HOW ARE YOUNG CHILDREN FARING IN QUÉBEC?

2021 Highlights

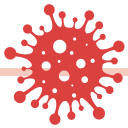
OBSERVATOIRE des tout-petits

Fondation Lucie et André Chagnon

HIGHLIGHTS

This document presents the highlights of the 2021 edition of our portrait of the situation of young children in Québec, entitled *How are young children faring in Québec?* Produced by the Early Childhood Observatory (*Observatoire des tout-petits*), this portrait describes the conditions surrounding children's birth, their physical and mental health and their development. The following pages present the indicators that have shown the most significant variation over the past years and those which give the most cause for concern.

To consult the complete Portrait and all references cited in this document, as well as the regional portraits, please visit the Observatory's website at: **tout-petits.org/portrait2021**.



The full extent of the effects of the COVID-19 pandemic on early childhood development is not yet known. Boxes like this one throughout the report, however, contain information on young children and COVID-19 based on results that were available at the time of publication of *How are young children faring in Québec – 2021 Portrait*, in November 2021.

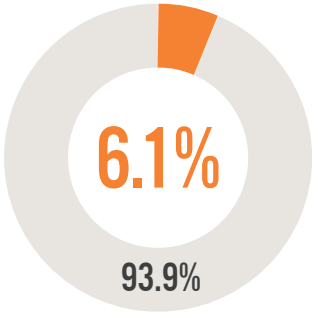
WHO ARE THESE 0-5 YEAR-OLDS?

Number of young children

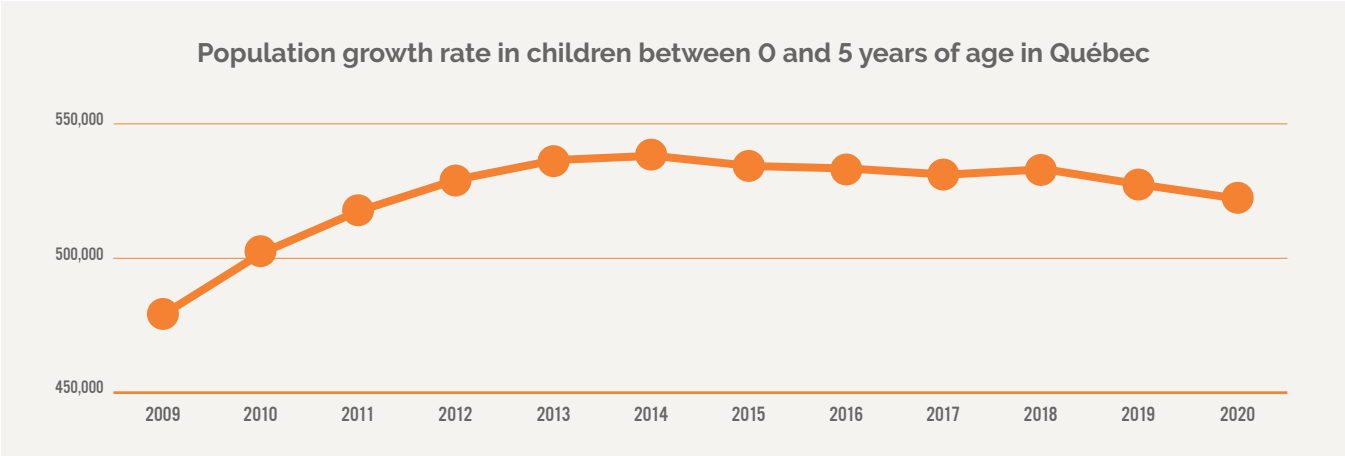
521,952

Number of children between the ages of 0 and 5 living in Québec in 2020.

Children in this age group accounted for 6.1% of the population.



After increasing every year between 2009 and 2014, the number of children in this age group declined between 2015 and 2020.

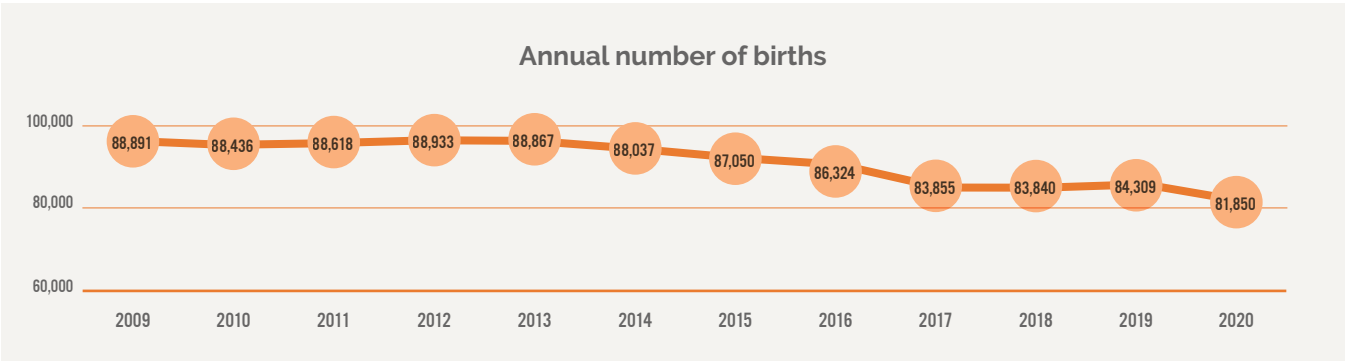


Source: Institut de la statistique du Québec and Statistics Canada, Population estimates, adapted by the Institut de la statistique du Québec, Provisional data for 2020.

Number of births

The annual **birth rate** has been on the decline over the past several years, going from

88,933 in 2012 to **81,850** in 2020

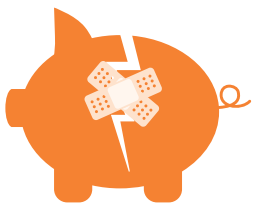


Source: Institut de la statistique du Québec, *Registre des événements démographiques*, Provisional data for 2020.

