A circular inset photograph shows a young child with light brown, curly hair and bangs. The child is looking down and slightly to the side, holding a large, shaggy, light-colored stuffed animal (possibly a dog or bear) close to their face. The child is wearing a blue garment with a small, light-colored patch. The background of the entire page is a solid dark blue.

Effective Strategies to Support Positive Parenting in Community Health Centers

Report of the Working Group
on Child Maltreatment Prevention
in Community Health Centers

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Introduction

Child abuse and neglect are serious but potentially preventable public health problems in this country. Our nation's future prosperity and security depend on its ability to promote the health and well-being of its children. Today's children will be the next generation of citizens, workers, and parents. When we fail to provide them with the conditions necessary to build a strong foundation for healthy and productive lives, we put our own future in jeopardy (National Scientific Council on the Developing Child, 2007). Although many families are thriving, in millions of homes in the United States, children's caretaking and development are faltering, and in many households, failing altogether.

Fortunately, we are in the midst of a remarkable expansion of new knowledge in neuroscience and genetics, child development, and economics, with compelling discoveries about the influence of parent-child interaction on the developing brain, effective ways to treat and prevent mental health problems, and the cost-effectiveness of early investment in young children to generate positive outcomes in the future. The resulting body of knowledge offers the public, its policymakers, and its civic leaders an opportunity that did not exist even a decade ago to catalyze the creation of effective, science-based policies and practices to prevent child maltreatment.

Background

The results of 4 decades of research on healthy child development are clear and are summarized below by the National Scientific Council on the Developing Child (2007):

- Early childhood experiences have lifelong effects. Childhood is a pivotal window of opportunity for positive and negative impact.

- The interaction of genes and early experiences shapes the brain over time and provides individuals with a strong or weak foundation for all future health, behavior, and learning.
- Severe and chronic stress in early childhood from maltreatment and exposure to violence is associated with persistent effects on the nervous system and brain chemistry that can lead to lifelong problems in health, behavior, and learning.
- Young children need nurturing, positive relationships, safe environments, and rich learning opportunities to thrive.
- Creating the right conditions for early childhood development is likely to be more effective and less costly than addressing problems at a later stage. For children at risk who are experiencing toxic stress, early prevention and intervention strategies can be effective in preventing the disruption of brain architecture and promoting better developmental outcomes.

Public policies based on the best available science foster growth-promoting experiences for children to create a strong foundation for responsible citizenship, economic productivity, and school achievement.

History of the Working Group

With this knowledge in hand, the Division of Violence Prevention at the Centers for Disease Control and Prevention (CDC) began a series of initiatives to establish national priorities to prevent child maltreatment (Whitaker, Lutzker, & Shelley, 2005). A panel of experts convened for this purpose recommended that the federal government promote a common conceptualization of prevention as an effort to promote safe, stable, nurturing relationships for children and positive parenting practices. In September 2007, the CDC contracted with the American Psychological Association (APA) to convene a panel of experts to identify and recommend public health strategies based on the best available science to prevent child maltreatment within the context of behavioral health integration at community health centers. The seven-member Working Group on Child Maltreatment Prevention in Community Health Centers reviewed the relevant body of knowledge about the:

- a) Effectiveness of behavioral health integration in primary care settings;
- b) Effectiveness of evidence-based positive parenting interventions to prevent child maltreatment;
- c) Viability of community health centers as a venue for child maltreatment prevention interventions.

This report summarizes the results of that effort. It describes the extent of the problem and the need for prevention, and it examines the potential value of community health centers as a venue for child maltreatment prevention efforts and the framework of behavioral health integration as a strategy for accomplishing this goal. The report reviews the scientific research on the effectiveness of interventions that promote positive parenting practices for reducing rates of child maltreatment. It concludes with recommendations highlighting key factors necessary for their successful implementation. Hence, the report focuses on strategies that may broadly enhance effective parenting, with maltreatment prevention being one indicator of broad improvement.

By and large, the working group concluded that:

- Primary care settings in neighborhood health centers are well positioned to influence a population at risk for child maltreatment.
- Although there are many prevention programs currently operating in the field, most remain untested or, when tested, show disappointing results.

- In contrast, a substantial body of well-designed, controlled-trial scientific research shows that a smaller number of parenting programs can produce significant and durable positive changes by increasing positive family relationships, reducing child behavior problems, and reducing future rates of child maltreatment.
- Scientific support is sufficient to warrant the implementation of these evidence-based parent-training practices in demonstration projects at community health centers.
- Although the science underlying the integration of behavioral health in primary health care lags behind the momentum in the field for its widespread implementation, available data indicate that the approach suggested by this report is a feasible and promising strategy for accomplishing the goal.



Understanding the Problem of Child Maltreatment

Defining the Problem

In this report, child maltreatment is broadly defined to include acts of omission or commission by a parent or caregiver that can harm a child. It also includes acts that have a potential for harm. Acts of omission involve neglect, which means failure to ensure the safety and physical and mental well-being of children. Acts of commission involve physical, emotional, and sexual abuse of a child. Intrafamilial maltreatment underscores significant and harmful dysfunction in parent–child or caregiver–child relationships that can have serious consequences for children.¹

¹After surveying the literature, the working group determined that the evidence base for preventing child sexual abuse through practices conducive to implementation in primary care settings was negligible. Most sexual abuse prevention programs have been implemented in schools (Finkelhor & Dziuba-Leatherman, 1995). Such programs focus on teaching children self-protective knowledge and skills that are intended to help children prevent perpetrators from sexually abusing them. They do not focus on perpetration, prevention, or improving parenting. Moreover, the effectiveness of these programs remains largely untested (see Duane & Carr, 2002, for a review). Hence, the strategies examined in this report are not aimed at prevention of sexual abuse

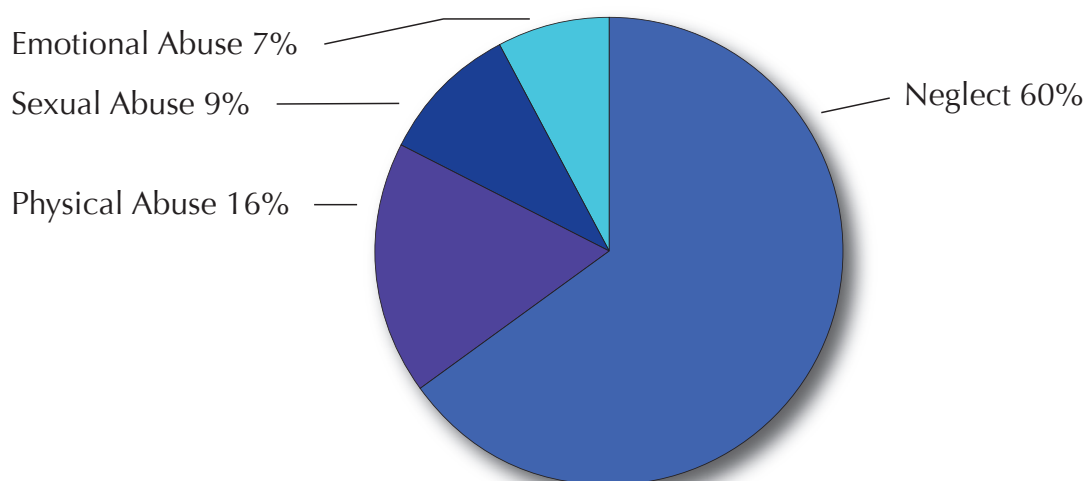


Scale of the Problem

In 2006, approximately 6 million children in the U.S. were referred to authorities because maltreatment was suspected; approximately 3.7 million met the criteria for an official response, and 905,000 suspicions were subsequently classified as substantiated under agency policy (U.S. Department of Health and Human Services, 2008). Conservative estimates suggest that 1,530 children died from abuse or neglect in this country that year; more than three quarters were under the age of 4 (U.S. Department of Health and Human Services, 2008).

Most victims of maltreatment—over 60%—suffer from neglect, but it is not uncommon for children to experience more than one type of maltreatment at a time, increasing the risk of negative consequences (Teicher, Samson, Polcari, & McGreenery, 2006; U.S. Department of Health and Human Services, 2008). In 2006, approximately 16% suffered physical abuse; 9%, sexual abuse; and 7%, emotional abuse (see Figure 1).

Figure 1. Types of Maltreatment, 2006

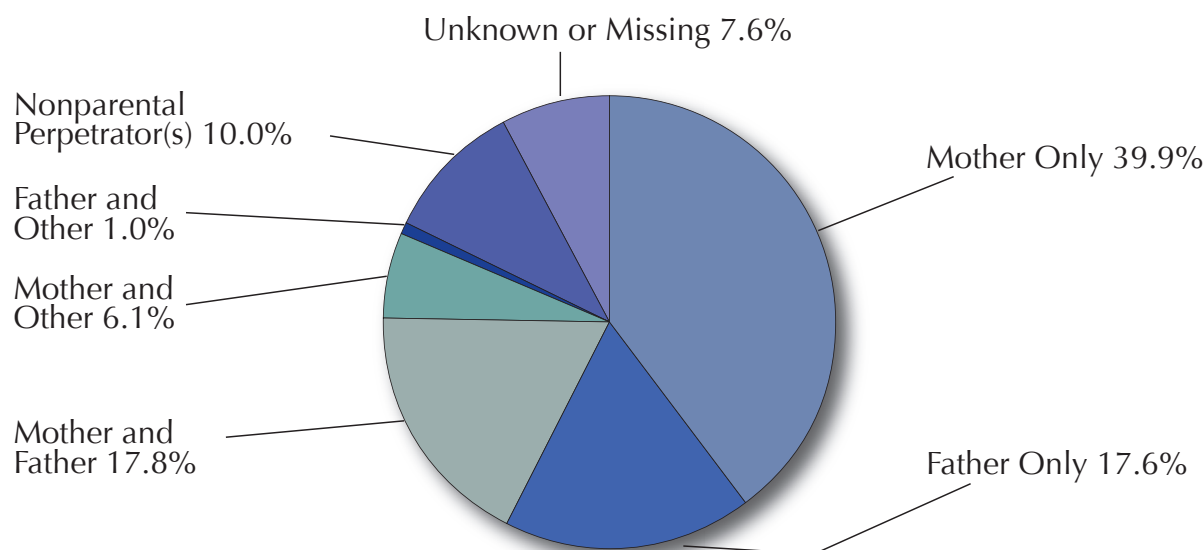


Research has documented the prevalence and consequences of child maltreatment among specific populations. Approximately half of all children maltreated in the United States are White or Anglo American, almost a quarter are identified as African American, and approximately 18% are identified as Hispanic or Latino/a. Children with mental and physical disabilities are 3.4 times more likely to be victims of maltreatment than peers without a disability (Sullivan & Knutson, 2000). The youngest children are the most vulnerable to being maltreated, with children under age 1 being the most at risk. Similarly, younger children are more at risk of fatalities. Children under age 4, especially boys, are the most at risk of death.

Parents living alone or with another person are by far the most commonly responsible for children's maltreatment (82.4%). Women are identified more often than men as responsible (58% vs. 42%). A large percentage of maltreatment is in the form of neglect by young single mothers struggling with low income and little social support and experiencing depression, isolation, substance abuse, and/or intimate partner violence. In contrast, men are more often responsible for the most serious physical abuse. Most maltreating adults are young, with more than 77% under the age of 40 (see Figure 2).

The statistics are sobering. Child maltreatment is a serious public health problem with grave consequences for children and their future.

Figure 2. Victims by Perpetrator Relationship, 2006



Factors Contributing to Child Maltreatment

Child maltreatment is determined by interdependent factors present at the levels of individuals, relationships, community, and society, such as maternal depression, intimate partner violence, community violence, and extreme poverty (Bronfenbrenner, 1979). These contextual factors serve to potentiate or buffer against abuse in the parent/caregiver–child relationship (Lynch & Cicchetti, 1998). Parents and children are directly affected by larger social, economic, and cultural forces, but they also mutually influence each other through the continuous daily flow of reciprocal positive and negative interactions and through the accumulated effects of these interactions over time (Sameroff & Chandler, 1975).

Researchers have identified a host of factors that increase the risk of maltreatment (see Table 1). Among the most robust risk factors are intimate partner violence in the home, parental mental illness (especially depression), and parental substance abuse. Another factor of particular importance in physical abuse is the parents' use of harsh discipline and their belief that physical punishment is the most effective discipline method, accompanied by a lack of effective caregiving and discipline skills (Bavolek, 2000; Butchart & Harvey, 2006).

In addition to parental risk factors, there are individual child characteristics that contribute to risk, including prematurity, low birth weight, disability, difficult temperament, high levels of child misbehavior due to child mental health problems, and insecure attachment (O'Riordan & Carr, 2002). These factors can increase the demands that children place upon their parents' often limited access to resources and help.

