

Supporting the development of Canada's children

Every child should be valued and have the opportunities to develop his or her unique physical, emotional, intellectual, spiritual, and creative potential. Canadian Inter-governmental Conference Secretariat, 2000, p. 1.

1.1 INTRODUCTION

Over the past decade there has been a significantly increased recognition that optimal early childhood development is crucial for the health, well-being, competence and coping not only of the individual but also of the society at large.¹ This recognition is supported by substantial, specific evidence from a range of disciplines including the neurosciences, developmental psychology, psycholinguistics, epidemiology, and economics. As recognized by the First Ministers, it is imperative that we determine the best ways to support and promote the well-being of *all* our children and that we translate such knowledge into societal policies, practices and structures that assist children to develop their capacities to participate in the social, economic and political life of our country.

1.2 The Early Childhood Development Initiative: An opportunity for action

An opportunity to develop societal policies, practices and structures that support the optimal development of all young children is provided through the combination of:

- *The Social Union Framework Agreement (SUFA)* committed to by the federal and all the provincial/territorial governments (except Québec). This agreement provides a vehicle for federal financial contributions for the development and maintenance of social programs by the provinces and territories.
- *The National Children's Agenda (NCA)*, which provides a policy framework for supporting young children and their families and an agreement to work cooperatively towards this end by the federal and all the provincial and territorial governments except Québec (which, however, supports the objectives of the NCA).
- *The Early Childhood Development Initiative (ECDI)*, agreed to by the First Ministers in September 2000 and including a pledge of \$2.2 billion from the federal government

over a five-year period for provincial/territorial programs to support young children and their families. These funds, along with the provisions of SUFA, permit governments to begin implementation of the goals and objectives of the National Children's Agenda.

The Early Childhood Development Initiative (ECDI) explicitly states that its purpose is to promote the optimal development of *all* children during their prenatal period and their first six years of life. However, except in Québec,² most programs to promote young children's healthy development are explicitly or de facto targeted – that is, *they are open to some children/families but exclude others*. Programs that are explicitly targeted include those restricted to children/families who are living in a community deemed to put children at risk for poor development, for example, the federal government's Community Action Plan for Children (CAPC) program and its Aboriginal Head Start initiative, Manitoba's Early Start, Ontario's Better Beginnings, Better Futures, and Saskatchewan's targeted pre-kindergarten programs. Regulated child care is a de facto targeted program because eligibility criteria based on family income, parental employment status, or the child being deemed 'at risk' restrict access to the child care fee subsidy and thus to the service unless the parent can afford the full fee. Nursery schools are also de facto targeted programs since they are restricted to the children of parents who can pay for the service.

1.3 Meeting the challenge

Over the past twenty years, and accelerating in the 1990s, the social policies of the federal, provincial and territorial governments increasingly shifted towards targeted programs – that is, government-funded programs with specific eligibility criteria that include some people while excluding others. This shift occurred across programs for the whole age range from infants to seniors.³ In the case of young children, targeting appears to be based on the following assumptions:

- We can reliably identify children at risk for developmental problems at an early age.
- We know what types of programs are the most effective in promoting the development of children at risk.
- Targeting is the only effective way to change the developmental trajectories of children at risk.
- The majority of young children who are not living in situations traditionally believed to jeopardize children's development will enter the public school system ready to benefit from its program without any assistance from governments.

Successful implementation of the ECDI goal that *all* children will be school-ready at age six requires an evidence-based re-examination of each of these four assumptions.

1.4 The purposes of this paper

This paper focuses on the period from birth to age six and examines the following questions:

- What are the known threats to young children’s optimal development?
- Can children whose development is at risk be identified reliably and at an early age?
- Which types of targeted programs enhance the development of vulnerable children and under what circumstances?
- To what extent and under what circumstances do non-targeted programs that are open to all children/families promote the development of children at risk?
- To what extent are Canada’s targeted programs consistent with promoting the development of at-risk children?
- How can we promote the healthy development of the largest number of children?

