thus allowing the number to be documented and the plans to be evaluated by the State Injury Control Program staff.

The subtle impact of the EMS training project was evidenced by: (1) An increase in the knowledge level of EMTs in injury prevention, which will impact the effect of their employment and their personal interactions within the community; (2) resource support for municipal health plans to be incorporated in each county; and (3) promotion of injury control programs statewide.

EXPERIENCE TO DATE: Several developmental steps marked the progress of the project during the 4-year period. We established an internal steering committee to guide the program's growth. Included on the committee were representatives from the State EMS, the Bureau of Public Affairs, and the New York State Injury Control Program staff. Local EMS corps, State representatives in the field, regional nurses, and EMS personnel are consulted on a continuing basis for input in structuring the training module.

Ongoing review of baseline data and appropriate literature substantiated and directed the program objectives and served to reinforce the course being taken.

Strategies were outlined for the development of the training module with the direction of the internal steering committee and key injury control resource persons nationwide. The existing community-based primary prevention programs were analyzed and evaluated for the implications they provided.

The joint efforts of EMS and the New York State Injury Control Program staff, combined with the resources of various health agencies, made it possible to address the stated objectives.

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MCHIP
MCJ-403235
10/01/87-06/30/91
Project Director(s):
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PROBLEM: Injury is the leading cause of death and disability among children and young adults in Oklahoma. Motor vehicle occupant deaths are the single leading cause of death for Oklahoma children 1–21 years of age. Between 1980 and 1989, 164 Oklahoma children under age 5 dies of motor vehicle occupant injuries, accounting for 3 percent of all occupant fatalities over that period of time. In addition, adolescents were disproportionately involved in motor vehicle collisions as either drivers or passengers and died from injuries received in crashes at a much higher rate than other age groups. Adolescents ages 15–19 comprise only approximately 10 percent of the population of the United States. Yet, in Oklahoma between 1980 and 1989, 916 adolescents ages 15–19 died from injuries received in motor vehicle collisions, accounting for 16 percent of all occupant fatalities. Approximately 80 percent of all fatalities among children occurred in this age group.

Drowning is second only to motor vehicle-related injuries as a cause of injury deaths in children. Between 1980 and 1985, 177 Oklahoma children ages 1–14 died from submersion injuries. Half of these deaths occurred in children under age 5. Homicide was the third leading cause of death in Oklahoma children ages 0–14 between 1985 and 1989. One hundred thirteen children died from homicides during that period. In 1989, 643 Oklahoma residents either died or were hospitalized in a burn unit as a result of burn injuries. Of these, 100 died. Over one-quarter of the injuries were to children under age 5. Black children under age 5 had the highest rate of injury from burns.

Persons who live in lower socioeconomic areas are at greater risk for motor vehicle-related deaths, residential fires, drownings, homicides, and unintentional shootings than persons whose socioeconomic status is higher. In addition, unemployment is significantly more prevalent in families who experience unintentional injuries than in those families with low rates of injuries.

GOALS AND OBJECTIVES: The goal of the statewide pediatric injury control project was the reduction of morbidity and mortality due to childhood injuries. The objectives of the project specifically addressed the leading causes of childhood mortality in Oklahoma (i.e., motor vehicle accidents, submersions, and burns). In addition, efforts addressed the problems related to violent intentional injuries.

METHODOLOGY: Project goals have been facilitated through the use of interagency and intraagency coalitions. One of the key features of this project was its coordination with a Centers for Disease Control injury surveillance grant administered by the Epidemiology Service of the Oklahoma State Department of Health. Surveillance data for injuries from burns, drownings, and near-drownings, head injuries, and spinal cord injuries have enabled the injury prevention project to effectively target at-risk groups and develop activities to address factors which are known to increase the risk of injury.

Lay and professional conferences addressing burn and submersion injuries have been successfully conducted as part of the ongoing commitment to injury prevention. Community-based programs have been developed in cooperation with local civic groups and local government agencies, such as police and fire departments, to educate and motivate communities to develop effective injury prevention practices and strategies.

The project has continued to be involved in the promoting policy development and legislative education related to injury prevention.

EVALUATION: Outcome evaluation has examined at mortality rates for specific types of injuries from vital statistics and surveillance data. Since mortality rates from individual types of injuries have been relatively low, process evaluation has been essential and long-term evaluation of ranges of time have been utilized to determine effectiveness of programs.

EXPERIENCE TO DATE: A car seat loaner program, conducted with the Health Education Information Service of the Oklahoma State Department of Health, has been developed at 37 sites in 32 countries.

