HOW ARE
QUEBEC'S YOUNGEST CHILDREN FARING?

2017 Portrait

OBSERVATOIRE des tout-petits

Fondation Lucie et André Chagnon

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This document can be accessed online in the Publications section of the Observatory's website at **tout-petits.org/portrait2017**.

Project team

DIRECTION
Fannie Dagenais

RESEARCH AND WRITING
Kathleen Couillard

ENGLISH TRANSLATION
Cynthia Gates

GRAPHIC DESIGN AND LAYOUT
GB Design Studio

MANAGER / GRAPHIC AND DIGITAL PRODUCTION
Alexandre Gosselin

WE WISH TO THANK EVERYONE WHO PARTICIPATED IN THE DATA ANALYSIS AND THE REVISION OF THIS DOCUMENT:

Sophie Bonneville
Direction générale de la santé publique, Ministère de la Santé et des Services sociaux

Caroline Bouchard
Professeure, Département d'études sur l'enseignement et l'apprentissage, Université Laval

Julie Brousseau
Psychologue, CHU Sainte-Justine

Catherine Chouinard
Avenir d'enfants

Catherine Dea
Médecin-conseil, Direction régionale de la santé publique de Montréal

Marie-Josée Demers
Centre intégré universitaire de santé et de services sociaux de la Capitale-Nationale

Hélène Desrosiers
Institut de la statistique du Québec

François Fortin
Retraite Québec

Christa Japel
Professeure, Département d'éducation et formation spécialisées, Université du Québec à Montréal

Marie-Claude Larrivée
Consultante, MC Larrivée recherche-intervention

Isabelle Lizée
Carrefour action municipale et famille

Joanie Migneault
Ministère de la Famille

Virginie Nanhou
Institut de la statistique du Québec

Simon Ouellet
Ministère de l'Éducation et de l'Enseignement supérieur

Éric Pelletier
Institut national de santé publique du Québec

Julie Poissant
Institut national de santé publique du Québec

Julie Raymond
Psychologue pour enfant, spécialiste du développement et du comportement des tout-petits

Marie Rhéaume
Réseau pour un Québec Famille

Julie Soucy
Direction générale de la santé publique, Ministère de la Santé et des Services sociaux

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Observatoire des tout-petits
2001 McGill College Avenue
Suite 1000
Montréal QC H3A 1G1

Telephone: 514 380-2001
info@toutpetits.org © Lucie and André Chagnon Foundation

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HIGHLIGHTS

The health of Quebec babies at birth is improving. Intrauterine growth restriction (IUGR), low birthweights and stillbirths are all phenomena that have been declining since the end of the 1970s. The proportion of mothers who breastfeed or attempt to breastfeed their babies is also much higher than it was in the year 2000. Many of them, however, stop breastfeeding at some point during the first few months.

It is worrying to see that the rate of Caesarean deliveries rose from 20.9% in 2002 to 24.9% in 2015. In addition, despite a slight decrease in the past few years, the rate of premature births is still higher than it was in the early 1980s. This figure may be explained by the higher proportion of children born to older mothers and an increase in multiple births.

In terms of their physical health, very young children are faring better in 2017 than they were 10 years ago. Hospitalizations for asthma in children between the ages of 0 and 4 decreased between 2007-2010 and 2013-2016, as did hospitalizations for accidental injuries.

Although several infectious vaccine-preventable diseases are also on the decline, occasional outbreaks of measles remind us of the importance of continuing to vaccinate very young children. Obesity has become a serious concern, with one-third of very young children at risk of becoming overweight, being overweight or obese in 2015. Furthermore, only one-quarter of children between 0 and 5 follow Canadian recommendations for screen time.

It is also important to be vigilant regarding the mental health of very young children. In 2015-2016, 22,010 children between the ages of 1 and 5 had been diagnosed with a mental disorder. The proportion of very young children who had been diagnosed rose from 3.5% in 2000-2001 to 4.8% in 2015-2016. Although the proportion of children who were diagnosed with an attention deficit disorder with or without hyperactivity (ADD or ADHD) or with an autism spectrum disorder is very low among 1-5 year-olds, the figure rose between 2000-2001 and 2015-2016. More data on the mental health of the very young is needed in order to provide a more complete portrait of the situation.

In 2012, one out of four kindergarten-aged children was vulnerable in at least one area of his or her development. Vulnerability was proportionally higher in certain groups: younger children, boys, children whose first language was not English or French, children born outside of Canada, those who did not regularly attend daycare, and those living in a materially or socially disadvantaged environment.

Finally, the issue of service accessibility for very young children is a matter for concern. In 2015, almost one out of 10 families with children between 0 and 5 declared that they did not have a family doctor or pediatrician. It is also worrying to observe that some vulnerable children did not benefit from the services of a non-teaching professional in kindergarten.

A PORTRAIT OF QUEBEC'S YOUNGEST CHILDREN

Established in April 2016, the Early Childhood Observatory is a project of the Lucie and André Chagnon Foundation. The Observatory's mission is to help ensure that the well-being and development of the very young remains at the top of Quebec's list of social priorities.

To fulfill this mission, the Observatory compiles and disseminates the most rigorous data available on children between the ages of 0 and 5 in order to spark dialogue on collective action to be taken on early childhood issues. The Observatory's activities are focused on finding the answers to two important questions:

HOW ARE QUEBEC'S YOUNGEST CHILDREN FARING?

AND

WHAT KIND OF ENVIRONMENTS ARE THEY GROWING UP IN?

The first portrait, published in 2016, attempted to answer the second question. This edition of the portrait looks at the first question, providing a snapshot of the state of health and development of children between the ages of 0 and 5 living in Quebec. We have provided information on the conditions surrounding their birth, their physical and mental health, and their overall development.

The data presented in this portrait are drawn from administrative, census and population survey documents. Certain aspects of children's health and well-being are unfortunately not presented here, as they are not all measured by surveys or stored in administrative databases. The data available to us are representative of all young children in Quebec, however.

These data create a portrait of the current situation of very young children in Quebec as well as, whenever possible, the evolution of their situation over the past several years. Since the data used come from different sources, reference years may vary; all data presented are the most recent available to us.

This portrait could not have been produced without the assistance of many people, including the team at the *Institut de la statistique du Québec,* the members of the Observatory's scientific and advisory committees, and the many experts consulted at various stages in the process. The Observatory extends its most sincere thanks to all of the dedicated professionals who were able to see the individuals behind the figures.

Their efforts have given us a better understanding of how children between 0 and 5 years of age are faring in Quebec while providing a unique insight into their world.

Part 1

THE SITUATION IN THE PROVINCE OF QUEBEC

WHO ARE THESE 0-5 YEAR-OLDS?

534,939

The number of children between the ages of 0 and 5 who were living in Quebec in 2016.

With the exception of a slight decline in 2015 and 2016, this figure has grown every year between 2006 and 2014.

This age group accounts for 6.4% of the population of Quebec.

In 2006, that figure was **5.9%**.

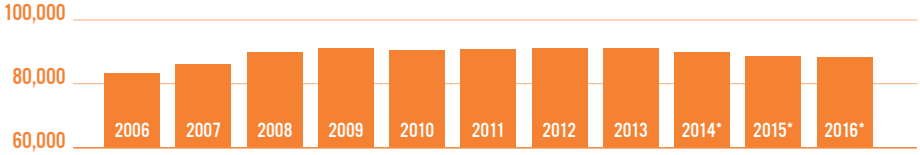
Source: Institut de la statistique du Québec and Statistics Canada, Population estimates, adapted by the Institut de la statistique du Québec, provisional data for 2016.

The number of births in the province of Quebec rose from

81,962 in 2006 **to** **86,400** in 2016

… an increase of approximately 4,400 births every year.

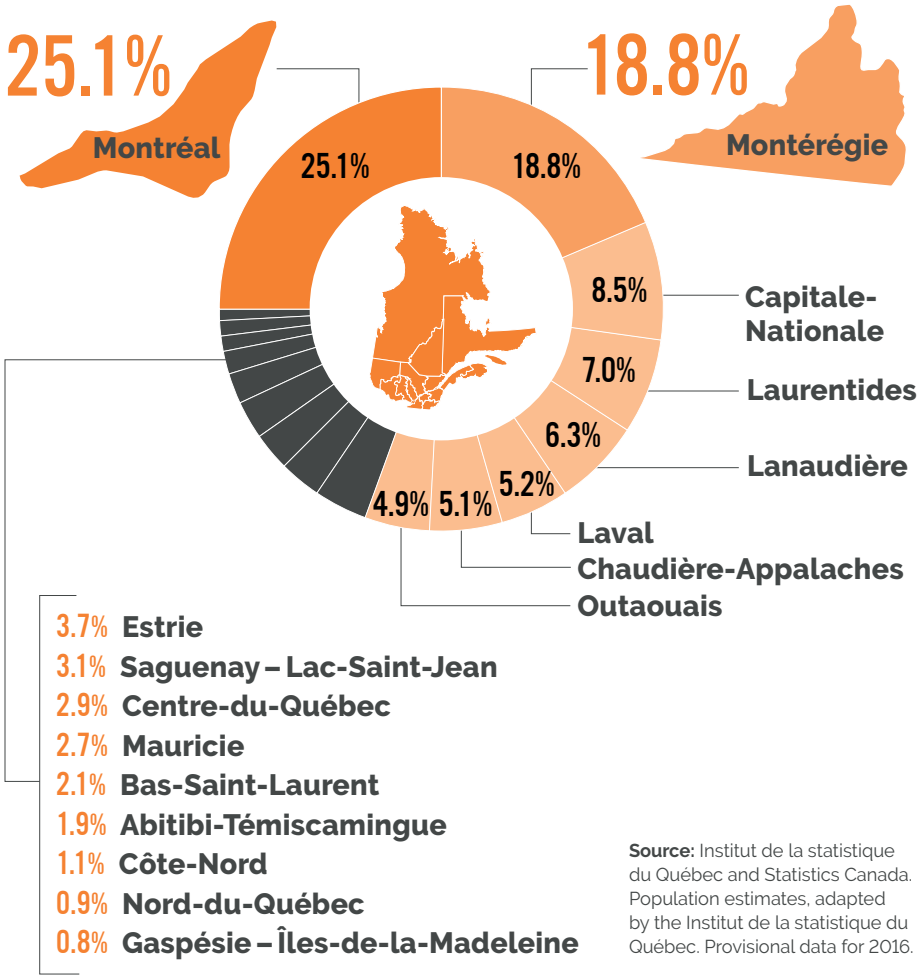
The annual number of births has been on the decline for a few years, however, remaining below those recorded between 2009 and 2013, when the annual number of births exceeded 88,000.



* Provisional data for 2014-2016

Source: Institut de la statistique du Québec, *Registre des événements démographiques*. Provisional data for 2014-2016.

DISTRIBUTION OF THE POPULATION OF VERY YOUNG CHILDREN THROUGHOUT THE REGIONS OF QUEBEC



Source: Institut de la statistique du Québec and Statistics Canada. Population estimates, adapted by the Institut de la statistique du Québec. Provisional data for 2016.

The distribution among the regions has remained relatively unchanged between 2006 and 2016.

SIBLINGS

According to the most recent data, the youngest Quebecers live in families of:

1 child
27.5%

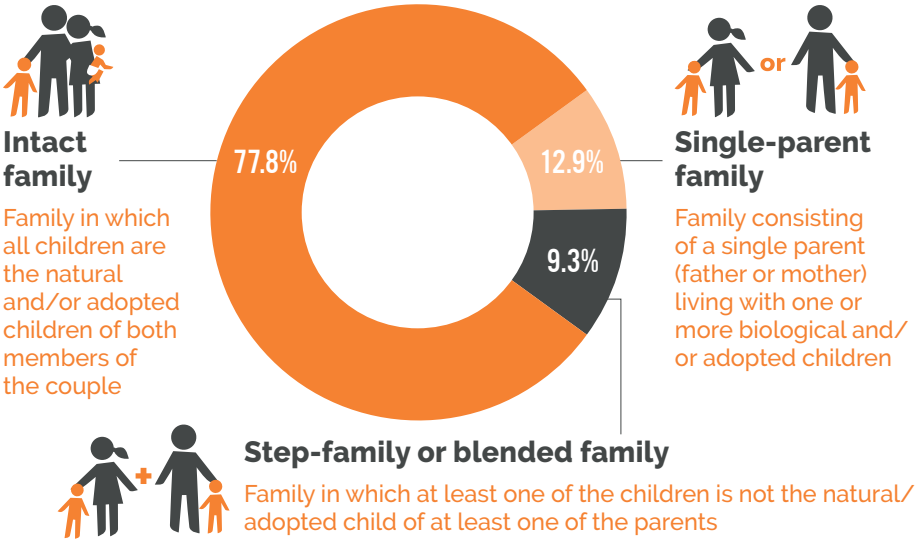
2 children
46.8%

3 or more children
25.8%

Source: Statistique Canada, *Enquête nationale sur les ménages de 2011*, adapté par l'Institut de la statistique du Québec.

