

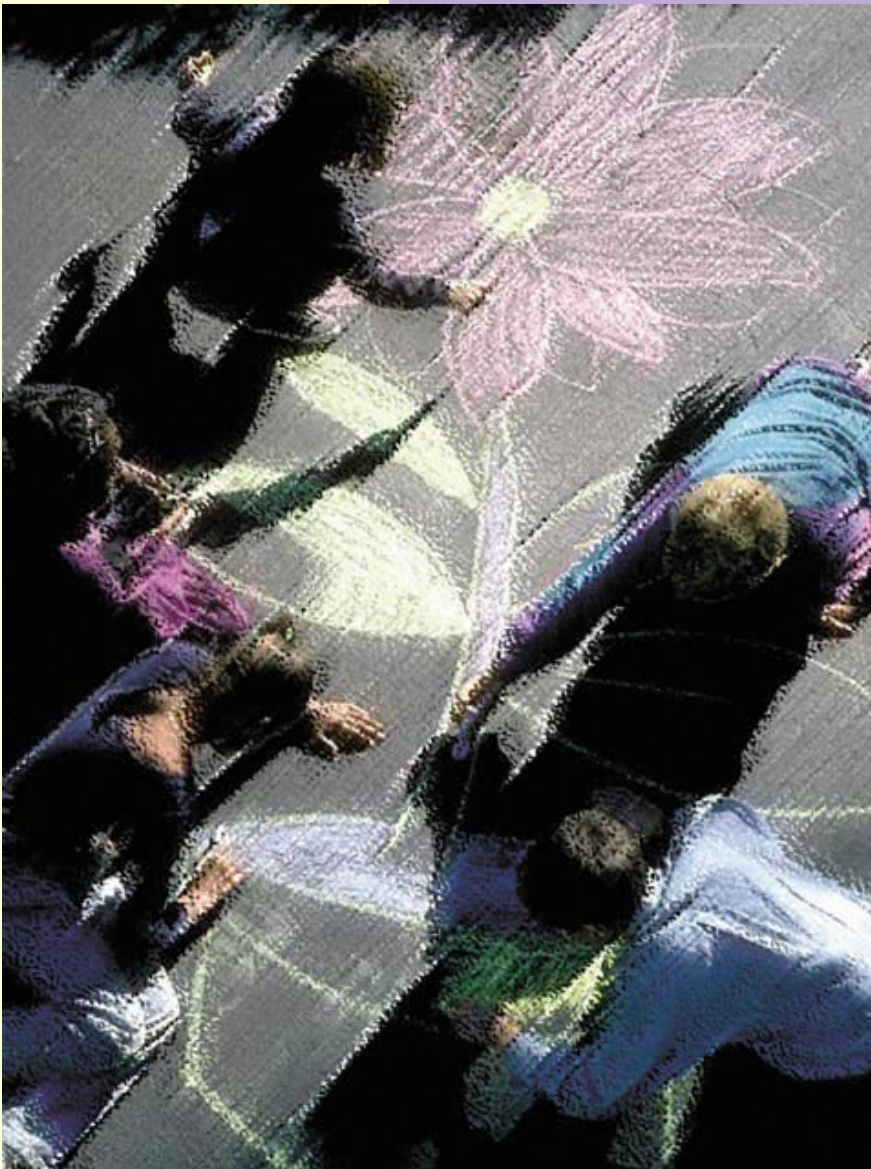
# **Child Deaths in Michigan**

**Michigan Child Death State Advisory Team**

**First Annual Report**

**Executive Summary**

**June, 1999**



**A report on the causes and trends of child deaths in Michigan based on findings from community-based Child Death Review Teams.**

**With recommendations for policy and practice to prevent child deaths.**

**Submitted to:**

**The Honorable John Engler  
Governor  
State of Michigan**

**The Honorable Dan L. DeGrow  
Majority Leader  
Michigan State Senate**

**The Honorable Charles R. Perricone  
Speaker of the House  
Michigan House of Representatives**

## MISSION

To understand how and why children die in Michigan,  
and to take action to prevent other child deaths.

