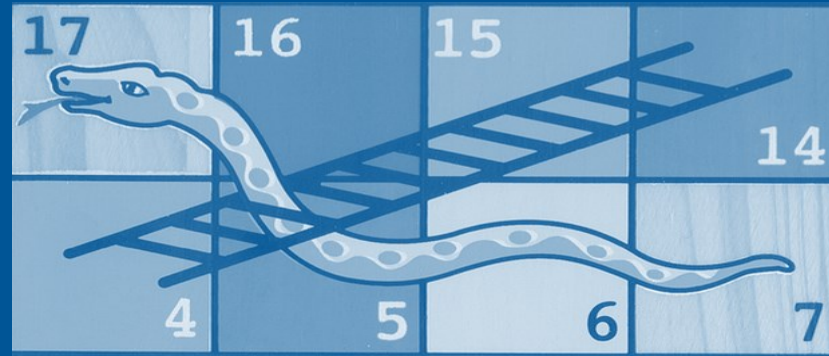


PORTRAIT OF THE PRESCHOOL EDUCATIONAL TRAJECTORIES OF MONTRÉAL CHILDREN

Results of the Montréal Survey on the Preschool
Experiences of Children in Kindergarten
(MSPECK, 2012)



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Danielle Guay, Isabelle Laurin, Nathalie Bigras, Pierre Toussaint et Michel Fournier

MSPECK in brief

In 2006, Direction de santé publique de l'Agence de la santé et des services sociaux de Montréal conducted a *Survey of the School Readiness of Montréal Children* attending public five-year-old kindergartens in Montréal's elementary schools. The survey showed that one in three children in kindergarten were vulnerable in at least one domain of development measured with the Early Development Instrument (EDI). When findings were shared with stakeholders in the field, one issue was at the heart of concerns: What is the link between children's preschool experiences and school readiness?

It was in this context that in 2012, when the 2006 survey was reproduced province-wide—*Québec Survey of Child Development in Kindergarten* (QSCDK)—researchers at the public health department and a researcher from UQAM, in collaboration with Institut de la statistique du Québec, launched the *Montréal Survey on the Preschool Experiences of Children in Kindergarten* (MSPECK), a complementary survey of parents of a sample of Montréal children assessed as part of the QSCDK. The MSPECK documented several dimensions of early childhood experiences, including children's health, family environment, quality and safety of home neighbourhood, families' living conditions, and children's preschool educational pathways. Links between children's development in kindergarten and their early childhood experiences were analyzed by coupling data from the QSCDK with those of the MSPECK.

MSPECK is in step with other Canadian initiatives that have developed additional tools to enhance understanding of children assessed with the EDI. The most familiar ones are the *Kindergarten Parent Survey* and the *Early Development Instrument Parent Survey*, used in Ontario and Manitoba respectively. Although these tools differ in content, their goals remain the same: to document the preschool experiences of children assessed with the EDI, and study the determinants of child development.

The role of educational services in early childhood development and in the reduction of social health inequalities is widely recognized (McCain et al., 2011; Vandenbroeck & Lazzari, 2014). For James Heckman, recipient of the Nobel Prize in Economics, investing in quality educational services provides the best return and makes a substantial difference in children's lives by facilitating their integration into the school system and society (Heckman, 2006). In Québec, there is not just one preschool educational pathway: some children stay at home and some attend daycare or four-year-old kindergarten; for others, it is a combination of both. Therefore, when they start school, children may have had diverse experiences. This report uses data from the *Montréal Survey on the Preschool Experiences of Children in Kindergarten* (MSPECK) to outline the educational trajectories of Montréal children from birth to the beginning of kindergarten.

A short description of the survey methodology is followed by the results, presented in three sections: The first section looks attendance in different types of childcare services. The second focuses more specifically on attendance in educational services, including public four-year-old kindergarten. The third section describes children's exposure to other educational activities, at home and in the community. Concerned by the effects of social inequalities in health on children's development, we draw attention, as we describe the results, to differences observed between the situations of children from low-income families and those from more affluent ones.

A MESSAGE FROM THE DIRECTOR

For more than 10 years now, Direction de santé publique de l'Agence de la santé et des services sociaux de Montréal has endeavoured to be better informed about the state of health of Montréal children and more cognizant of the social and health inequalities and disparities affecting this population.

In 2006, DSP de l'Agence de Montréal carried out the Survey of the School Readiness of Montréal Children and supported broad intersectoral mobilization in the field of early childhood. In 2012, it assembled a profile of the results of the Québec Survey of Child Development in Kindergarten (QSCDK) for the city. In doing so, the DSP was able to measure how the situation of Montréal children had evolved between 2006 and 2012.

The 2012 Montréal Survey on the Preschool Experiences of Children in Kindergarten (MSPECK) documents the preschool experiences of Montréal children assessed in the QSCDK. The current document draws up a portrait of the diverse educational trajectories children may have before they start school. We hope this publication will answer numerous questions raised in 2006 during the summit initiative on school readiness.

Director of Public Health



Richard Massé, M.D.

Method

Study population

MSPECK's target population was children residing on the Island of Montréal and attending five-year-old kindergarten on the Island of Montréal in 2011-2012. The survey frame comprised all children in Montréal whose development had been evaluated in QSCDK, which amounted to 78% of all kindergartners. It should be noted that children with handicaps, social maladjustments and learning disabilities (SHSMLD)¹ were excluded from QSCDK, and were therefore likewise excluded from MSPECK. A probability sample of 1184 children was drawn and stratified by Pampalon's material deprivation index (with over-representation of the lowest quintile), language of instruction (French/English), and school status (private/public).²

Data collection

A structured questionnaire developed by researchers from the Montréal Agency's DSP and UQAM, as well as Institut de la statistique du Québec (Québec Institute of Statistics-ISQ) was used to document children's preschool experiences.³ Data collection was conducted by the ISQ by telephone with parents between April 25 and July 2, 2012.

Documentation and definition of variables

The MSPECK documented a number of aspects of kindergartners' preschool experiences. In this section, we will introduce the variables that will be examined in this document.

¹ Pupils identified as SHSMLD in either the administrative files of the ministère de l'Éducation, du Loisir et du Sport or based on information obtained from the school.

² Details of the sampling strategy may be found in the ISQ's methodological report, pp. 7-10 (Thibodeau & Gingras, 2013).

³ The questionnaire is available on the websites of the Direction régionale de santé publique, CIUSSS du Centre-Sud-de-l'Île-de-Montréal (http://www.dsp.santemontreal.qc.ca/dossiers_thematiques/tout_petits_familles/thematique/enquete_montrealaise_sur_l'experience_prescolaire_des_enfants_a_la_maternelle_emep/documentation.html).

Childcare attendance

The first question parents were asked verified whether the target child had been looked after on a regular basis during early childhood by someone other than the child's mother, father, stepmother or stepfather. Regular childcare could be full-time or part-time; and have taken place during the day, evening, night or weekend; inside or outside the child's home. Attendance in different types of childcare was then documented for five reference periods: between birth and 11 months, between 12 and 17 months, between 18 and 35 months, between 36 and 47 months, and between 4 years and entry into five-year-old kindergarten.

The inclusion of a question on the age at which children began being looked after in childcare ensured that data on childcare service use began being collected at the appropriate reference period. Parents were asked to indicate, for each applicable period during which the child was in childcare for a minimum of three months, the principal type of childcare used and the average weekly number of hours of attendance (15 hours or less, 16 to 30 hours, 31 to 45 hours, or 46 hours or more).

It should be pointed out that the MSPECK documented childcare service attendance only in the province of Québec. As a result, any childcare services that children born outside of Québec may have used prior to arrival in the province were not included in the study. The table below provides a brief description of the various types of childcare covered by the survey, as well as of public four-year-old kindergarten.

Additional questions were used to identify the number of different childcare services children had attended from birth onwards, the reasons why certain children had never been looked after by persons other than their parents, as well as the reasons why some had never attended a CPE. The survey also documented places obtained in childcare as a result of referral by health care professionals, as well as free part-time or full-time places in childcare.

Definitions of types of childcare services and four-year-old kindergarten

Educational childcare services regulated by the ministère de la Famille

Early childhood centre

An early childhood centre (CPE) is a non-profit organization or cooperative that provides subsidized* places in its childcare centres. It is run by a board of directors comprised of at least seven members, at least two-thirds of whom are parents who are current or future users of CPEs.

Daycare

A daycare is generally a for-profit operation. It may or may not offer subsidized* places. It must have a parents' committee that is consulted on all aspects of the care of children attending the daycare.

Subsidized* family daycare

A subsidized family daycare is operated in a private residence by an individual certified by a home childcare coordinating office. Certified individuals who operate family daycares by themselves may provide educational childcare services for a maximum of six children, including two under the age of 18 months. Operators who are assisted by another adult may provide services to seven to nine children, no more than four of whom may be under the age of 18 months.

