2020 Greater Montréal's **VitalSigns**®

2000-2019 Full version



Research by:





ABOUT VITAL SIGNS™

The Vital Signs[™] report, conducted by several community foundations under the coordination of Community Foundations of Canada, draws on local data to measure the vitality of our communities and support actions that improve quality of life.

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We know about the issues of our community as well as the organizations working to improve them. If you would like to make a difference, we can help and guide you.

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This is the abridged version of Greater Montréal's Vital Signs 2020 report. The full version is available on the FGM website

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GREATER MONTRÉAL: 20 YEARS LATER

Introduction

The beginning of this decade offers us an opportunity to assess Montréal's strengths and weaknesses, its challenges and the progress it has made, whether these be recent or less recent.¹

In this era of climate change, growing inequalities, anticipated major technological change, and an aging population, among other challenges, many are asking themselves how to maintain decent economic and social conditions for individuals the world over.

While many of these challenges will need to be dealt with on a national level, or even by supranational organizations, cities will also have to play a larger role in managing the impacts of the changes to come. The United Nations (UN) has proposed 17 Sustainable Development Goals (SDGs) which are meant to guide developed and developing nations in the quest to flourish socially, economically and in terms of sustainability. Most SDGs set out targets to be met by 2030.

This 2020 edition of *Vital Signs* will mainly attempt to establish the connections between Montréal's successes and difficulties over the last few years, and the challenges it needs to take up in the next 10 years in order to be an example of successful implementation of the SDGs (16 out of 17 will be examined here).

Before we get to the evaluation of how well Montréal has done in relation to SDGs, we will present a demographic analysis, which will allow us to show in a summary way the makeup of the Montréal's population.

DEMOGRAPHY

To better understand Greater Montréal's demography, we need to establish the geographic boundaries that provide the contours for the analyses found in this report.

In practice, several definitions of Montréal are used: the island (administrative region), the city (which excludes some cities on the island), the Census Metropolitan area (CMA),² the Communauté métropolitaine de Montréal (or metropolitan Montréal community, CMM)³ and the agglomeration of Montréal.⁴ Data available for each of these definitions varies depending on the indicator being discussed. Where possible, the CMA will be the reference point, since it encompasses just about all of the cities that are part of Greater Montréal. Otherwise, the definition used will be specified.

Image 0-1

Map of the Région métropolitaine de Montréal, 2016



Source: Recensement 2016, Statistique Canada⁵

- 2 Montreal's CMA has 82 municipalities and cities and it extends on five territories: Montreal Island, Laval, Longueuil, South and North shores. Pour la liste complète des municipalités incluses en date du dernier recensement, suivez ce lien.
- 3 The CCM territory is less large than the CMA and has less population. Pour la liste complète des municipalités membres de la CMM, cliquez ici.
- 4 The agglomeration includes all of the island of Montréal, Ile Bizard and a few other small islands.
- 5 Taken from a document of the City of Montréal.

According to the Institut de la statistique du Québec,⁶ the Montréal CMA had 4,318,505 habitants in 2019,⁷ which represents an average annual increase of 1 % when compared with 2009 (3.9 million). Over the last 10 years, Montréal's population increased at a greater rate than that of the rest of Quebec (Figure 0-1).

Figure 0-1

Population growth for Montréal CMA and rest of Quebec

Annual variation in % and annual average growth from 2009 to 2019



The annual growth rate of the Montréal CMA was similar to that of the rest of Quebec between 2009 and 2015, and diminished from year to year. Since 2016, however, Montréal has had great momentum in terms of population increases, whereas the rest of Quebec is growing at a slower rate.

Montréal's growth was not, though, as great as that of other major cities in Canada over the last 10 years. It was slightly ahead of the Québec City CMA (0.84 %), but lagged far behind cities like Calgary (2.18 %), Edmonton (2.21 %), Toronto (1.48 %) and Vancouver (1.58 %).⁸

Figure 0-2

Average annual population growth in Canadian CMAs, 2009-2019



6 http://www.stat.gouv.gc.ca/statistiques/population-demographie/structure/rmr-totaux.htm

7 Note that 2019 population data are considered not final.

8 Source: Statistique Canada, table: 17-10-0135-01.

Children

In all, 824,409 children under 18 lived in the Montréal CMA in 2018. While this is an increase in absolute numbers over the period of 2001 to 2018, the relative weight of this group in the population has gradually diminished, going from 21.6% in 2001 to 20.7% in 2006, then to 19.6% in 2011 and 19.4% in 2018.

Figure 0-3



Source: Institut de la statistique du Québec

That said, the demographic weight of those under 18 is greater in Montréal than it is elsewhere in Quebec, except in the Quebec part of the Ottawa-Gatineau CMA (20.8 %). It is also greater than in Vancouver, Halifax and Toronto (that gap is smaller), but less than in Calgary or Edmonton.

Figure 0-4

Demographic weight of population under 18 years of age, 2019

selected Canadian CMAs; in % of total population

Calgary (CMA), Alberta	21.5 %
Edmonton (CMA), Alberta	21.3 %
Ottawa-Gatineau (CMA), Quebec portion, Quebec	20.8 %
Montréal (CMA), Quebec	19.3 %
Toronto (CMA), Ontario	19.0 %
Sherbrooke(CMA), Quebec	18.3 %
Québec City(CMA), Quebec	17.7 %
Halifax (CMA), Nova Scotia	17.4 %
Saguenay(CMA), Quebec	17.0 %
Vancouver (CMA), British Columbia	16.8 %
Trois-Rivières(CMA), Quebec	16.3 %

Source: Statistique Canada, table: 17-10-0135-01

Births

The number of births in the Montréal CMA remained relatively stable, having increased by 2.8 % since 2006 to reach 44,675 in 2018. During this period, this figure remained higher than in the rest of Quebec.

Figure 0-5



Births, Montréal (CMA) and rest of Quebec

Source: Institut de la statistique du Québec

In 2018, the birth rate stood at 10.5 %, its lowest level since 2006. The total fertility rate stood at 1.51 children per female, under the rate of 1.59 for the whole of Quebec and for Gatineau (1.57), but above those of Québec City (1.46) and Trois-Rivières (1.46).⁹

Changes in the makeup of families with children

In 2016, in the Montréal CMA, 451,875 couples had children, as well as 172,240 single parent families.¹⁰ Most couples had two children, and more than three-quarters of the single parent families were headed by a woman. Most single parent families only had one child.

The great majority of children under 15 lived with two parents, either biological or adoptive.¹¹ Families with parents living in a common-law relationship made up 29 % of families with children, while the proportion of single parent families has steadily increased in number over the decades, going from 25 % of families in 2011 to 29 % in 2016.

Montréal and Laval posted the lowest rate of live births outside marriage in the Montréal CMA (about 37 % in 2016), while the rate is quite a bit higher in Montérégie (68 %).

Among people having a child under 15 in the Montréal CMA, 665 lived in a married couple made up of two spouses of the same sex, up from 180 in 2006. As well, 1,255 individuals lived in a common-law relationship with partners of the same sex, up from 675 in 2006.

⁹ To see definitions of birth rate and of total fertility rate, consult Chapter 2 of the Bilan démographique du Québec (2019), by l'Institut de la statistique du Québec.

¹⁰ This section is reproduced from the previous version of Vital Signs, since the data and the conclusions drawn from it have remained the same.

Children and their mother tongue

Mother tongue is defined as the first language learned and still understood.

In the Montréal CMA, the vast majority (93.8 %) of children under 15 years of age have a single mother tongue, either French (64.7 %), English (12.3 %) or another language (16.8 %).¹²

The situation differs quite a bit from one municipality to another within the Montréal CMA, although French continues to be the most common mother tongue. In 2016, French was the mother tongue of 47.5 % of children under 15 in Montréal, while that proportion reached 56.9 % in Laval, 71.7 % in Longueuil and 86.3 % in the rest of the Montréal CMA.

Conversely, the percentage of youths under 15 whose mother tongue was neither French nor English was 25.6 % in Montréal, de 23.3 % in Laval, 15.1 % in Longueuil and barely 4.4 % in the remainder of the Montréal CMA.

Arabic was the main immigrant mother tongue, in all age categories, among individuals living in the Montréal CMA in 2016. The others were, in order of prevalence, Spanish, Italian, Creole languages and Mandarin. An "immigrant language" is a non-native language whose presence is initially attributable to immigration subsequent to French and English colonization.

Immigration

The Montréal CMA is one of the three regions in Canada where the concentration of immigrants is the highest. Indeed, among immigrants who landed in Quebec between 2008 and 2017 and who still resided there in 2019, 72.2 % lived in the administrative region of Montréal, in Laval and in greater Longueuil. The rest lived in another region (24.8 %) or had a domicile that could not be clearly established (3.0 %).¹³

In 2016 in Montréal,¹⁴ 321,675 children under 15 had at least one parent who was born abroad, which represents 46.6 % of the total population in this group. That is a percentage that is far greater than the number for the whole of Quebec, (29.4 %), but less than the numbers found in Toronto (71 %) or Vancouver (63.7 %).

¹² This section is reproduced from the previous version of Vital Signs, since the data and the conclusions drawn from it have remained the same.

¹³ Présence et portraits régionaux des personnes immigrantes admises au Québec de 2008 à 2017, Ministère de l'Immigration, de la Francisation et de l'Intégration, 2019.

The aging of the population is a significant issue in Montréal

Even though the Montréal CMA saw a greater influx of young people than the rest of Quebec did, the aging of the population is still a clear reality here. The proportion of elderly individuals in the region has increased.

Figure 0-6





Source: Statistique Canada, table: 17-10-0135-01

The average age in the Montréal CMA stands at 40.8 years, and a bit more than 40 % of the population is aged between 35 and 65.

But the phenomenon of the aging population is irreversible and is in fact going to become more acute, both in Montréal and in neighbouring regions. According to a forecast from the Institut de la statistique du Québec,¹⁵ the proportion of the population aged 65 and over will increase from now until 2030, reaching 21 % in the Montréal CMA and 29 % elsewhere in Quebec. Subsequently, until 2041 (the last year for which CMA-based data is available) those 65 and over will respectively represent 23 % (+2 points) et 30 % (+1 point), according to the Institut's scenario. The part of the population between 20 and 64 years of age, on the other hand, will decline until around 2030, subsequently holding steady at 57 % for Montréal and 51 % for the rest of Quebec

Figure 0-7

Projected population levels for Montréal and elsewhere in Quebec

in percentage of total population; scenario by the Institut de la statistique du Québec



Source: Institut de la statistique du Québec

POVERTY

OBJECTIVE 1 - End poverty in all its forms everywhere

The overall picture of poverty in Montréal

Greater Montréal, a developed region that is still experiencing some poverty issues

Reducing poverty is the first goal that any society must aspire to in order to ensure its sustainable and equitable development. A true human and societal drama, poverty is the source of many ills and literally endangers our fellow citizens who don't have enough to eat, clothe themselves, or lead fulfilling lives. This drama is all the more painful when it touches children.

Montréal, both as a city and a region, is quite developed and is situated near one of the most powerful economies in the world. Still, in certain neighbourhoods and sectors, many people experience poverty.

The UN's Sustainable Development Goal on poverty is broken down into five sub-goals that all aim at diminishing poverty or mitigating poverty's impact. The main axes are: reduction of poverty and elimination of its most extreme forms, the implementation of social support measures and wealth redistribution, and the mitigation of the effects of economic, social and environmental disasters on the very poorest, who feel their impacts more than anyone.

UN Goals

- **1.1** By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than \$1.25 a day
- **1.2** By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions
- **1.3** Implement nationally appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the poor and the vulnerable

Reducing and eliminating poverty

Extreme poverty in absolute terms is defined as someone living on \$1.90 US per day.¹⁶ Obviously, this doesn't take into account the relative nature of poverty. Cost of living being different from one society to another, the value of this sum isn't the same in Dakar as it would be in Montréal. Still, according to the World Bank,10 % of the world's population lives under this daily income threshold.¹⁷

Greater Montréal's residents, with the exception of some individuals experiencing homelessness, all earn more than \$1.90 US per day; and yet, that doesn't mean that poverty has been eliminated. Some of the region's neighbourhoods and sectors continue to be home to too many people living in poverty.

Gauging poverty

Poverty¹⁸ can by measured through a variety of indicators, all of which have their strengths and weaknesses. **The Low Income Measure** is calculated based on a household's adjusted income, weighted according to its size. An income is considered low if it is at 50 % or less of the median weighted income. This measurement is effective in comparing interprovincial and international data, but does not factor in cost of living, which can vary among regions. This measure is **relative**, since it varies according to the income level in society in general. For instance, an increase in median income can result in an increase in the percentage of individuals considered as having low incomes, without their situation actually having worsened.

Another indicator is the **Market Basket Measure (MBM)**, which is based on the cost of the various products and services necessary to ensure a modest, basic standard of living for a family of two parents and two children. This measure is adjusted to take into account variations in the cost of living from one region to another and for different types of families. MBM allows us to capture the relation between incomes and families' needs. However, it is not easily comparable from region to another. It is an **absolute measure** of poverty, since it indicates the exact percentage of individuals who don't have enough to be able to participate actively in society. That is the percentage that needs to be brought down as much as possible

¹⁶ Banque mondiale

¹⁷ https://www.banquemondiale.org/fr/news/press-release/2018/09/19/decline-of-global-extreme-poverty-continues-but-has-slowed-world-bank

¹⁸ From Côté and Scarfone, 2019 and adapted from Crespo, 2019.

Based on these methods of measuring poverty, is Montréal doing better or worse than it was 20 years ago?

Evolution of percentage of people in poverty in Quebec (%)

If you use the MBM, in general, the situation in Greater Montréal has improved, as it has throughout Quebec. In 2017, 11.6 % of Montrealers did not have enough income to purchase the basic goods and services needed to live a full life in our society. In 2006 (the first year for which this measurement is available), that percentage stood at 14.6 %.

Again, using this standard, the poverty rate for Greater Montréal is 2.6 points higher than that of Quebec for 2017. Over time, we see a trend emerging, as Montréal systematically posts a higher rate than the Quebec average.

Figure 1-1

Market basket measure base 2008



Source: Statistique Canada, Table 11-10-0136-01

Poverty and age

Even if MBM constitutes an absolute and general measurement of poverty, it looks at people in different age groups in different ways. For instance, the elderly are more likely to live in poverty in Greater Montréal. In 2017, 21.3 % of families that included at least one elderly person were experiencing poverty. We should note, though, that the picture has brightened a bit since 2006.

Figure 1-2

Evolution in the percentage of families with elderly persons and experiencing poverty in Quebec, based on the Market Basket Measure (base year 2008, %)



Source: Statistique Canada, Table 11-10-0136-01

A similar situation can be seen among young people. Indeed, an examination of the data from the 2016 Census leads to the conclusion that poverty affects two age groups in particular: young people between 20 and 24 years of age, and persons older than 65.¹⁹

The impact of taxation and transfers

Do social measures (income tax and financial transfers) have the effect of diminishing the numbers of people who experience poverty? We can examine this using data on the Low Income Measure (50 % of the median income) with income examined after tax. This is a relative measure, but it nonetheless allows to more easily compare the metropolitan area with other areas.

In 2017, the proportion of individuals with low income was 15.7 %, or 1.3 percentage points higher than the rate for the whole of Quebec. That marker has remained stable over the years, with Montréal's rate has generally staying higher than the Quebec average since the middle of the 2000s.

As this is a relative measure, it is tied to any increase in disposable income. Therefore, while people experiencing poverty might have seen their situation improve in absolute terms, it hasn't budged when compared to the rest of the population.

Figure 1-3



Progression of the percentage of persons living in poverty in Montréal and in Quebec, based on the Low Income Measure, after taxes and transfers

Source: Statistique Canada, Table 11-10-0136-01

Furthermore, the concentrations of people in poverty are not equal throughout all municipalities in the Montréal region. The centre is definitely more problematic than the North or South Shore.

