VIOLENT DEATHS TO CHILDREN:

A GROWING RISK TO GROWING UP IN MICHIGAN

A REPORT TO THE DIRECTORS

OF

THE MICHIGAN DEPARTMENT OF PUBLIC HEALTH

AND

THE MICHIGAN DEPARTMENT OF SOCIAL SERVICES

DECEMBER, 1991

SUBMITTED BY

THE

MICHIGAN CHILD MORTALITY REVIEW PANEL

Appointed August, 1990 by:

Raj M Wiener, Director, Department of Public Health
and
C. Patrick Babcock, Director, Department of Social Services

145304

Dr. Gerald Miller, Director
Michigan Department of Social Services

Ms. Vernice Davis Anthony, Director
Michigan Department of Public Health

Dear Ms. Anthony and Dr. Miller:

It is with great urgency and concern that the Michigan Child Mortality Review Panel submits to you their first report, Violent Deaths to Children: A Growing Risk to Growing Up in Michigan.

The panel's mission is to apply systematic and multidisciplinary review to child mortality trends and patterns in the state and to recommend prevention strategies. During the panel's review of child mortality, a paradox was uncovered: though Michigan's socioeconomic indicators have improved over the last several years, child health indicators have worsened. To our alarm, violent deaths in children increased more than any other indicator under study. These data compelled the panel to immediately address the problem of violence and its impact on Michigan children as one of the most significant trends in child mortality.

The report that follows has three parts:

(1) a summary of child mortality trends and patterns in Michigan, updating the 1989 Lifelines for Children Report: Child Mortality in Michigan;

(2) key findings, data and promising interventions related to violent deaths to children; and

(3) recommendations to prevent violent childhood death.

A summary of promising interventions to prevent child deaths from violence that were identified during the panel's inquiry is included to provide a basis of understanding for the panel's recommendations. It is critical that we learn from programs that currently exist as well as develop innovative strategies.

The most substantial problem Michigan faces in dealing with child deaths due to violence is the absence of a commitment to a unified strategy. The major barriers to overcome in developing a strategy are fear and apathy. Fear is a barrier because we are afraid to get involved and to make the changes necessary in what seems to be an overwhelming and frightening problem. Apathy sets in when poorly designed, uncoordinated interventions fail and we throw up our hands in dismay at another unsolvable problem.

Child mortality due to violence is preventable and it can and must be stopped. This report is a call for a unified state and local action strategy. To be successful, a unified violence prevention strategy must be developed that acknowledges the multiple causes of violence and the multiple strategies needed to reduce violence. Violent deaths to children have become an epidemic and it is critical that prevention become a high public health priority. The fundamental concept from which all prevention efforts should be based is that communities must be empowered to create peaceful environments for children.

The violence prevention strategy will also require the coordinated, strong commitment and leadership of the state agencies in order to have an impact. In conducting our inquiry it became clear that violence to children has not been well recognized as an issue and will require long term attention. The report offers a plan for an organized and comprehensive approach to the problem. The panel will monitor the progress made on these recommendations and stands ready to work with you during their implementation.

Respectfully submitted,

John B. Wallace

MICHIGAN CHILD MORTALITY REVIEW PANEL

John B. Waller, Jr., Dr. P.H., Panel Chair
Department of Community Medicine
Wayne State University
School of Medicine
540 East Canfield, Room 1369
Detroit, Michigan 48201

Elizabeth W. Bauer
Executive Director
Michigan Protection and Advocacy Service
109 West Michigan, Suite 900
Lansing, Michigan 48933

Myra M. Dupree, R.N., M.P.H.
Department of Health & Human Services
Public Health Service
Indian Health Service
Kincheloe Health Center
Kincheloe, Michigan 49788

Donald N. Duquette, J.D., Director
Child Advocacy Law Clinic
University of Michigan Law School
Ann Arbor, Michigan 48109-1215

Paul T. Giblin, Ph.D.
Department of Pediatrics
Wayne State University
School of Medicine
Children's Hospital of Michigan
3901 Beaubien Boulevard
Detroit, Michigan 48201

Emily C. Hall, J.D.
Attorney
1000 Farmers Street
Detroit, Michigan 48226

Ray E. Helfer, M.D.
Professor
Department of Pediatrics and Human Development
Michigan State University
B-240 Life Sciences
East Lansing, Michigan 48824

Douglas A. Mack, M.D., M.P.H.
Health Officer/Medical Director
Kent County Health Department
700 Fuller Avenue
Grand Rapids, Michigan 49503

Marvin H. McKinney, Ph.D.
Program Officer
C.S. Mott Foundation
1200 Mott Foundation Building
Flint, Michigan 48502

Ann Marie Saffer
Early Childhood/Special Education/ Infant Mental Health Consultant
2340 Hickman Road
Ann Arbor, Michigan 48105

Jack Shepherd
Detective First Lieutenant
Michigan State Police
7510 Harris Drive
Lansing, Michigan 48913

C. Richard Tsegaye-Spates, Ph.D.
Professor and Director of Clinical Training
Psychology Department
Western Michigan University
Kalamazoo, Michigan 49008

EXECUTIVE SUMMARY

VIOLENT DEATHS TO CHILDREN:

A GROWING RISK TO GROWING UP IN MICHIGAN

Michigan children are increasingly vulnerable to be both the victims and the perpetrators of violence. Over the past decade, violent deaths to children increased more than any other cause of death. Even for children who survive, to see this kind of violence inflicted or be its victim has devastating long term consequences. Violence has reached epidemic proportions among our most vulnerable citizens, our children.

The Child Mortality Review Panel inquiry into violent death to Michigan children identified the following key concepts and eight key findings:

Homicide is a leading cause of death to children and a major public health problem.

Finding

1. *Between 1980 and 1989, violent deaths to children increased more than any other cause of death.*

2. *As fewer children die from disease related causes, more children are dying from homicide.*

3. *Between 1980 and 1989, the risk for death by homicide increased dramatically for children, as compared to adults.*

Interpersonal relationships are a key factor in violence.

Finding

4. *Most homicide victims are killed by someone they know.*

Firearms play a major role in violent deaths to children.

Finding

5. *The number of children killed with firearms more than doubled in the decade of the 80s.*

The specific risk factors for violent death to children are low income status, male gender, ages 15-19 years, minority race and urban living. Though individually these risks do not precipitate violence, when clustered together they become strong predictors of violent childhood death.

Finding

6. *Though all Michigan children are at risk for homicide, the greatest vulnerability is among children who are low income, male, ages 15-19 years and minorities.*

7. *In Michigan, child homicides are clustered in high risk neighborhoods within urban centers.*

The data on violent deaths underestimate the individual and societal costs of violence to children.

Finding

8. *Violence related injuries to children have vast implications for those that survive.*

Child mortality due to violence is preventable and it can and must be stopped. Violence occurs in communities when the social structures of the family, school and church have broken down. Individuals develop violent behaviors from the choices they are presented and the role models they observe. Therefore, communities are a key element in violence prevention activities.

The prevention of violence is very complex. The many factors related to violence support the need for a comprehensive prevention strategy. While a broad strategy is proposed, it is necessary to take key steps and to focus efforts. The following five recommendations are proposed.

RECOMMENDATION 1

Support communities with existing coalitions and establish local coalitions in high violence neighborhoods to provide violence prevention programs.

RECOMMENDATION 2

Support state legislation that will reduce the accessibility of firearms in the environments of children and adolescents.

RECOMMENDATION 3

Educate every citizen about interpersonal violence and how to prevent it, with a special emphasis on children.

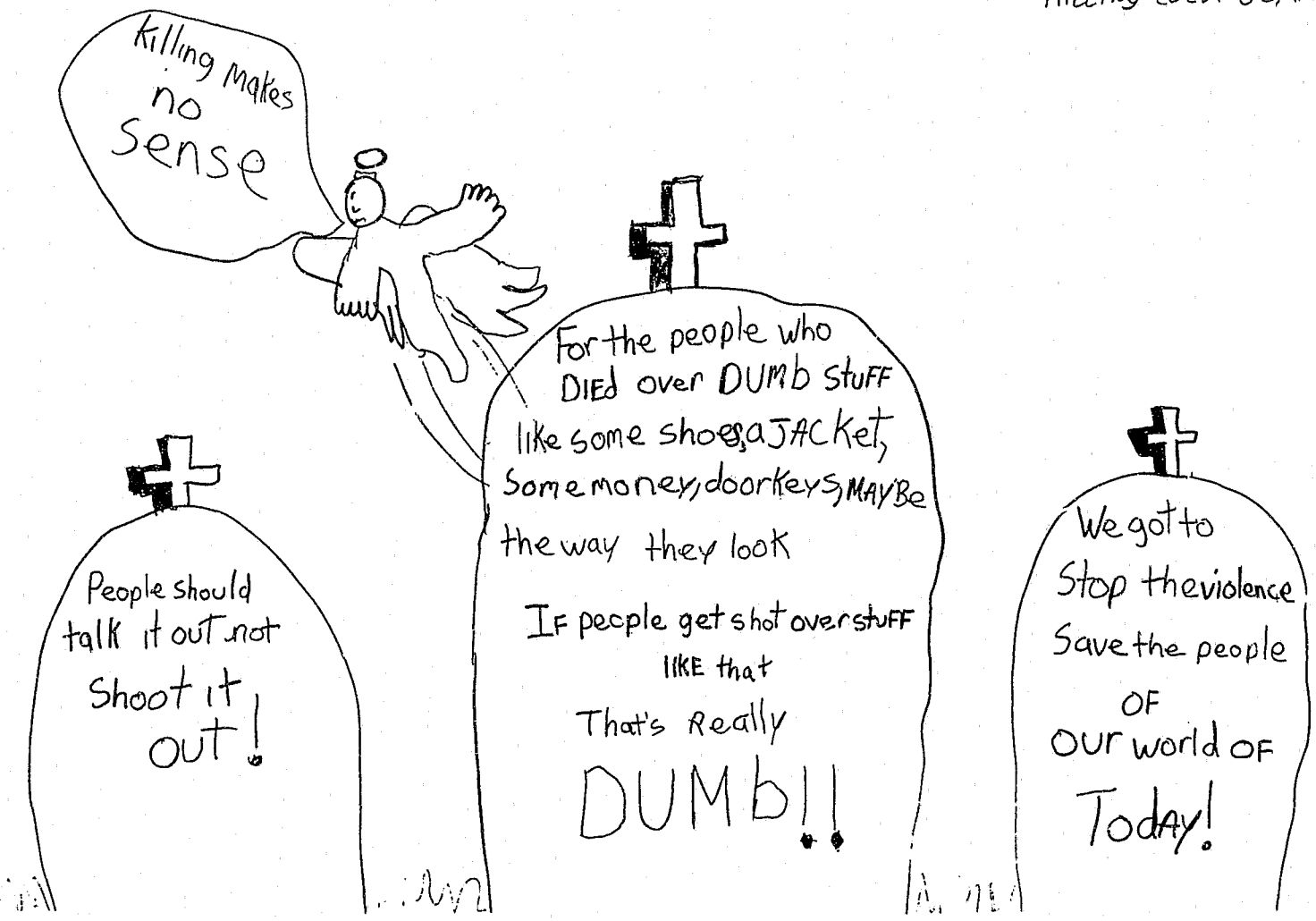
RECOMMENDATION 4

The Michigan Department of Public Health should facilitate the development and funding of community coalitions and violence prevention programs, improvements in the information on violent behavior, and the evaluation of violence prevention programs. Local public health agencies should play a leadership role in the development of community coalitions and programs.

RECOMMENDATION 5

Financial support for violence prevention programs, community coalitions and public education should be obtained from establishment of a surcharge on the sale of ammunition and firearms.

