Conditions for Success of Actions to Promote Total Child Development

STATE OF KNOWLEDGE

Conditions for Success of Actions to Promote Total Child Development

STATE OF KNOWLEDGE

Direction du développement des individus
et des communautés

January 2014

AUTHOR

Julie Poissant, Expert on perinatality and early childhood,
Institut national de santé publique du Québec

COLLABORATOR

Alessandra Chan, Early childhood science advisor,
Institut national de santé publique du Québec

LITERATURE SEARCH SUPPORT

Vicky Tessier, Librarian
Institut national de santé publique du Québec

SCIENTIFIC DIRECTION

Réal Morin, Scientific director
Institut national de santé publique du Québec

WITH THE SUPPORT OF THE MEMBERS OF THE INTERVENTION WORKING GROUP OF THE JOINT INTERVENTION INITIATIVE FOR EARLY CHILDHOOD DEVELOPMENT

Caroline Caux, Ministère de la Santé et des Services sociaux
Marie Moisan, Ministère de la Famille
Danielle Bordeleau, Ministère de la Famille
Marie-Agnès Lebreton and Sonia Daly, Avenir d'enfants
Renée Cyr and Catherine Noreau, Direction de santé publique de l'Estrie
Christiane Bourdages Simpson, Ministère de l'Éducation, du Loisir et du Sport
Diane Tardif, Ministère de l'Éducation, du Loisir et du Sport

LAYOUT AND PROOFREADING

Sophie Michel, Administrative officer
Institut national de santé publique du Québec

TRANSLATION

The translation of this publication was made possible with funding from the Public Health Agency of Canada.

ACKNOWLEDGMENTS

BACKGROUND AND MANDATE

The purpose of the Joint Intervention Initiative for Early Childhood Development (JIIECD) is to support the development of the children of Quebec, improve their school readiness and enhance their success in school.[1] The first phase involves conducting the Québec Survey of Child Development in Kindergarten (QSCDK). The second phase consists of implementing actions that may support child development on the basis of the results obtained in the first phase. Several partners are collaborating in this initiative: the Ministère de la Santé et des Services sociaux (MSSS), the Ministère de l'Éducation, du Loisir et du Sport (MELS), the Ministère de la Famille, the organization Avenir d'enfants and the Institut de la statistique du Québec (ISQ).

The intervention working group [JIIECD intervention support phase], a committee of partners from the project and from the Institut national de santé publique du Québec (INSPQ), has tasked itself with supporting the planning of actions by considering the policies, the current range of early childhood services and the conditions for success connected to the most effective interventions. The MSSS has directed the INSPQ to present the state of knowledge on the characteristics of the actions most likely to promote total child development. The objective is to support the regional respondents and the local stakeholders in their choice of actions.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

INTRODUCTION

Children's state of development when they start school, as measured by the Early Development Instrument (EDI©)[a] in the Survey phase of the JIIECD, sheds new light and brings a better understanding of how our children are doing within each community. Now that the results are known throughout Quebec, many will decide to take action after appropriation of the results.

According to Santos,[2] there are four possible avenues to explore depending on the challenges and resources available in each locality: 1) do nothing; 2) increase or reinforce what is currently in place; 3) reduce or discontinue what is currently in place; or 4) propose new actions. Avenues 2 through 4 can be combined. Choices will thus have to be made when considering the actions to undertake based on the QSCDK findings.[3]

From the start, we note that no action, taken alone, is capable of reducing the proportion of vulnerable children and promoting total child development. Moreover, the EDI does not put forward an exact or specific solution.[4] Instead of just one formula, there are many. However, certain actions or combinations of actions may be more favourable than others. What characterizes how successful these actions will be has been identified based on the literature about practices deemed effective and on the positions taken by national or international organizations or expert consensus. The conditions include principles or approaches to achieve better effects on total child development.[5] Most of the conditions for success will not come as a surprise. They are reaffirmed here as their rationale and major components to be considered are explained. Although the conditions for success are presented as separate items, they are interconnected and are laid out in a logical order. It should be noted that they are all important, with quality certainly being the most essential condition.

---

[a] McMaster University, Ontario, Canada.

1 METHODOLOGY

A literature search was conducted between December 2012 and September 2013 in order to document the conditions for success. The following databases were consulted: PubMed, Scirus, OvidSP, EBSCOHost, ProQuest. Grey literature and websites of Quebec, Canadian or international child development organizations were also examined. The key words combinations shown in Table 1 facilitated the search for relevant documents. Several sources were identified based on the references cited in the works collected ("snowball" method).

Table 1   Outline of concepts

Concepts	Key words
Conditions for success	*Guidelines, efficacy, effectiveness, key/essential trends/elements/dimensions, highlights, successful interventions, determinants, scientific evidence, core component*
Actions	*Program, intervention, public policy implications, population health perspective, community actions, programmatic intervention, local initiative*
Total development/school readiness	*School readiness, ready to school, school ready, readiness to learn at school, early childhood development, education, childcare, best start in life, well-being*
Children	*0-8 year old, baby, infant, juvenile, kid, minor, neonate, newborn, preschool children, school children, preschoolers, toddlers, young, youth*

2 THE TEN CONDITIONS FOR SUCCESS

Although a variety of actions promoting child development are available throughout the world,[6] few studies have outlined the essential and necessary conditions.[7] Nevertheless, consensus is emerging around a certain number of conditions. We will present them and highlight the important components.

The ten conditions for successful actions are:

1. Promote the cooperation and engagement of the stakeholders;

2. Meet the needs of children and families;

3. Strengthen protective factors and reduce risk factors;

4. Maintain a level of quality;

5. Work towards proportionate universality;

6. Focus on the child and all levels of influence;

7. Be established early and allow continuity up to age 8;

8. Permit significant intensity or significant accumulation;

9. Be complementary and consistent;

10. Take into account the characteristics of the targeted children and families.

2.1 PROMOTE THE COOPERATION AND ENGAGEMENT OF THE STAKEHOLDERS

Actions promoting the creation and maintenance of cooperation among the stakeholders and drive their engagement around child development have greater chances of meeting objectives.[3, 8, 9, 10, 11, 12, 13]

In addition to parents, many people may be engaged in child development.[14] These include stakeholders from educational childcare services, school boards, schools, health and social services centres, community agencies, charitable organizations, local or municipal elected officials, heads of cultural associations, etc.

Collaboration among stakeholders focussing on actions to promote child development involves agreeing on a shared vision of development, setting attainable and concrete goals and objectives,[15] relying on each person's strengths to reach these goals and strengthening ties among partners.[12, 13] Through this collaboration, stakeholders can participate in choosing,[11] implementing, monitoring and assessing the actions.[9]

Obviously, it is not always easy to include parents in discussions due to limited availability, communication difficulties or limited opportunities to engage them. However, including parents is an essential part of an empowerment approach. They must be at the heart of their children's development and of choices made toward this goal. This will strengthen their feeling of parental competence, helping to establish collaboration based on trust and respect.[16]

Several factors may also facilitate collaborations within a group of stakeholders in the community[15]: for example, the diversity and complementarity of the group members, involvement in decision-making processes and in the operating structure, sharing of responsibilities, communication, mutual respect and trust, as well as skillful and shared leadership.[15, 17, 18] In addition, holding regular meetings with the parents, professionals, community members and others about current or potential actions allows for open and frequent communication[15] between the program managers and the community, strengthening collaborative ties.[19]

The engagement of the stakeholders makes a difference in the effectiveness of actions. According to studies by the Fondation Bernard van Leer about why certain interventions work better than others, the engagement of the stakeholders is a better determining factor than the content of the intervention itself. In fact, highly involved people working intensively to overcome obstacles and meet families' needs forcefully, enthusiastically and with dedication can make the difference between success and failure, even when the project is poorly planned or poorly organized.[19] These community actors are known as "champions."[20] Key people in the community can also be trained to perform certain functions, which can increase the community's commitment to the project.[19]