### FUNDED BY:

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June, 1999

The Honorable John Engler, Governor  
Honorable Members of the Michigan Legislature

I am submitting this first annual report of child deaths in Michigan, in accordance with Public Act 167 of 1997, which requires the Michigan Child Death State Advisory Team to:

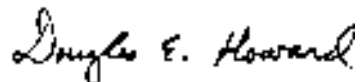
*Identify and make recommendations on policy and statutory changes pertaining to child fatalities and to guide statewide prevention, education and training efforts...and publish an annual report on child fatalities.*

This report highlights the magnitude of and trends in deaths to Michigan children over a ten-year period. It presents findings from the reviews of 827 deaths, conducted by thirty-eight community-based child death review teams.

The report presents recommendations that we believe can improve policy and practice in order to prevent other children from dying. It represents our first effort to understand and identify what our state can and should do to prevent child deaths. There is still much that we do not know. As we continue our work, we hope to use this report as a first step in informing state and local officials and the citizens of Michigan on how we can save children's lives.

Thank you for the opportunity to continue our efforts toward making our communities safer and healthier for Michigan's children.

Respectfully Submitted,

A handwritten signature in black ink that reads "Douglas E. Howard". The signature is written in a cursive style with a large initial 'D'.

Douglas E. Howard  
Director  
Michigan Family Independence Agency

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## INTRODUCTION

In 1995, Michigan embarked on a program to better understand why almost 2,000 of its children die each year in our state. Following Governor John Engler's and former Lt. Governor Connie Binsfield's direction, Child Death Review (CDR) was expanded in 1998. All eighty-one counties have now organized or are forming review teams. In the first year of expansion, local teams reviewed over a third of all Michigan child deaths. Over eight hundred members of Child Death Review Teams from throughout Michigan have now studied 827 child deaths.

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*The most important lesson learned from the teams' reviews is that by coming together and agreeing that child deaths are everyone's responsibility, persons from many different agencies and disciplines can help prevent hundreds of child deaths.*

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Local team reviews have increased our knowledge of how and why our children are dying and have led to local and state prevention efforts to keep children alive. This first annual report to the Governor and Michigan Legislature describes the review teams' findings and provides data on the numbers and causes of child deaths in our state. The report presents the State Advisory Team's first set of recommendations for state policy and practice that the team believes can help to prevent other child deaths.

Child Death Review Teams meet in counties throughout the state to determine if, with reasonable community or individual action, a child's death could have been prevented. The teams determined that 44% of the child deaths they studied could have been prevented. Teams recommended 94 changes to agency policy or practice, 419 prevention strategies, and implemented 204 prevention initiatives as a result of their reviews. For every child death prevented, many more children are protected from harm.

The death rate for all children ages 0-18 reached a ten-year low in 1997 of 74.59 deaths per 100,000. Yet in 1997, 1,973 children under the age of nineteen died in our state<sup>1</sup>. Fifty-five percent of these children died before their first birthday and twenty percent died in their teen years (ages 15-18). Most of the babies died of natural causes that were related to poor birth outcomes, such as prematurity and low birthweight or from Sudden Infant Death Syndrome (SIDS). Accidents, or unintentional injuries, were the number one cause of death for children ages 1-18. Motor vehicle crashes, house fires, drowning, suffocation and other accidents killed 407 children in 1997. There were 113 child homicide victims in 1997. At least 11, and perhaps three times that many young children were beaten to death by their caregiver. Seventy-two children were victims of firearm homicides. Seventy Michigan teenagers under the age of 19 committed suicide in 1997. African American children and males had higher rates of deaths in almost all categories.

Mortality data provides us with an overall picture of child deaths. Yet it is from a careful study of each and every child's death that we can learn how best to respond to a death and how best to prevent another. The following presents a summary of the report's presentation of mortality data, team findings and State Advisory Team recommendations for the major categories of child deaths.