Table 1-1

Geographic location – Percentage of persons living in poverty (Low Income Measure)

CANADA	14.2 %
QUEBEC	14.6 %
MONTRÉAL (CMA)	15.3 %
Montréal (Ville)	22.7 %
Montréal-Est	20.6 %
Côte-Saint-Luc	18.0 %
Saint-Jérôme	17.5 %
L'Épiphanie (Ville)	16.6 %
Sainte-Thérèse	15.7 %
Sainte-Anne-de-Bellevue	15.0 %
Gore	14.0 %
Longueuil	14.8 %
Westmount	14.3 %
Beauharnois	14.3 %
Saint-Lin-Laurentides	14.1 %
Charlemagne	14.0 %
Saint-Placide	14.0 %
Pointe-Calumet	13.1 %
L'Épiphanie (paroisse)	12.8 %
Saint-Jean-sur-Richelieu	12.2 %
Brossard	12.1 %
Châteauguay	11 .9 %
Dorval	11.8 %
Oka	11.7 %
L'Île-Perrot	11.6 %
Mont-Royal	11.4 %
Laval	11.3 %
Richelieu	11.1 %
Lavaltrie	11.0 %
Hampstead	10.8 %
Hudson	10.5 %

Dollard-des-Ormeaux	10.5 %
Senneville	10.3 %
Pointe-des-Cascades	10.3 %
Deux-Montagnes	10.2 %
Saint-Eustache	10.1 %
Sainte-Anne-des-Plaines	10.1 %
Bois-des-Filion	9.4 %
Saint-Lambert	9.3 %
Saint-Mathias-sur-Richelieu	9.2 %
Les Coteaux	9. 1 %
L'Assomption	9.0 %
Boisbriand	8.9 %
Saint-Sulpice	8.7 %
Pointe-Claire	8.6 %
Saint-Amable	8.5 %
Mirable	8.3 %
Montréal-Ouest	9.2 %
Verchères	8.2 %
Saint-Mathieu	8.1 %
Terrebonne	8.0 %
La Prairie	8.0 %
Terrasse-Vaudreuil	7.8 %
Saint-Colomban	7.7 %
Saint-Isidore	7.5 %
Vaudreuil-Dorion	7.3 %
Belœil	7.1 %
Sainte-Catherine	7.0 %
Léry	6.9 %
Repentigny	6.9 %
Baie-D'Urfé	6.9 %
Saint-Zotique	6.9 %

Mascouche	6.8 %
Saint-Joseph-du-Lac	6.8 %
McMasterville	6.7 %
Chambly	6.5 %
Coteau-du-Lac	6.5 %
Mont-Saint-Hilaire	6.4 %
Pincourt	6.3 %
Saint-Philippe	6.3 %
Delson	6.2 %
Beaconsfield	6.1 %
Sainte-Marthe-sur-le-Lac	6.1 %
Kirkland	6.0 %
Blainville	6.0 %
Les Cèdres	6.0 %
Mercier	5.9 %
Rosemère	5.6 %
Otterburn Park	5.6 %
Saint-Constant	5.5 %
Saint-Lazare	5.4 %
Varennes	5.0 %
Notre-Dame-de-l'Île-Perrot	5.0 %
Lorraine	4.8 %
Saint-Basile-le-Grand	4.6 %
Vaudreuil-sur-le-Lac	4.5 %
Candiac	4.4 %
Saint-Bruno-de-Montarville	4.4 %
Boucherville	4.3 %
Sainte-Julie	4.2 %
Carignan	3.8 %
Saint-Mathieu-de-Belœil	3.6 %

Source: <u>Recensement 2016</u>

Montréal, the child poverty capital of Quebec

A 2018 analysis of poverty by federal electoral riding from the Campaign 2000 organization found that the four Quebec ridings experiencing the **highest child poverty rates were situated in Montréal**.²⁰ Conversely, Montréal's suburbs stood out in a positive way, since they featured some of the lowest child poverty rates in Canada.

Table 1-2

Federal Riding	Province or territory	Number of children from family in poverty (0 to 17 years old)	Percentage of children from family in poverty (0 to 17 years old)
Churchill – Keewatinook Ask	Manitoba	21,870	64.2 %
Desnethé – Missinippi – Churchill River / Desnethé – Missinippi – Rivière Churchill	Saskatchewan	15,300	57.8 %
Winnipeg Centre / Winnipeg-Centre	Manitoba	7,730	41.1 %
Toronto Centre / Toronto-Centre	Ontario	4,210	40.0 %
Ville-Marie – Le Sud-Ouest – Île-des-Soeurs	Quebec	5,260	38.1 %
NUNAVUT	Nunavut	5,150	36.1 %
Kenora	Ontario	6,090	34.7 %
Hamilton Centre / Hamilton-Centre	Ontario	6,240	34.2 %
Dauphin – Swan River – Neepawa	Manitoba	6,910	33.8 %
Sydney – Victoria	Nova-Scotia	4,500	33.0 %
Humber River – Black Creek	Ontario	8,840	32.9 %
Bourassa	Quebec	7,130	32.9 %
Scarborough – Guildwood	Ontario	7,720	32.9 %
Winnipeg North / Winnipeg-Nord	Manitoba	8,250	32.3 %
Windsor West / Windsor-Ouest	Ontario	8,680	32.1 %
Saint-Léonard – Saint-Michel	Quebec	8,730	31.9 %
Edmonton Griesbach	Alberta	7,610	31.7 %
Ottawa – Vanier	Ontario	5,720	31.3 %
Etobicoke North / Etobicoke-Nord	Ontario	9,050	30.8 %
Battlefords – Lloydminster	Saskatchewan	6,260	30.4 %
Regina – Qu'Appelle	Saskatchewan	6,110	30.2 %
York South – Weston / York-Sud – Weston	Ontario	7,630	29.9 %
Scarborough Centre / Scarborough-Centre	Ontario	6,980	29.3 %
Saskatoon West / Saskatoon-Ouest	Saskatchewan	6,580	29.3 %
Scarborough Southwest / Scarborough-SudOuest	Ontario	6,960	29.3 %
Scarborough – Agincourt	Ontario	5,500	29.1 %
Papineau	Quebec	5,680	29.1 %
Don Valley East / Don Valley-Est	Ontario	5,480	28.7 %
Ottawa South / Ottawa-Sud	Ontario	6,930	28.6 %
Prince Albert	Saskatchewan	5,850	28.3 %

Source: Family service Toronto, 2018, Une analyse par circonscription révèle que la pauvreté infantile au Canada ne connaît pas de frontières

Persistence of poverty

One element that stands out from our survey of the available data is the persistence of poverty. That people should have to live in poverty even temporarily is dramatic enough, but the fact that this situation is repeated year after year attests to a more serious underlying issue. In this vein, the statistics that illustrate poverty in Greater Montréal paint a very disturbing picture.



Source: Statistique Canada, Table 11-10-0025-01

Thus, 5.3 % of the population in the Montréal CMA were in the low income category for the eight years comprised by 2010 to 2017. Worse yet, not only has that percentage not diminished since 2000, but it has actually increased. Breaking the cycle of poverty appears to be very difficult for these individuals.

Figure 1-5





Source: Statistique Canada, Table 11-10-0025-01

That said, if we compare the situation with that of other major Canadian cities, the poverty seen in Montréal was, at least since 2006, compensated for by a cost of living that is lower than that of Vancouver or Toronto. Until now, using the MBM, we have been able to conclude that there was a sizeable number of persons living in poverty, but that this situation was still causing less damage than in the other two municipalities. However, the latest data tend to show that the three cities are in fact converging on the poverty front, since Montréal's situation hasn't improved, while the other cities have managed to reduce the number of people living in poverty.

The social safety net

There are several poverty reduction strategies. The global reduction of inequalities is one of them, and will be explored in greater depth in Chapter 10. We can also increase the incomes of the less well-off. Another method is to have the state, using financial or other transfers, assist those who are living in poverty.

Increase the incomes of the less well-off

Notwithstanding steady economic growth over the last 10 years, disposable per capita income is still lower in Montréal than it is in other large North American cities.²¹ Montréal has not closed the gap with Toronto; it has stood at about \$4,000 since 2006. As well, the gap with Vancouver widened during this time, going over \$5,000.

Assistance from the state

Figure 1-6

Several programs support persons who are living in poverty, including social assistance, employment insurance, and income supplements. The number of assistance programs currently offered is about the same as it was in 2000. However, poverty rates really haven't declined significantly in the 20 intervening years.

We can therefore conclude that we do a reasonably good job of supporting people living in poverty, without truly changing the dynamics of their situation.

The government program that best demonstrates the social support given to people living with poverty is social assistance. While the number of beneficiaries has dropped overall through the years, it remains higher on the island of Montréal than for Quebec as a whole for people under 65 years of age.



Percentage of population from 0 to 64 years old on social assistance in November 2019

 $Source: \underline{https://www.mtess.gouv.qc.ca/publications/pdf/00_AS-statistiques-2019-11.pdf$

The situation of children is troubling, too. Indeed, on the island of Montréal in 2019, 8 % of children lived in a household receiving social assistance. That rate is much higher than it is in the rest of Quebec (4.6 %).

TABLE 1-3

Objective 1 No poverty		20 year trend	Recent trend	Comments
	1.1 End extreme poverty everywhere	•	•	The poverty is still a problem in Montréal.
SDG 1	1.2 Reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions		•	Less people in poverty in the last 20 years. Some part of the greater Montréal are still in poverty.
S	1.3 Implement social protection systems and measures for all, and achieve substantial coverage of the poor and the vulnerable	•	•	Social net is the same.
				➡ Strength

HUNGER

OBJECTIVE 2: End hunger, guarantee food security, improve nutrition and promote sustainable agriculture

A city without hunger: the ultimate goal

Montréal's strong economic performance²² in terms of jobs has made headlines. However, food banks report that the demand for food assistance remains high, notwithstanding the economic growth in the region. More than half of the meals distributed were served to individuals who earned revenue from employment, meaning they did not earn enough to cover their basic food needs. So, has the Montréal region managed in 20 years to reduce the number of people experiencing food insecurity?

The answer to that question takes us back to the conclusion of Chapter 1 on poverty: hunger is a persistent problem.

Sub-goals covered in this chapter

- **2.1** By 2030, End hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round;
- **2.2** By 2030, end all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women and older persons;
- **2.3** By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment.

22 As in other chapters, Montréal can be used to mean the metropolitan region, the island, or the city. Where possible, the particular geographic meaning is specified.

Towards a healthy, nutritious and adequate food supply for all

Food insecurity

The Island of Montréal is more affected by the problem of food insecurity than Quebec in general, as 13.6 % of its population were found to be experiencing food insecurity, including 3.1 % who experienced severe food insecurity.

Figure 2-1



Source: Direction de la Santé Publique de Montréal, Enquête sur l'insécurité alimentaire, Compilation spéciale à partir du FMGD de l'ESCC 2015-2016 de Statistique Canada. Document à paraître.

40.6 % of the population living on the island of Montréal and having a household income of less than \$20,000 experienced food insecurity, versus 36.4 % for all of Quebec – a difference that is probably attributable to the relatively higher cost of life in the metropolis. We note as well that for the whole of Quebec, as well as for the island of Montréal, more than one person in 10 having an income of \$40,000 \$ to \$59,999 nonetheless experienced food insecurity.

Over the last 20 years, the number of food baskets provided by food banks has nearly doubled. This increase is likely due to demand for assistance remaining steady, simultaneous with an increase in services offered by food banks.

What is food insecurity? Statistics Canada has defined the following situations:²³

Marginal food insecurity: Indications that there are fears of, or obstacles to, adequate and sure access to food, due to income level

Moderate food insecurity: Indications that the quality or quantity of food consumed is inadequate. **Severe food insecurity:** Indications of reductions of food intake and disruption of eating patterns.

In all of these situations, healthy eating is compromised.

Figure 2-2



Percentage of population in food insecurity by income (%)

Source: Direction de la Santé Publique de Montréal, Enquête sur l'insécurité alimentaire, Compilation spéciale à partir du FMGD de l'ESCC 2015-2016 de Statistique Canada. Document à paraître.

Employment and food insecurity

In a similar vein, a disturbing statistic is that **66,4 % of individuals who experience food insecurity also earn employment income**. We can thus conclude that a significant number of our fellow citizens who are experiencing food insecurity are employed, but that their incomes do not allow them to ensure an adequate food intake.

Figure 2-3



Distribution of the population by food insecurity by source of income

Source: Direction de la Santé Publique de Montréal, Enquête sur l'insécurité alimentaire, Compilation spéciale à partir du FMGD de l'ESCC 2015-2016 de Statistique Canada. Document à paraître.

Looking at this from another angle, 11,7 % of those on the island of Montréal who had employment income were experiencing food insecurity. People who experience poverty are often working people.

Two ways of understanding hunger on the island of Montréal

Out of 100 Montrealers, 14 are experiencing food insecurity. Of these, 9 have income from employment. Out of 100 Montrealers who work, 12 experience food insecurity.

Figure 2-4

Percentage of the population experiencing food insecurity by income source (%)



Source: Direction de la Santé Publique de Montréal, Enquête sur l'insécurité alimentaire, Compilation spéciale à partir du FMGD de l'ESCC 2015-2016 de Statistique Canada. Document à paraître.

Single parent families are the ones most often suffering due to this phenomenon: 23.1 % of those living on the island of Montréal and 19.9 % of those in Quebec as a whole experience food insecurity. On the island of Montréal, more than one couple in 10, with or without children, is experiencing food insecurity.

Figure 2-5



Percentage of the population experiencing food insecurity by family composition 2015-2016 (%)

Source: Direction de la Santé Publique de Montréal, Enquête sur l'insécurité alimentaire, Compilation spéciale à partir du FMGD de l'ESCC 2015-2016 de Statistique Canada. Document à paraître. In Canada, according to 2011 and 2012 data, Quebec ranked in the middle of the pack in terms of prevalence of food insecurity.²⁴ The Quebec average, at 8.1 %, was slightly below the Canadian average of 8.3 %.

Figure 2-6



Percentage of households experiencing food insecurity by province or territory, 2011-2012

Source: Statistique Canada, Enquête sur la santé dans les collectivités canadiennes, 2011-2012.

The situation has deteriorated somewhat in Quebec since then: in 2015-2016, food insecurity affected 10.4 % of those aged 12 years and over, including 2.4 % who experienced severe insecurity.²⁵

The impacts of food insecurity are more acutely felt in indigenous communities.

According to data spanning 2007 to 2010,²⁶ in Canada, the rate of food insecurity (severe or moderate) was 20.8 % among First Nations people, 14.5 % among Métis and 26.9 % among Inuit, relative to 6.8 % among Canadians who did not identify as indigenous. The situation is similar in Quebec, with rates of 12.2 % among First Nations people, and 14.0 % among Métis, versus 6.0 % among Quebecers not identifying as indigenous.

²⁴ Canadian Community Health Survey - Annual Component.

²⁵ Direction de la Santé Publique de Montréal, Enquête sur l'insécurité alimentaire, (Survey on food insecurity). Source: Special data collection from Public Use Microdata File (PUMF), Canadian Community Health Survey (CCHS), 2015-2016, Statistics Canada, forthcoming.

²⁶ Statistique Canada, Enquête sur la santé dans les collectivités canadiennes.

Food banks

One of the most visible signs of a city or region that does not seem to be able to feed its citizens is the number of people who need to resort to food banks. Since 1989, Food Banks of Quebec has produced a yearly Hunger Count,²⁷ which brings to light food security problems across Quebec.

Key facts: Hunger Count 2019

- In 2019, approximately 500,000 people received food assistance each month, which is nearly 6% of the population of Quebec.
- In terms of services given out, Quebec food banks had 1.9 million requests for food assistance per month:
 - 790,255 meals;
 - 540,951 snacks;
 - 345,184 food baskets;
 - 158,191 servings from collective kitchens;
 - 105,724 servings from meals-on-wheels.
- 39 % of households served by food banks included children, and 50 % of requests came from persons living alone.
- 13.5 % of individuals with employment income resorted to food bank services, and 49 % of all meals served were to individuals making up part of the labour force (either employed or seeking employment)

The following table lets us compare the challenges faced in each province, and the changes in the demand for food assistance in each province since 2000. The number of visits represents the number of food baskets distributed per month.

Table 2-1

Province or territory	Total number of visits (2000)	Total number of visits (2019)	Change, 2000-2019 (%)	Total number of visits (children, 2019)	% of visits by children (2019)
British Columbia	75,987	124,713	64%	38,074	31 %
Alberta	48,975	89,821	83%	35,282	39%
Saskatchewan	12,865	37,216	189%	15,778	42%
Manitoba	38,737	82,067	112%	33,280	41 %
Ontario	283,110	339,613	20%	111,051	33%
Quebec	189,518	345,184	82%	120,025	35%
Nouveau Brunswick	19,890	22,625	14%	7,123	31 %
Nova Scotia	20,917	25,629	23%	7,463	29%
Prince Edward Island	3,541	2,959	-16%	1,137	38%
Newfoundland and Labrador	32,057	10,704	-67%	3,149	29%
Federal Territories	1,305	6,110	368%	2,112	35%
Canada	726,902	1,086,641	49%	374,474	34%

Source: Les banques alimentaires Canada (2019). Bilan-faim 2019 et Bilan-faim 2000.

Out of the 345,184 visits to services offering food baskets in March 2019, 122, 811 were made to Moisson Montréal – over a third, even though the island of Montréal represents a little under a quarter of Quebec's population. Moisson Montréal's 2009-2010 annual report tallied 115,467 food bank visits per month. In short, over 10 years, despite the economic growth experienced by the Montréal region and its main city, the number of visits to food banks increased by 6 %²⁸ on the island, an increase probably partly due to more services being offered by food banks.