Following the school readiness survey of Montréal children "En route pour l'école!" conducted in 2006 in Montréal with the EDI, summits are being held among the stakeholders as part of a vast joint effort. Analysis of the summits' impacts shows that this joint effort has supported the stakeholders' engagement by strengthening existing ties among the partners,[21] expanding the network through the engagement of schools among others,[21, 22] strengthening intersectoral work[22] and permitting a better understanding of the communities' strengths and challenges.[21]

As in Montréal, local communities in British Columbia, Saskatchewan, Manitoba, Ontario, Nova Scotia and Prince Edward Island emphasize that the results of the EDI enable consolidation within intersectoral planning groups. In these provinces, different sectors are currently working in partnership and collaborating to develop a strategic action plan to meet the needs of children and their families.[23]

2.2　MEET THE NEEDS OF CHILDREN AND FAMILIES

Without minimizing the importance of the needs identified by community stakeholders,[24] it is essential that the actions first correspond to the needs expressed by families.[25] The needs identified through research or surveys round out the picture of the needs of children and families in a locality.[26]

The parents are more willing to accept[16] and to commit[27] when the suggested actions specifically address their needs. One way to ensure to meet families' needs is first to involve them in the discussions. This involvement can take place within local groups,[28] by organizing regular meetings in order to keep communication open[19] or by means of surveys, etc.

In Australia, one of the biggest challenges the local communities faced after collecting data with the EDI was indeed to include parents in understanding the results and in following up with planning actions.[29] To achieve this, the parents' central role in their child's life was clearly acknowledged. They were strongly encouraged to participate and contribute to the learning experiences and to their child's development, and were urged to be actively involved in planning activities.[30]

The other stakeholders (e.g., staff of childcare services, schools, community agencies, local residents, political bodies at all levels or institutional decision-makers)[12] offer a point of view that complements the families' perspectives.[19] Finally, needs identified through research or survey data[31] can complete the picture. Once the profile of needs is known, the next step is to evaluate whether these needs are being met by assessing the actions already in place and the resources available within the community.[24] Several works can be consulted to help identify the various programs available. For example, the official report of the Ministère de la Famille et des Aînés, entitled *Bilan 2006-2010 des réalisations en faveur des familles et des enfants*, paints an interesting picture of the programs and services offered to families and children.[32] Also of use are documents produced by Avenir d'enfants,[33] the report of the Office of the Health and Welfare Commissioner[34] and the analysis of the main programs carried out by the Direction régionale de la santé publique de Montréal.[35]

2.3 STRENGTHEN PROTECTIVE FACTORS AND REDUCE RISK FACTORS

The most effective actions are those that maximize the beneficial effect of protective factors and reduce the harmful effect of risk factors,[16] at all levels of influence, including the personal, family, community and societal levels.[9, 36, 37] Multiple risk factors in children's lives lead to greater vulnerability, while the accumulation of protective factors creates favourable conditions and positive effects on the child's health and development.[12, 16]

According to the Office of the Health and Welfare Commissioner,[34] it is necessary to act on several categories of factors (protection and risk) in a consistent manner. It states: "healthy development of children requires the conjunction of multiple favourable conditions throughout pregnancy and the first years of life because children are particularly sensitive to physical and social factors which may have lasting impacts on their health, learning and behaviour" (p.192).[34] [*Translation*] For example, successful interventions are those aimed at the child's success in school as well as those aimed at creating sensitive and stimulating family environments and reducing family stress.[38]

Advances in neuroscience, biology, genomics, and social and behavioural sciences are refining our understanding of the components of healthy development, of what may disturb it and what can be done to support it.[39] The factors that influence child development are individual, social, economic and environmental in nature.[16, 39] Children grow up in environments that support or impede their development. When a child grows up in a warm and favourable environment, biological and environmental factors come together to help reach full potential. However, if certain factors and the environment pose a threat, these factors, combined, may lead to emotional, physical or mental problems.[40] For example, exposure to the high stress of having a depressive parent, a parent who uses psychoactive

substances, family violence or any form of abuse markedly disturbs the child's development[10] and can have lifelong harmful effects.[41]

The factors that should be prioritized must be chosen by considering the needs of children and families as well as the strengths and challenges specific to each locality. While reducing risk factors is often made a priority, several successful interventions focus exclusively on reinforcing protective factors.[37] Table 1 presents a partial list of the principal protective factors.

Table 2   Protective factors promoting total child development

The child and the pregnant woman	The family	The community	Society

Intrauterine health:
 	
• Adequate intake of folic acid;[25]
• Adequate nutrition;[8, 19, 25, 42]
• Prevention of prenatal infections (e.g., toxoplasmosis);[25]
• Exposure to levels beneath the environmental toxicity threshold (e.g., mercury);[25]
• No consumption of alcohol, drugs or tobacco;[25]
• Limited exposure to chronic stress.[25]
	Favourable emotional and physical environment:[8, 19, 25, 42, 43, 44, 45]
	
	• Availability and use of material and informational resources necessary to take care of the child;[8, 42, 44, 46, 47]
	• Favourable and harmonious climate (e.g., lack of violence or negligence);[8, 19, 25, 40, 43, 45, 47, 48, 49]
	• Adequate family income and completion of secondary schooling;[33, 49, 50]
	• Maintaining low levels of stress;[19, 44]
	• Good mental[8, 40, 49, 51] and physical health;[8]
	• Use of available social support (e.g., family, friends).[49, 51]
		Quality educational services accessible to families:[8, 43, 48, 52]
		
		• Educational childcare services in early childhood:[48]
		  - Sufficient, varied and stimulating space, equipment and toys;
		  - Positive climate, disciplinary practices, quality of the teacher-child bond, group size and appropriate teacher-child ratio;
		  - Specialized training and continuing education for the teacher;
		  - Collaboration with the parents.
		• Educational (e.g., parent-child, toy sharing)[43, 53] and recreational activities (e.g., games, library).
		
		Favourable residential environment:
		• Safe, child-friendly green spaces (e.g., parks, playing fields);[8, 33, 42, 48, 53]
		• Safe roads;[43]
		• Public[8, 33, 48] or individual transportation;[48]
		• Affordable housing.[19, 8]
			Accessible, high-quality universal social and health services through policies, programs and services:[8, 25, 45, 46, 47]
			
			• Access to preventive care[25, 44, 46] (e.g., vaccination),[8, 43, 47] support (e.g., periodic medical and dental follow-up)[43, 46] and screening care;
			• Access to care and services for mental health problems (e.g., depression)[8, 19, 25, 44, 45] or physical problems;[8, 19, 42]
			• Protection of vulnerable families against discrimination and isolation.[42, 43, 47]

Table 2   Protective factors promoting total child development (continued)

