PRIME TIME

- **A Research Based Rationale for Prevention Programming for High Risk Families**

- **An Evidence Based Proposal for Services**

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The years from pre-birth to 6 are the critical "**prime time**" years for development. A healthy start in life can do more to create a healthy adult than we ever thought possible.

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INTRODUCTION

This document is written with two purposes in mind. The first is to present an evidence based rationale for the value, both programmatically and financially, of primary prevention services for families at risk. Research support for the necessity of intervening in the early stages of development with children living in high-risk environments is presented. The content includes current knowledge gained from findings on brain development in pre-school children.

The second purpose is to present a research based proposal for services that is built upon what we currently know about the critical stages of development, and outcomes that can be expected if proven interventions are put into place. The report will show that it is clear that effective early intervention programming can create sustainable positive change, and reduce the later usage of costly, intrusive services that often have little or no positive effect on this population.

INVESTING IN PREVENTION

> We are guilty of many errors and many faults, but our worse crime is abandoning the children, neglecting the fountain of life. Many of the things we need can wait. The child cannot. Right now is the time his bones are being formed, his blood is being made, and his senses are being developed. To him we cannot answer 'tomorrow'. His name is 'today'.
>
> – Gabriela Mistra, Nobel Prize-winning poet.

There has been an increased interest in the Calgary community in recent years in improving the lives of our children and families by initiating services at earlier stages of development. By investing in services that ensure our children's primary needs are met, we are increasing the likelihood that they will develop into healthy, competent and productive adults, capable of sustaining successful relationships with others.

The support for increased prevention programming for children pre-birth to six years of age (the critical developmental periods) emanates from knowledge acquired through recent research about what works and why it works with this population. Additionally, there is a developing conviction that unless we are prepared to invest in creating resources to support vulnerable families in meeting their children's primary needs, many children will remain at unnecessarily high risk for developmental interference. If we allow this to occur, we will be faced, as a society, with a burgeoning and increasingly costly human resource deficit.

By continuing to neglect the creation of significant resources to address the developmental needs of vulnerable children during their formative years, we can expect larger increases in:

- Reported incidence of child abuse and neglect. Based on conservative financial estimates, the National Crime Prevention Council estimated that society spends over $500,000 for one young person extensively involved in the child welfare and legal systems before the age of 17.

- Psychiatric disorders in children and adolescents. Almost 1 in 5 children have at least one psychiatric disorder and two-thirds of these children have two disorders or more (Steinhauer, 1996).

- Children increasingly likely to live with just one parent, usually the mother. In 1960, fewer than 10 percent of all children under the age of eighteen lived with one parent. By 1989 almost 25% of all children lived with one parent. Fathers are increasingly absent from the home (Statistics Canada, 1996).

- High levels of functional illiteracy and school drop-out rates. The high school leaver rate for Alberta children is approximately 14%. The non-completion number for students in Calgary public schools in 1999 was 4,556, extrapolating from the 14% rate for the province. The drop-out rate for Aboriginal youth is much higher, estimated to be 85% (Tillman, 2000).

- Alarming increases in poorly controlled aggression. In 3-year olds, it has increased from 7 – 10% to 22% from 1970 to 1991 (Steinhauer, 1996).

- Rates of adolescent suicide and delinquent behaviour. The cost of detaining a young offender has been estimated to be $100,000 a year (National Crime Prevention Council, 1995).

- The accident rate, now the most frequent cause of death in children and adolescents.

The failure to build in protective and resilient factors in the vital formative years with high-risk children and families results in costly, and in many ways ineffective, tertiary level services being utilized. These services attempt to remediate problems after serious, and in many cases, irreversible damage has been done. This puts increasing pressure on our heavily burdened special education programs, the child welfare system, health care and mental health services, and the legal system. Additionally, the critical developmental milestones that are

not successfully resolved in childhood often result in a lifetime of physiological and psychosocial limitations and compromised functioning for those affected.

Poor Outcomes For Society

The cognitive, emotional and social effects of failing to meet our vulnerable children's primary needs results in poor outcomes for our larger community as well. They include (Steinhauer, 1996):

- Chronic relationship problems in the family and workplace.
- Poor job prospects, higher welfare costs, a dependence on government support.
- Increases in violence, vandalism and in teenage pregnancy.
- Poor parenting skills, which results in a multi-generational transmission of problems.

There Is Hope For The Future

Protective and risk factors in children and their parents, and the relationship between them are more clearly understood as a result of recent research findings. Brain development and critical psycho-social factors and stages in early childhood are also better understood. We can say with more certainty which parenting practices build resiliency and competency in children, and which approaches contribute to inadequate or problematic development. We know more about the relationship between socio-economic factors and risk, and the value of specific program interventions based on outcomes research. The long-term value of effective early intervention programming has also been demonstrated in a number of exemplary studies.

These findings confirm what visionary practitioners have known for some time – breaking the cycle of risk through well-designed programming has powerful long-term benefits for individuals, families and society, and the services are also proven to be cost effective.

A recent cost-benefit analysis of 3 model early intervention programs with long-term follow up designs by the Annie E. Casey Foundation found the following:

- The Perry Preschool program, which followed children through age 27, had a 4.1 to 1 cost benefit.
- The Chicago Child-Parent Centers tracked children to age 20, and had a 3.7 to 1 cost benefit.
- The Prenatal/Early Infancy Project in Elmira, New York followed children through age 15. Program costs were about $6,100 for each mother-child pair, and benefits amounted to almost $31,000. The cost benefit ratio is 5 .1 to 1.

Other analyses (Fixsen 1997) indicate that for every dollar invested in children during the pre-school years, over $7 were saved through age 19. The savings were accounted for in reduced health, welfare, special education and juvenile justice costs for the vulnerable children and families who were involved in the prevention services.

> We are at the crossroads....We can choose to follow the futile course of treating rather than preventing child abuse and neglect. Like Sisyphus, we can keep pushing and re-pushing the endlessly falling boulder up the mountain. Or we can choose the more powerful course of rebuilding the mountain to prevent the boulder from ever falling down.
>
> - G. Williams - In Child Abuse Reconsidered.

HIGH RISK CHILDREN AND FAMILIES – THE TARGET POPULATION

The proposal that follows is targeted to address the multiple needs of high-risk children from pre- birth to age 6 and their parents or caregivers. The proposal has, as its foundation, a commitment to build a model of service based on current research on the developmental factors that contribute to risk and resiliency, and identifying the protective factors that contribute to healthy growth. Ensuring that these protective factors are embedded in the daily routines of the families to be served is the goal of the service interventions.

How the interventions will occur with families, and for how long, will be rationalized on the basis of strong research support for the most effective program approaches, along with lessons learned from exemplary program models that have been extensively evaluated.

The risk factors have been identified which prevent children from realizing their potential, and therefore, deceasing their prospects of becoming independent and contributing adults. Of course, not all children and families who are at potential risk have outcomes that are problematic. Some of these families have the resources and resiliencies to create healthy environments which help children thrive. Conversely, there are families which seemingly possess none of the usual risk factors, and yet have children with serious behavioural/emotional problems. Risk conditions, however, are predictable indicators of poor outcomes for children, and when they exist in combination (2 or more indicators) the likelihood of poor outcomes increases dramatically.

RISK FACTORS

Poverty

Poverty is a significant environmental risk factor for children. It is the most frequently identified factor that places children at increased risk of maltreatment and profound long-term developmental consequences (Kendall-Tackett & Eckenrode 1996; Lindsey, 1994).

The United Way of Calgary has determined that poverty is associated with the following outcomes:

- The infant death rate is twice as high in poor families.
- Death rates due to accidents, suicides and homicides are about 10 times higher.
- Childhood disabilities occur twice as often.
- Emotional and academic problems are 2 times as likely.
- Conduct disorders occur 3.5 times as often.
- The numbers in Calgary:

  40,000 children live below the poverty line in Calgary (approximately 1 in 5). This is based on annual income below $34,000 for a family of four and $23,000 for a family of two.
- In 2001, one third of food bank recipients were children under the age of 12. Food bank usage in Alberta remains 25% higher than in 1997.
- In 2001, there were 10,832 Supports for Independence recipients, including 4,807 children.
- Households with the lowest income were reported to be 3 times more likely than those in the highest income bracket to be living in unsuitable housing.

There are unrelenting stressors on families related to poverty, which can lead to compromised development for children. Low income aggravates any pre-existing personal and inter-personal vulnerabilities, while undermining key sources of social support.

Single Parenthood

Many single parent families have higher levels of stress, in part because they lack the necessary resources to parent and meet child care needs. The large majority of these parents are women (82% in Canada). In Calgary, in 1996, 1 in 5 families were headed by a lone parent. There is a strong correlation between lone-parent family status and low-income status, as 30.4% of single mothers live below the poverty line, compared to a rate of 9.9% among children in two-parent families (Statistics Canada, 2003). They suffer from the double jeopardy of having limited economic resources and raising their children alone, or with only limited support. Consequently, they have difficulty meeting their children's health and emotional needs. Rutter (1990) has pointed out that these circumstances makes it more likely that other personal and situational determinates of parenting will contribute to risk rather than protective outcomes for children.

Statistics Canada, in a national longitudinal survey of children and youth in Canada (1996) found that approximately one in six children from single mother families was hyperactive. They also found that 40% of the children from single mother families had one or more behavioural, academic or social problems.

Low Birth Weight

Low birth weight can have a dramatic impact on a child's health and development. Research has shown that infants and children born with a low birth weight (under 2500 grams) are at risk for developmental delays, and many face physical limitations and psychosocial problems. Calgary's low birth weight rate of 7% (2002 Calgary Health Region) continues to be considerably higher than the Canadian average of 5.2%, and has increased from 6.8% in 1997.

Low birth weight is documented to relate to the following long-term problems (Statistics Canada):

- Learning problems such as intellectual deficits, reading disabilities, poor concentration and poor school performance.
- Behavioural and social problems such as hyperactive behaviour, impaired personal/social development and conduct disorders.
- Physical and health problems such as poor eye-hand coordination, hearing and speech problems, poor overall health, problems in physical growth, and motor problems.
- The lifetime health care costs for a single low birth weight person are estimated to be $400,000.

Isolation from Family and Social Supports

The availability of caring and emotionally supportive family, friends, siblings and neighbours mediates stresses in families. The absence of these protective factors places children at higher risk of neglect and potential abuse. Kotch and colleagues (1995) found that in the presence of stressful life events (low income, single parenthood, for example) vulnerability to a maltreating response increased or decreased directly with the level of social support. When parents are more involved with or participate in social networks, less stress is experienced. There is research indicating that young maternal age and poor social supports results in 3 times the risk of abuse or neglect. In one study, 95% of severely abusive families and 85% of moderately abusive families had no continuous relations outside the family. (Calgary Healthy Start proposal, 1993).

Infant Temperament and Attachment

Difficult temperament in children is predictive of later psychological problems, such as excessive crying, sleep difficulties, anxiety, poor school adjustment, and conduct disorders. Temperament is an interactive phenomenon between the baby and the parent,

and it is difficult to determine cause and effect. The way children react to their surroundings, in particular to their parents' behaviours, may influence the relationship. It is easy to imagine that difficult babies who are hard to soothe may elicit less warmth on the part of their parents than easily quieted babies do. A parent's perception of "difficult temperament" may also be more reflective of the parent than of the child. A young, inexperienced mother suffering from postnatal depression may perceive her infant to be more difficult than a more experienced, less stressed mother might be.