FAMILY STRUCTURE

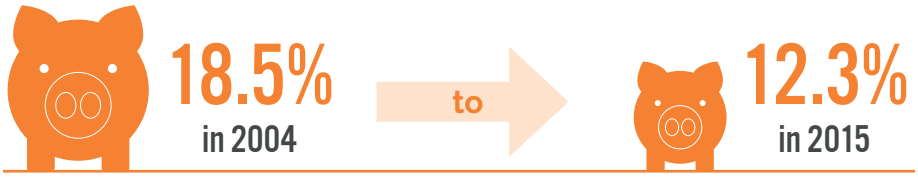
In 2011, the majority of very young children in Quebec were living in an intact family.



Source: Statistics Canada, *2011 National Household Survey,* adapted by the Institut de la statistique du Québec.

ECONOMIC SITUATION

Between 2004 and 2015, the proportion of children between 0 and 5 living in a low-income* family fell from



* After taxes

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

Poverty can have negative effects on very young children, affecting their physical health, social and emotional development or educational success. These impacts can last a lifetime.[1]

Children's socio-economic situation and the environments they grow up in are discussed in greater detail in the 2016 edition of the Portrait of very young children in Quebec. This report is available at **tout-petits.org/portrait2016**.

HOW ARE THEY FARING

DURING PREGNANCY AND AT BIRTH?

Pregnancy and birth are critical events in terms of health and development. What happens during this period can have repercussions throughout a child's entire life.

The context in which a woman's pregnancy evolves has an influence on her baby's health. For example, certain factors can increase the risk of stillbirth: the mother's weight, **her age**, her health problems (e.g.: infections, high blood pressure or diabetes), her lifestyle (e.g.: diet, smoking, use of alcohol, drugs or medication) or **multiple pregnancies**.[2] These factors also increase the risk of congenital anomalies, **intrauterine growth restriction (IUGR)**, **premature birth** and **low birthweight**. There are ways, however, to counter these factors during pregnancy and at birth. **Prenatal groups** are one of the possible solutions for informing future parents and encouraging new mothers to adopt healthy lifestyle habits.[3] Even though prenatal classes alone cannot modify children's health, they can have an influence on certain determinants of health that are affected by the mother's and father's behaviour.[4]

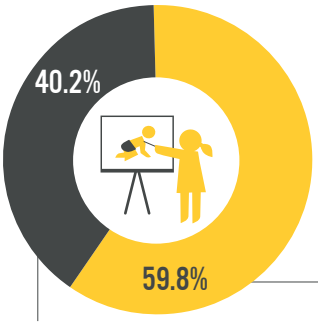
Improving birthing conditions is another way to give newborns a better start in life. Although a **Caesarean section** is sometimes necessary to save the life of the mother or baby, it is not without risk (including infections, hemorrhage or trouble initiating breastfeeding).[5] There are no data showing that a Caesarean birth can have positive effects for the mother or baby when it is not medically necessary. The World Health Organization recommends that countries take steps to ensure that the rate of Caesarean sections remains between 10% and 15%.[6]

Complications at birth can also affect a child's health and development. **Intrauterine growth restriction**, **prematurity** and **low birthweight** are associated with respiratory problems, neurological difficulties, blindness and deafness, as well as with behaviour and learning difficulties later in a child's life.[7]

Finally, **breastfeeding** is an important protective factor for the health of babies and the adults they become. Not only does breast milk provide all the nutritional elements a baby needs to develop, it protects against several types of infection, such as ear infections, pneumonia, and gastro-enteritis[8] Studies have also shown that breastfeeding decreases the risk of sudden infant death syndrome and certain chronic diseases (such as celiac disease, inflammatory bowel disease, obesity and diabetes).[9] **Breastfeeding support services** offered by professionals (doctors, mid-wives, nurses and lactation consultants) or volunteers in support groups can often give nursing mothers the help they need.[10]

PREGNANCY

PARTICIPATION IN PRENATAL CLASSES



59.8% of parents of children between 0 and 5 attended prenatal classes in 2015.

Figures are not significantly different for mothers and fathers.

Parents of children between 0 and 5 who did not attend prenatal classes

Parents of children between 0 and 5 who had already attended prenatal classes

The proportion of parents who participated in prenatal classes was lower, however, among parents in less socio-economically advantaged neighbourhoods, even though those are the parents who have the greatest need of support during pregnancy.

Proportion of parents who attended prenatal classes

Parents who did not finish high school

39.7%

Those living in a low-income household

42.4%

Those born outside of Canada

43.2%

Source: Institut de la statistique du Québec, *Enquête québécoise sur l'expérience des parents d'enfants de 0 à 5 ans*, 2015.

INTRAUTERINE GROWTH RESTRICTION (IUGR)

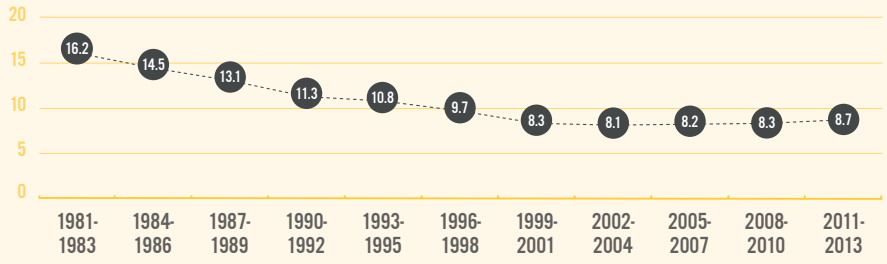
Newborns whose weight is below the 10th percentile of the standard weight curve for the number of weeks of pregnancy completed are diagnosed with intrauterine growth restriction.

8.7%

of babies born in Quebec suffered from intrauterine growth restriction in 2011-2013.

The rate of IUGR in 2011-2013 was significantly higher than in 2002-2004 (8.1%), when it was at its lowest. Since the early 1980s, however, the proportion has dropped radically—from 16.2% in 1981-1983.

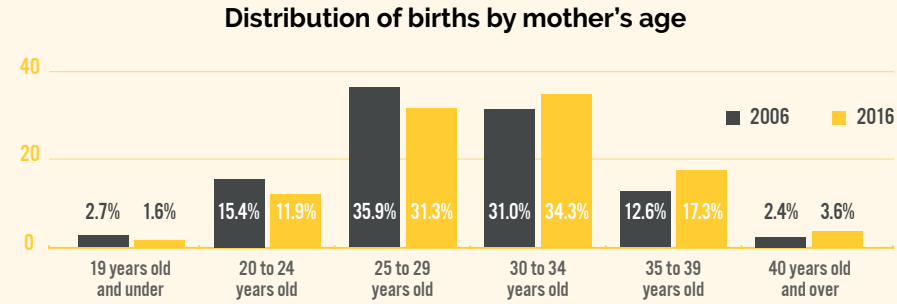
Intrauterine growth restriction (IUGR) (%)



Source: Ministère de la Santé et des Services sociaux, Fichier des naissances (electronic). Tab report Plan national de surveillance produced by the Infocentre de santé publique at the Institut national de santé publique du Québec, May 29, 2017.

CHILDBIRTH

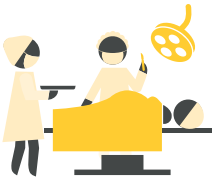
MOTHER'S AGE AT BIRTH



Between 2006 and 2016, the proportion of children whose mothers were 35 or older when they were born increased, rising from 15% to 21% during that period. The proportion of children born to mothers 19 or under declined during the same period.

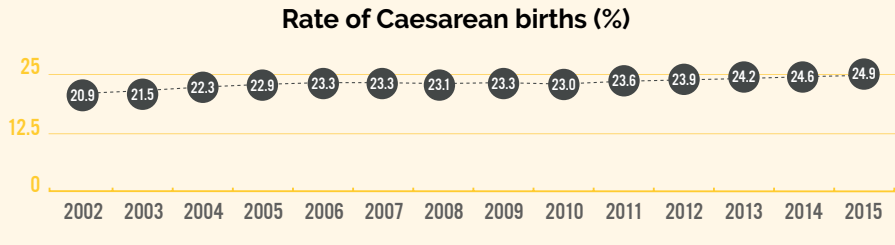
Source: Institut de la statistique du Québec.

CAESAREAN BIRTHS



24.9% **of births in Quebec in 2015 were by Caesarean section.***

In 2002, this figure was 20.9%, representing an increase of 19%.



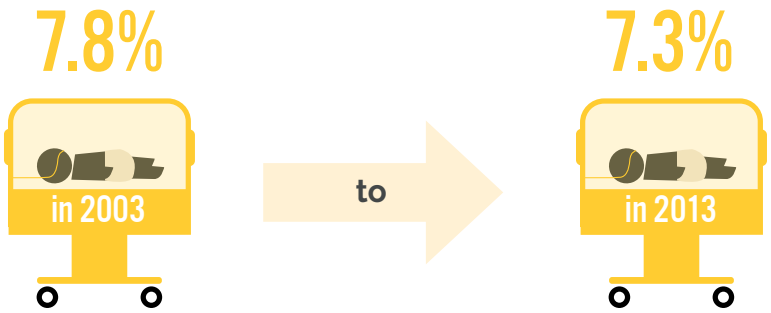
According to the World Health Organization, a rate of Caesarean births over 10% is not associated with a reduction in mother or baby mortality. The international community therefore considers the ideal proportion of Caesarean births to be between 10% and 15%.[11]

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

Source: Discharge Abstract Database, Canadian Institute for Health Information (CIHI); Quebec hospitalization database MED-ÉCHO, ministère de la Santé et des Services sociaux du Québec.

PREMATURE BIRTHS

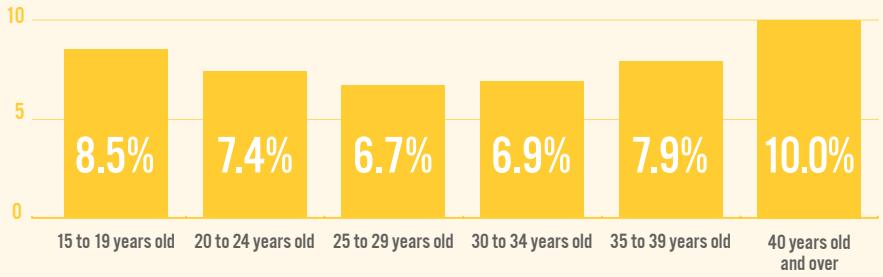
Over a 10-year period, the proportion of babies born before having completed 37 weeks of gestation went from



In spite of this slight decline, the rate of premature births is still higher than it was in the early 1980s, when it was 5.6%.

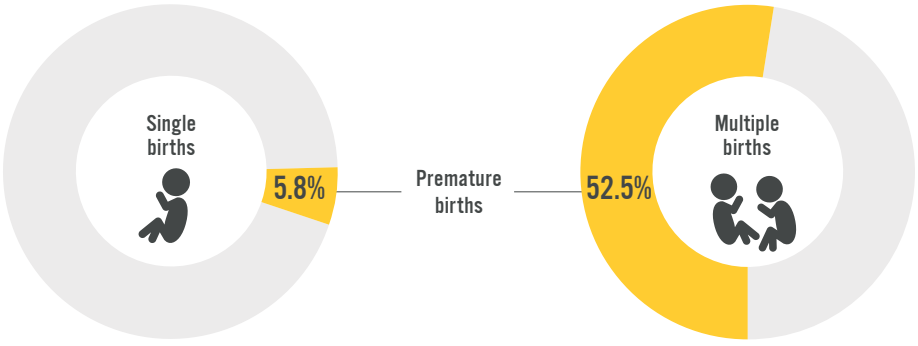
Premature births occur more frequently when the mother is 40 or over or 19 or under.

Proportion of premature births based on mother's age (annual average for 2011-2013)



They are also more frequent in cases of multiple births.