The child and the pregnant woman	The family	The community	Society
Child's physical health: • Birth without complications;[49] Normal weight at birth;[49] • Absence of physical handicap or developmental delay;[49] • Breastfeeding;[8, 49] • Good general physical health.[50] **Child's cognitive skills:** • Use of developmental math games;[48] • Development of a sustained attention span and good memory;[48] • Development of general knowledge (e.g., appropriate activities);[33, 48] • Development of problem-solving strategies.[54] **Child's language skills:** • Expressed and comprehensible spoken language;[33] • Use of developmental activities for reading and writing.[33, 48, 53]	**Favourable parental attitudes:** • Feeling of parental competence;[33, 51] • Sensitivity to the child's needs, a favourable attitude toward school and high aspirations for the child's schooling.[33] **Favourable parental practices:** • Emotional tie with the child, loving care and very clear and consistent guidance;[8, 16, 19, 25, 40, 43, 44, 45, 46, 47, 48, 49] • Opportunities to explore through play,[8, 19, 42, 44, 46, 55] a variety of educational experiences,[33, 44, 46] support in games or activities;[42, 48] • Opportunities to play with children of the same age;[43, 44, 47, 48] • Talking to the child[19, 42, 43, 47, 48] or reading stories aloud[47, 48, 51] as soon as the child is born; • Frequent social interactions in the child's presence.[44, 46, 48]	**Significant social capital,[8, 42] i.e., programs, activities or persons available if needed:[33]** • Support services to develop parenting skills;[8] • Support for children with special needs through respite care;[43] • Respect for and sensitivity to the cultural background; • Activities which help create significant ties among adults (e.g., peers, teachers, neighbours);[44, 46, 48, 49] • Places and networks for exchange among families (e.g., neighbourhood party).[48] **Strong social cohesion:** (That is, the quality and intensity of ties among community members) centered on the child,[19, 48] with good relationships of trust and mutual respect:[33] • Collaboration, neighbours helping neighbours;[51] • Adults serving as role models for children or keeping them safe or leading recreational activities.[51]	**Universal and accessible education:[8, 25, 42, 46, 47]** • Policies of good quality childcare and kindergarten services appropriate for the developmental age and the families' needs;[8, 19, 25, 33, 42, 43, 44, 46, 47, 48] • Programs and measures to facilitate post-secondary schooling for mothers;[47, 48] • Programs and measures to promote adult literacy.[52] **Anti-poverty measures and employment support for parents:[8, 19, 42, 43, 52]** • Complete anti-poverty strategy[8, 43, 47, 48] (e.g., additional financial aid for families with young children when required);[8, 25, 42, 43] • Family policies (e.g.: work-life balance[8, 25, 43, 52] in order to reduce parental stress);[48] • Policies for access to employment for women[8, 42] and parental leave.[8]

Table 2 Protective factors promoting total child development (continued)

The child and the pregnant woman	The family	The community	Society
Child's physical skills: • Development of motor [33] and psychomotor skills;[53] • Healthy lifestyle:[53] sustained and appropriate physical activities;[33, 43, 48] adequate sleep hygiene;[33] healthy and varied diet;[8, 19, 25, 33, 43, 44, 46, 47, 48] • Limited screen time (computer, television).[56] **Child's social skills:** • Development of harmonious relations with significant adults (parents, teachers)[8, 16, 49] and with peers;[33, 48, 53] • Development of the ability to solve interpersonal conflicts.[49] **Child's emotional skills:**[53] • Development of the ability to regulate emotions,[48] good self-esteem,[33] autonomy,[49] and a secure attachment.[57]		**Community engagement centered on early childhood:**[33, 42, 47, 53] • Incentive for collaborations between the family and providers, with the school (or childcare service);[33, 48] • Affirmation of the mother tongue;[58] • Recognition and affirmation of the parent's role in the community;[43] • Providers' work built on valid and shared knowledge;[33] • Strong commitment and cooperation among community members.[33]	**Healthy environment:** • Measures and regulations to reduce pollutants[43] and neurotoxins;[8, 25, 44] • Policies, programs and services permitting access to good quality housing (safe and affordable);[8, 19, 33] • Policies and programs for support and access to public transit.

2.4   MAINTAIN A LEVEL OF QUALITY

The effects observed depend to a large extent on the quality of the action offered.[6, 10, 59, 60] Evaluative research shows clearly that when it comes to support of children and their families, all actions, even early ones, are not equally effective. This research even indicates that a low-quality intervention can have harmful effects on the child's development.[61]

The criteria associated with quality vary according to the type of interventions (for example, the ratio in educational childcare services has an impact on educational quality). Overall, the quality of actions is based on: theoretical or scientific support, characteristics of the personnel as well as measures to monitor implementation and effects.

Actions built on grounded theoretical support[11, 16, 35, 37, 62] are more likely to yield positive results. An intervention based on a robust theoretical framework will lead to the development of clearly defined, precise and attainable objectives[35, 37, 62, 63] and documentation of the links between the components of the intervention and the achievement of objectives.[12, 16] Consulting the scientific literature provides information on which program works best according to the factors targeted or according to a given clientele[24] and outline actions that are proven successful.[11, 16, 20, 37, 52, 60]

Certain characteristics of the personnel contribute greatly to the effectiveness of an intervention,[16] including their basic knowledge, their skills, and the quality and stability of their relationship with the families and children.[52, 64] Investing in training and in clinical and administrative support is thus a component of enhanced quality.[16, 35, 62, 64, 65] For example, training based on interpersonal relations contributes to the effectiveness of the intervention by developing skills to build a trusting relationship, focus on the objectives identified by the family and identify their strengths.[66]

> The EDI results have led local stakeholders in various Canadian provinces to put greater focus on the professional development of the providers working with children. For example, training workshops are offered to teachers to help them better support their students.[23]

Prioritizing interventions which provide for measures to monitor implementation[16] and to evaluate effects[9, 19, 35, 37] is a valuable asset to increase quality.[52] These monitoring measures represent "an ongoing information collection process which allows for a critical examination of the components of a program and of its results. The objectives of such monitoring are to improve the program and to ensure that it produces the desired results" (p. 34).[12] [*Translation*]

Ensuring that the program is being implemented as initially anticipated, and ensuring consistent implementation over time,[67] raises the chances for achieving objectives. According to the review by Durlak and DuPre (2008), there is consensus around ten factors that influence the quality of implementation.[68] They are presented in Table 3. Implementation can be monitored through informal sources, such as observations, comments from the participants and the staff, or formal sources, by using questionnaires,[24] for example.

By evaluating the effects, it is possible to measure the intervention's impact on the target clientele. Expected and unexpected effects must be considered.[24, 37] This evaluation generally involves using a rigorous method. Among other things, it makes it possible to preserve the engagement of the organizations involved, while ensuring that resources at the local, provincial or national level are maintained.[13] In short, with thorough documentation of the monitoring and evaluation of a program's implementation and effects, the lessons derived can improve a program's effectiveness and efficiency [24] and ensure its durability.[37]

Table 3   Factors influencing the quality of implementation of an intervention

Factors	Description
Funding	Allow enough time and money to complete all steps of the implementation.
Positive work climate	The work atmosphere must be harmonious throughout all steps of the implementation.
Collaboration and shared decision-making	The parties involved collaborate to determine what will be implemented and which approach to take. Recognize the expertise of the partners (including the parents) and work with them and rather than decide for them.[62] Train a planning group to determine the community's current needs and strengths, in order to mobilize interests and plan activities.[69]
Coordination with other agencies	Partnership, networking, alliances among the activity sectors, and ties among the disciplines (multidisciplinarity) are important.
Clear programming and tasks consistent with roles and responsibilities	To define procedures which improve the strategic planning and clarify the roles and responsibilities with regard to completion of duties.
Leadership	To have a leader to define priorities, reach a consensus, motivate and orchestrate the entire implementation process. The leader's role is: 1) to have a vision and communicate it, 2) to develop team work, 3) to establish goals and objectives, 4) to track and communicate successes and accomplishments and 5) to facilitate and encourage the development of individuals.[15]
Champion	To have a person who respects the staff and administration and can rally and maintain motivation for the program.
Administrative support, supervision, administrative support	Support offered by the management team, supervisors and their encouragement throughout the implementation.
Staff training	Support offered to ensure that the staff have all the qualities and qualifications necessary to offer the intervention,[62] promote their feeling of competence. Interventions which require qualified,[67] trained.[67, 69, 70] informed[67] and supervised personnel[7] are more successful. Continuing education is also an essential element.[67]
Technical assistance	A set of resources is necessary once the implementation has begun: staff training, emotional support and problem-solving mechanisms at the local level.

