A concept paper on

THE PLACE OF CHILD DEVELOPMENT RESEARCH
IN
THE CANADIAN INSTITUTE OF HEALTH RESEARCH

Prepared for

The Social Sciences and Humanities Research Council of Canada

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1. Background and overview

A. The challenges of modern societies

Modern societies face difficult new challenges as they seek to cope, in the context of global economic competition, with the provision of opportunities for health and well-being of all citizens, the need to educate for new competencies in the population, as well as the maintenance of the social fabric for nurturing, socializing, and educating the next generation. As the pace of social change accelerates, it becomes increasingly important that the basic requirements for healthy human development be included in thoughtful planning. An essential component for such planning is a deeper understanding of the nature and processes of child and adolescent development. Such an understanding starts with a recognition of the fundamentally social nature of the human species, and thus the powerful impact that social environments have on human development and health. These influences are powerful throughout the life span, and particularly so during early life. In this respect, we are similar to other social primates.

Maintaining and rebuilding the social support for healthy and competent development require our sustained efforts, because the ability of individuals, populations and societies to adapt and to cope with change has become the key element of a healthy society. To meet these challenges, we need to understand more deeply how current social arrangements affect the provision of basic requirements for healthy and competent development. To accomplish this goal, we need to account for the fundamental features of child development and of human social environments, in order to understand how contemporary social structures and practices affect both individual and collective development in the context of ongoing dramatic social changes.

B. The unique challenges of children and adolescents growing up in Canada
Canada’s children and adolescents are growing up in a rapidly changing society. While these changes (e.g., globalized economy, new technologies, improvements in health and learning opportunities) may provide new and unequalled opportunities for growth for some children and youths, others, perhaps a growing number, are faced with obstacles that could be detrimental to a healthy development (i.e., child poverty, child abuse, youth violence, substance abuse, teen pregnancy, limited education).

Some of these obstacles to healthy development are new. For instance, recent improvements in the medical care of premature and low birth weight children have greatly reduced their mortality rate, which is a great human and societal advance. In return, this growing population of prematurely born children challenges the health research community because these children are at higher risk of impaired development and morbidity.

Other obstacles to healthy development are, unfortunately, not so new. Rather their prevalence has been expanded by the actual contingencies of society. Augmented peer violence, poverty, homelessness, and unemployment may increasingly affect children and youth, as well as their families, especially at a time of recurrent cutbacks in educational, preventive, and health services. This will likely result in increased emotional and behavioral problems among children and youths.

A case in point is child poverty that has been on the rise in Canada, making it all the more important to assess how this condition affects infant, child, and adolescent biological, socio-emotional, and intellectual development. Here, the main challenges for the health research community are to disentangle the complex and cumulative matrix of adverse factors often associated with this condition (e.g., teenage pregnancy, single parent family, limited educational opportunities, substance abuse, physical abuse), to examine the multi-faceted aspects of the short-term and long-term impacts of these factors, to document possible resiliency factors (e.g., temperamental factors, secure attachment relationship, social support networks), and, perhaps more importantly, to
clarify the interactions between these risk and protective factors over time. For instance, a question of central importance to actual developmental research concerns the role of parents in providing adequate care and stimulation for healthy social and emotional development, even under extended periods of stress and adversity. This research agenda should be the foundation of future adequate and efficient remedial treatments, prevention trials, and health policies aimed at these problems, with a strong emphasis on family and community support. These remedial attempts should be anchored within a systematic evaluative framework to insure auto-corrective feedback in the delivery of services.

Today’s health challenges to children and youths also emanate from their engagement in high risk behaviors (delinquency, alcohol and drug use, interpersonal violence, high risk sexual activity, early parenting, and school dropout). The major forms of child and adolescent mortality (including accidents, suicides, and AIDS) and morbidity (e.g., internalizing and externalizing problems) result from complex constellations of biological, psychological, social, and economic factors. A coordinated research effort to identify and understand these factors calls upon interdisciplinary and collaborative strategies centering on health issues that are highly relevant, and sometimes very unique, to infants, children, and adolescents. These questions certainly need to be considered in detail, on their own merit.