Factors related to difficult temperament include (Statistics Canada, 1996):

- For infants aged 3 to 11 months, a birth weight below 2300 grams. The increased likelihood is 56%.
- Pregnancy diabetes increased the odd by 151%.
- Preterm birth increases the odds by 75%.
- "Lower family functioning" and fewer positive parent-child interactions predict difficult temperament.
- The presence of a highly hyperactive sibling nearly doubles the odds of an infant being perceived as difficult.
- Postpartum depression in the mother increases the probability by more than twofold.
- Young mothers have a twofold risk of perceiving their children as having a difficult temperament.

Temperament and attachment are interrelated. The parent's attitude towards the child's temperament will influence the quality of the attachment with the infant. A secure attachment provides infants and toddlers with the emotional and physical security they require in order to begin exploring their environment. This leads to increased self-confidence and sense of competence. Studies comparing 4 and 5 year olds whose infant/toddler – caregiver relationship attachment was secure with groups whose attachment was insecure found that those who had a secure attachment (Schiefelbush, et al, 1970):

- Are more positive in their general outlook.

- Have higher levels of self-esteem.
- Are more independent.
- Are more empathetic with other children and have greater social competence.
- Are less rigid in their approach to problem solving.
- Show higher levels of curiosity and are better able to persist with tasks.

These positive outcomes may be more difficult to achieve by parents who are stressed by being young, lacking in social and family supports, and struggling with a limited income. Inevitably, the degree of attachment is highly dependent upon the degree of parental acceptance, or rejection, of the child. According to Ronal Rohner of the University of Connecticut, "The extent to which children experience or fail to experience parental acceptance or rejection may have a greater influence on them than any other single experience." In 1996 a longitudinal study of 397 Danish male infants were followed from birth to adulthood. Results of the study showed that maternal rejection, along with developmental issues in the first year of life were the strongest environmental predictors of violent criminality at age 18. As a significant condition for the development of a healthy child, the establishment of a secure attachment will be a primary goal of the program.

Other Risk Factors

Other conditions that can contribute to later problems in children's adjustment include parenting at a young age, severe parental discord, a parent who grew up in child welfare care, drug and alcohol abuse, and parental psychopathology.

Outcomes when these risk factors are untreated include:

- Significant cognitive impairment in children when the mother is depressed during the first year of a child's life (Haggerty, et al, 1996).
- Children of depressed parents are more than 3 times as likely to experience a depressive disorder (The Surgeon General's Report on Mental Health, 2003).

- Severe parental discord (marital problems, the presence of violence, corporal punishment) are associated with child physical and sexual abuse (Fraser, 1996).
- In a study of young mothers, those under the age of 18 had their eight year old's reading skills assessed. 29% were reading at grade level. Of the children of mothers over the age of 18, 50% were reading at grade level (Calgary Healthy Start).
- Exposure to parental discord (conflict, disharmony and lack of agreement between partners) heightens the risk for conduct disorders and leads to the risk of early offending. The cost of detaining a young offender is estimated to be over $100,000 a year. That was in 1995! (National Crime Prevention Council, 1995).
- There is clearly a link between a family's alcohol, drug abuse or mental health problems and youth involvement in illicit drug use and delinquency/crime (Dembo, et al, 1992).
- In a summary of the research on precursors to delinquency and youth violence, Solomon (1992) found that poor attachment to parents, harsh, inconsistent and erratic discipline, and disruptions in care-giving were family factors that contribute to delinquency.

MULTIPLIER EFFECTS

It has been determined by the Carnegie Corporation (1994) that risk factors for children multiply in their effects, rather than increase in an additive way. In one study when two or more risk factors were present, the likelihood of developing academic and behavioural problems was four times greater. One British study found that 4 risk factors together could multiply the likelihood of distress 10 times (Clarke, 1999). Sannon, et al (1991) concluded that children exposed to 4 or more risk factors demonstrate dramatic reductions in their abilities and their competence level over time, and they often have a diminished I.Q. and increased social problems.

The Department of Health in England, in preparation for their new Children Act, compared two children growing up in different circumstances.

Child A	Child B
- Age 5 – 9 - No dependence on income support - Two parent family - 3 or fewer children in the family - White - Owner occupied home - More rooms than people	- Age 5 - 9 - Household head receives income support - Single adult household - 4 or more children in the family - Mixed ethnic origin - Rented home - One or more persons per room
Odds are 1 in 7,000 of placement in Child Welfare care	**Odds are 1 in 10 of placement in care**

THE FAMILIES TO BE SERVED

It is clear from the research quoted that the risk factors identified are strongly related to poor outcomes for children, and the factors have multiplying negative effects in terms of long-term health and psycho-social problems.

The program will have as its target population, children from pre- birth to six and their families who have 2 or more of the identified risk factors in place.

THE NEED

There are data available on 2 significant risk indicators – lone parent families living below the poverty line. Based on 1996 figures from Statistics Canada, and factoring in 7 years of growth in Calgary, there are approximately 30,745 families headed by a lone parent in Calgary (four-fifths of them women). They have a low-income rate of 30.4%, based on 1999 data. There are therefore approximately 9,300 families headed by a lone parent living below the poverty line in Calgary.

Other risk factors, such as social isolation, infant temperament and parental conflict are hard to quantify. We know, however, that risk factors rarely exist in isolation from each other. The stress that results from raising children as a single parent under severe financial hardship often is accompanied by parent-child conflict, having few sources of social and family support, and mental illness, such as depression. The potential multiplier effects of lone parenthood and living below the poverty line places these children and families at very high risk (4 to 10 times) for later serious, multiple problems.

Additional research support for focusing services on this population (Fixsen, 1997):

- Children growing up in single-parent families who were on welfare and living in subsidized housing were 10 times more likely to need professional help for mental health problems, and 700 times more likely to be placed in out-of-home care for physical abuse, sexual abuse and neglect. In Calgary residential care costs between $20,000 and $100,000 per year per child.

Community Services Scan

There are approximately 115 community groups, agencies and government departments that provide all or a portion of their services to pre-school children in at-risk families. Of these groups, only 21 provide all of their services to children in the pre-natal to age 6 range

(Fixsen, 1997). In a sampling of 32 of these programs, only 6 had specific risk-based referral criteria. Most of the prevention services are small, averaging 3.5 staff and about 12 volunteers, with a budget of less than $90,000.

> Apparently, there is little effort currently directed to identifying families who fit the risk criteria, then systematically approaching them to recruit them into prevention programs in Calgary. These findings suggest that some of the services needed by at-risk families may exist in some fragmented form in Calgary.

In a review of joint funding initiatives for Calgary's children, Barlett, Cooper and Hoffart (2002) identified in home support services funded by the United Way, Family and Community Support Services, and Rocky View Child and Family Services. These are the major funders of ongoing programs in Calgary for children and families.

While it is difficult to pinpoint exact numbers of clients served because of inconsistent definitions of who a "client" is, what exactly entails "in home support" for high-risk families and variable criteria used to identify "risk", they found the following: there are, based on their survey, approximately 479 families being served by 13 programs, operated by 8 agencies.

While there are obviously more programs serving high risk families than the 13 identified by the survey, many do not provide in-home support, a number are crisis based (intended to prevent placement in Child Welfare care), and a few deal with specific problems or syndromes (e.g. Fetal Alcohol Syndrome).

One group that has been instrumental in raising the consciousness of prevention programming for high-risk children is the Calgary Healthy Start Alliance. Since 1993 the Alliance has pushed for more services and programs for this population, advocated for better coordination of services, and has educated the professional community on the importance of better serving children and families in need. The United Way has become more actively involved in the issue as well, and is currently working with a number of groups to improve services for at-risk children and families. This enterprise, The Calgary Children's Initiative, has led to some increased funding for children and families who are experiencing high risk situations.

In an impact assessment done with Calgary Healthy Start Alliance members, who number 39 agencies (Looking Back and Forward, 2003), they were asked the question …"do there remain gaps in services to children pre-birth to age six?", the respondents were unequivocal in their answer – yes. They stated that there was a lack of funding for respite and crisis support, and a comment was made by one respondent that she was "not sure if gaps have even begun to be touched".

Even with some improvement in service coordination and expansion recently it appears evident that many of the 9,000+ families who are in multiple risk situations are not receiving services, or are receiving services in a short-term, fragmented manner. Current programs are working to capacity, and those that have waiting lists find them to be full. Current services are clearly lagging behind the need.

Community Districts Scan

The City of Calgary has identified key social indicators of well being within community districts in a document entitled Indices of Community Well-Being for Calgary Community Districts (2000). These indicators are of assistance in determining where vulnerable families live in the city. As the intent of the program is to provide services in the homes of those

requiring help, and assisting families in accessing formal and informal resources within their local communities, it's important to know which communities to target.

The largest number of lone parent families (in order of the top 10) live in Huntington Hills, Bowness, Falconridge, Ogden, Dover, Rundle, Beddington, Penbrooke Meadows, Pineridge and Glenbrook (see Appendix one).

Communities with the largest number of persons in the low-income households (the top 10 in order) are Connaught, Bowness, Dover, Penbrooke Meadows, Falconridge, Forest Lawn, Downtown, Rundle, Huntington Hills and Acadia (see Appendix two). This index loses some relevance for the purpose of this proposal, as many low-income households are occupied by seniors, and are not family based residences. Examples are Connaught, Downtown and Acadia.

The number of children in households receiving supports for independence is a more relevant indicator. In 1996, 10,609 children were living in households in receipt of SFI benefits. The top 10 communities by volume are Forest Lawn, Dover, Penbrooke Meadows, Bowness, Albert Park/Radisson Heights, Falconridge, Forest Heights, Huntington, Rundle and Ogden (see Appendix three).

The following seven districts have overlapping numbers of lone parent families and SFI recipients, and will receive particular attention in the program: Dover, Forest Lawn, Penbrooke Meadows, Bowness, Falconridge, Ogden and Huntington Hills.

Consumers of the service will not be screened in or out of the program based on where they live, but rather on having 2 or more risk indicators in place. This ensures that those who are the most vulnerable, based on knowledge gained from the research, will receive the services they require no matter where they live. However, many of them will be living in the identified communities, and an integral aspect of the program will be to ensure that the families served are aware of, and are accessing the many positive supports these communities possess. As has been stated, social isolation is a significant risk factor, and connecting

families to helpful social supports is a key ingredient of the program. Staff in the program will become familiar with the informal and formal structures within the communities where the consumers reside, and work with others in a collaborative way to ensure services are relevant and coordinated for the families being served. This work is more effective if staff are working in a limited number of communities, as it allows for a more in depth understanding of community infrastructures and the helpers who work within particular communities. Attempts will be made to recruit front line staff to the program who live in the targeted communities. This offers the advantage of having staff in place who are familiar with community, schools, day cares, recreational facilities, health care professionals and other support systems based on their own experiences.

THE CRITICAL DEVELOPMENT PERIOD FROM BIRTH TO SIX

Brain Development and Adjustment

Understanding how the brain in young children develops and structures itself is critical, as recent research has demonstrated that early experiences have a significant impact on how the brain is formed. This early "wiring" of the brain dramatically impacts on the child's capacity to learn and on later psychological and social adjustment.

> Scientists have learned more about the brain in the past 5 years than in the last 100.
> --Kotulak, 2003.