Childcare services not regulated by the ministère de la Famille

In-home care

This refers to situations in which a child is looked after by someone other than the child's mother, father, stepmother or stepfather, in the home of either the caregiver or the child.

Family daycare

In Québec, people can provide childcare services for a maximum of six children without being recognized as home childcare providers by a coordinating office or obtaining permits from ministère de la Famille.

Part-time, four-year-old, school-based kindergarten (regulated by the ministère de l'Éducation, du Loisir et du Sport)

Part-time kindergarten, sometimes known as "junior kindergarten", is provided free of charge to four-year-old children. It is reserved for children who are handicapped or from disadvantaged neighbourhoods. In Montréal, children spend 11 hours and 45 minutes a week in a class with a kindergarten teacher and 11 hours and 45 minutes in an after school daycare run by an educator.

* At the time of the survey, the cost of a subsidized place was \$7 per day.

Preschool educational service trajectories

As the benefits to child development of attendance in quality educational services have been underscored in numerous studies (Burger, 2010; Desrosiers & Ducharme, 2006; Vandebroek & Lazzari, 2014), it seemed important to clarify the trajectories of children in such services. In the MSPECK, the term *educational services* was used to refer to childcare services regulated by the ministère de la Famille—CPEs, subsidized daycares, non-subsidized daycares, and subsidized family daycare—as well as public four-year-old kindergarten regulated by the ministère de l'Éducation, du Loisir et du Sport. However, it did not encompass non-regulated childcare services, such as uncertified family daycare, in-home care, or drop-in daycare centres. Thus, a child who had attended a family daycare not certified by a coordinating office between the ages of 0 and 18 months was not considered to have attended an educational service during the first two periods documented in the MSPECK (0 to 11 months and 12 to 17 months).

The following variables were constructed based on information obtained regarding childcare attendance (see previous section), and in response to a question on attendance in public-school four-year-old kindergarten during the period between 4 years and entry into five-year-old kindergarten:

- 1) Age at the beginning of educational service attendance. When the age was not available, as in cases in which children initially attended types of childcare not considered "educational", the age at the beginning of the first period of attendance in an educational service was used (e.g. 18 months for a child who attended an educational service during the 18-to-35-months period).
- 2) Longitudinal profile of educational service attendance, based on the principal type of educational service attended during each of the five periods documented. Examples of the profiles obtained include: attended family daycare during the first two periods, followed by subsidized daycare during the three other periods; exclusively attended a CPE prior to school entry; attended no educational service during the first four periods, followed by public four-year-old kindergarten during the last period documented.
- 3) Duration of educational service attendance, obtained by calculating the sum of the total duration (in months) of the periods during which the child attended educational services, taking into account the exact age at the beginning of attendance when available.

- 4) Average weekly attendance, based on weekly attendance (number of hours per week) for each period during which the child attended an educational service, and weighted based on the length of each of the periods. For example, a weight of 1.5 was assigned to the period from 18 to 35 months, while a weight of 1 was assigned to the period from 36 to 47 months.
- 5) Cumulative attendance, based on the weekly rate (number of hours per week) and duration (number of months) of attendance for each period during which the child attended an educational service. This enabled us to obtain a total number of hours of educational service attendance during early childhood, which ranged from 364 to 12,402 hours. The number of hours was then converted into an equivalent number of months, ranging from 2.2 to 75.3 months, based on a rate of attendance of 35 hours a week. Finally, cumulative attendance was divided into three categories: low (24 months or fewer), moderate (25 to 48 months), and high (more than 48 months).

Participation in educational activities

Parents were asked about the frequency of the target child's participation in community literacy activities, in music or art classes and in a physical activity outside daycare or school, during the year prior to entry into regular kindergarten. Response options were read to parents. A child was considered to have taken part in a community literacy activity if the parent answered that attendance had been less than once a month or more, in the case of music and art classes, at least once a week or for one or two sessions.

Parents were also asked whether target children had participated in early childhood stimulation workshops at the recommendation of health care professionals or specialized workers, or in a summer camp specifically designed to promote school readiness (not including the school entry information session or a simple visit of the school). Parents were to answer both questions with a simple yes or no.

Parental involvement in educational activities

Respondent parents were asked about the frequency with which they or other adults in the home had engaged in different activities with target children during the previous 12 months, i.e. reading or telling stories, singing songs, teaching children to say the alphabet or recognize letters, encouraging the children to use numbers in daily activities, going for a walk or a bike ride, watching television or a film, playing video games, playing board games or made-up games, doing handicrafts or drawing, and going to the library. Parents could choose from seven response options that ranged from *rarely or never* to *every day*. A parental involvement index was created by transforming the answers into a number of days per month (e.g. rarely or never = 0, once a week = 4, every day = 30) and calculating the average number of days per month during which the parent engaged in one or more of the 10 aforementioned educational activities. As several studies have served to underscore the importance of reading during early childhood, a variable was constructed that indicated whether or not the parent read to the child daily.

Family socioeconomic status

The family low income measure (LIM) was chosen as the measure of family socioeconomic status. The LIM takes into account both family income and the number of people in the home as reported by the parent. The 2011 low income cut-offs before tax for census metropolitan areas of 500,000 inhabitants or more, based on the number of people in the family, were used (Statistics Canada, 2012). In the text, the term *more affluent families* refers to families above the low income cut-off.

Data analysis

Overall results used the weighting established by the ISQ, permitting them to be generalized to the MSPECK target population. Chi-square tests were conducted to compare children's situations as a function of whether or not they came from low-income families. Only statistically significant differences (with a threshold of 0.05) have been included in the text. Confidence intervals of 95 percent were calculated to provide a measure of accuracy for the different estimates presented. These are indicated by (I) in the figures and are available in a supplementary document on the DSP's website (see Note 3). STATA software version 13 was used to conduct the analyses.

All data processing and analysis used the following database: Gouvernement du Québec, Institut de la statistique du Québec, Fichier de micro-données masqué contre l'identification involontaire de l'Enquête montréalaise sur l'expérience préscolaire des enfants de maternelle, 2012 [Government of Québec, Québec Institute of Statistics, Masked Microdata File for the Montréal Survey on the Preschool Experiences of Children in Kindergarten, 2012].

Characteristics of MSPECK children

The following table illustrates the main sociodemographic characteristics of the children in five-year-old kindergarten in the MSPECK sample.

Characteristics of children in five-year-old kindergarten, Montréal, 2011-2012 (n = 1184) (weighted data)			
FEMALES		50.4 %	
AVERAGE AGE		5.4 years	
BORN IN QUÉBEC		78.2 %	
LOW-INCOME FAMILIES (N = 441)		39.9 %	
SINGLE-PARENT FAMILIES		16.0 %	
EDUCATION	MOTHER	FATHER	
No diploma	8.7 %	5.0 %	
High school diploma	15.4 %	17.8 %	
College diploma	22.9 %	21.2 %	
University diploma	53.0 %	56.0 %	
LANGUAGES SPOKEN MOST OFTEN AT HOME			
French only	38.6 %		
English only	16.6 %		
Other only	22.7 %		
French and English	6.4 %		
French or English and other	15.8 %		
COUNTRY OR REGION OF BIRTH	MOTHER	FATHER	
Canada	44.1 %	43.9 %	
North Africa	14.3 %	16.8 %	
East Asia, Southeast Asia or South Asia	11.0 %	10.4 %	
Europe	8.9 %	8.3 %	
Caribbean or Bermuda	6.9 %	5.3 %	
Central or South America	4.2 %	2.8 %	
Other countries and regions	10.7 %	12.4 %	
Source: Montréal Survey on the Preschool Experiences of Children in Kindergarten, 2012.			

Childcare attendance during early childhood

While all children attend school, experiences of childcare during early childhood may vary considerably from one child to the next. The results presented in this section reflect the experiences of Montréal children, from low-income families and more affluent ones alike. The text box on the next page presents various aspects of the living conditions of these two groups of families to provide readers with a better idea of the considerable differences in their circumstances that often exist. The information highlights the fact that not all children start out in life with the same opportunities or social capital.