In March 2019, 46,411 visits were made to Moisson Rive-Sud, a substantial increase of 26 % as compared to the number of visits in 2018. On the other hand, Moisson Laval reported a decrease in use, with visits down by 15 %, to 26,697.

Table 2-2

	Number of visits	Number of users with children
Food bank (Moisson Laval)	26,697	58.0 %
Moisson Lanaudière	23,717	32.6 %
Moisson Laurentides	33,566	28.9 %
Moisson Montréal	122,811	35.2 %
Moisson Rive-Sud	46,411	37.3 %

Source: Les Banques Alimentaires du Québec (Site Internet, consulté en février 2020), Bilan-Faim 2019.

More than 35 % of households that resorted to food banks had children under 18 – a percentage comparable to the Canadian average (34 %). The proportion was also 35 % for the island of Montréal, and roughly the same on the South Shore at 37 %. However, 58 % of Laval households using these services had children.

Nationwide, while Canadians used food banks more than a million times in 2019 (+49 % compared to 2000), the increase in food bank use from the turn of the millennium was far more substantial in Quebec (+82 % compared to 2000).²⁹ Quebec makes up a little less than a quarter of the population of Canada, so it is alarming to see that the province accounts for nearly a third of food bank use (32 %). Since food insecurity is relatively more widespread on the island of Montréal than in Quebec as whole, as shown above, we have to recognize that the situation in the metropolis is cause for concern.

Half of food bank aid was provided to individuals who are single. According to the 2015 Quebec Survey on the Experience of Parents of Children Aged 0 to 5 (QSEPC), 9 % of parents of preschool age children inquired about food bank services – with two thirds of them ultimately needing to use the services.

Figure 2-7

Source: Institut de la Statistique du Québec, (2016), l'Enquête québécoise sur l'expérience des parents d'enfants de 0 à 5 ans 2015 (EQEPE).

Figure 2-8



Food bank users by type of household

Source: Institut de la Statistique du Québec, (2016), l'Enquête québécoise sur l'expérience des parents d'enfants de 0 à 5 ans 2015 (EQEPE).

Taking on malnutrition

Even when needs in terms of quantity of food have been met, the question of quality of food remains. A healthy diet can generate several benefits, like better health in newborns and better lifestyle choices for children and teenagers.

In that respect, it's important to mention that the frequency of intake of junk food is down on the island of Montréal, as it is in Quebec overall. That said, intake of fruits and vegetables still remains inadequate. As well, obesity in young people has consistently gained ground over the last 20 years, on the island of Montréal as well as in the rest of Canada.

The health of newborns

According to data collected between 2006 and,³⁰ 5.9 % of newborns on the island of Montréal are underweight, and 7.3 % are born prematurely. The proportion of newborns presenting an interuterine growth restriction (IUGR) was higher for immigrant mothers than for those born in Canada. From 1985 to 2000, significant progress was made on this front, with a substantial reduction in newborns presenting an interuterine growth restriction, on the island of Montréal and in Quebec overall. We note however that progress was more modest on the island of Montréal during this period, and that the gap with the rest of the province increased. As well, from 2000 to 2008, progress stalled, on the island of Montréal and in Quebec overall.

Figure 2-9

Percentage of newborns with low birth weight, premature or presenting an interuterine growth restriction, Montréal 2006-2008



Source: Agence de la santé de Montréal (2009), La santé des nouveau-nés à Montréal, 2009

Figure 2-10

Progression in the percentage of newborns presenting an interuterine growth restriction



31

Better lifestyle choices for children and teenagers

School-age children in particular can benefit from adequate and healthy nutrition. But according to the Breakfast Club of Canada:

- One youth in four goes to school on an empty stomach, which amounts to 1.5 million students in Canada, despite the fact that it has been proven that having breakfast has long-lasting physical, mental and educational impacts.³¹
- More and more schools in Quebec are using the Breakfast Club's services. In the fall of 2019, 383 establishments received breakfasts, 66 more than in 2018, for an increase of 21 %.

The Quebec Health Survey of High School Students 2016-2017³² includes a great deal of interesting information on lifestyle choices:

- On the island of Montréal, only 26 % of high school students ate the daily recommended number of fruits and vegetables (a percentage that is comparable to that of Quebec as a whole). That percentage was 23 % among households that perceived themselves as less well off financially, 22 % among single parent families, and 18 % among students whose parents had had not attained a high school diploma.
- The survey showed that 52 % of students on the island of Montréal had breakfast each day prior to starting classes. There was a significant gender-based disparity: 57 % of boys had eaten breakfast, versus 47 % of girls. These percentages, which remained constant from the first year of high school through to the final year, were significantly lower than those found on the provincial level (58 % for students overall, 62 % for boys, and 54 % for girls).
- Family circumstances had a major impact on the likelihood of a child not eating every day prior to going to school. Specifically, on the island of Montréal, 56 % of youth ate breakfast every day if they were part of a two-parent family, but that percentage fell to 39 % among single parent families. For Quebec overall, the numbers were 61 % and 44 % respectively.
- One bit of good news could be found in the fact that between 2010-2011 and 2016-2017, the proportion of students who did not eat junk food at lunchtime in the week preceding the survey went from 46 % à 51 %. The proportion of students who ate junk food twice or more declined from 30 % to 23 %. For the whole of Quebec, in 2016-2017, 57 % of students had not eaten any junk food during the seven days preceding the survey (versus 54 % in 2010-2011) and 17 % had eaten some twice or more a reduction of 20 % relative to the data from six years earlier.
- The picture is a little less bright when data for lunch and supper are combined. Indeed, by that measure, 26 % of students on the island of Montréal had not eaten junk food in the previous week, while 31 % had eaten some three times or more, which is considerably higher than the rate for the rest of Quebec, where that was the case for only 24 % of youth.
- On the island of Montréal, 28 % of students from two-parent families had eaten junk food three times or more in the previous week, and that rate went up to à 42 % for single parent families. Percentages for the whole of Quebec were respectively 22 % and 33 %. These differences are an indicator of the time management challenges that face the heads of single parent families.

Lastly, the TOPO 2017 survey revealed that among sixth grade students on the island of Montréal, 38 % did not eat breakfast every day. In all, one student in seven had not had breakfast at all in the school week preceding the survey.³³

³¹ Club des petits déjeuners du Canada (2019), document numérique.

³² Institut de la Statistique du Québec, (2016), <u>l'Enquête québécoise sur la santé des jeunes du secondaire (EQSJS)</u>.

³³ Centre Intégré Universitaire de Santé et de Services Sociaux du Centre-Sud-de-L'Île-de-Montréal (2018), Portrait des jeunes montréalais de 6^e année. Résultats de l'enquête TOPO 2017 de la direction régionale de santé publique.

Carrying extra weight

There was a slight increase in the proportion of obese and overweight³⁴ adults from 2009-2010 to 2013-2014, in Quebec (50.5 % to 52.5 %) as well as in Canada (52.0 % to 53.8 %). In general, the obesity rate was the percentage that went up, although on the island of Montréal, the proportion was stable, at 50.8 % for 2013-2014.

When it comes to youth (ages 12-17), the situation is barely more promising, as the percentage of obese and overweight individuals in this age group increased in Canada (19.9 % to 21.9 %), in Quebec (18.4 % to 22.2 %) and on the island of Montréal (16.0 % to 19.9 %).

Table 2-3

Obesity and excess weight, 2013-2014

	Montréal	Québec City	Ottawa- Gatineau	Toronto	Winnipeg	Calgary	Edmonton	Vancouver
Obesity	17.4%	13.4%	17.2%	15.1%	21.9%	15.2%	20.1 %	13.0%
Obesity or excess weight	50.8%	52.2%	50.7%	49.7%	56.9%	49.0%	54.0%	42.8%
Youth (obesity or excess weight)	19.9%	17.2 %	27.5%	21.6%	25.6%	20.6%	18.0%	18.2%

Source: Statistique Canada, Enquête sur la santé dans les collectivités canadiennes.

Statistics Canada indicates, though, that data at the city level is to be used with caution. The increase in the number of obese and overweight young people has been observable in Canada since 2007.³⁵ Nearly twice as many boys as girls are in these categories.

Figure 2-11

Self-reported Body Mass Index, youths 12 to 17 years of age, overweight or obese (%)



34 Statistique Canada, Enquête sur la santé dans les collectivités canadiennes.

35 Statistique Canada, Table 13-10-0451-01.

Doubling agricultural productivity and ensuring equal access to the land

Between 2011 and 2016, the number of farms diminished, both in Canada (there were 12,000 fewer of them, a decline of 6 %) and in Quebec (500 fewer, a drop of 2 %). On the other hand, in the Montréal and Laval areas, the number of farms grew, from 156 to 179, an increase of 15 %. The number of very large farms (more than 3,250 acres) increased in Canada, but declined in Quebec.³⁶

The area occupied by farmland diminished by 0.9 % in Canada (1.4 million acres) and by 1.9 % in Quebec (153,000 acres). On the island of Montréal and in Laval, agricultural land area increased by 55 % (7,400 acres).

TABLE 2-4

Objective 2 End hunger		20 year trend	Recent trend	Comments
SDG 2	2.1 Ensure access by all people to safe, nutritious and sufficient food all year round	1	1	Some persons who are employed are using food banks.
	2.2 End all forms of malnutrition	•	•	Rate of junk food consumption is down in Montréal and in the whole of Quebec.
				ス Strength → Stable ★ Weakness

HEALTHY LIVES AND PROMOTE WELL-BEING

OBJECTIVE 3: Ensure healthy lives and promote well-being for all at all ages

Montrealers consider themselves to be in good health, but more stressed than the average Quebecer

Before focusing on the sub-goals proposed by the UN, it's worth considering the self-reported state of health of Montrealers, and comparing it to that of Canadians and Quebecers as a whole. The highlights for the Montréal metropolitan region of the Canadian Community Health Survey (CCHS) for 2017-2018,³⁷ published in October 2019, shed some light on this.

Table 3-1

Main results of health facts (%)		Quebec	Canada
WELL-BEING	Montréal		
Perceived health, very good or excellent	62.1	61.4	60.8
Perceived mental health, very good or excellent	71.3	72.6	69.4
Perceived life stress, quite a bit or extremely stressful	25.4	23.7	21.4
HEALTH CONDITIONS			
Body mass index, self-reported and adjusted, adult (18 years and over), overweight	35.8	36.5	36.1
Body mass index, self-reported and adjusted, adult (18 years and over), obese	24.2	25.9	26.9
Asthma	7.7	8.2	8.1
Mood disorder, such as depression, bipolar disorder, mania or dysthymia	5.9	6.3	8.8
HEALTH BEHAVIOURS			
Self-reported physical activity, 150 minutes per week, adult (18 years and over)	54.8	52.6	56.0
Self-reported physical activity, average 60 minutes per day, youth (12 to 17 years old)	51.2	53.2	57.8
Heavy drinking	20.3	22.0	19.3
Current smoker, daily or occasional	17.4	17.9	16.0
HEALTH SYSTEM			
Has a regular healthcare provider	73.4	78.5	84.9
Influenza immunization in the past 12 months	22.2	22.4	32.0
PERSONAL RESOURCES			
Life satisfaction, satisfied or very satisfied	93.8	94.1	93.1
Sense of belonging to local community, somewhat strong or very strong	60.7	61.1	68.9

Note: Significant differences between Montreal and Quebec (province) are in bold

Source: Statistique Canada
Sub-goals covered in this chapter

- 3.1 By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births
- **3.2** By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births
- **3.3** By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases
- **3.4** By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being
- **3.5** Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol
- 3.6 By 2020, halve the number of global deaths and injuries from road traffic accidents
- **3.7** By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes
- **3.8** Achieve universal health coverage, including financial risk protection, access to quality essential healthcare services and access to safe, effective, quality and affordable essential medicines and vaccines for all

We note that Montrealers perceive their mental health more positively than Canadians in general, and yet Montrealers also perceive their stress levels to be higher than those of Quebecers and Canadians in general.

When it comes to health problems, Montrealers report a rate of obesity (based on the Body Mass Index) lower than that of Canadians, and less of a tendency to experience mood disorders than people elsewhere in the country.

As regards healthy behaviours, adults in Greater Montréal report a higher level of physical activity than do Quebecers as a whole, although adolescents are less active than their Canadian counterparts. Montrealers engage in less excess drinking than other Quebecers, but smoke more than Canadians as a whole.

As well, there seem to be more weak spots in the health system in Montréal: fewer Montrealers have access to a primary health care provider than Quebecers or Canadians, and they are far less likely to get a flu shot than other Canadians are.

Reduce the global maternal mortality rate

The first sub-goal of this SDG focuses on maternal mortality. The UN is aiming for a global maternal mortality rate of less than 70 pour 100,000 live births.

This goal has been reached in Canada: the maternal mortality rate was estimated at 7.4 for the most recent period studied (2013-2014 to 2014-2015).³⁸ This is a downward trend relative to the 15 previous years, as the rate was above 8 at the start of the 2000s. It was, though, lower between 2009-2010 and 2012-2013, when it varied between 5.1 and 6.1.

Data are not available for Quebec. Not only that, but the province's numbers are excluded from the national average.

End preventable deaths of newborns and children under 5 years of age

In Quebec over the last two decades, the mortality rate for newborns under one year of age was clearly on a downward trend: it went from 5.6 in 1997 to 4.0 in 2017, a drop of 28 %. The death rate among children between 1 and 4 went from 0.3 to 0.1 during that period.³⁹

Figure 3-1

Mortalilty rate per 1,000 persons



Source: Statistique Canada

38 <u>Base de données sur les congés des patients de l'Institut canadien d'information sur la santé.</u> Ces données excluent le Québec, car la province ne contribue pas à la Base de données sur les congés des patients de l'Institut canadien d'information sur la santé (BDCP) de (l'ICIS).

Looking at the Canada-wide numbers for 2017, Quebec made a good showing, coming in below the Canadian average⁴⁰ for deaths among children one year old or under. Some jurisdictions did better, though: the maritime provinces and British Columbia.

Figure 3-2



Mortality rate (under one year of age)

Source: Statistique Canada

Infant mortality in Quebec

For Quebec as a whole, the estimated infant mortality rate for 2018⁴¹ stood at 4.2 ‰. That represents the lowest rate ever recorded in the province. The trend over the last 20 years has been a slight diminution of the rate, and the average rate since 2000 has been 4.6 ‰.

A regional comparison can be established using a 2012 to 2016 average. While the rest for the province overall was at 4.7 ‰, we note large discrepancies among administrative regions. The Nord-du-Quebec region posted, by far, the highest rate, at 17,2 ‰, while rate for the Montréal region (4.6 ‰) was near the average. The rate for the Montérégie was the lowest at 3.5 ‰, and those of all the other administrative regions stood between 4 and 6 ‰.

Figure 3-3

Infant mortality rate in Quebec



Source: Institut de la Statistique du Québec

For Montréal, the mortality rate among newborns was at 3.7, that is, one third of the UN goal, which is to achieve a rate of 12 by 2030.

⁴⁰ Statistique Canada.

^{41 &}lt;u>Taux de mortinatalité, de mortalité périnatale, néonatale et infantile, Québec et régions administratives, 2012-2016,</u> Institut de la Statistique du Québec, 2012-2016.

End the epidemics of AIDS and other communicable diseases

The third sub-goal of this SDG is to end the epidemics of several communicable diseases, including AIDS, tuberculosis, malaria, and neglected tropical diseases, as well as to combat hepatitis, water-borne diseases, and other communicable illnesses.

Figure 3-4





Source: Statistique Canada

Canadian data show improvement in terms of the rate of reported cases of HIV: after having been steady from 2000 to 2008, the rate is showing a slight downward trend, going down by nearly 25 % over 20 years (from 8 per 100,000 to about 6 per 100,000).

Tuberculosis is also on a downward trend, albeit in a gradual fashion, over the last 20 years.

The malaria rate was stable from 1998 to 2010, then went up slightly. In Quebec in 2018, it was noted that more and more travellers were coming back to the province with malaria.⁴²

Finally, a substantial increase in Hepatitis B cases has been observed since 2007. The rate per 100,000 inhabitants was more than six times higher in 2016 than in 2000 (13.7 vs 2.4).⁴³

⁴² https://www.journaldemontreal.com/2018/03/30/de-plus-en-plus-de-quebecois-reviennent-avec-la-malaria

⁴³ https://santemontreal.qc.ca/professionnels/drsp/sujets-de-a-a-z/hepatite-b/information-generale/

AIDS: Target 90-90-90

In 2016, in Canada, it was estimated that:

- 86 % of individuals who were living with HIV had been diagnosed;
- 81 % of individuals who had been diagnosed were following a course of treatment;
- 91 % of those treated had an undetectable viral load.