1.5 The organization and content of this paper

1.5a Threats to children’s optimal development

Chapter 2 uses recent Canadian data from the *National Longitudinal Survey of Children and Youth* (NLSCY) and other research to demonstrate that we do know at least *some* of the factors that put young children’s development at risk. These known factors include living in poverty and/or living in a lone-parent family. Both of these have been used for decades as ‘markers’ of situations where children’s development may be at risk and to identify communities with substantial proportions of such families as being communities in need of targeted programs such as Head Start.

However the NLSCY and other Canadian research studies have also identified factors that are not tied to easily identified family or neighbourhood characteristics but instead occur across *all* income groups and in both lone- and two -parent families. These factors include:

- A hostile parenting style.
- Living with a parent who is stressed.
- Living with a parent who is depressed.
- Living in a dysfunctional family.
- Lack of linguistic and/or cognitive stimulation.

Some of these risk factors, such as a hostile parenting style, have a *greater* impact on the probability of poor child outcomes than do family composition or family income level.

1.5b Can vulnerable children be identified reliably and early?

Chapter 2 also documents that we *cannot* identify the majority of children at risk either reliably or at an early age. Traditionally, the ‘markers’ of living in poverty and/or in a family headed by a lone-parent have been assumed to identify the majority of vulnerable children without also incorrectly labelling many whose development is not at risk. Is this assumption correct? Data from the NLSCY support the belief that proportionally more children in the lowest income families and in families headed by lone-parents experience developmental problems. In other words, the *incidence* of being at risk is greater in these situations.

However, as illustrated in Tables 2.1, 2.2, and 2.3 in the following chapter, the data also document that:

- The majority of young children living in low-income families and the majority living in lone-parent families are developing at the normal rate and do not have behaviour problems.
- Developmental problems occur across all income levels and in both lone- and two-parent families.
- *Numerically* there are more children at risk in moderate- and upper-income and in two-parent families than in low-income or lone-parent families. This reflects the fact that most children live in two-parent families and are not living in poverty.

These data demonstrate how and why relying on neighbourhood socio-demographic information to identify children at risk for developmental problems has inherent limitations. One limitation is that this approach fails to take into account the fact that children not living in communities with the traditional ‘markers’ associated with at-risk status may, in fact, be at risk as a result of other factors. Furthermore, the majority of children in Canada do not live in low-income neighbourhoods or in those with a high proportion of lone-parent families.

There are two reasons why we cannot identify many children at risk at an early age. First, some factors that place children at risk, such as living with a parent who is stressed, are not public information in the way that living in a low-income neighbourhood is. Such factors can only be identified on an individual basis and usually are only identified after a child has begun to exhibit problems. Second, the earliest we can be sure that all children will come into contact with an adult able to identify developmental problems is at entry into the formal school system. At this time a kindergarten or grade one teacher may identify that a child is lacking in one or more of the basic skills required to take advantage of the school program.

1.5c The effectiveness of targeted programs

Chapters 3, 4 and 5 respectively discuss the effectiveness of the three major categories of targeted programs to promote the development of vulnerable children. The three categories are:

- **Child-focused programs** that solely or primarily provide a centre-based group educational experience for children, for example, the Abecedarian and Perry Preschool Projects, Head Start, and Saskatchewan's targeted pre-kindergarten program.
- **Parent-focused programs** that provide one or more of: parenting education, the provision of information about child development, and parental support, for example, assistance in obtaining other services. These programs may be provided through home visiting, individual meetings with the parent at the program's office, and/or group parent meetings or courses. Some parent-focused programs may include a children's component such as a parent/child drop-in or a part-day centre-based group experience.
- **Two-generation programs** that use a three-pronged approach that is both child- and parent-focused. To a greater or lesser extent, all two-generation programs provide:
 - A group program for children.
 - Parent support and parenting education.
 - Services intended to improve the family's financial situation by assisting the parent to become more employable, for example, through educational upgrading or specific job skill training.