Family members are killing each other



Drawing Courtesy Of SoSad Sibling Support Group

VIOLENT DEATHS TO CHILDREN:

A GROWING RISK TO GROWING UP IN MICHIGAN

Table of Contents

Page

I. General Description of Child Mortality Trends and Patterns in Michigan 1

II. Definitions, Terminology and Data Utilized for Analysis 3

III. Findings on Violent Death to Children

A. Introduction 4

B. Key Findings: 8

1. Data 8

2. Promising Interventions 17

IV. Recommendations

A. Principles of Violence Prevention 25

B. Panel Recommendations to the Directors 26

V. References 32

VI. Appendices 35

• • Appendix A - Criteria for Selection of an Area of Inquiry 36

• • Appendix B - Summary of Recent Child Mortality Data 38

• • Appendix C - The Child Mortality Review Panel's Systematic Method of Analysis . . 39

I. GENERAL DESCRIPTION OF CHILD MORTALITY TRENDS AND PATTERNS IN MICHIGAN

The mission of the Child Mortality Review Panel is to review child mortality trends and patterns in the state and recommend strategies for the reduction of preventable child death. The panel reviews child mortality annually, selecting areas of inquiry based on analysis. The panel's criteria for selection of specific areas of inquiry can be found in Appendix A.

In November, 1989 the Departments of Public Health and Social Services jointly issued a report titled Lifelines for Children: Child Mortality in Michigan. A major finding of the report was:

> *"The majority of deaths caused by perinatal conditions, accidental injuries, suicides and homicides - which account for 60% of all childhood deaths - are potentially preventable."*

Following a review of the Lifelines report, the Child Mortality Review Panel conducted an updated review of recent child death trends and patterns for Michigan, the nation and the world. (See Appendix B.) From this analysis, several key findings emerged on Michigan childhood deaths:

- More children die from motor vehicle or homicide injuries than from any other single cause of death.
- All causes of child death have declined in frequency during the last decade, except homicide, which increased significantly.
- The Michigan infant mortality rate for 1989 rose to 11.1 per 1,000 live births compared to the 1988 rate of 11.0 per 1,000 live births. This is significantly higher than the United States infant mortality rate of 9.7 (provisional) for 1989. According to the Children's Defense Fund, the United States infant mortality rate in 1989 exceeded the rate of nineteen other developed countries.
- The rate of Sudden Infant Death Syndrome (SIDS) deaths changed little from 1980 to 1989 though there were some fluctuations between individual years. Little progress has been made in understanding the causes or prevention of SIDS, which accounted for 42% of the 1989 postneonatal infant mortality rate.
- Accidental deaths have declined for all Michigan children between 1980 and 1988, except for motor vehicle fatalities.

These data present every citizen of Michigan with challenges and responsibilities. Central to the

challenges we face are the following issues:

(1) As science continues to make progress in preventing disease related child deaths, violence and motor vehicle crashes are causing an increasing proportion of deaths during childhood.

(2) Progress in preventing infant mortality has stalled. Though science and technology have made progress in preventing disease related deaths, little progress has been made in addressing the other non-medical factors which have an impact on infant mortality.

(3) SIDS continues to be a major factor within the infant mortality problem.

There are other groups, panels, and task forces within the state which are analyzing and recommending strategies related to infant mortality. These groups are specifically addressing access to prenatal care, maternal substance abuse, and other system and behavioral issues that affect the reduction of infant deaths. Advanced science and technology has improved the ability to save the very smallest low birth weight infants, but the number of low birth weight infants is growing. Because infant mortality is a major problem within the state of Michigan, the panel has decided that to fulfill its charge to monitor statewide child mortality it will follow the progress of these other groups and focus future panel analysis on SIDS as a part of the infant mortality problem.

Though the panel is charged with developing strategies to prevent child deaths, prevention of child disabilities will also be emphasized. For every child who dies, many more suffer a lifetime of effects from the same cause. Death is only the last stage on a continuum of suffering that many children experience daily. Experiencing violent behavior is an important cause of long term developmental and physical disability. The strategies proposed in the recommendations are expected to reduce not only the mortality from violence but also the extensive and costly consequences for survivors and society.

There is great potential for prevention in several areas of child mortality, specifically violence and motor vehicle crashes. Of particular concern is the increase in violence, which is not well understood or recognized by either professionals or the public. The data on violent deaths to Michigan children are so compelling that the panel conducted its first inquiry in this area. In subsequent reports, the panel will address SIDS and motor vehicle crashes as areas of future inquiry.

II. DEFINITIONS, TERMINOLOGY AND DATA UTILIZED FOR ANALYSIS

One of the challenges in understanding violence is to describe what happened without projecting a judgement. Terminology must be precise so that others will understand and yet be broad enough to encourage an analysis of all the variables involved. The language used by the panel during analysis and recommendation building reflects a certain philosophy and approach.

This report describes deaths to children ages 0-19 years due to homicide. Homicide is defined by the panel as the killing of one person by another in an act of interpersonal violence. Included as homicide are murders defined as the willful killing of a human being by another. A distinction between homicide and murder is important because a focus on homicide supports a broader public health approach leading to epidemiological analysis and broader interventions. The term murder leads the analysis toward the legal implications of the death and its consequences. Excluded from the definition of homicide are deaths which are self-inflicted, either intentionally or unintentionally, or deaths labelled as "accidents." The term accidental is problematic because it implies that fate or chance was responsible for the death and that it was not preventable. A public health model of intervention suggests that child deaths from "accidents" can be prevented by education, appropriate supervision and other prevention strategies.

All the data on deaths analyzed by the Child Mortality Review Panel were identified as homicides by either the Michigan State Police murder files or the Michigan Department of Public Health death certificate records. The Michigan State Police define homicide as the killing of one human being by another. In the Michigan State Police data, murder is considered a category of homicide and is defined as the willful killing of one human being by another. The term murder implies intent and is a criminal act. The Michigan State Police Data used in this report were for murder only, excluding suicide and accidental deaths. The Michigan Department of Public Health death certificates were also analyzed as part of this report. The deaths were all officially labeled homicides and met all the coding definitions required. Homicide is defined in the public health system as the purposefully inflicted injury of one person by another, resulting in death, whether or not the death was intended. Therefore, suicides and accidental deaths were not included in the analysis of public health data. Due to the different definitions used by the Michigan State Police and Michigan Department of Public Health, the data in this report is presented separately and labelled by source.

III. FINDINGS ON VIOLENT DEATH TO CHILDREN

A. Introduction

Michigan children are increasingly vulnerable to be both the victims and the perpetrators of violence. Violence to our children is most often associated with an argument among family or friends involving the use of a firearm, and not with a criminal or random act. For children who survive, to see this kind of violence inflicted or be its victim has devastating long term consequences. The events and circumstances that lead to violence among children are complex and involve not only the individuals involved, but also the social structures in the community. Violence has reached epidemic proportions among our most vulnerable citizens, our children.

The panel focused on interpersonal violence in this first report for three reasons. First, over the past decade, violent deaths to Michigan children increased more than any other cause of death. Second, most homicides in Michigan are caused by someone known to the victim, not by strangers in the commission of a crime. Therefore there is greater potential to have an impact on homicides caused by violence among family and friends than from random violence. Third, the increase in violence among family and friends has not been well recognized by either professionals or the public and needs to be brought to the forefront as a major public health concern. Though homicide mortality is the specific focus of this report, the recommendations related to this issue should have a positive impact on several aspects of child health in Michigan.

There are many child victims involved in each violent death in addition to the child that dies. Children who witness or are involved in violence and survive often suffer physical and emotional scars which interfere with them becoming productive members of society. Posttraumatic Stress Syndrome and other symptomatic reactions have been well documented in children who have witnessed violence. The long term effects of witnessing violence can disrupt a child's normal functioning and interfere with future development. Though the panel's charge is to focus on child deaths, the violence prevention recommendations will address both the child that dies from violence and the child who lives in violence.

In Michigan, as in the nation, the majority of homicides in childhood can be divided into two groupings: (1) deaths in children under 5 years of age, described as the infantile or early childhood group, and (2) deaths in children over 11 years of age, described as the adolescent group. Violent deaths in older children have dominant patterns similar to homicides in young adults, whereas violent deaths to young children under 5 are more often labeled child abuse or neglect and have their own distinct pattern. Children between 5 and 11 years of age experience homicides of both types, though less frequently than other ages. The dominant patterns unique to each group are identified in Table 1.

Table 1

Dominant Patterns of Violent Death: US Children and Adolescents[1]

Variable	Early Childhood	Adolescent
Age in years	<5 years	> 11 years
Perpetrators	Parents, caretakers, (disproportionately male)	Peers, acquaintances, gangs (disproportionately male)
Fatal circumstances	Beatings*, arson, burns, neglect	Gunshots*, strangulations, stabbings, hit and runs
Precipitation	Intent to change behavior, neglectful act or failure to act	Arguments, crime

* These represent the most common fatal circumstances for each age group.

Identifying the risks specific to these two dominant patterns of the adolescent and early childhood groups helps to describe the vulnerability of some children to violence. Table 2 describes key risk factors taken from the literature on child homicide for the early childhood/infantile pattern and the child/adolescent pattern. The research of Cathy Spatz Widom indicates that being abused as a child significantly increases one's risk of having an adult criminal record; however, the pathway from childhood victimization to adult criminal behavior is far from inevitable. It is appropriate to begin to search for alternative pathways and possible protective factors that may buffer some children from the long term effects of violent experiences. Caution must be used when looking at the issues of race, poverty and environment because it is not accurate to automatically equate poverty with race or environment. Careful analysis has identified that it is not just low income per se, but what has been termed "poverty of the spirit" and its correlates that probably explain many of the risk factors for violence. Following its inquiry, the panel believes that although the relationships among race, socioeconomic status and violence are complex and often confused, one conclusion is clear: When socioeconomic status is controlled, the disparity between African Americans and the general population as both victims and perpetrators becomes negligible.

[1]Katherine K. Christoffel, "Violent Death and Injury in US Children and Adolescents," American Journal of Diseases in Children, Vol. 144, pgs. 697-706, June 1990.

Table 2

Patterns of Risk[2]

Pattern of Risk Factors for Early Childhood/Infantile Victims

- Unwanted pregnancy/baby/child
- Parental history of childhood family disturbance
- Foster care
- Poverty and its correlates

Pattern of Risk factors for Child/Adolescent Victims

Established Risk Factor

- Had a young mother
- Male sex
- Black race
- Urban residence
- Poverty and its correlates

Possible Adolescent Risk Factors

- History of juvenile detention
- Low education level
- Intoxication (drug/alcohol)

Factors associated with interpersonal violence in the general population which are also characteristic of risk factors in child and adolescent victims include unemployment, poverty, lack of educational and social opportunities, drug or alcohol abuse and weapon carrying. All of these factors give rise to the hopelessness, oppression, fear, anger and pain which precipitate violence. Fear in particular is an important element in understanding the inability of the victim and the community to stop violence and the perpetrator's motivation to commit violence. All three--the victim, the perpetrator and the community--are victims of the same epidemic.

According to the Report of the Surgeon General's Workshop on Violence and Public Health, the traditional epidemiologic public health model--which attributes occurrences of disease to a multitude of complex interactions among the host, the pathogen, and the environment--should be applied to violence. However, more emphasis has been placed on the host (victim) and the pathogen (perpetrator), because of the challenges of applying environmental interventions. Like other epidemics, violent death in children is a problem that can be affected by preventive interventions that focus on populations and environmental changes in communities. Violence occurs in communities when the social structures of the family, school and church have broken down and when violence is favorably portrayed by the mass media. According to the Alternatives to Violence and Abuse Coalition, more than 3,500 research studies have asserted that violence on television has been shown to have detrimental effects on youth, making them less compassionate towards others, less likely to cooperate and share, more aggressive and afraid of the world outside their homes. Individuals develop violent behaviors from the choices they are presented and the role models they observe within their culture, their community and in the media.

[2] Ibid.

Violence does not affect all of us equally. It disproportionately hurts the children who are the weakest, most vulnerable, and emotionally immature of our society. Physical safety and psychological security are the foundations for a child's health, education and overall emotional and cognitive development. When children live in fear it is difficult for them to progress developmentally into competent adults.