On the level of the community, poverty and unemployment are well-known stressors and risk factors for individual and family-based difficulties (Buchart & Harvey, 2006; Krug, Dahlberg, Mercy, Zwi, & Lozano, 2002; U.S. Department of Health and Human Services, 2001). In addition, broad social trends appear to drive maltreatment rates to some degree. For example, downward trends in the rates of child physical and sexual abuse appear to correspond with times of relative economic prosperity. Moreover, child abuse rates across recent years appear to move in concert with other broad indicators of social problems, such as rates of intimate partner violence, teen pregnancy, and violent crime in general (Finkelhor & Jones, 2006).

Table 1. Factors (by Level) That Increase Risk of Maltreatment

Level	Risk Factors
Individual	Parental depression and other mental health problems Parental substance abuse Interparental violence Parents' own history of abuse Parents' beliefs in corporal punishment Parents' poor understanding of child development Child's temperament, insecure attachment
Relationship/ family	Social isolation Family violence Low parental involvement Harsh discipline Antisocial parents
Community	Violence in the community; access to guns Drug trafficking Poor housing Lack of access to services Community norms about violence
Society	Poverty and its associated burdens Discrimination Culture of tolerance of violence Immigration stress Overall level of violence in society

Consequences of Child Maltreatment

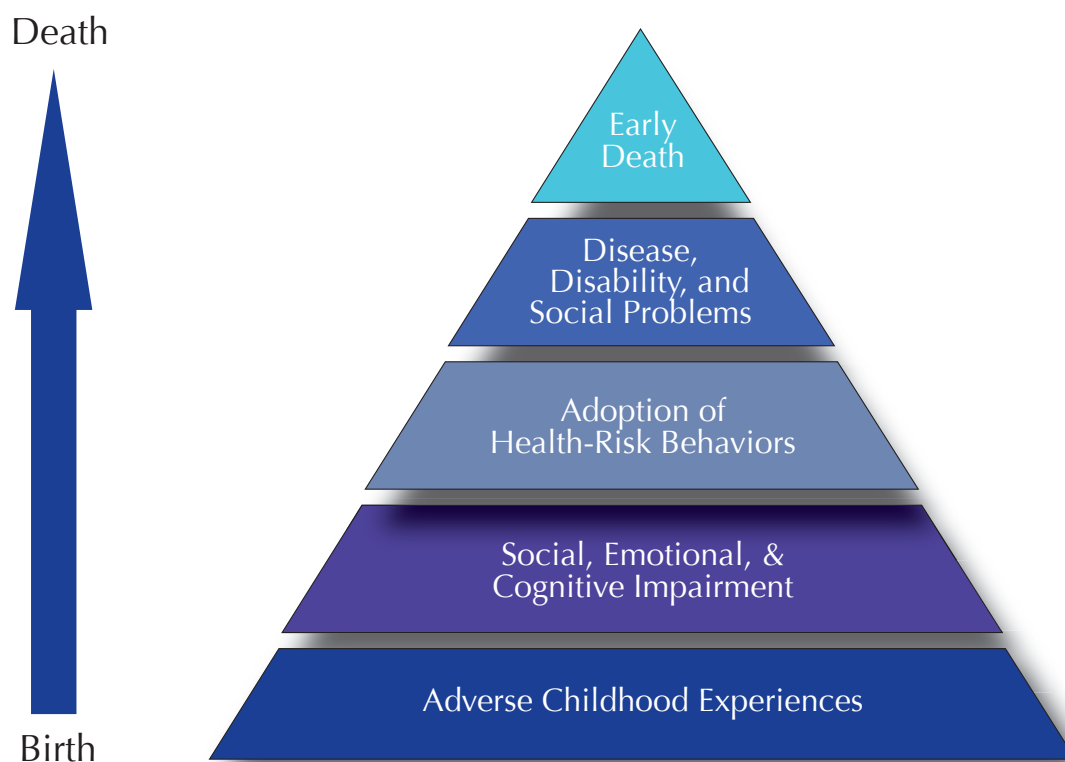
It is clear that maltreatment contributes significantly to the overall burden of adversity experienced by children and increases the risk of a range of negative outcomes. Maltreatment can produce both physical and psychological consequences, some immediately evident in childhood and some with lifelong effects.

Psychological consequences. Psychological research demonstrates that maltreated children are at higher risk than other children for suicide and problems with depression and anxiety, including posttraumatic stress disorder, eating and sleeping disorders, low self-esteem, and other internalizing difficulties (Butchart & Harvey, 2006; Krug et al., 2002). They are at greater risk for aggressiveness in peer relationships, intimate partner violence, and drug and alcohol abuse. Maltreated children are also at higher risk for youth violence and delinquency, including arrests for criminal and violent behavior and conduct disorders, as well as problems with learning and academic achievement, peer relationships, and cognitive and language development.

Physical consequences. Certainly, the immediate physical injuries and illnesses due to abuse and neglect are well documented. Moreover, long-term follow-up studies of health outcomes indicate an elevated risk for a range of major medical problems (Fellitti et al., 1998). According to a landmark study of adverse

childhood experiences, adults who were exposed as children to abuse and neglect, domestic violence, parental mental illness and substance abuse, and/or parental discord are more likely to have poor health habits and poorer medical outcomes in comparison to adults who have not been maltreated (Anda et al., 2006; Corso, Edwards, Fang, & Mercy, 2008). These outcomes include higher risk for chronic obstructive pulmonary disease and smoking (Anda et al., 2008), drug use (Dube, Felitti, Dong, Giles, & Anda, 2003), heart disease, liver disease (Dong et al., 2004), and alcoholism (Dube et al., 2001). The greater the exposure to adverse experiences early in life, the higher the risk for depression and attempting suicide in adulthood (Dube et al., 2001; Widom, 1989) (see Figure 3).

Figure 3. The Adverse Childhood Experiences Study Pyramid



Developmental consequences. As mentioned briefly in the introduction, decades of research on neurobiological and behavioral development demonstrate how early relationships affect the development of the brain (Shonkoff & Phillips, 2000). Toxic stress early in childhood, precipitated by repeated abuse, chronic neglect, and/or ongoing exposure to violence, is associated with prolonged activation of the body's stress management systems. When these physiological reactions remain at high levels continuously over long periods of time, without supportive, consistent relationships to help children cope, key levels of brain chemistry are altered and disrupt the developing architecture of the brain. There can be lifelong implications for learning, behavior, and both physical and mental health (National Scientific Council on the Developing Child, 2007).

Financial consequences. Child maltreatment not only has adverse consequences for the health of the maltreated individual but also produces immense financial costs to the country. Existing literature places the costs of child maltreatment in the billions of dollars annually (Fromm, 2001; Miller, Cohen, & Wiersema, 1996; Scarcella, Bess, Zielewski, Warner, & Geen, 2004). Foster, Prinz, Sanders, and Shapiro (2008), in making their argument for building a public health infrastructure to deliver parenting and family supports, cited annual public costs associated with child abuse in the United States of over \$94 billion. Even more conservative estimates by the CDC (2008) cite more than \$24 billion for the legal and health care costs associated with child maltreatment. Although it is difficult to precisely isolate the downstream costs of child maltreatment to society, it is possible to specify some of the more proximal costs: those for hospitalization or emergency room visits for medical treatment of injuries from physical abuse; out-of-home placement alternatives to remove children from abusive or neglectful families; programs and services to address mental health issues and substance abuse; and child protective services and investigations (Caldwell, Bogat, & Davidson 1992). Downstream costs, such as lost productivity, poor physical and mental health, and antisocial behavior, may be difficult to estimate with precision, but we need to bear them in mind when we consider the importance of child maltreatment prevention.

Key Findings

Child maltreatment is a serious but potentially preventable public health problem with lifelong consequences for individuals' physical and mental health and costs to society estimated to be in the billions of dollars annually.



Preventing Child Maltreatment

Child maltreatment prevention, at its most basic level, is about strengthening the capacity of parents and societies to care for children's health and well-being (Daro & Donnelly, 2002). This conceptualization emphasizes approaches to prevention that promote the healthy development of all children, build positive and supportive parent-child relationships, and recognize the interplay between individuals and the environmental conditions that surround them. We approach prevention from a public health perspective, with a strategy that is parent focused, evidence based,² and community centered—an approach that seeks to prevent maltreatment before it occurs. Efforts that promote safe, warm, and stimulating home environments early in a child's life can significantly and positively affect the child's developmental growth trajectory for years to come (Akai, Guttentag, Baggett, & Noria, 2008; Sanders et al., 2008), with benefits for the child, family, and society at large.

² Evidence-based programs are typically defined as those that have been demonstrated to be safe and effective, usually in randomized control trials (RCTs). Evidence-based practice is the competent and high-fidelity implementation of such practices in the field (Chaffin & Friedrich, 2004).

Focus on Primary Prevention From a Public Health Perspective

A public health model offers an applicable framework for the primary prevention of child maltreatment (Whitaker et al., 2005). It is an action-oriented model that goes beyond the identification of risk and protective factors and moves the field forward to focus on the prevention of child abuse and neglect as well as the promotion of healthy family functioning and child outcomes. The public health model includes four primary steps for conceptualizing prevention efforts: (a) identification of a public health problem; (b) identification of risk factors for the problem occurrence and of protective factors; (c) development and empirical testing of strategies to prevent the problem; and (d) implementation and evaluation of effective interventions, which involve moving research-based interventions to practice settings (Whitaker et al., 2005).

Primary prevention is considered “the pinnacle of the public health approach” (Whitaker et al., 2005, p. 246). Analogous to other strategies universally encouraged for families, such as vaccines, car seats, and breastfeeding, primary prevention efforts such as positive parenting practices can have a far-reaching impact on children, families, and communities, ultimately challenging normative patterns. In applying the public health model to child maltreatment prevention, we are advocating a focus on prevention (i.e., before the incidence of any maltreatment) and promotion of healthy functioning universally (i.e., to the entire population), but also with focused efforts in selective settings, such as diverse low-income neighborhoods, given the additional risks present in such communities.

Focus on Parents and Parenting Practices

The first step in choosing a prevention strategy is to determine its key focus. Because parents, caregivers, and other relatives are responsible for a clear majority of child maltreatment and patterns of abuse take root when children are infants or young children (CDC, 2008; U.S. Department of Health and Human Services, 2008), it appears that caregiver-focused strategies that address parenting skills, especially (but not limited to) when children are young, seem to be a promising mode of intervention (Cowen, 2001; Russell, Britner, & Woolard, 2007). Also, parenting practices are amenable to change, given reasonable efforts, and are the subject of a considerable body of accumulated scientific evidence, including proven change strategies.

Focus on Building Safe, Stable, Nurturing Relationships

The CDC’s National Center for Injury Prevention and Control has characterized child abuse and neglect as a “preventable outcome” (Middlebrooks & Audage, 2008, p. 1) and has appropriately focused on the important relationships in children’s lives as the key component to prevention. As described in the World Health Organization’s *World Report on Violence and Health* (Krug et al., 2002), relationship approaches that use parent training to prevent maltreatment are typically focused on protective factors, such as (a) strengthening parent–child relationships, (b) promoting sensitive caregiving and appropriate discipline, and (c) developing parents’ self-control.

Children raised in the midst of safe, stable, nurturing relationships develop strong neural networks that serve as the foundation for optimal health and development (National Scientific Council on the Developing Child, 2007; Repetti, Taylor, & Seeman, 2002). Therefore, helping parents to build such productive relationships is a promising prevention strategy.

Focus on Community-Centered Initiatives

The community-centered approach was a central tenet of the report of the U.S. Advisory Board on Child Abuse and Neglect (1991, 1993), highlighting the mediating role of neighborhoods in preventing child maltreatment. We are advocating universal access to evidence-based positive parenting programs

for all families attending neighborhood health clinics in communities high on stress and low on resources, where multiple risk factors reside. Although this report concentrates on the national network of federally funded community health centers, the bulk of the recommendations pertain to other primary care settings in underserved communities as well, including hospital-based health clinics and university medical centers.

Achieving broad-scale change requires more than replicating a single strategy or promising programs at multiple sites. Preventive positive parenting programs should be coordinated with and embedded within larger communitywide, multilevel prevention initiatives. Rather than being small targeted programs scattered around communities, individual programs should be integrated in sustainable, collaborative, coordinated, community-centered systems of care to prioritize limited resources and leverage impact.

Theoretical Underpinnings

The attachment literature provides a strong theoretical and empirical basis for understanding the foundations of safety, security, and nurturance within parent–child relationships (Grossman, Grossman, & Waters, 2005). Secure attachments have been found to promote healthy development, with evidence suggesting that maltreatment can lead to insecure and disorganized attachment and a host of psychosocial difficulties across child development (Aber & Allen, 1987). A broader literature examining the quality of parent–child relationships also points to the importance of supporting intimacy and affection between parents and children in protecting children from a host of difficulties, including parental hostility and maltreatment (Jaffee, Caspi, Moffitt, & Taylor, 2004). Evidence also suggests that challenges to safety and security within the parent–child relationship may exist when there are temperamental differences between parents and children, leading to a lack of “goodness of fit” between parents and offspring. In the context of other known risk factors (such as substance abuse or domestic violence), the potential for maltreatment may be increased.