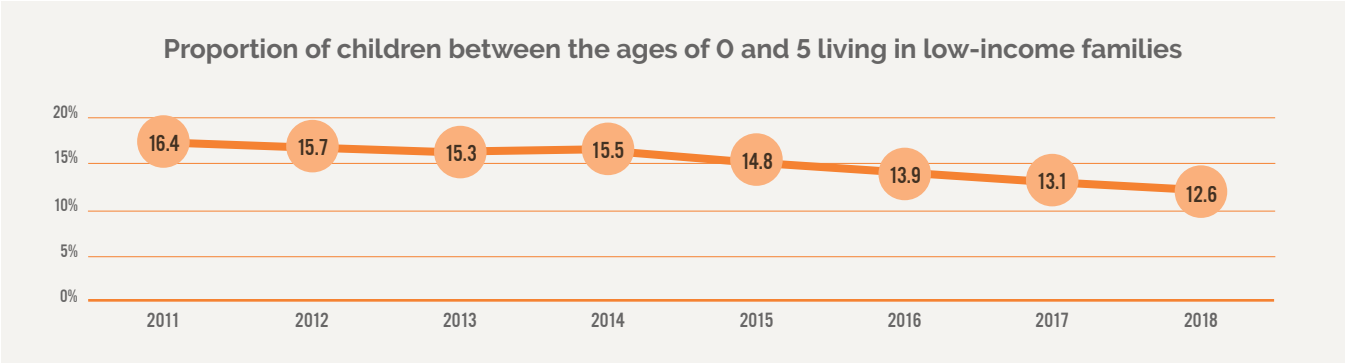
Economic situation

The proportion of children between the ages of 0 and 5 living in **low-income families*** decreased from:

16.4% in 2011 to **12.6%** in 2018 = ...or approximately **66,800** young children.



* After taxes.



Source: Statistics Canada, T1 Family File (T1FF), adapted by the Institut de la statistique du Québec.

Growing up in difficult living conditions can deprive children of stimulating experiences and certain opportunities (Boivin, 2012; National Scientific Council on the Developing Child, 2007). A scarcity of books and toys, for example, could account for almost 12% of the developmental gap (in literacy and numeracy) between 5-year-olds in the poorest and the wealthiest families. (Mellhuish, 2008). A lack of experiences resulting from material and social deprivation can have negative effects on different areas of development in the medium and long term (Deloitte Center for Health Solutions, 2017).

Poverty can have negative consequences for young children, both in terms of their physical health and their social and emotional development. These consequences can last a lifetime (APP Council on Community Pediatrics, 2016).

The brain structures of children living in poverty are generally less developed than those of more privileged children (Hair, 2015). Studies have also shown that children who grow up in low-income households are more likely to be vulnerable in a domain of development when they start school and to have a below-average academic performance in the first year of primary school (Lemelin, 2007).

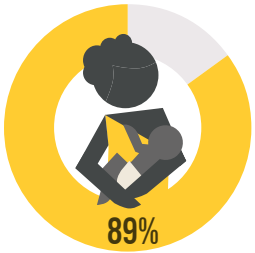
Studies have shown that the negative consequences of the COVID-19 pandemic on young children's cognitive, socio-emotional and language development have had a more pronounced effect on children living in disadvantaged environments and could have long-term effects on their health and well-being (Yoshikawa, 2020).

According to the 2020-2021 Québec Population Health Survey, 26% of the Québec population aged 15 and over were affected by the financial repercussions of the COVID-19 crisis. That figure rises to 29% in the case of couples with children and 35% for single-parent families. There has also been an increase in the risk of maltreatment caused by accumulated stress in the family environment.

DURING PREGNANCY AND AT BIRTH

GOOD NEWS

Breastfeeding initiation rate



In 2017-2018, almost 9 mothers out of 10* (89%) breastfed or attempted to breastfeed their last child.

* Women between 15 and 55 who had given birth to a child during the five years prior to the survey.

Source: Statistics Canada, Canadian Community Health Surveys (CCHS), 2000-2001 to 2017-2018, Data sharing files, adapted by the Institut de la statistique du Québec.

Low birthweight

The proportion of low birthweight babies has remained relatively unchanged over the past three decades, which is good news.

6.3% of babies born in 2019 weighed less than 2.5 kg (5.5 lb).

Source: Institut de la statistique du Québec, *Registre des événements démographiques.*

Breastfeeding is an important protective factor for the health of babies after birth and throughout their lifetime. Not only does breast milk provide all the nutritional elements that babies need for healthy development, it also protects them against several types of infection (such as ear infections, pneumonia and gastroenteritis) (Ministère de la santé et des services sociaux, 2008).

Studies have also shown that breastfeeding lowers the risk of sudden infant death syndrome and certain chronic diseases, such as celiac disease, inflammatory bowel disease, obesity and diabetes (*Comité de nutrition de la société française de pédiatrie*, 2013; Anderson, 1999; Mahurin, 2015; Delgado, 2013).

Breastfeeding helps the mother's uterus shrink back to its normal size, reduces bleeding, delays the return of menstruation and promotes weight loss. It also decreases the risk of breast, ovarian and endometrial cancers (Del Ciampo, 2018).

CAUSES FOR CONCERN

Intimate partner violence

A little over than one out of 10 mothers* (10.9%) in Québec experienced intimate partner violence during the perinatal period of their child's life, based on 2018 data.

* Biological mothers of children between the ages of 6 months and 5 years. The results are based on one of the biological mother's children, not all of them, as applicable.

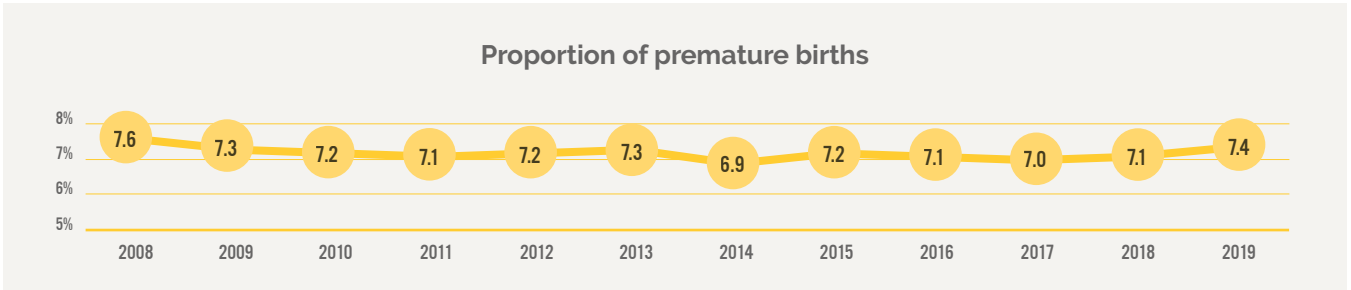
More of the mothers of children between 6 months and 5 years who were subjected to perinatal intimate partner violence were living in precarious environments or more difficult living conditions than mothers who were not victims of such violence.