Children who are learning how to develop interpersonal relationships are devastated by observing violence in their homes, at school, and on the street. Experiencing violence together with the sensational presentation of violence in the mass media encourages violence as acceptable behavior. It becomes difficult for the young mind to differentiate reality from fantasy. We must create opportunities for children to learn peaceful alternatives to interpersonal violence and address the issues facing cultures, communities and the media before we can expect to reduce violent behavior among individuals.

> **The range of interventions in this report are designed to reduce violent deaths in children by targeting the general population, those at high risk, and the environment that affects them.**

It is not enough to focus prevention efforts on high risk groups alone. Teaching youth at high risk for violent behavior and nonviolent youth may have the effect of altering the social environment in which violence occurs in ways that lessen the likelihood of violent conflicts.

A new partnership and unified strategy must be developed to prevent child deaths from interpersonal violence. The partnership must be broader than any one governmental agency or any one neighborhood. The unified strategy must be built upon the recognition that multiple causes and multiple strategies are inherent to violence. Working partnerships are critical to any successful strategy because though there are some promising model interventions, far too little is known about violence prevention. While grass roots organizations who understand their neighborhoods must work in concert with other community and societal institutions to tailor programs that will work for them, there are common principles for effective violence prevention. Though we may lack full knowledge of what programs work best, central to any strategy is the assumption that communities must take back control of the neighborhoods and schools to ensure peace. Recognition of the importance of the community's role is a key principle. We should not only seek to rescue children from violent communities but to empower their communities to live violence free.

This report is a call to every individual and every community in addition to state government. The major barriers to the success of these recommendations are fear and apathy. All of us must recognize that fear is a barrier to taking the action necessary to prevent violence. We must find the courage and the commitment to implement these strategies. If we stand together, we can stop the violence.

LET PEACE BEGIN DURING CHILDHOOD

III. FINDINGS ON VIOLENT DEATH TO CHILDREN

B. Key Findings: Data

The key findings related to Michigan data are summarized on the following pages. In order to assist in understanding the complex issue of violence, the findings are grouped according to key concepts which surfaced during the inquiry:

Homicide is a leading cause of death to children and a major public health problem.

** *Finding* **

1. *Between 1980 and 1989, violent deaths to children increased more than any other cause of death.*
2. *As fewer children die from disease related causes, more children are dying from homicide.*
3. *Between 1980 and 1989, the risk for death by homicide increased dramatically for children, as compared to adults.*

Interpersonal relationships are a key factor in violence.

** *Finding* **

4. *Most homicide victims are killed by someone they know.*

Firearms play a major role in violent deaths to children.

** *Finding* **

5. *The number of children killed with firearms more than doubled in the decade of the 80s.*

The specific risk factors for violent death to children are low income status, male gender, ages 15-19 years, minority race and urban living. Though individually these risks do not precipitate violence, when clustered together they become strong predictors of violent childhood death.

** *Finding* **

6. *Though all Michigan children are at risk for homicide, the greatest vulnerability is among children who are low income, male, ages 15-19 years and minorities.*
7. *In Michigan, child homicides are clustered in high risk neighborhoods within urban centers.*

The data on violent deaths underestimate the individual and societal costs of violence to children.

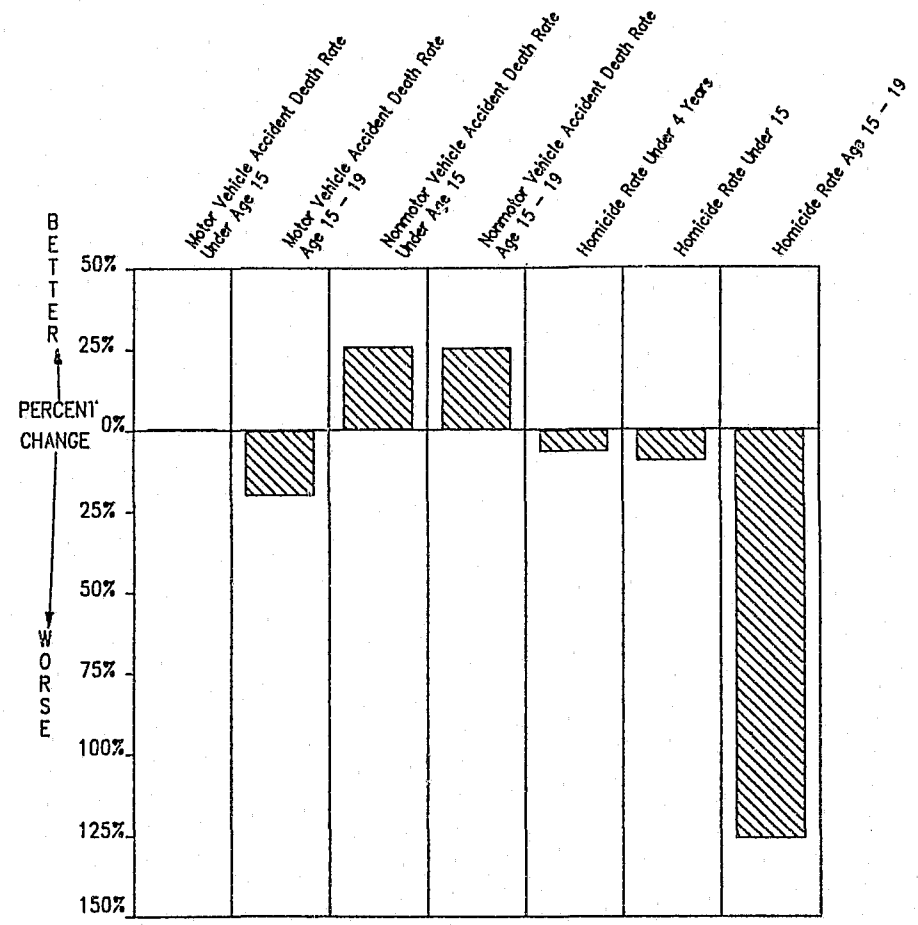
** *Finding* **

8. *Violence related injuries to children have vast implications for those that survive.*

KEY FINDING 1

BETWEEN 1980 AND 1989, VIOLENT DEATHS TO MICHIGAN CHILDREN INCREASED MORE THAN ANY OTHER CAUSE OF DEATH.

SUMMARY OF HEALTH STATUS INDICATORS FOR CHILDREN AND ADOLESCENTS, PERCENT OF CHANGE 1980 TO 1989
MICHIGAN RESIDENTS



TREND DATA							
1980–1982	7.2	29.9	10.4	9.4	3.7	2.3	9.0
1987–1989	7.1	35.9	7.7	7.0	3.9	2.6	20.4

Percent change in 3-year average from 1980–1982 to 1987–1989
Rates per 100,000 Population

■ Detailed Findings ■

- The homicide rate for youth 15-19 years of age more than doubled from 9.0 per 100,000 in 1980-82 to 20.4 per 100,000 in 1987-89.
- The number of homicide deaths to youth 15-19 years of age continued to increase from 138 deaths in 1988 to 147 deaths in 1989.
- Even the homicide rate for children under four increased from 3.7 per 100,000 children in 1980-1982 to 3.9 per 100,000 in 1987-89.

Source: Michigan Department of Public Health, Profiles in Health: Planning Data for Michigan, Health Indicators for Mothers and Children, State Profile, 1980-1988.

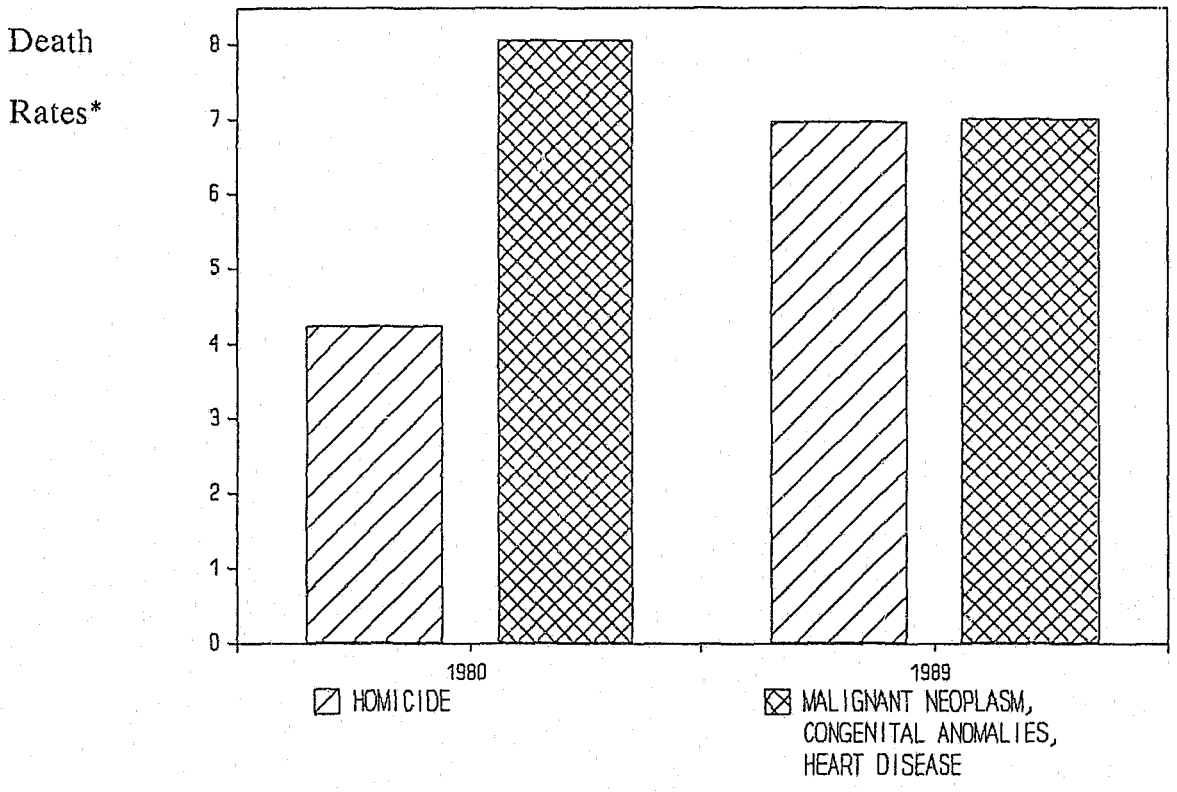
KEY FINDING 2

AS FEWER CHILDREN DIE FROM DISEASE RELATED CAUSES, MORE CHILDREN ARE DYING FROM HOMICIDE.

- More children die from homicide than any other leading disease related cause.
- In 1989, the same number of children 1-19 years of age died from homicide as died from malignant neoplasms, diseases of the heart, and congenital anomalies combined.
- In 1980, the number of children 1-19 who died from malignant neoplasms, congenital anomalies and diseases of the heart combined was 240 (8.1 per 100,000) as compared to 126 (4.2 per 100,000) deaths from homicide. By 1989, the rate of homicide had significantly worsened while the rate for malignant neoplasms, congenital anomalies and diseases of the heart improved.

Childhood Death Rates Due to Selected Causes

Michigan Residents Ages 1 through 19



* Rates are per 100,000 population ages 1-19.

Source: Vital Statistics Systems, Statistical Services Section, Office of the State Registrar and Center for Health Statistics, Michigan Department of Public Health.

KEY FINDING 3

BETWEEN 1980 AND 1989, THE RISK FOR DEATH BY HOMICIDE INCREASED DRAMATICALLY FOR CHILDREN.

- Between 1980 and 1989, the homicide rate for children through 19 years of age increased by 63% while the homicide rate for adults 20 years of age and over decreased by 4.6%.

