
Chapter 8

Prevention of Child Maltreatment

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Prevention of Child Maltreatment¹

INTRODUCTION

In the two decades since the publication of an influential article entitled "The Battered Child Syndrome" (322), there has been an explosion of concern in professional and lay media with the problem of child maltreatment. The early 1970s brought revisions in the laws mandating the reporting of and broadening the definition of child abuse. The National Center on Child Abuse and Neglect (NCCAN) was established as part of the U.S. Department of Health and Human Services by the Child Abuse Prevention and Treatment Act (Public Law 93-247) in 1974, and in the past decade, it has become the focal point within the Federal Government for addressing the problem of child maltreatment.

Despite concern with the problem, however, reported cases of child maltreatment in this country have increased markedly. Between 1976 and 1985, reports of child maltreatment increased by 180 percent (657). In 1985, 1.9 million cases of child maltreatment were reported to child protective services agencies (657).

This chapter considers several aspects of the problem of child maltreatment. It examines, in turn:

- the definitions of child abuse and neglect,
- estimates of the incidence and prevalence of child maltreatment,
- the causes of child maltreatment,
- the effects of child maltreatment,
- the effectiveness of strategies intended to prevent child maltreatment, and
- Federal and State funding for the prevention of child maltreatment.

In considering the effectiveness of preventive strategies, the focus of the chapter is not on the activities of child protective services agencies that work in conjunction with the legal system to prevent reoccurrences of child maltreatment. (These agencies may also seek to treat the consequences of maltreatment, an important topic outside the purview of this report.) Rather, the focus of this chapter is primarily on innovative preventive programs that could augment the traditional child welfare/legal system.

DEFINING CHILD ABUSE AND NEGLECT

Only a modest consensus regarding the definitions of child abuse and neglect exists in the United States. Different States, professional disciplines, and public agencies have defined these phenomena in varying ways (205). All 50 States and the District of Columbia have laws defining child maltreatment and mandating that professionals working with children report suspected cases. Typically, however, the laws are rather vague, leaving a good deal open to interpretation. In general, professionals agree that an act by a parent or caretaker constitutes maltreatment if it involves

direct harm or intent to injure, including intentionality without physical injury (e. g., locking a child in a dark closet).

Different forms of child abuse and neglect are frequently categorized in the following groupings:

- physical abuse,
- physical neglect,
- psychological abuse,
- psychological neglect, and
- sexual abuse.

Generally speaking, child abuse implies an act of *commission* that harms a child, child neglect an act of *omission* that harms a child. Beyond that, the way these terms are defined frequently

¹This chapter is based on a background paper entitled "Child Maltreatment in the United States: Etiology, Impact, and Prevention," prepared for OTA by H. Dubowitz (143).

varies, depending in large measure on who is defining the terms and for what purpose.

Physical Abuse

Physical abuse is the infliction of physical injuries, although some definitions also include violence that is potentially injurious. Cigarette burns, inflicted fractures, and belt marks are unambiguous examples of physical abuse.

Some individuals use less stringent definitions of physical abuse than others. A pediatrician, for example, might consider corporal punishment of a child to be physically abusive and therefore decide to counsel the child's parents about other disciplinary strategies. A social worker for a State child protective service agency, on the other hand, might require scattered bruising to substantiate a case report. A district attorney interested in prosecuting an abusive parent would probably become involved only if a child sustained serious bodily injuries.

Physical Neglect

Physical neglect involves the failure to meet a child's fundamental needs (e. g., needs for appropriate nutrition and clothing) or noncompliance with critical medical care. According to one observer, "Leaving an infant in a crib, without changing his diapers and without giving him any contact or stimulation, represents both physical and emotional deprivation: the infant will probably have rashes and sores and might well be developmentally delayed" (65).

Although professionals and lay persons differ in their definition of optimal child rearing, they generally agree when defining inadequate care (499). In some cases—for example, in homeless families—a child may lack some fundamental necessities despite the efforts of the child's parents. Cases such as this, in which it is difficult to assign culpability to individuals, are typically not construed as abuse or neglect.

Psychological Abuse

Psychological abuse consists of parental behavior that is thought to damage the child's emotional and psychological well-being (192,319). Ex-

amples of a psychologically abusing parent are a rejecting parent who repeatedly communicates his or her angry feelings toward a child or a parent who places inappropriately high expectations and demands on a child.

Again, the definition of psychological abuse depends on the purpose of those defining it. Child mental health professionals might consider certain caretaking behaviors to be abuse if those behaviors damage the optimal psychological development of a child. Child protection agencies, on the other hand, would typically require that a deleterious impact on a child be demonstrated *and* be attributable to the abusive behavior before the case is substantiated. A causal relationship is usually very difficult to prove. Consequently, psychologically abused children who receive attention from child protection agencies tend to represent flagrant cases, often involving other forms of abuse and neglect.

Psychological Neglect

A lack of attention to the important psychological needs of a child constitutes psychological neglect (750). An infant who is upset might require the affection and attention of a parent or caregiver for comfort; a parent who provides affection appropriately fosters a sense of security and trust in the infant. But if a mother is suffering from postpartum depression, for instance, she may have difficulty responding to her baby's cues. As a result of psychological neglect, her infant may withdraw and feed poorly, eventually developing the syndrome known as "failure to thrive."

Before they will substantiate a case of psychological neglect, child protection agencies typically require, as they do in the case of psychological abuse, that a child exhibit behavior or health problems attributable to deficiencies in care. Child protection agencies' operational definition of neglect is only *partly* based on whether a child's needs are not being attended to as measured against accepted community standards. Generally, these agencies become involved only in cases of psychological neglect that are severe or that involve other forms of maltreatment in addition to psychological neglect.

Sexual Abuse

Researchers, clinicians, and the legal system have defined sexual abuse in varying ways. The researchers Finkelhor and Araji defined it as “sexual contact that occurs to a child as a result of force, threat, deceit, while unconscious, or through exploitation of an authority relationship, no matter what the age of the partner” (172). Another researcher, Russell, defines sexual abuse broadly to include behavior that does not involve physical contact (556).

Clinicians generally apply somewhat different criteria in defining sexual abuse. Although there seems to be agreement that when physical force and contact are involved in a sexualized manner, sexual abuse has occurred, Finkelhor’s and Araji’s broad definition of sexual abuse is difficult to apply in the clinical setting. Furthermore, at least

in adolescents, evaluating whether a sexual experience has been “unwanted” can be difficult, although some researchers argue that there is little justification for applying different standards to adolescents (769). Sexual abuse that does not involve physical contact is seldom reported to health professionals, aside from rare situations where overt symptoms are apparent and the child or family seek assistance.

Child protective services agencies generally accept as cases only more severe cases of sexual abuse and tend to ignore the vast majority of cases of noncontact sexual abuse. The legal system applies the strictest criteria, generally focusing on those cases where physical signs of sexual abuse are evident.

ESTIMATED INCIDENCE AND PREVALENCE OF CHILD MALTREATMENT²

Estimating the incidence and prevalence of child maltreatment with any precision is very difficult. Estimates vary depending on whether they are based on official reports of child maltreatment to child protective services agencies, on cases known to professionals who deal with abused and neglected children, or on household surveys. Furthermore, the estimates based on these sources are probably too low, but how much too low is hard to say.

Estimates Based on Official Reports of Maltreatment

Each year since 1974, the American Association for Protecting Children (AAPC) has estimated the incidence of child abuse and neglect on

the basis of official reports of child maltreatment to State child protective services agencies nationwide (23,24). Although not all States and jurisdictions contribute data on individual cases, AAPC surveys all States for information on total number of reports, data sources, and characteristics of the reporting systems. Other recent data on reported child abuse and neglect are available from a national survey conducted by the House Select Committee on Children, Youth, and Families in the 50 States and the District of Columbia (657).