Many health issues also extend into early adulthood and onwards as pathologies emerge. Indeed, from a bio-medical point of view, the majority of Canadians who are sick are adults. The periods of infancy, childhood and adolescence are relatively disease free. Accordingly, the majority of the funds actually invested in health research are for curative purposes, conducted with and for adults. However, it is clear that many illnesses do not suddenly appear during adulthood. The origins of many physical and mental health problems can be traced back to early development and the question of the long-term deleterious effects of early exposure to risk factors should be given
priority. Developmental studies are thus crucial to understand the etiology and the ontogeny of illnesses and their prevention.

C. Developmental processes dynamic: the interface of biological and environmental factors

A major goal of child development research is to explore the linkages between neuroscience evidence of biologically critical periods and developmentally sensitive periods, and to explore the outcomes of developmental transitions. Recently there has been great public attention to the role of early experience in critical aspects of brain development. In that respect, at least three lines of inquiry may be anticipated.

The first line of investigation is aimed at examining the genetic-environment interplay in development through research designs that are genetically, environmentally, and developmentally informative. Fuelled by recent development in molecular genetics and its growing convergence with behavior genetics and developmental analyses, this line of research will likely unravel the unique contribution of social environmental factors to the developing person, as well as highlight potential interactions between genetic and environmental risk factors. It will also help understand the transactional dynamics of the association between genetic and social environmental factors, i.e., the extent to which environmental risk factors may become correlated with genetic vulnerabilities, and the extent to which the environment may influence the genetic activity.

The second line of inquiry is further exploration of the developmental integration of neural, neuroendocrine, and neuroimmune systems functioning to understand their natural maturational processes, their adaptive capacity and plasticity, but also the extent to which they may be influenced by the quality of one’s early experience. One question that deserves specific attention concerns the potential impact of early trauma and extreme adverse conditions on the developing brain. New development in the area
of neuroimaging technology and other neuroscience techniques now allows for a better understanding of the biology of early brain development and the role of the psychosocial and socio-economic environments in shaping the brain. This bio-social integration may well be a core dynamic for the pervasiveness of social class gradient effects in health, coping, and competence.

The third line of investigation is to explore more closely the linkages between critical periods in identifiable sensory systems and sensitive periods in higher level functioning. Critical periods are defined as periods during which the experiences of the organism will be encoded, especially in the neural system. Before and after the critical periods, the same experiences will have little or no effect on the developing organism. Although sensitive periods may have less of the "all-or-nothing" characteristics of some critical periods, they may operate in a similar fashion in setting important dispositional aspects and bases for future development of health problems.

At this point, biological embedding is a fruitful hypothesis for explaining obtained population gradients. It is, however, largely an argument from consistent and matching evidence, rather than a tightly argued causal sequence. The potential for Canadian investigators of child development to advance this issue is considerable, given the formulation of the question for analysis and the collaborative interactions among scientists from all the relevant disciplines.

D. Society, community, and culture dynamics

The social/cultural dimensions of human development affect both the quality of experiences which support development and health, as well as the social organization of economic and societal activities. It has become clear in current research that individual development, population well-being, and societal adaptiveness are tightly linked. For instance, violence at the individual, peer, family and community levels not only impedes children's development, but it will likely affect these different layers of
society as these children grow up. Indeed, aggressive children tend to become violent adolescent and adults who will disrupt neighborhoods and may reproduce another generation of children with problem behavior. Poverty and racism have a similar effect. We need to understand more clearly the child development factors involved in societal adaptation.