Proportion of premature births based on type of birth (annual average for 2011-2013)

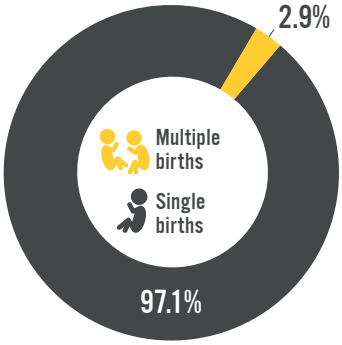


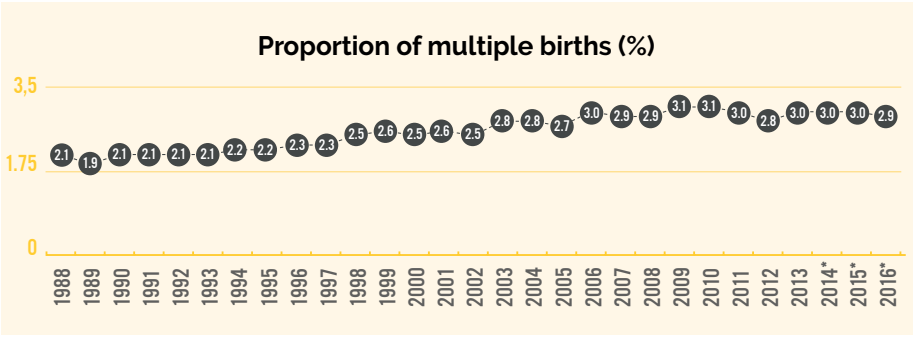
Source: Institut de la statistique du Québec, *Registre des événements démographiques*.

MULTIPLE BIRTHS

In 2016, **multiple** births—almost exclusively twins—accounted for **2.9%** of all births in Quebec. Births of **triplets** (or more) accounted for barely **0.05%** of all births.

Although the proportion of multiple births has risen over the past 30 years, going from 2.1% in 1988 to 2.9% in 2016, it has remained relatively stable since 2006.





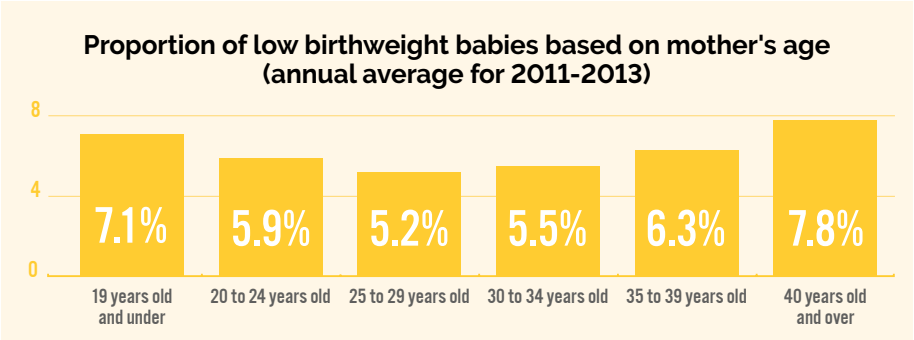
* Provisional data

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

LOW BIRTHWEIGHT

5.9% of babies born in 2013 weighed less than 2.5 kg (5.5 lb). This proportion has varied very little over the past 30 years and has remained under 6% since 1999.

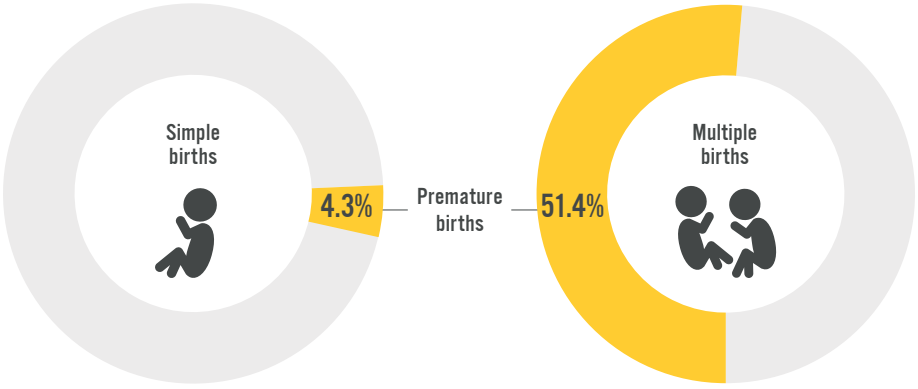
Low-birthweight babies are born more frequently to mothers 40 and over or 19 and under.



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

Low-birthweight babies are also more frequent in the case of multiple births.

Proportion of low birthweight babies based on type of birth (annual average for 2011-2013)



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

STILLBIRTHS

4.4
1,000

In 2015, 4.4 out of 1,000 babies were stillborn in Quebec.

After decreasing significantly between the late 1970s and the mid-1990s, this rate has remained stable over the past several years. In 1976, the rate of stillbirths was 7.8 out of every 1,000 births.

According to the World Heath Organization, all countries should aim to reduce their stillbirth rate to less than **10 out of every 1,000 births by 2035**.[12] Quebec therefore has a good record in this area.

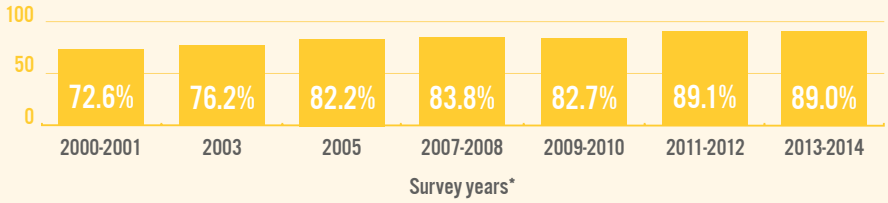
Source: Institut de la statistique du Québec, *Registre des événements démographiques.*

BREASTFEEDING

Based on data for 2013-2014, approximately
89.0% of new mothers breastfed or attempted to breastfeed their youngest child*.

This proportion is higher than that observed in 2000-2001, when it was 72.6%.

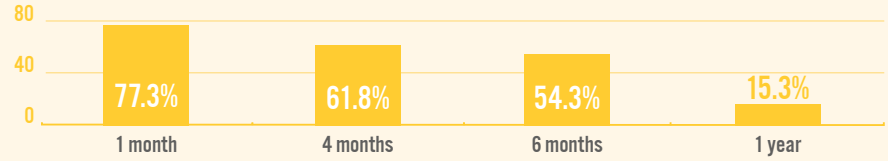
Proportion of mothers who breastfed or attempted to breastfeed their youngest child (%)



* Women between the ages of 15 and 55 who gave birth during the previous five years. Starting in 2003, proportions may be overestimated due to high partial non-response.

However, 2013-2014 data show that the proportion of breastfeeding mothers declines rapidly as their babies age.

Proportion of mothers who were still breastfeeding at various points in their babies' lives (among mothers who initiated breastfeeding)*



* Mothers who had stopped breastfeeding their baby at the time of the survey.

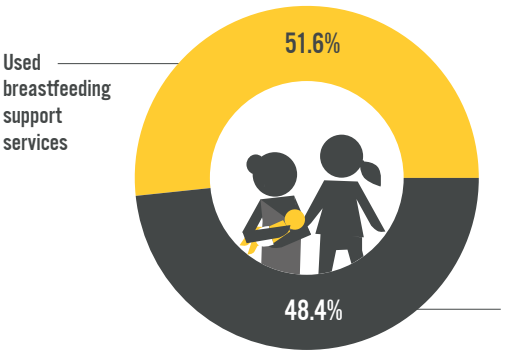
Moreover, 73.8% of mothers who had introduced other liquids or solid goods did so before the age of 6 months.

The World Health Organization recommends that babies be exclusively breastfed for the first six months of their lives. Once solid foods have been introduced, breastfeeding may continue for another two years or more.[13]

Source: Statistics Canada, *Canada Community Health Survey (CCHS)*, 2000-2001, 2003, 2005, 2007-2008, 2009-2010, 2011-2012 and 2013-2014, share files, adapted by the Institut de la statistique du Québec.

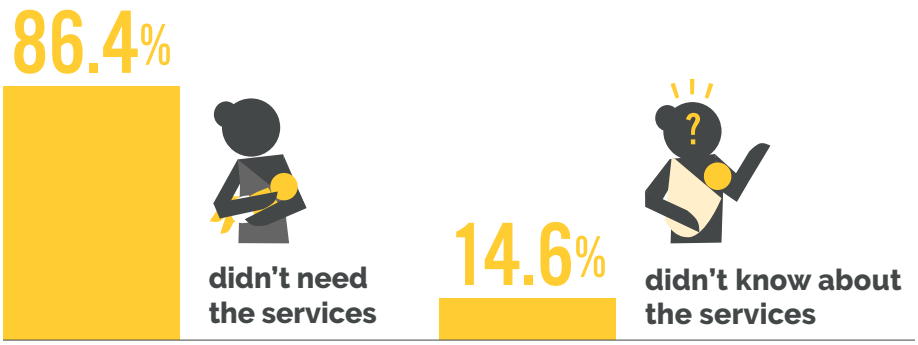
BREASTFEEDING SUPPORT SERVICES

In Quebec, in addition to measures introduced by establishments that have received Baby-Friendly certification, there are various other forms of support for breastfeeding mothers, including breastfeeding support groups, breastfeeding clinics, breastfeeding drop-in centres and lactation consultants.



In 2015, 48.4% of mothers of children between 0 and 5 who breastfed their child(ren)* had never used any breastfeeding support services.

Among the mothers who had never used breastfeeding support services...



* To be precise, this cohort consisted of mothers of children between 0 and 5, but did not include those who explained that they hadn't needed breastfeeding support because they didn't breastfeed their children.

Source: Institut de la statistique du Québec, *Enquête québécoise sur l'expérience des parents d'enfants de 0 à 5 ans 2015.*

Pregnancy and childbirth: Key points

The state of health of newborns in Quebec is improving.

- The rate of intrauterine growth restriction (IUGR) has declined since the late 1970s.
- The proportion of low-birthweight babies was lower in 2013 than in the early 1980s.
- After dropping by almost half between the mid-1970s and the mid-1990s, the rate of stillbirths has remained relatively stable. With a rate well below the target set by the World Health Organization, Quebec is doing well is this respect.
- The proportion of mothers who breastfeed or attempt to breastfeed their babies has risen since the end of the 1990s.

Certain elements continue to give cause for concern:

- In spite of a slight decline over the past few years, the premature birth rate was still higher in 2013 than it was in 1980.
- The rate of Caesarean births was 24.9% in 2015, representing an increase of 19% over 2002. This rate is significantly higher than that recommended by the World Health Organization (10-15%).
- Although there has been a rise in the proportion of mothers who breastfeed or attempt to breastfeed their most recent child, most of them stop breastfeeding during the first few months. Very few mothers are still exclusively breastfeeding at six months.

SOMETHING CAN BE DONE

The scientific literature has documented the existence of collective drivers that could be used to effect positive change in conditions surrounding pregnancy and childbirth. Here are a few examples:

Living in a disadvantaged socio-economic environment has been associated with higher frequencies of premature births, low birthweights and low breastfeeding rates.[14] Measures aimed at **improving pregnant women's surroundings** and providing them with the support they need can have a positive effect on newborn health by improving birth weights, prematurity rates and breastfeeding rates. Examples include the OLO program [15] (nutritional aid for pregnant women), the Maison Bleue[16] model and the SIPPE program (integrated perinatal and early childhood services[17]).

The QUARISMA research project conducted in 32 Quebec hospitals between 2008 and 2011 showed that **education of childbirth professionals** combined with **feedback on clinical practice** was an effective and safe way to reduce the rate of Caesarean sections.[18] In addition, according to a report produced by Quebec's Institut national d'excellence en santé et en services sociaux (INESSS), having a childbirth companion to accompany mothers during labour and birth has also been shown to effectively reduce obstetrical interventions overall.[19]

Baby-Friendly Initiative certification in hospitals has been proven to be effective in improving breastfeeding rates.[20] Certain measures could optimize implementation, however, such as the creation of baby-friendly environments[21] (including social marketing campaigns promoting positive attitudes towards breastfeeding, nursing rooms and support for mothers' right to breastfeed in public).[22] Finally, better training of professionals[23] and the existence of support groups[24] could help mothers who decide to breastfeed their babies.

Some of these measures have already been implemented in Quebec. We need to make sure they are maintained and consolidated.

How could these measures be more effectively applied? Are there other measures we need to consider? We hope our 2017 Portrait will make a valuable contribution to the public reflection on these issues.

HOW ARE THEY FARING AS THEY GROW UP?