The Home Injury Prevention Program for Oklahomans (HIPPO) was developed in coordination with the Health Education and Information Service. Monthly fact sheets, coloring books, and calendars on injury prevention featuring the HIPPO family were distributed to day care centers, Head Start programs, and county health departments.

An interagency coalition, consisting of representatives from a number of different services within the Oklahoma State Health Department, coordinates and facilitates injury prevention activities within the agency.

The Oklahoma Safe Kids Coalition, comprised of representatives from approximately 40 government and private agencies, was formed under the National Safe Kids Campaign. The pediatric injury control project was one of the most active members of that group. Annual statewide childhood drowning and burn prevention conferences were conducted in 1989 and 1990. Health and safety fairs were conducted. The Legislative and Policy Subcommittee, which has become linked with the Public Policy Committee of the American Trauma Society, has kept abreast of pending legislation and has been active in educating policymakers and the community in important legislative policy issues related to pediatric injury prevention. Educational material has been developed for distribution within the State. A low-cost bicycle helmet has been developed for the Oklahoma City area and is now being expanded statewide.

A smoke detector education/distribution program was developed for selected counties at high risk for house fire deaths and injuries. A public service campaign was developed, in collaboration with the State fire marshal, to encourage people to change smoke detector batteries in the fall when the clock is set back. A public service announcement, featuring the fire marshal, was developed by the pediatric injury control project and distributed to all television stations in the State.

South Carolina Childhood Injury Reduction Project
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MCHIP
MCJ-453307
10/01/88-09/30/91
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PROBLEM: Injuries are the leading cause of death among South Carolina's children and adolescents, accounting for 68.3 percent of all deaths among children 1 to 19 years of age. From 1985 to 1989, there were 2,043 death of children 0 to 19 years resulting from injuries. Although childhood injuries are a serious public health problem throughout the United States, the situation in South Carolina appears to be particularly severe. The death rate for children 0–19 years from all injuries was 38.7 per 100,000 population in South Carolina for the 1985–1989 period. This rate was 22 percent higher than the childhood injury death rate for the United States in 1986, which was 31.7 per 1000,000.

Injuries are a significant cause of childhood morbidity as well, representing the third leading cause of hospitalizations to children in South Carolina. There were more than 35,000 pediatric hospitalizations due to injuries between 1985 and 1989.

Injuries are an extraordinarily costly public health problem. The direct and indirect cost of childhood injuries to the State of South Carolina has never been calculated. We do know, however, that for 1989 alone, hospital charges for injuries to children 0–19 years in South Carolina were $22.7 million. Twenty-seven percent of that amount was billed to Medicaid and other public payment sources.

Prior to the inception of this project, there was no single system for documenting and reporting childhood injures in South Carolina. Though data concerning deaths were available through the state's Office of Vital Records, they had never been analyzed. Data concerning nonfatal injuries were fragmented and difficult to interpret. Without baseline descriptive information about the magnitude and scope of the childhood injury problem in South Carolina, effective injury control interventions could not be developed, appropriately targeted, and evaluated.

GOALS AND OBJECTIVES: The purpose of the Childhood Injury Reduction Project (CHIRP) was to assume leadership in the development of a system by which data concerning fatal and nonfatal childhood injuries would be compiled, analyzed, reported, and ultimately used in the development of prevention strategies. The overall goal was to have a system in place by which childhood injury data were reported to a central agency by September 1991. Toward this goal, two impact objectives were developed: (1) A statewide surveillance system was to be established by September 1991 to provide a data base on childhood injury; and (2) a coalition of agencies and associations with interest in childhood injury was to be formed by September 1990 to focus on the problem and provide input into the development of the project.

METHODOLOGY: The Childhood Injury Data Consortium, composed of representatives of eight agencies and organizations that routinely collect information on childhood injuries, was formed. Each agency/organization agreed to make data available to the Department of Health and Environmental Control (DHEC) for analyses and the preparation of reports. Data were compiled, analyzed, and reported in the 1990 publication *What's Killing Our Children? Childhood Injuries in South Carolina.* Plans for data compilation and reporting to continue were developed, and a second report was under way at the conclusion of the grant period.

