

### **HOWARE** QUEBEC'S YOUNGEST CHILDREN FARING?

2017 Portrait

**ESTRIE** 

OBSERVATOIRE des tout-petits



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## TABLE OF CONTENTS





How are Estrie's youngest children faring?







DEVELOPMENT

CONCLUSION

THE REGION AT A GLANCE





### A PORTRAIT <sup>OF</sup> 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 the Estrie 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 the Estrie while providing a unique insight into their world.

## **ESTRIE**\*

### In a nutshell

### According to the most recent data available:

- The number of births in this region increased by 0.5% between 2006 and 2016, as compared to an increase of 5.4% for the whole of Quebec.
- The proportion of very young children living in low-income families (after taxes) is lower in the Estrie than in the rest of Quebec.
- The Caesarean birth rate is lower in the Estrie than in the province as a whole, and the proportion of parents of children between 0 and 5 who attended prenatal classes is higher than in the rest of Quebec.
- The hospitalization rates for accidental injury and asthma are lower in the Estrie than in Quebec as a whole.
- The proportion of families that have a family doctor or pediatrician for all their children 5 and under is higher in the Estrie than in the rest of Quebec.
- The proportion of children in kindergarten who benefited from the services of a non-teaching professional at school is lower in this region than in the rest of Quebec.

The indicators mentioned in the "In a nutshell" section were selected because the region stood out clearly from the rest of Quebec or the province as a whole in those areas.

\* Since changes were made to the geographical boundaries of the Estrie and Montérégie regions in April 2015 by the ministère de la Santé et des services sociaux, results for these two regions prior to 2015-2016 cannot be compared to later results.



### WHO ARE THESE 0-5 YEAR-OLDS?

In Estrie region in 2016, there were **19,840** children between the ages of 0 and 5, accounting for 6.1% of the total regional population.

In 2006, that figure was 17,791 or 5.9% of the total regional population.

### In 2016, there were 3,148 recorded births.

That represents an increase of 0.5% over the 2006 figure of 3,132 recorded births in the region.

### WHAT DID THEIR FAMILIES LOOK LIKE IN 2011?\*



\* Since certain percentages have been rounded up or down, the total may be slightly above or below 100%.

### WHAT ARE THEIR LIVING CONDITIONS?

**10.5%** of very young children in the region were living in low-income families (after tax) in 2015.



That figure was 16.0% in 2004.

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.<sup>1</sup>

**Sources:** Institut de la statistique du Québec and Statistics Canada, Population estimates, adapted by the Institut de la statistique du Québec. Provisional data for 2016; Statistics Canada, 2011 *National Household Survey*, adapted by the Institut de la statistique du Québec, and Statistics Canada, *T1 Family File* (T1FF), adapted by the Institut de la statistique du Québec.



### **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.

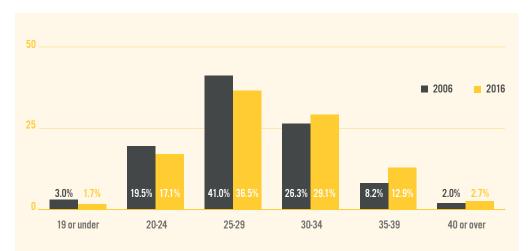
The context in which a woman's pregnancy evolves has an influence on her baby's health. For example, certain factors can increase the risk of stillbirth: the mother's weight, **her age**, her health problems (e.g.: infections, high blood pressure or diabetes), her lifestyle (e.g.: diet, smoking, use of alcohol, drugs or medication) or **multiple pregnancies**.<sup>2</sup> 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.<sup>3</sup> 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.<sup>4</sup>

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).<sup>5</sup> 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%.<sup>6</sup>

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.<sup>7</sup>

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 gastroenteritis<sup>8</sup> 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).<sup>9</sup> **Breastfeeding support services** offered by professionals (doctors, midwives, nurses and lactation consultants) or volunteers in support groups can often give nursing mothers the help they need.<sup>10</sup>





### **HOW OLD WAS THEIR MOTHER AT BIRTH?**

### **PRENATAL CLASSES**

20/0 of parents of children between 0 and 5 in 2015 had already participated in prenatal classes.



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



### INTRAUTERINE GROWTH RESTRICTION

of babies were born with intrauterine growth restriction in 2011-2013 (weight below the 10<sup>th</sup> percentile for the gestational age).