Number of Homicide Deaths and Homicide Death Rate by Age
Michigan Residents, 1980-1989

Age Group	1980 Deaths	1980 Rate*	1989 Deaths	1989 Rate*	Percent change in rates
MICHIGAN	992	10.7	1,060	11.4	6.7
Under Age 20	133	4.3	193	7.0	63.4
Age 20 and Over	859	14.0	867	13.3	- 4.6

* Age-Specific Death Rates are per 100,000 residents of specific age group.

Source: Vital Statistics Systems, Statistical Services Section, Office of the State Registrar and Center for Health Statistics, Michigan Department of Public Health.

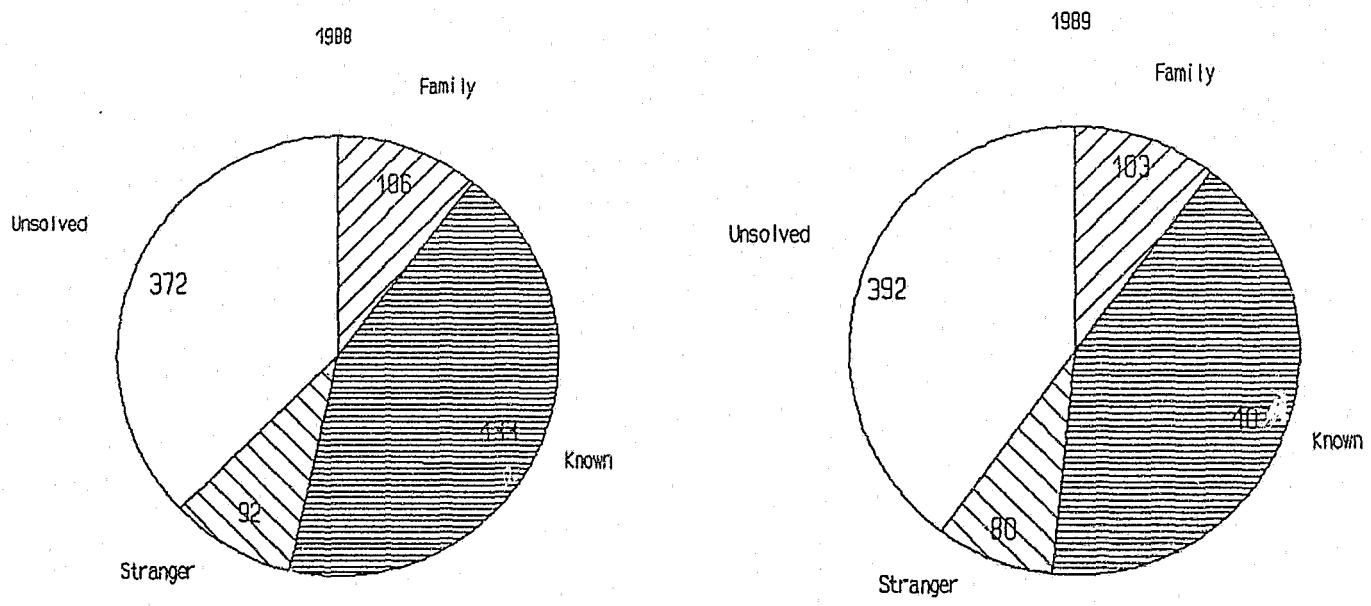
KEY FINDING 4

IN MICHIGAN, MOST HOMICIDE VICTIMS ARE KILLED BY SOMEONE THEY KNOW.

- According to Michigan State Police homicide data on solved cases for 1988 and 1989, the number of victims who knew their offender versus victims who had stranger offenders was greater than 5 to 1. When violence takes place, it is acquaintances or family members who are most likely to be involved -- not the stranger who comes "out of nowhere" -- and the violence is often precipitated by an argument rather than a crime. Specific data regarding child victims and their offenders is not available.

- Though a significant percentage of the homicides remain unsolved, it cannot be assumed that the offender in unsolved cases was a stranger. Even if all the unsolved cases were added to the stranger category, more than half of the homicide victims still knew their offender.

Relationship of Victim to Offender
Michigan State Police Murder Reports, 1988 - 1989



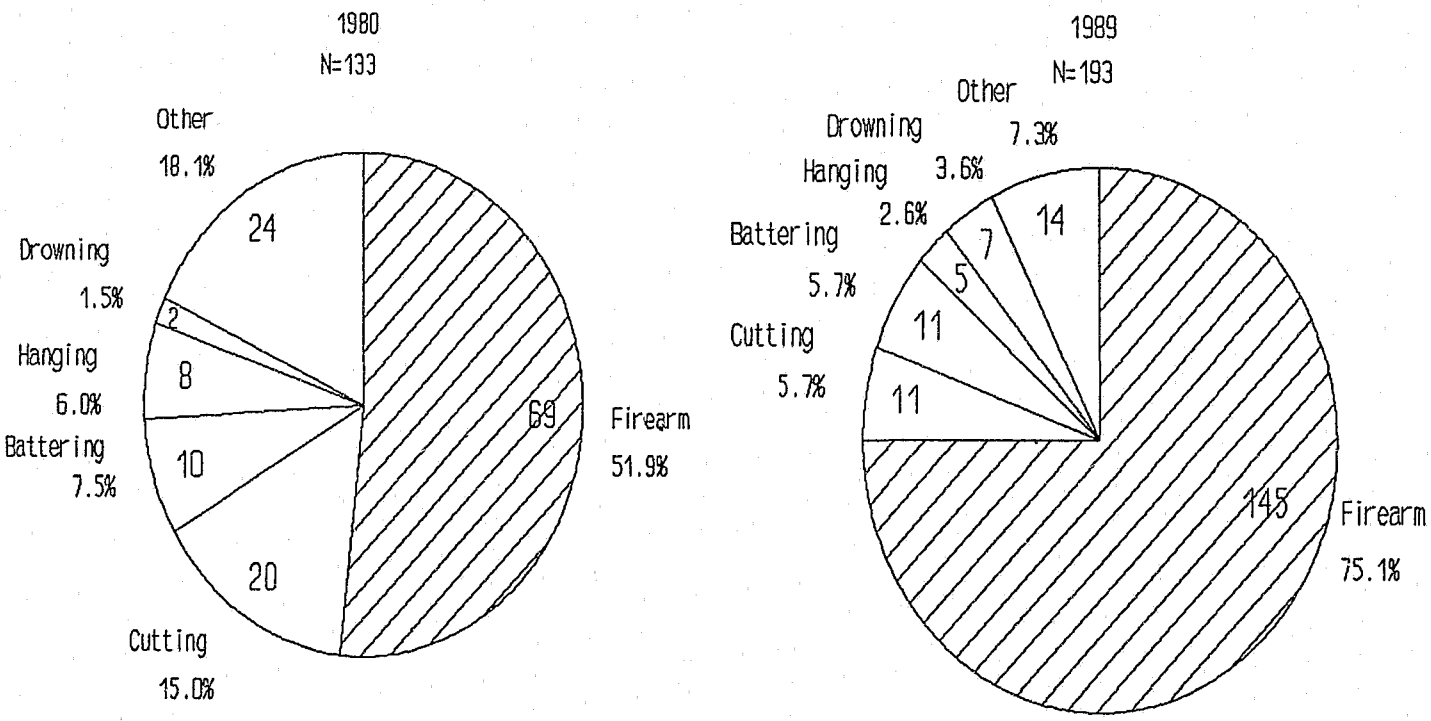
KEY FINDING 5

THE NUMBER OF CHILDREN KILLED WITH FIREARMS MORE THAN DOUBLED IN THE DECADE OF THE 80s.

- More than 75% of child homicides involved firearms in 1989 as compared to 51.9% in 1980. The large increase in child homicides corresponds to the increase in firearm related homicides.

- In a pie chart comparison of the 1980 child homicides to the 1989 child homicides, the data show that 30% fewer children died in 1980 than 1989; therefore, the 1980 pie is 30% smaller than the 1989 pie. These deaths translate into 60 more child homicides in 1989, compared to 1980.

Childhood Deaths Due to Homicides
Michigan Residents

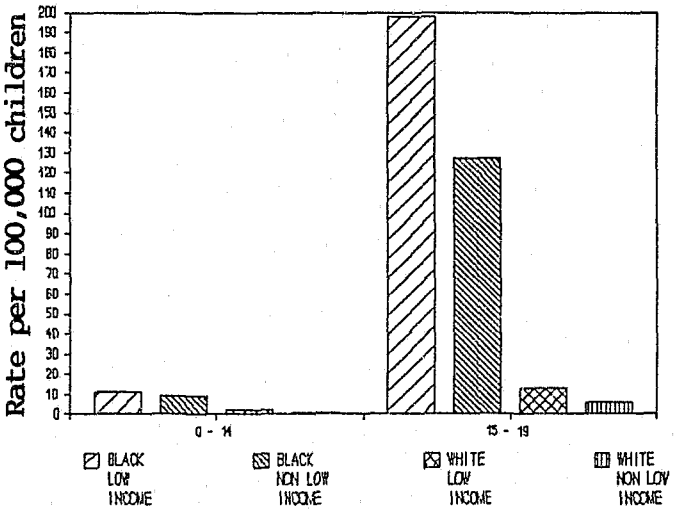


Source: Vital Statistics Systems, Statistical Services Section, Office of the State Registrar and Center for Health Statistics, Michigan Department of Public Health.

KEY FINDING 6

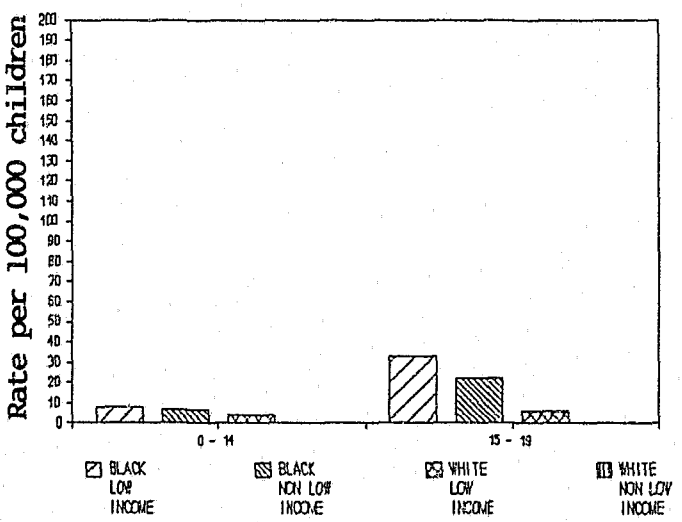
THOUGH ALL MICHIGAN CHILDREN ARE AT RISK FOR HOMICIDE, THE GREATEST VULNERABILITY IS AMONG CHILDREN WHO ARE LOW INCOME, MALE, AGE 15-19 YEARS AND MINORITIES.

Male Childhood Homicide Death Rates by Race, Age and Income, Michigan 1986



- The homicide rates were 1.5 times higher among low income black males aged 15 to 19 years than among non-low income black males.
- Both low and non-low income black males ages 15 to 19 years experienced dramatically higher homicide rates than their white counterparts.

Female Child Homicide Death Rates by Race, Age, and Income, Michigan 1986



- Homicide rates were over 3.5 times higher for all low income children 19 years of age and younger than for non-low income children in 1986. This held for both males and females.
- For females, there was no significant difference in homicide rates between low and non-low income levels at any age.

Source: MDPH, MDSS, and OCYS, Lifelines for Children: Child Mortality in Michigan, Technical Report, November 1989.

KEY FINDING 7

IN MICHIGAN, CHILD HOMICIDES ARE CLUSTERED IN HIGH RISK NEIGHBORHOODS WITHIN URBAN CENTERS.

- Within large cities, all neighborhoods are not equally high risk for violent death to children.
- During 1988 in Detroit, homicides within the general population were widespread across census tracts with 67.8% of homicides occurring to residents of 107 (41.3%) of the city census tracts. (Table 1) During the same period, 50.8% of the child homicides occurred to residents living in 24 (9.2%) of the city census tracts in which 12.1% of the children live. (Table 2)

  Detroit is the only city in the state with sufficient cases and enumeration by census tract to allow analysis. These data are presented as an example of the risk that urban living presents to children. This is not meant to imply that Detroit is unique from other urban centers.