A multidisciplinary, interagency task force, the South Carolina Childhood Injury Prevention Action Council, was formed to review the findings of the consortium and to develop recommendations for childhood injury prevention program planning. The council consisted of 25 members, representing 27 agencies and

organizations. More than 20 resource associate members provided additional expertise. The council formed subcommittees on traffic injuries, residential injuries. recreational injuries, and injuries in school/day care. Each subcommittee studied its issue carefully and prepared a report of findings and recommendations. The subcommittee reports were compiled and released in the 1991 publication *Our Children's Safety: The State of the State, 1991.* Though release of this report marked the conclusion of the South Carolina Childhood Injury Reduction Project, the council continues to function. It has reorganized into three subcommittees (program development, legislation, and public education), which are charged with implementing the recommendations.

CHIRP also sought to be a source of information and referral for childhood injury prevention efforts through the publication of a quarterly newsletter, the presentation of workshops and lectures, interactions with the mass media, and the provision of consultation and technical assistance upon request.

EVALUATION: Process evaluation strategies were used to assess progress toward meeting the project objectives. A set of process objectives was developed for each impact objective. Each process objective had a timeframe for completion and an end point or product to satisfy completion of the objective. For example, a process objective relation to the development of a coalition stated: "Convene task force by September 1990 which will meet quarterly to develop policy and plans for reducing death and disability due to injury." The convening of the Childhood Injury Prevention Action Council satisfied this objective.

EXPERIENCE TO DATE: The Childhood Injury Data Consortium was convened. The data obtained through the consortium were compiled, analyzed, and reported in *What's Killing Our Children? Childhood Injuries in South Carolina.* Plans were developed for ongoing data collection. A second data report was in draft form at the conclusion of the project.

The Childhood Injury Prevention Action Council was formed and charged with a twofold mission: (1) To study the findings of the Childhood Injury Data Consortium, and prepare recommendations for childhood injury prevention; and (2) to develop an ongoing coalition for childhood injury prevention in South Carolina. The council published its findings and recommendation in the report *Our Children's Safety: The State of the State, 1991.*

A quarterly newsletter was published and disseminated to over 2,500 readers. Two slide-script shows were developed and made available on loan to interested parties. Workshops and presentations were conducted by request. Two press conferences resulted in television, radio, and print media coverage of childhood injury problems and programs. Consultation and technical assistance were routinely provided to agencies, groups, and individuals seeking to conduct injury prevention programs and/or advocate for childhood injury prevention legislation.

Reduction of Childhood Accidental Injuries in Utah Students

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MCHIP
MCJ-493244
10/01/87–09/30/91
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PROBLEM: In 1984, the Child Injury Prevention (ChIP) Program of the Utah Department of Health implemented the Student Injury Reporting (SIR) system to monitor school-related injuries. The reporting criteria required that an injury be severe enough to: (1) Require the loss of one-half day or more of school, or (2) receive medical attention by a health care provider.

Between 1984 and 1987, there were 9,062 injuries to students in grades K–6 reported on the SIR form. Data showed that 71 percent of these injuries occurred on the playground. Of these injuries, 33 percent were listed as possible fractures; 23 percent were cuts/lacerations; 22 percent were abrasions and contusions; 18 percent were sprains, strains, or torn muscles; 4 percent were possible concussions; and 1 percent was other injuries.

Most playground injuries (86 percent) occurred during lunch or recess, with a 60:40 male to female ratio. Only 6 percent happened before or after school, followed by 5 percent occurring during organized activities. There were 4,585 days absent from school due to playground injuries.

According to the U.S. Consumer Product Safety Commission (CPSC), playground injuries account for more than 150,000 medically attended injuries per year in the United States. CPSC notes that the majority of these injuries occur from falls off playground equipment, and that the falls from equipment onto asphalt result in a disproportionately high number of severe injuries. Additionally, CPSC places playground equipment fifth on their list of the 100 most hazardous consumer products.

Playground injuries are caused by six major risk factors: (1) Poor protective surfaces, (2) improper placement of equipment, (3) equipment in disrepair, (4) improper use of equipment, (5) inadequate supervision, and (6) the children themselves.

GOALS AND OBJECTIVES: The goal of this project is to demonstrate a reduction in the frequency and severity of school-related playground injuries to children. This goal will be achieved by making simple environmental modifications on the playgrounds and by faculty and students. To maximize the effectiveness of this project, school and district administrators, parents, local health department personnel, grounds keepers, PTAs, and other community groups will be involved.