Our brain mediates all of our thoughts, feelings, and behaviours. As Bruce Perry (2003) states, if the brain does not change, we will not learn. By understanding how a child's brain changes, we can understand how a child learns. The development of the brain during infancy and childhood follows a bottom-up structure. Infants crawl before they walk, and they babble before they talk. The brain develops and modifies itself in response to experience. Neurons and neuronal connections change in an activity dependent or, as Perry states, a "use-dependent" fashion. The more a certain neural system is activated, the more it will "build in" or "hard wire" this neural state. With optimal experiences, the brain develops healthy, flexible, and diverse capabilities. When there is disruption of the timing, intensity, quality or quantity of normal development experiences, there may be devastating impact on neurodevelopment – and, thereby, function. Babies raised by caring, attentive adults in safe, predictable environments are better learners and better adjusted than those raised with less stimulation in less secure settings.

Recent research points to five key findings regarding brain development during the preschool years (Starting Points: The Quiet Crisis):

1. **The brain development that takes place during the prenatal period and in the first year of life is more rapid and extensive than we previously realized.** In one study (Kotulak, 2003), synapses or connections between the cells were measured in a

28-week-old fetus, a newborn, and an 8 month old. The fetus had 124 million connections, the newborn 253 million, and the 8 month old 572 million. The brain is full adult size by the age of five.

2. **Brain development is much more vulnerable to environmental influence than we ever suspected.** Parents who do not provide stimulation such as talk, toys, physical contact, and activities to their infants can lead to a stunting of the brain during the first 3 years. Parents who are poorly educated are particularly vulnerable in terms of neglecting to provide adequate stimulation to their children. Children born to mothers who have less than 12 years of education (a significant risk factor) have a fourfold increased risk of mental retardation, regardless of race (Yeorgin – Allsop, in Kotulak). This is generally attributed to the lack of providing stimulation to their infants. "At least half of the cases of mild mental retardation are preventable" Yeorgin – Allsop states. Early intervention programs for children at risk have shown that they can increase I.Q. levels by 15 points or more.

3. **The influence of early environment on brain development is long lasting.**

4. **The environment affects not only the number of brain cells and number of connections among them, but also the way these connections are "wired".**

5. **There is scientific evidence for the negative impact of early stress on brain function.**

Brain wiring involves an intricate dance between nature and nurture. Genes direct the growth of axons and dendrites to their correct approximate locations, but once these fibres start linking together and actually functioning, experience takes over, reshaping and refining these crude circuits to customize each child's hardware to his or her unique environment. According to Eliot (1999):

> A young child's environment directly and permanently influences the structure and eventual function of his or her brain. Everything a child sees, touches, hears, feel, tastes, thinks and so on translates into electrical activity in just a subset of his or her synapses, tipping the balance for long-term survival in their favor. On the other hand, synapses that are rarely activated – whether because of languages never heard, music never made, sports never played, mountains never seen, love never felt, will wither and die. Lacking electrical activity, they lose the race, and the circuits they were trying to establish – for flawless Russian, perfect pitch, an exquisite backhand, a deep reverence for nature, healthy self-esteem – never come to be.

The risks are clearer than ever before: an adverse environment can compromise a young child's brain function and overall development, placing him or her at greater risk of developing a variety of cognitive, behavioural, and physical difficulties. As Lise Eliot (1999) states: "There is little doubt that childhood neglect and abuse are major contributors to societal problems, and the reason is that they permanently alter the wiring of the person's emotional brain." Not just the wiring of the brain, it seems, but brain growth as well. In a recent study (quoted in Eliot) MRI scans of severely neglected children revealed that their brains are as much as 30 percent smaller than those of a control group of children. In some cases, these effects may be irreversible, but the opportunities are equally dramatic. A good start in life can do more to promote learning and prevent damage than we ever thought possible.

Children's brains are certainly primed for learning. They produce a tremendous number of brain synapses, just waiting to be stimulated by good parental attention and other growth producing experiences. To understand the astounding rate of progress the brain makes in the early years, consider that by age two the toddler has as many synapses as an adult. At age three, the child has 1,000 trillion synapses, about twice as many as his/her paediatrician.

Although the young brain is "over-exuberant" as researchers put it, in creating cells and synapses, it operates on a "use it" or "lose it" principle. Only the connections and pathways that are frequently used are retained. The rest are "pruned" away. It is from early infancy to early childhood that these vital connections are made permanent. As

Phyllis Porter (2003) states, "If there are no experiences, the connections are pruned back, and the brain remains small". If the early experiences the child has are abusive, long-lasting negative consequences can also occur, according to Porter:

> Studies have found that childhood trauma such as being repeatedly abused or witnessing a murder, can directly affect the way the brain functions. It was found that these traumatized children continue to show physical symptoms of fear even in the absence of threatening stimuli, almost as if their brains are 'stuck" in their reaction to the traumatic experiences. These children have very high resting heart rates, high levels of stress hormones in their blood, and problematic sleep patterns, all of which suggest that their experiences have left their brains in a permanent state of "high alert". Unless an intervention occurs, these children will likely develop emotional, behavioural, and learning problems.

It is clear that the early years in a child's life are critically important for future healthy development. Although children are resilient and can benefit from later intervention, the costs of reversing the effects of a poor start in life increase as the child grows older, and the chances of success diminish.

The image of the person advertising the sale of oil filters for cars comes to mind: "Pay me now or pay me later". The implication is that the installation of a new oil filter in a vehicle that costs a few dollars can prevent very costly engine damage from occurring later. Similarly, effective programming in early stages of a child's life, at relatively low cost is proven to prevent much more costly, and less effective, intervention later.

Protective Factors In Early Childhood

We know what the significant risk factors are for families, and that these factors, especially when they exist in combination, are highly correlated with poor outcomes for children. Recent research on the developing brain in young children has indicated that early experiences have a powerful impact on how the brain develops and is "hard wired". The quality and quantity of these experiences consequently influences later capacities and

adjustments. The early years in a child's life therefore provide unique windows of opportunity for healthy development to occur. During this critical time responsive, sensitive parenting is vital, for it lays down the groundwork for the creation of a healthy, well-adjusted and caring child.

Parental factors that foster resilience in children are personal qualities and skills, and the environmental circumstances within the family setting and community. Understanding these protective conditions and activities, and why they are important for healthy development, set the stage for effective program strategies and interventions.

External assets or protective factors have been described in relation to three primary systems in the child's world – family, school and community. In relation to the family, many of the protective factors identified by research clearly relate to the consistency and quality of care and support the child experiences during infancy, childhood and adolescence. West and Farrington, for example, cite empirical data that point to the importance of such things as: adequate and consistent parental role models and harmony between parents; parents who spend time with children in order to pass on verbal and social attainments; parents who provide for and take an interest in constructive use of leisure; and who provide firm and consistent guidance without repressive or rejecting attitudes.

Children who are rooted in a sense of belonging and security achieve healthy functioning, which allows the potential for adaptation in a number of settings (Kolko, 1996; Belsky and Vondra, 1989). This is accomplished by having a positive adult model from birth, and a primary consistent parent available in times of stress for support and care taking (Garbarino, et al, 1992; Rutter, 1987).

Direct and indirect social support interventions focused on the whole family system have been found to be effective, according to Daro and McCurdy (1994). Social support efforts should focus on interventions that promote success in a number of "life domain" areas such as social bonding, living arrangements, health and safety issues, accessing

professional help when required, recreation, managing finances, and cultural and spiritual supports. Direct work with the parent by providing information and developing skills is more effective than group approaches, according to Daro and McCurdy.

In a National longitudinal survey of children and youth, based on a sample of over 22,000 children, Statistics Canada (1996) concluded that:

> … parenting practices significantly contributed to child outcomes and acted as a protective factor for children in at-risk environments. Children in at-risk situations who enjoyed positive parenting practices achieved scores within the average range for children in Canada. Sometimes their outcomes even surpassed those of children who were living in more favourable socio-demographic conditions but who were exposed to less positive parenting practices.

The research suggests that intervention services that create resiliency and healthy growth in children need to emphasize:

- Working with families directly to improve family functioning and create positive parenting practices;
- Direct and indirect social support interventions that deal with "life style" issues faced by the family. Extended family and other informal supports are particularly relevant issues for families who are socially isolated.

While these approaches are general and need to be elaborated upon, they identify the overall direction services should take.

AGE AND STAGE PROTECTIVE ACTIVITIES

Different areas of the brain develop in a generally predictable sequence. The timing of development indicates that there are "prime time" or critical periods for some development and learning. It is during these "windows of time" in which children, particularly from birth to age 3, are especially sensitive to their environment. "The longer a child has been exposed to a specific type of experience or environment, the less likely he or she will be able to reverse the synaptic learning that has already taken place," according to one researcher (Zero to Three Brain Wonders, 2003).

There do not appear to be critical periods for every brain function, as research is still evolving in the field. Our brains are continually reshaping themselves to meet the demands of everyday life, even throughout adulthood. However, it is clear there are certain aspects of brain structure and function that are heavily influenced, for better or for worse, by environmental experiences during early childhood. Identifying the key developmental tasks required for healthy development further advances the strategies necessary for effective intervention.

The Benefits of Touch

Physical contact, especially in the first few months, is vital to infant growth and development. Experiments with animals, and observations of children who were deprived of touch and other human contact indicate that the lack of this social stimulation leaves them stunted in every sense – emotionally, physically, cognitively, and judging by their high rate of sickness and death, immunologically as well. Pre-term babies in particular, respond favourably (Eliot, 1999) to frequent touch and massage. Studies indicate that "kangaroo care" (mothers holding their babies against their chest in a skin-to-skin fashion) sleep better, cry less, breathe more regularly, breast-feed longer, and gain weight faster. Equally important are the benefits to parents, who bond sooner and express greater confidence in their parenting.

An important approach for increasing preterm babies touch experience is to add massage to the daily routine Several studies have shown that massage improves the health and development of babies compromised by various medical problems, including prematurity, prenatal cocaine exposure, and HIV infection. Preterm babies are not the only ones who can benefit from daily massage. Studies indicate that regular massage may have important cognitive benefits for babies of all gestational stages. Massage therapy has been found to lower anxiety and stress levels, improve sleep patterns, and create higher levels of attentiveness in children.

The lesson to be learned from all of the studies is clear: children thrive on touch and physical contact, particularly in the first few months of life. The amount of touch, whether it is carrying, massaging, patting, cradling or caressing, is clearly important. Equally important is the emotional significance of the contact, for both the parent and child. Because touch, more than any other sense, has such ready access to young babies' brains, it offer the best opportunity, and one of the easiest, for molding emotional and mental well-being. Touch is critical to development, as it literally sends signals to the brain telling it to grow.

There is much we can learn from other cultures regarding the use of touch and massage in normal child rearing practices. Infant massage has a long tradition in southern Asia, where gentle, systematic stroking and rubbing of the baby's entire body is considered an important part of daily infant care. Even in orphanages, Indian babies are treated to regular massages, and these children development remarkably well especially considering their many disadvantages (Eliot, 1999).

Even periodic massage can be helpful to infants. One researcher (Kotulak, 2003) studied normal-weight babies born to depressed adolescent mothers. These infants have two strikes against them – their stress hormones are churning, and they receive little stimulation from their mothers. The study compared 15 minutes of massage twice a week to a similar period of rocking to determine which technique was more effective in calming

the babies. It was found that massaging significantly lowered stress hormones in babies, they cried less, gained more weight, and showed greater improvement in measures of emotionality, sociability and "soothability" temperament. Rocking did not do much for the babies. Caring touch and other forms of constant physical contact lay the groundwork for secure attachment to occur. This early contact allows parents to become finely tuned to their baby and his or her cues or "language", and helps foster a healthy foundation of trust and communication between parent and child.

Encouraging physical contact through instruction, practice, and modelling will be important program elements. Massage will also be taught to mothers of infants, and practiced routinely.