PHYSICAL HEALTH

In order to achieve their full development potential, the very young must be able to rely on good physical health. Physical health problems that go untreated can negatively affect not only children's overall physical health but their mental health and development as well. The vast majority of such problems can be at least partially avoided through preventive intervention, thus reducing their impact on the very young.

The potential sequelae of early childhood diseases are many. **Infectious diseases** can cause paralysis, brain damage, respiratory problems, liver damage or deafness.[25] **Accidental injuries** can affect motor function and cause permanent disability.[26] **Excess weight and obesity** are associated, later in a child's life, with high blood pressure, type 2 diabetes, cardiovascular diseases, asthma and sleep apnea.[27]

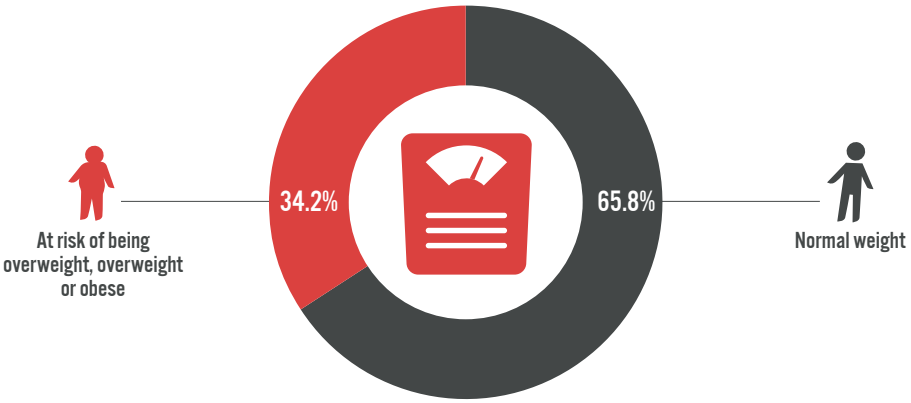
The consequences of physical health problems have also been observed in children's short- and long-term mental health. **Asthma** and **epilepsy** are associated with a higher risk of symptoms of depression, anxiety and attention deficit disorder with or without hyperactivity (ADD/ADHD). **Children with epilepsy** are also at three times greater risk of suffering from mood disorders such as depression or bipolar disorder.[28] Children suffering from obesity have a poor body image and lower self-esteem.[29]

Young children's physical health problems can also have an effect on their development. **Obesity** can have a negative impact on relationships with other children, which can hinder social development.[30] Certain **accidental injuries** can negatively affect motor development and cognitive function. Finally, there is a higher risk of learning problems among children who suffer from **asthma**, **epilepsy** or **intrauterine growth restriction**.[31]

To lower the risk of consequences later in life, prevention and rapid intervention are essential—which is why timely access to healthcare is critical for very young children. Any delay in receiving treatment can have a negative impact on a child's health and quality of life. Inadequate access to healthcare is associated with higher levels of pain, complications and emotional distress.[32]

WEIGHT

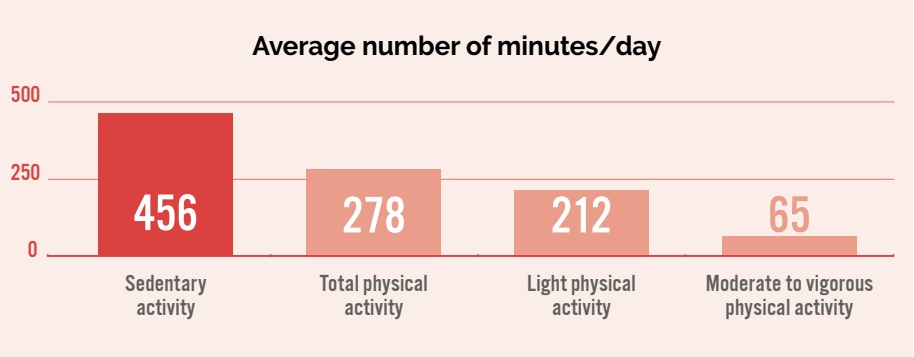
1/3 **In 2012-2015, one out of three children between 36 and 60 months was at risk of being overweight, was overweight or was obese. That statistic translates into 58,000 children.**



Source: Statistics Canada, *Canadian Health Measures Survey (CHMS)*, Cycles 3 (2012-2013) and 4 (2014-2015) combined, adapted by the Institut de la statistique du Québec.

PHYSICAL ACTIVITY

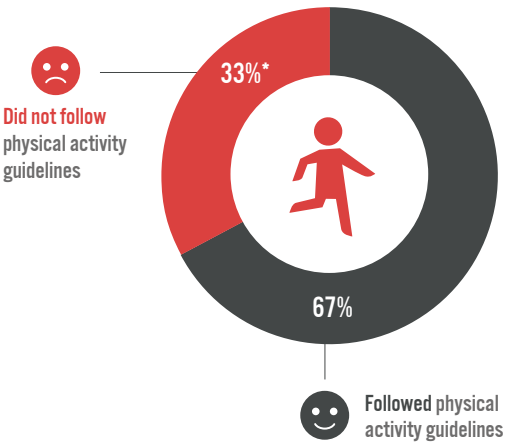
In 2012-2015, on average, very young children were spending an increasing amount of time on sedentary activities than on physical activities.[33]



For children aged 3 to 5, an activity is considered to be sedentary if it requires fewer than 100 movements per minute. Light physical activity requires between 100 and 1,150 movements per minute, while moderate to vigorous physical activity requires more than 1, 150 movements per minute.

Source: Statistics Canada, *Canadian Health Measures Survey (CHMS)*, Cycles 3 (2012-2013) and 4 (2014-2015) combined, adapted by the Institut de la statistique du Québec.

According to the Canadian Physical Activity Guidelines, children between the ages of 3 and 4 should accumulate at least 180 minutes of physical activity at any intensity spread throughout the day. Five-year-olds should accumulate at least 60 minutes of moderate (cycling, playing in the park) to vigorous (swimming, running) physical activity every day.[34]

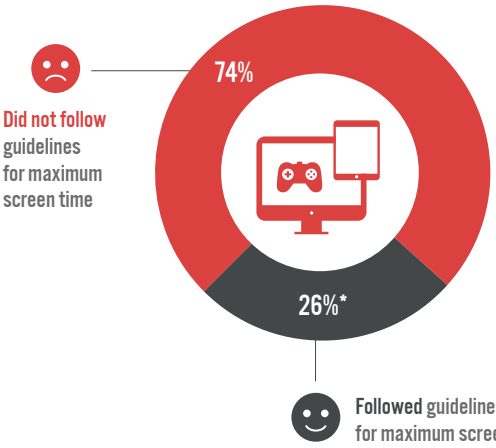


1/3

In 2012-2015, a third of children between the ages of 3 and 5 failed to respect these recommendations.

* Coefficient of variation between 15% and 25%: interpret with caution.

According to the *Canadian Sedentary Behaviour Guidelines,* recreational screen time should be limited to under an hour a day for children between 2 and 4 and to two hours a day for 5-year-olds.[35]



3/4

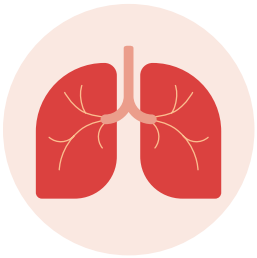
In 2012-2015, about three quarters of children between the ages of 3 and 5 did not follow these guidelines.

* Coefficient of variation between 15% and 25%: interpret with caution.

Source: Statistics Canada, *Canadian Health Measures Survey (CHMS),* Cycles 3 (2012-2013) and 4 (2014-2015) combined, adapted by the Institut de la statistique du Québec.

CHRONIC DISEASES AND CONDITIONS THAT AFFECT DEVELOPMENT

ASTHMA

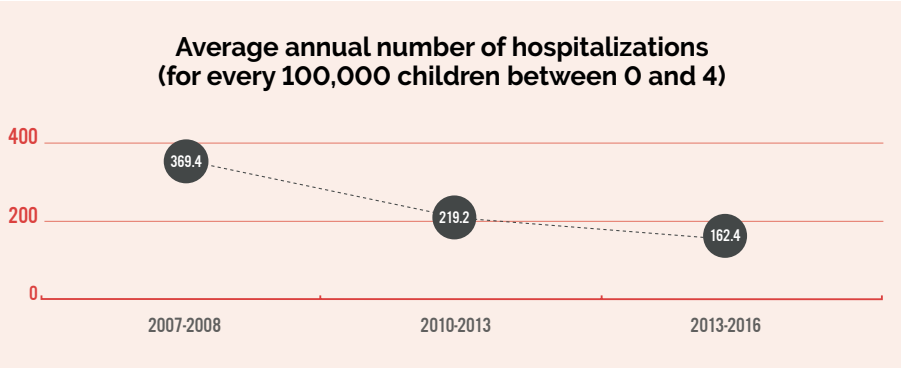


162.4

100,000 children between 0 and 4

That was the average annual number of hospitalizations for asthma between 2013 and 2016.

The average annual number of hospitalizations for asthma has declined significantly since 2007-2010, when it was de 369.4 hospitalizations for every 100,000 children between 0 and 4: a decrease of 56%.



Source: Ministère de la Santé et des Services sociaux. Quebec hospitalization database MED-ÉCHO (electronic). Tab report Plan national de surveillance produced by the Infocentre de santé publique at the Institut national de santé publique du Québec. April 5, 2017.

EPILEPSY

57.1

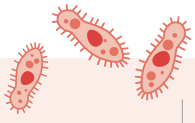
100,000 children between 0 and 4

That was the average annual number of hospitalizations for epilepsy between 2013 and 2016. This figure has remained stable since 2007-2010.

Source: Ministère de la Santé et des Services sociaux, Quebec hospitalization database MED-ÉCHO (electronic). Tab report Plan national de surveillance produced by the Infocentre de santé publique at the Institut national de santé publique du Québec, April 5, 2017.

INFECTIOUS DISEASES

The vaccine-preventable diseases that affect the largest number of very young children are flu (influenza), whooping cough and invasive pneumococcal infections.



Flu (influenza)

An average of

487

hospitalizations

annually in 2013-2016 among children between 0 and 4

Whooping cough

438

declared cases

in 2016 in children between 0 and 5

Invasive pneumococcal infections

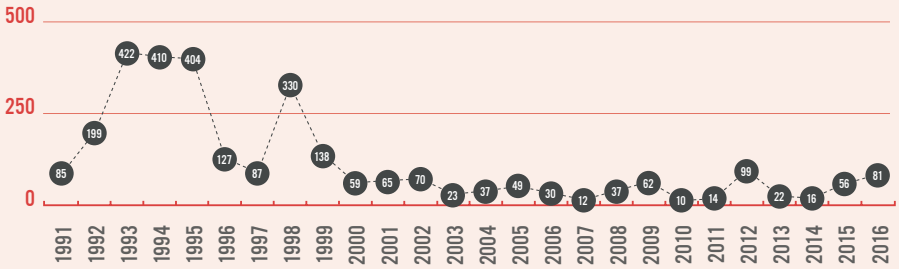
60

declared cases

in 2016 in children between 0 and 5

The number of cases of whooping cough decreased considerably between 1998 and 2000.

Whooping cough*– Cases in 100,000 children between 0 and 5



* Disease characterized by cyclical activity with peaks every 3-4 years.

A decrease was also observed in invasive pneumococcal infections between 2003 and 2006.

There has, in fact, been a major decrease in most infectious diseases since the early 1990s.