The project objectives are to:

1. Conduct semiannual school inspections to identify existing playground hazards and provide a baseline for measuring improvement;
2. Train school custodians to become more safety conscious by recognizing potential playground hazards and providing adequate and prompt maintenance;
3. Coordinate the development of a school playground policy and procedures document;
4. Involve school PTAs in a fundraising effort for the purchase of new equipment or for the modification of the playground environment;
5. Provide playground safety instruction to the teachers and train them in the use of the curriculum guide developed for this project; and
6. Use the Student Injury Reporting (SIR) form to monitor playground injuries in the target schools in order to determine the success of this intervention project.

METHODOLOGY: The Child Injury Prevention (ChIP) program has taken a multidisciplinary approach to the playground injury problem in Utah. Several people and agencies, such as the Utah State Health Department, local health departments, school PTAs, teachers, school and district administrators, and school custodians, have been actively involved with the project. The intent was to combine educational, environmental, and policy components into one cohesive unit and work toward the common goal of reducing playground injuries.

Seventeen target schools from 11 school districts were selected on a random basis to participate in this project. Contact was made with each superintendent or his or her official representative, and permission to proceed was obtained. Contracts were signed with seven local health departments to do the work in their respective geographical areas. Injury prevention coordinators were designated and the training of these individuals was provided by ChIP staff. Local environmental health specialists were trained to conduct playground inspections.

Local health department coordinators contacted each of the principals of the target schools and thoroughly explained the program. They trained the faculty, conducted pretesting and posttesting of the faculty and students, coordinated the playground inspections, and worked with the PTA leadership.

EVALUATION: The second year of this project allowed us to develop a prototype approach to reduce playground injuries which was implemented in selected school districts during year 3 and was expanded to the remainder of the State during the fourth year extension.

The internal management mechanism used to track the planned project activities includes: (1) The Student Injury Reporting form; (2) quarterly reports from the local health department coordinators; (3) site visits and semiannual inspections; and (4) miscellaneous monitors such as telephone consultations, letters, a checklist of responsibilities, and contracts.

The information gained through this method of internal monitoring allows the ChIP program to share information with the local health departments and school districts quickly. All of the data gathered in the various means outlined above are used as indicators of the success of this project in reducing playground injuries in the schools.

The playground curriculum, *Playground Perspectives: A Curriculum for Promoting Playground Safety,* was developed during the first project year and has been printed and distributed to the target schools and over 75 percent of the school districts. Approximately 6,000 teachers in these schools have been trained, and most are teaching playground safety units. The target schools were given refresher training on the use of the curriculum during the third project year. The training was expanded districtwide in selected school districts during year 3 and expanded to the remainder of the State during the fourth year extension.

Inspections of each target school playground are conducted semiannually to identify hazards. Hazards were reported to the principals and school districts. All the target schools have taken steps to correct the hazards by modifying the environment or removing, repairing, or modifying the play equipment. In year 2, the PTAs in 12 of the target schools organized fundraisers to earn money for playground improvements, and the ChIP program provided matching funds up to $500. These fundraising efforts continued during year 3.

The results of the inspections were sent to the principal, the superintendent, the local health department, the ChIP program, and the Bureau of Drinking Water and Sanitation (located in the Utah Department of Health).

A close working relationship has been established between the Utah Department of Health, the Utah School Boards Association, and the Office of Risk Management (the carriers of the liability insurance for the schools). In a cooperative effort, these three agencies sponsored a series of seminars (six in year 2 and eight in year 3) for elementary school principals, custodians, and superintendents. These seminars covered the following topics: An overview of playground injuries, State law and health codes regarding playground inspections, liability issues, the playground curriculum guide, supervision, maintenance, equipment, and surfacing. As an incentive to attend, a reduction in liability and property insurance was offered to any school that sent a principal to the seminars, participated with the local health department in correcting identified hazards, and conducted a self-inspection of the playground (required by the Office of Risk Management).

An analysis of the target schools' SIR data to determine changes from the baseline data is under way. Results will be included in the final report.

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MCHIP
MCJ-533500
10/01/87–09/30/92
Project Director(s):
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PROBLEM: Pedestrian injuries are the greatest cause of mortality from trauma in children ages 5–9 years, yet in the United States, little effort has been directed toward the prevention of these injuries. Unlike other injury problems, pedestrian injuries have not been the focus of a sufficient number of clearly defined approaches.

GOALS AND OBJECTIVES: Our broad goal is to alter the manner in which our community thinks about and approaches pedestrian safety. The goal of the Child Pedestrian Injury P[illegible]ntion Program is to decrease morbidity and mortality from childhood pedestrian injuries, using four specific interv[illegible]ons: (1) School-based educational programs to train children in pedestrian safety appropriate to their developmental level, (2) a broad-based educational campaign employing mass media to instill ind[illegible]id[illegible] and community responsibility for pedestrian safety, (3) enhanced police enforcement directed toward speeders and violators of the pedestrian's right-of-way, and (4) modification of environmental risk factors in high-risk areas. The program initially targeted high-risk communities in the Seattle-King County area, and expanded its efforts to other communities in the State in subsequent years.