Source: Institut de la statistique du Québec, *La violence familiale dans la vie des enfants du Québec, 2018: les attitudes parentales et les pratiques familiales.*

Premature births

The proportion of babies born before 37 weeks of pregnancy fluctuated around 7% between 2009 and 2019.

The preterm birth rate has remained relatively stable since 2009.



Source: Institut de la statistique du Québec, *Registre des événements démographiques.*

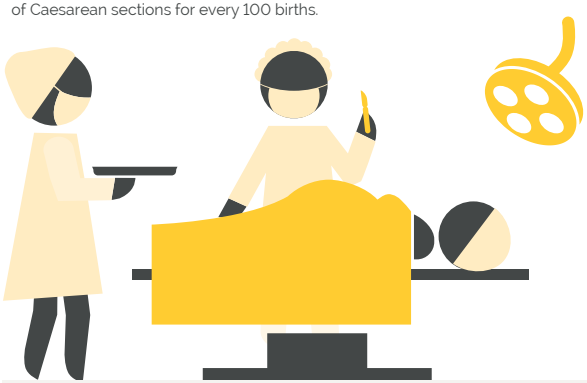
Caesarean births

25.5% of all births in Québec in 2018 were by Caesarean section*.

The Caesarean birth rate has been progressively on the rise, going from 20.9% in 2002 to 25.5% in 2018.

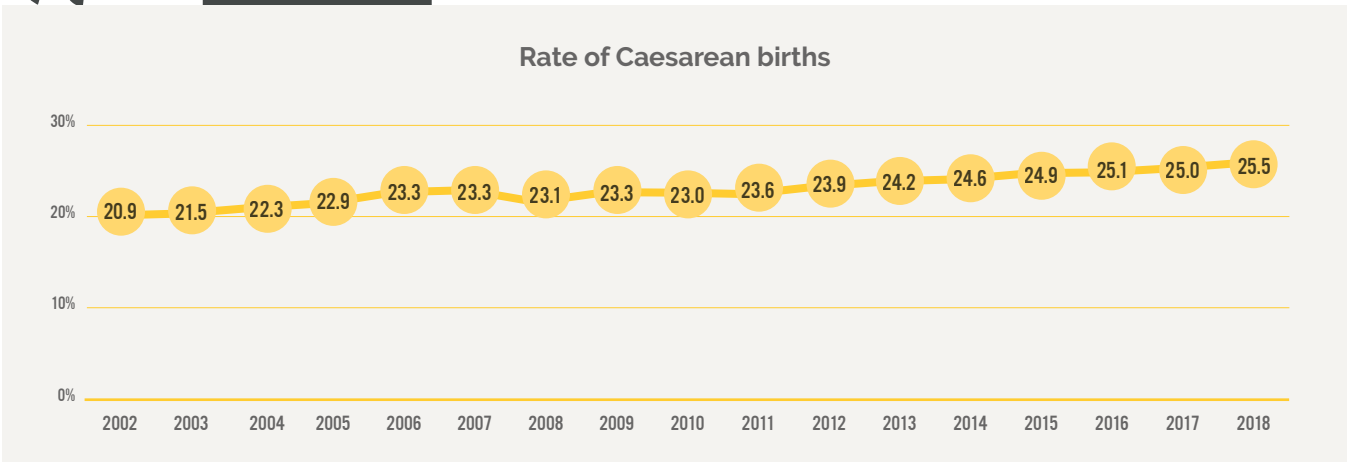
This rate is higher than the ideal rate recommended by the World Health Organization (between 10 and 15%).

* The percentage presented for this indicator is based on the number of Caesarean sections for every 100 births.



Although a Caesarean section is sometimes necessary to ensure the safety of the baby or the mother, it is not without risk (possibility of infection, hemorrhage, problems initiating breastfeeding, breathing problems in newborns, etc.) (Lavender, 2012; Kapellou, 2011; Chien, 2015; Moraitis, 2015; O'Neill, 2013). Despite its medical utility, a Caesarean section can lead to temporary complications, permanent disabilities and, in rare cases, death (World Health Organization, 2014).

There are no data showing that a Caesarean birth can have positive consequences for the mother or baby in cases where it is not medically required. (World Health Organization, 2014).



Sources: Canadian Institute for Health Information, Discharge Abstract Database (DAD); Ministère de la Santé et des Services sociaux du Québec, *Fichier des hospitalisations MED-ECHO*.

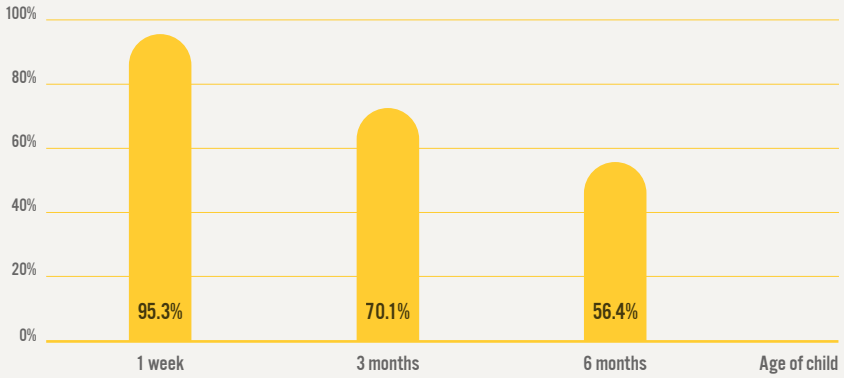
Duration of breastfeeding

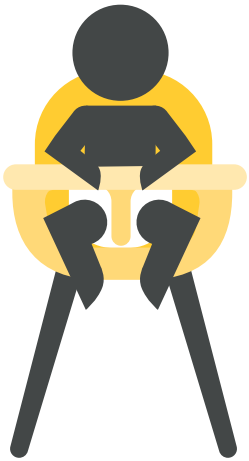
In 2017-2018, many mothers who started breastfeeding or attempted to breastfeed their baby stopped breastfeeding at some point during the first few months.

[1] Women between 15 and 55 who had given birth to a child during the five years prior to the survey.

* Among mothers who had stopped breastfeeding at the time of the survey.

Proportion of mothers[1] who breastfed exclusively at various points in their baby's life, among mothers who breastfed or attempted to breastfeeding 2017-2018*





In 2017-2018, 7 out of 10 (71.2%) breastfeeding mothers who introduced other liquids or solid foods into their child's diet did so before six months.