Conversely, it is also important to document and understand how and where socialization occurs in different contexts such as the family, the classroom, and the neighborhood. Specifically, because it is still the basic matrix within which children are socialized, the family should be the object of close and persistent attention by the developmental health research community, especially in the context of its drastic transformations in the last decades. Spouses marry far less often, and unions are more likely to dissolve, than at any moment previously. For a growing number of children and adolescents, this instability means living longer periods of time within a single parent home, and being more likely to lose contact with the non custodian parent. It also means experiencing new unions and family units. While these delicate transition periods may be opportunities for growth for some, they may also be very stressful for many, sometimes leading to personal difficulties. Not only do we need to document these changes, but we also need to know how these changes positively or negatively affect children’s and adolescent’s development and well-being.

Families are also transformed by the growing presence of mothers in the workplace, and demands from the workplace clashing with «family life». Alternative care system, educational services, the school system, and the media play an increasing role in children's early socialization, and their modes may well vary as a function of cultural and socio-economic factors. These agencies intervene earlier than ever in the lives of children and will likely influence their intellectual, physical and psychological development. These factors should be examined in their own right as we know very little about their impact on healthy development. This research endeavor requires a
number of methodologies and disciplines, including economic analyses, demographics, cultural anthropology, and sociology.

E. Community innovation and intervention

In contrast to the vicious cycle of increasing social gradients into haves and have-nots, and the negative impact of this on population health and well-being, as well as social cohesion described by many observers, there may be the possibility of a virtuous cycle, in which increases in the quality of the social environment lead to increases in societal innovation and the general standard of health of the society. We need to develop a framework of understanding that leads to new or renewed social institutions and community functioning. In particular, the ability to identify more vs. less successful communities in terms of important developmental and health indicators affords an opportunity to explore the core dynamics of successful adaptation at the community level. What are the features of local communities or organizations which have a greater positive and negative impact on children’s health? Are there generalizable principles, or is each community a unique case? What are the social and cultural enhancers or inhibitors in the delivery of those support systems, and how have those integrated patterns evolved? Understanding the change mechanisms for societal adaptiveness and health related behaviors is a key to trying to enhance adaptiveness and health. For instance, how do economic factors (such as the steepness of the differences among social classgroups) impact on child development and health? Are they the driving process, or can developmental support be achieved in a range of ways, some of which are more social than economic? Several of the applicants have begun to look systematically at community and organizational innovations that may lead to the identification of key features supporting the development of a civic, learning and healthy society. This exploration may more likely be productive if it is guided by a coherent conceptual framework on human development.
Research concerning the processes and practices which foster optimal growth, health, and well-being is the raison d'être of child development research. Applied developmental science, as it might be called, is an extremely important area for understanding and contributing to the development of population health in Canada. The fact that the field of developmental research has continued to expand over the last several decades to incorporate research regarding applications and evaluations of interventions, makes it an important scientific discipline concerned with human health in its broadest sense. Yet, we need to know more about prevention and intervention measures likely to reduce the individual, family and community risk factors that are associated with poor developmental trajectories for children and youths, especially in the area of learning disabilities, family and peer violence, and poverty. What are the most effective procedures, practices and programs which translate an understanding of important processes/determinants of child development and health into action? How can knowledge of effective interventions and practices for promoting child development and health influence public policy?

We should also be aware that opportunities for healthy child development are not equal across Canada. The challenge of providing for the sound development and well-being of children of minority cultural groups, aboriginals, and children in remote communities is pressing and should also receive our attention. A potential advantage of having a linked or system model for this research agenda is that there is a way of accumulating the knowledge, and of discovering unexpected and thus unsought links in our knowledge. Realizing this potential would be a key marker for the success of the proposed Institute.

To summarize, health related developmental studies are important because we need to gather more information on health issues specific to the populations of infants,
children and adolescents of this country, and also because we need to address important fundamental and applied questions regarding normal and abnormal developmental issues in building a healthy society. The role of researchers, and a viable research network, in meeting these social challenges is central, because a key element of a research agenda on child development includes, as a defining feature, how to construct a progressive, knowledge-building discourse among many researchers in a way that can engage a broader societal focus on how to optimize child development.