METHODOLOGY: We have modeled our project on the successful program in Sweden, conducted by the Joint Committee for the Prevention of Childhood Accidents, whereby a coalition of their public and private organizations concerned with child safety worked to dramatically lower Sweden's child pedestrian injury rate. As outlined above, our project consists of a multifaceted intervention aimed at changing child behavior, parent and community attitudes, police enforcement, and environmental risks.

The school program focuses on grades kindergarten through four (K–4) and uses modeling, training in the real traffic environment, and instruction geared to the developmental level of the child. The program combines training at school with parental reinforcement at home.

The purpose of the community educational campaign is to infuse a "corporate" sense of responsibility with the themes that every child pedestrian injury is a negative reflection on the community and that every adult shares the responsibility to protect children from injuries. The program conveys the following messages: (1) Children react differently to traffic hazards than do adults; (2) pedestrian injuries are a community problem; (3) parents can actively participate in the pedestrian behavior training of their children; (4) motorists can help safeguard child pedestrian safety, especially at crosswalks; and (5) the Harborview Injury Prevention and Research Center (HIPRC) is a resource that can be used by parents and communities throughout the State.

The major components of the campaign include public service announcements on television and radio; talk show appearances by project staff; local newspaper coverage of activities; posters on buses serving the target communities; billboards, posters, and brochures; and speakers for local community organizations.

Improved police enforceme[illegible] of existing laws regarding pedestrian right-of-way and pedestrian/motor vehicle conflicts are an imp[illegible]tant component of the campaign. The risks associated with marked crosswalks due to the failure of drivers to stop, the problem of right turns on red, enforcement of the speed limit around schools, and the imbalance between citations to pedestrians and those to motorists are addressed through a cooperative effort with police.

Finally, the project seeks to decrease environmental risk factors for child pedestrian injury through a program of environmental modification. This includes increasing the number of sidewalks installed and the number of miles edgestriped, altering crosswalk designations, fencing in high-risk areas, and other appropriate measures to decrease the environmental risks to child pedestrians.

EVALUATION: The project uses a multifaceted evaluation of program effectiveness to assess changes in behavior, morbidity, and mortality. Observing changes in child pedestrian behavior is a key element in evaluating project effectiveness. The behavioral observations are conducted using a pretest and posttest design. A series of observations of children's pedestrian behaviors are completed in the target area before the intervention and repeated after the school training and public education campaign. In addition, the observations of the same group of children are repeated 9 months later to determine attrition in learned behavior over time.

The evaluation of changes in parental attitudes and awareness of the risks of pedestrian injury in children are conducted in a similar preintervention and postintervention design. Surveys are conducted by mail, and the responses of parents of children receiving school intervention are compared to those of parents of control children attending schools without specific interventions.

Evaluation of reduction in injury morbidity and mortality uses a number of different data sources concurrently: The Harborview Trauma Registry, the King County Emergency Medical Services (EMS) run records, Washington State Patrol records, and vital statistics data from the King County Medical Examiner's Office. The Trauma Registry allows us to track changes in the numbers of emergency room visits and inpatient hospitalizations for children with pedestrian injuries. These statistics are analyzed using the King County EMS run reports. Police reports are examined to determine whether the number of police-reported pedestrian injuries has decreased in the target communities over time. Finally, the King County Medical Examiner's Office provides data on trends in fatality rates for child pedestrian injuries.

The evaluation of our public educational campaign is conducted by observing pedestrian/motor vehicle interaction at selected crosswalk sites throughout the area. Behavioral observations are conducted using a pretest and posttest design. Behavior is observed at midblock crosswalks, those controlled by traffic signals or stop signs, and at locations where there are marked as well as unmarked crosswalks. In addition to the pretest and posttest, observations are performed during each new step of the campaign.

EXPERIENCE TO DATE: Substantial progress has been made in a number of areas:

1. Pedestrian safety training curriculum: The initial curriculum was developed in conjunction with the Highline School District, an urban area of King County outside of Seattle. The curriculum and inservice training program were initially made available to teachers in the district. A process evaluation indicated uneven use of the curriculum. Therefore, a teacher was hired by the project to teach the curriculum to children in grades K–4 in three elementary schools in the district. The curriculum consisted of five sessions, four of which were conducted in the classroom and one outdoors. Evaluation of the curriculum revealed modest changes in pedestrian behavior in children in grades 2–4 and essentially no change in performance in children in grades K–1.