The findings from the research discussed in Chapters 3, 4 and 5 can be summarized as follows:

- The development of at-risk children is significantly enhanced by targeted centre-based programs where warm, supportive adults who understand child development and know how to encourage it provide challenging but developmentally-appropriate activities⁴ for small groups of children. The benefits to children's development from these programs continue to be evident throughout their school career.
- At-risk children do not benefit from targeted centre-based group programs that are characterized by high staff turnover and poorly trained adults who do not provide the type of developmentally-appropriate activities that stimulate children's skill acquisition.
- Centre-based group programs for children are more effective in enhancing the development of at-risk children when the children begin attending them prior to age three and do so on a full-day rather than a part-day basis.
- Targeted parent-focused programs, such as home visiting, can help parents feel supported and less stressed, reduce the incidence of low birth weight among mothers at risk, and reduce the incidence of child neglect or abuse. The hoped for improvement in parenting practices or the home as a learning environment as a result of home visiting and/or parenting education usually does *not* occur and even when it does, there is usually only minimal or no parallel benefit to the at-risk child's development.
- Parent-focused programs combined with a centre-based group program for the children can enhance the development of vulnerable children. The degree of benefit appears to be related to the intensity of the children's group program and the degree to which it provides experiences that promote children's development.
- Two-generation programs that combine parent-focused services with a group program for the children have failed to demonstrate any long-term benefit for children's development and minimal or no benefit in terms of parental employability and family income. One reason for their failure may be the difficulty of providing sufficient intensity in each of the three major components to make a difference without placing unrealistic demands on parents' time, abilities, and stamina.

Based on the research evidence discussed in chapters 3, 4 and 5, experts in child development have concluded that centre-based group programs for children are the most effective way to promote the development of children whose development is at risk as a result of environmental circumstances.⁵ Furthermore, research indicates that programs intended to

promote the development of at-risk children are most effective when started prior to age three and provided on a full-day rather than a part-day basis.⁶

1.5d The effectiveness of non-targeted services

Chapter 6 discusses the effectiveness of non-targeted services (that is those not restricted to at-risk children) for promoting the development of children whether or not they are deemed to be at-risk because of environmental circumstances. These services include ordinary community child care centres and non-targeted parent education programs. The findings from the research discussed in this chapter can be summarized as follows:

- Participation in ordinary community child care centre programs enhances the development of poor children when the program is of sufficiently high quality to provide a greater level of emotional support and developmentally-appropriate linguistic/cognitive stimulation than is available in the child's own home.
- Coming from a home that supports development does not protect a child from the negative effects on development associated with spending substantial periods of time in poor quality child care, that is, care that might protect the child's health and safety but is lacking in adequate linguistic and cognitive stimulation.
- Parent education programs do not enhance the development of at-risk children.

1.5e Policy implications

Chapter 7 summarizes the policy implications of the research findings discussed in the previous chapters by exploring:

- Where do many young children spend the majority of their waking hours? To what extent are these environments supportive of child development? Is the current situation likely to continue?
- To what extent is the current targeted approach to the provision of early childhood programs consistent with what we know about what is required to promote young children's development?
- What should we as a society be doing?

Where are the children?

Chapter 7 documents that a large proportion of mothers with young children are engaged in paid employment. Others are engaged in educational or job skill training programs. As a result, many young children spend a substantial proportion of their waking hours in child care. The current high rate of participation in the labour force by mothers is likely to continue. When group programs for young children are specifically or de facto targeted, children from homes that do not have the traditional 'markers' assumed to put their development at risk are often placed in unregulated child care situations that may fail to provide adequate levels of stimulation and thus jeopardize children's development. Most parents do not use situations that may place their children's development at risk by choice but because they cannot afford or cannot find high quality child care.

To what extent are Canada's targeted programs consistent with promoting the development of at-risk children?