Attachment

> Empathy, caring and sharing, inhibition of aggression, capacity to love, and a host of other characteristics of a healthy, happy, and productive person are related to the core attachment capabilities which are formed in infancy and early childhood.
>
> ---Bruce Perry

According to Ronald Rohner, founder of the Center for the study of Parental Acceptance and Rejection, "The extent to which children experience parental acceptance and rejection may have a greater influence on them than any other single experience."

Many researchers regard attachment as the seminal event in a person's emotional development – the primary source of a child's security, self-esteem, self-control and social skills. Through this one primary intimate relationship a baby learns how to identify his/her own feelings and how to read them in others. If the bond is a healthy one, the child will feel loved and accepted, and begin to learn the value of affection and empathy. Attachment processes start at about 6 months of age, and appear to be commensurate with development of the frontal lobes. The foundation for secure attachment, however, begins

at birth, and comes from the physical contact and empathic parenting demonstrated by the mother in the first 6 months of the child's life.

The majority of attachment problems appear to be due to parental ignorance about development, and the importance of activities that contribute to the infant bonding with the mother.

Gillian Doherty (1997), in reviewing research on attachment found that when 4 and 5 year olds who were known to have had a secure attachment with their mother as infants and toddlers as compared with children whose attachment was insecure, the secure attachment children have been found to:

- be more empathetic and responsive with their peers, and
- have greater social competence with other children, for example, to be more skilled in initiating and responding to contact with peers.

Program strategies will include assessing the nature of the attachment (secure-insecure) between the parent and infant and teaching/encouraging the establishment of secure attachment.

Some of the common successful practices of attachment parenting include early and constant physical contact – this contact allows parents to become finely tuned to their baby and his or her cues, or "language", and helps the parents to adapt and change their approaches as the baby grows and changes; breastfeeding on demand; child-led weaning; and night-time parenting. Parents who practice attachment parenting believe that babies cry not to manipulate, but to communicate an intense physical or emotional need. For this reason, most do not let their babies "cry it out", but work instead to make them comfortable by meeting those needs. Parents who adopt this approach trust that their children will grow out of developmental stages naturally, and on their own unique timetable.

Developing Language

One of the first windows of opportunity for language comes early in life. We know that infants start out able to distinguish the sound of all languages, but that by six months of age they are not long able to recognize sounds that are not heard in their native tongue. As infants hear the patterns of sound in their own language, a different cluster of neurons in the auditory cortex of the brain responds to each sound. By 6 months of age, infants will have difficulty picking out sounds they have not heard repeated often. The window for syntax or grammar is open during the preschool years and may close as early as 5 or 6 years of age, while the window for adding new words never closes completely.

Parents provide the means of learning language. Brain development information simply reinforces much of what early childhood experts have been suggesting for years – the development of language is tremendously influenced by parent-child interactions. In the first year it is important to talk, sing and read to the baby often so he or she can learn the sounds of his/her native language. In addition to learning the sounds of speech, during the first six months a child's brain begins to learn which mouth movements go with the sounds. That is the reason it is important to have many face-to-face conversations with the baby as the parent interprets the world around him. Cooing, and then babbling are milestones in language acquisition. Babies like to mimic what they hear. By speaking to the child and imitating the child's sounds, a parent not only teaches sound patterns, but encourages taking turns, a process necessary for conversation. Studies have shown that children whose parents spoke to them more often know many more words by age 2 and scored higher on standardized tests by age 3.

In the second year of life, the brain organized the connections for language when the child sees pictures in a book and hears the parent give names for the pictures at the same time. Parents and caregivers can help language development at this age by reciting nursery rhymes, songs and poems throughout the day. Ideal times for story telling and reading are quiet, relaxed moments before naptime or bedtime. Between 24 and 35 months of age the

brain is getting better at forming mental symbols for objects, people and events. This is directly related to the growing ability to use many more words and short sentences.

The "use it or lose it" principle applies to the brain and language development. A University of Chicago study (Fleming, 2003) showed that babies whose mothers talked to them had a bigger vocabulary. By 24 months, the infants of less talkative moms knew 300 fewer words than babies whose mothers spoke to them frequently. Babies are "listeners", and spoken language reinforces brain connections, which encourages more language development.

If a child hears little or no human sound, the brain waits in vain, eventually "retiring" these cells from this function and gives these cells a different function. By age 10, if the child has not heard spoken words, the ability to learn spoken language is lost.

The critical period for language learning begins to close at about the age of 5, and ends around the age of puberty. This is why individuals who learn a new language after puberty almost always speak it with an accent.

Talk, Talk, Talk. ...But Be Positive

Remarkably enough, the most obvious influence over children's language development turns out to be the amount of parent's talking (Eliot, 1999). Children whose parents addressed or responded to them more in early life had larger, faster growing vocabularies and scored higher on I.Q. tests than children whose parents spoke fewer words to them overall. A follow-up study of this group revealed that the differences in verbal skills persisted well into grade school years. By the third grade, children whose parents spoke more to them during the first 3 years continued to excel at various language skills, including reading, spelling, speaking, and listening abilities.

Another aspect of parental language that influences children's language is the amount of positive versus negative feedback children hear. Youngsters who hear a larger proportion of "no", "don't", "stop it", and similar prohibitions have poorer language skills than three-year olds who receive less negative feedback. No parent can avoid all prohibitions with their child, but those who kept them to a minimum, emphasizing instead positive responses, such as repeating their child's vocalizations or following them with questions or affirmations fostered better language development.

A study by Hart and Risley (1995) is particularly relevant to this proposal. They compared the number of words addressed to young children by parents on welfare, working-class families, and professional parents. Children of welfare families heard an average of 600 words an hour addressed to them, as compared with 1,200 for children from working-class families, and 2,100 for children with professional parents. They also found that on average, professional parents were heard to praise or otherwise respond positively to their children 7 times more often than welfare parents, and they doled out negative feedback only half as frequently. "With such enormous differences in both the quantity and quality of interaction with their parents, it's not hard to see how children from different socio-economic groups are propelled into different trajectories of language-learning" states Eliot, quoting the study in her book How the Brain and Mind Development in the First Five Years of Life.

It sounds like a depressing scenario for children of parents on welfare, but there are possible solutions short of making parents on welfare into professionals (a good idea, but hardly realistic on a large scale). While children's fate may seem to be sealed on the basis of economic disadvantage, what really matters is their parent's style of interacting with them. Eliot's conclusion:

> If we just look within a single socio-economic group, like the 23 families that made up the "working-class" rank in Hart and Risley's study, parenting style turns out to be a much better predictor of each child's language skills than the parents' precise financial and educational attainment. Within this group, parents who talked more to their children, who used a greater variety of words and sentences, who asked rather than told their children what to do, and consistently

responded in positive rather than negative ways to their children's speech and behavior, tended to raise more verbally gifted children than those who were poorer at these parenting skills.

Program strategies will include the assessment of the quality and quantity of the language used by parents in the program, and teach/train parents to use more encouraging language if necessary.

It is also important to consider the quality of life the parent's are experiencing when attempting to intervene on behalf of their children. Parents who are stressed, depressed, frustrated and discouraged by their own circumstances are not able to respond to their children's developmental needs as effectively as they can when their life is going relatively well. As parents are key to their children's future successes, it is critical that their issues of concern be addressed in the program as well. This will be elaborated on in a later section of the proposal.

Emotional and Social Development

A child who can form and maintain healthy emotional relationships, self-regulate behaviors, join and contribute to a group, and beware, tolerant of himself/herself and others will be more resourceful, more successful in social situations, and more resilient. A child who does not develop these strengths is a vulnerable child, and one who may experience a number of chronic problems throughout his or her life.

Bruce Perry (2003) has identified six core strengths he believes children require to be responsible and caring individuals.

1. **Attachment.** Healthy attachments allow a child to love, to become a good friend, and to have a positive and useful model for future relationships. The issue of attachment has been addressed in the proposal.

2. **Self-Regulation.** Thinking Before You Act. Its roots begin with the external regulation provided by the parents, and its healthy growth depends on a child's positive, predictable experiences.

3. **Affiliation.** Joining In. The capacity to join others and contribute to a group springs from our ability to form attachments.

4. **Awareness.** Thinking of Others. Awareness is the ability to recognize the needs, interests, strengths and values of others.

5. **Tolerance.** Accepting Differences. Tolerance is the capacity to understand and accept how others are different from you. Children learn to be more sensitive by observing how adults in their life relate to one another.

6. **Respect.** Respecting Yourself and Others. Appreciating your own self-worth and the value of others grows from the foundation of the other 5 strengths.

There is research that indicates that the critical period for learning emotional control is between birth and age two (Begley, 1996). Stress, such as from physical abuse or repeated threats also wires the emotion circuits in the brain. The more often a stress response is triggered in early childhood, the easier it is to trigger it again because the circuit is strengthened. A child who lacks the ability to switch off the stress response is in a constant state of anxiety. This reduces the ability of the child to pay attention to stimuli that are not potentially threatening, thus limiting opportunities to learn from the environment. The critical period for learning to switch off the stress response appears to end at about age four (Nash, 1997).

Self-confidence, independence, flexible problem solving skills, and persistence in 5 year olds in one study (Oppenheim, et al, 1988) were found to be related to the quality of the attachment relationship between the young child and parent. **It appears difficult to**

overstate the significance of attachment in the later emotional and social health of the child.

The critical period for peer social competence begins around age 3, when a spontaneous interest in playing with other children rather than beside them emerges, and likely extends to around 6 or 7. Research indicates that as early as age 4, children are well on their way to establishing their peer contact style. Children who have a pattern of positive interaction with peers as four year-olds get along with their kindergarten classmates when they are five year-olds. Children who have a pattern of disruptive or aggressive behaviours as four year-olds carry this behaviour into kindergarten, and tend to be disliked by their classmates (Doherty, 1997). After the age 6 or 7 children with poor social skills are likely to be rejected by other children, and consequently miss out on further opportunities to develop effective strategies for relating to peers.

A summary of the research on deficient peer social skills after the age of 6 (Doherty, 1997) indicates that it is possible to compensate for deficits in relationship skills. Successful interventions use very specific training tailored to each child's particular deficits, and provide opportunities for children to demonstrate newfound competencies with peers in a controlled setting.

While secure attachment is the cornerstone experience for later emotional and social competence, nurturing interactions of parents throughout the childhood years are protective in nature. Parental approaches that facilitate growth include:

- Expressing feelings of affection in both word and action;
- Taking the time to talk with children to help them feel significant, as well as to develop their verbal, cognitive and social skills.
- Adjusting the communication to show respect for the child's age and affirm the child's dignity and worth;
- Providing sincere praise;

- Maintaining a healthy balance between encouragement/nurturance and discipline/setting limits so that the overall feeling of the relationship is respectful;
- Listening responsively, and take the time to understand the child's feeling.

Some practitioners call these approaches "empathic parenting" or "attachment parenting". Other effective practices include being realistic when setting limits, and using discipline as an opportunity to teach, rather than as punishment. Discipline provides an opportunity to lead, train and guide the child to help him/her learn appropriate behavior, so when he/she is older, self-control will result.

This section of the proposal is not intended to be a primer on child development, but to highlight the key "windows of opportunity" or critical periods that current research indicate that need to be addressed if children are to get a healthy start in life.