   The curriculum was then further revised and strengthened. The main goal for the second revision of the Harborview Injury Prevention and Research Center curriculum was to create a course that continued to teach the important aspects of pedestrian safety while making the subject more exciting for children in the elementary grades. We also saw the need to broaden the content of the curriculum to appeal to the multicultural communities and varied learning styles of students found in Seattle and other urban areas.

   Several additions and some changes to the existing curriculum were made in order to meet these goals, although the main course content remained intact. Some of the more prominent additions included modeling with the use of a video camera, role playing, designing an incentive program to motivate student completion of supplemental worksheets, and adding three new characters created as a spinoff of the "Wary Walker" theme. The final revised curriculum consists of six lessons covering the main points of pedestrian safety along with the above-mentioned activities, a 15-minute introduction to the course, and an all-school followup assembly held 1 week after the last pedestrian safety lesson is taught.

The curriculum is taught to children in grades K–4 in 10 other elementary schools in the Seattle Public School District by a teacher hired through the project. Preintervention and postintervention observations made to date in the first school indicate substantial improvements in the pedestrian behavior of the children.

2. Parent survey: There have been essentially no data available for the United States on parents' expectations for their children's pedestrian skills. To collect data that could be used to guide the prevention program, a survey was done on current parental attitudes and practices concerning pedestrian behavior in children in grades K–4. The response to the survey consisted of 2,464 questionnaires from parents of children in grades K–4. Although 94 percent of the parents did not believe that children 5 to 6 years of age could reliably cross streets alone, one-third of the parents allowed kindergarten children to cross residential streets alone and first grade children to walk to school alone. The presence of speeding traffic or the lack of safe places to walk did not influence parents to limit their children's street crossing. Parents believed that children should be taught not to cross alone; one-half of the parents, including 41 percent of parents of kindergarten children, believed that children should be taught to cross busy streets without traffic lights. The study indicates that parent expectations for their children's pedestrian skills may be inappropriate.

3. Parent training program: The project has developed an educational program specifically aimed at parents. The previous experience with the child training program suggested that education solely in the schools may not be sufficient. In addition, the survey indicated that parents have inappropriate expectations of their children's pedestrian skills. We therefore developed a training program for parents, consisting of a two-part series of booklets aimed at parents of children ages 5–8 years. These booklets were developed in conjunction with the University of Minnesota. We are testing the booklets in conjunction with the school educational program. We plan to distribute these booklets to children in Seattle public schools, as well as through the offices of pediatricians in the community.

4. Legislative initiatives: In order to enhance pedestrian safety in the State and improve police enforcement, we worked with the Joint Legislative Transportation Committee and technical experts throughout the State on a legislative package. This package included a bill to improve the safety of children getting on and off school buses, a bill to address the rights and responsibilities of pedestrians and motorists at a crosswalk, and a bill requesting that all principal arterials, minor arterials, and collector roads in urbanized areas be edgestriped within 3 years. The first two initiatives were approved by the legislature in March 1990. The laws became effective July 1, 1990.

5. Materials: The project has produced the following materials:

   a. The *Pedestrian Injury Prevention Training Curriculum* for school training of children in grades K–3;

   b. The *Pedestrian Injury Prevention Cross-Age Training Curriculum* for school training of children in grades 4–5;

   c. "Wary Walkers Pedestrian Rodeo" for schools, youth groups, or others who wish to conduct an outdoor pedestrian safety skills program for young children;

   d. A brochure entitled "Kids and Cars Don't Mix" for parents of young children;

   e. A brochure entitled "The Last Thing" for adults which presents important pedestrian safety messages from the motorists' and pedestrians' perspectives;

   f. Posters entitled "Cars Kill" for young children, emphasizing the danger of being struck by a car;

   g. Posters entitled "The Last Thing" for adults, emphasizing the danger of being struck by a car;

   h. A series of television public service announcements aimed at motorists;

   i. A series of television public service announcements aimed at parents;

   j. A series of radio public service announcements aimed at motorists and parents, and time-specific spots focusing on back-to-school pedestrian safety and Halloween pedestrian safety; and

   k. The *Pedestrian Injury Prevention Parent/Child Activity Workbooks* for children in grades K–3 and for adults.