This report honors the memory of children who have died in Michigan. By learning from their deaths, we can all help to prevent other deaths of Michigan's most innocent citizens, and keep our children healthy, safe and protected.

<sup>1</sup> Source for all mortality data is the Division For Vital Records and Health Statistics, Michigan Department of Community Health. Reader is cautioned not to directly correlate mortality data from 1997 with review team data (tabulated from 17 counties 1995-1997 and from 39 counties in 1998).

## SUDDEN INFANT DEATH SYNDROME

SIDS is the sudden and unexpected death of an infant under the age of one that remains unexplained after an autopsy, investigation of the death scene and review of the medical history. The new State of Michigan Protocols to Determine Cause and Manner of Sudden and Unexplained Child Deaths were widely distributed in 1997. Still, the reviews found that complete investigations were lacking in many cases: six babies did not have an autopsy, 39 did not have their medical histories reviewed and the majority did not have comprehensive scene investigations.

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*Teams reviewed 104 SIDS deaths. 138 babies died of SIDS in 1997.*

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The cause of SIDS remains a mystery, although risk factors have been identified. The safest way for babies to sleep to reduce the risk of SIDS is on their back, alone, in a safe crib. Since the Back to Sleep education campaign began in 1992, the rate of SIDS has decreased by 39% to 1.03 deaths/100,000 (except in urban areas,

including and especially Detroit). Other risk factors include exposure to cigarette smoke, lack of prenatal care and overheating. African American infants died from SIDS at a rate 2.5 times higher than the rate for white babies.

Many of the 104 SIDS babies had one or more SIDS risk factors, especially related to sleep position. Only 40 babies were sleeping in cribs, only 21 were sleeping on their backs when found and only 59 were sleeping alone. Only 5 of the 104 babies were sleeping in cribs, alone, and on their backs. Thirty of the babies were living in smoke-filled environments.

### Recommendations for State Policy Makers:

1. Require the use of standardized protocols (including autopsy, scene investigation and review of medical history) for the investigation of all sudden and unexplained child deaths.
2. Ensure that adequate training is available for medical examiners, medical examiner investigators and law enforcement personnel in the thorough investigation of child deaths.
3. Enhance support for public education campaigns on SIDS risk reduction, especially those focused on urban and African American families and professionals who work with families. Emphasize the importance of Back to Sleep, safe sleeping and smoke-free environments.
4. Continue to fund SIDS professional bereavement counseling through MDCH beyond the 1998 supplemental appropriations, in order to better help families.

## NATURAL DEATHS, OTHER THAN SIDS

Seventy-three percent of the natural deaths, other than SIDS, occurred to children under one year of age in 1997. Older children died from congenital anomalies, cancer, heart disease and other medical conditions. Michigan's infant death rate rose slightly in 1997 to 8.1 deaths per 1,000 live births. Thus for every 1,000 live births in Michigan, approximately eight infants will die before their first birthday. Most infants that die within their first year of life die within the first 48 hours of life from congenital anomalies, or conditions associated with low birthweight and/or prematurity. African American infants die at much higher rates than white infants and infants of other races. Although

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*Teams reviewed 256 other natural deaths. 1,237 children died of natural causes, other than SIDS, in 1997.*

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most infant deaths are natural, many are preventable and often related to poverty. Risk factors identified by MDCH from the 1997 deaths include: mothers who are less than 20 or more than 40 years of age have almost 1.5 times the death rate as other women; unmarried mothers have twice the infant mortality rate of married women; women who obtained inadequate prenatal care have infant mortality rates as high as three times those of women who received adequate care; and women who smoked during pregnancy had a rate of 11.8/100,000 compared to 6.9/100,000 for non-smokers.

Teams reviewed 256 natural deaths, including 149 deaths to infants. They had difficulty in conducting comprehensive reviews because of the medical complexity of many of these deaths. A new program, Fetal Infant Mortality Review, helps communities conduct more in-depth reviews of infant deaths. A number of CDR teams are examining ways to link these two review processes together.