The World Health Organization recommends that babies be exclusively breastfed for the first six months of their lives. The Canadian Paediatric Society reminds us, however, that there are factors other than age that are equally important in deciding when to begin introducing other foods into a baby's diet (such as the infant's signs of readiness).

Source: Statistics Canada, Canadian Community Health Surveys (CCHS) 2017-2018, Data sharing files, adapted by the Institut de la statistique du Québec.

The risk of COVID-19 transmission from a pregnant mother to her newborn is low. Moreover, the risk is not increased when newborns room in with their mothers at the hospital, a practice that facilitates exclusive breastfeeding (Hudak, 2021).

No viable COVID-19 virus (i.e., that would pose a risk of contagion) has been detected in breastmilk. Since the mother's antibodies against the virus are also present in her breastmilk, they protect her baby against COVID-19 (American Academy of Pediatrics, 2021).

Pregnant women infected with COVID-19 are at greater risk of complications linked to the virus than women of similar age who are not pregnant. They are also more likely to be hospitalized in intensive care and to have severe complications. COVID-19 in pregnant women also appears to be associated with an increased risk of obstetrical complications, such as preeclampsia, preterm labour and premature birth (Hudak, 2021).

The COVID-19 pandemic has had repercussions on the mental health of pregnant women and new mothers, creating an overall increase in symptoms of anxiety and depression. Women whose mental health was already fragile before the pandemic were even more affected. A few factors may explain this increase: fear of contracting COVID-19 or developing other health problems, bereavements, reduced access to perinatal health care, social isolation and families' financial difficulties (Chmielewska, 2021; Liu, 2021; Suwalska, 2021; Kotlar, 2021).

During the COVID-19 pandemic, a significant increase in intimate partner violence was observed in several countries, including Québec (Chmielewska, 2021; Liu, 2021; Suwalska, 2021; Kotlar, 2021). We do not, however, have any specific data on pregnant women who were subjected to such violence.

DURING PREGNANCY AND CHILDBIRTH

Something can be done

There are many ways we can take collective action to improve conditions that affect pregnancy and childbirth—options that have been shown to be effective or promising on the ground or in scientific research. Here are a few examples:

- Measures aimed at improving the living conditions of pregnant women living in disadvantaged socioeconomic environments by offering them support (e.g.: Olo program [Haeck, 2016], the *Maison Bleue's* social perinatal care model [Dubois, 2015], SIPPE program [*Ministère de la santé et des services sociaux*, 2019], follow-up by the Montreal Diet Dispensary [DDM, 2021], financial support) have proven their ability to have positive effects on newborn health, improving birthweights, the rate of premature births and breastfeeding figures. After childbirth, programs like *L'Envol* can offer subsidized housing to young mothers living alone with their children who want to go back to school or obtain professional training.

- To help vulnerable young children, it is important to establish contact with their families during the mother's pregnancy. Pregnancy notification systems enable doctors and midwives to refer pregnant women to a health facility in her territory where she can receive certain prenatal services (Dagenais, 2019). When the pregnancy notification system was set up in 2016 in Lanaudière, the Olo and SIPPE programs were able to reach out to more pregnant women who needed help. Such a system also provides personalized follow-up for every child until they start school, with more extensive support for vulnerable families.

- The QUARISMA study conducted in 32 Québec hospitals between 2008 and 2011 showed that training childbirth professionals and self-assessment of clinical practices were effective in safely reducing the number of Caesarean births (Chaillet, 2015). According to a report produced by the *Institut national d'excellence en santé et en services sociaux* (INESSS), individual support for pregnant women during labour and childbirth effectively reduces obstetrical intervention overall, which also contributes to more successful breastfeeding (Rossignol, 2012).

- Helping women to feel more comfortable breastfeeding in public is a good way to provide support. Municipalities can help by adopting "baby-friendly" measures. Local breastfeeding support groups also provide women with positive support and information on community breastfeeding resources. Finally, when groups of merchants get together to set up a "milky way" to encourage and support public spaces for breastfeeding, the act becomes customary and accepted within the population (*Association pour la santé publique du Québec*, 2016).

- Appropriate support can prevent many problems associated with breastfeeding by encouraging rapid remedial action (before pain becomes an impediment, for example) and helping to ensure that breastfeeding is a positive experience (McFadden, 2017). Québec mothers stress the importance of standardizing the information provided by professionals in childbirth settings (Semenic, 2016). Upgrading and harmonizing initial training in breastfeeding helps to reinforce professionals' skills, resulting in better support for women who want to breastfeed (Lancet, 2016).

Some of these measures have already been implemented in Québec. They must be maintained and consolidated to preserve progress made to date.

How could these measures be more effectively applied? Are there other measures we need to consider? We hope our 2021 Portrait will contribute to further reflection on these issues.

PHYSICAL HEALTH

GOOD NEWS

Immunization

In 2019,

97% of 1-year-olds had received all their recommended vaccinations*.

The corresponding figure for 2-year-olds was 92%.

These were the highest vaccination rates for both age groups in ten years.

* Not including the hepatitis B or rotavirus vaccines.

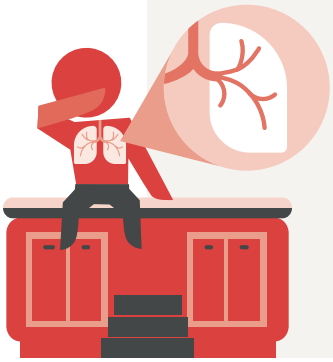
Source: Institut national de santé publique du Québec, *Enquêtes sur la couverture vaccinale des enfants québécois*, 2006, 2008, 2010, 2012, 2014, 2016 et 2019.

Asthma

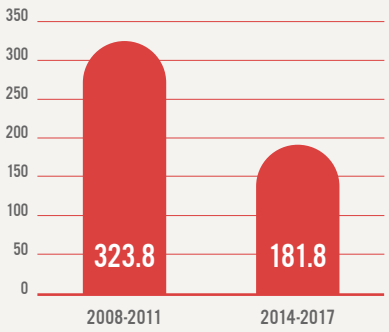
Between 2008 and 2017, the rate of hospitalizations* dropped from 323.9 to 181.8.

* Number of hospitalizations for every 100,000 children between 0 and 4 years of age.