It was pointed out earlier that children born into vulnerable families have a significantly reduced chance of experiencing the umbrella of protection provided by empathic parenting practices required during their "prime time" early years. If we are to provide the assistance these parents require for them to be maximally successful in their parenting role, the research indicates that it is necessary to:

- **Start services early (at birth or before);**
- **Identify the key issues faced by each family, especially during the critical developmental periods;**
- **Use program approaches that have been proven to facilitate growth and development during the critical periods and beyond;**
- **Be available to the family for support, training and intervention throughout the child's pre-school years.**
- **Ensure that specialized expertise in developmental ages and stages with high risk families is possessed by family workers in the program.**

THE PROGRAM

The importance of providing services early, and with a focus on prevention has been rationalized; the population at risk for later problems, and where they live, has been identified; the target population of young children and their families who have 2 or more risk factors in place has been selected; and the necessity of creating protective experiences during critical periods of brain development has been spelled out. This section of the proposal will define explicit program values and services, again supported by best practice approaches and research findings.

Program Mission

The mission of the program is to enhance the health, competency and well being of high risk young children and their families.

By providing evidence based, exemplary services to families in need, the program will promote enduring positive outcomes for the children served.

Home Visitation

By working closely with hospital maternity wards, prenatal clinics, physicians and other agencies providing services, the program will systematically identify families that meet the program criteria and offer them services prior to or just after birth. Services will be provided in the consumer's home. Parenting skills are more easily demonstrated and generalized when they are taught in the home at the time that parent-child interactions occur. Research over the last two decades (Healthy Families Indiana) has consistently confirmed that providing support services to parents around the time of a baby's birth, and continuing for months

or years significantly reduces the risk of child maltreatment and contributes to positive child rearing practices. Families receiving this type of intensive home visitor service also show other positive changes, such as consistent use of preventive health services, increased high school completion rates for teen parents, higher employment rates, lower welfare use and fewer unplanned pregnancies.

Current research indicates that successful home visitation programs (Olds, 1992) contain the following elements:

1. A focus on families in greater need of services (this has been defined in the proposal);
2. Intervention beginning in pregnancy and continuing through the second to fifth year of life (a program goal);
3. Flexibility and family specificity, so that the duration and frequency of visits and the kinds of services provided can be adjusted to a family's need and risk level;
4. Active promotion of positive health-related behaviors and specific qualities of infant care-giving instead of focussing solely on social support;
5. A broad multi-problem focus to address the full complement of family needs (as opposed to a focus on a single domain such as increasing birth weights or reducing child abuse);
6. Measures to reduce family stress by improving its social and physical environments;
7. Use of nurses or well-trained para-professionals.

All of these elements will be incorporated into the program, and will be elaborated upon as the services are more specifically spelled out.

Exemplary Programs – Proven Effectiveness

Well-researched model programs have proven to be effective in terms of outcomes for families; as well as demonstrating cost efficiencies. They indicate which program philosophies and values represent the best foundations to service, and define "best practice"

approaches in the delivery of services. Two well designed studies which used matched groups and measured long-term effects are examples of the effectiveness of excellent programming.

A program designed by Olds, et al (1988) the Elmira Prenatal Early Infancy Project, used nurse home visitors to support at risk mothers during pregnancy and up to 24 months post delivery. They were compared to a matched group. The home visits focused on issues related to infant development and health, but included efforts to help the mothers clarify their plans for completing their education; returning to work, and having additional children. The results were clear (Fixsen, 1997):

- By 6 months postpartum, twice as many mothers had either graduated or enrolled in an educational program (59% vs. 27%). By the 22-month follow-up, the nurse-visited mothers had worked 2.5 times longer, and had a 40% reduction in public assistance. Subsequent pregnancies were reduced in the nurse-visited group by one-third.

- A 15-year follow-up of the children in the experimental group found that they (now adolescents) had fewer instances of running away, fewer arrests, fewer convictions and violations of probation, fewer lifetime sex partners, and smoked and drank alcohol less. The parents of these adolescents reported that their children had fewer behavioural problems related to the use of alcohol and other drugs.

The Perry preschool project (Schweinhart, et al, 1986, in Fixsen, 1997) combined high quality, early childhood education with frequent home visits, parent group meetings, and methods to encourage parent involvement in children's education and other activities. Low-income 3-4 year olds were randomly assigned to the preschool or to control conditions. After one to two years experience in the preschool, all 123 children were followed up to age 19, measuring long-term outcomes. The results…

> .... clearly showed the benefits through age 19. Compared to the control group children, those who had attended the preschool later showed better attitudes toward school, had lower rates of placement in special education classes, had better grades and standardized scores, and better high school graduation rates (67% vs. 49%). There were significant reductions in juvenile arrests (1.2 vs. 2.3) and teenage pregnancy. At age 19 they had higher employment rates (59% vs. 32%), lower use of welfare assistance, and about one-half of the number of arrests of their control group counterparts. The authors found that for every $1 invested in the prevention program, over $7 was saved in future treatment and welfare costs.

The authors found that home visits emphasizing parent training regarding child-rearing, and comprehensive support around health services, child care, and linkages with community resources are important program components. "Adults who have practical and social support are in a better position to become effective parents than those who feel stressed and alienated."

The view of other researchers on creating program excellence:

- Focus on client advocacy, concrete services, and skill building with parents (Jones, Magura and Shine, 1985);

- Provide immediate contact on referral and offer intensive services (8 hours in first week, 37 hours over the next 4 – 8 weeks). This is the Homebuilders model, the grandfather of home support programs.

- Kumpfer (1999) identified the following exemplary strategies for delinquency prevention by strengthening families – comprehensive interventions; family-focused; long-term and enduring; sufficient dosage or intensity; culturally sensitive; developmentally appropriate; change ongoing family dynamics; early start, focus on

family relations; communication and parental monitoring; videotaping of effective parenting skills; trainer's personal efficacy.

- Provide services to high-risk parents as close to their first child's birth as possible; provide parents with opportunities to practice the interactions promoted in the intervention; provide services to parents for longer than 6 months; help parents expand their social relationships and their knowledge of social and other services; work with parents in groups; and provide services in the parents' homes (Daro and McCurdy, 1994).

- Hess, et al (2000) did a 3-year follow up with 189 families receiving support in a family preservation program. Their conclusion as to what works based on feedback from workers and consumers:
    - an emphasis on meeting the needs of all family members, and viewing the family as a system;
    - a client-centered relationship between the family and worker, in which family members feel accepted, not judged;
    - physical and emotional accessibility of staff on a day-to-day basis;
    - flexibility in the application of individualized service plans;
    - a philosophy of not labelling clients or services by problem or diagnosis;
    - client access to long-term and episodic services as required because "human development is a long and continuous process."

A 1996 analysis of family programs by Kumpfer indicates that outcomes differ by the type of family intervention approach. Her findings:

- Parenting skills training often reduces behavioural problems by improving parental monitoring and supervision, but only indirectly improves family relationships;
- Family interventions (skill training, practice, group support) tend to have a more immediate and direct impact on improving family relations, support, and communications, and on reducing family conflict;

- In-home family support and parent support programs help build a more supportive environment by enhancing the capacity of the family to access information, services and social networks;
- Parent education programs are more effective in improving parents' knowledge of parenting issues, but do no necessarily change behaviors – the most important test of an effective program;
- Children's social skills training added to parenting and family programs improves children's prosocial skills.

PRINCIPLES OF PRACTICE

Principles or program values influence day-to-day decision making by providing a framework approach for all aspects of the program's business. The following concepts will be respected and practiced by all members of the organization, including the Board of Governers. The principles:

- **Families are seen as "competent but constrained" rather than "incompetent and pathological". This supports the philosophy of building on family strengths and refraining from labelling individuals.**

- **Provide services that are culturally sensitive and respectful of cultural values and practices;**

- **Engage in formal and informal partnerships to ensure maximum effectiveness and efficiency of service provision;**

- **A commitment to excellence in service provision by linking program interventions to research findings and exemplary program models;**

- **A commitment to results-based accountability and continuous improvement by means of an outcome evaluation structure;**

- **Co-operation and collaboration with other service providers and "family facilitating" activities will be practiced.**

- **Services will be comprehensive and holistic. The child is viewed in the context of the family, and the family is viewed in the context of the community.**

PROGRAM ATTRIBUTES

The following characterize the service model elements that will be implemented. They reflect the knowledge gained from the research quoted and evaluations of effectiveness from practitioners and consumers of service. Services will occur within the framework of the Principles of Practice.

- **Intervention beginning in pregnancy or just after birth;**

- **Services will be provided for a minimum of 2 years, and if possible and appropriate, until the child enters E.C.S.;**

- **Services will be provided by experienced foster parents, adoptive parents, or other trained caregivers;**

- **Services will be delivered in the families' homes, and respond to families' time schedules, availability, and issues of concern. This ensures maximum accessibility and flexibility in implementing service plans;**

- **Family workers will receive extensive and ongoing training, regular supervision and clinical guidance and back-up as required;**

- **The program will have the ability to respond immediately to crises, including 24 hour accessibility;**

- **Variable intensity of services will occur especially during early stages, and there will be accommodation for long-term, episodic services.**

SERVING THE ABORIGINAL POPULATION

Aboriginals represent about 2% of the total population in Calgary, but are at much higher risk for having problems on a proportionate basis. (City of Calgary 1996 census, Statistics Canada).

- They represent 18% of all homeless persons in the city;
- One third of all Aboriginal children under the age of 15 lives with a lone parent;
- Aboriginal juvenile delinquency rates are 3 times higher than the general rate in Canada;
- Native children come into Child Welfare care 7 times more often than children in the general population;
- Their average total income was $18,791 in 1996, compared to $28,963 for the total population;
- They are over-represented in the population age 0-4. 15.3% of the Aboriginal population are in this age group, while in the total population the figure is 8.1%

The program and its workers will be attuned to the issues Native families face. Services will be adapted to the unique customs of each family, band and/or tribe. Coleman, et al (2001), in an article on providing family preservation services to Native families suggest the following:

1. Ensure that workers who are hired and assigned to work with Native families have an interest in learning and accepting Native culture;
2. Training in Native culture, and the cultural context of engaging families, communication and the basis of change;
3. Practice that includes collaboration with traditional healers, extended kin and Elders;
4. Understand and use family support systems within the context of Native protocols and strategies;

5. Use teaching skills that work within an Aboriginal cultural context. Modelling and other forms of imitating positive parenting through natural discourse and "teachable moments" are examples.

If volume of referrals to the program warrants it, Aboriginal workers will be hired and placed with Aboriginal families. Native program workers, while providing direct services, can contribute to cross-cultural training as well as consult with staff on accessing Native resources for families in need when required.

CULTURAL SENSITIVITY WITH DIVERSE GROUPS

Calgary is a diverse community, and referrals on families who identify with a number of other cultures and languages will occur in the normal course of events. In many ways the same approaches need to be used that apply to Native families – adopting protocols and strategies that are appropriate within the particular culture the family is a part of; seek help from cultural and language leaders and interpreters as required; be aware of the social interaction norms of the culture; adapt time frames, communication styles, and interventions to suit the norms of the culture; and respect family issues such as hierarchies, involvement of professionals, and how shame and guilt are dealt with. A good rule of thumb is to engage a community liaison worker or other individual who knows the specific cultural patterns of families within the neighbourhood. This person may be in a position to make initial contacts with families and help the family resolve their issues within their cultural milieu.

The Invest in Kids Foundation, in their document A Guide to Professional Home Visiting suggest that relationship building with families from another culture requires:

- Openness to learning about a family's cultural beliefs and practices;
- Recognition of one's own values and beliefs as being culture-based;
- Sensitive, responsive communication and establishment of rapport with families;
- Problem-solving and negotiation around cultural/racial difference;
- Making services fit by adapting program delivery to fit families' needs.