Targeting programs to promote the development of at-risk children on the basis of community socio-demographic characteristics fails to provide assistance to at-risk children living in communities not considered to be high risk.

The current approach of providing Head Start or targeted pre-kindergarten programs for at-risk children on a part-day basis starting when the child is age three or four is inadequate to meet the needs of the children for at least three reasons.

- Mastery of the developmental tasks faced by the child at age three and four depends heavily on a scaffold of competencies developed at an earlier age. Therefore, at-risk children need to be in an environment that promotes development earlier than age three.
- Research indicates that group programs for children are more effective in promoting the development of at-risk children when the children attend them on a full-day basis.
- Poverty puts children's development at risk through factors directly related to the family's low income such as poor nutrition, living in sub-standard housing, and lack of access to developmental opportunities. Assisting parents to engage in work that pays a decent salary is an effective way to address poverty and thus the incidence of developmental problems. The half-day approach used in most targeted group programs limits the mother's ability to engage in academic upgrading or job skill training to improve her employability and generally precludes accepting full-time paid employment. As a result, the mother's ability to

improve her family's financial situation and thus the environment in which her child lives is also limited.

In 2001, some provinces announced their intention to use at least some ECDI funds for the implementation of parent support services in high risk communities. As documented in Chapter 4, the research indicates that the hoped-for improvement in parenting skills and/or the home as a learning environment rarely occurs when programs focus primarily or solely on the parent, for example, parenting education and parent support services. When changes do occur, there is not a parallel improvement in the at-risk child's development or school readiness. Adding an educational group program for the children does improve the outcomes from parent-focused programs. However, it is probable that this is a function of directly working with the children. Experts in child development have concluded that centre-based group programs are the most effective way to promote the development of at-risk children.⁷

How can we as a society promote the healthy development of the largest number of children?

The current situation results in the following problems:

- Restricting programs to promote the development of at-risk children to those communities that have certain socio-demographic characteristics means that many at-risk children are not provided with such services.
- The de facto targeting of affordable regulated child care increases the probability of children whose home environments do not place them at risk spending much of their time in child care that fails to provide adequate levels of stimulation. Thus they become vulnerable to developmental problems.
- Many of Canada's targeted programs are either of a type or are implemented in a way that is not consistent with what the research tells us about effective promotion of the development of at-risk children.

As documented in Chapter 6, high quality ordinary community child care programs can promote the development of at-risk children as well as protecting the development of children not deemed to be at risk. We have a robust body of research documenting what is required for the provision of child care programs that support and foster children's physical and emotional well-being and their social, linguistic and cognitive skill development.⁸ Given our inability to reliably identify the majority of at-risk children through easily observed 'markers' such as neighbourhood socio-demographic characteristics, high quality, affordable child care for any child whose parent wishes to use the service is the most effective way to assist vulnerable children. At the same time, it would protect the development of children not

deemed to be at-risk who currently are often placed in situations that may be threats to healthy development.

A cost/benefit analysis done by two University of Toronto economists illustrates that Canada would benefit from a universal publicly-funded, high quality child care program.⁹ The first way these benefits would accrue would be through costs not incurred as a result of having diverted potential developmental problems early, and the second would be through a more productive workforce that would result in greater economic growth. In addition, a publicly-funded, high quality child care system would:

- Support parents' economic functioning.
- Reduce the level of stress experienced by many working parents as a result of difficulties obtaining reliable, quality child care.
- Provide a vehicle for early identification of developmental problems.
- Provide an infrastructure for additional or specialized services in specific situations such as speech therapy for a child with a language delay.

1.6 Issues when using research evidence to inform policy

This paper endeavours to provide research-based information to assist in policy development and program implementation. In so doing, it is constrained by certain limitations. This observation does not mean that reasonable, responsible judgements cannot be made – it simply acknowledges that there are limitations to our current knowledge. These limitations reflect the realities of conducting applied research and the limited availability of Canadian research.