Other theoretical perspectives also support early parenting prevention efforts housed within the community. For instance, a developmental-ecological model would emphasize the contextual (community, neighborhood) influences, cultural norms, and interactions that contribute to parenting practices. Theories of family stress would emphasize the need to understand how life, family, and parenting stress can trigger episodes of abuse. Social learning theory would explain how community norms (and violence) could affect parenting, and in turn, how children model parental aggression and violence with siblings and peers. Brain research from this past decade has emphasized the importance of early experiences and their long-term effects on development.

All of these perspectives would suggest that prevention efforts that promote knowledge (e.g., child development milestones), skills training (e.g., effective parenting practices), and support (i.e., the building of formal and informal support networks to offset stressors) would be effective in improving short- and long-term family and child outcomes (Reppucci Britner, & Woolard, 1997). In summary, there is ample theoretical support for early parenting prevention efforts that develop positive parenting practices that improve short- and long-term family and child outcomes (Reppucci et al., 1997) and help prevent child maltreatment.

Cost-Effectiveness of Child Abuse Prevention Initiatives

Prevention is not only the moral responsibility of a civilized society; it is also good economic and social policy. A recent study used the data from nine South Carolina counties to examine the costs of building a public health infrastructure for delivering evidence-based, populationwide parenting and family support to strengthen families in order to prevent child maltreatment (Foster et al., 2008). The study showed that such an infrastructure is quite feasible. The costs of universal media, communication, and

training were quite modest at \$12.74 on a per-child basis. Rough estimates suggest that this cost could be recovered in a single year by as little as a 10% reduction in the rate of abuse and neglect. In another study of a well-known and a more intensive and costly program in which skilled workers provide services to young mothers at home, researchers found savings equated to a \$5.07 return for every dollar invested in the program (Karoli, Kilburn, & Cannon, 2005).

By the time they become victims of child maltreatment, most children and their families have not been exposed to prevention efforts that could help. With moderate or even small effect sizes, positive preventive parenting efforts in communities could result in significant reductions in the prevalence of child maltreatment, with resultant cost savings associated with child welfare, health, and mental health services; foster care and residential placements; and adult dependence on welfare, prison, and health and mental health care systems.

Key Findings

(a) Addressing the problem of child maltreatment from a public health perspective with a focus on primary prevention (i.e., before any maltreatment) and on promotion of healthy family functioning universally (i.e., for the entire population) is a promising framework for child maltreatment prevention.

(b) Efforts that promote a safe, stable, nurturing, and stimulating home environment early in a child's life can significantly and positively affect the child's developmental growth trajectory for years to come, with benefits for the child, family, and society at large.



Taking Prevention to Primary Care Settings

Primary health care is an existing and widely accessed setting in which a range of prevention strategies can be implemented. Throughout childhood, families attend regularly scheduled appointments in primary care settings. Health professionals are in an ideal position to promote healthy parent–child interaction, strengthen child-rearing practices, and intervene before situations escalate into abuse or neglect. Psychosocial concerns are raised in most pediatric visits (Sharpe, Pantell, Murphy, & Lewis, 1992). Pediatricians can identify risk factors, such as harsh discipline and family hostility, and provide both advice and referral to parenting programs. Primary care physicians are likely to be the first to notice the stress-related mental health problems in parents, such as depression and substance abuse that often set the stage for later neglect or family violence. Health practitioners are



perceived by patients as caring and knowledgeable; their rapport and credibility can help normalize and foster parent help-seeking and minimize any stigma associated with engaging families in parenting programs (Dubowitz, Feigelman, Lane, & Kim, in press).

The case for introducing prevention programs into primary care settings is strong. For more than a decade, national leaders in science, practice, and policy have called for a system of care that fosters social and emotional health in children as part of healthy child development. It is an initiative consistent with recommendations from expert panels originating at the highest levels of government, such as the President's New Freedom Commission on Mental Health (2003) and the U.S. Surgeon General's Conference on Children's Mental Health (U.S. Department of Health and Human Services, 2001) as well as diverse professional organizations, such as the American Academy of Pediatrics (AAP) and the American Psychological Association (APA). The AAP already recommends that health practitioners address a broad array of developmental concerns in health care visits (e.g., Green & Palfrey, 2002; Halfon & Inkeles, 2003). The National Research Council and Institute of Medicine (2000), in the landmark report *From Neurons to Neighborhoods: The Science of Early Childhood Development*, concluded that pediatric clinicians are well positioned to improve child development outcomes when children are exposed to preventable risks, such as parental drug use, mental health problems, and poverty. The APA suggests establishing an integrated, collaborative, sustainable system of primary child mental health care that provides universal access to mental health promotion, prevention, and early intervention to support the positive development of all children (APA 2001).

Mounting empirical evidence suggests the usefulness of establishing prevention programs in primary care settings. Prevention efforts in pediatric offices have resulted in an array of positive outcomes, including fewer child injuries (Margolis et al., 2001). A recent study evaluated the impact of pediatricians' efforts to counsel all parents at well-care visits about ways to prevent violence. Researchers found that parents did reduce children's exposure to violent media and increase safe firearm storage at home in response to the advice of their pediatricians in one brief intervention (Barkin et al., 2008). Researchers are just beginning to adapt more extensive parent training programs for use in private pediatric practices (e.g., Lavigne et al., 2008). These are programs that have been effective in changing parenting behaviors in mental health and school settings to treat common child behavior disorders.

Other innovative models are being tested as well in primary care settings. Recognizing the barriers to physicians providing behavioral health care themselves (e.g., lack of time, reimbursement, and expertise), Healthy Steps for Young Children places developmental specialists in private practices to talk with parents about their child's development, suggest parent-child activities, make referrals, and provide emotional support. Initial rounds of testing identified promising avenues for universal, practice-based interventions that could decrease children's exposure to risks and increase use of optimal child-rearing strategies (Minkovitz et al., 2003). Another study, using computer-delivered brief substance abuse prevention intervention with at-risk new parents in health care settings, demonstrated that these sorts of technology- and health-system-based, inexpensive, and mass-deliverable prevention approaches can yield meaningful benefits (Ondersma, Svikis, & Schuster, 2007). This approach is currently being extended to include parenting content.

In summary, support from policy leaders in science, practice, and policy as well as growing empirical evidence suggest that primary health care settings are promising venues in which to conduct child maltreatment prevention programs.

Key Finding

Primary care settings represent an existing system, widely accessed by parents and children, that is a promising venue in which to conduct child maltreatment prevention programs.



Implementing Child Maltreatment Prevention at Community Health Centers

The CHCs

As the nation's largest network of primary care safety net providers, community health centers (CHCs) serve over 15 million individuals. Created in the 1960s as part of President Johnson's "War on Poverty," the system now blankets all 50 states, with 3,600 neighborhood clinics providing health care to underserved rural and inner-city communities (Proser & Cox, 2004). CHCs provide care to all community residents, regardless of insurance status or ability to pay. They provide comprehensive primary health care and prevention services, as well as a host of support services that expand access to care for isolated families in multicultural contexts. These services include health education, translation, outreach, case management, and transportation.

In many respects, this existing network is a fitting venue for launching initiatives to prevent child maltreatment. The population served overlaps extensively with the “hard-to-reach” population of children and families at highest risk for child maltreatment, which often occurs in the context of poverty. Ninety percent of patients at CHCs are at or below 200% of the national poverty level. About 40% of patients are uninsured, and 36% rely on Medicaid (compared with national rates of 12% and 15%, respectively). CHCs serve about 10% of all Medicaid patients nationally and 10% of the uninsured nationwide. Two thirds of the patients are members of racial and ethnic minorities. Providing prevention initiatives at CHCs to underserved populations would help to promote access to services for families of color and low income.

The population served by the CHCs is primarily young and female, necessitating a strong focus on pediatrics, family medicine, obstetrics, and gynecology—all contexts well suited for identifying warning signs and intervening with families before situations reach critical levels.

One in five low-income children in the United States receives health care at a CHC. Ninety-three percent of patients are under 65 years of age. Children and adolescents (from birth to 19 years of age) constitute 38% of the population served, and adults in the child-rearing range of 20 to 44 years of age constitute 35% of patients. This amounts to approximately 5.7 million children and 5.25 million adults of child-rearing age served by CHCs.

The CHC model has a formidable history of commitment to prevention. Ninety-eight percent of centers provide preventive health education. A majority of centers have preventive services for heart disease and diabetes. Over 90% of centers offer women’s preventive health care (e.g., Pap smears, mammograms). There is considerable empirical evidence for the role of CHCs in early detection and treatment of anemia, lead poisoning, diabetes, and depression (e.g., Lin et al., 2004; Proser & Cox, 2004).

In addition, CHCs are governed by community boards with patient majorities designed to empower communities in hard-pressed areas. Such a high degree of community involvement facilitates successful implementation of prevention efforts that must be targeted not only at individuals and family relationships but also at communities at large. Implementation of preventive positive parenting programs will require the mobilization of community stakeholders and the identification of champions within the system (Fixsen, Naaom, Blase, Friedman, & Wallace, 2005).

Another key factor in successful implementation is the evaluation of the impact of new initiatives on lowering rates of abuse and neglect and demonstrating cost-effectiveness. Previous research at CHCs has generated compelling evidence of reductions in health disparities (e.g., access to prenatal care) and cost savings (e.g., decreased use of emergency rooms and fewer hospital admissions for expensive inpatient or specialty care) (Proser, 2003). Despite wide variation across CHCs, federal grant requirements promote consistency across centers that could facilitate a range of comparisons for evaluations of new programs. CHCs follow performance and accountability requirements regarding clinical, financial, and administrative operations. They track data to report to the federal government yearly on utilization, patient demographics, diagnoses, birth outcomes, and financing.

In existence for over 40 years, the network has had remarkable stability. CHCs are closely monitored to identify nascent difficulties and provide technical assistance to avoid failure. Over time, legislation expanding the CHC model has garnered broad bipartisan support among federal and local policymakers (e.g., Health Centers Consolidation Act, 1996). Federally qualified health centers receive federal grants under Section 330 of the Public Health Services Act and are reimbursed by Medicaid under the Prospective Payment System. Hence, there is some resilience in the face of shifting local economies and politics with a relatively stable, albeit insufficient, set of federal funding streams.

Challenges Facing CHCs

Successful implementation of child maltreatment prevention programming in the CHC network depends on meeting several challenges. CHCs have serious financial stressors, gaps in capacity, and unresolved policy questions. For example, federal funds are intended primarily for direct services, so CHCs struggle to find access to capital funding to address aging structures, equipment needs, and so forth (e.g., the costs of moving to electronic records). Also, CHCs have a history of difficulty recruiting and retaining a qualified, well-trained, behavioral workforce because they are located in challenging or remote locations and have difficulty offering competitive salaries. As in the nation overall, there is a drastic shortage of professionals who have been trained specifically to work with children and adolescents. Governing boards juggle a variety of funding mechanisms. The \$1.57 billion in federal grants represent only one quarter of overall center revenue. Private health insurance and Medicare are relatively small revenue sources. CHCs are already struggling to find ways to expand capacity and receive reimbursement for behavioral care; new funding streams will be necessary to proceed with demonstration projects and eventually wide-scale implementation.

On the positive side, however, there are existing pockets of infrastructure within the network on which to capitalize through demonstration projects. Approximately 500 CHCs are engaged in the Bureau of Primary Health Care's Health Disparities Collaboratives, recognized by the Institute of Medicine and the General Accountability Office as a promising program to diminish health gaps for ethnic minorities and the poor, with great potential for reducing costs. Collaborative staff has been trained in prevention, early identification, and health promotion activities, as well as use of evidence-based guidelines. In particular, at least 78 CHCs participate in the Depression Collaborative, adopting the same standardized national measures and external reporting requirements. Given that maternal depression is a major risk factor for neglect, the fact that these CHCs are already screening patients for depression and that many also screen for substance abuse could facilitate demonstration and evaluation.

Key Finding

CHCs are an existing network of neighborhood health clinics that can serve as a fitting venue for child maltreatment prevention initiatives.



Integrating Behavioral Health in Primary Care Settings

The integration of behavioral health services in primary care settings is a promising framework for promoting a family-centered approach to preventing child maltreatment. Integrated care is a holistic approach that aims to provide seamless, cost-effective care, as well as prevention through immediate access to mental health and other behavioral services on-site in primary care settings. A variety of models of integration have been used, from on-site multidisciplinary teams that meet regularly to treat shared patients to virtual collaboration of practitioners working in different locations (Doherty, McDaniel, & Baird, 2007). So far, no single model has been found to be superior (Butler et al., 2008). Head-to-head comparisons of different models are rare, and the few that exist found no clear differences. In addition, individual components of programs are rarely evaluated (Butler et al., 2008). However, several core components are common to most models, and these are listed in the box on the next page.