PROGRAM INTERVENTIONS

Multi-risk families have multiple needs. The Center for Family Life's preventive services program in New York (Hess, et al 2000), in a sample of 89 families found that they had an average of 10.6 service needs. After receiving services for an average of 21 months, over 20% of the families requested follow up services at a later date. This confirms the need to keep the door open to those families who require help after formal services have been provided.

The program will be tailored to meet each family's comprehensive needs in a flexible, culturally sensitive way, but also structured in a manner that systematically moves families in the direction of problem area resolutions. The intent is to create greater self-sufficiency through enhanced skills and abilities.

The Family Worker, having assessed the family's needs by means of assessment measures will engage the family in the provision of:

- Social and emotional support and counselling;
- Guidance, education and support about healthy growth and development;
- Service coordination and links to neighbourhood and community supports (family resource programs, child care, professional services, social support, recreational and leisure opportunities);
- Advocacy for services and supports.

Because families come with different strengths and needs, the Family Worker will be required to problem-solve and advocate for the family in creative and non-traditional ways at times. Successful staff, in effective programs for high risk families, are energetic, passionate about their work; comfortable in operating with considerable autonomy; avoid labelling families; are versatile and flexible in their approaches; and have a strong belief that families usually want to do what is best for themselves and their children, and generally try to do their utmost given the circumstances they are in.

Promoting positive change based on strength rather than pejorative labelling assumes that (Invest in Kids Foundation):

- Families have the capacity for health;
- Families want health and are more likely to gain it if they participate;
- Getting to know families is a process that builds respect and trust;
- Families determine priorities and goals;
- Families' dreams and desires have to be recognized;
- Families experience the child's development and pose questions about next steps;
- Families believe that they are responsible for change, some may not expect change;
- If families refuse services, it may be because the services are not in a form they can use.

Key factors in the care-giving relationship that are influential in creating positive development in a child are (Invest in Kids Foundation):

1. Sensitivity. In attachment research, the parent's sensitivity to the infant's/child's cues has been found to lead to secure attachment to the parent.

2. Responsibility. The responsive parent acknowledges the child's efforts toward engaging in interaction and requests for help.

3. Acceptance of the Child. This means demonstrating a genuine acceptance of how the child is feeling, the developmental issues with which the child is dealing, and any struggles toward independence.

4. Positive Emotionality. Research has shown that children need to experience positive emotions from parents. When they do, it activates the

left hemisphere of the brain, resulting in other positive physiological reactions.

5. Caring Responses When the Child is Upset.

6. Parental History and Current Functioning. Parent's personal histories, current relationships, and psychological functioning are important influences on the child's development.

Referral and Initial Contact

Families will be able to self-refer to the program. If they meet screening criteria (possess 2 or more risk factors and be in a pre-term or just after birth status) they will be seen within one week or sooner. Families will be made aware of the service through a promotions campaign that targets formal and informal resources the families are likely to access. Common sources of referral will be contacted in the initial stages of operation. They include the health system (family doctors, paediatricians, public health nurses, hospitals) day care and family resource centres, collateral agencies (women's shelters, counselling services, family support programs, teen parenting programs), Income Security and Child Welfare agencies. Challenges begin early with some families due to their unpredictable behaviours and negative experiences in dealing with formal helpers. Patience, persistence and creative engagement strategies are called for, and are vital skills for the Family Workers to have.

The key to the outreach and trust building activity is the Family Worker's openness and honesty with the family, a clear explanation of the Worker's role with the family, and what the program expects from the family in return. This leads to a realistic assessment of the child's and family's strengths, needs and goals, and includes an assessment of the risk and protective factors in existence.

Serving All Children In the Family

While the primary focus of the program is to effect positive growth and development for children pre-birth to age 6, it is also important to provide services to other children in the family who are older than 5 or 6. These children are very likely to also have problems related to developmental issues of nurturance, attachment, stimulation, and caring responses from parents, and will require support and effective intervention as well.

Family assessment methods will include the issues other children in the home may have, and goal setting and task development will integrate resolutions to concerns raised about these children as well.

Many of the exemplary program approaches that have been proven effective with young children are also efficacious with older children. The intent is to address issues related to every individual in the household, as every individual contributes to the dynamics and functioning of every other family member in the home.

Assessment

The assessment assists in the selection and planning of interventions that will occur, and acts as a baseline against which to measure actions taken by the family and the progress that results from those actions. It also contributes to the database for the evaluation of the program.

There are literally hundreds of scales, tests and questionnaires on the market that are designed to measure family and individual functioning in high risk families. It is important to adopt measures of pre and post functioning that evaluate the key areas targeted for intervention. Other issues formal assessment should keep in mind:

- Ensure adequate reliability and validity of the scales;

- Don't overwhelm the family with lengthy, complicated and excessively detailed tests.
- Explain the process carefully and supportively to the family, and guide them through the procedures if required. Many high-risk families are wary of formal, professional procedures being imposed upon them, often for good reason.
- Give the family feedback on questionnaire results, and explore their feelings and thoughts on the significance of the results to them. This is a valuable way of beginning service planning.

Scales, Measures of Merit

The following scales may be useful in measuring various aspects of functioning in families at risk. The list is by no means all-inclusive.

- Family Assessment Device (FAD)
- Family Assessment Measure (FAM)
- Index of Family Relations (IFR)
- Parenting Stress Index (PSI)
- Family Adaptability and Cohesion Evaluation Scale (FACES – 111)
- Family Environment Scale (FES)

Leslie Tutty at the University of Calgary (1995) reviewed these scales and has recommendations regarding their value. She cautions that "no one measure provides a panacea", and that these measures only provide one view of a family. Other assessment approaches will be used in combination with formal scales (e.g. a detailed interview with family members).

One measure that appears to have merit is the North Carolina Family Assessment Scale (Reed-Ashcroft, 2001). It is designed for the population targeted, and covers, 5 domains –

environment, social support, family interactions, family/caregiver characteristics; and child well-being. The Parenting Practices Scale (Statistics Canada, 1996) is also worth considering.

Goal Setting and Task Development

In the early stages of contact with families, the Family Worker's task is to develop a helping partnership with families in order to create concrete and realistic goals. An aspect of this is to identify specific tasks the family views as being achievable as first steps toward reaching those goals. An important aspect of the Worker's job is to support and guide, rather than supplant, the family in setting goals and identifying tasks. This "dance" of goal setting and responsibility for action between the Worker and family requires highly attuned skills on the part of the Worker, for it is a complex and unique process with each family. Its foundation is trust. Establishing a trusting relationship is paramount, for without it, very little change is possible.

In their evaluation of family-centered early intervention programs, McCroskey and Meezan (1998) found that the relationship between the service provider and the family contributed more to program effectiveness than either service length or intensity. The relationship building skills of the Family Worker cannot be over-emphasized as a necessary ingredient for success.

Intervention Strategies

No approach is appropriate for all families. Establishing a case plan for the family based on presenting issues and concerns, and an initial assessment of the family's strengths and needs is the starting point. A flexible approach that allows the intervention to "move back and forth between the experiences of the child, the parent and what happens between

them to enhance empathic mutuality and developmentally appropriate responsiveness", is the key (Lieberman, et al, 2000).

There are many approaches, techniques and strategies that can be applied, some of which have been recounted in this document (e.g. infant massage). To maximize positive outcomes for families, specific intervention strategies should reflect what the research has shown to be the most effective approaches for the concerns presented.

Positive outcomes have been demonstrated to result from:

- Program interventions designed to help families meet basic concrete needs and programs using mentoring approaches (Chaffin, et al, 2001);

- Parent training approaches using behavioural practice and live direct coaching of parenting skills are better suited to changing maltreatment-related parenting behaviours and improving the parent-child relationship (Urquiza and McNeil, 1996);

- Provide education on a wide range of child rearing topics, enhance informal supports, and connect families to community services (Olds, et al, 1986);

- Increasing parent's understanding of the unique characteristics and individuality of their infants can significantly increase their sensitivity to their infant's cues (Invest In Kids Foundation);

- Interventions involving parental coaching about concrete interactive behaviours can significantly enhance a number of aspects of the parent-infant interaction and relationship (Invest in Kids Foundation);

- Providing parents with opportunities to practice the interactions promoted in the intervention … help parents expand their social relationships (Daro and McCurdy, 1994);

- Some interventions that concentrate only on provision of information are less successful with high-risk populations, who may require longer term and more relationship-based interventions (Invest in Kids Foundation).

Specific program strategies related to infant massage, language development, enhancing parental sensitivity and responsiveness to the child's signals, and exercises in creating empathy and learning a child's perspective are clearly detailed in Chapter 9 of A Guide to Professional Home Visiting, a massive but undated document published by the Invest in Kids Foundation. For example, the section on language development includes descriptions, with research support for their usage, on the Dialogic Reading Training Program, the Conversational Language Training Program, the Mother-Child Home Program, and the Hanen Early Language Program. This "tool kit" of interventions can result in their usage on a selective basis after assessing the needs and strengths of the family.

Understanding the Parent

A parent who is able to respond to his/her child's signals, express genuine acceptance and positive emotionality to his/her child is a person who is generally psychologically healthy. Parents with these attributes will usually be responsive to program assistance, and integrate positive change fairly easily.

However, many parents who will be referred for services will have difficulty, for a number of reasons, in relating in a positive, supportive manner to their children. A parent who is depressed and/or has mental health problems, developmental/neurological learning problems (FAS, illiteracy, ADHD) or deficits in their emotional and social

development will require specialized assistance, if the program is to maximize their abilities to respond to their children's developmental needs.

These parents have been negatively affected by their own upbringing, taking with them into their parental roles their own unique experiences of poor attachment, emotional and cognitive neglect and other traumas which have left them limited in their parenting abilities.

The clinical specialist in the program will have as his/her role the assessment of these concerns regarding the primary caregiver in the home, and provide clinical referral and treatment as required. A key component of the work will be to provide information, direction and support to the Family Workers concerning the functioning of the parent. This will assist the Workers in their day-to-day interventions with the parent and children in the home. With in depth information on the caregiver's personal strengths, limitations, and parenting styles, the Workers can adapt their intervention strategies accordingly.

Linkage With Other Resources

A significant goal of the program is to promote a sense of community for the families served by fostering mutual aid, affiliation and involvement in community life. This is critical for the families in the program who are socially isolated and lacking in relationship supports. As the family gradually learns the skills needed to appropriately access community resources, they become increasingly self-reliant, and learn to deal more effectively with the stressors that isolation and alienation brings.

The Family Worker is, among other things, a community worker. Assigned to work in a circumscribed community, the Worker will become familiar with local formal and informal community resources that can assist families in meeting their unique needs. This can take many forms:

- Assisting an overwhelmed single parent in finding or establishing a babysitting co-op;
- Connecting a parent to a local church group or support group, which meets informally to talk about parenting issues;
- Accessing community volunteers who will provide transportation and babysitting support;
- Accessing local volunteers or groups who will repair cars, fix appliances, donate clothing, etc.

Research indicates that this provision of concrete services is critical to successfully working with high-risk families. Linkages with formal service providers will also occur, with the Family Workers informing and guiding the family to appropriately use health care systems, family support programs (day cares, family resource centres, toy-lending libraries, etc.), financial support and subsidy services, educational and training programs, and clinical treatment services as required.