TABLE 1: Total Homicides (All Ages) in Detroit, 1988.

Number of Census Tracts	Rate Ranges Rate/10,000[b]	1988 All Ages N	1988 All Ages %	Total 1980 Population N	Average Rate Per 10,000[a]	Mean Homicides Per Tract
4	21.9 - 36.2	23	3.6	8,138	28.3	5.8
11	15.3 - 18.3	56	8.7	33,973	16.5	5.1
30	10.0 - 14.3	136	21.2	116,710	11.7	4.5
62	4.3 - 9.8	220	34.3	296,663	7.4	3.5
152	N < 3	206	32.1	513,392	4.0	1.4
Total: 259		**641**	**100.0**	**968,876**	**6.6**	**2.5**

TABLE 2: Homicides (Under 20 Years of Age) in Detroit, 1988.

Number of Census Tracts	Rate Ranges Rate/10,000[b]	1988 < 20 Years N	1988 < 20 Years %	Total 1980 Population N	Average Rate Per 10,000	Mean Homicides Per Tract
5	21.7 - 36.9	15	12.3	6,029	24.9	3.0
7	15.8 - 18.6	20	16.4	11,448	17.5	2.9
12	6.8 - 14.8	27	22.1	23,071	11.7	2.3
235	N < 2	60	49.2	293,378	2.0	0.3
Total: 259		**122**	**100.0**	**333,926**	**3.7**	**0.5**

a Rate not age-adjusted
b Rates not calculated and mapped where frequency less than 3 homicides per census tract.

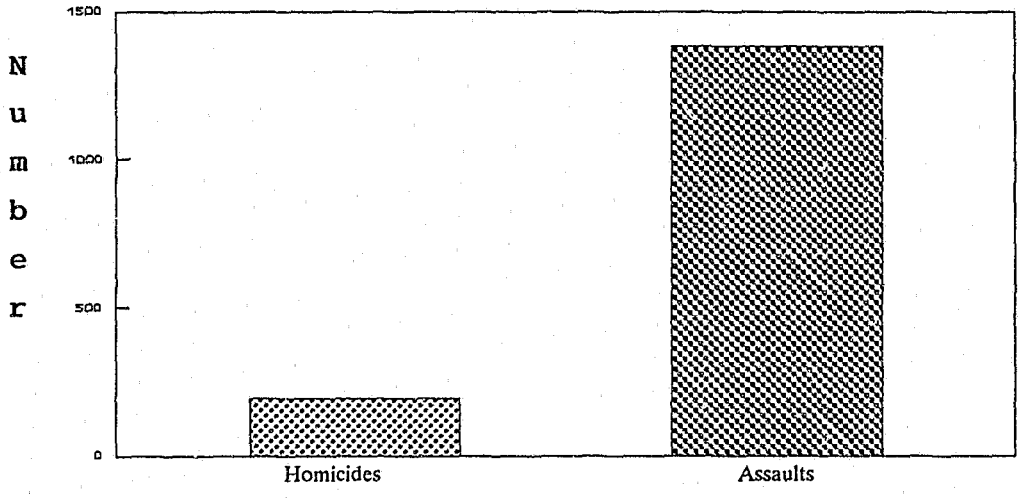
Source: N. Paneth and M. Ripp, Michigan State University, Program in Epidemiology, March 1991.

KEY FINDING 8

VIOLENCE RELATED INJURIES TO CHILDREN HAVE VAST IMPLICATIONS FOR THOSE THAT SURVIVE.

- For each homicide death among youth, there were about seven hospitalizations due to assault in 1988. Over 45% of hospital costs for child victims of assault are related to firearms. These data underestimate the magnitude of injury from violence among children because they reflect inpatient treatment only and do not include assaults to children who were treated and released as outpatients of emergency rooms. In addition, these data do not include those children who are injured but do not receive medical treatment and/or who are emotionally scarred by witnessing violence.

Number of Homicides Reported and Hospitalizations Due to Assaults
Michigan Residents, Age Under 20,1988



Estimated Hospital Utilization for Patients Under 20 Years of Age Hospitalized For Homicide and Injury Purposely Inflicted by Other Persons

Michigan Residents Under 20 Years of Age, 1988

SELECTED EXTERNAL CAUSES OF HOSPITALIZATION: HOMICIDE/INJURY PURPOSELY INFLICTED BY OTHER PERSONS (ICD-9-CM: E960-E969)	DISCHARGES		DAYS OF CARE		HOSPITAL COST
	NUMBER	RATE (*)	NUMBER	RATE (*)	(in $)
HOMICIDE/INJURY PURPOSELY INFLICTED BY OTHER PERSONS	1,378	5.0	6,510	23.4	4,783,038
Fight, brawl, rape (E960)	271	1.0	894	3.2	648,275
Assault by corrosive or caustic substance (E961)	2	0.0	4	0.0	7,075
Assault by poisoning (E962)	5	0.0	9	0.0	9,602
Assault by hanging and strangulation (E963)	3	0.0	8	0.0	
Assault by submersion (E964)	-	-	-	-	-
Assault by firearms and explosive (E965)	485	1.7	2,939	10.6	2,173,328
Assault by cutting and piercing instrument (E966)	200	0.7	676	2.4	761,448
Child battering and other maltreatment (E967)	153	0.6	941	3.4	407,240
Assault by other and unspecified means (E968)	256	0.9	1,027	3.7	750,397
Late effects of assault (E969)	3	0.0	12	0.0	20,316

(*) Rate per 10,000 population.

Source: Michigan Inpatient Data Base obtained from Michigan Health Data Corporation with tabulations by the Office of the State Registrar, Michigan Department of Public Health

III. FINDINGS ON VIOLENT DEATH TO CHILDREN

B. Key Findings: Promising Interventions

As part of the panel's analysis of child deaths due to violence, a literature review was conducted of violence prevention interventions. These model interventions are described to provide a base of understanding for the panel's recommendations. Though child violence prevention models have been documented in the literature, few have been carefully evaluated in a systematic way to determine why and how they were successful. It is critical that each community make its own determination about the relevance of these interventions based on their needs. However, it is essential that the effectiveness of the various programs in reducing violence be evaluated.

The review of promising interventions is divided into the three priority areas:

- **Producing a safer environment for children at risk of violence through legislation, regulation and community involvement**
- **Broad based education for every citizen**
- **Injury surveillance and prevention research**

PRODUCING A SAFER ENVIRONMENT FOR CHILDREN AT RISK OF VIOLENCE THROUGH LEGISLATION, REGULATION, AND COMMUNITY INVOLVEMENT

The premise of legislation, regulation and community involvement activities is that children are valued and their protection is a societal goal. The Center for Handgun Control researchers have found that handguns in the home are 43 times more likely to be used to kill someone known to the gun owner or the owner himself than to kill a stranger, and 18 times more likely to kill a family member than an intruder. The presence of firearms, particularly handguns, escalates aggression and makes it more lethal. The presence of a firearm in the home of a child puts that child at high risk for becoming a victim of violence.

If these violence prevention activities are to be successful it is clear that every citizen of each community must become aware of violence and its impact. The association between the early identification of children with risk factors such as teen parenthood, emotional handicaps, learning disabilities or a history of family violence and violence prevention needs to be presented. Supportive services must be initiated and sustained through the child's vulnerable years. The earliest opportunity for meeting the needs of families provides one of the most cost effective interventions for violence prevention, since many of the originating factors can be addressed. Such programs can "immunize" children against the risk of violence.

There are several legislative and community based interventions which have been documented.

Legislation and Regulation

In the literature, legislative action is principally focused on firearms. Though literature on the effects of legislation designed to reduce death from firearms is scant, a number of points are suggested (Paneth et al.):

1. Restrictive licensing does appear to lower both suicide and homicide rates.

2. Handgun availability is a major determinant of rising homicide rates.

3. Waiting periods prior to receiving a license seem to reduce homicides and more particularly suicides.

4. Redesigning weapons and/or ammunition to improve their safety would reduce accidental injury and death, particularly among children.

5. The home is a common location for firearm deaths and the place possibly from where the majority of criminals steal their weapons.

6. Public information and firearm safety campaigns are of some benefit, particularly in getting people to lock up firearms in the home. The overall effect could be a reduction both in the number of guns being stolen and accidental shootings in the home.

7. Safety regulation of "toys" and air guns/BB guns is becoming an increasingly important issue in violence prevention literature. The early toy and air gun manufacturers produced a product which had a velocity strong enough to bruise the skin or injure an eye. Over the past 20-30 years the market place and the concept of these "toys" has changed dramatically. With the highly increased velocity of these "toys" there has been increasingly more (1) serious injury to the eye, skull, brain and spine, (2) significant numbers of fatalities, and (3) use of these "toys" by individuals in intentional violence. These deaths and injuries are caused when young shooters are given "toys" which meet or exceed the velocity of hand gun cartridges. In addition, reports have been documented of law enforcement officers mistaking the "toys" for "real guns" and firing in self defense when encountering children "playing" with these guns. These laws are positive steps forward though their implementation has not been fully tested.

The United States Supreme Court has consistently upheld a local community's right to control private firearm use. Therefore, though state regulations exist related to firearm ownership, local communities have been successful in passing regulation related to where firearms are permitted, the access of minors to firearms, and firearm storage and safety issues. Though local community organizations have the right to self regulate firearm use, the border issue often clouds success. According to the U.S. Bureau of Alcohol, Tobacco and Firearms there always exists a pattern of guns flowing into areas with restricted gun laws from areas with unrestricted gun laws.

There are two strategies to discourage gun dealers from profiting from different local and state laws. The first strategy is to establish national policies related to firearms, such as the Brady Bill. The second alternative is to support strong grass roots organizations within communities and neighborhoods to unite in "taking back the streets" by eliminating the violence and fear on which the gun dealers depend for sales.

Community Based Interventions

A growing number of community coalitions are developing to address violence. Community coalitions are broad based local groups of citizens, organizations, and professionals who join together to "take back the streets" around their homes.

1. Save Our Sons and Daughters

   A model program, Save Our Sons and Daughters (SoSad) is a Detroit community based organization whose major goals are to stop violence among children and to provide support to the families of victims of violence. Although the coalition aims to stop all kinds of violence, it specifically emphasizes firearm violence. SoSad has been instrumental in increasing the awareness of violence as a problem in the community at large as well as providing direct service to families and mobilizing the community. As a participant in one of SoSad's weekly Cease Fire marches recently described, "As individuals we feel helpless. But as a union, we feel strong." This feeling of empowerment is a critical element to effecting community change.

2. Wayne County Office on Violence Reduction

   The model utilized by the Wayne County Office on Violence Reduction consists of the development and implementation of programs in four areas. These are:

   - Safe Streets

     Works with neighborhoods and youth to unteach violence, utilizing school courses in conflict resolution, neighborhood violence prevention pilot programs, programs in parenting skills and programs to heighten self esteem.

   - Safe at Home

     Works to change attitudes about domestic violence and to develop better responses to this problem. This includes working towards the development and issuing of a county ordinance for a systematic response to domestic violence; the convening of a county-wide conference on domestic violence for law enforcement personnel and community based organizations; development of an additional shelter for victims of domestic violence; and training of all medical personnel in the signs of domestic violence.

   - Safe Treatment

     Develops and implements a medically orientated curriculum on violence prevention for emergency room and clinical settings, including the monitoring of data on intentional injuries collected by the program.

   - Safe to Say

     Informs the public about violence and violence prevention. This will be accomplished through an anti-violence media campaign and the establishment of a county-wide "hotline" number for violence prevention information.