Sources: MSSS, Québec hospitalization database MED-ECHO (electronic), *actualisation découpage territorial* version M34-2017, Canadian Institute for Health Information, Discharge Abstract Database, *actualisation découpage territorial* version M34-2017; MSSS, *Estimations et projections démographiques*, electronic (1981-1995: April 2012 version, 1996-2036: May 2017 version). *Plan national de surveillance* tab report produced by the *Infocentre de santé publique* at the *Institut national de santé publique du Québec*, November 26, 2018.



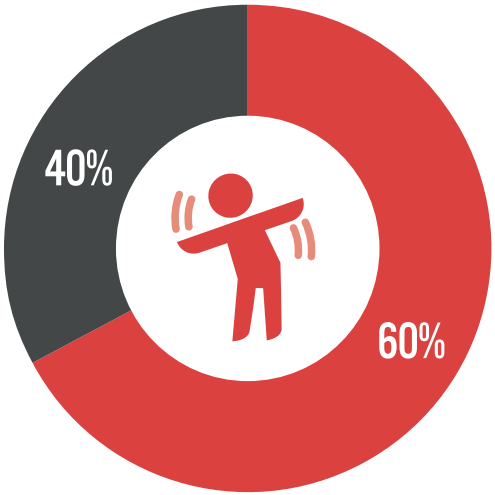
Annual number of short-stay hospitalizations for asthma-related causes (out of every 100,000 children between 0 and 4 years of age)



CAUSES FOR CONCERN

Physical activity

40% **of children between the ages of 3 and 5 failed to comply with physical activity guidelines between 2016 and 2019.**



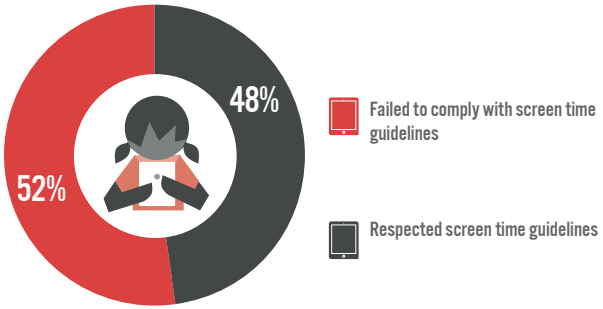
Canadian 24-hour movement guidelines

3- and 4-year-olds: At least 180 minutes spent in a variety of physical activities spread throughout the day, of which at least 60 minutes is energetic play.

5-year-olds: An accumulation of at least 60 minutes per day of moderate to vigorous physical activity involving a variety of aerobic activities. Vigorous physical activities, and muscle and bone strengthening activities should each be incorporated at least 3 days per week.

Source: Statistics Canada, Canadian Health Measures Survey (CHMS), Cycles 5 (2016-2017) and 6 (2018-2019) combined, adapted by the Institut de la statistique du Québec.

Screen time



A little more than half of children between the ages of 3 and 5 (52%) did not comply with guidelines for screen time in 2016-2019, while 48% did.

Canadian 24-hour screen time guidelines

3- and 4-year-olds:
No more than one hour of sedentary screen time.

5-year-olds:
No more than 2 hours per day of recreational screen time.

Source: Statistics Canada, Canadian Health Measures Survey (CHMS), Cycles 5 (2016-2017) and 6 (2018-2019) combined, adapted by the Institut de la statistique du Québec.

High exposure to screens at an early age has been linked to:

- poorer motor skills when starting school
- poor social skills due to a lack of interaction with others
- **less developed cognitive skills**, especially in the areas of short-term memory, language development and learning reading and arithmetics
- **poor control of emotions** and behaviours
- **attention difficulties**
- **sleeping problems**
- **low self-esteem**
- **health problems** (excess weight, obesity, fatigue, headaches, myopia, posture problems, poor diet, high blood pressure, type 2 diabetes, long-term cardiovascular problems, etc.) (*Naître et grandir*, 2019)

Family doctor or pediatrician

The Auditor General of Québec observed that of the 597,484 people who were on the waiting list for a family doctor, 185,237 were considered to be vulnerable—a category that includes pregnant women and children under the age of 2.

In December 2019, the wait time for persons considered to be vulnerable increased from 237 to **367 days**. The maximum target wait time for these health care users is three weeks.

Source: Vérificateur général du Québec, *Rapport du Vérificateur général du Québec à l'Assemblée nationale pour l'année 2020-2021*.

Dental care

In 2020, less than one-quarter of all children between 0 and 5 years old (24.2%) had their teeth examined by a dentist under the dental care program offered by the RAMQ (Québec public health insurance).

This rate is lower than the 2016 rate of 30.6%.

Source: Régie de l'assurance maladie du Québec (RAMQ), *Direction de l'analyse et de la gestion de l'information, Fichier des services rémunérés à l'acte 2020*.

The Canadian Dental Association recommends that infants be assessed by a dentist within six months of the eruption of their first tooth or by one year of age.

The COVID-19 pandemic has been linked to a significant decrease in physical activity among children of all ages, as well as an increase in sedentary activities, especially screen time. These changes are particularly pronounced in the case of children living in disadvantaged environments. School closures and periods of confinement during the COVID-19 pandemic were responsible for the largest increase in screen time and sedentary activities among children (Gauvin, 2021; Ten Velde, 2021; Rajmil, 2021).

PHYSICAL HEALTH

Something can be done

There are many ways we can take collective action to improve conditions that affect young children's physical health—options that have been shown to be effective or promising on the ground or in scientific research. Here are a few examples:

- The adoption of public policies or collective measures such as creating safe areas in municipalities (*Ministère de la santé et des service sociaux*, 2016) that are conducive to physical activity can contribute to creating environments that foster a physically active lifestyle.

- The "Gazelle and Pumpkin" framework was developed to support the creation of environments that encourage active play and motor development in educational childcare facilities (*Ministère de la Famille*, 2014).

- The community social pediatrics centre model is a holistic health approach designed to detect, reduce or eliminate stressors that can compromise a child's development and well-being (Clément, 2014). Collaboration among various health disciplines and professionals is another approach that makes it easier for very young children to have access to medical care (Gamache, 2016).

- The EMMIE program (*Entretien Motivationnel en Maternité pour l'Immunisation des Enfants*) uses motivational interviews in the maternity ward to reinforce new parents' attitudes in favour of vaccination. According to a study conducted in four hospital centres in Québec, this program has been effective in bolstering parents' intention to vaccinate their children and reducing their hesitation (*Ministère de la santé et des services sociaux*, 2017). It is obviously also important to ensure that vaccines are universally available and that sufficient services are offered to comply with the normal immunization schedule (*Institut national de santé* publique, 2021).