Deciding whether or not to use childcare

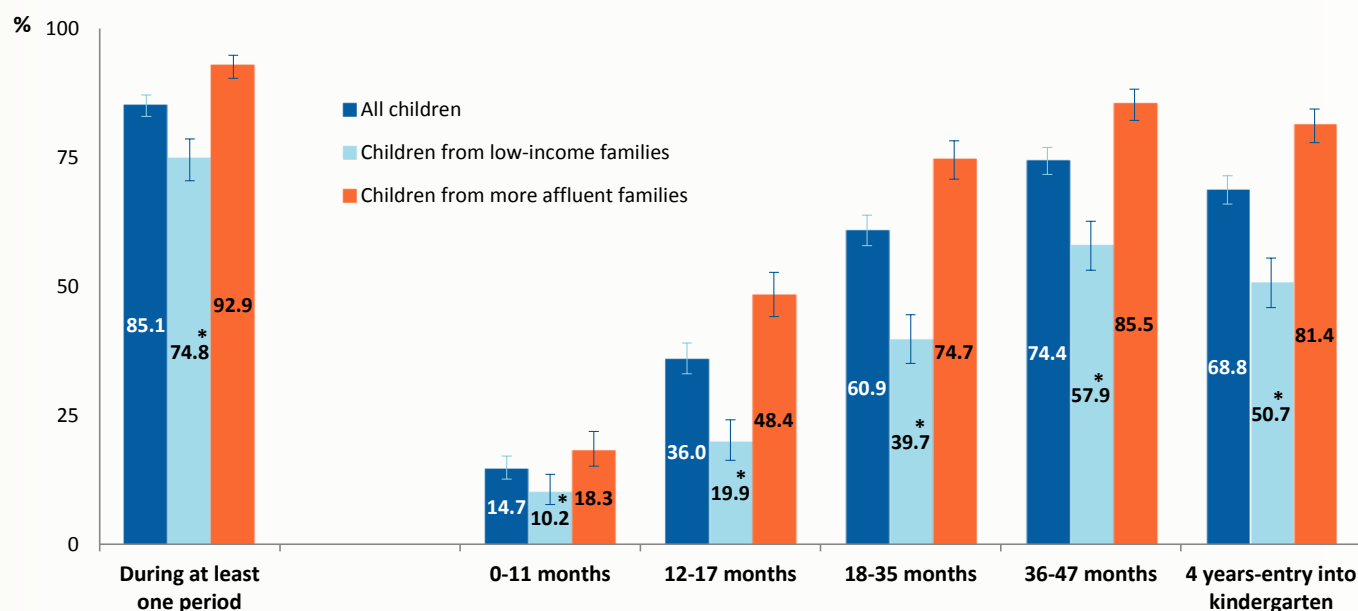
According to the MSPECK, the vast majority of Montréal children (85%) are regularly looked after in some form of childcare during at least one period prior to entry into kindergarten (Figure 1). Due to differences in methodology, it is difficult to compare these results with those obtained by the other survey on the situation in Montréal, the 2009 Survey on

the Childcare Use, Needs and Preferences of Families (EUSG) (Gingras et al., 2011). The primary reason for this is that while the MSPECK examines the entire preschool period of children in kindergarten, the EUSG focuses on cross-sectional data concerning children ages 0 to 5 years. For information purposes, it should be noted that the 2009 EUSG estimated that 68% of Montréal families with children under the age of five years regularly used childcare services.

As shown in Figure 1, although the majority of children from low-income families are looked after in childcare at some point during early childhood (75%), this proportion is lower than the proportion observed among children from more affluent families (93%). This result is in line with those of the two principal Québec surveys on the topic, the Québec Longitudinal Study of Child Development (QLSCD) (Desrosiers et al., 2004; Giguère & Desrosiers, 2010; Japel, 2008) and the 2009 EUSG (Bigras et al., 2011; Gingras et al., 2011), as well as other studies conducted outside Québec (Vandenbroeck et al., 2008).

Figure 1 also shows how the proportion of children in childcare evolves over the five periods documented. The proportion increases over the first four years of life and then decreases

Figure 1
Proportion of kindergartners looked after in childcare during early childhood by age period and family income, Montréal, 2011-2012



(*) Indicates a significant difference (with a threshold of 0.05) between the proportion of children from low-income families and the proportion of children from more affluent families.

NB: Childcare attendance by children attending public four-year-old kindergarten was not documented for the period between age 4 and entry into kindergarten.

Source: Montréal Survey on the Preschool Experiences of Children in Kindergarten, 2012.

slightly for the period between the age of 4 years and entry into kindergarten, for both children from low-income families and children from more affluent families alike. This decrease can be explained by the fact that a number of children attend public four-year-old kindergarten during this final period rather than being looked after in childcare. Although some may also attend childcare, this was not documented in the MSPECK. Both the QLSCD (Giguère & Desrosiers, 2010) and the 2009 EUSG (Gingras et al., 2011) also observed this increase in the percentage of children in childcare with age.

What are the living conditions of MSPECK children?

Compared to children from more affluent families, a significantly higher proportion of children from low income families:

- belong to single-parent families (25.9% vs. 9.5%);
- belong to families with three or more children under the age of 18 (40.7% vs. 27.0%);
- belong to families in which both parents immigrated to Canada in the previous five years (28.4% vs. 5.8%);
- live in dwellings with one or more sanitation problems* (34.1% vs. 18.3%);
- live in an overcrowded home* (60.9% vs. 17.6%);
- live in a neighbourhood considered to be unsafe* by their parents (30.8% vs. 13.1%);
- belong to families that have experienced a serious lack of money* for basic needs in the past year (33.9% vs. 5.0%);
- belong to families with little social support* (16.9% vs. 3.6%);
- belong to families without easy access** to the following resources: parks, libraries, CSSS, pools, community centres (31.1% vs. 16.8%);
- have moved at least three times in the past five years (16.0% vs. 6.8%).

* See appendix for definitions of these indicators.

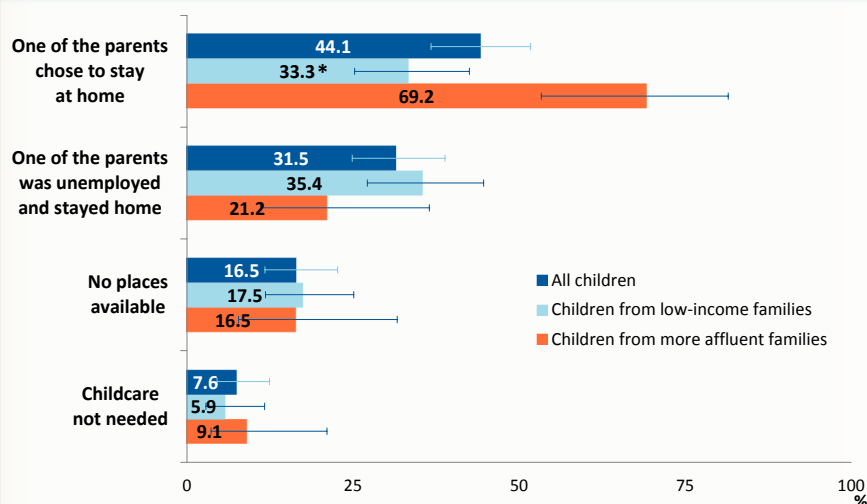
** ie. roughly 15 minutes by foot, car or bus.

Since its implementation in 2006, the Québec Parental Insurance Plan has allowed parents who are employed at the time of their child's birth to take one year of paid parental leave. This no doubt partially explains the small percentage of children looked after in childcare during the first year of life. In the MSPECK, approximately 64% of Montréal mothers who gave birth in Québec took parental leave, as well as 44% of fathers.

Why are children not put in childcare?

The main reasons given for Montréal children not having been looked after in childcare during early childhood are shown in Figure 2. Three are tied to the fact that families did not need to use childcare: one of the parents chose to stay at home (reason given for 44% of the children), one of the parents was unemployed and stayed home (32%), or the parents simply stated that they had not needed to use childcare (8%). The lack of places in childcare, the reason cited for slightly less than one in five children (17%), is more of an accessibility issue. These reasons are similar to those reported by families throughout Québec in the 2009 EUSG (Gingras et al., 2011).

Figure 2
Proportion of kindergartners not looked after in childcare during early childhood by main reasons given and family income, Montréal, 2011-2012



(*) Indicates a significant difference (with a threshold of 0.05) between the proportion of children from low-income families and the proportion of children from more affluent families.

NB: Parents could cite two reasons.

Source: *Montréal Survey on the Preschool Experiences of Children in Kindergarten, 2012.*

Similar reasons were given for not using childcare by both low-income and more affluent families. Only one reason was cited by significantly different proportions of parents in the two groups: parents of children from more affluent families mentioned a parent's decision to stay home more frequently than did parents of children from low-income families (69% vs. 33%). One can readily understand how the economic advantages enjoyed by more affluent families might make such an option easier. It should be mentioned that the cost of services was cited by the parents of 5% of the children from low-income families (data not shown). Even subsidized childcare may not be affordable for certain low-income families, as shown by Halperin (2007) and Pichette (2013).

Approximately 13% of Montréal children who were not looked after regularly in childcare during their early childhood did however occasionally attend community drop-in daycares during the two years prior to their entry into kindergarten.