PROGRAM STAFF

Experienced Foster Parents – The Ideal Family Workers

Success in working with high risk families is entirely dependent upon the establishment of a trusting relationship between family members, especially parents, and the Family Worker. Without this relationship, through which all of the family's hopes, aspirations, and expectations are confronted and struggled with, the possibility of change and growth is severely limited. Experienced foster parents are in an ideal position to not only establish trust with families at risk, but to systematically help families profit from program interventions and supports. This unique approach to in home support programming adds strength to the proposal due to the qualities that foster parents bring to this critically important position:

- Foster parents have an appreciation for, and proven expertise (backed by training) in working with families with high needs;
- They have expertise in dealing with difficult to manage children, including those with special needs;
- They possess an experiential understanding of parenting children who present difficult challenges, and have practical, concrete skills that can be taught fairly easily;
- They are perceived as not having a "professional" agenda, which makes it easier to engage families who often have had negative experiences with professionals;
- They are accustomed to working alongside others and negotiating roles and functions in a team management way;
- They are knowledgeable about formal and informal services, and experienced at making referrals and effectively connecting families to services and supports;
- They live and work in communities, and know how to access neighbourhood and community resources. They often play leadership roles within their own communities.

- They are comfortable in dealing with crises, and experienced in managing multi-problem issues faced by families with high needs.

A family support program utilizing experienced foster parents was in place for 5 years in Calgary. It was terminated due to a change in budget priorities, but was seen by its consumers, referral sources and staff as being a particularly effective program.

Support for the inclusion of foster parents in the program comes from the Calgary and District Foster Parents Association (CDFPA) and the Alberta Foster Parent Association (AFPA). The CDFPA is a formal partner in the development of the proposal, and will be a partner in governance of the program, should it receive funding.

Family Workers

The Family Worker is matched with a family and forms a supportive and culturally sensitive relationship, with the goal of empowering and enhancing parenting abilities in order to create healthy growth and development.

Qualifications

Family Workers are experienced foster parents (5 or more years) who have demonstrated abilities in the following areas:

a) Successfully managing young children who have a range of emotional, behavioural and developmental problems;
b) Effectiveness in helping birth families and other caregivers around parenting pre-school children;
c) Have advanced level qualifications in training and experience as a foster parent.

Responsibilities

- Engage in and develop facilitative relationships with families to arrive at service planning goals and implementation plans;

- Develop, teach and recommend effective strategies to promote healthy child development, improve family functioning, and decrease family concerns;

- Become familiar with local formal and informal supports and services, and connect families to supports as required;

- Possess skills in crisis management, and be available when crises occur within families. Teach proactive and post crisis skills to families in order to prevent future crises;

- Participate in training as an ongoing expectation;

- Consult with and take direction from the Supervisor; and consult with the Clinical Specialist on all clinically related issues;

- Be prepared to work irregular and non-structured hours, including evening and weekends. On-call duties are also a requirement;

- Adhere to Calgary Family Services policies and procedures.

Family Workers will be hired on a fee-for-service basis, at the rate of, approximately $20.00 an hour. 10 – 14 Family Workers will be initially recruited and screened into the program, a process led by the Program Manager. Each worker will be matched with 1 or more families based on:

- Family Workers skills, experience and interest in working with a particular family;

- Time availability of the Family Worker. The work is not expected to be full time. There will be variances between the Workers in their abilities to successfully manage caseload sizes (this can change from time to time with each Worker as well);

- The severity and complexity of the issues presented by each family. Some families may require 8 – 10 hours a week of intervention in the initial stages, while others will require much less. The intent is to be non-prescriptive in approach, and not force families into pre-determined program formats. The key is flexibility in approach in response to each family's unique needs. This flexibility is applied in terms of when, how, and where services are offered to families.

- Maintaining contact and supports necessary for 2 years or more. Again, the key is flexibility. It's important not to be unnecessarily intrusive, but to be available when further needs arise. Family problems do not express themselves in predictable patterns, and this is particularly true for high-risk families. Families that have made progress in resolving their concerns need to know that they have an understanding advocate who is available to them should the need arise in the future. A family preservation program in New York, for example, was contacted by one client up to 10 years after the termination of formal services.

It is estimated that the program will provide service to approximately 150-200 families over the course of a year, assuming that the budget requested is received. This is based on the expectation that each family, on average, will require 100 hours of service in the first year and less after that. The range of intensity of involvement will vary greatly from family to family, and it is assumed that intensity will reduce over time as families begin to stabilize and implement change.

Program Management and Clinical Support

Program Manager (Full time position).

The Program Manager has responsibility to manage all aspects of the service under the administrative supervision of a senior manager at Calgary Family Services.

Qualifications

- A graduate degree in social sciences, preferably at the Master's level.
- 5 years of related experience.
- Proven staff supervision and management experience and skills.

Responsibilities

- Recruit, hire and assign work to Family Workers;
- Train, supervise and provide case related consultation to Family Workers;
- Discipline and/or terminate Family Workers with support from Senior Manager;
- Complete performance evaluations, oversee staff development requirements of Family Workers;
- Compile reports related to the program as required by the agency and funders;
- Promote the program in the community and with related organizations and groups;
- Engage in strategic planning and evaluation to promote long term growth and program efficacy.

Clinical Specialist (Full time position)

Research indicates that 24 to 30% of children and parents who are at risk have serious psychological/psychiatric problems. The program needs a strong, integrated clinical component, but should be non-traditional in the sense that the clinical work is:

- Non-stigmatizing for families (outreach rather than office based, free from diagnostic labelling, nonprescriptive in approach, offered in a teamwork format);

- Applied in the context of having particular understanding and respect for the issues and concerns of the families served beyond their treatment needs;

- Non-hierarchical. The clinical services are "on tap" rather than "on top". They are provided in the context of and in support of the work of the Family Workers, rather than as isolated activities;

- Multi-faceted. Clinical services will include training and education, consultation, assessment and treatment, and referral. The key is the utilization of expertise in a flexible, non-labelling way in order to create the maximum benefit to families served.

Qualifications

- A graduate degree in social sciences, and registration with a professional association.

- Experience and skills in clinical practice with the population being served.

- Demonstrated skills in team practice, and working with and through others.

The position reports to the Program Manager.

Responsibilities

- Consult with Family Workers on mental health concerns and offer clinical advice and direction that can be utilized by the Workers in their day-to-day work.

- Assess mental health issues directly that parents or children in the program may be experiencing and:

    a) provide direction to Family Workers;
    b) treat the problem(s) if appropriate;
    c) refer to specialists for treatment if required and ensure integration of professional services with the program.

- Offer training and education to Family Workers and others connected with the program in order to enhance their abilities in mental health areas.

TRAINING

Training is a critical component of an effective program. It enhances the skills of workers, giving them more confidence to intervene appropriately in their work with families. Training, in combination with regular supervision, ensures that the integrity of the program is maintained, and that service goals are implemented effectively. Ongoing training contributes to staff job satisfaction, and reduces stress by expanding workers repertoire of abilities.

Training will include but not be limited to:

- Recent research on brain development and critical stages of development in children;
- Proven strategies and approaches to create healthy development in high risk populations (including nutrition and nutrition counselling);
- Environmental risk factors in high risk families, and effective support strategies;
- Cultural diversity and culturally sensitive methods of interviewing/intervening;
- Learning assessment, monitoring, and evaluation tools and techniques;
- Interdisciplinary practice and team decision making;
- Managing crises in families;
- Self-care and well being in the workplace.

The Program Manager is responsible for establishing and implementing a training plan for all workers. Each Family Worker will receive a minimum of 30 hours of training a year, and receive 40 hours of training in the first year.

PROGRAM GOALS AND EVALUATION

Increasingly, government and other funders, the public and service providers are insisting on knowing that funds provided for services are actually producing benefits to people, and that those benefits are tangible and measurable. "The assumption that operating a service is equivalent to rendering service, and that both are equivalent to rendering quality service are no longer being honoured as inherently valid" (Posovac and Carey, 1989). Increasingly, respect and acceptance have to be earned by proven performance, not by certification or status. This demand for greater accountability is leading to the adoption of results-based or outcome-based evaluation approaches. A compelling reason to move to outcome measurement is that **it provides a systematic information loop that helps programs become more effective and efficient.**

Program managers can use outcome data to (United Way of America, 1996):

- Strengthen existing services;
- Target effective services for expansion;
- Identify staff and volunteer training needs;
- Development/ justify budgets;
- Prepare long-range plans;
- Focus board members' attention on programmatic issues.

The agency benefits of having a strong outcome evaluation model include retaining or increasing funding, engaging partners and collaborators, recruiting and retaining staff, and attracting volunteers to the program.

The program will use Measuring Program Outcomes: A Practical Approach, published by the United Way of America, as the basis for evaluation. It provides a step-by-step approach to measuring program outcomes and using the results to improve services. Constructing a logic model for the program is an inclusive process, especially in the

course of defining outcomes. "Multiple perspectives will help the work group think about the program and its benefits for participants more broadly than if the group relies only on its own members" (p.33 of the document).

The outcome model will combine quantitative and qualitative approaches, using pre and post testing using the formal measures of functioning that are adopted, along with structured interviews with consumers, collateral agency staff and Family Workers.

The program outcomes will be defined as a result of obtaining multiple perspectives, as suggested by the logic model. This task will be led by the Program Manager and will be expected to be completed within 3 months of start up.

Outcomes will be related to the program's mission, principles of services, and strategies of intervention, ensuring fidelity of the evaluation with the values and goals of the program. Anticipated outcomes should consider goals related to:

For Parents:

- Increased knowledge of child development,
- Increased skills related to child rearing and behaviour management;
- Increased family planning and crisis management;
- Improvement in health and life-style choices during pregnancy;
- Increased use of formal and informal supports.

For Children:

- Increased physical development gains;
- Improved emotional and social functioning;
- Improved language development;
- Full immunization and preventive health care in place, resulting in reduced morbidity rates.

GOVERNANCE AND ADMINISTRATION

Governance of the program will take place under a partnership agreement between three non-profit organizations:

1. **Calgary Society for Healthy Child Development**
2. **Calgary Family Services Society**
3. **Calgary and District Foster Parents Association**

Calgary Society for Healthy Child Development and Calgary Family Services Society will provide overall management of the program. This includes the hiring of the Program Manager, and oversight of the program to ensure the mission and principles of service of the program are preserved. Working in collaboration with its partners and other community stakeholders, the CSHCD will engage in short-term and long-term planning for services for the program, and advocate for the requirements of high-risk populations in Calgary.

Calgary Family Services will be the administrative agent for the program, and the recipient of funding. Participating on the management Board, the organization will also maintain an operational budget, provide financial, administrative, and human resources stewardship, and provide supervision, training and operations support for the program. The Program Manager will receive day-to-day supervision from a senior manager in CFS.

Calgary Family Services has a history of working successfully with other organizations over the years to advance services for a wide range of groups in need. They have experience with structures required to make collaboratives work, and are respected by funders, agencies and the wider community. They have staff and programs (for example clinical psychologists and social workers) that can offer consultation and training to the program's Family Workers, adding strength to the overall service.

Calgary and District Foster Parents Association is an advocacy and support group for foster parents. They are in place to assist foster parents in being successful in their work by providing training, social and recreational support and collaboration, advocacy regarding individual case decision making, assistance with conflict resolution, and recruitment and retention of foster families.

The CDFPA, with representation on the management Board, will assist in recruiting and supporting foster parents as Family Workers, act as the "eyes and ears" of foster parent's views relative to the program, and contribute to activities that can lead to other caregivers being involved in the program (e.g. adoptive parents, Native foster parents and workers).

A Collaboration Agreement, spelling out the terms, conditions and structures of the partnership, and roles and responsibilities of each partner will be drawn up, if the program becomes a reality. The Agreement will include a conflict resolution format signed by all parties.

This governance and administration structure will be reviewed after 2 years of operation, to determine if it is the most effective and efficient method of managing the program.