This figure was 17.2% in 1981-1983 and 7.9% in 2002-2004.



### **CAESAREAN BIRTHS**

**22.1%** of births in this region in 2015 were by Caesarean section.\*

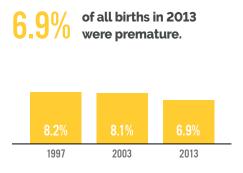
In 2002, the rate of Caesarean births in the region was 15.1%.

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

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%.<sup>11</sup>

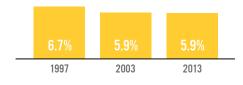


### PREMATURE BIRTHS



### LOW BIRTHWEIGHT

**5.9%** of babies born in the Estrie region in 2013 had a low birthweight (under 2.5 kg or 5.5 lb).



**Sources:** Ministère de la Santé et des Services sociaux, Fichier des naissances (produit électronique). Rapport de l'onglet Plan national de surveillance produit par l'Infocentre de santé publique à l'Institut national de santé publique du Québec, le 29 mai 2017; Base de données sur les congés des patients, Institut canadien d'information sur la santé (ICIS); Fichier des hospitalisations MED-ÉCHO, ministère de la Santé et des Services sociaux; Institut de la statistique du Québec, *Registre des événements démographiques*.

### STILLBIRTHS



3.6 of every 1,000 babies were stillborn in 2009-2013.

This rate was 4.4 out of 1,000 births in 2001-2005.

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**.<sup>12</sup>



#### BREASTFEEDING

### 90.9% of mothers breastfed or tried to breastfeed their youngest child, according to 2013-2014 data.\*

This figure was 84.1% in 2000-2001.

\* Among women between 15 and 55 who had given birth over the previous five years. (N.B.: Potential for bias due to high partial non-response.) **51.6%** of mothers of children between 0 and 5 in Estrie region who breastfed their child(ren)\* had already used breastfeeding support services in 2015.

\* This figure includes all mothers of children between 0 and 5, with the exclusion of those did not use breastfeeding support services because they did not breastfeed their child(ren).

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.<sup>13</sup>

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.

**Sources:** Institut de la statistique du Québec, *Registre des événements démographiques*; Statistics Canada, *Canadian Community Health Survey* (CCHS), 2000-2001 and 2013-2014, share files, adapted by the Institut de la statistique du Québec; Institut de la statistique du Québec, *Enquête québécoise sur l'expérience des parents d'enfants de 0 à 5 ans 2015.* 

### **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.<sup>14</sup> 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 <sup>15</sup> (nutritional aid for pregnant women), the Maison Bleue<sup>16</sup> model and the SIPPE program (integrated perinatal and early childhood services<sup>17</sup>).



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.<sup>18</sup> 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.<sup>19</sup>



Baby-Friendly Initiative certification in hospitals has been proven to be effective in improving breastfeeding rates.<sup>20</sup> Certain measures could optimize implementation, however, such as the creation of baby-friendly environments<sup>21</sup> (including social marketing campaigns promoting positive attitudes towards breastfeeding, nursing rooms and support for mothers' right to breastfeed in public).<sup>22</sup> Finally, better training of professionals<sup>23</sup> and the existence of support groups<sup>24</sup> 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 dis**eases can cause paralysis, brain damage, respiratory problems, liver damage or deafness.<sup>25</sup> **Accidental injuries** can affect motor function and cause permanent disability.<sup>26</sup> **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.<sup>27</sup>

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.<sup>28</sup> Children suffering from obesity have a poor body image and lower self-esteem.<sup>29</sup>

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.<sup>30</sup> 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**.<sup>31</sup>

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.<sup>32</sup>



### **ACCIDENTAL INJURY\***

### **282.1** hospitalizations for every 100,000 children 4 and under in 2013-2016.

In 2007-2010, this rate was 340.9 hospitalizations for every 100,000 children 4 and under.

\* The exact name of this indicator is "unintentional trauma."

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

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### **ASTHMA**

### **111.5** hospitalizations for every 100,000 children 4 and under in the region in 2013-2016.

In 2007-2010, this rate was 299.9 hospitalizations for every 100,000 children 4 and under.



### **77.9** hospitalizations for every 100,000 children 4 and under in 2013-2016.

In 2007-2010, this rate was 64.4 hospitalizations for every 100,000 children 4 and under.