Diphtheria

0

declared cases

since 1991

Tetanus

0

declared cases

since 1991

Rubella (German measles)

0

declared cases

since 1998, with the exception of one case in 2007

Congenital rubella

0

declared cases

since 1995, with the exception of a few cases in 1990 and 2000

Invasive meningococcal infections

0

declared cases

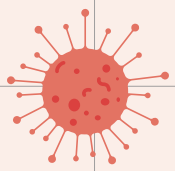
since 2009

Acute hepatitis B

0

declared cases

since 2010

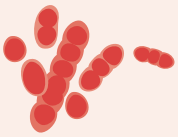


Haemophilus influenzae type b (Hib)

Fewer than 9

declared cases

annually since 2003



Mumps

1

case or less

every year since 1999

Outbreak observed in 2010 (12 cases) that continued into 2011 (3 cases)

Measles

18

cases or less

every year since 1996

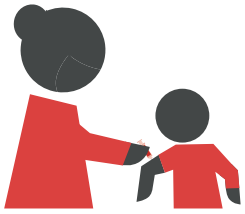
Outbreak in 2011: 89 cases

Outbreak in 2015: 24 cases

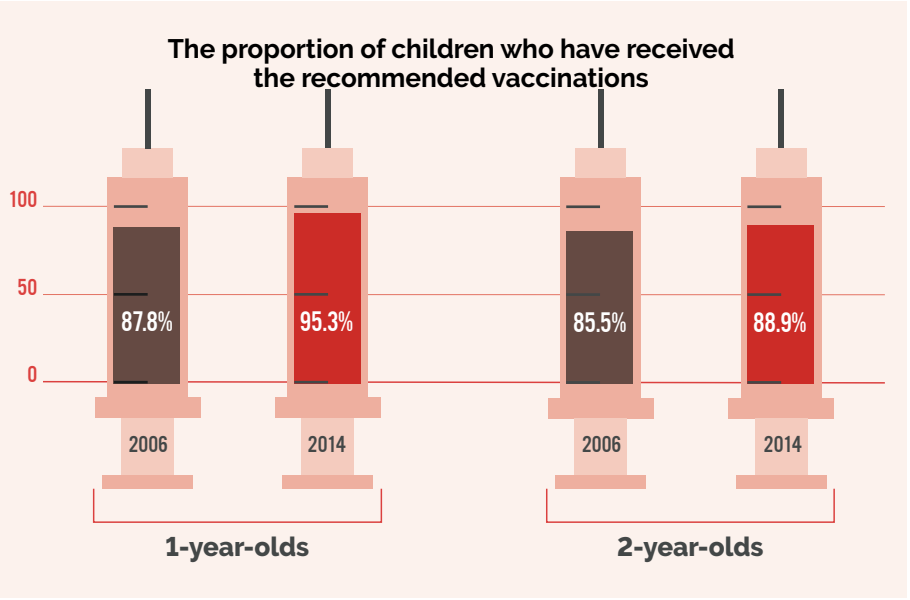
Source: Bureau de surveillance et de vigie de la Direction de la protection de la santé publique, DGSP, Ministère de la Santé et des Services sociaux, based on reports produced by the Infocentre at the INSPQ, extracted from MADO files as at July 17, 2017.

An outbreak is defined as the occurrence of cases of disease in excess of what would normally be expected for a given period.

All these infectious diseases are vaccine-preventable. The outbreaks of mumps and measles observed since 2010 are evidence of the importance of continuing to vaccinate babies and toddlers.



In 2014, 95% of one-year-olds had received all their recommended vaccinations, as had 89% of all two-year-olds.



The proportion of children who have received the recommended vaccinations for their age has increased significantly since 2006. Although there has been a slight increase in the number of vaccinated two-year-olds, it is not statistically significant.

Source: Institut national de santé publique du Québec (INSPQ), Enquête sur la couverture vaccinale des enfants québécois, 2006, 2008, 2010, 2012, 2014.

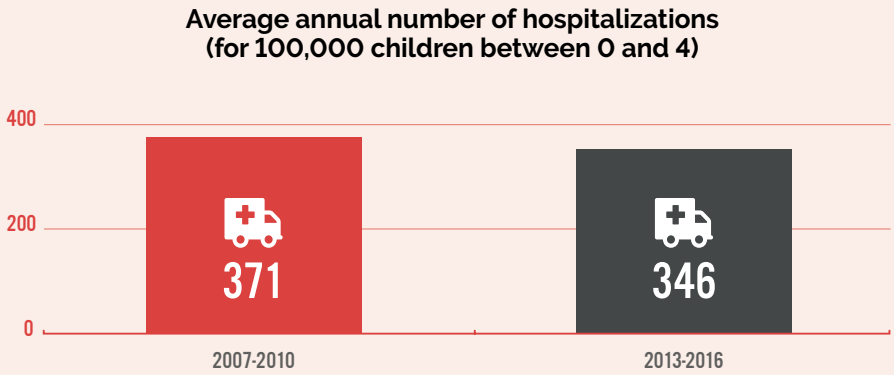
ACCIDENTAL INJURY

346

100,000 children between 0 and 4

That was the average annual number of hospitalizations for accidental injuries between 2013 and 2016.[36]

Accidental injuries can be the result of an involuntary event such as a fall, collision with a motor vehicle, medication poisoning, fire or drowning.



The number of hospitalizations for accidental injury declined significantly between 2007-2010 and 2013-2016.

Source: Ministère de la Santé et des Services sociaux, Quebec hospitalization database MED-ÉCHO (electronic), actualisation découpage territorial version M34-2016 selon la table de correspondance des territoires 2014-2015; Discharge Abstract Database, Canadian Institute for Health Information, actualisation découpage territorial version M34-2016 selon la table de correspondance des territoires 2014-2015; Ministère de la Santé et des Services sociaux, Estimations et projections démographiques, electronic (1981-1995: April 2012 version, 1996-2036: March 2015 version) selon la table de correspondance des territoires 2014-2015 de la version M34-2014.

MORTALITY

4.49 out of 1,000 children died before their first birthday in 2016. In 1990, this rate was 6.32 for every 1,000 births.

Following a significant decline between the late 1970s and the mid-1990s, this rate has remained stable over the past few years.

The mortality rate for children between the ages of 1 and 4 is much lower.

In 2016, it stood at 0.18 deaths for every 1,000 children between 1 and 4. In 1990, the corresponding rate was 0.38.

Source: Institut de la statistique du Québec, *Registre des événements démographiques.* Provisional data for 2016.

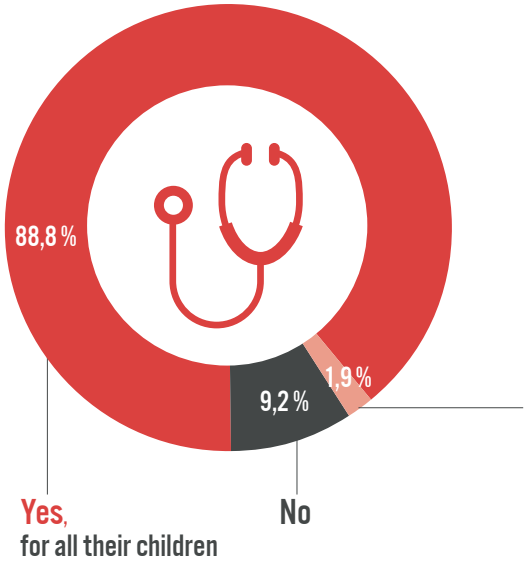
As part of its Millennium Development Goals, the United Nations has urged all the world's nations to take the necessary steps to reduce the under-5 mortality rate by two-thirds between 1990 and 2015.

The primary causes of infantile mortality (before 1 year of age) are neurological problems (such as cerebral palsy), respiratory problems (such pneumonia or flu), cardiovascular problems, infections and cancer.

The primary cause of juvenile mortality (between 1 and 4 years of age) is accidental injury.

ACCESS TO HEALTHCARE

FAMILY DOCTOR AND PEDIATRICIAN



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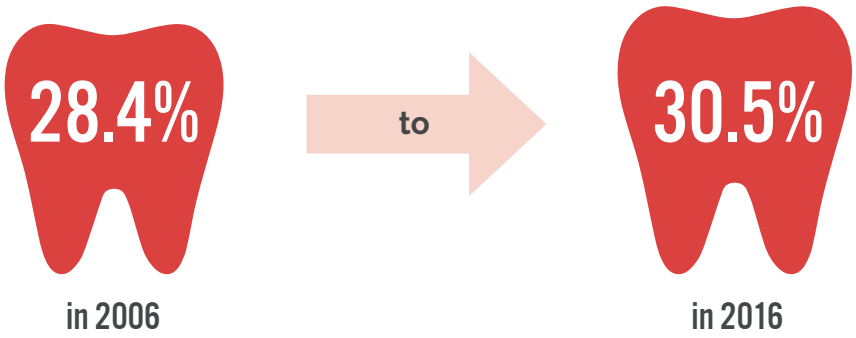
In 2015, close to one out of 10 families (9%) said they did not have a family doctor or pediatrician for their children between 0 and 5 years of age.

Source: Institut de la statistique du Québec, *Enquête québécoise sur l'expérience des parents d'enfants de 0 à 5 ans 2015.*

DENTAL CARE

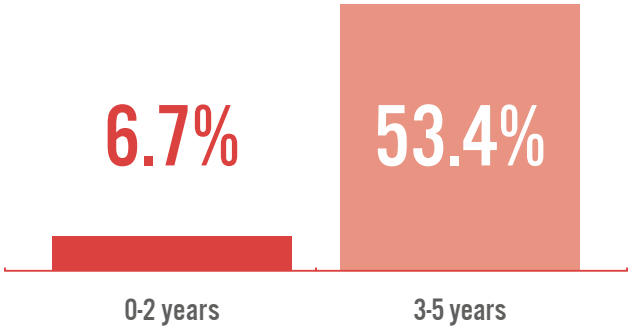
In 2016, 163,016 children—or less than a third of all children between 0 and 5—had their teeth examined by a dentist free of charge under the dental services program offered by the Régie de l'assurance maladie du Québec (Quebec health insurance).

This figure represents an improvement over the past several years. The rate of very young children who had seen a dentist rose from:

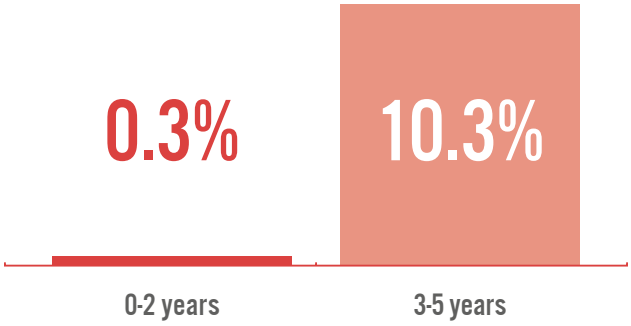


The Canadian Dental Association recommends that children be seen by a dentist within 6 months of the eruption of their first tooth or by one year of age.

In 2016, the number of children between 3 and 5 who had seen a dentist was higher than for children between 0 and 2.



More children between 3 and 5 also received some form of dental treatment (having a cavity filled or a tooth pulled, for example).



These figures tell us that 28,112 children between the ages of 3 and 5 received dental treatment in 2016.

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.

Physical health: Key points

Babies, toddlers and preschoolers are faring better than they were 10 years ago in terms of certain aspects of their physical health.

- Most vaccine-preventable infectious diseases are on the decline.
- There has also been a reduction in hospitalizations for asthma among children between 0 and 5 years of age.
- The rate of hospitalizations for accidental injury has also decreased.
- Infantile and juvenile mortality rates are lower.

Certain aspects continue to give cause for concern, however:

- A few outbreaks of mumps and measles have occurred since 2010.
- In 2012-2015, one-third of very young children were at risk of becoming overweight or were actually overweight or obese.
- Only about one-quarter of children between 3 and 5 followed the guidelines for maximum screen time, and almost one-third failed to follow guidelines for physical activity.
- In 2015, almost one family out of 10 (9%) declared that they did not have a family doctor or pediatrician for their children between 0 and 5 years of age.

SOMETHING CAN BE DONE

The scientific literature has documented the existence of collective drivers that could be used to effect positive change in the area of young children's physical health. Here are a few examples:

Acquiring healthy living habits at a very early age can reduce the risk of chronic diseases such as obesity.[37] The adoption of public policies or collective measures such as taxes on sugary drinks, nutritional targets aimed at reducing the sugar content in food[38], and safe areas in municipalities[39] that are conducive to physical activity can contribute to creating environments that foster healthy eating habits and a physically active lifestyle.

It is also possible to take action in the context of children's educational services. The "Gazelle et Potiron" framework, for example, was developed to support the creation of environments that encourage healthy eating, active play and motor development in educational daycares.[40] These measures are not applied in all preschool programs, however.

Solutions that encourage healthy eating can also prevent tooth decay. Providing better access to free drinking water in public spaces[41] (like parks and playing fields) can help reduce children's consumption of the sugary drinks that are so harmful to overall health. Water fluoridation is another safe, effective way to help ensure healthy teeth.[42]

Although the majority of parents have their children vaccinated, some still have concerns.[43] 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 Quebec, this program has been effective in bolstering parents' intention to vaccinate their children and reducing their hesitation.[44] It is obviously also important to ensure that vaccines are universally available for all children in Quebec and that sufficient services are offered to comply with the normal immunization schedule.

Some of these measures have already been implemented in Quebec. We need to make sure they are maintained and consolidated.

How could these measures be more effectively applied? Are there other measures we need to consider? We hope our 2017 Portrait will make a valuable contribution to the public reflection on these issues.