- Countries that provide universal coverage for children's dental care are more successful in fighting tooth decay (Saekel, 2018). Unfortunately, although the dental care program offered by the RAMQ for children under 10 years of age includes a complete annual checkup and treatments for cavities and other dental problems, it does not include preventive services (RAMQ, 2017). It has been shown, however, that preventive care plays an important role in preventing oral disease (Arpin, 2019). Since September 2020, dental hygienists have been permitted to work without the presence of a dentist, assessing patients' oral health and providing preventive care (*Ordre des hygiénistes dentaires*, 2020). Since the law does not permit dental hygienists to bill the RAMQ (RAMQ, 2017), however, access to their services is limited. Recognizing and responding to this change in legislation could result in more children under 5 having their teeth examined.

- A program of supervised tooth-brushing with fluoridated toothpaste in educational childcare centres and primary schools is currently being implemented. The Ministry of health and social services is aiming to have the program offered in 65% of establishments by 2015 (Walsh, 2019).

Some of these measures have already been implemented in Québec. They must be maintained and consolidated to preserve progress made to date.

How could these measures be more effectively applied? Are there other measures we need to consider? We hope our 2021 Portrait will contribute to further reflection on these issues.

MENTAL HEALTH

CAUSE FOR CONCERN

Anxiety-depressive disorders

In 2019-2020, 1,696 children between the ages of 1 and 5 (0.4%) were diagnosed with an anxiety disorder or depressive symptoms. The proportion of children affected by these symptoms has remained stable at approximately 1 out of 200 since the early 2000s.

The main anxiety-depressive disorders that affect very young children are:

- Social phobia
- Separation anxiety
- Generalized anxiety
- Depression

Source: Institut national de santé publique du Québec (INSPQ), Québec Integrated Chronic Disease Surveillance System (QICDSS), 2019-2020.

Contrary to what has been commonly believed, studies done over the past 10 years have shown that young children can indeed suffer from anxiety-depressive disorders. These conditions are difficult to detect in very young children, however, as they are usually not yet able to verbalize their emotions. **There is therefore very little data available to assess young children's mental health**. Since such problems are difficult to detect in very young children and can evolve differently from one child to another, professionals prefer to be cautious and closely monitor a child's situation and condition before making a diagnosis. It is estimated, however, that the frequency of mental health problems in this age group would be similar to that observed in school-aged children (Giannakopoulos, 2014).

Certain factors can increase a child's risk of suffering an anxiety-depressive disorder: a difficult family environment, problematic relationships with peers, or living through a stressful event (Whalen, 2017).

Later in a child's life, anxiety-depressive disorders are linked to greater use of health services, a higher rate of absenteeism in school, the risk of dropping out, and the presence of suicidal ideation. These disorders also affect young children's daily lives, resulting in difficulties going to daycare, socializing or sleeping (Cournoyer, 2016).

Children are among those whose mental health was most affected during the COVID-19 pandemic (Desmarais, 2021). Although the data do not apply solely to young children, studies done in several countries have observed that the health crisis resulted in an increase in symptoms of anxiety and depression, behavioural disorders and psychosomatic disorders (i.e., physical problems that are thought to be caused, or made worse, by mental factors), as well as a decrease in attention capacity and in both the quantity and quality of sleep (Desmarais, 2021). Studies that examined the effects of the pandemic on children between the ages of 2 and 12 generally reported an increase in behavioural and emotional problems, such as anxiety, depression and conduct disorders (Melançon, 2021).

Since young children are extremely sensitive to any stressors in their environment, they are more likely to experience the negative effects of the COVID-19 pandemic, the impacts of which have aggravated parents' stress and mental health issues, as well as poverty, domestic violence, substance abuse, etc. (Yoshikawa, 2020). For example, according to the 2020-2021 Québec population health survey, 30% of respondents with high levels of psychological stress attributed their mental state entirely to the pandemic. Among couples with children, the corresponding figure was 35% (*Institut de la statistique du Québec*, 2021). Several factors seem to have contributed to an increased risk of mental health problems in children during the pandemic, including families' social isolation, pandemic-related stress (job loss and financial difficulties), and difficulty accessing mental health resources (Desmarais, 2021).

It is too early to determine the extent of the short- and long-term effects of the COVID-19 pandemic on the various aspects of early childhood development (Fan, 2021). The negative effects of social isolation on the mental health of children and adolescents were well known prior to the pandemic, however. Longitudinal studies have shown that social isolation in children and their parents is associated with an increased risk of depression and anxiety disorders during the period of actual isolation, but also years later in the case of children. The duration of the social isolation seems to have more of a negative effect than its actual *intensity* (Loades, 2020).

MENTAL HEALTH

Something can be done

There are many ways we can take collective action to improve conditions that affect young children's mental health—options that have been shown to be effective or promising on the ground or in scientific research. Here are a few examples:

We can support young children's mental health by improving the quality of their family or educational environments:

- Financial support programs or measures that ensure access to affordable housing can help families meet their basic needs, thus reducing stress (Vandivere, 2011; Coley, 2013; Fuller-Thomson, 2011; *Institut de la statistique*, 2017; Taylor, 2018).
- Accessible family-work balance measures (Lavoie, 2015) can help to reduce parental stress and improve young children's family environment (Bowers, 2012).
- Offering parents assistance and supporting them in their efforts to provide their children with an environment that fosters healthy lifestyle habits could also have a positive effect on young children's mental health (Touchette, 2009; Melchior, 2012).
- The quality of a child's educational facility can influence his or her stress levels (Geoffroy, 2006). When facilities offer a combination of trained educators (Jensen, 2015) and specialized services, it is possible to ensure prompt intervention in the daily lives of the toddlers and preschoolers.

We can also make it easier to detect and diagnose mental disorders in very young children.

- Waiting lists for mental health services and difficulty accessing professional help are serious issues. Accessibility to health care and social services must be a priority (Piché, 2017).

- There are several measures that could reduce barriers to accessing services for vulnerable families. For example, it would be possible to ensure that all families receive the necessary information on available services, to provide access to interpreters when language is an obstacle, to train health care and social service providers to reduce negative attitudes towards families, and to allow enough time for building a relationship of trust with them (Dagenais, 2019).

Some of these measures have already been implemented in Québec. They must be maintained and consolidated to preserve progress made to date.