Common Components of Behavioral Health Integration Models

1. *Biopsychosocial Framework* stresses the need to address interacting biological, psychological, and social needs simultaneously rather than as separate, isolated dimensions. Behavioral interventions and ancillary services are thought to promote treatment adherence and better health outcomes. This framework promotes a holistic, family-centered approach to integrated care.
2. *Needs-Based Comprehensive Services* respond to patients' multifaceted needs, especially when patients have coexisting disorders such as substance abuse, depression, and interpersonal violence. Co-location of primary care and mental health and social support services, along with intensive case management, ensure successful internal referrals and linkage of community resources. Programs can include home visits for patients with the most complex biopsychosocial needs; 24-hour on-call telephone access to health care providers; aggressive tracking, recruitment, and monitoring of treatment adherence; support groups; and strong emphasis on patient education.
3. *Multidisciplinary Collaboration and Team Approach* helps proactively to prioritize services among disciplines that have historically worked independently. Primary care providers, psychologists, social workers, and other specialists are full team members with a focus on cross-discipline training.
4. *Monitoring and Evaluation* are essential to obtaining the patient outcome measurement analyses necessary to establish benefits of integrated care beyond the association with increased service utilization.

When integrated in primary care settings, behavioral health care workers (e.g., psychologists, social workers, behavior management specialists) can implement evidence-based positive parenting initiatives adapted to the needs of a local diverse population. In addition, as members of multidisciplinary teams, they can deliver services such as triage, curbside consultation, screening, crisis counseling, assessment, treatment, and referral that provide the infrastructure necessary to create a sustainable, collaborative health care system in which to embed preventive parenting initiatives in primary care settings.

Feasibility and Efficacy of Behavioral Integration

Feasibility of integrated care has been amply demonstrated in a range of settings, from common mental health problems in pediatric offices (e.g., attention-deficit/hyperactivity disorder) to hard-to-reach populations, such as homeless mothers and children (Weinreb, Nicholson, Williams, & Anthes, 2007). Numerous studies show improvements in service utilization (e.g., shorter waiting periods or fewer sessions to complete treatment) and greater general practitioner confidence in the effectiveness of behavioral health referrals and belief that there is less stigma when referrals are made within the primary care setting (Abrahams & Udwin, 2002). However, rigorous research on patient health outcomes, cost, and consumer satisfaction is limited (Soto, Bell, & Pillen, 2004). Also, because no reimbursement system has yet been subjected to experiment, it remains unclear which reimbursement or funding mechanisms most effectively support integrated care.

A recent report from the U.S. Agency for Healthcare Research and Quality (Butler et al., 2008) reviewed 33 methodologically sound studies of the impact of integrated care. Relevant for parents with mental health problems that preclude optimal parenting, integrated care models have been tested in the treatment of adult depression, anxiety, alcohol disorders, and severe mental illness. However, only three of the studies involved pediatric populations. Reviewers concluded that there was reasonably strong evidence to encourage integrated care in the form of removing obstacles and creating incentives. In general, integrated care achieved positive outcomes in symptom severity, treatment response, and remission when compared with usual care. However, most interventions were effective in either setting, and it was not possible to distinguish the effects of increased attention to mental health problems from the effects of specific integration strategies and processes. Studies did not find evidence that outcomes improved as level of integration increased, nor were specific care processes related to various outcomes. However, it is important to note that programs were often embedded in fragmented, disorganized, inefficient systems of care, making it exceedingly difficult to tease out the independent contributions of innovative models (Goldman, Thelander, & Westrin, 2000). Reviews of empirical research have generally concluded that integrated care is still a working hypothesis (Drake, Mercer-McFadden, Mueser, McHugo, & Bond, 1998). The next step in research is clear: to define what elements of integration are vital for producing desired goals.

Challenges to the Integration of Behavioral Health in Primary Care Settings

No systemic change comes easily, and the integration of behavioral health in primary care represents a departure in thinking and professional practice. Resistance to change can take the form of health care providers believing that patients are reluctant to address psychological issues at the physician's office or physicians being concerned about opening Pandora's box without the appropriate staffing or expertise to manage the consequences. Additional barriers include inadequate space for new programs and staff, prohibitions and restrictions on reimbursement for many integrated care activities, limits on mental health care not imposed for other health conditions, staff turnover, inadequate training of workforce, and limited community resources for referral. Another impediment is the inadequate evidence base for further development of infrastructure and models.

Currently, financial incentives encourage health practitioners to refer patients to specialty mental health clinics rather than address behavioral concerns in primary care settings. However, demonstration projects are under way in a number of states (e.g., California, Michigan, Colorado) using creative strategies to overcome obstacles, provide incentives, and realign funding streams so that primary care practitioners and behavioral health activities in primary care settings can be adequately reimbursed. Many of these strategies could be useful to support child maltreatment prevention and improved parenting practices in primary care settings. Despite these barriers, states are beginning to enact policies to facilitate integrated care (Meyerson, Chu, & Mills, 2003), and the nationwide movement toward integrated care is growing steadily (DeLeon, Giesting, & Kenkel, 2003; Grim, 2003; Lambert, & Gale, 2006; Proser & Cox, 2004; U.S. Department of Health and Human Services, 2001).

Behavioral Integration at CHCs

Over the past decade, behavioral health issues have had an expanding presence in the portfolio of CHCs' services (DeLeon et al., 2003; Druss et al., 2006; Taylor, 2004). Mental health and substance abuse together constitute the leading reason for visits to CHCs, with the health supervision of children under 12 a close second (Proser & Cox, 2004). Seventy percent of CHCs have some, if minimal, on-site mental health services, and 50% have some form of on-site substance abuse services. Many centers have mental health and substance abuse screening and diagnosis, as well as patient education, self-help support groups, and on-site group counseling. When demand exceeds capacity or on-site services do not exist, CHCs refer to

off-site mental health partners. The National Association of Community Health Centers is actively working to expand the provision of behavioral health care at CHCs. The National Health Service Corps Program, which provides scholarships and loan repayment in exchange for practice commitments to areas with health professional shortages, has a long tradition of placing psychologists in CHCs. Overall, a fair amount of conceptual groundwork has been laid for the implementation of child maltreatment prevention initiatives through behavioral integration at CHCs.

Key Finding

Although the science underlying the integration of behavioral health in primary health care lags behind the momentum in the field for its widespread implementation, the best available science indicates it is a feasible and promising strategy for bringing child maltreatment prevention initiatives into primary care settings.



Improving Parenting Practices With Evidence-Based Interventions

This section of the report describes research on interventions designed to promote preventive, positive parenting practices that could potentially be implemented in primary care settings in general and in CHCs in particular. In addition, this section discusses the identification and treatment of parent behavior problems as they relate to risk for maltreatment and parents' ability to benefit from parenting intervention.

Summary of Best Available Science on Parenting Interventions

In reviewing the accumulated research, we located promising evidence-based parenting programs and practices that (a) have the potential for broad impact across multiple types of maltreatment (physical and emotional abuse, as well as neglect) by both reducing risk factors and promoting protective factors; (b) are associated with positive parent behaviors and positive child outcomes that can reasonably be expected to influence rates of child maltreatment; and (c) can be implemented through CHCs.

Ours is not an exhaustive review. We provide a brief overview of the available research and then describe some programs as exemplars in the Appendix. These programs were chosen because they are promising practices in terms of the accumulation of scientific evidence, and they are relatively well known and widely used.³ We sought out programs that were voluntary, neighborhood-based, family-focused, child-centered, and had the potential for cultural compatibility with a diverse population, following the framework recommended by the U.S. Advisory Board on Child Abuse and Neglect (1991, 1993). They have received a rating of 3 or better in terms of their scientific evidence and promise as an effective practice by the California Evidence-Based Clearinghouse for Child Welfare (www.cachildwelfareclearinghouse.org/). These ratings, validated by scientists working in child maltreatment research, range from 1 (*well supported*) to 6 (*concerning*).⁴

By and large, the effective programs reviewed involved two modes of delivery—center-based or home visitation—and four core elements. Center-based programs are typically delivered in groups and facilitated by trained personnel in a variety of settings, such as health and mental health centers, schools and Head Start programs, houses of worship, or community centers. Outreach home-visiting programs are those in which families are visited at home during the prenatal period and/or during the first 3 or 5 years of a child's life by trained personnel who provide some combination of support, training, and information regarding child health, development, and care. Finally, the evidence-based programs reviewed contained the following *four core elements*:

- (a) Programs focus on parents and other caregivers
- (b) Programs strive to build positive parenting practices
- (c) Programs provide social support, parent education, skills training, and/or crisis intervention
- (d) Programs use standardized curricula delivered by trained professionals or others and strong quality-control mechanisms

It is important to note that many evidence-based parenting programs share common interventions; these include the types of parenting skills taught, which are very similar across programs (e.g., use of time-out, use of positive reinforcement and attention). Program models may differ more in how the program is delivered, the program's intensity, its cultural fit, and its intended delivery population. Some models may be better suited to changing serious parenting problems but are less suited to mass delivery, whereas others may be suited to economical mass delivery but are designed for parents with fewer serious problems.

³ Programs described are examples of promising programs; however, the inclusion of a program in this review as an exemplar does not imply endorsement; exclusion may only indicate that the program did not meet one or more of these criteria.

⁴ A score of 1 is the gold standard, with multiple site replication of at least two RCTs finding the practice superior to an appropriate comparison practice, with the RCT published in peer-reviewed scholarly journals. The practice is shown to have a sustained effect for at least 1 year beyond the treatment, with no evidence that the effect is lost at that time. If multiple outcome studies have been conducted, the overall weight of the evidence supports the practice. A score of 2 requires at least two RCTs in highly controlled settings finding the practice superior to an appropriate control practice published in peer-reviewed scholarly journals. The practice has shown to have a sustained effect at least 1 year after treatment, with no evidence that the effect is lost at that time. A program with a score of 3 has at least one well-controlled study with a control group establishing efficacy over a placebo or is found to be comparable with or better than an appropriate comparison practice published in a peer reviewed journal. Of course, exemplary programs are also rated by other clearinghouses and government agencies (e.g., U.S. Department of Health and Human Services, 1999).

Thus, when adopting parenting models for primary care settings, the question may be less about the parenting skills taught or core model elements and more about identifying a match between site and population needs and the delivery characteristics of the model.

Overview of Evaluation Research on Parenting Programs to Prevent Child Maltreatment

Research on prevention programs designed to reduce child maltreatment and to promote positive parenting has reached the point where there is now an extensive body of relevant scientific knowledge. Over the past decade, several meta-analyses have been conducted. The evidence base is complex and can be difficult to interpret (Daro & Donnelly, 2002). One conclusion is that although a multitude of programs have been developed in the name of child maltreatment prevention, and many have been implemented widely, the majority are not evidence-based practices, have not undergone scientific evaluation, or have failed to demonstrate effective prevention when they have been rigorously evaluated (Chaffin, Bonner, & Hill, 2001; Chaffin & Friedrich, 2004; Duggan, Fuddy, et al., 2004; Duggan, McFarlane, et al., 2004; Klevens & Whitaker, 2007; Saunders, Berliner, & Hanson, 2004). Hence, programs vary dramatically in terms of the scientific evidence for their effectiveness. Not all programs are effective.

When meta-analyses use less rigorous inclusion criteria and include indirect or proxy outcomes, somewhat more encouraging results begin to emerge (e.g., Geeraert, Van den Noortgate, Grietens, & Onghena, 2004; MacLeod & Nelson, 2000; Sweet & Appelbaum, 2004). Taken as a whole, meta-analytic reviews have produced effect sizes that are positive but relatively small to moderate. However, even with small effect sizes, promoting parenting efforts in communities could result in significant reductions in the prevalence of child maltreatment, with resultant cost savings associated with child welfare; physical and mental health services; foster care and residential placements; and adult dependence on welfare, prison, and physical and mental health care systems. It is tempting to assume that large effect sizes make a better foundation for public policy than small effects. However, this is not necessarily the case (see Duncan & Magnuson, 2007). Even small effect sizes can be meaningful if the intervention is economical, can be delivered to large numbers, and can affect high-value outcomes.

A recent study of the Triple P Positive Parenting Program is the first to show a preventive impact on child maltreatment at a population level using an evidence-based parenting intervention (Prinz, Sanders, Shapiro, Whitaker, & Lutzker, 2008; Sanders et al., 2008). Eighteen U.S. counties were randomly assigned either to dissemination of the Triple P (a multilevel system of parent and family support that is conducted in an individual, group, or self-directed format for children from birth to 16 years of age) or to services as usual as the control condition. Large effect sizes were found for three independently derived population-level indicators: substantiated child maltreatment, child out-of-home placements, and child maltreatment injuries. In this study, the parenting skills content is delivered at multiple levels—through communitywide informational initiatives, to prevention populations in settings that may be comparable to those of CHCs, and through more intensive services designed for high-problem families—thus demonstrating how CHC-based approaches may be integrated into overall communitywide initiatives. These results are bolstered by a recent meta-analysis of 55 studies of the Triple P, which concluded that the program causes positive changes in parenting skills, child problem behavior, and parental well-being in the small-to-moderate range, varying as a function of the intensity of the service, with greater effects for more intensive formats and more distressed families (Nowak & Heinrichs, 2008).