Even as assessments of the reported incidence of child abuse and neglect, the AAPC and House Select Committee studies have several limitations. First, different States use different definitions of child abuse; some States, for example, do not report emotional abuse. Second, some States report maltreatment by the number of families reported; hence, a conversion factor must be used to obtain an estimate of the number of reported children. Third, reports by most States are not an unduplicated count of children; hence, an increase in the number of reports may represent either an

²**Incidence** is the frequency of new occurrences of a disease or condition within a defined time interval in a defined population. The incidence rate is the number of new cases of a specified disease or condition divided by the number of people in a population over a specified period of time, usually 1 year. **Prevalence** is the frequency of existing cases of a disease or condition within a defined time interval in a defined population. The prevalence rate is the number of existing cases of a disease or other condition in a defined population at a particular time or over a specified time period.

increase in the number of children or additional reports for the same number or even fewer children. Fourth, States differ in the degree to which reports are substantiated (i. e., investigated and the abuse or neglect confirmed); in 1985, the substantiation rate ranged from a high of 67 percent in Oregon to a low of 25 percent in Iowa and Virginia (657). Fifth, States differ in the degree to which total reports represent all referrals; most States have some screening prior to reporting. Sixth, many States have not collected data by type of maltreatment; thus, for example, data to compare the reported incidence of sexual abuse, physical injury, and neglect are available from only 19 less-populated States for the entire period from 1981 to 1985 (657).

Despite their limitations, the following estimates from AAPC and the House Select Committee on Children, Youth, and Families are presented as key estimates of reported incidence of child maltreatment in the United States (24,657):

- In 1985, an estimated 1.9 million child maltreatment reports were made in the United States, a rate of 30.2 reports per 1,000 children under 18 years of age (assuming no multiple reports per child).
- Between 1976 and 1985, the number of reports of child maltreatment in the United States increased by 180 percent, despite a slight decline in the total child population. Between 1984 and 1985, the number of reports increased 9 percent.
- Reports of sexual abuse increased more than reports of other categories of child maltreatment. Among the 34 States providing complete information for the period, reports of sexual abuse of children increased 23.6 percent from 1984 to 1985; by comparison, reports of physical abuse and neglect of children increased 6.6 percent and 5.0 percent, respectively.

More recent but less complete State data on reported child maltreatment are available from a survey of State reports for 1986 (448). In 1986, according to preliminary estimates projected from data in 34 reporting States (representing 62 percent of all children), there were 2 million reports of child maltreatment nationwide, an increase of

approximately 6 percent over the number of reports recorded during 1985.

In the 34 reporting States in 1986, the survey found 727 reports of children's deaths due to maltreatment (448). This figure represents an increase of 37 percent over the number of deaths reported in 1984 (448). If nonreporting States had the same rate of deaths as reporting States in 1986, child maltreatment caused at least 1,200 children's deaths nationwide that year.

Actually, the number of children's deaths due to maltreatment in 1986 is probably far in excess of the estimate of 1,200 derived from official reports. Estimating the actual number, however, is inherently difficult for two reasons. One is that children's deaths may be coded as due to a variety of causes, and it is often difficult to determine that a given death is due to maltreatment, particularly in cases involving infant deaths and in cases of possible neglect. Second, there is evidence that the number of fatal child abuse cases reported to child protective services is much below the number suggested both by law enforcement data (717) and vital statistics child homicide data (300, 302).

Estimates Based on Cases of Maltreatment Known to Professionals

In an effort to improve on estimates of child maltreatment based solely on officially reported incidents, NCCAN sponsored a national study on the incidence and severity of child abuse and neglect to count the number of cases of child abuse and neglect known to professionals during a 1-year period (677). The NCCAN study used a stratified random sample of 26 counties. Data were obtained from the professional staff of child protective services agencies, as well as from the staff of other agencies throughout each county—local police departments, county public health departments, public schools, short-stay hospitals, and mental health facilities. These professionals were asked to identify any possible cases of child maltreatment known to them, using very clear guidelines to identify behavior as maltreatment. A final determination on whether child maltreatment had actually occurred was made by the NCCAN investigators.

For the United States as a whole, the NCCAN investigators estimated, a total of 1.2 million cases of child abuse and neglect were suspected by professionals for the year May 1979 through April 1980. About 652,000 of these suspected cases met the strict criteria developed by the study as constituting maltreatment.³ Perhaps the most important finding of the NCCAN study, however, was that only one-third of the cases of maltreatment known to professionals were reported to child protection agencies (677).

Estimates of Parent-to-Child Violence Based on Household Surveys

Using a household survey to estimate the incidence of parent-to-child violence within families, Straus and Genes estimated in 1985 that 10.7 percent of children in U.S. households experienced severe acts of violence and 1.9 percent experienced very severe violence (625). The Straus and Genes study was based on a national probability sample of 1,428 households with two adults and at least one child. Each household was surveyed by telephone. Respondents were asked to reflect on the past year and to indicate how conflicts between family members were resolved. The instrument used in the Straus and Genes study was the Conflict Tactics Scale, a reasonably valid and reliable instrument for measuring family violence. The scale provides a list of strategies ranging from “discussing the problem” to “using a gun or a knife” and thus allows an assessment of the degree of reasoning, verbal aggression, and physical aggression used in resolving conflicts. The results of the study with regard to rates of parent-to-child violence in U.S. households are presented in table 8-1.

The Straus and Genes study has several limitations. First, the data were based on self-reports of respondents to anonymous telephone interviews; social pressures may have led some individuals to deny their violent behavior, thereby resulting in an underestimate of the incidence of violence. Second, the study included only children between 3 and 17 years of age who were liv-

³In most cases of physical neglect, for example, the study definitions required evidence of serious injury or impairment; in contrast, it would be hoped that most child protective services agencies would not require this degree of severity before they intervened.

Table 8-1.—Estimated Rates of Parent-to-Child Violence in U.S. Households, 1985^a

Type of violence	Rate per 1,000 children age 3-17
Minor acts of violence:	
1. Threw something	27
2. Pushed, grabbed, shoved.	307
3. Slapped or spanked	549
Severe acts of violence:	
4. Kicked, bit, hit with fist	13
5. Hit, tried to hit with something	97
6. Beat up	6
7. Threatened with gun or knife	2
8. Used gun or knife	2
Violence indices:	
Overall violence (1-8).	620
Severe violence (4-8)	107
Very severe violence (4, 6, 8).	19

^aFor two-caretaker households with at least one child 3 to 17 years of age at home

SOURCE M A Straus and R J Genes, ‘Societal Change and Change in Family Violence From 1975 to 1985 as Revealed by Two National Surveys,’ *Journal of Marriage and Family*, 48:465-479, 1986 Copyright (1986) by The National Council of Family Relations, Fairview Community School Center, 1910 West County Road B, Suite 147 Roseville, MN 55113

ing with two adults over the age of 18. Because it excluded two important groups of children at high-risk for maltreatment—namely, children under age 3 and children living with a single parent—the study probably underestimates the incidence of parent-to-child violence.

In 1975, Straus, Genes, and Steinmetz had conducted a household survey similar to the one just mentioned (626). A comparison of the two surveys indicated that while the overall level of violence remained stable in the 1975-85 period, the amount of severe and very severe violence decreased substantially. From 1975 to 1985, the rate of very severe parent-to-child violence declined from 36 to 19 incidents per 1,000 children. This decline cannot be attributed to methodological differences between the two surveys. Rather, the decline is probably due to the combination of an increase in reluctance to report severe violence and real changes in behavior (624). Although the decrease in severe violence is encouraging, an extremely high level of violence against children persists. The authors estimate that 1.5 million children aged 0 to 17 in two-parent families were subject to very severe violence in 1984 (624).

Estimates of Child Sexual Abuse

Sexual abuse appears to be the fastest growing component of reported child abuse, rising from

a rate of 0.09 reports per 1,000 children in 1976 to 1.6 reports per 1,000 children in 1984 (657).