**Sources:** Ministère de la Santé et des Services sociaux, MED-ÉCHO hospitalization database (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; Institut de la statistique du Québec, *Registre des événements démographiques*.

### MORTALITY

**4.5** children out of 1,000: the average annual number of children who died before their first birthday in 2009-2013.

In 1999-2003, that rate was 4.8 children out of 1,000.

0.12 children out of 1,000: the average annual number of children who died between the ages of 1 and 4 in 2009-2013.

In 1999-2003, that rate was 0.24 children out of 1,000.

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.



### FAMILY DOCTOR OR PEDIATRICIAN

**84.6**% of families had a family doctor or pediatrician for all their children 5 and under in 2015.

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



### **DENTAL EXAMS**

### $\begin{array}{c} 54.0\% \\ 3 \text{ and } 5 \text{ and} \end{array}$

**4.9%** of children between O and 2 had had their teeth examined by a dentist in 2016.

In 2006, these rates were 50.8% and 2.8%.



### DENTAL TREATMENTS (e.g., cavity filling)

9.6% of children between 3 and 5 received dental treatment.

The rate for children between 0 and 2 was

0.2%

In 2006, those rates were 10.6% and 0.2%.

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.

**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.

### WEIGHT AND PHYSICAL ACTIVITY

Although we do not have access to regional data on obesity and levels of physical activity for very young children, we know that, in 2015, one-third of this sector of the population was at risk of becoming overweight or was already overweight or obese. Moreoever, approximately three-quarters of children between the ages of 3 and 5 failed to respect recommended limits for screen time, and close to one-third did not respect recommendations for minimum levels of physical activity.

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.

### **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.<sup>33</sup> The adoption of public policies or collective measures such as taxes on sugary drinks, nutritional targets aimed at reducing the sugar content in food<sup>34</sup>, and safe areas in municipalities<sup>35</sup> 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.<sup>36</sup> 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<sup>37</sup> (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.<sup>38</sup>

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.<sup>39</sup>

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.<sup>40</sup>

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.<sup>41</sup> Academic success in primary school subsequently has an impact on the highest level of diploma obtained in adulthood and perspectives for employment.



### DISABILITIES

**11.3** out of 1,000 children between 0 and 5 were recognized as living with a disability in 2015.

In 2005, this rate was 13.7 out of 1,000 children between 0 and 5.

1.6% of families in the region with at least one child between 0 and 5 were receiving the Quebec supplement for handicapped children in 2015.

This figure was 2.0% in 2007.

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.



### CHILDREN WITH A DISABILITY OR SOCIAL MALADJUSTMENT IN KINDERGARTEN\*

**6.4**% of children in 5-year-old kindergarten had a disability or social maladjustment in 2015-2016, based on the criteria of the Ministère de l'Éducation et de l'Enseignement supérieur.

This figure was 4.7% of all children in kindergarten in 2011-2012.

\* 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.

**Sources:** 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); 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.

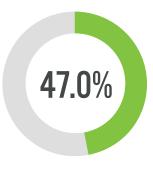


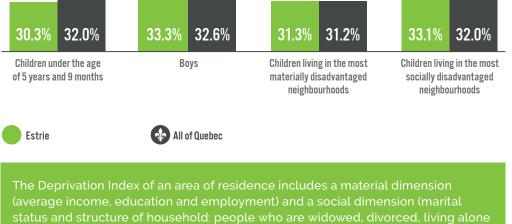
### **VULNERABILITY IN KINDERGARTEN**

26.3% of children in kindergarten in the Estrie region were vulnerable in at least one domain of development in 2012.

Among these vulnerable children, **47.0% were vulnerable** in two or more domains.

At the provincial level, certain groups of children are more likely to be developmentally vulnerable. Below are the **proportions of children in the region who were vulnerable in at least one domain of development:** 





or in single-parent families).<sup>42</sup>

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.

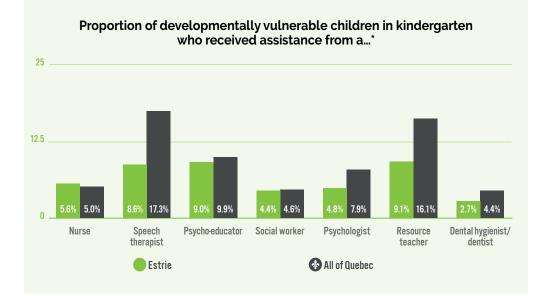
### Communication skills and general knowledge

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



### USE OF THE SERVICES OF A NON-TEACHING PROFESSIONAL BY CHILDREN WHO WERE VULNERABLE IN AT LEAST ONE DOMAIN OF THEIR DEVELOPMENT

37.3% of vulnerable children in kindergarten in the region benefited from the services of a non-teaching professional in 2012.