The global goal is to reach 90 % for these three indicators by 2020,⁴⁴ with the aim of eradicating the public health menace caused by AIDS by 2030.⁴⁵

In 2016, 63,110 persons were living with HIV, and 2,165 new infections were acquired, that is, six new infections per day.⁴⁶

In the administrative region of Montréal, the Institut national de santé publique du Quebec reported 204 new cases in 2017, an increase of about 15 % over previous years.



Figure 3-5

Number of new cases of HIV infection

45 https://www.inspq.qc.ca/espace-itss/vih-les-cibles-90-90-90-ou-en-est-le-canada

⁴⁴ En Vertu du Programme commun des Nations Unies sur le VIH/sida (ONUSIDA) et de l'Organisation mondiale de la santé (l'OMS).

As regards Hepatitis B in Montréal, it appears that more than 500 cases of infection are reported every year. Looking Canada-wide, in 2016, Quebec's rate per 100,000 (5.6) was a little less than half of the Canadian average (11.8).⁴⁷ That is a drop of 12 % for Quebec from the rate noted in 2014 (6.6).

Figure 3-6

Rate of chronic infection, Hepatitis B virus in 2016 (per 100,000 inhabitants)



Source: Gouvernement du Canada

The opioid crisis

Opoids deaths by year

In several developed countries, deaths caused by opioid overdoses are on the rise.

According to the Organization for Economic Cooperation and Development (OECD), Canada is the country that is second hardest-hit, just after the United States.⁴⁸

Figure 3-7



Source: https://sante-infobase.canada.ca/mefaits-associes-aux-substances/opioides/cartes

In 2018 alone, 4,460 individuals are thought to have died as a result of having taken opioids. British Columbia (1,525) was the most affected province, followed by Ontario (1,471), Alberta (775) and Quebec (424).⁴⁹ The Quebec mortality rate (per 100,000 inhabitants) amounts to less than half of the Canadian average (5.1 versus 12.4).

In the Montréal region, 150 deaths are believed to have been attributable to drug or opioid use.⁵⁰

47 https://www.canada.ca/fr/services/sante/publications/maladies-et-affections/rapport-hepatite-b-et-hepatite-c-canada-2014.html

- 48 https://www.lapresse.ca/actualites/sante/201905/16/01-5226454-crise-des-opioides-le-canada-au-deuxieme-rang-des-pays-les-plus-touches.php
- 49 https://sante-infobase.canada.ca/labo-de-donnees/surveillance-nationale-opioides-mortalite.html
- 50 https://www.lapresse.ca/actualites/sante/201905/16/01-5226454-crise-des-opioides-le-canada-au-deuxieme-rang-des-pays-les-plus-touches.php 42

Reduce the rate of premature mortality

Life expectancy

The first point to note as regards life expectancy is that both men and women in Toronto, Vancouver and Calgary have a life expectancy that is a bit higher than their Montréal counterparts. Indeed, for 2014-2016, life expectancy as of 65 years of age among women was 22.8 years in Montréal, 24.9 years in Toronto, 23.2 years in Calgary and 24.4 years in Vancouver. Among men, the gaps were similar, and are shown in Figure 3-8.⁵¹

Figure 3-8



Life expectancy at 65 years old

Source: Statistique Canada, Table 13-10-0063-01

As far as Quebec as a whole, life expectancy has progressed quite a bit over the last few decades. Among women, it went from 78.7 years for 1980-1982 to 81.8 years for 2000-2002, then to 84.1 years for 2013-2015. Among men, it went from 71.1 years to 76.2 years, then to 80.1 years, during the same time spans. As between the neighbouring regions of Montréal and Montérégie, there were no significant differences.

Heart disease, cancer, diabetes and chronic illness⁵²

The primary causes of mortality in Canada in 2018 are shown in Table 3-2.

Table 3-2

Leading causes of death in Canada, 2018

Rank	Causes	Deaths
1	Malignant tumours	79,536
2	Heart diseases	53,134
3	Cerebrovascular diseases	13,480
4	Accidents	13,290
5	Chronic lower respiratory diseases	12,998
6	Influenza and pneumonia	8,511
7	Diabetes melitus	6,794
8	Alzheimer's disease	6,429
9	Intentional self-harm (suicide)	3,811
10	Nephritis, nephrotic syndrome and nephrosis	3,615
11	Chronic liver disease and cirrhosis	3,514
25	Assault (homicide)	373

Source: Statistique Canada, Table 13-10-0063-01

In 2017, malignant tumours were the leading causes of death in Quebec, Alberta and British Columbia. The agestandardized mortality rate for malignant tumours was 209.7 deaths per 100,000 persons in Quebec versus 184 for Alberta and 183.6 for British Columbia. As far as heart disease is concerned, Alberta was the province with the highest age-standardized mortality rate (145.6 deaths per 100,000 persons versus 112.8 for Quebec and 122.1 for British Columbia). In Quebec in 2017, the third leading cause of death was chronic lower respiratory illness. Ranking fourth and fifth were deaths caused by heart disease, and accidental death (unintentional injury).

Compared to North America as a whole, in terms of percentage of total deaths, Quebec has more cancer-related deaths and fewer linked to heart disease, cerebrovascular disease and trauma caused unintentionally.⁵³

There are major differences between men and women. There are more deaths among men than among women in all age categories under 65 years of age. These differences are attributable to the greater prevalence of heart disease among men between 40 and 65 years of age. Among men under 40, suicides and accidents are also more frequent.

⁵² https://www150.statcan.gc.ca/t1/tbl1/fr/tv.action?pid=1310039401

⁵³ https://www.inspq.qc.ca/santescope/syntheses/principales-causes-de-deces

Mental health

In 2012, 9.4 %⁵⁴ of Quebecers aged 15 or over had been afflicted with a general anxiety disorder at some point in their lives, which is slightly above the Canadian average (8.5 %). This disorder affects twice as many women as men (12.4 % versus 6.3 %).

Table 3-3

Prevalence of generalized anxiety disorder, in lifetime or in 12 months preceding survey (15 years or older)

	Lifelong	12 months
Whole of Quebec	9.4	2.3
Men	6.3	1.8
Women	12.4	2.7
15 to 24 years of age	8.0	3.6
25 to 44 years of age	8.8	1.9
45 to 64 years of age	10.9	2.5
65 years and over	8.5	1.3
Rest of Canada	8.5	2.7

Source: Statistique Canada

Data also showed that 12,2 % of Quebecers over the age of 15 had experienced an episode of depression, a rate that was down slightly from 2002 (14.6 %). Women were more likely to have experienced depression than men (15.0 % versus 9.3 %). There was improvement in all age groups between 2002 and 2012, with the exception of youth between 15 and 24 years of age, among whom the rate was stable (12.6 % to 12.7 %). More specific data exist that indicate that there is no correlation between a depressive episode and income levels.

Figure 3-9





Source: Statistique Canada

Anxiety disorders among high school youth

The Quebec Health Survey of High School Students carried out in 2016-2017 found that in Montréal, diagnoses of anxiety disorder, depression, or eating disorders, were up between 2010-2011 and 2016-2017 for all age groups in high school, having gone from 12.3 % to 16.4 %. In 2016-2017, 12.2 % of boys in Montréal reported having been so diagnosed, compared to 20.5 % of girls. These rates remain lower than those noted for Quebec as a whole (19.5 %, with a rate of 13.8 % among boys and 25.4 % among girls).

We should point out that in Montréal, there was an increase of about four percentage points for each year of high school between 2010-2011 and 2016-2017, with the exception of Secondary V, where there was a six percentage point increase in the rate of such diagnoses (13.9 % to 20 %).

Figure 3-10



At least one diagnosis, confirmed by a doctor or other health specialist, of anxiety disorder, depression or eating disorder (%)

Source: Enquête québécoise sur la santé des jeunes du secondaire, 2016-2017

Nonetheless, over the six-year period, despite the 4.3 percentage point increase, Montréal went from 13th to first among Quebec administrative regions – Montréal and Laval being the two regions where the fewest young people had been diagnosed with anxiety disorders, depression or eating disorders.

Figure 3-11

At least one diagnosis confirmed by a doctor or other health specialist of anxiety disorder, depression or eating disorder in 2016-17 (%)



Source: Enquête québécoise sur la santé des jeunes du secondaire, 2016-2017

Suicide⁵⁵

The suicide rate has been going down consistently since its peak at the tail end of the 1990s.

Figure 3-12



Adjusted Quebec suicide rate

per 100,000 inhabitants, adjusted by age structure

In all age groups, suicide is more frequent among men than among women. The rate is at its highest among those aged between 45 and 64.

Among Quebec regions, the Abitibi-Témiscamingue and the North Shore are the most impacted by suicide. Montréal's rate is slightly below the Quebec average, while Laval's suicide rate is the lowest in the province.

Table 3-4

Adjusted suicide rate in 2016

Bas-Saint-Laurent	13.6
Saguenay–Lac-Saint-Jean	14.5
National Capital	11.9
Mauricie et Centre-du-Québec	16.1
Estrie	13.5
Montréal	9.6
Outaouais	12.6
Abitibi-Témiscamingue	20.4
Côte-Nord	15.4
Nord-du-Québec	14.2
Gaspésie–Îles-de-la-Madeleine	18.1
Chaudières-Appalaches	16.2
Laval	8.8
Lanaudière	10.9
Laurentians	12.6
Montérégie	10.9
Nunavik	113.1
Terres-Cries-de-la-Baie-James	13.1
Whole of Quebec	12.1

Source: https://www.inspq.qc.ca/sites/default/files/publications/2497_suicide_quebec.pdf

Strengthen prevention and treatment for substance abuse

Drugs

When it comes to cannabis, 9.2 %, of Quebec males have either abused it or become addicted to it during their lives, versus 3.8 % for women. The rate for Quebec as a whole (6.4 %) is 8 % lower than that of the rest of Canada (6.9 %). Young people are more affected by the problem than other age groups.

Table 3-5

Prevalence of abuse of, or addiction to, cannabis in lifetime or in 12 months preceding survey (15 years or older)

	Lifetime	12 months
Whole of Quebec	6.4	1.4
Men	9.2	2.0
Women	3.8	1.0
15 to 24 years of age	12.2	6.8
25 to 44 years	7.9	1.3
45 to 64 years	5.6	*
65 years and over	0.9	*
Rest of Canada	6.9	1.3

* Confidential data

Drug abuse or addiction (for drugs other than cannabis) is more prevalent among men. In 2012, in Quebec, 5.8 % of men had abused drugs or had become addicted to them, versus 2.8 % of women. The overall rate for Quebec (4.3 %) is 9 % greater than that for the rest of Canada (3.9 %).⁵⁶ Young Quebecers are the most affected by the problem: among individuals who had abused drugs or become addicted in the previous 12 months, the rate was 1.8 % among 15-24 year-olds, 0.6 % among those aged 25 to 44, and 0.1 % among 45-64 year-olds.

Table 3-6

Prevalence of abuse of, or addiction to, other drugs in lifetime or in 12 months preceding survey (15 years or older)

	Lifetime	12 months
Whole of Quebec	4.3	0.5
Men	5.8	0.6
Women	2.8	0.5
15 to 24 years of age	4.7	1.8
25 to 44 years	5.1	0.6
45 to 64 years	4.8	0.1
65 years and over	1.6	*
Rest of Canada	3.9	0.7
* Confidential data		

* Confidential data

Are young people drinking and smoking less?

According to a study by the Direction régionale de santé publique (DRSP) published in December of 2019, high school students in Montréal are drinking less, and using drugs less often, than five years ago. Drug and alcohol use is also less frequent in Montréal than elsewhere in Quebec.⁵⁷

Figure 3-13



Source: Portrait de la consommation d'alcool au Québec

Per capital alcohol consumption in 2013

Figure 3-14

Rate of alcohol abuse in 2014

% of respondents having drunk to excess* at least once per month in the preceding year



*5 glasses or more an man and 4 glasses or more for a woman.

Source: Portrait de la consommation d'alcool au Québec

In comparison with other Western countries, when it comes to per capita alcohol consumption, Quebec and Canada are in the middle of the pack.⁵⁸ Among the countries studied, Italy and Norway have the lowest per capita consumption; at the opposite end of the scale are France, Germany, Australia and Belgium.

In Canada, Quebec is clearly the province in which the largest proportion of the population consumes alcohol. When it comes to alcohol abuse, Quebec (20 %) is slightly above the Canadian average (18 %). The highest rates of abuse can be found in the Northwest Territories, in the Yukon, and in Newfoundland and Labrador.

Figure 3-15



Percentage of individuals having engaged in at-risk drinking in 2013

Source: Portrait de la consommation d'alcool au Québec

Reduce the number of deaths and injuries due to road traffic accidents

Quebec's road safety record has considerably and consistently improved over the last few decades. Whereas 2,000 deaths per year were tallied in the mid-1970s, that number kept shrinking and was down to fewer than 400 per year as of 2013. That improvement is all the more impressive because the number of vehicles in circulation more than doubled during this period.59

Figure 3-16



Number of deaths on Quebec roads and number of vehicles in circulation

2019: A bad year for Montréal's pedestrians

In 2019, 24 pedestrians reportedly died after having been struck by a vehicle in Montréal.⁶⁰ While road safety is improving generally, pedestrian safety is not trending in the same direction. Pedestrians now represent nearly 20 % of road fatalities in Quebec, which is up by about 10 % when compared with the prevailing rate 15 years ago.⁶¹

The next three figures come from the city of Montréal and relate to the city's adoption the Vision Zéro program.⁶²

Total number of deaths and serious injuries in Montréal Serious injuries Deaths <u>24</u> <u>25</u> Source: http://ville.montreal.qc.ca/portal/page? pageid=8957,142798610& dad=portal&_schema=PORTAL

Figure 3-17

⁶⁰ https://www.lapresse.ca/actualites/202001/11/01-5256497--elle-rappelait-a-ses-enfants-detre-prudents-en-traversant-la-rue-.php

⁶¹ https://www.ledevoir.com/politique/montreal/567158/pieton-tue

⁶² http://ville.montreal.qc.ca/portal/page?_pageid=8957,142798610&_dad=portal&_schema=PORTAL

Ensure universal access to all sexual and reproductive health-care services

The next sub-goal focuses on contraceptive use. Increased access to contraceptives generally indicates a greater likelihood that a young person will attain a higher level of education.

Figure 3-18



Use of a means of contraception among sexually active women, 2014-2015

Contraceptive use among women who are sexually active is very widespread, in all age groups between 15 and 50 years old.⁶³

In Quebec, from 2001 to 2018, the fertility rate among women aged 15-19 and 20-24 diminished significantly, but increased among the various age groups of mothers over 30.⁶⁴ Among women aged 25 to 29, the rate has held steady.

Figure 3-19



Fertility rate by age category of mother, total fertility rate, Quebec

63 Santé et Services sociaux

64 https://www.stat.gouv.qc.ca/statistiques/population-demographie/naissance-fecondite/402.htm

Achieve universal health-care coverage

Health-care coverage is universal in Canada, but that doesn't mean access to a family doctor is guaranteed. The Canadian Community Health Survey for 2017-2018 showed that only 73.4 % of Montrealers had a "primary health care provider", compared to 78.5 % of Quebecers, and 84.9 % of Canadians overall.

Figure 3-20 shows the statistics by province for adolescents specifically. A marked increase can be noted in Quebec between 2015 and 2018, as the percentage of 12-to-17-year-olds with a primary health care provider went from 66 % to 83 %. That still leaves Quebec 7 to 9 percentage points behind Ontario and British Columbia.