More useful estimates are from studies of the prevalence of child sexual abuse. Such studies survey adults about their childhood sexual experiences. Reported prevalence rates range from 6 to 62 percent throughout childhood for girls and from 3 to 31 percent for boys (172). Using a very conservative childhood sexual abuse prevalence rate of 5 percent obtained from various community surveys, Finkelhor and Hotelling (173) estimate that something on the order of 150,000 to 200,000 new cases of child sexual abuse occur each year.

False Reports of Child Maltreatment

Social workers screen out or fail to substantiate approximately 58 percent of case reports of child abuse and neglect (24). Clear evidence of maltreatment may be lacking either because no maltreatment occurred or because an investigation was too limited to uncover it. In general, child protective services staff are undertrained and overwhelmed; while attempting to meet great demands with inadequate resources, they raise their thresholds for accepting cases. Although some reports of child maltreatment are certainly made when no maltreatment has occurred, there also seems little doubt that some cases screened out or not substantiated by child protective services are, in fact, cases of maltreatment.

On the other side of this issue is the possibility of increasing rates of falsely reported child abuse,

particularly sexual abuse (308). Some have claimed that a number of false allegations are made in the context of divorce. A recent survey of domestic relations courts conducted by the Association of Family and Conciliation Courts and the American Bar Association found that the courts are encountering a small but growing number of sexual abuse allegations. Nevertheless, "the number of sexual abuse charges arising during divorce and/or custody/visitation disputes is small in absolute number and as a percentage of all contested cases" (641). A study of suspected child abuse cases reported in Denver between 1983 and 1985 found that only 6 percent of alleged sexual abuse cases were based on deliberately false reports (308). Thus, false reports are not likely to be affecting the trends in reporting to any great extent.

The problem of a small number of false or fictitious reports of child maltreatment should be counterbalanced by what is probably a much greater number of cases that remain secret within the family and are never brought to the attention of professionals. Clinicians have found that sexual abuse victims frequently delay disclosure of their abuse for substantial periods, and many probably never reveal their painful pasts. Given the privacy of the family, it is inherently difficult to determine that an event (i.e., an act of child abuse) has occurred (267). This situation makes it particularly difficult to measure the success of maltreatment prevention programs.

THE CAUSES OF CHILD MALTREATMENT

Identifying the causes of child maltreatment is difficult. Various theories have been used to account for the problem, and various risk factors have been studied by researchers. As the following discussion indicates, however, for many of the factors often thought of as contributing causes of child maltreatment, the supporting evidence is either absent, minimal, or inconsistent.

Theories About the Causes of Child Maltreatment

The researchers who first began to address the problem of child abuse focused on the psycho-

pathological traits of the child-abusing parent (188,421,617). In some sense, this focus seems reasonable. One expects that no normal person would deliberately hurt a child; hence, any person who does abuse children must suffer from some kind of mental illness.

Other theories have also been utilized to explain child abuse, including social learning theory, cognitive development theory, and environmental stress theory. Social learning theory posits that child abuse is learned behavior. Children who have experienced abusive and violent childhoods transfer this "learning" to their families of desti-

nation. Cognitive development theory suggests that many caretakers of children simply have not learned what constitutes normal child development, reasonable expectations for children, and what parental responses are appropriate. Environmental stress theory emphasizes that child abuse results from stressful life conditions and events outside the individual, including poverty, unemployment, social isolation, and a violent environment (459).

Each of these theories is consistent with one or more of the many factors that are viewed as contributing to child abuse and neglect. Table 8-2 identifies a number of risk factors commonly studied by researchers in the field. No single theory (or set of related risk factors), however, seems to explain the diversity of maltreating families and their circumstances. The risk factors for one kind

Table 8-2.—Commonly Studied Risk Factors for Child Maltreatment^a

Individual-level risk factors:
Age of child
Perinatal problems
Child's health status
The "difficult" child
Age of parent
Parent's history of abuse as a child
Parental intelligence
Parental psychopathology
Parental awareness
Parental perceptions of their child
Parental knowledge of child development
Disciplinary strategies used by parents
Family -level risk factors:
Stress
Single parenthood
Number of children
Spacing of children
Living conditions
Substance abuse
Family supports
A new baby
Other family violence and relationships
Community-level risk factors:
Community impoverishment
Social isolation
Societal-level risk factors:
Ethnicity
Attitudes toward violence
Attitudes toward children
Poverty
Unemployment

^aSexual abuse excluded

SOURCE Adapted from H. Dubowitz, "Child Maltreatment in the United States: Etiology, Impact and Prevention," prepared for the Office of Technology Assessment, U.S. Congress, Washington, DC, October 1986.

of abuse may be quite different from the risk factors for other types of abuse. Sexual abuse, in particular, stems from different factors. Consequently, sexual abuse is discussed in a separate section below.

Much of our current understanding of child maltreatment is based on data from identified cases. To the extent that these cases fail to reflect the true phenomenon or only one part of it, this "knowledge" is a misrepresentation. As shown below, a comparison of risk factors for child maltreatment derived from different data sources illustrates that many of these factors are artifacts of the reporting system. Much of the research is exploratory and descriptive, and many of the studies use design methods that have major deficiencies (498).

Child-Related Risk Factors for Maltreatment

An extensive review of research studies indicates that a child's characteristics do not predict child maltreatment (143). In fact, observed correlations between characteristics of the child and maltreatment may reflect the results of maltreatment rather than its causes.

It does appear true, however, that very young children are especially vulnerable to severe physical abuse. AAPC's report on official child neglect and abuse reports in 1984 indicated the following average ages: 7.3 years for all maltreated children; 5.3 years for children with major physical injuries; 8.1 years for emotionally maltreated children (24). AAPC's report for the year 1983 found that 64 percent of abused children with major physical injuries and 37 percent with minor ones were under 6 years of age (23). Similarly, Straus, Genes, and Steinmetz's household survey of how families resolved conflicts found that substantial physical force was most likely to be used against children under age 5 or against 15- to 17-year-olds (626).

Parental Risk Factors for Maltreatment

AAPC has consistently reported that the average age of perpetrators of child maltreatment is about 31 years (24)—a figure that implies that

many maltreating parents are older parents, not just teenage mothers. A study in Georgia found that teenage motherhood was a risk factor for being reported—i.e., a factor that contributed to greater surveillance—but not additional risk for child abuse (299).

There appears to be little support for the hypothesis that abusive parents are less intelligent than other parents, despite its intuitive appeal (613). Studies of parental perceptions of their children as well as parental knowledge of child development have yielded mixed or contradictory results (143). If there is any relationship between intelligence and maltreatment, it is probably with neglect rather than abuse (148,613).

The data concerning drug and alcohol abuse in child-abusing parents and their families remain ambiguous. Some studies have reported an association (44), while others have failed to find any difference between abusing and nonabusing parents in their drug or alcohol use (11,291). These conflicting findings might be explained by the differences in the assessment measures used. Clinical experience suggests that alcohol and drug abuse is an important factor in domestic violence. It is presumably difficult for the alcoholic or heroin-addicted parent to care for a child adequately. Child neglect, if not abuse, must be a frequent concern.

Some researchers have suggested that the birth of a new baby is an important source of potential stress, since family members need to adjust (335,471). Many prevention programs have focused on this early period to support families (222,588). The failure to establish early rapport between parent and child, i.e., poor parent-infant bonding, has been suggested as a contributor to subsequent maltreatment (180). Experts have suggested that newborns who are separated from their parents, and children who are not securely attached to their parent, are at risk for maltreatment (180,200). Olds and Henderson recently completed a review of controlled studies of this topic (470). Although the results of the studies were not entirely consistent, the reviewers concluded that it is unrealistic to expect a few extra minutes or hours of contact between high-risk parents and their newborns to substantially alter the

reactions to stressful life circumstances over the succeeding years (470).