Program content evaluation. To tease apart the active ingredients of the programs that lead to positive results, Kaminski, Valle, Filene, and Boyle (2008) conducted a compelling meta-analytic review of 77 published studies. After controlling for delivery methods, they found that **program components** with the largest effects on parent and child behavior change include the following:

- (a) Teaching parents to interact positively with their children in nondisciplinary situations (e.g., demonstrating enthusiasm and positive attention for appropriate behaviors)
- (b) Training parents in emotional communication skills (e.g., active listening, reduced negativism and criticism, helping the child to identify and cope with emotions)
- (c) Teaching parents the importance of disciplinary consistency and to use time-outs
- (d) Requiring parents to practice new skills during training sessions with their own children

Supplemental services such as anger or stress management, job training, and substance abuse treatment were associated with smaller effects on parent outcomes but may have been less likely to generate immediate changes in parenting or child behaviors. It is also possible that too many services overwhelm parents and impede them from learning parenting skills. Researchers failed to find that the use of a standardized curriculum or manual was related to effect size; hence, merely having a program manual did not guarantee that the program was effective. Many implementation researchers believe that strong quality control is critical and that manualization or training alone accomplishes very limited competent model uptake (Fixsen et al., 2005). Researchers also failed to find evidence that teaching child development in and of itself was related to program effects, but such knowledge was most likely incorporated into concrete, developmentally appropriate parenting skills to explain children's behaviors and provide a rationale for particular strategies. Finally, teaching parents to provide positive reinforcement and clear instructions was not predictive of program effects. These strategies might be necessary, but not sufficient, to change parent or child outcomes.

Center-based parent training evaluation. It is widely accepted that evidence-based parent training programs are effective agents of improved parenting, positive parent-child interactions, and reduced child behavior problems. Hence, it is reasonable to expect them to offer promise for preventing maltreatment. Moreover, these programs offer supplemental benefits. Often, the same children who are at risk for maltreatment are also at risk for the development of mental health disorders (e.g., children of depressed mothers). Many evidence-based parenting programs are likely to impact both outcomes and result in significant overall cost savings to society.

Several individual programs have accumulated a substantial evidence base with multisite replications using randomized controlled trials (RCTs) that show superiority over comparison interventions, with lasting effects from 1 to 3 years and no evidence that the effect is lost at that time (Eyberg, 1988; Lutzker, Frame, & Rice, 1982; McMahon & Forehand, 1981; Sanders, 1999; Webster-Stratton, 1994). For example, *The Incredible Years*, a 12–14-week, group format, parenting program tested in over six rigorous RCTs, repeatedly shows increased parent use of effective limit setting by replacing spanking and harsh discipline (known risk factors for physical abuse) with nonviolent discipline techniques and increased monitoring of children (a behavior that ought to prevent neglect). Results also show increases in parents' positive affect, such as praise and reduced use of criticism and negative commands (risk factors for emotional abuse), as well as positive family communication and problem solving. Evidence is mounting to suggest that these center-based, evidence-based parenting programs can be effective with a population of maltreating parents as well (Chaffin et al., 2004; Hurlburt, Nguyen, Reid, Webster-Stratton, & Zhang, in press).

In summary, center-based programs, particularly those delivered in group formats, are effective, may be relatively economical, and may be preferred by some parents, but there are also several potential challenges to implementation. These include vulnerability to high dropout, transportation barriers, and competing family or life demands that often interfere with center-based appointment keeping.

Home visitation program evaluation. Meta-analyses limited to home visitation programs have produced somewhat more ambiguous results. For example, a meta-analysis of 50 diverse home-visiting programs concluded that home-visiting programs help families and that the actuality and possibility of abuse was lower for home-visited children than for control groups (Sweet & Appelbaum, 2004). However, not all programs were successful, and what exactly makes a program successful remained unclear. The magnitude of the effect sizes was small, and—more often than not—design features of the programs were not related to effect sizes at all.

In addition, initial dramatic reductions in abuse associated with home visitation have been difficult to replicate, thus slowing the generalization of findings (Bugental et al., 2002; Duggan, Fuddy, et al., 2004; Duggan, McFarlane, et al., 2004; Landsverk et al., 2002; Windham et al., 2004), and more rigorous evaluation designs have not replicated initial findings from less rigorous designs. For example, Nurse–Family Partnerships is a well-researched program in which data from a 15-year follow-up study showed remarkable positive effects for a high-risk subset of participants more than 12 years after the visits were concluded (e.g., 48% reduction in child abuse and neglect, a 56% reduction in emergency room visits for accidents and poisoning of children, and 72% fewer convictions of mothers). However, subsequent studies have had difficulty replicating these dramatic results. One reason for replication difficulty was the low base rates for abuse in subsequent locations (3–4%), compared with rates for the original community studied (10%). However, researchers did replicate a positive impact of the program on child injuries and hospitalizations when concentrating on children born to the most psychologically vulnerable mothers (Olds, Eckenrode, & Kitzman, 2005). This example highlights the complexity involved in replicating results widely in diverse communities.

A few other promising home visitation programs are in various stages of building an evidence base. For example, SafeCare, a home visitation program to prevent neglect that uses a succinct teaching format to focus on parent–child interaction training, home safety, and child health care, has accumulated over 60 outcome studies. Whereas most are not RCTs, one RCT of SafeCare reduced recidivism of child maltreatment by about 50%, relative to alternative family preservation services (Gershater-Molko, Lutzker, & Wesch, 2002).

Given the status of the research at this point, scholars have been cautious in summarizing the literature on home visiting. Chaffin (2004) pointed out that although the sheer number of studies showing positive effects of home visitation is large, the majority tend to have weaker program evaluation designs. In comparison, the smaller number of rigorous RCTs that exist have shown comparatively fewer positive results and should be given greater weight in drawing more cautious conclusions. Daro and Donnelly (2002) concluded that when services are offered in a consistent, intensive, high-quality manner by well-trained and well-supervised staff, families are less likely to engage in serious abuse or neglect. Most researchers agree that extant models will need to be retooled in response to ongoing evaluation. There is some evidence that changes might improve disappointing results (Bugental et al., 2002).

Clearly, home-based programs have some advantages, including ecological validity, relatively higher retention rates, individualized care, and convenience for parents. Another disadvantage of home-visiting-based services is their delivery cost. Each staff member can serve only a limited number of cases. Home-based services are especially labor intensive in rural areas where extensive travel may be required, and some models require highly credentialed and expensive staff.

Key Findings

(a) **Evidence-based parent training is a promising strategy for preventing child maltreatment.** *There is a substantial body of well-designed controlled-trial, scientific research showing that parenting programs can produce significant and durable positive changes in terms of increasing positive family relationships, reducing child behavior problems, and reducing future rates of child maltreatment. We know from this scientific knowledge base that these programs can work if conducted correctly. We know less about whether they do work reliably once taken to scale or the precise conditions under which scaling up is most effective. In terms of the public health model described earlier, this reflects a field that has seen some scientific progress on the first three steps of the public health model (establishing the scope of the problem, understanding risk factors, and developing some efficacious models), with limited knowledge available on the fourth step (dissemination and implementation on a broader scale and understanding field effectiveness). CHCs offer a promising venue for bridging from models that we know can work to a community delivery system that does work.*

(b) **Communities need to be selective in locating promising programs for implementation and matching the model to the needs of a particular site and population.**

Not all programs are effective. Effective programs vary in terms of mode delivery, intensity, cultural fit, and intended population. Some models are better suited to changing serious parenting problems but are less suited to mass delivery, whereas others may be suited to economical mass delivery but are designed for parents with fewer serious problems.

(c) **Effective programs share core features and content.** *Programs tend to focus on parents; teach positive parenting practices; provide skills training, parent education, social support, and/or crisis intervention; and use standardized curricula delivered by trained professionals and others with strong quality-control mechanisms. The content of effective programs with the largest effects includes having parents practice new skills during training sessions and understand the importance of parenting consistency, as well as teaching parents how to have positive*

parent–child interactions, use emotional communication skills, and replace punitive punishments, criticism, and negative commands with time outs, praise, and positive communication.

- (d) **Programs with positive outcomes have well-trained, skilled staff; are implemented with fidelity and strong quality controls; and are evaluated and improved continuously.** *There are no inexpensive, quick solutions to the problem of child maltreatment. Cost–benefit studies suggest that high-quality early interventions are likely to produce better outcomes than remedial efforts later in life (Aos, Leib, Mayfield, Miller, & Pennuci, 2004). Even the best programs need to be evaluated, retooled, and revised regularly.*
- (e) **Evidence-based parent-training programs and practices can be tested in primary care settings at CHCs.** *No one program is a panacea. No one program has overwhelming outcome data from multiple replications of randomized controlled trials showing lowered risks for children as victims or at risk for maltreatment. Nonetheless, both evidence-based home visitation programs and evidence-based center-based programs can be tested in demonstration projects at underserved primary care settings such as CHCs.*
- (f) **Further research is needed to identify effective interventions, retool existing interventions, and translate effective treatments into community practice** (e.g., Chaffin & Friedrich, 2004; Russell et al., 2007; Wiggins, Fenichel, & Mann, 2007). *Program evaluation research is necessary to delineate which models are effective, under what conditions, for which families, and how to maintain quality as programs are implemented across diverse settings. As Leventhal (2005) noted, in the past 25 years, several promising models have been developed and initial rounds of testing have shown encouraging results in terms of their effectiveness. The next phase should “be about getting the models right and making them an integral part of every community” (Leventhal, 2005, pp. 209-213).*

Improving Parenting Practices by Addressing Parental Risk Factors

Prevention strategies that strengthen families and enhance parenting will be complemented by addressing the risk factors that impair healthy family functioning and preclude optimal parenting. These factors include parents' mental health problems (e.g., depression, substance abuse, intimate partner violence, and severe stress) that have been clearly linked to child maltreatment. Frequently, health care professionals confront these psychosocial problems facing families (Kahn et al., 1999).

A central question is, What population should preventive strategies target? Although universally offering evidence-based, preventive, positive parenting programs to all families at CHCs will promote optimal child development for all children, some families may decline because they neither need nor would benefit from such a program. Moreover, the most consistently encouraging prevention findings in the literature have pertained to high-risk families (Olds, Hill, & Rumsey, 1998). In addition, because resources are invariably limited, they must be used in the most efficient and effective manner possible while achieving the goal (e.g., Olds et al., 1998). Consequently, it is important to prioritize and identify those who are at relatively high risk for maltreatment, building on our knowledge of the major risk factors (e.g., maternal depression, alcohol and substance abuse, and intimate partner violence). In this way, precious resources can be effectively targeted to meet the specific needs of individual families (e.g., therapy for maternal depression).

There is rarely a single contributor to child maltreatment; families present multiple problems generated in complex and difficult circumstances. Although it may be ideal to address all or most of their underlying problems, it may not be essential to do so. For example, addressing a mother's depression may be a tipping point that enables her to find work and function better as a parent. This example illustrates how screening for, identifying, and addressing her depression may help prevent child maltreatment. A core principle underlying screening is that it should benefit the person screened and is justifiable when resources are available for interventions such as treatment. Several issues related to screening merit consideration. Screening is a form of triage, guiding when further assessment is needed. A positive screening is clearly not a diagnosis; both clinicians and parents need to understand that. Screening tests are seldom perfectly adequate. They may not be 100% sensitive, missing some who have the problem. This challenge may relate to the screening itself or to the many reasons why someone may choose not to disclose the information (e.g., mistrust and fear of being judged). It is noteworthy that those withholding sensitive information may also not be amenable to intervention. On the other hand, it may not be that problematic that the screening test did not detect them. Being asked the question(s) may convey interest in a person's circumstances and sow a seed for later disclosure. Another concern is that screening may lead to false positives, erroneously identifying problems and inducing anxiety. Stressing that a positive screen is not a diagnosis should help. Furthermore, the assessment following the screen should help clarify whether the problem exists. In these ways, concerns about possible erroneous labeling can be minimized.

Implementing a screening program requires several further considerations. It is important to have a reliable and valid screening tool, one that is culturally sensitive. It needs to be relatively brief and easily understood. Seeking sensitive information, such as drug use, requires privacy. Questions or statements should be framed in a way that facilitates sharing socially undesirable information (e.g., "Many parents have these problems. We're trying to help..."). It is best applied universally, not only to those whom clinicians think have the problem; depression, for example, is often well masked. The tool should be easily scored or interpreted. Clinicians need to be trained to at least briefly respond to positive screens and taught how to facilitate further assessment and intervention. In addition, needed interventions must be available.