Figure 3-20



Percentage of individuals with a primary health care provider

12 to 17 years of age, in %

Source: Statistique Canada. Table 13-10-0096-01 Caractéristiques de la santé, estimations annuelles

TABLE 3-7

	bjective 3 alth and well-being	20 year trend	Recent trend	Comments
	3.1 Reduce the maternal mortality rate			Very low maternal mortality rate.
	3.2 End preventable deaths of newborns and children under 5 years of age		•	In Quebec, the mortality rate for newborns under one year of age has sharply declined over the last 20 years.
	3.3 End various epidemics	•		The institut national de santé du Québec reports 204 new cases of HIV in 2017, an increase of about 15 % over previous years.
	3.4 Reduce premature mortality from non- communicable diseases through prevention and treatment and promote mental health and well-being			12,2 % of Quebecers over the age of 15 had experienced an episode of depression, a rate that was down slightly from 2002 (14.6 %). Women were more likely to have experienced depression than men (15.0 % versus 9.3 %).
SDG 3	3.5 Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol	•		According to a study by the Direction régionale de santé publique (DRSP) published in December of 2019, high school students in Montréal are drinking less, and using drugs less often, than five years ago. Drug and alcohol use is also less frequent in Montréal than elsewhere in Quebec. In 2012, in Quebec, 5.8 % of men had abused drugs or had become addicted to them, versus 2.8 % of women. The overall rate for Quebec (4.3 %) is 9 % greater than that for the rest of Canada (3.9 %).
	3.6 Halve the number of global deaths and injuries from road traffic accidents		1	Quebec's road safety record has considerably and consistently improved over the last few decades. Pedestrians now represent nearly 20 % of road fatalities in Quebec, which is up by about 10 % when compared with the prevailing rate 15 years ago.
	3.7 Ensure universal access to sexual and reproductive health-care services			Contraceptive use among women who are sexually active is very widespread, in all age groups between 15 and 50 years old.
	3.8 Achieve universal health coverage			

QUALITY EDUCATION

OBJECTIVE 4: Ensure inclusive and equitable quality education and promote lifelong opportunities for all

Graduation rates remain a problem in Greater Montréal

Quebec has for quite a while now lagged behind its North American counterparts when their populations' levels of education are compared. Greater Montréal is in the same situation. Yet, even as our economies grow more complex, and with the coming digital revolution putting several categories of jobs in jeopardy, an educated population will be better able to adapt itself in an era where continuing education, and required competencies, will define the jobs that will be available to a greater extent than the sectors in which the jobs are found.

Montréal's economic performance has been excellent over the last few years (see Chapter 8). Along with that strong performance has come an increase in the education levels of its population. On the other hand, even if secondary studies are universally accessible thanks to a public school system, not all students benefit from it all the way to the obtention of a diploma. Indeed, a significant number of Montréal's students drop out of high school or do not get their diploma in the prescribed time.

Sub-goals covered in this chapter

- **4.1** By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes
- **4.2** By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education
- **4.5** By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations
- **4.6** By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy

The goal: completion of studies at the primary and secondary levels

Graduation rates generally show us what proportion of students, in Quebec and elsewhere in Canada, complete their studies in the required time frame. A figure is arrived at by taking the number of students in the third year of high school who have obtained their high school diploma two years later. In Quebec, this assessment is carried out by the Ministère l'Éducation et de l'Enseignement supérieur (MEES). Figure 4-1 shows a significant disparity between the rate of graduation within the required time for the whole of Quebec and what is happening in Montréal.



Figure 4-1

Source: Ministère de l'Éducation et de l'Enseignement supérieur

On the territory of the island of Montréal, 68.8 % of students obtain their secondary school diploma or qualification in the requisite time frame. That is 0.6 % higher than in the Quebec public school network as a whole. However, the rate is quite a bit lower in the Pointe-de-l'Île (60.9 %) and Montréal school boards (60.0 %).

The data also show that fewer boys than girls obtain their diploma within the five-year window. The rate for boys is 61.6 % overall in the public school network, and is higher in Montréal (64.0 %). Again, we note that school boards for Pointe-de-l'Île and Montréal graduate fewer than six boys out of 10 within five years.

Graduation rates are also available for the administrative regions that surround the island of Montréal. However, these results may include school boards that are not part of the Montréal CMA. Figure 4-2 shows graduation rates for these four administrative regions.

Figure 4-2

Graduation rate, 2013 group (on 5 years, in %)



Source: Ministère de l'Éducation et de l'Enseignement supérieur

The administrative regions adjacent to Montréal show graduation rates that are slightly higher than the Quebec average for public schools, with the exception of the Lanaudière region. The Montérégie, which by itself is home to 11 school boards, posts widely varying results, with the lowest graduation rate at 52.1 % and the highest at 81.7 %.

If we look at historical trends, graduation and qualification rates have gone up throughout Quebec over the last few years, including in Montréal. Figure 4-3 demonstrates this.

Figure 4-3

Graduation rates after 5 years (%)



Source: Ministère de l'Éducation et de l'Enseignement supérieur

The other key indicator for measuring academic success is the rate of students leaving secondary school without a diploma or a qualification. More commonly referred to as the "dropout rate", it corresponds to the number of students having abandoned their secondary studies in a given year, without a diploma in hand. It is in a sense the inverse of the proportion of students (out of all students registered in secondary school) who obtain a diploma or a qualification, or pursue their studies.

The dropout rate is tracked province-wide, and by school board. Figures 4-4 and 4-5 summarize the results for Quebec in 2016-2017.

Figure 4-4



Percentage of students without a diploma in 2016-2017 (%)

Source: Ministère de l'Éducation et de l'Enseignement supérieur

Figure 4-5





The first very noticeable dividing line is the difference between the public school network (15,1 %) and the private school network (6,2 %). We also note that francophone school boards have dropout rates that are above the provincial average. There is also a major disparity between the Montréal administrative region and the regions adjacent to Montréal. Dropout rates are lower in school boards on the outskirts of the city. Finally, boys drop out much more often than girls, a well-known phenomenon⁶⁵ that is present in all regions of Quebec.

Another important point, one related to this Sustainable Development Goal, is the large proportion of students who drop out of lower secondary education. Provincial data show that nearly a quarter (24.3 % in 2017-2018) of those who leave without a diploma or qualification leave school between 12 and 14 years of age (secondary 1 or 2). About half of those dropping out (47.2 %) are 15 or 16 years old.

There is some good news: from 1999-2000 to 2016-2017, the annual dropout rate in Quebec did go down. It went from 21.9 % to 13.1 %, a drop of 40 % province-wide. The gap between boys and girls diminished by almost half, going from 11.9 percentage points to 6.3.

Dropout rates for school boards in the Montréal region have also declined since the start of the 2000s. For instance, the dropout rate for the Montréal administrative region was 28.6 % in 1999-2000. Still, after four consecutive years of decline, the rate went back up slightly (+0,1 percentage point) between 2015-2016 and 2016-2017 (the last two years for which data is available).

Table 4-1

Graduation rates in normal times

	Total (%)	Boys (%)	Girls (%)	Difference B-G (percentage points)
Canadian average	79	75	83	8
Newfoundland and Labrador	80	78	83	5
Prince Edward Island	78	74	82	8
New Brunswick	86	82	85	3
Quebec	74	68	80	12
Ontario	81	77	85	8
Manitoba	82	79	85	6
Saskatchewan	78	76	81	5
Alberta	77	75	79	4
British Columbia	79	77	81	4

Note: Data for Nova Scotia not available

Source: Statistique Canada

Dropping out: the impact

It's important to bear in mind that dropping out of school has not just social, but also economic, ramifications. According to a study carried out in 2019 by Aviseo Conseil for the Chamber of Commerce of Metropolitan Montréal (CCMM), an individual who has completed their secondary studies will earn, on average, \$500,000 more over the course of their career than someone who has not completed them.⁶⁶

Table 4-2

Loss of income cause by dropout

	Loss of individual income	Loss of fiscal income	Impact on the GDP
Men	\$432,300	\$111,600	\$982,600
Women	\$492,500	\$100,200	\$1,119,400

Source: Chambre de commerce du Montréal métropolitain (CCMM), Persévérance scolaire et conciliation études-travail: une piste de solution à la pénurie de main-d'œuvre, 2019.

According to the Montréal Hooked on School organization,⁶⁷ dropping out of school has other major impacts:

- 30 % of dropouts do not participate in the labour market;
- Two out of three recipients of social assistance are dropouts
- Dropouts are more likely to have health problems and have a life expectancy that is 7 years less than the norm;
- 62 % of individuals who go through the prison system are dropouts;
- The average employment income of a dropout is 31 % lower than that of an individual with a secondary school diploma (DES);
- Females who drop out, though proportionately a smaller number, are especially disadvantaged:
 - Even fewer of them are employed than their male dropout counterparts (the gap is 22 %);
 - The salaries they earn are on average 21 % lower than those of male dropouts

⁶⁶ Chambre de commerce du Montréal métropolitain (CCMM), <u>Persévérance scolaire et conciliation études-travail: une piste de solution à la pénurie de main-d'œuvre,</u> 2019.

Education levels among those aged 25 to 54

It is also clear that there are disparities when it comes to Quebecers' highest reported level of education. For Quebec as a whole, 11.3 % of residents aged 25 to 64 have no diploma. The administrative regions of Montréal, Laval and the Montérégie do better than the Quebec average, with rates of 7.7 %, 9.9 % and 10.9 % respectively. The two other regions adjacent to Montréal, the Laurentians (12.1 %) and Lanaudière (14.0 %) do less well than the provincial average. While one resident out of two on the island of Montréal has obtained a certificate, diploma, or university degree, the island underperforms when its graduation and dropout rates are measured against the Quebec average.

This more educated population is the result of a transformation that has been occurring over the last two decades. The evolution of the data between the 2001 and 2016 Censuses⁶⁸ show that more and more individuals between the ages of 25 and 64 have earned diplomas (see following figure). These particular results for Montréal can no doubt be attributable to the benefits of immigration, since immigrants are in general more educated that individuals born in Quebec.⁶⁹

-9.8 Greater Montréal No diploma -12.2 Rest of Quebec -6.7 High School -7.0 4.3 Professional certificate 9.9 2.0 College 41 10.2 University 5.2 5 -15 -10 -5 0 10 15

Figure 4-6 Highest level of education

Variation from 2001 to 2016, in percentage points

Source: Statistique Canada, Recensements de la population de 2001 et 2016. Traitement: CMM, 2018.

68 Communauté métropolitaine de Montréal, Perspective Grand Montréal, N° 36, 2018.

69 Institut du Québec, Plus diplômés, mais sans emploi: le paradoxe de l'immigration montréalaise, Mia Homsy et Sonny Scarfone, 2016.

The Institut du Québec has noted that, in 2016, Montréal stood 14t^h among 15 North American metropolitan regions in terms of percentage of the population with a Bachelor's level university degree – at 32 %.⁷⁰ In other words, the increase in the number of people obtaining degrees is good news, but Montréal still lags behind other North American cities.



Percentage of individuals aged 25 to 64 who have obtained at least a Bachelor's degree

Source: Institut du Québec, Comparer Montréal: toujours une locomotive pour le Québec, 2019.

Figure 4-7

To sum up, the data corresponding to this first sub-goal in the area of education show that not all Quebec children are able to benefit from a full primary and secondary education of good quality. Of course, accessibility is a given, since primary and secondary education are compulsory until the age of 16 and guaranteed by the public system. However, in practice, this is mitigated by the fact that a significant number of students do not get their diploma within the requisite time, or drop out of school. Still, there has been some remarkable progress in terms of bringing down the dropout rate, and in increasing the rate of attainment of university education.

Enhancing the quality of educational services in daycares and preschools

The second sub-goal of the goal of having an educated population is to ensure that children have access to early childhood education and care, and to a quality preschool education that will prepare them for their primary school course of study.

Quebec does have an ecosystem of varied early learning and child care services, as well as a non-compulsory public preschool system: Centres de la petite enfance (CPE, early childhood centres), private subsidized and non-subsidized child care, and home daycares. Evaluating the accessibility of quality child care is not a simple undertaking, since each type of service has its strong points and weak points.

One thing is certain, when it comes to Montréal,⁷¹ the Direction de santé publique (public health authority) has emphasized the importance of developing a CPE network of quality, especially in disadvantaged areas. However, the most recent research,⁷² indicates that CPEs in Montréal are not very accessible to disadvantaged households. Indeed, we can see that only 12.5 % of spaces are occupied by children from the poorest 20 % of Montréal families.

In Montréal, 62.2 % of spaces are occupied by children from the wealthiest 40 % of households. On the other hand, the two poorest quintiles only occupy 27.6 % of spaces in the CPEs. "The analyses carried out in the present volume show that the sectors that are the most economically disadvantaged and/or that have the highest percentage of children who are considered vulnerable in two or more developmental areas have less access to the CPEs, even though the children in these sectors are the ones who could benefit the most from these services."⁷³

Another factor that influences accessibility is cost. It's common knowledge that child care fees are lower in Quebec than in the rest of Canada, according to an analysis by Canadian Centre for Policy Alternatives.⁷⁴

Figure 4-8



Median monthly cost of child care for preschool children, 2017 (in \$)

71 Commission sur l'éducation à la petite enfance,

Mémoire du directeur régional de santé publique de Montréal du CIUSSS du Centre-Sud-de-l'Île-de-Montréal, 2016.

72 Direction régionale de santé publique du CIUSSS du Centre-Sud-de-l'Île-de-Montréal, <u>Portrait montréalais de l'accessibilité aux centres de la petite</u> enfance (CPE) – selon la défavorisation et la proportion d'enfants vulnérables dans deux domaines ou plus du développement, 2019.

74 Centre canadien de politiques alternatives, <u>Stades de développement: Frais de garde d'enfants dans les plus grandes villes du Canada – 2018</u>, 2019.

⁷³ Idem

Among Canadian cities, Montréal in 2017 had the lowest median monthly child care costs in the country, more than five times lower than Vancouver and seven times lower than Toronto.

The number of child care spaces has not increased equally in every category. Overall, in Quebec from 2003 to 2018, the total number of spaces went up by 136,000 a jump of 82 %. In Montréal, and in the rest of the province, the number of spaces in unsubsidized child care increased more rapidly than the number of spaces in CPEs and in family daycare, which are, it must be said, also on the rise.

Figure 4-9



Progression in the number of child care spaces for children between 0 and 4 years of age

Source: Centre canadien de politiques alternatives, Stades de développement: Frais de garde d'enfants dans les plus grandes villes du Canada - 2018, 2019.

Aiming for equity in education for vulnerable individuals

The UN is proposing to eliminate gender disparities in education by 2030, and ensure equal access to education to persons with disabilities, indigenous peoples and children in situations of vulnerability.

When the UN speaks of gender disparities, the reference is to the difficulties young girls in certain developing nations have in accessing education. As regards Quebec, gender disparities can instead be seen in educational success levels: this is reflected in the differences in graduation rates and dropout rates set out in the discussion of sub-goal 4.1.

One indicator that allows us to measure the degree of success of the most vulnerable individuals is the graduation rate for disabled persons and special needs students. This type of student is differentiated from a "regular" one by the establishment of an intervention plan and a difficulty code upon their entry into secondary school.

Disabled persons and special needs students are more and more numerous in the Quebec and Montréal school systems. In 2018-2019, they made up no less than 30.9 % of all public school students in Quebec. School boards like the Montréal School Board, Pointe-de-l'Île and Marguerite Bourgeoys are no exception, with respective percentages of 34.0 %, 30.2 %, and 27.8 %. In 2004, 17.5 % of students were identified as disabled or special needs students.

Graduation and qualification rates are lower than those of regular students. This figure shows these differences for Quebec as.

Figure 4-10



Graduation and qualification rate for disabled and special needs students, and regular students, after 5 years and 7 years, public school network (%)

Source: Ministère de l'Éducation et de l'Enseignement supérieur

Although progress has been made over the last few years, the fact remains that only 36.4 % of disabled and special needs students get their diploma or qualification within the standard time frame. The figure is more than double for regular students (76.1 %). Once seven years have elapsed, the figures improve, with disabled and special needs students getting their diplomas at a rate of 56.2 %.

Aiming to improve literacy and numeracy levels

The economies of the 21st century will continue to become more complex, thus the importance of aiming to have populations that have high levels of literacy and numeracy. Obviously, the benefits are not just economic.

Two key indicators for judging whether these goals are being achieved come from the Programme for the International Assessment of Adult Competencies (PIAAC).^{75 76} This is a survey, initiated by the OECD, of individuals aged 16 to 65. It focuses on competencies in literacy, numeracy, and problem solving in technology-rich environments.⁷⁷ The most recent results date back to 2012, and new results will be published in 2022.

Literacy is defined as "understanding, evaluating, using, and engaging with written texts to participate in society, to achieve one's goals, and to develop one's knowledge and potential". The goal is therefore to evaluate the reading capacities of those surveyed.

Numeracy is defined as "the ability to access, use, interpret, and communicate mathematical information and ideas in order to engage in and manage the mathematical demands of a range of situations in adult life." The goal is therefore to evaluate mathematical competencies of respondents taking tests. The results of standardized tests, (for all countries taking part in the study) are scored on a scale of 0 to 500 points, then divided into six proficiency levels: below 1, to 1 à 2, (...) up to level 5. Respondents categorized as between "below 1" and 2 are judged to have insufficient or weak proficiency in the skill being analyzed.

The study does not include specific results for Greater Montréal – but it does allow us to make observations on the provincial level, and those can be observed at the Montréal level. Most Quebecers' proficiency was deemed inadequate or weak in numeracy (56,1 %) and literacy (53.2 %), a performance which is nonetheless in line with those of the other Canadian provinces. The breakdown by age shows that older age groups have scores indicating inadequacy. Young Quebecers, on the other hand, obtained some of the best results in Canada, notably, Quebecers from 16 to 24 years of age and those between 25 and 34 years of age, who tallied the strongest Canadian results in numeracy.