HOW ARE THEY FARING AS THEY GROW UP?

MENTAL HEALTH

Mental disorders are more frequent among very young children than most people think. Although there is little data available on this subject for children 5 and under, it is estimated that the frequency for that age group would be similar to that for school-aged children. The most common **mental disorders** encountered in very young children are related to behaviours and emotions.[45] These include problems related to behaviour, **anxiety**, **depression**, **attention deficit with or without hyperactivity (ADD/ADHD)** and **autism spectrum disorder.**[46]

Although it was originally believed that **anxiety-depressive disorders** did not exist in very young children, studies over the past 10 years have shown that they can indeed suffer from social phobia, separation anxiety, generalized anxiety and depression. These conditions are difficult to detect in very young children, as they are usually not yet able to verbalize their emotions. 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.[47]

ADHD (attention deficit hyperactive disorder) is characterized by symptoms of inattention, hyperactivity or impulsivity. Although this condition is generally diagnosed when children are in primary school, symptoms are often apparent at a much earlier age. While it is difficult to diagnose ADHD in preschoolers, many forms of treatment (medication and behavioural intervention) are available for these children. Since ADHD is associated with higher risks of dropping out, a lower rate of high school completion and more difficult relationships with other children, early intervention is important.[48]

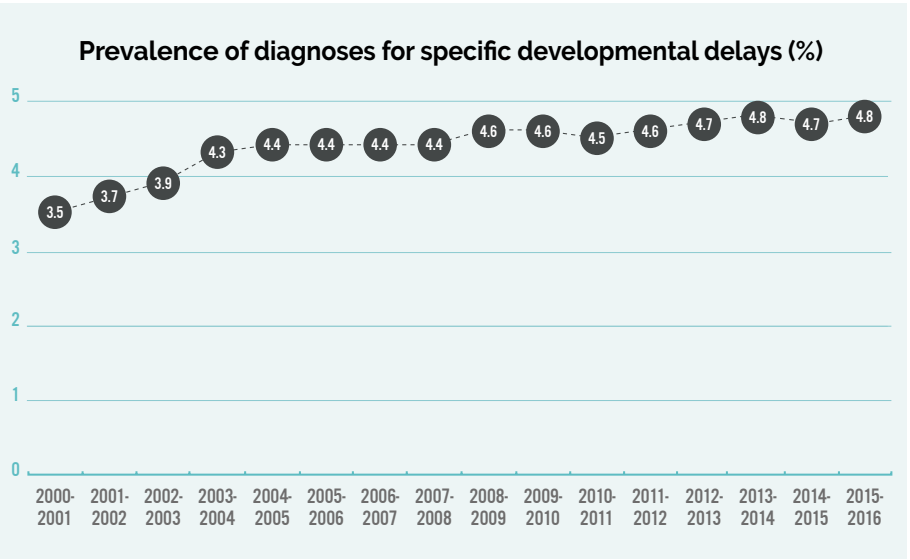
When left untreated, 50% of the **mental disorders** that affect very young children will persist into later childhood. It is therefore important that these problems be detected early in order to intervene more rapidly. Since the brain is much more plastic early in life, interventions in early childhood are much more effective than in school-aged children, adolescents and adults.[49]

MENTAL DISORDERS

22,010 children between the ages of 1 and 5 had been diagnosed with a mental disorder in 2015-2016.

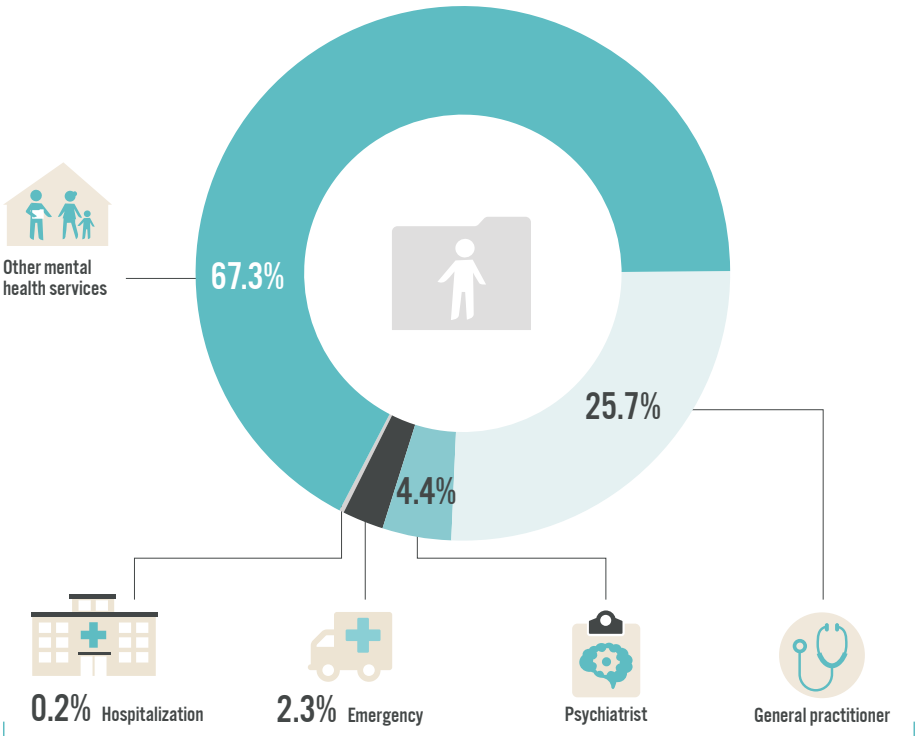
The majority of diagnoses are for specific developmental delays (e.g.: speech and language development disorders, specific motor delay) and behavioural disorders (e.g.: stammering/stuttering, tics, sleep disorders). Mental disorders also include several other diagnoses such as autism, anxiety, depression and ADHD.

Since 2000-2001, the proportion of very young children diagnosed with a mental disorder has increased significantly, rising from 3.5% to 4.8%.



USE OF SERVICES

Of the young children who were diagnosed with a mental disorder, 32.6% were hospitalized, seen in the emergency department, saw a psychiatrist or consulted a GP in his or her office.

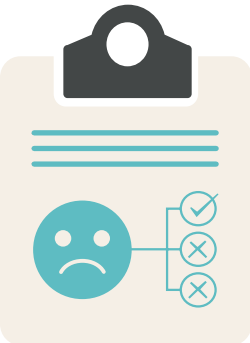


32.6%

Of the children who received other forms of mental health services, a large proportion were seen by a pediatrician.

Source: Institut national de santé publique (INSPQ), Quebec Integrated Chronic Disease Surveillance System (QICDSS), Quebec 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).

ANXIETY AND DEPRESSIVE SYMPTOMS



1,794 children between the ages of 1 and 5 had been diagnosed with an anxiety disorder or depressive symptoms in 2015-2016.

The proportion of children in this category has remained stable at around 0.4% since the early 2000s.

The main anxio-depressive disorders that affect very young children are social phobia, separation anxiety, generalized anxiety and depression.

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

ATTENTION DEFICIT DISORDER WITH OR WITHOUT HYPERACTIVITY (ADD/ADHD)

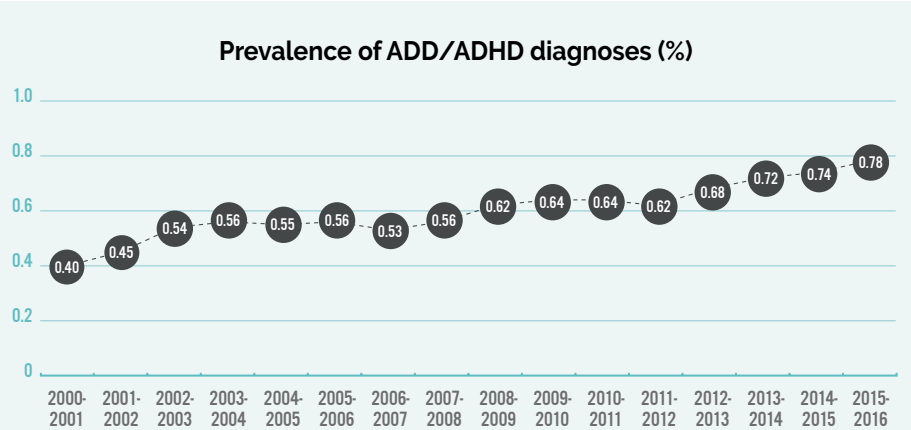
3,555 children between the ages of 1 and 5 had been diagnosed with ADHD in 2015-2016.

Since the early 2000s, the proportion of children with this diagnosis has increased significantly, rising from 0.4% in 2000-2001 to 0.8% in 2015-2016.

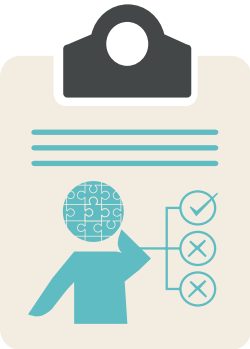
In order to be diagnosed with an attention deficit disorder, a child must present six symptoms of inattention. If he or she also presents six symptoms of hyperactivity or impulsivity, the diagnosis becomes attention deficit hyperactive disorder, or ADHD.[50]

Since it is normal for very young children to display a certain degree of inattention or hyperactivity, the symptoms must be severe, unusual for the child's age, persistent, and affect the child's functioning.

Source: Institut national de santé publique du Québec (INSPQ). Quebec Integrated Chronic Disease Surveillance System (QICDSS). Quebec 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).

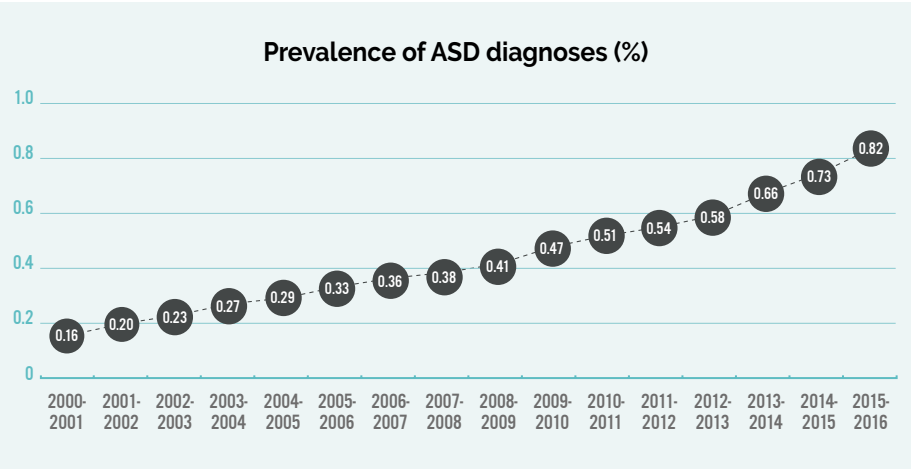


AUTISM SPECTRUM DISORDER (ASD)



3,716 children between the ages of 1 and 5 had been diagnosed with autism spectrum disorder in 2015-2016.

Since the early 2000s, the proportion of children diagnosed with ASD has increased significantly, rising from 0.16% in 2000-2001 to 0.82% in 2015-2016.



Source: Institut national de santé publique du Québec (INSPQ). Quebec Integrated Chronic Disease Surveillance System (QICDSS). Quebec 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).

Mental health: Key points

The mental health of very young children in Quebec needs to be monitored.

- In 2015-2016, 22,010 children (4.8%) between the ages of 1 and 5 were diagnosed with a mental health disorder.
- Since 2000-2001, the proportion of very young children affected by a mental health disorder rose from 3.5% to 4.8%.
- The proportion of children affected by anxiety and depressive symptoms has remained stable at around 0.4% since the early 2000s.
- Although the proportion of children diagnosed with ADHD is low among 1-5 year-olds, it rose significantly between 2000-2001 and 2015-2016.
- The proportion of children diagnosed with autism spectrum disorder rose from 0.16% in 2000-2001 to 0.82% in 2015-2016.
- Since very little data is available to evaluate the mental health of very young children, the extent of the problem may actually be underestimated.

SOMETHING CAN BE DONE

The scientific literature has documented the existence of collective drivers that could be used to effect positive change in the area of young children's mental health.