It now appears that while the “bonding issue” made a valuable contribution toward humanizing obstetric care, its critical importance has been overstated. There are other opportunities for attachment to develop, and a problem with early bonding is at most likely to be a modest contributor to subsequent maltreatment (586).

With respect to race and ethnicity, studies based on reports of maltreatment made to child protective services agencies have shown the ethnic minorities, the less educated, and the poor to be overrepresented (203,299). A study that only considered substantiated cases of child maltreatment found that blacks had the highest rates, followed by Mexican-Americans and whites (365). This result was supported by a secondary analysis of the same data that controlled for social class and community characteristics.

A number of studies have documented that minority groups and the poor are susceptible to being labeled as maltreaters, largely because of professional stereotypes and bias (199,466). Straus, Genes, and Steinmetz’s national household survey of family violence (626) found little difference between black and white families in self-reported rates of violence.

Four other parental factors are often mentioned as possible risk factors for child maltreatment: parental mental illness, single parenthood, history of abuse as a child, social isolation, and poverty and unemployment. Some of the evidence concerning each of these factors is presented below.

Parental Mental Illness

Early work in the field of child maltreatment centered around parental mental illness, and several studies described the psychotic traits of child-abusing parents (88,421,617). Later work, however, showed that most abusive parents were not psychotic (608), and no single abusive psychological profile or pattern has been found to exist. Indeed, a British study of abusive parents found that only 1 in 10 had a definable psychiatric condition, a rate comparable to the rest of the population (595). A review of studies comparing abu-

sive and nonabusive parents did not find any differences in underlying personality attributes or traits “beyond general descriptions of displeasure in the parenting *role* and stress-related complaints” (761).

Single Parenthood

In 1984, 37 percent of the families reported for child maltreatment—as compared with 23 percent of all U.S. families with children under age 18—had a single female as the head of the household (24). Several studies have identified single parenthood as a significant risk factor for child abuse (76,561). The problem with these studies, however, is that they failed to control for an obvious correlate of single-parent households—namely, poverty. It is likely that the mixed results of various studies are due to this uncontrolled factor. It is also likely that case reporting rates are higher for single parents because of biases in child protective services.

Parental History of Abuse as a Child

The intergenerational transmission of child abuse has been the subject of a great deal of controversy. Generally, retrospective studies of the parents of children currently identified as abused have found a relatively high prevalence of parents who themselves had been abused as children (202,226). No comparison groups have been studied, however. Furthermore, the view that “violence begets violence” has been challenged by Gil and other researchers, who found that only 14 percent of mothers and 7 percent of fathers in identified maltreating families had a history of being abused (11,202,203).

Prospective studies that have examined the parenting practices of parents who were abused as children are more helpful. In a 25-year longitudinal study, Miller and Challas found that 45 percent of persons abused as children were rated as not abusing their own children; in contrast, 47 percent of persons who were not abused as children were found to have some potential for abuse (427). Another study found that over 80 percent of previously abused parents did not abuse their infants (291).

Straus has reported interesting differences in the transmission of violent behavior depending on the age at which the children (now parents) were physically punished, and by whom (623). He found that teenagers who were punished by their mothers were less abusive of their offspring than teenagers punished by their fathers. In addition, Straus noted:

. . . parents whose *fathers* hit them as teenagers have a child abuse rate which is one-third higher than parents who were under equally high stress that year, but who did not experience . . . violence directed against them as teenagers. The difference between the effect of having been hit by one's mother versus by one's father suggests that violence by the father against a teenage child is a more influential role model for violent behavior which the child will later display under stress (623).

Of course, some portion of what appears to be intergenerational transmission of violence may be due to the continuity of poverty from one generation to the next—i.e., extremely poor children are likely to head poor or near-poor families in the next generation. Hence, it is necessary to control for this third factor in both the family of origin and in the family of destination.

Social Isolation

It is argued that social supports promote a sense of identity, self-esteem, and physical well-being and help the individual cope with stressful events (74). In this context, it is not surprising that isolation has been considered to be an important contributory factor to child maltreatment (193).

Various studies have found that social isolation and a lack of support networks play a role in maltreating families (152,467,614,731). The correlation of single parent status and high residential mobility with child maltreatment is often thought of as additional indirect evidence in support of the social isolation hypothesis. A recent critical review of studies found, however, that there was little evidence that lack of social support plays a significant role in the origins of physical abuse (575). That review indicated stronger evidence that lack of social support characterized parents who neglected their children, although it is diffi-

cult to tell whether the social isolation is a cause of the neglect or another manifestation of the poor psychological resources of these families.

Poverty and Unemployment

In 1984, 48 percent of families reported to State agencies for child maltreatment were receiving public assistance (24). Numerous studies have shown that the poor and minority groups are treated differently from others by professionals working in the child abuse field, and that this bias is at least partly responsible for the increased identification and reporting of child maltreatment in poor families (254,318,466). The argument that follows from this position is that maltreatment is underreported in middle and upper classes, and that there is no true association between poverty and actual maltreatment, only an association with reported maltreatment.

Straus, et al.'s 1975 national survey of how conflicts were resolved in families that had not been identified as maltreating argues otherwise (626). A finding of that survey was that poorer families had the highest rates of violence. Poor families earning under \$6,000 a year reported twice as much violence as families earning over \$20,000. Still, there is the possibility that middle and upper income families were more reluctant than poor families to disclose their violent behavior.

In a Georgia study of confirmed fatal child abuse cases between 1975 and 1979, however, children receiving Aid to Families With Dependent Children (AFDC) were four times more likely to suffer fatal child abuse than children not receiving AFDC (301). Of the different forms of child maltreatment, neglect appears most strongly correlated with low socioeconomic status (206). In one study, 57 percent of the neglect group, compared to 19 to 27 percent of the other maltreating groups, relied on public assistance (582).

On balance, it seems reasonable to conclude that although some poor people are unfairly reported for maltreatment (and some middle and upper class families go undetected), there is an important association between poverty and child maltreatment (484). It is important to recognize, though, that most poor people do not abuse or neglect their children.

Economic factors other than poverty have also been found to be important. In a reanalysis of Gil's data, Light found unemployment to be the most powerful predictor of child maltreatment (381). A number of studies have documented an association between areas with high unemployment rates and an increased incidence in child maltreatment (112,195,196). These findings are supported by Steinberg, et al.'s longitudinal study, which tested whether undesirable economic change led to child maltreatment (620). In this study, analysis of data over a 30-month period revealed an increase in child abuse following periods of high job loss, and this finding was replicated in two metropolitan communities.

Summary of Evidence on Parental Risk Factors for Child Maltreatment

The most important parental risk factors for child maltreatment are those related to poverty and unemployment and a history of abuse as a child. Indeed, it may be that a history of being abused as a child is related in part to past poverty and unemployment. Many of the other factors that are often thought of as contributing to child maltreatment—parent-child bonding, ethnicity, parental mental illness, and single parenthood—do not seem to be important factors, particularly when social class is controlled.

Risk Factors for Child Sexual Abuse⁴

The causal underpinnings of sexual abuse are quite different from other forms of child maltreatment, although some overlap exists. Several interacting contributory factors are responsible, rather than single causes.

In an analysis of eight community-based random sample surveys, Finkelhor and Araj found that 71 percent of all respondents who said they were sexually abused as children were girls and 29 percent **were boys** (172). The median age of onset of abuse of girls was consistently between 10 and 11 years. When the risk for each year of age was calculated, a substantial increase occurred at 6 years with an estimated risk of 1.49 percent (i.e., 1.49 per 100 6-year-old girls are abused), and

⁴This section is largely derived from Finkelhor and Araj's recent book entitled *A Source Book on Child Sexual Abuse* (172).

again at age 10, with a risk of 3.76. For girls between 10 and 12 years of age, the risk of being victimized is more than double the average rate for all girls between 1 and 18 years.