How could these measures be more effectively applied? Are there other measures we need to consider? We hope our 2021 Portrait will contribute to further reflection on these issues.

DEVELOPMENT

Vulnerability in kindergarten

Children's level of development on entering kindergarten was measured by their teachers using the *Québec Survey of Child Development in Kindergarten* in 2017.

Five domains of development were evaluated:

Physical health and well-being

- Overall physical development
- Motor skills
- Adequate food and clothing
- Cleanliness
- Punctuality
- Alertness

Social competence

- Social skills
- Self-confidence
- Sense of responsibility
- Respect for peers, adults and rules and routines
- Work skills and autonomy
- Curiosity

Language and cognitive development

- Interest and skills in reading, writing and arithmetic
- Appropriate use of language

Communication skills and general knowledge

- Ability to communicate clearly
- Ability to understand others
- Ability to enunciate clearly
- General knowledge

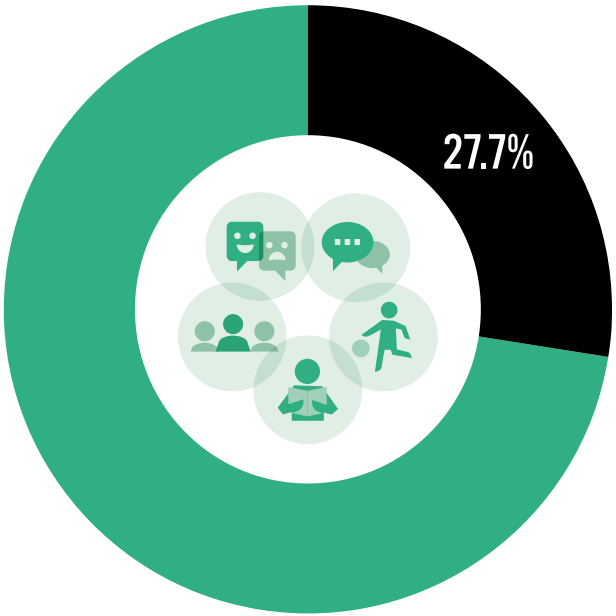
Emotional maturity

- Behaviour towards others
- Ability to help others
- Fear and anxiety
- Aggressive behaviour
- Hyperactivity and inattention
- Expression of emotions

CAUSES FOR CONCERN

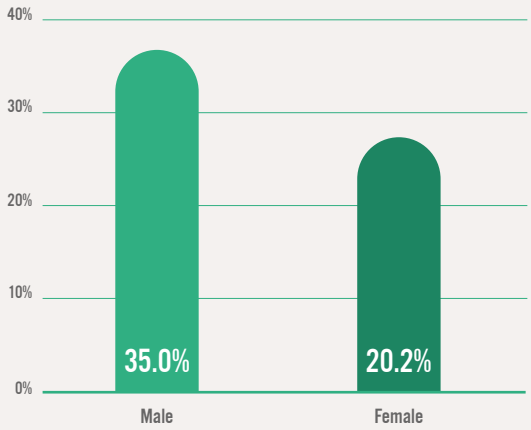
In 2017, a little more than **one kindergartener out of four** (27.7%) was vulnerable in at least one domain of development. The proportion of children who were vulnerable in at least one developmental domain was higher in 2017 than in 2012, when it was 25.6%.

A child was considered to be vulnerable in a given developmental domain if they were among the 10% of children living in Québec with the lowest scores in that domain.



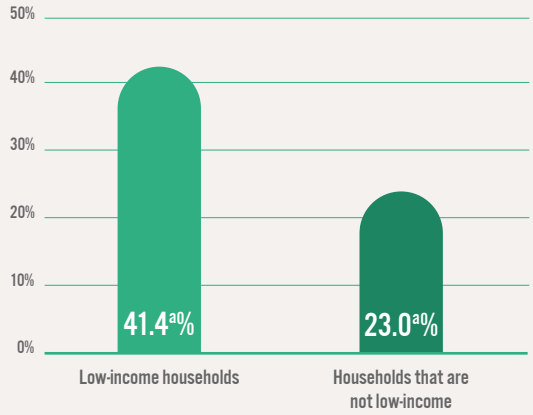
Children who have all the skills and aptitudes they need to get a good start in school are able to fully benefit from all the educational opportunities offered to them, which sets them on the right path to achieving their full development and potential. Studies have shown that kindergarten-aged children who are developmentally vulnerable are more likely to have difficulty in school in later years. Academic success in primary school has an impact on the highest level of diploma obtained in adulthood and prospects for employment (Desrosiers, 2012; Tétreault, 2013). Studies have shown, however, that certain interventions can modify the trajectory of children who have not had the same opportunities (Irwin, 2007; Duncan, 2013). It is now recognized that children who present the highest risk in terms of their development are the most receptive to the beneficial interventions or influences provided by positive, stimulating environments (Boivin, 2012).

Proportion of kindergarteners who were vulnerable in at least one domain of development, based on sex – 2017



A little more than **1 out 3 boys** (35.0%) were vulnerable in at least one domain of development, as compared to **1 out of 5 girls** (20.2%).

Proportion of kindergarteners who were vulnerable in at least one domain of development, based on income indicator – 2017

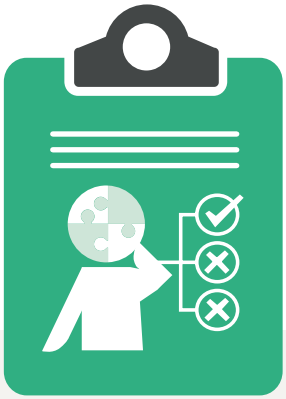


[a] The exponent indicates a significant difference between proportions at the 0.05 level.