Here are a few examples of ways we could help improve children's mental health:

Working parents with high levels of stress related to reconciling work and family life are at greater risk of shouting, getting angry or losing patience with their children.[51] **Making work-life balance measures available to parents** could help to improve the quality of young children's lives at home.[52] Some organizations also offer courses in improving parenting skills.[53]

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. Certain studies have shown that there is a connection between food insecurity[54] or insufficient sleep[55] and certain mental disorders. Physical activity also has a positive impact on children's mental health.[56]

The quality of a child's educational facility can have an effect on his or her stress levels.[57] When facilities offer a combination of trained educators[58] and specialized services, it is possible to ensure prompt intervention in the daily lives of the toddlers and preschoolers.

It is also possible to facilitate the detection and diagnosis of mental disorders in very young children:

Parents must be **made aware of the potential causes of distress in their children,** which could include mental disorders, learning difficulties and adaptation problems.

Improved access to mental health services would be an effective way to help ensure that affected children were diagnosed and treated.[59]

Some of these measures have already been implemented in Quebec. We need to make sure they are maintained and consolidated.

How could these measures be more effectively applied? Are there other measures we need to consider? We hope our 2017 Portrait will make a valuable contribution to the public reflection on these issues.

HOW ARE THEY FARING AS THEY GROW UP?

DEVELOPMENT

Early childhood development includes development in various areas of skill and aptitude. Developmental studies generally focus on the following domains: physical and motor, social, emotional, cognitive and language/communication. All these aspects are interrelated and influence each other. For example, children who have trouble managing their emotions (emotional development) may also have less harmonious relationships with their peers (social development).

Although the main stages in development are similar from one child to the next, each develops at his or her own rhythm. Rates of development in different areas depend on the various learning situations to which children are exposed and the environments they have grown up in.[60]

Certain physical and mental conditions can restrict a child's activities, however, including such disabilities as intellectual disabilities, severe behaviour disorders, autism spectrum disorder, hearing and visual disabilities, cardiovascular dysfunction, food and digestion deficiencies, and immune system or nervous system deficiencies. Different disabilities affect different aspects of a child's development. Moreover, very young children who live with a disability may also unfortunately experience discrimination and exclusion.[61]

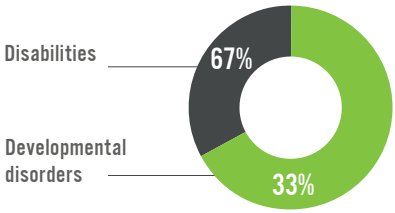
Children who have all the skills and aptitudes they need to get a good start in school are able to take full advantage of all the educational opportunities offered to them, which sets them on the right path to achieving their full development and potential. Studies have shown that kindergarten-aged children who are developmentally vulnerable are at greater risk of having difficulty in school later on. Kindergartners who are vulnerable in one or other areas of their development are at greater risk of failing their provincial ministerial examinations in French or mathematics in grade six.[62] Academic success in primary school subsequently has an impact on the highest level of diploma obtained in adulthood and perspectives for employment.

DISABILITIES

6,598 children between 0 and 5 (or 12 out of 1,000 young Quebecers) were recognized as living with a disability under the supplement for handicapped children program administered by Retraite Québec in 2015.

This represent 12 young Quebecers out of 1,000.

2/3 of these children were living with a disability and one-third had a developmental disorder.



In order to be **recognized as disabled,** a child must present a disability or developmental disorder that significantly restricts his or her daily activities.

Disabilities include food and digestion deficiencies, metabolic disorders, immune system or nervous system deficiencies, hearing or visual disabilities, and cardiovascular, renal or respiratory dysfunction.

Developmental disorders include intellectual disabilities, global developmental delay, autism spectrum disorders and speech disorders.

After rising slightly between 2005 and 2009, the rate of children recognized as living with a disability dropped to a level below that of 2005, when it was 13 out of 1,000. This decrease is primarily due to a decline in the number of children with a developmental disorder that restricts their daily activities.

Rate for 1,000 children between the ages of 0 and 5

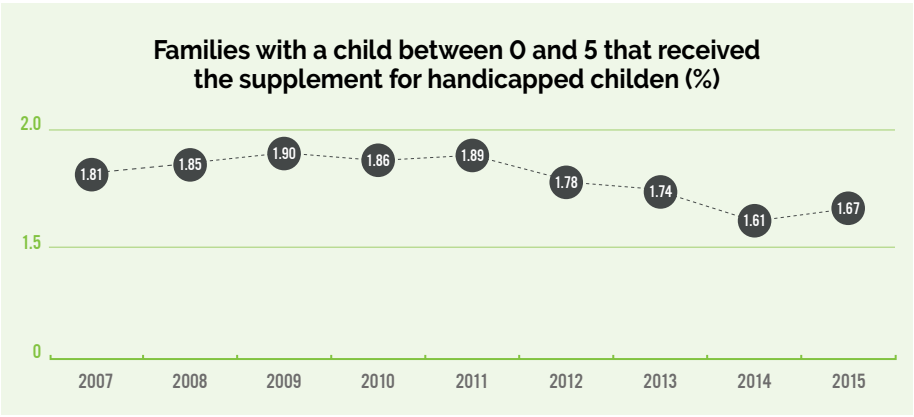
Source: Retraite Québec, Fichier administratif des enfants handicapés (containing information transmitted by the Directeur de l'état civil, Revenu Québec and parents of children with disabilities).

6,471 Quebec families with at least one child between the ages of 0 and 5 benefited from the provincial supplement for handicapped children in 2015.

This figure represents 1.67% of Quebec families with at least one child between 0 and 5.*

Proportionally more single-parent than two-parent families received this supplement.

The percentage of families with a child between 0 and 5 that receive the supplement for handicapped children decreased between 2007 and 2015.

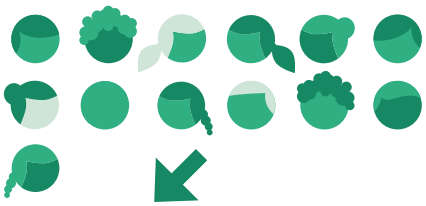


* This is actually the percentage of Quebec families with at least one child between 0 and 5 that received the provincial child assistance payment (Soutien aux enfants or PSE). This rate nonetheless gives us a fairly accurate idea for all Quebec families with at least one child between the ages of 0 and 5, since between 96% and 97% of all Quebec families receive the PSE. .

Source: Retraite Québec, Fichier administratif des enfants handicapés (containing information transmitted by the Directeur de l'état civil, Revenu Québec and parents of children with disabilities).

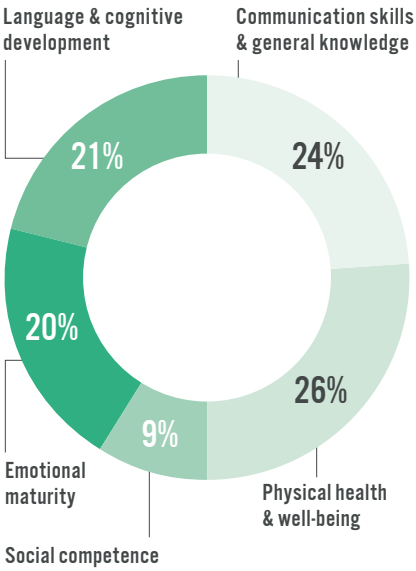
VULNERABILITY IN KINDERGARTEN

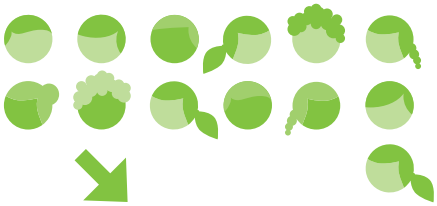
26% of children in kindergarten were vulnerable in at least one domain of their development 2012 in Quebec.



Half of this number were vulnerable in **just one domain** of development.

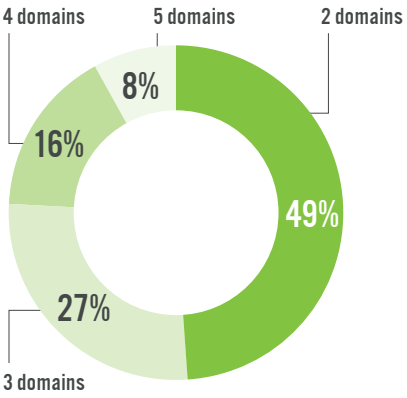
Among the children who were vulnerable in a single domain of their development, the most common domains were **physical health and well-being** and **communication skills and general knowledge**.





The other half were vulnerable in **more than one domain of development**.

Among the children who were **vulnerable in at least two domains** of development, over half were vulnerable in at least three domains.



The following combinations of vulnerability were particularly common:

- Social competence **and** emotional maturity
- Language & cognitive development **and** communication skills & general knowledges

For example, children who have trouble managing their emotions are more likely to have less harmonious relationships with others.

Source: Institut de la statistique du Québec, *2012 Quebec Survey of Child Development in Kindergarten*.

WHAT DO WE MEAN WHEN WE SAY A CHILD IS "VULNERABLE"?

During the *Quebec Survey of Child Development in Kindergarten* (*Enquête québécoise sur le développement des enfants à la maternelle* or EQDEM), children were evaluated by their kindergarten teacher. A child was considered to be vulnerable in a given domain of development if he or she was included in the 10% of Quebec children with the lowest scores in that domain.

WHAT FACTORS WERE STUDIED IN EACH DOMAIN?

Physical health and well-being
Teachers evaluated children's overall physical development, motor skills, adequate food and clothing, cleanliness, punctuality and alertness.

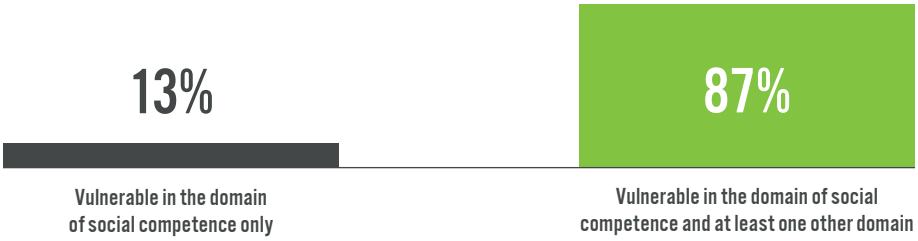
Social competence
Teachers evaluated children's social skills, self-confidence, sense of responsibility, respect for peers, adults and rules and routines, work skills and autonomy, and curiosity.

Emotional maturity
Teachers evaluated children's behaviour towards others, ability to help others, fear, anxiety, aggressive behaviour, hyperactivity and inattention, and expression of emotions.

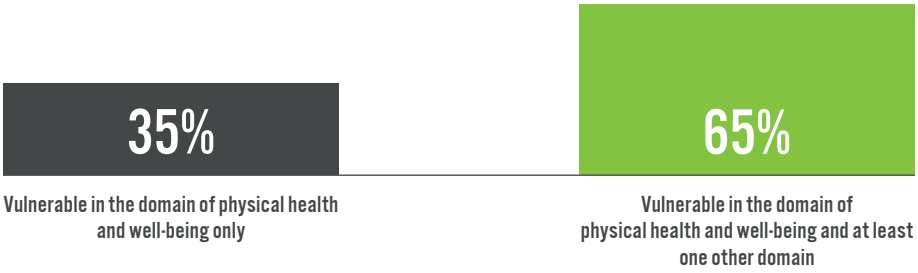
Language and cognitive development
Teachers evaluated children's interest and skills in reading, writing and arithmetic, and appropriate use of language.

Communication skills and general knowledge
Teachers evaluated children's ability to communicate understandably, enunciate clearly and their general knowledge.

The vast majority (87%) of kindergartners who are vulnerable in the **domain of social competence** are also vulnerable in **at least one other domain**.



This risk is lower for children who are vulnerable in the **domain of physical health and well-being**. In fact, more than one-third of children in this category were vulnerable in that one domain only.