Research on screening for parental risk factors is ongoing. One sample model currently under investigation is Safe Environment for Every Kid (SEEK), which involves (a) special training of physicians

to address targeted risk factors, (b) use of the brief Parent Screening Questionnaire (Dubowitz et al., in press) to guide clinical interventions, and (c) use of a mental health team approach to address identified concerns. A recent randomized control study suggests that the model may be a promising approach to preventing child maltreatment in a high-risk community. Findings included reduced reports from Child Protective Services of maltreatment, less harsh punishment reported by parents, and fewer problems with delayed immunizations and no adherence to medical treatment—markers of possible child neglect (Dubowitz, Prescott, Feigelman, Lane, & Kim, 2008).

Key Findings

- (a) Screening to identify and address parental risk factors that preclude optimal parenting may strengthen positive parenting intervention through referral to treatment.*
- (b) The need to use limited resources efficiently points to screening as a practical strategy to identify families in need of services. Primary health care providers can play a valuable role in identifying such families and their specific needs and facilitating further evaluation and services when necessary.*
- (c) Evaluations of screening strategies are therefore needed to find maximally sensitive tools.*



Overarching Recommendations

In this report, we recommend addressing the problem of child maltreatment from a public health perspective, with a focus on primary prevention and on promotion of healthy family functioning for families from all backgrounds and at all risk levels. We also recommend beginning the implementation process in underserved diverse communities, given the added level of risk in those communities. As evidenced in the report, parent training is a promising strategy for preventing child maltreatment and should be tested in primary care settings such as CHCs. Furthermore, we recommend the integration of behavioral health in primary care settings as a strategy to promote better access to care. And to advance knowledge in the field, there is a need for rigorous program evaluation to identify effective interventions and models.

The Working Group on Child Maltreatment Prevention in Community Health Centers offers the following recommendations with the intent to spur future action:



RECOMMENDATIONS

1. Promote safe, stable, nurturing relationships for children through positive parenting with the integration of behavioral health in primary care settings.

- (a) Ensure access to well-coordinated, high-quality behavioral health services for all families at risk for child maltreatment and reduce stigma associated with seeking aid in parenting.
- (b) Promote the transformation of primary care infrastructure, organization, financing, and service delivery to support integration of child maltreatment prevention initiatives.
- (c) Promote family-centered approach with a “one-stop shopping” model involving co-location of providers.
- (d) Promote models of integrated care that involve behavioral health specialists on multidisciplinary teams to deliver services that prevent child maltreatment.
- (e) Increase community awareness that the centers offer integrated services and evidence-based parenting programs.
- (f) Train all levels of staff at the centers to support the model, to encourage and promote patient participation, and to reduce stigma.
- (g) Use available technologies to collect, organize, and provide access to patients’ health and mental information; for referrals; to train staff; to monitor service delivery and outcomes; and to create networking opportunities for on-site providers and others in the community.

2. Promote universal access to evidence-based, preventive, positive parenting programs at CHCs for families from diverse socioeconomic, cultural, racial, and ethnic backgrounds.

- (a) CDC should support implementation of demonstration projects of evidence-based and promising parent skills training programs at the centers and outreach home-visiting programs in a minimum of 10 CHCs.
- (b) Adapt evidence-based programs to meet the needs of families that are diverse in terms of culture, ethnicity, race, socioeconomic status, literacy levels, sexual orientation, and disability.
- (c) Continue to develop instruments to identify parents and/or caregivers for risk factors associated with child maltreatment, such as depression, intimate partner violence, substance abuse, harsh discipline, and severe stress, for referral to intervention.
- (d) Educate, recruit, and train mental health and primary care providers to implement culturally competent positive parenting programs and screening at the centers.
- (e) Create quality training sites at the centers through partnerships with universities and colleges, national professional associations, and national and state CHC associations.
- (f) Evaluate effectiveness of demonstration projects for health outcomes, cost effectiveness, patient satisfaction, local adaptation, and reduction of child maltreatment and injuries.

RECOMMENDATIONS

3. Promote interdisciplinary, inter-agency, and cross-systems collaboration to implement child maltreatment prevention initiatives at CHCs.

- (a) Promote partnerships with state and local universities and colleges, community networks, and professional associations; coordinate efforts with ongoing community initiatives.
- (b) Promote collaboration among federal agencies involved in related initiatives, such as CDC, Health Resources and Services Administration, Office of Child Abuse and Neglect in the Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, National Institute on Drug Abuse, and so forth.
- (c) Promote collaboration among the disciplines of medicine, psychology, social work, and nursing to provide national leadership on system transformation.
- (d) Promote cooperation among federal, state, and local agencies in health, mental health, and child welfare.
- (e) Promote greater public awareness about child maltreatment prevention and initiatives available in CHCs.
- (f) Educate and involve CHCs' governing boards in the child maltreatment initiatives.
- (g) Build uniform tracking and monitoring information systems.
- (h) Create child maltreatment prevention collaboratives across CHCs.

4. Develop national efforts across CHCs to prevent child maltreatment.

- (a) Promote policies to prevent child maltreatment from a public health and a family-centered, culturally sensitive approach.
- (b) Commit to the development of initiatives that foster positive, effective parenting practices promoting safe, stable, nurturing relationships for all children.
- (c) Establish as a priority the integration of behavioral health services delivered in primary care settings located in underserved areas.
- (d) Create a research agenda to evaluate the effectiveness of the positive parenting programs and of protocols to screen for parental risk factors, to prevent child maltreatment, and promote integration of mental health and health.

Key Considerations for Implementation

Successful implementation of these recommendations requires attention to a number of key considerations. The effort to move evidence-based programs from research to wide-scale adoption is in a nascent stage. Successful implementation must be conducted (a) in a systematic fashion that follows the limited science to date about strategies and quality improvement processes; (b) through a network of demonstration projects evaluated to determine effectiveness; (c) with an understanding that the evaluation results will feed ongoing efforts to retool and revise original models; and (d) with adequate funding and support from key stakeholders. The working group has identified three key areas to consider in implementing the proposed model.

CONSIDERATION #1

Successful implementation requires attention to nine critical systemic factors

1. Stakeholder “Buy-In” and Support

It is important to understand an organization’s structure and culture before implementing new initiatives such as evidence-based parenting programs (Aarons, 2005). Much has been written in recent years about the need for organizational and community buy-in; the need for understanding how cultural variables affect buy-in; and, ultimately, how buy-in affects outcomes (Fixsen et al., 2005). It will be important to mobilize stakeholders, such as CHC governing boards and leaders from the wider community, to incorporate new programs into the embedded structure of the organization and community.

2. Local Adaptation of Evidence-Based Parenting Programs to Meet the Needs of a Diverse Population and Ensure That Providers Are Culturally Competent

By 2023, minorities will comprise more than half of all children in the United States (U.S. Census Bureau, 2008). Such growing diversity underscores the importance of cultural sensitivity of health and mental health interventions (Bernal, Bonilla, & Bellido, 1995). Parenting practices are shaped by history, heritage, cultural values, and socioeconomic status. Attempting to understand, predict, or change parental behavior through parenting programs requires sensitivity to these differences. Treatment is thought to be more effective when it is compatible with patients' cultural patterns (Bernal et al., 1995; Tharp, 1991). To address culturally based mistrust associated with seeking help from professionals outside the family or from government institutions and to provide adaptations that seem both respectful and inviting, it may be wise to include leaders who share the language and culture of the community.

Program developers and/or providers may need to make changes in delivery format (e.g., use of examples, vignettes, and activities; outreach to extended family members) that are based on the culture of the target population, without compromising the active ingredients of the program. In general, evidence-based program models have been found to be equally effective across major cultural groups (Huey & Polo, 2008), and it may be that cultural competence is more a characteristic of the provider delivering the service than of the basics of the service model itself (Chaffin et al., 2004; Kumpfer, Alvarado, Smith, & Bellamy, 2002; Webster-Stratton, 2007). Moreover, in multicultural communities, parenting groups at neighborhood health centers will be mixed, not segregated by ethnic or cultural identity.

Programs can ensure cultural competence in serving the population in part through diversity training of providers and diversity of staff. Diversity training is meant to help providers become aware of their attitudes, biases, and assumptions; to encourage the development of the capacity to listen to the views of persons who are different from them; and then to develop appropriate and effective interventions (Daniel, Roysircar-Sodowsky, Abeles, & Boyd, 2004). Given long-standing difficulty in recruiting and retaining staff in primary care in underserved areas, mechanisms will need to be put in place to ensure that the workforce is culturally aware and skilled.

3. Use of Technology to Screen, Promote Access, and Deliver Services

Technology can greatly enhance the delivery of evidence-based practices. Programs and systems can use the highest level of technology broadly available to identify problems early, increase access to care, train parents, provide parenting advice, and overcome obstacles to behavioral health integration and interdisciplinary sharing of patient information. For example, waiting room kiosks with computerized screening instruments can be a cost-effective way to provide privacy, data collection, and interpretation needed for screening, triage, assessment, referral, and evaluation. Researchers are experimenting with video feedback (Fukkink, 2008) and cell phones to deploy parenting advice and crisis resolution (Self-Brown & Whitaker, 2008). Telehealth consultation and libraries that lend psychoeducation videotapes can supplement quality control efforts in parenting program implementation and reach families that cannot attend on-site sessions, delivering needed services at low cost. Finally, programs can use technology to teach skills to parents and children in CHC waiting rooms. Recently, the CDC has launched several funding initiatives aimed at examining whether technology could enhance effective parenting programs, such as SafeCare, Healthy Families America, and parent-child interaction therapy to prevent child maltreatment (Bigelow, Carta, & Burke Lefever, 2008; Funderburk, Ware, Altshuler, & Chaffin, 2008).

4. Engaging and Retaining At-Risk Families in Parenting Programs

Attrition from both center-based and universal home-visiting programs has been estimated to be as high as 50% (McCurdy, 2000; O’Riordan & Carr, 2002). Such serious retention problems have economic implications (e.g., failed appointments and lost billing), as well as implications for parenting outcomes (Chaffin et al., in press). Barriers to enrollment, participation, and retention are both systemic (e.g., uncoordinated care, failure to co-locate services, and staff turnover) and familial (e.g., chaotic family circumstances and family stress, language barriers, lack of transportation, poverty, and competing demands on time and attention) (Kazdin, 1997). In addition, other barriers researchers have identified include (a) lack of motivation, levels of readiness for change, and recognition of the existence of a problem and (b) belief systems that are impediments (Chaffin et al., 2008).

Mounting evidence suggests that the combination of systemic change and motivational engagement strategies, when used selectively among relatively less motivated clients and added to evidence-based parenting programs, can increase retention and participation, especially in vulnerable populations such as those served by CHCs (e.g., Chaffin et al., 2008; Nock & Kazdin, 2005).

To address systemic barriers to enrollment, participation, and retention, we propose integrated behavioral health care, co-location of services, a trained workforce that creates a climate free of judgment, incentives for staff retention, and cultural adaptation of programs that have standardized training manuals. Experts suggest involving the entire family in treatment and providing child care and transportation, outreach services, language-appropriate materials and translation, and motivational interventions.

5. Fidelity, Quality Control, Accountability, and Evaluation

Models must be implemented faithfully, but it is even more important that they be implemented competently. Competency development is an ongoing process that includes fidelity to the core structure of the model, the capacity to adapt the model to changing needs, and the ability to deliver the model fluidly and expertly. Successful program implementation requires a quality control and improvement structure suited to developing competency, preventing drift into unproductive deviations, adapting the model as necessary, and promoting professional growth and model improvement. This agenda requires active practice observation with feedback and ongoing interaction among networked provider peer groups and model experts.

6. Collaborative Networks of Participating Centers

Programs can successfully implement the needed changes by creating collaborative networks (including partnerships with state and local universities and colleges for training, staffing, and research) to monitor, coordinate, and evaluate the implementation of evidence-based initiatives across CHCs. Child maltreatment prevention collaboratives could be modeled after the existing depression collaboratives at CHCs. This effort should result in uniform flexible tracking and monitoring information systems for process and outcome data. It allows for the identification and tracking of similarities and differences in strengths, needs, and barriers to implementation at collaborating CHCs. It will also promote cost reductions through joint training or reducing redundancies in data reduction and analysis through centralization and standardization of instruments. Because these centers already screen all patients for depression, this approach could also facilitate screening of other parental risk factors, such as substance abuse and intimate partner violence.

7. Multilevel Research and Evaluation of New Program Effectiveness

The ultimate transportation of evidence-based parenting and screening programs to widespread service delivery at CHCs will require a multilevel evaluation research plan. The plan should begin by evaluating a limited number of demonstration projects before moving toward national study of variability in programs, adaptation strategies, and resources. The demonstration projects' evaluation results can be used to determine how best to adapt programs locally and take them to scale nationally.

Ensuring that key program elements are delivered as intended (implementation fidelity) and that they lead to positive client outcomes (including changes in parenting practices and reductions in child maltreatment reports) requires evaluating both the sufficiency of the implementation process and the effectiveness of the parenting or screening programs themselves. Hence, it is important to distinguish between implementation outcome (i.e., whether a program is being conducted as intended) and program effectiveness outcome (i.e., whether a program is producing a good outcome). Only through proper implementation and confirmation that the program is being implemented as intended can effectiveness outcomes be properly measured.