3. The Contra Costa County Health Department

The Contra Costa County Health Department in Pleasant Hill, California has developed a model local health department program for violence prevention, specifically targeting school age children. The project was funded in 1990 by the Federal Maternal and Child Health Bureau through the Maternal and Child Health Services Block Grant on a competitive basis for special projects of regional and national significance. The project has three goals:

- Decrease violence among students in five target schools, with an emphasis on males and minorities.
- Increase knowledge and participation of community members in violence reduction and prevention activities.
- Increase the capability of local agencies and institutions to address violence.

The methodology of the project employs a coordinated systems approach to the prevention and control of adolescent violence. A task force of community agencies, managed by the local health department, provides ongoing action, planning and coordination in conjunction with project staff. Core project activities include data collection, evaluation, training in conflict resolution and dissemination of project materials.

Support Programs for Those at Risk

1. Infant Support Programs

Infant support programs are one of the few model programs described in the literature that have clearly documented success in reducing violence to young children, particularly child abuse and neglect. These prevention programs are designed to support high risk families during pregnancy and early childhood. The goal of the infant support model is to provide a safe and nurturing environment for the infant by supporting the parents. Critical components of the successful models are (1) initiation of services during the pregnancy, (2) services provided in the home by specially prepared nurses, and (3) service continuation throughout the first two years of life. The home visitor monitors the infant, makes appropriate referrals to community services, and becomes a trusted advocate for the whole family. Infant support programs are critical components to any comprehensive violence prevention program because they reach children and families in their earliest stages of development and can enhance parent-child interactions. These programs support and assist parents to live violence free and to be positive role models for their children.

2. Intensive Family Support Programs

Intensive family support programs for children in families at risk for violence work to prevent the conflicts that precipitate violence. A Michigan model program of this type is Families First, an intensive in-home crisis intervention and education program for families that are at risk of having one or more children removed from the family because of abuse, neglect, or delinquency. The primary purpose of Families First is to avoid out of home placement by maintaining and strengthening family bonds and increasing family

skills and competencies. Specially trained workers provide intensive based home services to no more than two families at a time, spending an average of five weeks with a family. During the intervention all of the services provided are in the home and the workers are available to the family 24 hours a day, seven days a week. There have been 7300 children served in the program to date. Over 79% of these families are still intact.

3. Male Mentoring Programs

The development of male mentoring programs, like the model program ISUTHU coordinated by the men and pastor of the Fellowship Chapel in Detroit, presents an opportunity for high risk boys to learn by example. Programs such as these are effective because they are comprehensive in scope, providing training along with an extended family experience. Some of these programs also specifically include culturally relevant education and events for minority youth.

BROAD BASED EDUCATION FOR EVERY CITIZEN

As with other interventions, there is a strong need to evaluate and document the effectiveness of public education campaigns related to prevention of violence to children. Michigan is fortunate to be a leader in the nation, initiating this type of education for the general public through a television media campaign and to children through the Michigan Model for Comprehensive School Health Education.

Violence Prevention Curriculum as Part of the Michigan Model for Grades 1-8.

The Michigan Model is a voluntary program implemented completely or in part by local school boards. The program is currently implemented in 525 public school districts and 144 private schools, reaching 88% of Michigan school children in kindergarten through eighth grade. Conflict resolution and problem solving are taught at each grade level (K-8) of the Michigan Model with age appropriate situations. Specific lessons are also taught in the areas of negotiation skills, managing strong feelings and violent behavior.

The Michigan Model implementation sites are also involved in making programs available to high school grades 9-12. These programs include the Teen Health Teaching Modules. A special emphasis will be placed on five modules in the upcoming school year:

- Protecting Oneself and Others
- Family and Friends
- Injury Prevention
- Human Sexuality
- Preventing Violence

No information is currently available on the level of implementation of the violence module in grades 9-12.

Violence Prevention Media Campaign

In 1990, the Michigan Department of Public Health joined forces with Wayne County to complete a design of a media campaign. This occurred following the recommendations of the Wayne County Task Force on Violence Reduction which included recommendations for public education through the media. Based on input from a variety of individuals and organizations, the media campaign was designed to target males in southeast Michigan, aged 15-24, with emphasis on the younger age group and on black males. The medium of television was selected as the primary vehicle for the campaign, supplemented by billboards and posters. The campaign, initiated July 1, 1991, consists of five television ads. Two of the ads are to be run as public service announcements and the remaining ads will be run as paid ads. In addition there are two billboards and two posters available for distribution to schools, community organizations, hospitals, police departments, etc. All of the ads contain a toll free hotline number where people can call for information on ways to avoid violence and obtain referral sources. The three month campaign will be evaluated through analysis of calls to the hotline, linkage of hotline calls to gross impressions on television, and a follow-up advertising track survey.

INJURY SURVEILLANCE AND PREVENTION RESEARCH

Comprehensive and accurate surveillance of both fatal and nonfatal injury to children is necessary to improve our understanding of violence to children, identify issues and gaps unique to individual communities to guide interventions, and assist in the evaluation of current efforts. In the nation and in Michigan there is a lack of comprehensive data on the incidence of child violence. In addition, there needs to be more careful scientific evaluation of existing prevention strategies in order to guide planning. In Michigan there are two promising strategies to improve surveillance and increase understanding of successful violence prevention strategies.

The Michigan Public Health Institute and the Injury Control Research Center

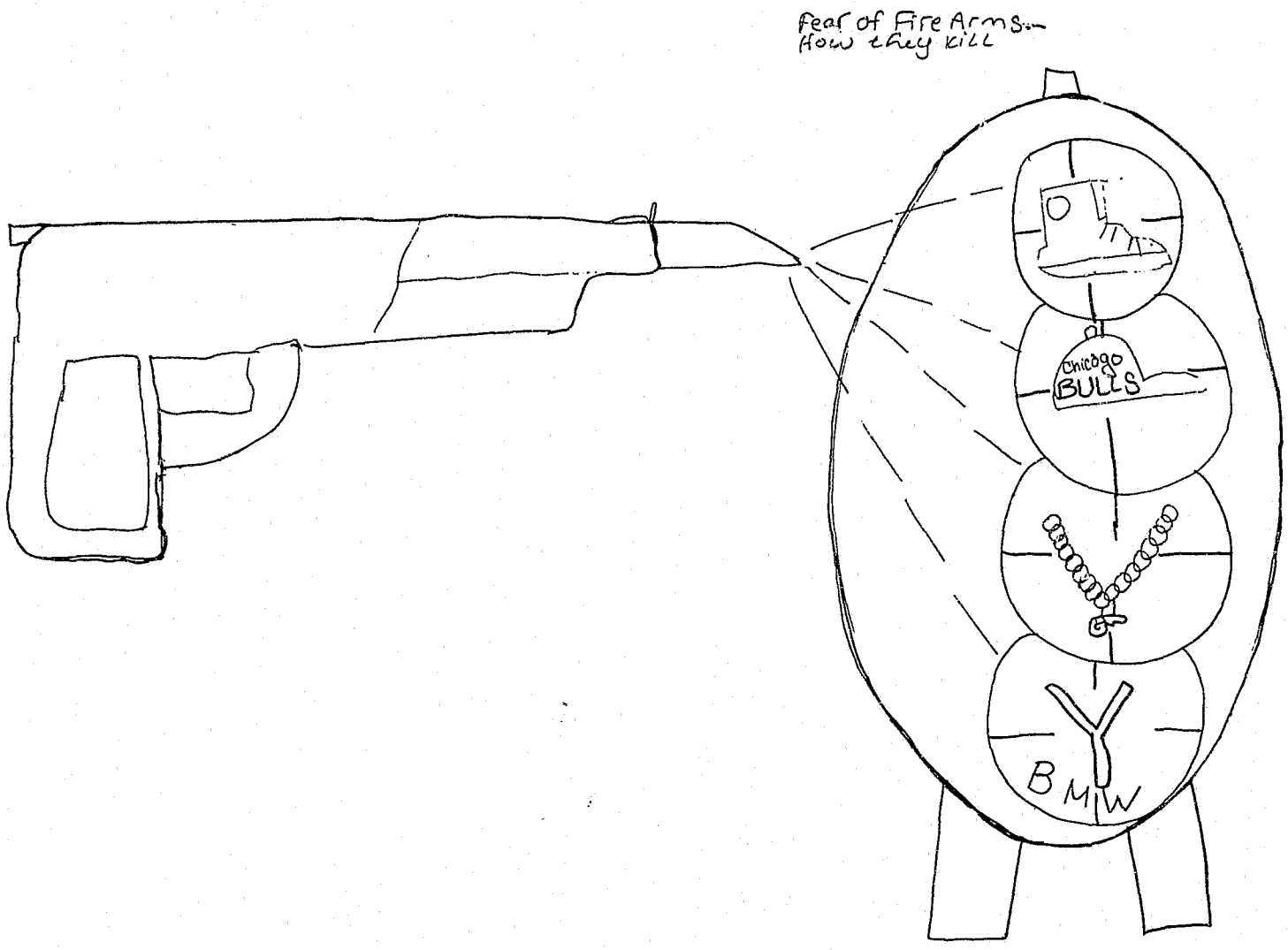
In July 1990 a new Michigan non-profit corporation was formed, the Michigan Public Health Institute, as a cooperative venture governed jointly by the three research universities in the state and the Michigan Department of Public Health. The mission of this non-profit entity is to assist in developing and increasing the capacity of the Michigan Department of Public health and the universities and agencies associated with the Department to prevent disease, prolong life and promote public health in Michigan. The mission of the institute will be facilitated through an organized program of policy development, planning, scientific research, service demonstrations, education and training activities.

The Institute has recognized the need to address violence as a public health issue and is applying to the Centers for Disease Control for funding in 1993 as a Injury Control Research Center with a major focus on intentional injury. With this focus, and if funding is awarded, the institute is in an excellent position to assist in the evaluation of and planning for violence prevention activities related to children and families.

The Structured Case Management System for Assessing Risk of Future Abuse and Neglect

The Structured Case Management System was developed by the Michigan Department of Social Services with the assistance of the National Council on Crime and Delinquency. The intent of the system is to provide workers with more objective and reliable measures with which to make the best possible decisions, and to provide administrators with information for improved planing, budgeting and resource allocation. The system is based on information collected from 1,894 families referred to protective services for whom abuse or neglect was substantiated. Information from these families was researched to (1) develop risk assessment instruments to identify the level of risk (ie. low, moderate, high or intensive) for re-abuse or re-neglect, (2) define structured decision-making protocols, (3) document service standards based on risk, (4) identify a workload-based budgeting and resource allocation system and (5) develop a comprehensive management information system for monitoring, planning, research and evaluation.

The Structured Case Management System is to be implemented statewide by April, 1992. This system represents an important step in standardizing the assessment and services provided to a high risk population and should facilitate the evaluation of effective interventions.



Drawing Courtesy Of SoSad Sibling Support Group

IV. RECOMMENDATIONS

A. Principles of Violence Prevention

The recommendations of the Child Mortality Review Panel are based on a review of existing interventions documented in the literature and on panel discussions which led to consensus on the following seven principles:

1. Violent deaths to children are a public health problem that can be prevented.

2. Violent deaths to children have multiple causes which require multiple strategies.

3. Certain social conditions, such as poverty, unemployment, poor educational and social opportunity and lack of access to support services are the facilitating conditions which contribute to violent child death.

4. The use of firearms is a major factor in violent child death. The presence of a firearm escalates violence and makes aggression more lethal.

5. A violence prevention strategy should focus not only on the particular individuals at risk but also on the communities in which such individuals live.

6. A prevention strategy will be most effective if it is locally based with coalitions of adults, youth, local government, business, and community institutions such as schools and churches.

7. Any one prevention effort is more likely to be effective if it is reinforced by related, coordinated efforts.

III. RECOMMENDATIONS

B. Panel Recommendations to the Directors

The prevention of violence is very complex. The lack of evaluation of current interventions makes the development of a strategy of prevention very difficult. However, the many factors related to violence support the need for a comprehensive approach. Therefore, the recommendations which follow comprise a comprehensive violence prevention strategy. While a broad strategy is proposed, it is necessary to take key steps and to focus efforts. Each recommendation is accompanied by key steps, which serve as actions needed to implement the recommendations.