Finkelhor and Araji's review lists several studies that reported an increased rate of sexual abuse among women who lived without their natural mothers or fathers at some time during childhood (171,490,557). Four of six studies found the presence of a nonbiologically related father to be a significant risk factor for abuse (170,230,557,763).

One study found that 2.3 percent of daughters growing up with biological fathers had been sexually abused by them, as compared to 17 percent of girls growing up with stepfathers (557). In addition, the nature of the abuse from stepfathers was more severe and more violent.

Social class probably is not a significant factor for sexual abuse (116,320,326). Studies have consistently found similar rates of sexual abuse for blacks and whites (326,490,677),

THE EFFECTS OF CHILD MALTREATMENT

The effects of child maltreatment on children can be physically and emotionally devastating. Some of the direct effects of maltreatment on abused and neglected children are discussed below. Also discussed are some estimates of the societal costs for medical and foster care of maltreated children.

Effects of Child Abuse and Neglect on Maltreated Children

There is no typical abused child. There is also no direct relationship between specific forms of child abuse and specific developmental outcomes, since an array of individual and environmental factors account for the varying effects of abuse on children. (Many followup studies of maltreated children have found that such children have an increased incidence of social and emotional problems, but it is often difficult to discern whether these problems preceded or resulted from the maltreatment.) Despite the variety of outcomes, however, the effects of abuse on maltreated children are generally negative.

Many maltreated children have no overt evidence of physical injury. For example, in 1984 three-quarters of reported children had no injuries (24). As medical expertise and sophistication in the field of child maltreatment increase, however, more subtle injuries are being diagnosed. This development is well illustrated by the application of new knowledge in the clinical detection of sexual abuse (157,606,764). Almost any trau-

matic physical injury—e.g., injuries to the eye, fracture of the teeth, and rupture of an intra-abdominal organ—can result from physical maltreatment (151). The most extreme outcome, of course, is death.

Neglect can also have deleterious medical effects. Neglected children have been found to have poorer medical care with more frequent lapses (e.g., in their immunizations) than children in a comparison group (228). Ingestions of poisonous substances have been associated with family dysfunction and lack of supervision (59,598). Some children who exhibit nonorganic failure to grow and develop as expected for their age and sex have been neglected by their parents.

Generally, bruises will fade, welts will resolve, burns and lacerations will heal. The most common and most important lasting effects of child maltreatment are often psychological. Although research on the psychological and developmental effects of maltreatment is sorely lacking (1), some studies of abused children indicate that they have more aggression and behavioral problems than children who have not been abused. Abused children often have an impaired ability to develop a sense of trust in others. Some of them develop cognitive deficits. Abused children frequently manifest a general air of depression, unhappiness, and sadness (143).

Among the psychological effects of child sexual abuse (i. e., outcomes manifesting within 2 years of the abuse) are anger, hostility, and sex-

ual problems (157,606,764). Most studies of the long-term effects indicate that depression is an important symptom among women who were molested as children. Other long-term effects include suicide attempts, sleep problems, diminished self-esteem, fear and hostility towards men and women, enduring rage toward parents, and difficulties with adult sexual functioning (143).

Long-term effects of child abuse and neglect may include juvenile and adult crime. A remarkable 40-year longitudinal study in eastern Massachusetts has followed the lives of **232** males raised in that area from the time the subjects were between 5 and 9 years old (410). The researchers gathered extensive information from the subjects' elementary school teachers and assessments made by social workers who visited the boys' homes twice a month for 5½ years. They subsequently gathered information for the study from court, mental hospital, and clinic records; death records; and a questionnaire mailed to the 98 percent of subjects who were successfully traced. The investigators found that one in five (20 percent) of the "abused and neglected" boys had been convicted of a serious juvenile crime. Among "rejected" children, the percentage of those who had been convicted of a serious juvenile crime was even higher (**29** percent). By comparison, relatively few (**7** percent) of the boys from "loving" families had been convicted of such a crime.

The association between maltreatment and adult crime was studied by Lewis and colleagues (379a). Almost one-half of the 97 neglected or abused children studied had become criminal, alcoholic, mentally ill, or died before reaching 53 years of age. There were no significant differences between those who were maltreated and those who were not in terms of occupational status, marital status, alcoholism, or use of physical punishment on their children.

In summary, the outlook for maltreated children is not good. While some children appear to be invulnerable, and on most measures there is a wide range of outcomes, research findings and clinical experience attest to significant physical, cognitive, and emotional harm. There is little comfort in observing that some studies found few differences in outcomes between maltreated children and children from violent and impoverished

neighborhoods (152) or from distressed families involved with child welfare agencies (762).

Financial Costs Attributable to Child Maltreatment

Some, though by no means all, of the financial costs incurred nationally and attributable to child maltreatment in 1983 have been estimated by Daro (125). According to AAPC data, in 1983, an estimated 23,648 children in the United States experienced serious physical injury due to maltreatment, including brain damage, skull fractures, bone fractures, internal injuries, poisoning, and burns (23). Assuming that half of these children required hospitalization for 5.2 days (the mean length of stay for children with fractures), Daro calculated that inpatient medical costs for these children exceeded \$20 million. Rehabilitation and special education services in the year following the maltreatment, according to Dare, cost an estimated \$7 million (125).

Daro also calculated the short- and long-term costs of foster care associated with child maltreatment in 1983 (125), although her estimates of foster care costs are probably too high. Daro assumed that 75 percent of all confirmed maltreatment case reports to child protective services agencies in 1983 resulted in a child's spending at least some amount of time in foster care. This assumption yielded an estimate that there were **554,254** foster care placements in 1983, with an estimated first-year cost of \$1.9 billion and long-term costs of \$27 billion (125). According to AAPC data for 1984, only about 18 percent of newly opened child protective services cases were placed in foster care (**24**). If this AAPC estimate is accurate, then Dare's estimates of foster care costs are too high by a magnitude of four. Adjusting her cost estimates downward by a magnitude of four, however, still yields enormous costs for the foster care of children maltreated in 1983—first-year costs of \$475 million and long-term costs of \$6.77 billion.

Unmeasured long-run costs of child maltreatment are the cost of increased juvenile delinquency and adult crime that disproportionately occurs in victims of maltreatment. Estimates of these costs have not been attempted, but they are likely to be high.

EFFECTIVENESS OF PREVENTIVE STRATEGIES AND PROGRAMS⁵

The previous section described the enormous human and financial costs associated with child maltreatment. The question is what can be done to prevent such maltreatment?

Strategies to prevent child maltreatment are generally of two types:

- c strategies intended to prevent reoccurrences of maltreatment in children who have already been abused or neglected, and
- strategies that seek to prevent initial instances of child maltreatment in high-risk families.

Traditional preventive efforts have generally sought to prevent reoccurrences of maltreatment, primarily through social case work. In all 50 States, child protective services agencies are required by law to respond to reports of alleged child maltreatment, and their mandate is to ensure the protection and adequate care of children. Typically, this task involves regular monitoring of family situations and efforts to enhance family functioning, such as supportive counseling and referrals to local resources. In instances of serious injury or risk to a child, child protective services agencies have the authority, after obtaining judicial consent, to remove children from their families and temporarily place them in substitute care.

The fact that reported child maltreatment rates in this country have been rising suggests that the traditional combination of social and legal services—at least in its present form—cannot cope with the magnitude of the problem. Social workers must deal with large caseloads and legal ambiguities, and the legal system must struggle with adapting rules developed to protect individual rights to family interfamilial problems. The remainder of this chapter, therefore, examines some innovative interventions that go beyond these traditional methods.