Interagency collaboration will be necessary to evaluate the implementation and the effectiveness of the new initiative. Programs will need to be evaluated for a host of variables that will require collection of patient data not only from the health system but from other systems as well, such as child welfare, mental health, and education. These variables can include reports of maltreatment, number of out-of-home placements, parental mental health problems, family stress, and costs.

A multilevel research plan will also involve the collaboration of the demonstration projects to collect uniform data to flow up to evaluation researchers, who will synthesize and analyze data across sites (e.g., uniform reporting of family/parenting needs, risks, assessments, services, and referrals across sites). Moreover, a successful research plan will require a collaborative network of prevention and evaluation researchers, CHC administrators, board members, and clinicians, as well as partnerships with local universities. Psychologists as members of evaluation teams across multiple centers can have a critical role in overseeing program implementation, adaptation, and fidelity and in data tracking, monitoring, and analysis. Psychologists are well positioned for such a role because of their historical contribution as program developers of evidence-based parenting programs and evaluation researchers.

8. Workforce Development

The national shortage of professionals trained to work with children and families regarding mental health issues is well documented, as is the difficulty in recruiting and retaining highly skilled and well-trained staff in underserved areas. Whether centers adopt multidisciplinary teams or some other model of integration, a strategy is needed for creating a multidisciplinary, tiered workforce of health practitioners (e.g., pediatricians, general and family practitioners, psychiatrists, nurses) and behavioral health specialists (e.g., psychologists and social workers, as well as others at the doctoral, master's, bachelor's, and associate's degree levels). These providers should be trained across disciplines to provide integrated care for the whole family and to address mental health problems of parents and children that interfere with their ability to benefit from preventive parenting efforts. Providers will need to be educated to work collaboratively to prioritize interventions given competing needs for parents' limited time, energy, and resources.

Given the demands on physicians' time (e.g., Yarnall, Pollak, Ostbye, Krause, & Michener, 2003) and the need for additional expertise, much of the preventive positive parenting agenda will necessarily be delivered by other professionals or paraprofessionals in the center or the community. Behavioral

health professionals with advanced education (e.g., psychologists) can deliver triage and screening, diagnostic assessment, curbside consultation, treatment, supervision, and training, as well as local adaptation and evaluation of child maltreatment prevention initiatives. One scenario involves licensed clinical psychologists and social workers with expertise in child and family mental health to supervise and manage teams of workers with bachelor's or associate's degrees in psychology, social work, applied behavior analysis, education, public health, or nursing who would help recognize families' needs, facilitate parenting groups, and make home visits.

In addition, it will be important to train all staff at the centers, including receptionists and clerks, to ensure adherence to the model and full participation. Behavioral health and other professionals working at the centers should be trained in core competencies for effective practice of child maltreatment prevention delineated here:

Core Competencies

1. **Knowledge** of the public health model, child development and family functioning, the problem of child maltreatment, and methods of prevention.
2. **Core attitudes**, including a belief that child maltreatment is preventable, that professionals have an important role in prevention, that families are partners in preventing violence, and that evaluation is an critical element.
3. **Core competencies in interventions**, including an ability to conduct screening, implement evidence-based parenting programs, provide mental health services, and coordinate and/or participate in evaluation efforts.
4. **Competencies in management**, including an ability to introduce changes in procedures and structures, participate in interdisciplinary teams and work on integrated efforts, and master technology for better results in service.
5. **Cultural competence**, that is "service providers must have the knowledge, skills, attitudes, policies and structures needed to offer support and care that is responsive and tailored to the needs of culturally diverse groups" (U.S. Department of Health and Human Services, 2003, p.12). If expanded it can also include the understanding of cross-field culture, terminology, and language in order to effectively participate in multidisciplinary teams and collaborate in integrated initiatives. (Adapted from Knox, 2001)

9. Embedding Preventive Positive Parenting Programs Within Larger Community-Based Prevention Efforts

Well-planned community interventions that involve multiple modalities are more likely to be effective than community interventions that take only one approach. Successful community-based health promotion efforts have improved dietary habits, reduced teen pregnancy rates, and lowered the prevalence of smoking among adolescents (Bruvold, 1993; Johnson, Howell, & Molly, 1993; Vincent, Clearie, & Schluchter, 1987). In general, studies of single-component campaigns, such as advertising on television to increase physical activity, have not yielded clear evidence of effectiveness. In contrast, highly visible, usually multicomponent, communitywide campaigns have been shown to be effective in increasing physical activity and other healthy behaviors. New initiatives are likely to be most effective if embedded within ongoing community prevention efforts.

Community-based efforts for child maltreatment prevention range from simple, single-behavior-focused efforts, such as shaken-baby prevention initiatives using advertising or social marketing approaches, to more complex communitywide efforts designed to change social and service ecologies, such as the decade-long comprehensive initiative, Building Strong Communities in South Carolina (Kimbrough-Melton & Campbell, 2008).

Among the most effective community-level interventions are those that include legislative or regulatory approaches to creating behavioral change, such as drunk driving and primary seatbelt enforcement laws or increasing the cost of cigarettes (e.g., by raising taxes). In addition, some communitywide programs have had strong clinical components such as those proposed in this report (e.g., the WISEWOMAN [Well-Integrated Screening and Evaluation for Women Across the Nation] program for preventing cardiovascular disease in low-income women, with risk factor screening, lifestyle intervention, and referral). Child safety seat distribution and education programs increased both possession of and proper use of safety seats by a median of 23%, and programs were effective whether implemented in hospitals and clinics, as part of postnatal home visits, or provided by an auto insurance company. Point-of-decision prompts at elevators and escalators that urge people to take stairs on average appear to increase stair use by over 50%. Similar strategies may be useful in promoting awareness of and participation in preventive parenting programs at neighborhood health clinics.

CONSIDERATION #2

Successful implementation and service delivery requires adequate funding

Prevention of child maltreatment is cost-effective. According to Karoly et al. (1998), early interventions such as programs that promote healthy childhood development can generate savings in four areas: (a) increased tax revenues from increased employment and earnings by new program participants; (b) decreased welfare costs, including Medicaid and food stamps; (c) reduced expenditures with health and other services; and (d) lower criminal justice system costs. Many of these potential downstream benefits may have discounted value because they are so far removed in time from the cost of the prevention program. However, there are more proximal and less discounted costs that may be salient to policymakers, including the costs related to child welfare case processing, foster care placements, and tertiary services.

Also, it is worth reiterating that many of the same children at risk for maltreatment are also at risk for the development of childhood mental health disorders. Evidence-based parenting programs offered to all families attending primary care clinics and CHCs will produce additional cost savings in treatment of child mental health problems, special education, and juvenile justice.

In addition, the costs of implementing evidence-based prevention practices should be considered investments (or inputs) in the development of individual capacities and skills that can generate not only savings but also positive human capital outcomes in the future (Kilburn & Karoly, 2008). For example, inputs such as parental training that will influence their parenting practices will also affect their children early in life and will contribute to the formation of the children's human capital and the stock of lifelong positive skills.

Supporting primary care system transformation and implementation of effective practices through demonstration projects should be a priority. Fixsen et al. (2005) outlined four streams of necessary funding:

- (a) Funding for start-up costs associated with planning and running current services and infrastructure
- (b) Funding for implementation of new practices and programs

- (c) Funding methods for the service itself on an ongoing basis
- (d) Funding and regulations that support the ongoing operation of the infrastructure required for fidelity and sustainability

CHCs are currently funded by the Health Resources and Services Administration. Existing funds through this funding stream are not adequate to support the implementation of the evidence-based model recommended in this report. New resources will be required specifically for the following:

- (a) Implementation of demonstration projects that include preventive, positive parenting programs and screening at selected CHCs
- (b) Creation of an infrastructure at each CHC necessary to deliver integrated behavioral health services that prevent child maltreatment
- (c) Recruitment and training of a multidisciplinary workforce of various levels and diverse backgrounds
- (d) Implementation of evaluation projects to assess effectiveness of programs and practices
- (e) Use of highest levels of available technologies to provide integrated services and programs at the centers

CONSIDERATION #3

CDC should have a critical role in research, implementation, and evaluation of initiatives for national child maltreatment prevention efforts

With regard to child maltreatment, the CDC, as the nation's lead public health agency, has a unique capacity to promote public health prevention research and to implement and evaluate community health approaches. This unique capacity dovetails well with the related niches occupied by the Administration on Children, Youth, and Families (child welfare) and the National Institutes of Health (basic child development and behavioral research). Since 2000, the CDC has received federal funds for child maltreatment prevention research. The CDC has since convened experts to set a national research agenda and develop a common conceptual framework to guide researchers who have traditionally operated in isolation without a common language or methodology, and they have funded innovative implementations and dissemination research and efforts.

The conceptual framework promulgated by the CDC—building safe, stable, nurturing relationships for children to promote optimal development—is well grounded in both the theory and the science of psychology, biology, genetics, and sociology. In the past few years, the CDC has made an effort to make parenting interventions a foundation piece in its portfolio of child maltreatment prevention programs. The National Center for Injury Prevention and Control is currently involved in several projects examining behavioral parent training approaches to preventing child maltreatment. The National Center for Injury Prevention and Control has funded a 5-year effectiveness trial of an existing efficacious universal parenting intervention that is arguably the most important study to date in determining the effectiveness of parenting approaches on a population level to lower rates of reports of child abuse and injuries at emergency rooms. Additionally, this agency has funded several innovative pilot studies and demonstration projects using new technologies and incentives to prevent attrition, which are poised to launch a new avenue of research.

CONSIDERATION #4

Psychologists can make an important contribution in primary care settings to prevention of child maltreatment.

Child maltreatment prevention is a multidisciplinary area requiring collaboration among various professions, including psychology, medicine, law, social work, public health, and others. Through its expertise in research, training, and practice, the field of psychology has a unique opportunity to contribute to the national effort to prevent child maltreatment. Psychologists have strong research skills and have participated in building a strong scientific knowledge base in child development, family functioning, prevention, and child maltreatment. Most of the evidence-based positive parenting programs recommended were developed by psychologists and were based on psychological theories, and psychologists have conducted much of the research on their effectiveness. Psychologists have conducted a considerable amount of research supporting the transactional/ecological framework of human development that makes possible the premise that safe, stable, nurturing relationships and effective parenting prevent child maltreatment. Psychologists have much to contribute to the implementation of the proposed integrative model of evidence-based positive parenting initiatives in CHCs. They can contribute through behavioral triage and screening, psychological assessment, on-site treatment, referral, consultation with other behavioral specialists and primary providers, monitoring and case management, and program adaptation and evaluation (see adjacent box).

In addition, APA can contribute to this effort in the following ways:

- Partnering with other mental health and health professional organizations, federal agencies, policymakers, civic leaders, and others to address the need for infrastructure to support integration of behavioral health care in CHCs to prevent child maltreatment.
- Promoting further research and theory development to guide adaptation of standardized programs to cultural, ethnic, and racial populations served by the CHCs.
- Advocating for further research on screening instruments and on adaptation, implementation, outcome, and effectiveness evaluation of preventive parenting initiatives implemented at the centers.
- Advocating for a national effort to make preventive parenting programs widely available to underserved communities serviced by the centers, with sensitivity to patients with disabilities; patients of color; and patients who are lesbian, gay, bisexual, and transgender; as well as sensitivity to issues of gender, socioeconomic status, and geographic location.
- Training psychologists to build the culturally competent skill set necessary to work on child maltreatment efforts with a multidisciplinary approach and to be part of teams at the CHCs.
- Training primary health care providers on behavioral health topics relevant to work on child maltreatment prevention efforts at the centers with a diverse population.
- Disseminating this report as well as results from the demonstration projects' evaluation and research findings related to child maltreatment prevention, integration of behavioral health in primary care settings, and other related topics. Venues for dissemination include the APA's journals, governance groups, the annual convention program, and other venues to educate members, the regional and state psychological associations, and other professionals in the field of prevention and to advocate for resources and opportunities to promote child maltreatment prevention efforts.