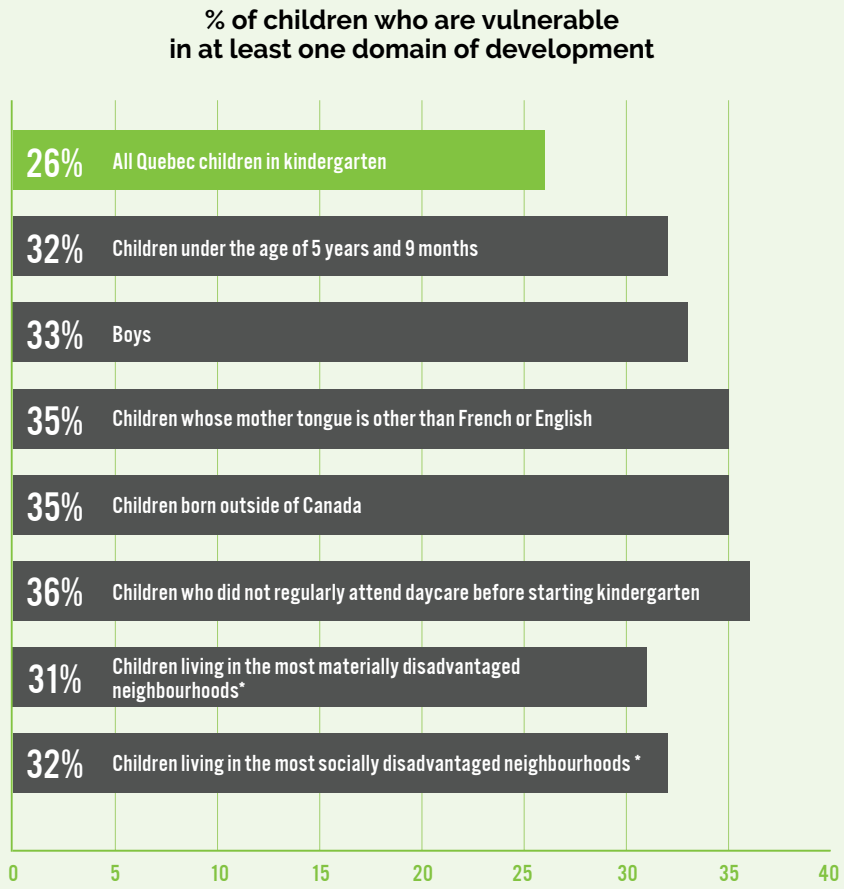


Certain domains are therefore more critical than others to a child's overall development.

Source: Institut de la statistique du Québec, *2012 Quebec Survey of Child Development in Kindergarten.*

WHICH KINDERGARTEN-AGED CHILDREN ARE MORE LIKELY TO BE VULNERABLE?

Certain groups of children are more likely to be vulnerable in at least one area of their development.



* The Deprivation Index of an area of residence includes a material dimension (average income, education and employment) and a social dimension (marital status and structure of household: people who are widowed, divorced, living alone or in single-parent families).[63]

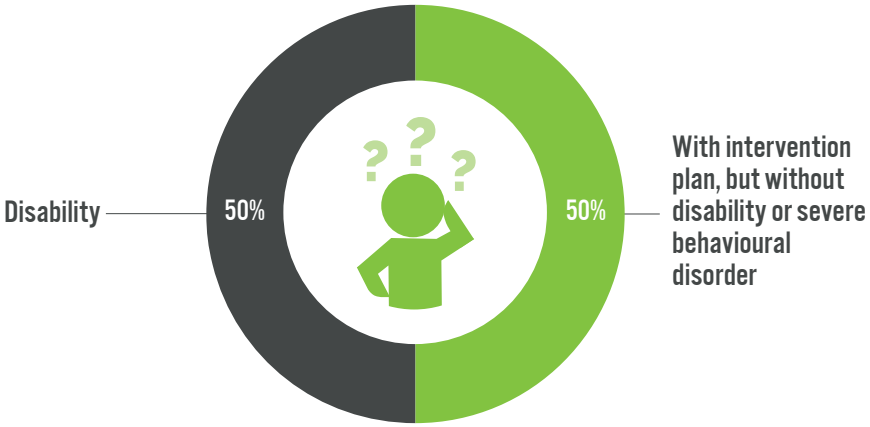
Source: Institut de la statistique du Québec, *2012 Quebec Survey of Child Development in Kindergarten.*

KINDERGARTEN-AGED CHILDREN WITH A DISABILITY OR SOCIAL MALADJUSTMENT*

EQDEM data do not include children with disabilities or problems with social adaptation.

During the 2015-2016 school year,
4,688 (5.6%) children in 5-year-old kindergarten had a disability or difficulty with adaptation based on the criteria of the Ministère de l'Éducation et de l'Enseignement supérieur.

Approximately half of these children were living with a disability. The others had an individual intervention plan even though they had not been assigned a code corresponding to a disability or severe behavioural disorder.



The proportion of children with disabilities or adaptation difficulties has remained stable over the past several years.

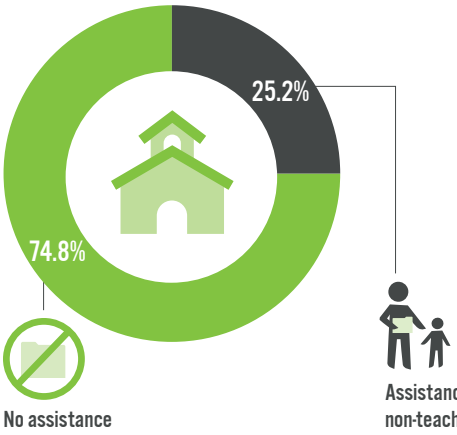
There are several different forms of disability: intellectual, language, severe motor, visual, etc.

* The data of the Ministère de l'Éducation et de l'Enseignement supérieur refer to children with a disability, social maladjustment or learning difficulty (special needs children, or EHDAA: *enfants handicapés ou en difficulté d'adaptation ou d'apprentissage*). Learning difficulties do not apply to children in 5-year-old kindergarten, however.

Furthermore, data refer to children in 5-year-old kindergarten in the public education system only; they do not include information from the government or private network.

Source: Ministère de l'Éducation et de l'Enseignement supérieur (MEES), Territoires, statistiques et enquêtes (TSE), Direction générale des Statistiques, des Études et de la Géomatique (DGSEG), Direction des Indicateurs et des Statistiques (DIS), Portail informationnel, Système Charlemagne.

ASSISTANCE OF A NON-TEACHING PROFESSIONAL IN KINDERGARTEN



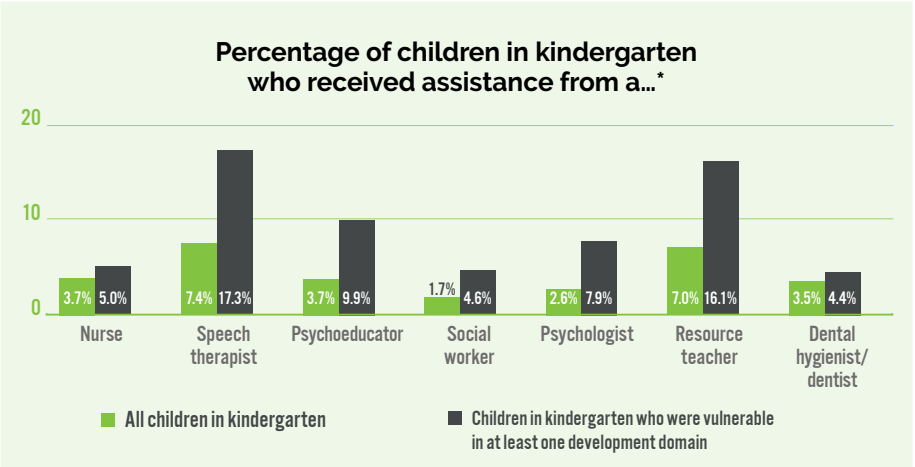
1/4

In 2012, one child in kindergarten out of four received the assistance of at least one non-teaching professional.[64]

Among developmentally vulnerable children, this figure rises to 50%.

1/2 **1 out of 2 vulnerable children were unable to benefit from the services of a non-teaching professional during the period between the beginning of the school year and the time of the survey.**

The professional services most frequently used by children in 5-year-old kindergarten (vulnerable or not) were those offered by **resource teachers** and **speech therapists.**



* Certain types of professionals were frequently mentioned in the "Other" category: resource teachers and dental care professionals. These two categories were therefore added to the indicator based on data compiled. It is important to note, however, that the number of professionals in these two categories may be underestimated, as they were initially not offered as a response option for the question.

Source: Institut de la statistique du Québec, *Quebec Survey of Child Development in Kindergarten, 2012.*

Development: Key points

Statistics on child development in Quebec are worrying.

- One kindergartner out of four is vulnerable in at least one domain of development.
- Children who are vulnerable in the area of social competence are especially likely to be vulnerable in another domain.
- Certain children are at greater risk of being vulnerable in at least one domain of development:
  - very young children
  - boys
  - children whose mother tongue is other than French or English
  - children born outside of Canada
  - children who did not regularly attend daycare before starting kindergarten
  - children from disadvantaged neighbourhoods
- Some children who are developmentally vulnerable were unable to benefit from the services of a non-teaching professional in kindergarten.

SOMETHING CAN BE DONE

The scientific literature has documented the existence of collective drivers that could be used to effect positive change in the development of very young children. Here are a few examples:

The socio-economic environment in which children grow up has a significant impact on their development.[65] Improving the living conditions of children in disadvantaged environments (better housing, for example) and providing support for parents in difficult situations is one way to have a positive impact on young children's overall development.[66]

Having access to the services of a non-teaching professional (such as a speech therapist, social worker, psychologist or resource teacher) **is beneficial** for children who are developmentally vulnerable. Non-teaching professionals can support educators by identifying a child's special needs and participating in developing an intervention plan,[67] thus playing an important role in the prevention, screening and intervention process.

Children from disadvantaged environments, those whose first language is other than French or English, and those whose parents were born outside of Canada are more likely to be developmentally vulnerable when they start school. **Quality educational daycare services** (such as preschool, 4-year-old kindergarten and the Passe-Partout program) can offer these children the stimulation and structure they need to ease their transition into the educational system.[68] Certain community organizations also offer various types of early stimulation programs for babies and toddlers.

Early intervention is crucial for very young children with special needs such as disabilities or developmental disorders. Early screening for impaired hearing, for example, can prevent some types of language delays.[69]

Some of these measures have already been implemented in Quebec. We need to make sure they are maintained and consolidated.

How could these measures be more effectively applied? Are there other measures we need to consider? We hope our 2017 Portrait will make a valuable contribution to the public reflection on these issues.

CONCLUSION

This portrait, a report on the state of health and development of Quebec's youngest children, helps us to know a little bit more about the well-being of children between the ages of 0 and 5 living in the province.

The situation described here includes both positive and negative points. Generally speaking, babies are coming into the world under better conditions. There has also been improvement in certain areas of young children's physical health, including asthma, accidental injury and infectious diseases. Some of the collective measures that have been implemented over the past several years may have contributed to these improvements, such as the OLO program (nutritional aid for pregnant women), SIPPE program (integrated perinatal and early childhood services) and EMMIE program (motivational interviewing in the maternity ward for the immunization of children).

Certain situations continue to give cause for concern, however: the rate of Caesarean births, outbreaks of measles, excess weight and obesity in children, mental health and early childhood development. Data in our portrait also show that obtaining access to a family doctor, pediatrician or even a non-teaching professional is difficult for certain children.

Something can be done, however. Change is possible. The scientific literature has documented the existence of collective drivers that we can use to take action in areas that affect young children's health, well-being and development—whether it be by improving the socioeconomic environment of the very young, providing better access to healthcare or quality daycare, ensuring better training for professionals, conducting awareness campaigns or offering more support to parents.

This portrait also reports on the situation of very young children in the different regions of Quebec. Although certain regions follow provincial trends, others stand out in the areas of pregnancy and childbirth, physical health or development. The data available to us on the mental health of the very young does not enable us to identify developments at the regional level, however.

The data—and their evolution—presented in this portrait remind us, more than ever, of the importance of ensuring that the development and well-being of the youngest Quebecers continues to be a priority for Quebec society.

The Early Childhood Observatory has produced a series of documents to accompany the *2017 Portrait:*

A brochure presenting the highlights of the 2017 portrait.

Separate publications providing regional data on each of Quebec's 17 regions

Visuals for your presentations or social networks

These documents are all available on our website at **tout-petits.org/portrait2017**

The 2016 Portrait, entitled *What kind of environments are Quebec's youngest children growing up in?* is also available for consultation.

This report and the related documents are all available on our website at **tout-petits.org/portrait2016**

ABOUT THE DATA PRESENTED

Five key criteria were used to select the indicators used to produce this portrait: data had to be recurring, statistically robust, available at the regional level and based on a recent point of reference. Possible links to child development were also taken into consideration.

Any necessary reservations with respect to data interpretation are included in the text. Notes on the methodology used for each indicator are available on the Observatory's website at **tout-petits.org/donnees**.

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NOTES

OBSERVATOIRE
des tout-petits

The mission of the Early Childhood Observatory is to help ensure that the development and well-being of Quebec's very youngest children has a place on the province's list of social priorities. In order to do so, the Observatory compiles the most rigorous data on 0-5 year-olds which it then disseminates to incite dialogue on collective actions in this area.

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