\* Nurse, social worker, psychologist, dental hygienist/dentist: coefficient of variation between 15% and 25% for regional data: interpret with caution.

**N.B.:** 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.

### **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.<sup>43</sup> 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.<sup>44</sup>



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,<sup>45</sup> 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.<sup>46</sup> 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.<sup>47</sup>

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 the Estrie'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.

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.

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 REGION

	Caution must be exercised in interpreting these data. Certain differences between the region and all of Ouebec may not be significant or due to random fluctuations.	G Estrie	All of Quebec
WHO ARE THESE 0-5 YEAR-OLDS?	Number of children between the ages of 0 and 5 in 2016	19,840	534,939
	Proportion of children between the ages of 0 and 5 in 2016	6.1%	6.4%
	Number of newborns in 2016	3,148	86,400
PREGNANCY AND CHILDBIRTH	Proportion of parents with children between O and 5 in 2015 who had already attended prenatal classes	66.2%	59.8%
	Proportion of babies born with intrauterine growth restriction in 2011-2013	8.8%	8.7%
	Proportion of premature births (< 37 full weeks of gestation) in 2013	6.9%	7.3%
	Proportion of low birthweight babies (< 2,500 g) in 2013	5.9%	5.9%
	Rate of Caesarean births in 2015	22.1%	24.9%
	Average annual rate of stillbirths in 2009-2013	3.6 deaths for every 1,000 births	4.2 deaths for every 1,000 births
	Proportion of women between the ages of 15 and 55 who gave birth during the five years preceding the 2013-2014 survey who breastfed or tried to breastfeed their youngest child	90.9%	89.0%
	Proportion of mothers of children between the ages of 0 and 5 who breastfed their child(ren)** and used breastfeeding support services in 2015	51.6%	51.6%

PHYSICAL HEALTH	Average annual number of hospitalizations for asthma in 2013-2016	111.5 hospitalizations for every 100,000 children between 0 and 4	162.4 hospitalizations for every 100,000 children between 0 and 4
	Average annual number of hospitalizations for epilepsy in 2013-2016	77.9 hospitalizations for every 100,000 children between 0 and 4	57.1 hospitalizations for every 100,000 children between 0 and 4
	Average annual number of hospitalizations for accidental injuries in 2013-2016	282.1 hospitalizations for every 100,000 children between 0 and 4	346.3 hospitalizations for every 100,000 children between 0 and 4
	Average annual rate of infant mortality (before 1 year of age) in 2009-2013	4.5 deaths for every 1,000 births	4.8 deaths for every 1,000 births
	Average annual rate of juvenile mortality (between 1 and 4 years of age) in 2009-2013	0.12 deaths for every 1,000 births	0.15 deaths for every 1,000 births
	Proportion of families who had a family doctor or pediatrician for all their children between O and 5 in 2015	84.6%	88.8%
	Percentage of children between 0 and 5 who had their teeth examined by a dentist in 2016	30.1%	30.5%
	Percentage of children between 0 and 5 who received dental treatment (cavity filled) in 2016	5.0%	5.4%
DEVELOPMENT	Rate of children who were recognized as living with a disability in 2015	<b>11.3</b> out of every <b>1,000</b> children between 0 and 5	12.3 out of every <b>1,000</b> children between 0 and 5
	Proportion of children in kindergarten who were vulnerable in at least one domain of development in 2012	26.3%	25.6%
	Proportion of children in 5-year-old kindergarten with a disability or social maladjustment in 2015-2016	6.4%	5.6%
	Proportion of developmentally vulnerable kindergartners who benefited from the services of a non-teaching professional at school in 2012	37.3%	49.7%

\*\* These figures include all mothers of children between the ages of 0 and 5, with the exception of those who explained that they had not used breastfeeding support services because they did not breastfeed their child(ren).

### 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**.

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



A comprehensive 236-page report presenting data for the province of Quebec and each of its 17 regions



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

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### 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.

