

# Using Population Health Data to Profile the Health and Well-Being of Children and Youth in Eastern Ontario

A Working Document of the Child and Youth Health Network for Eastern Ontario (CYHNEO)



## Supported by:

CYHNEO Members

Champlain Local Health Integration Network

Ministry of Children and Youth Services, Eastern Office

## Acknowledgements

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- the feedback and suggestions from community representatives
- the Children's Hospital of Eastern Ontario for its continued support

There are a number of initiatives that address the challenges of accessing data and integrating a population health perspective into planning, program development and evaluation work. It is the intent of the CYHNEO to complement these initiatives and to contribute to the improvement of data access and use. A key example of other projects is the Community Information and Mapping System (CIMS), which houses much of the data in this report. You may access it at [www.cims-scic.ca](http://www.cims-scic.ca).

Disponible en français.

# Using Population Health Data to Profile the Health and Well-Being of Children and Youth in Eastern Ontario

*"Population health is an approach to health that aims to improve the health of the entire population and to reduce health inequities among population groups. In order to reach these objectives, it looks at and acts upon the broad range of factors and conditions that have a strong influence on our health."*

*Public Health Agency of Canada*

This document was developed in response to the identified need for a tool to help agencies use a population health approach for planning services for children and youth. The report, **Using Population Health Data to Profile the Health and Well-being of Children and Youth in Eastern Ontario** (Profile), provides:

- a template that addresses key categories of population health
- indicators and related data to populate these categories
- data for the Champlain region and for each of the five counties in Eastern Ontario
- comparisons across counties, the region and Ontario

The *Profile* was created utilizing data and statistics that are available in the public domain, and therefore at no cost to access. While the report includes many of the indicators that are considered to be important in child and youth health and well-being, those indicators that would have had to be purchased have been excluded.

## Rationale

Child and youth data that link services and programs to broad outcomes can be a challenge for organizations and agencies to find, access and use. The 2008-09 CYHNEO

Member/Community Consultations identified several key barriers to effective planning for children and youth from a population health perspective, including:

- data collected are not consistent across the Champlain region
- staff resources and data/statistical analysis skill sets are limited
- there is a wide range of costs associated with accessing specific data
- there is a lack of centralized mechanism or platform to access data specific to children and youth
- data are found throughout a variety of sources, many using different age cohorts, geographic boundaries and indicators
- there is a lack of an appropriate and user-friendly 'population health' template for children and youth in Eastern Ontario

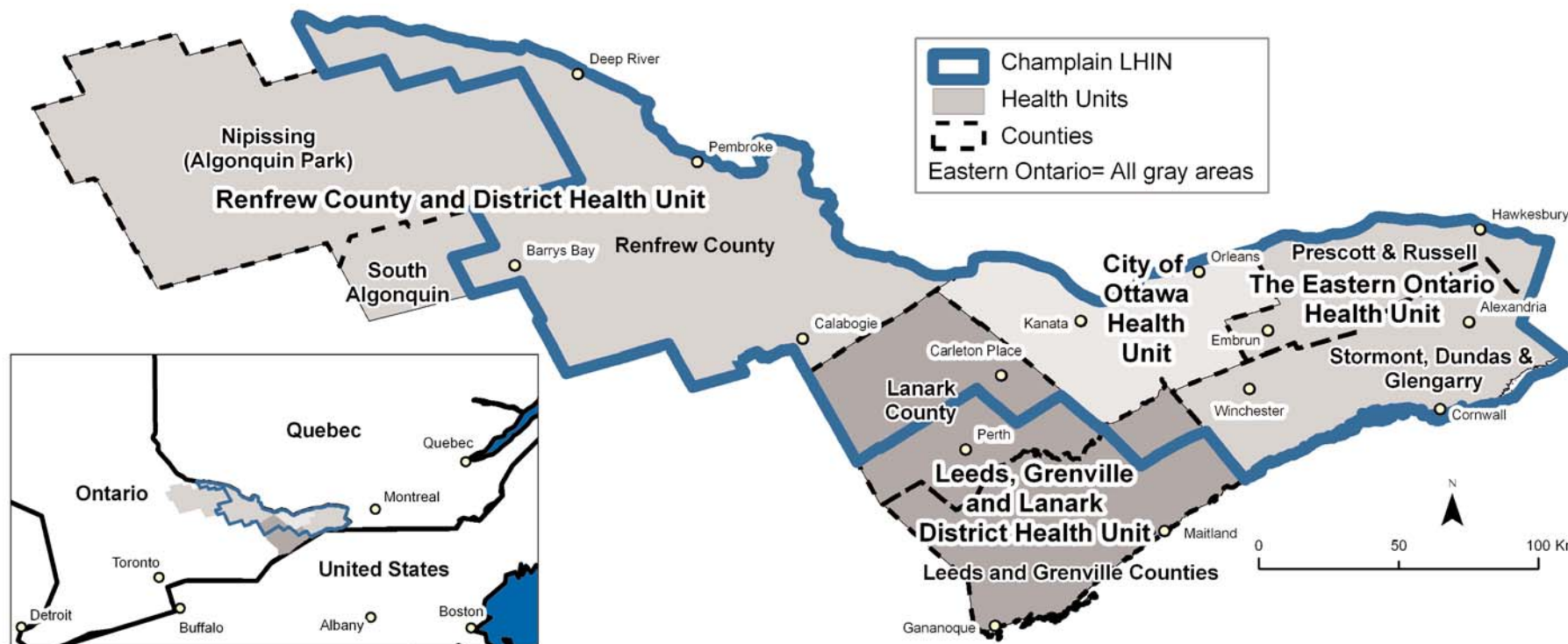
## Indicators and Data

The data in the *Profile* come from a variety of sources. All of the indicators are population based and where possible, have been presented for Ontario, Champlain Local Health Integration Network (LHIN, Ministry of Health and Long-Term Care), Eastern Ontario and its sub-regions.

The Eastern Ontario region includes the City of Ottawa and extends to Hawkesbury and Cornwall in the East, Gananoque in the south and Deep River in the West. The Eastern Ontario region includes four Public Health Units:

- The Renfrew County and District Health Unit which, in turn, includes Renfrew County and sparsely populated parts of Nipissing (mostly Algonquin Park) and South Algonquin,
- The City of Ottawa Health Unit, which corresponds with Ottawa's municipal boundaries,
- The Leeds, Grenville and Lanark District Health Unit, which is made up of Lanark County and Leeds and Grenville Counties,
- The Eastern Ontario Health Unit, which is comprised of the counties of Prescott and Russell and Stormont, Dundas and Glengarry.

The geographic area served by the Champlain Local Health Integration Network (LHIN) includes the Eastern Ontario Health Unit, the City of Ottawa Health Unit, portions of Lanark, Leeds and Grenville Counties (the other parts are in the South East LHIN) and Renfrew County (representing about 98% of the population served by the Renfrew County and District Health Unit).



## Community Information and Mapping System (CIMS)

Data in the *Profile* may also be found on the CIMS, a resource that can help you manipulate data and add your own agency's information for comparison. The CIMS supports organizations and community groups around community-based research on population health themes. The initiative is under the leadership of the Social Planning Council of Ottawa and is designed for urban and rural groups that have limited resources. It allows agencies to bring their own data into a secure system and combine the service data with population health data that can then be mapped as an aid for community-based research, planning and information sharing. For more information, please visit [www.cims-scic.ca](http://www.cims-scic.ca).

The CYHNEO's *Profile* is a complementary tool to the CIMS. Together, they provide resources that are user-friendly and that can be used for specific and individual agency needs, depending on what data you add.

The *Profile* can be found on the CYHNEO website ([www.child-youth-health.net](http://www.child-youth-health.net)) and on the website of the Champlain LHIN.

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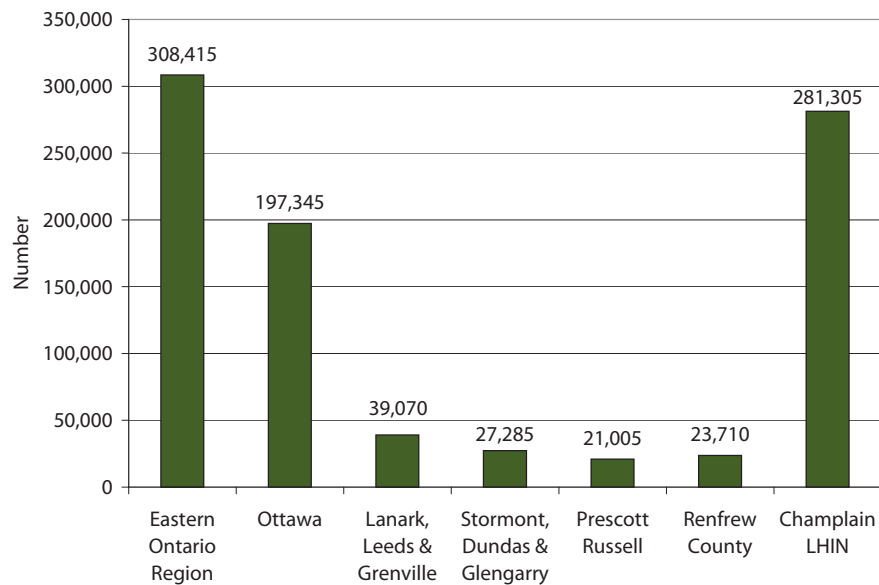
## A. Demographic Environment

To begin, it is important to understand the children and youth of the Eastern Ontario Region. How many children and youth live in the region? How old are they? What proportion of the overall population do they represent? How is their population distributed across the counties? The first chapter of the *Profile – Demographic Environment* – provides the answers to these questions.

### Who Are the Children and Youth of Eastern Ontario?: The Population Described

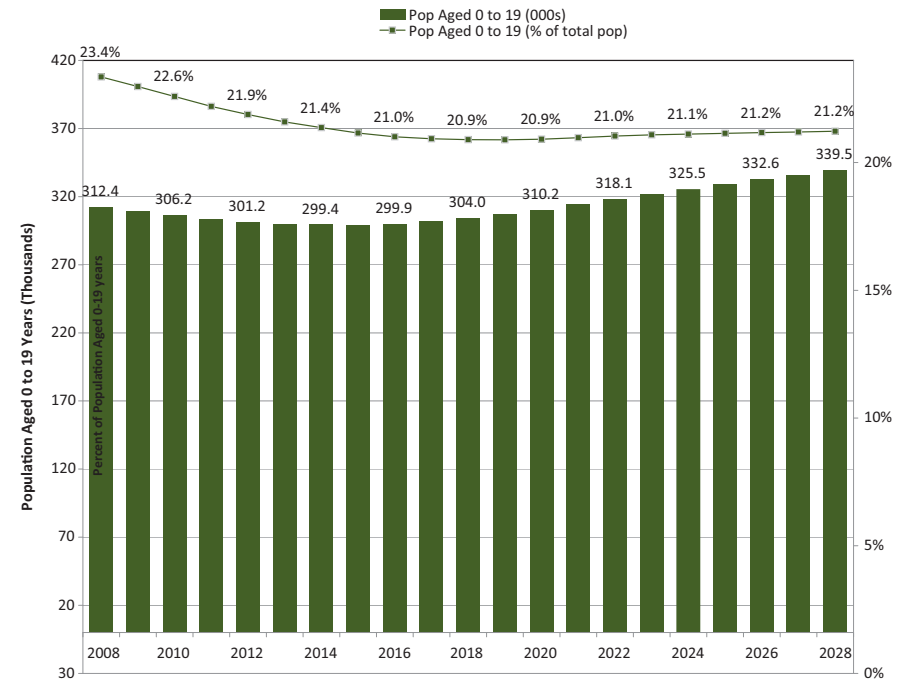
In 2006, there were approximately 308,000 children and youth aged 0 to 19 living in the Eastern Ontario Region. Sixty-four percent of these children and youth lived in Ottawa. Of all of the children and youth in the Eastern Ontario Region, 22% were under five years of age. Fifty percent were school-age children 5 to 14 years of age. Twenty-eight percent were youth, 15 to 19 years of age.

### Number of Children and Youth 0 to 19 Years 2006



Calculations by the CYHNEO using data from Statistics Canada's 2006 Census.

In 2008, there were an estimated 312,536 children and youth aged 0 to 19 living in Eastern Ontario, representing 23.4% of the total population. By 2028, the number is projected to increase to 339,463. However, the proportion of the population in this age group will decrease to 21.2% as a result of a rapidly growing senior population (Ontario Ministry of Finance estimates and projections).



Source: <http://www.fin.gov.on.ca/en/economy/demographics/projections/>

## Who Are the Children and Youth of Eastern Ontario?: The Population Described

Children and youth make up a considerable proportion of the population in the Eastern Ontario Region.

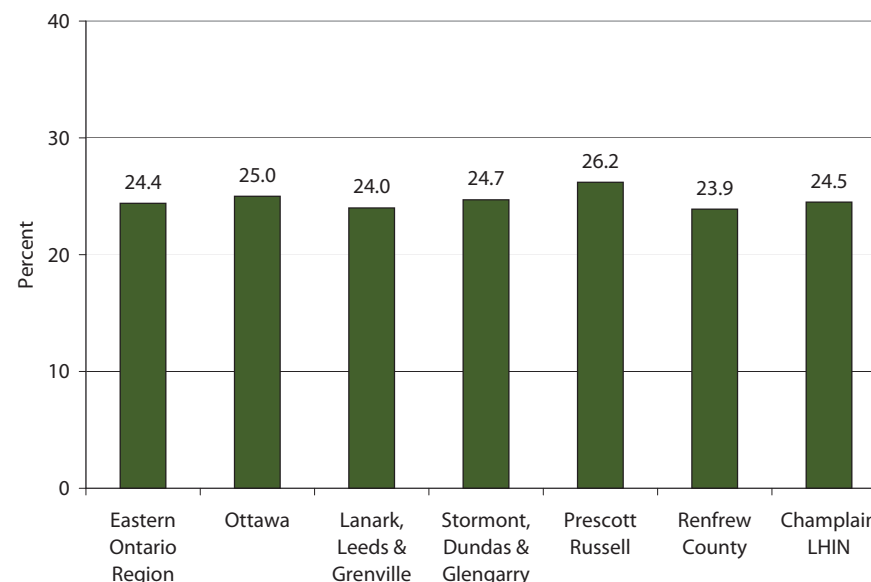
In 2006, approximately one-quarter of the total population of the Eastern Ontario Region were children and youth 0 to 19 years. This proportion was relatively consistent across the counties.

### Number of Children and Youth in the Eastern Ontario Region, 2006 By County and Age Group

Age Group	Eastern Ontario Region	Stormont, Dundas, Glengarry	Prescott Russell	Ottawa	Lanark, Leeds & Grenville	Renfrew
Under 1 year	12,990	1,075	765	8,755	1,450	945
1 to 4 years	53,390	4,255	3,280	35,620	6,170	4,065
5 to 9 years	71,565	6,095	4,800	46,235	8,990	5,445
10 to 14 years	83,620	7,860	6,115	52,140	11,075	6,430
15 to 19 years	86,565	7,995	6,035	54,595	11,395	6,545
Total 0 to 19	308,130	27,280	20,995	197,345	39,080	23,430

Source: Census, 2006  
Calculations by the CYHNEO using data from Statistics Canada's 2006 Census.

### Children 0 to 19 Years as Percent of the Total Population 2006



Source: Census, 2006.  
Calculations by the CYHNEO using data from Statistics Canada's 2006 Census.

# B. The Determinants of Health

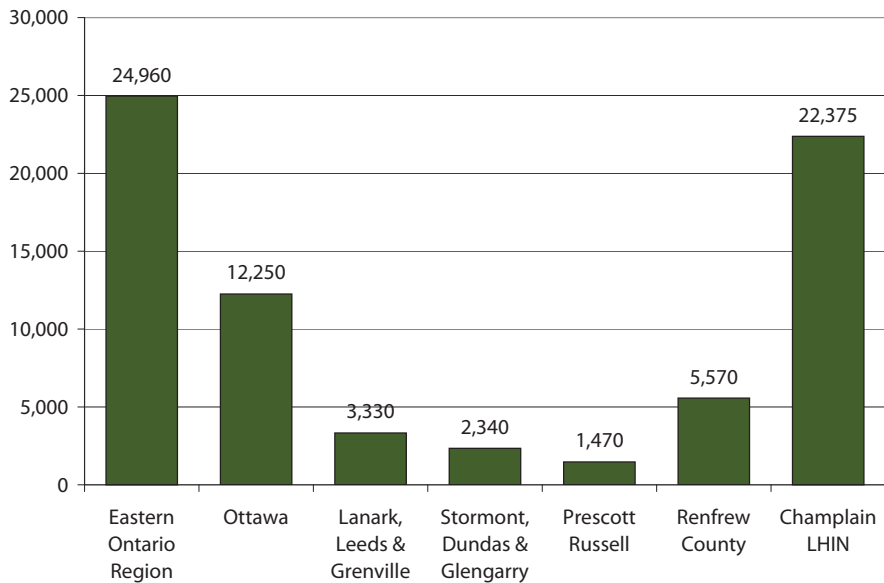
## 1. Cultural Diversity

Children and youth in Eastern Ontario live in a culturally diverse community. While many of them were born in Canada, a sizeable proportion were not. They speak a variety of languages at home. A number of the children and youth identify themselves as Aboriginal or as belonging to a visible minority group. The communities of Eastern Ontario are diverse with regard to countries of origin, language and race of the families comprising the communities. This section of the *Profile* describes this diversity both of the children and youth, and of the communities in Eastern Ontario.

### 1.1 Aboriginal Peoples: First Nations, Métis, Inuit

According to the census, in 2006 there were approximately 25,000 people who self-identified as Aboriginal living in the Eastern Ontario Region. About half of these lived in the City of Ottawa. Twenty-two percent lived in Renfrew County. There were just over 22,000 people who self-identified as Aboriginal living in the Champlain LHIN catchment area. Aboriginal Peoples include First Nations, Inuit and Métis people.

**Number of Aboriginal people, 2006**

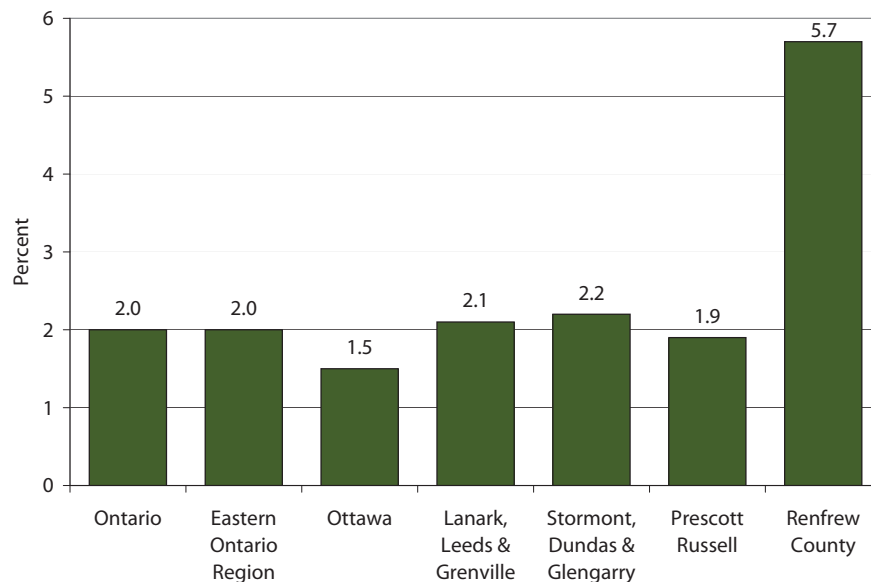


Calculations by the CYHNEO using data from Statistics Canada's 2006 Census.  
Note: Excludes census data for one or more incompletely enumerated Indian reserves or Indian settlements.



Two percent of all people living in the Eastern Ontario Region self-identified as Aboriginal in the 2006 census – the same as the proportion in Ontario overall. However, this varied considerably across the counties. In Renfrew County, 5.7% of all people self-identified as Aboriginal. In the City of Ottawa that number was 1.5%.

### Percent of all People that are Aboriginal People, 2006

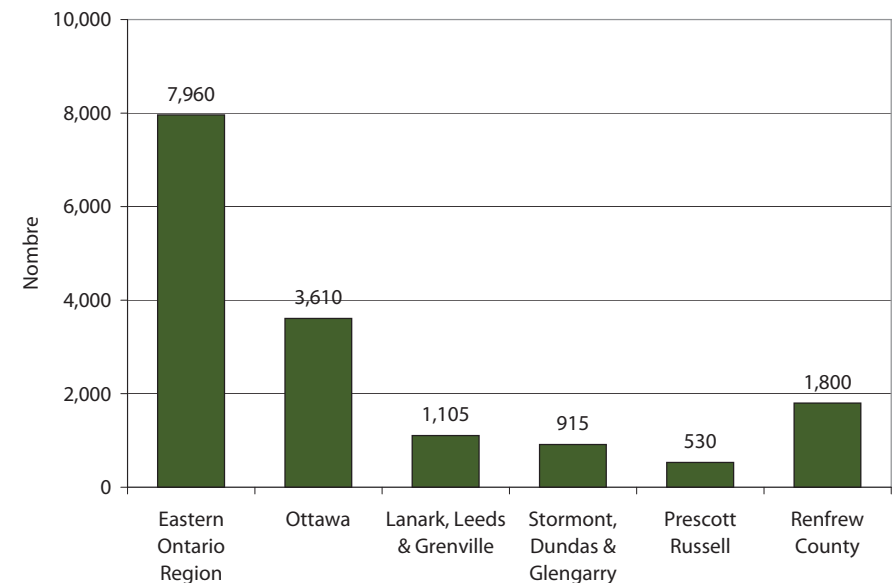


Calculations by the CYHNEO using data from Statistics Canada's 2006 Census.  
Note: Excludes census data for one or more incompletely enumerated Indian reserves or Indian settlements.

## 1.2 Aboriginal Children and Youth

According to the 2006 census, there were just under 8,000 children and youth 0 to 19 years who self-identified as Aboriginal living in the Eastern Ontario Region. Almost half of these children lived in the City of Ottawa. Twenty-three percent lived in Renfrew County.

### Number of Aboriginal Children and Youth 0 to 19 Years, 2006



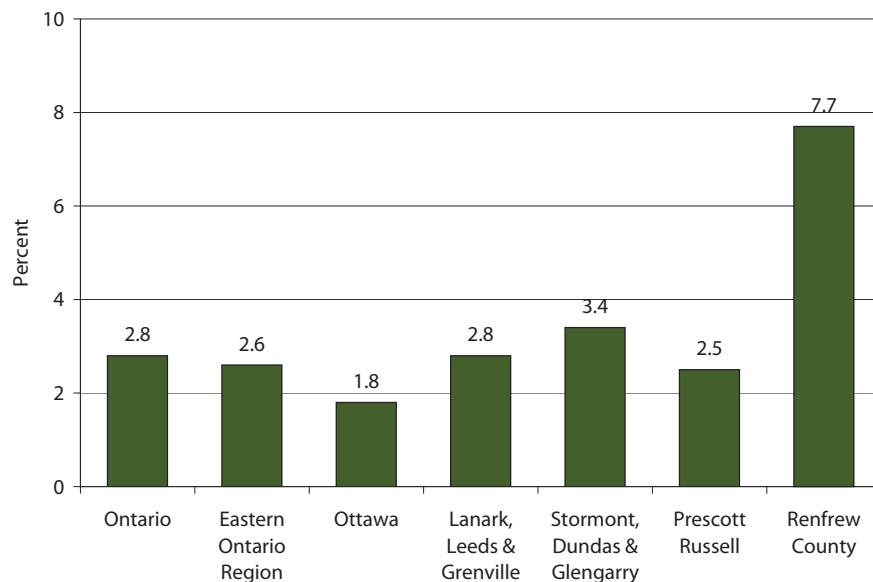
Source: Census, 2006  
Calculations by the CYHNEO using data from Statistics Canada's 2006 Census.  
Note: Excludes census data for one or more incompletely enumerated Indian reserves or Indian settlements.

# 1. Cultural Diversity

## 1.2 Aboriginal Children and Youth

According to the 2006 census, over 2% of all children and youth 0 to 19 years living in the Eastern Ontario Region self-identified as Aboriginal – the same as the proportion in Ontario overall. However, this varied considerably across the counties. In Renfrew County, almost 8% of all children and youth self identified as Aboriginal. In the City of Ottawa that number was 1.8%.