How do we build a society which supports child development and health? Such an agenda requires: 1) a systematic way of generating research knowledge on child development, and feeding this back into the health discourse; and, 2) advance research on how to build a healthy society, from its technological infrastructure to its social, cultural, and community organization. The central role of the proposed Institute in this process is thus to address research questions which arise in this activity. The actual building process requires multiple partners and the allocation of considerable resources. This type of research agenda necessarily calls for interdisciplinary collaborations and ways to link the extensive research knowledge that already exists with practices in the areas of health education, health services, and social policy. This is the challenge of fundamental and applied developmental research in the 21st century.
2. Current and future research on child development and health in Canada

Individually and as a group, Canadian social science researchers are among the world leaders in the area of child development. Canadian researchers are well represented in, if not at the forefront of, every major research domain of child and adolescent development. Within each domain, Canadian researchers have made major contributions to understanding the development of both mental and physical health problems. They have also made important contributions in the areas of prevention and public policy.

However, these researchers largely function independently of each other, typically working within university settings. These conditions need to change. Researchers need to work in more integrative ways and they need to have stronger links to professionals in other settings, especially those that deal directly with children, adolescent, and families. Consequently, one goal of the proposed Institute would be to promote the needed syntheses between developmental researchers, and to increase the exchange between people involved in basic research and applied enterprises. The support for these major integrative activities cannot be expected from the agencies referred to above. Instead this sort of much needed effort is perfectly suited to the funding opportunities provided by the CIHR program.

Compared to the situation in the USA, the research efforts are largely under funded. The main sources of funding are SSRHC, NHRDP, MRC and NSERC, at the federal level, and, provincial initiatives mainly in British Columbia, Ontario and Québec. Most research projects are small scale studies. Large collaborative efforts are rare and under funded. We focus below on large scale projects.
A. Over the past 20 years major epidemiological and longitudinal studies have been conducted in Ontario and Québec. Longitudinal studies collect information on the same group of participants over time, allowing researchers to measure developmental processes and the factors influencing these processes as they unfold. The original focus of these studies was mental health problems such as hyperactivity, conduct disorder and emotional disorders. These disorders are the major health problems during childhood and they generally have an impact on future health and well being. These longitudinal studies also contributed important knowledge on the physical health of children and adolescents through their focus on smoking, drinking, drugs, sexual behavior, physical aggression, accidents, and suicide attempts. Since the major causes of death of youths are accidents and suicide, these longitudinal studies provide crucial information on their prevention. Smoking, drinking, drugs, and sexual activities are also the main causes of physical health problems throughout the life span. Longitudinal studies of large samples of children will provide the crucial information needed to understand how to prevent the onset of these unhealthy behaviors and how to help adolescents put an end to these behaviors before they become fatal habits.

In 1994 the former Ministry of health and welfare started a longitudinal study of a representative sample of Canadian children. With its 22,831 children, the National Longitudinal Survey of Children and Youth (NLSCY) is one of the largest longitudinal studies of children and families in the world. The NLSCY is now part of the Ministry of Human Resource Development. The data collection is done by Statistics Canada. The size, scope and design of the study can make major contributions to the advancement of knowledge on child development and human health. It has benefited from the expertise of previous longitudinal studies and has been instrumental in prompting longitudinal studies within the provinces. Recently, Human Resource Development of Canada initiated a complementary research program titled "Understanding the Early
Years” which will be studying thousands of preschool children in communities across Canada.

We estimate that within two or three years there will be close to 50,000 children, adolescents, and young adults who will have taken part in these longitudinal studies. These data sets can be an extremely important source of information on the development of health and well being in the Canadian population. With a given group of individuals researchers can study the interface of biological and environmental determinants in the etiology of health related problems, they can develop a comprehensive view of the different layers of social systems (e.g., the family, the peer system, the school, the community) as they promote or impede healthy development, and they can study normal developmental pathways (self-regulation, cognition, competence, social skills, peer and family relationships, etc.). These large longitudinal data sets will also be extremely important for planning the health care system and services. With careful planning these longitudinal studies can form the basis of an extremely productive research agenda for at least the first half of the next century.