1.6a The realities of conducting applied research

The strongest evidence of program effectiveness comes from research that identifies a pool of potential recipients all of whom all share certain characteristics, for example, family income level, and then randomly assigns some to an experimental group that receives the program and the others to a control group that does not. This is known as a randomized control trial and is the most robust way to maximize the likelihood that any differences between the two groups after a program are due to it rather than to some pre-existing between-group difference¹⁰. This design was used for evaluations of the Perry Preschool Project and the Abecedarian Project (see Chapter 3) and the Home Instruction Program for Preschool Youngsters (see Chapter 4).

However, a randomized control trial is not always possible. A program that targets a specific neighbourhood rather than a group of subjects that has been specifically selected is, by

design, open to all families living in the area. Access cannot be restricted to certain families in order to undertake effectiveness research nor is it possible to determine ahead of time which families will participate. Two strategies are frequently used to address this problem and studies using either strategy are sometimes referred to as having a *quasi-experimental* design.

One strategy used in a quasi-experimental design is to select a non-participant comparison group matched as closely as possible to the participant group on key variables that might influence outcome (for example, maternal educational level, a variable known to influence children's language development). The second strategy involves the use of statistical techniques to control for any known significant differences between the participant and non-participant groups. Unfortunately, it is not possible with either strategy to be absolutely confident that the researchers have indeed matched or controlled for all relevant variables.

To the extent possible, this report will rely on the findings from randomized control trials and quasi-experimental studies.

1.6b The limited availability of Canadian research

The majority of research studies conducted on the effectiveness of programs to promote the development of children deemed to be at risk has been conducted in the United States. The extent to which the findings from these studies conducted in a different context apply to Canada is unknown. Therefore, Canadian data are presented where available even if the data come from evaluation research that has not used a randomized control trial nor a quasi-experimental design and therefore does not meet the inclusion criteria imposed upon U.S. research.

1.6c The need for longitudinal follow-up and retention of subjects

There are two important reasons why we need findings from evaluations that followed the subjects for several years after the end of the program. One reason is related to the phenomenon of 'fade out' whereby apparent early benefits from a program with at-risk children disappear within a couple of years after the program ends. The second reason is the 'sleeper' phenomenon whereby benefits are not apparent until after a period of time beyond the end of the program. Because of these two reasons, to the extent possible, this paper will focus on studies that report findings from long-term follow-up.

The longer the follow-up period, the greater the risk that the researchers will lose track of some of the subjects. Loss of study participants reduces the extent to which a study that started as a randomized control trial can still be considered to be such. Therefore, when

discussing the findings from studies with long-term follow-up, this paper will focus on those that experienced the lowest loss of subjects over time.

Notes

1. Doherty, 1997; Keating, 1999; McCain and Mustard, 1999.
2. The Québec government is providing funding for regulated child care so that any parent who wishes to use this service can do so for a cost of \$5.00 a day. Further government subsidization is provided for parents who cannot pay this amount. The province is trying to ensure that all regulated child care will provide experiences that promote children's healthy development through initiatives such as increasing the training requirements for care providers and increasing remuneration levels which, in turn, should decrease turnover and thus provide more continuity for children.
3. Jensen and Stroick, 1999.
4. The term 'developmentally-appropriate activities' refers to activities that take into account the child's existing developmental level, knowledge and skills.
5. Barnett, 1998; Gomby et al., 1995; National Research Council and Institute of Medicine, 2000; Ramey et al., 1995.
6. National Research Council and Institute of Medicine, 2000.
7. Barnett, 1998; Gomby et al., 1995; National Research Council and Institute of Medicine, 2000; Ramey et al., 1995.
8. See, for example, Doherty, 1999; Doherty et al., 2000, Goelman et al., 2000.
9. Cleveland and Krashinsky, 1998.
10. Barnett, 1995; Mrazek and Brown, 2000; Zoritch, Roberts and Oakley, 1998