**Percent of All Children and Youth 0 to 19 Years that are Aboriginal Children, 2006**



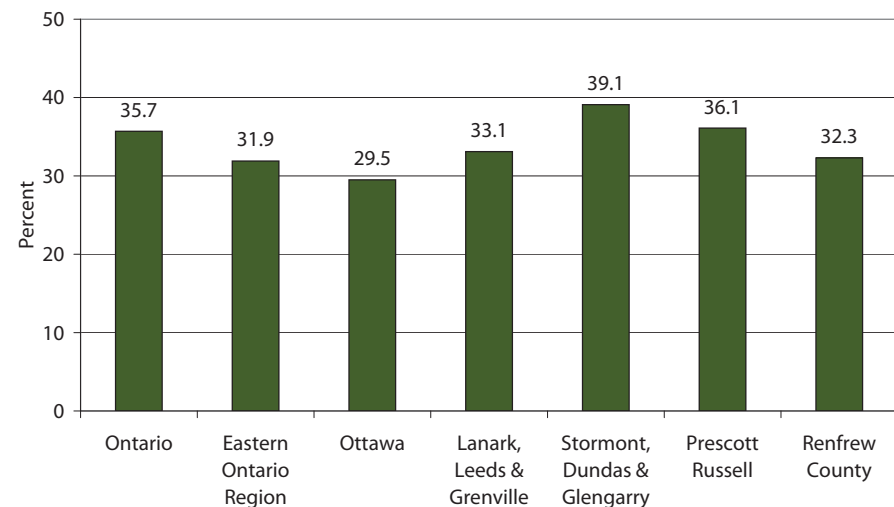
Source: Census, 2006

Calculations by the CYHNEO using data from Statistics Canada's 2006 Census.

Note: Excludes census data for one or more incompletely enumerated Indian reserves or Indian settlements.

The Aboriginal population in Eastern Ontario is a young one. According to the 2006 census, almost one-third of all people who self-identified as Aboriginal in the Eastern Ontario Region are under the age of 20. That varies across counties – 30% of the people who self-identified as Aboriginal in Ottawa were under the age of 20 while in Stormont Dundas & Glengarry that proportion was just under 40%.

**Percent of All Aboriginal People who are Children and Youth 0 to 19 years, 2006**



Source: Census, 2006

Calculations by the CYHNEO using data from Statistics Canada's 2006 Census.

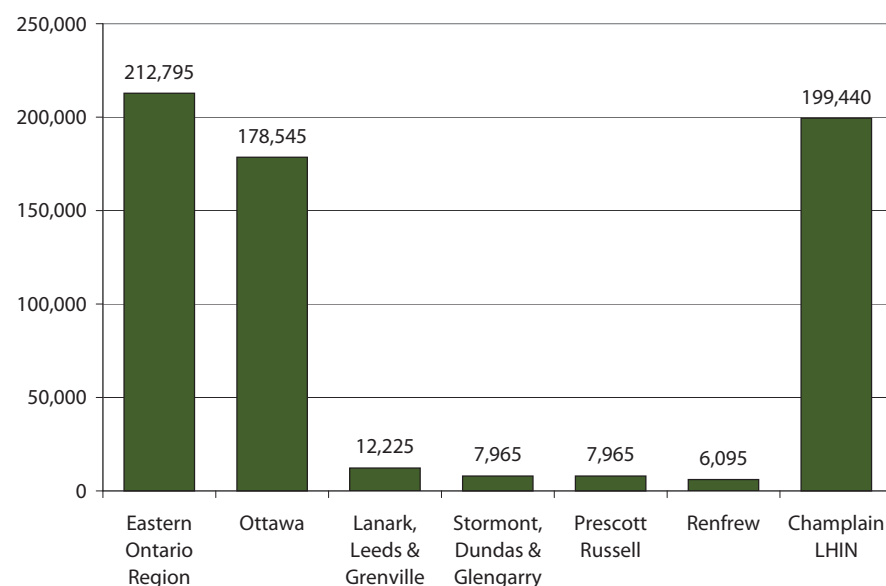
Note: Excludes census data for one or more incompletely enumerated Indian reserves or Indian settlements.

### 1.3 Immigration

In 2006, there were approximately 213,000 people living in the Eastern Ontario Region who had immigrated to Canada from another country. Eighty-four percent of those people lived in the City of Ottawa. All people who immigrated to Canada from another country regardless of when they arrived have been included.

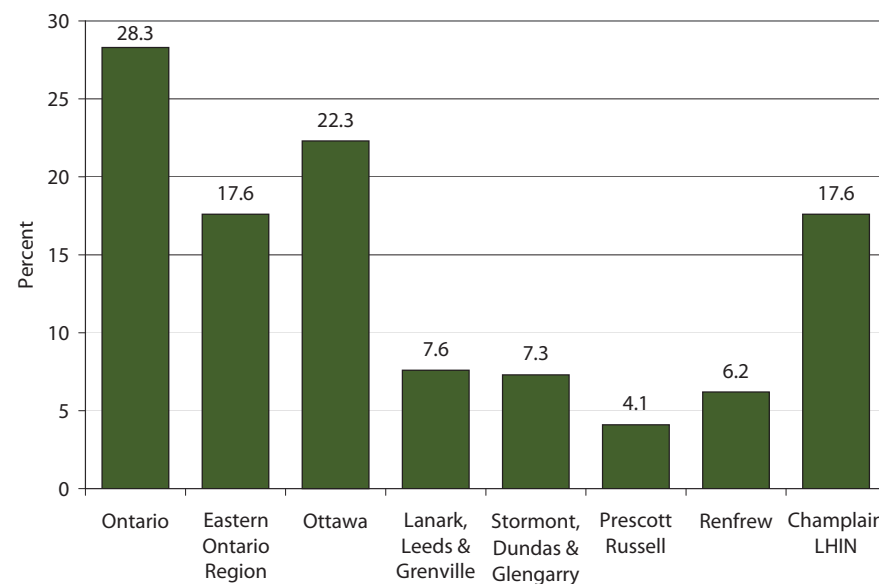
In 2006, almost 18% of all people living in the Eastern Ontario Region had come to Canada from another country. Over 22% of the population were newcomers in the City of Ottawa, while four percent were in Prescott Russell. While Eastern Ontario is a diverse community, it is less diverse than the province overall. In 2006, over 28% of all people in Ontario had come from another country.

**Number of People that have Come to Live in Eastern Ontario from Other Countries, 2006**



Source: Census, 2006  
Calculations by the CYHNEO using data from Statistics Canada's 2006 Census.

**Percent of the Total Population who were not Born in Canada, 2006**



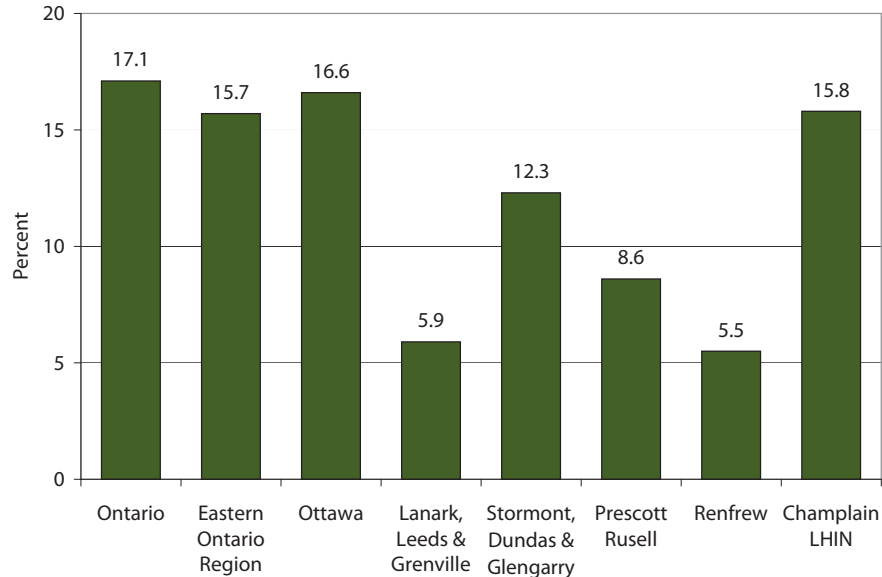
Source: Census, 2006  
Calculations by the CYHNEO using data from Statistics Canada's 2006 Census.

# 1. Cultural Diversity

## 1.3 Immigration

In the Eastern Ontario Region almost 16% of all people who came to live in Canada from another country did so recently – within the five years before the census. That compares relatively equally to the provincial rate. In Ottawa, almost 17% had come to Canada recently and in Stormont, Dundas & Glengarry over 12% had done so.

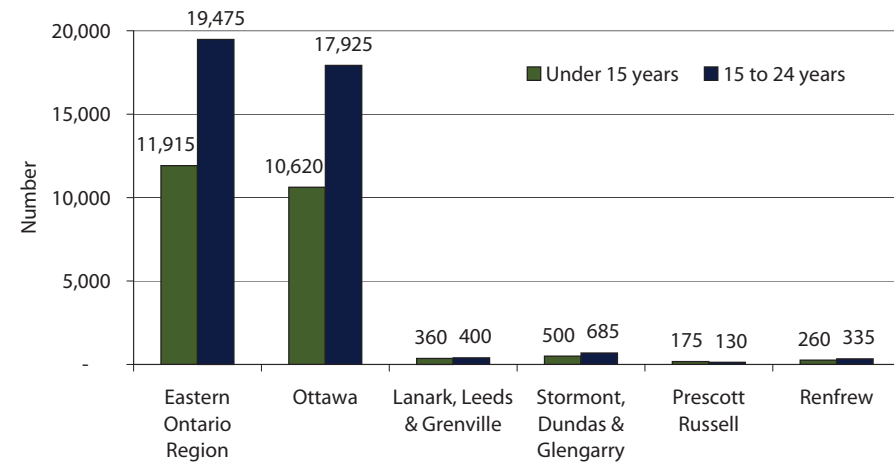
**Percent of the Total Population who were not Born in Canada who have come recently - between 2001 and 2006, 2006**



Source: Census, 2006  
Calculations by the CYHNEO using data from Statistics Canada's 2006 Census.

In 2006, there were approximately 31,000 children and youth age 0 to 24 who were born in another country and came to live in the Eastern Ontario Region. Ninety-one percent of those children and youth lived in the City of Ottawa.

**Number of Children and Youth who have Come to Eastern Ontario from Other Countries, 2006**



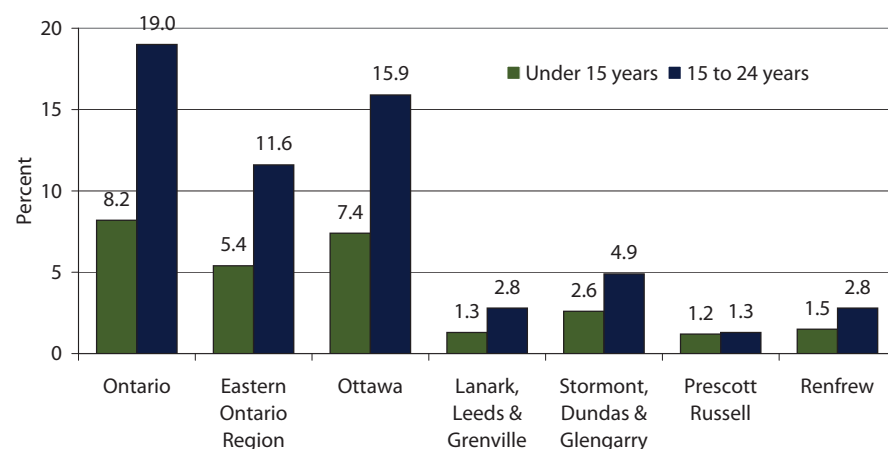
Source: Census, 2006  
Calculations by the CYHNEO using data from Statistics Canada's 2006 Census.

### 1.3 Immigration

In 2006, just over 5% of all of the children under 15 and almost 12% of youth 15 to 24 years of age living in The Eastern Ontario Region had come to Canada from another country. Almost 12% of the population of children and youth under 15 years were newcomers in the City of Ottawa, while that proportion was 1.2% in Prescott Russell. While Eastern Ontario is a diverse community, it is less diverse than the province overall.

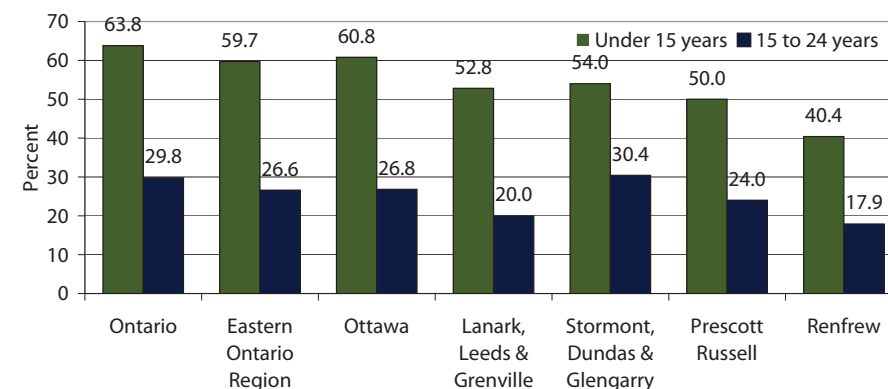
In the Eastern Ontario Region, almost 60% of all children and youth under 15 years who came to live in Canada from another country did so recently – that is within the five years before the census. This was the case for almost 27% of all youth 15 to 24 years. That is slightly less than the provincial rate. In Ottawa, almost 61% of children and youth under 15 had come to Canada recently and in Renfrew County approximately 40% had done so.

**Percent of Total Population of Children and Youth 0 to 24 Years who were not Born in Canada, 2006**



Source: Census, 2006  
Calculations by the CYHNEO using data from Statistics Canada's 2006 Census.

**Percent of All Children and Youth who were not Born in Canada who arrived Recently - Between 2001 and 2006, 2006**



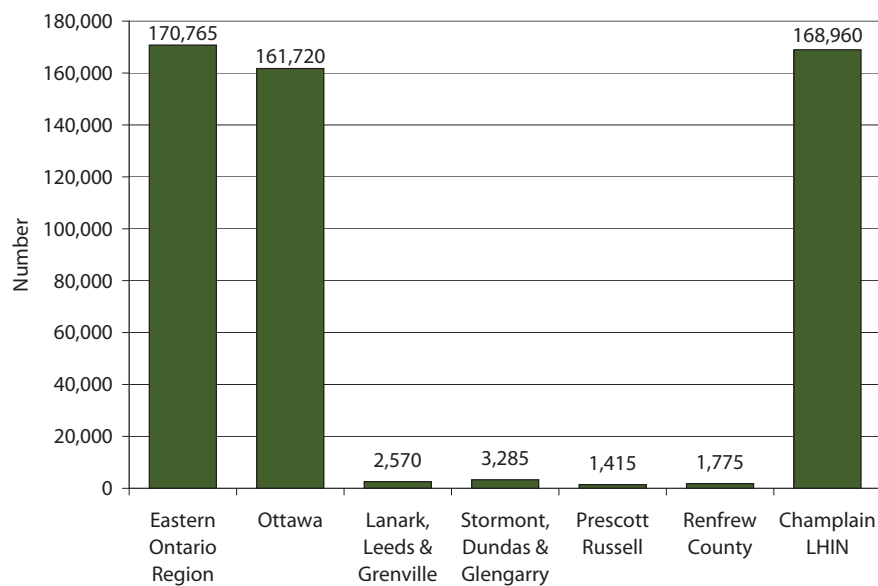
Source: Census, 2006  
Calculations by the CYHNEO using data from Statistics Canada's 2006 Census.

# 1. Cultural Diversity

## 1.4 Visible Minority Groups

In 2006, there were over 170,000 people living in The Eastern Ontario Region who said they were from a visible minority group. Most of these people (95%) lived in the City of Ottawa.

**Number of People who Self-Identified as being from a Visible Minority Group, 2006**

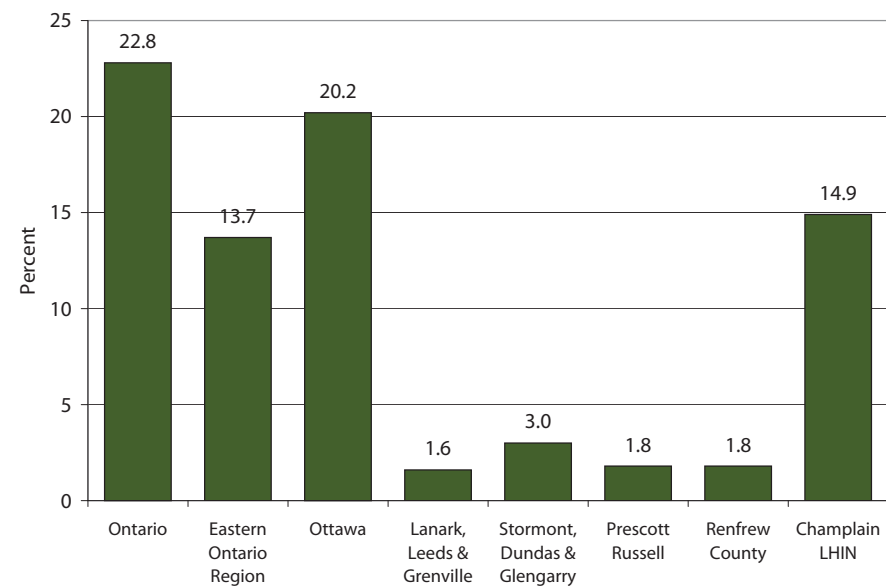


Source: Census, 2006

Calculations by the CYHNEO using data from Statistics Canada's 2006 Census.

In the Eastern Ontario Region in 2006, almost 14% of the total population said they were from a visible minority group. In Ottawa the proportion was much higher at 20.2%. In Stormont, Dundas and Glengarry it was 3.0% - higher than the other counties.

**Percent of all People in the Population who Self-Identified as being from a Visible Minority Group, 2006**



Source: Census, 2006

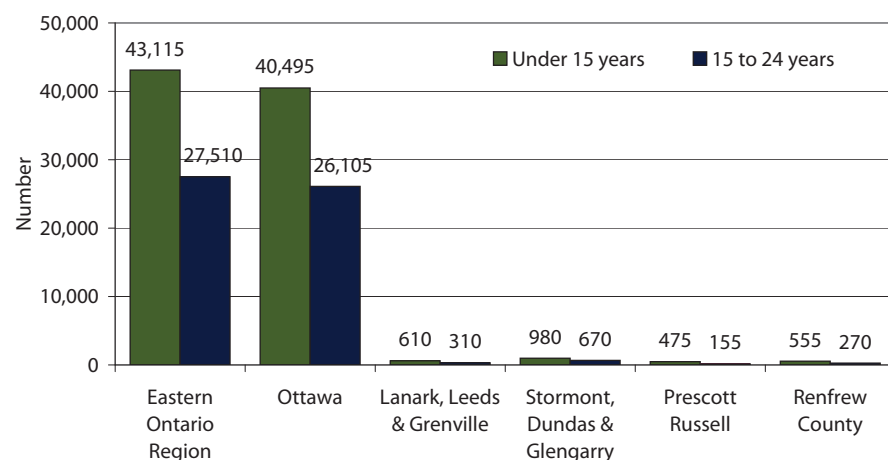
Calculations by the CYHNEO using data from Statistics Canada's 2006 Census.



## 1.4 Visible Minority Groups

In 2006, there were over 70,000 children and youth under 25 years of age living in the Eastern Ontario Region who said they were from a visible minority group. Most of them – 94% – lived in the City of Ottawa.

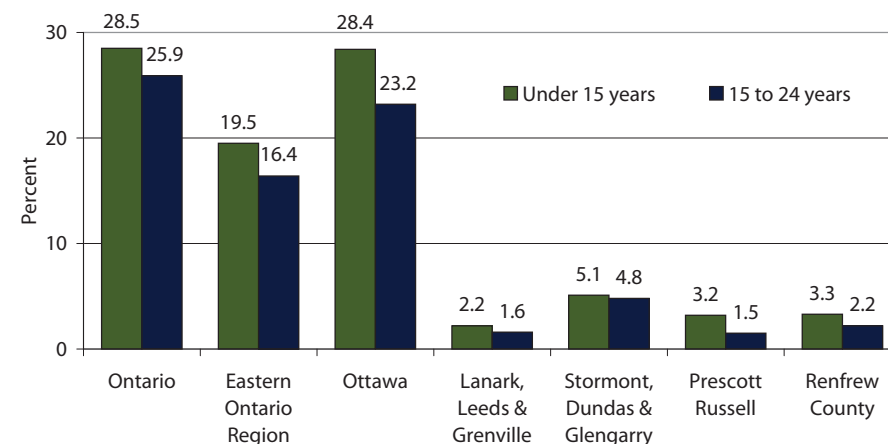
### Number of Children and Youth who Self-Identified as being from a Visible Minority Group, 2006



Source: Census, 2006  
Calculations by the CYHNEO using data from Statistics Canada's 2006 Census.

Of all the children in Eastern Ontario under 15 years of age, almost 20% of all children under 15 years of age said they were from a visible minority group. That was the case for approximately 16% of 15 to 24 year olds. In Ottawa, the proportion was much higher at approximately 28% for children under 15 years and about 23% of 15 to 24 year olds. In Lanark, Leeds and Grenville, those proportions were about 2% of children under 15 and under 2% of youth 15 to 24 years.

### Percent of All Children and Youth in the Population who Self-Identified as being from a Visible Minority Group, 2006



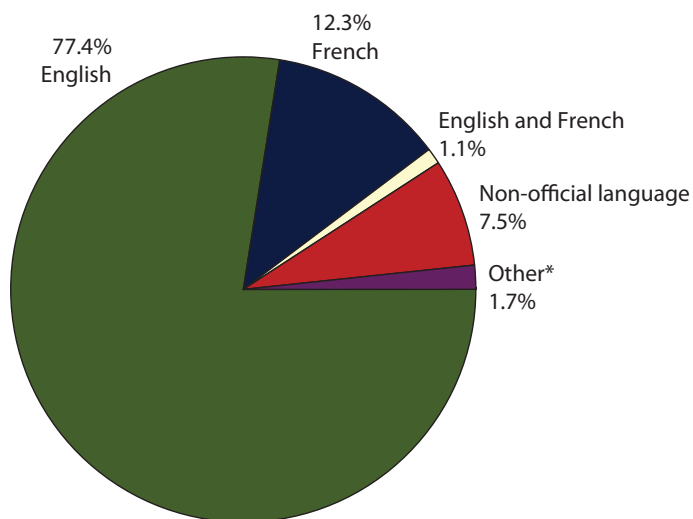
Source: Census, 2006  
Calculations by the CYHNEO using data from Statistics Canada's 2006 Census.

# 1. Cultural Diversity

## 1.5 Language

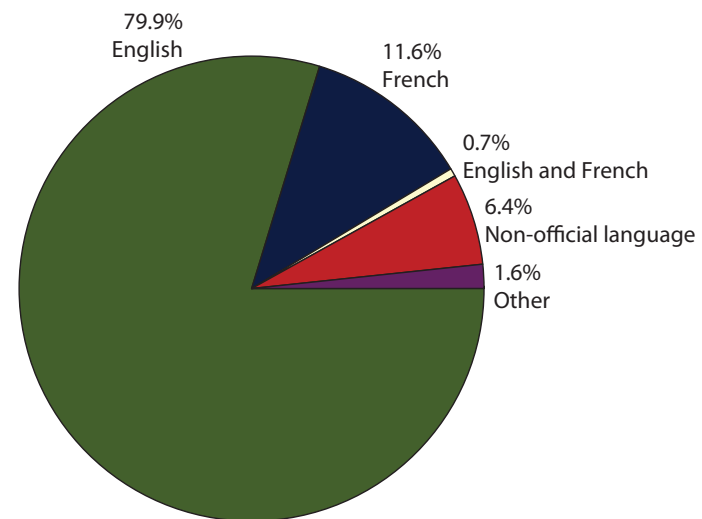
According to the 2006 census, just over 77% of children and youth in the Eastern Ontario Region under 15 years spoke English most often at home and just over 12% spoke French. Over 7% spoke a non-official language most often at home. Almost 80% of youth in the Eastern Ontario Region 15 to 24 years spoke English most often at home and just under 12% spoke French. Over 6% of youth spoke a non-official language most often at home.