When it comes to literacy, in the 45-and-over age group, the percentage of respondents showing a weak or inadequate proficiency level in literacy is quite a bit higher in Quebec than in Ontario. Among 25-to-34-year-olds, the opposite is true, showing that Quebec is catching up. The future, then, looks promising.

Data examined for this sub-goal show us, then, that most Quebecers do not have adequate proficiency in literacy or numeracy, but that the outlook is brighter when it comes to younger Quebecers.

⁷⁵ Institut de la statistique du Québec, 2015

⁷⁶ Cette section reprend l'ensemble du chapitre sur le sujet dans le rapport: <u>Décrochage scolaire au Québec: dix ans de surplace, malgré les</u> <u>efforts de financement</u>, Mia Homsy et Simon Savard, Institut du Québec, mai 2018.

⁷⁷ Pour des raisons méthodologiques (taux élevé de non-réponse pour la troisième compétence) et d'interprétation, nous n'analyserons ici que les deux premières compétences.

TABLE 4-3

Objective 4 Quality education

	4.1 Ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes		The overall graduation rate is on the rise, in Quebec and in Montréal. This is also the case for disabled and special needs students, immigrants and those from underprivileged backgrounds.
4	4.2 Ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education		Monthly child care costs in Montréal are among the lowest in Canada.
SDG	4.5 Eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations		
	4.6 Ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy		Majority of the population has insufficient capacity in literary and maths, but it is comparable to other provinces.
		 	ス Strength → Stable ▲ Weakness

20 year

trend

Recent

trend

Comments

GENDER EQUALITY

OBJECTIVE 5: Achieve gender equality and empower all women and girls

Inequalities between men and women: economically, ground has been made up; but the problem of violence persists

Over the last 20 years, major advances have been made by women in terms of education and in economic terms. If it's true that economic opportunities are now more equal between men and women, significant gaps remain with regards to access to leadership positions, and with regards to women's personal security. Montréal is lagging behind several other Canadian metropolitan regions on these matters.

Sub-goals covered in this chapter

- 5.1 End all forms of discrimination against all women and girls everywhere
- **5.2** Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation
- **5.4** Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate
- **5.5** Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life

End all forms of discrimination against women and girls

The first sub-goal of this SDG is a general one. In many countries, it mainly means ensuring more equal access to free education of quality. The subject is covered in greater detail in Chapter 4, but we will provide a quick glimpse at a few statistics that are relevant in the context of the labour market.

An index that highlights inequalities between genders

The Canadian Centre for Policy Alternatives publishes an annual ranking of the best and worst cities to be a woman in Canada.⁷⁸ According to its 2018 index, Montréal ranked 24th out of 26 cities studied, ahead only of Edmonton and Barrie, and came in behind the other cities with more than 100,000 habitants, including Sherbrooke, Québec City and Gatineau. Montréal's best score came in regards to the economic gap between men and women, with a 10th place ranking. The city does not come in any higher than 20th on the other four indicators, education, positions of leadership, health and personal security.

This must be put in context, however. As explained in Chapter 4 and in the following section, women's levels of education, for instance, exceed those of men in the province of Quebec and in Montréal. These types of rankings are relative, and can sometimes obscure positive results, or worse, indicate a good ranking despite significant (and widespread) gaps. For example, when it comes to leadership positions, very few cities can boast of parity in their municipal electoral representation.

Table 5-1

Index of inequality between genders, Canadian Centre for Policy Alternatives, 2018

СМА	Province	Economic	Educational	Leadership	Health	Safety	Overall ranking
Kingston	ON	2]	12	8	16	1
St. John's	NL	3	4	13	4	8	2
Victoria	BC	16	8	2	17	17	3
Hamilton	ON	17	2	16	1	3	4
Vancouver	BC	18	12	7	6	5	5
Ottawa	ON	4	16	8	20	6	6
Sherbrooke	QC	11	20	1	24	7	7
Toronto	ON	13	3	15	12	2	8
Greater Sudbury	ON	15	18	4	5	14	9
Gatineau	QC	1	17	6	23	24	10
St.Catharines-Niagara	ON	14	15	9	21	4	11
Saskatoon	SK	21	6	11	13	22	12
Abbotsford-Mission	BC	26	9	5	16	9	13
Oshawa	ON	22	14	10	15	15	14
Winnipeg	MB	6	13	17	3	25	15
Kelowna	BC	25	5	21	2	1	16
Kitchener-Cambridge-Waterloo	ON	20	22	3	26	26	17
London	ON	9	7	25	10	10	18
Quebec	QC	7	24	14	19	19	19
Windsor	ON	12	11	23	22	13	20
Calgary	AB	19	19	18	11	12	21
Halifax	NS	5	10	26	7	18	22
Regina	SK	8	21	22	14	23	23
Montréal	QC	10	23	24	25	20	24
Edmonton	AB	23	25	20	9	21	25
Barrie	ON	24	26	19	18	11	26

Source: Scott, Katherine, The Best and Worst Places to be a Woman in Canada, 2019, Centre canadien de politiques alternatives.

Increase in education levels among women

Over the last 20 years, the rise in education levels in Montréal and in Quebec – as in the rest of Canada – was mostly powered by women.

In 1995, fewer women than men pursued a university education. Since then, the trend has gone in the opposite direction. From 2000 to 2018 (the latest available data, currently still considered estimates), the percentage of women with a university degree increased more than the percentage of men with a university degree. In 2018, the proportion of women holding Bachelor's, Master's and PhDs had nearly doubled Quebec-wide. By comparison, mens' progress on this front was much less rapid.

Table 5-2 presents aggregated numbers showing how the relative increase has been greater for Quebec women than for Quebec men.

Table 5-2

Distribution of education level of the population from 25 to 54 years old

	Women		Men			
	1995	2015	1995	2015		
WHOLE OF QUEBEC						
Cegep	15.8	22.0	12.5	18.2		
Bachelor's degree	10.7	20.3	12.0	16.6		
Master and Doctorate	3.5	9.2	5.5	8.1		
MONTRÉAL						
Cegep	14.6	18.7	12.3	16.1		
Bachelor's degree	15.1	28.6	17.6	28.2		
Master and Doctorate	6.2	16.5	8.8	15.6		

Source: Institut de la statistique du Québec

Women and the labour market

One of the most significant societal changes of the last decades, with a marked economic, social and demographic impact, was the massive influx of women into the labour market.

Table 5-3

Employment rate, 25 to 54 years old (%)

		Montréal	Toronto	Vancouver	Calgary
2001	Men	82.4	87.3	89.4	84.9
	Women	72.4	75.5	80.2	73.0
2011	Men	81.1	83.8	88.7	81.2
	Women	77.4	73.8	79.5	74.0
2019	Men	86.5	86.5	88.64	88.6
	Women	81.6	76.5	80.5	79.1

Over the last couple of decades, the employment rate increased more rapidly for women, resulting in the gaps in this area being much smaller than what they were in 2001. In Montréal, the gap in 2019 was only five percentage points among individuals between 25 and 54 years of age. In Toronto, it was 10 percentage points, in Vancouver, eight, and nearly 11 in Calgary.

The narrowing of the gap is primarily due to the significant increase that occurred in Montréal: the employment rate for women in Montréal jumped by nine percentage points between 2001 and 2019, but remained fairly stable in Toronto and Vancouver. The narrowing of the gap probably is not unrelated to women's progress on the education front.

Chapter 8, which focuses on the economy, discusses salary differentials, which have lessened but still hover around 10 % (when it comes to hourly wages).

Immigrant women: still much ground to make up

Despite significant advances for a majority of Quebec women, other gaps persist. Some groups are less present in the labour market, or experience more unemployment. Immigrant women are, for example, less numerous in integrating into the job market.

In Montréal in 2006,⁷⁹ the employment rate among immigrant women between the ages of 25 and 54 who had arrived here less than five years ago stood at 50 %, about 20 points lower than that of immigrant women who had established themselves here at least 10 years prior, and 30 points lower than that of Canadian-born women.

Ten years later, in 2016, the employment rate for women in Montréal had increased for all groups. But immigrant women continued to have a lower rater of employment than Canadian-born women. In Montréal, the rate was close to 90 %; that of immigrant women who have been here for less than five years remained under 60 %, and thus the 30-point gap still existed. We also note a gap of 20 points between that rate and the one for immigrant women who landed here more than 10 years ago, their rate being 80 % in 2016.

The employment rate for immigrant women is also substantially lower than that of male immigrants. In 2016, the difference between the employment rate for immigrant men who had landed in Canada at least 10 years prior and that of men born in Canada was almost non-existent, both being around 90 %. In Montréal as well, men who were recent immigrants posted an employment rate of 80 %, that is, 20 percentage points higher than that of women who were recent immigrants.

Conversely, Canadian-born women living in the metropolitan Montréal region have historically had an unemployment rate lower than that of Canadian-born men.

Table 5-4

Unemployment rate, Montréal metropolitan region

ages 25 to 54

	Women born in Canada	Men born in Canada
2001	5.0 %	5.3 %
2006	4.2 %	4.8 %
2011	4.2 %	5.2 %
2016	4.1 %	5.5 %

Source: Statistique Canada

The reverse is true among immigrants: the unemployment rate for immigrant women has gone down since 2001 in Montréal, but remains higher than the rate for immigrant men.

In 2016, the rate for immigrant women was 10.7 % versus 8.8 % for immigrant men. Between 2006 and 2016, immigrant women living in the Montréal metropolitan region had a higher rate of unemployment than immigrant women living in other Census Metropolitan areas in Canada.
Indigenous women

Indigenous women have had a minimal presence in the labour market. The differences between the employment rates for indigenous women and indigenous men are quite significant.

Table 5-5

Employment rate for indigenous persons, Census 2006 and Census 2016

		Men	Women
	Canada	56.5	51.1
	Montréal	65.2	55.6
2006	Toronto	66.6	60.8
	Vancouver	64.5	56.3
	Calgary	76.2	67.6
2016	Canada	63.8	56.7
	Montréal	64.6	57.7
	Toronto	66.0	56.8
	Vancouver	66.5	57.5
	Calgary	70.8	62.2

Source: Statistique Canada

20 Years for Quebec's child care services program (1998-2018)

In 1997, the government of Quebec launched a program of affordable child care, initially covering four-year-olds. The program was extended to all preschool age children in 2000.

Child care services were offered at a uniform cost, \$5 a day, which went to \$7 in 2004. Starting in 2015, fees paid by parents using subsidized services were adjusted according to the parents' income. In November 2019, the Quebec government went back to the single fee arrangement, now \$8,25 per day. The contribution required of a parent whose child was in an early childhood centre (Centre de la petite enfance, CPE), a subsidized daycare or a family daycare recognized by a coordinating central office and whose services were subsidized, was made up of:

- a basic contribution going to the child care service (\$8.25 in 2018)
- an additional contribution adjusted according to family income, calculated and paid when filing annual income tax returns.

In the last 20 years, the proportion of women who were in a family where both spouses worked has increased more rapidly in Quebec than in the rest of Canada, mainly in the category of couples with children.

Several studies have shown that Quebec's program of reduced-contribution child care has had a major impact on the participation of mothers in the workforce.⁸⁰ There has also been a positive impact on mothers of school age children, who used the child care services prior to their child's starting to attend school.

"If we could simply bring the participation rate of women between 25 and 54 years of age in the rest of Canada up to the level they have in Quebec, that would add almost 300,000 people to our country's workforce."

- Stephen Poloz, Governor of the Bank of Canada, March 13, 2018

Eliminate all forms of violence against women and girls

In 2017, among those aged 25 and under, the rate of reported violent crime was higher among female victims. The rate was also higher among women and girls under 25 than among those over 25.

Montréal had rates of reported violent crime against girls and women that surpassed those of Toronto, Vancouver or Ottawa. For men 25 and older, only Vancouver led Montréal.

Table 5-6

Violent crimes declared

Rate by 100 000 persons

	11 y. old or less		12 to 17 y. old		18 to 24 y. old		24 y. old or less		25 y. old and up	
	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men
All CMA	289	277	1,757	1,402	1,834	1,449	1,123	914	732	767
Montréal	367	338	2,027	1,421	2,030	1,452	1,251	921	803	789
Québec	369	367	2,242	1,544	2,370	2,025	1,388	1,126	760	852
Ottawa	156	152	1,263	967	1,630	1,246	903	709	575	582
Toronto	246	288	1,380	1,542	1,431	1,237	912	900	643	698
Vancouver	181	181	1,328	1,172	1,385	1,350	877	831	702	856

Source: Statistique Canada

Violence: tentative progress on violence against women

Over the last decade, the number of cases of violent crime report by police have diminished on the whole, but this reduction has been less significant for women and girls than for boys and men.





Number of Level 1 sexual assaults

Source: Statistique Canada, Table 35-10-0177-01

Assault and other violent crimes against women and girls were down; However, reported sexual offences were up on the whole, between 2013 and 2017, in the Census Metropolitan areas of Montréal, Toronto, Calgary and Vancouver,⁸¹ The increase was especially significant in Montréal.

Levels of assault and sexual assault⁸²

Assault

- LEVEL 1: Common assault, includes behaviours such as pushing, slapping, punching and face-to-face threats.
- LEVEL 2: Assault with a weapon or causing bodily harm; involves carrying, using or threatening to use a weapon against someone or causing someone bodily harm.
- LEVEL 3: Aggravated assault, involves wounding, maiming, disfiguring or endangering the life of someone.

Sexual assault⁸³

- LEVEL 1: An assault committed in circumstances of a sexual nature such that the sexual integrity of the victim is violated.
- LEVEL 2: Sexual assault with a weapon, threats, or causing bodily harm.
- LEVEL 3: Sexual assault that results in wounding, maiming, disfiguring or endangering the life of the victim.

Figure 5-2

Number of Level 2 and Level 3 sexual assaults



Source: Statistique Canada, Table 35-10-0177-01

Before, and after, #MeToo

Throughout Canada, the rate of sexual assault reported by police increased after the start of the #MeToo movement, in the fall of 2017.⁸⁴

Among Canada's largest cities, Montréal was where the increase was most significant, at 67 %. Vancouver and Calgary ranked second and third with variations in reported sexual assault rates of 26 % and 13 %. Toronto had the lowest increase among the four major Canadian cities, at 11 %, quite a bit below the Canadian average of 24 %.

Montréal occupies a rather unenviable position, with a higher-than-average sexual assault rate after #MeToo and a rise in the rate that was significantly higher than average.

Statistics Canada's research brings some important points to light: see following box.

Sexual assault after #MeToo⁸⁵

"The increase in the rate of reported sexual assaults in the wake of #MeToo does not necessarily mean sexual assault is actually more widespread. This phenomenon is rather a sign of changes in behaviours, in the way reporting is done and in the categorization of cases by police. In October 2017, the Montréal police force (Service de police de la Ville de Montréal) (SPVM) implemented a special hotline for sexual assault reporting. Other Quebec police forces put similar measures in place. These measures likely had a role in a higher number of sexual assaults being reported to police towards the end of 2017, which would explain the large variations in percentages in Quebec municipalities."

"A central outstanding question that cannot be definitively answered by police-reported data is to what extent the rise in sexual assault numbers signifies an increased willingness of victims to report to police. Data collection for the next General Social Survey (GSS) on Victimization is planned for 2019. The results of this national survey of Canadians will be able to determine whether there has been a shift in reporting behaviours in the post-#MeToo era. Moving forward, future research using data from police services will also be important in analyzing the longer-term impacts of #MeToo on police-reported sexual assaults beyond the last three months of 2017."

⁸⁴ À noter: même si la période considérée avant # MoiAussi est plus longue que la période après, les données sont tout à fait comparables puisqu'elles sont calculées sur la même base, c'est-à-dire de façon trimestrielle.

⁸⁵ Statistique Canada, <u>Les agressions sexuelles déclarées par la police au Canada avant et après le mouvement #MoiAussi</u>, 2016 et 2017; Laframboise, Kalina, Calls flood Montreal police hotline for victims of sexual misconduct, CBC News, 20 octobre 2017 (site consulté le 21 avril 2018).
76

Domestic violence

In 2017, women were significantly overrepresented among the victims of violence inflicted by intimate partners. This was the case throughout Canada. Among Canada's four largest cities, Montréal posted the highest rate of violence between partners, as reported by police. This was true among women and among men.

A study by the *Institut national de santé publique du Québec* (INSPQ) shows that the prevalence of conjugal violence diminished significantly in Quebec from 1999 to 2014, with the rate dropping from 7.4 % to 3.5 %.⁸⁶

Figure 5-3



Violence rate between partners

Source: Statistique Canada

According to the study, the two main factors operating here are the narrowing of the gap in employment levels between men and women, and the increase in levels of education among men.