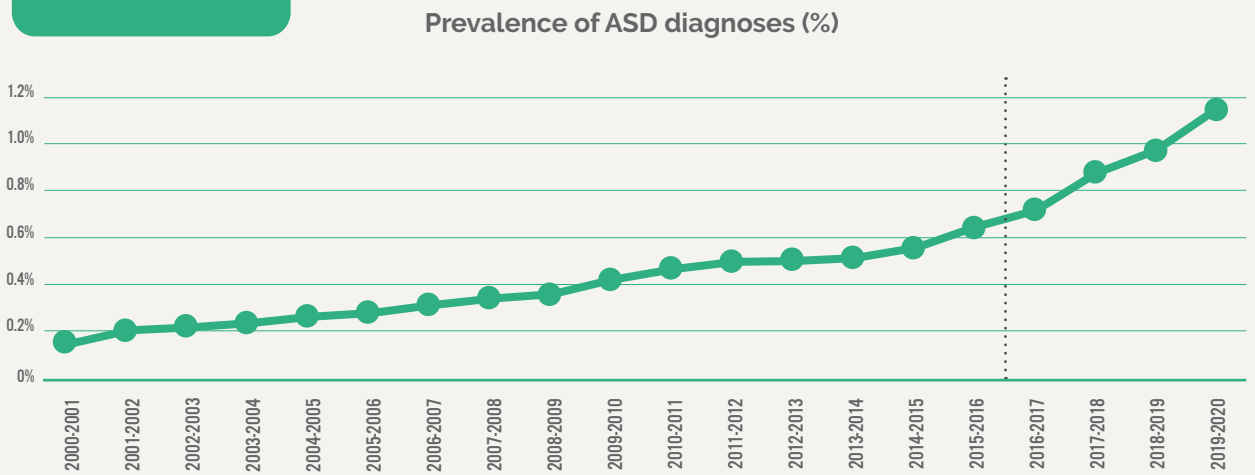
2 out of 5 children (41.4%) living in **low-income** households were vulnerable in at least one domain of development, as compared to a little over **1 child out of 5** (23.0%) in **non-low-income** households.

Source: Institut de la statistique du Québec, Québec Survey of Child Development in Kindergarten, 2017.

Autism spectrum disorder



The proportion of children who have been diagnosed with autism spectrum disorder (ASD) has increased significantly since the early 2000s, rising from 0.2%* in 2000-2001 to 1.1% in 2019-2020.



Note: The modernization of the billing system for fee-for-service medical services by the *Régie de l'assurance maladie du Québec* (RAMQ) in 2016 resulted in a decrease in the entry of diagnostic codes in the fee-for-service medical services file. Data for 2016–2017 and subsequent years should therefore be interpreted with caution, as a slight underestimation is suspected. After 2016-2017, the estimated prevalence of ASD is based more on the use of health services related to the disorder.

Source: Institut national de santé publique du Québec (INSPQ). Québec Integrated Chronic Disease Surveillance System (QICDSS). Québec hospitalization database (MED-ÉCHO - *Maintenance et exploitation des données pour l'étude de la clientèle hospitalière*). Physician claims database and health insurance registry (FIPA - *Fichier d'inscription des personnes assurées*).

The context of the COVID-19 pandemic has raised concerns about childhood development. The wearing of masks by children and the adults around them could hinder language development as well as social-emotional development (since it is impossible to see lips moving, smiles and other facial expressions). Children have also been less exposed to social contacts and stimulating environments, such as those provided by quality education childcare facilities and kindergartens, because of prolonged periods of closure and confinement. Reduced access to public spaces that are favourable to the development of healthy living habits (such as schools, parks and municipal infrastructures) and increased screen time are also causes for concern (Fan, 2021).

DEVELOPMENT

Something can be done

There are many ways we can take collective action to improve conditions that affect early childhood development—options that have been shown to be effective or promising on the ground or in scientific research. Here are a few examples:

- The socio-economic environment in which a child grows up influences their development (Desrosiers, 2012). Improving the living conditions of children in disadvantaged neighbourhoods and providing their parents with support are ways to improve these children's early development (Bowers, 2012).

- Interventions that target very young children are more effective than those aimed at older children or adolescents. The objective of the *Agir tôt* program developed by the *Ministère de la Santé et des Services sociaux* is to detect vulnerabilities and developmental delays in children as early as possible in order to provide a rapid, coordinated response.

- Early detection of difficulties being experienced by a child is a responsibility that should be shared among various early childhood specialists and the child's family (Macy, 2014). Observation-based screening instruments need to be developed for parents or other adults who interact with children. Although such instruments cannot determine the actual extent of the delay in development, they can identify children who require more extensive and specialized intervention (Squires, 2009).

- The *Bright Beginnings* approach is a development model for minority communities that want to improve the well-being and academic success of English-speaking children and youth in Québec. The success achieved by the organizations supported by the *Bright Beginnings* program has enabled them to create 57 new programs and services especially designed for English-speaking children and their parents (Vocisano, 2021).

- In Québec, personnel in educational childcare facilities play a role in detecting developmental delays (*Université du Québec à Trois-Rivières*, 2019). Quality preschool services also offer young children the stimulation and guidance they need for a smooth transition into the school system.

- Access to services provided by a non-teaching professional is beneficial for children who are developmentally vulnerable. These professionals can provide support for teachers or early childhood educators in identifying a child's specific needs and by participating in the preparation of an intervention plan (Simard, 2013).

- Psychosocial interventions aimed at reducing symptoms of ADHD and improving children's social, academic and family functioning need to be a priority (*Institut national d'excellence en santé et services sociaux*, 2018). It is also possible to help children with an autism spectrum disorder to deal more effectively with the challenges they face. For example, certain educational methods initiated at an early age can improve these children's language and social skills (*Passeport Santé*, 2012).

Some of these measures have already been implemented in Québec. They must be maintained and consolidated to preserve progress made to date.

How could these measures be more effectively applied? Are there other measures we need to consider? We hope our 2021 Portrait will contribute to further reflection on these issues.

The Early Childhood Observatory has prepared a series of documents to accompany the *2021 Portrait and Highlights*:

Regional portraits with specific information on each of Québec's 17 regions (available soon in 2022)

Visuals for your presentations or use on social networks

These documents are all available on the Early Childhood Observatory website (*Observatoire des tout-petits*)
tout-petits.org/portrait2021

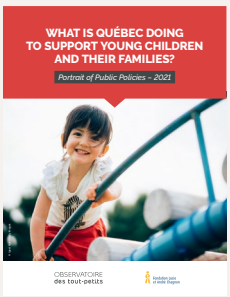
Also available for consultation:

2019 Portrait: *What kind of environments are Québec's youngest children growing up in?*

This report and all related documents are available on our website at tout-petits.org/portrait2019

and

2021 Review of Public Policies: *What is Québec doing to support young children and their families?*



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OBSERVATOIRE
des tout-petits

The mission of the Early Childhood Observatory, a project of the Lucie and André Chagnon Foundation, is to communicate the current state of knowledge in order to promote informed decision-making on the subject of early childhood in Québec. Our goal is to ensure that every young child living in the province has access to conditions that will enable them to develop their full potential, regardless of where they were born or where they are growing up.

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