**Proportion of Children under 15 Years Speaking English, French and Non-Official Language at Home, Eastern Ontario Region, 2006**



Source: Census, 2006  
Other = English and non-official language; French and non-official language; and English, French and non-official language  
Calculations by the CYHNEO using data from Statistics Canada's 2006 Census.

**Proportion of Youth 15 to 24 Years Speaking English, French and Non-Official Language at Home, Eastern Ontario Region, 2006**



Source: Census, 2006  
Other = English and non-official language; French and non-official language; and English, French and non-official language  
Calculations by the CYHNEO using data from Statistics Canada's 2006 Census.

## 1.5 Language

The proportion of children and youth that spoke French most often at home varied across the counties. In Prescott Russell, 58% of children and youth under 15 years and almost 63% of youth aged 15 to 24 spoke French most often at home.

In 2006, 7.5% of children and youth under 15 years and 6.4% of youth 15 to 24 years spoke neither English nor French at home. This was lower than the Ontario proportions at 12%. The proportion of children and youth that spoke a non-official language most often at home varied across the counties. In Ottawa almost 11% of children and youth under 15 years spoke a non-official language, as did 9% of youth 15 to 24 years.

### Language spoken most often at home, children and youth under 15 years

	English	French	Non-official language	English and French	Other
Ontario	82.8%	2.4%	12.1%	0.3%	2.4%
Eastern Ontario Region	77.4%	12.3%	7.5%	1.1%	1.7%
Stormont Dundas & Glengarry	83.6%	12.3%	2.4%	1.2%	0.5%
Prescott Russell	38.7%	58.0%	1.3%	1.7%	0.2%
Ottawa	74.4%	10.9%	10.9%	1.3%	2.5%
Lanark, Leeds & Grenville	97.9%	1.0%	0.6%	0.2%	0.1%
Renfrew	96.4%	2.3%	0.9%	0.3%	0.1%

### Language spoken most often at home, children and youth 15 to 24 years

	English	French	Non-official language	English and French	Other
Ontario	83.4%	2.1%	12.1%	0.2%	2.3%
Eastern Ontario Region	79.9%	11.4%	6.4%	0.7%	1.6%
Stormont Dundas & Glengarry	87.0%	9.3%	1.8%	1.0%	0.9%
Prescott Russell	34.5%	62.8%	0.8%	1.7%	0.1%
Ottawa	78.2%	9.9%	9.0%	0.7%	2.2%
Lanark, Leeds & Grenville	98.5%	0.6%	0.5%	0.2%	0.2%
Renfrew	96.2%	2.1%	1.6%	0.1%	0.1%

Source: Census, 2006  
 Other = English and non-official language; French and non-official language;  
 and English, French and non-official language  
 Calculations by the CYHNEO using data from Statistics Canada's 2006 Census.

## 2. Economic Security, Income and Social Status

It is well documented that family economic security is a critical determinant of child health and well-being.<sup>1</sup> Families need a standard of living that provides them with the level of resources and benefits necessary to participate economically, politically, socially, culturally, and with dignity in their communities.

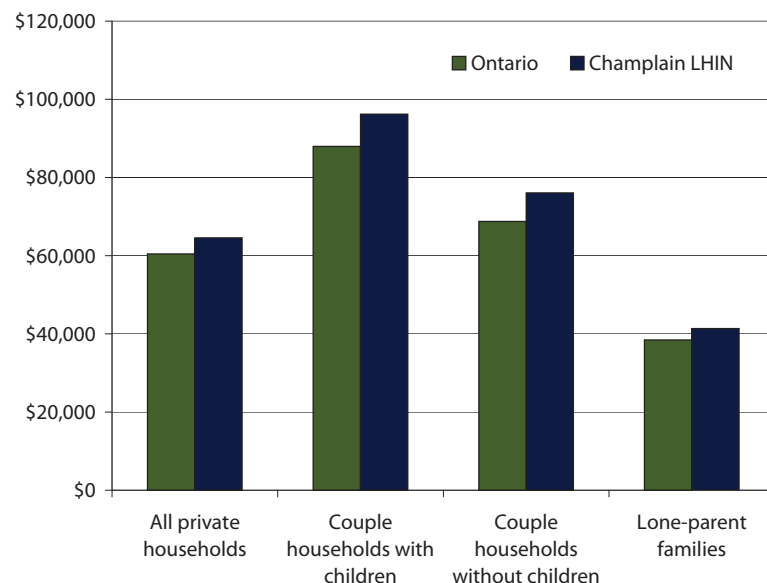
There is strong evidence that higher social and economic status is associated with better health.<sup>2</sup> In fact, these two factors seem to be the most important determinants of health. Health status improves as income and social status increase.<sup>3</sup> High income determines living conditions such as safe housing and ability to buy sufficient good nutritious food. The healthiest populations are those in societies which are prosperous and have an equitable distribution of wealth.<sup>4</sup>

### 2.1 Median Income

Median income is the amount which divides the income distribution into two equal groups, where half of the population has income above that amount, and half has income below that amount. It is considered by many to be a more accurate indicator of a community's economic status than mean income or average, since the mean is influenced by the extreme highest and lowest incomes.

In 2005, the median income of all private households in the Champlain LHIN area was \$64,555; compared to the median income in Ontario of \$60,455. Couples with children had a higher median income and the median income of lone-parent families was less than half that of couples with children.

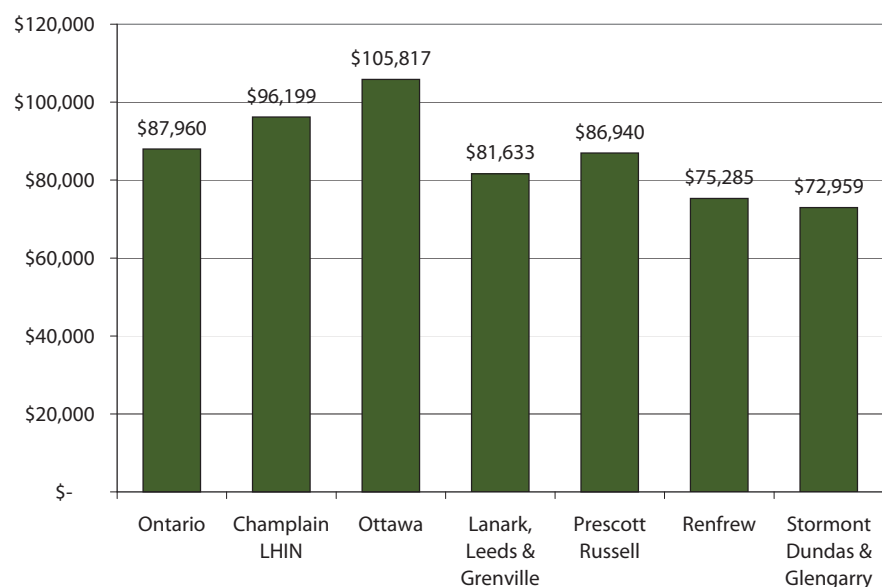
#### Median Income, 2005 (before taxes)



## 2.1 Median Income\*

The median income (before tax) of all couple households with children varied across the counties. In Ottawa, the median income was \$105,817, while in Stormont, Dundas and Glengarry it was \$72,959.

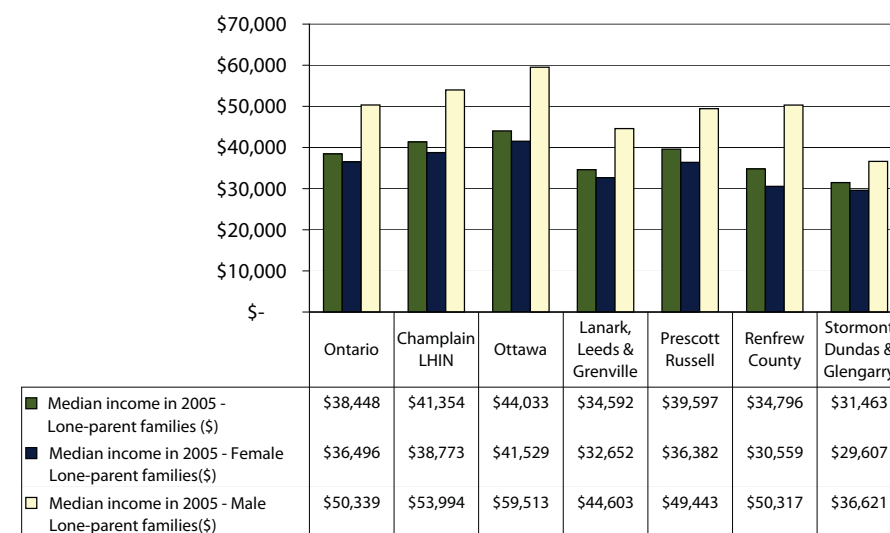
### Median Income, 2005 Couple Households with Children



Source: Census, 2006

The median income of all lone-parent families also varied across the counties. In Ottawa, the median income was \$44,033, while in Stormont, Dundas and Glengarry it was \$31,463.

### Median Income in 2005 Lone-parent Families



Source: Census, 2006

\* Median income is the amount which divides the income distribution into two equal groups, half having income above that amount, and half having income below that amount.

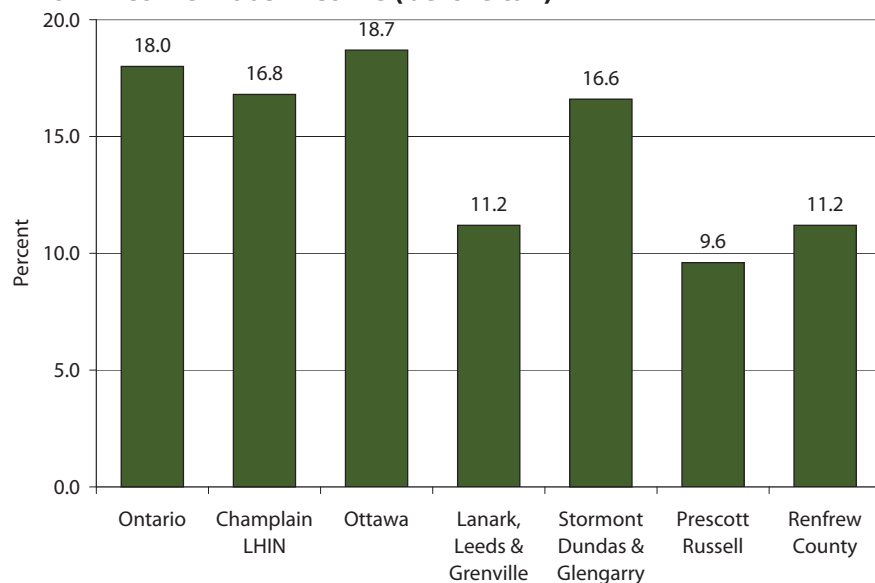
## 2. Economic Security, Income and Social Status

### 2.2 Child and Youth Poverty

Adequate income is a critical determinant of child health and well-being.<sup>5</sup> Children and youth living in poverty are more vulnerable and have less favourable outcomes on many measures of health and well-being than children not living in poverty.<sup>6</sup> Children and youth living in poverty are less likely to participate fully in areas of life that are most critical to their healthy growth and development; they are more likely to suffer exclusion in Canadian society.<sup>7</sup>

In 2006, almost 17% of children and youth less than 18 years of age in the Champlain LHIN area were living in poverty;\* that compared with a child poverty rate of 18% in Ontario. Ottawa had the highest rate of child poverty across the region at 18.7%. The lowest was in Lanark, Leeds and Grenville, and Renfrew County at 11.2%.

**Percent of Children and Youth less than 18 Years of Age in Low Income 2005 Income (before tax)**



Source: Census, 2006

Calculations by the CYHNEO using data from Statistics Canada's 2006 Census.

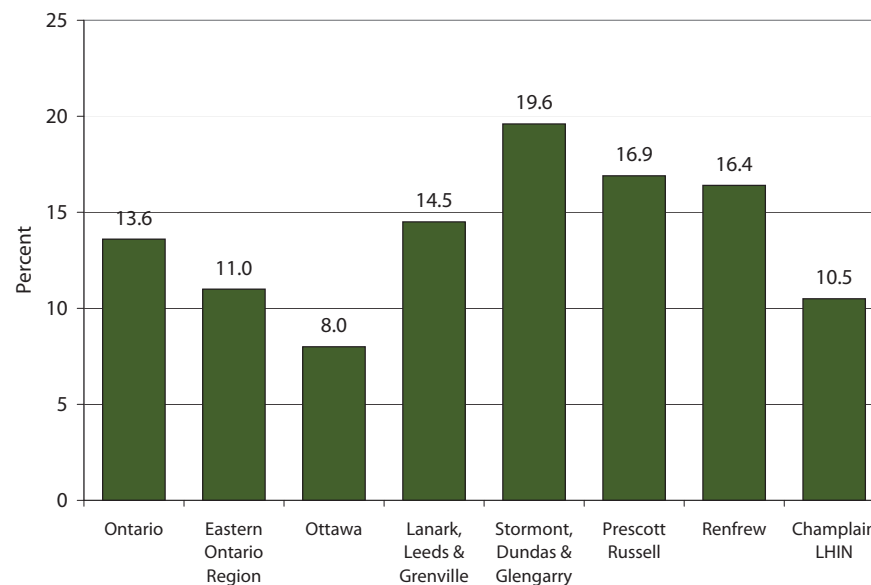
\* Poverty is defined as the low income cut-off before tax (LICO-BT) – income levels at which families or persons not in economic families spend 20% more than average of their before tax income on food, shelter and clothing.

### 2.3 Education Attainment

One of the most influential determinants of the health and well-being of children and youth is the educational status of their parents. Literature has consistently shown that children whose parents have higher education do better than those with less educated parents.<sup>8</sup>

In 2006, 11% of all adults aged 25 to 64 years in the Eastern Ontario Region had less than a high school education. This is less than the Ontario rate which is approximately 14%. The percentage of adults without a high school education varies from 8% to 20% across the Eastern Ontario Region.

**Percent of Adults 25 to 64 Years of Age with Less than a High School Education, 2006**



Source: Census, 2006

Calculations by the CYHNEO using data from Statistics Canada's 2006 Census.

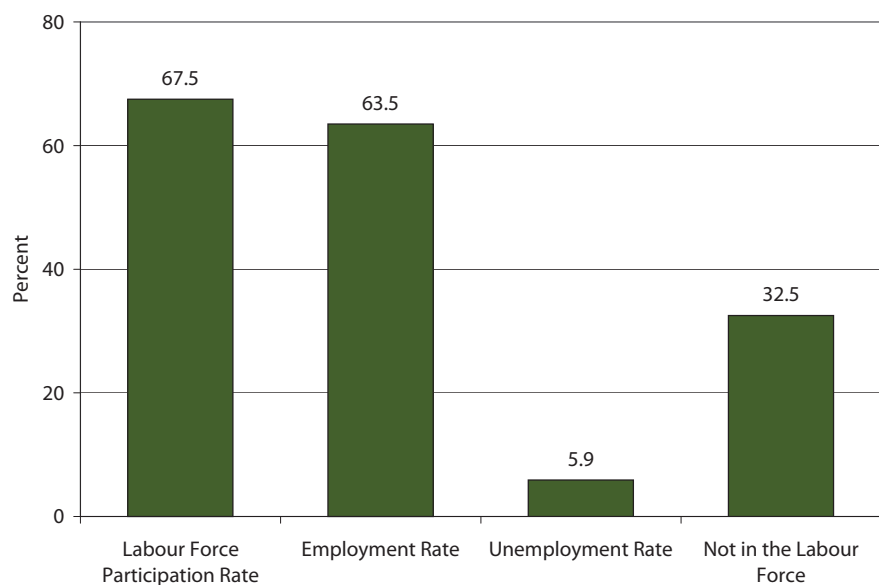


## 2.4 Labour Force Participation

In order to maintain economic security, families need access to adequate income. The labour force participation of adults in a community is an indicator of the economic well-being of that community. In 2006, In the Eastern Ontario Region, the labour force participation rate of adults 15 years and over\* (those working and looking for work) was 67.5% The employment rate was 63.5% and the unemployment rate 5.9%.†

(Note, labour force participation of youth is discussed later in the report – in the Learning, Education and Work section.)

### Labour Force Participation of the Population 15 Years and Over, Eastern Ontario Region, 2006



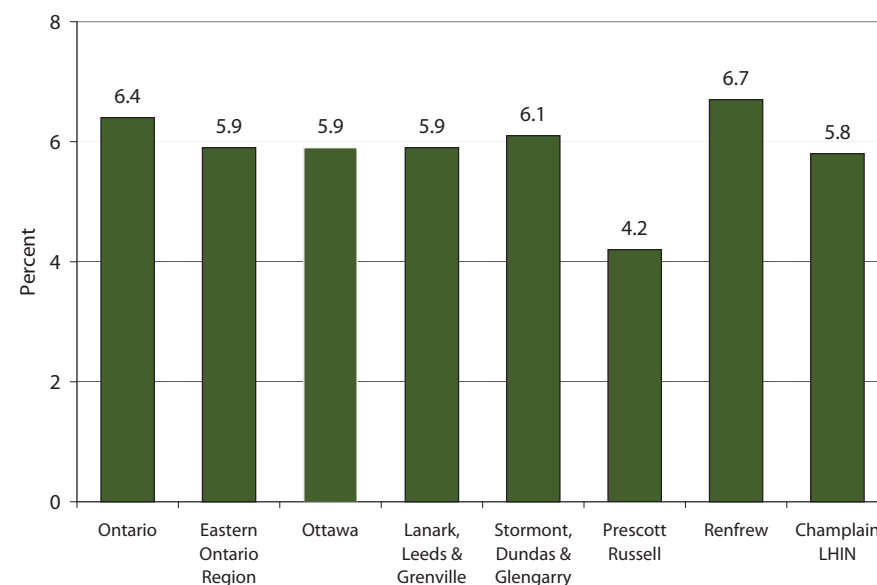
Source: Census, 2006

\* Includes retired individuals

† It is recognized that the unemployment rate has increased since the census year.

The unemployment rate in the Eastern Ontario Region was 5.9% in 2006. That compared to 6.4% in the province overall. The unemployment rate varied across counties – in Renfrew County it was 6.7% and in Prescott Russell it was 4.2%.

### Unemployment Rate: Population Over 15 Years of Age, 2006



Source: Census, 2006

NOTE: These figures have worsened dramatically with the impact of the Fall 2008 financial crisis. In September, 2009 the unemployment rate in Ontario was 9.2% (compared with 6.4% in 2006). In September, 2009 the unemployment rate in Canada was 8.4% (compared with 6.6% in 2006). (Source: Table 4-6, Selected Labour Force Characteristics. [www.statcan.gc.ca](http://www.statcan.gc.ca)).

### 3. Housing

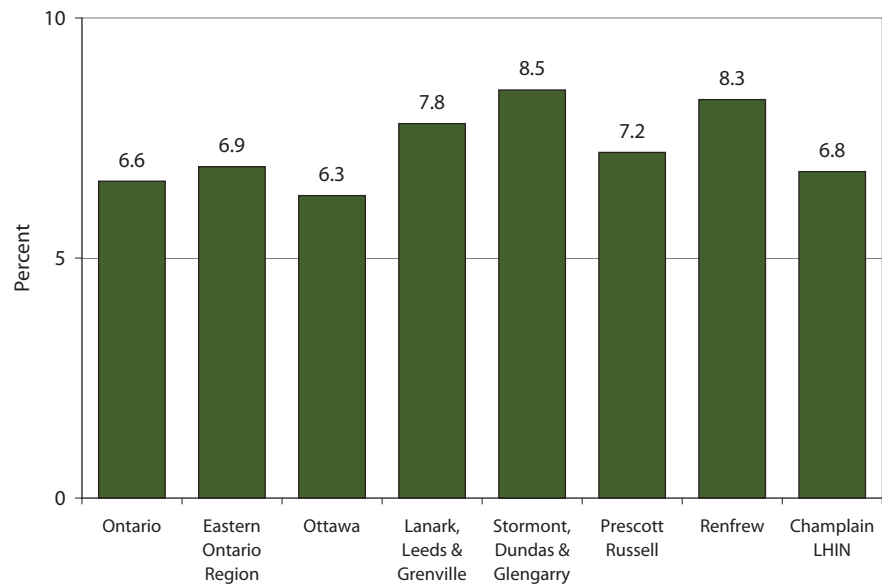
Safe , stable and affordable housing is important for the development and health of children and youth.<sup>9</sup> Good quality, stable, and affordable housing provides children and youth a healthy environmental to grow up in, increases a child’s chances of success at school, helps families connect with their community, and is an integral part of healthy neighbourhoods.<sup>10</sup>

#### 3.1 Housing in Need of Repair

One indicator of adequate housing is housing that it is in good repair. Children and youth who live in housing that is in need of major repair are more likely to be exposed to toxic substances, suffer injuries at home and be sick more often.<sup>11</sup>

In 2006, 6.9% of all private dwellings in the Eastern Ontario Region were in major need of repair, compared with 6.6% of those in Ontario. There were differences across the counties: in Stormont, Dundas and Glengarry 8.5% of the housing was in major need of repair while in Ottawa, that figure was 6.3%.

**Percent of all Occupied Dwellings that are in need of Major Repair, 2006**



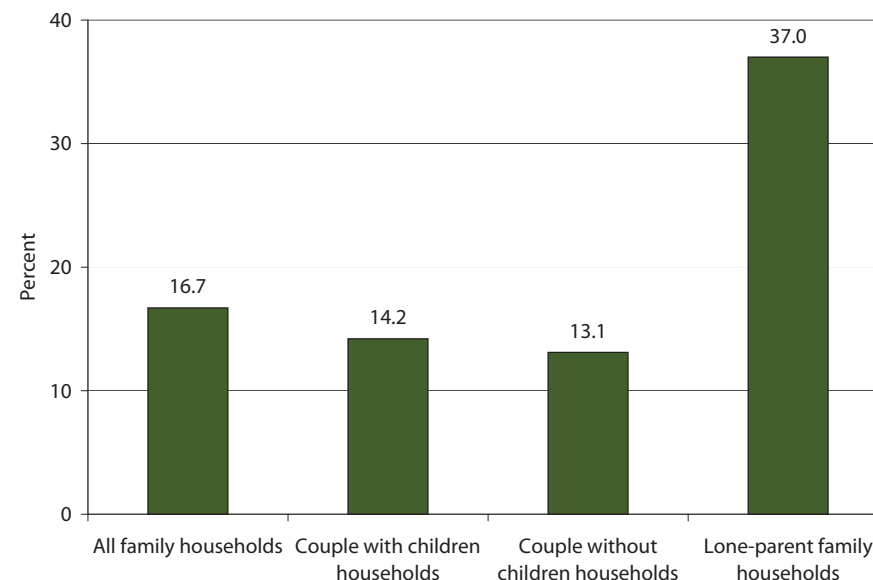
Source: Census, 2006  
Calculations by the CYHNEO using data from Statistics Canada's 2006 Census.

### 3.2 Housing Affordability

Low income and unaffordable rent are major contributing factors to unstable housing.<sup>12</sup> Families who are forced to spend too much of their income on housing costs have less money for other things such as healthy food, transportation and participation in community activities. When families spend more than 30% of their household income on housing costs, they are at a greater risk for eviction and homelessness.

According to the 2006 census, almost 17% of all census family households\* spent 30% or more of their household income on housing costs. Approximately 14% of couples with children experienced housing affordability problems. This means that in 2006, over 21,000 couples with children experienced housing affordability problems. Lone-parent families were almost three times more likely to experience housing affordability problems than couples with children.

#### Census Family Households Spending 30% or More of their Income on Housing Costs, Eastern Ontario Region, 2006



Source: Census, 2006  
Calculations by the CYHNEO using data from Statistics Canada's 2006 Census.