The following general observations can be made based on Figure 3:

- From the age of 18 months onwards, the most commonly used type of childcare is the CPE: over 40% of children in childcare attend CPEs. During the year prior to entry into kindergarten, nearly one in every two children attends this type of childcare.
- Family daycares, subsidized or otherwise, and in-home care are the most commonly used types of childcare for infants. For example, slightly over one in four children in childcare below the age of 18 months attend subsidized family daycare; the proportion drops to approximately one in 10 children in childcare for the period between age four and entry into five-year-old kindergarten.
- The situation regarding centre-based childcare is the opposite of that for family daycare. The older the children in childcare, the more likely they are to attend a CPE or daycare centre, subsidized or otherwise. As of the age of three years, more than three-quarters of children in childcare attend a centre-based childcare, whereas only slightly over one-third of children under the age of 12 months do so.

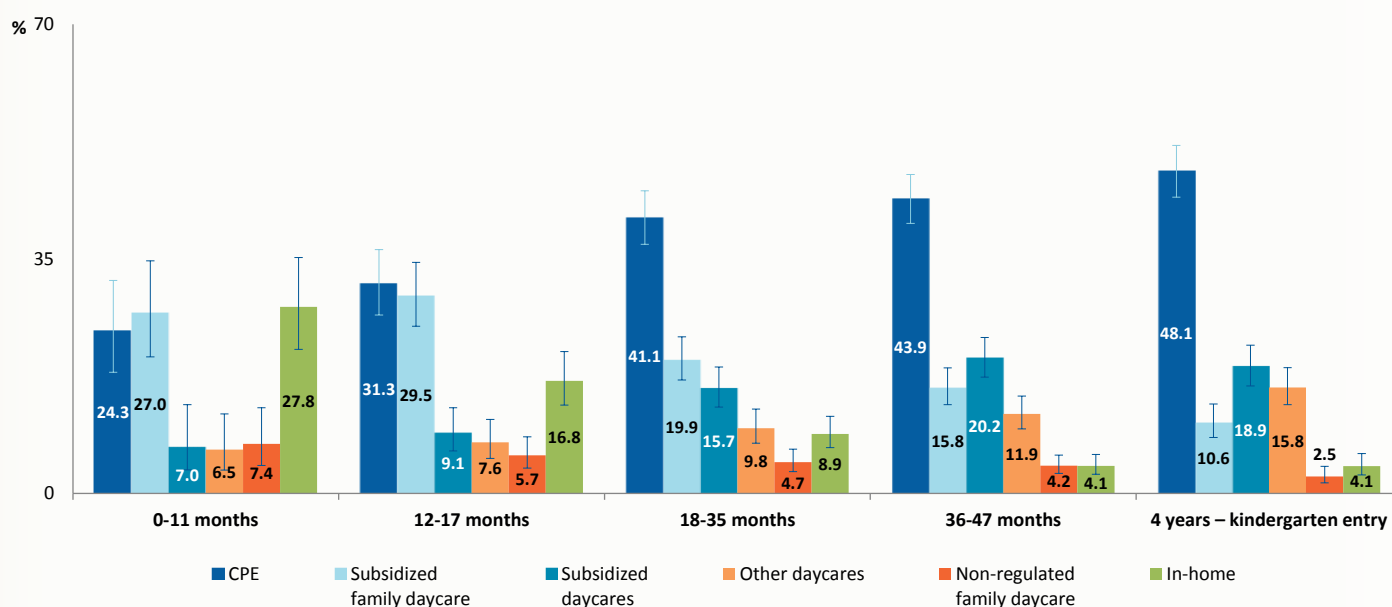
General observations for children from low-income families and for children from more affluent families are essentially the same, differing only in terms of percentages. However, it should be pointed out that among low-income families it is only as of the age of 36 months that CPEs become the most common type of childcare used (data not shown).

What types of childcare do children attend?

In Québec, different types of childcare services are used by parents based on the parents' preferences or what is available in the community. Figure 3 shows the distribution of children by principal type of childcare attended for each of the five age periods examined.

Figure 3

Distribution of kindergartners looked after in childcare during early childhood by principal type of childcare used during each age period, Montréal, 2011-2012



Source: *Montréal Survey on the Preschool Experiences of Children in Kindergarten, 2012.*

Overall, the picture presented in Figure 3 is consistent with the findings of other Québec surveys. For example, both decreased use of in-home care or non-regulated family daycare in favour of CPEs as children grow older, and CPE attendance by approximately half of children in childcare during the year prior to entry into kindergarten were also observed in the QLSCD (Giguère & Desrosiers, 2010). Moreover, the order of importance of childcare services attended in early childhood by children in the MSPECK is the same as that found in the 2009 EUSG for Montréal families with employed or student parents: CPEs or subsidized daycares, subsidized family daycare, unsubsidized daycares, non-regulated family daycare and in-home care (Gingras et al., 2011).

Finally, an estimated 65% of Montréal children in childcare consistently attend a subsidized form of childcare throughout their early childhood, with the proportion being higher among children from low-income families as compared to their peers from more affluent families (72 % vs. 61 %). Approximately 7% of children in childcare never attend a childcare service regulated by the ministère de la Famille during their early childhood. No difference was found between children from low-income families and children from more affluent families in this regard.

From one type of childcare to another

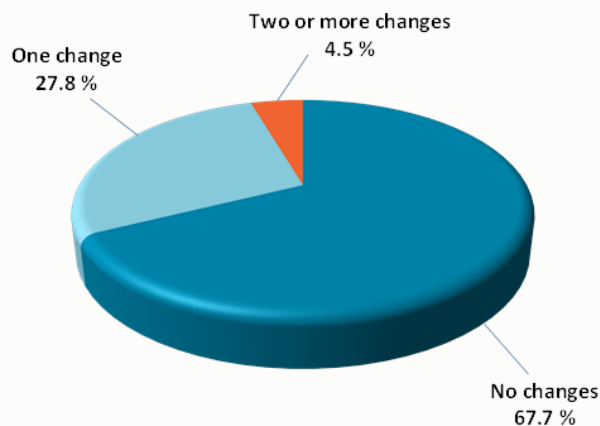
Children sometimes attend more than one type of childcare over the course of early childhood. This may be due to a variety of reasons: their families move, a place becomes available in a childcare service the parents prefer but that previously had no room, they transfer to a more age-appropriate type of childcare, etc. Because the MSPECK documented the full childcare trajectory from birth until entry to kindergarten, it is possible to take a closer look at such changes. Figure 4 shows the number of changes children in childcare may experience during the course of early childhood.

It is clear that most children who attend childcare (close to seven in ten of them) attend only one type of childcare—primarily CPE—before entering five-year-old kindergarten. Nearly three out of ten children change the type of childcare they use, with a minority (less than 5%) experiencing at least two such changes. Proportionally fewer children from low-income families change the type of childcare used as compared to their peers from more affluent families (data not shown). This is likely in part to the fact that they begin childcare later.

What types of changes are made? Generally speaking, as children get older, parents prefer to use centre-based care, often in order to provide children with greater opportunity for socialization. This preference on the part of parents of children ages 2.5 to 5 years for centre-based childcare was also observed in parents in the QLSCD (Desrosiers et al., 2004). In the MSPECK, 22% of children who had been in childcare were initially in family daycare or in-home care before transferring to centre-based childcare. The proportion was lower among children from low-income families (14%) than among their peers from more affluent families (26%). In addition, families also tend to seek out subsidized childcare. The MSPECK found an estimated 12% of children who had been in childcare had made the transition from unsubsidized care to subsidized care. The proportion was slightly lower among children from low-income families (7%) than among children from more affluent families (15%), which is not surprising given that proportionally more children from low-income families only attend subsidized childcare services, as was seen previously.

Figure 4

Distribution of kindergartners looked after in childcare during early childhood by number of changes in type of childcare used, Montréal, 2011-2012



Source: *Montréal Survey on the Preschool Experiences of Children in Kindergarten, 2012.*

It should be noted that these observations are based on the principal type of childcare used during each of the five age periods examined. It is not impossible therefore that the proportion of children in childcare who attend more than one type of childcare service during their early childhood may actually be higher, just as it is not inconceivable that children who always attend the same type of childcare may attend several different childcare services of the same type; for example, one child may attend three different CPEs.

What happens when children reach the age of four?

When children turn four, some parents opt to enroll them in public four-year-old kindergarten if it is available in their neighbourhood. This is true of approximately 33% of children who have never regularly been looked after in childcare previously; however, 27% of such children begin attending childcare instead. Given that public four-year-old kindergarten is free, this raises the question of whether parents would tend to remove their children from childcare to send them to public four-year-old kindergarten if, of course, the latter is available; this is indeed the case for 15% of children who attend childcare between the ages of 3 and 4.

Are such changes at the age of 4 as prevalent among children from low-income families as among those from more affluent families? The answer is yes, if the children have never been in childcare before that age. Migration to public four-year-old kindergarten or to daycare occurs in equal proportions. However, the proportion of children from low-income families who leave childcare for public four-year-old kindergarten is roughly three times higher than that of children from more affluent families (27% vs. 10%). This is hardly surprising given that public four-year-old kindergarten is specifically designed for the former group.