2.5   WORK TOWARDS PROPORTIONATE UNIVERSALITY

Proportionate universality consists of offering universal interventions, i.e., interventions geared for all families, but where the modalities or intensity can vary according to the needs.[9, 10, 40, 46, 63, 71, 72, 73, 74, 75, 76] These needs may vary according to income, ethnicity, language or a particular set of problems.[10] This approach also includes overcoming barriers that limit access to the interventions.[72]

There are significant developmental disparities among children entering school. Children living in the most disadvantaged areas face a higher developmental risk than those in more affluent areas. This is the effect of the social gradient of health: "Each social position has a corresponding level of resources - material, behavioural or psychosocial - as well as an exposure to a certain number of risk factors. It is the combination of these resources and risk factors that produces social differences in health" (p. 11).[75] [*Translation*] This effect appears very early in life.[77, 78] According to the *Marmot Review Team*, it is absolutely necessary to tackle this social gradient, including by ensuring that each child gets a good start in life.[73]

The results of the EDI in Quebec and Canada and elsewhere in the world show that children with developmental vulnerabilities are found in all social groups. While the proportion of vulnerable children is markedly higher in low-income socioeconomic communities, a higher number come from middle[34] and upper socioeconomic levels.[10]

For several years, many have advocated proportionate universality as a way to reduce the effect of the social gradient of health.[76] No single approach (universal, targeted or proportionate) is better in itself. The choice depends on the nature of the problem and the context as well as the efficacy and efficiency of the solutions.[76]

The universal approach has the potential to offer support to the entire population, promote the development of children at all socioeconomic levels,[40, 73] and normalize the use of interventions.[62] However, universality is costly and may result in a scattering of limited resources.[79] In addition, these actions neglect the particular situations of a significant segment of the population, i.e., families who need increased support and are often hard to reach. An approach which reaches only one portion of the population exclusively (targeted) would not only deprive a significant number of middle- and even upper-class families of services,[10, 79] but would result in stigmatizing the targeted groups.

In addition, it is recognized that families with greater needs make less use of services than families at low risk,[27] primarily due to barriers to access.[16] These may be families living below the low income cut-off, young parents, single-parent families, certain recent immigrants, families with a parent or child facing a health problem or a handicap, or families struggling with multiple problems (violence, substance abuse, mental health, etc.).[80] Offering universal interventions without lifting these barriers thus risks amplifying the effect of the social gradient and producing larger gaps in the health of children from different socioeconomic groups.[10, 40]
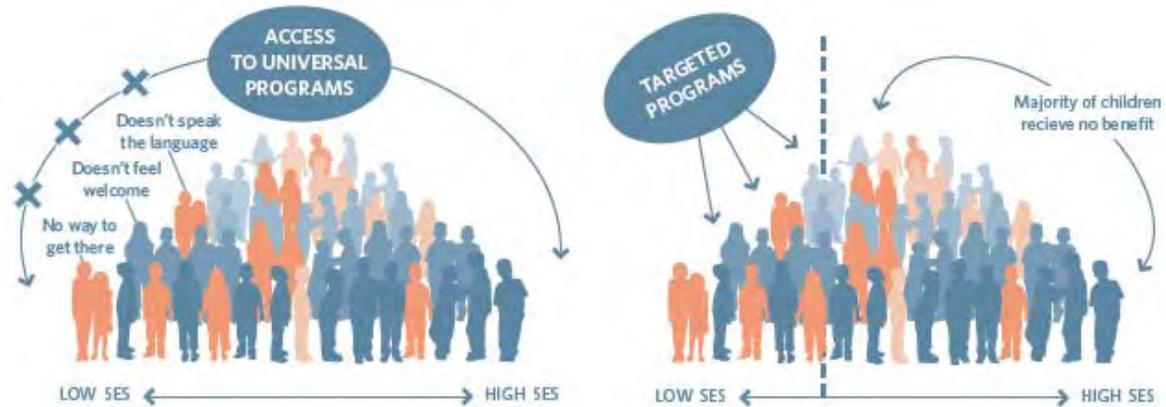
Figure 1   Proportionate universality

Source: Human Early Learning
Partnership. Proportionate
universality. Vancouver, BC:
University of British Columbia; 2011.
Reproduced with permission.

Table 4 presents the main barriers to access according to the Human Early Learning Partnership [HELP].[14] the Centre d'analyse stratégique[81] and the Center for Community Child Health,[80] as well as proposals for strategies to reduce or eliminate these barriers. [14, 60, 80, 81]

In short, the goal is to reduce the disparity among social groups and at the same time improve the outcome for all children, regardless of the socioeconomic group they belong to.

The Femmes-Relais project is an example of an intervention that makes it possible to reduce barriers to access in order to promote school readiness. This project puts together a team of women who come from the native regions of new immigrants in the Saint-Michel neighbourhood of Montréal. These women, operating in the field, teach the families about the values of their host society, act as liaisons with schools, social services and families, and introduce the families to resources in their neighbourhood (e.g., libraries, public pools, neighbourhood parties). This initiative makes it possible to reach newly arrived immigrant families who may feel isolated, and support them in their integration.[82]

Table 4   Barriers to accessing services and strategies to overcome them

Barriers to access	Strategies
Aspects connected to services	
Inaccessible or limited services Service is not offered in the community or space is limited.	• Explore the possibility of creating satellite sites through agencies with recognized expertise in the service.
Excessive cost Families are unable to participate in the activity due to financial constraints.	• Reduce costs or offer the service at a cost proportionate to income.
Inaccessible location Families don't have transportation to get to the location.	• Provide a means of transportation (e.g., bus or taxi tickets, subsidized carpooling).
Schedule The time when the service is offered may interfere with the work schedule, children's naps, etc. The service hours may also be limited.	• Offer the service in the evening, on different evenings or on the weekend; • Offer the service at home, at the parents' workplaces or in places already frequented by the families.
Inability to respond to the request for help or response time Families may not participate in an intervention if their basic needs are not met or if they are facing a crisis.	• Ensure that the families' basic needs are considered or that crises are resolved by offering them support and concrete help before proposing an intervention.
Overly rigid eligibility criteria	• Permit a degree of flexibility in how to obtain the service or take part in the program.
Lack of coordination among services	• Establish solid connections to other relevant services for families. • Develop clear partnership agreements.
Aspects connected to the family	
Lack of time or high stress There may be limited time to access resources, or the stress may be too high because of the different roles the parents must play.	• Offer the service at home, at the parents' workplaces or in places already frequented by the families. • Review the schedules to make it possible to participate in activities on evenings or weekends.
Language The parents do not speak the language in which the service is offered.	• Ensure that the content can be translated orally or in writing into the language understood by the families; • Provide interpreters. • Match parents with other parents who speak the language.

Table 4   Barriers to accessing services and strategies to reduce them (continued)

Barriers to access	Strategies
Aspects connected to the family (continued)	
Fragmentation of siblings An age difference between siblings can create scheduling and transportation conflicts for attending age-appropriate activities.	• Offer on-site childcare services. • Adopt admission policies that give priority to siblings.
Lack of information about the services offered Families can miss out on information about the interventions offered in their area.	• Tell the parents about programs available at key moments, i.e., when they are likely to need them (for example, at birth, in breastfeeding clinics, on entering daycare, at the time of vaccination);[81] • Gather all useful information together in one spot (e.g., website, resource directory or message board);[81] • Offer detailed information on the services offered (e.g. the method, tools, procedure).[81]
Low self-esteem and fear of being judged	• Normalize the use of interventions;[81] • Use parents as trainers, describe the content in detail to lessen fears or offer individual services for those who are afraid of being judged.[81]
Difficulties identifying and expressing needs	• Offer useful, non-threatening interventions to all children and their parents to develop a trusting connection.
Expectations and interests The parents may not agree with the service offered or with what is proposed because they are not consulted, or they may lose interest over time.	• Consult the parents about their needs by asking them to attend local committee meetings or organizing regular meetings. • Make reminders or do telephone follow-up to increase attendance at the next activity. • Offer one-on-one time before, during and after the service to maintain the parents' commitment to the service/program.[62]
Lack of knowledge The parents may not realize how important certain activities are for their child's development (e.g., reading).	• Tell the parents about the importance of activities offered for child development through a variety of means (e.g., give a brochure, bring together useful information on a website or message board.
Low level of parental literacy	• Provide parents with written documents in plain and appropriate language, use images or diagrams to illustrate.[62]
Fear of being reported to child protection agencies	• Give parents information about the obligation to report to youth welfare. • Work to develop a relationship of trust.