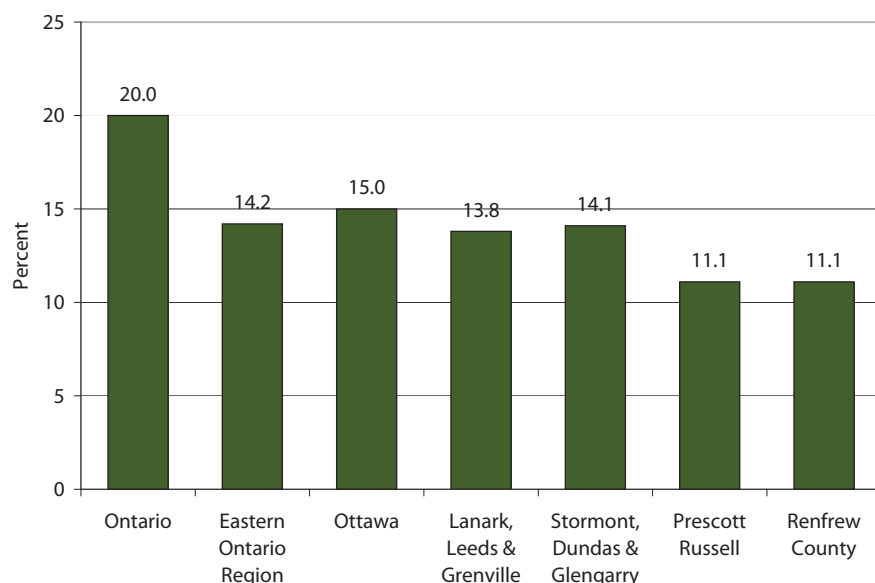
\* Refers to a married couple (with or without children of either or both spouses), a couple living common-law (with or without children of either or both partners) or a lone parent of any marital status, with at least one child living in the same dwelling. A couple may be of opposite or same sex. 'Children' in a census family include grandchildren living with their grandparent(s) but with no parents present.

## 3. Housing

### 3.2 Housing Affordability

In the province of Ontario, 20% of census families made up of couples with children spent 30% or more of their income on housing costs. This was higher than the 14% rate in the Eastern Ontario Region. There was some variation across the counties from approximately 11% in Prescott Russell and Renfrew County, to 15% in Ottawa.

#### Couple with Children Family Households Spending 30% or More of their Income on Housing Costs, 2006

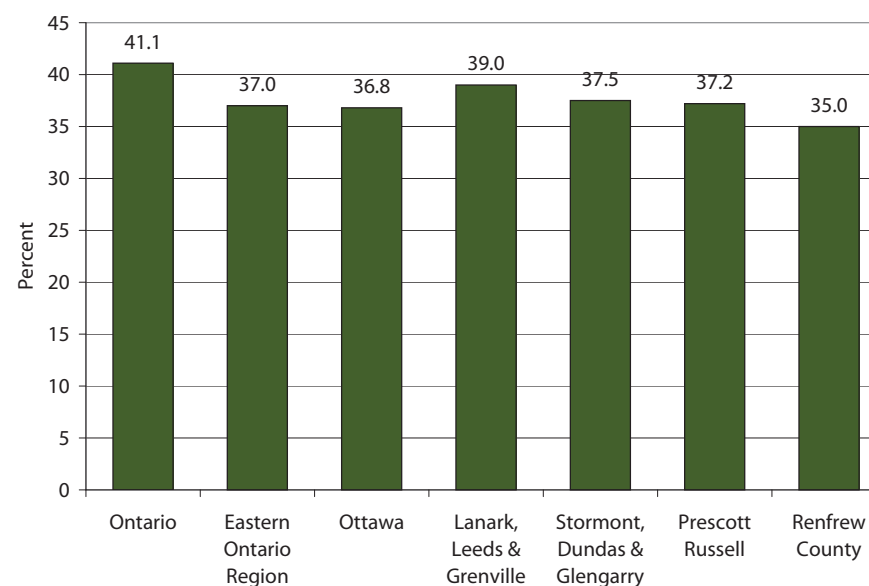


Source: Census, 2006

Calculations by the CYHNEO using data from Statistics Canada's 2006 Census.

In the province of Ontario, about 41% of census families made up of lone-parents with children spent 30% or more of their income on housing costs. This was slightly higher than the 37% rate in the Eastern Ontario Region. There was little variation across the counties.

#### Lone-Parent Family Households Spending 30% or More of their Income on Housing Costs, 2006



Source: Census, 2006

Calculations by the CYHNEO using data from Statistics Canada's 2006 Census.

## 4. Family Structure and Support

The structure of a child's family and the character of relationships within it make up the primary setting for child development. Parents and caregivers have a strong influence on the well-being and development of their children and youth. Parenting style and disciplinary approaches, diet and physical environments including the schools they attend and the neighbourhood which they live in all influence and impact a child's development.<sup>14</sup>

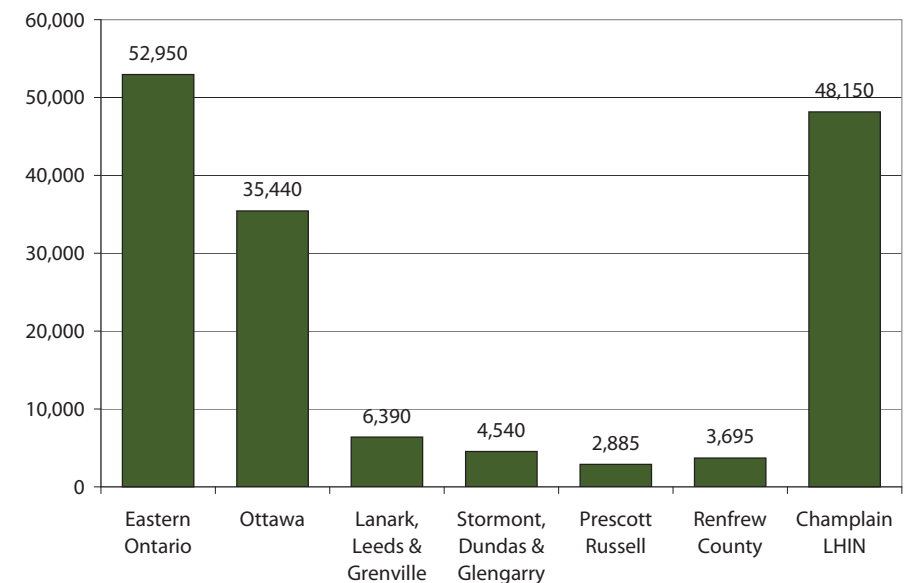
Stable and nurturing relationships are essential to the healthy development of children and youth and act as a protective factor even when they are living with other threats such as poverty.<sup>15</sup> Research shows that positive, stable and caring relationships with family members, and others, are essential during early childhood, for school-aged children and youth alike.<sup>16</sup>

### 4.1 Lone-Parent Families

Lone-parents often struggle in our society to provide the optimum resources for healthy child development. In Canada, the majority of lone parents live in poverty, and are often unable to access the resources in the community that their children need.<sup>17</sup>

In 2006, there were almost 53,000 lone-parent families living in the Eastern Ontario Region; two-thirds of these families lived in Ottawa. Of the 53,000 lone-parent families, 81% of them were female-led. Female lone-parents are more likely to live in poverty than are male lone parents.

#### Number of Lone-Parent Families 2006



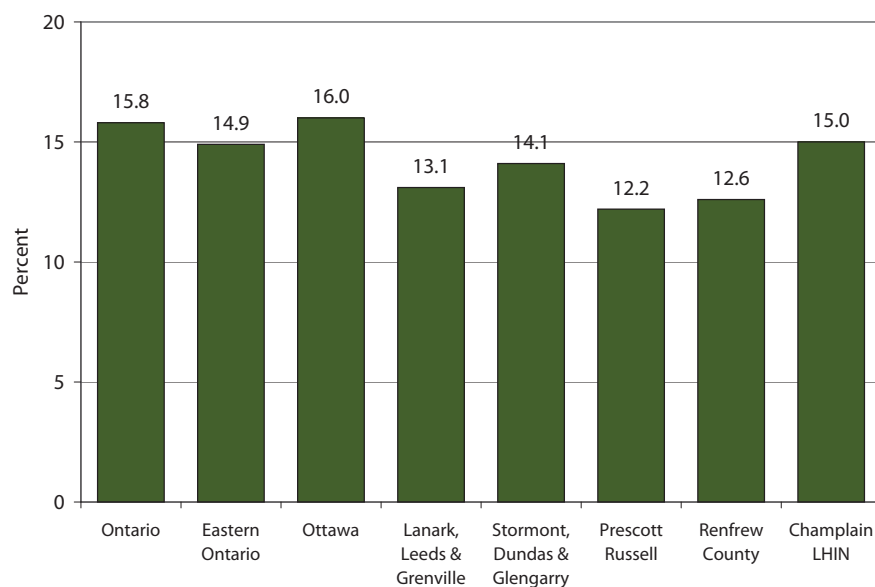
Source: Census, 2006  
Calculations by the CYHNEO using data from Statistics Canada's 2006 Census.

## 4. Family Structure and Support

### 4.1 Lone-Parent Families

According to the 2006 census, approximately 15% of all census families\* in the Eastern Ontario Region were lone-parent families. This is comparable to the Ontario rate of 15.8%. The percentage of lone-parent families varies from 16% to 12% across the Eastern Ontario Region.

**Percent of all Census Families that are Lone-Parent Families 2006**

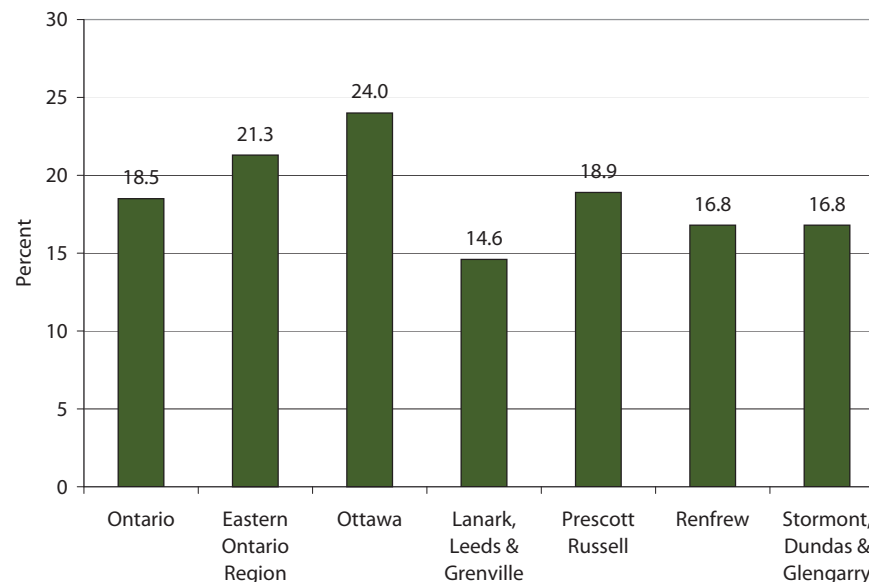


Source: Census, 2006

Calculations by the CYHNEO using data from Statistics Canada's 2006 Census.

In 2006, approximately 21% of all children and youth 0 to 19 years of age lived in a lone-parent family. That proportion varied across the counties from almost 15% in Lanark, Leeds & Grenville to 24% in Ottawa.

**Percent of Children and Youth 0 to 19 years Living in Lone-Parent Families, 2006**



Source: Census, 2006

Calculations by the CYHNEO using data from Statistics Canada's 2006 Census.

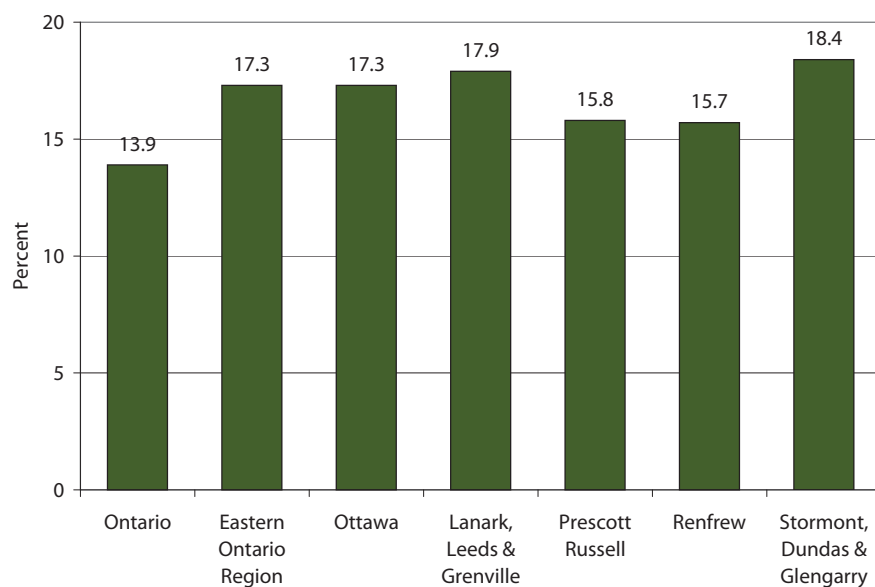
\* Refers to a married couple (with or without children of either or both spouses), a couple living common-law (with or without children of either or both partners) or a lone parent of any marital status, with at least one child living in the same dwelling. A couple may be of opposite or same sex. 'Children' in a census family include grandchildren living with their grandparent(s) but with no parents present.



## 4.1 Lone-Parent Families

In 2006, approximately 17% of all children under five years of age in the Eastern Ontario Region lived in a lone-parent family. That compared with about 14% in Ontario overall.

### Percent of 0 to 4 year olds in Living in Lone-parent Families, 2006



Source: Census, 2006

Calculations by the CYHNEO using data from Statistics Canada's 2006 Census.

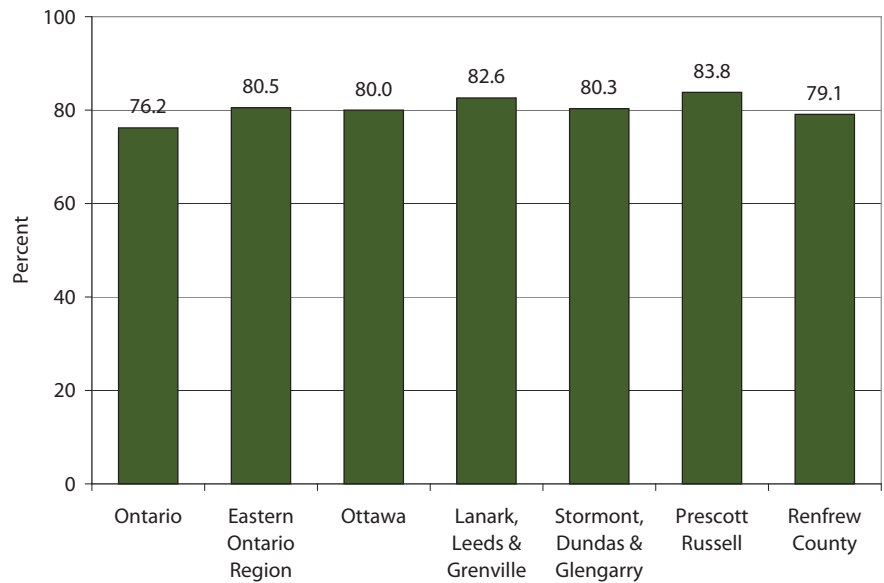
# 4. Family Structure and Support

## 4.2 Parents' Participation in the Labour Force

The majority of parents participate in the labour force in Canada – either working or looking for work. Extensive research indicates that parents are having difficulty balancing their work obligations with their family life.<sup>18</sup>

The census gives us an idea of what proportion of parents are in the labour force. According to this indicator, the vast majority are participating in the labour force. In the Eastern Ontario Region, in 2006, almost 81% of adults in a couple relationship who were living with children at home were in the labour force. That proportion compared with approximately 76% for Ontario overall and was very similar across the counties.

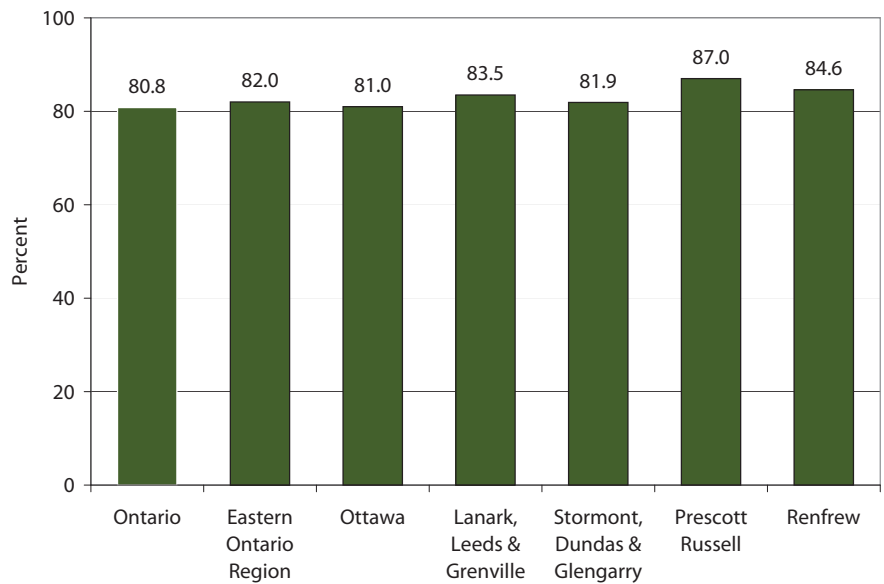
Proportion of Adults in a Couple Relationship with Children Living at Home who are in the Labour Force, 2006



Source: Census, 2006  
Calculations by the CYHNEO using data from Statistics Canada's 2006 Census.

An even higher proportion of adults with young children are in the labour force. In the Eastern Ontario Region, 82% of adults who were in a couple relationship and had at least one child under the age of six at home were in the labour force. That proportion compared with approximately 81% in Ontario.

Proportion of Adults in a Couple Relationship with at least One Child Under Six Years of Age at Home who are in the Labour Force, 2006



Source: Census, 2006  
Calculations by the CYHNEO using data from Statistics Canada's 2006 Census.

## 5. Community Support and Inclusion

Social inclusion—the extent to which people have social supports available to them and feel part of their community – has been identified as a critical determinant of health.<sup>19</sup> Social support refers to personal supports and networks, but also extends to the broader community. It includes the strength of social networks within a community that enables people to share resources and build relationships.

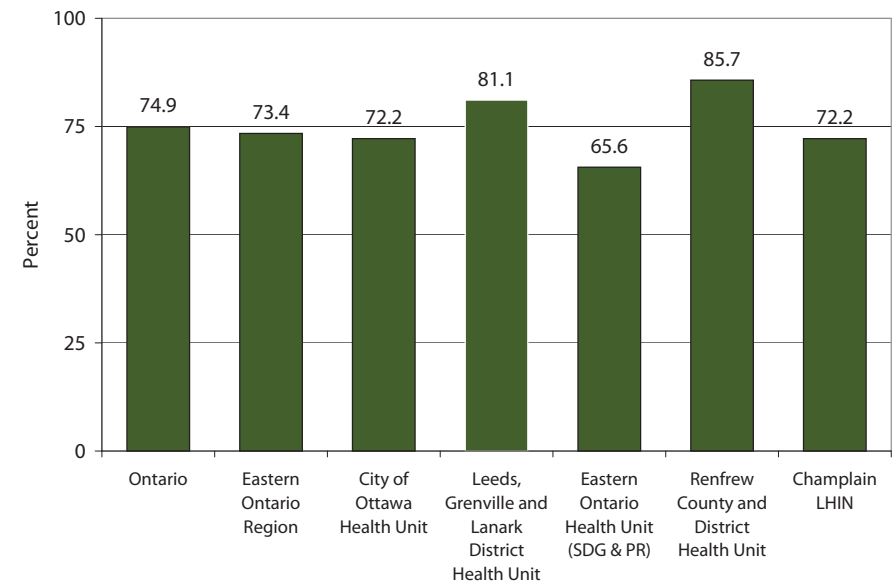
Community support and inclusion can mitigate against such factors as poverty<sup>21</sup> and research shows that stable and caring relationships with adults in the community are beneficial during early childhood and adolescence alike.<sup>22</sup>

From early childhood through the teen years, participating in community in a meaningful way is essential for healthy development. Being part of a group and having a social support network to rely on promotes resilience in young people.<sup>20</sup>

### 5.1 Sense of Belonging to the Community

In the Canadian Community Health Survey, 2007/2008, children and youth aged 12 to 19 were asked how they would describe their sense of belonging to their local community. Almost 75% of those residing in the Eastern Ontario Region reported that their sense of belonging to their local community was somewhat strong or very strong. This was comparable to the provincial rate. It varied from approximately two-thirds to over 85% in the different health unit districts of the Eastern Ontario Region.

#### Percent of 12 to 19 Year Olds who Report their Sense of Belonging to Local Community as Somewhat Strong or Very Strong 2007/2008



Source: Canadian Community Health Survey, 2007/2008  
Calculations by the CYHNEO using data from Statistics Canada's Canadian Community Health Survey, 2007/2008.

## 6. Access to and Utilization of Health Services

While access to health care is only one of the determinants of health, it often gets the most attention. For most of us, health care is primarily provided by a physician or nurse, either in the community or in hospital. But services can also be provided by allied health professionals such as dentists, psychologists, occupational therapists or social workers. The term 'health care' includes a range of services from health promotion and illness prevention (like immunizations and well-baby check-ups) through diagnosis and treatment to rehabilitation and palliative care.

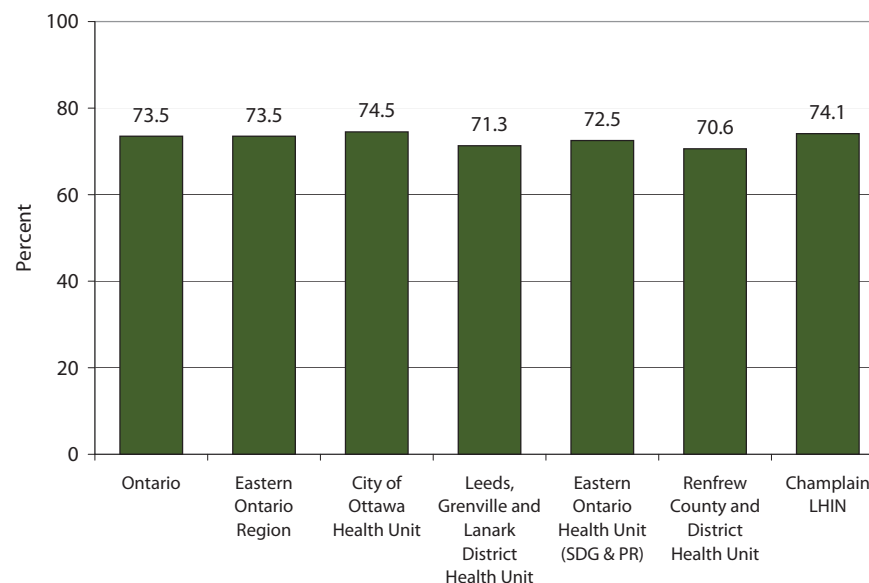
### 6.1 Contact with a Medical Doctor

The amount of contact that a young person has with a medical doctor, while not a definitive indicator of access to health care, gives some idea of health care utilization.

According to the Canadian Community Health Survey, in 2007/2008, almost 74% of 12 to 19 year olds in the Eastern Ontario Region– or over 16,000 young people – reported that they had had contact with a medical doctor in the previous year. That was equal to the Ontario rate.

The rate of contact varied slightly across the region. In the City of Ottawa Health Unit area, almost 75% of 12 to 19 year olds reported that they had contact with a medical doctor in the previous year compared with 71% in Renfrew County and District Health Unit area and Leeds, Grenville and Lanark District Health Unit area.