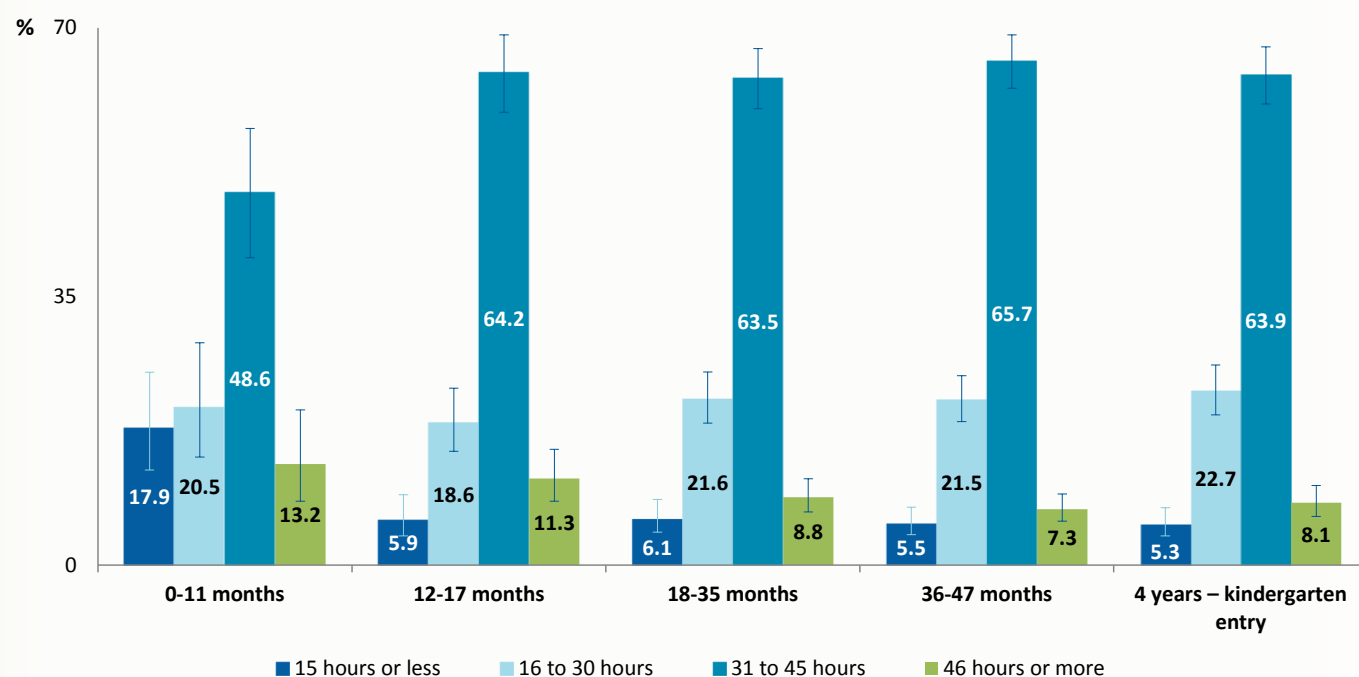
How much time do children spend in childcare?

Not all Montréal children have the same rate of childcare attendance (Figure 5). Nearly two-thirds of children spend between 31 and 45 hours a week in childcare from the time they are one year old until they start kindergarten. Before the age of one year, the proportion of children spending 15 hours or less a week in childcare is three times higher than that observed among older children, which undoubtedly reflects the tendency of many families to begin gradually integrating their children into childcare in preparation for the parents' return to work. The proportion of children spending 46 hours or more per week in childcare, regardless of age, is relatively low. It should be noted that research to date has not yet been able to determine the optimal number of hours per week for child development. Some of the literature suggests that an excessively intensive rate of attendance over a long period of time may have negative consequences primarily for affective and social development (Loeb et al., 2005; NICHD, 2002; Vandell, 2004), while a moderate rate of attendance may be beneficial, for language and cognitive development, in particular (Fram et al., 2012; NICHD, 2002).

There is no significant difference between children from low-income families and children from more affluent families in terms of hours spent in childcare (data not shown).

Figure 5

Distribution of kindergartners looked after in childcare during early childhood by weekly attendance for each age period, Montréal, 2011-2012



Source: *Montréal Survey on the Preschool Experiences of Children in Kindergarten, 2012.*

Children's experiences of educational preschool services

This section will focus primarily on children's preschool experiences of so-called educational services, i.e. services required to provide age appropriate educational programs. These services include **regulated childcare services** under the jurisdiction of the ministère de la Famille (CPE, subsidized and non-subsidized daycare, as well as subsidized family daycare) as well as public school-based **four-year-old kindergarten** (see text box on page 3 for definitions of these services). Some types of childcare services found in the previous section, i.e. in-home care and non-regulated family daycares, will therefore be excluded from this discussion.

Deciding whether or not to enroll one's child in an educational service

Eighty-six percent (86%) of the Montréal children attend an educational service during at least one of the five periods examined (Figure 6). However, the proportion is lower among children from low-income families than among peers from more affluent families (80% vs. 90%).

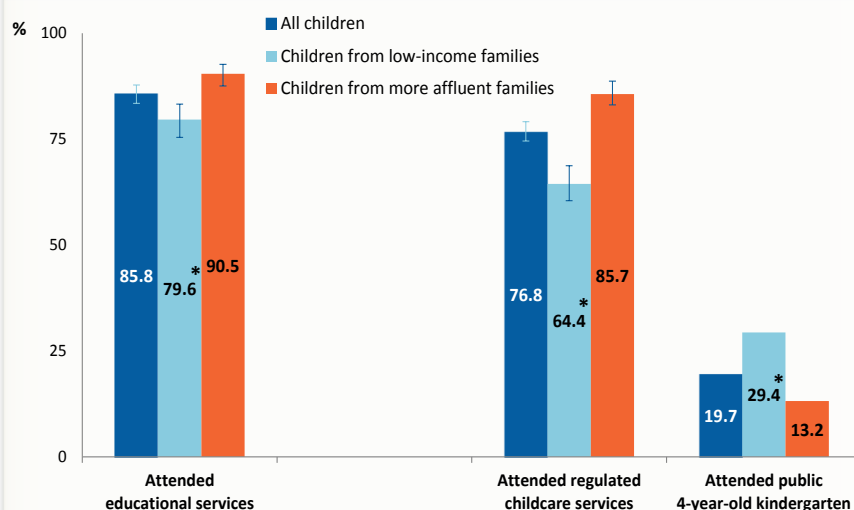
Figure 6 displays information on the two main categories of educational services: regulated childcare services and four-year-old kindergarten. It should be pointed out that a child may attend services in both categories during early childhood. Nearly 86% of children from more affluent families attend regulated childcare services, as opposed to 64% of children from low-income families. Previous studies (Gingras et al., 2011; Kohen et al., 2008) have also observed a lower rate of regulated or formal childcare service attendance among disadvantaged children, while Japel et al. (2005) obtained similar findings regarding regulated and non-regulated childcare. This situation is cause for concern as numerous studies recognize the benefits of attendance in good quality childcare for children, benefits that are even greater for disadvantaged children (Burchinal & Cryer, 2003; Burger, 2010; Duncan & Brooks-Gunn, 2000; Geoffroy et al., 2010).

The MSPECK also indicates that the use of regulated childcare services increases as the level of maternal education rises, regardless of income (data not shown). The 2009 EUSG has previously shown that households in which parents do not have a high school diploma are less likely to put their children in childcare (Gingras et al., 2011). Another element associated with reduced use of childcare is a larger number of children in the family (Giguère & Desrosiers, 2010; Gingras et al., 2011). It should be noted that proportionally more children from low-income families in the MSPECK belonged to families of three or

more children as compared to children from more affluent families (see text box on living conditions on page 7).

Various explanations have been proposed for the lower utilization of formal childcare by disadvantaged families (Côté & Raynault 2014; Vandenbroeck & Lazzari, 2014). A lack of childcare services in families' immediate surroundings and limited transportation options for getting to such services are important barriers to access. In Montréal, the number of places in regulated childcare services is generally proportionally lower in less advantaged neighbourhoods than in more affluent areas (Agence de la santé et des services sociaux de Montréal, 2012). Also, the cost of childcare, even at \$7 a day, is sometimes too high for low-income families. The lack of flexibility in childcare service attendance requirements also restricts access for disadvantaged families who sometimes have less structured daily routines and are more apt to be penalized due to irregular, non-standard or on-call work schedules. Lack of information, sometimes the

Figure 6
Proportion of kindergartners having attended educational services (regulated childcare services or public four-year-old kindergarten) during early childhood by family income, Montréal, 2011-2012



(*) Indicates a significant difference (with a threshold of 0.05) between the proportion of children from low-income families and the proportion of children from more affluent families.

NB: Children may have attended both regulated childcare services and public four-year-old kindergarten during early childhood.