Table 4   Barriers to accessing services and strategies to reduce them (continued)

Barriers to access	Strategies
Interpersonal aspects	
Social distance Mistrust, embarrassment or other feelings may emerge among parents who attend the activity if they differ too much from those offering the service.	• Offer training for the providers so that they can show sensitivity to the parents' reality and adopt a non-judgmental attitude and use interpersonal skills.
Judgmental attitude or insensitivity of those who offer the program The quality of the relationship between the parent and those who offer the program is important for getting families involved. It is also important to offer non-stigmatizing interventions and environments.	
Lack of recognition of cultural challenges	
Inability to recognize the strengths of the families and engage them as partners	• Develop a shared decision-making process.

2.6   FOCUS ON THE CHILD AND ALL LEVELS OF INFLUENCE

The most effective actions are part of an overall perspective of support for the child's development by combining direct interventions with the child and interventions at all levels of influence.[9, 34, 36, 37]

The World Health Organization (WHO)[83] and the Organisation for Economic Co-operation and Development (OECD)[84] recommend adopting a global approach in early childhood: establishing a complete set of actions that permit supporting children's development and education in the first years of life. In concrete terms, it is important to take into account a wide range of measures and policies, including those connected to educational childcare services and preschool education, primary health care, child protection services, adult mental health and social and economic support to families.[85]

These recommendations are based on the fact that child development is tied to experiences starting at conception and continuing after birth with the parents and the extended family, as well as experiences in one's community. This means the neighbourhood, educational childcare services, schools, and, more broadly, society.[14, 43, 46, 86] Problems affecting families at the local level (such as housing conditions, social isolation, weak or fragmented range of services and accessibility to services as well as limited economic opportunities) also influence child development.[18]

The Bronfenbrenner ecological model of human development remains the most widely used to represent the connections between a person and the various systems that influence him or her.[36] The more recent ecological model of Irwin et al. (2007) lays out the types of environment that promote health and development in early childhood, including the family,

residential and relational communities, the regional, national and global environment.[9] According to this model, children must have adequate nutrition and grow up in favourable environments which protect them from disapproval and inadequate discipline. Furthermore, they need opportunities to explore their world, to play, and to learn to speak and listen to others…. the nurturant qualities of the environments where children grow up, live and learn matter the most for their development.[9] Thus, since the child's early experiences, in particular the relationships with significant persons,[10] are a determinant[8, 40, 41] all environments in which children live and grow, as well as the quality of their relationships with adults and their caregivers, must be supported.

More specifically, this means combining strategies directly targeting the child and broader strategies focused on other levels of influence (e.g., support for parenting, work-life balance, food aid, clothing banks, reduction of poverty and social exclusion, quality housing, etc.).[10, 59, 84] Many child development experts believe that actions must include interventions directly targeting the child.[87, 88] Integration in a quality educational childcare setting, stimulating activities, and reading and writing developmental activities are examples of direct actions. In this regard, all areas[b] of development should be targeted, rather than one in particular. Each area is essential, and the gains made in one area help with gaining in another area.[46, 89] In addition, progress achieved in one area may be strengthened if the connected areas are also fostered.[89] Based on this knowledge, the Ministère de la Famille states that "planning activities capable of engaging the whole child is a preferred approach. If it is revealed that the child has experienced major difficulties in one of the areas of development, activities aimed at total development should be put into place, while targeting skills, knowledge or attitudes for more specific and intensive support. Children need to gain in all areas, regardless of their difficulties." (p. 7)[90] [*Translation*]

2.7 BE ESTABLISHED EARLY AND ALLOW CONTINUITY UP TO AGE 8

Actions offered very early in life, covering the period from conception to age 8[10, 91] and facilitating transition periods,[92] have a better chance of promoting total child development.

The brain develops throughout life, but at a very rapid pace during these early years, starting from conception and continuing through childhood.[16, 93] It evolves in various phases, such that at specific times in life, certain regions of the brain are more sensitive to the environment's beneficial or harmful influences than at other times.[16, 46, 73, 94] Experiences during these periods of greater sensitivity forge neuronal connections that are more difficult to modify thereafter.[10] This malleability may lead to adaptation or to vulnerability.[16] As a result, brain structures or functions must receive appropriate stimulation during these periods in order to establish a foundation for optimum brain development.[93]

---

b   The areas of development as measured by the EDI.
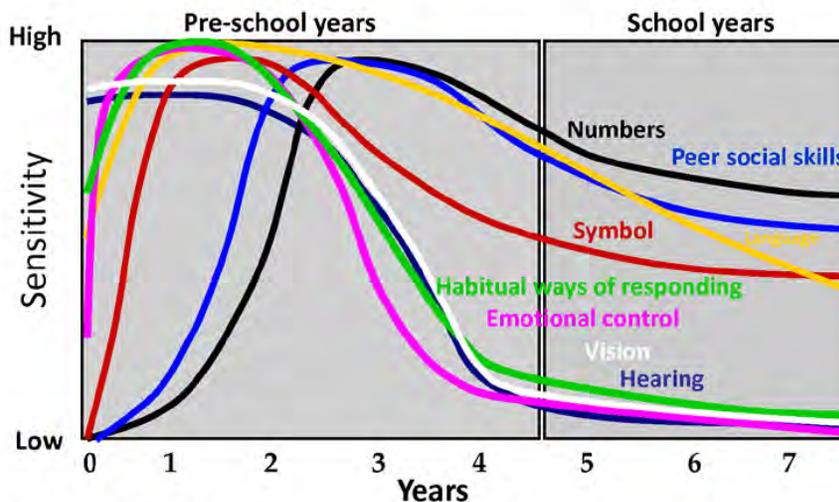
Graph developed by **Council for Early Child Development** (ref: Nash, 1997; *Early Years Study*, 1999; Shonkoff, 2000.)

Figure 2   Sensitive periods in early brain development

Source: Graph developed by the *Council for Early Child
Development (Human early learning partnership)*. Reproduced
with permission.

Figure 2 presents these sensitive periods. For example, we note that the development of social skills is more easily influenced between the ages of two and three years. We also note that the degree of sensitivity of several brain functions declines after the child enters school.[93] Once the sensitive periods have passed, learning can still be enhanced with the use of special measures, but it will be harder for children to reach their full potential.[93] In short, interventions offered early in life have a greater chance of having beneficial effects on the child's development and reducing future problems, since the brain is at the peak of its development.[62, 63, 67, 70, 95, 96]

In addition, it is important to extend the intervention until after the child enters school to ensure that the gains are maintained, in particular for children from disadvantaged communities.[64] For example, according to Côté et al. (2013), the benefits of using quality childcares will fade if later, the child attends a school of lower quality.[97]

Support for children during transition periods is especially important for later success.[98] The transition from childcare to kindergarten is an important step. It marks the entry to the world of school and establishes the foundation for future success.[99] In terms of expectations, objectives and environment, kindergarten is different from educational centres or the family environment.[98] This new setting has high demands with regard to social and emotional skills.[98] With a smooth transition to kindergarten , children and their parents will have more confidence about future transitions.[92]

2.8   PERMIT SIGNIFICANT INTENSITY OR SIGNIFICANT ACCUMULATION

An action's chances for success and the scope of its effects depend on its intensity,[37] but it is the accumulation of actions that will produce the most substantial effects.[62] The important variables in the equation are: intensity in time (duration and frequency), intensity of means or

modalities used (combination of strategies) and the possibility of reinforcement of gains (recall over time).