#### Percent of 12 to 19 Year Olds who Report they have had Contact with a Medical Doctor in the past 12 months, 2007/2008



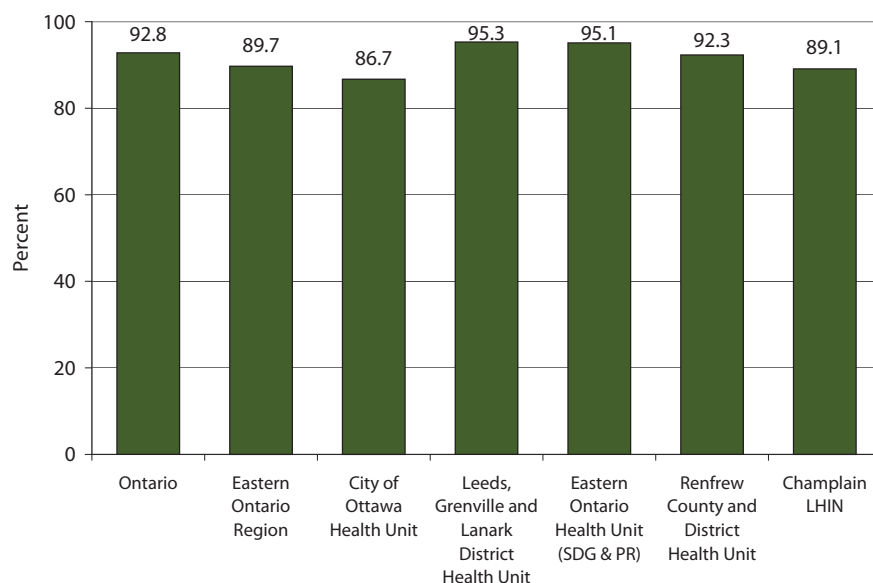
Source: Canadian Community Health Survey, 2007/2008  
Calculations by the CYHNEO using data from Statistics Canada's Canadian Community Health Survey, 2007/2008.

## 6.2 Having a Regular Medical Doctor

According to the Canadian Community Health Survey, in 2007/2008, almost 90% of 12 to 19 year olds reported that they had had a regular medical doctor. That compared to approximately 93% in Ontario overall.

The proportion of young people who reported that they had a regular medical doctor varied across the region. In the City of Ottawa Health Unit area, approximately 87% of 12 to 19 year olds reported that they had a regular medical doctor year compared with over 95% in Leeds, Grenville and Lanark District Health Unit area and Eastern Ontario Health Unit area (Stormont, Dundas & Glengarry and Prescott Russell).

### Percent of 12 to 19 Year Olds who Report they have a Regular Medical Doctor, 2007/2008



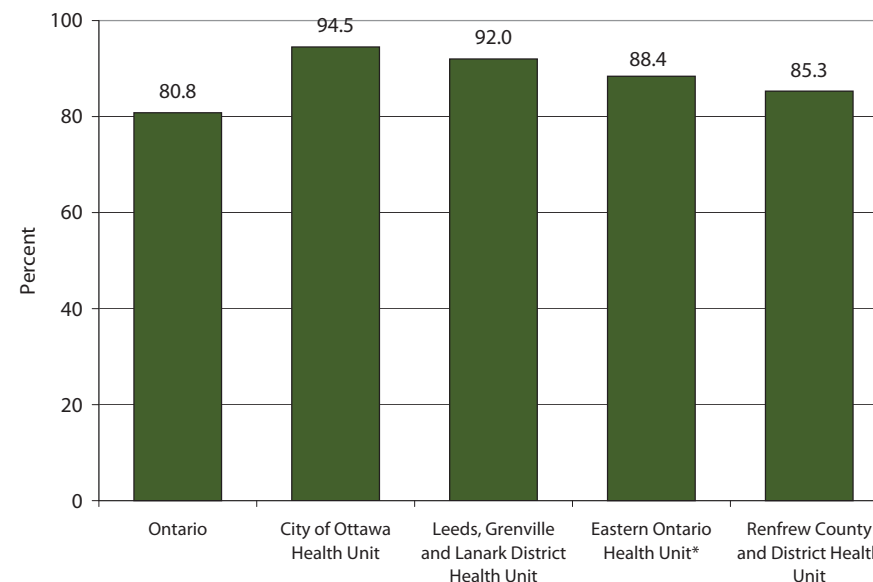
Source: Canadian Community Health Survey, 2007/2008  
Calculations by the CYHNEO using data from Statistics Canada's Canadian Community Health Survey, 2007/2008.

## 6.3 Postpartum Contact\*

Postpartum contact by a public health nurse is a universal component of the Healthy Babies Healthy Children program funded through the Ministry of Children and Youth Services. New mothers who consent are contacted by a Public Health Unit within 48 hours of discharge from hospital or after a home birth, and offered a home visit, counselling, support and information about community services on parenting and healthy child development.

The Eastern Ontario Region has a high rate of postpartum contact for new mothers, higher than in the province overall. In fact, the rate of postpartum contact was higher in every health unit district in the Eastern Ontario Region than in the province overall.

### Postpartum Contact



Source: Initial Report on Public Health, August 2009  
† Includes Stormont, Dundas and Glengarry and Prescott Russell

\* Postpartum contact is defined as the percentage of families who consented to a postpartum phone call under the program and who received a post-partum phone call or contact from the health unit within 48 hours of release from hospital after giving birth

## 6. Access to and Utilization of Health Services

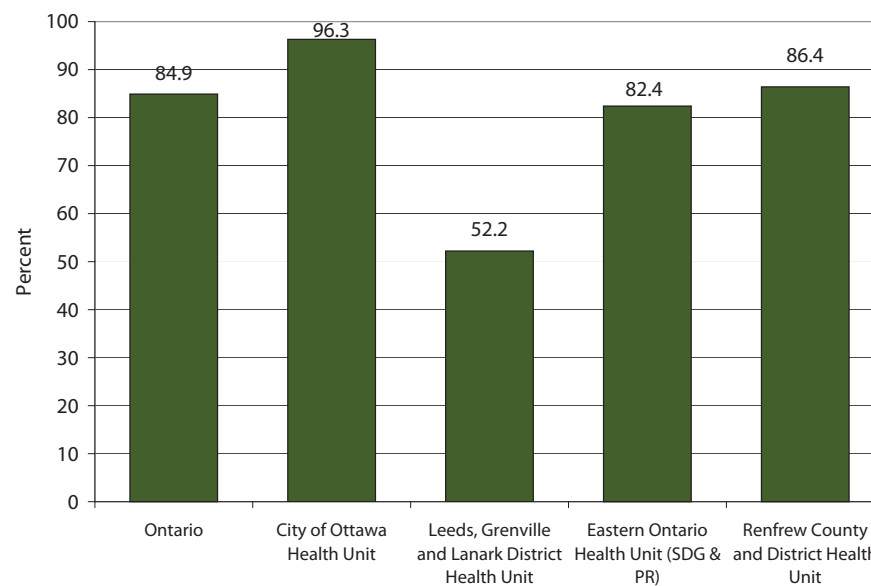
### 6.4 Rate of Immunization for Measles, Mumps and Rubella\*

Immunization against measles, mumps and rubella is provided in Ontario through the publicly funded immunization program. It is intended to reduce the incidence of these preventable diseases which are highly contagious and can cause serious complications.<sup>23</sup>

Under the Immunization of School Pupils Act, all children attending school must have two doses of measles and one dose each of mumps and rubella by seven years of age for school attendance, unless they have a valid exemption. Children receive this immunization primarily through primary care physicians or through public health unit clinics.

In The Eastern Ontario Region, the rate of immunization coverage ranged from about 52% in Leeds, Grenville and Lanark Health Unit area to over 96% in the City of Ottawa Health Unit area. The provincial rate is approximately 85%.

### Rate of Immunization for Measles, Mumps and Rubella, 2007-2008



Source: Initial Report on Public Health, August 2009

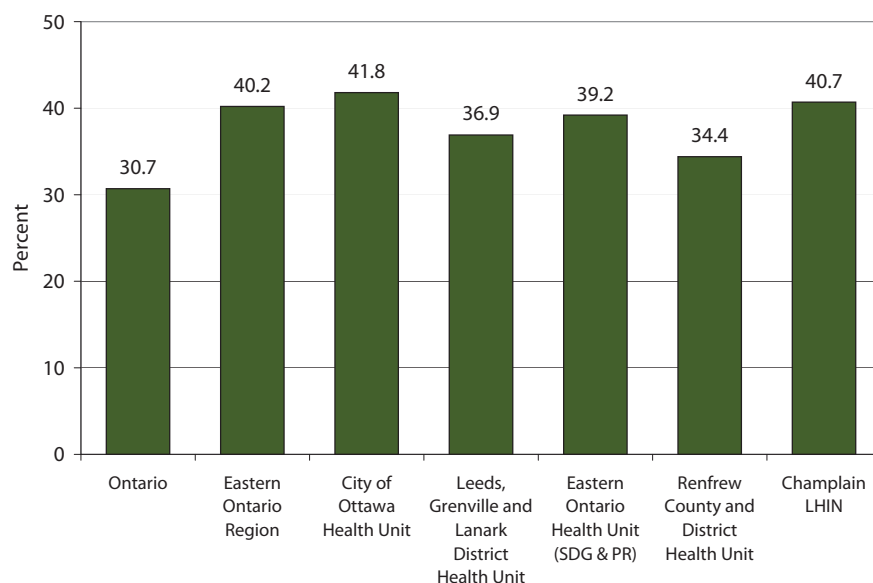
\* The immunization rate for measles, mumps and rubella estimates the proportion of school children age 7 years who are known to be complete for age for vaccination against measles, mumps and rubella.



## 6.5 Influenza Immunization

Influenza immunization is offered to Ontario residents free of charge. In 2007/2008, according to the Canadian Community Health Survey, about 40% of all young people aged 12 to 19 had influenza immunization in the year prior to the survey. That ranged from 34% in Renfrew County and District Health Unit area to almost 42% in the City of Ottawa.

### Percent of 12 to 19 Year Olds who Report they have had Influenza Immunization Less than One Year Ago, 2007/2008

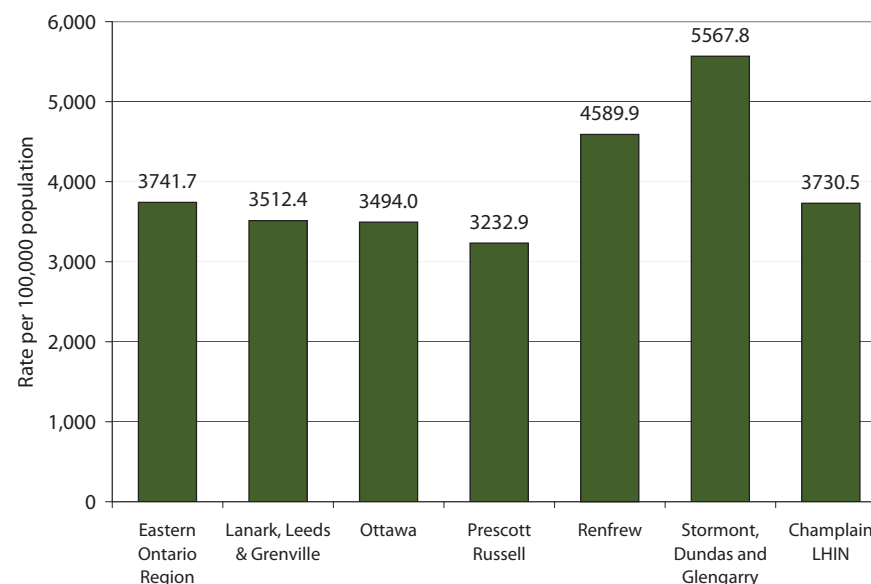


Source: Canadian Community Health Survey, 2007/2008  
Calculations by the CYHNEO using data from Statistics Canada's Canadian Community Health Survey, 2007/2008.

## 6.6 Hospitalization

In the Eastern Ontario Region, in 2007/08, there were over 309,000 hospital separations\* among children and youth under 20 years (excluding those of healthy newborns following birth). The hospital separation rate for the Region overall was 3741.7 per 100,000 children and youth under 20 years. It varied across the counties.

### Rate of Hospital Separation per 100,000 Children and Youth < 20 Years, 2007-2008



Source: Ontario Ministry of Health and Long Term Care, Provincial Health Planning Data Base  
Data provided by the Champlain LHIN  
Calculations by the CYHNEO using data from the Ontario Ministry of Health and Long-Term Care, Provincial Health Planning Data Base.

\* A hospital separation is counted when a person leaves the hospital, for reasons including discharge, death, sign-out against medical advice or transfer. The numbers of separations are counted – therefore, one person can have more than one separation in a year. This excludes the hospitalization of healthy newborns after birth.

## 7. Learning, Education and Work

It is critical that children and youth have the opportunity to learn throughout their development.<sup>24</sup> Important learning includes achievements in academic subjects such as reading, writing and mathematics, and also in non-academic skills such as athletics and the arts. When young children arrive at school ready to learn, it sets them on a long term trajectory where they are more likely to succeed in the academic and social environment – and therefore have a stronger sense of self and community.<sup>25</sup> Youth who are engaged in and attached to their schools are less likely to engage in unhealthy and antisocial behaviours.<sup>26</sup>

An important transition young people make is from school into the workforce. This time of transition helps to establish youth as independent members of society..<sup>27</sup>

### 7.1 Readiness to Learn

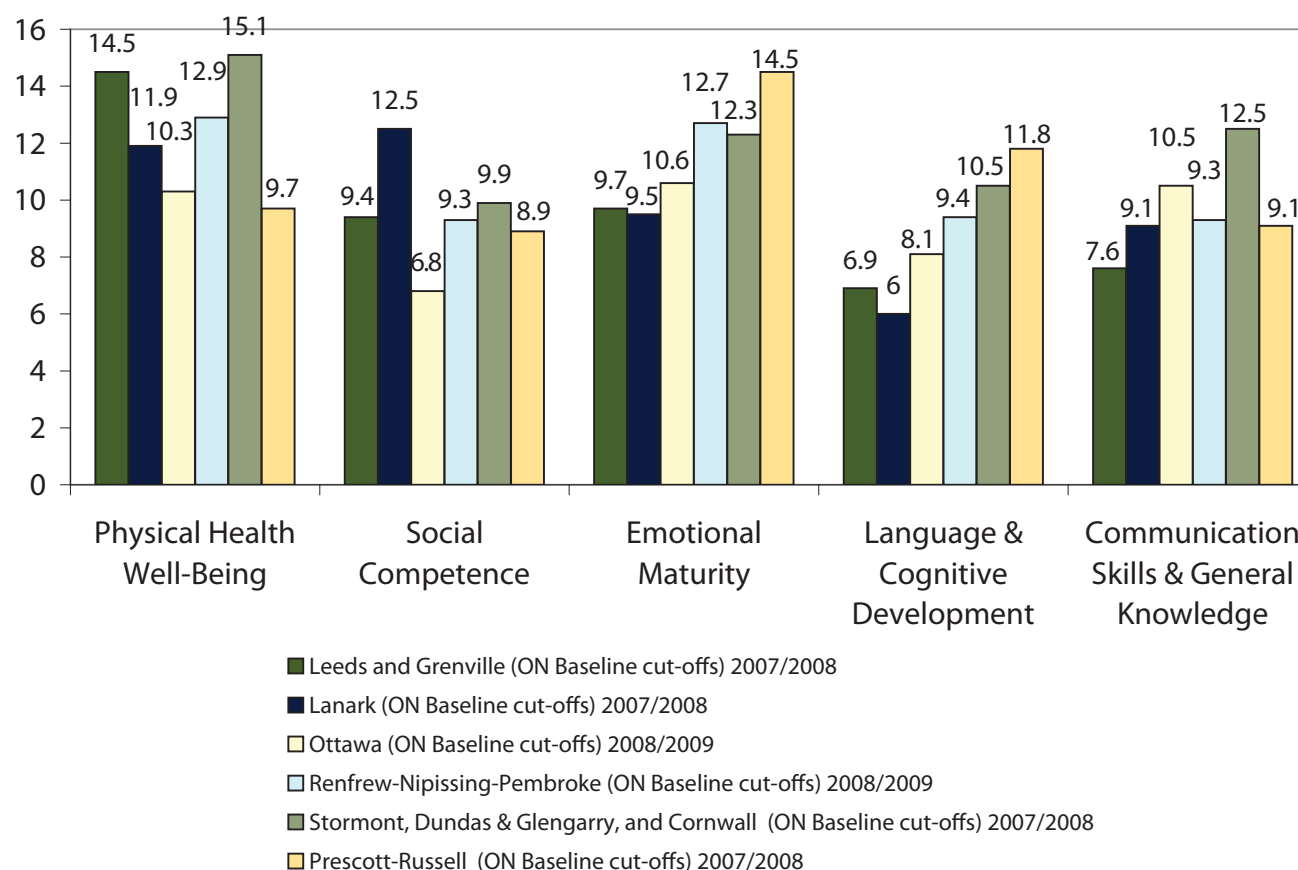
Early childhood experiences have significant long-term effects.<sup>28</sup> What happens to children when they are very young shapes their health and well-being, including their capacity for life-long learning and overall success.<sup>29</sup> Experts agree that one of the most valuable indicators is learning readiness. Readiness to learn is a powerful predictor of a child's future well-being, including development of a child's sense of self-respect and concern for others, academic skills and overall academic performance, engagement in life-long learning, and health status as an adult.<sup>30</sup>

## 7.1 Readiness to Learn Early Development Instrument

In Canada, the Early Development Instrument (EDI) measures school readiness to learn in five areas: physical health and well-being; social competence; emotional maturity; language and cognitive development; and communication skills and general knowledge. This tool was developed at the Canadian Centre for Studies of Children at Risk (at McMaster University) by Dr. Magdalena Janus and Dr. Dan Offord. The tool is administered by teachers with Senior Kindergarten students.

Children who score low (below the 10th percentile cut-off of the baseline) in any of the EDI's five domains are considered vulnerable. This chart reflects the percentage of vulnerable children in relation to the average distribution of score in Ontario (Ontario Baseline cut-off) and does not include children with special needs.

**Early Development Instrument Percent of Children considered Vulnerable**



Source: Early Development Instrument (EDI), 2003-2009.  
Parent Resource Centre, Ottawa, Lanark County, United Counties of Leeds Grenville.

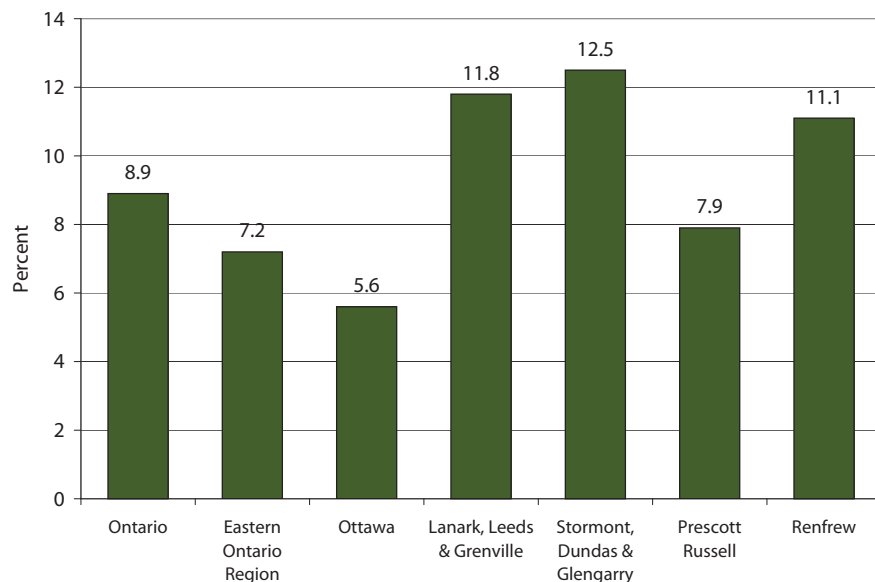
## 7. Learning, Education and Work

### 7.2 High School Completion

Completing high school – or not – sets a lifelong trajectory for young people in terms of their life chances related to employment, income and health status.<sup>32</sup> Dropping out of high school not only can have negative consequences for youth, but on society as a whole.<sup>33</sup>

While not a pure indicator of high school completion, the proportion of young people aged 20 to 24 who do not have a high school certificate and are not in school, sheds light on this important issue. In 2006, just over 7% of youth aged 20 to 24 years in the Eastern Ontario Region did not have a high school certificate and were not in school. That compared to almost 9% for the province overall. There was variation across the counties from under 6% in Ottawa to over 12% in Stormont, Dundas and Glengarry.

#### Proportion of Youth 20 to 24 years who do not have a High School Certificate and are not in School, 2006

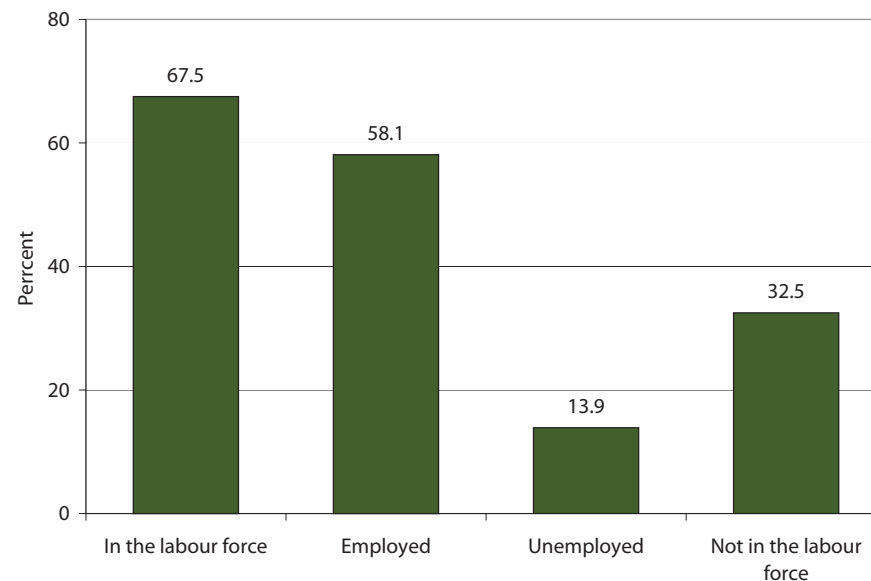


Source: Census, 2006  
Calculations by the CYHNEO using data from Statistics Canada's 2006 Census.

### 7.3 Labour Force Participation of Youth

In 2006, over 67% of youth 15 to 24 years in the Eastern Ontario Region were in the labour force. Fifty-eight percent were employed and 13.9% were unemployed.

#### Labour Force Participation, Youth 15 to 24 Years, Eastern Ontario Region, 2006



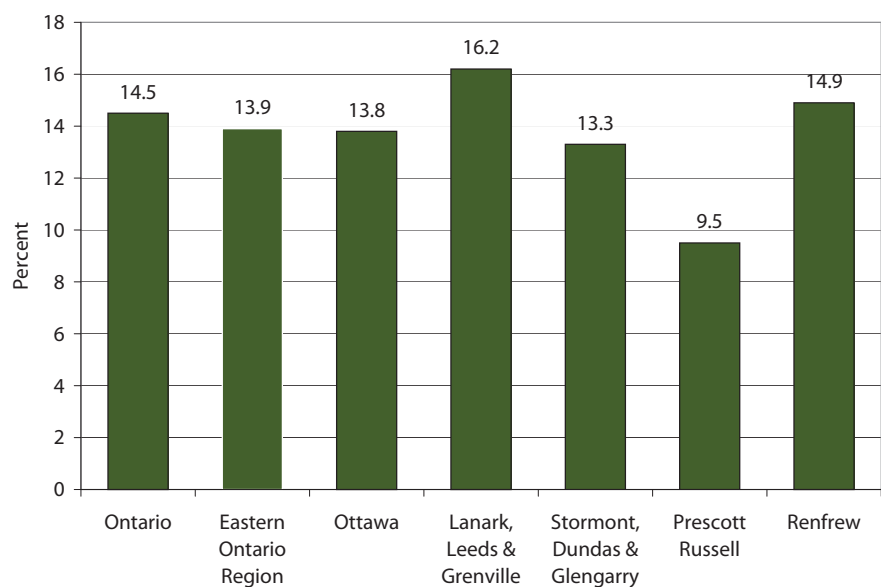
Source: Census, 2006  
Calculations by the CYHNEO using data from Statistics Canada's 2006 Census.

\* It is recognized that the unemployment rate has increased since the census year.  
NOTE: The unemployment figures have worsened dramatically with the impact of the fall 2008 financial crisis. In September, 2009 the youth (15 to 24 years) unemployment rate in Ontario was 18.6% and in Canada it was 15.1%.

## 7.4 Youth Unemployment

In 2006, the youth unemployment rate among young people 15 to 24 years was 13.9% in the Eastern Ontario Region, close to the rate of 14.5% in Ontario. The youth unemployment rate varied across the counties: it was 9.5% in Prescott Russell and 18.2% in Lanark, Leeds and Grenville.