BUDGET

Program Staff

Program Manager		$ 58,000
benefits		$ 10,440
Clinical Specialist		$ 49,000
benefits		$ 8,820
Family Workers		$160,000
Paid $20/hr. No benefits		
	Total	$286,260

Client Costs

Program supplies intervention and assessment materials	$ 2,000
Staff travel $150/mo.; includes parking approx. 7 full time equivalent positions	$ 12,600
Cell phones $40. /mo. Each	$ 4,800

Training

staff training, workshops, conferences.

More intensive in first year		$ 6,000
Brochures, promotional materials		$ 600
marketing program		
	Total	$ 26,000

Administration

-management, rental, payroll, legal fees, insurance,
office equipment and supplies, bank charges, accounting,
auditing. 15% of budget.

	Total	$ 46,839

Evaluation	$ 20,000

Total Budget	$379,099

A FINAL NOTE

To advance the important message one final time of the critical importance of the early years in the health and adjustment of children, reference is made to Rutter, et al (2000). His research group studied the development of children adopted from Romanian orphanages. These children were seriously deprived of human and environmental stimulation, as they were left alone for long periods of time in cribs. When each child was 6 years old, the researchers assessed what percentage of the adopted children were functioning "normally". They found that 69 percent of the children adopted before the age of 6 months were functioning normally. 43 percent of the children adopted between the ages of 7 months and 2 years were "normal", and only 22 percent of the children adopted between the ages of 2 to 3 ½ years were functioning normally.

Perry and Marcellus (2003) summarize the choices we have:

> The choice to find solutions is up to us. If we choose, we have some control of our future. If we, as a society, continue to ignore the laws of biology, and the inevitable neurodevelopmental consequences of our current childrearing practices and policies, our potential as a humane society will remain unrealized. The future will hold sociocultural devolution – the inevitable consequence of the competition for limited resources and the implementation of reactive, one-dimensional and short-term solutions.

BIBLIOGRAPHY

Begley, S. (1996). Your Child's Brain. Newsweek, February 19.

Belsky, J. and Vondra, J. (1989). Lessons from Child Abuse. The Determinants of Parenting. In D. Cicchetti and V. Carlson (eds). Child Maltreatment: Theory and Research on the Causes and Consequences of Child Abuse and Neglect.

Berry, M. (1992). An evaluation of family preservation services. Fitting agency services to family needs. Social Work, 37, 314-321.

Carnegie Corporation of New York. (1994). Starting Points: Meeting the Needs of Our Youngest Children. Carnegie Corporation of New York.

Clarke, Michelle (1999). The 21 st. Century Belongs to Our Children. Foundation document for the Children's Initiative United Way of Calgary and Area.

Coleman, Heather, et al. (2001). Revamping Family Preservation Services for Native Families. Journal of Ethnic and Cultural Diversity in Social Work, Vol.l.

Daro, D. and McCurdy K. (1994). Preventing Child Abuse and Neglect: Programmatic Interventions. Child Welfare, 73, 405-431.

Dembo, Richard et al. (1992). The Role of Family Factors, Physical Abuse, and Sexual Victimization Experiences In High-Risk Youths' Alcohol and Other Drug Use and Delinquency: A "Longitudinal Model." In Violence and Victims: Vol. 7, No. 3, pp. 245-266.

Doherty, Gillian (1997). Zero to Six. The Basis for School Readiness. Human Resources Development Canada. Applied Research Branch.

Eliot, Lise. (1999). What's Going On In There? How the Brain and Mind Develop in the First Five Years of Life. Bantam Books.

Fixsen, D.L. (1997). Investing in Prevention: A Study of Prevention Services for Vulnerable Children. Prepared for the Calgary Healthy Start Alliance.

Fixsen, Dean & Tillman, Gene A. (1993). Calgary Healthy Start Program. Brighter Futures for Children from High Risk Families.

Fleming, Beth (2003). Brain Keys Language Development. http://www.nncc.org/Release/brain.language.html

Garbarino, J. and Kostelny, K. (1992). Child Maltreatment as a Community Problem. Child Abuse and Neglect, 16, 455-464.

Haggerty, R.J. et al. (eds), (1996). Stress, Risk, and Resilience in Children and Adolescents. Cambridge University Press. The Edinburgh Building, Cambridge CBU 2RU United Kingdom.

Hess, P. M. et al. (2000). A Preventive Services Program Model for Preserving and Supporting Families Over Time. Child Welfare League of America May – June.

Indices of Community Well-Being for Calgary Community Districts (2000). The City of Calgary Policy and Planning Division.

Invest in Kids Foundation. A Guide to Professional Home Visiting. Undated.

Johnson, L.M. (2003). How We Spawn Violence. http://babyparenting.about.com

Jones, M.A. (1985). A second chance for families: Five years later. New York: Child Welfare League of America.

Jones. M.A., Magura, S., & Shyne, A.W. (1981). Effective practice with families in protective and preventive services: What works? Child Welfare, 60 (2), 67 – 80.

Kempe, C.H. (1976). Approaches to preventing child abuse: the health visitors concept. Am. J. Dis. Child 130, 941 – 947.

Kendall – Tackett, K. and Eckenrode, J. (1996). The Effects of Neglect on Academic Achievement and Disciplinary Problems: A Developmental Perspective. Child Abuse and Neglect, 20, 161 – 171.

Kotch, J., Browne, D., Ringwalt, C., Stewart, P., et al. (1995). Risk of Abuse or Neglect in a Cohort of Low Income Children. Child Abuse and Neglect, 19, 1115 – 1130.

Kotulak, Ronald (1996). Learning How to Use the Brain. Paper presented at the "Brain Development in Young Children: New Frontiers for Research, Policy and Practice." Conference. Chicago, Ill.

Kolko, D. J. (1996). Child Physical Abuse. In J. Briere et al. (eds.). The APSAC Handbook on Child Maltreatment. pp.21 – 50. Thousand Oaks, Calif. Sage.

Kumpfer, K.L. et al. (1996). In Prevention Summary. Effective Family Strengthening Interventions. Texas Youth Commission.

Kumpfer, K.L. and Alvarado. R. (1998). Effective Family Strengthening Interventions. Juvenile Justice Bulletin, November.

Lieberman, A.F., Silverman, R., & Pawl, J.M. (2000). Infant-Parent psychotherapy: Core Concepts and Current Practices. In C.H. Zeaneh (Ed.). Handbook of Infant Mental Health. N.Y.: Guilford Press.

Lindsey, D. (1994). The Welfare of Children. New York: Oxford Press.

Measuring Program Outcomes: A Practical Approach (1996). United Way of America.

McCroskey, J. & Meezan, W. (1998). Family-centered Services: Approaches and Effectiveness. The Future of Children: Protecting Children from Abuse and Neglect, 8(1), 54 – 71.

Nash, J.M. (1997). Fertile Minds. Time. February 3.

National Centre for Clinical Infant Programs (NCCIP). (1987). Charting change in infants, families and services: A guide to program evaluation for administrators and practitioners. Washington, D.C.: NCCIP.

National Crime Prevention Council (1995). NCPS Virtual Library – Risk or Threats to Children. Fact sheet.

Olds, D.L. (1992). Home visitation for pregnant women and parents of young children. Am. J. Dis. Child 146, 704 – 708.

Olds, D.L. et al. (1988). Improving the Life Course Development of Socially Disadvantaged Mothers. A Randomized Trial of Nurse Home Visitation. American Journal of Public Health, 78, 1436 – 44.

Olds, D.L. et al. (1986). Improving the Delivery of Prenatal Care and Outcomes of Pregnancy: A Randomized Trial of Nurse Home Visitation. Pediatrics, 77, 16 – 28.

Oppenheim, et al. (1988). Infant-Adult Attachments on the Kibbutz and their Relation to Socio-emotional Development Four Years Later. Developmental Psychiatry, 24 (3): 427-433.

Pecora, P., Fraser, M., Nelson, K., McCroskey, J., and Meezan, W. (1995). Evaluating family-based services. Hawthorne, N. Y.: Aldine.

Pecora, Peter J.et al. (1991). Client outcomes and issues for program design. In Wells, Kathleen and Biegel, David E., eds. Family Preservation Services, Research and Evaluation. Sage Publications, London.

Perry, Bruce (2003). Keep the Cool in School. Promoting Non-violent Behavior in Children. http://teacher.scholastic.com/professional/bruceperry/cool.htm

Perry, Bruce D. (2003). The Developmental Hot Zone. http://teacher.scholastic.com/professional/bruceperry/hot-zone.htm

Posovac, E.J. and Carey, R.G. (1989). Program Evaluation Methods and Case Studies. Prentice Hall.

Porter, Phyllis. (2003). Early Brain Development. What parents and caregivers need to know. http://www.educarer.org/brain.htm

Reed-Ashcroft, et al. (2001). The Reliability and Validity of the North Carolina Family Assessment Scale. Research on Social Work Practice. Vol. 11. No. 4.

Rutter, M., O'Connor, T., Beckett, C., Castle, J., Croft, C., Dunn, J., Groothues, C. & Kreppner, J. (2000). Recovery and deficit following profound early deprivation. In Selman, P. (Ed). Intercountry adoption: Developments, trends and perspectives. London, England: British Agencies for Adoption & Fostering.

Rutter, M. (1987). Continuities and Discontinuities from Infancy. In Osofsky, J. (ed). Handbook of Infant Development. New York: John Wiley and Sons. pp. 1256 – 1296.

Rutter, M. (1987). Psychosocial Resilience and Protective Mechanisms. Amer. J. of Orthopsychiatry, 57, 316 – 330.

Sannon, A. et al. (1991). Risk Indicators: Assessment of Infancy Predictors of Preschool Behavioral Maladjustment. J. of Child Psychology and Psychiatry, 32: 609 – 626.

Schiefelbusch, R.L. et al. (1980). Assessing Children at Risk for Speech Disorder. In The At-Risk Infant, edited by Harell and Anastasiow. Amsterdam: Excerpta Medica, 277 – 284.

Schweinhart, L.J. et al. (1986). Child-initiated Activities in Early Childhood Programs May Help Prevent Delinquency. Early Childhood Research Quarterly, 1, 303 – 311.

Solomon, S.D. (1992). National Workgroup on Violence. Washington, D.C. National Institute of Mental Health, Violence and Traumatic Stress Research Branch.

Starting Points: The Quiet Crisis (2003). http://www.carnegie.org/starting_points/startpt1.html

Statistics Canada (1996). Growing Up in Canada. National Longitudinal Survey of Children and Youth.

Steinhauer, Paul D. (1996). The Primary Needs of Children: A Blueprint for Effective Health Promotion at the Community Level. The Caledon Institute of Social Policy. 1600 Scott Street, Suite 620, Ottawa, Ontario K1Y 4N7.

The Surgeon General's Report on Mental Health (2003). Overview of Risk Factors and Prevention.

Tillman, G.A. (2000). An Enhanced Vocational Education Learning Environment for Youth at Risk. Document prepared for the Skill Factory. Calgary, AB.

Tutty, Leslie M. (1995). Theoretical and Practical Issues in Selecting a Measure of Family Functioning. Research on Social Work Practice. Vol. 5. No. 1.

United Way of Calgary and Area (2001). Children and Youth. Funded Agencies, Services, and Community Issues.

Urquiza, A.J. and McNeil (1996). Parent-child Interaction Therapy: An Intensive Dyadic Intervention for Physically Abusive Families. Child Maltreatment, 1, 134 –144.

Zigler, E., & Black, K. (1989). America's family support movement: Strengths and limitations. American J. of Orthopsychiatry, 59, 6 – 19.