RECOMMENDATION 1

Support communities with existing coalitions and establish local coalitions in high violence neighborhoods to provide violence prevention programs.

Implementation

Local coalitions should be established or expanded to initiate violence prevention programs tailored to individual community needs. The greatest reduction in violence will be achieved when community residents, organizations and government work together to design a unique plan for their community. The community coalition must develop violence prevention programs that target not only individuals and families at risk for interpersonal violence but also the community itself. Effective community violence prevention programs and activities include:

- Local review of child deaths and the implementation of prevention strategies.
- Public education that increases awareness that violence is a serious problem, is preventable and will no longer be tolerated.
- Monitoring the violent program content on local television stations and contacting advertisers regarding the need for nonviolent programming. It is important that the community overcome not only real violence, but also the television violence that children experience in their homes. The combined influence of violence on television and violence in the community provide children with few choices when they look for role models.
- Male mentoring programs, especially for younger children, that are culturally relevant, such as the ISUTHU program, which are comprehensive in scope, provide training and an extended family experience.

- Programs that focus on early intervention for children and families with special needs including teen parents, children with emotional handicaps, children with learning disabilities, children in out of home placements and families with a history of violence. Components of service should include stress management, vocational training and job placement, substance abuse prevention and treatment, and parenting skills.

- Full implementation and enforcement of Public Act 320 and 321 which establish requirements for gun safety. Local coalitions should work to enforce the "gun free" zones established by these laws and expand the concept to develop community standards for "crime free" and "drug free" zones. Control of firearms in child accessible environments is most effective when implemented by a local coalition in the context of broader, more comprehensive violence prevention and firearm safety strategies. Local coalitions do not have to wait for new state legislation, but can assume responsibility for implementing recommended violence prevention strategies immediately.

RECOMMENDATION 2

Support state legislation that will reduce the accessibility of firearms in the environments of children and adolescents.

Implementation

The rationale for controlling access to firearms in environments with children is to prevent injuries to children in three ways. First, reducing firearms in the environment reduces the opportunity for the impulsive use of firearms as a method to settle arguments among adults, family members and friends. It has been proven that if the offender does not have immediate access to the firearm, he/she often will often rethink the decision to use it. Second, reducing the accessibility of firearms in environments with children reduces the possibility of children using the firearms. Third, the "accidental" injuries caused by children playing with guns would be reduced. Reducing the risk to children from firearms requires a multi-faceted approach. Of the many approaches, four components are recommended to comprise a comprehensive child firearm safety bill.

- Require firearm purchasers to pass a safety course. Gun safety public education campaigns are necessary, especially to reach households with children. The gun safety course should address the extent of handgun violence, the specific dangers of firearms, and gun safety including child proofing, safe storage, and maintenance.

- Require firearm owners to secure firearms unloaded, separate from ammunition, in locked containers or with trigger locks to assure their inaccessibility to children and establish appropriate liability.

- Establish criminal liability for the firearm owner for any violent act involving his/her firearm, if used by a child. Firearm owners must assure that their firearm will be utilized only by the licensed owner and that the firearm is unaccessible to others, especially children. The difficult decision to prosecute the parent of a dead child who was killed by his/her parent's firearm should be left to the prosecuting attorney.

- Establish liability for firearm manufacturers for unsafe firearms. Though all firearms are inherently dangerous, they can be made safer by requiring the use of quality control standards and safety features like automatic trigger locks and loaded indicator features. Research into the manufacture of safer firearms and ammunition, specifically the bio-engineering of gun locks and fingerprint lock-outs, should be supported and Michigan firearm safety standards should be developed in coordination with law enforcement authorities.

- Regulate the manufacture and use of "toy" guns such as BB guns or air rifles. Today's "toys" have a velocity that exceeds many commonly used firearms and both death and serious injuries to the brain, spinal cord and vital organs have been documented. There are two critical issues which can be addressed by amending current laws to assure that:

  - "Toy guns" with velocity similar to firearms should be held to the same licensing restrictions as other firearms.

  - "Toy guns" should not be manufactured to look like real firearms to avoid the use of realistic "toys" in criminal acts and to prevent the tragic mistake of someone thinking a toy is a real firearm and firing in self defense at a child.

RECOMMENDATION 3

Educate every citizen about interpersonal violence and how to prevent it, with a special emphasis on children.

Implementation

Information on violence, how to avoid it, and alternatives to violent action should be provided to all citizens, with a special emphasis on reaching children in the schools and the dangers of firearms.

- Community coalitions should:

  - Educate the general public, using the National Healthy People 2000 objectives as the theme for public awareness campaigns.

  - Assure that the Michigan Model for Comprehensive School Health Education is adopted by their schools as a vehicle for interpersonal violence prevention through conflict reduction and resolution education.

  - Use the media to educate the general public on the extent of interpersonal violence and the specific dangers of firearms.

- Educate the general public in violence prevention, conflict resolution and the benefits of positive role models.

- Develop and implement educational programs to work with the population of children at risk for repeat violence, i.e. adjudicated youths.

- Educate professionals and agencies actively involved with youth at risk as to factors which contribute to the occurrence of violence and means of reducing them.

- State agencies should:

  - Expand the Michigan Model for Comprehensive School Health Education to include a more culturally relevant conflict reduction and resolution program and the violence prevention curriculum should be tailored for students from grade 8 through grade 12.

  - Support the development and implementation of initiatives to promote appropriate individualized education for all children with the goal of retaining children and youth in school until they finish their education.

RECOMMENDATION 4

The Michigan Department of Public Health should facilitate the development and funding of community coalitions and violence prevention programs, improvements in the information on violent behavior, and the evaluation of violence prevention programs. Local public health agencies should play a leadership role in the development of community coalitions and programs.

Implementation

The development and expansion of community coalitions and programs requires a coordinated effort and strong support. Since many factors underlie violence, the involvement of many sectors is essential to prevention. Public health, health care, social services, criminal justice, mental health, and education must integrate efforts. However, accountability for leadership must be clearly established. The mission and role of public health is to assure conditions in which people can be healthy, through organized community effort. Given that responsibility, the state and local public health agencies should assume responsibility for leadership in violence prevention.

The Michigan Department of Public Health should:

- Establish state health objectives for violence prevention and support the development of the role of local public health agencies in mobilizing community coalitions. This should include the development of a state plan for violence prevention, involving the Departments of Social Services, Mental Health, State Police and Education and the Michigan Child Mortality Review Panel.

- Develop capacity for directing assistance and funding to community coalitions for violence prevention programs, based upon criteria which will assure the efficient and effective allocation of resources, with local public health agencies as the point of local coordination.

- Improve the availability and quality of information on violence, its health outcomes, and associated costs through improved surveillance. The department should view violence as a controllable disorder and develop an epidemiological approach to the prevention of violence as a public health problem. This should include:

  - the provision of data at the local level where prevention programs are implemented on the extent of morbidity and mortality from violence at the community level;

  - evaluation of the programs which receive support;

  - participation in the development of a national research agenda for understanding the causes of violent behavior and the impact of prevention policies. Michigan must be linked to national violence and injury control operations to maximize the use of federal resources in the form of technical assistance, information exchange, and funding.

  - development of a public health agenda for the Michigan Public Health Institute and the proposed Injury Control Research Center to guide research and service demonstrations in childhood violence prevention.

- Work with the Department of Social Services in a review of statutory impediments to child death review teams.

- Analyze and support further study in the areas of 1) the causation and prevention of gang violence, and 2) improving educational opportunities for minority children.

Local public health agencies should:

- Provide leadership to the establishment of community coalitions, fostering local involvement and ownership, defining and emphasizing local needs, and engaging the community in decisions on the use of resources for violence prevention.

- Mobilize community coalitions to respond to solicitations for proposals on a competitive basis as issued by the Michigan Department of Public Health for violence prevention programs.

RECOMMENDATION 5

Financial support for violence prevention programs, community coalitions, and public education should be obtained from establishment of a surcharge on the sale of ammunition and firearms.

The consequences of firearm mortality and morbidity for the public health are well established. This report has documented the unacceptable and significant impact on children in this state. There is evidence of the efficacy of committing revenues from taxation to address public health problems, such as alcohol and cigarette use. Relatively small increases in the price of alcohol have been shown to decrease both consumption and death rates from liver cirrhosis and motor vehicle crashes. Because of the high cost in both human and societal terms attributed to firearm related health consequences, a surcharge should be placed on the sale of ammunition and firearms in Michigan.

The Michigan State Police estimate that 100,000 handguns and 200,000 rifles are sold in the state each year. Hunting licenses are issued to approximately 1,000,000 persons a year. A conservative estimate regarding ammunition purchases is that for every firearm bought or sold, approximately two boxes of ammunition are purchased each year. A $5 surcharge placed on each of the 300,000 firearms sold each year would generate $1,500,000 for violence prevention. A $2 surcharge placed on each box of ammunition bought each year, utilizing the most conservative estimates, would generate $600,000 each year.

A total annual budget of $2,100,000 would be generated for the funding of community coalitions and violence prevention programs.

REFERENCES

Centers for Disease Control, Morbidity and Mortality Weekly Report, Impact of Homicide on Years of Potential Life Lost in Michigan's Black Population, January 13, 1989.

Centers for Disease Control, Morbidity and Mortality Weekly Report, Homicide Among Young Black Males-United States, 1978-1987, December 7, 1990.

Center for Injury Prevention, The Injury Prevention Network Newsletter, An Advocate's Guide to the Cost of Injury in the United States, Volume 7, Nos. 3 & 4, Fall 1990.

K. Christoffel, "Violent Death and Injury in US Children and Adolescents," American Journal of Diseases in Children, Vol 144, June 1990.

Contra Costa County Health Services Department, A Publication of the Alternatives to Violence and Abuse Coalition, That's Entertainment? A Look At TV Violence, Pleasant Hill, CA.

For Kids' Sake, Americans Caught in the Crossfire, Vol. 8, No. 4, Winter 1990.

Fingerhut, L., J. Kleinman, E. Godfrey and H. Rosenberg, Firearm Mortality Among Children, Youth, and Young Adults 1-34 Years of Age, Trends and Current Status: United States, 1979-88, Monthly Vital Statistics Report; Final Data from the National Center for Health Statistics, Vol. 39, No. 11, Supplement, March 14, 1991.

Hirsch, K., "Clem Barfield Takes On the Mean Streets of Detroit," Ms. Magazine, January/February 1991.

Holzman, C., N.Paneth, M. Rip, and A. Sweeney, Interventions to Reduce Violent Death, report prepared for the Child Mortality Review Panel, March, 1991.

Michigan Department of Public Health, Profiles in Health: Planning Data for Michigan, Health Indicators for Mothers and Children, State Profile, 1980-1988.

Michigan Department of Public Health, Michigan Department of Social Services and Office of Children and Youth Services, Lifelines for Children: Child Mortality in Michigan, Technical Report and Major Findings, November, 1989.

National Center for Education in Maternal and Child Health in conjunction with The Maternal and Child Health Bureau, Statewide Violence Prevention Projects, Violence and Unintentional Injury Prevention: Abstracts of Active Projects FY 1991.

The National Committee for Injury Prevention and Control and Education Development Center, Injury Prevention: Meeting the Challenge, Inc. (EDC), Report to the Bureau of Maternal and Child Health and Resources Development, 1989.

Northrop, D., and K. Hamrick, Weapons and Minority Youth Violence, background paper prepared for the Forum on Youth violence in Minority Communities: Setting the Agenda for Prevention, December, 1990, Sponsored by the Centers for Disease Control and the Minority Health Professions Foundation with the Morehouse School of Medicine.

Northrop, D., B. Jacklin, S. Cohen, and R. Wilson-Brewer, Violence Prevention Strategies Targeted Towards High-Risk Minority Youth, background paper prepared for the Forum on Youth in Minority communities: Setting the Agenda for Prevention, December, 1990, Sponsored by the Centers for Disease Control and the Minority Health Professions Foundation with the Morehouse School of Medicine.