⁵ The child maltreatment prevention programs described in this section are directed almost exclusively at parents or stepparents. Given the harmful effects of maltreatment on affected children, there is a clear need for treatment of maltreated children. Some evidence argues that an element common to all terms of child maltreatment is psychological maltreatment (258). The organization and effectiveness of children's mental health treatment services are discussed in a recent OTA background paper entitled *Children's Mental Health Problems and Services* (bb31).

The previous discussion of the causes of child maltreatment suggests various strategies for intervention. Strategies to prevent maltreatment by changing factors for which research has demonstrated little or no causal impact on child maltreatment (e. g., parental mental illness) are not likely to be effective. Strategies to prevent child maltreatment by reducing poverty-related stress and violent responses to that stress are likely to be more effective. The stress associated with these conditions might be ameliorated by referring families to agencies that offer aid in obtaining such things as food stamps, Medicaid, and employment.

Given all the interest in preventing child maltreatment in this country, it is remarkable that relatively few child maltreatment prevention programs have been rigorously evaluated to ascertain their short- and long-term outcomes. Furthermore, in the assessments of prevention strategies that exist, the outcome measures (e. g., change in knowledge about child development, change in clinicians' estimates of propensity for maltreatment, or children's prediction of their responses to a hypothetical abusive incident) have generally been rather remote proxies for child maltreatment. Assessments of prevention programs in the area of sexual abuse have not examined outcomes in terms of actual behavior and the occurrence of subsequent sexual abuse. Another typical flaw in the evaluation of child maltreatment prevention programs is the absence of appropriately matched comparison groups. Many evaluations have no comparison group whatsoever.

A recent multiple-site evaluation of 19 demonstration projects funded by NCCAN that sought to intervene in problem families to prevent reoccurrences of child maltreatment is discussed below. Also discussed are evaluations of selected programs emphasizing the use of home health visitors in high-risk situations in order to prevent initial abuse and neglect.

Effectiveness of 19 Federally Funded Clinical Demonstration Projects

Between 1979 and 1981, NCCAN sponsored a national evaluation by Berkeley Planning Asso-

ciates of 19 NCCAN-funded clinical demonstration projects (56). The 19 projects were intended to demonstrate the effects of specialized clinical treatments in five abuse and neglect subpopulations (sexual abuse, adolescent maltreatment, substance-abuse-related maltreatment, child neglect, and remedial services to maltreated children). It was hoped that by focusing on one aspect of the maltreatment problem, a project would be better able to tailor its service programs to a more narrow range of problems, thereby improving its success rates.

The client database for the evaluation of the 19 projects was drawn from the caseloads of the demonstration projects from October 1979 to October 1981. The sample consisted of 986 families, including 1,250 adults, 710 adolescents, and 975 children. Over 60 percent of the sample families were involved in more than one type of maltreatment.

Each family's clinical progress was assessed along three dimensions:

- the recurrence of maltreatment during treatment,
- clinician judgment about propensity for future maltreatment, and
- Clinician judgment of the client's overall progress.

Between 40 and 60 percent of infants, children, and adolescents were maltreated while their families were in treatment. Recurrence of all types of maltreatment during treatment occurred in 21 percent of families in treatment. By the time treatment was terminated, only 40 percent of the children and adolescents were residing in the same household and with the caretaker they had been with at the start of treatment. Recurrence of sexual abuse was least frequent, and recurrence of child neglect most frequent. Recurrence of maltreatment during treatment was not found to be associated with the receipt or nonreceipt of any particular service.

Adult clients of the demonstration projects showed substantial amelioration of various functioning problems during treatment (e.g., 57 percent improved in their knowledge of child development, 55 percent in understanding their child's needs, 49 percent decreased their excessive "need"

for their child to obey commands, and 47 percent had more self-esteem). Despite such progress, however, at the termination of treatment over 50 percent of adult clients were judged likely to maltreat their children in the future.

Annual costs were calculated for hypothetical service models to serve groups of 100 families. Total annual costs of programs for 100 families ranged from **\$516,000** to **\$1,600,000**. Individual psychotherapy, particularly for children and adolescents, was found to be an especially expensive intervention.

There are several critical flaws in this evaluation. First, and most important, the demonstration projects were not designed as controlled or even quasi-controlled experiments. There were no comparison groups, let alone a control group where clients are randomly assigned to programs. Second, the use of clinician judgment as an outcome measure is questionable. Clinicians working with families cannot be expected to make unbiased judgments of their clients' progress; a clinician's faith in his or her therapeutic ability, hopes for a client, and knowledge that one's work is being evaluated might be expected to influence a clinician's final assessment.

Although the evaluation's findings with respect to recurrence of maltreatment during treatment were not encouraging, the investigators argue that one-third of the recurrence cases were less serious than they were originally and that there might have been more maltreatment in the absence of the program. Without a comparison group in the evaluation, however, it is impossible to ascertain whether more maltreatment might have occurred in the absence of the program. Last, as the investigators themselves acknowledge, the lack of outcome data beyond the time of the clients' termination with the demonstration programs is a serious limitation. Continuation of the evaluation was proposed, but additional funding from NCCAN was not available.

Effectiveness of Five Home Health Visitor Programs

Evaluations of five programs emphasizing the use of home health visitors to prevent child maltreatment in families at risk are discussed be-

low. All five programs provided a wide array of services, consistent with a view that no single causal factor can explain child maltreatment and hence that no specific single intervention is likely to be effective by itself. Most of the programs are intended to prevent initial instances of maltreatment, although one of them (Project 12-Ways) was aimed at preventing reoccurrences of maltreatment.

Intensive Pediatrician Contact and Home Visits to High-Risk Mothers

One home health visitor project provided intensive pediatrician contact (office visits and telephone calls) and weekly home visits by public health nurses to a random sample of 50 high-risk mothers who had had their first or second child at Colorado General Hospital (225). The project also involved coordination of screening, medical followup, and home visits by lay health visitors.

For purposes of evaluating this project, Gray and colleagues randomly selected high-risk and low-risk comparison groups (225). The assessment of project outcomes, completed when a child was between the ages of 17 and 35 months, included measures of verified abuse and neglect reports to the central child abuse registry, hospitalization for serious injuries, number of accidents, foster care placements, and developmental tests.

The Gray, et al., study found that five children in the high-risk control group required hospitalization for serious injuries thought to be abuse-related, compared to no children in the high-risk homes visited and no children in the low-risk control group ($p < 0.01$).

Hospital Support and Home Visits to Low-Income Mothers

The effectiveness of early and extended contact between a mother and her newborn infant, combined with a program of home visits by paraprofessionals, has been evaluated by Siegel, et al. (586). The population that received the interventions was a group of low-income women who received care at a public prenatal clinic and who delivered at the community hospital in Greensboro, North Carolina. Altogether 321 low-income women (about three-fourths black and two-thirds

unmarried) were randomly assigned to varying combinations of hospital and home support interventions and to a nonintervention control group. The home intervention consisted of nine visits by paraprofessionals during the first 3 months of the infant's life; these visits were intended to promote the mother's involvement with her infant and to support the mother in coping with a range of situational stresses.

The outcome assessment was completed when the infant was 4 and 12 months of age. Outcome measures consisted of maternal attachment, immunizations, preventive care visits, emergency room visits, hospitalizations, and reports of child abuse and neglect obtained from the county unit for protective services and the State central registry. With one exception, neither rooming-in nor home visits had a statistically significant effect on any of the outcome measures. An exception was a small amount of variance in maternal attachment that appeared to be linked to rooming-in.

Home-Based Services and Support Groups for Families at Risk

The effectiveness of a program developed by the Family Support Center in Yeadon, Pennsylvania, for families considered to be at risk for maltreating their preschool age children has been evaluated by Armstrong (33,34).

A multidisciplinary staff and volunteers offered three services to parents and children in the Family Support Center program:

- home-based services (weekly visits for the first 3 months and less frequent visits for up to 10 months),
- family school support groups, and
- neighborhood support groups.

Also offered was a wide array of counseling, educational, health-related, and social activities.