Potential Activities of Behavioral Health Professionals in Primary Care Settings to Prevent Child Maltreatment

1. **Behavioral triage and screening** designed to be quick and efficient to identify presenting issues and potential dispositions.
2. **Behavioral and psychological assessment** for patients whose complexity is such that further attention is needed to make a confident disposition recommendation.
3. **On-site treatment**, which might include an array of services as determined by the agency and community. These services could include referral to onsite evidence-based preventive, positive parenting (PP) groups staffed by the center, out-stationed PP groups held in the community (e.g., churches, schools, etc.) that are coordinated and staffed by the center, and outreach home-visiting PP programs coordinated and staffed by the center.
4. **Referral**, which might include referring to specialty care or education providers with partnering agencies in the community, such as community mental health centers that might provide evidence-based preventive, positive parenting programs, or other agencies that might provide evidence-based home-visiting programs.
5. **Consultation**, which might include curbside discussion between a behavioral specialist and primary provider that focuses on the depth and breadth of the patient's needs for psychoeducational parent training. Such training would focus on the development of safe, stable, nurturing relationships and facilitation in order to meet that goal.
6. **Monitoring and case management**, wherein the agency conducts a systemic management and follow-up for the patient to ensure that preventive, positive parenting programs in the development and implementation of safe, stable, nurturing relationships were appropriately delivered and received, ensuring fidelity to the evidence-based model adopted and offering incentives to prevent the high level of attrition typical in these cases.
7. **Program adaptation and evaluation** to adapt standardized, evidence-based curricula to meet the needs of local communities and to evaluate the effectiveness, cost, staffing needs, and other issues, adjusted accordingly in an ongoing manner. Professionals at the doctoral level will be involved with selecting instruments, planning protocols, and partnering with local universities and other CHCs.

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Web Sites

California Evidence Based Clearinghouse for Child Welfare
<http://www.cachildwelfareclearinghouse.org>

DHHS/Bureau of Primary Health Care/Health Resources and Services Administration
<http://www.bphc.hrsa.gov>

DHHS/Substance Abuse and Mental Health Services Administration
<http://mentalhealth.samhsa.gov>

National Association of Community Health Centers
<http://www.nachc.com>

Integrated Primary Care, Inc.
<http://www.integratedprimarycare.com>

APPENDIX

Promising Evidence-Based Parenting Programs

A. Center-Based Parenting Skills Training and Parent Education Programs

Center-based programs vary dramatically. Some allow families to choose from a menu of center-based individual-, group-, and community-level interventions (e.g., the Positive Parenting Program; Triple P). Others are implemented in group formats in which parents and children attend parallel weekly groups of education and skills training at a center (e.g., The Incredible Years; IY). Still others are implemented with families individually; professionals model positive parent–child interactions and observe parent–child dyads at play while providing feedback (parent–child interaction therapy; PCIT).

Triple P

Triple P is a highly researched approach to parent training and education. It has been used worldwide and has tackled numerous child disorders. It is a multilevel system of parent and family support that is conducted at individual-, group-, or self-directed formats. There are Triple P programs for children from birth to 16 years. The focus of Triple P is to train a workforce

capable of delivering the program in multiple settings. Thus, practitioners such as educators, psychologists, counselors, physicians, social workers, and others are the targeted workforce. Parents can choose to be in groups for minor behavior problems with their children, receive individual interventions for serious behavior problems, or be exposed to media campaigns and television programs that have aired in New Zealand and Great Britain. There is a particular module aimed at parents at high risk for child maltreatment and another one aimed at children with intellectual disabilities. Sessions last up to an hour; the number of sessions varies. Videos and parenting tip sheets have been created for a host of family concerns. There are readings, workbooks, and problem-solving exercises. There have been over 30 RCTs showing the effectiveness of Triple P for a variety of problems. Although there are no modules that specifically address cultural/ethnic issues, Triple P has been conducted in China, Japan, the United States, Canada, Great Britain, Germany, Switzerland, Turkey, Armenia, Portugal, Belgium, the Netherlands, New Zealand, and Australia. There is no focus currently on neglect.

The Incredible Years (IY) Program

The IY is not only an evidence-based practice to prevent child maltreatment, as demonstrated by several RCTs, but also has been replicated successfully across several cultural groups and in several countries. It offers flexibility in the delivery of the model. The curriculum has been translated into Spanish, French, Danish, Dutch, Russian, Turkish, Chinese, and Portuguese. The IY focuses on strengthening parent competencies, fostering parents' involvement with school, decreasing children's problem behaviors, strengthening children's social and academic competencies, and building supportive family networks. It is a collaborative model between parents and the interventionists. Groups and individual interventions are used.

Although the IY is flexible, manualized protocols and video vignettes are major elements. Interventions, however, are tailored according to each family's needs and each child's developmental, social, and emotional goals. Parents determine their own goals within the IY's framework. Some examples of parental goals include the following: Decrease my child's disobedient behavior with authority figures; increase my child's respect for me; know how to help my child with homework; and know how to talk to my child's teacher. Successfully reaching these kinds of goals is accomplished through role plays, watching the videos, and interacting with the therapists. One of the first role plays is teaching child-directed play, as this concept is often new for parents. They expect children to be told what to do and do it. Teaching praise, the ubiquitous element of all evidence-based practices, is another important component of the IY. Ignoring inappropriate behavior is also common to all of the evidence-based practices and is thus another component of the IY. A basic precept of the IY is "do more practice and less talking." Each session is reviewed weekly, and adjustments are made on the basis of parent reports and therapist evaluations. Families that can read are required to read the IY parent book.

Parent–Child Interaction Therapy (PCIT)

PCIT is an empirically supported behavioral parent training program for reducing disruptive behavior in young children (Eyberg & Boggs, 1998) and for reducing continued physical abuse (Chaffin et al., 2004; Kolko, 1996). On the basis of social learning theory, the model teaches parents behaviorally defined skills with their child during the treatment session. Parents are directly shown how to implement specific behavior skills with their child and then are coached to overlearn the skill criteria in vivo. PCIT requires an average of 15 weekly sessions. Goals are to improve the quality of the parent–child relationship and strengthen attention and reinforcement for positive child behavior. Parents learn to follow their child's lead in dyadic play and provide positive attention, combined with active ignoring of minor misbehavior. Then, they learn to direct the child's behavior when necessary and to provide consistent consequences after

noncompliance. Parents are taught to give effective instructions and to praise compliance or use a 3-min time-out from positive reinforcement (time-out chair) for noncompliance. The discipline protocol is structured, noncorporal, and designed to avoid escalating coercive cycles of parent–child interaction. Parents are trained to mastery criteria through live coaching, and consistent application is emphasized.

PCIT was originally designed to be delivered in a clinic setting, where therapists observe parent–child interactions through a one-way mirror and coach the parent using a “bug in the ear,” or a radio earphone; however, increasingly, PCIT is being transported to the home setting. Home delivery relies on “in-room” coaching instead of bug-in-the-ear coaching, and this has previously been found to be an effective coaching alternative (Rayfield & Sobel, 2000). A recent study evaluating the efficacy of PCIT delivered in the home environment found promising results, suggesting that this approach can positively change caregiver behavior and child compliance, similar to effects observed in the clinic setting.

B. Outreach Home Visitation Programs

Home visitation programs are those in which parents and children are visited in their home during the children’s first years by trained personnel, who provide some combination of information, support, or training regarding child health, development, and care. This usually involves bachelor’s-level caseworkers but also includes nurses and other master’s-level providers making scheduled home visits to provide services to parents.

Healthy Start/Healthy Families

The Healthy Start Program in Hawaii is one of the oldest home visitation programs in the United States. It is part of the Healthy Families Network, which includes hundreds of programs around the country that seek to provide a population-based approach to screening and assessment of families at risk. It provides a range of services aimed at family support through the utilization of individual family support plans. The home visitors help expectant and new parents with support plans, definition of goals, and steps to achieve the goals. Although studies with weaker designs initially suggested promise, Duggan et al. (2004) conducted a rigorous RCT of Healthy Start Hawaii, with disappointing results: There were no reductions in risk for the parents and children in the study. Duggan et al. (2004) noted that there was considerable drift from the model. Part of the problem is that the model may be conceptualized more as an approach; a model is based on a clear scientific theory, and that is not the case with Healthy Families America programs. They may vary considerably in content and curricula across sites, making them very difficult to evaluate. With this variability among the programs, it may be that some very effective curricula and protocols, or others without the necessary rigor of in-home fidelity monitoring, have not been evaluated. Thus, we recommend that Healthy Families America sites pilot evidence-based programs with the help of the developers of those programs.

In contrast to the two randomized trials of the Hawaii Healthy Start program, which found no evidence that Healthy Families America reduced child maltreatment, results from a randomized trial of Healthy Families New York indicated that the program had positive effects in the areas of parenting and child abuse and neglect (Mitchell-Herzfeld, Izzo, Greene, Lee, & Lowenfels, 2005). An important difference between the evaluation of Healthy Families New York and that of Healthy Families Hawaii was that the New York study included women who were randomized prenatally, whereas the Hawaii trials excluded pregnant women. Thus, the New York study allowed for the examination of Healthy Families America as more of a primary prevention approach.

Nurse–Family Partnership (NFP)

NFP is one of the oldest and most researched home visitation programs. It involves home-visiting nurses delivering core components to young parents during pregnancy through the child's second year. The goals of NFP are to improve pregnancy outcomes by promoting healthy behaviors of the parent and to improve caregiving for the child, especially related to health, safety, and development. Nurses guide families to other resources, such as additional health care services and relevant social services. There are parent and child components to the NFP. The program is especially noteworthy for its good health outcomes of the thousands of participants. As mentioned earlier, initial efforts produced dramatic long-term reductions in child maltreatment rates. Later replications have not shown dramatic risk outcomes. According to Chaffin and Friedrich (2004), NFP has amassed considerable evidence on a range of benefits; however, evidence for reduced child maltreatment outcomes has been only indirectly measured in some trials and has appeared only as a long-delayed effect where it was directly measured and weak for cases in which there was substance abuse or domestic violence (Eckenrode et al., 2000).

SafeCare

SafeCare is an evidence-based home visitation model with reported success in primary and secondary prevention of child maltreatment. Its three core components are parent–child interactions, home safety and cleanliness, and child health care. Skills are taught to parents through written or pictorial information, modeling and role playing, and requirements for mastery performance. All core components include structured problem-solving strategies when the parents may be having difficulty reaching mastery criteria. The predecessor model for SafeCare is Project 12-Ways, initially funded in 1979 in rural southern Illinois and continuously funded to the present. There have been over 60 published studies of the SafeCare model, including four comparison studies and one RCT showing lower risks and lower recidivism for first-time reports of families served by the model (Gershater-Molko et al., 2003; Lutzker & Rice, 1987; Lutzker, Tymchuk, & Bigelow, 2001). Currently, randomized trials are occurring in Oklahoma. Other replications of SafeCare are occurring in Washington, California, Kansas, Indiana, Maryland, and Georgia. SafeCare has been delivered to rural and urban families and across several ethnic groups.

Parents as Teachers (PAT)

PAT was founded on the idea that parents are their child's first and most influential teacher. Home visitation is the heart of the PAT program, with visits scheduled according to family preference and need. PAT parent educators provide information to parents on appropriate expectations for each stage of their child's development and model and involve parents in activities that promote learning and positive parent–child relationships. PAT staff also schedule parent group meetings to provide parents with opportunities to build support networks. Additionally, children in the program receive screening and regular observation of health and development to detect delays or learning difficulties so that corrective action can be taken. A resource and referral network for accessing services is available to PAT families to assist them when needs are identified. Research has indicated that the PAT program has a positive effect on children's school readiness and on parent knowledge and practices, and it has the potential to prevent or reduce the incidence of child maltreatment substantiation, especially in adolescent mothers.

C. Community-Based Programs

Family Connections (FC)

FC represents another multifaceted approach to preventing child maltreatment (DePanfilis & Dubowitz, 2005, 2008). There are nine basic elements to FC: community outreach; individualized family assessments; tailored interventions; “helping alliances”; empowerment approaches; a focus on family strengths; an understanding of cultural competence; developmentally appropriate interventions; and service plans that are developed to be outcome driven. FC attempts to increase protective factors in the family and help with service coordination for risk factors such as substance abuse; it also helps families with mentoring and cultural enrichment programs, among others. Early outcome studies had promising results. An ongoing randomized trial is comparing shorter and longer term doses of the model (Thomas, Leicht, Hughes, Madgan, & Dowell, 2003).

Strong Communities for Children

Strong Communities for Children is a comprehensive initiative to build systems of support for families with children by strengthening and renewing community norms for reciprocal help among neighbors and revitalizing a sense of communal responsibility for assuring child safety and the well-being of families. The overarching goals of this comprehensive community effort is to prevent child abuse and neglect, enhance neighborhood quality of life, strengthen family well-being, and encourage children’s healthy development and readiness for school.

Overall, Strong Communities for Children is distinguished by the fact that it is universal (seeking to increase support for all families of young children), comprehensive (engaging all of the sectors of everyday life), and at a relatively large scale (relying on thousands of volunteers and hundreds of organizations and covering a diverse set of communities in parts of two counties in upstate South Carolina). It consists of two major components: (a) community mobilization led by outreach workers and (b) Strong Families, direct-service components of Strong Communities embedded in primary community institutions and, in most instances, relying on volunteers or agency-contributed human resources.

To date, Strong Communities for Children is a little over halfway through the proposed decade-long initiative taking place in South Carolina. Evaluation of the program to date has demonstrated the feasibility of such a program. Specifically, findings have demonstrated that community residents can be mobilized to “keep kids safe” when they understand the nature of the problem, and they are provided commonsense ways of responding in the settings of everyday life (Kimbrough-Melton & Campbell, 2008).