Source: Montréal Survey on the Preschool Experiences of Children in Kindergarten, 2012.

result of isolation, as well as less exhaustive searches for childcare places by disadvantaged parents are also mentioned. Finally, some unemployed mothers prefer to take care of their children at home and see no reason to enroll in them in childcare. Côté and Raynault (2014) conclude that the barriers to childcare service access for children from disadvantaged families are structural rather than cultural in origin.

The situation with regard to attendance in public four-year-old kindergarten is entirely different (Figure 6, previous page). Given that this type of kindergarten is specifically intended for children from disadvantaged backgrounds, it is hardly surprising that a larger proportion of children from low-income families attend public four-year-old kindergarten than of children from more affluent families (29% vs. 13%). The level of maternal education is not associated with kindergarten attendance in low-income families (data not shown). However, as access to this type of kindergarten is determined by place of residence, it should come as no surprise that it is also attended by a certain number of children from more affluent families. Furthermore, some schools that were considered to be in disadvantaged areas when four-year-old kindergarten was first implemented in 1997 are located in neighbourhoods whose socioeconomic status has since improved. The distribution of four-year-old kindergarten programs has not been revised to reflect these changes.

Measures promoting access to regulated childcare services for vulnerable children

A number of measures are designed to render regulated childcare services more accessible for vulnerable children. One measure allows children to obtain a place in childcare upon referral from a health care professional, in order that they may profit from the developmental benefits of exposure to a stimulating environment. This type of referral is usually made as part of an agreement between a health and social service centre (CSSS) and a subsidized childcare service, most often a CPE. Referrals may be made by a CSSS professional (psychoeducator, speech therapist, social worker, etc.) or a family doctor. According to parents, approximately 3% of Montréal families whose children attended regulated childcare services receive such a referral. This sort of referral tends to be given more to children from low-income families: nearly three-quarters of the children who obtain places in childcare due to referral by a health care professional come from low-income families, even though such children account for only 40% of the sample.

In addition, parents receiving social assistance or social solidarity benefits may obtain a free place in subsidized childcare for the equivalent of two and a half days a week or more at the recommendation of their local CSSS. This type of arrangement is made for approximately 8% of all children attending regulated childcare services. Here too, children from low-income families are overrepresented, comprising slightly over two-thirds of the children who had access to free full-time or part-time places in childcare.

It would have been interesting to determine what proportion of all children from families receiving social assistance during their early childhood benefitted from such an arrangement, but our data only provides such information for the year prior to entry into kindergarten. Our information shows that one in five children from families receiving welfare benefits had free access for a period equivalent to two and a half days a week or more. The data suggests that the measure is underutilized, a situation that can be explained by a number of possible hypotheses: the measure is perhaps not particularly well-known by families, families may not wish to make use of it, and families may not be able to use it because they are unable to find a subsidized place. Côté and Raynault's (2014) review sheds some light on the topic: one barrier to the use of childcare services by parents receiving social assistance is the limited number of part-time places in childcare due to the fact that such places are more difficult to manage. Lack of awareness of the free childcare measure and the absence of an organized daily routine in some families on social assistance are other factors that may keep such families from accessing free childcare.

Longitudinal profiles of educational service attendance during early childhood

An educational service attendance profile was established for each child based on the principal type of educational service attended during each of the five periods examined. Over a hundred different profiles were identified: the main ones are presented in Figure 7. It should be noted that most children, regardless of socioeconomic status, attended only one type of childcare during early childhood. Only 30% of the children had profiles combining more than one type of educational service.

Another general observation is that the distribution of the different attendance profiles varies depending on the family's socioeconomic status. Two main profiles are apparent among children from more affluent families: nearly 40% exclusively attending CPEs, while roughly 20% attend a combination of regulated childcare services. Among children from low-income families, the following three profiles of education service attendance occur in similar proportions (approximately 20% each): exclusively CPE, exclusively four-year-old kindergarten, and regulated childcare followed by four-year-old kindergarten.

As shown in Figure 7, proportionally fewer children from low-income families in educational services exclusively attend CPEs as compared to their more affluent peers (21% vs. 37%). Moreover, fewer of them have access to a CPE at some point during their educational service experience (35% vs. 55%—data not shown). This finding is consistent with the QLSCD findings (Japel et al., 2005). As CPEs obtain a greater proportion of high quality scores in the province of Québec (Bigras et al., 2010; Drouin et al., 2004; Japel et al., 2005), our results suggest that a greater proportion of children from low-income families are exposed to lower quality childcare. Japel et al. (2005) have shown there to be no difference in the quality of CPE services⁴ provided in disadvantaged and more affluent neighbourhoods. This is not the case however for other types of childcare, whose quality varies depending on the socioeconomic context to the detriment of the most disadvantaged.

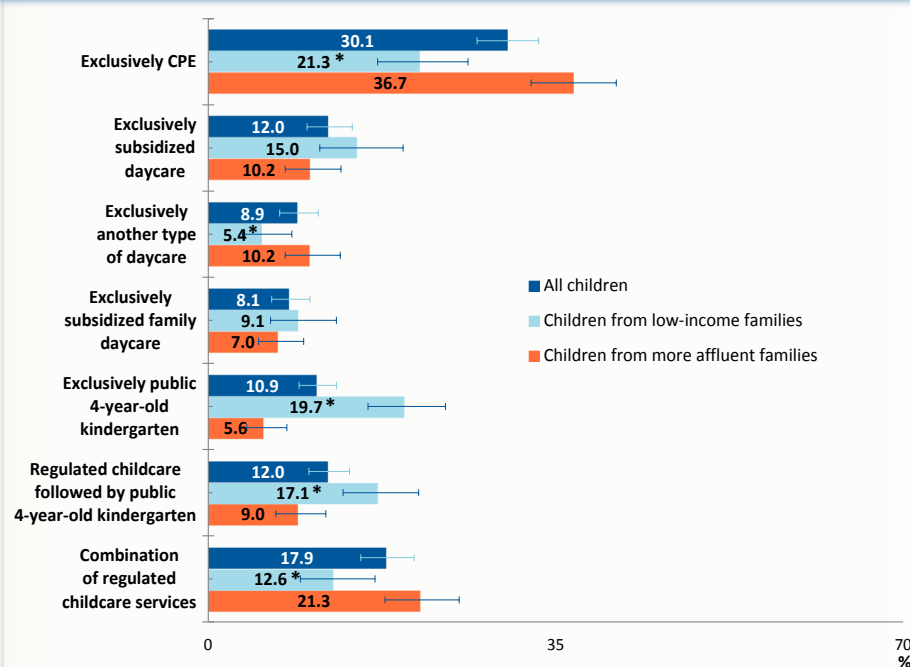
Why not send one's child to a CPE?

Given that it is widely recognized that CPEs provide superior quality childcare, we were curious as to why parents would use other types of childcare for their children during the preschool period. Was it by choice? Due to a lack of available spaces? The principal reasons cited by parents are presented in Figure 8 (next page).

Nearly one in every two parents cited the lack of available places as the main reason for not having sent their child to a CPE. Approximately one in five parents complained of the lack of flexible operating hours or the non-availability of part-time spaces. Slightly more than 15% of parents stated they simply preferred other types of childcare, while roughly one in ten parents said they were satisfied with the type of childcare they used. Low-income families and more affluent families invoked these reasons in slightly different proportions, but the difference was not statistically significant.

Figure 7

Distribution of kindergartners having attended educational services during early childhood by longitudinal profile of services attended and family income, Montréal, 2011-2012



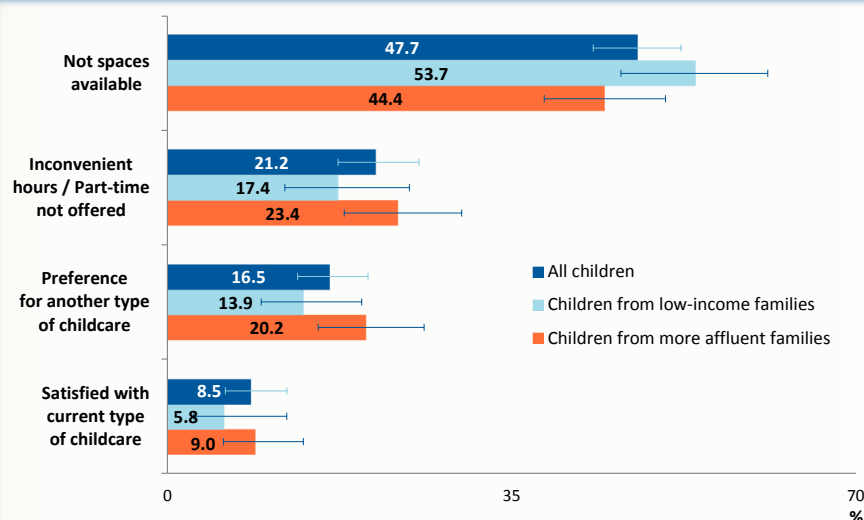
(*) Indicates a significant difference (with a threshold of 0.05) between the proportion of children from low-income families and the proportion of children from more affluent families.