B. Canadian researchers have also pioneered experimental research on the prevention of children’s health problems. Experimental programs targeting children, adolescents and their families have shown long term effects on school achievement, antisocial behavior, and substance use. These prevention studies were experimented mainly in Ontario and Québec. Many countries have used these experiments to revise their service delivery to children and families. Canadian researchers will be in a better position to develop the next generation of prevention programs if they have access to a well funded research network which emphasizes multidisciplinary collaborations to fully account for the multiple pathways towards health and pathologies (e.g., anthropology, biology, biostatistics, criminology, demography, education, epidemiology, genetics, pediatrics, psychiatry, psychology, social work, and sociology).
3. An Institute of Child Development, Family and Health

A. Rationale and aims

We believe that the creation of an Institute of Child Development Family and Health within the Canadian Institute of Health Research would be an excellent means of rallying Canadian researchers in child development and health into a collaborative and productive network. This national network of researchers on child development and health could create a national research program which would be coordinated with research in other Institutes.

The main goals of an Institute of Child Development, Family and Health would be:

1) to study the bio-psycho-social factors associated with the ontogeny of physical and mental health problems from birth to adolescence;

2) to study how these problems affect physical and mental health in adulthood;

3) to create, implement, and assess child development programs aimed at preventing health problems;

4) to study public policies likely to influence healthy child development;

5) to train students and young researchers in the area of child development and health;
6) to create national and international research programs on child development and health with researchers in the other CIHR;

7) to create alliances with practitioners, policy makers, and communities, in order to develop and implement research programs, and disseminate research findings.

Longitudinal studies and prevention experiments which will make important contributions to knowledge and practice over the next decades will necessitate large and long term investments. Interdisciplinary research teams needed for the success of these studies will make long term commitments only if they can count on the appropriate intellectual environment and funding. This type of investment is generally more in need of human resources to collect and analyse the data than in need of expensive equipment. Creating a sustainable research network around important national population databases, with linkages to emerging provincial databases would enable the Canadian network of child development researchers to take up more directly the exploration of developmental pathways leading to healthy life styles and to serious health problems. It would also help develop the research capacity for population analyses of developmental data, with respect to data systems, people, and the utility of such analyses as community indicators of population well-being. The Institute would play an important role in providing ongoing monitoring of the population for use by communities as they attempt to build healthy societies.

An Institute on Child Development Family and Health would go a long way in helping coordinate and consolidate these efforts. While harboring Canadian and international collaborations through these concerted research endeavors, the Institute would give the support needed by Canadian researchers to remain competitive, and provide the optimal training ground for the next generation of researchers in the field of developmental health. Finally, as knowledge gained from this type of study will likely be
relevant to other Institutes (e.g., mental health, substance abuse), this research enterprise could provide the stepping stone for inter-Institute cooperation within the CIHR network.

Research on child development and health is of central importance to research on the development and prevention of a large number of diseases, e.g. research on the development and prevention of mental health problems, research on the development and prevention of cancer, research on the development and prevention of cardiovascular problems, and research on the development and prevention of addictions. Research on child development is also extremely important for research on population health. An Institute on Child Development and Health will thus need to work in close collaboration with the Institutes targeting specific diseases. Researchers in areas such as child cancer, child diabetes, and child mental health would be affiliated with the ICDH and the Institute which targets the specific disease of interest.