The reviews found patterns linking prenatal issues to infant deaths. These included: mother's medical complications in pregnancy; the lack of referrals to, poor access to or poor utilization of prenatal care and other support services; and drug, alcohol and tobacco use during pregnancy. Domestic violence was also identified as a critical factor in a number of deaths. Teams reviewed three deaths in which a lay mid-wife failed to seek additional medical assistance when complications arose.

### Recommendations for State Policy Makers:

5. Expand the Fetal Infant Mortality Review (FIMR) program to communities in Michigan with higher infant mortality rates than the state average.
6. Encourage the state organizations of lay midwives to develop standard protocols for practice and explore the need for public education and state regulation of lay midwifery.
7. Encourage medical care organizations and insurance companies to work with their provider groups and private health care providers to:
  - a) Ensure early access to and continuity of care for all pregnant women.
  - b) Comply with state laws that require physicians to offer pregnant women client-centered counseling and voluntary HIV testing.
  - c) Improve screening of pregnant women and new parent patients for domestic violence and substance abuse and assure appropriate referral and service capacity in all arenas of client contact. For example, physicians' offices, social and human service organizations.
  - d) Increase referrals to risk reduction programs such as Maternal Support Services and Infant Support Services (MSS and ISS).

## MOTOR VEHICLE DEATHS

The child death rate due to motor vehicle crashes was 9.87/100,000 in 1997, the second lowest rate in 10 years. Most of the deaths happened to children who were passengers, were driving or were pedestrians. White teen males had the highest rates. Teams reviewed 31 deaths in which the child was the driver and 27 in which the child was a passenger, but another teen was driving. In one case, a teen driver killed a child pedestrian. Driver error was the primary cause of these crashes.

Alcohol was involved in 15% of the deaths, 14 involved a drunk driver and 10 of the teen drivers were alcohol impaired. Poor use of seat restraints could have been a factor in 30% of the deaths. Seat belts or child seats were present but not used in 50 deaths. In four cases, child seats should have been used, but were not even present in the vehicle; and in three cases, child seats were present, but used incorrectly.

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*Teams reviewed 160 motor vehicle deaths. 261 children died in motor vehicle crashes in 1997.*

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Teams reviewed four bicycle deaths, and in two cases, the children were not wearing helmets. National estimates suggest that 75% of bicycle related deaths to children could be prevented if all children on bicycles wore helmets.

Three crashes were reviewed involving child passengers thrown from the beds of pickup trucks. Teams reviewed a number of snowmobile and jet ski deaths, in which the young driver's inexperience, high speed and/or alcohol use were factors in the deaths.

A number of teams also reported that they had difficulty obtaining approval from county, state and/or federal highway transportation officials, in planning improvements in road design following a death.

### Recommendations for State Policy Makers:

8. Consider the merits of legislation and provide public education on:
  - a) Primary seat belt enforcement.
  - b) Prohibition on children riding in the back of pickup trucks.
  - c) Bicycle helmet use.
9. Encourage partnerships among state level highway and traffic safety agencies and local communities to improve dangerous roads, traffic and pedestrian areas.
10. Encourage communities to support and fund local Students Against Driving Drunk (SADD) chapters and similar interventions to encourage responsible teen driving.
11. Support expanded education on child automobile restraint use.
12. Improve and increase enforcement of and public education on watercraft and snowmobile regulations with an emphasis on prevention of alcohol use.

## FIRES

Although the death rate to children from fires was the second lowest in ten years, it rose 20% from 1996 to 1997, to a rate of 1.32 per 100,000. House fires are the number one cause of fire deaths to children. Children who are ages 1-4, poor, African American and live in older, substandard housing are significantly more at risk of dying in a house fire than other children. In 1997, 15 African Americans, 18 whites and 2 children of other races died in unintentional fires. The teams found that twenty-three (or

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*Teams reviewed 38 unintentional fire deaths, 6 arson deaths, 35 children died in unintentional fires and 8 children died in arson fires in 1997.*

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61%) of the unintentional deaths were to children under five years of age and that 36 children did not know of an escape plan. In a number of cases, children were left alone in the house when the fire started. In three of the fires, the children were sleeping in basements with no easy exits.

Matches, cigarettes and lighters caused 18 of the fires. Ten fires occurred while children were playing with matches or lighters. Faulty heating or wiring caused six fires.

The teams reported that 25 homes did not have any smoke detectors. Of the 13 that did have detectors, five were without batteries at the time of the fire.

### Recommendations for State Policy Makers

13. Examine ways to fund and support public education campaigns on proper storage and use of space heaters.
14. Expand current fire safety education to include all Head Start and publicly funded preschool programs.
15. Study options to improve the technology and utilization of reliable smoke detectors and carbon monoxide detectors in new public and rental housing, including trailers.

## DROWNING

The child death rate due to drowning was 1.32 per 100,000 in 1997, the third lowest in 10 years. Twenty-six of the 35 children who drowned were boys. Twenty-one white children and 13 African American children drowned. The teams found that 19 of the children died in natural bodies of water or in gravel pits, 12 died in swimming pools and six died in bathtubs. All six children who were in bathtubs at the time of drowning were left unattended for a period of time long enough for the child to drown. One of the six caregivers was charged with criminal neglect. The Family Independence Agency (FIA) substantiated neglect in three of the cases.

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*Teams reviewed 40 drowning deaths, 35 children died of unintentional drowning and 1 child drowning homicide occurred in 1997.*

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Six deaths happened to children who entered a swimming pool unattended, in which the pool had no fencing or a gate was left unlocked. In two drownings there were locked gates, but the child still managed to enter the pool. According to the Consumer Product Safety Commission, residential swimming pools without complete fencing are 60% more likely to involve

drowning than pools with adequate fencing. Many teams found that their communities have no local ordinances regulating pool barriers to conform with the Building Officials Code of America (BOCA) and the Michigan Uniform Building Code. In two cases, children fell through soft hot tub covers. In several cases, teens had easy, unsupervised access to gravel pits or ponds.

### Recommendations for State and Local Policy Makers

16. Encourage local governmental units to develop safety regulations related to swimming pools, hot tubs, gravel pits and bathtubs.
17. Publicize that swimming pool and hot tub enclosures as standard features will prevent deaths.
18. Publicize the need to reduce children's access to gravel pits, uncapped wells and other water hazards.

## SUFFOCATIONS

Suffocations include smothering and choking deaths and happen most frequently to infants and toddlers. The rate of unintentional suffocations was the lowest in five years at 1.13 per 100,000. Twenty white children, nine African American children and one child of other race died of unintentional suffocations. Infants are at greatest risk of suffocation due to smothering because they are not strong enough to move their heads or bodies. The teams reviewed 16 smothering deaths to infants under age one.

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*Teams reviewed 21 unintentional and 4 homicide deaths. 30 children died of unintentional suffocations in 1997.*

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Five children died when another person rolled onto them while sleeping; five children suffocated in their bedding, including four on soft beds; and two children died when their faces fell into plastic bags while sleeping (the bags were left near the babies' faces). In total, the teams found that 11 of the children

died while they were in bed, and five of these children were sleeping with others. Seven children died when ropes or cords strangled them and one child choked on a toy.

There has been a great deal of controversy regarding the distinction between SIDS and suffocations. A comprehensive scene investigation is essential to distinguish between SIDS and suffocations.

### Recommendations for State Policy Makers:

19. Require the use of standardized protocols (including autopsy, scene investigation and review of medical history) for the investigation of all sudden and unexplained child deaths.
20. Ensure that adequate training is available for medical examiners, medical examiner investigators and law enforcement personnel in the thorough investigation of child deaths.
21. Enhance support for public education campaigns on safe sleep environments for infants.

## UNINTENTIONAL FIREARM DEATHS

The 1997 unintentional firearm child death rate was the lowest in 10 years, at .34/100,000. There were five African American children killed and four white children killed in 1997. Nationally, children and adolescents account for 55% of all unintentional firearm deaths. The majority of these deaths occur in the children's homes and involve handguns. Most deaths occur when the children are playing with the guns and they accidentally discharge.

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*Teams reviewed 7 unintentional firearm deaths. 8 children died of unintentional shootings in 1997.*

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The teams found that all seven of the children were playing with the guns. Four of the guns were handguns, two were rifles and one was a shotgun. Two of the handguns were not registered. Four of the children were 12 years old, one was 13 and two were 17. Five of the children had never attended a gun

safety class. The reviews found that in only one case was the gun that killed a child locked in a gun cabinet. All of the children had easy access to the guns, and the guns were either loaded or ammunition was stored with the gun. None of the guns had trigger locks.

### Recommendations for State Policy Makers:

22. Consider ways that all firearms sold in Michigan could be provided with trigger locks.
23. Expand support for youth and parent gun safety education.
24. Explore ways to require gun dealers to provide materials at the point of sale or resale, on gun safety and the proper storage and usage of guns, especially as they relate to children.

## OTHER UNINTENTIONAL INJURY DEATHS

Other unintentional injuries include poisonings, farm machinery deaths (usually to inexperienced riders), electrocutions from downed power lines or lightning strikes, and accidental falls. Poisonings happen most frequently when children have easy, unsupervised access to household chemicals. However, one team reviewed five methadone poisonings, occurring within three years, to toddlers. It was found that all of the poisonings occurred over the weekend, when the mother had to bring her weekend dose home, because the methadone distribution clinics were not open on Sundays.

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*Teams reviewed 7 other unintentional injury deaths. 37 children died of these injuries in 1997.*

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### Recommendation for State Policy Makers:

25. Study state policies and strategies to improve the safe and responsible distribution of methadone to reduce accidental poisoning to children.

## HOMICIDES BY FIREARMS

Teen homicide rates due to firearms reached epidemic proportions in the 1980's and 1990's, especially among African American teen males. In 1997 however, the rate dropped to 2.72/100,000, down from a high of 4.79/100,000 in 1991. Yet the rate among African American males ages 15-18 was 45.31, compared to 5.23 for white teen males. Firearm homicides remain the number one cause of death for African American teen males. Yet studies show that when socioeconomic status is held constant, differences in homicide rates by race is insignificant. Teen murders are almost always committed by casual acquaintances of the same gender, race and age group, using handguns. In the 35 deaths reviewed by the teams, eight of the shootings were drug related, and four were gang related. In 15 cases, a person has been arrested, and 13 have been charged. Only one person had a record of a prior homicide. Fifteen of the shooters were friends or acquaintances, and only one was a stranger to the victim.

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*Teams reviewed 35 homicides by firearms. 72 children died from firearm homicides in 1997.*

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Only one person had a record of a prior homicide. Fifteen of the shooters were friends or acquaintances, and only one was a stranger to the victim.

Teams found gun violence among teenagers to be a difficult area in which to develop recommendations. Reasons for this included the fact that the teams found youth violence to be a multi-dimensional, complex and deeply entrenched community problem that defies simple solutions, but which always requires a community commitment to provide positive opportunities for disenfranchised youth.

### Recommendations for State Policy Makers:

26. Enhance support for after-school and evening supervised youth programs.
27. Support victim advocacy and crisis team support to children who witness violence.
28. Encourage Human Service Collaborative Bodies (HSCBs) to implement or strengthen innovative community-based violence prevention initiatives and programs to promote youth successes.
29. Encourage the provision of alternative educational and social support for students expelled from schools for carrying weapons.

## CHILD ABUSE HOMICIDES

Child abuse homicides can be grouped into two major categories: physical abuse and abuse by neglect. Physical abuse most often involves severe beatings or violent shakings, and are most often committed by fathers and mothers' boyfriends. Abuse by neglect occurs through chronic neglect (usually leading to starvation or severe medical problems) or lack of supervision when the child is in a dangerous situation. Most neglect deaths are to boys, perpetrated by their mothers. Young children under age four are at greatest risk of death; in fact, abuse is the number one cause of injury death to children under age one.