However, according to data from the ministère de sécurité publique of Quebec (from the Uniform Crime Reporting Survey), the rate of offenses committed in a conjugal context was up slightly from 2004 to 2014: the rate per 100,000 went from 254.5 in 2004 to 264.5 in 2014.

L'INSPQ notes that "This increase in the number of offences reported to police may notably be due to social awareness campaigns that aim to reduce tolerance for domestic violence and highlight the fact that it is a crime. It may also be due to efforts to improve the ways in which police respond to situations of domestic violence (ex.: protocols, training, dedicated teams)."

The INSPQ study makes clear that there are flaws in the way we evaluate the scale of violence between intimate partners, or domestic violence. In Quebec, it's standard to refer to "domestic violence" when speaking of violence occurring within an intimate relationship: "Since domestic violence occurs in the context of an intimate relationship and manifests itself in different ways, and in a cyclical fashion, it is difficult to determine its scope with any precision. The limits inherent to the data sources and the tools used to measure the phenomenon result in portraits of conjugal violence that can be very variable."

Recognize and value unpaid care and domestic work

In general, according to 2015 data gathered among those 15 years old and over, men devote more time to professional activity, and women devote more time to domestic activity.

Table 5-7

Breakdown of daily activity by gender,	, 15 years of age and over
--	----------------------------

	Profession (paid work a	n al activity nd education)	Domestic activity (unpaid work)		
	Time allotted Percentage of those active		Time allotted	Percentage of those active	
Men	17.1 % (4 h 06)	52.8%	10.2% (2 h 27)	80.7%	
Women	12.9% (3 h O5)	42.8%	14.5% (3 h 29)	88.7%	

Source: Institut du Québec

Women devoted 12.9 % of their time to professional activity versus 17.1 % for men. Men participated in professional activity in a larger proportion than women, at 52.8 % to 42.8 %.

Women devoted 14.5 % of their time (3 hours 29 minutes) to domestic activity, versus 10.2 % for men (2 hours 27 minutes). Women participated in domestic activity in a larger proportion than men, at 88,7 % versus 80.7 % among those aged 15 and over.

Parents of children under five, but women in particular, devoted more time to domestic activity.

Ensure women's full and effective participation

Women in politics

In municipal politics in 2019, women made up a third of elected officials in Canada's largest cities, and more than 50 % of councillors/mayors in Montréal, Québec City, Vancouver, Saskatoon and Victoria.

Figure 5-4 Rate of women elected officials (cities)



Source

In Quebec in 2017, 53 of the 125 individuals elected to the National Assembly, or 42.4 %, were women. They made up 28.8 % of the Assembly in 2009.

Figure 5-5

Percentages of women in the National Assembly, the provincial cabinet, city councils and mayor's offices, Quebec, 2018 (%)



Source: Conseil du statut de la femme

As of March 1st 2020, the provincial cabinet included 12 women out of 26 ministers.

In municipal elections held in Canada in 2017, 2,360 women were elected city councillors (34.5 %) and 207 women were elected to mayoral positions (18.8 %).

In Canada's October 2019 federal elections, 98 women were elected to the House of Commons as Members of Parliament (29 % of the total), an increase of 10 (+3 percentage points) from the 2015 federal elections.⁸⁷

The provinces with the most women MPs as of 2019 are those of Ontario with 38 (31 % of ridings), Quebec with 26 (33 %) British Columbia with 14 (33 %). The fourth province with a sizeable representation in Parliament, Alberta, only saw six women elected, amounting to representation in 17.6 % of its federal ridings.⁸⁸

Representation in Crown corporations and in the business sector

As of January 31 2018, Quebec crown corporations had achieved parity in representation on its boards of directors. At that point, 48.2 % of board members were women, and they represented 42.6 % of the chairs of boards of directors.

In business in 2018, 28,4 % of the members of chambers of commerce in the Montréal region were women, which was below the Quebec average (38.3 %). Women in Montréal and in Quebec as a whole made up 33.3 % et 35.7 %, respectively, of the heads of chambers of commerce.

Figure 5-6

Percentage of women in governance, crown corporations and chambers of commerce

as of January 31, 2018, in %



Source: Conseil du statut de la femme

87 https://globalnews.ca/news/6069742/elections-female-women-parliament-record/

88 https://www.straight.com/news/1316756/record-98-women-elected-canadas-43rd-parliament-equality-advocates-say-thats-not-good

Women as judges and magistrates

In 2018, the Court of Québec had achieved parity in representation (48 % women), but not the Superior Court (37.2 %) nor the Court of Appeal (36.7 %).

Figure 5-7



Percentage of women judges in Quebec, January 31 2018

Source: Conseil du statut de la femme

Women and entrepreneurship

Montréal stands out among cities in Quebec through its particularly dynamic entrepreneurial spirit among women. According to the *Portrait du dynamisme entrepreneurial de Montréal 2017*,⁸⁹ Montréal women have demonstrated an entrepreneurial dynamism that clearly outshines that of women in the rest of Quebec, both in terms of aspirations and in terms of concrete action. In 2017, Montréal women had a "rate of intention" of 22 % to create or take over a business, as compared to 15 % for the rest of Quebec.⁹⁰

In Montréal, for every 100 men who are business owners, there are about 43 women business owners, as compared with 39 women owners for every 100 male owners in the rest of Quebec.

For Quebec as a whole, intentions to create businesses were up from 2009 to 2018, among men and among women. Women in Quebec overall showed a "rate of intention" that was lower than that found among men.

"Among men, there was a steady increase in intentions to start businesses between 2012 and 2016, followed by a slight decline. On the other hand, among women the rate increased continuously from 2013 to 2018; we can thus say that a certain amount of catching up took place."

Figure 5-8



Progression of rates of intention to start a business in Quebec

Source: Indice entrepreneurial québécois 2018 de la Fondation de l'entrepreneurship

When it comes to actually taking the steps required to create a business, the gap between men and women is narrowing: it was 4.9 percentage points in 2015, but 2.8 points in 2018.

Figure 5-9

Progression in the percentage of individuals undertaking steps to start a business



89 Fondation de l'entrepreneurship et l'Institut d'entrepreneuriat Banque Nationale - HEC Montréal, mars 2018.

90 Pour les hommes montréalais, ce taux est de 30 %, par rapport à 24 % pour le reste du Québec.

TABLE 5-8

	bjective 5	20 year trend	Recent trend	Comments
	5.1 End all forms of discrimination against all women and girls everywhere			Over the last 20 years, the rise in education levels in Montréal and in Quebec – as in the rest of Canada – was mostly powered by women.
	5.2 Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation			In 2017, among those aged 25 and under, the rate of reported violent crime was higher among female victims. The rate was also higher among women and girls under 25 than among those over 25. Among Canada's largest cities, Montréal was where the increase was most significant, at 67%. Vancouver and Calgary ranked second and third with variations in reported sexual assault rates of 26% and 13%. Toronto had the lowest increase among the four major Canadian cities, at 11%, quite a bit below the Canadian average of 24%.
SDG 5	5.4 Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate	•	•	In general, according to 2015 data gathered among those 15 years old and over, men devote more time to professional activity, and women devote more time to domestic activity.
	5.5 Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life			In Canada's October 2019 federal elections, 98 women were elected to the House of Commons as Members of Parliament (29% of the total), an increase of 10 (+3 percentage points) from the 2015 federal elections. The provinces with the most women MPs as of 2019 are those of Ontario with 38 (31% of ridings), Quebec with 26 (33%) British Columbia with 14 (33%). The fourth province with a sizeable representation in Parliament, Alberta, only saw six women elected, amounting to representation in 17.6% of its federal ridings. In Montréal, for every 100 men who are business owners, there are about 43 women business owners, as compared with 39 women owners for every 100 male owners in the rest of Quebec.

CLEAN WATER AND SANITATION

OBJECTIVE 6: Ensure availability and sustainable management of water and sanitation for all

Greater Montréal: cleaner water, but still much water loss

More than ever, the environment is at the forefront of our collective consciousness. City dwellers are being called upon to play an increasingly important role in our efforts to limit the impact of humans on the quality of the environment. For a city like Montréal, a vital part of this challenge is preserving the quality of the water around the central agglomeration of the metropolitan region. Will Montréal's residents continue to have universal access to water? And where do things stand regarding losses sustained during water treatment?

Over the last 10 years or so, a decline in the quality of several streams on the island has been observed, as well as a very uneven water quality on its north and south shores. However, water treatment is getting more effective, and the ongoing upgrading of infrastructure should work towards maintaining the water quality that residents enjoy, while also diminishing the number of pipeline breaks in Montréal, which is still higher than in other Canadian cities, including Toronto.

UN sub-goals covered in this chapter

- 6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all
- **6.2** By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations
- **6.3** By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally

Universal access to drinking water and adequate sanitation and hygiene services

Greater Montréal's residents have access to water that is of good quality. Drinking water is free, and available to all. But despite this (nearly) universal access, Montréal's water quality can be a cause for concern, for instance with regards to lead exposure.

Montréal: an action plan on lead supply lines

In October of 2019, the city of Montréal unveiled an action plan that aims to speed up the replacement of about 48,000 lead service lines between now and 2030. Health Canada recently revised its drinking water guideline, lowering the maximum acceptable concentration of lead in tap water from 10 to 5 micrograms per litre.⁹¹ That represents a diminution of 90 % in comparison with the 50 micrograms recommended in 2001, and is one of the lowest thresholds in the world. Note that the World Health Organization considers that there is no completely safe level of exposure to lead. The government of Quebec announced that it would oblige municipalities to come up with an action plan to reduce the amount of lead in drinking water.⁹²

In 2017, Canada was one of the world's leaders in terms of access to drinking water (99 %), according to data from the World Health Organization (WHO). By comparison, only 71 % of the world's population had access to water supply services that were completely safely managed. Europe and North America are in general the regions offering the best access to drinking water treated in a safe manner.⁹³

When it comes to access to proper sanitation and hygiene services, the WHO has not found any particular problems in North America.⁹⁴

Improve water quality by reducing pollution

The total cost of the wastewater treatment system per megalitre of water treated is substantially lower in Montréal than it is in other major Canadian cities. Despite having lower costs, Montréal has a higher wastewater treatment rate per 100,000 inhabitants than Canada's other large cities.

Water management indicators in the city of Montréal

For a city like Montréal, with considerable resources, it may be more relevant to examine the quality of water management, especially in relation to the principles of sustainable development. We will focus on the optimization of operations and the minimizing of waste.

The city of Montréal defines water management as follows: "consisting mainly of control and coordination of the activities in the water cycle (production and distribution of drinking water, collection and treatment of waste water), from the perspective of the maintenance and development of the network".⁹⁵

⁹¹ Ville de Montréal, Problématique du plomb

⁹² Croteau, Martin, Jean-Thomas Léveillé, *Plomb dans l'eau: Québec exigera un «plan d'action» des villes,* La Presse.

⁹³ Organisation mondiale de la santé, Basic and safely managed drinking water services Data by country.

⁹⁴ Organisation mondiale de la santé et l'United Nations Children's Fund (UNICEF), WASH in health care facilities: Global Baseline Report 2019.

⁹⁵ Ville de Montréal, Indicateurs de gestion de l'eau de la Ville de Montréal.

One the one hand, we see that the costs of treatment and distribution of drinking water per megalitre of water treated are much lower in Montréal than elsewhere in Canada. This stems mainly from the fact that Montréal only has one wastewater treatment plant, Jean-R. Marcotte, and it happens to be the third-largest plant in the world. This creates major economies of scale. The cost of treatment and distribution of drinking water is thus substantially less in Montréal than in other major Canadian cities, and it has not varied much over the last few years.

Figure 6-1



Total cost of water treatments and distribution of water (in \$)

On the other hand, the number of breaks per 100 kilometres of water pipeline in Montréal, while having diminished in recent years, is still not in line with the trend of substantial diminution in other major Canadian cities since 2014. In Toronto, for instance, the relative frequency of breaks has dropped by half, even though the age of the corresponding infrastructure is the same.

Figure 6-2



Number of breaks per 100 km of water pipelines

The estimated percentage of wastewater having been lost from the treatment system is also going down: it went from 1.1 % in 2015 to 0.35 % in 2018. These figures are, overall, comparable to those posted by Toronto.

Source: Ville de Montréal, Indicateurs de gestion de l'eau de la Ville de Montréal.

Aging pipelines

In 2018, the average age of drinking water pipelines in Montréal was 61 years, which is exactly the same as in Toronto and nearly double what it was in Calgary (33 years). The average age of wastewater pipelines was 57 years, compared to 66 years in Toronto and 33 years in Calgary.

Untreated water

Since 2014, the percentage of wastewater not treated is, as well, on a downward trend. 2017 and 2018 marked good years. Notably, Montréal did better than Toronto.

Figure 6-3



Estimated percentage of wastewater having been lost from the treatment system

Source: http://ville.montreal.qc.ca/vuesurlesindicateurs/index.php?kpi=2542

Quality of streams and inland waters

Greater Montréal offers its citizens streams and inland waters that are of a particularly poor quality: most of those sampled posted a water quality characterized as poor or polluted, especially on the eastern and western ends of the island.⁹⁶

Image 6-1



Source: Ville de Montréal, «Portrait de la qualité des plans d'eau à Montréal en 2018 ». Reproduit avec permission.

From 2009 to 2018, there appears to have been some decline in the quality of water in streams and inland waters. Indeed, sampling results show that stations posting a positive rating (excellent, good or satisfactory) were fewer, while there were more stations posting a negative rating (poor or polluted). This seems to be mainly attributable to more frequent rainfalls in the days preceding sampling.

Shoreline water quality and swimming

In 2018, half (52 out of 104) of the sampling stations surrounding greater Montréal received a QUALO certification, meaning that coming into contact with the water there while swimming is not problematic. Samples vary widely from one year to another, mostly according to the amount of precipitation received. For instance, in 2017, 73 % of the stations received the QUALO certification.

Image 6-2



Source: Ville de Montréal, « Portrait de la qualité des plans d'eau à Montréal en 2018 ». Reproduit avec permission.

TABLE 6-1

Objective 6 Clean water and sanitation		20 year trend	Recent trend	Comments
SDG 6	6.1 Achieve universal and equitable access to safe and affordable drinking water for all		•	The city is at nearly 100 % in both accessibility and affordability While access is nearly universal, some specific problems do occur, for instance the presence of lead in the water.
	6.2 Achieve access to adequate and equitable sanitation and hygiene for all		•	
	6.3 Improve water quality by reducing pollution	•		Water treatment in Montréal is inexpensive, mainly due to economies of scale realized at its central water treatment plant. The proportion of untreated waste water has been declining since 2014. Between 2014 and 2018, some decline in water quality in streams and inland waterways was observed. The number of pipeline breaks is still higher than in other Canadian cities.

₹ Strength → Stable ▲ Weakness

CLEAN AND AFFORDABLE ENERGY

OBJECTIVE 7: Ensure access to affordable, reliable, sustainable and modern energy for all

The energy challenge

Quebec enjoys clean and renewable energy, thanks to its investment in hydroelectricity. It's the cheapest energy on the continent. Yet at the same time, Quebecers are big consumers of fossil energy. The paradox is that while this clean, affordable hydroelectric power ensures universal access, it also leads to wastage.

Sub-goals covered in this chapter

- 7.1 By 2030, ensure universal access to affordable, reliable and modern energy services
- 7.2 By 2030, increase substantially the share of renewable energy in the global energy mix
- 7.3 By 2030, double the global rate of improvement in energy efficiency

We can make three central observations about Montréal and its relationship to energy: the energy is affordable, the per capita consumption is among the highest, and a lot of energy is lost within the energy network.97

By the numbers

In Quebec, annual per capita energy consumption is 193 gigajoules (GJ), slightly lower than those of Canada (221 GJ) and the United States (196 GJ). Developed nations like Norway (164 GJ), Sweden (141 GJ) or Germany (114 GJ) have lower rates of consumption. Quebec has an especially high level of industrial consumption (61 GI) compared to these other countries. There is also a significant difference between European countries and North American nations as regards transport-related energy consumption.98

Figure 7-1

in gigajoules



Energy consumption per capita, 2017

Sources: Whitmore et Pineau, 2020; AIE, 2019; sauf * pour le Québec, Statistique Canada, 2018 (Table 25-10-0029-01).