In addition to offering an intervention of a certain duration, it is important to ensure an appropriate frequency and regular participation.[73] For noticeable benefits, a minimum level of attendance seems to be required.[7] Studies show that the more the parents and children use a program, the more they will benefit from it.[7] Even if a program offers frequent follow-up, the benefits that each family gets vary with their level of participation and involvement.[27]

How do we know if the intensity is adequate? According to the Center for Community Child Health,[18] the project's scope must be consistent with the challenges to tackle. In this way, everything depends on the objective.[67] Intensity is also adapted according to the family's or subgroup's specific needs (principle of proportionate universality)[37, 62, 63, 73, 96] or according to the risk and protection factors specific to the population to be served.[37]

Without subsequent refreshers or reinforcement of the potential gains, the benefits associated with certain programs tend to fade.[89] Planning for follow-up sessions and workshops and refresher activities should be part of the basic service when actions are implemented.[7, 62]

2.9 BE COMPLEMENTARY AND CONSISTENT

Actions organized to be complementary and consistent with each other increase the chances of positive influence on development.[10] To ensure complementarity, the intervention considered is added to a set of actions.[24, 100] Identifying what is offered in the community makes it possible to maximize resources and avoid duplication of effort.[12, 13] By building on what already exists and is working,[27] the added intervention will then support, enhance and reinforce the ones already deployed.[24, 67]

There is a need to ensure consistency among the interventions, for instance by permitting a very fluid transition from one intervention to another and ensuring consistency in the communicated messages. This implies better communication and more effective sharing of information among the agencies, and resource sharing to reach common objectives.[84] When multiple actions are implemented with shared objectives, the challenge is to organize them in a way that minimizes the bureaucracy and the stress on the families.[16]

> The Programme d'éveil à la lecture et à l'écriture (PAELE) aims to "support collaboration and inclusion of developmental reading and writing activities in the daily practices of families in underprivileged areas and in public and community agencies." [*Translation*] The evaluation of PAELE reveals many positive impacts associated with the program including the effect of developing, structuring and formalizing partnerships.[55] In spite of the benefits of this initiative and of other collaboration mechanisms, the Conseil supérieur de l'éducation du Québec (2012) draws attention to the lack of connections between the young children's living and learning environments. For this reason, it suggests increasing the connections between educational childcare services, school-age care services, kindergarten, primary school and community agencies to ensure the continuity of the educational experience of children from age 0 to 8 years.[55]

Planning actions in sequence may facilitate consistency and complementarity.[7] Risk factors and protective factors do not need to target the entire period from conception to age 8. Based on the periods of brain sensitivity and the challenges faced by parents of children at different ages, developing a sequence of actions becomes logical and preferable.[7]

2.10   TAKE INTO ACCOUNT THE CHARACTERISTICS OF THE CHILDREN AND FAMILIES TARGETED

Actions which take the clientele's characteristics into account, whether these characteristics are connected to the children's developmental stage or the families' culture, are more likely to reach their objectives.[37] Actions become useful when they are adapted to the interests and realities of each child, each family or each community.[16] Personalized objectives and interventions adapted to the families' needs and resources prove more effective than programs offering a one-size-fits-all approach.[16]

To take the child's characteristics into account, it is essential to consider the child's maturity and to use techniques and information appropriate for their developmental stage.[7, 28, 37, 62, 70] While it may be preferable to devote time on characteristics related to gender and to the mechanisms that lead to developmental differences between boys and girls, there is, to our knowledge, no scientific consensus for gender-specific interventions.[50] However, we are beginning to see recommendations to adjust practices in the school environment.[101]

The actions considered must make it possible to adjust to the cultural context of the families or of the community where the program will be established.[9, 16, 19, 37, 46] Without having to design new actions for each group in the community, it is important that the activities, material, content or format of an intervention be compatible with the practices, beliefs and needs of the various groups targeted.[67]

In the context of the *Parent Child Interaction Therapy*, the cultural adaptation consisted of using different names for the "time out" disciplinary strategy according to the families' beliefs. Thus, for certain cultural communities, providers talked about the "punishment chair" and for others, the "thinking chair."[5]

The Ministère de la Famille also encourages educational childcare centres to be sensitive to different cultural backgrounds. It proposes several strategies, including integrating culinary specialties from the children's countries of origin on the menu or furnishing the premises with items from a variety of places.[102]

CONCLUSION

The QSCDK results show that a great number of children lack some of the necessary skills when starting school. We know it is possible to promote total child development by using a set of actions. In this document, we have shown the conditions for success of actions most likely to promote total child development, in the hope that they will inspire the stakeholders involved.

REFERENCES

1. Ministère de la Santé et des Services sociaux. (2011). Initiative concertée d'intervention pour le développement des jeunes enfants 2011-2014. Projet d'enquête et d'intervention. Québec: Gouvernement du Québec. Document consulted at http://publications.msss.gouv.qc.ca/acrobat/f/documentation/2011/11-854-01.pdf.

2. Santos, R (2013). Informing policy to support evidence-based school readiness programs and practices. In Michel Boivin & Karen, L. B., *Promoting school readiness and early learning. Implications of developmental research for practice*, (p. 329-361). New York: The Guilford Press.

3. AEDI National Support Centre (2013). *Building better communities for children. Community dissemination and action guide. Australian Early Development Index.* Document consulted at http://www.healthyfuture.health.wa.gov.au/Publications/05_ AEDI_Guide.pdf.

4. Janus, M., Brinkman, S., Duku, E., Hertzman, C., Santos, R., Sayers, M., Schroeder, J., and Walsh, C. (2007). *The Early Development Instrument: A population-based measure for communities. A handbook on development, properties and use.* Hamilton, Ontario: Offord Centre for Child Studies.

5. US Department of Health and Human Services (2013). Core intervention components: identifying and operationalizing what makes programs work. *ASPE Research Brief,* 1-21.

6. Britto, P. R., Yoshikawa, H. and Boller, K. (2011). Quality of early childhood development programs in global contexts. Rationale for investment, conceptual framwork and implications for equity. *Social Policy Report, 25(2)*, 1-26.

7. McCall, R. B., Larsen, L., and Ingram, A. (2003). The science and policies of early childhood education and family services. In Reynolds, Wang and Walberg, *Early childhood programs for a new century*, (p. 255-298). Washington, D.C.: CWLA Press.

8. Siddiqi, A., Irwin, L. G., and Hertzman, C. (2007). *Total environment assessment model for early child development. Evidence report.* World Health Organization, Commission on the social determinants of health.

9. Irwin, L. G., Siddiqi, A., and Hertzman, C. (2007). *Early Child Development: A Powerful Equalizer. Final Report.* World Health Organization, Commission on the social determinants of health.

10. McCain, M. N., Mustard, J. F., and Shanker, S. (2007). *Early years study 2. Putting science into action.* Toronto: Council for early child development.

11. Centre for Community Child Health, 2007. *Effective community-based services.* Victoria, Australia: The Centre for Community Child Health.

12. Renaud, L. and Lafontaine, G. (2011). *Guide pratique : Intervenir en promotion de la santé à l'aide de l'approche écologique.* Montréal, Canada: Réseau francophone international pour la promotion de la santé.

13.   Watkins Murphy, P. and Cunnigham, J. V. (2003). *Organizing for community controlled development: Renewing civil society*. SAGE. University of Pittsburgh.

14.   Schroeder, J., Harvey, J., Razas-Rahmati, N., Corless, G., Negreiros, J., Ford, L., Kershaw, P., Anderson, L., Wiens, M., Vaghri, Z., Stefanowicz, A., Irwin, L. G., and Hertzman, C. (2009). *Creating communities for young children. A toolkit for change*. Vancouver, British Columbia: Human Early Learning Partnership.

15.   Austin, H. E. (2010). *Community-based initiatives for promoting school readiness: the story of Celebrate Liberty's Children*. Greensboro, North Carolina: University of North Carolina.