Source: *Montréal Survey on the Preschool Experiences of Children in Kindergarten, 2012.*

⁴ The study by Japel et al. (2005) looked at CPE daycare.

Figure 8

Proportion of kindergartners who did not attend a CPE during early childhood by main reasons given and family income, Montréal, 2011-2012



NB: Parents could cite two reasons.

Source: *Montréal Survey on the Preschool Experiences of Children in Kindergarten, 2012.*

It should be mentioned that over 90% of children in the “under 12 months” category begin attending regulated childcare between the ages of 6 and 12 months. The proportion of children who start going to educational childcare before the age of 6 months is very small. This is consistent with ministère de la Famille findings for Montréal based on activity reports from educational childcare services (CPEs, daycares, and family daycares) from 2012 to 2013.

It should also be pointed out that once children begin attending educational services, 95% continue until entry into five-year-old kindergarten. Thus, the age at which a child begins attending educational services would appear to be a good indicator of the duration⁵ of educational service attendance during early childhood.

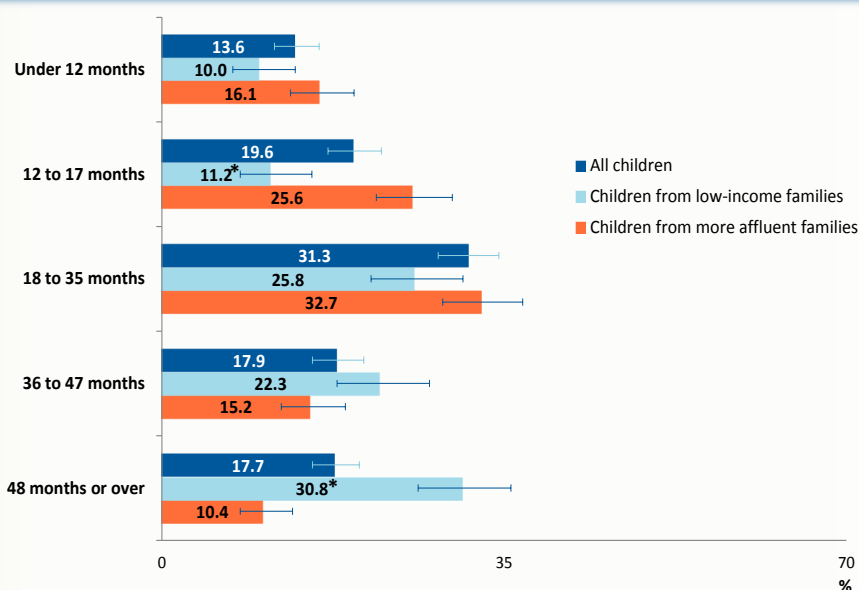
At what age do children begin attending educational services?

As can be seen from Figure 9, childcare service attendance begins at all ages: some children begin during their first year of life, while others only start going to an educational service for the first time the year before they begin kindergarten.

Besides attending educational services in proportionally smaller numbers, children from low-income families begin such attendance at an older age than their peers from more affluent families. The proportion of children from low-income families who begin attending educational services before the age of 18 months is half that of children from more affluent families (21% vs. 42%), while the proportion who begin at the age of 48 months or later is three times as large (31% vs. 10%). This finding reflects the use of four-year-old kindergarten by children from disadvantaged neighbourhoods never having attended regulated childcare services.

Figure 9

Distribution of kindergartners who attended educational services during early childhood by age at beginning of attendance and family income, Montréal, 2011-2012



(*) Indicates a significant difference (with a threshold of 0.05) between the proportion of children from low-income families and the proportion of children from more affluent families.

Source: *Montréal Survey on the Preschool Experiences of Children in Kindergarten, 2012.*

⁵ Attendance duration is not discussed here as it would not contribute any additional pertinent information.

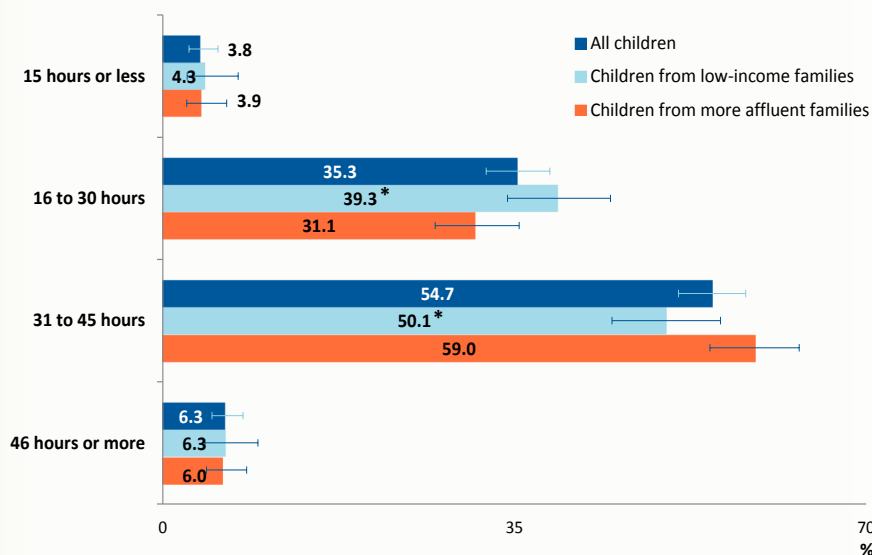
How frequently do children attend educational services?

Figure 10 shows average weekly attendance based on years of educational service attendance during early childhood. Overall, slightly more than one in every two children attends educational services for an average of between 31 and 45 hours a week.

Very few children, regardless of socioeconomic status, attend educational services for fewer than 16 hours a week or more than 45 hours on average. A slightly smaller proportion of children from low-income families attend educational services for between 31 to 45 hours a week as compared to children from more affluent families (50% vs. 59%). Conversely, a larger proportion of the first group attend for between 16 and 30 hours a week (39% vs. 31%).

Figure 10

Distribution of kindergartners having attended educational services during early childhood by weekly attendance and family income, Montréal, 2011-2012



(*) Indicates a significant difference (with a threshold of 0.05) between the proportion of children from low-income families and the proportion of children from more affluent families.

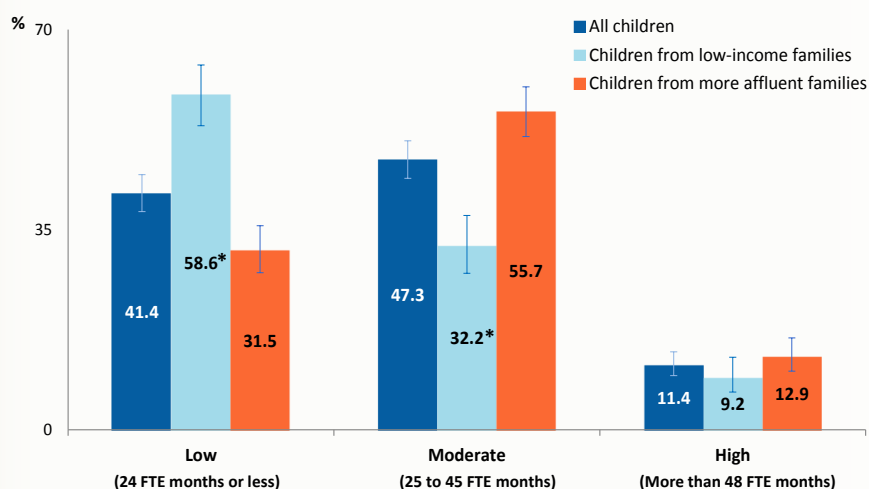
Source: *Montréal Survey on the Preschool Experiences of Children in Kindergarten, 2012.*

Cumulative attendance

As shown in Figure 11, proportionally more children from low-income families have low cumulative educational service attendance (59% vs. 32%). This is not surprising as they tend to begin at a later age and their average weekly attendance is slightly lower.

Figure 11

Distribution of kindergartners having attended educational services during early childhood by cumulative attendance and family income, Montréal, 2011-2012



(*) Indicates a significant difference (with a threshold of 0.05) between the proportion of children from low-income families and the proportion of children from more affluent families.

FTE = Full-time equivalent, i.e. 35 hours of attendance per week.

Source: *Montréal Survey on the Preschool Experiences of Children in Kindergarten, 2012.*

Educational activities

In this final section, we will examine children’s participation in educational or recreational activities outside childcare or school, parental involvement in activities with children and particularly the practice of reading to children.