The part taken up by the industrial segment – much more substantial in Quebec – is attributable in part to the lower rates offered to businesses, which are an economic incentive for firms that operate in sectors where energy is a major production cost (like aluminium smelters). The fact that this energy is cleaner than many other alternatives makes Quebec's contribution to North America's clean energy "portfolio" that much more significant. In other words, even though per capita industrial consumption in Quebec is higher than elsewhere, the fact that the industrial production in guestion occurs on Quebec soil results in greenhouse gas emissions (for instance) that are lower than they would be if this production were carried out elsewhere on the continent

97 Les données étant généralement disponibles au niveau de la province, les termes Montréalais(e) et Québécois(e) sont utilisés de façon interchangeable. 98 Whitmore et Pineau, 2020; AIE, 2019; sauf * pour le Québec, Statistique Canada, 2018 (Table 25-10-0029-01)

The cost of energy

Montrealers pay considerably less for their electricity than residents of other North American cities. The average rate paid by Montréal residential clients is about half of the rate Torontonians pay, and substantially less than average rates in other large Canadian cities. The difference between Montréal and large cities in the United States is even more striking: Bostonians and New Yorkers pay over four times as much for their electricity. Also noteworthy is that Montrealers use much more electricity as a proportion of their total energy usage than residents of other cities on the continent – natural gas plays a larger part in energy consumption in the Northeastern United States, for example. Given these lower costs, electricity occupies a bigger place in the overall energy usage picture for Quebecers and Montrealers, particularly when it comes to heating.

Figure 7-2



Average price for domestic prices

Monthly consumption of 1 000 kWh; in ¢/kWh, in Canadian dollars

Source: Hydro-Québec, Prix de l'électricité: l'écart se creuse entre le Québec et le reste du continent, 13 octobre 2018.

Accessibility

Energy accessibility in Quebec can be measured by the proportion of household budgets that is taken up by spending on energy. From 1998 to 2013, total expenditure on energy in Quebec, relative to the gross domestic expenditure⁹⁹ remained generally stable: it varied between 9 % and 11 %. At the start of this century, up to the 2009 recession, energy expenditure in Quebec saw steady growth: it increased at an annual rate of 7 %, reaching a peak or nearly 35 billion dollars in 2008. In 2009, the total energy expenditure dropped by 14 %. Since then, there has been no clear trend in one direction or another.¹⁰⁰

Figure 7-3

Total spending on energy (1988-2013)



Source: Hydro-Québec, Prix de l'électricité: l'écart se creuse entre le Québec et le reste du continent, 13 octobre 2018

Per household energy spending: comparing Quebec and Ontario

Quebec households pay much less than their neighbours in Ontario when it comes to residential energy expenses. Indeed, in 2017, for expenses associated with water, fuel and electricity for their main dwelling, the least well-off Quebec household – in the bottom income quintile – spent \$946. That's about 25 % less than an Ontario household in the bottom quintile, which spent, on average, \$1,265. The same phenomenon could be observed for other income quintiles: Quebecers regularly spent less for water, fuel and electricity, with the gap being between 25 and 40 %.¹⁰¹

Losses

In 2017, 54 % of all the energy circulating in Quebec's energy network was lost; in other words, more than half of the energy produced "upstream" does not contribute to the economy.¹⁰²

- 101 Statistique Canada, Dépenses des ménages selon le quintile de revenu du ménage, Canada, régions et provinces, Table: 11-10-0223-01
- 102 Chaire de gestion du secteur de l'énergie.

^{99 «}La dépense intérieure brute, aussi appelée demande intérieure finale, correspond à l'ensemble des dépenses en biens et services des agents économiques nationaux. Ainsi, cet ensemble regroupe les dépenses de consommation des ménages, les dépenses d'investissement des entreprises et les dépenses des administrations publiques » (ISQ)

¹⁰⁰ Ministère de l'Énergie et des Ressources naturelles du Québec, *Production d'électricité*, Statistiques énergétiques.

Increasing renewable energy's part in the global energy mix

Quebec's renewable energy

Quebec and Greater Montréal's energy is clean, in the sense of minimizing greenhouse gas emissions, and it is also renewable. So the SDG sub-goal of increasing renewable energy's part in the energy mix has been achieved with electricity. Thanks to its hydroelectric resources, Quebec is a world leader on this front, since 99 % of its electricity is renewable. To put it another way, a large part of Montrealers' consumption of energy occurs in a way that does not impair future generations' access to it.

Figure 7-4

Proportion of renewable energy out of total electricity production in Quebec and in various countries and regions around the world





Source: Ministère de l'Énergie et des Ressources naturelles du Québec, <u>Production d'électricité, Statistiques énergétiques.</u>

Energy consumption by sector

The residential sector counts the largest proportion of renewable energy in its overall consumption picture: 73 % of residential consumption is electricity (and that is almost entirely renewable hydropower). The industrial sector meets 48 % of its needs with electricity, while the commercial and institutional sectors stand at 43 %. On the other hand, 97 % of the energy used by the transport sector comes from refined petroleum products.¹⁰³

Electricity is the energy type that saw the greatest increase in consumption in the province between 1996 and 2015, with an increase of 16 %. Natural gas consumption went up by 14 %, and petroleum products, 5.5 %. Biomass had a slight decline, 3 %, and coal use declined more significantly; it was down by 18 %.¹⁰⁴

Over the same 20-year period, electricity went from 35.4 % to 37.6 % of all energy used, an increase of 2.2 percentage points. This growth coincided with a drop in the proportion of energy use constituted by petroleum products, 1.4 percentage points (39.1 % to 37.7 %) and a drop in biomass's share by 0.9 percentage points (8.7 % to 7,8 %).¹⁰⁵

Electricity therefore accounted for 60 % of the increase in energy consumption in Quebec: 5.8 % out of a total increase of 9.6 %.¹⁰⁶

Sources of oil

The Chair in Energy Sector Management at HEC Montréal reports in its most recent *The State of Energy in Quebec* that the proportion of oil supply coming from Canadian and American sources increased by a significant amount – in fact, it reached 100 % of the Quebec total in October 2019. The breakdown was 38 % from Western Canada and 62 % from the United States.

Over the last two decades, then, the overall picture of Quebec's oil supply has changed entirely: Previously, the large majority of Quebec's oil imports were from Algeria, the United Kingdom, Norway and Venezuela.¹⁰⁷

Moving towards greater energy efficiency

We have seen, then, that Montréal's energy is both clean and renewable, but is it economically efficient?

The answer is yes, despite the losses in the energy network referred to above: between 1990 and 2017, the growth of Quebec's economy was quite a bit more rapid than that of its energy consumption. Indeed, as GDP increased by 66 %, and the population increased by 19 %, energy consumption only went up by 13 % during this period. Specifically, this means that the "energy intensity of the economy" ¹⁰⁸ diminished by 32 %, while per capita consumption went down by 5 %.¹⁰⁹

¹⁰³ Whitmore, J. et P.-O. Pineau, 2020. État de l'énergie au Québec 2020, Chaire de gestion du secteur de l'énergie, HEC Montréal, préparé pour Transition énergétique Québec, Montréal.

¹⁰⁴ Transition énergétique Québec, <u>Conjuguer nos forces pour un avenir énergétique durable</u>, Plan directeur en transition innovation et efficacité énergétiques du Québec 2018-2023.

¹⁰⁵ Ibid.

¹⁰⁶ Ibid.

¹⁰⁷ Whitmore, J. et P.-O. Pineau, 2020. État de l'énergie au Québec 2020, Chaire de gestion du secteur de l'énergie, HEC Montréal, préparé pour Transition énergétique Québec, Montréal.

¹⁰⁸ Consommation d'énergie par million de dollars de PIB.

¹⁰⁹ Whitmore, J. et P.-O. Pineau, 2020. État de l'énergie au Québec 2020, Chaire de gestion du secteur de l'énergie, HEC Montréal, préparé pour Transition énergétique Québec, Montréal.

TABLE 7-1

Objective 7 Clean and affordable energy		20 year trend	Recent trend	Comments
SDG 7	7.1 Ensure universal access to affordable, reliable and modern energy services		•	Montrealers have the lowest electricity bill of any residents of large North American cities Per capita energy consumption in Quebec is among the highest on the planet – particularly due to industrial usage.
	7.2 Increase substantially the share of renewable energy in the global energy mix		•	Quebec is an international leader in renewable energy: nearly 100 % of its electricity production is in renewables It appears that more than half the energy circulating in Quebec's energy system is lost.
	7.3 Double the global rate of improvement in energy efficiency			Energy efficiency is on a marked rise, due to a significant reduction in the province's energy intensity. That is in line with the general trend in the OECD. An economy that is more oriented toward the service sector relies more heavily on imported goods,which means an exporting of greenhouse gases is generated by the local consumption. It might be more relevant to start thinking in terms of material footprint.
				➡ Strength

96

ECONOMIC GROWTH, FULL AND PRODUCTIVE EMPLOYMENT

OBJECTIVE 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

Montréal's economy takes off

A good economy doesn't solve every problem; but it does create the conditions that allow, in particular, the financing of initiatives that will help attain the Sustainable Development Goals (SDGs). Greater Montréal experienced surprisingly good economic times from 2016 to 2019, though neither it nor Quebec are expected to maintain a pattern of heightened economic growth all through the next decade.

Still, all things being equal, a strong economic performance should at least not hurt the city's environmental performance. Ideally, Montréal's economic growth should favour the "decoupling" of the economy and the environment, and the development of economic policies that will not have a negative impact on its environmental footprint.

Sub-goals covered in this chapter

- **8.1** Sustain per capita economic growth in accordance with national circumstances and, in particular, at least 7 per cent gross domestic product growth per annum in the least developed countries
- **8.2** Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value added and labour-intensive sectors
- **8.5** By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value
- **8.6** By 2020, substantially reduce the proportion of youth not in employment, education or training
- **8.10** Strengthen the capacity of domestic financial institutions to encourage and expand access to banking, insurance and financial services for all.

The classic way to measure standard of living is according to the per capita gross domestic product (GDP).

Over the last 20 years, real GDP per capita in Montréal went from \$39,400 to \$46,100 (in 2012 dollars), an increase of 17 %.¹¹⁰

Figure 8-1

Standard of living



Source: Conference Board du Canada

In 2000, Montréal lagged behind Toronto and Vancouver in this category, and we should point out that despite Montréal's strong economic performance, it has not been able to close that gap. Since 2000, the annual rate of increase in real GDP in Montréal has been 0.8 %, versus 0.6 % in Toronto and 1.6 % in Vancouver. Vancouver has just about closed the gap that separated it from Toronto in 2000.

In 2019, then, Montréal was still behind Toronto by 23 % and behind Vancouver by 19 %. This calculation does not, however, take into account the differences in the cost of living among the three cities.

Figure 8-2



Standard of living in Canada

110 Données du Conference Board du Canada.

Diversification, technological upgrading, and innovation for a productive economy

Productivity is the capacity to do more with less – it is calculated by dividing the value of GDP by the number of jobs. Productivity can be an element of a sustainable development goal, in that it can maintain or improve the standard of living, while leading to a decrease in the use of use of natural resources.

The productivity of jobs in Montréal – which is measured in real GDP per job – was relatively stagnant from 2000 to 2010, when the value added per job (in 2012 dollars) was generally less than \$85,000. It then increased in a sustained manner, reaching \$89,000 in 2019, representing growth of 7 % relative to the year 2000.¹¹¹

Figure 8-3



Productivity in Montréal

Source: Conference Board du Canada

From 2000 to 2019, in terms of annual growth, Montréal's level of productivity (+0.4 %) increased at a rate slightly below that of Toronto (0.5 %), while that of Vancouver (+1.2 %) increased quite a bit more rapidly, allowing that city to catch up to Toronto in standard of living, as mentioned earlier. While Montréal and Vancouver's productivity levels were comparable at the start of the 21st century, Montréal today finds itself behind British Columbia's metropolis by 14 % in terms of average productivity.

Figure 8-4

Productivity in Canada



Jobs in the formal sector

One of the sub-goals of this SDG is to stimulate job growth in the formal sector, that is to say, where workers are remunerated in a regular manner and benefit from adequate working conditions.

The "gig economy"

Much has been said about the precarious nature of employment in the current labour market. Some worry that "gig work", for example, freelance work or driving a taxi part-time to make ends meet, is going to become more and more prevalent.¹¹² On this issue, Statistics Canada researchers published a study in 2019 that attempted to quantify the proportions that on-demand, or gig, work has taken on in Canada and in its major cities. The study noted, for example, that in 2016, gig work amounted to 8.2 % of all jobs in Canada overall; and this percentage was higher in the nation's three major cities, that is, 9.2 % in Montréal, 9.9 % in Toronto and 10.4 % in Vancouver.¹¹³ This rate was up everywhere; in Montréal, it had been around 5.5 % in 2006, for instance.



Source: Statistique Canada, calculs des auteurs à partir des données de la Base de données canadienne sur la dynamique employeurs-employés

¹¹² Jeon, Sung-Hee; Liu, Huju et Ostrovsky, Yuri (2019). Mesurer l'économie à la demande au Canada au moyen des données administratives, Statistique Canada.

The informal economy

Another 2019 study, this one carried out by the Bank of Canada, also tried to quantify the gig economy phenomenon, though using a different methodology.¹¹⁴

The central bank noted that in Canada, Quebec is the province in which there is the least amount of informal work. Within Canada's provinces generally, there would appear to be some correlation between the amount of informal employment and the changes in the state of the labour market since the 2008 financial crisis. For example, the prairie provinces – the provinces hardest-hit economically over the last 10 years – have a higher number of workers in the informal economy than Ontario, and especially, Quebec.

Figure 8-6



Respondents having done informal work (%)

Source: Kostyshyna, Olena et Luu, Corinne (2019). The Size and Characteristics of Informal ("Gig") Work in Canada, Banque du Canada.

Productive full employment for all

Underlying the next sub-goal of this SDG is the concept of productive full employment for all those who desire it: men and women, the young and the not-as-young, people with disabilities, those born in Canada and those born elsewhere. Decent working conditions are also a must, as is equal pay for work of equal value.

One way of assessing the state of employment is to track the evolution of the unemployment rate, that is, the percentage of individuals who do not have a job and who are actively seeking a position. We note that in 2019, the unemployment rate hit an all-time low in Montréal, at 5.7 %. Since 2010, it has been on the decline in Canada's three major cities.

Figure 8-7



Unemployment rates among men and among women

In Montréal since 2001, the unemployment rate among women¹¹⁵ has generally been lower than that among men. Both have shown a downward trend since 2010, and in 2019, the rate of 5.1 % among women and 6.1 % among men amounted to all-time best performances.

Figure 8-8



The Institut du Québec observed in its analysis of the Quebec labour market that women in the province between the ages of 25 and 54 years of age were among the women in the world who were the most active in their labour market.¹¹⁶

Pay for women

Although the average hourly salary for women in Quebec has done some catching up since the end of the 1990s, it is still 10 % below that of men, a marker that has not changed since 2015.¹¹⁷

Figure 8-9

Average hourly salary for women in Quebec



Unemployment rate by age group

As regards access to employment by age group, we note that unemployment among 15-to-24-year-olds has always been higher than in any other age category. From 2001 to 2018, unemployment among our youngest people was about twice what it was among those 25 and over. It could be argued that this phenomenon (also observed in Toronto and Vancouver) - is not necessarily a problem, in that it may be desirable that young people in this age bracket mostly be in school instead (see below, with the sub-goal regarding NEET).

In 2019, the unemployment rate among Montrealers aged 15 to 24 was 10.7 %, versus 5.0 % for those aged 25 to 64.



Figure 8-10

116 Homsy, Mia et Scarfone, Sonny (2019). Qualité du marché du travail au Québec: l'embellie actuelle sera-trelle durable ? Institut du Québec. Les données sont provinciales.

Employment for persons with disabilities

When it comes to access to employment for persons with disabilities, annual data are not available, but a survey conducted in 2017 does help us quantify the access gap that separates them from people without disabilities, by comparing their respective employment rates (the percentage of individuals aged 15 and over and holding a job).¹¹⁸

We note, then, that in 2017, the employment rate for persons between the ages of 25 and 44 with a disability (70.4 %) was 14 points lower than that of persons without disabilities (84.7 %).

The rate in Quebec was similar to the Ontario figure (69.1 %), but lower than that of British Columbia (73.7 %).

Figure 8-11



Ontario

Employment rate – Persons with and without disabilities in 2017

Source: Statistique Canada, Enquête canadienne sur l'incapacité, 2017

Unemployment among immigrants

Quebec

The gap between the unemployment rate among immigrants and that of natives has narrowed over the last few years.¹¹⁹ From a peak of 7.3 percentage points in 2011, it dwindled to 2.9 points in 2019. That said, Montréal is lagging behind the two other major cities that serve as principal ports of entry to Canada. Indeed, in 2019, the immigrant-native difference in the unemployment rate was 0.5 points in Toronto, which was a record, and 1.1 points in Vancouver.

British Columbia

Figure 8-12

Difference between unemployment rates of immigrants and natives



Ages 25 to 44, in percentage points

118 Statistique Canada, Enquête canadienne sur l'incapacité, 2017. