A Search for Risk Factors Predicting Fatal Child Maltreatment

by Janice Christianson-Wood

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A SEARCH FOR RISK FACTORS PREDICTING FATAL CHILD MALTREATMENT

BY

JANICE CHRISTIANSON-WOOD

A Thesis submitted to the Faculty of Graduate Studies of the University of Manitoba in partial fulfillment of the requirements of the degree of

MASTER OF SOCIAL WORK

ABSTRACT

The identification of factors used to predict fatalities from child abuse and neglect remains a concern in risk assessment research. It is essential in helping child welfare workers avoid false positives by which a family is subjected to unnecessary intrusion or false negatives by which children are left at risk for fatal injury or neglect.

Files from the Office of the Chief Medical Examiner of Manitoba from 1984-1993 concerning the deaths of children who died of causes other than disease or congenital conditions were examined to extract files where deaths were due to abuse or neglect. These 167 files were analyzed using a risk assessment instrument, the Manitoba Risk Estimation System, to determine the characteristics of families in which children die as a result of homicide, preventable causes or deaths of a problematic nature. All victims were very young; the majority in each category were less than 3 years of age. Homicides were distinguished by a high level of child welfare involvement with the family prior to the fatal assault as well as a tendency to blame the child or external factors for the assault. Preventable deaths were associated with a chronic lack of supervision on the part of the caregivers. Problematic deaths were associated with the highest percentage of alcohol abuse of the three groups studied. All groups were characterized by poor parenting knowledge and skills on the part of the caregivers. Factors that should be considered when assessing families for the potential for fatal abuse or neglect include patterns of past abusive behaviour toward children, the belief structure of the caregivers with respect to children and parenting, substance abuse by the caregiver as well as the existence of any mental health problems or intellectual incapacity of the caregiver. The caregiver's history of violence within the family and toward others should be assessed in addition to the quality of parenting knowledge and skills the caregiver possessed and his/her stress level. Adolescent parents may experience additional problems in parenting due to their youth and personal circumstances.

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STATEMENT OF THESIS

There are identifiable characteristics of families where children have died as a result of child abuse or neglect.

These include demographic characteristics such as the family type, the age of the child victim and the age of the parents as well as others associated with personal characteristics of the caregivers, the history of abuse or neglect within the family, the caregivers' relationship with the child victim, the quality of the family's interaction with each other and the caregivers' relationship to their community.

In considering these fatalities, there are differing characteristics of families associated with different causes of death consequent to the commission of violent acts or the omission of the parent's duty of care. For the purpose of this study, these deaths will be considered under three categories; homicides, preventable deaths and deaths of a problematic nature. Homicides are deaths in which there has been a finding of culpability of a caregiver with respect to the child's death. Preventable deaths are those deaths where there was no overt act against the child by the caregivers yet there is a failure of the parent's duty of care toward the child. These include deaths where there has been a judicial finding of a failure to provide the necessities of life. These deaths can be sorted into sub-categories based on the physical, proximate cause of death. Deaths of a Problematic Nature are those in which there is an undetermined cause of death combined with concern about the quality and/or quantity of care provided to the child.

PROBLEM DEFINITION

The identification of factors used to predict fatalities remains a concern in risk assessment research. Knowing which characteristics of a family or what indicators in a situation are vital to prediction helps workers disregard the "noise" of non-relevant information. It is also essential in avoiding false positives in which a family is subjected to unnecessary intrusion or false negatives where children are left at risk for fatal injury or neglect. The relationship of the severity of previous injuries to predicted severity of future injuries is also critical; how can workers know if particular injuries are predictors of future fatal injuries? For example, do certain injuries to a very young child serve to predict the lethality of future injuries? Knowing that a caregiver has injured a vulnerable and easily damaged part of a child's body could provide information about how far the caregiver could go in a future assault; or it may have no relationship at all to future events.

In some jurisdictions, particularly in the United States, the child must have suffered "demonstrable harm" before agencies are mandated to intervene. (Besharov, 1988, p. 41) The task for child welfare workers in Manitoba encompasses a broader scope as agencies are responsible for protecting children from probable harm as well as preventing future harm. (Child and Family Services Act of Manitoba, Sec. 2.(1)(e)) This translates to understanding which situations (including foster care) pose a high risk for children and which constitute a lower risk then choosing appropriate interventions to reduce the risk to an acceptable level. The study of child abuse fatalities can provide information that, in combination with research on non-fatal child abuse, will assist in understanding the factors associated with increased severity of injury. The difficulties in studying child abuse fatalities include the methodological problems inherent in studying "rare" events or low base rate phenomena. In order to obtain sufficient numbers, it is often necessary to study deaths over a long period of time which

raises history as a threat to internal validity as legislation, policies and other events change the environment in which these events occur. (Campell and Stanley (1966) cited in Sproull, 1988, pp. 136-137) The nature of the investigation and the quality of the attention brought to bear on a child abuse or neglect fatality is necessarily different in both quality and quantity from that of day to day casework in child welfare. Ideally, increased investigation beyond that which is currently found in official records would provide information about particular fatalities that is not captured in the "official" accounts; this could include interviews with professionals involved as well as with the families if that were appropriate.

CHILD ABUSE AND NEGLECT

Children have long been subjected to fatal abuse and neglect by their caregivers. An overview of the history of child abuse and neglect by Radbill (1987) reveals that there have been periods in history where the practise of killing of "unfit" or deformed infants was accepted. (p. 5) The child's "right to life" was conditional upon his acceptance by his family, particularly the father or the elders of the community. (p. 3) Female children were at particular risk as they were often less valued and lacked the minimal protection of whatever rights were accorded their brothers. Children, even male children, were essentially the property of their fathers. Male children were castrated as late as the second half of the 18th century to enable them to serve as eunuchs in the harems of the East or to preserve the high pitched voices that were the trademark of the castrati, valued singers in the West. It was not until the Roman Catholic Church banned the castrati from singing in churches that the practise was abandoned in the West. (p. 6)

Coroners' records from 1623 in England reveal that children were "overlaid and starved at nurse". (p. 6) They died of burns and scalds or drowned in pits, cisterns, wells, ponds and pans of water. Records from 1788 and 1829 reveal that drownings were not uncommon. Radbill states that dropping children into privies or drowning them were methods of choice for disposing of unwanted infants. (p. 6) Examination of similar files today reveals that children continue to drown in pits, cisterns, wells, ponds, buckets of water and toilets. Hogarth's engravings of 18th century life in the slums of England reveal an understanding of the dangers experienced by the children of alcoholic parents; 'accidents' resulted from inadequate care by drunk mothers. (p. 8) The high incidence of alcohol abuse among the parents of neglected children was documented in the late 19th century by the British National Society for the Prevention of Cruelty to Children. (p. 8) The relationship between overlaying deaths in which an

adult sharing a bed with a child lies on the child and suffocates it and the abuse of alcohol was recognized in the files of English coroners of earlier centuries. Radbill states that these deaths were more frequent on Saturday nights "for obvious reasons" from which one may assume that after the father or mother was paid for a week's work they would consume alcohol to excess. (p. 8) These deaths are found in coroners' files today as well. Parents are seldom charged in such circumstances as the death of the child is seen as a social problem requiring "treatment" for the perpetrator rather than as an act of maltreatment.

Radbill's history of child maltreatment states that the origins of child welfare can be traced to 6,000 years ago and are represented by a Mesopotamian goddess who was the patron of orphaned children. An ancient Hindu deity is credited with rescuing infants left to die of exposure and endowing them with the legal rights that had been denied by their families' repudiation of them. State care of vulnerable children is documented in the laws of Solon in 600 B.C. in which army commanders were required to provide for the care of children of citizens killed in battle. (p. 13) Despite the good intentions of the rescuers of abused or neglected children, the solution of alternative care was a death sentence for some. (p. 14) Some "baby farmers" who provided foster care for children were known to murder them for a fee or to collect their insurance benefits. Even when there were no active attempts to kill the children, between 31% and 80% died in foster care of causes such as freezing or starvation. (p. 15) Survivors could expect little in the way of support or training and had to make a living as best as they could, including stealing, begging and prostitution. (p. 15)

The advent of modern child welfare is generally believed to have its origins in Victorian and Edwardian times with movements to protect orphans and working children. (Pollock, 1973) Children began to be seen as individuals with different developmental tasks than adults. Efforts to help them, although well-intentioned, often had adverse outcomes for the children concerned. In an effort to remove orphaned and abandoned

children from the streets and orphanages of Great Britain, a movement began in the mid 1800's to send these children to the colonies of imperial powers such as Germany and England. (Bean and Melville, 1990, p. 39) The second phase of child migration took place between 1870 and 1925 when children from Britain were sent to Canada ostensibly to provide them with opportunities for a better life. Canada was chosen because it was seen as safer than Australia, cheaper to get to and had an "insatiable" demand for labour. (p. 39) During this period, 100,000 British children were sent to Canada; of these nearly a third had living parents who were unable to provide for them due to poverty, ill health or other circumstances.

Dr. George Barnado was influential in child migration to Canada; his organization sent 20,000 children to Canada between 1882 and 1914. (p. 40) Employers contracted for the labour of these children with the understanding that certain minimum conditions of care and education were to be met. The histories of these children reveal that many of them did not receive the care or the education that was promised. Nine percent of boys and fifteen percent of girls were so badly treated that they were removed from their employers by the Barnado organization which was still in existence in 1988. (p. 41) Children had been placed in Barnado Homes in England either as orphans or because their parents were unable to provide for them. They were permitted little contact with their families (three hours each quarter of the year) and had to provide their own postage when writing to their friends or families. (p. 45) Two women associated with Barnado, Martha Rye and Annie Mcpherson, became infamous for their lack of concern for the children in their care. The homes and characters of potential employers were never inspected by Rye and Mcpherson despite promises to the administrators of children's homes in Britain which supplied the girls who were sent to Canada. (p. 51) The Roman Catholic Church was also involved in sending children to Canada in the 19th century. English Catholic children were placed in French Catholic homes with no thought to the

difficulties of moving to a new country to live with strangers who spoke a language that the children did not understand. (p. 55)

Children were seldom consulted about their wishes in the process. Many reported being given the choice between Canada and Australia; this was their only option in the situation. (p. 60) Sibling groups were separated and some never found each other again. The promised good care and education never materialized for many of the little immigrants. Others were abused, sexually assaulted or driven to suicide. The welfare of the children was seldom monitored by the organizations and individuals who had promised to do so.

Modern child welfare has come some distance from these beginnings. However, children are still separated from their parents for their own protection and placed with strangers if no suitable family members are available to assume their care. Children have a diversity of experiences in foster care, ranging from very good to very bad. The goal of modern child welfare is to keep children safe from harm within their families wherever this is possible. In order to facilitate this process, it is necessary to understand the possible outcomes for maltreated children with respect to differing options intended to protect them. These options include leaving them in their families without intervention, leaving them with their families and providing treatment services, removing them from their families while treatment is provided or while action is taken to terminate the parent's rights and move the children into stable families. This process assumes that workers in child welfare have some ability to foresee the future with respect to the available options.

PREDICTING FATAL ABUSE AND NEGLECT

> "If I don't take this child away with me," thought Alice, "they're sure to kill it in a day or two. Wouldn't it be murder to leave it behind?"
> (Lewis Carroll, *Alice's Adventures in Wonderland,* p. 69)

Alice's dilemma is well known to practitioners of child welfare. A report of abuse or neglect has been made, investigated and substantiated, or the worker has seen enough of the parent's care of the child to be concerned about the child's future well-being. How are workers to know which situations carry a sufficiently low risk of reabuse that services can be provided to the family while the parents and children remain together as opposed to situations that carry a higher risk of reabuse of the child? The task for workers is to predict the risk of future maltreatment by assessing information gathered about the family, the incident of child abuse and neglect (CAN) and the child. Failures are seldom well tolerated by the public. José Alfaro, Director of Research for the Children's Aid Society of New York expressed the following opinion in a focus group for the U.S. Advisory Board on Child Abuse and Neglect in June of 1994:

> "If I had my druthers, I'd chisel into the foundation stone or the archway of every child welfare agency this simple statement: Our first job is keeping kids alive. And when we fail it's something for which the public doesn't forgive us." (USABCAN, 1995, p. 107)

Reid (1993) outlines a variety of reasons for the maltreatment of children, apart from pedophilia which is generally considered to be compelled behaviour and unresponsive to an individual's "free will". These include child care standards particularly different from those deemed acceptable in law, the belief that one's own needs and desires take precedence over those of the child, a conscious decision to engage in sexual practices judged deviant by society, a belief that children are of little value, etc. Understanding which values and beliefs are significant to the etiology of child maltreatment provides a starting point for research. Obtaining empirical data to

confirm or reject hypotheses about the relationship of such items to child maltreatment is the necessary next step. (p. 90)

Prediction Theory

In attempting to understand the prediction of future events, there are several different categories of prediction to consider. The first category involves events that are governed by logical definitions; the prediction of anniversaries and birthdays are examples within this category. If a person's birth date is known, it is possible to predict future birthdays for that individual. The second category of events are those governed by natural laws; an example of this is the boiling point of water and the laws of physics that describe fundamental physical principles. Random events comprise the third category; this includes the prediction of what numbers will come up in a game of chance. There is no known way to reliably predict such an event. The last category is governed by complex factors that are difficult to assess. An example of such an event is the "spontaneous" explosion of a natural gas pipeline. The condition of the pipes, weather conditions, the frequency and thoroughness of line maintenance and the presence or absence of complicating factors such as vandalism combine to determine whether or not there will be an explosion. Events in child welfare fall into this last category. (adapted from Reid and Sigurdson, 1993a)

The central prediction principle of chaos theory is that apparently random phenomena have an underlying order; that regular patterns exist in complex systems. (Berreby, 1993, p. 78) If these patterns can be understood, chaos theory holds that it is possible to observe part of a pattern and predict what the next element of the pattern will be. The relationship is not linear but is rather a complex interaction among all the factors acting on the situation or the individuals concerned. (p. 78) It may not be possible to predict the pattern in 100% of cases, but knowing what will happen in a smaller percentage of situations has value if others regard the same situations as governed by random chance. (p. 81)

Prediction of Risk in Child Welfare Practise

"The fundamental thesis of child welfare risk assessment is that it is possible to recognize individuals or families who are likely to engage in future child abuse or neglect." (Reid, 1993, p. 89) Predicting child maltreatment *before* the first incident occurs in a family would be a critical primary prevention technique. Reid states that, before this can happen, a better grasp of predicting the *reoccurrence* of maltreatment is necessary. Predicting reoccurrence is a less complicated proposition than predicting the initial incident of maltreatment as the perpetrator has already demonstrated an ability to neglect or abuse a child. This distinguishes them from other "apparently identical" individuals who do not maltreatment children. (p. 89)

Each decision in child welfare practice after a report of child abuse or neglect (CAN) carries the probability that it will be accurate (a child will be protected) or inaccurate (a child will be exposed to danger or needless intervention). The child may be protected by leaving her in her parents' care or by placing her in alternate care; the task of the child welfare worker is to determine which alternative is in the child's best interest and provides the greater safety. In order to make such a decision, the worker must know, to the best of her ability, what risks are inherent in either choice. "It must be recognized that removing a child from the parental home does not guarantee a child's freedom from abuse, neglect, or even death." (USABCAN, 1995, p. 113) Although the risk of death to a child in foster care and children's institutions is believed to be relatively low (in comparison to remaining in their own homes), children do die at the hands of foster parents and other substitute caregivers. (McCurdy and Daro, 1994, cited in USABCAN, 1995, p. 107) Michael Wald, in reporting on a two year project that followed maltreated children at home and in foster care to determine whether enhanced home support services provide better outcomes than foster care placements, stated that, "It appears that we cannot expect much improvement for children left at home,

especially those most at risk." (Wald et al, 1988, p. 129) This is a damning statement as Wald is generally in favour of family preservation efforts and is not an advocate for 'traditional' child welfare services.

There are assumptions inherent in the prediction of risk in child welfare practice. The first is that it can be done and the second is that it is rational to attempt to do so. While there is still disagreement that the risk assessment is possible (Besharov, 1988 and Wald, 1990) there is little disagreement that being able to predict which children will be reabused is both rational and useful. False positives, an inaccurate prediction of adverse outcome, are unacceptable as are false negatives, an inaccurate prediction of no adverse outcome. In child welfare practice, the death of a child can be the outcome of a false negative.

Douglas Besharov explored the dilemmas facing child welfare workers in *The Vulnerable Social Worker: Liability for Serving Children and Families.* (1985) He warns workers of the legal liability that they face if they do not perform their duties assiduously. (p. 57) Even when the worker has been careful and thorough, accusations of poor practise may be made if the worker's decision to leave or remove the child ends in injury or death.

> "It is important to note that the performance of child protective workers cannot be judged by whether the child suffered further injury after the report was made. Subsequent maltreatment, in itself, does not necessarily mean that greater protective measures should have been taken."..."The only valid way to judge the worker's performance is to determine whether the worker followed appropriate investigative procedures (as established by statutes, agency rules, professional standards, or other authoritative sources) and whether, in doing so, the worker responded appropriately to warning signals of danger. If the worker's conduct reflected good practice standards in assessing the degree of danger to children, and if the worker took the protective actions that were indicated, then a *successful* lawsuit is unlikely." (p. 57)

The expectation that a lawsuit may not be "successful" is likely little consolation to a worker who faces such an experience.

Besharov believes that child maltreatment is "inherently difficult to detect or predict". (p. 133) He states that there is no way to predict future harm:

> "In addition, some home situations deteriorate sharply--and without warning. It is easy to see the need for protective intervention if the child has already suffered serious injury. Often, however, a decision must be made before serious injury has been inflicted. Under such circumstances, assessing the degree of danger to a child requires workers to predict the parents' future conduct. The worker must predict that the parent will engage in abusive or neglectful behavior and that the child will suffer serious injury as a result. The unvarnished truth is that *there is no way of predicting,* with any degree of certainty, whether a particular parent will become abusive or neglectful. Even setting aside the limitations imposed by large caseloads and poorly trained staff, such sophisticated psychological predictions are simply beyond our reach." (p. 133)

However, earlier in the same book, Besharov provided a table of indicators for "situations suggesting the need for protective custody" (p. 62) and describes the conditions for their use:

> "[with] the presence of any one of the factors there is a clear indication that the child faces an imminent threat of serious injury. Unless the child's safety can be assured by some other means, the child should be placed in protective custody quickly--and kept there until the home situation is safe of until parental rights are permanently terminated." (Helfer and Kempe, 1972, pp. 169-170 cited in Besharov, 1985, pp. 62-63)

The question that immediately arises is what are these '"factors" if not a prediction system that is to be used to determine danger to the child in the short and long term? The situation with respect to risk assessment and prediction becomes even more confusing when the following statements by Besharov are considered:

> "Expecting decision makers to predict future child maltreatment is totally unrealistic and ultimately counterproductive. Despite years of research, there is no psychological profile that accurately identifies parents who will abuse or neglect their children in the future."
>
> p.143

> "By greatly overstating the ability of social workers and judges to predict future maltreatment, existing laws and the agency policies that implement them fail to give practical guidance on when intervention is needed and when it is not needed. Instead, they encourage reliance on an

> array of "high risk" indicators that make sound decision making unlikely." p. 144

Despite Besharov's confusion about whether or not prediction is possible, the reality for child welfare workers is that prediction is expected and demanded of them. Shortages of treatment resources and foster care placements compel workers to make decisions about which children would be reabused if no intervention were put in place. Johnson and L'Esperance state that predicting the repetition of abuse is necessary due to the shrinking resources allocated to child protective services (CPS) agencies in the U.S. (1984, p. 21) The ultimate goal of prediction is, of course, finding which incidents of abuse or neglect are precursors of fatal child maltreatment.

The National Society for the Prevention of Cruelty to Children (NSPCC) in Britain summarizes the contradictions inherent in predicting future harm to a child:

1. The quality of data that would permit "objective risk" to be calculated in child protection work is not available to workers in the field.
2. The designation of "high risk" implies a comparison between groups of families rather than an absolute threshold.
3. Even if a threshold could be determined, it would not be possible to predict which "high risk" cases would, without intervention, culminate in serious abuse.
4. The fact that workers are predicting other's people's behaviour, rather than their own, increases the degree of uncertainty and the burden of responsibility. (Paley, 1990, p. R-1-7)

There is validity in two of the points raised above. Data *is* frequently missing, or of a lower quality that what the worker would prefer to have when making decisions. As a general principle, it is more difficult to predict the behaviour of people whom we know less well than we know ourselves. However, there are problems inherent in designating *families* rather than situations as "high risk". The degree of risk varies with the age and vulnerability of each child in the family and between different situations so a label of "high risk" has little meaning without reference to an external

standard rather than the functioning of "other families". The existence of an "absolute threshold" implies a degree of precision in risk assessment that is problematic. If a situation rates below the "absolute threshold" are the children safe? It is the failure to act that carries the most danger for families and workers. Most child welfare legislation has some provision for the prevention of child abuse and neglect; efforts in this direction should not result in penalties to workers as long as those efforts fall within the boundaries of mandated practice.

When considering the deaths of children from abuse and neglect, the ability to accurately predict events 100% of the time is the goal of workers in child welfare. However, there are a number of factors that limit our ability to predict child maltreatment deaths with precision. These include the complex relationship between variables such as the physical condition of the child, the timing and severity of the fatal assault or neglect, the presence or absence of others who attempt to protect the child or notify authorities, the quality and timing of emergency intervention, and other variables particular to a particular situation or family. Research into the prediction of child maltreatment fatalities is limited, according to Balassone, by the fact that "Some behaviours of interest to social workers, such as child abuse, mental illness, or out-of-home placement, are unlikely to be amenable to short-term research." (1991, p. 22) Balassone suggests that an appropriate focus of research with respect to child abuse is behaviour that precludes an adverse outcome. (p. 22) This certainly applies to the prediction of child fatalities. Balassone warns that social work problems are seldom attributable to one cause and suggests that multifactorial models of risk assessment will prove the most useful in preventing adverse outcomes. (p. 22)

Knowing in advance which situations are likely to result in fatalities is an ability that most child welfare workers would be happy to possess. It may not be possible to predict the death of every child that dies from abuse or neglect but having a "pattern" of the families on a child welfare caseload in which children are at risk of dying under a

particular set of conditions would assist workers in protecting children. These patterns, when applied to the characteristics of people, are known as typologies; constituents of a class or category who share similar characteristics. Just as the majority of people apply the laws of prediction in their lives without much thought to their formulation, we also use typologies to assist us in understanding people. This may be a positive or negative reference with valid or invalid characteristics. The logical expansion of child welfare knowledge about valid typologies of caregivers who pose the greatest risk to children would be into other systems that deal with children and their families. This includes systems such as medicine, financial assistance (welfare), law enforcement and education as these systems have contact with the majority of fatally maltreated children.

The issue of cultural relevance is raised with respect to risk estimation concerning families of minority cultures. In responding to suggestions that specialized risk assessment instruments be developed for work with minority families, Carlos Sosa warns that "...there is no ethnic group that is monolithic and thus a specialized risk assessment [instrument] will not work well." (1993, p. 205) The instrument is a tool, not a template to be imposed over a situation. (p. 204) Risk assessment with minority families still requires the collection of data to complete an instrument whose results will be interpreted using the skills and judgement of the worker. Serious errors in protecting children from reabuse will be made if workers label families by applying stereotypical cultural descriptions presented under the rubric of culturally sensitive social work. An understanding of other cultures may assist in the interpretation of risk assessment results but will not change the reality of the caregiver's and the worker's responsibilities under the applicable statutes. A child should not be entitled to more or less protection under the law because of her racial, ethnic or cultural heritage.

Understanding Risk Assessment Models

Balassone lists three criteria for a usable assessment tool; (1) the indicators must predict a defined and measurable outcome., (2) the assessment tool should produce accurate predictions of the specific outcome, and (3) the indicators must be factors that are reliably and easily assessed in practice settings. (1991, p. 16)

The model for risk assessment that the NSPCC offers is attributed to Paul Brearley (without further citation) and is a seven point outline that guides workers in identifying the cultural, racial and religious context, dangers and hazards (predisposing and situational), family strengths and any additional information deemed necessary by the worker culminating in a case plan of "decisions" that the worker "feel[s] should be taken". (p. R-1-13) Despite this writer's experience in child welfare, it would be difficult to assess risk using the information provided in this resource pack.

In describing the process of risk assessment, Pecora et al. (1987) include in their list of responses required to complete an assessment a number of tasks that are related to investigation, substantiation and case planning. This inclusion of tasks other than the estimation of risk under the rubric of risk assessment is raised by Wald and Woolverton (1990) as one of the criticisms of current risk assessment instruments. However, Pecora et al. direct the attention of those agencies wishing to implement risk assessment to the considerations that must be addressed in the process. These include legislation, administrative regulations, department policies, data collection (investigation and recording) and practice considerations. (Pecora et al., 1987, p. 8)

Michael Wald and Maria Woolverton (1990) provide a thoughtful criticism of risk assessment systems. They question the utility of the systems in use at the time of writing, citing major methodological deficiencies in their construction. (p. 483) Wald and Woolverton argue that the legal standard for the removal of a child from her family rests on the agency's ability to prove demonstrable harm or the high possibility of harm based on current parent behaviour. The agency must present support for this position as

the basis for risk assessment; the prediction of the likelihood of the continuation of particular harmful behaviours by the parent. (p. 485) Wald and Woolverton use as an example of legal decision-making around risk, the use of specific factors applied in an actuarial manner, arguing that this provides more accurate predictions than "well-trained clinicians using clinical judgement." (p. 485) If this is the case, then poor and minority families will be at a substantial disadvantage in the application of risk assessment because of their over-representation in child welfare statistics. They also argue that there has been no validation research of systems currently in use. (p. 486) At the time of their writing, this was the case as there were a number of systems being developed or implemented in Pennsylvania, Washington, Texas and other areas of the U.S. There have subsequently been reports of the effectiveness of these systems in the yearly proceedings of the American Public Welfare Association's Roundtables on CPS Risk Assessment.

Wald and Woolverton define risk assessment as a process of making a probability statement regarding a future event. (p. 486) They emphasize that "a risk assessment instrument should look at the theoretical justifications and the empirical evidence supporting the validity of the predictive factors used in the instrument." (p. 487) The issue of proxy variables is raised in reference to a history of criminal behaviour in the parents and the number of previous CPS referrals concerning the family as Wald and Woolverton state that theses two variables are predictive of reabuse. Proxy variables represent unknown variables that are actually causal variables. (p. 488)

Another concern raised is the use of predictive factors for varied decisions such as substantiation, the type of service to be provided (including the removal of children from their homes), resource allocation, data collection for statistical analysis, the decision to return a child, or initiate a petition to terminate parental rights. They correctly point out that these are different functions and that different decision making criteria should be applied, some based on law and others on clinical judgement. (p. 489)

Effective risk assessment systems, according to Wald and Woolverton must meet the following criteria:

1. The function of the instrument should incorporate the use of known information about a given person or situation to estimate the likelihood that the person will engage in particular behaviours in the future.
2. Factors must be measured accurately.
3. The legal mandate of the agency with respect to the preservation and reunification of families must be considered in evaluating an instrument's utility in protecting children from reabuse. If there is a requirement to intervene in the least obtrusive manner, then the instrument must assist in that task by defining risk with precision.

This consideration of mandated reunification is not really an issue of risk assessment but rather one of case planning. A risk assessment instrument is useful in estimating the likelihood that the child will suffer further harm if no intervention is provided. It can also be used at the time that a child may be returned to reevaluate the family's situation to determine if there has been a reduction of risk, but the instrument cannot provide a point at which a child should be removed. That is a decision made on the basis of applicable statutes, policies and available resources.

Wald and Woolverton state that instruments must be able to identify the likelihood of reabuse *"given specific interventions"* as it is only with the provision of services, treatment or monitoring that risk posed will be altered. (p. 491) Without implementing the interventions and then measuring change *after* a period of service, it is impossible to tell what the effect of the availability of intervention would have on the level of risk to the child. All that a worker can do is assess risk and then select the intervention for the parents or caregivers that she believes, based on rational considerations, will offer sufficient protection against reabuse for the child.

The best predictive instruments will never be completely accurate and there is a trade-off that limiting false positives will increase the proportion of false negatives. (p. 492) Wald and Woolverton warn that the final decisions are based, in part, on the assessor's values and a risk assessment system "merely tries to quantify the risk" and that it is "critical" to acknowledge that "the ultimate decisions involve value judgements". (p. 492) There are other limitations in risk estimation systems. One is imprecise measurement in terms of what is meant by Low, Medium or High risk. Research by Sigurdson and Reid (1992) into the assessment of severity of CAN incidents by child welfare workers in three Canadian provinces illustrated a high level of agreement among workers. Scenarios from practise situations were used to determine the workers' perceptions of comparative levels of severity of different acts of child abuse or neglect. The level of agreement as evidenced by correlations of 0.8 was high, leading them to conclude that the level of measurement was ordinal rather than nominal. It is possible to test the assessment of risk by child welfare workers in the same manner. (G. Reid, personal communication, 1993)

Other limitations of risk assessment systems include the lack of empirical knowledge about reabuse by parents with respect to which factors are most useful for determining the risk of reabuse. Wald et al's. suggestion that prospective research into reabuse be conducted by following a group of families known to have abused children to determine if they engage in such behaviours again (1988, p. 129) is not acceptable when studying fatal maltreatment or serious injury to children. Wald et al. state that no studies have examined the impact of services in reducing risk (1991, p. 497); he appears to have forgotten the results of his own research into the outcomes for children who received traditional child welfare services, family preservation services or foster care services. His thesis was that children would benefit from remaining in their homes and receiving intensive services designed to keep the family together. He reports improvement for the children in foster care despite their expressions of longing and

grief over the separation from their parents. (1988, p. 129) He also describes the continued abuse and rejection experienced by the 'at home' children as they were reporting beatings, threats and rejection. Although Wald qualifies the benefits of foster care, these children fared better than most of the children left at home. (pp. 115-116) Concerns about the quality of his research include methodological deficiencies, small sample size, imprecise definitions of foster care and no pre-test measurements of the children's condition before the study. Therapy in one family was focused only on the child with the result that he became more compliant at home but experienced a deterioration of his previously happy social relationships and school life. (p. 128) As the child had been physically abused and neglected, the decision to "fix" him and not his mother is incomprehensible.

Wald and Woolverton raise the issue of "cut points" at which an accumulation of factors causes a rise in the level of risk. The issue of whether or not factors are additive in predicting increased risk is also a consideration in the assessment of risk. They believe that the factors in current instruments are intercorrelated. (p. 495) A recent study by Wright (1995) using factor analysis revealed clustering of variables into factors associated with chronic child maltreatment. Wald and Woolverton believe that the use of one instrument to predict different types of maltreatment is of concern given the limited evidence that different factors may be predictive of different types of behaviour. They also raise the question of interrater reliability as a problem with many instruments. (p. 495)

Another issue raised by Wald and Woolverton is the prediction of how a parent with a particular risk profile will respond to treatment. (p. 496) Since this is *not* an issue of risk assessment with respect to reabuse, it is difficult to see why it should be included in a risk assessment instrument. The impact of treatment on the attitudes and beliefs of a parent *can* be measured using a risk assessment instrument to compare the earlier measurements with change that has taken place after treatment rather than

change that *might* occur given a particular type of treatment. However, the selection of treatment modalities is not part of the assessment of risk.

Wald and Woolverton observe that "it is reasonable to look at severity of the present injury and assume that past behaviour is the best predictor of future behaviour". They also recommend the careful definition of a taxonomy of injuries graded by seriousness. (p. 500) The assessment of parents' attitudes toward agency involvement as a predictor of risk is not recommended as it may be misleading or inaccurately assessed at the point at which a decision is being made to leave or remove a child. (p. 501) Despite their criticisms of risk assessment research in 1990, Wald and Woolverton support the concept of assessing risk and urge that more empirical research be conducted to confirm the validity of predictive factors. They warn that risk assessment may be seen as a way of allocating scarce resources or limiting liability due to incompetent personnel. This is a valid concern in today's economic climate. Wald and Woolverton state that worker judgement is an important component in the use of risk assessment systems just as worker competency and training is critical in data collection to increase the validity of predictions. (p. 503)

A comparison of eight risk assessment systems can be found in a four volume set commissioned by the National Child Welfare Resource Centre for Management and Administration in the U.S. In outlining the background to current risk estimation systems, Palmer (1988) states that earlier models focused on contributory risk areas such as psychopathology, personality defects, parenting abilities and the quality of child care provided by the parent. Polansky's Childhood Level of Living Scale is one such model as is the Child Abuse Potential Inventory developed by Milner. These systems attempt to differentiate between maltreating and non-maltreating parents. (p. 3) More recent models have an ecological orientation to risk assessment, taking into consideration the "entire pattern of interactions between the child and the field of influences that contribute to child abuse and neglect." (p. 4) This includes information

about the child, the caretaker or parent, the family system, the particular maltreatment, the availability and quality of social support, characteristics of the perpetrator and interventions attempted.

A review contained in the second volume of the series focuses on the domains under which the most commonly assessed variables fall. (Marks, McDonald, Bessey and Palmer, 1989) The domains and variables contained in the eight instruments examined include: the child (16 variables), the parent or caregiver (21 variables), family characteristics (10 factors), environment (19 factors), characteristics of the abuse or neglect (17 variables), parent-child interaction (5 variables) and perpetrator's access to the child (16 variables). Seven of the eight models include the perpetrator and/or parent's cooperation with the agency as a variable in assessing risk of reabuse. (p. 7) The consistency of parental discipline is assessed in four models (p. 8). This is a potentially important variable given the characteristics of rage-triggered fatal attacks on young children. The parent's capacity to provide care for the child and the quality and quantity of support for the principal caregiver are the two most commonly assessed variables across the eight models. (p. 9) The Child Well-Being Scales developed by Moses and Magura are cited as the most frequently used basis for agency-designed risk assessment systems. (p. 22). The Child Well-Being Scales were designed to measure the degree to which a child's needs are met by the parents. They were not designed as a risk assessment instrument yet are very popular despite their length and the degree of detail involved. (p. 22) Marks et al. state that, of the eight systems studied, less that 50% of variables used have been empirically tested or validated and that most of the instruments remained untested at the time of writing. (p. 26)

Reid (1993) explored some of the problems in the application and interpretation of risk assessment research. Beside the usual threats to internal and external validity, researchers face difficulties in testing new systems because of the absence of control groups. (p. 85) The use of a control group would be unethical as a group of abused or

neglect children would be denied services to determine if the outcomes of risk assessment (what kind of future harm and to what degree of severity) were accurate. Another problem is the possibility that, because of the teaching of similar paradigms of human behaviour in social work education, expert judgement may not be valid as a means of testing the validity of instruments. This would mean that, rather than the assessment of risk being valid, agreement is a result of reaching standardized conclusions because of the standardized perceptual screens of both researchers and workers in child welfare. (p. 85)

To conduct research that is both ethical and accurate, Reid recommends that data on non-maltreating families be collected to comprise one end of a continuum of maltreatment while data from coroners' files on child maltreatment deaths be collected to represent the other extreme. Non-fatal cases of abuse and neglect would fall in between. Reid's expectation is that patterns would emerge when comparing cases at differing levels of severity with the data from non-maltreating families and coroners' files families. (p. 86) These patterns would be typologies of families and could present themselves in three possible combinations.

1. A single predominant characteristic differentiates maltreating from non-maltreating families. If this is the case, differing degrees of the characteristic would indicate levels of danger to the child. The example that Reid uses is the presence of a severe psychosis evidenced by aggression toward children. Individuals who murder children would experience the highest level of such a psychosis and non-maltreating families would be expected to be free of it.
2. Clusters of characteristics with a linear relationship emerge to distinguish maltreating from non-maltreating families. These factors would be interrelated and "would have an additive effect in causing dislocation to family systems and to individual personalities" and increasing degrees of severity of harm to the child. p. 86) The example cited is a family which uses corporal punishment and stays

within the legal limits until environmental conditions change (unemployment, alcoholism, social isolation, etc.) then the punishment changes and becomes physical abuse of a child.

3. Clusters of characteristics with a non-linear relationship are identified as causes of maltreating behaviours. Reid warns that this pattern would be problematic as the analysis needed to confirm such a pattern would require the use of a methodology derived from complexity theory. This analysis requires large quantities of "very clear" data. The nature of the field of child welfare makes the collection of such data extremely difficult. (p. 87)

Using case typologies derived from patterns discovered through data analysis would permit workers to compare an existing case to available typologies. The closer the pattern of the existing case to the typology, the more the worker will know about the probable outcome for the family if no intervention is provided. Sexual abuse cases, physical abuse cases, neglect and emotional abuse cases (and combinations of these four) would be distinguished by different typologies as would the differing levels of severity of each typology. Child deaths from abuse or neglect would be expected to differ from cases of lower severity. Reid states that the most significant factors in creating typologies appear to be the vulnerability of the child to abuse and neglect, the probable severity of a future reoccurrence and the probable reoccurrence of such an incident. "The characteristics of child homicide will probably differ greatly from situations where the potential damage to the child has been less critical as would occur when a child was occasionally spanked and this resulted in lasting bruises. (p. 88) Reid warns that if such patterns cannot be identified, risk assessment in child welfare is not viable. "If we cannot specify the parameters of risk and the empirical evidence for their viability we have no objective, rational foundation for our decisions." (p. 88)

CHILD MALTREATMENT FATALITIES

The initial task in studying child maltreatment fatalities is to correctly classify deaths due to abuse or neglect. It has been estimated that up to 85% of abuse and neglect deaths are systematically incorrectly identified as accidental, disease-related or due to other causes. (McClain et al, 1993, p.342) Those abuse deaths which are of interest to child welfare are the result of overt acts of violence by the caregiver against the child while neglect deaths generally fall into two broad categories, including (1) neglect of the child's physical safety and care and (2) neglect of the child's emotional development. Physical safety and care neglect includes the following dimensions: medical, supervision, nutrition, clothing, hygiene and shelter. Emotional development neglect includes affective neglect, failure to seek treatment for psychological disability of the child and failure to meet the child's cognitive or developmental needs. (Reid, Sigurdson, Christianson-Wood and Wright, 1994, p. 6) Fatal child neglect frequently falls into one of two types: (1) supervision neglect in which a parent or caregiver is absent at a critical moment and the child is killed by a suddenly arising danger and (2) chronic neglect where the child's death is caused by more slowly building problems which have an adverse effect on the care of the child. (U.S. Advisory Board on Child Abuse and Neglect, 1995, p.11) An example of the former is the death of an unattended child in a house fire or a bathtub drowning of an infant whose caregiver left the child alone in the tub while an example of the latter is the child who dies of malnutrition or as a result of a lack of medical care for a chronic condition. Reder, Duncan and Gray (1993) describe another type of chronic neglect in which the child is deprived over a relatively long period of time yet the acute fatal episode is one of extreme violence. They suggest that the fatal assault may have been triggered by the child asserting her presence and needs. (p. 46) Another type of fatal chronic neglect described by Reder et al. involves children who are victims of chronic neglect and die in accidents that were avoidable with better

care. The examples cited include a child who drowned after running away from a home that was both abusive and neglecting and a child who died of burns when left unattended by her mother. The latter family had a lengthy history of severe, chronic neglect of all the children yet they were left with the mother who repeatedly demonstrated her inability to keep them safe or tend to their basic needs. (p. 47) A final type of fatal neglect is described as the "not existing" type of neglect in which children were confined in bedrooms for lengthy periods during which they experienced malnutrition and/or hypothermia, some of them eventually succumbing and dying. Others were ignored for extended periods then physically abused when the parents "noticed them". Inquiries about them by professionals were met with denials that the children were in the house or by excuses that they were ill with an infectious illness and could not been seen. For their parents, these children ceased to exist as their attempts to gain food and nurturing were disregarded. They were ignored both physically and psychologically. (p. 47-48)

Susan Zuravin's observations on difficulties in defining physical abuse and neglect are helpful in thinking about the definitions needed for classification of deaths. Problems arise when the operational definitions of two or more categories overlap, when different definitions are used for one category of maltreatment, or when there is a failure to assess for the presence of other maltreatment types than those being studied. (1991, p. 100) Zuravin's focus on the definition of physical abuse and neglect is for research purposes, for without common definitions it is difficult to integrate findings across studies. This is particularly true with respect to child neglect as there are fewer research efforts directed at understanding neglect despite its greater prevalence. The division of categories into subtypes is an important component of a system of classification as are conceptually clear definitions for each category and sub category. The unique character of each category must be maintained by ensuring that one criterion differs for each category or sub category. It is also important that the behaviours which are criteria for categories are measurable and observable. This includes the degree,

frequency and duration of the behaviours. When these conditions are met, it is possible to ensure high levels of interrater reliability with respect to correctly categorizing child maltreatment. It is important also, that there be a purpose for the definition and that this be explicitly stated by the researcher. (p. 103) Aber and Zigler (1981, cited p. 104) recommend that definitions be broadly formulated with the nature of caretaker acts rather than child outcomes being the main classifying principles rather than etiology or sequelae. McGee and Wolfe (1991, cited p. 104) observe that it is inherently tautological to construct definitions that focus on outcome when the purpose is to determine the impact of specific parent behaviours on child adjustment. This principle holds true for efforts to define child maltreatment fatalities as the outcomes are uniform but the behaviours that lead to the outcomes are linked to particular types of maltreatment. The operational definitions for the subscales that comprise the Manitoba Risk Estimation System developed by Grant Reid and Eric Sigurdson are based on this foundation with the degree, frequency or duration of behaviours rated by using the different subscales.

The age grading of operational criteria is another important consideration in defining child maltreatment according to Zuravin. The age and developmental stage of the child should dictate the specific parent behaviours used to operationalize maltreatment. (p. 106) This concept is expressed in the Manitoba Risk Estimation System (MRES) as the vulnerability of the child to further acts of abuse or neglect by the parent and takes into account the child's chronological age, developmental stage and any physical, mental or emotional handicaps that would affect the child's ability to act to protect herself by leaving the situation or seeking protection from harm.

Abuse deaths are the result of overt acts of violence including excessive and inappropriate physical force by the caregiver against the child while neglect deaths are the result of omissions in care of the child by the parent or the failure to adequately perform parental duties. These acts of commission or omission are "judged by a

combination of community values and professional expertise to be inappropriate and damaging" according to a mixture of community values and professional expertise (Garbarino and Gilliam, 1980, p. 7) Zuravin states that "a search of the research literature for definitions revealed many for physical abuse but few for physical neglect." (1991, p. 107)

One of the considerations in developing definitions of abuse and neglect is the consequence of the parent's behaviours on the child. The first concern is whether or not demonstrable harm or endangerment is required to label the maltreatment as abuse or neglect. The difference is an important one as the demonstrable harm standard requires that the child has already been injured or impaired in order to be judged maltreated. The endangerment standard which requires that "the act need only increase the child's *risk* of injury or impairment" focuses on perpetrator behaviour. (p. 108) The second issue pertains to endangerment and addresses the problem of the immediacy and the degree of endangerment. According to Zuravin, the neglect definitions that she surveyed use endangerment as the minimum criteria and operationalize this, with little variation, as "serious omissions in care—those that have a very high likelihood of resulting in immediate and fairly severe consequences." (p. 108) For research purposes, Zuravin believes that endangerment, rather than demonstrable harm is the best standard in determining the longer-term impact on abuse and neglect on a child's cognitive, social and emotional adjustment. (p. 110) Zuravin and Taylor (1987) developed the following definition of supervision neglect as a part of a definition of child neglect for a research project for the U.S. Department of Health and Human Services

> "Supervision [neglect]: inadequate supervision of child activities both inside and outside of the home—parent is in the home with the child but is not monitoring the child's activities closely enough to keep the child from behaving in ways that could have negative consequences for the child, others, and/or property *or* parent is not aware enough of the child's activities when he/she is out of the home to assure that the child is not at risk for negative personal consequences or engaging in behaviours that could harm others or other's property; includes truancy, being consistently late for school and failure to enroll in school; *Age-Graded.*"
>
> (Zuravin and Taylor, 1987 cited in Zuravin, 1991, p. 112)

This definition, with the age-graded criteria referred to in the quotation, is among the most comprehensive of the definitions of neglect reviewed by this writer in the course of preparation for this thesis. For example, Zuravin and Taylor state that, for the purposes of supervision neglect, children under 7 years of age playing outside the home without supervision can be considered to be neglected and children under the age of 8 years should not ever be left unattended in the home. (p. 125, 126)

In considering subtypes of physical abuse, Zuravin proposes that discipline behaviours be considered separately from those physically abusive behaviours that are "episodic and due to explosive behaviours". (p. 116) In considering the question of intent and culpability, Zuravin believes that neither should be used as a criterion for definition of abuse or neglect. First, it is difficult to operationalize such terms. Second, "it would be unwarranted to eliminate from the definition behaviours that are unintended, behaviours for which the parents are not culpable or behaviours that are provoked" as the intent of these definitions is to determine the effects of caregiver behaviours on children. (p. 121). This is also an important point in risk research, as the parent may not have intended that the child drown, but by not closely supervising the child near water, the effect of such behaviour is that the child drowns. Third, Zuravin cites the results of research by others which has found that "neglectful families are significantly poorer with respect to material things...than their comparably poor counterparts." (p. 121) She interprets this to mean that:

> "the neglectful mother's housing and sanitary problems are not a reflection of her poverty...but, rather, a reflection of her poor management of financial and other material resources. If, in fact, these problems are due to poor management, then they are involved in the etiology of certain types of neglect." (p. 121)

While this may seem a harsh judgment of poor mothers, it fits with Alfaro's statement to the U.S. Advisory Board on Child Abuse and Neglect that the majority of poor people do not neglect or abuse their children. (USABCAN, 1995, p. 122) If Zuravin is right, then

there is something about neglecting mothers that is qualitatively or quantitatively different from their non-neglecting counterparts. Identifying this difference would assist in assessing future risk for children who have been neglected.

In an article commenting on a proposed national definition of abuse and neglect, Rycraft (1990) argues that this more restrictive definition would have "little effect on case substantiation or fatality rate[s]". (p. 19) The definition, developed by the National Association of Public Child Welfare Administrators, would include a qualifier of "serious or substantial harm; the inclusion of emotional abuse or mental injury; and the exclusion of poverty-related neglect, general medical neglect and educational neglect." (p. 17) The intent of the definition is to increase substantiation rates and to devolve aspects of current CPS investigations and caseloads onto other agencies, specifically those which deal with poverty, education and child health. The risks that Rycraft foresees are related to the serious or substantial harm qualifier and the exclusion of poverty-related neglect. With respect to physical abuse and physical neglect, the qualifier would eliminate service to children who had suffered "moderate" injury which accounted for 60% of reported children while serious abuse accounted for only 10%. Abuse or neglect by individuals outside the family, including baby-sitters, teachers or coaches, as well as maltreatment by strangers, would be deal with through the criminal justice system. (p. 15) Under this definition, teenage parents would be referred to other child welfare agencies outside the CPS system for service "due to their high risk for abusive and neglectful behaviour". (p. 15) Many sexual abuse cases would be denied service because the qualifier of harm and the definition of perpetrators as family members only would direct most referrals to the criminal justice rather than the child welfare system. "Given the cyclical and escalating nature of abusive behaviour, such an outcome is particularly troubling." (p. 20) This is a legitimate concern when the events that lead up to child fatalities are considered. If service is denied until injuries

are "serious" whatever that means, then infants in particular might not survive a further assault.

When poverty-related neglect is excluded, Rycraft believes that "the social and cultural context and effects of poverty-related neglect" would be ignored. The result would be to ignore neglect that springs from the dynamics of poverty. In citing Wells, Rycraft states that "a restrictive definition may result in the systemic neglect of children at risk." with little effect on the problems of CPS. (Wells, 1985 cited in Rycraft, 1990, p. 20)

Swift's critique of the policies and practices targeting child neglect in child welfare practice focuses on the definition of child neglect by the child welfare system. (Swift, 1995) The debate is between broad definitions of endangerment that permit wide discretion in protecting children as opposed to narrower definitions to protect parents and children from intrusion into their lives by authorities. (p. 68) Other definitional issues include defining neglect according to a standard of good care versus the current standard of minimum acceptable care. "While scholars debate the desirable definitional breadth of neglect, the actual standard of care enforced through the present system is desperately low—surely well below any minimum standard scholars would care to commit to paper." (p. 87)

Responsibility for the care of children is assigned to mothers and culpability for all problems falls upon mothers, also. Assistance is not provided until the situation has become a chronic problem or an incident such as unattended children represents an immediate threat. Mothers are judged as needy or immature if they do not put their children first, yet there is no such onus on fathers to remain involved with children at the expense of their own lives. Further, fathers are excused from ongoing responsibility for parenting.

> "Although many of the fathers of children in neglect cases have completely abandoned caring work, financial support, and even occasional contact with their children, the category neglect directs us not to perceive

> these omissions as 'child neglect'; the category asks us instead to direct attention to the quality and consistency of the mother's contribution, attention that helps to reproduce gendered social divisions."
>
> (p. 175)

Swift is particularly critical of the practise of child welfare with native families. She argues that cultural differences with respect to child care and child rearing expectations are not reflected in practice. She states that treating native families as any other families promotes the disappearance or dilution of their history and background as well as accepting that the knowledge, understandings and experience of the dominant culture are adequate and best for all families. (p. 136) Given the multicultural nature of Manitoba and indeed, Canada, this argument logically should be extended to all ethnic and cultural groups. All immigrants face the dilution of their history and background by the "dominant" society. Swift cites the preamble to the Child and Family Services Act of Manitoba as supporting the principle of least intrusion into the family except when children must be protected from "actual harm". (p. 44)

Should the devaluation of the lives or safety of female children in other countries be accepted as "cultural" and sacrosanct in Canadian child welfare practice when these ethnic groups settle in Canada? If clitorectomies are accepted practise in certain cultures, should the practise be permitted for some Canadian children and not for others? The "dominant" culture may judge this procedure as "actual harm", but in some cultures it is deemed essential in producing female children who are valued as wives. Are some children entitled to less protection because of the ethnic origins of their parents? Who decides what "culture" is and is it static? Are all cultures adaptive and functional or do experiences of prolonged violence and discrimination produce elements of dysfunction that begin to be accepted as normative? The careless use of poorly formulated policies on culturally relevant practice carry their own risk for children and families.

The application of external, "middle class" standards of conduct and hygiene to the mothering work of women in assessing child neglect is another issue of concern for

Swift. (p. 118, p. 177, p. 115) She believes that much of the application of societal standards of mothering is unreasonable. Swift argues against the imposition of societal controls on mothers in many areas of child care (p. 104) yet states that the chronic nature of child neglect is the legacy of the least intrusive policy in child welfare. (p. 147) In general, members of society are subjected to external standards in many activities. Owners of eating establishments must maintain standards of cleanliness as must hospitals, schools, stores and so on. Motorists must conform to external standards in the basic maintenance and operation of their vehicles. Standards of conduct in the workplace are enforced through labour, safety and sexual harassment legislation.

The debate over the philosophy of child welfare intervention with respect to the research definitions of neglect becomes moot in the front line practise of child protection. Swift agrees that the circumstances under which many workers attempt to serve families is not conducive to careful planning and reflection. Instead, the atmosphere generates worry and fatigue as workers attempt to balance meeting the demands of clients and the system against the effort required to assess risk to the children on their caseloads.

> Naturally enough, workers are often anxious about their decisions—they know they are affecting people's lives. They worry about being really wrong, about being 'responsible' for an injury to or death of a child, and they dread seeing their own names in the newspaper in connection with some horrible mistake." (p. 65)

The concerns that Swift raises with respect to assigning virtually sole responsibility for child neglect to mothers, particularly single mothers, are valid. She recommends that community interventions be developed to vitalize the extended care of children in neighbourhoods and kinship groups so as to fill in the gaps in child care by mothers. Workers are advised to "work differently" by using their knowledge of the system to "manoeuvre" for clients' benefits. Social worker educators, researchers, academics and workers are urged to "know differently" by considering her analysis of

child welfare policy and practise and by bridging policy and practise. (pp. 185-186) Unfortunately, the solutions that she offers may be lost in the realities of child welfare practise in times of financial retrenchment and the "reform" of social institutions by increasingly conservative governments at the national and provincial level.

Canadian Child Fatality Studies

At present, there are no adequate Canadian statistics on the incidence of child abuse and neglect deaths although the recognition of the lack of such data has been instrumental in the formation of a federal-provincial working group on child and family services information. (Federal-Provincial Working Group, 1994, p. 5) It is possible to obtain data on how many children have died as a result of physical abuse (including the cause of death and the relationship of the perpetrator to the child) if the death has been classified as a homicide. However, there are no national statistics on deaths due to child neglect. (Karen Rogers, Canadian Centre for Justice Statistics, personal communication, June 19, 1995)

The Canadian Centre for Justice Statistics, based in Ottawa, tracks crime in Canada. Using a computerized data system called the Uniform Crime Reporting (UCR) Survey and data voluntarily submitted by law enforcement agencies across the country, the Canadian Centre for Justice Statistics produces a national count of homicides of adults and children. The most recent publication of these statistics in conjunction with Statistics Canada is contained in *Family Violence in Canada* (1994) and includes data to 1992. The UCR Survey includes data from 51 police agencies and represents 30% of all reported crimes in Canada. (p. 62)

A Canadian study of the incidence and characteristics of child deaths from abuse and neglect was authored by lawyer Corrine Robertshaw in 1980 and presented as a discussion paper in March of that year to a government and private sector meeting on child abuse. It was published in 1981 by the Social Service Programs Branch of Health

and Welfare Canada. Robertshaw's report focused on 54 child deaths that occurred in Canada during 1977. No reports from Quebec were available for inclusion in the study and there were no reported child abuse or neglect deaths in Saskatchewan during that period. Robertshaw estimated, based on rates in provinces of similar size, that the missing data for Quebec and Saskatchewan would have provided 20 and 8 deaths respectively to produce a national total of 82 for 1977. She further qualified this total as an underestimate because of the lack of specialized investigation into the circumstances surrounding child deaths of questionable manner and cause. (p .29)

An examination of Robertshaw's estimate of national incidence rates for abuse, neglect and child abuse and neglect deaths reveals that in 1977 there were no common definitions of child abuse and neglect between provinces and territories. This lack of a national definition continues today and can be ascribed to the provision of child welfare services under provincial statutes. As a result, the definition of what constitutes abuse and neglect varies within Canada as does the tracking of the incidence of child maltreatment at the provincial and territorial level. Consequently, there are currently no accurate national statistics on the incidence of child abuse and neglect fatalities in Canada.

In her study, Robertshaw detailed the process of classifying a child maltreatment death. The first step involves the identification of the death by the attending physician or anyone having knowledge of a child death where the reporter believes the death to have been a result of "violence, negligence or other circumstances that may require investigation." (p. 30) The case next proceeds to the local coroner under the Coroner's or Fatalities Inquiries Act which is a provincial or territorial statute. Under the terms of this legislation, the coroner must decide if there is any reason to proceed further with investigation of the death. In 1980, not all local coroners were physicians and fewer still had any specialized training in forensic pathology. In provinces with a chief coroner, any local coroner who decided against holding an inquest after such a report

referred his findings to the chief coroner who has the authority to order an autopsy, call an inquest, request the police to investigate further, or accept the report of the local coroner. (p. 30) The expertise of the coroner or medical examiner and the pathologist determines both then and now whether or not the death is accurately classified. The death certificate contains information on the immediate cause of death and the antecedent cause as well as any significant conditions contributing to the death. A completed death certificate is necessary for an investigation to commence or an inquest to be ordered. If the circumstances are not adequately investigated or understood, the child abuse and neglect (CAN) death may be classified as due to a natural process or an undetermined cause. In this way, a child could die of respiratory failure yet still have been the victim of prolonged abuse or neglect. In some cases, deaths were recorded as due to undetermined cause and undetermined manner, acknowledging that the coroner does not know definitively what caused the deaths. Even when an investigation later reveals that a death was due to abuse or neglect, this information might not be updated on the death certificate. Robertshaw believes that the international classification system used to record deaths for Statistics Canada does not adapt itself to the behavioural antecedents of a child death. (p.32) This belief is reinforced in more recent literature concerning the epidemiology of child fatalities. (McClain et al., 1993, p. 342)

Robertshaw's examination of CAN deaths in 1977 drew from various sources; coroner's files, police records, court records, crown prosecutors, provincial child protection registries and newspaper accounts. (p. 29) Information on the 54 child deaths studied includes the following data on the child victim: age, sex, previous injuries or neglect, custody arrangements, prenatal information, birth weight, health or developmental problems, siblings, race and cause of death. Caregiver and perpetrator characteristics recorded included age, employment status, level of education, history of criminal charges and substance abuse. Robertshaw classified the circumstances of the children's deaths into six categories: 1. the caregiver is unable to cope or does not

respond to child's demands; 2. the caregiver fatally assaulted child while punishing her; 3. severe depression of the caregiver; 4. the caregiver is angry about estrangement from partner; 5. the caregiver did not seek any medical assistance for the child's birth; and 6. unclassified circumstances.

The provincial child protection registries listed only 29 (54%) of these deaths as child maltreatment deaths. (p. 101) Fifty-six percent of the families had current involvement with child protection authorities, other social service agencies or professionals (doctors, psychiatrists, etc.) at the time of the children's deaths. Thirty-two percent of the 50 families in the study were involved with child protection agencies at the time of the children's deaths.(p. 102) Criminal charges were laid in 37 cases with convictions obtained in 27 cases. Three of the accused were convicted of murder, fourteen of manslaughter, four of assault causing bodily harm, four of criminal negligence causing death, one of failing to provide the necessaries of life and one of infanticide, the murder of a child by a mother during the post partum period. (p. 106) In 10 of the 54 deaths in which no charges were laid, outcomes included the suicide of two caregivers responsible for three deaths, a death previously classified as SIDS was confessed to by the caregiver as a deliberate suffocation, three deaths were listed on child protection registries, one was listed as a homicide on the death certificate and two were classified by Robertshaw as children in need of protection at the time of death. (p. 106).

Robertshaw reviewed coroner's files of child deaths in Saskatchewan for 1977 as there were no child deaths attributed to abuse or neglect in the province for that period. Eight children died in circumstances suggesting that they were in need of protection at the time of death. Among the 37 SIDS deaths were five that did not fit the necessary diagnosis of exclusion. These included: 1. a three month old child that died with its head stuck between crib bars, an abrasion on the head and blood on the bars, 2. a five month old child found dead on the floor under a sleeping parent the morning after a drunken party, 3. a three month old who suffocated after becoming wedged between a mattress and a wall had

autopsy evidence of interstitial pneumonia (the child had been apprehended as in need of protection and returned to its mother at her request), 4. a three month old child with a scalp hematoma who died of respiratory failure due to pneumonia (the scalp hematoma was not the ultimate cause of death) and 5. a four month old who died in its crib with pressure marks around the mouth and nostrils; a piece of what appeared to be facial tissue found near the mouth at autopsy. No other marks of violence were found.

Three more deaths were classified as accidental; the first was an 18 month old child, in the care of mother's male partner, who allegedly drowned accidentally in the bathtub but had numerous superficial abrasions to the head, neck and shoulders. The second was a two year old reported to have fallen out of a window yet with no external injuries consistent with a fall. The cause of death was attributed to oxygen deficiency, pneumonia and traumatic rupture of the small intestine. There was evidence of healed rib fractures. The third death was a four month old child who died as the result of a severe head injury. The father was in charge of the child and he denied all knowledge of the cause of the injury and stated that the child must have fallen out of its crib. There was no evidence of any earlier trauma and the death was classified as accidental. There was no police investigation. (p. 108)

In considering deaths that are misclassified as accidents or SIDS deaths Robertshaw presents an argument that a national estimate of 128 CAN deaths in 1977 is probably closer to the real number when unreported and misdiagnosed or misclassified deaths are considered (46 plus the 82 identified earlier). She based her estimate on an assumption that "5% of all deaths to children under 5 years of age that are classified as accidents (excluding transportation accidents) and symptoms and ill-defined conditions are, in fact, caused or substantially contributed to by abuse or severe neglect." (p. 111)

A study by Greenland examined 10 years of child abuse and neglect fatalities in Ontario for 1973-1982, a total of 100 cases. Child abuse and neglect deaths in the study sample were included in Ontario's Vital Statistics as "accidental and violent

deaths" rather than being defined as a separate category in themselves. (pp. 39-40) Greenland examined Coroner's files for child deaths, extracting any deaths coded as due to child abuse and examining with extra care the deaths of children at home. He discussed with a provincial coroner any cases that appeared to be due to child maltreatment and obtained what he described as the best available count; 100 cases. Three more child abuse and neglect deaths were identified after his research was completed including two children who were thought to have been SIDS victims until their parents confessed to suffocating them. (p. 38) The relationship of child maltreatment deaths to the number of children on the province's child abuse and neglect registry was "fairly constant". (p. 41)

Greenland produced a typology of CAN deaths that included the following five categories: battered child syndrome, neglect or acts of omission, homicide or impulsive criminal acts, "discipline and inappropriate handling...of an otherwise well-cared-for infant" and "Other Unclassified". (p. 56) These categories are a mixture of the manner of death (homicide) and the circumstances of death (battered child syndrome, discipline and neglect). Several categories, homicide, battered child syndrome and discipline, overlap with respect to the use of force or violence against the child. Greenland described the overlap as "inevitable" with "each of the categories [having] some unique features". (p. 70) In presenting his definitions of the categories, Greenland defined homicide with respect to the means; "a single massive blow to the head or body" and "assumed... murderous intent". He infers, by describing the victims (with the exception of one) as "unusually healthy" that there were no previous assaults yet includes a child who was the victim of a "sustained sadistic assault". (p. 70). He exempted this case from the battered child syndrome category with no explanation for the decision. Thus, comparing the category of homicide to battered child syndrome, there do not appear to be <u>any</u> unique features. In both homicide and 'discipline' there are cases where the child was perceived by the perpetrator as acting out immediately before the

assault. (p. 61, p. 62) This latter category included two children with what is known as 'shaken baby syndrome' in which the cause of death is injury to the brain as a result of shaking the child due to the caregiver's frustration with the child's behaviour. The beating death of an 11 year old child who was previously abused by the perpetrator was included in the 'discipline' category yet a history of abuse of the victim (or a sibling) prior to the fatal incident is one of the criteria for the battered child category. Greenland's neglect category of twenty deaths includes four children for whom the cause of death was malnutrition and starvation in company with autopsy evidence of earlier abusive injuries including healing broken bones, severe genital bruising or multiple contusions and abrasions. He identifies these cases as having "evidence of personality disorders or other psychopathology" of the caregivers in distinguishing them from the other sixteen neglect deaths. (p. 61) It is difficult to know exactly how to replicate Greenland's categorization process due to the apparent inconsistencies in the classification system used.

The most recent Canadian information on child abuse fatalities originates from the Canadian Centre for Justice Statistics. In 1994, the Centre, in conjunction with Statistics Canada, published *Family Violence in Canada* which includes a section on the abuse of children in violent families. Between 1981 and 1992, a total of 1,019 murdered children comprised 13% of all homicide victims in Canada. Children under 18 years of age comprised 26% of the population of Canada and made up the smallest proportion of homicide victims relative to their representation in the Canadian population. (p. 65) Data from the UCR indicates that an average of 85 children per year were murdered with 52% (44) per year killed by a parent. Statistics Canada reports that the number of child homicides by parents are believed to be under-reported as some deaths are accepted by the authorities as accidental deaths or sudden infant deaths. The degree to which deaths are under-reported is not known at this time. (p. 65)

Included in the report above are the results of a study of three pediatric hospitals in Canada conducted by the Canadian Hospitals Injury Reporting and Prevention Program (CHIRPP) at the Laboratory Centre for Disease Control during 1991 and 1992. Two of the hospitals were in the same province and all were in urban areas. The study was limited to cases of "intentional injuries" involving children seen at these hospitals and covered only the cases reviewed by the child abuse team. Cases known to the admitting physicians were not included. Each hospital determined the intentionality of the injury independently but all *excluded* cases of neglect involving a failure to seek timely medical care and as well as emotional neglect not combined with physical or sexual abuse. The definition of neglect used was "the failure to protect the child from physical harm, caused by a failure to care and provide for, or supervise and protect the child adequately". (p.68) Study findings on incidence included a finding of double the number of sexual abuse cases (61%) as compared to physical abuse (29%). Neglect comprised only 3% of the sample and 7% were combined forms of child maltreatment. Differences in the roles of the child abuse teams and internal consultation protocols are believed to have affected the number of cases referred to the child abuse teams. (p. 69) Only those children brought in for treatment by parents or known to extended family, friends or neighbours would have been seen for treatment. Children whose injuries were not seen or not sufficiently serious to compel medical treatment would not be counted. In addition, cases not reported by the admitting physician would not be captured by the child abuse teams. Given these conditions, it is difficult to know if the pattern of incidence in this study can be generalized to any population or if it is an artifact of the restrictions imposed by intake through the medical system.

In the cases documented in the CHIRPP study, an average of 60% of cases were reported to child welfare authorities according to the type of abuse; over 75% of neglect cases, 67% of physical abuse and over 50% of sexual abuse cases. One of the three hospitals had a low reporting rate but documented that in 59% of the cases seen, the

family was currently being followed by child welfare authorities. (p.72) In cases where the child did not reside with the alleged perpetrator or "the child was not judged as being in immediate danger" (p.72), no report was made. The criteria for assessing the immediacy of risk are not given in the report. Of the 951 children seen at the three hospitals and included in the study, 8 died of their injuries (0.84% or 8.4 deaths per 1,000). Of these children, six died of physical abuse, one from neglect and one from a combination of physical abuse and neglect. Six of the children were under 18 months of age. The perpetrator was a family member in seven of the eight cases. (p.74)

The authors of *Family Violence in Canada* conclude the report by describing children who witness violence by one parent against the other as being considered "children at risk" by child welfare authorities because of the emotional and psychological impact of witnessing family violence. This is estimated to total over one million children in Canada living in homes with family violence, "over half of which have witnessed acts of violence serious enough to cause their mothers to fear for their lives." (p.82)

In attempting to find a national incidence rate of child abuse and neglect fatalities in Canada for the purpose of this research, it became obvious that definition is everything. A recent national effort to collect information on child abuse and neglect is described in *Child Welfare in Canada; The role of provincial and territorial authorities in cases of child abuse,* (1994) a report from the Federal Provincial Working Group on Child and Family Services Information sponsored by the Family Violence Prevention Division of Health Canada. It contains information current to July 1, 1992. The report's limitations include the fact that there are no standard definitions or terminology (p. 5) and no "common statistical data elements that would permit the generation of national estimates". (p. 6) Manitoba, along with Nova Scotia, Alberta and the Northwest Territories are described as having detailed definitions of child abuse in their legislation. (p. 6)

The report contains an overview of the child welfare system in Manitoba including the delivery of services, definition of abuse, reporting requirements, investigation

procedures and intervention options available when a child is need of protection. In addition, the section contains the following:

> "The Manitoba Risk Estimation System (MRES) designed by Grant Reid and Eric Sigurdson, is currently being implemented province-wide. MRES is a predictive assessment tool which is used after an agency's preliminary intervention to determine whether a child could be at risk of being in need of protection. It is not necessarily used to determine whether a child is in need of protection since this is decided on the basis of legislation."
>
> (p. 102)

This statement is inaccurate. The MRES is designed for the use of child welfare workers and others to determine if a child is in danger of further abuse or neglect once a substantiated incident has occurred. The finding of a child being in need of protection is made by the courts based on information presented by the agency concerned. In the section on Ontario child welfare, the report's authors state, "The Ottawa-Carleton and Cornwall Children's Aid Societies are involved in the pilot project with Manitoba to test the Manitoba Risk Estimation System. It is the *Thunder Bay* Children's Aid Society which participated with the Ottawa-Carleton agency in the MRES research project, the Risk Estimation Project. Despite these inaccuracies, both Manitoba and Ontario *are* making efforts to assess the situation of children who have already been subjected to abuse and neglect.

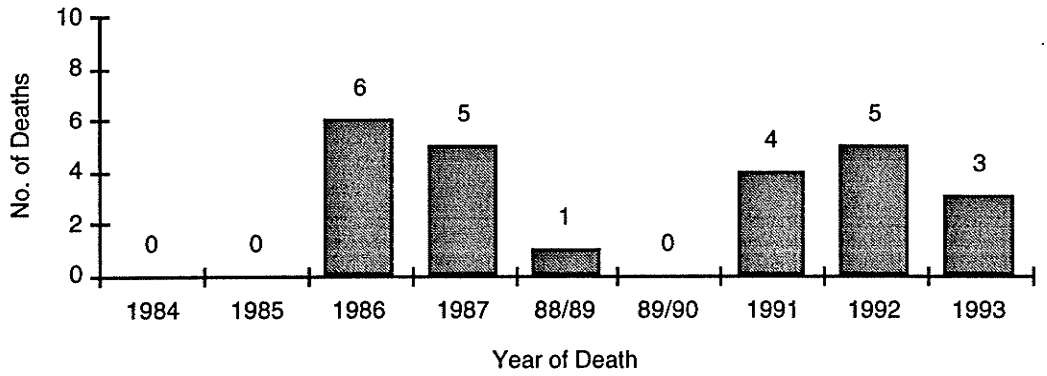
The report's section on Manitoba child welfare states that the Chief Medical Examiner for the province is required, under *The Fatality Inquiries Act*, to complete an investigation of all suspicious child deaths as well as the deaths of any children whose families had received any child welfare services within the two years previous to the child's death. (p. 103) The Chief Medical Examiner, in addition to assessing the agency's intervention in his report, also has the option of calling an inquest into a child's death. In his efforts, the Chief Medical Examiner is assisted by the province's Child Death Review Committee, created in 1991 to bring an interdisciplinary approach to the investigation of suspicious child deaths in Manitoba. The report states that this committee is unique in Canada. (p. 103) The committee includes the Chief Medical Examiner, investigators from

his office, child welfare professionals, pediatric pathologists, pediatricians specializing in child abuse, law enforcement officers, a representative of the Assembly of Manitoba Chiefs and a representative from the Department of Justice.

Child Abuse Fatalities In Manitoba

Statistics obtained from the Child and Family Support Directorate of the Manitoba Department of Family Services underline the difficulty in obtaining base rate data on child abuse and neglect deaths. The definitions of child deaths changed over the years on several occasions with the most recent change being to include stillborn children in 1994 and exclude them in 1995 due to a court decision that a stillborn is not a person. (P. Markesteyn, Chief Medical Examiner, personal communication, June 2, 1995) Second, the reporting periods changed from calendar to fiscal years in 1988 and third, the profile of information collected and produced has changed at least twice during the past 13 years. Fourth, the data describes only children known to the child and family services system, not all children who die as a result of abuse or neglect. Fifth, the reported statistics do not include complete information from all agencies. The deaths of two teenage boys killed by their father in 1989 were not included in the statistics (Manitoba Dept. of Family Services, 1995) even though the family had been receiving service from a child welfare agency.

Figure 1 Number of Homicides of Children Known to CFS in Manitoba



U.S.A. and Other Countries

Studies of the incidence of child abuse and neglect deaths in the United States support the assumption that child abuse and neglect fatalities are chronically under reported and misclassified as accidents, disease-related deaths or deaths due to other causes. (U.S. Advisory Board on Child Abuse and Neglect (USABCAN), 1995, p. xxviii) An estimate of the number of undetected and misclassified deaths has been set at three per day or an additional 1,095 child abuse and neglect deaths per year. (Lundstrom and Sharpe, 1991, p. 19) Much of this error is ascribed to inconsistent investigations and a failure to autopsy deaths from accidents or undetermined causes. One of the areas of recent concern with respect to misclassified deaths has been Sudden Infant Death Syndrome (SIDS). A study released at a closed meeting of the governing body of British pediatricians in 1982 estimated that 1 in 10 deaths classified as SIDS were due to child maltreatment. (Emery, 1993, p. 1097; Newlands and Emery, 1991, p. 275)

The first national attempt to track child abuse and neglect deaths in the United States was done as part of a survey released in 1986 by the National Committee to Prevent Child Abuse (NCPCA). The NCPCA has continued to conduct this private, voluntary survey using data collected through written responses and telephone interviews. The most recent report released in April 1993 covers 1990, 1991 and 1992. (NCPCA, 1993, p. 1) The total number of deaths has shown a steady increase since the first survey started with data from 1985. The increase is both in total numbers and in the number of deaths per 100,000 children. The 1992 estimate is 1.93 child maltreatment deaths per 100,000 children in the U.S. (p. 15) There are states which do not respond to the survey, others which send incomplete data and states with no available data to contribute yet the rates continue to increase. In 1992 alone, sixteen states did not contribute data on child abuse and neglect fatalities. (p. 16) The increase, both actual and projected, is a matter of concern and participating agencies were asked to comment on factors that appear to have contributed to the increase. These included more accurate counting of fatalities, increased

rates of substance abuse in caregivers, the involvement of male caregivers without a biological relationship to the child, increased public awareness and increased economic stress. (p. 16)

Recent efforts to understand child maltreatment fatalities in the United States have included the compiling of data on the rates of involvement of child welfare services, the types of maltreatment death, the ages of the victims and the role of parental substance abuse. The rate of involvement of child protective services (CPS) with families in which there were child abuse and neglect fatalities has shown a steady increase from 1990 to 1992 with an average of 35% of victims and families known to CPS agencies. (p. 16) The types of maltreatment death was compiled with information from 23 states; between 1990 and 1992 37% of deaths were from neglect, 59% from abuse and 5% from the two combined. The survey's authors state that they believe that neglect deaths remain under-reported as there were eight states in the 23 which could not provide data on the incidence of neglect deaths. (p. 16) Young children remain at the greatest risk for fatal child maltreatment. Over the three years surveyed, children under the age of five years comprised 87% of victims while children under one year were 46% of all victims of fatal child abuse and neglect. In 19% of deaths, parental substance abuse was a contributing factor. This information is qualified as it is compiled from responses from only 13 states. These states also report an increase in the numbers of drug-exposed infants. This information is documented through mandated reporting of drug-exposed infants and substance abusing pregnant women and is not complete as there is no organized program to test children for the effects of prenatal substance abuse. (p. 19)

A study of 267 child maltreatment deaths from 1975 to 1977 conducted by the Child Abuse and Neglect Resource Centre at the University of Texas at Austin attempted to identify risk factors that would enable the Texas Department of Human Resources to better understand the etiology of such deaths. (Lauderdale and Anderson, 1981) State records from social services and child protective services were used in an attempt to develop

profiles of perpetrators, victims and environments linked with child maltreatment deaths. The researchers also explored the role of system factors such as workload and worker competence in such deaths. (p. 5) For workers to be held accountable for their decisions with respect to the conduct of cases in which children died, prediction must be accurate or workers cannot be censured when such deaths occur. (p. 15) The case records were found to be incomplete especially if the first report to the Department of Human Resources (DHR) was the death report. The case record frequently contained little information about the death as DHR staff did not conduct investigations and the law enforcement investigative report was seldom in the file. (p. 20) (This is not an uncommon finding when child protective services or social services case records are used in historical research.) Using a variety of methods, 77.4% of the 267 deaths were validated as child maltreatment deaths by CPS caseworkers based on the original findings of child abuse or neglect implicated in the deaths. The researchers reported that criminal charges were filed in 28% of the deaths. They caution that the incomplete outcome data make this finding tentative. (p. 27) Charges were filed more frequently in abuse deaths than in neglect or combined deaths; 49%, 6% and 30% respectively. Convictions for abuse were obtained in 6.7% of the cases, in 7% of combined cases and in none of the neglect cases. (p. 29)

Fatalities in the Texas study were distributed as follows: abuse, 39%; neglect, 40%; abuse and neglect combined, 21% while case records of non-fatal cases for the period included 31.8% abuse cases, 58.4% neglect cases and 9.8% combined cases. (p. 24) In examining DHR involvement prior to the child's death, Lauderdale and Anderson found that 49.4% of families had no previous history with DHR while 38.9% had some previous contact and the involvement of 11.7% was designated as unknown. Of the cases with previous DHR involvement, 37.4% or 100 had involvement that was current or within the past year; only 1.5% of the total had a history of previous involvement that was more than one year in the past. Child protective services (a division of the DHR) had been provided to 64 families, or 23.9% of the total. (p. 26)

In a review of nine U.S. studies of fatal child abuse, José Alfaro surveyed the following studies: the 1985 Illinois Department of Children and Family Services study, a separate study conducted by the Illinois Department of Family and Children's Services on child deaths between 1981 and 1984, a 1985 study by the Louisiana Department of Health and Human Services, the 1983 New York City Mayor's Task Force on Child Abuse and Neglect, the 1987 New York City Mayor's Task Force on Child Abuse and Neglect, the 1983 New York State At Special Risk Study, Phase I, the St. Louis Child Abuse Network study (preliminary report), a 1983 study conducted by two masters level students in the School of Social Work at San Diego State University and an exploratory study by the University of Texas Region VI Child Abuse and Neglect Resource Centre for the Texas Department of Human Services in 1981. (Alfaro, 1988, p. 221-226)

The various studies collected information on characteristics of the incidents, the caregivers, the cause of death and, in some cases, the CPS services provided to the victim's family. The studies examined fatalities under two classifications of child maltreatment; abuse and neglect. The incidence of neglect fatalities in the different studies was dependent on the definition of neglect used by the different researchers. Four studies identified a high rate of neglect fatalities defined as those incidents in which children died in fires or in accidents while unattended: Louisiana, 40%; New York City 1983, 44%; New York City 1987, 70% and Texas, 40%. The two Illinois studies and the San Diego study identified 25% of total fatalities as due to neglect. Abuse and neglect combined was used as a category in several of the studies and accounted for 9% of deaths in the 1983 New York City study and 21% of deaths in the Texas study. "In general, these findings caution against the tendency to see abuse as more dangerous than neglect." (p. 228)

The New York State 'At Special Risk' study examined the types of allegations that differentiated fatal from non-fatal cases. In fatal cases, fractures, hematomas, internal injuries, lacerations, bruises and/or welts, burns and/or scaldings, and lack of medical care, malnutrition or failure to thrive or a lack of supervision accounted for 77% of

allegations while these injuries were involved in 24% of allegations with respect to non-fatal cases. There were also higher substantiation results in the fatal cases. (p. 229) This finding indicates that a history of allegations of serious or life threatening injuries and/or conditions combined with a high substantiation rate for a previous history of abuse or neglect of the child may serve as markers to assist workers in differentiating potentially fatal child abuse from less lethal child maltreatment.

The studies reviewed by Alfaro are particularly noteworthy in dispelling the myth of the "beleaguered single-parent mother" as the most often found family type. (p. 231) Instead, the studies point to the role of men as perpetrators of fatal child maltreatment in from 59% to 78% of cases, either as fathers of victims or partners of mothers. The proportion of two parent families was higher than single parent families in all studies. In the second New York City study, the presence of a male in the household was statistically significant in distinguishing fatal from non-fatal cases. (p. 232)

The age of the parents reflected the generally young age of the victims. Where information is available, the majority of parents were in their twenties. The proportion under 20 ranged from 7% (New York City 1987) t0 22% (Illinois Three Year Study). Parent age as a factor in differentiating fatal from non-fatal cases was significant in some studies and not in others. (p. 233) Where data was available, the income of the parents classified them as poor. They were also more likely to be unemployed (if this data was known) or unskilled (when known). This did not generally differentiate fatal from non-fatal cases. Determining the social isolation of the parents was difficult as there was frequently little data upon which to make an assessment. When this information was available, the families were not well connected with their neighbours or community resources and tended to move frequently, living in the same home for less than a year. There was correspondingly little data on the childhood histories of neglect of abuse of the parents. (p. 233)

In considering parental impairment, the studies focused on mental illness, mental retardation and addictions. The information on mental illness was incomplete as the sources were child welfare files. Where it was known, the rates ranged from 8% to 36% and, when comparison groups were available, were not statistically significant. The data on retardation is scarce, with few formal assessments available. There were notes in files that the parent was "slow" but with no formal assessment of intellectual functioning. (p. 234) Rates of addiction varied between 25% and 43% of caregivers. In the 1987 New York City study, the drug addiction of a father or father substitute was found to differentiate fatal from non-fatal cases. (p. 235)

Data on family violence was incomplete and not uniformly included in the files. It was not clear if it was a contributing factor in child maltreatment fatalities. (p. 235) Criminal history of perpetrators was not uniformly measured across studies. In general, mothers were less likely than fathers to have a criminal history. One study found that 47% of the families involved in fatal child abuse or neglect had an adult who derived income from criminal activities such as theft, prostitution or drug dealing.

In considering the prosecution of child maltreatment fatalities, the rate of prosecution of perpetrators reported in the studies Alfaro reviewed was low. Abuse fatalities were generally charged and prosecuted more successfully than neglect fatalities. The concern with incorrectly labeling neglect deaths as "accidents" or due to "natural causes" was raised in the San Diego study in addition to the low reporting of deaths to child welfare authorities. Non-reporting by professionals who had prior knowledge of maltreatment of the child was identified as problematic in four of the nine studies. (p. 237) On average, 33% of victims or their families were known to CPS. Where prior, unsubstantiated reports are expunged from CPS files by law, the rate of previous CPS involvement may differ from what is shown. Three studies showed that the rate of prior reporting does not distinguish fatal and non-fatal cases; "it is a characteristic shared in common to the same degree." (p. 238) In contrast, the involvement of other "human

service systems" is reported to be much higher than CPS agencies with respect to fatalities. (p. 239)

With respect to case management issues, Alfaro argues that conditions in child fatalities cases can be generalized to child protection work in general. (p. 239) The general emphasis on case management issues rests on the need for easier entry for children to protective custody, a uniform quality of family assessment and improvement in the assessment of risk by case workers. This issue of risk assessment was explored in four studies; New York City 1983, Illinois, Louisiana and St. Louis. In general, the studies found that a prior history of abuse, neglect or family violence was overlooked in assessing the current incident. Another problem was that the type of information needed for decision-making was not clearly specified. A prior failure by the worker to substantiate abuse or neglect was incorrect in as many as 38% of cases where credible evidence was documented in the case file (false negatives). The Texas study of child fatalities (Lauderdale and Anderson, 1981) reported concerns with the quantity and quality of case records reviewed in the process of the research. (p. 65)

There also were discrepancies between the assessment of risk for the child and the physical condition of the child or the worker's observations in the case record. (Alfaro, 1988, p. 239-240) Risk assessment in hospitals for newborns also was done poorly, resulting in newborns being discharged to dangerous situations, identification rates of only 50% for known drug addicted mothers and perinatal risk factors present in a substantial (39%) number of cases. (p. 240)

Agency issues such as poor coordination and cooperation, unequal or uneven exchange of information and poor coordination between agencies also contributed to children being left in ultimately fatal situations. Supervision of CPS workers was poor, decision making criteria unclear or absent, investigative procedures not outlined clearly and a general shortage of family support services was found in most CPS agencies. Cases were inadequately monitored and outcome measures were largely lacking. In cases where

the agency was involved after a fatality, there were few services available to counsel survivors or protect siblings. Data management, retention and sharing was problematic with critical information such as arrest records unavailable to CPS workers. Cases were expunged from data bases if unsubstantiated (despite the previously stated problems with misinterpretation of credible data), perpetrators returned to the home without the correctional system notifying CPS as well as losses and gaps in case file data. (p. 240-242)

The most recent report on child abuse and neglect fatalities in the United States, *A Nation's Shame: Fatal Child Abuse and Neglect in the United States* (1995), argues that the real incidence of these fatalities is 2,000 deaths per year, substantially higher than the previously accepted NCPCA estimate of 1261 deaths in 1992. (NCPCA, 1993, p. 15). *A Nation's Shame* was produced by the United States Advisory Board on Child Abuse and Neglect in response to public pressure about the scope of the problem of child abuse fatalities. The Board used written and verbal testimony given in hearings in several centres in the United States as well as current research to produce the report. The authors of *A Nation's Shame* outline a number of difficulties in studying child abuse and neglect fatalities in the United States. First, (as in Canada) there is no national information system to track these deaths. Each of the systems that does attempt to track the problem obtains data that is necessarily incomplete as each system focuses on one aspect of the problem. Even the National Committee to Prevent Child Abuse surveys described earlier are voluntary and cannot compel data collection that is complete and uniform. (USABCAN, 1995, p. 20)

In the U.S., the medical system identifies child maltreatment fatalities through the National Centre for Health Statistics and the various departments of Vital Statistics. (p. 21) Using death certificates to determine the incidence of child maltreatment deaths is difficult as there is no uniform national definition of a child abuse or neglect death. On a death certificate, the manner of death and the cause of death are expected to be listed on the

certificates with detailed notes for clarification. This does not happen uniformly especially in states where coroners may have little or no medical training and where autopsies of child deaths are discretionary. When specialized medical knowledge to correctly identify a child mistreatment death is lacking, coroners and medical examiners may be reluctant to implicate parents or to involve themselves in potential criminal cases. (p. 22). As an example of what can happen even with medical involvement, the case of a mother who had lost five children to what was diagnosed as SIDS was cited. Suspicion of murder on the part of a public prosecutor led to the reopening of the case and the laying of charges against the mother. The original diagnoses of SIDS remained on the death certificates. (p. 21) This compounds the problem of inaccurate diagnosis when outdated and incorrect information remains on a death certificate.

A review of death certificates in the state of Texas for 2,400 children under one year of age who died in 1992 lists 10 as child abuse and neglect deaths yet the state child protective services had 100 mortality cases on their files. (p. 23) Further problems with the identification of child maltreatment deaths through death certificates occurs when the International Classification of Diseases (ICD) is used. Verbal testimony in 1994 by Philip McClain of the Centres for Disease Control drew attention to the fact that the code for child maltreatment deaths, in the ninth version of the International Classification of Diseases, ICD-9, does not produce a true count of these fatalities. The coding criteria are based on the Battered Child Syndrome identified by Dr. Henry Kempe. One of the criteria for classification is that there must have been other documented incidents of "abuse" before the fatal assault. If a child dies of starvation through the deliberate withholding of food with no prior history of documented abuse, the death will be classified as undetermined or natural. There is also no way to code a neglect death so they are coded as undetermined or natural deaths. Testimony by Dr. Michael Durfee raised the problem of the classification of some maltreatment fatalities as natural deaths if the final cause of

death was pneumonia yet the child was "covered with injuries including genital trauma". (p. 23)

Other problems identified by the USABCAN in obtaining an accurate count of child maltreatment deaths when using the justice system's statistics relates to the definitions of child homicide in different states as well as the type of data that is provided as some jurisdictions provide information on arrests only. The Federal Bureau of Investigation (FBI) collects such information on a national basis for its Uniform Crime Reports (UCR). Although information on the relationship of victim and perpetrator is collected, it is not published, making it difficult to determine how many children are killed by their caregivers. A new system, the National Incident Based Reporting System will permit case specific analysis of data yet the amount of data collected through this new system may still not be sufficient to correctly identify child maltreatment deaths. (p. 20)

Child welfare agencies in the U.S. compile data on children who have received service from child protective agencies. The data collection on individual cases is generally insufficient to obtain a complete family history as different social services agencies collect data on poverty, illness, mental health problems, substance abuse, criminal history and education. (p. 24) Over half the children who died from abuse or neglect in the United States are from families who have never been investigated by CPS. (p. xxx) Further, those professionals who are identified in legislation as mandated reporters for child abuse and neglect do not, in fact, routinely report. The rate of refusal to report falls somewhere between 22 and 69% of professionals. (p. 40) Teachers, who are considered to be critical members of the reporting system, seldom receive training in identifying, reporting or intervening in suspected child abuse and neglect. (p. 40) Children who die in families unknown to CPS were often well known to other professionals who did not report. These families are often multi-problem families and have had contact with agencies because of drug abuse, domestic violence, unemployment or homelessness. (p. 44) While there is a tendency to investigate CPS agencies when a death of a child on their caseloads

occurs, there is little done taken with respect to the inaction of mandated reporters of child maltreatment when, as happens in the majority of cases, children who are not known to CPS are killed by their caregivers.

A Missouri study by Dr. Bernard Ewigman examined the outcomes of recently instituted state and county death review teams and efforts to raise public awareness about mandated reporting. The results included a doubling of child homicides recognized and coded on deaths certificates, a doubling of child maltreatment fatalities identified by the Division of Family Services and a tripling in the prosecutions of perpetrators. Prior to these efforts, in 121 verified cases of fatal child abuse or neglect of children 4 years and under, only 47.9% had received the ICD-9 code for a child abuse death. Of these 121 cases, Family Services had substantiated only 79.3% as child maltreatment deaths and the FBI's UCR recognized only 38.8% as homicides. (p. 19)

In examining the role of race and poverty in fatal child maltreatment, the USABCAN addressed the over-representation of racial minority families in the child fatalities statistics, particularly black and Native American families. Poverty is believed to be a major factor in child maltreatment as 1 in 2 native American families and 1 in 3 black and Hispanic families in the U.S. are poor as compared to 1 in 9 white or Asian families who live in poverty. However, poverty is not a determining factor as Hispanic families are not over-represented in child fatality statistics. Witnesses before the U.S. Advisory Board on Child Abuse and Neglect suggested that the over representation of black children may be due to the effects of psychological stress from racism and oppression. (p. 27)

In offering suggestions to improve the situation, the Board recommends that common definitions and data elements be sought to enable large amounts of data to be assembled from the smaller area contributions. (p. 26) The use of estimation models such as those developed by the Centres for Disease Control (CDC) (McClain, 1993) should be used as a first step with the goal being accurate counts of actual cases. The major players in the field, child protective services, the Centres for Disease Control and the Federal

Bureau of Investigation, should coordinate their communications to the public to eliminate contradictory messages about this topic. The example cited is the 1994 U.S. Department of Justice release titled *Murder in Families* in which mothers were identified as the most frequent killers of young children. The USABCAN pointed out that this caused an inaccurate media and public perception as the evidence from current studies identifies fathers and other male caregivers as perpetrators of significantly more abuse and neglect than mothers. (p. 27) A further recommendation is that national efforts be made to collect case level information on child abuse and neglect. The vehicle suggested is the National Child Abuse and Neglect Data Survey (NCANDS) conducted by the National Centre on Child Abuse and Neglect. At least twenty states have agree to participate annually. Another recommendation is that federal research efforts be greatly expanded into both child maltreatment and the larger field of family violence research as 80% of all violence occurs in 10% of the U.S. population. (p. 28) The formation of state and county child death review teams is recommended as a means to provide more accurate data on child deaths. As emphasis, the authors state each year many more children die from maltreatment than the total number of deaths from airplane crashes yet there is far more money and effort spent to prevent these fatalities than there is to stop the killing of children by their families. (p. 29)

A New Zealand study of morbidity and mortality due to child maltreatment emphasizes the difficulties in obtaining accurate data on the incidence of child abuse and neglect fatalities. Kotch, Fanslow, Marshall and Langley (1993) studied the under-diagnosis of child abuse in morbidity and mortality data from New Zealand. In addition, they explored the possibility of racial bias in such reports. Kotch et al. state that "inconsistent definitions and personal and professional discomfort contribute to inaccurate statistics describing the incidence of child abuse." (p. 233). New Zealand does not have mandatory reporting laws for child abuse. Thus, the true number of abused children cannot be estimated unlike the U.S. where enough is known about the proportion of

reported to unreported child abuse that such estimates can be made. (p.234) The authors attempt to compare the New Zealand rates for hospitalization and fatalities due to "child battering and other maltreatment" with U.S. rates of child abuse and neglect fatalities. Based on their comparisons, they draw the conclusion that reporting rates are similar despite the legislative differences and that the rates for child maltreatment morbidity and mortality are lower in New Zealand than in the U.S. (p. 234)

The comparisons become problematic when the basis for comparison is considered. Kotch et al. used data for a ten year period from 1978 to 1987 from cases of intentional injuries *only*. The International Classification of Diseases (ICD) system was used by Kotch et al. to extract the deaths to be studied from the health services database. The problems with this system for tracking child maltreatment deaths have been described earlier. They did not consider any SIDS deaths or any classified by the physicians completing the death certificate as "unintentional". (p. 234) This creates difficulty in making comparisons, as the U.S. data does include deaths due to neglect in its actual and estimated rates for child maltreatment fatalities. (NCPCA, 1993, p. 13) Further, McClain, Sacks, Froehlke and Ewigman (1993) emphasize that it is necessary to examine child deaths in six categories to gain a true picture of the incidence of deaths due to maltreatment. These include: (1) deaths coded explicitly as due to child abuse or neglect, (2) homicides, (3) injury deaths of undetermined intentionality, (4) accidental injury deaths, (5) sudden infant death syndrome fatalities, and (6) natural cause deaths. (p. 338) Other research by McClain, Sacks and Ewigman with Smith, Mercy and Sniezek (1994) focused on the contribution of these categories to the total number of child abuse and neglect fatalities. "On average, the component contributions to the CAN (child abuse and neglect) fatality rates are as follows: overt, 15%; accident, 38%; SIDS, 15%; undetermined, 7% and natural, 9%."(p. 84)

Although the New Zealand study does include data from the Health Statistical Service supplemented with data from coroners' files and High Court files, the definition of

cases to be studied as those limited to "intentional injury inflicted upon a child 16 years of age or under by a parent or parent substitute or caretaker" (Kotch et al, 1993, p. 235) raises questions about the accuracy of any counts produced. The issue of definition becomes more problematic when the authors state that they are using Hampton and Newberger's definition of a child abuse situation as "one where...behaviour of a parent/substitute or other adult caretaker caused foreseeable and avoidable injury or impairment to a child..." to assist in distinguishing the deaths from others forms of child homicide (1985, pp. 56-57, cited in Kotch et al, 1993, p. 235). This definition *includes* neglect deaths unlike New Zealand's criteria which limited the selection of cases to those where there was a determination of intent by the parent to harm the child.

The question of neglect deaths arises with respect to the preventable (avoidable) nature of these deaths and whether or not the deaths could reasonably be foreseen. In cases such as children left unattended and dying in house fires or other accidents, the argument can be made that legislation making it an offense to leave children unattended anticipates the tragedies that can occur in such cases. The parents' intent may not have been to cause harm to the children but neither did they take the minimum precaution of engaging a substitute caregiver before leaving the home. While these are not abuse deaths, they are neglect deaths rather than accidental deaths as the parents' behaviour *did* cause "foreseeable and avoidable injury or impairment" to the child. The belief that neglect deaths occur with equal or greater frequency than abuse deaths (Wolock and Horowitz, 1984, Margolin, 1990) emphasizes that the true scope of child maltreatment fatalities cannot be known if neglect deaths are deliberately excluded. The statement of Kotch et al. that child maltreatment mortality occurs at a lower rate in New Zealand than in the U.S. must be reconsidered. It would be more accurate to say that it is not possible at this time to make meaningful comparisons unless the definitions of maltreatment are at least similar. This is true for Canada as well as there is currently no standard definition or national data collection system for child maltreatment fatalities. At best, it can be

assumed that, in Canada, New Zealand and the U.S., the numbers are higher than existing information suggests. Arriving at a standard definition is a critical first step in understanding the incidence of fatal child maltreatment.

CLASSIFICATION OF DEATHS

One of the most difficult issues in the study of fatal child maltreatment is determining which deaths fall within this category and which fall outside. Recent efforts by Ewigman (1993), McClain et al. (1993, 1994), Lundstrom and Sharpe (1991), Stangler, Kivlahan and Knipp (1991), and Zumwalt and Hirsch (1980) have pointed to the importance of combining the technology of forensic medicine with carefully conducted family assessments and thorough investigations in efforts to correctly identify deaths due to abuse and neglect.

The problem of misclassification of abuse and neglect deaths as due to natural causes is not a new one. Radbill (1987) quotes from Charles Dickens' *Oliver Twist* to describe situations in which children had died through abuse or neglect. At the inquest, the jury of citizens of the parish made it clear that they did not believe the deaths to be "natural" yet the testimony of the surgeon failed to correctly identify the cause of death and the beadle's testimony was determined by political expediency. (p. 17) In a more contemporary example of efforts to correct the misclassification of child deaths, Dr. John Caffey published an article in 1946 entitled "*Multiple Fractures in the Long Bones of Infants Suffering from Chronic Subdural Hematoma*" (p. 18) which in today's understanding is a description of a child battering death. Caffey understood that he was seeing the effects of parents' attacks on infants yet was unable to convince his colleagues that parents could be the instruments of such injuries. (p. 18) As recently as 1964, a death certificate for a child bearing the evidence of severe bruising was classified as a natural death. The bruising from sustained beatings was attributed to "diabetes" which in combination with the fatal head and abdominal injuries was designated a "natural" death. (P. Markesteyn, Chief Medical Examiner, Province of Manitoba, personal communication, June 2, 1995)

In 1951, Frederic Silverman's work based on Caffey's earlier research, emphasized the intentional inflicting of such injuries. (p. 19) Dr. Henry Kempe, who is credited with the modern "discovery" of child abuse, brought the issue of inflicted injuries to international prominence in 1962. The definition of Battered Child Syndrome, also known as Battered Baby Syndrome (and as described in the International Classification of Disease coding system), includes children who have been victims of prolonged abuse as evidenced by recent, healing and healed injuries. This narrow classification, according to Zumwalt and Hirsch (1987, p. 249) fits only 15 to 20% of child abuse fatalities. (p. 251). Similar concerns with this designation are expressed by McClain et al. (1993, p. 338) and are a weakness in the work of Kotch et al. (1993) in determining the incidence of child abuse deaths in New Zealand.

Zumwalt and Hirsch (1980) recognized that child maltreatment deaths go beyond inflicted injuries for which criminal responsibility on the part of a caregiver can be determined, or the willful failure to provide food, shelter, medical care and protection for children. (p. 167) They describe a phenomenon that they have named "subtle fatal child abuse" that includes "unusual physical and chemical assault" as well as covert negligence. (p. 167) A review of the cases presented includes the following:

1. The death of a six year old foster child from a metabolically induced fatality due to consumption of a salt substitute. The child was placed in care due to hyperactivity and his mother's inability to tolerate him. The foster parents reported that he craved and ate large quantities of salt, although this pica had not been observed when he was with his natural mother. Forensic investigation determined that the foster father had put over two tablespoons of a sodium chloride and potassium chloride salt substitute on his food to "teach him the taste of salt". The circumstances under which the child was compelled to eat the food are not known. The foster father was convicted of involuntary manslaughter as

the oversalting of the child's food was not seen by the court as an acceptable or normal means of parental discipline. (p. 168)

2. The death from dehydration of a two year old child who had been "whipped" by her mother's boyfriend for a toileting accident, bound around the arms and legs and placed in a vacant room. She remained in the room for 15 hours with several episodes of "spanking" in the first seven hours of confinement. Her struggling and crying in addition to the denial of liquids during the period of incarceration led to her death as a consequence of an existing blood condition. The boyfriend was charged with murder and pled guilty to involuntary manslaughter (p. 170).

3. The death of a four month old girl, apparently of SIDS, while in the care of her father. The child had evidence of previous physical abuse, including healing rib fractures. The father had previously stopped the child's crying by placing his hand over her face until she turned blue. As it is virtually impossible to distinguish a SIDS death from an asphyxiation death without physical evidence, the death was classified as undetermined. The father later admitted that he had smothered the child. He was charged and successfully prosecuted for murder despite the pathologist's testimony that SIDS could not be excluded as a cause of death. (p. 170)

4. A two and a half year old boy who died of "extensive cutaneous burns"; third degree burns to 33% of the body surface. The mother and her boyfriend claimed that the child had been burned in a tub of hot water over a week earlier and that they had not been able to afford medical care. The mother and her boyfriend were convicted of murder based on the prosecutor's argument that they had failed to provide reasonable care for the child as there was a local "charity" hospital with a well known burn ward that would have treated the child. The issue of the circumstances of the burns, intentional or accidental, was not considered.

5. The death of a child from heat stroke after spending 10 hours locked in a car on a 32°C day while his father drank in a tavern. The father came back twice to the car during the 10 hour period. Zumwalt and Hirsch argue that "any rational adult knows that a closed car parked in the sun becomes uncomfortably hot", as much as 10° to 15° higher than the ambient temperature. (p. 171) The grand jury failed to return an indictment for murder despite the pathologist's opinion that the death was due to a lack of regard for the child's well-being. (p. 171)

6. An emergency room death of a six year old child. The boy had facial bruises, and wrist abrasions consistent with binding. His body was cold and lacked rigour. An autopsy revealed "numerous abrasions and contusions of the face, scalp, trunk, and extremities." (p. 172) The police investigation revealed that the child had been tied spread-eagled to a bed for nearly 24 hours. He was dressed only in underwear and the room was on the second floor of a poorly insulated house with an inoperative furnace and a space heater in the main floor living room. The outside temperature was -17°C on the day of death. The child was walked, inadequately clothed, one mile to school by his mother but she did not leave the child there. School witnesses described the child as listless and stumbling. The children in the family reported that being stripped and tied to the bed without any coverings was a common method of "discipline" in the family. The mother admitted beating the child the night before his death. The cause of death was found to be hypothermia due to exposure. The mother was convicted of involuntary homicide.

These cases illustrate the different types of child maltreatment that can result in the death of a child from means other than overt violence or battering; that is, from poisoning, denial of medical care, heat stroke, hypothermia, asphyxia or the effects of dehydration. Zumwalt and Hirsch emphasize the challenges in successfully prosecuting such cases due to the lethal assaults usually being unwitnessed and the need to base these

cases on forensic and circumstantial evidence. The authors provide a general classification system for "subtle fatal child abuse" which includes the following:

I. Physical assault causing death but without anatomically demonstrable, lethal trauma
   A. Asphyxia
      1. Smothering
      2. Obstruction of airway by foreign body
      3. Strangulation (manual or ligature)
   B. Cerebral concussion
   C. Minor trauma in child debilitated by disease
   D. Cardiac arrest caused by blow to chest (concussion cordis)

II. Chemical assault
   A. Poisoning
   B. Force feeding noxious substances

III. Negligence
   A. Permitting child to be exposed to dangerous environment
      1. Heat
      2. Cold
   B. Exacerbation or triggering of natural disease by negligence
      1. sickle cell crisis
      2. diabetes
   C. Failure to provide medical care when needed
      1. Untreated injuries
      2. Failure to give medication
   D. Malnutrition

Zumwalt and Hirsch, 1980, p. 173

Well before the inception of multidisciplinary child death review teams, Zumwalt and Hirsch urged that information from police reports, medical history and social services files be combined to give the best possible medico-legal autopsy to "forge unbreakable links between a seemingly natural or accidental death and criminally culpable neglect." (p. 173) The correct classification of deaths requires information from more than one of the systems involved in the investigation of child deaths.

A study by Christoffel, Zieserl and Chiaramonte (1985) was conducted to determine which characteristics of unexpected deaths would be positive predictors of child maltreatment deaths. Unexpected deaths were defined as children who were dead on arrival (DOA) at hospital or those over the age of one month and without previously known congenital or medical conditions who died within 10 days of admission to hospital. (p. 876) Of the 43 such deaths studied over a two year period, 27 were determined to

be due to natural causes, 7 to uninflicted injury and 9 due to suspected child abuse or neglect (SCAN). (p. 877) An important finding is that SCAN deaths were more likely to be confused with death by natural cause than due to uninflicted (accidental) injuries. SCAN victims had a younger mean age than victims of uninflicted injuries; 20 months versus 47 months. The SCAN deaths were more likely to be identified at autopsy, were more likely to occur in winter and the victims were more likely to be DOA. However, none of these differences was statistically significant. Six of the nine SCAN deaths were identified as neglect or abuse before autopsy, the remaining three were initially diagnosed as due to natural causes.

The researchers concluded that no single factor identified 75% or more of the SCAN deaths. When two factors were combined; DOA and one year of age or less, 89% of SCAN deaths were identified. They state that "if these two factors are used together to identify cases requiring initial evaluation for SCAN, 89% of the SCAN deaths will be evaluated and only 6% of the deaths not evaluated will be found to require investigation after autopsy." (p. 878) Further, non-SCAN deaths will receive initial evaluation in 56% of cases (p. 879) and of the deaths requiring initial evaluation, approximately 33% will require official investigation. (p. 878) Christoffel et al. conclude that there is reason to suspect maltreatment in a "substantial minority" of unexpected deaths at one pediatric hospital and that it is more likely that SCAN cases will be misdiagnosed as deaths by natural cause rather than uninflicted injury and the correct diagnosis will occur at autopsy. An initial evaluation by hospital social workers is warranted if the child is DOA or 1 year of age or less. The criteria for reporting cases as SCAN to CPS are (a) children who die unexpectedly and have either "specific evidence of abuse or neglect" or (b) are in the high risk group of DOA or 1 year of age or less without a determination of SCAN through medical and social work assessment. (p. 879) These results emphasize the vulnerability of young children to death as a result of abuse and

neglect and the care that must be taken in assessing the manner of death of children who are dead on arrival at hospital.

In *Getting Away With Murder,* a Pulitzer Prize winning investigation of child maltreatment deaths, Gannet News Service journalists Lundstrom and Sharpe examined death certificate data from the U.S. National Centre for Health Statistics. A review of death certificates of children by the Johns Hopkins University School of Public Health was commissioned as part of the investigation. The deaths of children aged under 9 years were examined under the assumption that they would be more likely to be fatally abused than older children. (Lundstrom and Sharpe, 1991, p. 19) At the time of the analysis in 1990, death certificate information from 1987 was the most recent complete year available. Deaths of 49,569 children under the age of 9 years were analysed. Major findings included:

1. Autopsy rates for child deaths ranged from 23% to 67% with Tennessee recording a 23% rate because of incomplete certificate completion on nearly 50% of death certificates studied.
2. Southern U.S. states consistently had the lowest autopsy rates; the bottom 10 cities were in that area and the overall rate for the east south central states was 31% as compared to 54% for the Pacific states.
3. "Suspicious" deaths (undetermined, SIDS, asphyxiation and other causes) numbered 7,422 of which 531 were not autopsied.
4. One of every twelve SIDS deaths in the U.S. is not autopsied, "a flagrant violation of accepted medical procedure". (p. 19)

Based on their investigation and interviews with expert sources, Lundstrom and Sharpe state that deaths diagnosed as SIDS and deaths due to Shaken Baby Syndrome are most likely to be misclassified as natural or accidental deaths. (p. 20) They emphasize, using case histories, that complete pediatric forensic autopsies of child deaths are necessary to prevent child maltreatment deaths from going undetected. A case cited is

that of a mother suspected of murdering, over a 14 year period, six of her children in addition to the child of a relative. The death of the seventh child aroused suspicion in Kansas where she had moved after the deaths of the other six children in Texas. The deaths in Texas had been attributed to natural causes despite the "horrible pattern". She was convicted of the death of the child killed in Kansas and extradited to Texas to face charges on the other six deaths. (p. 20-21) Lundstrom and Sharpe state "Where once social workers absorbed the blame for botched child abuse cases, today coroners and medical examiners are coming under increasing scrutiny." (p. 21)

As the coroner or medical examiner decides on the classification of the death as natural, accidental, homicide, suicide or undetermined causes, the competence of these individuals is critical. Coroners in the majority of U.S. states are elected in rural areas with no need for any medical qualifications while urban areas use medical examiners and forensic pathologists. The potential for error is therefore much higher in rural areas. Lundstrom and Sharpe state that political or budgetary considerations may result in a coroner's decision not to order an autopsy of a child death. (p. 21) Only 23 U.S. states rely solely on medical examiner systems where medical examiners and pathologists investigate deaths. (p. 23)

Uncovering Fatal Child Maltreatment

The changes to the system for investigating child deaths in the state of Missouri is given as an example of how a number of attempts by medical examiners and state social service officials to exhume and autopsy 20 month old Dante Mosby contributed to change in the system. The death certificate completed in 1984 by the inexperienced rural coroner listed death as due to "natural causes, exact cause unknown" despite the child's hospitalization after repeated episodes of child abuse. Appeals to exhume the boy had been rejected by the state's appellate court despite the belief by a medical examiner and the state social services department that the child's death was highly suspicious. (p. 24)

The other precipitator of change in Missouri was the discrepancy between the number of maltreatment deaths reported by CPS and the Missouri Department of Health. It was noted by Colleen Kivlahan, medical director for the Missouri Department of Social Services that the numbers were different and "surprisingly low" (Stangler, Kivlahan and Knipp, 1991, p. 5) In collaboration with Dr. Bernard Ewigman, a systematic epidemiological study of child deaths in Missouri from 1983 to 1986 was conducted. Multiple data sources were used to identify both reported and unreported cases of fatal child maltreatment. The difficulties encountered by the researchers included defining the extent of the problem as these deaths were not indicated on death certificates, reported to CPS or to law enforcement agencies. (p. 6) As well, front line professionals were reluctant to intrude on grieving families, were ignorant of pertinent facts, did not recognize the physical signs of child abuse and did not adequately investigate the death scene. (p. 6) Kivlahan's research indicated that, for the study period, 164 children 4 years and under died because of inflicted injuries or acts of omission by their caretakers. None of these deaths had been previously identified as CAN deaths. (p. 7) A state task force was formed in 1990 as a response to this finding of serious under-reporting of child maltreatment deaths and the Dante Mosby case. The result was major changes to the system of investigating child deaths including legislated local child death review teams and increased use of autopsies to determine the cause of death in children under the age of 15 years. (Lundstrom and Sharpe, 1991, p. 24) The outcomes have been dramatic. The implementation of the Missouri Child Fatality Study (as cited in the 1995 report of the U.S. Advisory Board on Child Abuse and Neglect) has resulted in a doubling of child homicides recognized and coded on death certificates, a doubling in CAN fatalities identified by the Division of Family Services of the state Social Services department, and a tripling in the prosecution of perpetrators. Prior to implementation, in 121 cases of verified fatal CAN of children 4 years and under, only 47.9% were given the ICD-9 code for CAN fatality. Of these cases, Family Services had substantiated only

79.3% as CAN fatalities and the FBI Uniform Crime Report had recognized only 38.8% as homicides. The causes of under reporting have been attributed to inadequate investigation, lack of information sharing between investigators and between agencies in combination with an outdated reporting system. (USABCAN, 1995, p. 19)

Building on the work accomplished in Missouri, McClain et al. (1993) developed estimates of fatal child abuse and neglect in the U.S. for the 10 year period from 1979 through 1988. Three models were developed for the estimates, progressing from very conservative estimates through more inclusive. Using the data from the Missouri Child Fatality Study as a base in addition to available census data, FBI Uniform Crime Report data and National Health Statistics child deaths data, estimates were developed of the number of deaths due to fatal child maltreatment in the U.S. The six components of the estimates are:

Component 1. OVERT incudes all rubrics that explicitly denote CAN; child battering and other maltreatment, criminal neglect, abandonment and neglect of infants and "child maltreatment syndrome".

Component 2. HOMICIDE is an estimate of the number of child homicides perpetrated as caregivers and not included in Overt death. Death records were used to identify homicides and perpetrator proportions were estimated using FBI Uniform Crime Report data for the same period, excluding the justifiable homicides of children by caregivers.

Component 3. UNDETERMINED is an estimate of CAN fatalities that were coded as injuries without a determination of intentionality based on death case codes identified in the Missouri Child Fatality Study.

Component 4. ACCIDENT is an estimate of misdiagnosed accident fatalities that are in fact due to CAN. Categories and proportions from the Missouri Child Fatality Study were used as a basis for the estimates.

Component 5. SIDS is an estimate of the number of CAN fatalities incorrectly diagnosed as SIDS. The results of research in Missouri and Arkansas suggest that this rate ranges from 1.3% to 4.7% of SIDS deaths.

Component 6. NATURAL is an estimate of the number of fatal CAN deaths misdiagnosed as deaths due to natural causes. The percentage of such deaths derived from the Missouri study is *"at least"* 6.3%. (McClain et al, 1993, p. 339)

"When averaged across all models, the contributions to the CAN estimate from the various components for ages 0 through 4 years are as follows: OVERT, 15%; HOMICIDE, 15%; UNDETERMINED, 7%; ACCIDENT, 38%; SIDS, 15% and NATURAL 9%." (p. 340) Using the third, more inclusive model, McClain et al. estimate that 90% of CAN deaths occur among children younger than 5 years old and 41% of all CAN deaths occur among infants. These age distributions are similar for the more conservative models, also. (p. 340)

The limitations of the data used were such that neglect could not be differentiated from abuse and estimates included children aged 0 to 4 years only. (p. 86) Deaths of children due to a failure to use child restraints were also excluded. From 1982 to 1987 an estimated annual average of 252 children under the age of 5 years died in the U.S. in this manner. (p. 342) McClain et al. (1994) state that even their upper estimates are conservative.

> "Some questionable, and even illegal, caretaker behaviours contributing to childhood deaths are not generally considered abusive or neglectful, and therefore were excluded. For instance, we did not attempt to count automobile crash deaths that might have been due to failure by caretakers to properly restrain children." (p. 86)

This distinction between illegal or questionable behaviours and abusive or neglectful behaviours is contradictory. When legislation governing safety standards for activities includes special provisions intended to prevent the injury or death of children, the decision of a caregiver to disregard such legislation is, by definition,

neglectful unless the intent is to cause the child harm, in which case it is abuse. McClain et al.'s "generally considered" is an inappropriate criterion to apply in this case. If it is "generally considered" acceptable in a particular community for caregivers to deny medical care to children with chronic or life threatening illnesses (or injuries), does this mean that such acts should not be considered medical neglect? Community standards may affect the enforcement of laws or the penalties for breaking them but they do not change the nature of the act from illegal to legal unless the legislation itself is changed.

Sudden Infant Death Syndrome

The diagnosis of Sudden Infant Death Syndrome (SIDS) has become problematic for forensic pathologists and researchers concerned with child abuse and neglect fatalities. SIDS is a diagnosis of exclusion; if there is nothing abnormal or suspicious after an autopsy on a child under the age of one year who has died a sudden death, then SIDS is diagnosed. Several important points must be made in discussing the relationship of SIDS to child maltreatment fatalities. The first is that, to date, there is little evidence to suggest that the majority of SIDS deaths are other than tragic, unexplained deaths of infants who were in generally good health. However, in approximately 10% of cases of diagnosed SIDS, child abuse or neglect is believed to be the true cause of death. (Newlands and Emery, 1991, p. 275; Emery, 1993, p. 1097)

Second, the investigation of a SIDS deaths requires an extra degree of thoroughness on the part of medical, law enforcement and child welfare investigators. This includes complete autopsies by a pediatric pathologist, full skeletal x-rays, toxicology screens and detailed family histories. Evidence from the U.S. suggests that such detailed investigations are necessary to distinguish "true" SIDS from suffocation deaths. In 27 families where 27 children had been suffocated by their mothers (18 survived, 9 died), 18 other siblings had died suddenly and unexpectedly. (Pediatric Trauma and Forensic Newsletter, 1994, p. 70) Thirteen of the 18 had been diagnosed

with SIDS. Upon further investigation, a number of these parents confessed to suffocating the infants. Munchausen's Syndrome by Proxy was associated with most of these deaths with the remainder showing conventional child abuse characteristics of parental hostility and unrealistic expectations of the child.

A review was conducted of 10 years of autopsy results in Adelaide, South Australia of infants under one year of age who had died unexpected deaths. (Pediatric Trauma and Forensic Newsletter, 1994, p. 71) Routine investigation of these deaths included examination of the death scene and interviews of parents by police officers and nursing or social work staff of the local SIDS association as well as a detailed autopsy by a pediatric pathologist after a review of the clinical history. After the 361 cases reviewed, 91% were diagnosed as SIDS including cases that occurred while the infant slept with parents unless there were "histories of excessive parental alcohol or sedative intake, excessive parental obesity or the finding of the dead infant under the sleeping parent." Of the remaining cases, other medical conditions were found to account for the deaths in 6.4 % of the total leaving 2.5% attributed to accidental asphyxia. The authors warn that "entities such as homicide and metabolic disorders may present in an identical manner to SIDS and may recur within families". (p. 72)

Third, the detailed history of the family is omitted from the investigation in a substantial number of cases unless there is a policy directive or legal requirement to do so. In part, this may be due to a reluctance to intrude on a family at such a difficult time. The new Ontario Protocol for Children's Death Investigation for the sudden and unexpected deaths of children two years of age and under specifies that

> "all members of the investigation teams [must] "THINK DIRTY". They must actively investigate each case as potential child abuse and not come to a premature conclusion regarding the cause and manner of death until the complete investigation is finished and all members of the team are satisfied with the conclusion." Government of Ontario, 1995, p. 2)

In the case of Ontario, a review of the investigation of sudden and unexpected infant deaths in 1991 and 1992 revealed that autopsies were done in 98.5% of these deaths. Skeletal x-rays were missing for 18.3% of deaths in 1991 and 12.4% of deaths in 1992. Toxicological tests were not done in 86% of cases in 1991 and 93.4% of cases in 1992. Overall, detailed families histories were missing in 20% of the cases. (p. 1)

The expectation in Ontario is that the new protocol will reduce the number of deaths diagnosed as SIDS while increasing the numbers of "sudden unexplained deaths" (SUD) where there is evidence of past, non-fatal physical abuse or a positive toxicology result that was not the cause of death, e.g. a blood alcohol count of 30 mg% in an infant. Sudden Unexplained Deaths are defined in the protocol as being due to SIDS, accidental injury, non-accidental injury due to abuse or neglect or a previously undiagnosed natural disease process. Further, any deaths in which there is a "significant concern" in any aspect of the investigation of the death, including the family history, should be classified as Sudden Unexplained Deaths. It is expected that 20 to 30 deaths per year currently classified as SIDS will fall into this category. (p. 6-7)

An opposing view is advanced by some professionals who deem any investigation other than the medical examinations needed to complete the autopsy diagnosis of SIDS as an added burden on the family. Krugman states "Overzealous child protective service workers and law enforcement officers have occasionally interrogated SIDS victims' parents, compounding their pain. (1985, p. 69) Opposition to investigation into the family history is supported by a perception that such investigations are intended to blame rather than exonerate parents.

> "It is difficult for the coroner to arrive at an accurate diagnosis using the information that is presented at the time of notification. As a result, some have advocated an on-site visit before the diagnosis is made. As this type of inquiry evokes further stress and devastation for the parents and care-givers, it is ill advised." (Sankaran, 1993, p. 278)

If no questions are to be asked of the families of suspected SIDS victims, it is difficult to see how an accurate diagnosis can be made. The method of SIDS diagnosis supported by Sankaran and Krugman raises concerns about the cases in which parents are literally getting away with murder. The widely publicized Hoyt case in New York state involved a family believed to have suffered five deaths from SIDS from 1964 to 1971. This case became part of a seminal article on the genetic transmission of SIDS and the subsequent recommendation that apnea monitors be used by families who were "at risk" for SIDS. In 1992 a district attorney reopened the case using material from the original investigations and charged the mother with smothering the five children. (USABCAN, 1995, p. 21) Another infamous case involved Mary Beth Tinning who was charged with smothering her adopted infant daughter. During the inquiry into the infant's death, it was discovered that *eight* biological children of Ms. Tinning had died. The diagnoses of their deaths had been SIDS or natural causes. (Reece, 1993, p. 423) Ms. Tinning had been active as a "SIDS mother" supporting the work of the SIDS Foundation. She was convicted of the death of her ninth child and sentenced to 20 years to life in prison. (Lundstrom and Sharpe, 1991, p. 25) Lundstrom and Sharpe expert testimony of how easy it is to kill a child and escape detection unless careful and thorough investigations, including autopsies as well as social and clinical histories, are done.

> "Two of every three child abuse deaths that go undetected are labeled SIDS", speculates Dr. William Sturner, Rhode Island's chief medical examiner and a specialist in child abuse deaths. While the vast majority of SIDS cases are legitimate, some murders are discovered only by chance—years after they occur." (p. 25)

Part of the reason for this chronic misclassification can be attributed to the perception on the part of those who investigate such deaths that "nice" families do not kill their children. Lundstrom and Sharpe (1991) found that a reluctance to ask the family difficult questions about the circumstances surrounding the death of a child, an

unwillingness to insist on autopsies against the family's wishes unless there is obvious "foul play" involved, and a lack of funds to pay for autopsies contribute to parents and other caregivers "getting away with murder". A family that is responsible for the death of a child may be reluctant to cooperate with investigators or to permit an autopsy. Another contributing factor is a belief that SIDS can be accurately diagnosed without an autopsy. One state medical examiner in the south eastern U.S. is quoted by Lundstrom and Sharpe as saying that in 10% of cases he relies on "external examination" and a checklist of "sociological factors" including clean home, loving family, good hygiene, no history of child abuse and "intelligence of the parents" to diagnose SIDS. (p. 26) Using such biased criteria for investigation of a child death will inevitably result in deaths due to asphyxiation, Munchausen's Syndrome By Proxy and Shaken Baby Syndrome going undetected as the physical evidence may be visible only with a detailed pediatric autopsy or inconclusive without a aggressive investigation of the child's death and the family's history. (p. 26)

A study by Bass, Kravath and Glass (1986) involved conducting death scene investigations of 26 consecutive infant deaths with a presumptive diagnosis of SIDS in an area known to have an unusually high rate of SIDS deaths. The investigations were very detailed, involving collecting information on all household members, interviews with all eyewitnesses and re-enactment of their actions, evaluation of environmental conditions in the home including heat, air quality, condition of the furniture and bedding in addition to the more usual demographic information and clinical history of the victim. The results of 22 cases where autopsies were done, 19 were diagnosed as SIDS. The remaining four were certified as SIDS by the medical examiner without autopsies. Overlying was believed to be the cause of death in one case, three were believed to have been caused, in most part, by hyperthermia with another three combining hyperthermia and accidental asphyxiation. In eleven cases, the infant's bed was defective or hazardous. "Poor judgment by the caretaker of the infant was considered an important contributing

factor in almost all the deaths." (p. 102) The findings of the medical examiner and the researchers are summarized in Table No. 1, Comparison of Medical Examiner's and Researchers' Diagnoses of Sudden, Unexpected Infant Deaths.

Table 1
Comparison of Medical Examiner's and Researchers" Diagnoses of Sudden, Unexpected Infant Deaths

No. of Deaths	Medical Examiner's Diagnosis	Researcher's Death Scene Diagnosis
6	SIDS	Overlying by adult sleeping with child
3	SIDS	Hyperthermia and asphyxia
8	SIDS	Asphyxia or suspected asphyxia
1	Sepsis	Asphyxia
3	SIDS	Hyperthermia
1	Pneumonia	Hyperthermia
2	SIDS	Shaken Baby Syndrome (or suspected SBS)
1	SIDS	Undetermined; infant found dead on adult bed in a room next to a violent, mentally retarded adult
1	SIDS	Undetermined; mother had visual hallucinations for 1 week previous and attributed death to voodoo

The researchers concluded that, in some instances, careful death scene investigation could provide an alternative to a SIDS diagnosis. (p. 103)

Perrot and Nawojczyk (1988) emphasize that SIDS deaths and deaths due to accidental or deliberate suffocation are difficult to classify correctly without additional information other than what is obtained at autopsy. If the pathologist has death scene information prior to the post mortem, more detailed or specific tests and examinations can be performed to prove or disprove hypotheses about the cause of death. (p. 109) As early as 1979, Berger raised concerns about cases of "near-miss" SIDS in which mothers were discovered in the process of suffocating their children. In one case, the mother had two earlier children who had died of what was called SIDS at six weeks and 4 and a half months of age. (1979, p. 554)

The other side of the issue of SIDS investigation involves suspicions and even accusations of child abuse against innocent parents whose infants have died of SIDS. Not

surprisingly, there is a movement by parents who have undergone such experiences to make autopsies mandatory for children who die suddenly and unexpectedly. State legislators in several U. S. states are being urged by the SIDS Foundation to pass such legislation. A mother who underwent two burials of her son after allegations of abuse were made despite a diagnosis of SIDS has become a crusader for mandatory autopsies of all suspected SIDS deaths. (Lundstrom and Sharpe, 1991, p. 27)

Munchausen Syndrome By Proxy

A rare form of sometimes fatal child abuse called Munchausen Syndrome By Proxy has been documented since the late 1970's. The disorder involves the presentation by an apparently concerned parent, almost always a mother, of a child with a medical history of chronic illness or difficult-to-diagnose symptoms. The parent fabricates the child's illness and perpetuates the symptoms while demanding increasingly intrusive levels of medical intervention for the child. (Boros and Brubaker, 1992) Deaths due to Munchausen Syndrome By Proxy are difficulty to diagnose and more difficult still to prosecute unless the perpetrator is caught (or videotaped) in the act. (Lundstrom and Sharpe, 1991, p. 22) It is still not widely accepted as a diagnosis in the medical community due to staff perceptions of attentive mothers as ideal parents, the perpetrators' denial of allegations, skepticism in the legal and psychiatric community about the etiology of the disorder and the perpetrators' ability to change physicians with ease. (Kaufman, Coury et al., 1989, p. 141) In cases of induced apnea, children have died when the parent has persisted with attempts to partially suffocate the child to induce the symptoms. (Mercer and Perdue, 1993, p. 77) These incidents are sometimes diagnosed as Acute Life Threatening Episodes (ALTE) yet occur only in the presence of the perpetrator. (Emery, 1993, p. 1098) Other cases have included induced episodes of seizures, bleeding, fever, diarrhea, vomiting, hypertension, rashes, renal stones and failure to thrive. (p. 76)

Mortality rates for Munchausen Syndrome By Proxy (MSBP) are estimated at 10 percent (Boros and Brubaker, 1992, p. 20) with the deaths occurring as a result of the perpetrators' efforts to keep the children symptomatic. In a review of Munchausen's patients, 8.5% (10 of 117) had siblings who had died in unusual circumstances. (Welliver, 1992, p. 217) A case in the province of Manitoba resulted in the investigation of the suspicious deaths of several siblings of a child with severe handicaps believed to be caused by Munchausen Syndrome By Proxy. The greatest difficulty for child abuse specialists lies in garnering support for the diagnosis from hospital personnel who view the parent as selfless and dedicated to the child's welfare. (Dr. C. Ferguson, Child Protection Centre, Children's Hospital, personal communication, June 10, 1995)

Neglect Deaths Misclassified as Accidental Deaths

Research into the identification of child maltreatment deaths has revealed that many deaths are misclassified as accidents. This occurs, in part, when emergency room personnel or coroners miss indicators of maltreatment or fail to investigate thoroughly. In the case of an eight month old Missouri child who drowned in the family bath tub, the cause of death could have been due to a serious lack of supervision, an intentional drowning by holding the child's head under water, a moment's lapse in otherwise good supervision while the parent left to get a towel or the child falling in the tub and striking her head. The actual cause of death was 20 minutes of unsupervised time while the caregiver chatted with a friend outside the home. Given the age of the child and the level of supervision appropriate for an infant, this death was not an accident; it was due to supervision neglect. (Stangler et al. 1991, p. 6) The child's presentation at hospital may not reveal these facts and the attending medical personnel, quite appropriately, may see the investigation of the death as not their task. If there is no reason for police or hospital staff to suspect negligence, the proper inquiries may never be made.

In Manitoba, the rate of accidental drownings for children under 18 years of age from 1990 to 1992 was 3.6 per 100,000 population per year; twice the national average of 1.8 and higher than the drowning death rate of 2.9 for adults. (Royal Life Saving Society Canada, 1993, p. 5) This doubled rate is even across age groups. Children under five years usually drown while playing unattended near the edge of pools, lakes and rivers. The Royal Life Saving Society Canada (RLSSC) report states that "these youngsters are not yet old enough to protect themselves, and need closer supervision from adults around the water." (p. 5) The province's Chief Medical Examiner, Dr. Peter Markesteyn, is quoted as saying, "But what can a judge [at an inquest] recommend other than the obvious? Children require adult supervision." (Winnipeg Free Press, July 7, 1995) The drownings of six toddlers in Manitoba during 1995 revealed that all six children, five of whom were four years of age or under, had been playing by water without adult supervision. The sixth child, a six year old boy is believed to have drowned in an attempt to rescue his four year old sister who also drowned. (Winnipeg Free Press, July 4 and 7, 1995) All of these children were residents of aboriginal communities. Chief Geordie Little of Garden Hill First Nation was quoted as agreeing that lack of supervision is a major factor in such drownings and that part of the solution is to inform parents about the risks to young children who are unsupervised near water. (Winnipeg Free Press, July 7, 1995) Ultimately, it is the responsibility of parents to ensure that children are adequately supervised.

> "Simply because the caretaker did not mean to seriously harm or kill the child does not indicate that the injury was an accident. Fires, drownings, and falls are frequently described as major causes of accidental death in young children; yet further investigation reveals many preventable actions, especially by parents, associated with these fatalities."
>
> Stangler et al, 1991, p. 6

A study of fatal child neglect by Margolin in one U.S. state attempted to differentiate fatal child neglect from fatal physical abuse and from non-fatal neglect. The "typical" neglect victim was male, younger than 3 years of age, living in a single female parent family and had two or three siblings. In the majority of fatal neglect cases, the

caretaker was not present at a critical moment. (Margolin, 1990, p. 309) In Margolin's sample, fatal neglect appeared to occur at approximately the same frequency as fatal neglect. (p. 309) She did not find any factors with respect to parenting that differentiated fatal neglect from non-fatal neglect. One of the major issues was the lack of uniformity in neglect definitions used by child welfare agencies. This contributed to unreliability in tracking the incidence of fatal neglect. Margolin's working definition for neglect was "...if the child is harmed inadvertently although in a manner that could have been avoided if the child were receiving appropriate care, the injury was labelled neglect". (p. 311)

Margolin focused on differentiating "reckless" behaviour from "uninformed" behaviour on the part of the caregiver. The example used was the fatal scalding of a child in a tub of bath water. The father was bathing the child and the father's successful defense to a charge of manslaughter was that he did not know how hot the water was. When the circumstances of such a burn are considered, it becomes obvious that the water must have been extremely hot for the child to die of the scald as a minimally observant parent would have seen that the child was experiencing pain when it first came into contact with the water. That would have been the time to pull the child back as opposed to submerging the child to such a depth and such a degree that it later died of the effects of the immersion. Is it "reckless" or "uninformed" to put a child into bath water without checking the temperature of the water? In Margolin's study, of 32 victims of fatal neglect, 8 or 25% drowned; 6 of these were bathroom drownings. (p. 314)

Margolin's interpretation of the results were that fatal neglect is more often associated with a single, life threatening incident rather than chronic deprivation neglect. (p. 317) Based on this, her conclusion is that prediction of such deaths may be impossible as children at risk for dying in fire, drowning or by scalding may not be significantly different from other neglected children. (p. 318) This is probably true if there are no other incidents of inadequate care by the parents of children who die of fatal

neglect. Was the death an incident of a lapse in otherwise adequate care, of was the incident one of a series of incidents of inadequate care and supervision? If the precipitator of a neglect fatality is the absence of a parent at a time when the child is in danger, a closer examination of the parents involved is warranted. The issue would more logically seem to be the qualities of the parent rather than the characteristics of the child. Are there factors that differentiate the parents of child who died of fatal neglect and those who do not neglect or those whose neglect is not fatal? And, what are the characteristics of fatal and non-fatal incidents? In the case example cited, was this the first time that the father had bathed the child? Had the father no previous experience in checking the temperature of the water before bathing or showering himself? What is reasonable to expect of an adult providing care for a young child?

Margolin's report of scores on the Childhood Level of Living Scale that correlated with fatal neglect in 61% of cases provide an indication of the direction for further research. These were "Mother uses good judgment about leaving child alone in the house"; "Mother sometimes leaves child to insufficiently older sibling"; and "Mother will never leave child alone in the house." (p. 318) These could measure the mother's parenting knowledge and skills or her access to alternative caregivers and possibly her ability to pay for such care. Two others with less strong associations related to the care with which medicine is stored and the conditions of mattresses used by the family. (p. 318) Without more analysis, it is difficult to know if these items represent parenting knowledge and skills, the physical conditions of the home or disposable income of the family. Margolin's conclusion was that

> "a measure that was designed to identify those neglectful families at greatest risk of allowing a child to die would have doubtful utility, because it would depend on the premise that most neglect fatalities occur in families already known to a child protection agency. This premise was not supported by the Iowa data. Only 39% of the neglect fatalities from Iowa had any previous involvement with child protection services." (p. 319)

Margolin is completely correct in her observation that the majority of children who die of fatal maltreatment are not known to CPS. She is incorrect in her assumption that only CPS agencies can protect children from fatal neglect. What she has missed in her analysis is that these children or their families are known to many other agencies because of substance abuse, domestic violence, unemployment and homelessness. (USABCAN, 1995, p. 44) A study by Martinez and Sommer (1988) concluded that there is a gross under-reporting of the fatal abuse and neglect of very young children. (cited in USABCAN, 1995, p. 41) A survey of those mandated reporters required to report child abuse under U.S. laws determined that 22% do not report suspected cases of child abuse. The most frequent reasons given for not reporting included a lack of hard evidence (which is not required to make a report) and a belief that they could protect the child better than the CPS system. (Zellman and Anther, (1990), also cited in USABCAN, 1995, p. 40) Non-reporting by professionals in medicine, law enforcement and other fields of suspected abuse or neglect is as high as 69% according to recent research by Reiniger, Robinson and McHugh (1995, cited in USABCAN, 1995, p. 40) In those states and provinces which require professionals to report such suspicions, the failure to report is illegal.

A study of reporting behaviours of hospital personnel in cases of drowning and near-drowning was designed to investigate the hypothesis that parents of ethnic minority and/or lower socioeconomic status would be disproportionately judged more neglectful than other parents. These groups were referred more frequently, but not excessively given the documented reasons for the safety of the patients and their siblings. Chart reviews by the researchers identified other cases where "significant neglect issues" were noted but were not evaluated or referred. (Feldman, Monastersky and Feldman, 1993, p. 333) The researchers concluded that the frequently expressed distress of clinicians with respect to reporting to CPS and "a lack of routinely questioning of the social role in injury causation" could lead to avoidance. Their recommendation was that

both the circumstances of the injury (the "what") and the events around the injury (the "how") should be determined by the clinicians. (p. 333) An unexpected finding was the small percentage of cases with documented social service evaluation. The researchers found that it was "surprising" that the hospital social workers were not used more often to deal with both the evaluation of the possibility of CAN in addition to providing support for families in crisis. (p. 333) Reece and Grodin (1985, also cited in Feldman et al, 1993, p. 334) equate lack of supervision around drownings to "passive abuse" and call for all drownings of children under one year of age to be dealt with as "non-accidental" trauma.

Feldman et al. found that both low socioeconomic status and "non white race" were associated with reports by hospital personnel to CPS. (p. 334) They could not determine if this was a "real" risk factor or an issue of reporting bias. However, they report that children who live in more affluent neighbourhoods with backyard swimming pools are at higher risk of drowning than similar children in neighbourhoods without such "environmental hazards". Similarly, children of migrant farm workers are at risk for drowning in irrigation ditches. There is then, an association between the exposure to environmental hazards and the increased incidence of child drownings. (p. 334) The association between poverty and neglect is strong but the etiology is much less clear. In an attempt to protect children in families experiencing both fatal and near-fatal drownings, Feldman et al. recommend that assessment should focus on whether the incident was a unique event or part of a pattern of neglect for the child's safety. They recommend that hospital staff enlist the aid of CPS and public health nursing to aid in risk evaluation as the use of hospital histories to evaluate risk is limited. (p. 335)

To return to Margolin's conclusions quoted earlier, the utility of a measure to predict fatal child neglect is not really the primary concern she has raised with respect to preventing neglect related drownings. The issue raised is the under-reporting of child neglect. This is related to the education of mandated reporters and the enforcement of

mandated reporting laws. The existence of a measure will make little difference in the majority of child neglect deaths unless the professionals involved with the remaining 61% of families unknown to child welfare authorities and whose children have died of fatal neglect are held accountable for their legal and professional responsibilities and undertake to fulfill them. The ability of CPS workers to prevent fatal neglect once potentially lethal conditions are reported to them becomes the next concern.

Physical and Proximate Causes of Death

In considering the physical and proximate causes of death due to acts of commission, patterns emerge with respect to incidence. Head injuries comprised the major cause of death (31%) in Robertshaw's review of Canadian child maltreatment deaths in 1977 with abdominal injuries second (19%). The remaining causes of death included malnutrition, starvation or dehydration, 11%; gun shot wounds and stabbing, 7%, poisoning, 6%; burns, 6%; strangulation, 4%; drowning, 4%; asphyxia by gagging, 2%; no medical assistance at child birth, 4%; "crib death", 4%; viral infection, 2% and no information, 2%. (1981, p. 97)

The most frequent cause of death for the children included in *Family Violence in Canada* (1994), is injury inflicted at and by the hands of the parents; beating, suffocation and strangulation. When combined with deaths from gunshot wounds, these deaths comprise the manner of death for over three-quarters of the children included in this report. Beatings comprised 27% of the total of 531 family-related child homicides in Canada during the period 1981-1992, shootings were 24%, strangulation 23%, stabbings were 9%, other (including drowning, poisoning and other methods) 16% and the method of death was unknown for 1% of these child homicides. (p. 67) In the CHIRPP results reported in *Family Violence in Canada.*, injuries to the head and brain were most common in the study group overall (37%) and in cases of physical abuse and neglect (40% and 53% respectively). Injuries to the sexual organs were most common

in sexual abuse cases (86%). In the study group overall and in cases of physical abuse, injuries to the upper and lower extremities and to the trunk and abdomen occurred in from 15% to 19% of cases. (p. 76) Head injuries were the most common injury across age groups except for the three to five year old group where injuries to the sexual organs were found in 33% of cases for this cohort as compared to 22% for head injuries. (p. 77)

When the cause of death is considered, the U.S. Advisory Board on Child Abuse and Neglect reports that head trauma is the primary cause in 29% of deaths with shaken baby syndrome accounting for a further 10 to 12% of deaths of young children. Abdominal injuries occur less frequently but are fatal in 50% of assaults on children. (p. 15) Other causes of death include "intentional or preventable scalding, suffocation, drowning and poisoning. These deaths may be related either to abuse or neglect." (p. 15)

RESEARCH ON COMMON FACTORS IN MALTREATMENT DEATHS

Over the years, researchers have taken a variety of approaches in attempting to discover which risk factors are predictors of child maltreatment. One of the earlier, best known attempts was the work of Kempe and his colleagues in 1962 as they described the symptoms and characteristics of maltreated children. They focused on physically abused children and adopted a medical perspective in which perpetrators were seen as "sick" people or as grossly abnormal personalities. (Ammerman and Herson, 1990, p. 4) Subsequent approaches have included the ecological perspective developed by Jay Belsky which emphasized the interaction between various factors including the characteristics of the perpetrator, the victim, family dynamics and societal influences. In 1973, Richard Gelles wrote that the prevalence and acceptance of violence in society and within families was the primary causal factor in child maltreatment and the intergenerational transmission of child abuse and neglect. (p. 4) Parke and Collmer, in research published in 1975, advanced the social-situational theory of child abuse; that the interaction of the parent's personality, the child's actions or personality and the situation combine to create abuse. (p. 4)

Ammerman and Hersen explain that the recent history of the search for risk factors involves recognizing and screening maltreated children to determine what in the incidents was common to these experiences and different from non-abusing parents. (1990, p. 10) The progress of such research has included shifting the foci of research interest. Some of the major phases included:

1. Parental psychopathology viewed as a causal factor. This evolved into a more generalized approach of examining the personal characteristics of parents such as their ability to manage anger and stress, their parenting skills, past histories, substance abuse and other characteristics. The rationale for this approach remains valid today as Ammerman and Hersen emphasize "because maltreatment typically comprises the commission and/or omission of specific

acts on the part of the parent or other adults, it is evident that parents should be the primary focus of attention in risk research." The weakness of this approach is that research to date has focused almost exclusively on mothers, especially poor mothers. (p. 11) It is obvious that the focus on mothers has created a bias in the literature and does not deal with the reality that men are more likely to inflict serious or fatal injury.

2. Situational characteristics. This approach has resulted in efforts to determine why a disproportionate percentage of maltreated children come from low socioeconomic backgrounds and from families where the parents generally have a low level of academic achievement.

3. Characteristics of the child. The "difficult to raise" child is the focus of this approach to identifying risk factors. Disproportionate numbers of children with prematurity, low birth weight, mental retardation, physical and sensory handicaps as well as behaviour problems are found in samples of abused and neglected children. (Ammerman and Hersen, 1990, p. 12) The problem with this research is that is it retrospective rather than prospective in addition to exemplifying the "chicken and egg" problem. Is the child "difficult" because he has already been neglected and abused? Is the child somehow qualitatively different because of premature birth or low birth weight and are either of these characteristics attributable to prenatal parental behaviours rather something inherent in the child? Do most parents of handicapped children neglect or abuse their children or it is only handicapped children born to parents with particular personal characteristics living in particular circumstances that suffer maltreatment?

4. Multi-component models. These models acknowledge varied causative paths without describing how contributing factors combine to produce higher levels of

risk. (p. 13) Are the risk factors additive with respect to increasing severity or are there certain factor combinations that cause risk to increase geometrically?

5. Process issues; interactional elements in family violence. This systems approach considers the maltreatment to be part of a cycle of reduced tolerance to stress, arousal by provocation or poor management of crises and habitual patterns of aggression with family members. (p. 13) A difficulty with this approach is that it has a "blaming the victim" flavour as responsibility for the maltreatment is shared with the victim and non-offending family members rather than being assigned to the perpetrator.

Although the literature on child abuse fatalities is not as extensive as other areas of child welfare work such as sexual abuse, there have been a number of studies which have attempted to identify factors common to child maltreatment deaths. This work has been done in an effort to develop interventions, policies and programs designed to reduce the number of children killed by the adults who should have protected them. In considering the literature to be reviewed, it became obvious that there may be a fine line dividing the child victims of fatal assaults from those who survive and are damaged or disabled as a result. These seriously injured children are believed to be the survivors of "near-misses" with death. (USABCAN, 1995, p. 17) There would appear to be a degree of overlap between these cases and a convergence in the characteristics of parents of both groups. This overlap should make it possible to identify and direct services to families at the extreme end of a continuum of risk for potentially fatal abuse and neglect. It is believed that in the U.S. 141,700 children per year are severely injured by such "near-miss" abuse and neglect with 18,000 of these suffering permanent damage such as retardation or cerebral palsy due to head injuries. When these children are added to the estimated 2,000 estimated child abuse and neglect deaths each year, this is no longer a rare phenomenon when compared with the 1.9 million reports of child abuse and neglect in the U.S. in a given year. (p. 121)

In the recent report of the U.S. Advisory Board on Child Abuse and Neglect, *A Nation's Shame; Fatal Child Abuse and Neglect in the United States*, some of the factors commonly associated with child maltreatment deaths are reviewed. These include the "triggers" or precipitating incidents of fatal assaults by caregivers of the children in their charge. These triggers include inconsolable crying, feeding difficulties, failed toilet training in toddlers and highly exaggerated parental perceptions of acts of "disobedience". Others appear to be related to external events such as the beating death of a 5 month old boy by his father who was enraged at the outcome of a televised baseball game. Domestic violence is becoming recognized as a factor in some child deaths where the battering of a spouse precedes the assault on the child. Rage based assaults are, at this time, poorly understood with little research on their cause and prevention. (p. 12)

Victims

Young children are particularly vulnerable to fatal child maltreatment. They are susceptible to injury because they are physically frail when compared to older children or adults. They are unable to ask for help and cannot leave an abusive parent. In Robertshaw's study of child abuse and neglect deaths in Canada, 39 of the 54 children (72%) included in the study as victims of child abuse or neglect were two years of age and under. Fifty-six percent were male; forty-four percent were female. There was a previous history of injury or neglect in 61% of cases with information missing on this variable in 17% of cases. Eighty-five percent of the 33 children with histories of previous abuse and neglect were two years of age or younger. The types of injuries suffered by these 33 children included fractures, 42%; burning, abrasions or bruising, 40%; malnutrition, 6% and neglect (unspecified), 12%. (p. 95)

Forty-six percent of the victims lived in a two parent family while 24% lived with a single female parent. Other living arrangements included: with mother and maternal relatives, 13%; with mother and non-biological father, 11% and 6% with

foster parents (1 case), with neighbour (1 case) and no information (1 case). Over half the children (56%) had no recorded health or developmental problems. Fifteen percent had a record of health or developmental concerns that included major problems such as fetal alcohol syndrome and mental or developmental retardation and less severe problems such as "sickly with several hospital admissions", frequent diarrhea, throat infections, respiratory infections as well as repeated pneumonia. In 30% of cases this information was missing. Only seven of the victims (13%) were listed as native Indian.

When considering the age of child victims of family-related homicides included in *Family Violence in Canada*, the youngest children are the most frequently killed. Forty-eight percent of these children were between newborn and two years of age. This age group is dramatically large when compared to the distribution for other age cohorts; 19% were three to five years old, 15% were aged six to ten years and 18% were between eleven and seventeen years. (p. 67) Female children were 46.5% of the total number of victims; males were 53.5%. Females were a minority in all but one age group; ages 0 to 2 years, 47%; age 3 to 5 years 56%; 6 to 10 years, 29% and 46% for ages 11 to 17 years. (p.67)

The Texas study of child maltreatment deaths from 1975 to 1977 reported similar findings about the profile of victims. The median age at death was 20 months in comparison to the median age of 10.1 years for children who were tracked through ongoing CPS cases. (Lauderdale and Anderson, 1981, p. 30) Boys were victims in 55.1% of abuse deaths while girls were 44.9% of abuse fatalities. Neglect deaths were comprised of 64.7% male victims and 35.2% female victims. Combined abuse and neglect deaths included 52.6% males and 47.3% females. (p. 30)

Nine U.S. studies reviewed by Alfaro (1988) confirmed the young age of victims of fatal child maltreatment. In general, children under five years of age made up a higher percentage of child maltreatment fatalities than they did of the general population. The one exception was Texas with a median age of 10 years for fatal and non-fatal cases. (p. 229)

The observation that young children are vulnerable to attacks by larger, stronger people is not surprising nor is the young age of most victims. Very young children are, in general, less able to disclose and can be concealed easier than children of school age. The ordinal position of victims was examined in several of the studies. In general, victims were either the youngest or the only child in the family. In some studies, this also distinguished fatal from non-fatal cases. (p. 229). The gender distribution was fairly even between males and females in most studies. In the three studies where there was a higher percentage of one gender (San Diego, 67%; New York City 1983, 64% and Illinois Three Year Study, 62%) the larger group was always male. In considering the ethnicity of the victims, blacks were disproportionately represented in the numbers of children who died from abuse or neglect. In the 1987 New York City study, black children and black fathers were two of eleven variables which distinguished fatal from non-fatal cases. There was no such disproportionate representation of Hispanic families. (p. 230)

A similar finding was reported in an earlier study of child maltreatment deaths in Texas conducted by Lauderdale and Anderson with one notable exception. Mexican Americans comprised 23.9% of children under 18 years of age in Texas and 28.% of children receiving child welfare services but constituted 46.5% of fatal medical neglect cases. In homicides, neglect and other maltreatment deaths there was no such over representation of Hispanic families. (1981, p. 32-33) In contrast, black children were regularly represented in child abuse reports, substantiated cases and fatalities at twice their representation in the Texas population. Black children were 15.2% of the population of children under the age of 18 in Texas during the study period of 1975-1977. They were 18.4% of children receiving ongoing CPS service and 29.5% of child maltreatment fatalities. (Lauderdale and Anderson, 1981, p. 33) The researchers were not able to determine if there was a systemic reporting bias or a genuine association that called for a change in programming to address the over representation of black families. (p. 63)

There was little uniformity of data between the studies described by Alfaro (1988) on the data collected to determine the health status of the victims. The New York City studies were the most rigorous in searching for health history data and found that there was a high rate of medical problems at birth in both fatal (67%) and non-fatal (72%) child maltreatment cases. Later illness or hospitalization was also similar for both groups; 22% and 26% respectively. (p. 231)

Christoffel, Anziger and Amari found in a U.S. study of 29 deaths seen by medical examiners of Cook Country over a short period of time that "the highest per-year-of-age rate of definite and possible inflicted injury was in the infant age group" with the next highest being in the 1 to 4 years age range. (1983, p. 130) She also found an age-related pattern of fatal injury with a mean age of less than a year for central nervous system injury, 1.5 years for arson, 5 years for blunt trauma, gunshot wounds 6.5 years and pedestrian victims 7 years. Abel also found that children in the age range of 1 to 4 years made up the largest group of homicide victims. (1986, p. 709)

Reder, Duncan and Gray, in an examination of 35 child maltreatment deaths in England, Scotland, Ireland and Wales, found that 91% of the victims were under six years of age and 18% were under one year of age. The mean age was 2 years 7 months when a 19 year old victim of prolonged maltreatment and a child of unidentified age were excluded. (1993, p. 37) Their study is a selective one and does not include examining the deaths of children from undetermined causes, accidents or SIDS. Most of deaths studied had been the subject of intense scrutiny in the form of inquests, inquiries or trials. Nineteen victims (54%) were male and sixteen (46%) were female. Reder et al. compare their results with those of Greenland, despite the differences in methodology and sampling procedures. Greenland found that, in his study Ontario CAN deaths from 1973-1982 that the youngest children, under 12 months of age, were the largest group of fatalities. Males were 54% of victims while females were 46%. (1987, p. 43) The very young age of most victims is another matter for concern. Further confirmation of

the vulnerability of young children is found in McClain et al. (1993) in a national U.S. study of the incidence of fatal child maltreatment which reported that only 10% of victims are older than four years of age; 72% were two years or younger and 41% of the total were under one year in age. (p. 341) The focus of research and prevention efforts should clearly be directed at the youngest and most vulnerable children.

Perpetrators

The profile of those who perpetrate fatal assaults on children has changed in recent years. In general, perpetrators are in their mid to late twenties, live near or below the poverty level and are usually poorly educated with less than a Grade 12 education. They are often depressed, are unable to cope with stress and have had first hand experience of violence themselves as children or in intimate relationships either as victims or perpetrators. (USABCAN, 1995, p. 12) The long held belief that these parents are teenage and/or single female parents has been challenged in a number of studies. While the perpetrators were in their mid twenties at the time of the fatal incidents (Johnson and Showers, 1985, p., 209), they often first became parents while in their teens. (USABCAN, 1995, p. 14) The Texas study (Lauderdale and Anderson, 1981) found that there was a median age of 22.4 years for mothers at the time of child's death and a median age of 20 years at the birth of the child victim. The median age of mothers involved in ongoing CPS cases was 28 years. The median age of fathers at the time of the child's death was 26.7 years as compared to 30 years for ongoing CPS cases. (p. 54) Belsky and Vondra observe that there is a body of research that shows that age co-varies positively with the quality and quantity of maternal attention including affection, stimulation and reciprocity. As well, child rearing attitudes of teenage mothers are less desirable than older mothers; their expectations of infant development are less realistic, they interact and teach less with their infants and display less positive interaction. (1989, p. 159) The report of the USABCAN cited above suggests

that age may *not* be the most reliable predictor for fatal child maltreatment, while Belsky and Vondra's comments about age may be more relevant to the overall quality of parenting provided on a daily basis.

In Robertshaw's study of 54 child maltreatment deaths in 1977, the 82 caregivers of these children comprised 50 families. The largest age cohort of caregivers was 20 - 29 years (48%) with 16% aged under 20 years, 16% aged 30 - 39 years, 1% aged 40 - 49 years and no age information on 17% of caregivers. Eighty-six percent of the mothers of the victims were at home with children either as single parents (30%), with an employed partner (22%) or an unemployed partner (26%). In a further 8% of these two parent homes there was no information about the employment status of the male partner. Over half the cases had no information as to the educational status of the parents but in 30% of all cases the parents had a Grade 9 or lower education, limited education or below normal intelligence. Only 16% had Grade 10 or better; of these 4% of the total had some university education. (p. 98)

Robertshaw's research uncovered a history of violence or previous criminal charges in 14 of 50 families (28%). These included eleven families with charges of violence between mother and partner, two with violence toward others, four with charges for violent crimes such as assault or manslaughter, one with failure to provide the necessities of life and five with charges for non-violent crimes. Some families fell in more than one category. Seventeen of the families (18 caretakers) had a history of substance abuse (31.5%) broken down into alcohol abuse eight caretakers, tranquilizers six caretakers and illegal drugs five caretakers. The circumstances of the children's deaths fell into six classifications. First, in 28% of all cases, the caregiver could not cope or did not respond to infant's demands. These children were all under two years of age with 13 of the 15 aged between one and nine months old. Second, in 15% of cases the caregiver fatally assaulted the child during attempts to use corporal punishment to control the child's behaviour; five of these children were two years or under while the

remaining three were aged between three and five years. Third, the caregiver was severely depressed in 20% of cases where four of the victims were between 20 months and two years of the time of death and seven were between four and twelve years. Fourth, the caregiver was estranged from and angry at the partner in 9% of cases . Two of these children were two years or under; three were between eight and thirteen years of age. Fifth, 4% were born without medical assistance resulting in the deaths of these two children. Last, there were 24% of deaths that were listed as unclassified comprised of five children under one year of age, six children between one and two years of age and two between four and nine years of age. (p. 99) Only 57% of the total of 54 deaths were listed as homicides. The remainder were undetermined, 19% of the total, accidental, 4% and unclassified, 21%. (p. 101)

In his study of 100 child deaths in Ontario from 1973-1982, Greenland (1987) found that the age differences between perpetrators in the seven groupings he used were not statistically significant. Fifty-five percent of all perpetrators were between 19 and 28 years old with teenage perpetrators comprising 17% of the total of 121 perpetrators. In Greenland's study, he states that there were 62 female and 55 male perpetrators including 19 couples (1 male, 1 female partner) in 98 of the 100 cases. (1987, p. 48) This is confusing when compared with the data on the following page in which females represent 54% (65) of a total of 121 perpetrators, while males are 46% (56) of perpetrators of abuse and neglect. (p. 49) Greenland does not specify the gender of baby-sitters in his analysis of death type and perpetrator relationship and gender. A total of 9 deaths by baby-sitters are not included in the distribution (p. 57) which will change the percentages as seven sitters were female and two were male. Overall, Greenland found that mothers were responsible for 47% of all deaths, fathers for 21%; other males in the household, 23%; male sitters, 2%; female sitters, 6%; and father's girlfriend, 1%.

Gender representation in other research shows a majority of males responsible for violent deaths while females are generally assigned responsibility for neglect deaths,

even in two parent or two adult households where it could reasonably be argued that responsibility is shared. (USABCAN, 1995, p. 13, 14; Swift, 1995, p. 99; Bergman et al., 1985, p. 113; Christoffel et al, 1989, p. 1406) In homes where an abusive male prevents a female caregiver from protecting the child or seeking treatment, greater responsibility should be assigned to the dominant partner.

Perpetrators described in the CHIRPP section of *Family Violence in Canada* (1994) were generally family members (67%) or someone known to the child in their daily life (22%). Fifty percent of all perpetrators were parents; of these, 62% were fathers. Male perpetrators committed 90% of sexual assaults and 54% of physical assaults while females were listed as perpetrators of nearly 60% of physical neglect cases. In this sample, 33% of victims lived in single parent families compared to the cited national average of 13% of children living in single parent families. Contrary to what the researchers expected to find, only 4% of abusive mothers were under 19 years of age; 45% were between 20 and 30 years while 40% were 30 to 40 years. (Statistics Canada, 1994, p. 82)

Verbal testimony to the U.S. Advisory Board on Child Abuse and Neglect by Barbara Bonner revealed her research results that 60% of the children who died at the hands of their caregivers were living with both their biological parents at the time of death. (p. 14). In the Texas child deaths study, 40% of families had no known male caregiver in the home at the time of the child's death. The remaining families had known male caregivers comprised of 84% biological fathers, 15% stepfathers and 1% adoptive fathers. Males were alleged perpetrators in 65% of all the child deaths. The case records indicated that 12.2% of male caregivers were not involved, the involvement of males in 20% of cases was uncertain while 3.7% of cases were unknown. Mothers were present in the home in 92.1% of cases and were listed as alleged perpetrators in 63% of cases. (p. 54) Other research reviewed by Alfaro (1988, p. 231-232) supports this finding of biological parents as the majority of perpetrators as does a review of child

fatalities in Missouri by Ewigman et al. (1993, cited in USABCAN, 1995, p. 14) which found that 50% of perpetrators of child maltreatment fatalities are married couples.

The proportion of known male perpetrators of fatal assaults has continued to increase in recent years. Bergman et al. offer explanations for this apparent change. In their examination of a study of child maltreatment deaths in the 1970's, the perpetrators of 50% of serious cases of child abuse could not be identified. Bergman et al. speculate that mothers may have been concealing the culpability of a paramour because of the moral climate toward such relationships. (1986, p. 115) They support this position with additional evidence from research results reported in 1976 by Kaplun and Reich. A study of traumatic infant deaths in Oregon between 1973 and 1982 (Emerick, Foster and Campbell, 1986) lists only risk factors associated with mothers. If the results are accurate, there were no risk factors associated with males in the families of 146 infants who died in Oregon during that period. (p. 521) This seems unlikely in the light of more recent research findings. Another study by Bourget and Bradford reviewed the deaths of 13 children and found that "a high proportion of homicidal parents are mothers." (1990, p. 233) Generalizing from a sample this small is problematic in itself. Similar results are reported by Abel (1986, p. 710) with an important qualification; that these are 35 *known* offenders from a total of 62; just 56% of all perpetrators. Reder et al (1993) list 28 (56%) of perpetrators as women and 46% as men. (p. 36) The sampling problems inherent in this study were discussed earlier. In order to correctly assess the validity of the results of Emerick et al. and Bourget et al. it would be necessary to know the numbers of "unknown" perpetrators (if any) as well as considering the suggestion by Bergman that some mothers may have concealed the culpability of male partners.

Mothers continue to be assigned responsibility most frequently for neglect deaths including supervision neglect and chronic neglect. (Margolin, 1990, p. 313) This assumption that mothers are responsible for neglect deaths is made even when the father

or male caregiver was the adult in charge of the child. Consideration of findings about the predominance of male perpetrators of fatal maltreatment leads inevitably to questions about why investigation, intervention and prevention efforts are largely directed at mothers rather than at all caregivers regardless of gender. The exclusion in most studies of males who act as caregivers for children is a major flaw in much of the research on parenting skills and knowledge and their relationship to child abuse and neglect fatalities. The role of fathers or male partners in the abuse of mothers and children is well documented as is their involvement as perpetrators of severe or fatal child abuse and neglect. (USABCAN, 1995, p. 124, McKay, 1994, p. 29) There is a long history in child welfare of holding mothers responsible for changing the violent behaviour of fathers. (Gordon, 1988, pp. 21-24; Swift, 1995, p. 121) A recent critical examination of Canadian child welfare policy with respect to mothers and neglect by Karen Swift (1995) provides a perspective on the role of society and the child welfare system in perpetuating this illusion that mothers are the major perpetrators of child neglect. The poverty and powerlessness of many mothers labeled 'neglecting' and the accompanying abrogation of the children's fathers with respect to the care and support of their offspring is not considered when culpability is being assessed. (Swift, 1995)

Honig and Pfannenstiel (1991) conducted a U.S. study designed to improve the skills of low income, first-time fathers in caring for their infants. They found that research on low-income fathers' parenting knowledge and skills was scarce. (p. 115) Fathers were given printed information about infant development and were shown, using a doll, a variety of consoling techniques for infants. While there were positive changes in the knowledge and abilities of most fathers, the beneficial effects were already beginning to diminish at one month after the birth of the child. (p. 118) Of more interest is the sample itself; these men required between 3 and 20 visits to recruit them into the program. (p. 119) A number of the fathers demonstrated little commitment to

mother or child as the pregnancy progressed. The researchers noted a strong bias in "some male sub-cultural groups against learning about or participating in programs involving babies". (p. 120) In addition, the families were very transient, even when the brief period of the intervention was considered. (p. 121) The most disturbing reports were of the men with drug and alcohol problems. One man reported spanking his infant daughter who was under one week old because her crying kept him awake at night. He refused to acknowledge that there was any valid reason for an infant to cry. The researchers described him as "removed from reality". (p. 121) He beat the mother during pregnancy and refused any attempts at psychiatric evaluation or intervention directed at him. The researchers' proposed solution for situations of this type was to "work with the mother in such a case, to strengthen her ability to parent and to deal with spousal abuse". (p. 122) What is disturbing about this case history is the apparent inability of the researchers to perceive the imminent risk of serious injury or death to this infant.

A report on the follow-up for another family reveals similar shortcomings. The case involved a young woman who "frequently expressed desperate longings for someone to love her and care for her." (p. 122) Her partner was absent for the prenatal visits, Caesarian delivery and discharge from hospital of mother and daughter. On the first post natal visit to the home, he and his friends were having a drug and alcohol party there. The father was described as interacting well and seeming to love the baby although he was "curt" with the mother. Further post natal visits were difficult to arrange as the family moved frequently. The couple married and had another infant. The father went to jail (a second incarceration) for stealing to support his drug habit. "The daughter that participated in this project is now two years old and the mother reports that the toddler is "totally unmanageable" and needs psychiatric help." (p. 122). There was little understanding shown by the researchers of the damage to the children from living with such parents or of the potential for abuse in a mother whose solution to the problem is

psychiatric intervention for a toddler. The researchers' final conclusions included a suggestion that a full range of clinical services should be offered to families enrolled in subsequent programs to deal with domestic violence, alcohol and drug use and mental health issues. (p. 124) Interestingly, there was no mention made of child protection services for the children in these families.

An American longitudinal study of high risk families conducted by Egeland and others began in 1975 as a prospective study of 267 high risk infants and their families to "determine the antecedents of good and poor parenting for individuals at risk for abusing their children." (Egeland, 1991, p. 33) The subjects were "multiproblem families" from lower socioeconomic backgrounds recruited from pregnant women at Minneapolis public health maternity clinics. Of the 267 families recruited, only 87 males enrolled with dramatic drop offs occurring at the first three month assessment. Any attempts to encourage continued involvement were met with threats that the men would withdraw their families from the program. (p. 40) Egeland states that 70% of women were living with male partners at the time of assessments and that male refusers were "significantly in the lower socioeconomic groups". (p. 41) When the American medical system is considered, along with the population of those who use "free" clinics in the U.S., the finding of low socioeconomic status is not remarkable. What *is* remarkable is that the results reported by Egeland attributed negative outcomes for the children due to their mothers' parenting. There was no consideration of what the effect of living with uncooperative or threatening males was doing to the women and their children. Only 13% of biological fathers were still living in the home when the children were 18 months old yet 70% of the families had male parent figures in them at any given time. (p. 40-41)

Another American study of the developmental consequences of child abuse is known as the Lehigh longitudinal study. This research project began in 1975 and was still ongoing at the time Herrenkohl, Herrenkohl, Egolf and Wu (1991) were writing in

1989. They followed families to track the frequency of reoccurrence of child abuse for families who had already had an incident. As the study progressed, control groups were added from differing socioeconomic groups to compare the developmental outcomes of abuse for children. Physical discipline of the children was rated according to severity and all the groups, including those chosen as non-abusing controls, were found to have a subgroup of mothers who used abusive forms of physical discipline. (p. 65) What is remarkable, once again, is the focus on only mothers as perpetrators of abuse and neglect. The research findings report on the relationship between poverty and abuse (p. 75) without considering the intimate relationships of the mothers as a contributing factor.

Even when there is consideration of the male partner, he is usually treated more as an adjunct of the mother rather than a participant in the life of the family and the maltreatment of the child. Vondra (1990) appears to place responsibility for the quality of the intimate relationship with the mothers. "Whatever strengths these adults [mothers] may possess as parents—likely to be meager from the outset—their inability to garner the support of a stable, intimate partner will undermine their functioning as caregivers." (p. 157) Once again, little consideration is given to the role of the male partner in poor parenting by mothers. The disruption in the family caused by transient, abusive males in families as well as the effect of violence by a father who stays in the home is ignored. Research on the involvement of males in abusive families is so scarce that their effect is almost unknown despite their preponderance as the perpetrators of fatal child maltreatment.

Despite this knowledge, prevention programs remain directed at single mothers who are not the predominant perpetrators of fatal assaults on children. (USABCAN, 1995, p. 124) A recent clinical trial in Missouri examined this phenomenon in a program to intervene with parents who use physical discipline on young children and are believed to be at high risk for abusive behaviour. The Missouri officials decided that "it

was hard enough to persuade mothers to attend training or to allow home visiting, and almost impossible to persuade men, so men were not included." (p. 125) This is akin to putting a cast on the arm of the person who accompanied the injured person to the hospital or looking for one's keys at night where there is a street light rather than in the darkness where they fell!

Two recent Canadian court decisions on cases of child neglect illustrate that, in the end, it is parents who are ultimately held responsible for the well-being of their children. Despite Wolock and Horowitz' (1984) assertion that child neglect is first a social problem, the remedies applied by society focus primarily on the caregivers. The first case is not a fatality, but did result in severe harm to the child concerned. (Winnipeg Free Press, July 21, 1995) In July of 1994, a woman in Edmonton left her four children alone at midnight to visit the home of a friend. She fell asleep there and did not return until 9 a.m. Six weeks earlier she had left her children unattended and had been warned by child welfare authorities that this could not happen again. Arrangements had been made for reciprocal baby-sitting in the community but the mother did not use this arrangement. During her absence, a man broke into the family home and raped the eldest child, a nine year old girl. The children were apprehended and the mother did not regain custody for a year. She was sentenced to three years probation and ordered to continue counseling to improve her parenting skills. Her lawyer argued that "many" parents have left a nine year old home alone and that the woman's guilt and loss of her children for a year was sufficient punishment. The fact that the judge did impose a sentence can be taken as an indication that there is a recognition in law that children require the protection and supervision of a competent parent. The presence of the mother might or might not have prevented the rape but that was not the issue. By leaving the children alone, the mother exposed them to a degree of risk that society has deemed unacceptable and for which penalties are prescribed.

The second case which received national prominence concerns the 1994 death of John Ryan Turner on a Canadian Forces Base in New Brunswick. (Maclean's, June 19, 1995, p. 21) The child was nearly four years when he died and weighed only 21 pounds. Expert testimony revealed that the child had not eaten in weeks, was covered with self-inflicted bruises and bite marks and that he had "spent his last days bound to his bed in a darkened room and gagged with a man's tube sock." Autopsy results revealed that both his arms had been broken several months before his death, probably from being violently shaken. The child's mother was described as rejecting and severely depressed and the father as a "once affectionate" father who had ignored the child to "force" the boy to bond with his mother. The parents were convicted of manslaughter and sentenced to 16 years in prison for making, according to the judge's statement, "a conscious decision to omit what they should have done." (Winnipeg Free Press, July 25, 1995a) The judge described the child's death as "a crime committed on a vulnerable, innocent, totally defenseless, helpless child." Expert testimony revealed that it was the emotional neglect, not the physical abuse, that eventually killed the child as he had stopped eating. (Winnipeg Free Press, July 25, 1995b) His mother's treatment of him was observed by friends and neighbours who admitted in testimony that they suspected something was wrong but failed to notify authorities on the base or at the local child welfare agency. His father's rage toward the child had also been witnessed by those same friends and neighbours and also was not reported. The victim's younger sister had no visible signs of abuse according to the report. The journalist observed "Each one of us has a collective responsibility to those around us. We are bound by the laws of a moral society to care for those who cannot care for themselves. When we reject that charge, the unthinkable occurs." The role of the community in allowing John Ryan Turner to starve to death in his parent's home cannot be ignored.

No consistent cluster of personality traits has been identified to date with respect to the perpetrators. High levels of substance abuse, spousal and other violence and a

previous history of other incidents of child abuse or neglect are frequently reported by professionals dealing with the perpetrators. "But little reliable data exist in this area and the scientific literature is lacking, possibly indicating how little attempt is made by authorities to record evidence of substance abuse or other problems during child abuse and neglect investigations." (USABCAN, p. 14) Diagnosed mental illness is listed as a factor only in a small percentage of cases. (p. 14) With respect to the incidents themselves, the Board cites written testimony at its hearings by G.K. Kantor and L. M. Williams in 1993 which reveals that many fatal injuries result from extremely violent attacks which suggest that parents or caregivers are conscious of the damage they are inflicting. Other written testimony by Dr. Randell Alexander, also in hearings held in 1993, argues "that while death caused by child abuse is often a matter of chance, the extreme force needed to inflict such damage on a child should have deterred any reasonable parent from such behaviour." (p. 15)

History of Violence

While the belief that a number of child abuse fatalities were the result of the "one and only" incident when the caregiver lost control was long held to be true (Abel, 1986, p. 709), recent research is showing that such incidents are seldom isolated and that neighbours, family members or various officials had seen at least one prior incident that should have led to intervention to protect the child. (USABCAN, 1995, p. 16) This past history of previous assaults is currently believed to be the best predictor of future abuse. (p. xxxv) This position is supported even by such conservative critics of child welfare as lawyer Douglas Besharov who continues to argue that the grounds for state intervention should be narrowed (1988, p. 80; 1990, p. 37-38). In citing a decision of the California courts, Besharov justified this position with the following quotation from a 1976 written decision on Landeros v. Flood (17 Cal. 3d 399, 412 n. 9, 551 P.2dd 389, 395), "Experiences with the repetitive nature of injuries indicate that an

adult who has once injured a child is likely to repeat...[T]he child must be considered to be in grave danger unless his environment can be proved to be safe". (1988, p. 85) Past history is seen here as a reliable predictor of future behaviour. An adult with a history of violence toward children had already demonstrated that force will be used as a means of expressing rage or frustration. The results of a study of child maltreatment deaths in Canada and the United Kingdom indicate that a previous history of abuse or neglect by the perpetrator is the best predictor of risk for fatal child maltreatment. (Greenland, 1987, p. 179) This same conclusion is included in the 1995 report of the U.S. Advisory Board on Child Abuse and Neglect. (p. xxxv)

Corporal Punishment as Violence Toward Children

Gelles et al. state that "children are injured and abused because we as a society are committed to norms which approve of and legitimize using violence as a frequent form of training and punishing children." (1980, p. 72) Strauss, Gelles and Steinmetz state that adults will hit children hard enough to hurt the child in an effort to stop or change behaviours that the adult finds offensive or perceives to be dangerous. "...[T]he fact remains that these actions are consistent with the phenomenon that we refer to as 'violence'." (1980, p. 54) They also point out the seeming contradiction of the youngest, most vulnerable children being assaulted the most severely and most frequently. (p. 70) In describing the results of their research to survey the use of violence in the American family, the authors state:

> "...we have demonstrated for the first time, with reliable scientific data on a nationally representative sample, that violence toward children goes well beyond ordinary physical punishment. Millions of children each year face parents who are using forms of violence that could grievously injury, maim or kill them."..."They [violent acts] are regular patterned ways which parents use to deal with conflict with their offspring." (p. 73)

The problem of violence toward children is further complicated by legal sanctions which permit parents to use "reasonable force" in disciplining children. In

Canada, the use of force to discipline a child is enshrined in Section 43 of the Criminal Code of Canada.

> "Correction of child by force:
> **43.** Every schoolteacher, parent or person standing in the place of a parent is justified in using force by way of correction toward a pupil or child, as the case may be, who is under his care, if the force does not exceed what is reasonable under the circumstances." (Cited in Robertshaw, 1994, p. 1)

Robertshaw writes that the Quebec Court of Appeal's interpretation of Section 43 in 1951 still stands as one of the leading decisions used to interpret the section. This statement acknowledges that such discipline will "naturally" cause pain and that contusions and bruises are not in themselves proof that the force used was excessive. (1994, p. 1) The punishments that have been upheld to date by Canadian courts include strapping on hands, shoulder, buttocks and legs; hitting with straps, belts, sticks, extension cords and rulers; causing bruises, welts, abrasions, swelling, nose bleeds, chipped teeth; and slapping on face, pushing, pulling, grabbing, shaking, and kicking with stocking feet. (p. 2) This list makes it clear that shaking an infant is not, in itself, illegal but killing the infant would be. This becomes an important part of the 'discipline gone a bit too far' defense against a charge of killing a child.

Robertshaw supports the repeal of Section 43 of the Criminal Code as it has led to both injury and death for Canadian children. Corporal punishment maintains and teaches the use of force to change the behaviour of others. Until the latter half of the 20th century it was legal to physically discipline apprentices as well as inmates in correctional facilities. Although it is no longer legal for a husband to physically "discipline" a recalcitrant wife or an employer an employee, these were codified in common law. (p. 2) Robertshaw points out that children are the only group in society who still can be legally assaulted. She states that this is in violation of both the Canadian Charter of Rights and Freedoms as well as the UN. Convention on the Rights of the Child to which Canada is a signatory. (p. 3)

In response to religious groups that argue that corporal punishment is part of their religious beliefs as expressed in the Old Testament of the Bible, Robertshaw's response is that stoning is set down in the Old Testament as a penalty for adultery and homosexuality yet these punishments are not practiced nor are arguments advanced by these groups to permit such acts. The following example given by Robertshaw demonstrates how proponents of the religious basis of corporal punishment have little understanding of normal child development. In opposing the abolition of corporal punishment of children, a man who is a member of a Christian sect advocated using a switch on the upper legs of a 15 month old child guilty of "willful defiance" as a means of correcting the child and changing her behaviour. (p. 3) This view of normal child development is not uniquely Christian. In a class in social work taught to aboriginal students, this writer was advised by a member of the class that it was "traditional" to use a switch on a two year old and to have the child cut the switch that would be used on her. This statement was immediately refuted by other class members who described the practice as "child abuse" and not traditionally aboriginal, pointing out that it was not appropriate to strike a two year old for 'disobedience'. If discipline is intended to protect children from harm, hitting (harming) them to teach them seems counter productive. Yet, in the literature reviewed for this thesis, the recommendations for preventing child fatalities rarely included a recommendation that corporal punishment be abolished.

Domestic Violence and Child Abuse

Domestic violence (wife battering) has a documented association with child abuse. (Vondra, 1990, p. 156; Factor and Wolfe, 1990, p. 175; USABCAN, 1995, p. 14) The logic behind this association is obvious; a man who uses force to 'control' his wife faces few sanctions against using force to 'control' his children. Having a degree of societal sanction for the use of force can reinforce in some individuals the use of fear and

dominance to control others. It is not rational to suppose that such men would refrain from hitting their children if they are already battering the children's mothers. The men have already crossed a threshold with respect to the use of force by deciding to commit an illegal act (wife battering). In verbal testimony at a public hearing on child maltreatment fatalities sponsored by the U.S. Advisory Board on Child Abuse and Neglect and held June 16, 1994 in New York City, E. Stark stated, "The role of domestic violence in fatal child abuse is rarely discussed in studies. Nevertheless, some experts argue that domestic violence is the *single major precursor* to child abuse and neglect fatalities in the United States." Stark believes that 50% of the mothers of abused children are battered wives and that they do not report the battering for fear of losing their children due to violence in the home. (USABCAN, 1995, p. 124) This view is supported by Elbow who describes violent marriages as follows:

> "...the violent marriage is characterized by rigid sex role expectations, the use of violence to control, poor communication patterns, isolation, and an inability to accept responsibility for one's own thoughts, feelings and actions. The family is further burdened by distorted and conflicting notions about family life. Love means possession or ego fusion; disagreement is equated with hostility, disrespect, or rejection of what is right. Authority and discipline are interpreted to mean the right to control, by force, if necessary. The idea of negotiation is rejected as loss of authority or giving in. Needs and wants are viewed as unwarranted demands; and expression of feelings signifies weakness, loss of control and ultimately violence." (cited in Reid and Sigurdson, 1989, p. 81)

High rates of violence are found in those individuals where alcoholism is combined with antisocial behaviour and/or recurrent depression. (Reid and Sigurdson, 1989, p. 83)

Violence by men against women affects the quality of care provided by mothers yet it is mothers who are held responsible for ensuring the safety of children and are culpable if they do not remove the family to safety. (USABCAN, 1995,p. 121) Nonetheless, the importance of the role of the spouse of the violent partner for the purpose of this research is whether or not the spouse is able or inclined to protect the children. Statistics Canada reports that estimates from the Violence Against Women Survey indicate that in 39% of marriages with violence, children have witnessed

assaults on their mothers by their fathers. "This amounts to over one million children in Canada, over half of whom have witnessed acts of violence serious enough to cause their mothers to fear for their lives." (Statistics Canada, 1994, p. 82) No estimates of the number of murdered children whose mothers were also victims of domestic violence were provided in the Statistics Canada report. While practice knowledge supports a linkage between domestic violence and child abuse and neglect and also fatal child maltreatment, more research is needed to determine the incidence and prevalence of this association. Prevention efforts should include educating those on the front lines of dealing with domestic violence; hospitals, physicians and law enforcement officials. Police investigating domestic violence can be trained to look for physical signs of possible child maltreatment such as low weight, dehydration, lack of medical care, bruises and other injuries. (USABCAN, 1995, p. 53) Doctors in emergency rooms can be made aware of the link between domestic violence and child abuse to encourage a higher reporting rate of multiproblem families. There are few repercussions against agencies or individuals when maltreatment deaths of children not known to child welfare agencies authorities, unlike the investigations of the actions of child welfare agencies when children known to such agencies die of abuse or neglect. (p. 44)

The risk of serious harm to children increases when "force, assault, and violence are evident in the history of [a] perpetrator and are accepted by the partner as part of the relationship...the parents tend to normalize or legitimize their use of [violence]." (Reid and Sigurdson, 1989, p. 86)

Psychopathology and Incapacity

> "Some of the most difficult decisions to be made by child protection workers involve the assessment of the capacity of a parent to care for a child when there is concern about the parent's mental health. This decision is difficult because there is limited information readily available on the linkage between the two phenomena." (Reid and Sigurdson, 1989, p. 58)

In the early days of research on child physical abuse after its rediscovery by Henry Kempe in 1962, the prevailing view of parents who killed their children was that they were mentally ill or deviant. (Factor and Wolfe, 1990, p. 191) Brandt Steele describes perpetrators of atypical (sadistic) abuse and infanticide as "sociopaths" who release aggression onto small children. (1987, p. 101). He describes them as a group with a history of domestic violence, alcohol or drug abuse and criminal behaviour and little empathy for the welfare of others. Given that diagnosed sociopaths are, according to Steele, only 5 to 10% of the abusive population, it would seem that other males (including many wife batterers) share these characteristics without being sociopaths. Studies cited elsewhere in this literature review report the dominance of males as perpetrators of fatal assaults against infants. Given that many of these males do have histories of domestic violence, alcohol or drug abuse and criminal behaviour in various combinations, Steele's attribution of these characteristics to sociopaths appears to have questionable validity. Does an adult have to be mentally ill to kill an infant? Steele later qualifies this assessment by stating that the child abuse syndrome is not a mental illness in the sense of an accepted psychiatric condition. (Steele (1987), cited in Reid and Sigurdson, 1989, p. 59)

In the U.S. Advisory Board on Child Abuse and Neglect report (1995) the authors state "diagnosed mental illness is a factor in only a small percentage of child maltreatment cases". (p. 14) However, the very real danger posed, particularly from parents who are out of touch with reality, cannot be ignored. Reid and Sigurdson state that psychosis is a predictor of a high risk of abuse. They also point out that "sex offenders of children will more often than not show not obvious psychopathology or incapacity." (p. 58) What is more typical of abusive parents are what might be termed 'deficits'. These individuals have missed out on a number of positive childhood experiences. They have often been deprived of the opportunity to bond closely with consistent, nurturing caregivers and their physical and emotional needs were seldom

met. These adults usually felt or were isolated, having few friends or caregiving adults who could begin to make up the deficits in the home. Reid and Sigurdson describe these deficits as "common themes in abusers (sic) lives." (p. 59) Additional danger to children may occur when parents have poor impulse control and respond in an excessive manner to a child's behaviour. (p. 59)

The mental illness of a parent does contribute to poor outcomes for children as the parent's personality (as filtered through the mental illness) can function to support or undermine his or her parenting ability. (Belsky and Vondra, 1989, p. 166; Factor and Wolfe, 1990, p. 172) In addition to poor social and psychological outcomes for children who survive childhood with a mentally ill parent, there *is* support for the position that some killings of children are, at least in part, linked to the mental illness of the parent. The death of Skylar Wiebe at the hands of his mother, Donna Trueman, is a particularly grisly example of this type of death. (Yaren, 1993, p. 33) The four year old child died after his mother choked him, drove a broom handle through his head and jumped on his chest. She was intent on killing his body which she believed held the spirit of Adolph Hitler while her son's soul shared his two year old sister's body.

This case highlights the risk to a child left in the care of a parent subject to psychotic episodes and the difficulty experienced by child welfare authorities in providing effective intervention. In an article written by forensic psychiatrist, Dr. Stanley Yaren, it is emphasized that appropriate medical intervention and monitoring can prevent such states from overtaking a parent. The issues with respect to child welfare are how the signs of her developing psychotic state were assessed by the case worker and the support worker and whether or not an accurate (or any) estimate of risk was made. It also emphasizes the need for mental health professionals to constantly weigh the value of confidentiality with respect to patients living with children against the mandated duty to report situations where a child may be at risk from the behaviour or conduct of the parent. The risk of maltreatment increases for children who live with

parents whose perceptions of them are disordered or who fail to provide adequate care or protection for them because of the mental illness. A recent newspaper report describes the murder of a 14 year old boy by his father beside a busy road. (Winnipeg Free Press, July 24, 1995) The child was repeatedly stabbed then was beheaded while passing truckers called authorities for help. The boy's younger brother escaped at the urging of the dead child when the assault began. The father tried to evade capture by authorities by discarding the child's head during the vehicle pursuit. The father is alleged to have taken the children on a weekend fishing trip then decided that they were possessed by the devil. Charges in the incident included driving while intoxicated. At this time, information is not available as to whether the father's psychosis was due to mental illness or alcohol abuse or both.

The role of mental illness in deaths due to neglect is less clear although there does appear to be an increased risk to children of schizophrenic or severely depressed mothers.

> "Unfortunately, our knowledge of child neglect is far behind that of physical abuse. However, it appears from preliminary studies that neglect may involve an even greater degree of personal psychopathology than abuse, which, coupled with situational events, leads to an *avoidance* response to stressful child behaviour rather than to aggression. Whether these two forms of child maltreatment represent different manifestations of the same disorder or whether they are the two most identifiable patterns of parenting dysfunction (out of perhaps many more) remains to be investigated." (Factor and Wolfe, 1990, p. 193)

The effects of schizophrenia on parenting have been studied to determine the risk to children reared by mothers with this mental illness. A Danish study followed children designated as "at risk" because of their mothers' schizophrenia. (Grünbaum and Gammeltoft, 1993) The study tracked eleven mothers with lengthy histories of schizophrenia. One woman had a child who died because of faulty care and three had children in foster care. (p. 17) Problems for 50% of the mothers included alcoholism, malnutrition, unattended births and complications of hysterectomy. Most lived an isolated life and all suffered psychotic breakdowns within six months of the births of

their children and most included the child in their psychotic delusions. "While living with their mothers, six of the children had been at some point in danger of their lives, four because of serious illness caused by inadequate care and two because a manifestly psychotic mother threatened infanticide." (p. 18) Providing preventive services to the mothers was not successful due to their inability to differentiate their wishes from their children's needs. Even the threat of removal seldom resulted in more than short term compliance as the mothers' response was to withdraw themselves and their children from the service providers. (p. 18) The life threatening danger to some of the children lay in the threat of filicide that was their mothers' response to having their wishes thwarted by the children's presence and in the mothers' refusal to allow others to see the children. Less acute but still substantial danger existed for the children in the mothers' emotional rejection of them. One of the most common reports was that, at nearly three years, many of the children had not learned to communicate and had little experience in relating to people who were not mentally ill. (p. 20)

The response of some of the other systems dealing with the family, including the social services system highlighted the general level of ignorance about the risks inherent for children living in such situations. Unless the child was physically in danger, the systems focused on the well-being of the mother before that of the child, including refusing to intervene because the suffering was "only emotional and not physical" or because there was no understanding of how the mothers' emotional unavailability could affect development (p. 21, 22) Other questionable practices included committing mothers accompanied by their infants into closed psychiatric wards without any consideration of the children's needs (p. 22) or repeated removal to foster care and returns home with shifting professional "attachment figures" who were expected to make up some of the deficits in the mothers' parenting. (p. 24) All eleven children were eventually removed to permanent foster care. (p. 17)

Children of depressed mothers may experience severe neglect depending on how immobilized the parent is by the disorder. (Barloon, 1993, p. 190) These mothers were also more critical of their children than a control group. (p. 191) Attributions made by parents about their children's behaviour and disposition are important. If the child's behaviour is seen as a personal attack on the parent's self-esteem and well-being the child is at increased risk of maltreatment. Depressed mothers provide a disruptive, hostile and rejecting home environment that undermines the child's functioning and may cause a cycle of 'difficult child' and 'failed mother'. (Belsky and Vondra, 1990, p. 164, 165) Such a cycle may culminate in a fatal attack on a child in a frustrated attempt to 'discipline' such a child. The death of John Ryan Turner of New Brunswick, Canada in 1994 was attributed, in part, to severe depression on the part of his mother which caused her to reject the child emotionally and physically. The child's father did not act to protect the child who had been gagged and tied to a bed in a darkened room in the days before his death. (Winnipeg Free Press, July 25, 1995a) In the event that one parent is mentally ill, the mental state and ability to protect the child of the other parent become critical to the child's well-being.

Parents who are mentally handicapped and lack the ability to learn parenting skills may pose a threat to infants. Without the ability to acquire knowledge and apply it appropriately, especially in novel situations, these parents perform child care duties without consideration of the child's condition or needs. Without close monitoring, they may "forget" to feed a child, leave it with inappropriate caregivers or neglect necessary health care. Helfer (1987) observes that the change in the philosophical basis of the treatment of mentally retarded adults has meant that women have been discharged from institutions to live in the community, often in a communal setting. Children are sometimes conceived in such communal settings. Few communities have plans in place to deal with the birth and subsequent neglect of many of these children. (p. 302) The move to community care mental health in Manitoba has resulted in situations such as Helfer

describes with the result that child welfare authorities are eventually involved when there is a report of danger to the children concerned. There are currently few viable long term solutions other than the removal of the child to permanent foster care or adoption.

In reviewing nine U.S. studies of fatal maltreatment, Alfaro (1988) found that data on parental mental retardation was extremely limited with respect to formal evaluations. Comments about a parent's "slowness" may or may not have indicated retardation. Rates of retardation for perpetrators ranged from 1%, the level in the general population, to 18% for suspected perpetrators. (p. 234) Robertshaw's study of Canadian child deaths did not differentiate limited education from below normal intelligence although she reports that 30% of perpetrator caregivers fell into a category that included both indicators. (1981, p. 98)

Multiple Personality Disorder remains a controversial diagnosis and poses particular problems in assessing risk for children in the care of an affected parent. In one study, affected adults had a history of childhood sexual and/or physical abuse at a rate of up to 88.5%. (Ross (1989, p. 101) cited in Reid and Sigurdson, 1989, p. 61) The nature of the syndrome is such that one or several personalities may be competent caregivers but others may be neglectful or abusive. Another issue concerns the outcomes for children whose primary caregiver assumes the personalities of different people at random times through the child's life. How much will a child be affected by living with a parent whose care lacks internal consistency?

What is obvious from the literature is that "characterological problems" of parents affect the quality of care provided to children. These problems include an impaired or impoverished sense of self, internal conflicts and unmet dependency needs. Parents who are psychotic or out of touch with reality are more likely to abuse or neglect their children than non afflicted parents. Depressed parents may be hostile,

rejecting or apathetic to their children's needs. Mentally retarded parents are at greater risk for neglecting the components of good (or adequate) child care.

Perception of the Child

"Perception is a mental process by which the nature of a [person] is recognized through the association of a memory of its other qualities with the special sense bringing it into consciousness." (Reid and Sigurdson, 1989, p. 64) In the case of abusive and neglectful parents, their perception of the child is affected is affected by prior life experiences, values of their social group with respect to children, their emotional or intellectual states and the contextual and situational stressors operating in their environment. (p. 70) The child's nature or temperament may range from easy to difficult with easy children (adaptable and able to be comforted) comprising 40% of children while difficult children (hard to comfort or feed and readily startled) are 10% of children. (p. 72) The remaining 50% comprise mixtures of the two types. The fit between the personality of the parent and that of the child is believed to be a factor in abuse and neglect. Parents who have negative perceptions of their children may be trying to cope with difficult children or they may have experienced deficits in their own childhood experiences. In either case, the "fit" between parent and child is poor and maltreatment may result.

Abusive parents are so needy themselves that they find it very difficult, even in a therapeutic setting to acknowledge that their children have needs and to accept responsibility for meeting them. (Buck, 1984, p. 37) Newberger has also commented on the cognitive foundations of parental care of children,

> "How they reasoned appeared to be related to how they behaved as parents. In particular, parents with especially troubled relationships with their children were frequently unable to perceive their children as having needs and rights of their own separate from those of the parent. Other parents understood their children as separate individuals but in a rather stereotyped way, as though one could understand one's own child only through a definition of children offered by others." (Newberger (1980, p. 3) quoted in Newberger and White (1989), p. 307)

Newberger developed a hierarchical system to rate the levels of parent awareness or perception of the child based on the parent's understanding of the child as a unique individual as well as the parent's acceptance of the development of an independent self in the child. At the lowest level, the parent understands the child only as a projection of her own experience with the parental role organized around what the parent needs and wants. (p. 308) In child welfare practice, this is a striking phenomenon to observe as the parent virtually ignores the child's expressions of affect and needs except as an annoyance in the parent's life. The child becomes so inured to failing to have her own needs met that she may react strongly in an attempt to be nurtured and "provoke" the parent to violence. This has been offered as an explanation for children who are killed after period of ongoing abuse or after a period of chronic neglect. The parent's lack of empathy for the child makes it easier for the parent to injure or kill a child as the child has no existence (figuratively) outside the parent. Any perceived failure of the child to meet the parent's needs can be used to justify disproportionately savage attacks on the child. This danger can be compounded when the other caregiver (if present) has ideas about child care that support the perpetrator's behaviour. If the other caregiver has a more positive perception of the child and reasonable notions of child care, the danger to the child may be reduced if he/she is able to prevail over the perpetrator and protect the child. "As a general formulation it may be stated that the degree of risk will be determined in part by the extent to which the spouse's perception of the child motivates them to act so as to protect the child." (p. 73)

A similar danger exists with respect to the perpetrator's perception of the incident of abuse or neglect. If the child herself, external causes, forces or individuals are held responsible for the perpetrator's acts, the risk to the child is increased. Parents who believe that they were 'provoked' into assaulting a child or 'seduced' into sexually assaulting a child pose a high risk for further assaults. The sexually abusive

adult may assert that the child desired the relationship or that it supports and sustains the family. They maintain their right to treat the child in the manner that they were treated as a child and assert that this is for the good of the child. (Reid and Sigurdson, 1989, p. 67) (A parallel with the parents' rights argument for corporal punishment of children can be made.) If the parent's experience as a child was similar to the maltreatment of the child, this may be used as a justification for the act and continuing the behaviour. In child welfare practice, these individuals may describe themselves as competent parents by explaining that they "only" hit the child with a stick (belt, cord, etc.) despite being beaten with a board or bat when they were children themselves. Particularly with child fatalities, the adult may justify the fatal assault as due to the child's soiling, crying, refusal to feed or lack of understanding of the adult's physical, emotional or mental state. Such rage -triggered assaults are poorly understood as their cause and prevention has not been adequately researched. (USABCAN, 1995, p. 11) The denial of responsibility for the child's needs is a critical component of this phenomenon as is the failure or the caregiver to recognize his/her own contribution to the problem. The role of the spouse in either supporting and condoning or actively opposing further such incidents is an important factor in assessing the risk of reabuse. This also holds true for child fatalities as there can be support for the parenting practices that contributed to the death of the child.

Substance Abuse

The abuse of mood altering substances such as alcohol, illegal and some prescription drugs had been found to be associated with violence in families, including violence against children. Gelles and Wolfner (1993) cited in Gelles (1993) describe the association as "substantial" and state that it is exacerbated "if there is an "acceptance" within the culture of violent behaviour while intoxicated then there will be manifestations of violent behaviour." (p. 186) Flanzer (1993) states that "Alcoholism

and child abuse and neglect have been shown to appear together in a host of studies and clinical reviews. Studies of child-abusing families similarly have shown varying rates of alcoholism among family members." (p. 175) He asserts that "Alcohol causes disinhibition that can lead to violence." In particular, Flanzer cites Miller and Potter-Effron (1990) as supporting the contention that the abused drugs act as disinhibitors of pent-up underlying anger. (p. 178) Individuals who commit acts of violence while under the influence of alcohol or other substances may use the effect of the drugs as a rationalization for violence while denying responsibility for their actions. (p. 178) Emery (1993) in ongoing research on the incidence of fatal neglect misdiagnosed as Sudden Infant Death Syndrome (SIDS) has observed that

> "every series [of deaths diagnosed as SIDS] includes instances in which the mother has gone to bed drunk and found the infant dead at her side in bed in the morning. Also, many series of cot deaths [SIDS] found infants to have been left unseen for many hours before being discovered dead, sometimes 8 to 10 hours later." (p. 1098)

He further observes that in cultures such as the rural Chinese in Hong Kong and Bangladeshi families in Wales, infants routinely sleep with adults and cot deaths are "almost unknown". (p. 1098) Whether this is due to relatively smaller maternal body sizes, less alcohol abuse by parents or other reasons not immediately obvious is unknown at this time.

Substance abuse by mothers poses a more immediate risk to children than substance abuse by fathers, particularly if the children are young and the mother is the primary caregiver. (Tracy and Farkas, 1994, p. 58) In discussing the assessment of risk with respect to case planning and decision making, the authors state "The presence of AOD [alcohol or other drug] abuse by parents or other family members interacts with and complicates all [other] factors. (p. 60)

Attachment

Maternal attachment to children has long been accepted as necessary for the survival of infants. It is also accepted as necessary for positive outcomes later in life. (Bowlby, 1988, p.1) While Bowlby's assumptions about women's roles as parents are inherently sexist, some of the concepts that he proposes are useful. Adults who have not had good experiences with attachment in their own childhood are disadvantaged as parents from the start. (p. 18) While it may be possible to overcome the effects of such deprivation, much practice knowledge would support the notion that needy adults may find it difficult or impossible to provide both the quality and the quantity of care needed to keep children safe. In particular, the disruption of parent-child attachment due to separation or a parent's inability to respond appropriately put at risk the parenting of the next generation of children of these individuals. (p. 16) Bowlby refers to parents who are unable to respond emotionally to children or to relate to them as individuals in their own right as examples of poor attachment. (p. 78) The death of John Ryan Turner (Winnipeg Free Press, July 27, 1995a, b) provides a graphic illustration of a child who literally starved himself to death after being rejected by his mother and assaulted by his father.

Parenting Knowledge and Skills

A caregiver's ability to understand environmental hazards in an age appropriate way is an important component of parenting knowledge. Taking action to protect the child from exposure to such hazards develops skill in parenting. Factor and Wolfe add another dimension to this factor in defining "immaturity" as a parental disorder, if not a "specific psychiatric disorder *per se*" (1990, p. 174). Immaturity refers to a lack of parenting skills and knowledge, poor impulse control and a reduced ability to empathize with an infant and to delay gratification of one's own needs to meet those of a

child. Parents who are "immature" are more prone to personalizing their child's negative behaviours and reacting in anger to the child's actions than a parent who understands what can reasonably be expected of children at a particular age.

A good illustration of parenting knowledge and its application in dangerous situations can be found in research by Lois Brockman. A recently completed study of child care and child safety on Manitoba farms found that parents who took their children with them while performing farm work were often aware of the risks involved as represented by self-reports of stress. (Brockman, 1994, p. 21) Parents who did not report heightened levels of stress either did not take children with them while performing farm work (sometimes leaving them unattended in the house) or did not report a need for child care. (p. 24) Injuries caused by large animals were equal to those caused by machinery yet there was "only moderate" concern about children handling these animals. Brockman also found that other hazards are routinely minimized, "Of least concern to parents in this survey are the children's play area and slippery floors and walkways, yet falls and trips are the third largest cause of farm injuries to Manitoba children." (p. 25) Other findings included that the age of the mother and the age at which she judged children to be safe to play alone in the home or to care for other children co-vary positively. Brockman also found that the better educated the husband, the older the age at which he judged children able to operate machinery safely. (p. 27) According to Brockman's results, children would be at the most risk with young mothers and less educated fathers as these parents would have unrealistic expectations of children's abilities to avoid hazards on the farm. Brockman's survey to determine the interest of parents in learning which tasks are age appropriate revealed that there was little interest in such a program despite the evidence that many children are injured every year on farms while exposed to hazards of the workplace. (p. 31) A small, but nonetheless concerning, number die each year on farms in incidents related to poor supervision or exposure to dangerous machinery.

Factors External to the Family

Beside factors associated with the members of the family and their functioning, the literature documents a number of factors "external" to the family that are believed to have a significant impact on its functioning. This in turn impacts on the care given to children and plays a role in the occurrence of fatal child abuse and neglect. These include social network supports, socioeconomic considerations and the sociocultural milieu.

Social network supports

Maltreating parents, in general, have fewer and less satisfactory contacts with friends and extended family than non abusing parents. They also report less satisfaction with the caregiving role and provide a poorer quality of child care and home environment than non maltreating parents. (Vondra, 1990, p. 160) Conversely, the quality of emotional assistance from a mother's family of origin was more predictive of maternal attitude and affectionate behaviour than support from a boyfriend of spouse in a study of fifty adolescent mothers. (Belsky and Vondra, 1989, p. 185) Other results of positive social networks include greater competence in parenting, decreased stress, increased positive interaction with the child, more positive communication and more nurturing. (pp. 178-179) However, if there is "too much" of a social network, the returns diminish. (p. 180) In a study conducted by Lugtig and Fuchs (1992) in a core area neighbourhood of Winnipeg, Manitoba the researchers concluded that families at high risk for the reabuse of their children benefited from positive involvement in their neighbourhood. They received both emotional and instrumental support in addition to learning how to access social services to intervene in parenting problems at an early stage. (p. 160) Garbarino also observes that,

> "the social networks maltreating families establish typically fail to provide the social control functions what (sic) would normally set limits on extremes of parental behaviour. Thus, these impoverished social relations offer neither positive standards or role models nor any lifeline or safety net to these families in need." (Garbarino, cited in Vondra, 1990, p. 160)

A graphic illustration of Garbarino's observation can be found in the May 1994 death of John Ryan Turner, a three year old Canadian child who starved to death in his parent's home on a Canadian Armed Forces Base. Media reports and court testimony revealed that the family's neighbours and friends knew of the child's condition yet did not intervene or notify authorities despite their suspicions that the parents were mistreating the child. (Winnipeg Free Press, July 27, 1995a, b) A neighbour was described as having witnessed the mother refuse to assist the child in his efforts to drag himself up a short flight of stairs outside the home, telling him that he had to do it himself. The father had been observed slapping the frail, thin child across the face in a manner that a witness testified would have caused an adult a great deal of pain. (Canadian Broadcasting Corporation, Prime Time News, June 14, 1995) A newspaper article compared the child's death to the death of New Yorker Kitty Genovese who was murdered in an apartment courtyard while tenants either observed or heard the assault without attempting to assist the young woman or to call police for help. (Winnipeg Free Press, July 27, 1995b)

Socioeconomic considerations

Research findings have long supported a link between poverty and child maltreatment although it is not clear if the relationship is causal or correlational. The combination of economic, sociocultural and interpersonal factors combine to crease "severe economic stress" (Vondra, 1990, p. 161) The effect of chronic poverty puts a great strain on families. "Indeed, it seems logical that violence may emerge when individuals are confronted with severe and prolonged stress and hardship in the form of economic disadvantage, poverty, limited educational opportunity and unemployment". (Ammerman and Hersen, 1990, p. 12) However, the persistence of child maltreatment during "boom" as well as "bust" years brings into question this approach as does the existence of many poor families where children are not mistreated. José Alfaro states,

"We keep saying the cause is poverty—and I think sometimes we libel poor people—the truth is, most poor people don't abuse and neglect their kids." (USABCAN, 1995, p. 122) Despite this qualification, the U.S. Advisory Board on Child Abuse and Neglect found that low income families were greatly over represented among families in which a child had been fatally abused or neglected. (p. xxvi, p. 12) Garbarino points out that poverty in *both* the monetarized and non-monetarized economies makes life for families much more difficult and permits child maltreatment and infant mortality to flourish as there are few resources to purchase support services combined with a lack of informal supports that would help to offset the stress of a shortage of material resources. (1992, p. 234)

Sociocultural milieu

Vondra states that culture and class impact on child rearing. She states that "the majority of chronically maltreating families fall within the lower social echelons". (1990, p. 161) Linked with socioeconomic status is the notion of class. Vondra states that the combination of family privacy and "lower class" attitudes (authoritarian control, punitive discipline and encouragement of conformity) result in a proportional probability that "child care will drift into child maltreatment". (p. 162) This association of lower social class, socioeconomic status and child maltreatment is also reported by Baldwin and Oliver in a British study of severely abused children. (1975, p. 218). They acknowledge that higher social classes may have a greater ability to conceal child maltreatment and would be less likely to use public social services making them less visible to officials. However, Baldwin and Oliver state that "...it is unlikely that abuse of the severity necessary to meet our criteria would have escaped ascertainment to any great extent in the climate of opinion of 1972 and 1973....It may well be that severity is class related." (p. 218)

The sociocultural milieu also includes the degree to which the state becomes involved in the family. The "rights" argument supports parents rearing children as they see fit with this privacy upheld by the state. (Vondra, 1990, p. 162) Finkelhor in clear about the danger that this poses to maltreated children:

> Many of the children who die from child abuse and neglect are already known to CPS authorities as indicated by Besharov, but over reporting has little to do with these deaths. Insufficient services have been a chronic problem from the very beginning of the child protection system. Not infrequently, agencies fail to intervene in these cases because they are being overly cautious about the breach of parental rights. Thus, unwarranted attacks on the system for violating families are arguably a more immediate contributor to child fatalities than are unsubstantiated reports." (Finkelhor, 1993, p. 286)

Certain precursors of child maltreatment are sanctioned or protected by the state. This translates into the right to use physical punishment (violence against children) and to withhold medical care on religious grounds. The conflict between the criminal code and child welfare legislation in the U.S. has resulted in successful appeals of convictions against parents whose children died after medical care was withheld. Parents convicted under state homicide or negligence statutes have been acquitted under federal child welfare legislation which protects parents' rights to practice spiritual healing or deny medical care to children on religious grounds.

Banning corporal punishment of children has been associated with a reduction of fatal child abuse in Sweden. (Joan Durrant, Professor, University of Manitoba, personal communication, June 6, 1995) In this case, the sociocultural milieu does not uphold family privacy over the welfare of children. This issue of societal acceptance of violence toward children under the guise of discipline was discussed earlier.

NEGLECT

The search for risk factors connected with child neglect begins with an attempt to find theories of the etiology of neglect. Tzeng, Jackson and Karlson (1991) reviewed the major theoretical perspectives of child maltreatment. They found that, in most theories of the etiology of child maltreatment, neglect is frequently linked with or subsumed under abuse despite different criteria for identification and evaluation. Only three major theoretical frameworks were identified by Tzeng et al. to address the etiological issues of child neglect; the personalistic view, the social interactional model and a three factor model. The most frequently used are the individual determinants paradigm (personalistic view) and the social interactional model. Polansky is associated with the personalistic view as he sees neglect as the result of a deficient personality of the parent. Parents are seen as either impulse ridden, immature or suffering from apathy-futility syndrome. Polansky's Childhood Level of Living Scale was developed to measure the quality of care provided in order to assess the risk of neglect. Polansky (1981) emphasizes that the outcomes for the children in neglected families are seldom positive (p. 5). They suffer from chronic illnesses, are frequently injured in "accidents" as a result of their parents' inattention to their safety (p. 3) and are emotionally crippled by a lack of affection and attention to their needs. (p. 5) Polansky describes a case history in which many services were provided in a fifteen month long attempt to aid a neglectful family. In the end, services were withdrawn and the children left with their parents as the agency saw insufficient progress to warrant continuing its efforts. Polansky comments that if the children in this family were to die in a house fire or from an undiagnosed illness or a painful, untreated medical condition, "one would not be surprised". (p. 6) He has no expectation of positive outcomes for any of the children in this family. In addition, the costs of chronic child neglect to society are high due to the "economic drain produced by stunted lives." (p. 2) Polansky's definition of neglect

focuses on the child in question experiencing "avoidable present suffering" due to the deliberate actions of the parent or due to "extraordinary inattentiveness" with respect to the child's emotional, physical and intellectual needs. (Polansky et al, 1975 cited in Polansky et al., 1981, p. 15)

Giovannoni and Billingsley as well as Polansky et al. found that neglecting mothers were socially isolated. Boehm discovered that neglect complaints to child welfare agencies, in most part, concerned a group of problems related to parents' behaviours, not those of the children. (Giovannoni and Billingsley (1970), Polansky et al, (1985) and Boehm (1964) cited in Tzeng et al., 1991, p. 192) Alcohol was found to be a contributing rather than causal factor of child neglect. (Murray (1979) cited in Tzeng et al, 1991, p. 192) Polansky et al (1985, cited in Tzeng et al, 1991, p. 193) determined that neglectful mothers had less education, more children and fewer male parent figures than similar non neglecting mothers.

Gelles (1973, cited on p. 194) views the interactions of parental, child-related and societal factors as contributing to child neglect which is seen as a type of abuse. Neglecting parents are socialized in a way that negatively impacts on their functioning as parents. Class and cultural values affect the parents' behaviour toward their children while structural factors such as poverty, isolation and unemployment impact on families to increase stress. In addition, the characteristics of parent and child combine to increase or decrease the risk of maltreatment. The research of Wolock and Horowitz (1984) has focused on the social determinants of child maltreatment, in particular, the incidence and prevalence of child neglect. They offer the following explanations for the "neglect of neglect" by media, government and child welfare authorities. (pp. 535-536)

1. Since the work of Kempe and his colleagues in the 1960's, the treatment of the problem is owned by the medical and mental health professions due to the

prevalence of an individual determinants paradigm that locates the etiology of neglect within the family.

2. The strong association of neglect and low socioeconomic status reflects the low priority given to the alleviation of poverty in general.

3. The problems which perpetuate neglect are located within the basic social structure of society yet since the 1970's it is the child welfare system that has been the target of change rather than the underlying social "evils".

4. The magnitude of the problem of child neglect is largely ignored due to its association with poverty and the potential cost of intervention; it is easier and cheaper to focus on providing a limited quantity of therapeutic services to abused children.

5. Neglect is less visible and newsworthy than abuse; if victims of child neglect were seen begging on the streets, the problem would be more difficult to ignore. Polansky is quoted as describing neglect as "typically insidious, chronic and terribly private." (Polansky et al, 1978, p. 1 cited in Wolock and Horowitz, 1981, p. 536)

6. Child abuse is an overt form of violence and there is a much greater preoccupation in the U.S. (and Canada) with violence.

Wolock and Horowitz warn that the consequences of failing to attend to child neglect are serious. (p. 537) These include a societal failure to address deficits in social and environmental supports, the skewed allocation of scarce resources in child welfare toward investigation and monitoring of child abuse cases, a tendency among CPS workers to regard neglect as less serious than abuse (despite empirical evidence to the contrary) and the screening out of neglect cases when caseloads become too high. With respect to this last point, Wolock and Horowitz predict that the rate of rejection of neglect cases will accelerate due to the steady decline of resources of public child welfare agencies. (p. 537) They believe that the solution lies with the alleviation of poverty and

the provision of universal health care to children in addition to making supplementary child care available to families in which child neglect has been identified. While the provision of universal health care would certainly eliminate the neglect of medical care for families where poverty prevented access to medical care, the experience in Canada illustrates that it does not totally eliminate the problem. Other factors such as alcoholism, mental illness and poor parenting skills and knowledge also operate to perpetuate the neglect of medical care of children.

Wolock and Horowitz assert that the reason that financial support to poor families is not increased is that there is a belief that a lack of motivation toward change would result and that the benefits would not reach the children for whom they were intended. (p. 540) In some families, this would certainly be the case. This writer's experience of line work in an inner city neighbourhood is that some families will spend the "extra" on their children and others will not. The purchase of televisions, audio equipment, alcohol and expensive items of clothing for adults in the family routinely followed the issue of government rebates intended to supplement the care of children in poor families. It is possible that once the "wants" of the parents were assuaged, the "needs" of the children would be addressed, but it is difficult to know how much the cup would have to 'overflow' before the children benefited. Yet, is it reasonable to deny benefits to those parents and children who use such rebates to upgrade basic household furnishings, supplement children's wardrobes and purchase toys for the children's entertainment? Putting this in terms from a previous century; who are the 'worthy' poor and who are not?

In today's economic climate, the chance that public welfare provision will be increased appears impossible; the recent election of a new Progressive Conservative, fiscally conservative government in Ontario has seen a substantial decrease in public assistance benefits for any "able bodied" individuals, including mothers with children, and the promise that all "able bodied" recipients except single parents of young children

will be required to participate in "workfare" compulsory employment in order to continue to receive the reduced benefits. (Janigan, 1995, p. 11) The overwhelming majority of Ontario voters have given this government a mandate which indicates that public sympathy is not with the poor. Premier Harris has also promised to decrease the number of government employees and repeal affirmative action employment legislation. (p. 13)

A third model proposed by Lesnik-Oberstein, Cohen and Koers is described by Tzeng et al. as the three factor model. (p. 197) The factors that interact to product neglect are 1. aggressive feelings in the parents, 2. parents' abilities to inhibit overt aggressive acts and 3. the focus of parental aggression on the child. If the parent focuses his aggression on the child and has a high ratio of aggression to inhibition, physical abuse results. When the ratio of aggression to inhibition is lower, neglect can occur. This model remains mainly theoretical.

Reid, Sigurdson, Christianson-Wood and Wright (1994) formulated a conceptual model of neglect to categorize neglect and to illustrate that intentionality is an important consideration in recognizing and intervening in situations of neglect. Neglect is divided into "intentional" and "unintentional" categories. There are two types of unintentional neglect; entailment and passive neglect. Entailment neglect describes situations in which the child experiences avoidable, present suffering as an unintended result of the parents' or caregivers' activities. Examples of entailment neglect include the emotional and sometimes physical harm experienced by children who observe domestic violence or physical harm experienced by children assaulted by the 'clientele' of parents who deal drugs from the children's home. In a case in Manitoba, two children died as a result of entailment neglect when they were shot along with their mother. The killers had entered the home intending to shoot the father because of a dispute over the sale of drugs. When the father escaped, they killed the rest of the family instead.

Passive neglect occurs when the caregiver fails to attend to the child's basic needs for shelter, food, protection or nurturing. The caregiver's actions are not intended to harm the child, rather they are unaware of or unable to comprehend the consequences of their inaction. Non-organic failure-to-thrive may be a result of this type of neglect when caregivers lack the interest, skills or intellectual ability to provide consistent care for an infant.

Intentional neglect results from the decision by a caregiver to expose the child to avoidable suffering or damage at a level of severity that warrants intervention by child welfare authorities. This category of neglect can be subdivided into entailment neglect and endangerment neglect. A decision by the caregiver to leave young children unattended in the home constitutes endangerment as do situations in which one parent decides to remain in a situation (or with a partner) from which the child has already experienced harm or suffering. The first example is endangerment through supervision neglect and the second is usually described as 'failure to protect' but is also a form of endangerment through disregard for the child's safety.

Reid et al. (1994) emphasize that cultural relativism must be considered in the light of functional necessity. The function of child rearing practices, in addition to socializing children into the ways of their culture, is to enable children to reach adulthood safely. They state that there is a relatively narrow tolerance for variation and a resulting convergence with respect to safe parenting practices for young children. As an example, the critical question in child fatalities from supervision neglect is not who supervises the child, parent, relative or tribal elder, but rather the effectiveness of such supervision. (p. 9) If the supervising adult is inattentive, absent or under the influence of alcohol or other drugs, the quality of supervision suffers and the risk of harm to a young child increases. When the child is at an age to understand danger and take action to avoid it, the issue of the quality of supervision is correspondingly less critical. In assessing neglect, workers in child welfare are mandated to intervene within

the parameters set down in the applicable statutes. Reid et al. state that if practice is driven by other considerations than "the application of law as conceived by the legislature and the courts" then the civil rights of some families will be violated and "the application of highly variable standards will generally result in a quality of service for poor families which is inferior to that in more affluent communities". (p. 10)

Another variation of this argument of practise relevant to particular minority groups in society applies to the consideration of religiously motivated medical neglect. "Spiritually relevant practice" to coin a phrase, has the potential to result in some children being condemned to dying of conditions that can be successfully treated using modern medical technology. These children are often denied the protection of the law until they are virtually moribund usually because of the reluctance of medical or child welfare authorities to 'interfere' in the practise of their parents' religious beliefs. Some children remain unknown to authorities until after they have expired at home. A jury in the U.S. found the Christian Science Church liable in a wrongful death suit brought by the father of a child whose Christian Science mother had custody of the child at the time that he died in a diabetic coma at the age of eleven. (Toronto Globe and Mail, August 21, 1993) Damages of $5.2 million were awarded to the child's father and the judge warned that the church could face further punitive damages. Criticism of the judgement by University of Virginia law professor, Robert O'Neil focused on the violation of the religious freedom of parents by "implicating the central tenet of [their] faith". John Keiran, a Boston prosecutor, stated that the issue was not one of religious freedom but one of children's rights despite the church's efforts to focus on the religious freedom issue.

Neglect deaths are, as described earlier, generally caused by the absence of a caregiver at a time when danger arises or by a chronic situation of inadequate care. The Texas child fatality study (Lauderdale and Anderson, 1981) recorded child deaths by neglect as due to lack of supervision in 43.5% of fatalities, as a result of medical neglect

(failure to seek care or follow through with treatment) in 31.9% of cases, physical neglect (shelter, food, clothing) in 20.4% of cases and abandonment in 3.4% of neglect deaths. (p. 47)

METHOD

Research Design

The design selected for this study is a combination of an historical design using secondary sources and a non-experimental design. An historical design is a research design "for which the data or physical artifacts already exist and thus cannot be changed or manipulated. The researcher has no control over how or when or with what instruments the data were collected." (Sproull, 1988, p.152) The purpose of historical designs is to examine the relationships among variables using existing documents, materials or artifacts. (p. 152) The nature of child abuse fatalities is such that historical designs using secondary sources are common in the literature. Fatal child maltreatment seldom happens in front of parties who are not intimately involved with either the victim or the perpetrator, thus reliable primary sources about the event itself are rare, particularly when there is the question of culpability or liability. Non-experimental designs enable the researcher to measure certain variables without the introduction of an experimental variable. (p. 149) In this study, the Manitoba Risk Estimation System was used to measure variables to determine an assessment of risk in situations in which children died of maltreatment. This measurement of an event that has already taken place is characteristic of an Ex Post Facto design. (p. 149) Correlation analysis is frequently used for non-experimental research to determine the strength of associations between variables. (p. 150) It is also used in prediction research for which the issue of causation is secondary to the ability of one variable to predict a criterion variable. (p. 151) Research conducted in New York City employed a research design incorporating historical and non-experimental elements to examine relationships between variables in samples of fatal and non-fatal child maltreatment to determine which variables were predictors of fatalities. (New York City Mayor's Task Force on Child Abuse and Neglect, 1987, cited in Alfaro, 1988)

There are weaknesses inherent in both historical and non-experimental designs. Obviously, the use of material from different sources is problematic as there is no guarantee of the uniformity or quality of the information being used. Police reports of events, even of interrogations, seldom reveal answers to questions that were not asked. Autopsies and inquest reports are focused on the events of the death itself rather than attributing responsibility to individuals or exploring the events that led up to the death. Child welfare case files seldom present a complete picture of the situation even for families who are involved with the system while retrospective examinations of casework raise concerns in the system about blame and liability. Court transcripts are records of accounts in which there is a formalized structure with strict rules of conduct for the process of determining guilt or innocence. In all of these cases, the completeness of the data is unknown. In the case of non-experimental designs, the potential problems of imposing measures on data that may be incomplete is obvious. With respect to historical research, Sproull lists eight possible problems with primary and secondary sources. They are:

1. All existing data may not be known.
2. All existing data may not be available.
3. Some data may have been destroyed, purposefully or non-purposefully.
4. Some data may have deteriorated or changed.
5. Some data may have been distorted, purposefully or non-purposefully.
6. Primary sources may not exist.
7. Primary sources may not be available.
8. Primary and secondary sources may not be accurate. (1988, p. 154)

All of these concerns exist with respect to the data used for this study. Data from several systems was used when available in an attempt to obtain the most reliable data possible by checking information against other sources. In most studies of child maltreatment deaths examined for this research, either a non-experimental or

historical design was used. As this study depended on documents and reports for data, an historical design in combination with elements of non-experimental design was deemed appropriate. In examining other designs of this type, the most frequent statistical methods employed were frequency analysis, correlation analysis and chi-square analysis.

The American Bar Association's Child Maltreatment Fatalities Project report on data collection (Anderson and Wells, 1991) reviewed the current state of data collection with respect to child maltreatment deaths and made recommendations for improvement. A primary problem with data collection is the perennial concern with defining a maltreatment death. The coding of deaths though the vital statistics agencies does not provide adequate delineation of child maltreatment deaths from other types of non-accidental deaths. The International Classification of Disease "E" code for external factors contributing to death has proved inadequate for retrieving CAN deaths. Ewigman in Missouri was reported to be developing a system of "B" codes that would enable deaths related to particular parent behaviours to be coded for later retrieval. (p. 6) This would enable researchers to retrieve cases where the parent's behaviour or environmental conditions had a relationship to the child's death. The example given is the death of a child in a motor vehicle accident. Current Vital Statistics coding systems have no way of indicating that the child's death was related to the parent's behavior; for example, the death of a two year old playing outside without supervision. (p. 6) Other deaths of this type include child deaths due to unsafe, high risk environments, or as a result of high risk behaviours that are accepted as normative; for example drownings of children in open ditches in Oregon. (p. 3) Equivalent deaths for the research in Manitoba include drownings of unsupervised children, fire deaths of unattended or unsupervised children and certain deaths of children on farms due to unsafe operation of machinery.

There are obstacles to the collection of data on child maltreatment fatalities in Manitoba. These are:

1. Specifying the population for data collection using the current classification system. This refers to the difficulty in ensuring that child maltreatment deaths that are not obviously due to child abuse are captured in the data. Neglect deaths are a particular concern here—the proximate cause of death may be pneumonia but the child's social situation may have been the deciding factor in delaying treatment or ignoring symptoms to the point where the child's body was not able to respond to treatment.

2. Varying definitions of child abuse and neglect fatalities. This is related to the point above. How will medical examiners and others know which deaths are CAN deaths unless there is a standard research definition used across the groups that investigate and record such information? The definition that would enable CFS to become involved or continue monitoring a family would be different in a number of respects from that which would involve the police or the Crown as there is different legislation governing their involvement.

3. Issues in information storage and retrieval. There is currently no central registry of all child protection cases for the province's child welfare authorities. The Child and Family Support Directorate will have access to information through the province's Child and Family Service Information System but this is still in the implementation phase. (C. Lillie, Child and Family Services Information System trainer, personal communication, June 1995) Until then, the Directorate will know only of those cases that have been referred to it because of the death of a child, a complaint about service or the need for special services or funding. A central registry of closed and open cases would be of enormous assistance.

4. Access to information. If child welfare agencies are permitted to "opt out" of the provincial Service Information System or out of any other information gathering system, there will never be complete information on all cases. Some agencies have been slow to respond with the reports of deaths of children known to the agency as required by provincial child welfare standards.

5. Participation in the process of data collection and tracking of child deaths. This is covered under the *Fatalities Inquiry Act* as the Chief Medical Examiner for the province has, theoretically, virtually open access to any files required for investigation or inquests. There are some problems with compliance by external agencies, the provision of adequate staffing in the Office of the Chief Medical Examiner and access to computer files, but the required legislation is in place.

Instrumentation

In this study, the instruments used were the Manitoba Risk Estimation System (See Appendix A) and the Child Fatality Review Information form (See Appendix B). The Manitoba Risk Estimation System (MRES) is a risk assessment instrument developed by Professor Grant Reid of the Faculty of Social Work, University of Manitoba and Dr. Eric Sigurdson, of the Faculty of Medicine's department of Child and Adolescent Psychiatry. The instrument's origins lie in two reports done for the Manitoba Government's Department of Community Services in 1987 after the abuse and neglect deaths of six children known to the child welfare system. These deaths occurred within a period of time that was less than two months and raised concerns about the effectiveness of the system intended to protect children from harm. The province's child welfare system had undergone a major organizational change with the dissolution of the Winnipeg Children's Aid Society (CAS) and the creation of six new agencies out of the CAS and the province's longest existing child welfare agency, Child and Family Services of Eastern Manitoba. The first review (1987a) examined the system for dealing with child abuse in Winnipeg

and included a three year review for 1984 through 1986 of child deaths due to abuse or neglect. The main findings concluded that the system was underfunded, poorly administered and needed to develop and implement consistent standards for casework, including the assessment of risk. The second review (1987b) was concerned with the operation of North West Child and Family Services and focused on the operation of that agency and how this affected the delivery of service and the protection of children. There had been two deaths of children who had been served by the agency within a very short period of time. The major findings concluded that the quality of management and supervision was inconsistent, some workers and supervisors needed more education in the theoretical and practical aspects of child welfare work, and that standards for information handling, casework and risk assessment needed to be developed and/or implemented.

After this, Sigurdson and Reid began preparations to develop an instrument for assessing the risk of further abuse or neglect for children who had already experienced maltreatment. An extensive literature review was conducted with respect to child maltreatment and risk assessment. Line workers and supervisors in Manitoba and Saskatchewan were interviewed as the sources of practise and expert knowledge. This combination of theoretical and practise knowledge enabled Sigurdson and Reid to clarify the theoretical roots of the working concepts identified in the literature review and the interviews. (Sigurdson and Reid, 1992, p. 4) The outcome of this work was the Manitoba Risk Estimation System. The instrument is intended to be dynamic and to assist workers in being creative in developing plans for intervention. A conscious decision was made to avoid the use of numerical scores for determining levels of risk as formal trials showed that workers tended to reify the scores with respect to decision making. Sigurdson and Reid assert that a single device is most appropriate to assess physical abuse, sexual abuse and neglect as there are common forces acting in all three child welfare situations. The state's mandate to protect children is a "unitary focus for

thinking about these issues" and the practical consideration that a single, straight-forward tool is more likely to be used by line workers than a multiple-part instrument. The expectation of the researchers was that patterns of ratings on subscales will develop to identify differing case types. (p. 4)

Sigurdson and Reid state that the system can be used with reference to a variety of tasks: to collect a basic set of information at intake to conduct risk assessment; to provide a focus for interventions intended to reduce or eliminate risk and to provide a structure for thinking about the safety of the children concerned when the return of children from foster care or case closings are under consideration. (p. 5) The MRES has been designed to assist workers in identifying a "climate of danger" for a child when particular conditions exist in a family. "While it is difficult to predict the exact weather conditions for a specific location on any particular day it is possible to identify climate patterns with a great deal of accuracy." (p. 5) The process of risk estimation is analogous to weather forecasting. Sigurdson and Reid state that "where ambiguity exists in a case situation the scale has a bias in the direction of protecting the child. This is significant mainly in emergency situations and means, in effect, that if you are going to make a mistake it should be an error in the direction of protecting the child." (p. 5) They warn that this does not mean that the worker should act without substantiating the incident or that there should be unnecessary intervention in the lives of children and their parents.

Manitoba Risk Estimation System

The MRES Facesheet includes the following variables with the following levels of measurement:

File Number: Nominal (Categorical by numbering system used in data source)

Date of Report: Continuous; not applicable for child maltreatment fatalities

Date of Incident: Continuous; date of death

Agency Location: Nominal; if there is agency involvement at the time of death.

Case Type: Nominal; if there is agency involvement at the time of death.

Child Gender: Nominal; Categorical

Child Age: Ratio; Continuous

Abuse/Neglect Type: Nominal; Categorical

Characteristics of Abuse/Neglect Incident: Not Applicable

Family Type: Nominal; Categorical

Adult A Relationship to the Child: Nominal; Categorical

Adult A Age: Ratio; Continuous

Adult A Gender: Nominal; Categorical

Adult B Relationship to the Child: Nominal; Categorical

Adult B Age: Ratio; Continuous

Adult B Gender: Nominal; Categorical

Other Children, Gender: Nominal; Categorical

Other Children; Age: Ratio; Continuous

Other Children, Type of Abuse/Neglect: Nominal; Categorical

Other Relevant Participants, Relationship to Child: Nominal; Categorical

Other Relevant Participants, Age: Ratio; Continuous

Other Relevant Participants, Gender: Nominal; Categorical

Alleged Perpetrator Information, Gender: Nominal; Categorical

Alleged Perpetrator Information, Age: Ratio; Continuous

Alleged Perpetrator Information, Relationship to Child: Nominal; Categorical

The MRES instrument is comprised of 57 questions; all 57 are used (where data is available) for two parent families while there is a potential for 33 questions to be used for single parent families. The level of measurement of scales is ordinal as there is

a rank ordering of responses with respect to the properties of the variables. A value has been assigned to each rank order as follows:

Protective	- 1	Not Applicable (with Protective)	0
Very Low	1	Not Applicable (no Protective)	Blank
Low	2	Medium	3
High	4	Very High	5

Decreasing	1	Constant	3	Increasing	5

The MRES scales are identified, measured and rankings described in Table No. 2

Table No. 2
Manitoba Risk Estimation System Scale Descriptions

	Item Description	**Unit of Measurement**	**Method of Measurement**
1	Vulnerability Access by Perpetrator	Physical Distance between child and perpetrator	Ranked from inaccessible (Very Low) to accessible (Very High)
2	Child Able to Protect Self	Child's ability to see adult's behaviour as wrong and act on this belief	Ranked from Very Low to Very High with respect to the child's ability to refuse, leave and/or tell
3	Adequate Protector Present	Ability and willingness of non-offending caregiver to protect child	Ranked from Very Low to Very High
	Vulnerability Rating For This Section		Ranked summary of Scales 1 to 3 Ranked Very Low to Very High
	I. Attributes of the Current Incident		
4	Actual/Potential Severity of Injury	Intensity of harm to child; degree of injury, intrusion or lack of care	Ranked from lesser to greater possibility of lasting harm to the child (Very Low to Very High)
5	More than One Abuse/Neglect Type	Number of types of abuse or neglect; physical, sexual, emotional and neglect	Counting of incidents begins at more than one abuse type

(continued on next page)

	Contribution to Risk For This Section		Ranked summary of Scales 4 & 5 from Very Low to Very High
	II. Abuse/Neglect Pattern		
4	Severity of Current Incident - Adults A and B	See Scale 4 above	Refers to incident described in Section II Scale 4
	Item Description	**Unit of Measurement**	**Method of Measurement**
6	Severity of Prior Incidents - Adults A and B	Refers to maltreatment of any children by this adult	Ranked from Very Low to Very High. See Scale 4 above
7	Recency of Prior Incidents - Adults A and B	Time between current incident and closest past incident involving any children and this adult	Measured in months and years between incidents
8	Frequency of Incidents - Lifetime of Adults A and B	Counting past incidents of maltreatment of any children by this adult	Ranked from Very Low to Very High based on the number of past incidents
9	Severity Trend - Adults A and B	Pattern of intensity of harm to any children by this adult	Ranked from lesser to greater severity based on increasing or decreasing harm
10	Frequency Trend - Adults A and B	Pattern of reoccurrence of incidents over time	Ranked from lesser to greater number of incidents per unit of time.
	Contribution to Risk For This Section		Ranked summary of Scales 4 to 10 from Very Low to Very High
	III. Understanding of the Child		
11	Perception of the Incident - Adults A and B	Amount of responsibility for the incident accepted by the caregiver	Ranked from Protective to Very High based on adult's attitude and behaviour
12	Perception of the Child - Adults A and B	Parent's understanding of the developmental needs and intrinsic worth of child	Ranked from Protective to Very High based on the parent's valuing of the child as an individual.
13	Attachment to Child - Adults A and B	Mutual positive interaction between adult and the child.	Ranked from Protective (positive) to Very High (negative) relationship
14	Attitude Re: Discipline - Adults A and B	Degree of physical force used to control child	Ranked from Protective (none) to Very High. Congruence of attitude and behaviour is implicit

(continued on next page)

15	Parenting Knowledge and Skills - Adults A and B	Knowledge of child development and ability to put knowledge into practice.	Ranked from Protective (adequate) to Very High (inadequate) with respect to caregiver's practices
	Contribution to Risk For This Section		Ranked summary of Scales 11 to 15 from Protective to Very High
	Item Description	**Unit of Measurement**	**Method of Measurement**
	IV. Personal Characteristics Adult A & B		
16	Age - Adults A and B	Distance from adolescence; 21 yr. & over, >18<21 yr., 18 yr. & under	Ranked from Medium to Very High for under 21 years, Not applicable for >21 yr.
17	Substance Abuse - Adults A and B	Intensity (frequency, recency and degree) of substance abuse (includes all addictive substances)	Ranked from Very Low to Very High related to the adult's ability to function as a caregiver.
18	Psychopathology/Incapacity - Adults A and B	Intensity (degree) of mental illness as it affects ability to provide care for a child.	Ranked from Very Low to Very High disruption in functioning as a caregiver. Also rates ability to perceive reality.
19	History of Violence - Adults A and B	Use of violence as a means to control others.	Ranked from no use of force to regular use of force to control others
20	Stress - Adults A and B	Disruptive effect of stress on everyday functioning.	Ranked from lesser to greater disruption based on caregiver's perception of stressors
	Contribution to Risk For This Section		Ranked summary of Scales 16 to 20 from Very Low to Very High
21	Conflict/Support	Degree of cooperation between caregivers in resolving problems	Ranked from Protective (positive support) to Very High (conflicted)
	V. Family Interaction		
22	Reinforcement	Level of opposition by caregiver to perpetrator's behaviour	Ranked from lesser to greater involvement in or opposition to perpetrator's behaviour
23	Siblings	Level of conflict between siblings and with respect to community	Ranked from lesser to greater dysfunction including violence to other siblings

(Continued on next page.)

	Contribution to Risk For This Section		Ranked summary from Protective to Very High for Scales 21 to 23
	Item Description	**Unit of Measurement**	**Method of Measurement**
	VI. Relationship to the Community		
24	Reference Group Values	Level of agreement between caregiver and community attitudes and beliefs about protecting children from harm.	Ranks the adult's congruence with protective group attitudes and opposition to abusive beliefs about children, using opposition to child abuse as the positive value.
25	Social Isolation	Quality and quantity of social supports	Ranks the adult's support network from satisfying and helpful to little or no support network.
	Contribution to Risk For This Section		Ranked summary from Protective to Very High for Scales 24 and 25
A.	Vulnerability Estimate	See Section A	Transfer from earlier part of form
	B. Reoccurrence Estimate	See Sections I through VI	Transfer from earlier part of form to rate reoccurrence
	C. Severity estimate		
	Current Incident - Severity	See Section A I. Scale 4	Transfer from earlier part of form
	Trend Severity - Adult A	See Section B II. Scale 9	Transfer from earlier part of form.
	Trend Severity - Adult B	See Section B II. Scale 9	Transfer from earlier part of form.
B.	Risk of Reoccurrence Rating		See Section B Summary
C.	Probable Severity of A Future Occurrence		Ranked summary of Section C
	Conclusion and Explanation	Narrative rating the risk of further abuse to the child	Provides a record of any mitigating or compounding factors

Defining and Operationalizing Concepts

Concepts - General

Maltreatment The wide spectrum of harm and injury of children which includes physical abuse, sexual abuse, emotional abuse and/or neglect. It also includes the failure of an adult charged with the responsibility of a child to protect that child from avoidable present and future suffering.

Abuse The commission of an act of maltreatment by the parent, guardian or person in whose care a child is, which act results in harm to the child.

Neglect An omission of care due to the failure of an adult charged with the responsibility for a child to protect that child from avoidable present and future suffering. This includes a failure to provide appropriate care, affection, control or stimulation for the child. This includes, but is not limited to, the exposure of a child to frequent family violence and inappropriate demands from a caregiver. (Adapted from Manitoba Child Abuse General Protocol, 1988, p. 2)

Physical Abuse Physical abuse is the commission of an act of maltreatment by the parent, guardian or person in whose care a child is, which results in harm to the child. It includes, but is not restricted to, assaults on the child's person and discipline beyond the limits of what is considered reasonable by the courts.

Sexual Abuse Sexual abuse is the exploitation of a child for the sexual gratification of the caregiver, with or without the child's consent. It includes, but is not restricted to, sexual interference, sexual molestation, sexual assault, and exploitation of

the child for pornography or prostitution. (Adapted from Manitoba Child Abuse General Protocol, 1988, p. 2)

Emotional Abuse In Manitoba, the definitions of emotional abuse and neglect overlap. Emotional abuse includes acts or omissions on the part of a child's caregiver that include, but are not restricted to, (a) an unwillingness or inability to provide appropriate care, control, affection or stimulation for a child; (b) making inappropriate demands of a child; (c) exposing a child to frequent family violence tending to produce permanent or long-term emotional disability including non-organic failure to thrive, developmental retardation, serious anxiety, depression or withdrawal and serious behavioural disturbances. (Adapted from Manitoba Child Abuse General Protocol, 1988, p. 2)

Child Fatality Death of a child from causes other than the processes of disease, congenital conditions or iatrogenesis; exceptions include deaths when the child has not received timely medical care; in the classification and coding system used by the Province's Chief Medical Examiner, any death in the 200 to 800 categories.

Child Abuse Fatality Physical maltreatment of a child that results in death in the immediate or long term (death of a child from the effects of earlier maltreatment).

> Operational definition: Any death of a child that is classified as a death due to Non-Accidental Injury (NAI) by one or any combination of the following: police, College of Physicians and Surgeons of Manitoba, Child Protection Centre of Children's Hospital of Winnipeg or the Chief Medical Examiner of Manitoba. A death can be called a child abuse death (SCAN) without a charge being laid if the physical evidence supports that the origin of the fatal injury is non-accidental

yet a particular perpetrator(s) cannot be identified in order to lay a charge.

Child Neglect Fatality An omission of care that results in the death of a child. There is no specific provision in Manitoba's legislation for child neglect fatalities unless it can be shown that the parents acted with willful disregard for the child's safety or that the parent did not provide the necessities of life. Intoxication of the adult caregiver at or around the time of death is generally regarded by the Chief Medical Examiner and the Child Protection Centre as contributing to a child neglect fatality in some circumstances as the adult's capacity to provide appropriate care or respond to danger and/or signals of distress is greatly reduced. Specific statutes address the duties of parents and caregivers to provide adequate care, supervision and protection for their children.

Accident For the purpose of this research, an accidental child death is defined as a death where there is no illegal act and adequate supervision by an adult at the time of the accident or no illegal act and a brief lapse in otherwise adequate care resulting in an unforeseeable injury to the child. The absence of an illegal act and the quality of supervision differentiates an accidental death from a preventable death.

Manitoba Risk Estimation System Concepts Defined

Abuse/Neglect Types: The categorization of the incident according to the definition of the types of maltreatment experienced by the child at the time of the fatality.

Physical Abuse The inappropriate use of force against a child; an act of commission involving physical force resulting in Non Accidental Injury (NAI) to a child; any NAI to a child other than that defined in Section 43 of the Criminal Code of Canada (reasonable force by way of correction).

Sexual Abuse Sexual Abuse is defined as any exploitation of a child, whether consensual or not, for the sexual gratification of a parent or person in whose care a child is and includes, but is not necessarily restricted to sexual molestation, sexual assault, and the exploitation of the child for purposes of pornography or prostitution.

Emotional Abuse The Manitoba General Abuse Protocol (1988, p. 2) defines emotional abuse in a general way that also includes neglect, exposure to family violence tending to produce permanent or long-term emotional disability as well as "inappropriate demands" on a child. The guidelines qualify this by stating that emotional abuse does not require police intervention.

Neglect The research definition of child neglect is based on the definition of emotional abuse found in the Province of Manitoba *Child and Family Services Act* (1985) as cited in the Child Abuse General Protocol (1988, p.2) "acts of omissions on the part of the parent or person in whose care a child is, which acts or omissions include but are not restricted to:

(a) any unwillingness or inability to provide appropriate care, control affection or stimulation for a child;

(b) making inappropriate demands upon a child;

(c) exposing a child to frequent family violence tending to produce permanent or long-term emotional disability including:

i) non-organic failure to thrive

ii) developmental retardation

iii) serious anxiety, depression or withdrawal

iv) serious behavioral disturbances

Characteristics of Incident Not applicable for this research.

Adult A The individual who resides with the child and has primary or shared responsibility for the child's care and well-being.

Adult B The individual who resides with the child and Adult A and has shared responsibility for the child's care and well-being.

Other Relevant Participants Individuals (adults) other than Adult A or B who figure prominently in the child's life and in the current incident; may be residing in another location, may be related by blood or in a position of trust. This generally does not include the caseworker unless he/she has a material role in the incident other than the assigned role.

Alleged Perpetrator The person who is generally believed to be responsible for the injury to the child or who has failed to protect the child from injury.

Vulnerability The extent to which a child is susceptible to injury or damage at the hands of her caregiver when the following 3 factors are considered:

1. Access by perpetrator The "openness" of the child's residence to the person who injured the child; the ease with which this individual can be in the child's presence after the incident.

   Operational definition: Access to the child by the perpetrator scale rates whether or not the perpetrator is in custody and has no access to the child, is in the community, or can engineer face to face contact without much effort. By definition, all child deaths rank Very High. (Sigurdson and Reid, 1990)

2. Child's ability to protect self The degree to which the child can meet her own basic needs for nutrition (if food is available) and safety from the attentions of the perpetrator.

Operational definition: This scale rates the child's ability to leave the abusive situation or to rectify an omission of care and is measured by considering the child's developmental age, mobility, intellectual ability and emotional capacity to act against the perpetrator's wishes. This varies with respect to child deaths. (Sigurdson and Reid, 1990)

3. Adequacy of protector present in the child's home The ability and willingness of the adult(s) in the home to prevent a further incident of abuse or neglect.

Operational definition: The presence of another adult in the home who is able to protect the child is rated as Low, the present of a protector whose ability or willingness is in question ranks Medium and the absence of another adult or the presence of an ineffectual or co-perpetrating adult in the home rates Very High. (Sigurdson and Reid, 1990)

Attributes of the Current Incident The particular characteristics of the incident of abuse and neglect with respect to the harm or injury suffered by the child and the incidence of one or more different types of maltreatment.

4. Actual/Potential Severity of the Injury For physical abuse, severity is determined by the degree to which the injury is life threatening or the degree to which it would have been life threatening without interference at the point of injury; for example, a parent who is prevented by another adult from hitting a 3 year old on the head with a baseball bat had the potential for inflicting a fatal injury. The more severe the actual or potential injury, the higher the risk to the child.

For sexual abuse, the degree of invasiveness of the act with respect to the child determines the level of severity with any type of intercourse constituting the highest degree of risk.

For neglect, the immediate effect and the potential long term effects are considered when assessing severity. The potential effects differ when the vulnerability of the child is considered in addition to the duration of the condition of neglect. The situations of highest risk are those that create temporary or permanent injury of a physical or emotional nature.

Operational definition: For fatalities, the actual/potential severity is Very High. (Sigurdson and Reid, 1990)

5. More than 1 Abuse or Neglect Type The underlying assumption is that a child who is exposed simultaneously to more than one type of maltreatment is at greater risk than a child who is exposed to one type of maltreatment. In this scale, emotional abuse is considered as a type of abuse and can be assumed with most other types of maltreatment if sufficient family history is known to support this conclusion.

Operational definition: Medium: 2 or more; Very High: three or more . (Sigurdson and Reid, 1990)

Abuse/Neglect Pattern A reliable sample of acts characterizing an individual's behaviour with respect to the maltreatment of children.

6. Severity of Prior Incidents The past behaviour of the adults caring for the child is an important part of prediction based on the assumption that people are more

likely to perform behaviours that are already in their repertoire than novel ones. Also, patterned behaviours tend to continue unless a powerful force acts to change the person's behaviour. (Reid and Sigurdson, 1989, p. 75)

Operational definition: Physical Abuse, Very Low: mild bruising, no lasting marks; Medium: significant but not life threatening injury; Very High: intentional injury to child including breaking bone, burning flesh. Sexual Abuse, Very Low: encouraging children to watch pornography with adults, aggressive sexualized joking between adult and child; Medium: single instance of sexual touching; Very High: any form of intercourse. Neglect, Very Low: an older child is often inadequately fed; Medium: small children briefly left unattended in a car on a warm day, a ten year old misses school regularly, does not receive regular medical care; Very High: parent denies medical care in a life-threatening situation or small children left unattended overnight in their home. (Sigurdson and Reid, 1990)

7. Recency of Prior Incidents Patterns of behaviours that are established in the more recent past are considered to be at greater risk of recurring than behaviours which have receded in time.

Operational definition: Very Low: at least one prior incident, the most recent of which occurred more than 2 years ago; Medium: same frequency, more than 6 months ago, but less than 2 years; Very High: same frequency, within the past 6 months. (Sigurdson and Reid, 1990)

8. Frequency over the Adult(s) Lifetime The premise underlying this concept is that the more often an event has occurred, the more likely it is that it will continue to occur. "The core of this conclusion is that the greater the degree of consistency in factors in the family's environment and the greater the

consistency in factors indigenous to the family system, the higher the probability that the behaviour will be perpetuated." (p. 76)

Operational definition: Very Low: one prior CAN incident at any point in the past; Medium: two to three prior incidents; Very High: Four or more prior incidents. (Sigurdson and Reid, 1990)

9. Severity Trend Incidents of abuse or neglect involving this adult demonstrate a pattern of severity of injury; decreasing, constant or increasing.

Operational definition: Very Low: CAN incidents continue to occur with an observable pattern of lower severity of actual/potential injury; Constant: no change in severity over time; Increasing: severity of actual/potential injury increases over time. (Sigurdson and Reid, 1990)

10. Frequency Trend Incidents of abuse of neglect involving this adult demonstrate a pattern of frequency of occurrence; decreasing, constant or increasing.

Operational definition: Very Low: CAN incidents continue to occur with lowered frequency; Constant: no change over time in frequency; Very High: CAN incidents occur with greater frequency as time progresses. (Sigurdson and Reid, 1990)

Understanding of the Child The adult caregiver's relationship with the child can be characterized by the following five dimensions which measure the degree to which the adult understands the needs of children in general and this child in particular as well as the value that the adult places on the child's well-being and safety expressed through the adult's words and actions.

11. Perception of the Incident "To understand perception of the incident is to understand the situational or contextual properties of the act of child abuse." (p. 64) To what extent does the adult see his or her behaviour as appropriate or inappropriate with respect to the child? The context in which the perpetrator lives directly influences processing and feedback about the incident. (p. 65) Essentially, this item deals with the issue of accepting or denying responsibility for the child's well-being and safety with respect to the incident.

Operational definition: Protective: situation is seen as harmful, adult seeks to prevent its reoccurrence; Very Low: a partial understanding of incident's cause or some acceptance of parental responsibility; Medium: only marginal acceptance of parent's responsibility; significant misperception of incident's cause; Very High: adult accepts no responsibility for the incident, or denies it happened, or blames situational stressors for the incident. (Sigurdson and Reid, 1990)

12. Perception of the Child The role of the child in contributing to the incident of abuse or neglect as understood by the parent is assessed here as well as the adult's understanding of how "easy" or "difficult" a child this is to raise.

Operational definition: Protective: child is valued and perceived age appropriately; Very Low: some age inappropriate expectations but generally child is valued; Medium: inappropriate expectations or child objectified; Very High: child blamed for problem or expected to meet parent's needs. (Sigurdson and Reid, 1990)

13. Attachment to the Child The depth and quality of the adults' relationship to the child is considered with respect to their valuation of the child as an individual and the degree of closeness in the relationship.

Operational definition: Protective: continuous, supportive, mutually satisfactory relationship between parent and child; Very Low: positive emotional tone, sometimes overwhelmed by other factors; Medium: ambivalent emotional tone; Very High: parent overtly rejects child or very poor emotional tone. (Sigurdson and Reid, 1990)

14. Attitude re: Discipline The adults' beliefs and acts with respect to the purpose and extent of physical punishment is assessed. Inhibiting or eliminating certain behaviours of the child that the adult finds to be unacceptable is accomplished with the use of varying degrees of physical punishment. The adult's emotional state is also assessed with respect to whether the adult metes out punishment in a consistent manner or if she responds with extreme anger and/or rigidity in attempts to alter the child's behaviours.

Operational definition: Protective: little physical discipline; discipline intended to help child to grow; Very Low: force not generally used but moderate force is felt to be justified; Medium: physical force regularly used, parent believes children should be controlled and will benefit from punishment; Very High: extreme physical force or rigid orders are used with justifications based on adult's own experiences as a child; force used to express adult's rage. (Sigurdson and Reid, 1990)

15. Parenting Knowledge and Skills "The less a parent knows of the normal development and needs of a child, physically, emotionally, socially, behaviourally or sexually, the higher the risk of abuse or neglect." (Reid and Sigurdson, 1990, p.23) Parents may be ignorant of what behaviour is appropriate or they may have unrealistic or damaging expectations of the child's physical abilities or sexual development.

Operational definition: Protective: basic developmental requirements in all domains are understood; Very Low: adequate understanding of immediate developmental needs; Medium: some understanding of child's needs but not sufficient to regularly meet basic needs of the child; Very High: adult's knowledge or skill is clearly inadequate. (Sigurdson and Reid, 1990)

Personal Characteristics The attributes of the adult's personality affect her ability to successfully parent a child. Combinations of particular dysfunctional attributes can combine to create a climate of danger with respect to the child.

16. Age The increased difficulty for young parents in succeeding as parents is widely accepted by practitioners. The causes are less clear and may be linked to a reduced tolerance for stress, conflicting developmental tasks of the parent and the child, lack of skill and relevant life experience in caring for others. Increased age does not automatically decrease risk.

    Operational definition: Medium: Less than 21 year but over 18 years; Very High: 18 years of age or less. (Sigurdson and Reid, 1990)

17. Substance Abuse Addiction to substances may be both a primary and a secondary cause of child maltreatment. The functioning of the adult may be impaired to the point where he/she is unable to adequately care for children. The acquisition and consumption of the substance takes primacy over most other activities and may divert funds from caring for the children despite the adult's demonstrated affection for the children. As a secondary cause, the substance may lower inhibition levels increasing the probability of the occurrence or reoccurrence of abusive behaviours including both physical and sexual abuse. In

addition, the lowering of inhibitions may result in an increased severity of incident as the adult's internal controls on behaviour are disabled.

Operational definition: Very Low: some use of alcohol or other drugs in this situation or a no history of severe substance abuse for at least the past two years; Medium: substance abuse significantly impedes functioning on occasion or a past history of severe substance abuse but not within the past six months; Very High: severe, chronic substance abuse is part of the adult's normal functioning or episodes or substance abuse within the past six months. (Sigurdson and Reid, 1990)

18. Psychopathology/Incapacity The state of the adult's mental health is considered with respect to the presence of any major mental illnesses which affect the adult's perception of reality. Other issues of concern include impulsivity, hostility, depression and paranoia. Mental retardation or diminished ability which reduces the adult's capacity to both comprehend and act on the care of the child also heightens risk. It should be noted that sexual offenders will often show no obvious psychopathology or incapacity. (Reid and Sigurdson, 1990, p.26)

Operational definition: Not Applicable: personality characteristics within normal range; Very Low: ongoing mild personality disturbances demonstrated or moderate limitations due to emotional or intellectual problems; Medium: episodic psychiatric difficulties or capacity to act as a caregiver is limited or only under ideal conditions; Very High: psychotic, out of touch with reality or assessed as currently very impaired by psychopathology or severely limited intellectually. (Sigurdson and Reid, 1990)

19. History of Violence The use of physical force, threats or intimidation to control the behaviour of others, including people outside the family, is

understood to be a fundamental behaviour that leads to abuse. (p.28) Child abusing parents are involved in other violent or aggressive assaultive behaviour more frequently than the general population. (Bland, R. and Orn, H. quoted in Reid and Sigurdson, 1990, p.28)

Operational definition: Very Low: little history of assaultive behaviour, rare uses of force or verbal threat to control others; Medium: occasional assaultive behaviour defended as acceptable in some circumstances; Very High: violence is used to control others with clear evidence of habitual assaultive behaviour. (Sigurdson and Reid, 1990)

20. Stress The adult's *cognition* of the stressors in her life, rather than only a rating or counting of stressors, is critical to the quality and the quantity of the stress experienced by the adult. In individuals with other factors predisposing them to violence, heightened stress may contribute to an increased predisposition to deal with events by using force.

Operational definition: Very Low: some disruption in functioning due to single recent event or chronic condition of some severity or combination of events/conditions with significant aggregate effect; Medium: serious disruption of ability to function due to single or set of factors; Very High: considerable disruption, unable to function due to a single, recent, highly disruptive event or a chronic condition of considerable severity or combination of events/conditions with severe aggregate effect. (Sigurdson and Reid, 1990)

Family Interaction: The quality of the relationships within the family is rated.

21. Conflict/Support between Members "Individuals in abusive families are more dependent, more likely to express anger and aggression, more rigid in rule

making and structuring family activities and more likely to be arranged in a hierarchical manner than non-abusive families." "The spousal relationship affects the ability of the parents to protect the child. (p.32)

Operational definition: Protective: adults' relationship is supportive and stable and deals with crises; Very Low: family recognizes some problems with conflict and support and makes some changes as a consequence, some shared decision-making; Medium: frequent conflicts, little mutual support, few changes made in recognition of this problem, the family manages adequately only in good conditions; Very High: overall feeling among family members is conflictual especially between spouses with little shared decision-making or mutual support. (Sigurdson and Reid, 1990)

22. Reinforcement between Spouses The role of the non-abusing spouse in condoning, ignoring or encouraging the abuse is critical to the safety of the child. The partner may be passive or in denial about the actions of the abusive partner; the reinforcement level in child deaths usually would be very high as the spouse has already failed to protect the child.

Operational definition: Protective: partner actively and effectively opposes the perpetrator's behaviour; Very Low: the partner does express objections and is somewhat effective in opposing the behaviour; Medium: partner is ineffective in opposing the perpetrator; Very High: the partner is a co-perpetrator or enables the CAN with their relationship linked intrinsically to the CAN behaviour. (Sigurdson and Reid, 1990)

23. Siblings of victim Behaviour problems or acting out by the other children in the family may be indicators of greater family dysfunction than if the victim

were singled out on the basis of some perceived characteristic (or lack of it). Sibling incest or assault indicates heightened risk for the child.

Operational definition: Protective: siblings show mutual support and relate well to the community; Very Low: siblings effect more than normal difficulties in relating to the community; Medium: siblings often break reasonable limits and may injure each other physically, sexually or emotionally; Very High: siblings use force or injury to get what they want and may exhibit behavioural problems such as delinquency or illegal acts and may harm a sibling. (Sigurdson and Reid, 1990)

Relationship to the Community The quality and intensity of the family's interaction with their community and the extent to which they subscribe to the dominant norm about the treatment of children are rated.

24. Reference group values Reinforcement of attitudes toward children and child abuse can be found within sub-cultures or the dominant culture itself. Individuals who believe that they are acting within the perceived norms of their culture will tend to continue their behaviours. The more severe the level of "acceptable" punishment within a society, the higher the level of damage that will be inflicted on children by people who exceed those standards. (p.34)

Operational definition: Protective: the reference group values oppose CAN, the adult accepts these values, sees the current incident as violating these values and is distressed by this OR the reference group values promote CAN , the adult sees the current incident as congruent with these values and the individual rejects these values; Very Low: the individual's distress is less evident than in the Protective rating and the opposition is less adamant; Medium: the individual is not particularly bothered by the CAN despite group values that oppose it OR the

reference group values promote CAN, the individual accepts these values at a minimal level and receives some support for this; Very High: the individual rejects the reference group's opposition to CAN OR the reference group promotes CAN and the individual see the incident as congruent with this and receives considerable support because of this. (Sigurdson and Reid, 1990)

25. Social Isolation Parents or caregivers who are not integrated into their social structure experience futility and purposelessness (anomie). They may become unstable from the lack of viable social contact creating a condition where child abuse and neglect will be common. In addition, these individuals lack contact with others who can offer advice or informal respite to reduce the burden of unrelieved parenting. Social service and other systems can also offer advice and respite but they are lowest on the intrinsic hierarchy of social support which follows: family, friends, neighbours, community organizations and community services. (p. 35)

Operational definition: Protective: adult has meaningful and supportive contact with many friends and family; Very Low: adult has some contact, receives occasional help and is available to use support available in community organizations; Medium: disconnected from community with few relationships and none that provide consistent support or satisfaction; Very High: no viable relationships with friend or family and no significant participation in the community. (Sigurdson and Reid, 1990)

Child Fatality Review Information

This instrument was developed by this researcher to collect information in addition to that recorded on the MRES form. The general format is based on the recommended Child Fatality Review Team Comprehensive Data Set in the American Bar Association report, *Data collection for child fatalities: Existing efforts and proposed guidelines.* (Anderson and Wells, 1991) with changes made to reflect situations in Manitoba and the researcher's intent to analyse additional data on the circumstances of the child's death. (See Appendix B). The concepts are briefly defined, a rationale for the use of the variable is provided, the variable is operationalized and levels of measurement are provided. (See Appendix C)

Determining Data Sources

After a preliminary examination of Medical Examiners' files for child deaths in Manitoba for 1991 and 1992, a decision was made to review 10 years of files from 1984 to 1993 for deaths of children ages 0 to 17 years in order to obtain sufficient numbers of child abuse and neglect death files for analysis. The Medical Examiners' file categories for examination included child deaths coded as Accidents in the Home, Accidents in Other Places, Industrial Accidents (farming), Homicides, Undetermined and Motor Vehicle Accidents. The initial examination revealed four issues that required consideration before selecting files for analysis. The first of these was reliably identifying all deaths due to abuse or neglect in the Province of Manitoba from 1984 to 1993 and determining which files provided the most consistent and accessible information. The second issue is the death codes classification system and its application within the Office of the Chief Medical Examiner of Manitoba to meet the needs of more precise determinations of causes of death due to advances in forensic medicine. The third issue is related to the developments in the understanding and interpretation of child welfare law and criminal law as it related to the abuse and neglect of children. Fourth is

the changes to the legislation and policies that direct the involvement of the Chief Medical Examiner in the deaths of children in Manitoba.

1. The identification of deaths due to child abuse and neglect required the development of criteria to select CAN deaths from those due to accidents or third party assaults. Child fatalities in the Chief Medical Examiner's files are coded according to manner and cause of death. (See Appendix D.) Deaths that are classified as accidental or from undetermined cause, or even from natural cause may, in fact, be a result of child abuse or neglect. The definition of child abuse deaths and deaths due to child neglect differs according to the standards used and the professional disciplines applying the standards. For the purpose of the research, it was important to identify child abuse and neglect deaths with precision in order to analyse the files relevant to this study. The solutions considered included; limiting the definition of child abuse and neglect to that used by the Office of the Chief Medical Examiner, using the legal definition of child abuse homicides and neglect deaths, selecting abuse and neglect cases seen at the Child Protection Centre or choosing cases dealt with in the Child and Family Services system.

By using the designation "Battered Child" in the Office of the Chief Medical Examiner's coding system, neglect deaths would be missed as they most frequently fall into the Undetermined or Accident classifications. Some homicides of children by their parents or caregivers are also missed if only the category of "604.0 Battered Child" is considered. In addition, the mandate of the Chief Medical Examiner's office specifies that there be no attribution of blame yet substantiation of child abuse or neglect demands that at least a preliminary attribution of responsibility for the death to a parent or caregiver.

The next proposed solution would be to use the legal definition of child abuse and neglect deaths. In discussion with a Crown Attorney for the Province of Manitoba, the limitations of this approach were identified. (J. St. Hill, personal communication, October, 1993) Only a portion of cases that the police and Crown believe to be substantiated are taken forward for prosecution and these are further narrowed by the

determination of the court as to the guilt or innocence of the accused. This also eliminates most deaths where the causes are related to entailment neglect, most forms of passive neglect and many suspicious child deaths. The standard of proof for 'criminal negligence causing death' is so narrow with respect to the act that gross negligence must be clearly demonstrated both in the act itself and in the intent of the alleged perpetrator. (J. St. Hill, personal communication, October, 1993)

The selection of cases through those seen at the Child Protection Centre would provide a selection of approximately six cases per year that are believed to be suspicious deaths including those that may be 'proven' by prosecution, conviction or confession. From 1989 to 1992, the Child Protection Centre identified twelve deaths from physical abuse including five from multiple injuries to head and abdomen, four from a single injury and three from stabbing or impaling. Of these twelve children, the first nine were three years or age or less and the remaining three were aged 4, 7 and 11 years. (M. Buck, Associate Director, personal communication, 1994) As the Director of the Child Protection Centre is a member of the Children's Inquest Review Committee, the input of the Child Protection Centre is evident in the Medical Examiners' file recordings and correspondence. In addition, a well publicized effort to improve the quality of investigation and prosecution of child abuse deaths resulted in a number of cases being reactivated and tried with several convictions resulting. (Teichroeb, 1993) A current initiative involves the identification of child victims of Munchausen Syndrome by Proxy and fatalities resulting from Munchausen's Syndrome By Proxy. The Child Protection Centre provides services to living children and their families as well as to the Child and Family Services system rather than conducting forensic investigations of child deaths. However, the expertise of the Centre's staff is an important component of fatal child maltreatment investigations particularly if the family is known to the Child Protection Centre.

The next solution would be to select fatalities known to the Child and Family Services system in Manitoba. An examination of the files for 1991 and 1992 held in the Child and Family Support Directorate revealed eighteen deaths for 1992 and seven deaths for 1991. These included deaths due to natural causes of children in the care of, or known to child welfare agencies in the province. The files are created according to the province's standards for child welfare practise and as a result of the involvement of the Chief Medical Examiner in accordance with the Fatalities Inquiry Act. The death of any child in the care of a child welfare agency or whose family has received service from a child welfare agency in the two year period preceding the death in Manitoba must be investigated. (Fatalities Inquiry Act, S.M., 1989-90) Both these conditions date from changes made in accordance with recommendations in two reports written by Reid, Sigurdson et al. in 1987 which examined the practise of child welfare agencies in Winnipeg. These reports were commissioned by the government of Manitoba after six young children in families receiving service from child welfare agencies died during a short period of time.

The reports contained in the file created in the Directorate are focused on the involvement of the agency with the family and directed toward the assessment report by the Chief Medical Examiner as to how well the standards of practise of child welfare practise set by the province have been met. While there was a duplication of some information held in the Medical Examiners' files, there was at times more detailed information on the family situation and the services provided as well as an examination of the events from a different perspective. These files provided a source against which the file lists provided by the Chief Medical Examiner could be checked. A number of homicides that were not provided on the initial Medical Examiners' file lists were revealed using this method. Taking the names of the children from these files, the Medical Examiners' files were checked again and the missing files found. (Due to changes over the years in how the basic file information is entered into a database, some

of the Medical Examiners' files are not immediately generated when child homicides are requested. Correspondence in other Medical Examiners' files provided information that revealed other homicides or suspected child abuse and neglect deaths.)

While using the Child and Family Services cases provides an overlap and a check on the Medical Examiners' files, it does not identify cases where the antecedents of the abuse or neglect deaths were not known to the child welfare system. In 1991 alone, the Medical Examiners' files contained approximately 10 files in which there was chronic, severe alcoholism and/or family violence that impacted on the care of the victims yet these families had not received child welfare services in the two years prior to the children's deaths. Of these deaths, over 50% occurred in remote, northern communities.

In the end, the files held in the Office of the Chief Medical Examiner were selected as the main source of information with supplementary information provided from the files of the Child and Family Support Directorate. These sources contain information from the Child Protection Centre in the form of reports of clinical assessments, medical assessments or letters from the Centre's Director that identify concerns about deaths that are due to child abuse or neglect. Reports from the Fire Commissioner, the Royal Canadian Mounted Police and the Winnipeg Police Service are also contained in the Medical Examiners' files in addition to correspondence from the Crown attorneys responsible for the prosecution of child abuse or neglect deaths. A serendipitous source became evident when workers in the field or collateral sources became aware of the researcher's task and provided additional information on their involvement in cases included in the research. In one case, this information provided the 'key' that enabled the researcher to correctly categorize a death.

Child deaths from natural causes from 1984 to 1993 were *not* examined as part of this research project. This is a common dilemma in research into child maltreatment deaths; if a death is classified by competent practitioners of forensic medicine as

"natural" there is usually insufficient information to classify it otherwise. Repeated deaths in one family from "natural" causes such as SIDS tend to raise interest about the validity of the classification of earlier deaths. This appear to be less of a problem in Manitoba for the period of this study than in the U.S. states surveyed by Lundstrom and Sharpe (1990) in which deaths were labelled as due to SIDS, undetermined cause, accidents or asphyxia without autopsy evidence to support such findings. (p.19) In an attempt to capture as many of these deaths as possible, all "natural" child deaths in Manitoba that were classified as Undetermined or SIDS during the study period were also examined. In the course of reviewing files for this research, some "natural" deaths of concern with respect to their classification were identified through one or several of the sources listed above. If the deaths were older cases (previous to the 1989 amendments to the Fatalities Inquiry Act) where no autopsies were required, obtaining information that would result in a change of classification appeared unlikely unless subsequent events, such as a confession, made it possible. As example of this occurred during the course of this study when a tip to officials has resulted in the re-opening of two thirty year old child death files. The circumstances of the deaths were reviewed for the Children's Inquest Review Committee. The Chief Medical Examiner of Manitoba used the cases as illustrations of the progress of pediatric pathology and forensic science since the deaths of these two children were accepted as "natural" despite injuries that were consistent with child battering including head and abdominal injuries to one child in addition to extensive bruising to the children's bodies. (P. Markesteyn, personal communication, June 2, 1995)

This researcher's inability to review all "natural" deaths from 1983 to 1994, regardless of the autopsy results, is a weakness in this study. To eliminate it would require a team of at least two researchers, one of whom would have to be a pediatrician, preferably with both clinical and forensic expertise in order to correctly understand the medical information in addition to a social worker to review child welfare and other

materials. This would add approximately 800 files to the total count of files read as deaths due to natural causes average approximately 80 per year.

2. The second issue is the evolution of the classification system and its application within the Office of the Chief Medical Examiner of Manitoba to meet the needs of more precise determinations of causes of death due to advances in forensic medicine. Before 1988, deaths due to Sudden Infant Death Syndrome were classified as "natural" deaths and coded as "106.0". The Chief Medical Examiner revised this classification in 1988 and changed the code for SIDS to "701.0" to more accurately reflect the manner of death as "Undetermined" and the cause as "Sudden Infant Death Syndrome" (SIDS). The addition of code "202.7" in 1992 for Accident In The Home, Drowning was added to differentiate drownings in the home (or in backyard pools) from the more general classification of "asphyxia" code "201.0" used before 1992 for these deaths. Code "202.6" for Accident In the Home, Auto-Eroticism was also added in 1992 after the identification of deaths that resulted from unsuccessful attempts (primarily by teenage males) to induce sexual climax by near-hangings.

Related to this issue of changes in classification, is the evolution of the use of code "700", "Undetermined Manner, Undetermined Cause" in part for infants where no anatomical cause of death has been found and the children's social situation is poor. In the case of children whose deaths have been classified as Sudden Infant Death Syndrome since 1992, the care of the child is not at issue yet the cause of death remains unknown. If the care of the child or the social conditions are matters for concern, the death is classified as a Sudden Unexpected Death of Undetermined Manner and coded 700 instead of 701. Poor social conditions include parents who are intoxicated or recovering from the effects of intoxication at the time of the child's death, deaths due to probable overlay by a parent or a sibling when the child shares a bed with adults or other children or cases where the events surrounding the child's death reflect a low quality of care for an infant. This includes delayed or non-existent medical care for a child whom the caregiver

identified as noticeably unwell before birth, leaving a child unattended at or around the time of death (where the caregiver is not in the home) or documented violence in the home during the period immediately preceding the death or noticeably poor care of the deceased as shown by the child's physical condition and/or observations of those professionals (police, emergency or medical personnel) attending the death. Suspicious deaths (suspected homicides or neglect deaths) based on the forensic evidence and the information obtained through investigation of the circumstances of the death are also included in this category in recognition that they are not due to accidents or natural processes. In practical terms, this recognizes that the quality of care received by an infant impacts on its chances of survival past infancy and acknowledges that there is a qualitative difference in these deaths. These changes over the years in the criteria used for the application of codes created problems in using the Medical Examiners' file codes to identify deaths for the study. The solution was to develop classifications based on data in the files.

3. The third issue in selecting files for analysis is related to the developments in the understanding and interpretation of child welfare law and criminal law as it related to the abuse and neglect of children. The application of criminal law with respect to deaths by abuse or neglect is uneven and is not adequate as the only test for substantiation. If no suspect is identified or if there is reason to consider more than one individual as a perpetrator without a clear reason to focus on one particular individual, charges may not be laid even when the medical evidence is clear that the death is not due to accident or disease. Several cases meeting these criteria were reviewed for the study. There were compelling reasons to regard one or all of the caregivers as perpetrators. The deaths of children while unattended also provide examples of the uneven application of criminal law. There are a number of examples where very young children have died in house fires while the caregivers were not supervising the children in the home or were out of the home on extended errands or for social outings to use alcohol or drugs. Charges are

seldom laid in these cases even when there is evidence that the children had a history of playing with matches, or the children were left with a burning wood stove or locked into the home with no avenue of escape in the event of fire or other disaster. While it could reasonably be argued that the parents were negligent in their care of the children, it is rare that such a charge is laid. In the well-publicized case of a young child who died from burns while left unattended for over an hour with an infant sibling, charges were not laid. Conversely, the mother of a child who died of undetermined causes (believed to be SIDS) while unattended was charged, convicted and incarcerated. There were differences in the two cases with respect to why the children were unattended, the race of the mothers and the history of care of the children. The Child and Family Services Act of Manitoba is clear in holding parents and caregivers responsible for the safety of their children and for ensuring that they are not left unattended or with inadequate caregivers. (Child and Family Services Act, Sec. 17.2(b)(e) and (g)) Leaving young children unattended in similar circumstances to those described above with serious outcomes such as injury or death to the children concerned is often grounds, in this writer's experience, for orders by the Family Court of supervision or temporary guardianship.

The tentative nature of definitions of parental responsibility and child neglect was demonstrated in a recent series of articles in the Winnipeg Free Press after the deaths of several teenagers in a fire started by a young child. Initially, the fire was reported as a tragic accident but as the history of the family and the fire was revealed, the interpretation changed, first placing the blame on the manufacturers of the type of disposable lighter used by the child. The final article of the series considers the link between the deaths and parental supervision of the child who had recently caused the family to relocate after setting their previous residence on fire. This change in focus from the child being responsible for the tragedy, to blaming the manufacturers of disposable cigarette lighters, to considering the role of the parents in supervising young children demonstrates, in the writer's opinion, an emerging analysis of what does and

does not constitute an accident. Is it an 'accident' when the result of chronic inadequate supervision is a child's death in a fire? It could be argued that such deaths are a consequence of the quality of care rather than events that occur by chance alone. (Winnipeg Free Press, October 31, November 1, November 4, 1994) Newspaper reports about the high number of drownings of children aged four and under in Manitoba have sparked similar concerns about the responsibility of parents and communities in supervising children. (Winnipeg Free Press, July 4 and 10, 1995)

4. The fourth issue in selecting files for analysis is the changes to the legislation and policies that direct the involvement of the Chief Medical Examiner in the deaths of children in Manitoba. The tenure of the current Chief Medical Examiner has seen a number of advances in the system of identifying and investigating child deaths. These include the following:

(a) The revision of the Fatalities Inquiry Act in 1989-90 giving the Chief Medical Examiner the authority to investigate deaths of children involved with child welfare agencies in Manitoba including access to all files and documentation relevant to the death. Prior to this such deaths were investigated by workers in the Child and Family Support Directorate which is responsible for ensuring that program standards are maintained. This change has enabled the Chief Medical Examiner to conduct investigations of these deaths and provides reports that contain information collected and recorded by trained medical examiner's investigator. One disadvantage is that the investigators tend to be trained in disciplines other than child welfare so the task environment is an unfamiliar one for investigators.

(b) The development of uniform standards for the performance of autopsies in the case of child deaths. In Manitoba, autopsies are performed on all children who die of natural, accidental or other causes. This has largely eliminated situations where no autopsy is conducted or the procedure is performed by

physicians whose expert qualifications do not include pathology or forensic medicine. Children autopsied in Winnipeg are examined by pathologists with specialized training in pediatric pathology and forensic medicine. A child need not die in Winnipeg to be autopsied in Winnipeg. Information from these autopsies ensures the cause of death is determined in a consistent manner.

(c) The formation and operation through the Office of the Chief Medical Examiner of a multidisciplinary committee known as the Children's Inquest Review Committee which reviews all "non-natural" child deaths in the province and selected natural deaths. The Committee makes recommendations to the Chief Medical Examiner as to whether or not inquests should be held. The committee also pools its expertise to advise the Chief Medical Examiner on directions for future policy or standards development. Concerns about the deaths of children are routinely aired at the committee and information shared to ensure that the classification of death is accurate. Despite limited resources, the Chief Medical Examiner also makes information on pediatric forensic issues available to committee members. Some members of this committee are also members of the Provincial Advisory Committee on Child Abuse (PACCA) while others are members of the Pediatric Death Review Committee of the College of Physicians and Surgeons of Manitoba. Membership on the committee represents the following organizations or entities.

Office of the Chief Medical Examiner including the Chief Medical Examiner, the Senior Medical Examiner's Investigator and the Administrative Officer

Director of Public Prosecutions, Office of The Attorney General of Manitoba

The Child Protection Centre, Children's Hospital, Winnipeg

Winnipeg Police Service, Child Abuse Unit

Assembly of Manitoba Chiefs

Royal Canadian Mounted Police

The Manitoba Department of Family Services

College of Physicians and Surgeons

Health Sciences Centre Department of Pathology

(d) The entering of cases in the database by a limited number of individuals trained to perform that task. This replaced the system of a wider group of individuals entering cases where an error could make it difficult to conduct computer searches to select particular types of cases. (M. Normand, Secretary, Office of the Chief Medical Examiner of Manitoba, personal communication, 1994)

File Selection

In the case of the Medical Examiners' files for Manitoba, the cause and manner of death is included in each file opened at the death of a child. This classification can change during the course of the investigation or even some time after the death when additional evidence or information provides compelling reasons to change the coding. Initially, a decision was made to read all files of the deaths of children from the following categories for the period from 1984 to 1993.

Accidents In the Home

Accidents In Other Places

Industrial Accidents

Homicides

Undetermined Manner, Undetermined Cause

Undetermined Manner, Sudden Infant Death Syndrome

Motor Vehicle Accidents

The first stage of the research involved reading files held in the Office of the Chief Medical Examiner for the years 1991 and 1992. The following objectives were to be met during this stage:

1. Assessment of the quality and quantity of information held in the files. Information was collected using the Manitoba Risk Estimation System (MRES) form employed as part of The Risk Estimation Project, a larger research project on the use of typologies of families as accurate predictors of the reabuse of children involved with the child welfare system. The files contained information that could not be recorded on the MRES form yet appeared to be relevant to the topic so it was determined that an additional form was needed to capture this information for analysis. This form was developed and named Child Fatality Review Information (CFRI).

2. Identification of special issues in classification and identification of cases. The trial file review revealed that there were deaths classified as accidental where the parents or caregivers were incapacitated by alcohol or drugs and incapable of supervising the children concerned. Another type of fatality that was found involved young children regularly left unsupervised in situations where they were exposed to environmental hazards such as bodies of water. It can be argued that there is a difference in the quality of care when children are routinely allowed to play unsupervised in dangerous conditions versus a lapse in otherwise adequate care where a child has eluded the caregiver for a short period of time. Enough of these unsupervised incidents were found to raise the issue of what is an "accident" and what is the logical consequence of regular exposure to dangerous conditions. This is further complicated by the vulnerability of the child in question. It is less dangerous, in most cases, to leave a healthy four year old unattended in a bathtub for 5 minutes than it is to leave a healthy 4 month old

child. The four year old has a greater ability to keep her head out of water than does a four month old infant. It is also, in general, less dangerous to leave a child alone once than it is to do so routinely. The odds are that frequent exposure to a dangerous situation will result in a higher probability of injury over time. For example, if children routinely travel without seat belts in automobiles, they are exposed to greater risks than children who are regularly restrained as seat belts have been judged to be 40 to 58% effective in preventing a fatality. (Dalkie and Mulligan, 1987, p. 2)

Other concerns included deaths of children exposed to machinery that is not designed or recommended for use around young children, in particular young children riding on farm machinery. A parallel can be drawn with factories; there is legislation in place to prevent young children from being taken onto factory floors in the company of parents employed there as they may be injured by industrial machinery. This same legislation is intended to protect young children from accidents involving farm machinery. The essential difference is that the factory owner is responsible for ensuring his or her employees do not expose children to such hazards while it is the responsibility of the farmer to follow workplace safety and health legislation on family farms. (G. Blaughie, Manitoba Dept. of Workplace Health and Safety, personal communication, 1994) In all child fatalities reviewed for this research, the farm operators were the parents of the victims. There are reasons for exposing children to dangerous situations such as the lack of available alternative caregivers or the barrier posed by the cost of purchasing such services. The American Bar Association (Anderson and Wells, 1991) describes these deaths as "preventable" in that the deaths occur in unsafe, high-risk environments with children exposed "as a result of high risk behaviours that are accepted as normative". The example given involved the drownings of children in uncovered ditches in Oregon. (p.3)

Leaving children to play unattended near rivers, lakes, ponds or dugouts (sloughs), having unsecured firearms and ammunition in places accessible to children, leaving children unattended at homes with access to matches, lighters, sharp objects, toxic chemicals and not using child safety restraints in motor vehicles are some of the examples found in the review of the Medical Examiners' files in Manitoba that fit the description above of "preventable" deaths.

Another type of death that raised concerns about classification and identification was asphyxia in questionable circumstances. These deaths include hanging, overlay and suspected child abuse and neglect (SCAN) deaths. Examples of these are children who become tangled in homemade baby hammocks, suffocate in upper bunks with makeshift bedrails or are put in bed with intoxicated parents. In a number of these cases, the parents acknowledged being intoxicated before putting the child to bed and could not recall the events of the evening. Emery has pointed out the low incidence of overlay asphyxia deaths in some cultures where cultural preferences or economic constraints dictate that parents and infants routinely share beds and emphasizes the role that alcohol plays in overlay deaths in "developed" countries. (Emery, 1993, p. 1098) Another type of questionable death found in the Manitoba files was an asphyxia death after which the parents acknowledged a regular practise of pressing the infant's head and shoulders into their bed to muffle her cries. A parallel in the literature is described by Emery in his practice as a physician in an area with a high incidence of so-called SIDS. Mothers revealed to him that crying infants were quieted by stopping their cries with a hand over the mouth and nose. In one case, two children in the family had died of what originally thought to be "cot death" (SIDS) although Emery had reservations about this after the mother's disclosure. (p. 1099) This raises the question of when is an "accident" not an accident but rather the consequence of unsafe or inept parenting practices. To

address these concerns, criteria were developed for the identification and classification of files through qualitative analysis.

3. Development of a process for the most effective and efficient gathering of information needed for the research. Initially, the plan was to read only homicides, but the trial examination illustrated the problems with classification and identification so a decision was made to read all the files that were not "natural" deaths. Two forms were used to record the information found; the MRES form and a Child Fatality Review Information (CFRI) form. The MRES captured information relevant to risk and the CFRI was used to provide a wider range of information on the circumstances of child abuse and neglect fatalities. Of the files read, about 20% fell within the criteria set for further file analysis. The CFRI data were entered into a relational database, Fox Pro 2.5c for the Macintosh and the MRES data entered into Excel and JMP Statistical, both for Macintosh.

4. Determination of the number of child abuse and neglect deaths contained in the files. The issue of accurately defining and counting a child abuse or neglect death became evident as the limits of the Chief Medical Examiner's classification system for this research design were reached. Neglect deaths in particular posed the greatest problem as there is no classification code for these deaths. Criteria for defining abuse and neglect deaths were needed as well as a method of coding these beyond the Medical Examiners' codes.

Classification of Files by Manner of Death

File review criteria were developed to include all files where the death of the child was attributed to abuse or neglect by the parents or caregivers of the child. Initial

attempts to use the categories used by the Office of the Chief Medical Examiner proved unsuccessful due to the classification problems discussed above. Using qualitative analysis, categories were developed for the purpose of classification of deaths for analysis. The categories developed were Homicides, Preventable and Problematic Deaths.

Definitions:

Agent of Death: The individual identified as responsible for the child's death either through action or omission of duty.

Cause of Death: The cause of death is defined at the etiology of the death; the physical reason for death.

Manner of Death: A category of information about a child fatality that describes the circumstances and origins of the death with consideration of the following: (a) *actus rea* involving the action of inaction of a child's caregivers, (b) *mens rea* and (c) whether or not an agent of death has been identified. The manner of death is categorized by inclusion in only one of the following categories: 1. (a) Homicides by Known Agents, (b) Homicides by Unknown Agents 2. Preventable Deaths 3. Problematic Deaths.

Homicide By Known Agent: The criminal conviction of a perpetrator is a necessary condition. For this category, the cause of death is known and is due to an inflicted injury, the manner of death is known with both *mens rea* (literally, guilty mind, the criminal intent required for conviction of a particular crime) and *actus rea* (literally, wrongful act as distinct from the intent behind it) proven and the agent of death is identified as a caregiver of the victim.

Homicide by Unknown Agent: The cause of death confirms the classification as a homicide; it is due to an inflicted injury. The manner of death is known to be a wrongful act. The agent of death is obscure; this can include deaths where charges have been laid against an alleged perpetrator or where a trial is underway. Deaths where the acknowledged perpetrator has committed suicide before being charged or convicted are also included if a law enforcement review of the case identifies the perpetrator post mortem.

Preventable Death: A preventable death is a child death resulting from an omission on the part of a caregiver that permits a child to experience avoidable present or future suffering and/or a failure to provide one of more of the elements deemed necessary for sustaining life. The cause of death is known, the manner of death is identified as a wrongful act in which any or all of the following are present: (a) children are left unattended or unsupervised in a hazardous environment (the vulnerability of the child is primary in defining hazards), (b) timely medical care is not obtained or medical advice is not followed for a condition of some severity, (c) there is non-compliance with existing safety legislation resulting in the death of the child, (d) the child dies as an indirect consequence of the caregiver's illegal activities or (e) the caregiver has been convicted of failing to provide the necessities of life. The agent of death is a caregiver.

A "Preventable Death" is one that is attributed to one or more of the following conditions:

1. The death is the outcome of the quality of care that may be associated with child care practices, personal characteristics of the caregivers such as addictions, mental illness or reduced capacity to recognize danger or act to protect the child. The assumption is that one or more of the above reduces the quality of care given the child and increases the risk of harm to the child. Indicators include: lack of supervision or child left unattended, use of alcohol or other drugs to intoxication or incapacity by the caregiving parent prior to the child's death, chronic

untreated illness, insanitary living conditions impacting on the child's health and inadequate or inappropriate food, clothing or shelter where the parent has the resources to meet a minimal standard.

2. The death is the result of a decision on the part of the caregiver to disregard statutes or legal standards designed to protect children from harm. This includes deaths due to the absence of child restraints or seat belts in motor vehicle accidents when there is expert opinion that such restraint would have prevented a fatality. Also included are children taken in boats without personal flotation devices, with intoxicated drivers in motor vehicles or boats or left unsupervised near unsecured swimming pools in municipalities with legislation prohibiting such practices.

3. The death is the result of the parent or caregiver's actions exposing the child to danger through activities that do not directly involve the child. Such exposure is described as 'entailment neglect' in the conceptual model of neglect developed by Reid, Sigurdson, Christianson-Wood and Wright (1994) as part of a larger research project. It refers to the parent's choice of actions/activities that expose the child to danger that is entailed in the particular action or activity. An example of this is the parent who is a drug trafficker and pursues this course in his or her own home, exposing the children in that home to heightened risk of harm from disgruntled clients or the actions of the state in curtailing such traffic. Two children were identified as victims of this type of neglect in the course of this study. They and their mother were executed in lieu of their drug trafficking father who had been able to escape the home.

4. The cause and manner of death have been reviewed with at least one expert in the province of Manitoba and have been included due to the circumstances of the child's death. This included cases where the injuries or illness that led to the

child's death raised concerns in the researcher about the assigned Medical Examiners' category or where there was an apparent discrepancy between the manner and cause of the death and the category assigned. Expert opinion was obtained before including the death in the data base. Review of a number of cases originally classified as Homicides resulted in either their inclusion in Preventable deaths due to the outcome of court proceedings or an analysis of the actions and responsibilities of the caregivers or their removal from the data set.

Problematic Death: A problematic death is defined as the death of a child where the manner of death is unclear or concern is recorded in the file about the circumstances of the death. The circumstances of the death are such that action or inaction of the caregiver appears to be related to the child's death. This can include but is not limited to the following: (a) the caregiver is intoxicated at the time of the child's death or immediately before the death, (b) the child's medical condition at the time of death was of concern with respect to the caregiver's action or inaction, (c) the care of the child appears to have been inadequate based on examination of the scene or recent documented history. The agent of death is unclear but the child was under the supervision of her caregiver at the time of death. Problematic deaths include SIDS deaths where the diagnosis of exclusion is incomplete; recent deaths (post 1990) appear to have been scrutinized with more rigorous criteria. These deaths were originally found in the 700 category of the Chief Medical Examiner's coding system (Undetermined Manner, Undetermined Cause or Undetermined Manner, SIDS).

File Review Process

1. Sort "Homicides".

Homicide deaths were sorted using the definitions given above. Initially, these deaths were extracted using the 600 Code of the Chief Medical Examiner's coding system.

As the work progressed, other deaths were included as homicides when they met the criteria of non-accidental injury inflicted by parent or parent substitute with supporting medical documentation and opinion from expert sources. It should be emphasized again that the status of a case can change as more information is received about the particulars of a case or when there is an initiative to investigate more thoroughly or to reinterview suspects. During the course of the research, a conviction was obtained in at least one of several unsolved cases that was reinvestigated at the insistence of an expert in child abuse injuries. At the conclusion of the research, two thirty year old cases were being reinvestigated as homicides as new information had been received by officials.

Homicides were subdivided into Homicides by Known Agent and Homicide by Unknown Agent using the criteria included in the definitions above.

2. Sort "Preventable" and "Problematic" deaths

On examining the category of "other" deaths, which numbered over 750, it was necessary to establish criteria to distinguish accidental deaths from preventable deaths and problematic deaths. Accidental and preventable deaths were sorted using the definitions provided earlier. Any deaths that lacked sufficient information to determine the circumstances of death were not included to reduce the incidence of false positives in the database.

3. Rate deaths using the Manitoba Risk Estimation System.

Data was entered onto MRES hard copies by hand and transferred later to an Excel database. The data was later transferred to a JMP Statistical database for further analysis of descriptive statistics. The large amount of missing data in a substantial number of cases as well as the uneven sizes of the three categories created difficulties in analyzing the data obtained.

4. Enter additional data into the Child Fatality Review Information (CFRI) form. Data was entered into the CFRI form by hand and transferred later to a Fox Pro database.

Data Management Issues

The original research plan was to use Fox Pro and a qualitative database analysis program, NUD.IST, to perform additional qualitative analysis on the CFRI data. This plan had to be abandoned when a failure of a hard drive on a Macintosh PowerBook 150 used to record data from the Medical Examiners' files resulted in data contained in the Fox Pro memo fields being removed or dispersed into unrelated memo fields. This was not discovered until approximately two months later during the process of accessing a particular file's memo fields. It was not possible to recover the lost data as the inadvertent use of back up diskettes after the hard drive failure resulted in their contamination. All data had to be "hand" checked and all memo fields examined and coded with damage codes to determine the extent of the loss. This process took a great deal of time despite the assistance of an applications specialist and the use of dSalvage Professional database repair software. A replacement PowerBook 150 experienced a logic board failure, further delaying the data analysis and necessitating extra work in checking for missing data across the Excel, JMP and Fox Pro databases. The final analysis and writing of this thesis was completed on a Macintosh LCIII and a Macintosh LC575 computer.

An examination of the file lists of motor vehicle accidents revealed that file numbers for the years 1984 to 1986 were not provided in the lists from the Office of the Chief Medical Examiner. Due to the difficulties described above, it was not possible to return to the archives to retrieve the missed files. However, using the remaining seven years of data to produce an estimate, the numbers of files concerning motor vehicle accidents that fit the research design criteria would be expected to average two

per year for a total of six missed files. This was a low rate of return for the 69 files that would have to be recalled from the archives. A decision was made to proceed without these files. The expected effect will be an under-estimate of Preventable deaths.

Changes in the quality of data contained in the files over the years were noticeable. As a result, the numbers of child maltreatment fatalities from 1984 to 1985 may be underestimated and almost certainly are as there are no maltreatment fatalities shown for those years. Files from 1984 to 1987 were read selectively as part of the Reid, Sigurdson and Associates' 1987 review commissioned by the Manitoba Department of Community Services and a reading of these files was notable for the amount of documentation (reports, departmental reviews, etc.) that had been generated. In general, the quality and quantity of data collected appeared to improve through the years up to the present.

Any attempts to compare the data from this study with the figures for child maltreatment deaths in the province would be of little value. Over the years, the provincial system of data collection has changed substantially. The recording year changed from the calendar year to the fiscal year in 1988/1989 and the profile of data collected and the way in which it is sorted and recorded has changed frequently, making comparisons across years and with this research data of little utility in determining the incidence of child maltreatment fatalities. There are no provincial statistics for neglect (preventable) deaths during 1984 to 1993 and no indication that they will be collected in the near future. This is, in part, a function of Manitoba's legislation which focuses on children in need of protection rather than specific acts of neglect. The Province of Manitoba's new service information system has recently come "on line" to the stage where the first system wide statistics are being generated. (C. Lillie, Child and Family Services Information System trainer, personal communication, June 1995) If the Province is able to ensure wide implementation and maintain standards for data

collection, the quality and quantity of child welfare statistical data should improve dramatically.

Qualitative and Quantitative Research Issues

In proceeding with this research, it became obvious that the techniques required were those of both qualitative and quantitative research. The development of categories for sorting the child deaths necessitated the use of qualitative research methodology to determine what characteristics distinguished a particular "kind" of death. Kirk and Miller (1986) emphasize that qualitative research is not defined by being "not quantitative" (p. 10) but rather is "an empirical, socially located phenomenon, defined by its own history" with "a commitment to field activities". "Its diverse expressions include...the study of life histories and certain archival, computer and statistical manipulations." (p. 10) The "field" in this research is the working environment of professionals working in child abuse, forensic medicine, law enforcement, child welfare, fire fighting, etc. Their written words are analyzed and recorded as field data in the CFRI. In addition, quantitative methods are used to impose measurement on the content of the field data using the MRES. This has provided a rich source of data that has the potential for further analysis in the future.

The "kind" of data contained in the files used is a mixture of types; medical (presumed to be empirical and positivist), legal (police and Crown records; judged by a different set of criteria based on the application of law but also presumed to be empirical and positivist), forensic (similar but not identical to medical in type) and child welfare (qualitative and quantitative observations). With respect to the reliability of the data used in this research, the employment of multiple sources provides what Kirk and Miller describe as "synchronic reliability" in which there is a similarity of observations within the same time period as evaluated by interrater correlation. (p. 43) Loosely stated this is equivalent to agreement between observers that if it walks

like a duck and quacks like a duck, then it is a duck. Kirk and Miller believe that synchronic reliability is most useful when it fails; when one observer sees instead "not a duck" as it forces the researcher to consider if it is possible that multiple but different qualitative measurements might simultaneously be true (p. 43) or conversely, what factors may be operating on the perception of the event by the dissenter. This was a useful concept when considering the definition of "preventable death" used for this research and the effects of history (as a threat to internal validity) with respect to the attribution of responsibility for the deaths of unsupervised children in house fires started by children playing with matches.

In concluding this discussion of the methodology used, Kirk and Miller's comment on validity checks appears à propos:

> "When discussing the validity checks of social research, it is useful to remember that a careful description of what [was] done generally tends to suggest an obsessive preoccupation with detail on the part of the researcher. This is an artifact of the fact of description, not a recommendation for compulsive behaviour." (p. 20)

DATA RESULTS

Descriptive Statistics

Files from the Office of the Chief Medical Examiner

Descriptive statistics were obtained for the set of Medical Examiners' files. As described earlier, files of natural deaths of children were not examined. The circumstances of death and the gender of victims are included in Table 3, Medical Examiners' Files Death Circumstances and Gender of Victims, presents the circumstances of deaths of children aged 0 to 17 years who died of causes other than natural deaths from 1984-1993. This included deaths of undetermined manner including SIDS deaths. The categories used are descriptive rather than medical or forensic categories.

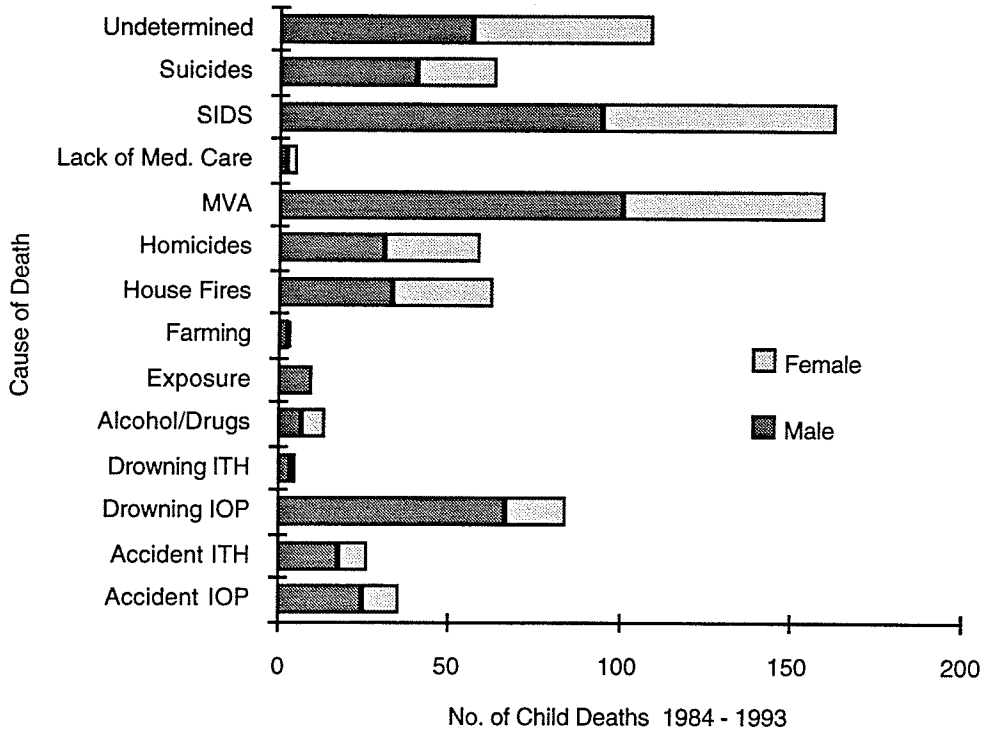
Table 3
Medical Examiners" Files Death Circumstances and Gender of Victims

Circumstances of Death	N	% of Total	n Male	% of Total	n Female	% of Total
Accident In Other Place	36	4.48	26	3.23	10	1.24
Accident In The Home	26	3.23	18	2.24	8	1.00
Drowning In Other Place	85	10.57	67	8.33	18	2.24
Drownings In the Home	5	0.62	4	0.50	1	0.12
Drugs and Alcohol	14	1.74	7	0.87	7	0.87
Exposures	10	1.24	10	1.24	0	0.00
Farming Accidents	4	0.50	3	0.37	1	0.12
House Fires	63	7.84	33	4.10	30	3.73
Homicides - ALL	59	0.07	31	3.86	28	3.48
Motor Vehicle Accidents[a]	160	19.90	101	12.56	59	7.34
Neglect (medical)	5	0.62	2	0.25	3	0.37
SIDS	163	20.27	95	11.82	68	8.46
Suicides	64	7.96	40	4.98	24	2.99
Undetermined	110	13.68	57	7.09	53	6.59
Total Deaths	**804**	100.00	**494**	61.44	**310**	38.56

[a]Files for Motor Vehicle Accidents 1984-1986 were not examined.

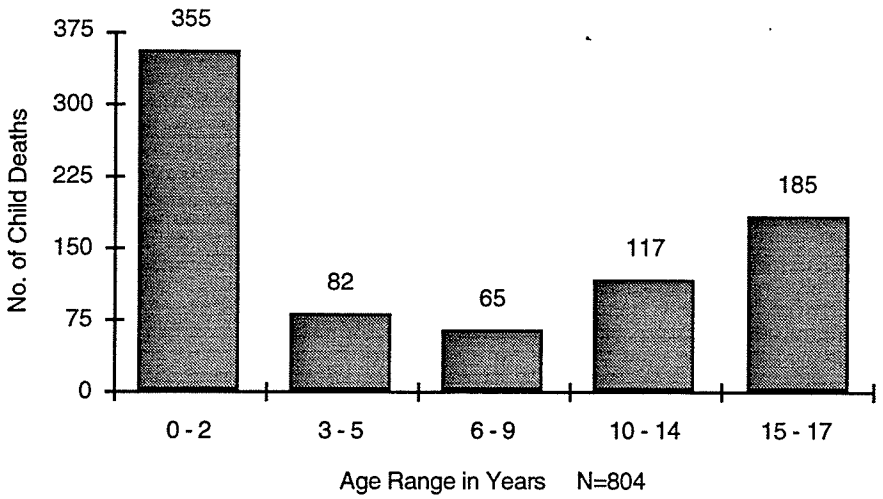
Figure 1 provides a graphical representation of the information contained in Table 3 including the gender of victims. With only one exception, medical neglect, males died more frequently than females in each category.

Figure 2 Medical Examiners' Files by Circumstances of Death



The age range of victims is shown in Figure 2. Children aged 0 to 2 years comprise 44% of victims in the files examined in order to select the cases for this study. The addition of the missing Motor Vehicle Accident files would be expected to cause the numbers in the 15 - 17 year category to rise as this is a frequently documented cause of death for children in this age group.

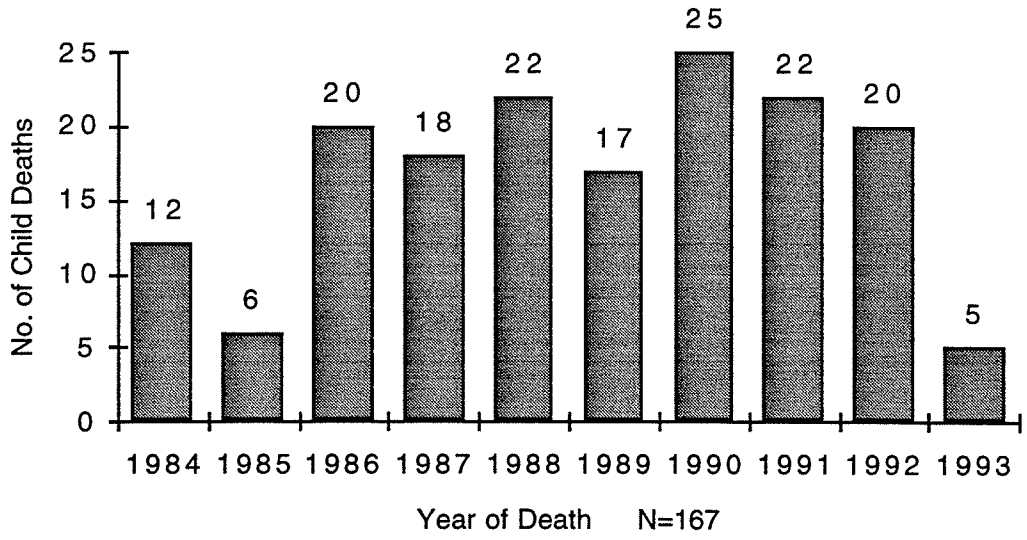
Figure 3 Medical Examiners' Files by Age Range of Victims



Risk Estimation Project Files

The 167 files selected for use in this study are described as the Risk Estimation Project (REP) set. The distribution of cases across the years included in the study is illustrated below in Figure 3. Cases ranged from a low of 5 in 1993 to a high of 25 in 1990.

Figure 4 Distribution of Cases Across the Ten Year Interval, 1984-1993



The circumstances of death for the files contained in the REP data set are presented in Table 4. As with Table 3, these are descriptive rather than official categories of the circumstances of death.

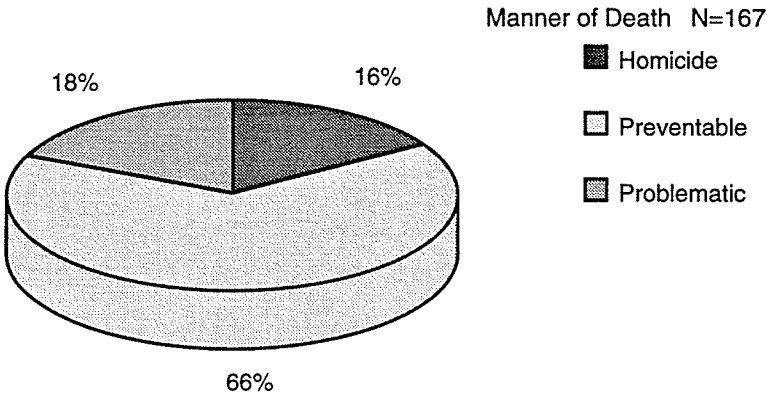
Table 4
Death Circumstances and Gender of Child Victims in REP Sample

Circumstances of Death	N	% of Total	n Male	% of Total	n Female	% of Total
House Fires	33	19.76	16	9.58	17	10.18
Homicides	27	16.17	17	10.18	10	5.99
Drownings In Other Places	24	14.37	20	11.98	4	2.40
Asphyxia	19	11.38	10	5.99	9	5.39
Motor Vehicle Accidents	15	8.98	9	5.39	6	3.59
Drownings In The Home	11	6.59	8	4.79	3	1.80
Medical Neglect	6	3.59	1	0.60	5	2.99
SIDS-Like Deaths	6	3.59	5	2.99	1	0.60
Overlay	5	2.99	3	1.80	2	1.20
Inflicted Injuries	4	2.40	1	0.60	3	1.80
Farming	3	1.80	2	1.20	1	0.60
Drugs or Alcohol	3	1.80	1	0.60	2	1.20
Hanging (not suicides)	2	1.20	2	1.20	0	0.00
Firearms	2	1.20	1	0.60	1	0.60
Entailment Neglect	2	1.20	1	0.60	1	0.60
Fall In The Home	1	0.60	0	0.00	1	0.60
Abdominal Injury	1	0.60	1	0.60	0	0.00
Acute Gastroenteritis	1	0.60	0	0.00	1	0.60
Suspected MSBP	1	0.60	0	0.00	1	0.60
Failure To Thrive	1	0.60	1	0.60	0	0.00
Total	**167**	**100.00**	**99**	59.28	**68**	40.72

A visual examination of the data above illustrates that, when deaths due to child maltreatment (including Preventable and Problematic deaths) are selected from the files described in Table 3 (and renamed the Risk Estimation Project data set), the profile of the circumstances of death changes substantially. There are no suicides in the REP data set and the most frequent causes of death are house fires, homicides and drownings. The reclassification of deaths into three categories, Homicides, Preventable and Problematic deaths is represented below in Figure 5 REP Manner of Death by

percentages. The largest category, Preventable deaths, contains 110 cases; the Problematic deaths category has 30 cases and the Homicides category 27 cases.

Figure 5 REP Manner of Death



Victims

The gender distribution of victims according to the three manner of death categories, Homicides, Preventable and Problematic deaths, is illustrated in Figure 6. Male children predominate as victims in each category. Males represent 63% of homicide victims, 60% of Preventable deaths and 53% of Problematic deaths.

Figure 6 REP Gender of Victims By Manner of Death

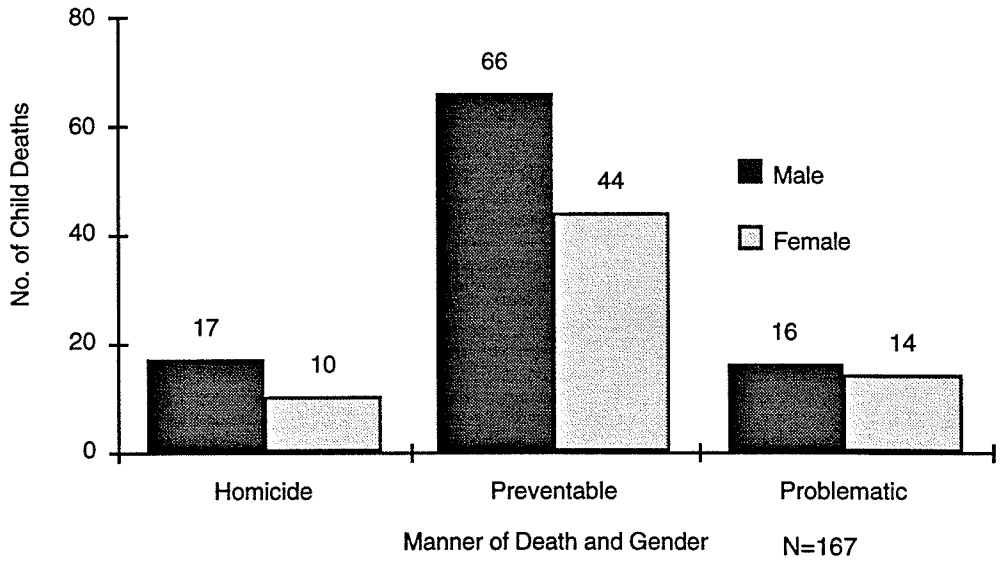


Table 5 contains descriptive statistics on the ages of victims. The median age of children who die Problematic deaths is the lowest of the three categories of manner of death and has both the lowest minimum and maximum ages of victims.

Table 5
Frequency Distribution of Age of Victims

	All REP Data	Homicide	Preventable	Problematic
Minimum Age	.04 yr (14 da)	0.17 yr (2 mo)	0.06 yr (22 da)	0.04 yr (14 da)
Maximum Age	17.00 yr	17.00 yr	17.00 yr	12.00 yr
1st Quartile	0.67 yr	0.67 yr	1.33 yr	0.17 yr
Median	2.00 yr	2.00 yr	2.42 yr	0.27 yr
3rd Quartile	4.00	5.00	4.00 yr	0.67 yr
Mean	3.15	4.11	3.56	0.77 yr
Std. Deviation	3.8394	5.1133	3.6103	2.1421

The extreme youth of victims of child maltreatment is illustrated in Figure 6; the largest single age cohort is children under the age of 1 year; 59 victims or 35% of all children in the REP data set. Children aged under 4 years total 135 or 81% of all children studied.

Figure 7 REP Age Distribution of Child Deaths

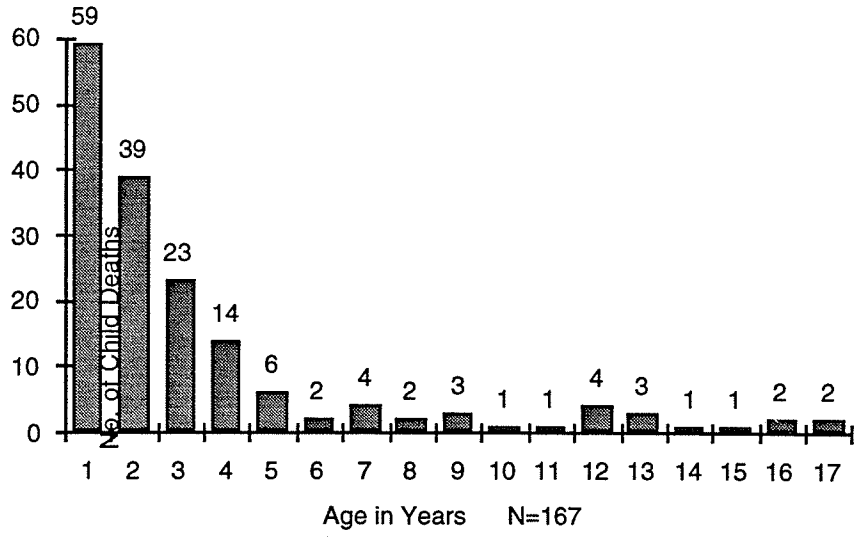


Figure 8 Homicides Age Distribution

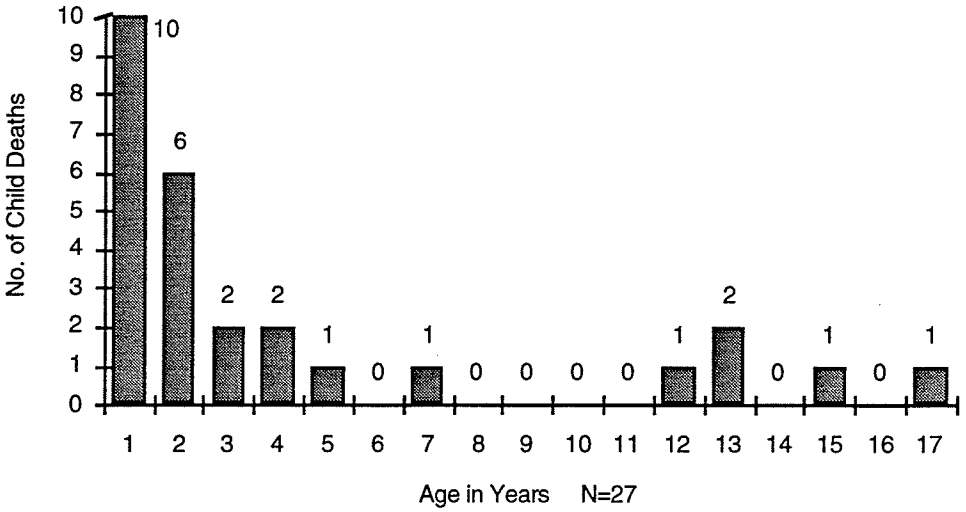


Figure 9 Age Distribution Preventable Deaths

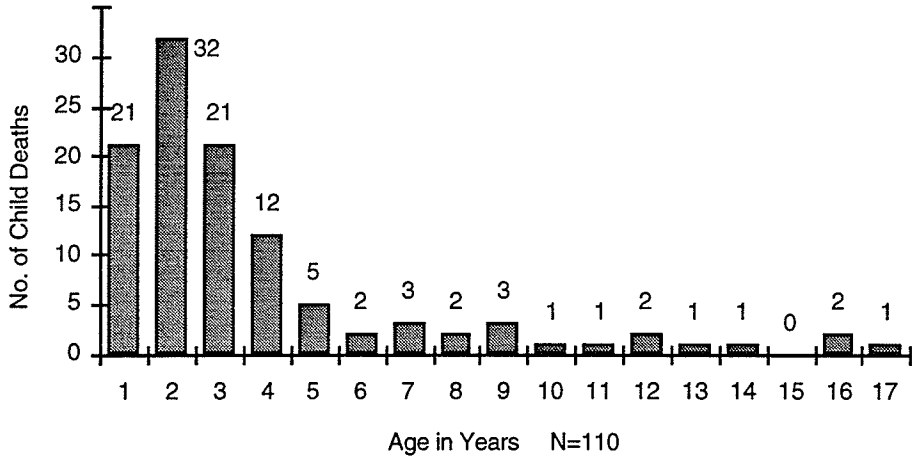
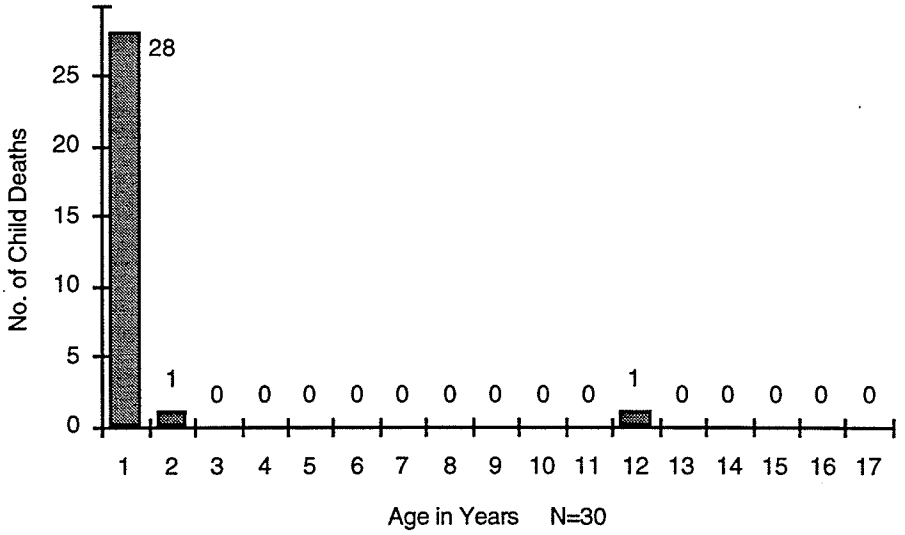


Figure 10 Age Distribution Problematic Deaths



Figures 8, 9 and 10 illustrate the age distribution of victims of Homicides, Preventable and Problematic deaths. Children under the age of two years predominate as victims of child maltreatment. They are 59% of Homicide victims, 48% of children in the Preventable death category and 97% of children who deaths fall into the Problematic category.

Caregivers/Perpetrators

In Table 6, data on the ages of caregivers/perpetrators of maltreatment is presented. As specified earlier, the caregivers in this study are parents or parent substitutes such as foster parents or extended family members and the cases selected are those in which the caregivers have committed acts against the child or failed in their duty of care toward the child. Analysis of the means of the ages of Adult A across the three manner of death categories using Tukey-Kramer HSD demonstrated that the difference between the mean ages in the following combinations is significant at the level of $p \leq .01$; Homicides and Problematic deaths; Preventable and Problematic deaths; and Homicide and Problematic deaths. For the age of Adult B, using the same test, the differences between means are not significant for any combination of pairs of categories.

Table 6
Ages of Caregivers/Perpetrators

	REP		Homicide		Preventable		Problematic	
Age in Years	Adult A	Adult B	Adult A	Adult B	Adult A	Adult B	Adult A	Adult B
Mean	27.44	28.27	28.65	28.88	29.03	29.79	22.12	24.20
Median	26.00	26.00	27.00	25.00	28.50	28.00	21.00	24.00
Minimum	13.00	14.00	17.00	15.00	16.00	19.00	13.00	14.00
Maximum	55.00	49.00	50.00	49.00	22.00	46.00	38.00	43.00
Std. Dev.	8.21	8.42	9.04	10.52	7.97	7.55	5.68	6.41

Family Types

The Family Types found in the deaths studied have been extracted from the MRES facesheet for the entire data set. Table 7 provides information on the frequency of each caregiver configuration in the data set. As these children died at the hands of their caregivers, in the majority of cases the caregivers either inflicted the injury on the child or failed to act to protect the child. In examining Homicides, the perpetrators were distributed as follows; fathers, 9; mother's male partner, 5; mother, 3; mother and father 4; unknown, 5 and foster brother, 1.

Table 7
Caregivers' Relationship to Victims

Family Types	N	% of Total
Biological Parents - 2	97	58.08
Single Female Parent	37	22.16
Mother & Male Partner	9	5.39
Foster Parents	6	3.59
Grandmother	1	0.60
Informal Foster Parents	1	0.60
Stepfather & Bio Mother	2	1.20
Stepmother & Bio Father	2	1.20
Single Father	5	2.99
Cousins	1	0.60
Aunt	2	1.20
Aunt & Uncle	2	1.20
Other Extended Family	2	1.20
	167	**100.00**

Figure 11, REP Family Types illustrates the configuration of this data when the family types are collapsed. Family Type 1 includes all two biological parent families. Family Type 2 includes all single female parent families, Family Type 3 is composed of families with one biological parent and one non-biological 'parent' (step-parents, common-law partners) while Family Type 4 includes single male parent families, extended family and substitute caregivers. As there were only 5 single male parent

families in the data set, these were collapsed into Family Type 4. These fathers were providing care with the assistance of girlfriends who did not live with the family, relatives and/or baby-sitters, except in one case where the victim was a teenager and the father was parenting on his own.

Figure 11 REP Family Types

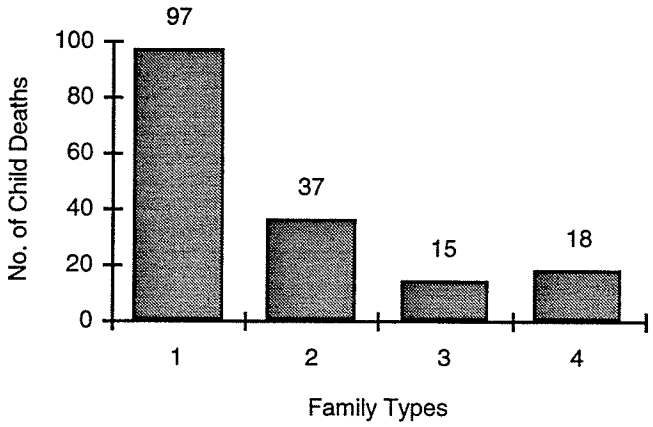


Figure 12 REP Family Types and Gender of Victims

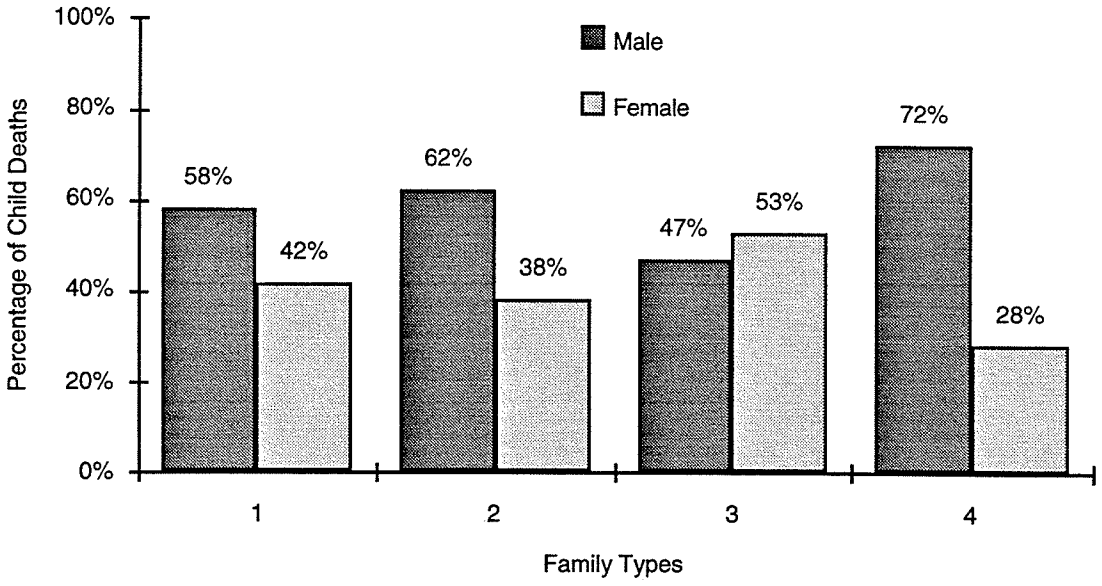
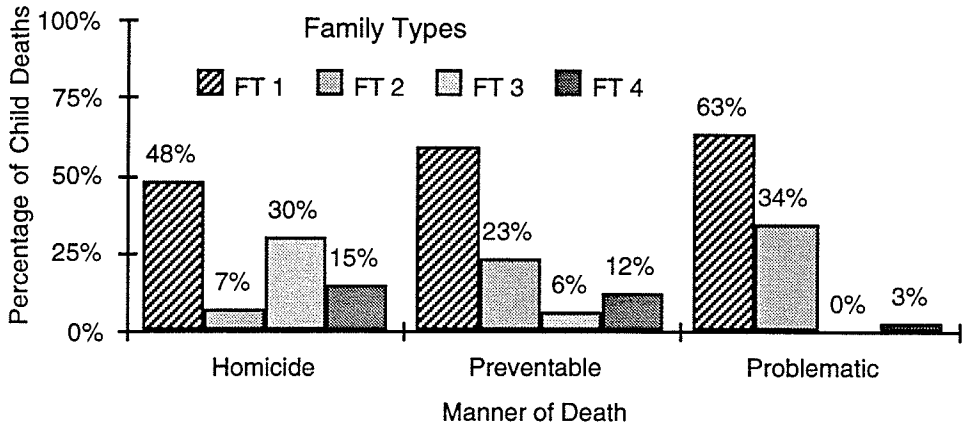


Figure 12 illustrates the gender of victims by Family Type in proportion to the total number of deaths in each category. In Family Types 1, 2 and 4, male victims outnumber female victims. The exception is Family Type 3 in which 6% more female children than male children die in families where the biological mother is parenting with a male partner who is not the child's biological father.

Figure 12 shows the distribution of Family Types among the three Manner of Death Categories used in the research.

Figure 13 Distribution of Family Types by Manner of Death



MRES Data Results

In examining the data collected using the Manitoba Risk Estimation System, a substantial quantity of historical data about the care of children by these families was not present in the files. Any child death files with corresponding files in the Child and Family Services Directorate usually had more information on the caregiver's history of care of the children. There were also frequent gaps in the demographic information about the family such as the existence of the victim's siblings, their ages and birth order. The frequency scores for each variable on the MRES facesheet are recorded in Table 8 while the frequency scores for medium to high severity ratings on each scale of the MRES scales are recorded in Tables 9, 10 and 11.

Table 8

MRES Family and Case Data

	REP Set		Homicides		Preventable		Problematic	
	N	% Set	N	% Set	N	% Set	N	% Set
No. in Set/Total	167		27.00		110.00		30.00	
Min. Age of Child Yr	0.04		0.17		0.06		0.04	
Max Age of Child Yr	17.00		17.00		17.00		12.00	
Age of Child Median	2.00		2.00		2.42		0.27	
Age of Child Mean	3.15		4.11		3.56		0.77	
Age 0 - 2 Yrs	110.00	65.87	18.00	66.67	63.00	57.27	29.00	96.67
Age 3 - 5 Yrs	31.00	18.56	3.00	11.11	28.00	25.45	0.00	0.00
Age 6 - 9 Yrs	11.00	6.59	1.00	3.70	10.00	9.09	0.00	0.00
Age 10 -14 Yrs	10.00	5.99	3.00	11.11	6.00	5.45	1.00	3.33
Age 15 - 17 Yrs	5.00	2.99	2.00	7.41	3.00	2.73	0.00	0.00
Male	99.00	59.28	17.00	62.96	66.00	60.00	16.00	53.33
Female	68.00	40.72	10.00	37.04	44.00	40.00	14.00	46.67
Sexual Abuse	3.00	1.80	1.00	3.70	2.00	1.82	0.00	0.00
Physical Abuse	38.00	22.75	27.00	100.00	6.00	5.45	5.00	16.67
Emotional Abuse	22.00	13.17	16.00	59.26	1.00	0.91	1.00	3.33
Neglect	151.00	90.42	16.00	59.26	108.00	98.18	27.00	90.00
Case Open to Agency	73.00	43.71	21.00	77.78	35.00	31.82	17.00	56.67
Family Type - 1	97.00	58.08	13.00	48.15	65.00	59.09	19.00	63.33
Family Type - 2	37.00	22.16	2.00	7.41	25.00	22.73	10.00	33.33
Family Type - 3	15.00	8.98	8.00	29.63	7.00	6.36	0.00	0.00
Family Type - Other	18.00	10.78	4.00	14.81	13.00	11.82	1.00	3.33
Adult A - Bio Parent	122.00	73.05	21.00	77.78	99.00	90.00	29.00	96.67
Adult A - Foster P	37.00	22.16	3.00	11.11	3.00	2.73	0.00	0.00
Adult A - Ext. Fam.	8.00	4.79	3.00	11.11	8.00	7.27	0.00	0.00
Adult A - Other			0.00	0.00			1.00	3.33
A: Gender - Male	55.00	32.93	11.00	40.74	42.00	38.18	8.00	26.67
A: Gender - Female	112.00	67.07	16.00	59.26	68.00	61.82	28.00	93.33
Adult B - Bio Parent	97.00	80.83	12.00	52.17	66.00	84.62	19.00	100.00
Adult B - C/L , M	8.00	6.67	3.00	13.04	5.00	6.41	0.00	
Adult B - Foster P	6.00	5.00	3.00	13.04	3.00	3.85	0.00	
Adult B - Ext. Fam	9.00	7.50	5.00	21.74	4.00	5.13	0.00	0.00
B: Gender - Male	71.00	59.17	13.00	56.52	41.00	52.56	17.00	89.47
B: Gender - Female	49.00	40.83	10.00	43.48	37.00	47.44	2.00	10.53

Table 9

MRES Scales with Medium to High Severity Scores

No. of Cases = 167	Total No. of Responses Rated	No. of Med. to Very High Ratings	M-VH Ratings as Percent of Responses	M-VH As % of Possible Responses
1 Access by Perpetrator	167	167	100.00	100.00
2 Child Able to Protect Self	167	161	96.41	96.41
3 Adequate Protector	112	112	100.00	67.07
5 >1 Abuse/Neglect	55	37	67.27	22.16
6 A: Severity Prior Incident	60	59	98.33	35.33
7 A: Recency Prior Incident	61	59	96.72	35.33
8 A: Frequency Prior Incid.	54	51	94.44	30.54
9 A: Severity Trend	56	55	98.21	32.93
10 A: Severity Frequency	31	30	96.77	17.96
11 A: Perception Incident	114	90	78.95	53.89
12 A: Perception Child	98	78	79.59	46.71
13 A: Attachment	65	52	80.00	31.14
14 A: Attitude Discipline	20	15	75.00	8.98
15 A: Parenting Skills	133	130	97.74	77.84
16 A: Age of Adult A	137	21	15.33	12.57
17 A: Substance Abuse	65	59	90.77	35.33
18 A: Psychopathology	19	15	78.95	8.98
19 A: History of Violence	29	24	82.76	14.37
20 A: Stress	61	56	91.80	33.53
24 A: Reference Group	53	45	84.91	26.95
25 A: Isolation	70	22	31.43	13.17
6 B: Severity Prior Incident	34	31	91.18	25.83
7 B: Recency Prior Incident	34	31	91.18	25.83
8 B: Frequency Prior Incid.	29	26	89.66	21.67
9 B: Severity Trend	33	31	93.94	25.83
10 B: Severity Frequency	19	17	89.47	14.17
11 B: Perception Incident	55	46	83.64	38.33
12 B: Perception Child	49	43	87.76	35.83
13 B: Attachment	37	34	91.89	28.33
14 B: Attitude Discipline	16	12	75.00	10.00
15 B: Parenting Skills	61	59	96.72	49.17
16 B: Age of Adult B	78	13	16.67	10.83
17 B: Substance Abuse	37	35	94.59	29.17
18 B: Psychopathology	9	7	77.78	5.83
19 B: History of Violence	27	25	92.59	20.83
20 B: Stress	38	35	92.11	29.17
24 B: Reference Group	37	30	81.08	25.00
25 B: Isolation	44	13	29.55	10.83
21 Conflict/Support	42	41	97.62	34.17
22 Reinforcement	60	59	98.33	49.17
23 Siblings	23	7	30.43	5.83

Table 10

Homicide Scales with Medium to High Severity Scores

No. of Cases = 27	Total No. of Responses Rated	No. of Medium to Very High Ratings	M-VH Ratings as Percent of Responses	M-VH as % of Possible Responses
1 Access by Perpetrator	27	27	100.00	100.00
2 Child Able to Protect Self	27	25	92.59	92.59
3 Adequate Protector	25	25	92.59	100.00
5 >1 Abuse/Neglect	22	21	77.78	95.45
6 A: Severity Prior Incident	17	16	59.26	94.12
7 A: Recency Prior Incident	19	18	66.67	94.74
8 A: Frequency Prior Incid.	19	18	66.67	94.74
9 A: Severity Trend	18	18	66.67	100.00
10 A: Severity Frequency	12	12	44.44	100.00
11 A: Perception Incident	23	22	81.48	95.65
12 A: Perception Child	22	20	74.07	90.91
13 A: Attachment	23	19	70.37	82.61
14 A: Attitude Discipline	11	9	33.33	81.82
15 A: Parenting Skills	23	23	85.19	100.00
16 A: Age of Adult A	26	4	14.81	15.38
17 A: Substance Abuse	14	12	44.44	85.71
18 A: Psychopathology	12	10	37.04	83.33
19 A: History of Violence	14	13	48.15	92.86
20 A: Stress	21	20	74.07	95.24
24 A: Reference Group	11	9	33.33	81.82
25 A: Isolation	23	13	48.15	56.52
6 B: Severity Prior Incident	12	10	43.48	83.33
7 B: Recency Prior Incident	15	14	60.87	93.33
8 B: Frequency Prior Incid.	14	13	56.52	92.86
9 B: Severity Trend	14	14	60.87	100.00
10 B: Severity Frequency	10	10	43.48	100.00
11 B: Perception Incident	18	17	73.91	94.44
12 B: Perception Child	19	18	78.26	94.74
13 B: Attachment	19	18	78.26	94.74
14 B: Attitude Discipline	11	8	34.78	72.73
15 B: Parenting Skills	19	18	78.26	94.74
16 B: Age of Adult B	20	6	26.09	30.00
17 B: Substance Abuse	9	8	34.78	88.89
18 B: Psychopathology	7	6	26.09	85.71
19 B: History of Violence	12	11	47.83	91.67
20 B: Stress	17	16	69.57	94.12
24 B: Reference Group	13	10	43.48	76.92
25 B: Isolation	19	8	34.78	42.11
21 Conflict/Support	18	18	78.26	100.00
22 Reinforcement	17	16	69.57	94.12
23 Siblings	9	2	8.70	22.22

Table 11

Preventable Death Scales with Medium to High Severity Scores

No. of Cases = 110	Total No. of Responses Rated	No. of Medium to Very High Ratings	M-VH Ratings as Percentage of Responses	M-VH as % of Possible Responses
1 Access by Perpetrator	110	110	100.00	100.00
2 Child Able to Protect Self	110	106	96.36	96.36
3 Adequate Protector	64	64	58.18	100.00
5 >1 Abuse/Neglect	23	11	10.00	47.83
6 A: Severity Prior Incident	34	34	30.91	100.00
7 A: Recency Prior Incident	31	30	27.27	96.77
8 A: Frequency Prior Incid.	25	24	21.82	96.00
9 A: Severity Trend	27	26	23.64	96.30
10 A: Severity Frequency	14	13	11.82	92.86
11 A: Perception Incident	68	48	43.64	70.59
12 A: Perception Child	57	41	37.27	71.93
13 A: Attachment	25	20	18.18	80.00
14 A: Attitude Discipline	7	4	3.64	57.14
15 A: Parenting Skills	85	83	75.45	97.65
16 A: Age of Adult A	83	7	6.36	8.43
17 A: Substance Abuse	28	27	24.55	96.43
18 A: Psychopathology	5	3	2.73	60.00
19 A: History of Violence	8	5	4.55	62.50
20 A: Stress	24	22	20.00	91.67
24 A: Reference Group	30	27	24.55	90.00
25 A: Isolation	22	5	4.55	22.73
6 B: Severity Prior Incident	20	19	24.36	95.00
7 B: Recency Prior Incident	16	14	17.95	87.50
8 B: Frequency Prior Incid.	12	10	12.82	83.33
9 B: Severity Trend	17	15	19.23	88.24
10 B: Severity Frequency	8	6	7.69	75.00
11 B: Perception Incident	28	20	25.64	71.43
12 B: Perception Child	23	18	23.08	78.26
13 B: Attachment	11	10	12.82	90.91
14 B: Attitude Discipline	4	3	3.85	75.00
15 B: Parenting Skills	30	29	37.18	96.67
16 B: Age of Adult B	43	2	2.56	4.65
17 B: Substance Abuse	17	16	20.51	94.12
18 B: Psychopathology	1	0	0.00	0.00
19 B: History of Violence	8	7	8.97	87.50
20 B: Stress	14	12	15.38	85.71
24 B: Reference Group	17	14	17.95	82.35
25 B: Isolation	17	1	1.28	5.88
21 Conflict/Support	16	15	19.23	93.75
22 Reinforcement	29	29	37.18	100.00
23 Siblings	10	3	3.85	30.00

Table 12

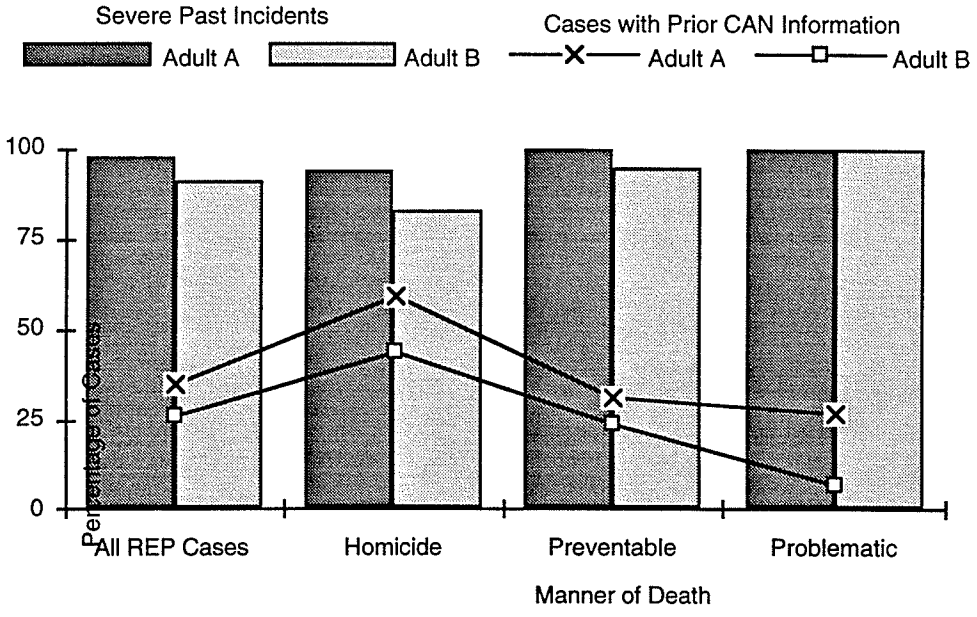
Problematic Death Scales with Medium to High Severity Scores

No. of Cases = 30	Total No. of Responses Rated	No. of Medium to Very High Ratings	M-VH Ratings as Percentage of Responses	M-VH as % of Possible Responses
1 Access by Perpetrator	30	30	100.00	100.00
2 Child Able to Protect Self	30	30	100.00	100.00
3 Adequate Protector	23	30	100.00	130.43
5 >1 Abuse/Neglect	10	5	16.67	50.00
6 A: Severity Prior Incident	8	8	26.67	100.00
7 A: Recency Prior Incident	10	10	33.33	100.00
8 A: Frequency Prior Incid.	9	9	30.00	100.00
9 A: Severity Trend	10	10	33.33	100.00
10 A: Severity Frequency	4	4	13.33	100.00
11 A: Perception Incident	23	19	63.33	82.61
12 A: Perception Child	18	16	53.33	88.89
13 A: Attachment	16	12	40.00	75.00
14 A: Attitude Discipline	3	2	6.67	66.67
15 A: Parenting Skills	24	23	76.67	95.83
16 A: Age of Adult A	28	10	33.33	35.71
17 A: Substance Abuse	23	20	66.67	86.96
18 A: Psychopathology	2	2	6.67	100.00
19 A: History of Violence	7	6	20.00	85.71
20 A: Stress	15	14	46.67	93.33
24 A: Reference Group	12	9	30.00	75.00
25 A: Isolation	14	4	13.33	28.57
6 B: Severity Prior Incident	2	2	6.67	100.00
7 B: Recency Prior Incident	3	3	10.00	100.00
8 B: Frequency Prior Incid.	3	3	10.00	100.00
9 B: Severity Trend	2	2	6.67	100.00
10 B: Severity Frequency	1	1	3.33	100.00
11 B: Perception Incident	9	9	30.00	100.00
12 B: Perception Child	7	7	23.33	100.00
13 B: Attachment	7	6	20.00	85.71
14 B: Attitude Discipline	1	1	3.33	100.00
15 B: Parenting Skills	12	12	40.00	100.00
16 B: Age of Adult B	15	5	16.67	33.33
17 B: Substance Abuse	11	11	36.67	100.00
18 B: Psychopathology	1	1	3.33	100.00
19 B: History of Violence	7	7	23.33	100.00
20 B: Stress	7	7	23.33	100.00
24 B: Reference Group	7	6	20.00	85.71
25 B: Isolation	8	4	13.33	50.00
21 Conflict/Support	8	8	26.67	100.00
22 Reinforcement	14	14	46.67	100.00
23 Siblings	4	2	6.67	50.00

Prior History of Abuse or Neglect of a Child

Figure 14 is a graphical representation of the proportion of prior serious incidents of maltreatment by Adults A and B where the severity of prior incidents is known (represented by columns) in relationship to the proportion of cases in which this information was available to the researcher (represented by a linear overlay). Homicides had the highest proportion of cases with information about the past history of the adults concerned. Problematic deaths had the least amount of information. In all cases, there is less information about the second adult in the home, usually male, than there is about Adult A who is usually female. However, when a history is noted in the file, the severity of the incidents falls within the Medium to Very High range. The lack of complete information about the families of children who die of causes other than disease or congenital conditions is a potential source of bias in the results.

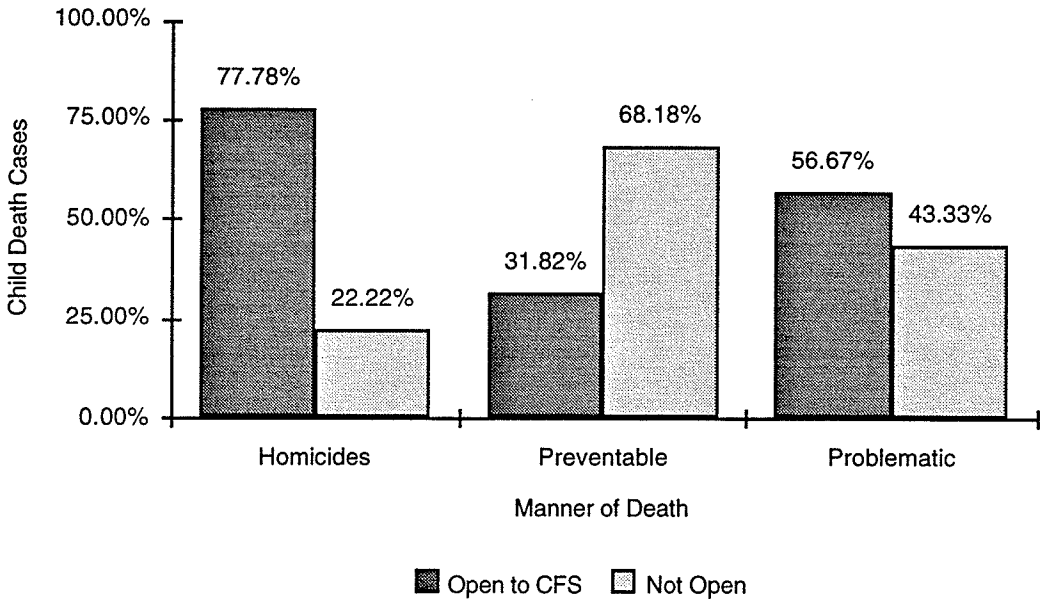
Figure 14 Perpetrator's History of Prior Severe Maltreatment of Children



The involvement of families with child welfare authorities at the time of the child's death is illustrated in Figure 15, Families with Child and Family Services

Involvement at the Time of the Child's Death. The rates of involvement are highest for Homicides and lowest for Preventable deaths.

Figure 15 Families with Child and Family Services Involvement at the Time of the Child's Death



One or More Abuse or Neglect Types

The types of maltreatment experienced by children at the time of the fatal incident are detailed in Table 13, Maltreatment Types in REP Sample by Manner of Death. Neglect is the most prevalent form of child maltreatment associated with the deaths of children in this study. Twenty-five percent (25%) of children experienced more than one type of maltreatment during the events surrounding their deaths. Children who were murdered were subjected to other types of maltreatment in conjunction with the fatal assault, including neglect, often by the parent who failed to protect them from the perpetrator or omitted to provide adequate care with respect to medical treatment for the effects of the assaults. The one child in the study group who

experienced physical, emotional and sexual abuse as well as neglect in the circumstances of her death was the only victim to die of the associated effects of a sexual attack.

Table 13

Maltreatment Types in REP Sample by Manner of Death

Abuse/Neglect Types	Homicides	Preventable	Problematic	Total
Neglect	0	101	25	126
Physical	4	2	3	9
Neglect & Physical	6	2	1	9
Neglect & Emotional	0	2	0	2
Physical & Emotional	7	0	0	7
Physical, Emotional, Neglect	9	1	1	11
Sexual, Emotional, Neglect	0	1	0	1
Sexual, Physical, Neglect	1	0	0	1
All Four Types	0	1	0	1
Totals	**27**	**110**	**30**	**167**

Correlations of Variables

Table 14, Correlation of REP Variables, presents results of a test for the nonparametric measure of association, Spearman's rho, computed on ranked data from the MRES scales. Nonparametric tests of association are used when the level of measurement of the variables to be analyzed is ordinal rather than interval. (Sproull, 1988, p. 259) The intent of this test was to ascertain how closely the Y scores for subjects approximate the rank ordered scores of X. Smaller differences in rank indicate a better approximation of rank order between the two variables and a larger coefficient of correlation. (Phillips, 1992, p. 139) Any correlations of less than 0.5 and/or with $p > .05$ have not been reported.

The results showed associations of moderate strength between variables. Variable A14, Attitude of Adult A Toward Discipline, was associated with the age of the child (negatively), the age of Adult A, the child's ability to protect herself, the severity

Table 14

Correlation of REP Variables

N=167

Variable No.		Variable Names		Spearman's *rho*
Age	A_Age	Age of Victim	Age of Adult A	0.5443
2	Age	Child Able to Protect Self	Age of the Child	-0.6080
A11	A12	Perception of the Incident	Perception of the Child	0.6956
A13	A12	Attachment	Perception of the Child	0.8080
A14	Age	Attitude Toward Discipline	Age of the Child	-0.7243
A14	A_Age	Attitude Toward Discipline	Age of Adult A	0.5506
A14	2	Attitude Toward Discipline	Child Able to Protect Self	0.5092
A14	A6	Attitude Toward Discipline	Severity of Past Injury	0.6347
A14	A13	Attitude Toward Discipline	Attachment	0.7302
A15	A11	Parenting Knowledge/Skills	Perception of the Incident	0.5385
A15	A12	Parenting Knowledge/Skills	Perception of the Child	0.6100
A15	A14	Parenting Knowledge/Skills	Attitude Toward Discipline	0.5284
A18	3	Psychopathology/Incapacity	Adequate Protector Present	0.7378
A18	A11	Psychopathology/Incapacity	Perception of the Incident	0.6108
A18	A12	Psychopathology/Incapacity	Perception of the Child	0.6306
A18	A13	Psychopathology/Incapacity	Attachment	0.5772
A19	A14	History of Violence	Attitude Toward Discipline	0.7985
A19	A17	History of Violence	Substance Abuse	0.7085
A24	A18	Reference Group Values	Psychopathology/Incapacity	0.7153
A25	A12	Social Isolation	Perception of the Child	0.5580
B_Age	Age	Age of Adult B	Age of Child	0.5428
B12	B11	Perception of the Child	Perception of the Incident	0.7070
B14	B11	Attitude Toward Discipline	Perception of the Incident	0.6732
B14	B12	Attitude Toward Discipline	Perception of the Child	0.8218
B15	B11	Parenting Knowledge & Skills	Perception of the Incident	0.5338
B15	B14	Parenting Knowledge & Skills	Attitude Toward Discipline	0.7293
B17	B11	Substance Abuse	Perception of the Incident	0.5264
B17	B14	Substance Abuse	Attitude Toward Discipline	0.7279
B17	B15	Substance Abuse	Parenting Knowledge & Skills	0.6227
B18	B11	Psychopathology/Incapacity	Perception of the Incident	0.8030
B18	B12	Psychopathology/Incapacity	Perception of the Child	0.8093
B18	B13	Psychopathology/Incapacity	Attachment	0.7757
B19	B17	History of Violence	Substance Abuse	0.5389
B24	B6	Reference Group Values	Severity of Past Injury	0.6155
B24	B14	Reference Group Values	Attitude Toward Discipline	0.8364
B24	B17	Reference Group Values	Substance Abuse	0.6053
B25	B12	Social Isolation	Perception of the Child	0.6537
B25	B14	Social Isolation	Attitude Toward Discipline	0.7841
B25	B15	Social Isolation	Parenting Knowledge & Skills	0.5152
B25	B17	Social Isolation	Substance Abuse	0.5610

Note: $p \leq .05$

of past injuries and the attachment of the parent to the child. The direction of the associations was logically consistent; parents who used excessive force in disciplining a child were young, had young children who were unable to protect themselves, had caused injuries to the child in the past and had a questionable attachment to the child and poor parenting knowledge and skills. In addition, there was an association between excessive discipline and a history of violence toward others as well as an association between a history of violence and current substance abuse. Adult A tended to perceive the child as responsible for the incident and the injury. An association was found between psychopathology or incapacity of Adult A and the absence another adult as an adequate protector, a tendency to blame the child for the maltreatment, and a questionable attachment to the child. Similar associations were found with respect to Adult B. In addition, there was an association between the values of Adult B's reference group and the severity of the past injury to the child, the attitude toward discipline and current substance abuse. Social isolation was found to be associated with a negative perception of the child, a tendency toward excessive discipline, poor parenting knowledge and skills and current substance abuse.

An analysis of the correlation between variables for the Homicide category of child deaths is reported below in Table 15, Correlation of Homicide Variables. JMP statistical software was used to compute values of Spearman's rho. The results are reported below for those associations with a strength of moderate to high association (>0.5). The level of significance is $p \leq .05$. There is an association between the age of the child and the age of Adult A and B as well as an association between the age of the child and the child's ability to protect herself as well as the severity of any past maltreatment. The severity of any past abuse or neglect perpetrated by Adult A is negatively associated with the adult's age and the child's age; young caregivers inflict severe injuries on young children. The use of excessive force for discipline is associated with children of a young age, an inability of the child to protect herself, a past history of

Table 15

Correlation of Homicide Variables N=27

Variable No.		Variable Names		Spearman's *rho*
Age	A_Age	Age of Victim	Age of Adult A	0.7584
2	Age	Child Able to Protect Self	Age of Child	-0.6791
2	A_Age	Child Able to Protect Self	Age of Adult A	-0.6630
A6	Age	Severity of Past Injury	Age of Child	-0.5983
A6	A_Age	Severity of Past Injury	Age of Adult A	-0.6165
A6	2	Severity of Past Injury	Child Able to Protect Self	0.6785
A13	A12	Attachment	Perception of the Child	0.8090
A14	Age	Attitude Toward Discipline	Age of Child	-0.5759
A14	2	Attitude Toward Discipline	Child Able to Protect Self	0.8477
A14	A6	Attitude Toward Discipline	Severity of Past Injury	0.7789
A14	A13	Attitude Toward Discipline	Attachment	0.6595
A15	A6	Parenting Knowledge & Skills	Severity of Past Injury	0.6124
A15	A14	Parenting Knowledge & Skills	Attitude Toward Discipline	0.8174
A18	3	Psychopathology/Incapacity	Adequate Protector Present	0.7655
A20	A13	Stress	Attachment	0.5757
A24	A12	Reference Group Values	Perception of the Child	0.5427
A24	A14	Reference Group Values	Attitude Toward Discipline	1.0000
A25	A24	Social Isolation	Reference Group Values	0.6420
B_Age	Age	Age of Adult B	Age of Child	0.7894
2	Age	Child Able to Protect Self	Age of Child	-0.6791
2	B_Age	Child Able to Protect Self	Age of Adult B	-0.6774
B6	2	Severity of Past Injury	Child Able to Protect Self	0.5233
B13	B12	Attachment	Perception of the Child	0.6736
B14	B12	Attitude Toward Discipline	Perception of the Child	0.7727
B15	B14	Parenting Knowledge & Skills	Attitude Toward Discipline	0.7628
B17	B11	Substance Abuse	Perception of the Incident	0.7f500
B17	B12	Substance Abuse	Perception of the Child	0.5606
B18	B13	Psychopathology/Incapacity	Attachment	0.7757
B20	2	Stress	Child Able to Protect Self	-0.5455
B24	B14	Reference Group Values	Attitude Toward Discipline	0.8438
B24	B15	Reference Group Values	Parenting Knowledge & Skills	0.7278
B25	B12	Social Isolation	Perception of the Child	0.6381
B25	B14	Social Isolation	Attitude Toward Discipline	0.7204
B25	B15	Social Isolation	Parenting Knowledge & Skills	0.6219

Note: $p \leq .05$

abuse or neglect and questionable attachment to the child. There is also an association between Adult A's subscription to reference group values that support child maltreatment and a devalued perception of the child. There is a correlation of 1.00, $p \leq .001$ between Adult A's reference group values and the use of excessive force to

discipline a child. Social isolation of Adult A is associated with a negative perception of the child, excessive force as discipline and inadequate parenting knowledge and skills.

When associations with respect to Adult B are considered, a similar pattern is observed. Young child are more vulnerable to injury, less able to protect themselves and have young parents. There is an association between a negative perception of the child a lack of attachment between the parent and the victim. Current substance abuse is associated with a tendency to blame the child for the abuse or neglect. Psychopathology or incapacity of Adult A was associated with a lack of an adequate protector in the household but for Adult B is it associated with poor attachment to the child. The reference group values subscribed to by Adult B are associated with punitive discipline and poor parenting knowledge and skills. In addition, social isolation of Adult B is associated with blaming the child for the incident of CAN, a belief in and use of punitive discipline as well as poor parenting knowledge and skills.

As described earlier, the MRES scale ratings for Preventable and Problematic deaths were analyzed using JMP statistical software to obtain Spearman's rho. Any associations weaker than <0.5 have not been reported. The level of significance, p , is $\leq .05$. The analysis of these results contained in Table 16, Correlations of Preventable Death Variables and Table 17, Correlations of Problematic Death Variables is discussed in the Data Analysis section. There was less family data, in general, in the Preventable death files than there was in the Homicides and less still in the Problematic death files. In considering Preventable deaths, there is an association between the young age of the victim and an inability to protect herself. The beliefs and attitudes of Adult B are associated with a tendency to blame others for the incident. A negative perception of the child is associated with a refusal to accept responsibility for the incident as well as poor parenting knowledge and skills and a lack of attachment between the parent and the child. The pattern of associations for Adult B is similar. In addition, there is an association between current substance abuse and poor parenting knowledge and skills. There is also a

correlation of 1.00, $p \leq .001$ between a history of violence on the part of Adult B and the absence of an adequate protector in the home and current substance abuse. In addition, there is a moderate association between stress experienced by Adult B and current substance abuse.

Table 16
Correlation of Preventable Death Variables

N=30

Variable No.		Variable Names		Spearman's *rho*
Age	2	Age of Victim	Child Able to Protect Self	-0.6322
A12	A11	Perception of the Child	Perception of the Incident	0.7600
A13	A12	Attachment	Perception of the Child	0.7992
A15	A11	Parenting Knowledge & Skills	Perception of the Incident	0.7374
A15	A12	Parenting Knowledge & Skills	Perception of the Child	0.5946
A15	A13	Parenting Knowledge & Skills	Attachment	0.5136
B12	B11	Perception of the Child	Perception of the Incident	0.8385
B15	B11	Parenting Knowledge & Skills	Perception of the Incident	0.7327
B15	B12	Parenting Knowledge & Skills	Perception of the Child	0.7070
B15	B13	Parenting Knowledge & Skills	Attachment	0.6192
B17	B15	Substance Abuse	Parenting Knowledge & Skills	0.5822
B19	3	History of Violence	Adequate Protector Present	1.0000
B19	B17	History of Violence	Substance Abuse	1.0000
B20	B17	Stress	Substance Abuse	0.6510

Note: $p \leq .05$

The fewest associations are found between the variables concerning deaths of a Problematic nature. In part, this may be due to a lack of information about the family and Adult B in particular in many of these files. An association is found between the absence of an adequate protector in the home and the child's inability to protect herself. There is also an association between the perception of the child and the attachment between the adult and the child; a child that is less valued may be rejected by Adult A. Current substance abuse is associated with the lack of an adequate protector in the home.

Only one association of moderate strength was found for Adult B; an association between a young Adult B and the absence of an adequate protector in the home.

Table 17
Correlation of Problematic Death Variables

Variable No.		Variable Names		Spearman's *rho*
3	2	Adequate Protector Present	Child Able to Protect Self	0.5505
A13	A12	Attachment	Perception of the Child	0.7440
A15	A12	Parenting Knowledge & Skills	Perception of the Child	0.5670
A17	3	Substance Abuse	Adequate Protector Present	0.6847
B16	3	Age of Adult B	Adequate Protector Present	-0.6276

Note: $p \leq .05$

The associations between variables illustrated in Table 17 for Problematic deaths is consistent with the younger mean age of the children, their greater vulnerability and the severity of the injury (death). There is an association between a lack of parenting knowledge and skill and the vulnerability of the child, the severity of the current injury as well as a more negative perception of the child as being. A positive association was found between a high level of substance abuse and the following variables; vulnerability of the child, the adequacy of the other adult in the home as a protector and the severity of the incident. Severe substance abuse has a generally negative impact on family functioning and may contribute to the other caregiver's inability to protect a young child from harm.

DISCUSSION OF RESULTS

Files from the Office of the Chief Medical Examiner

The files examined for this research were drawn from ten years of Coroners' files (1984-1993) in the Office of the Chief Medical Examiner of Manitoba. The numbers differed between years with the range being a minimum of 55 files to a maximum of 103 files meeting the criteria of deaths of children under the age of 18 years from causes other than disease or congenital conditions. A graphical representation of this distribution is shown in Figure 1, Medical Examiners' Files by Year of Death. The most frequent causes of death (excluding disease and congenital conditions) for children under the age of 18 years during the study period 1984-1993 were Sudden Infant Death Syndrome (20.27%), Motor Vehicle Accidents (19.90%) and deaths from Undetermined Causes (13.68%). Sixty-nine files of Motor Vehicle Accidents were not examined due an oversight in the retrieval of records from the Provincial Archives. The additional of these files would have made deaths as a result of motor vehicle accidents the most frequent circumstance of death for children; 229 deaths (or 26% of a revised total of 873 deaths). As few of the motor vehicle accident deaths had any utility in the scope of this research, the missing files were not retrieved and an estimate of their effect is discussed later. The age distribution of victims for the Medical Examiners' files in Figure 3 shows a pattern that confirms the vulnerability of very young children with respect to unknown processes such as SIDS, accidents, maltreatment or deaths of undetermined cause.

Risk Estimation Project

After the selection of files for research purposes, the distribution changes with a range of a minimum of 5 and a maximum of 25 files per year and a total set of 167 files known as the Risk Estimation Project. (REP) The numbers varied substantially between

years; differences in the early years could be explained, in part, by the less sophisticated state of forensic investigation in Manitoba at that time. Another difference can be attributed to the absence of the expected 2 files per year of motor vehicle accident deaths for 1984-1986 in which children died as a result of not being placed in a child car restraint. The much lower number of files from 1993 may reflect, in part, the fact that files were still under investigation at the time of writing and their classification was not yet finalized nor were the law enforcement investigations or court proceedings completed. The time that is required for a file to be signed off as closed and with a final coding category assigned is dependent on many factors including the complexity of the case, any legal proceedings that arise, the time spent in obtaining specialized test results, or inconclusive findings that require review by the Children's Inquest Review Committee. Efforts to track all the files using the computerized file lists provided by the Office of the Chief Medical Examiner suggest that there would be few, if any, additional files of this type. The distribution shown in Figure 6 illustrates the categories developed for classification of the files studied. Preventable Deaths form the largest category of deaths, 66% while Homicides are the smallest, 16%. Across all categories, more males than females die of maltreatment.

Child Victims

Age distributions for the deaths of children included in the study are found in Figures 8 to 11. The patterns illustrate the vulnerability of very young children to maltreatment either by commission or omission. The very low numbers of children aged 15 to 17 years in the REP sample can be understood when the major causes of death in this age group were extracted from the set of 804 Medical Examiners' files. Forty-five percent (45%) of deaths of children aged 15 to 17 years were due to motor vehicle accidents, followed by suicides at 19%, and homicides at 8.5% as the three major causes of death comprising 72.5% of 'non-natural' deaths of children in the Medical

Examiners' files As the only motor vehicle accident deaths included in the study sample were those in which the caregiver failed to supervise the child around vehicles or to ensure her safety in the vehicle, there were no deaths of this type included in the REP data. The 18 homicides of children in this age range in the Medical Examiners' files were predominantly the deaths of young people killed by their peers or adults. The only homicide deaths of children in this age range included in the study sample were the deaths of two brothers who died with their mother at the hands of their father.

The pattern visible in Figure 9 for homicide deaths is striking in that the majority of victims are of preschool age with the highest single group being children up to the age of one year. The five children aged 12 to 17 years who were murdered died at the hands of their fathers (four) or at the hands of mother's common-law partner (one). This distribution does not include victims for whom the parent was believed to be the murderer yet no charge was laid or victims whose murderer was not convicted of homicide, but rather of failure to provide the necessaries of life under Section 251(1) of the Criminal Code of Canada. (R.S.C. 1985, c.C-46) These deaths were classified as Preventable deaths as there had not been a judicial finding of homicide and the conviction was for a lesser charge.

When looking at Preventable deaths, most often classified as "accidents", the age pattern changes slightly to show the greater vulnerability of children who are beginning to explore their environment. Children aged over one year but under 4 years of age comprise 59% (65) of Preventable deaths. Twenty-one (21) children under the age of one year whose deaths are included in this category, also. When these children, who are not as mobile as "toddlers", are included the frequency rises to 78% (86) of all deaths in the Preventable category. The children whose deaths fall into the category of Problematic deaths are predominantly under the age of one year; 93% (28). This reflects the nature of these deaths; they may resemble SIDS but also have characteristics that raise concerns about the possibility of inflicted injury or neglect being a

contributing factor. These deaths are being classified increasingly as Sudden Unexpected Deaths to reserve SIDS as the diagnosis of exclusion in unexplained child deaths.

Male children continue to die at a higher rate than females in each of the three categories of death. In the Homicide category, 63% of victims are male, 37% are female. The distribution for Preventable deaths is similar; 60% of victims are male, 40% are female while Problematic deaths show a more equal distribution; 53% males and 47% females. When the family type and manner of death are considered (see Figure 11) there is a notable difference in the gender distribution. Males die more frequently than females in each family type *except* Family Type 3 in which there is a biological mother and a non-biological male caregiver. Female children are 53% of victims while males are 47%. The difference is most marked in Family Type 4, extended family or substitute caregivers, in which 72% of victims are male and 28% are female.

In analyzing the association between variables, the age of the children who died as a result of Homicide is associated with the age of the caregivers; younger parents have younger children. This was not a surprising finding. There are also associations in the Homicide category between the vulnerability of the child, as assessed by the child's ability to protect herself and the absence of an adult in the home who is an adequate protector against the perpetrator. There may be no other adult in the home, or the adult may be ineffectual or a co-perpetrator of the maltreatment. This finding is logically consistent with the past history of maltreatment that is associated with the child's inability to protect herself; an adequate protector could have intervened to stop the maltreatment or removed the child to safety. These associations were not found in the Preventable deaths. With respect to the Problematic deaths, there is an association between the child's inability to protect herself and the lack of an adequate protector in the home. This lack of an adequate protector is also associated with current substance abuse by Adult A and the youth of Adult B.

Caregivers/Perpetrators

The frequently reported risk factor of 'teen aged parents' is not supported by this data. The analysis of data presented earlier illustrates that, contrary to popular myth, teenage parents are not the most frequent perpetrators of fatal treatment. They may very well be at a higher risk for maltreatment given that they would comprise a smaller group of parents than people in their 20's, 30's, and 40's so that any homicidal teenage parents would be a larger percentage of their age cohort than adults are to their own age cohorts. However, if efforts are directed toward reducing the number of child maltreatment fatalities, efforts should be focused on parents in their 20's and 30's. The gender of perpetrators indicates that males are a greater threat to young children with respect to inflicted injury than are females.

Belief Structures of Caregivers

The following scales measured the belief structures of the caregivers; A/B11 Perception of the Incident, A/B12 Perception of the Child, A/B13 Attachment, A/B 14 Attitude to Discipline and A/B 25 Reference Group Values. These scales measure the attitudes and beliefs that restrict the abilities of the caregivers to fulfill their responsibilities as caregivers to nurture and protect the children in their care. When the ratings on the scales measuring belief structures of the caregivers are examined, the pattern of severity remains the same as the prior history of maltreatment of the child. Caregivers of children who are murdered rate in the Medium to Very High range of these variables at up to twice the rate of caregivers of children who die in a Preventable or Problematic manner. They tend to place an unrealistic responsibility on the child to met adult needs and often perceive the fatal incident to be due to some fault or flaw in the child rather than as a result of their own failure to care for the child. This is also reflected in the attachment that the caregivers have to the victims; with respect to Homicides, there is a much high proportion (70%) of responses in the Medium to Very

High range than in Preventable (18%) or Problematic (40%). This indicates that these children are not regarded as intrinsically valuable by their caregivers.

Attitudes on discipline are infrequently recorded in the Medical Examiners' files. When information is recorded, discipline is regarded as a means of enforcing the adult's wishes or venting his or her rage at the child's behaviour. These adults may be support in their maltreatment of children by reference groups that share their values, making it easier for them to persist in abusive or neglectful behaviour without community or family censure. Conversely, in communities or societies where there is no support for child abuse, individuals who maltreat children face community and/or legal censure. The fact that corporal punishment remains legal in this country raises questions about the value that this society places on children's safety. As discussed earlier, corporal punishment has, at different times in history, been legal for most people occupying subordinate positions in relationships; employees, serfs, slaves, wives, apprentices and prisoners. In Canada today, only children can legally be assaulted by those adults acknowledged as having power over them. The danger that corporal punishment poses is acknowledged, at least in theory, in child welfare policies which forbid the use physical punishment by foster parents or staff in youth facilities. Some of this may well be related to issues of liability rather than humanity, but there is also an acknowledgment that physical assaults on children pose a threat to positive outcomes for children. It seems incongruous that efforts to prevent child abuse do not first focus on removing the legal right of parents or teachers to use physical force by way of correction.

When the associations between variables are considered, there is a moderate correlation between these belief structure variables concerning Adult A and others such as the vulnerability of the child, the past abuse or neglect of the child. These associations are most frequently found in the Homicide category. Parents who use discipline to express their rage or frustration with the child may also have had a poor emotional attachment to the child, blamed the child for the fatal incident, have inflicted

serious injuries on the child in the past and felt supported in their beliefs by their reference group or were noticeably at odds with their community. Associations between discipline and a tendency to blame the child for the fatal incident and poor parenting knowledge and skills are also found with respect to Adult B in the Homicide category.

Personal Dysfunction and Violence

The elements of the relationship between the caregivers (where there are two) and other family members are measured by the following scales; A/B18 Psychopathology, A/B19 History of Violence, 21 Conflict/Support and 22 Reinforcement. These scales measure the degree of conflict between the caregivers and the reinforcement (or lack of it) of any abusive or neglectful behaviour toward the child. Scales rating indicators of personal dysfunction such as substance abuse, a history of violence toward others and psychopathology were also scored. Substance abuse in the Homicide category is not as severe or as prevalent as was expected but the rates are very close to those found in Alfaro's review of nine studies of fatal child maltreatment. Between 25 and 40% of caregivers of children who died of maltreatment had an addiction to alcohol or other drugs. (Alfaro, 1988, p. 235) When the homicide cases in this study with a documented history of substances abuse (44.44%) are examined, 86% of Adult A's rate Medium to Very High. Information on Adult B's use of alcohol was available in 35% of cases of which 89% rated in the Medium to Very High range. With respect to caregivers of children who are the victims of homicide, there is an association between current substance abuse by Adult B and a tendency to blame the child and external causes for the fatal incident.

Six of seven caregivers in the REP study who had a diagnosed mental illness recorded in the files fell into the Homicide category. The recorded behaviours of others raised speculation about the possibility of psychopathology without supporting documentation. The spousal relationships of the caregivers of homicide victims were

marked by Medium to Very High ratings of conflict and/or support in 78.26% of cases as compared with rates ranging from 34.17% in the study group overall and 19.23% and 42.11% for Preventable and Problematic deaths respectively. The Tukey-Kramer HSD test was performed on the means of ratings for the scale measuring violence toward others. The differences were not significant for Preventable or Problematic deaths. There was a difference ($p \leq .05$) found between the means for Homicides and Preventable deaths. There was a history of violence toward others at a Medium to Very High level of severity in 48% of Adult A and 47% of Adult B ratings.

When associations between variables are considered, there is a high correlation in the Preventable death category (rho=1.00, $p \leq .001$) between a history of violence toward others by Adult B and the lack of an adequate protector in the home as well as current substance abuse. Essentially, this means that the presence of a violent caregiver in the home may reduce the effectiveness of the other caregiver in protecting the child. This is logically consistent when the dynamics of violence are considered; the caregiver may be unwilling to bring down violence on herself by protecting the child or she may be a co-perpetrator of the maltreatment of the child. There is also an association between violence toward others on the part of Adult B and current substance abuse and an association between a lack of parenting knowledge and skills and current substance abuse. These Adult B caregivers whose behaviours includes substance abuse also have a history of violence toward others. There is also a moderate association between Adult B's perception of him/herself as under stress and a current substance abuse problem. This is logically consistent with what is known about substance abuse, stress and violence. The alcohol or other drugs act as a disinhibitor and may be employed by Adult B in a dysfunctional attempt to cope with perceived stress.

Parenting Knowledge and Skills

Across all categories of manner of death, the deficits in parenting skills and knowledge with respect to Adult A's care of the child were rated in the Medium to Very High severity range for 75.45% (Preventable deaths) to 85.19% (Homicides) of families. The proportion of cases with sufficient information to rate this variable were between 96% and 100% of cases. The ratings for Adult B were lower (78% for Homicides, 37% for Preventable deaths and 40% for Problematic deaths), possibly because of the lack of information about Adult B that is a major problem with child welfare research in general.

An examination of the correlations between variables supports the role of poor parenting skills in the deaths of children due to maltreatment. This variable, A/B15, is associated with a history of past child maltreatment as well as the use of excessive force to discipline a child by Adult A in the Homicide category. There is a similar association between poor skills as a parent and excessive discipline on the part of Adult B with additional associations between this variable and a reference group that does not discourage child maltreatment as well as social isolation. Adult B's reference group includes others who have similar patterns of child rearing but Adult B receives little positive support from these relationships. When Preventable deaths are examined, there are correlations between deficits in parenting knowledge and skills and a tendency to blame others and the victim for the maltreatment and a lack of attachment to the child on the part of Adult A. Similar correlations are found for these variables with respect to Adult B. There is also a moderate correlation between current substance abuse by Adult B and poor parenting skills.

Family Types

In each category of manner of death, the biological family is the most prevalent family type found. In Manitoba, two parent families (Types 1 and 3) total 79.6% of all families while single father-headed families comprise only 3.5% of families. Given that

two biological parent families remain the most prevalent type in the general population, this is not surprising. In terms of the research data set, two parent families are 67% of all families and single father families represent only 3% of all families. Single female parent families comprises 12% of families nationally, and 16% of families in Manitoba (CICH, 1994, I-10) yet represent 22.16% of families in the REP sample; 23% of families in Preventable deaths, 34% of families in Problematic deaths but only 7.41% of Homicide deaths. The rates for lone female parent headed families in this study suggests that lone female parents are much less likely to murder their children than families where there are two parents, whether biological or blended. They do constitute an over-represented group in Preventable and Problematic deaths when compared with their representation in the population of family types in Manitoba. The issues of poverty and lone parenting as they relate to deaths due to a failure of care bear further investigation. However, it remains clear that interventions should be targeted at two parent families to have the most potential for effectiveness.

The continuing tendency in child welfare is to focus on the deficiencies of mothers rather than the participation of fathers in efforts to reduce the maltreatment of children. When Homicides are considered, efforts should be focused primarily at the males in the family if prevention is the goal; of the 31 perpetrators of the 27 homicides studied, 42% were fathers, 23% were mothers, 16% were males without a biological relationship to the victim and 16% were unknown but were either a parent or parent substitute, gender unknown.

Prior History of Maltreatment by Caregivers

When the history of the child's caregivers with respect to a previous history of abuse or neglect of children is examined, a level of Medium to Very High severity was found in approximately 35.33% of cases. Two thirds (67%) of Homicide files contained sufficient information to determine a pattern of prior incidents. In considering the

manner of death, Medium to Very High Severity on this variable was found in 60% of Homicides as compared to 31% for Preventable deaths and 27% for Problematic deaths. This relationship exists for the severity of the injury, the recency of previous incidents and the frequency of these incidents in the past. The significance of this finding is that in a substantial number of homicides there are episodes of maltreatment previous to the fatal one and at a level of severity in the Medium to Very High range. Homicides show a history of ratings at the highest level; 47% of the most severe prior incidents are rated Very High for severity of injury, 73.6% of recency ratings are Very High and 42% of frequency ratings are also Very High. In terms of a trend, 88% of Homicides showed increasing severity and 91% an increase in the frequency of previous incidents. This showed a pattern of recent, closely spaced incidents of a high degree of severity of inflicted injury in the history of the caregiver's relationships with the victim. The incident of greatest severity of injury prior to the fatal one serves to desensitize the caregivers to harming the child; once this boundary has been breached, whatever internal prohibitions that the caregivers have against injury a child have been weakened.

When correlations between variables in the Homicide category are examined, there are moderate correlations between the severity of the past injury and the age of the child; younger children experienced more severe injuries and were also rated as more vulnerable. There was also a correlation of 0.7789, $p \leq .05$ between an attitude on the part of Adult A that supports punitive discipline and the severity of past maltreatment of children. A moderate association was found between the severity of past injuries and a lack of parenting knowledge and skills. No such associations were found in the Preventable or Problematic categories. In examining the MRES ratings for this variable, it became obvious that, where this history was known, previous incidents were of substantial severity. Unfortunately, it was also evident that in many cases, especially with respect to "accidental" or deaths of undetermined cause, this particular

aspect of the adult's history was not documented by the systems contributing information to the file.

The impressions gained in reading individual files of child homicides is supported by these findings. In many cases, after the child's death, it was revealed that the perpetrator's treatment of the child was known to family and/or friends and that few had attempted to intervene to protect the child from the perpetrator. As described earlier, the rate of involvement of child welfare authorities in cases of fatal child maltreatment averages 30 to 35% of deaths. (Alfaro, 1988, Robertshaw, 1981 and USABCAN, 1995) This rate was consistently higher for this research; 43.71% for the entire REP data set. Homicides had the highest rate of prior involvement, 78%; Preventable deaths, 32% and Problematic deaths, 57%. The literature supports the probability that Homicides are under-reported and misclassified consistently so the rate of child welfare involvement in Homicides may be an under estimate. Questions about the efficacy of practice arise when these cases are considered individually. The histories of the cases that sparked the Reid, Sigurdson et al. reviews of 1987 were particularly notable for the previous incidents of maltreatment that were recorded by the caseworkers without effective action being taken to protect the child. The problem with these and similar cases reviewed for this research appears to be related either to an inability to distinguish lethal situations from less dangerous ones or a lack of knowledge or will with respect to intervening effectively. The essence of prediction in child welfare practice lies in using current and past information about a situation or a family to discern the probable outcomes of future behaviour.

Preventable Deaths

The most notable characteristic of Preventable deaths is that they could in fact be prevented with additional care on the part of the parent or with an improved understanding of the inability of young children to recognize and avoid hazards such as

fire and water that adults routinely treat with caution. The children in this study who died from deaths classified as Preventable deaths died largely as a result of a chronic lack of care or supervision. It must be noted that deaths from a chronic lack of care differ from accidents in that they are the outcome of a particular quality of care and supervision while an accident is a lapse in otherwise adequate care or the result of an inability to foresee all possible hazards in a situation. As an example, if a toddler is regularly left to play beside a busy highway without adult supervision, she may eventually be injured by a motor vehicle. It is much more difficult, if not impossible, to predict injury to a child from a driver who loses control of his vehicle due to mechanical failure or intoxication even when the parent takes all reasonable precautions to keep the child safe near traffic.

The caregivers of children who died in house fires tended to leave them unattended in situations where unsafe wood stoves or defective electrical appliances caught fire or where the children themselves set the fires with matches or lighters left in accessible locations. These deaths frequently occurred after the caregivers had previous experiences, according to the file records, of the victims setting fires while playing or experimenting with matches and lighters. Children who drowned in their homes were, in general, very young and had been left unattended in the vicinity of buckets of water, uncovered toilet bowls or in bathtubs. Drownings in rivers, lakes, uncovered waste water pits and farm dugouts or sloughs occurred when young children were allowed to play near bodies of water without adult supervision. It was surprising how few children drowned at beaches of while vacationing beside lakes; most drowning victims in this study lived near the water in which they died. Farm dugouts in particular appear to be dangerous given the drownings each year when unsupervised children either fall through the ice or drown during the summer when playing around these manmade water reservoirs. The censuring of foster parents in a coroner's inquest report after their eight year old foster son drowned at an unsupervised beach was surprising given the

number of much younger children who drown every year without similar condemnation of their parents, sitters or guardians.

Another large group of deaths was due to asphyxia of various origins. Children died when they because caught in poorly designed or homemade beds, slid down between mattresses and walls or were overlaid by adults or other children sleeping in the same bed. Other children were pressed face down into mattresses to quiet their cries and did not survive. The use of alcohol by caregivers prior to sleeping with young children is of particular concern given the decreased ability of the caregivers to respond to any signs of distress in the child or to notice if they have overlaid them. The caregivers in the Problematic group had the highest level of substance abuse (66.67%) over all but this may be related to the criteria for classifying a death as problematic in manner rather than a representation of a higher rate of addiction. When it is difficult to determine the physical causes of a child's death, the social situation of the family usually receives closer scrutiny than in more obvious cases of non-natural deaths.

Failing to secure children in child restraints while driving is illegal in Manitoba and accounts for an average of two deaths per year of young children in each of the seven years of Coroners' files that were examined. Since Bill 60, The Highway Traffic Act of Manitoba S.M. 1985-86, c.33 H-60 has been in force for nine of the ten years covered by this research, it reasonable to assume that the files for 1985 and 1986 would yield a minimum of 2 similar deaths per year. Other Preventable deaths were due to the effects of delaying medical care for what was judged by medical experts to be an injury inflicted by an unknown person. These deaths are included with the Preventable deaths if there is a judicial finding that the parents or guardians were guilty of a failure to provide the necessaries (not necessities) of life as outlined in sec. 251(1) of the Criminal Code of Canada R.S.C. 1985, c.C-46. If there was no finding of an omission of care these deaths are classified as homicides by unknown agents.

Homicides

The majority of children who die at the hands of their caregivers are of preschool age with the largest single group being children up to the age of one year. More male children than female children are the victims of homicides. These children are vulnerable because of their extreme youth and because there is frequently no protector in the home or the other caregiver who is ineffectual in opposing assaults by the perpetrator. The other caregiver may also be a co-perpetrator of the maltreatment.

The caregivers who kill children are most frequently out of their teens; while the minimum age does fall within the teens, the median and mean ages are in the mid to late twenties. These individuals have spousal relationships marked by conflict in a majority of cases and also have histories of violence toward others. They use excessive force in disciplining their children and employ discipline to express their own rage and frustration. They have inflicted injuries in the recent past with an actual or potential severity that is high. There is an association between these injuries and a belief structure that supports the use of punitive discipline and excessive force to change the behaviour of children. There is a corresponding rationalization of the child's role in "inviting" the adult's violence by behaving in a way that incites anger in the caregiver. Their attachment to the child victims was poor, either ambivalent or rejecting. These children are not valued by their parents or caregivers. At the same time, the caregiver may experience support from others with similar attitudes toward children including reinforcement from a partner who does not intervene to protect the child. In general, their parenting knowledge and skills and those of their partners are poor, placing the children at risk from unrealistic demands or expectations that children perform developmental tasks before they are ready.

These findings refute the belief that these are one-time-only incidents where the adult "lost control". The individual case histories also made it clear that the previous assaults on the child were known to at least one other individual and often to others in the

family who did not intervene or report. The high rate of involvement of child welfare authorities in the lives of these children is also a matter of concern. The rate, 78%, exceeds that of all research reviewed for this thesis. This involvement was of two kinds; the family were currently receiving service from a child welfare agency because of reports of child maltreatment or were paid or unpaid (relative) foster parents. Questions about the efficacy of practice arise when theses cases are considered individually. In general, there is a lack of information about the males in the home particularly with respect to criminal histories, their use of violence, current and past substance abuse and their previous experiences as fathers or father substitutes.

Diagnosed mental illness was a concern in 6 of 27 homicides; this was noted in only one of the remaining 140 deaths. Several recent cases in Manitoba have emphasized the danger to children when parents lose touch with reality or begin to see their children as a threat to them. The presence of psychopathology or incapacity on the part of the caregivers was associated with the absence of an adequate protector in the case of Adult A and poor attachment to the child by Adult B.

In considering the gender of perpetrators, there were 31 perpetrators of the 27 homicides; 59% were male, 23% were female (mothers) and 16% could have been male or female because the agent of death was unknown although the child died of inflicted injuries and was in the care of parents or parent substitutes at the time. Forty-two percent of the perpetrators were fathers and sixteen percent were male caregivers without a biological relationship to the child. When family types are considered, lone female parents are much less likely to murder their children than parents (male or female) in families where two adults are providing care for the children. Interventions should be targeted at two parent families to have the most effect. Despite this, the primary focus of child welfare intervention is on the quality of care provided by mothers.

Problematic Deaths

Problematic deaths are marked by the very young age of the child as well as the use of alcohol complicated by poor parenting skills and knowledge on the part of the parents or caregivers. This group had the highest proportion of young caregivers; 27% were 18 years or younger and 60% were 21 years or younger as compared to 4.6% and 11% of Preventable deaths and 15% and 37% of Homicides for the same age cohorts. Recent research into the characteristics of deaths from undetermined cause that make up this group suggests that these deaths are most likely to be misclassified or undetected homicides or neglect. The process of review in Manitoba is such that the possibility of this happening today is, based on this writer's term on the Province's Children's Inquest Review Committee, less likely than it was prior to the reviews in 1987 that dealt with the systems dealing with child abuse in Manitoba. The efforts and resources of the various systems and agencies that participate in such reviews under the direction of the Chief Medical Examiner introduce information from a number of different perspectives on the circumstances of the death and the conditions in the family's environment.

CONCLUSIONS

Summary of Results

In general, Homicides are marked by more ratings in the Medium to Very High range than Preventable or Problematic deaths with respect to personal dysfunction, the use of violence against others, a belief structure that does not contribute to good parenting, mental illness and a past history of maltreatment of children. Without comparable data on non-abusive families, it is difficult to determine to what degree these individuals differ from the population of families in Canada and if the effects of these variables are additive. There is little national data on child maltreatment deaths in Canada to compare with the work currently being done in the U.S.

Female parents or caregivers are more likely to be perpetrators of Preventable deaths and to be associated with Problematic deaths. However, the lack of information on Adult B (the majority of whom are male) makes this finding inconclusive. If more data were collected on the males in these families, a different picture might emerge or it could confirm that females are less likely to murder children but more likely to fail to provide an adequate standard of care. The effect of socialization, poverty, racism and the gendered division of parenting responsibilities which places the major responsibility for childcare on mothers must be considered in any wider analysis of why children die.

Efforts to reduce the deaths of children from maltreatment must include fathers and other males in the home. They are more likely to be the perpetrators of homicides and have a greater probability than female caregivers of using violence toward family members and others. Unfortunately, much less is known about the father or father substitute in most families studied. Those families with child welfare involvement are not exempt from this; the focus of child protection work continues to be on mothers rather than fathers. Parents over 21 years of age perpetrate more deaths of children than do teenage parents in terms of numbers but teenagers may be a higher risk cohort when ratios of abusive to non-abusive parents are considered. However, to reduce the

volume of maltreatment deaths, the focus must be on those characteristics of parents which contribute to the deaths of children rather than targeting parents solely because of their chronological age or some other characteristic such as poverty or race. U.S. studies that have focused on the racial backgrounds of children and victims do a disservice to non-abusing parents of racial minorities by assuming that it is colour rather than personal or situational variables that contribute to the deaths of children at the hands of their parents.

Policy Recommendations

Physical assaults on children under the guise of discipline or correction should be prohibited by law; such prohibition will give clearer grounds for intervening with parents when assaults occur. This will eliminate the ability of judges to rule on "appropriate" discipline based on attitudes toward children that are idiosyncratic rather than legal. This is an extension of the zero tolerance policy of family violence.

Being in charge of a child while intoxicated or under the influence of other substances should be a legal offense at the same level as impaired driving, piloting a boat while impaired, etc. Interventions will carry the force of law; re-education, treatment, probation, etc. This will also emphasize the duty of parents to provide adequate care on a round the clock basis. If the general public is protected by law from intoxicated and irresponsible individuals, children should not be excluded from such protection given their general inability to protect themselves from the actions of their parents.

Treatment resources for children and parents must be provided by the state; a family mental health system as opposed to a child or adult mental health system. The emphasis on interventions for child maltreatment must be expanded to include males in the family. The cost to the state and to society of ineffective and dangerous parents must be emphasized; medical care, mental health care, child welfare, law enforcement, criminal justice system, corrections, etc.

The sharing of information between mental health, law enforcement, education and medical systems should be mandated in matters concerning the safety of children. This change has the potential to enable the transfer of necessary information to agencies mandated to protect children. Rather than focusing solely on tracking released offenders of third party assaults, acknowledgment must be given to the far greater number of children who die because of the action or inaction of their caregivers.

Existing legislation with respect to the safety of children must be enforced. This includes seat belt, water safety, farm safety, and firearms safety legislation. Legislation is useless if there is no will to enforce it. The success of Manitoba's stricter drinking and driving laws has shown that, for the majority of the population, a more consistent enforcement of legislation brings about greater compliance with safety regulations. There will always be a segment of the population that does not subscribe to the values of the majority.

Parenting as a "career choice" for young, poor women and families on social assistance should be discouraged with substantial incentives for small family size and consistent efforts to retrain or enter the work force. The poverty of single female parents in Canada is well documented. There is also

a general acceptance that increased stress in a family often adversely effects the quality of care provided to the children. The current system of financial assistance provides more barriers than incentives for families who wish to escape poverty. Having enough money to retrain, go to school and absorb the extra costs associated with entering school or the work force should be a priority in alleviating the poverty of families, particularly female-headed families. The provision of a guaranteed, although increasingly inadequate, income to mothers until children are 18 years of age may be crippling rather than assisting women. These families could benefit from financial incentives to have fewer children with the incentives redirected toward after school care, retraining, finding and/or subsidizing employment when the children are of school age.

Public education about parenting should begin at an early age. Children can be taught in junior high and through high school about child abuse, family violence and alcohol abuse. Normal child development should be required for *every* high school student as part of the core curriculum and as an acknowledgment of society's responsibility in educating parents and prospective parents.

Research into the incidence and prevalence of child maltreatment deaths in Canada is required. Uniform national standards of data collection should be linked to the provision of health care funds by the federal government.

A particular effort must be made to conduct more research into effective interventions with fathers and male caregivers to improve the quality of their parenting knowledge and skills as well as to reduce the number of fatal assaults on young children.

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APPENDICES

Appendix A

MANITOBA RISK ESTIMATION SYSTEM

A. VULNERABILITY

(1).	Access By Perpetrator:	VL	M	VH	?
(2).	Child Able To Protect Self:	VL	M	VH	?
(3).	Adequate Protector Present:	VL	M	VH	?

A. The Vulnerability rating is:

VERY LOW **MEDIUM** **VERY HIGH**

I. ATTRIBUTES OF THE CURRENT INCIDENT

(4).	Actual/Potential Severity of Injury:	NA	VL	L	M	H	VH	?
(5).	>1 Abuse/Neglect Type:	NA			M		VH	?
	I. Contribution to Risk:	NA	VL	L	M	H	VH	?

	Adult A	Adult B
Name:	_____	_____

II. ABUSE/NEGLECT PATTERN

(4).	Severity (Current Incident):	NA	VL	L	M	H	VH	?	NA	VL	L	M	H	VH	?
(6).	Severity (Prior Incidents):	NA	VL	L	M	H	VH	?	NA	VL	L	M	H	VH	?
(7).	Recency (Prior Incidents):	NA	VL	L	M	H	VH	?	NA	VL	L	M	H	VH	?
(8).	Frequency (Lifetime):	NA	VL	L	M	H	VH	?	NA	VL	L	M	H	VH	?
(9).	Severity (Trend):	NA	D		C		I	?	NA	D		C		I	?
(10).	Frequency (Trend):	NA	D		C		I	?	NA	D		C		I	?
	II. Contribution To Risk:	NA	VL	L	M	H	VH	?	NA	VL	L	M	H	VH	?

MANITOBA RISK ESTIMATION SYSTEM

III. UNDERSTANDING OF THE CHILD

(11).	Perception of the Incident:	NA	P	VL	L	M	H	VH	?	NA	P	VL	L	M	H	VH	?
(12).	Perception of the Child:		P	VL	L	M	H	VH	?		P	VL	L	M	H	VH	?
(13).	Attachment:		P	VL	L	M	H	VH	?		P	VL	L	M	H	VH	?
(14).	Attitude Re: Discipline:		P	VL	L	M	H	VH	?		P	VL	L	M	H	VH	?
(15).	Parenting Knowledge & Skills:		P	VL	L	M	H	VH	?		P	VL	L	M	H	VH	?
	III. Contribution To Risk:	NA	P	VL	L	M	H	VH	?	NA	P	VL	L	M	H	VH	?

IV. PERSONAL CHARACTERISTICS

(16).	Age:	NA			M		VH	?	NA			M		VH	?	
(17).	Substance Abuse:	NA		VL	L	M	H	VH	?	NA		VL	L	M	H	VH	?
(18).	Psychopathology/Incapacity:	NA		VL	L	M	H	VH	?	NA		VL	L	M	H	VH	?
(19).	History of Violence:	NA		VL	L	M	H	VH	?	NA		VL	L	M	H	VH	?
(20).	Stress:	NA		VL	L	M	H	VH	?	NA		VL	L	M	H	VH	?
	IV. Contribution To Risk:	NA		VL	L	M	H	VH	?	NA		VL	L	M	H	VH	?

V. FAMILY INTERACTION

(21).	Conflict/Support:	NA	P	VL	L	M	H	VH	?
(22).	Reinforcement:	NA	P	VL	L	M	H	VH	?
(23).	Siblings:	NA	P	VL	L	M	H	VH	?
	V. Contribution to Risk:	NA	P	VL	L	M	H	VH	?

VI. RELATIONSHIP TO THE COMMUNITY

(24).	Reference Group Values:	NA	P	VL	L	M	H	VH	?	NA	P	VL	L	M	H	VH	?
(25).	Social Isolation:		P	VL	L	M	H	VH	?		P	VL	L	M	H	VH	?
	VI. Contribution To Risk:	NA	P	VL	L	M	H	VH	?	NA	P	VL	L	M	H	VH	?

Appendix A

MANITOBA RISK ESTIMATION SYSTEM

SUMMARY

(A). VULNERABILITY ESTIMATE

VERY LOW **MEDIUM** **VERY HIGH**

(B) REOCCURRENCE ESTIMATE

(I). ATTRIBUTES OF THE CURRENT INCIDENT:		N.A.		VL	L	M	H	VH	?
(II). ABUSE/NEGLECT PATTERN	(A):	N.A.		VL	L	M	H	VH	?
	(B):	N.A.		VL	L	M	H	VH	?
(III). UNDERSTANDING OF THE CHILD	(A):	N.A.	P	VL	L	M	H	VH	?
	(B):	N.A.	P	VL	L	M	H	VH	?
(IV). PERSONAL CHARACTERISTICS	(A):	N.A.		VL	L	M	H	VH	?
	(B):	N.A.		VL	L	M	H	VH	?
(V). FAMILY INTERACTION:		N.A.	P	VL	L	M	H	VH	?
(VI). RELATIONSHIP TO THE COMMUNITY	(A):	N.A.	P	VL	L	M	H	VH	?
	(B):	N.A.	P	VL	L	M	H	VH	?

(B). The risk of the future occurrence of an incident of abuse or neglect is:

VERY LOW **LOW** **MEDIUM** **HIGH** **VERY HIGH** **?**

(C) SEVERITY ESTIMATE

(4). CURRENT INCIDENT (SEVERITY):	N.A.	VL	L	M	H	VH	?
(9). TREND (SEVERITY) (A):	N.A.	Decreasing		Constant		Increasing	?
(9). TREND (SEVERITY) (B):	N.A.	Decreasing		Constant		Increasing	?
(B). RISK OF REOCCURRENCE RATING:		VL	L	M	H	VH	?

(C). The probable severity of a future occurrence of an incident of abuse or neglect is:

VERY LOW **LOW** **MEDIUM** **HIGH** **VERY HIGH** **?**

CONCLUSION & EXPLANATION: _____

_____

_____

_____

_____

_____

Worker: _____ Date: _____ 19_____

Supervisor:_ _____ Date: _____ 19_____

Appendix B

CHILD FATALITY REVIEW INFORMATION

Name of Child _____ **OCME File No.**_____

Age of Child at Death _____ **Gender of Child**_____

Category and Classification of Death _____

1. **Primary Cause(from Autopsy)** _____
2. **Contributing Cause (from file)** _____
3. **Place of Fatal Injury/Death:**
   a. Location _____
   b. Premises _____
4. **Place of Death if different from fatal injury:**
   a. Location _____
   b. Premises _____
5. **Autopsy**
   a. General findings _____
   _____
   b. Unusual findings _____
   _____
   c. Alcohol/Drug Scan _____
   _____
6. **Death Scene data (if available)**

a. Location and Witnesses

Highway	Public driveway	City street
Private driveway	Rural road	Other private property
Residence of Victim	Farm	Body of water
Other residence	Other _____	Unknown

b. Deaths not due to illness (includes SIDS and Undetermined deaths)

Injury date (if different from death) _____

Witnesses (if other than perpetrator) _____

Time between death and when victim was last seen _____

Was the caregiver asleep at the time of the injury/accident Yes No Unknown

c. Circumstances surrounding and contributing to death

Describe how or if the following apply: abilities of caregivers, poverty, medical care, social conditions _____

Appendix B

CHILD FATALITY REVIEW INFORMATION

7. Cause and circumstances of death

Circle Number and Letter to indicate cause. If more than one, number most important as No. 1. Circle all circumstances that apply.

1 Natural Cause
- **a** malnutrition
- **b** delayed medical care
- **c** other _____
- **d** unknown

2 Poisoning
- **a** circumstances unknown

Name of drug or chemical

- **b** _____

3 Inflicted Injury use of hands/feet, other body part to
- **a** shake
- **b** strike
- **c** throw
- **d** suffocate
- **e** strangulate
- **f** other _____
- **g** circumstances unknown

4 Inflicted Injury, use of external agent, not firearm
- **a** circumstances unknown

External agent used:
- **b** knife
- **c** sharp object
- **d** blunt object
- **e** motor vehicle
- **f** poison drug
- **g** hot liquid
- **h** water immersion
- **i** confinement
- **j** arson, burn
- **k** other _____

5 Electrocution
- **a** circumstances unknown

Cause of electrocution:
- **b** appliance defect
- **c** appliance-water contact
- **d** tool defect
- **e** tool-water contact
- **f** electrical wire defect
- **g** outlet defect
- **h** other electrical hazard
- **i** other: _____

6 Fall Injuries
- **a** circumstances unknown

Deceased fell from:
- **b** stair, steps
- **c** baby walker
- **d** open window
- **e** natural elevation
- **f** furniture
- **g** other: _____

Height of fall:
- **h** ____ feet

7 Drowning
- **a** circumstances unknown

Place of drowning:
- **b** swimming pool
- **c** wading pool
- **d** bathtub
- **e** bucket
- **f** creek/river/pond/lake
- **g** well/cistern/septic tank
- **h** other: _____

Location prior to drowning:
- **i** boat
- **j** other: _____

Wearing flotation device:
- **k** Yes
- **l** No

8 Fire, Burns
- **a** circumstances unknown
- **b** matches
- **c** lighter
- **d** lit cigarette
- **e** oven/stove
- **f** furnace
- **g** space heater
- **h** explosives/fireworks
- **i** electrical wire
- **j** other: _____

Source of non-fire burn
- **k** hot water, bath, etc.
- **l** appliance
- **m** other: _____

9 Firearm Injuries
- **a** circumstances unknown

Victim handling:
- **b** handgun
- **c** rifle
- **d** shotgun
- **e** other: _____

Other person handling:
- **f** handgun
- **g** rifle
- **h** shotgun
- **i** other: _____

Age of other person
- **j** ____ years

Activity of other person:
- **k** cleaning
- **l** loading
- **m** hunting
- **n** target shooting
- **o** playing
- **p** assault
- **q** other: _____

10 Confinement
- **a** circumstances unknown

Place of confinement:
- **b** refrigerator/appliance
- **c** chest/box/foot locker
- **d** motor vehicle
- **e** room, building
- **f** other: _____

Appendix B

CHILD FATALITY REVIEW INFORMATION

11 Suffocation / Strangulation
- **a** circumstances unknown

Object impeding breathing
- **b** _____

Object strangulating:
- **c** _____

If in crib or bed due to:
- **d** design hazard
- **e** improper use
- **f** other: _____

Safety restraint
- **s** available, used
- **t** available, not used
- **u** not available
- **v** unknown

Deceased was wearing helmet
- **w** Yes
- **x** No

12 Vehicular
- **a** circumstances unknown

Position of Victim:
- **b** occupant of vehicle
- **c** pedestrian
- **d** other: _____

Type of Vehicle:
- **e** car
- **f** truck/RV
- **g** farm tractor
- **h** other farm vehicle:
- **i** riding mower
- **j** motorcycle
- **k** all-terrain vehicle
- **l** bicycle
- **m** other: _____

Road Condition:
- **n** normal
- **o** wet
- **p** ice/snow
- **q** loose gravel
- **r** other: _____

Operation of occupant vehicle:
- **aa** BAC done on driver
- **bb** driving intoxicated
- **cc** speed/recklessness
- **dd** other violation
- **ee** brake failure
- **ff** other mechanical failure
- **gg** other: _____

Operation of striking vehicle:
- **hh** BAC done on driver
- **ii** driving intoxicated
- **jj** speed/recklessness
- **kk** other violation
- **ll** brake failure
- **mm** other mechanical failure
- **nn** other: _____

8. <u>Significant Others in Child's Life</u> (persons who were part of child's immediate family or consistently involved in child's life. Include parents' paramours, parents, siblings

Name	Relationship to Child	Age	Gende	Race	In Household	Other Location

Appendix B

CHILD FATALITY REVIEW INFORMATION

9. Caregiver History

Employment status of family head(s) Specify for Caregivers A and B.

Caregiver A: _____

Employed how long _____

Not employed UIC social assistance other

Caregiver B:_____

Employed how long _____

Not employed UIC social assistance other

Alcohol use by caregivers - identify up to two persons and answer the following:

Caregiver A: (identify as mother, father, grandmother, boyfriend of mother etc.)

A._____in 24 hours prior to child's death Yes No Unknown

regular use Yes No Unknown

Caregiver B: (identify as mother, father, grandmother, boyfriend of mother etc.)

B._____in 24 hours prior to child's death Yes No Unknown

regular use Yes No Unknown

Drug use (legal or illegal) by caregivers - identify up to two persons and answer the following:

Caregiver A: (identify as mother, father, grandmother, boyfriend of mother etc.)

A._____in 24 hours prior to child's death Yes No Unknown

regular use Yes No Unknown

Substance(s) used by Caregiver A. above: _____

Caregiver B: (identify as mother, father, grandmother, boyfriend of mother etc.)

B._____in 24 hours prior to child's death Yes No Unknown

regular use Yes No Unknown

Substance(s) used by Caregiver B. above: _____

Drug Abuse/Addiction

i. Was it a factor in the child's death? Yes No Unknown

ii. Corroborating Source (if available) _____

Alcohol Abuse/Addiction

iii.Was it a factor in the child's death? Yes No Unknown

iv. Corroborating Source (if available) _____

Appendix B

CHILD FATALITY REVIEW INFORMATION

Mental Retardation

v. Was it a factor in the child's death? Yes No Unknown

vi. Corroborating Source (if available) _____

Mental Illness

vii. Was it a factor in the child's death? Yes No Unknown

viii. Corroborating Source (if available) _____

Domestic Violence

ix. Was it a factor in the child's death? Yes No Unknown

x. Corroborating Source (if available) _____

xi. Childhood CAN History Yes No Unknown

xii. Previous Criminal History Yes No Unknown

What charges, arrests, convictions? _____

_____

xiii. Prior Pregnancies Yes No Unknown

Placement of children from these pregnancies (include no. of children)

with Mother/Father_____ With family _____ In foster care _____

Aborted _____ Miscarried _____ Died at birth _____

Unkown _____ Other (specify) _____ _____

10. Medical History of Deceased Child

A. Birth

Routine prenatal care Yes No Unknown

Birth weight, length Yes No Unknown

Complications at birth Yes No Unknown

Prematurity/Post maturity Yes No Unknown

B. Abnormal Conditions of the Newborn Yes No Unknown

If yes, circle birth injury, F.A.S., hyaline membrane disease, seizures, assisted ventilation, _____

C. Prior Medical Treatment

Any history of medical treatment Yes No Unknown

If yes, any chronic medical condition Yes No Unknown

If yes, any history of serious injury requiring emergency treatment or hospitalization Yes No Unknown

Appendix B

CHILD FATALITY REVIEW INFORMATION

11. School and Community

Was child enrolled in school Yes No Unknown

Was family known to other community agencies Yes No Unknown

If yes, please describe _____

Problems of Child (please circle)

behavioural, learning disability, delinquency, other, none, unknown

12. Child Welfare History

Is there a family history of child welfare involvement Yes No Unknown

Within 2 years of child's death Yes No Unknown

If yes, see CFS report for details

Agency Involvement:

Name of agency: _____

Reason for initial involvement:

Physical Abuse Neglect Sexual Abuse Not Known

Length of involvement with family/child _____

Services provided:

Counselling (type/person) _____

_____

_____

Action taken after child death: _____

Any family/youth court actions on family Yes No Unknown

If yes, describe _____

Any prior police involvement with child or family Yes No Unknown

If yes, describe _____

Were siblings removed after child's death Yes No Unknown

13. Suspects

Primary Suspect: any person thought to be responsible in any way for the child's death including acts of omission, ignorance or negligence

Was a primary suspect identified Yes No Unknown

Identify by Name, Relationship to deceased, Age, Gender, Race, In Household or at Other Location: _____

_____

Appendix B

CHILD FATALITY REVIEW INFORMATION

Any other suspects?

Identify by Name, Relationship to deceased, Age, Gender, Race, In Household or at Other Location: _____

_____

Suspect History (complete for each suspect--use additional sheet if needed)

A. Drug Abuse/Addiction

Was it a factor in the child's death? Yes No Unknown

Corroborating Source (if available) _____

B. Alcohol Abuse/Addiction

Was it a factor in the child's death? Yes No Unknown

Corroborating Source (if available) _____

B. Mental Retardation

Was it a factor in the child's death? Yes No Unknown

Corroborating Source (if available) _____

C. Mental Illness

Was it a factor in the child's death? Yes No Unknown

Corroborating Source (if available) _____

D. Domestic Violence

Was it a factor in the child's death? Yes No Unknown

Corroborating Source (if available) _____

E. Childhood CAN History Yes No Unknown

F. Previous Criminal History Yes No Unknown

What charges, arrests, convictions? _____

_____

G Prior Pregnancies Yes No Unknown

Placement of children from these pregnancies (Include number of children where known)

with Mother/Father_____ With family _____ In foster care _____

Aborted _____ Miscarried _____ Died at birth _____

Unkown _____ Other (specify) _____ _____

Appendix B

CHILD FATALITY REVIEW INFORMATION

14. Law Enforcement

Investigation

Was there an investigation by police/RCMP Yes No Unknown

Name of force _____

Investigation undertaken: cursory (specify) _____

detailed (specify) _____

Conclusions: _____

Charges

Was case presented to Crown Attorney Yes No Unknown

Filed Yes No Unknown

Rejected Yes No Unknown

Pending Yes No Unknown

Not Presented Not Suspicious Death

Combined Murder/Suicide

Crown Attorney

Did the case go to trial Yes No Unknown

Was there a conviction Yes No Unknown

If yes, specify outcome _____

Sentence Type and Length _____

15. Death Review Team Findings

Are Team findings available? Yes No

Conclusions regarding child's death

Known Assault/Abuse

Known Negligence/Neglect

Suspected Negligence/Neglect'

Other

Inadequate Information to Decide

None of the Above

Are findings congruent with Official Reports Yes No Unknown

If No, please explain _____

_____

_____

_____

_____

Appendix B

CHILD FATALITY REVIEW INFORMATION

16. Researcher's conclusions regarding child's death

Known Assault/Abuse
Known Negligence/Neglect
Suspected Negligence/Neglect'
Other _____
Inadequate Information to Decide
None of the Above

Are findings congruent with Official Reports Yes No

If No, please explain _____

_____

_____

_____

_____

_____

Appendix C
CHILD FATALITY REVIEW INFORMATION FORM DEFINED

Case No.:

Identifying Information - unique
Numeric designation assigned for data base counting and identification
Nominal measurement

Name:

Identifying information - not unique
Surname of Child, Christian name of Child
Level of measurement not applicable

Date of Death:

Classification of deaths by years possible with this field.
Date of death from Death Certificate in Chief Medical Examiner File
Interval level of measurement

Office of the Chief Medical Examiner No.:

Identifying Information, unique; locating files at Chief Medical Examiner Office.
File number from Office of the Chief Medical Examiner
Nominal level of measurement

Age of Child:

Enables deaths to be sorted by age of child; younger children most represented?
Chronological age of child at time of death, to 2 decimal places.
Ratio level of measurement

Gender of Child:

Enables deaths to be sorted by gender of child to determine representation by sex.
Male or female
Nominal level of measurement

Racial Origin of Child:

Chief Medical Examiner and Assembly of Manitoba Chiefs track deaths of aboriginal children.
Racial origin (if known) of child
Nominal level of measurement

Category and classification of death:

Enables deaths to be sorted by manner of death; homicides, preventable deaths, etc.
Manner of Death from Chief Medical Examiner File, e.g. homicide, undetermined, suicide
Nominal level of measurement

Death Classification Code:

Deaths can be sorted according to the Chief Medical Examiner's coding system.
Numeric code from Chief Medical Examiner File designating manner of death
Nominal level of measurement

General Cause of Death:

Provides more information on the cause of death.
Related to manner of death; a sub category e.g. Homicide - Battered Child
Nominal level of measurement

Primary Cause of Death:

Permits classification by medical cause of death.
Medical cause of death, e.g. "Asphyxia of undetermined etiology"
Nominal level of measurement

Remarks - Primary Cause of Death:

Utility is limited to ability to read the information stored in the field.
Memo field (cannot be sorted) with further explanation of Primary Cause of Death

Contributing Causes:

Useful for tracking incidence of alcohol around time of death. May provide other information on patterns and associations.
Up to four factors, situations, or conditions apparently associated with the death, e.g. alcohol, child unattended, family violence, unsafe conditions, supervision of child, parenting ability, choice of caregiver, etc.
Nominal level of measurement

Remarks - Contributing Causes:

Utility is limited to ability to read the fields.
Memo field (cannot be sorted) with further information about the contributing causes

Region where death occurred:

Utility limited to sorting deaths into rural versus urban.
Listed by regions: South Rural, North Rural, Urban. North/South split is across the northernmost point of Lake Winnipeg, slightly north of The Pas and Norway House
Nominal level of measurement

Place of Fatal Injury or Death:

Areas with high incidence of deaths (various or particular types) can be identified.
Community Name
Nominal level of measurement

Type of Community:

Permits sorting of deaths of aboriginal (treaty) children, Hutterite children
Farm, City, Town (includes village and hamlet, LGD, RM, First Nation, Colony)
Nominal level of measurement

Place of Death by Region:

Utility not known at this time.
Include only if different from Place of Fatal Injury or Death (e.g. sent to Winnipeg)
Nominal level of measurement

Place of Death by Community:

Utility not known at this time.
Include only if different from Type of Community.
Nominal level of measurement

General Results of Autopsy:

Limited to ability to read information on memo field.
Memo field (cannot be sorted); description of autopsy results

Unusual Results of Autopsy:

Limited to ability to read memo field for information.
Memo field (cannot be sorted); description of other conditions at time of death

Blood Alcohol Level of Victim:

Useful in cases of poisoning.
Given as mg% of blood volume e.g. legal limit for driving is 80 mg%
Ratio level of measurement

Drug Found in Victim:

Useful where drug use by the child is suspected.
Drugs from non-therapeutic use only included here by name only

Death Scene Location:

Demographic information.
Choose from: Highway, private driveway, residence of victim, other residence, public driveway, rural road, farm, city street, other private property, body of water, slough/dugout, unknown
Nominal level of measurement

Date of Injury:

Utility not known at this time.
If different from date of death
Interval level of measurement

Witnesses Present at the Scene:

Utility not known at this time.
Provision for two individuals' names/relationships to child
Nominal level of measurement

Time Between Death and Last Seen:

Utility not known at this time.
The time elapsed between the last time the deceased was seen alive to when found dead
In hours to 2 decimal places
Ratio level of measurement

Caregiver Asleep at Time of Death

Related to attentiveness of caregivers of young children.
Was the caregiver asleep when the child sustained the fatal injury?
Enter: Yes, No, Unknown
Nominal level of measurement

Conditions Contributing to Death, 1 and 2:

May duplicate the 4 contributing causes listed above.
Circumstances and conditions surrounding/contributing to the child's death with one memo field attached to each.
Nominal level of measurement
Memo fields (cannot be sorted)

Circumstances of Death:

Permits a narrower classification of deaths of children.
Select one of 12 choices; Natural Cause, Poisoning, Inflicted Injuries, etc.
Nominal level of measurement

Description of Circumstances:

Demographic information on the cause/mechanism of death.
Select as many letter codes as apply
Nominal level of measurement

Significant Others in Child's Life:

Utility questionable as this information must be kept confidential.
Memo field (cannot be sorted); family etc. by name, age, relationship, race, location'
This information retrievable in MRES format

Identity of Caregiver A:

Provides demographic data on caregivers.
Relationship of the first adult caregiver to the child; e.g. mother
Nominal level of measurement

Employment Status of Caregiver A:

Utility is questionable as this information is seldom collected at source.
Enter: Employed, Unemployment Insurance, Social Assistance, Unknown
Nominal level of measurement

Alcohol Use of Caregiver A in 24 Hours Preceding Child's Death:

Provides information of interest to this researcher and the CHIEF MEDICAL EXAMINER.
Enter: Yes, No, Unknown
Alcohol use to excess; sources are witnesses, police reports, medical reports
Nominal level of measurement

Regular Alcohol Use by Caregiver A:

Provides information of interest to this researcher and the CHIEF MEDICAL EXAMINER.
Enter: Yes, No, Unknown
Alcohol use to excess; sources are witnesses, police reports, medical reports
Nominal level of measurement

Drug Use by Caregiver A in 24 Hours Preceding Child's Death:

Provides information of interest to this researcher and the Chief Medical Examiner.
Enter: Yes, No, Unknown
Abuse of drugs, Prescription and Non-Prescription
Nominal level of measurement

Type of Drug Used by Caregiver A in 24 Hours Preceding Child's Death:

List two names if available in file information

Drug Use by Caregiver A, Regular:

Provides information of interest to this researcher and the Chief Medical Examiner.
Enter: Yes, No, Unknown
Abuse of drugs on a regular basis

Types of Drug Used by Caregiver A Regularly:
List two names if available in file information

Identity of Caregiver B:
Provides demographic information on second primary caregiver.
Relationship of the second adult caregiver to the child; e.g. mother
Nominal level of measurement

Employment Status of Caregiver B:
Utility limited as this is seldom collected at the source.
Enter: Employed, Unemployment Insurance, Social Assistance, Unknown
Nominal level of measurement

Alcohol Use of Caregiver B in 24 Hours Preceding Child's Death:
Of interest to this researcher and the Chief Medical Examiner>
Enter: Yes, No, Unknown
Alcohol use to excess; witnesses, police reports, medical reports
Nominal level of measurement

Regular Alcohol Use by Caregiver B:
Of interest to this researcher and the Chief Medical Examiner>
Enter: Yes, No, Unknown
Alcohol use to excess; witnesses, police reports, medical reports
Nominal level of measurement

Drug Use by Caregiver B in 24 Hours Preceding Child's Death:
Of interest to this researcher and the Chief Medical Examiner>
Enter: Yes, No, Unknown
Abuse of drugs, Prescription and Non-Prescription
Nominal level of measurement

Type of Drug Used by Caregiver B in 24 Hours Preceding Child's Death:
List two names if available in file information

Drug Use by Caregiver B, Regular:
Of interest to this researcher and the Chief Medical Examiner.
Enter: Yes, No, Unknown
Abuse of drugs on a regular basis
Nominal level of measurement

Types of Drug Used by Caregiver B Regularly:
List two names if available in file information

Family Alcohol Use as a Factor:
Tracks those cases where alcohol use was an issue at the time of the death.
Enter: Yes, No, Unknown
Was alcohol use in the family a factor in the child's death?
Nominal level of measurement

Family Mental Retardation as a Factor:

Provides information on the parenting capacity of victim's parents.
Enter: Yes, No Unknown
Was a family member's mental handicap a factor in the death?
Nominal level of measurement

Family Psychiatric Illness:

Identifies those cases where the caregiver's perception of reality is an issue.
Enter: Yes, No, Unknown
Was a family member's mental illness/psychiatric condition a factor in the death?
Nominal level of measurement

Family Domestic Violence:

Tracks those cases where violence may have affected parenting ability.
Enter: Yes, No, Unknown
Was family violence a factor in the child's death?
Nominal level of measurement

Childhood CAN History of Caregiver A:

Permits comparison of this sample with other child death studies.
Enter: Yes, No, Unknown
Does the first primary caregiver have a history of childhood abuse or neglect?
Nominal level of measurement

Childhood CAN History of Caregiver B:

Permits comparison of this sample with other child death studies.
Enter: Yes, No, Unknown
Does the second primary caregiver have a history of childhood abuse or neglect?
Nominal level of measurement

Criminal History of Caregiver A:

Provides information on other acts of violence or illegal activities.
Enter: Yes, No, Unknown
Does the first primary caregiver have a criminal history as a Young Offender or adult?
Nominal level of measurement

Criminal History of Caregiver B:

Provides information on other acts of violence or illegal activities.
Enter: Yes, No, Unknown
Does the second primary caregiver have a criminal history as a Young Offender or as an adult?
Nominal level of measurement

Other Children of Caregiver A:

Demographic information on family size
Number of children of Caregiver A other than the victim
Ratio level of measurement

Other Children of Caregiver B:

Demographic information on family size
Number of children of Caregiver B other than the victim
Ratio

Pre-Natal Care of Child:

Could this be used as an indicator of prenatal awareness of the child and its needs?
Enter: Yes, No, Unknown
Did the mother of the victim receive regular prenatal health care?
Nominal level of measurement

Gestation Term of Child:

Provides information about fragile or difficult to nurture babies.
Enter: Pre, Post, Unknown
Was the child born prematurely or post maturely?
Nominal level of measurement

Birth Complications:

Perception of and attachment to the child may be affected by the birth experience and subsequent effects upon the child and mother according to some studies.
Enter: Yes, No, Unknown
Were there complications at the child's birth, e.g. surgical intervention, emergency conditions, neonatal distress?
Nominal level of measurement

Abnormal Conditions of the Infant:

Medical conditions that may disrupt the initial "bonding" period between mother and infant as well as causing the infant to require more care with a reduced response to the mother appear to be associated with some types of abuse.
Enter: Conditions discovered during first month of life; birth injury, FAS, FSS, FAE, Hyaline membrane disease, seizures, withdrawal from alcohol/drugs, other
Four field
Nominal level of measurement

History of Prior Medical Treatment:

Information about the child's history of medical care may be useful in documenting neglect or physical abuse.
Enter: Yes, No, Unknown IF YES, Open memo field and describe in detail
Did the child have a history of medical treatment before the fatal injury?
Nominal level of measurement

Chronic Medical Condition:

Children who routinely require extra medical care may be at higher risk for neglect or abuse with a predisposed parent or caregiver.
Enter: Yes, No, Unknown IF YES, Open memo field and describe in detail
Did the child have a chronic medical condition before the fatal injury?
Nominal level of measurement

History of Serious Injury:

There may be past evidence of injuries inflicted by the caregiver (or others) or sustained due to poor supervision.
Enter: Yes, No, Unknown IF YES, Open memo field and describe in detail
Did the child have any injuries requiring emergency medical treatment or hospitalization before the fatal injury?
Nominal level of measurement

School Enrollment of Child:

Demographic information of limited utility.
Enter: Yes, No, Not Applicable, Unknown
Was the child known to be enrolled in school at the time of death?
Nominal

Community Agency Involvement:

Other agencies providing services to the family can be counted.
Enter: Yes, No, Unknown, IF YES, Open memo field and describe
Was the family known to community agencies other than child welfare?
Nominal

Problems of the Child:

Tracks children who may be showing the effects of poor care or who may have conditions that predispose them to be difficult to care for.
Choose one of: behavioural, learning disability, delinquency, none, other, unknown
Nominal

Child Welfare History of Family:

Information beyond that required under the FIA.
Enter: Yes, No, Unknown
Has there been any child welfare involvement of the family at any point in the past?
Nominal

Recent Child Welfare Involvement:

Requirement of the Fatality Inquiries Act
Enter: Yes, No, Unknown
As required in the Fatality Inquires Act, has there been any involvement during the 2 years prior to the child's death of any member of the child's family (sibling, parent, victim) with any child welfare agency for any reason?
Nominal

Reason for Initial Involvement:

Demographic information about the child welfare history.
Enter: Physical Abuse, Sexual Abuse, Emotional Abuse, Neglect, Family Support, Underage Parent, Parent-Teen Conflict, Unknown
Nominal

Length of Involvement:

May be of use in tracking "acute" versus "chronic" families when the age of the victim and the number of children in the family are considered.
Enter: Years of involvement to 2 decimal places
How long has the agency been involved with the child's family?
Ratio

Services Provided to Family By Agency:

A "crude" counting of service provision; useful in identifying cases where there was intervention that did not appear to have significantly reduced the risk.
Enter: Counselling Family, Counselling Child, Counselling Offender, Counselling, Family Support, Temporary Placement, Permanent Placement, Placement, Adoption, Referral to Other Services
Nominal

Action Taken After Child's Death:

Tracks responses of the system to various types of deaths; the responses to homicides would be interesting as well as to neglect deaths.

Enter: Siblings removed, Order of Guardianship sought; File Closed, children remain in home; File Open, Children remain in home under supervision, No Other Children In Home, Other

Nominal

Primary Suspect:

Refers to the caregiver being held accountable (in a general way) for the incident. NOT a legal/police definition of the term.

Enter: Yes, No, Unknown

Was a Primary Suspect identified with respect to the child's death (not just by police)?

Nominal

Identity of Primary Suspect:

Would permit tracking of repeat offenders in child deaths within the study parameters.

Enter: Complete name if known

Relationship of Suspect to Child:

Demographic information to compare to other studies.

Enter: Description or abbreviation for the adult's relationship to the child victim.

Nominal

Age of Suspect in Years:

Demographic information to compare to other studies.

Enter: In years to 2 decimal places

Ratio

Racial Origin of the Suspect:

Routinely collected by police.

Enter: racial description of the suspect if known

Nominal

Position of Suspect in Household of Child:

Demographic information to compare to other studies.

Enter: Yes, No, Unknown

Was the suspect living in the child's household?

Nominal

Suspect's History of Alcohol Use:

Of interest to this researcher and the Chief Medical Examiner and in comparison to other studies.

Enter: Yes, No, Unknown

Was the suspect using alcohol in the 24 hr. before the child's death?

Nominal

Suspect's History of Drug Use:

Of interest to this researcher and the Chief Medical Examiner also in comparison to other studies.
Enter: Yes, No, Unknown
Was drug use/addiction of the suspect a factor in the child's death?
Nominal

Suspect's History of Mental Retardation:

Provides information on reduced capacity as a contributing factor to the incident.
Enter: Yes, No, Unknown
Did a mental disability of the suspect contribute to the cause of the child's death?
Nominal

Suspect's History of Psychiatric Condition/Mental Illness:

May be of use in examining homicides versus neglect deaths.
Enter: Yes, No, Unknown
Did the suspect have a psychiatric condition or mental illness that was a factor in the child's death?
Nominal

Suspect's History of Childhood Victimization:

Limited utility.
Enter: Yes, No, Unknown
Was the suspect known to have been abused or neglected as a child?
Nominal

Suspect's Criminal History:

Useful in documenting a history of violent or illegal acts.
Enter: Yes, No, Unknown IF YES, Open memo field and list details known
Does the suspect have a history of charges and/or convictions for offenses?
Nominal

Investigating Police Force

Limited utility
Enter: Name of the force which investigated the child's death
Nominal

Conclusions of Police Investigation:

May provide a contrast to the medical and other systems conclusions.
Enter: Homicide, Accidental death, Unknown, Abuse Suspected, Neglect Suspected
Nominal

Action of Crown Attorney re: Charges:

Useful to compare with the Showers and Apollo study.
Enter: Charges Filed, Charges Rejected, Action Pending, Not Presented, Unknown
Nominal

Did the Case Go to Trial?

Useful to compare with the Showers and Apollo study.
Enter: Yes, No, Unknown
Nominal

Was the Suspect Convicted?

Useful to compare with the Showers and Apollo study.
Enter: Yes, No, Unknown; IF YES, Open Memo field for details of conviction
Nominal

Was the Suspect Sentenced?

Useful to compare with the Showers and Apollo study.
Enter: Yes, No, Unknown; IF YES, Open Memo field for details of conviction
Nominal

Conclusions of the Chief Medical Examiner's Investigation:

Limited utility.
Enter: Known Assault or Abuse, Suspected Assault or Abuse, Known Negligence or Neglect, Suspected Negligence or Neglect, None of the Above, Inadequate Information to Decide

Conclusions of This Researcher:

Contains information about the conclusions drawn by this researcher if they differ from those of the Chief Medical Examiner or police.
Enter: Known Assault or Abuse, Suspected Assault or Abuse, Known Negligence or Neglect, Suspected Negligence or Neglect, None of the Above, Inadequate Information to Decide
Open: Memo field with information about the researcher's conclusions.

Appendix D

Codes for Manner and Cause of Death
Office of the Chief Medical Examiner of Manitoba

Manner	Cause	Code
NATURAL	Various[1]	100's
Pre 1988	SIDS	106.0
ACCIDENT IN THE HOME	Falls	200.0
	Asphyxia[2]	201.0
	Inhalation of Smoke	201.1
	Other	202.0
	Burns/Scalding	202.1
	Electrocution	202.2
	Drugs/Alcohol	202.3
	Inhalation (Sniff)	202.4
	Café Coronary	202.5
	Auto-Eroticism	202.6
	Drowning	202.7
ACCIDENT IN OTHER PLACE	Aircraft	300.0
	Civilian	300.1
	Military	300.2
	Exposure	301.0
	Drowning	302.0
	Boating	302.1
	Rivers & Lakes	302.2
	Pools	302.3
	Other	303.0
	CO Poisoning	303.1
	Falls	303.2
	Hunting	303.3
	Falling Objects	303.4
	Café Coronary	303.5
	Therapeutic Misadventure	303.6
	Diagnostic Misadventures	303.7
INDUSTRIAL ACCIDENT	Farming	400.0
	Mining	401.0
	Other	402.0
SUICIDE	Firearms	500.0
	Rifle	500.1
	Shotgun	500.2
	Pistol	500.3
	Hanging	501.0
	CO Poisoning	502.0
	Vehicle in Garage	502.1
	Vehicle Elsewhere	502.2
	Other	503.0
	Drowning	503.1
	Drugs/Alcohol	503.2
	Jumping	503.3
HOMICIDE	Firearms	600.0
	Blunt Weapon/ Violence	601.0
	Cutting/Stabbing	602.0
	Police	603.0
	Battered Child	604.0
	Other	605.0
UNDETERMINED	No Cause Found	700.0
	Sudden Infant Death Syndrome	701.0
MOTOR VEHICLE ACCIDENT	Vehicle/Pedestrian	800.0
	Vehicle/Vehicle	801.0

[1] Deaths due to Natural Causes/Diseases have been omitted for this table

[2] Includes Drowning priors to 1992

Codes for Manner and Cause of Death
Office of the Chief Medical Examiner of Manitoba

Manner	Cause	Code
MOTOR VEHICLE	Single Vehicle	802.0
ACCIDENT	Recreational Vehicle	803.0
	Snowmobile	803.1
	ATC/ATV	803.2
	Minibike/Off Road	803.4
	Motor Home	803.4
	Other	804.0
	Vehicle/Train	804.1
	Multi Vehicle	804.2
	Vehicle/Fixed Object	804.3
	Motorcycle	804.4
	Vehicle/Motorcycle	804.5
	Vehicle/Cyclist	804.6
CODES ADDED:		
1987	Café Coronary	202.5
	Café Coronary	303.5
	Therapeutic Misadventure	303.7
	Diagnostic Misadventure	303.7
	Vehicle/Cyclist	804.6
1988	Falls in Institutions	109.8
	SIDS (from 106.0)	701
1992	Auto-Eroticism	202.6
	Drowning In The Home	202.7