To enter the Family Support Center program, self-referred families and families referred by local agencies and medical sources were screened by a high-risk stress index. Armstrong's program evaluation was based on 46 families and their 74 children referred from the following sources:

- self-referrals (10 families),
- child protective agencies (10 families),

- hospitals (9 families),
- preschool programs (7 families),
- mental health agencies (4 families),
- community nursing agencies (3 families), and
- recommendations of other families who had participated in the program (3 families).

Armstrong's evaluation of the Family Support Center used three outcome measures: 1) a high-risk stress index that counted the number of stresses incurred by each family, 2) parent-child observations done in the home, and 3) a children's developmental index. Pretest and posttest measures on these three measures were obtained, but there was no control or comparison group. Armstrong did, however, compare the percentage of children in the study who had a formal report of child abuse and neglect filed on their behalf with the child protective service agency during treatment with the percentage of children from a similar high-risk population reported in another study. Armstrong's evaluation of the Family Support Center indicated that family stresses were significantly reduced, parent-child interactions and child care conditions improved, developmental delays were reduced, and significantly fewer children were maltreated during the study period.

Home Visits and Other Services for High-Risk Pregnant Women and Mothers

Olds and colleagues examined the effectiveness of a family support program during pregnancy and the first 2 years after birth (471) for women who were having their first baby and were also under 19 years of age, single, or of low socioeconomic status. In a randomized clinical trial, four treatment groups were provided with different combinations of the following services:

- home visits by nurses during the mother's pregnancy,
- free transportation of mothers and children to prenatal and well-child visits,
- sensory and developmental screening of the children, and
- home visits by nurses during the child's first 2 years of life.

The nurse-visited and comparison group women were equivalent in all standard socio-demographic characteristics, and the researchers

controlled for the few differences in psychological and social support variables in their analyses.

The nurse home visitor had three major activities. One was to educate parents about fetal and infant development and to clarify the parents' plans for completing their education, finding jobs, and bearing additional children. The second activity was to involve family members and friends in child care and support of the mother. The third activity was to link family members with other health and human services. All of these activities were aimed at a number of factors believed to be potential contributors to child maltreatment, including parental knowledge of child development, unemployment/poverty, and social isolation.

Olds found that in the mothers at highest risk—poor, unmarried teenaged mothers—19 percent of the comparison group maltreated their children, compared to 4 percent of the mothers who were visited by nurses for the extended period. (Maltreatment was measured by verified cases of abuse or neglect reported to the New York State Department of Social Services.) Furthermore, among this same high-risk group, the mothers who were nurse-visited reported that their babies cried less frequently than those in the comparison group; there was less conflict and scolding; they punished their infants less when assessed at 10 and 22 months of age; they had fewer emergency room visits, and their babies had higher developmental quotients at 12 and 24 months. These findings constitute a clear pattern of improvements made by the highest risk group of poor, unmarried, teen mothers,

Project 12-Ways Services to Families Referred From Child Protective Services

Lutzker and Rice evaluated the effectiveness of a project that attempted to reduce reoccurrences of child maltreatment in families by providing a variety of in-home services—e.g., training in stress reduction, home safety and parenting skills; job placement; alcoholism referral; and couples counseling.

The population studied consisted of families referred from the child protective services agency for the State of Illinois. The study compared 50 families served by Project 12-Ways and 47 com-

parison protective services families for incidents of abuse and neglect during and after treatment.

Lutzker and Rice found that Project 12-Ways families had fewer children abused and neglected during and after treatment than did comparison protective services families (10 v. 22 percent). Project 12-Ways families also had fewer children abused or neglected two or more times and fewer total abuse and neglect incidents (5 v. 15 percent).

Although the sample sizes were small, the differences between the experimental and comparison groups in this study were statistically significant. Unfortunately, however, the selection of families into Project 12-Ways was not random and no demographic data were reported by the investigators. Consequently, it is impossible to know whether the observed effects were real or were merely the result of systematic differences between the experimental and comparison groups.

Conclusions About the Effectiveness of Home Health Visitor Programs

Four of the five evaluations of home health visitor programs described above indicate that home health interventions are quite effective in reducing actual child maltreatment, as well as in influencing other outcome measures of interest (33,34, 225,391,471).⁶

The fifth study, which had a randomized design, found that intensive postpartum contact and home visits by paraprofessionals had almost no significant effects (586). Several factors other than the potential effectiveness of home health visits might account for the outcome of this study by Siegel, et al. First, a 3-month program of nine home visits may not provide sufficient contact to establish effective rapport (470).⁷ Second, among

the five programs evaluated, the North Carolina program evaluated by Siegel, et al., was the only one with home visits conducted by paraprofessionals. It may be that paraprofessionals are less able to obtain the respect of families and less able to communicate effectively with physicians than professionals (470). Third, the Siegel, et al., study did not analyze the potential effects of home visits on any high-risk subgroup within the low-income study population (e. g., among families referred to child protective services). Fourth, in the two other studies where the racial composition of the study population was indicated, the study population was mostly or exclusively white; in contrast, the study population in the Siegel, et al., study was three-quarters black. Finally, given the relative rarity of child maltreatment, even in high-risk groups, it is extraordinary that significant differences were found in any of the studies with so few subjects.

It is difficult to know which program elements or combination of elements are the most important in producing the positive results. Three of the four home visitor programs that appear to have reduced child maltreatment also offered additional services such as intensive pediatrician contact. With the exception of the report by Olds, et al., on the family support program in New York (471), none of the study reports offered much detail on the content of home visitor services. All that can be said is that the common denominator is the provision of in-home services to a population at high-risk for child maltreatment.

It is difficult to know if the results of these pilot home visitor programs run by dedicated, enthusiastic, and skilled people could be replicated in other settings where the intervention may be carried out by less skilled and enthusiastic people (245). Nevertheless, the home health visitor program model appears to have a number of practical advantages that enhance its effectiveness, including:

- reaching parents who lack self-confidence and trust in formal service providers,
- obtaining a more accurate and direct assessment of the home environment,
- linking parents with other health and human services, and

⁶Although the Gray, et al., study of pediatric care and home visits (225) did not show a statistically significant effect of home visits on child maltreatment reports to a central registry, home visits had a statistically significant effect on *abuse-related* hospitalization; moreover, for the non-home-visited-high-risk group, there was evidence of underreporting of abuse incidents to the central registry.

⁷The Gray, et al., study (225) indicated weekly visits by public health nurses for a period of at least 17 months. The Armstrong study (33,34) indicated weekly visits for the first 3 months and less often for the next 7 months. The Lutzker, et al., study (390) indicated home visits for about 1 year, although no information was provided about the frequency of visits. The Olds, et al., study (471) indicated nine visits during pregnancy, weekly visits for 6 weeks following delivery, and less frequently thereafter for a period up to 2 years following delivery.

•serving “as a visible and regular reminder to parents that excessive punishment and ne-

glect of children in our society are not condoned” (470).

FEDERAL AND STATE FUNDING FOR THE PREVENTION OF CHILD MALTREATMENT

Between 1981 and 1985, the resources available for the prevention and treatment of child abuse and neglect did not keep pace with the rapid increases in the reported number of maltreated children (657). For the 31 States able to provide complete information, total resources to serve abused and neglected children increased, in real terms, by less than 2 percent between 1981 and 1985 (657). In 29 of 31 States reporting such information for 1981-85, **reports of child maltreatment rose faster than available Federal, State, and local resources (657).**

Four Federal programs give funding to States for the prevention and treatment of child abuse and neglect: Title XX, Title IV-B, and Title IV-E of the Social Security Act, and the Child Abuse Prevention and Treatment Act (Public Law 93-247).¹

The largest source of Federal funds, and in some States the largest single source of funds, for child protection services is the Title XX (Social Services) block grant. Title XX provides funds to States for a wide variety of social services, including home-based services for elderly people, transportation for handicapped people, and child protection services for abused and neglected children. From fiscal year 1981 to 1986, Federal appropriations for Title XX declined—from \$2.9 billion in 1981 to \$2.6 billion in 1986. No breakdown on the percentage of Title XX expenditures that were used to benefit children—let alone to treat or prevent child abuse and neglect—is available. The U.S. Department of Health and Human Services has estimated, however, that about one-third (31 percent) of Title XX expenditures in 1980 were for services provided to children and youth.