16.   National Research Council and Institute of Medicine (2000). *From neurons to neighborhoods: The science of early childhood development*. National Academy Press. Washington, D.C.

17.   Deslandes, R. (2010). *Les conditions essentielles à la réussite des partenariats école-famille-communauté*. Centre de transfert pour la réussite éducative du Québec.

18.   Centre for Community Child Health (2011). Place-based approaches to supporting children and families. *Policy Brief, 23*, 1-6. The Royal Children's Hospital.

19.   Maggi, S., Irwin, L. G., Siddiqi, A., Poureslami, I., Hertzman, E., and Hertzman, C. (2005). *Knowlege network for early child development. Analytic and strategic review paper: international perspectives on early child development*. World Health Organization, Commission on the social determinants of health.

20.   Communities that care (2013). *How it works*. www.communitiesthatcare.net/how-ctc-works/.

21.   Laurin, I., Bilodeau, A., Giguère, N., and Lebel, A. (2013). *L'initiative des sommets montréalais : ses retombées sur la mobilisation*. Montréal: Centre Léa-Roback.

22.   Bilodeau, A. and al. (2011). Montréal : un soutien à la petite enfance pour aborder l'école dans de meilleures conditions. *La Santé de l'homme, 414*, 25-27. Institut national de prévention et d'éducation pour la santé.

23.   Janus, M. (2013). *Early Development Instrument: "From results to action survey" report*. Hamilton (Ontario): Offord Centre for Child Studies McMaster University.

24.   Wandersman, A. and al. (1998). Comprehensive quality programming and accountability: Eight essential strategies for implementing successful prevention programs. *The Journal of Primary Prevention, 19(1)*, 3-30.

25.   Center on the Developing Child at Havard University (2007). *A science-based framework for early childhood policy: Using evidence to improve outcomes in learning, behavior and health for vulnerable children*. Harvard University. *http://developingchild.harvard.edu/resources/reports_and_working_papers/policy_framework/*.

26. Simard, M., Tremblay, M. E., Lavoie, A., and Audet, N. (2013). *Enquête québécoise sur le développement des enfants à la maternelle 2012 : portrait statistique pour le Québec et ses régions administratives.* Québec: Institut de la statistique du Québec.

27. Berlin, L. J., O'Neal, C. R. and Brooks-Gunn, J. (1998). What makes early intervention programs work? The program, its participants, and their interaction. *Zero to Three.*

28. National Center for Injury Prevention and Control. (2013). *Essentials for childhood. Steps to create safe, stable and nurturing relationships*. CDC.

29. The Allen Consulting Group and the McCaughey Centre. (2011). *Local champions - Turning the AEDI into action*. Melbourne, Australia: Department of Education and Early Childhood Development.

30. Department of Education and Early Childhood Development. (2009). *Victorian early years learning and development framework. For all children from birth to eight years*. Melbourne, Australia: State of Victoria.

31. Direction des communications du ministère de la Santé et des Services sociaux du Québec. (2008). *Programme national de santé publique 2003-2012. Mise à jour en 2008*. Gouvernement du Québec.

32. Ministère de la Famille et des Aînés. (2011). *Bilan 2006-2010 des réalisations en faveur des familles et des enfants*. Québec: Gouvernement du Québec.

33. Avenir d'Enfants. (2013). *Coffre à outils. Guide d'implantation de partenariats en faveur de la mobilisation des communautés locales pour le développement des enfants de 0 à 5 ans selon une approche écosystémique*.

34. Health and Welfare Commissioner. (2011). *Rapport d'appréciation de la performance du système de santé et de services sociaux. État de situation : Portrait de la périnatalité et la petite enfance au Québec*.

35. McKenzie, F. (2009). *Un guide pour soutenir la réflexion et... mieux faire grandir les tout-petits*. Montréal: Agence de la santé et des services sociaux de Montréal.

36. Meilleur départ. (2012). *Le guide sur la bonne voie*. Ontario: Nexus Santé.

37. Bond, L. A. and Carmola Hauf, A. M. (2004). Taking stock and putting stock in primary prevention: characteristics of effective programs. *Journal of Primary Prevention, 24(3)*, 199-221.

38. Oxford, M. L. and Lee, J. O. (2011). The effect of family processes on school achievement as moderated by socioeconomic context. *Journal of School Psychology, 49*, 597-612.

39. Shonkoff, J. P. (2010). Building a new biodevelopmental framework to guide the future of early childhood policy. *Child Development, 81(1)*, 357-367.

40. Boivin, M., Hertzman, C., Barr, R., Boyce, W. T., Fleming, A., MacMillan, H., Odgers, C., Sokolowski, M. B., and Trocmé, N. (2012). *Early childhood development*. Ontario: The Royal Society of Canada & The Canadian Academy of Health Sciences Expert Panel.

41. UNICEF. (2008). *The Child Care Transition. A league table of early childhood education and care in economically advanced countries.* Florence, Italy: UNICEF Innocenti Research Center.

42. Hertzman, C. (2010). Framework for the social determinants of early child development. *Encyclopedia on early childhood development,* 1-5.

43. Doherty, G. (1997). *Zero to six. The basis for school readiness.* Applied research branch, Strategic Policy, Human Resources Development Canada.

44. National scientific council on the developing child. (2004). *Young children develop in an environment of relationships. Working paper 1.* Boston: Center on the developing child at Harvard University.

45. Hertzman, C. (2010). Cadre pour les déterminants sociaux du développement des jeunes enfants. *Encyclopédie sur le développement des jeunes enfants,* 1-9. Tremblay, RE; Barr, RG; Peters RDeV; Boivin, M.

46. Centre de collaboration nationale sur les politiques publiques et la santé. (2012). *Les connaissances en santé développementale comme moteur de politiques familiales favorables à la santé au Canada*. Gouvernement du Québec.

47. Grantham-McGregor, S. M., Pollitt, E., Wachs, T. D., Meisels, S. J., and Scott, K. G. (2012). *Summary of the scientific evidence on the nature and determinants of child development and their implications for programmatic interventions with young children. United Nations University.* Document consulted at http://archive.unu.edu/unupress/food/V201e/ch02.htm.

48. Duval, S. and Bouchard, C. (2013). *Soutenir la préparation à l'école et à la vie des enfants issus de milieux défavorisés et des enfants en difficulté.* Québec: Université Laval.

49. AEDI National Support Center (2013). *National AEDI implementation. Community preparation and implementation guide.* AEDI Partnership. *http://userguide.aedi.org.au/ AEDIResultsGuide/media/AEDI_Media/Resources/About/CPIG.pdf*.

50. Janus, M. and Duku, E. (2007). The school entry gap: socioeconomic, family, and health factors associated with children's school readiness to learn. *Early Education and Development, 18(3),* 375-403.

51. Desrosiers, H. (2013). *Conditions de la petite enfance et préparation pour l'école: l'importance du soutien social aux familles.* Institut de la statistique du Québec.

52. Center for the Study of Social Policy. (2013). *Results-based public policy strategies for supporting early healthy development.* United States: Policy for Results.org.

53. Avenir d'Enfants. (2012). Modèle écosystémique. Programme Famille école communauté, réussir ensemble adapté aux 0-5 ans. 1-11.

54. Leerkes, E. M. and al. (2011). The Relation of Maternal Emotional and Cognitive Support During Problem Solving to Pre-Academic Skills in Preschoolers. *Infant.Child Dev., 20(6)*, 353-370.

55. Conseil Supérieur de l'Éducation. (2012). *Mieux accueillir et éduquer les enfants d'âge préscolaires, une triple question d'accès, de qualité et de continuité des services*. Québec: Gouvernement du Québec.

56. Pagani, L. and al. (2010). Prospective associations between early childhood television exposure and academic, psychosocial, and physical well-being by middle childhood. *Archives of Pediatrics & Adolescent Medicine, 164(5)*, 425-431.