### Unemployment Rate of Youth 15 to 24 Years, 2006

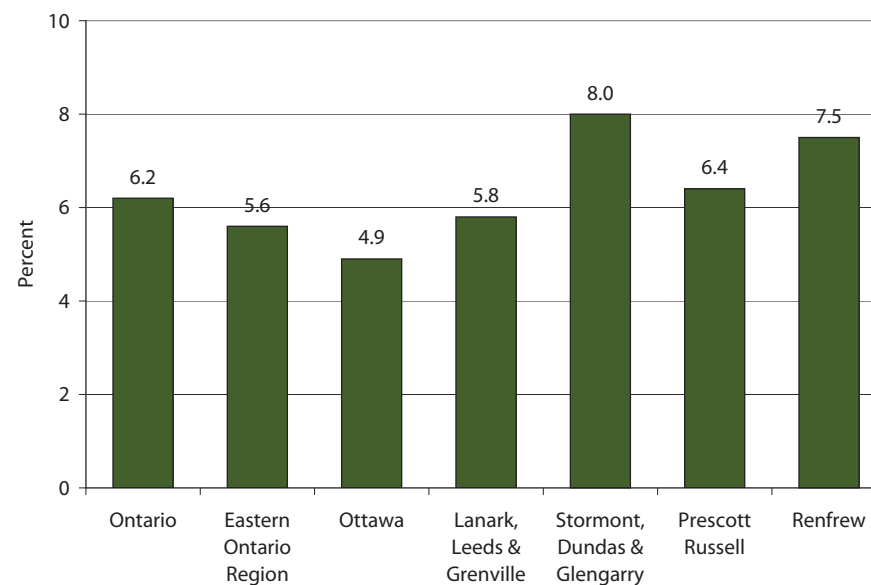


Source: Census, 2006  
Calculations by the CYHNEO using data from Statistics Canada's 2006 Census.

## 7.5 Youth Not in School and Not in the Labour Force

Young people who are not in school and not in the labour force are at particular risk of poor health and developmental outcomes.<sup>34</sup> In 2006, 5.6% of young people aged 15 to 24 years in the Eastern Ontario Region were not in school or the labour force – that is they were neither working nor looking for work. That was lower than the provincial rate of 6.2%. The proportion of young people who were not at school and not in the labour force varied from 4.9% in Ottawa to 8% in Stormont, Dundas and Glengarry.

### Proportion of Youth 15 to 24 Years who are Not in School and Not in the Labour Force, 2006



Source: Census, 2006  
Calculations by the CYHNEO using data from Statistics Canada's 2006 Census.

NOTE: The unemployment figures have worsened dramatically with the impact of the fall 2008 financial crisis. In September, 2009 the youth (15 to 24 years) unemployment rate in Ontario was 18.6% and in Canada it was 15.1%.

# 8. Environmental Toxins

Children and youth need safe environments in which to grow and play. This includes environments free from toxins that can adversely affect their health and development.<sup>35</sup> Environmental toxins can be present in the air that children breathe, the water they drink, the toys they play with and the products that they use.<sup>36</sup>

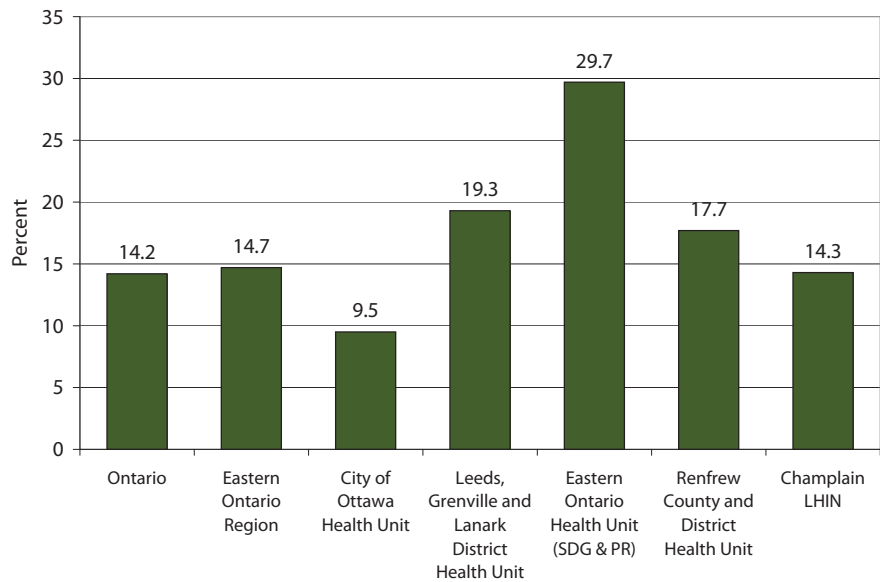
Many environmental toxins, such as tobacco smoke and mould are associated with acute and chronic illness.<sup>37</sup> Others, such as lead and pesticides, are known neurotoxins.<sup>38</sup> Still others are hormone disruptors and interfere with physical development.<sup>39</sup> Children are particularly vulnerable to environmental toxins as their bodies are still developing and their physical and social behaviours make them more likely to be exposed to toxins.<sup>40</sup>

## 8.1 Second-Hand Smoke

Children and youth exposed to environmental tobacco smoke – second-hand smoke – are at increased risk of bronchitis, pneumonia, lower respiratory tract infections, chronic ear infections and sudden infant death syndrome.<sup>41</sup>

In the Eastern Ontario Region, in 2007/2008, almost 15% of youth aged 12 to 19 years of age reported that they are exposed to environmental tobacco smoke, or second-hand smoke at home. That is approximately the same as the Ontario rate. The rate varies considerably across the counties – from under 10% in the City of Ottawa Health Unit area to almost 30% in the Eastern Ontario Health Unit area (Stormont, Dundas and Glengarry and Prescott Russell).

**Proportion of 12 to 19 Year Olds Reporting that they are Exposed to Second-Hand Smoke at Home, 2007/2008**

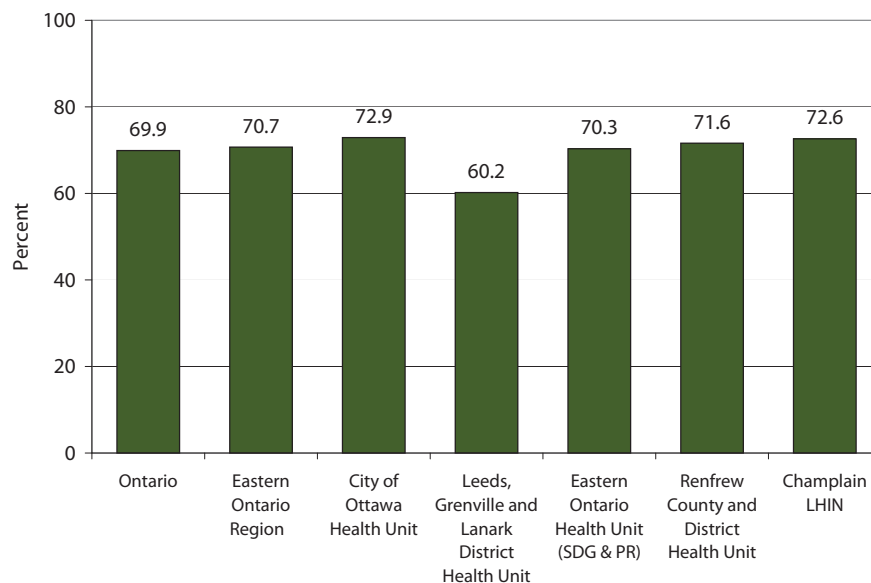


## C. Health Outcomes

### 1. Perceived Health Status

The majority of children and youth aged 12 to 19 years in the Eastern Ontario Region consider themselves to be in very good or excellent health: 71% of them reported this in the 2007/08 Canadian Community Health Survey. However, not all counties in the region had the same finding. In Leeds, Grenville and Lanark District Health Unit area approximately 60% of young people reported this. The proportion was 73% in the City of Ottawa Health Unit area.

#### Percent of 12 to 19 Year Olds who Report that they consider their health to be very good or excellent, 2007/2008



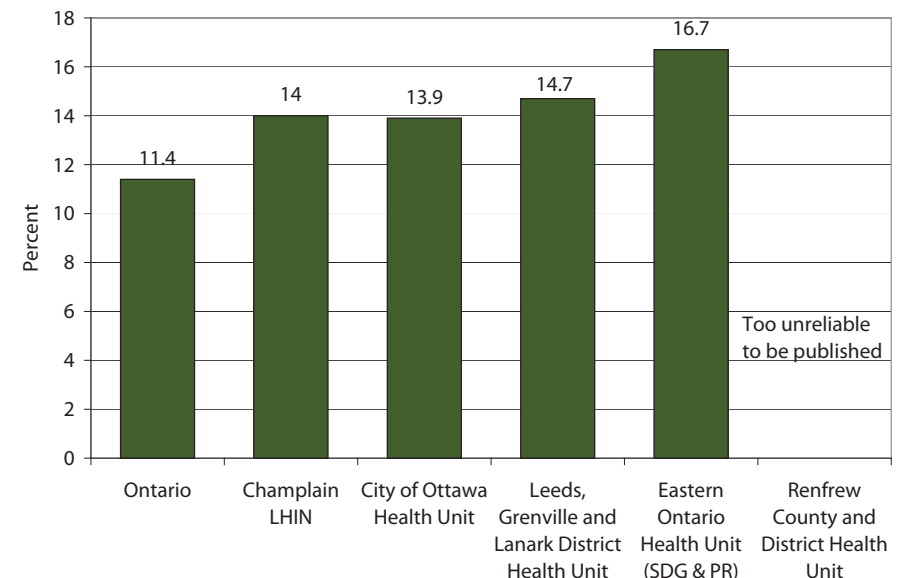
Source: Canadian Community Health Survey, 2007/2008  
Calculations by the CYHNEO using data from Statistics Canada's Canadian Community Health Survey, 2007/2008.

### 2. Respiratory Health

#### 2.1 Self-Reported Asthma

According to the Canadian Community Health Survey, 2007/2008, 14% of children and youth aged 12 to 19 years residing in the Champlain LHIN area reported that they had asthma. This is higher than the provincial rate which is approximately 11%. The rate is almost 17% in the Eastern Ontario District Health Unit area – which includes Stormont, Dundas & Glengarry, and Prescott Russell.

#### Percent of 12 to 19 Year Olds who Report that they have Asthma, 2007/2008



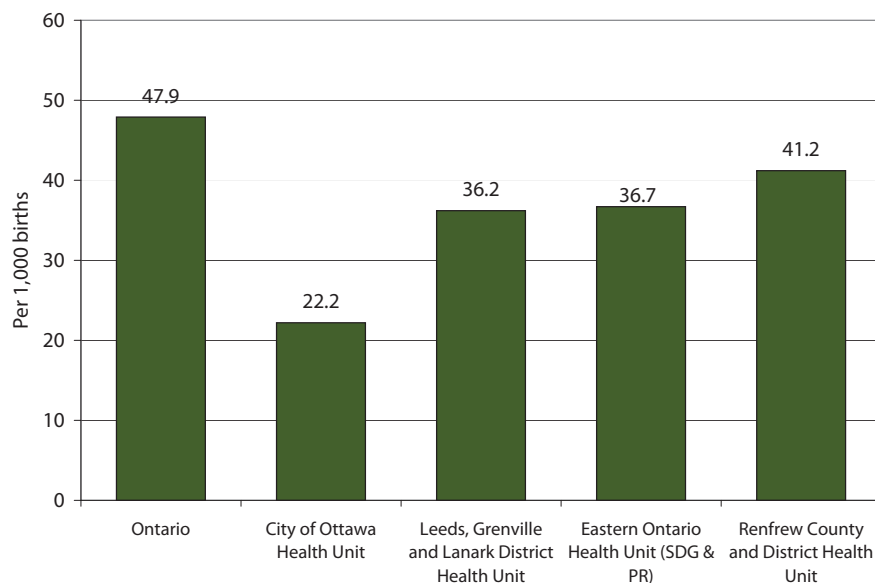
Source: Canadian Community Health Survey, 2007/2008  
Calculations by the CYHNEO using data from Statistics Canada's Canadian Community Health Survey, 2007/2008.

## 3. Reproductive Health

### 3.1 Low Birth Weight

Babies born at low birth weight\* are at considerably higher risk of death and disability than are those born at healthy birth weights.<sup>42</sup> Low birth weight is a major risk factor for death in the early weeks and into the first year of life.<sup>43</sup> Babies born at low birth weight are more likely to have health and developmental problems including learning difficulties, hearing and visual impairments, chronic respiratory problems such as asthma, and chronic diseases later in life.<sup>44</sup> The low birth weight rate in the Eastern Ontario Region ranged from about 22 per 1,000 births in Ottawa to 41 per 1,000 births in the Renfrew County and District Health Unit area. This compared with almost 48 per 1,000 births in the province of Ontario overall.

#### Rate, per 1,000 births, of Singleton Live Births with a Birth Weight of Less than 2500 grams, 2007



Source: Initial Report on Public Health, August 2009

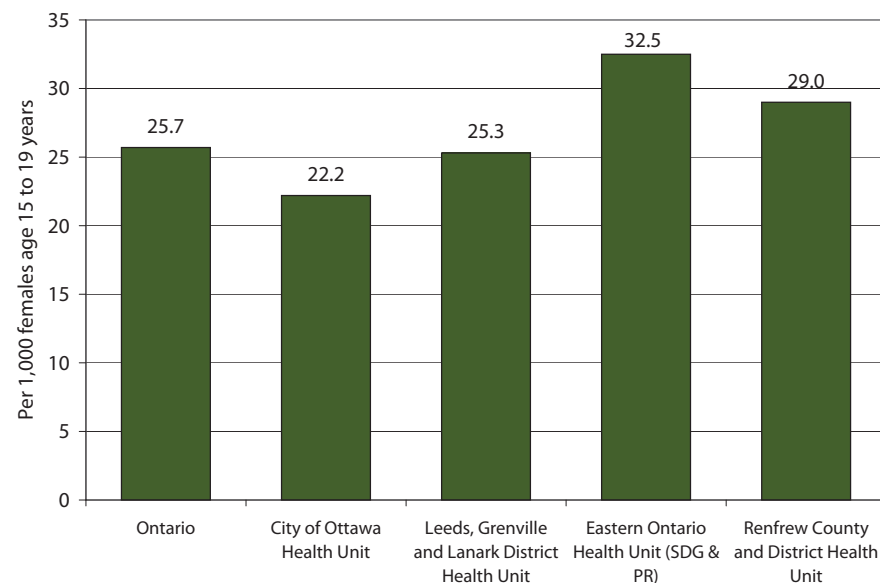
\* The low birth weight rate is defined as the rate of singleton live births weighing 500-2499 grams immediately upon birth, per 1,000 births – that is, singleton live births at least 500 grams birth weight. A singleton live birth refers to one baby born to one mother.

### 3.2 Teen Pregnancy<sup>†</sup>

Pregnancy during the teenage years can result in increased health problems for both the teen mother and the baby. Pregnant teens have a greater risk of developing health problems and complications of pregnancy.<sup>45</sup> Babies born to teenage mothers are more likely to be born at low birth weight, to be born early and as a result are more likely to have health and developmental problems.<sup>46</sup> Teen pregnancy occurs more often among disadvantaged teens, and a teen pregnancy can lead to other educational and employment barriers in the future.<sup>47</sup>

In 2007, the rate of teen pregnancy varied from about 22 per 1,000 females aged 15 to 19 years in the City of Ottawa Health Unit area to almost one-third in the Eastern Ontario Health Unit area (Stormont, Dundas and Glengarry and Prescott Russell).

#### Teen Pregnancy Rate per 1,000 females 15 to 19 Years, 2007



Source: Initial Report on Public Health, August 2009

<sup>†</sup> The teen pregnancy rate is the number of pregnancies – resulting in live births, stillbirths, and therapeutic abortions – per 1,000 females age 15-19 years.



### 3.3 Breastfeeding Initiation

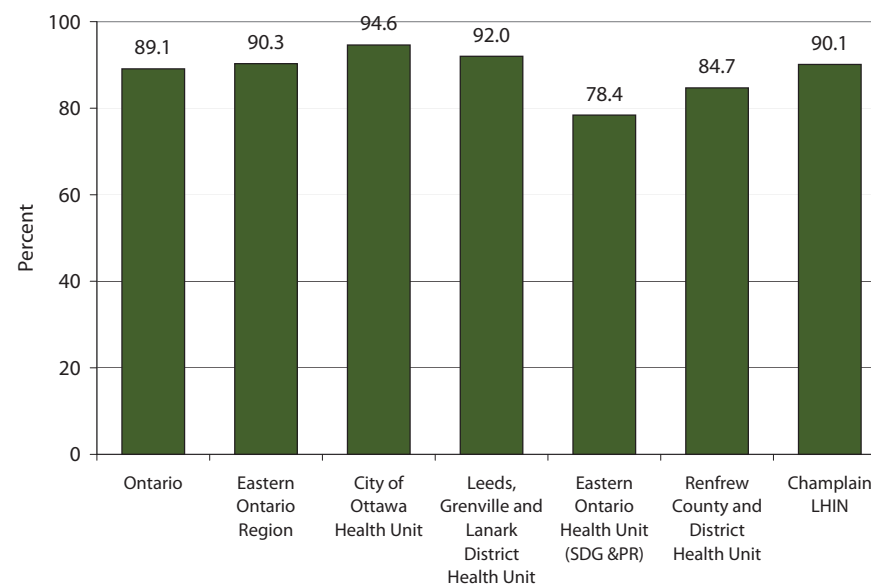
According to the World Health Organization, “breastfeeding is the ideal way of providing young infants with the nutrients they need for healthy growth and development.”<sup>48</sup> Breast milk contains the ideal nutritional elements for proper digestion, brain development, and growth. Breast feeding protects the baby against infections and illnesses, allergies and respiratory infections, and may lower rates of type 2 diabetes later in the child’s life.<sup>51</sup>

Breastfeeding forms a bond between a mother and her child that is thought to contribute to the healthy psychological development of the child.<sup>52</sup>

Breastfeeding also has benefits for mothers and may decrease the risk of certain kinds of ovarian and breast cancer along with osteoporosis.<sup>53</sup>

According to the Canadian Community Health Survey, 2007/2008, 90% of women in the Eastern Ontario Region who had a baby in the five years prior to the survey started breastfeeding their baby at birth. That compared to 89% of women in Ontario overall. The rate of breastfeeding initiation varied across the counties from 78% to almost 95%.

### Percent of Women Aged 15 to 55 who had a Baby in the Last Five Years and Report that they Initiated Breastfeeding that Baby, 2007/2008



Source: Canadian Community Health Survey, 2007/2008  
Calculations by the CYHNEO using data from Statistics Canada’s Canadian Community Health Survey, 2007/2008.

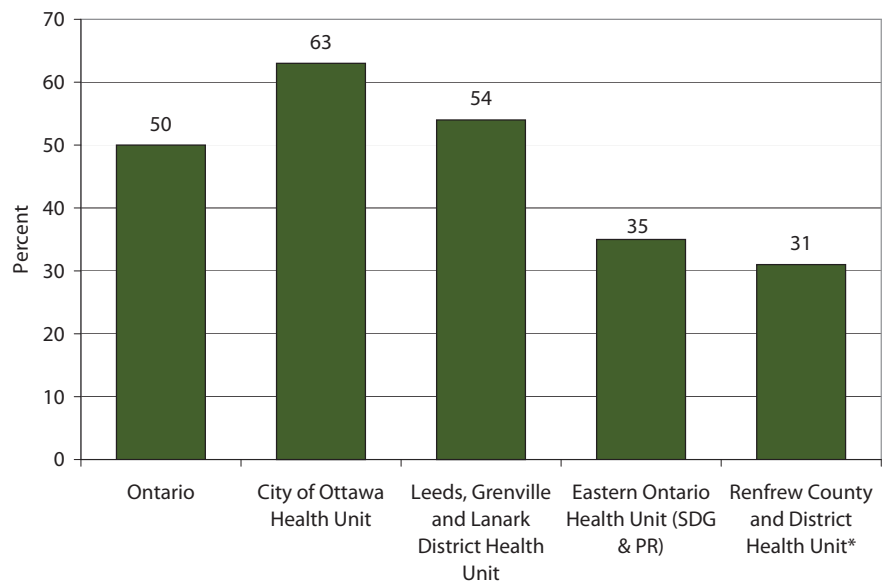
### 3. Reproductive Health

#### 3.4 Breastfeeding Duration

The World Health Organization and professional organizations in Canada recommend that babies be exclusively breastfed for six months and continue on with some breastfeeding for the first two years of life.<sup>54</sup>

The breastfeeding duration rate reported below estimates the proportion of mothers age 15-55 years who breastfed (not exclusively) their last baby (born within the past five years) for a duration of six months or more. The proportion of mothers who breastfed for at least six months varied from 63% in the City of Ottawa Health Unit area to 31% in Renfrew County and District Health Unit area.

**Breastfeeding Duration for Six Months or More, 2003 to 2007**



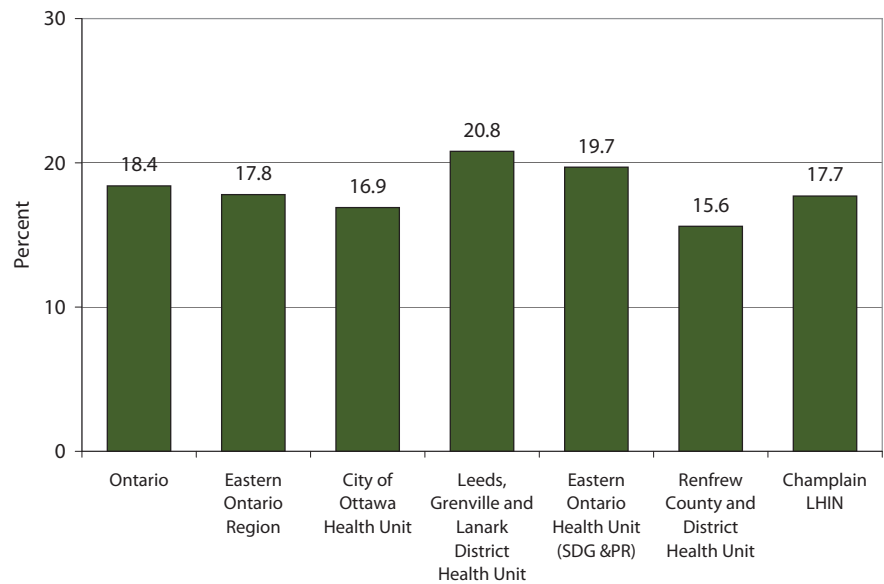
Source: Initial Report on Public Health, August 2009  
\*Warning of high variability associated with estimate

### 4. Physical Disability

#### 4.1 Participation and Activity Limitation or Physical Disability that Prevents or Limits Activity

According to the Canadian Community Health Survey, 2007/2008, approximately 18% of children and youth aged 12 to 19 years residing in the Eastern Ontario Region area reported that they have a participation and activity limitation sometimes or often. This is very close to the Ontario rate. The rate varied from approximately 16% to 21% in the different health unit districts of the Eastern Ontario Region.

**Percent of 12 to 19 Year Olds who Report they have a Participation and Activity Limitation Sometimes or Often, 2007/2008**



Source: Canadian Community Health Survey, 2007/2008  
Calculations by the CYHNEO using data from Statistics Canada's Canadian Community Health Survey, 2007/2008.

## 5. Injuries

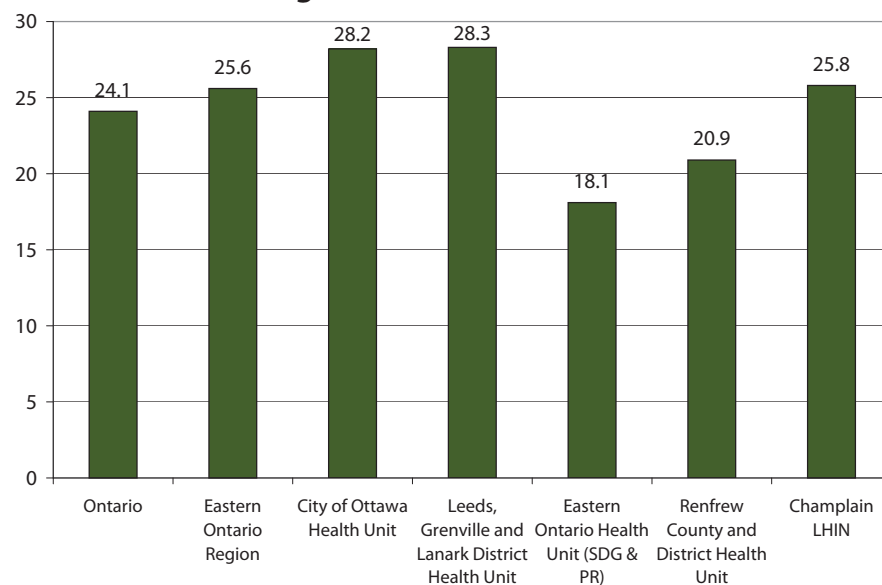
### 5.1 Self-Reported Injuries

Injuries are a leading cause of death among Ontario children and youth.<sup>55</sup> However, death is just the tip of the iceberg. For every death, many more youth are injured – some seriously.