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*The teams reviewed 35 child abuse and neglect homicides. 11 children died from battered child syndrome in 1997. The actual number of abuse deaths is probably higher.*

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Eleven children were listed on death certificates as dying from battered child syndrome in 1997. There were no reported deaths due to criminal neglect. It is believed that deaths due to abuse are under-reported on death certificates. The actual number of deaths due to physical abuse and neglect is almost certainly higher,

with the deaths being misclassified on death certificates as accidents or natural deaths. FIA staff are required to file a death report on any child known to the agency. Between October 1, 1997 and September 30, 1998, forty abuse deaths were reported: They included 29 physical abuse deaths: shaken baby syndrome (18), multiple head and internal injuries from beatings (4), shootings of children by caregivers (3), drowning (1), asphyxia (2) and seizures (1). Eleven neglect deaths were reported. Of these 40 deaths, 24 had no prior involvement with FIA, 9 had prior unsubstantiated complaints of abuse or neglect and 7 had prior substantiated reports of abuse or neglect. None of the 40 children who died had reports of prior participation in family preservation services.

Of the 35 deaths reviewed by teams, 29 were due to severe beatings or shakings. Twenty-three of 29 perpetrators were male, 10 were fathers and 10 were mothers' boyfriends. Crying triggered the abuse in 15 cases. The teams reviewed six neglect deaths, including two caused by failure to seek adequate medical care and two starvation deaths.

In a number of cases, the team felt that signs of prior or current abuse or neglect were not recognized by professionals who came into contact with the child; for example, through schools or health care agencies.

### Recommendations for State Policy Makers

30. Enhance training on mandatory child abuse reporting for health, education and human service providers, including administrators, with an expanded emphasis on neglect.
31. Support efforts to strengthen enforcement of the current mandatory child abuse and neglect reporting laws.
32. Encourage Human Service Coordinating Bodies (HSCBs) to develop common community understanding and application of standards for the reporting of child abuse and neglect.
33. Enhance training opportunities on the Child Maltreatment Investigation Coordinated Protocol and Forensic Interviewing Protocol.

## SUICIDES

Suicide rates among adolescents more than tripled from the 1950's to the 1980's. In the 1980's and early 1990's, Michigan had a steady decline in the teen suicide rate, down 40% from 1988 (3.22/100,000) to 1996 (1.89/100,000). However, the rate rose 30% from 1996 to 1997, up to 2.65/100,000. The rate rose sharply for white and African American male teens. Rates are also in-

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*Teams reviewed 46 suicides. 70 Michigan children committed suicide in 1997.*

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creasing for teens ages 10-14. It is widely believed that easier access to firearms, especially handguns, has been the major factor in the increase.

The causes of teen suicide are often an interaction of risk factors, including social isolation, family disruption, severe stress in school or social life, prior familial suicides, and impulsive, aggressive or anti-social behavior. Most teen suicide victims shoot or hang themselves.

Thirty-five of the suicides reviewed by the teams involved 15-18 year olds. Ten deaths were to children ages 10-14, and one nine-year-old boy hung himself. Thirty-seven of the teens were white, six were African American and three were Native American. Thirty-six (79%) of the teens were male.

Eighteen teens shot themselves and 17 died from hanging. In nine of the cases, one or more other teens witnessed the suicide. Fourteen of the teens had prior mental health problems, but only 10 had received any mental health services. Three of the teens had made prior suicide attempts. In many of the cases, the teen was about to experience a major disappointment or frightening life event. Teens killed themselves just prior to incarceration, while in jail, at the anniversary of traumatic events and when they failed in school or relationships.

### Recommendations for State Policy Makers:

35. Support widespread teacher, health and human service worker training on suicide prevention.
36. Develop protocols to help families, case workers and law enforcement officers identify and respond to suicide risks for teens awaiting sentencing or detention as juvenile offenders.
37. Conduct a statewide epidemiological study of adolescent suicide and an assessment of available prevention resources.