57. Raikes, H. A. and Thompson, R. A. (2008). Attachment security and parenting quality predict children's problem-solving, attributions, and loneliness with peers. *Attach.Hum.Dev., 10(3)*, 319-344.

58. Lundberg, I. (2009). Early precursors and enabling skills of reading acquisition. *Scand.J Psychol., 50(6)*, 611-616.

59. Goelman, H., Anderson, L., Kershaw, P., and Mort, J. (2008). *Expanding early childhood education and care programming: highlights of a literature review, and public policy implications for British Columbia*. Human Early Learning Partnership (HELP).

60. Human Early Learning Partnership. (2012). *Addressing barriers to access*. British Columbia: Human Early Learning Partnership.

61. OECD. (2012). *Starting Strong III. A Quality Toolbox for Early Childhood Education and Care*. OECD Publishing.

62. Moran, P., Ghate, D., and van der Merwe, A. (2004). *What works in parenting support? A review of the international evidence*. United Kingdom: Department for education and skills.

63. Galinsky E. (2006). *The economic benefits of high-quality early childhood programs: what makes the difference?* Committee for economic development.

64. Ofsted. (2013). *The impact of early education as a strategy in countering socio-economic disadvantage*. London, UK: Centre for Research in Early Childhood.

65. Center on the developing child at Harvard University (2011). Early childhood program effectiveness. *In Brief,* 1-2.

66. Moore, T. (2006). *Parallel processes: Common features of effective parenting, human services, management and government*. Melbourne, Australia.

67. Malcuit, G. and Pomerleau, A. (2005). Les principes qui se retrouvent dans les pratiques efficaces pour le développement optimal des jeunes enfants. 1-17. Montréal: LEN-UQAM.

68.   Durlak, J. A. and DuPre, E. P. (2008). Implementation matters: a review of research on the influence of implementation on program outcomes and the factors affecting implementation. *American Journal of Community Psychology, 41*, 327-350.

69.   Fixsen, D. L., Naoom, S. F., Blase, K. A., Friedman, R. M., and Wallace, F. (2005). *Implementation research: A synthesis of the literature.* University of South Florida, Louis de la Parte Florida Mental Health Institute, The National Implementation Research Network (FMHI Publication #231). Tampa, FL.

70.   Giesen, F., Searle, A. and Sawyer, M. (2007). Identifying and implementing prevention programmes for childhood mental health problems. *Journal of Paediatrics and Child Health, 43*, 785-789.

71.   Human Early Learning Partnership. (2012). *What makes a difference for early child development?*

72.   Human Early Learning Partnership. (2011). *Proportionate Universality Brief.* British Columbia: Human Learning Partnership.

73.   The Marmot Review Team. (2010). *Fair society, healthy lives. Executive summary.* London: Marmot Review.

74.   Halfon, N., Uyeda, K., Inkelas, M., and Rice, T. (2004). *Building bridges: a comprehensive system for healthy development and school readiness.* National Center for Infant and Early Childhood Health Policy.

75.   Moleux, M., Schaetzel, F., and Scotton, C. (2011). *Les inégalités sociales en santé: Déterminants sociaux et modèles d'action.* Inspection générale des affaires sociales.

76.   Benach, J. and al. (2012). A new typology of policies to tackle health inequalities and scenarios of impact based on Rose's population approach. *Journal of Epidemiology and Community Health.*

77.   Hertzman, C. (2002). *An early child development strategy for Australia? Lessons from Canada.* Queensland Government.

78.   European Commission. (2010). *Reducing Health Inequalities in the EU.* Luxembourg: European Union.

79.   OECD. (2009). *Doing Better for Children.* OECD.

80.   Centre for Community Child Health, 2010. *Engaging marginalised and vulnerable families.*

81.   Centre d'analyse stratégique. (2012). *Aider les parents à être parents. Le soutien à la parentalité, une perspective internationale.* Paris, France:

82.   Laurin, I. and Fournier, D. (2009). *Femmes-Relais (2007-2010) - Bilan de la première année de relance.* Agence de la santé et des services sociaux de Montréal.

83. Commission on Social Determinants of Health. (2008). *Closing the gap in a generation. Health equity through action on the social determinants of health*. Switzerland: World Health Organization.

84. OECD. (2006). *Starting strong II: Early childhood education and care*. Document consulted at http://www.oecd.org/newsroom/37425999.pdf.

85. Shonkoff, J. P. (2010). Investir dans le développement des jeunes enfants pour établir les bases d'une société prospère et durable. *Encyclopédie sur le développement des jeunes enfants,* 1-6. Tremblay, RE; Barr, RG; Peters RDeV; Boivin, M.

86. Anderson, L. M. and al. (2003). The effectiveness of early childhood development programs. A systematic review. *American Journal of Preventive Medicine, 24(3S)*, 32-46.

87. Layzer, J. I., Goodson, B. D., Bernstein, L., and Price, C. (2001). *National evaluation of family support programs. Volume A: the meta-analysis*. Cambridge, MA: Abt Associates Inc.

88. Ramey, S. L. and Ramey, C. T. (2003). Understanding efficacy of early educational programs: critical design, practice, and policy issues. In Reynolds, Wang and Walberg, *Early childhood programs for a new century*, (p. 35-70). Washington, D.C.: CWLA Press.

89. Wachs, T. D. (2012). *The nature and nurture of child development. United Nations University*. Document consulted at http://archive.unu.edu/unupress/food/V201e/ch03.htm.

90. Ministère de la Famille, Ministère de l'Éducation du Loisir et du Sport, et Ministère de la Santé et des Services sociaux. (2013). *Favoriser le développement global des jeunes enfants au Québec : une vision partagée pour des interventions concertées*. Ministère de la Famille.

91. World Health Organization (2011). *10 facts about early child development as a social determinant of health. World Health Organization*. Document consulted at http://www.who.int/maternal_child_adolescent/topics/child/development/10facts/fr/.

92. Gouvernement du Québec. (2010). *Guide pour soutenir une première transition scolaire de qualité*. Gouvernement du Québec.

93. McCain, M. N. and Mustard, J. F. (1999). *Reversing the real brain drain: Early Years Study - Final report*.

94. Janus, M. (2006). *Early Development Instrument: An indicator of development health at school entry*. Vaudreuil.

95. Bradshaw, C. P. and al. (2012). Infusing developmental neuroscience into school-based preventive interventions: implications and future directions. *Journal of Adolescent Health, 51*, S41-S47.

96. Moore, T. (2006). *Early childhood and long term development: the importance of the early years.* Australia: Australian research alliance for children & youth.

97. Côté, S. M., Geoffroy, M.-C., and Pingault, J.-B. (2013). Early child care experiences and school readiness. In Michel Boivin & Karen, L. B., *Promoting school readiness and early learning. Implications of developmental research for practice*, (p. 133-164). New York: The Guilford Press.

98. Rimm-Kaufman, S. E. and Pianta, R. C. (2000). An ecological perspective on the transition to kindergarten: a theoretical framework to guide empirical research. *Journal of Applied Developmental Psychology, 21(5)*, 491-511.

99. Schulting, A. B., Malone, P. S. and Dodge, K. A. (2005). The effects of school-based kindergarten transition policies and practices on child academic outcomes. *Developmental Psychology, 41(6)*, 860-871.

100. Centre for Community Child Health. (2008). *Rethinking school readiness.* Victoria, Australia: Document consulted at www.rch.org.au/ccch/policybriefs.cfm.

101. Palluy, J., Arcand, L., Choinière, C., Martin, C., and Roberge, M.-C. (2010). *Réussite éducative, santé, bien-être : agir efficacement en contexte scolaire. Synthèse des recommandations.* Montréal: Institut national de santé publique du Québec.

102. Ministère de la Famille. (2013). *Guide pour l'élaboration d'une politique d'intégration des enfants de nouveaux arrivants et de gestion de la diversité dans les services de garde éducatifs.* Québec: Gouvernement du Québec.