According to the Canadian Community Health Survey, in 2005, almost 36,000 children and youth between from 12 to 19 years of age reported that they had had an injury in the last 12 months. That meant that almost 26% had suffered an injury in the previous year. That is very similar to the Ontario rate – approximately 24%.

The rate of reported injury varied across the region. It was as high as 28% in the City of Ottawa and Leeds, Grenville and Lanark Health Unit areas and as low as 18% in the Eastern Ontario Health Unit area.

#### Injuries Reported in the Last 12 Months, Children and Youth Ages 12 to 19, 2005



Source: Canadian Community Health Survey, 2005

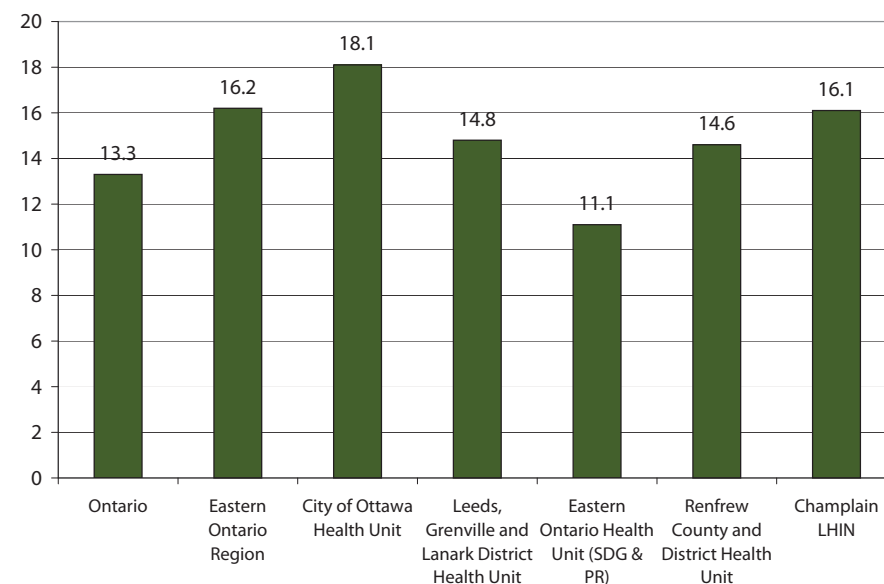
Calculations by the CYHNEO using data from Statistics Canada's Canadian Community Health Survey, 2005.

### 5.2 Injuries Requiring Medical Attention

A substantial number of children and youth in the region are injured seriously enough to require medical attention. In 2005, over 22,000 children and youth 12 to 19 years of age reported that they suffered an injury for which they sought medical attention in the previous year. That accounted for about 16% of all children in that age group. That higher than the Ontario rate at 13%.

Again, there were variations across the region. Eighteen percent of children and youth 12 to 19 years of age in the City of Ottawa Health Unit area reported that they had an injury where they sought medical attention in the previous year compared to 11% in the Eastern Ontario Health Unit area.

#### Injuries Reported in the Last 12 Months, Children and Youth Ages 12 to 19, Where the Child/Youth Sought Medical Attention, 2005



Source: Canadian Community Health Survey, 2005

Calculations by the CYHNEO using data from Statistics Canada's Canadian Community Health Survey, 2005.

## 6. Mental Health

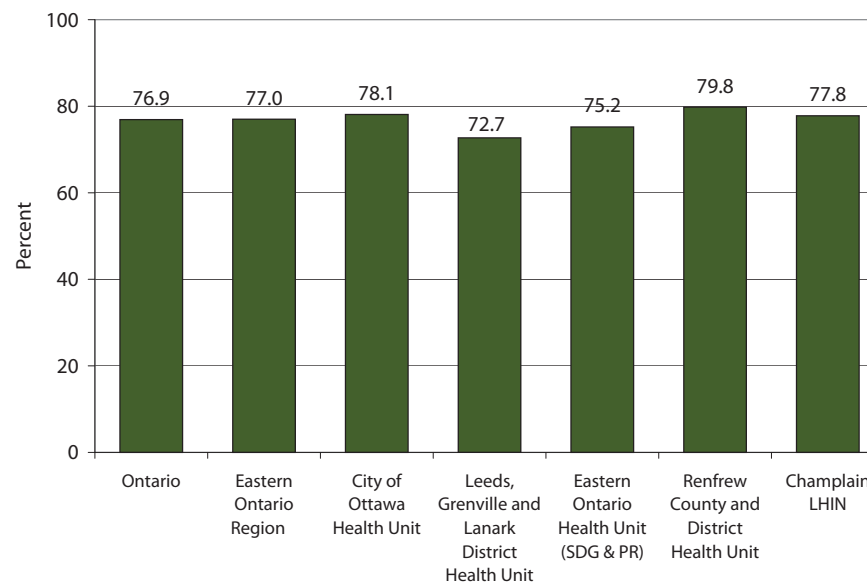
### 6.1 Self-Reported Mental Health

Mental health problems have been described as the “new morbidity” for Canadian children and youth.<sup>56</sup> Child psychiatrist Dr. Dan Offord said that, “it should be kept in mind that the leading group of conditions that lower life quality and reduce the life chances of Canadian children and youth are emotional and behavioural problems and learning difficulties.”

Over the past 20 years, at any given time, research suggests that approximately 20% of children may have significant mental disorders. This relatively high percentage of children and youth – as well as adults – suffering from emotional health problems has both financial and societal costs.

According to the Canadian Community Health Survey, 2007/2008, approximately 77% of children and youth aged 12 to 19 years residing in the Eastern Ontario Region reported that their mental health was either very good or excellent. That means that approximately 24% reported their mental health as good, fair or poor. This is the same as the provincial rate. However, this proportion was lower in Leeds, Grenville and Lanark District Health Unit area at approximately 73%. It was almost 80% in Renfrew County and District Health Unit area.

### Percent of 12 to 19 Year Olds who Report that their Mental Health is Very Good or Excellent, 2007/2008

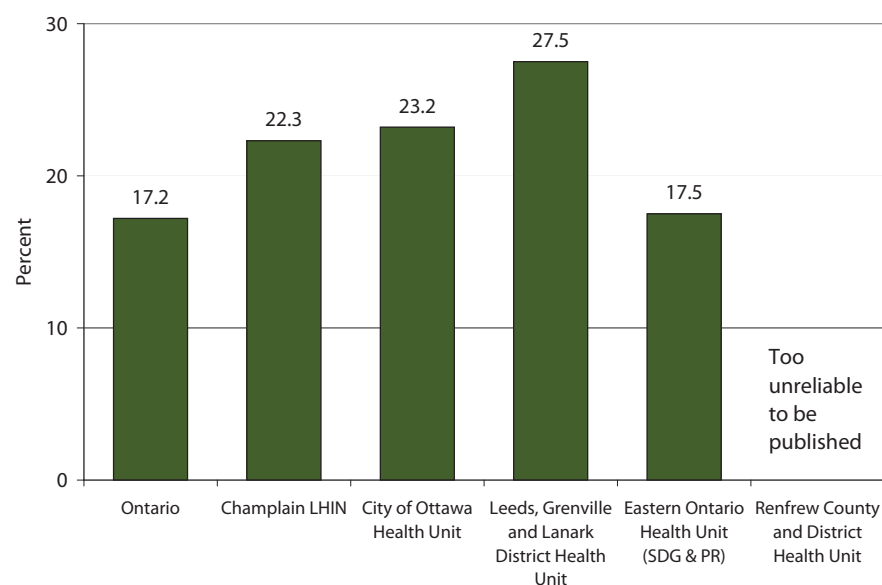


Source: Canadian Community Health Survey, 2007/2008  
Calculations by the CYHNEO using data from Statistics Canada's Canadian Community Health Survey, 2007/2008.

## 6.2 Perceived Life Stress

In 2007/2008, in the Champlain LHIN area, more than 22% of young people 15 to 19 years of age reported that they have quite a lot of stress in their lives. This compared with approximately 17% in Ontario overall. It was as high as 28% in Leeds, Grenville and Lanark District Health Unit area.

### Percent of 15 to 19 Year Olds who Report they have Quite a Lot of Stress in their Lives, 2007/2008

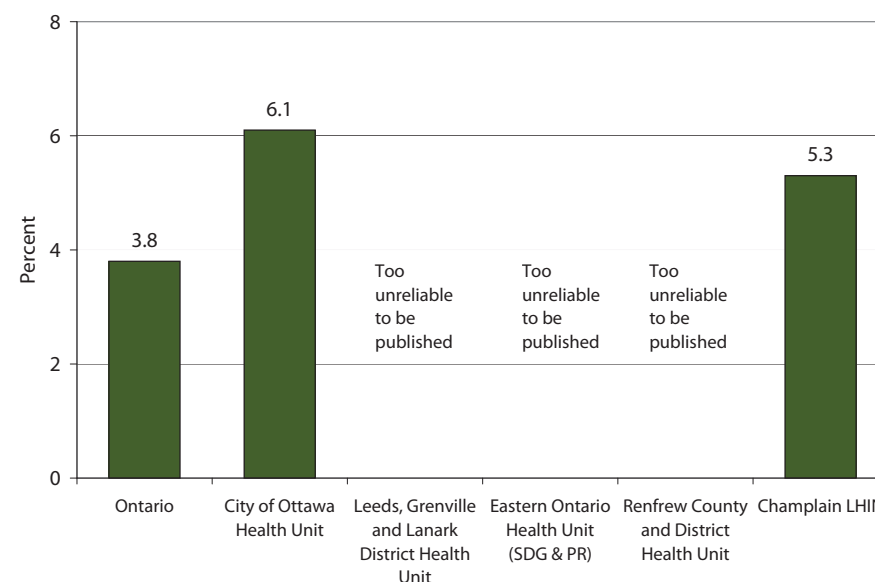


Source: Canadian Community Health Survey, 2007/2008  
Calculations by the CYHNEO using data from Statistics Canada's Canadian Community Health Survey, 2007/2008.

## 6.3 Mood Disorders

According to the Canadian Community Health Survey, 2007/2008, in the Champlain LHIN area, 5.3% of children and youth 12 to 19 years were identified as having a mood disorder.\* This compares to 3.8% for Ontario overall and 6.1% for the City of Ottawa Health Unit area. The data for the other counties are not available.

### Proportion of Children and Youth 12 to 19 Years who have been Identified as having a Mood Disorder, 2007/2008



Source: Canadian Community Health Survey, 2007/2008  
Calculations by the CYHNEO using data from Statistics Canada's Canadian Community Health Survey, 2007/2008.

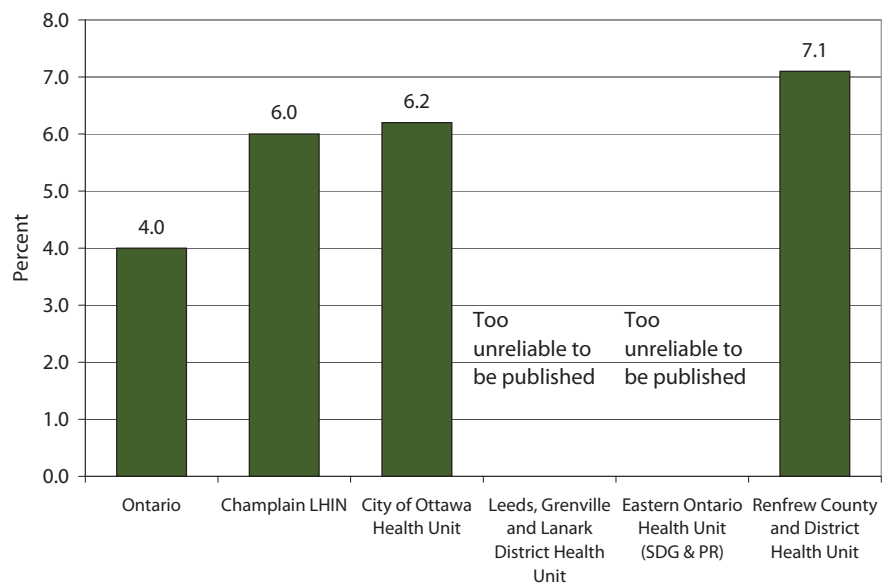
\* Respondents were asked if they were ever diagnosed by a health professional as having a mood disorder such as depression, bipolar disorder, mania, dysthymia or manic depression.

# 6. Mental Health

## 6.4 Contact with a Health Professional About Mental Health

According to the Canadian Community Health Survey, 2007/2008, 6% of youth age 12 to 19 years in the Champlain LHIN area reported that had contact with a health professional about mental health in the 12 months preceding the survey. That proportion was higher than the provincial rate of 4%. It was 7.4% in the Renfrew County and District Health Unit area.

Proportion of 12 to 19 Year Olds who Report that they have had contact with Health Professionals About Mental Health in the last 12 Months, 2007/2008



Source: Canadian Community Health Survey, 2007/1008  
Calculations by the CYHNEO using data from Statistics Canada's Canadian Community Health Survey, 2007/2008.

# 7. Health Behaviours

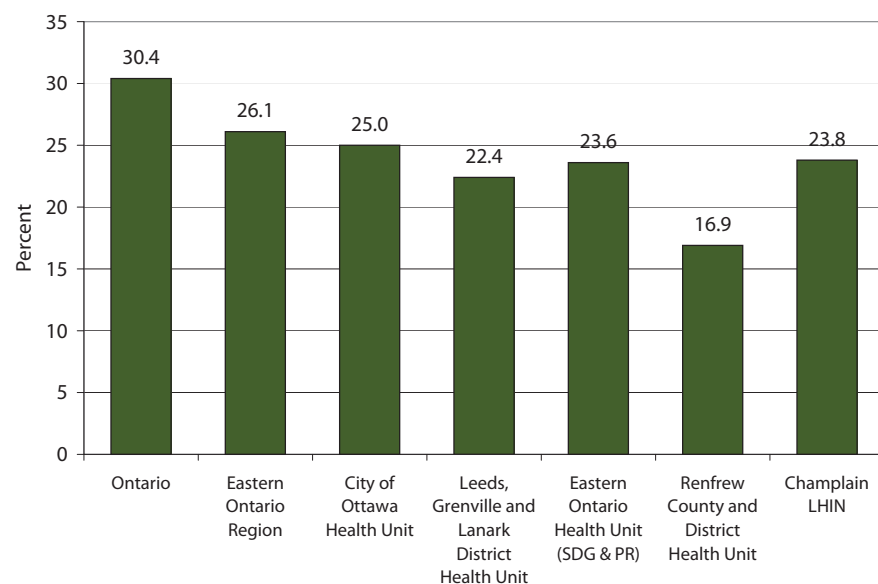
## 7.1 Physical Activity

Physical activity has positive effects on the physical and mental health of children and youth.<sup>58</sup> Furthermore, when children and youth become physically active when they are young, these behaviours continue into adulthood – continuing to benefit their health.

Lack of physical activity is often linked to the increase in obesity. During the past 25 years, obesity rates among children and youth have nearly tripled.<sup>59</sup> This is a result of children eating too much high-energy, high-fat food and also being sedentary.<sup>60</sup> Childhood obesity is linked to many serious health problems such as type 2 diabetes, high blood pressure and mental health problems.<sup>61</sup> Most children who are overweight or obese go on to be overweight or obese as adults.<sup>62</sup>

According to the Canadian Community Health Survey, 2007/2008, approximately 26% of children and youth aged 12 to 19 years residing in the Eastern Ontario Region reported that they were physically inactive\* during their leisure-time. This was lower than the provincial rate of approximately 30%. The rate varied across the Eastern Ontario Region – from approximately 17% to 25% in the different health unit districts.

## Proportion of 12 to 19 Year Old who Report that their Level of Physical Activity is Inactive, 2007/2008



Source: Canadian Community Health Survey, 2007/2008  
Calculations by the CYHNEO using data from Statistics Canada's Canadian Community Health Survey, 2007/2008.

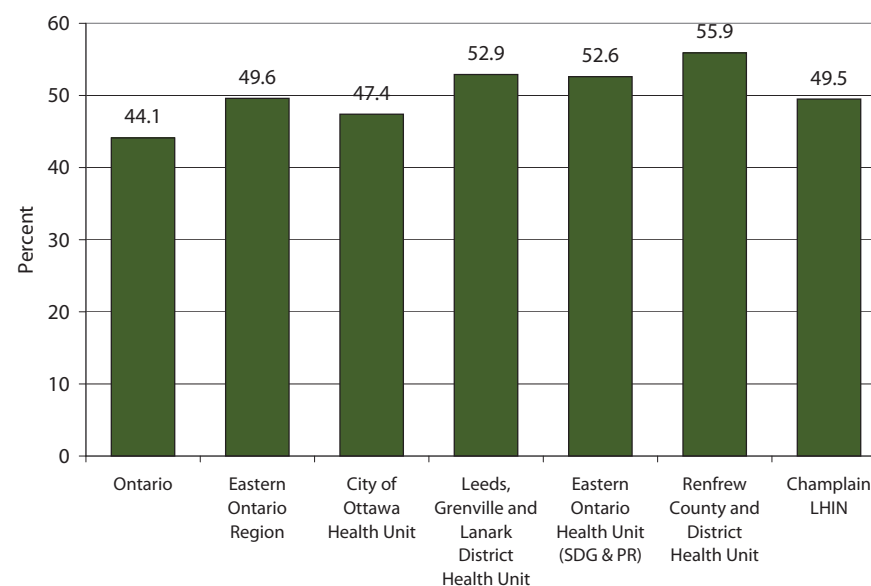
\* *Inactive* is defined as using less than 1.5 kilocalories per kilogram of body weight per day.

## 7.2 Eating Fruits and Vegetables

Diets which are high in fruits and vegetables have many benefits. Research indicates that eating such a diet may prevent some kinds of cancer, reduce the risk of cardiovascular disease, and decrease the risk of being overweight or obese.<sup>63</sup> There are a number of factors which influence whether or not children and youth eat a diet rich in fruit and vegetables – including access within a community to stores and the affordability of the fresh food.<sup>64</sup>

In the Eastern Ontario Region, about half of children and youth 12 to 19 years of age reported that they eat fruits and vegetables five or more times a day in 2007/2008. In the Renfrew County District Health Unit area that proportion was almost 56%.

## Percent of 12 to 19 Year Olds who Report that they Eat Fruits and Vegetables Five or More Times a Day, 2007/2008



Source: Canadian Community Health Survey, 2007/2008  
Calculations by the CYHNEO using data from Statistics Canada's Canadian Community Health Survey, 2007/2008.

## 7. Health Behaviours

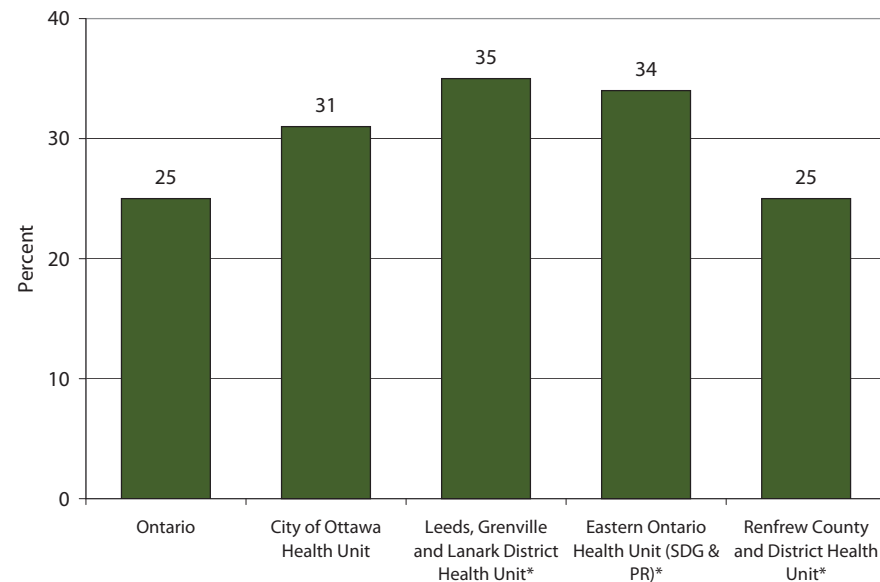
### 7.3 Heavy Drinking

Alcohol is the most commonly used drug among Canada's youth.<sup>65</sup> Alcohol-related trauma is a significant and a preventable cause of death among young Canadians.<sup>66</sup> Research indicates that youth view heavy drinking as a social norm.<sup>67</sup> While illicit drug use has generally been declining, the prevalence of heavy drinking has been holding steady and even increasing.<sup>68</sup>

Heavy alcohol consumption may be even riskier for young people than adults, since research shows that the brains of young people are still developing and heavy drinking can adversely affect that development.<sup>69</sup>

According to the Canadian Community Health Survey, 2007, at least one-quarter of young people 12 to 19 years of age – in each of the health unit districts – reported that they consumed five or more drinks on one occasion at least once in the year prior to the survey. That proportion was 35% in Leeds, Grenville and Lanark District Health Unit and 34% in the Eastern Ontario Health Unit area. The provincial rate was 25%.

**Percent of 12 to 19 Year Olds who Report that they had five or more drinks on one occasion at least once in the last year, 2007**



Source: Initial Report on Public Health, August 2009

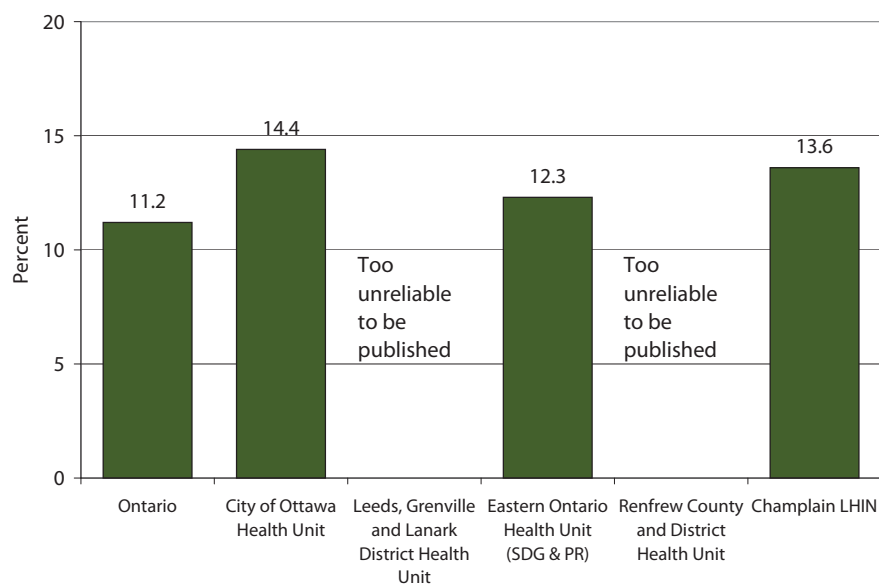
\* Warning of high variability associated with estimates



### 7.3 Heavy Drinking

Having five or more drinks on one occasion *at least once a month* in the last year is perhaps a more sensitive indicator of heavy drinking than doing so once in the last year. Over 13% of 12 to 19 year old reported that they had five or more drinks at least once a month in the last year, according to the Canadian Community Health Survey in 2007/2008. That was higher than the provincial rate of approximately 11%. The rate varied across the counties where the data were available.