Title IV-B of the Social Security Act provides matching Federal grants to States for the provision of child welfare services to children and families, irrespective of income. In comparison to Title XX, this program is very small. In fiscal year 1981, appropriations for Title IV-B were only \$141 million; in fiscal year 1985, the appropriations were increased to \$200 million.

Title IV-E of the Social Security Act provides matching funds to States for maintenance of children in foster care who are eligible for AFDC. Title IV-E is an entitlement program for eligible children, and the amount each State receives is based on the number of children the State places in foster care, which includes abused and neglected children. Title IV-E funds increased from \$349 million in fiscal year 1981 to \$485 million in fiscal year 1985.

The Child Abuse Prevention and Treatment Act is the only Federal program designed solely to prevent, identify, and treat child abuse and neglect. Under this act, Federal funds are provided to the National Center on Child Abuse and Neglect (NCCAN) to award as State and discretionary grants for projects related to child abuse and neglect. As shown in table 8-3, overall funding for NCCAN State and discretionary grants increased from \$23.0 million in fiscal year 1981 to \$24.7 million in fiscal year 1986, with significant funding reductions in the intervening years.

NCCAN grants to eligible States and territories may be used for any child abuse and neglect-related activities, provided the States meet specified requirements that include mandatory reporting of child abuse and neglect by professionals, immunity from prosecution for those who report, and prompt investigation of all reports. State grants rarely go into direct services; they are usually used as seed money for innovative programs.

¹Information and data on sources of funding in this section are derived from *Abused Children in America: Victims of Official Neglect*, a 1987 report by the House Select Committee on Children, Youth, and Families (657).

Table 8-3.—National Center for Child Abuse and Neglect (NCCAN) Funding for State and Discretionary Grants, Fiscal Years 1981-86 (millions of dollars)

	FY 1981	FY 1982	FY 1983	FY 1984	FY 1985	FY 1986
State grants	\$ 7.0	\$6.7	\$6.7	\$6.7	\$12.0	\$11.4
Discretionary grants	16.0	9.5	9.5	9.5	14.0	13.3
Total	\$23.0	\$ 16.2	\$16.2	\$ 16.2	\$26.0	\$24.7

SOURCE U S Congress, House Select Committee on Children, Youth, and Families, *Abused Children in America Victims of Official Neglect* (Washington, DC: U S Government Printing Office, March 1987)

NCCAN discretionary grants are awarded to public agencies, private nonprofit organizations, and universities for projects that relate to the prevention, identification, and treatment of child abuse and neglect. Discretionary grants are awarded for research, demonstration, and improvement of existing service programs.

There have been a number of criticisms of NCCAN's discretionary grants program. In 1980, the General Accounting Office (GAO) found that "due to a largely unsuccessful evaluation program, the Center has been unable to determine which programs work best" (367,651). At hearings conducted by the House Committee on Government operations, March 12, 1987, the lack of evaluations of child abuse and a propensity of NCCAN to ignore the recommendations of its peer review panel in making grant awards were raised in critique of the Center (655).

In fiscal year 1986, the vast majority (about 80 percent) of NCCAN discretionary grant expenditures were for demonstration projects, followed by research (about 15 percent) and training and technical assistance (about 5 percent) (678). Although NCCAN grants for research (e.g., research on how to improve the accuracy and credibility of children's testimony in sexual abuse cases) may yield valuable information, demonstration proj-

ects are the only potential source of evaluations of program effectiveness. Discerning the design of the projects from the discretionary grant abstracts is difficult, but only 2 of 87 demonstration projects active in 1986 appear to have a carefully designed program evaluation. In addition, there appear to be no longitudinal studies among those funded. Although evaluation studies are inherently difficult, the current pattern of funding is not likely to remedy the problems identified in the GAO's 1980 report (651).

The Federal Government is not the only source of funds in the area of child maltreatment. Many State and local governments provide resources for the prevention and treatment of child abuse and neglect, and in some States, State and county funds are the largest source of funding. Funds are provided from State general funds, children's trust funds, and other State and local programs. Between fiscal years 1981 and 1985, 15 of the 31 States supplying complete funding information reported a net decrease (in constant 1982 dollars) in State and local funds directed at child abuse and neglect; the remaining 16 States reported a net increase (657). State and local funds for all 31 States showed a total net gain of \$169.2 million, with most of the increase in one State alone, California.

CONCLUSIONS

Child maltreatment is a serious problem, affecting the lives of many children and families. Knowledge about child maltreatment is growing steadily. Evaluation research and cost-effectiveness analyses of maltreatment prevention programs do offer some useful insights; however, adequate information about which preventive ap-

proaches work, for whom, and under what circumstances still does not exist. Rigorous scientific assessment in the field *is* clearly needed.

Leventhal (375), Finkelhor and Araji (172), and Gray and DiLeonardi (223) have offered useful guidance for research in child maltreatment. Two

key methodological requirements for evaluation studies are the clear definition of outcome measures and the use of appropriate comparison groups. However, there are inherent difficulties in conducting research on child maltreatment. In high-risk situations, the random assignment of children considered to be in need of services to treatment or comparison groups would not always be ethical. One alternative is to compare different programs or to study children waiting for placement in a treatment program as a comparison group. These so-called “natural experiments” have not been sufficiently utilized in this area of research.

Another problem for researchers is measuring the key outcome—i.e., the occurrence of child maltreatment. Child maltreatment reports are often confidential, and direct observation of maltreatment is virtually impossible. In some areas, child protection agencies have cooperated with researchers, or have hired their own research staff, while protecting the confidentiality and rights of clients. Measures of actual child maltreatment are the bottom line, and “it will not suffice to substitute measures of attitude alone” (194) or behavior apart from maltreatment.

In order to obtain adequate measures of actual abuse, it is particularly important to develop a better child abuse reporting system. The reporting system should be able to provide measures that permit distinctions between incidence and severity. Child homicide cases in particular need to be closely monitored. A study of two information sources, the Federal Bureau of Investigation's Uniform Crime Reports and National Center for Health Statistics data, indicates that each source underrecords child homicide by at least 20 percent (217,300,302).

Very little longitudinal followup assessment has been done, largely because of budget constraints. Long-term outcomes are of critical interest, and research in this area is imperative.

The evaluations of child maltreatment prevention programs summarized in this chapter suggest that the home health visitor model, using a nurse, social worker, or counselor to support high-risk families, is probably effective. Furthermore, the home health visitor model seems to offer a number of practical advantages that enhance its effectiveness (e.g., reaching parents who avoid or are mistrustful of formal service providers). The model also builds on a public health activity that has an institutional base in home-health agencies and public health departments. Whether maltreatment prevention programs with these characteristics can result in net savings in total health care costs is a question that needs further research.

Of course, there maybe other kinds of preventive interventions that hold promise and have not been adequately tested. If poverty- and unemployment-related stresses are important causes of child maltreatment, as has been suggested, then interventions focusing on reduction or management of these stresses may be effective. Some observers have suggested, for example, that intervention programs should provide concrete assistance to families in resolving problems having to do with inadequate income, poor housing, lack of medical care, and lack of formal and informal social supports (124). Unfortunately, careful evaluations of such interventions are lacking.

^gThere is evidence that visiting nurses can also be effective in improving birthweight and length of gestation (469), and lowering infant mortality, particularly mortality due to sudden infant death syndrome (94).