B. Links with the community

Canadian researchers in child development have a long tradition of linking with governmental, para governmental, and non governmental agencies. For example the National Longitudinal Survey of Children and Youth is conducted by the Applied Research Branch of Human Resource Development Canada and Statistics Canada in collaboration with a large number of child development researchers across Canada. A similar study in Québec is conducted by a network of child development researchers in collaboration with Santé Québec. Understanding the Early Years is a new initiative of the Applied Research Branch of Human Resource Development Canada which involves researchers in child development, school boards and non governmental agencies. The best research strategy to identify effective preventive interventions, while testing theoretical hypotheses, is prevention experiments. These are generally implemented in service delivery agencies. An Institute in Child Development and Health would serve an
important function in planning and coordinating these experiments across Canada, and in disseminating the acquired knowledge. Canadian researchers in child development have played an important role in transferring to the policy makers the knowledge which has become the Canadian child agenda and which is best exemplified by the following excerpt from the Governor General throne speech in September 1997:

"A country that has decided to invest in its children is a country that is confident in its future. A country that invests in its children successfully will have a better future. One of our objectives as a country should be to ensure that all Canadian children have the best possible opportunity to develop their full potential. We must equip our children with the capacities they need to be ready to learn and to participate fully in our society."

C. Resource requirements

We estimate that the present annual Canadian investment in research on child development and health is probably close to $25 million. There are approximately 8 million Canadians below the age of 21 years. This means that Canada probably invests only $3.1 per child per year to understand how to further long term health through quality child development. In the USA the National Science and Technology Council estimated that for the 1995 fiscal year $2 billion was spent for research on child and adolescent development. For each of the 80 million USA children and adolescents the research investment represents $25. Interestingly the Council estimated that $25 per child in research was insufficient. They said:

"An obvious question is whether the Nation’s investment related to child and adolescent R&D is consistent with our research investment to solve other social, economic, energy, transportation and health problems. Put another way, the estimated $2 billion is aimed at understanding the
growth and development of 30 percent of the Nation’s population — over 80 million children and adolescents under age 21. The lack of dramatic progress on some youth-related problems may stem from having limited R&D funding that must be spread across the spectrum of developmental problems arising during the first 20 years of life (p.10)."

If Canada were investing $25 in child development research for each of its 8 million children, it would be investing $200 annually for research in child development. Allocating $50 million per year in research on child development and health would be a small, but important step towards bringing Canadian researchers closer to the level of funding of their American colleagues. It would probably help reduce two extremely expensive types of brain drains. The first is the brain drain of Canadian researchers in child development who go to, or stay in the USA after training, because there are more resources across the border. The second brain drain was coined by Fraser Mustard and his colleagues in Ontario. It refers to the lack of stimulation a large number of Canadian children are receiving, and thus handicaps their healthy development.

D. Dissemination

There is a need also for dissemination. One impediment to dissemination is the lack of an understanding of social science research among practicing journalists. Writers who cover the social sciences often know about theory related to the social sciences but are weak in their understanding of the research tools and techniques that social scientists use in their research. The Institute of Child Development, Family and Health will provide workshops for journalists on the research designs and strategies used to study human development. In so far as journalists are often the gateway by which the general population learns about human development research, helping journalists understand how we work will enhance the dissemination of our findings.
4. Alternative solutions

Two alternative ways of integrating child development research into the CIHR were examined.

A. The first would involve integrating child development and health research in an institute with a broader mandate. One likely candidate is an institute which would include pediatrics research. Canadian researchers in pediatrics have proposed to create The Canadian Health Research Institute for Mother, Child and Youth. Over the next month we will have discussions with this group to see to what extent our proposals can converge. There are a few Canadian pediatricians who are involved in the present proposal and have made important contributions to child development research and health.

Researchers involved in the present proposal have also been involved in a proposal for a Canadian Institute of Population Health Research. This Institute proposes to include human development within its program. We will maintain links with the steering committee of this Population Health Institute to identify the best ways of collaborating within one institute or across institutes.