Oliver, W., Black Males and Social Problems, "Prevention through Afrocentric Socialization," Journal of Black Studies, Vol. 20 No. 1, September 1989 15-39.

Pynoos, R., and K. Nader, "Children's Exposure to Violence and Traumatic Death," Psychiatric Annals, June 1990.

Report of the U.S. House Select Committee on Children, Youth and Families, Children's Well-Being: An International Comparison.

Ropp, L., D. Treloar, P. Visintainer, Death in the City: An American Childhood Tragedy, Henry Ford Hospital, Detroit Michigan.

Rosenberg, M., J. Rodriguez and T. Chorba, Childhood Injuries: Where We Are, Pediatrics Supplement, (ISSN 0031 4005) copyright 1990, 1085-1090.

Shakoor, B., and D. Chalmers, "Co-Victimization of African-American Children who Witness Violence: Effects on Cognitive, Emotional, and Behavioral Development," Journal of the National Medical Association, Vol. 83, No.3.

Widom, C.S., "Child Abuse, Neglect and Violent Criminal Behavior," Criminology, Vol.27, Number 2, 1989, p. 251-271.

Williams, B., and J. Kotch, Excess Injury Mortality Among Children in the United States: Comparison of Recent International Statistics, Pediatrics Supplement, (ISSN 0031 4005) copyright 1990, 1067-1073.

Wilson-Brewer, R. and B. Jacklin, Violence Prevention Strategies targeted at the General population of Minority Youth, background paper prepared for the Forum on Youth Violence in Minority Communities: Setting the Agenda for Prevention, December, 1990, Sponsored by the Centers for Disease Control and the Minority Health Professions Foundation with the Morehouse School of Medicine.

Witkin, G., "Another Gun Control Plan," U.S. News & World Report, May 13, 1991.

Zinsmeister, K., "Growing Up Scared," The Atlantic Monthly, June 1990.

APPENDICES

APPENDIX A

CHILD MORTALITY REVIEW PANEL

CRITERIA FOR SELECTION OF AN AREA OF INQUIRY

I. DATA AVAILABILITY:

Due to the limited time available for study, the panel will consider:

A. If a reasonably complete and accurate analysis of the subject can be performed given currently available data.

B. If the required data is valid and reliable.

C. If the subject lends itself to an analysis of retrospective data. Prospective data collection is beyond the current resources of this panel, though it may be a recommendation of the panel for future study.

D. If the subject can be appropriately analyzed by the panel in consideration of the resources and time available.

II. SEVERITY OF THE PROBLEM:

In order to have an impact on the prevention of child mortality, the panel will consider the following dimensions:

A. The causes which lead to the variances in rates of child deaths among specific populations.

B. The impact of a particular cause of death on morbidity.

C. The causes of death in Michigan which exceed the rates for the nation.

D. The cause of death is preventable.

III. EXPERTISE OF PANEL:

The area selected for study will utilize the unique expertise of the panel members and department resources for analysis. In selecting an area for study, the panel will consider:

A. The availability of resources and time for the panel to perform an analysis and make recommendations.

B. The availability of resources for department staff to obtain data and perform required analysis and reports.

IV. THE POPULATION IMPACT OF THE PROBLEM:

The panel will consider the impact of child death on subgroups based on age, sex and race in selecting an area of study, since there are significant differences in child death rates based on these variables. This analysis will include a review of the Year 2000 Health Objectives for the nation and an epidemiologic assessment of state patterns.

V. FEASIBILITY OF INTERVENTION:

In considering the areas of priority study and recommendations, the panel will consider:

A. Is the intervention likely to have a significant impact on the problem?

B. What is the ability of state government to affect the issue or provide the intervention?

C. What are the direct and indirect issues and costs related to intervention?

D. Is the complexity of the issue within the realm of the panel's time, resources, and expertise or is the issue so complex that it is impractical to address at the present time?

E. Does the issue lend itself to specific recommendations with measurable objectives?

F. Is the intervention an appropriate recommendation of the panel given the panel's expertise, resources and analysis?

G. If having the information in that area can reasonably be expected to result in new actions or decisions?

VI. CRITERIA AND STRUCTURE OF RECOMMENDATIONS:

The Departments are interested in recommendations which have a high likelihood of success and that:

A. Utilize prevention oriented strategies.

B. Take into account the community and personal context of people's lives.

C. Support the integrity of families.

D. Provide a basis for interorganizational and multidisciplinary actions.

APPENDIX B
SUMMARY OF RECENT CHILD MORTALITY DATA

Child Mortality Rate (ages 0-19) Comparison for 1988:

U.S. - 99.9 per 100,000 **Michigan - 102.5 per 100,000**

- The rate of Michigan childhood deaths per 100,000 is higher for the national average for almost every age group.

CHILD MORTALITY COMPARISON
MICHIGAN AND U.S., 1988

AGE	DEATHS Michigan	DEATH RATE (per 100,000) Michigan	U.S.
Under 1	1,542	1,104.69	1,008.3
1 - 4	237	43.23	50.9
5 - 9	178	26.37	24.2
10 - 14	204	29.52	27.5
15 - 19	675	93.00	88.0

- Child mortality rates for ages 1-19 are higher in the United States than in most European industrialized countries. This excess in mortality is not due to a difference in death rates from all natural causes; rather, all excess mortality among U.S. children can be attributed to injury.[3]

- Injury mortality steadily declined in most other countries between 1980 and 1986, whereas the U.S. rate appears to be increasing. Except for the 1981 Canadian figure, overall U.S. injury mortality was greater than the rates of six other countries studied in this time period. In every childhood age group U.S. death rates due to drowning, firearms, homicide, poisoning, and fire are among the highest.[4]

Infant Mortality Rate (ages 0-1) Comparison for 1989:

U.S. - 9.7 (Provisional) **Michigan - 11.1**

- The U.S. infant mortality rate exceeds the rate of eighteen other nations.[5]

- The Michigan infant mortality rate for 1989 rose to 11.1 compared to 1988 rate of 11.0. (Michigan Department of Public Health)

  - The rate of SIDS deaths rose from 1.4 per 1,000 live births in 1988 to 1.7 per 1,000 live births in 1989. This is an increase of 21.4%.

  - The number of low birth weight babies increased from 10,237 in 1988 to 11,323 in 1989, bringing the state's percentage of low birth weight babies up from 7.3 to 7.6%.

  - The number of very low birth weight infants increased from 2,018 in 1988 to 2,256 in 1989. This is an increase of 11.8% over 1988. About 40% of very low birth weight infants died before their first birthday.

---

[3]Rosenberg, Rodriguez, Chorba, Division of Injury Control, Center for Environmental Health and Injury Control, Centers for Disease Control, Published in 1990 Supplement to Pediatrics

[4]Williams and Kotch, The National Center for Health Statistics and the World Health Organization, in the 1990 Supplement of Pediatrics

[5] Analysis of 1988 U.S. Natality Data, Children's Defense Fund, Special Interim Report (Draft).

APPENDIX C

THE CHILD MORTALITY REVIEW PANEL'S SYSTEMATIC METHOD OF ANALYSIS

1. The Structure and Process of the Panel

In August 1990, by memorandum of agreement, the Michigan Department of Social Services and the Michigan Department of Public Health created the Child Mortality Review Panel. The panel's charge was three-fold:

1) to develop policies and procedures for the systematic multidisciplinary review and analysis of child mortality;

2) to review child mortality trends and patterns in the state in order to recommend remedial action; and

3) to review policies, procedures and practices related to the prevention of child deaths and recommend changes to the department directors regarding statue, policy, procedure, services and training.

The department directors of Social Services and Public Health jointly appointed each member of the panel to create a multidisciplinary body with expertise in the many areas relevant to the prevention of child mortality.

Upon its creation the panel adopted the following structure:

- All panel meetings are open to the public and time is allocated at each meeting for public comment and input into the panel's work.

- The role of staff from the Departments of Public Health and Social Services is (1) to be present at each meeting to offer consultation, answer questions and present data and (2) to work with individual panel members and the chair to assure all panel members' comments and expertise are incorporated into the panel analysis and reports.

- Panel meetings are held quarterly with subgroups appointed as necessary. Within 10 working days of each meeting a written summary of the meeting is sent to the Directors and all interested parties. Formal written reports of the panel findings and recommendations are to be presented to the Directors.

2. The Systematic Analysis of Child Deaths in Michigan:

Step One:
Review of the Data

For its first annual review of child mortality, the panel began with an analysis of the data contained in Lifelines for Children: Child Mortality in Michigan. This extensive study, conducted through a joint effort between the Departments of Social Services and Public Health, analyzed all the deaths to children 0-19 years of age in Michigan for the period 1984-1986. It included a broad look at all child mortality and then specifically examined the relationship of child mortality to five major variables: income, age, race, gender, and geography. The Lifelines study identified 60% of child deaths as preventable. Based on these findings the panel requested and received the following additional information before proceeding:

- A summary of all data currently collected and compiled through state agencies related to children
- A summary of all other efforts in the area of child mortality prevention, both private and governmental in Michigan and in other states
- An analysis and comparison of child mortality in Michigan, the nation and the world

In addition the panel reviewed comprehensive health indicators for mothers and children for the period 1980-1988 in a document titled Profiles in Health: Planning Data for Michigan. This document described trends related to the health, economic, and social status of children in Michigan over the past decade. The severity of problems, the high risk populations, and major issues emerged clearly from the data analysis.

Step Two:
Development of Guiding Principles for the Analysis

With the review of the existing data complete, the panel agreed to the following principles to guide a systematic analysis of child mortality:

- The panel's approach will be grounded in the public health principles of epidemiology and prevention. The panel agreed that child mortality, regardless of the cause, will be considered a public health issue.
- The most effective analysis and recommendation building will result from a coordinated approach, which is both interdepartmental and interdisciplinary in scope.
- The goals and objectives of the National Healthy People 2000 objectives will be utilized as guideposts as the panel analyzes Michigan's unique situation.

- Based on the data review, the panel agreed to an inquiry approach to their analysis. Criteria for the selection of an area of inquiry were developed. (See Appendix A for Selection Criteria for the Selection of an Area of Inquiry) This approach allows an indepth look at the issues involved in preventable child mortality which make Michigan unique from the nation, such as overall higher rates of mortality from specific causes.

Step Three:
The Systematic Analysis of a Selected Area of Inquiry

1. The panel selected three initial areas of inquiry which met the criteria developed by the panel. They are:

   (a) Interpersonal violence,

   (b) Sudden Infant Death Syndrome (SIDS), and

   (c) Motor vehicle fatalities.

2. A schedule of three inquiries, development of recommendations, and finalization of reports was developed which allows the panel to work simultaneously on two areas of inquiry. The panel will issue a report to the department directors on each area of inquiry.

3. The panel process of inquiry follows these chronological steps:

   - A statement and description of the problem and related factors is developed and agreed to by consensus.

   - A comparison of the problem in Michigan to the nation and the world is made. Similarities and differences are identified.

   - A detailed analysis is made of all available Michigan data on the problem. Specifically, staff from Departments which maintain data bases on the issue present data to the panel. The panel identifies questions and requests additional information as appropriate. At this time, the panel addresses specific data sharing and coordination issues with staff and provides recommendations on how to improve collaboration among state agencies.

   - An extensive literature review and summary of efforts throughout the country related to causation and interventions is provided by staff in collaboration with Michigan State University through a contractual agreement. This effort is managed by Dr. Nigel Paneth and his staff at Michigan State University.

   - The panel identifies the critical issues involved in causation and intervention that could be applied to Michigan.

   - Utilizing a group consensus process, the panel identifies potential interventions, recommendations and priorities for Michigan.

   - Following the panel's approval, the chair submits the final report on the inquiry to the directors of the Departments of Public Health and Social Services.