**Percent of 12 to 19 Year Olds who Report that they had five or more drinks on one occasion at least once a month in the last year, 2007/2008**



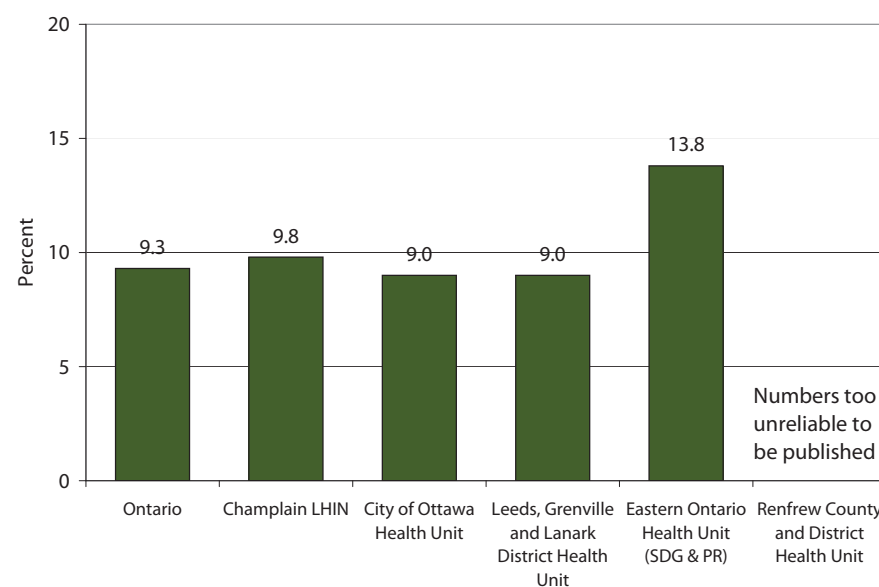
Source: Canadian Community Health Survey, 2007/08  
Calculations by the CYHNEO using data from Statistics Canada's Canadian Community Health Survey, 2007/2008.

### 7.4 Smoking

The harmful effects of smoking are well recognized. There is significant concern about smoking among young people since they are likely to continue smoking into adulthood.<sup>70</sup>

According to the Canadian Community Health Survey, 2007/2008, 9.8% of youth 12 to 19 years of age reported that they were current smokers – that is, they smoked daily or occasionally. This was very similar to the provincial rate at 9.3%. In the Eastern Ontario Health Unit area the rate was 13.8%.

**Percent of 12 to 19 Year Olds who Report they are Current Smokers - Smoking Daily or Occasionally, 2007/2008**



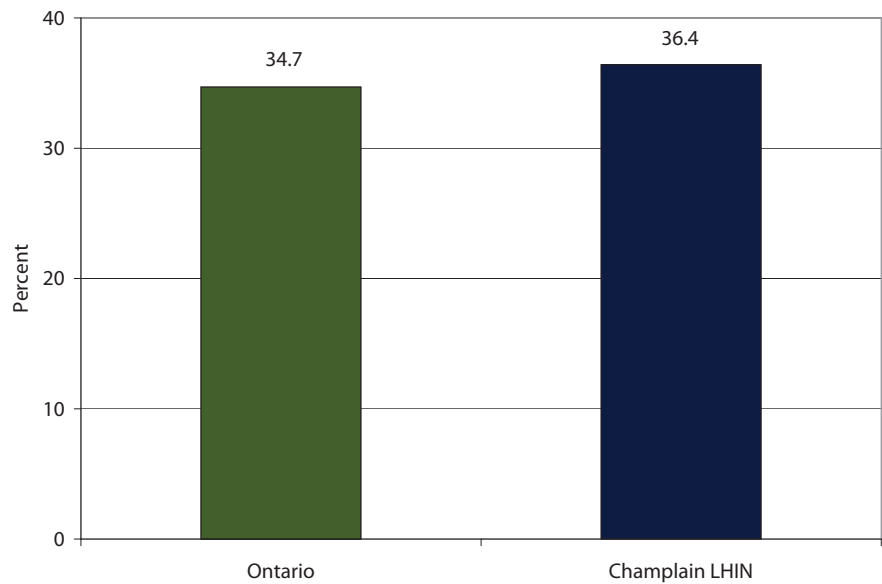
Source: Canadian Community Health Survey, 2007/2008  
Calculations by the CYHNEO using data from Statistics Canada's Canadian Community Health Survey, 2007/2008.

# 7. Health Behaviours

## 7.5 Drug Use

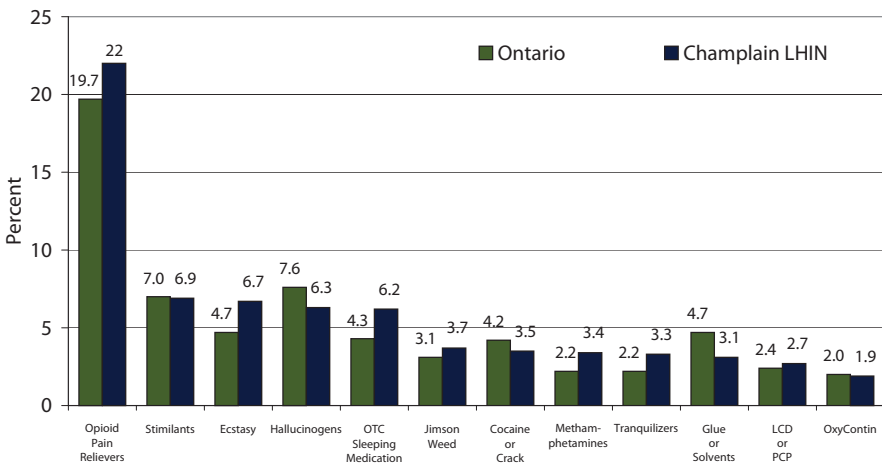
Cannabis appears to be the drug of choice for students in the Eastern Ontario region. Although we do not have data by county, we have data regarding drug use among high school students, in 2007, for the Champlain LHIN area. Almost 35% had used cannabis in the last year, very similar to the Ontario rate. Twenty-two percent had used opioid pain relievers compared with 20% in Ontario overall.

Percentage of Secondary School Students (Grades 9 to 12) Reporting Cannabis Use During the Past Year, 2007



Source: Drug Use Among Ontario Students, 1977-2007. CAMH Research Document Series. No. 20.  
Edward M. Adlaf and Angela Paglia-Boak.  
Centre for Addiction and Mental Health.

Percentage of Secondary School Students (Grades 9 to 12) Reporting Drug Use During the Past Year, 2007

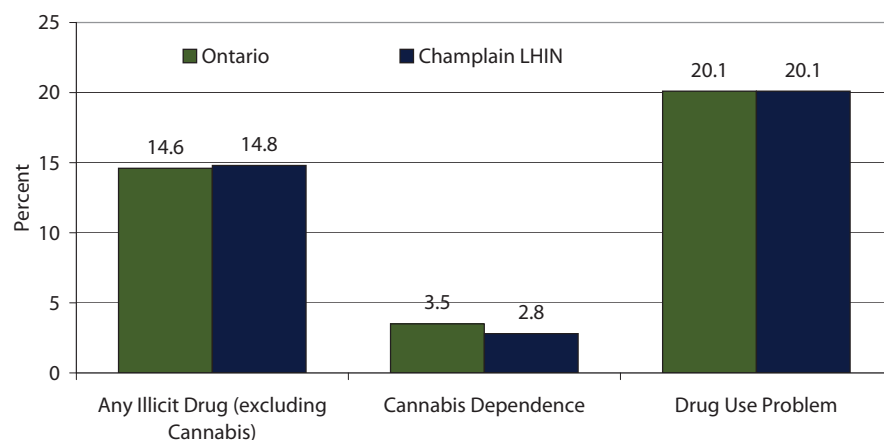


Source: Drug Use Among Ontario Students, 1977-2007. CAMH Research Document Series. No. 20.  
Edward M. Adlaf and Angela Paglia-Boak. Centre for Addiction and Mental Health.

## 7.5 Drug Use

In 2007, almost 15% of students in the Champlain LHIN area reported that they had used any illicit drug (excluding cannabis) in the past year. This was the same proportion as in Ontario overall. Twenty percent reported having a drug use problem and almost three percent reported a cannabis dependence.

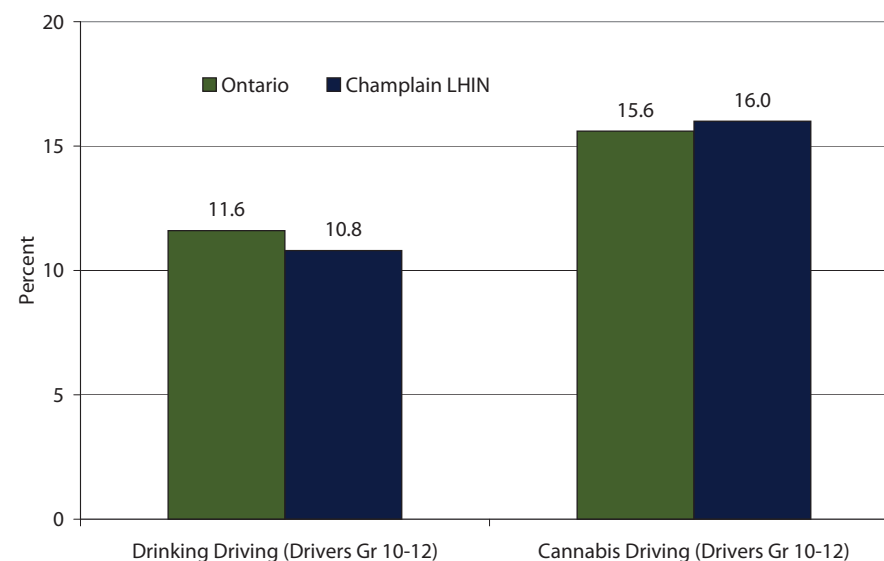
### Percentage of Secondary School Students (Grades 9 to 12) Reporting Drug Use/Drug Problems, During the Past Year, 2007



Source: Drug Use Among Ontario Students, 1977-2007. CAMH Research Document Series. No. 20. Edward M. Adlaf and Angela Paglia-Boak. Centre for Addiction and Mental Health.

In 2007, almost 11% of students in the Champlain LHIN area reported that they had driven while using alcohol in the past year. This was very similar to the proportion as in Ontario overall. Sixteen percent reported that they had driven while using cannabis in the past year – almost identical to the Ontario rate.

### Percentage of Secondary School Students (Grades 9 to 12) Reporting Driving while using Alcohol or Cannabis During the Past Year, 2007



Source: Drug Use Among Ontario Students, 1977-2007. CAMH Research Document Series. No. 20. Edward M. Adlaf and Angela Paglia-Boak. Centre for Addiction and Mental Health.

## 8. Obesity

There is growing concern about the rate of childhood obesity in Canada; it is a crisis and shows no sign of retreating. It is estimated that the overweight/obesity rate among youth aged 12 to 17 has more than doubled over the past 25 years, and the obesity rate has tripled.<sup>71</sup>

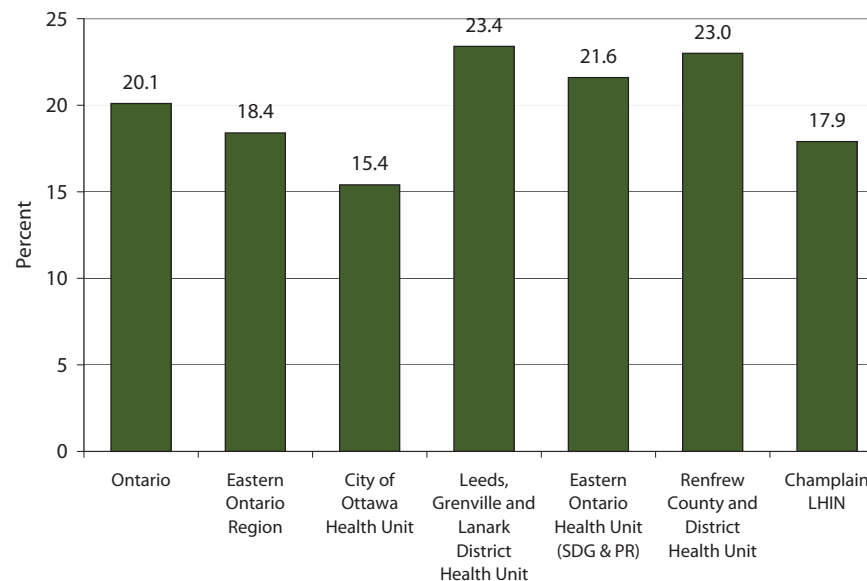
As more and more children and youth become obese, related health issues become more serious and complex with an increase in such medical problems as type 2 diabetes, high blood pressure and elevated blood cholesterol.<sup>72</sup> In addition, overweight or obesity in childhood can also result in serious psychological difficulties.<sup>73</sup> Unfortunately most obese children and youth do not outgrow their weight problem and, in fact, continue to gain weight as they age.<sup>74</sup>

Research tells us that children and youth do not get enough physical activity. It also tells us that we are not really eating more, just eating more poorly and doing less. What we do not know is the health implications for a child who is obese when her/she becomes an adult.

### 8.1 Self-Reported Body Mass Index (BMI)\*

In 2007/2008, 18.4% of 12 to 17 year old youth reported that their body mass index was such that they were overweight or obese. This compares with a rate of 20.1% for Ontario overall. The rate varied across counties from 15.4% in the City of Ottawa Health Unit area to 23.4% in the Leeds, Grenville and Lanark District Health Unit area.

**Percent of 12 to 17 year olds who Self-Reported a Body Mass Index Indicating they were Overweight or Obese, 2007/2008**



Source: Canadian Community Health Survey, 2007/2008

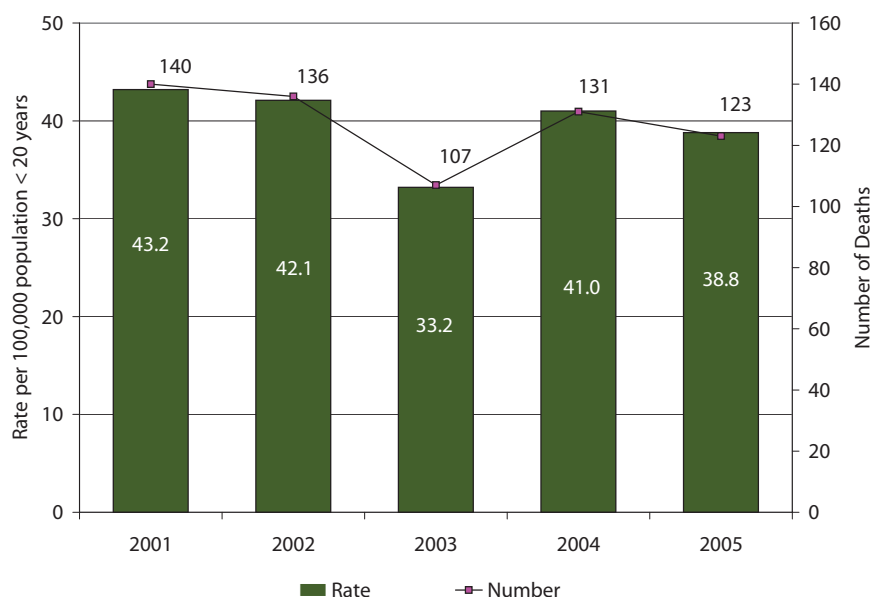
\* Body mass index (BMI) is a measure that takes weight and height into account (BMI = weight in kilograms divided by height in metres squared).

## 9. Deaths

### 9.1 Over Time

In 2005, 123 children and youth under the age of 20 died in the Eastern Ontario region. The death rate was 38.8 per 100,000 children and youth in the population. There has been some variation in the death rates over the five year period 2001 to 2005, however, the numbers are small and need to be interpreted with caution.

**Death Rate per 100,000 population and Number of Deaths, Children and Youth < 20 years, Eastern Ontario 2001 to 2005**

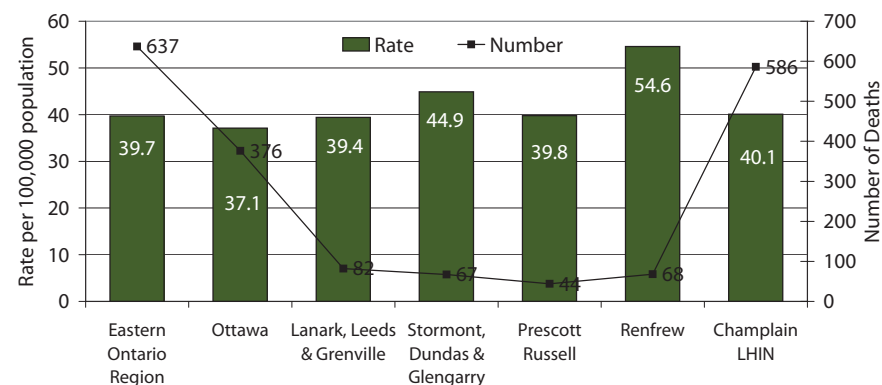


Source: Ontario Ministry of Health and Long Term Care,  
Provincial Health Planning Data Base  
Data provided by the Champlain Local Health Integration Network (LHIN),  
Ministry of Health

### 9.2 By County

Averaging the years 2001 to 2005, the average death rate of children and youth under 20 years was 39.7 per 100,000 population in the Eastern Ontario Region. Six hundred and thirty seven children and youth died over that five year period. The rates varied across counties – however, the numbers are small and need to be interpreted with caution.

**Average Death Rate per 100,000 and Total Number of Deaths, Children and Youth < 20 years by County, for the Years 2001 to 2005 Inclusive**



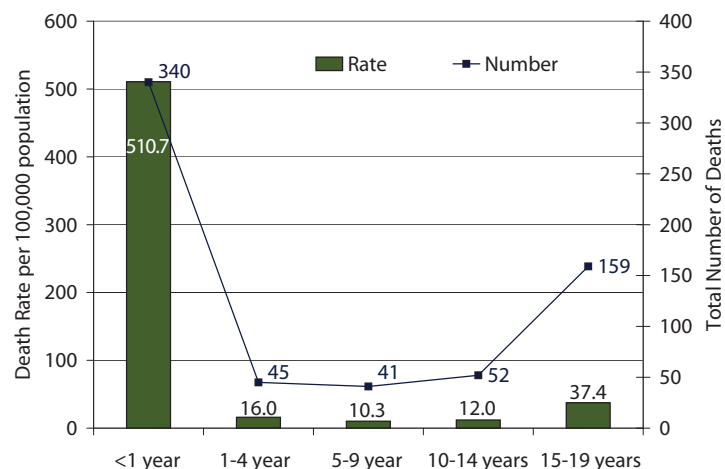
Source: Ontario Ministry of Health and Long Term Care,  
Provincial Health Planning Data Base  
Data provided by the Champlain Local Health Integration Network (LHIN),  
Ministry of Health

## 9. Deaths

### 9.3 By Age

Infants under one year have the highest death rates followed by teenagers 15 to 19 years. Averaging the years 2001 to 2005, the average death rate of children and youth under one year was 510.7 per 100,000 population in the Eastern Ontario Region. The rate for teens was 37.4 deaths per 100,000 population.

#### Average Death Rate per 100,000 and Total Number of Deaths, Children and Youth < 20 years by Age Group, for the Years 2001 to 2005 Inclusive

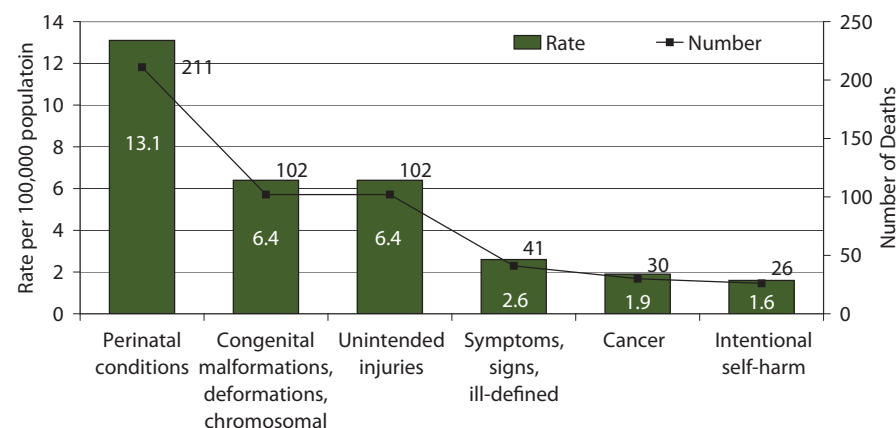


Source: Ontario Ministry of Health and Long Term Care,  
Provincial Health Planning Data Base  
Data provided by the Champlain Local Health Integration Network  
(LHIN, Ministry of Health)

### 9.4 By Leading Cause

Averaging the years 2001 to 2005, the leading cause of death rate among children and youth under 20 years was perinatal conditions. Of the 211 children who died of this cause, 208 were under a year. The second leading causes were congenital malformations, deformations and chromosomal conditions; and unintended injuries. Of the 102 children who died of congenital conditions, 82 were under a year. Of the 102 children and youth who died of unintended injuries, 68 – or two-thirds – were 15 to 19 years of age. Fifty-six died in transport (e.g., automobile, bicycle, motorcycle, pedestrian) accidents.

#### Leading Causes of Death Among Children and Youth < 20 Years, Average Rate 2001 to 2005 Inclusive and Total Number 2001 to 2005



Source: Ontario Ministry of Health and Long Term Care,  
Provincial Health Planning Data Base  
Data provided by the Champlain Local Health Integration Network  
(LHIN, Ministry of Health)

## 10. Morbidity

### 10.1 Causes of Hospitalization

In 2007, the leading cause of hospitalization (based on hospital separations\*) among children and youth under 20 years in the Eastern Ontario region was conditions originating in the perinatal period. (The perinatal period is the period around the time of birth, specifically from 22 weeks of gestation seven days after birth). This was followed by respiratory diseases, digestive diseases and injuries.

### 10.2 Hospitalization by Age Group

In the Eastern Ontario Region, in 2007/08, the hospital separation rate for children and youth under 20 years (excluding those of healthy newborns following birth) was 3741.7 per 100,000 children and youth under 20 years. However, it varied across the age groups. Infants under one year had much higher separation rates – primarily related to conditions originating in the perinatal period.

#### Rate of Hospital Separations\* per 100,000 Population, Eastern Ontario Region, 2007-2008, By Age Group

< 1 year	43,375.8
1 to 4 years	2,499.6
5 to 9 years	1,350.6
10 to 14 years	1,445.0
15 to 19 years	2,702.5
< 20 years	3,741.7

Source: Ontario Ministry of Health and Long Term Care, Provincial Health Planning Data Base.  
Data provided by the Champlain Local Health Integration Network (LHIN, Ministry of Health)

#### Rate of Hospital Separations<sup>†</sup> per 100,000 population, Eastern Ontario Region, 2007-2008

Perinatal Conditions .....	1341.8
Respiratory Diseases .....	387.6
Digestive Diseases .....	319.7
Injuries .....	223.6
Congenital Malformations, deformations and chromosomal abnormalities .....	200.9
Other <sup>2</sup> .....	200.9
Pregnancy, childbirth & postpartum .....	167.0
Mental Disorders. ....	150.8
Symptoms, signs and abnormal clinical and lab findings, not otherwise classified .....	143.1
Genitourinary Diseases .....	86.1
Musculoskeletal System and Connective Tissue Diseases .....	79.9
Nervous System Diseases .....	56.3
Diseases of the blood and blood-forming organs and certain immune disorders .....	53.1
Infectious and parasitic diseases .....	52.4
Endocrine, nutritional and metabolic diseases .....	45.9
Neoplasm. ....	45.6
Skin and subcutaneous tissue Diseases .....	40.1
Medical Observation and Evaluation .....	39.2
Circulatory Diseases .....	23.3
Ear and Mastoid Process Diseases .....	22.6
Eye and Adnexa Diseases .....	12.6

Source: Ontario Ministry of Health and Long Term Care,  
Provincial Health Planning Data Base  
Data provided by the Champlain Local Health Integration Network  
(LHIN, Ministry of Health)

Note: It is recognized that hospitalization reflects health service organization and availability – it does not reflect the prevalence of a condition or illness.

\* A hospital separation is counted when a person leaves the hospital, for reasons including discharge, death, sign-out against medical advice or transfer. The numbers of separations are counted – therefore, one person can have more than one separation in a year. This rate excludes the hospitalization of healthy newborns after birth.

† Other=Other factors influencing health status and contact with health services; Other medical care (including radiotherapy and chemotherapy sessions); Other and unspecified effects of external causes; Unknown; and Complications of surgical and medical care, not elsewhere classified.

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