B. The second approach would be to distribute child development research into more "narrow" institutes, such as mental health, cancer, diabetes, cardiovascular health, respiratory health, health services, and create a cross-cutting structure to coordinate the research planning on child research, to synthesize the results and possibly to attribute the research funds. We have some hesitation in taking that direction because of the USA experience. The Child and Adolescent Federal research
investment which was estimated, as pointed out above, at $2 billion for 1995 was distributed among 8 agencies within the Department of Health and Human Services, 21 funding components within the NIH, and 3 independent Federal agencies. The report of the United-States National Science and Technology Council referred to above concluded that higher-level coordination was needed in order to collect, analyze, and synthesize "what this knowledge base tells us about what the nation can do to ensure the healthy development of all American youth". There is a clear need in Canada for some form of structure which will achieve these functions, and we believe that whoever does this work will be well placed to identify the needs for future research and the resources needed.

5. Participants in a Child Development and Health initiative

Many Canadian researchers have been involved in collaborative longitudinal and experimental research in child development and health. They have shown that behavioral, social, and bio-medical scientists can form extremely productive interdisciplinary teams across Canada and internationally. The following scientists and research centers could be the core of a Child Development and Health initiative in Canada. However, this list is presented only for illustrative purposes. The members of the Institute would be those researchers whose research programs would be financially supported by the Institute after a peer review process. To insure the highest standards of excellence, this peer review process should be developed in link with other CIHR and an international board of specialists in the field of child and adolescent development.

A. Research centers

British Columbia
- Centre for Health Services and Policy Research, University of British Columbia
- Youth and Society Research Group, University of Victoria

**New Brunswick**
- Canadian Centre for Policy Research in Education, University of New Brunswick

**Nova Scotia**
- IWK Children’s Hospital, Dalhousie University

**Ontario**
- Better Beginnings Research Unit (Queen’s University)
- Canadian Centre for Children at Risk (McMaster University)
- Centre for Child Development, University of Western Ontario
- Institute of Child Study, University of Toronto
- LaMarsh Centre for Research on Violence and Conflict Resolution (York University)
- Department of Human Development and Applied Psychology, Ontario Institute for Studies in Education (OISE) (University of Toronto)

**Québec**
- Center for research in Human Development (Concordia University)
- Centre d'étude du sommeil, Hôpital du Sacré-Coeur de Montréal
- Centre de recherche Fernand Seguin, Hôpital Louis-H. Lafontaine
- Centre de recherche de l'Hôpital Sainte Justine (Université de Montréal)
- Centre de recherche Robert-Giffard (Université Laval)
- Inter-University Centre for Demographic Studies, Institut national de Recherche - Urbanisation du Québec et Université de Montréal
- Montreal Children's Hospital Research Centre
- Research Unit on Children's Psychosocial Maladjustment (Laval University, McGill University, University of Montréal)
B. Individuals

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C. Steering committee

Coordinators: Richard E. Tremblay, director of the Research Unit on Children's Psychosocial Maldadjustment (University of Montréal, Laval University, and McGill University), Douglas Willms, director of The Atlantic Centre for Policy Research in Education at the University of New-Brunswick, and Michel Boivin, director of the Inter-University Research Team on Peer Relations at Laval University.

Members: William Bukowski, director of the department of psychology at Concordia University and member of the Centre for Research on Human Development. He coordinates the planning of research on adolescence; Clyde Hertzman, from the Centre for Health Services and Policy Research at the University of British Columbia, coordinates work on the integration of health and social science models and methods; Daniel Keating, chair of the Human Development department at the Ontario Institute for Studies on Education, University of Toronto, coordinates the planning of research on childhood; Céline Le Bourdais, from Québec's National Institute for Scientific Research and director of the Inter-University Centre for Demographic Studies, coordinates the planning of research on families; Ray DeV. Peters, professor at Queen's University and
director of the Better Beginnings Better Futures Research Program, coordinates the planning of research on child development programs; and David Offord, director of the Centre for Studies of Children at Risk at McMaster University, coordinates the planning of alliances with communities, policy makers, and practitioners.