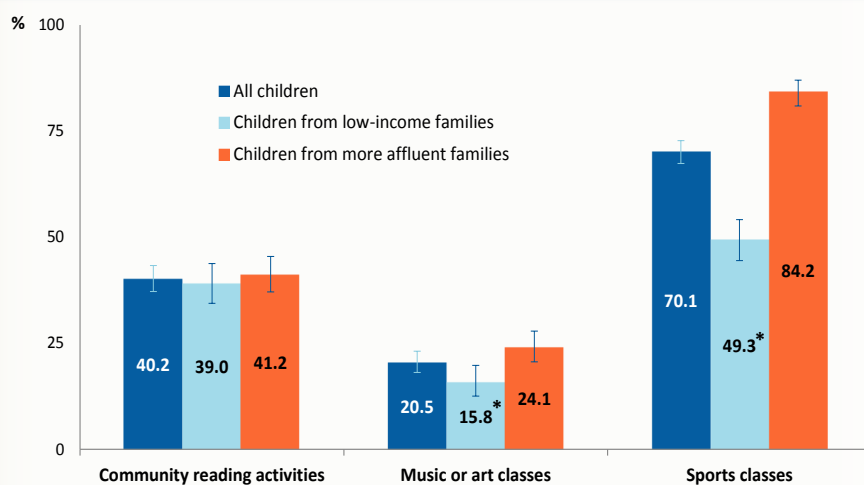
Children’s participation in educational activities

Figure 12 presents information on the educational or recreational activities in which children take part during the year prior to entry into kindergarten. Children from more affluent families and those from low-income families participate in community reading activities for children, excluding reading activities in childcare, in similar proportions, approximately 40%. However, the same is not true for participation in physical activities or in music or art classes. While slightly more than four out of five children (84%) from more affluent families take part in a physical activity—swimming, dance or judo classes, for example—this is true of only one out of two children (49%) from low-income families. The proportion of the latter group of children taking music or art classes is also smaller (16% vs. 24%).

The differences observed in children based on socioeconomic status are not surprising. The results are consistent with those of both the National Longitudinal Survey of Children and Youth and the QLSCD, which show that weekly participation in artistic and athletic activities varies according to parental education and income (Hill, 2011; Pronovost et al., 2013). It is not hard to understand how it would be harder for families living below the low-income cut off to pay for weekly music lessons for their children or enroll them in sports activities like soccer or swimming lessons. Low-income families are not entitled to the non-refundable tax credits more affluent families are able to claim for such activities. When activities are free, as is generally the case for community reading activities, no such gap in participation is found.

Children from low-income families take part in stimulation activities at the recommendation of a health care professional or support worker in proportionally greater numbers than do children from other families (6% vs. 3%). Finally, slightly less than 10% of children take part in activities or summer camps aimed at preparing them for five-year-old kindergarten; a similar percentage was found for both groups of families. As such summer camps are generally intended for children who have never attended educational services, one might expect them to be attended by a larger proportion of children from low-income families given that proportionally fewer of the latter attend educational services. However, this is not what is indicated by the MSPECK data.

Figure 12
Proportion of kindergartners having participated in educational or recreational activities during the year preceding entry to kindergarten by activity type and family income, Montréal, 2011-2012



(*) Indicates a significant difference (with a threshold of 0.05) between the proportion of children from low-income families and the proportion of children from more affluent families.

Source: *Montréal Survey on the Preschool Experiences of Children in Kindergarten, 2012.*

Parental involvement in educational activities

We found no significant difference between parents from low-income families and parents from more affluent families in terms of the average number of days per month that they engage in educational activities with their children (11.6 vs. 11.8 days). The degree of parental involvement is therefore similar, regardless of income.

Reading to children

We were particularly interested in the frequency with which parents read to children as daily exposure to reading at a young age is widely recognized as having an impact on educational success (Evans et al. 2010; Pronovost et al., 2013). The results indicate that more parents in more affluent families had read to their children daily during the previous year than parents in low-income families (56% vs. 33%). When maternal education is taken into account, however, no difference is found between the two types of families for families in which the mother has no high school diploma. The daily practice of reading to children increases with the mother's level of education, regardless of the family's socioeconomic status (data not shown).

We hypothesize that the living conditions experienced by the low-income families in our sample (see text box on page 7) may partly explain the gaps found between the two types of families. Finding a good time to read to one's children every day may be a challenge for parents who live in overcrowded dwellings, are under stress due to lack of money, and are single parents besides.

Nevertheless, our results show that many low-income families use library services, and that the proportion of low-income families who go to the library a few times a month or more is larger than that of more affluent families (43% vs. 33%).

Conclusion

This survey provides a unique look at the preschool educational experiences of the Montréal children evaluated in the QSCDK, the first survey of its magnitude in the province of Québec. The method used retraces the preschool experiences of each child retrospectively from birth onwards, thereby permitting us to explore the wide range of preschool educational trajectories in Québec. While other Canadian provinces have been forerunners in the use of this type of EDI-related study (Healthy Child Manitoba, 2010; Vanderlee & Noël, 2009), none have presented as exhaustive a portrait differentiated by children's socioeconomic status.

The results show attendance in educational services, regulated or otherwise, during the preschool period, to be higher among children from more affluent families than among their peers from low-income families. Furthermore, the latter begin attending such services later, and are less likely to attend CPEs. Once in childcare, children from low-income families have a greater tendency to attend a subsidized form of childcare than do their more affluent peers.

We also observed that a greater proportion of children from low-income families attend public four-year-old kindergarten as compared to their more affluent peers. This is hardly surprising given that this type of kindergarten is specifically designed for the former group. Approximately one in three children from low-income families leaves childcare for public four-year-old kindergarten, a transition that may in part be due to the fact that kindergarten is free of charge.

Our results indicate that families' economic circumstances have a considerable impact on children's preschool trajectories which, in turn, affect their development. Based on the abundant literature on the topic, the DSP considers that high quality preschool educational services have an important role to play in children's development and in combatting social health inequalities. We hope the fresh insight provided by this study will help persuade decision-makers at various levels of government of the importance of implementing public policies fostering equitable child development.

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Definitions of living condition indicators

Lack of money for basic needs

The lack of money indicator was created using five questions taken from the Québec Longitudinal Study of Child Development (QLSCD). The questions pertained to a lack of money to meet one's own or one's family's basic needs over the previous 12 months: food, rent or mortgage, electricity or heating, prescription medication, other important expenses (clothing, transportation, school supplies, etc.) Parents could respond that they had never been short of money, that they had been a little short, very short, or seriously short of money. Each answer was given a score between 0 and 3 based on severity, and the scores were then added up. This provided a total score ranging from 0 to 15, which was converted into three categories: a score of 0 = never short of money; scores of 1-2 = short of money; scores of 3 or more = seriously short of money. The indicator as used here was inspired by Séguin et al.¹

Housing quality

Housing quality was determined based on three questions concerning the presence or absence of: 1) mould; 2) a persistent smell of mould, earth, gas or chemical products; 3) insects or rodents. Housing was deemed unsanitary if the parent reported at least one of the three issues.

Neighbourhood safety

The level of neighbourhood safety was established based on parents' level of agreement with three statements taken from the National Longitudinal Survey of Children and Youth (NLSCY): 1) It is safe to walk alone in this neighbourhood after dark; 2) It is safe for children to play outside during the day; 3) There are safe parks, playgrounds and play spaces in this neighbourhood. Parents indicated whether they agreed strongly, agreed, disagreed or strongly disagreed with each of the statements. Scores were calculated based on the responses obtained, with higher scores indicating a lower level of safety. Children whose scores were in the top quintile were deemed to live in neighbourhoods their parents considered unsafe.

Social support

The level of social support was determined based on parents' level of agreement with three statements taken from the QLSCD: 1) I have a family or friends who help me feel safe, secure and happy; 2) I have someone I trust and to whom I can turn for advice if I have problems; 3) I have people I can count on in case of emergency. Parents indicated whether they agreed strongly, agreed, disagreed or strongly disagreed with each of the statements. A score was calculated on a scale of 1 to 10, with higher scores corresponding to greater social support. Children whose scores were in the lowest decile were deemed to belong to families with little social support.

Overcrowded home

A home was deemed to be overcrowded if it had less than one room per person residing in the home, excluding the kitchen and the bathroom.

¹ Séguin, L., Xu, Q., Gauvin, L., Zunzunegui, M.V., Potvin, L., Frolich, K.L. (2005). Understanding the dimensions of socioeconomic status that influence toddlers' health: unique impact of lack of money for basic needs in Quebec's birth cohort. *Journal of Epidemiology and Community Health*, 59(1), 42-48.

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CIUSSS du Centre-Sud-de-l'Île-de-Montréal

1301, rue Sherbrooke Est
Montréal (Québec) H2L 1M3
Téléphone : 514 528-2400
Website: <http://www.dsp.santemontreal.qc.ca>

Authors

Danielle Guay
Isabelle Laurin
Nathalie Bigras (UQAM)
Pierre Toussaint
Michel Fournier

Data Processing and Figures

Anabel Solis

Translation

Elizabeth Reeve
Sylvie Gauthier

Layout and Graphic Design

Lucie Roy-Mustillo

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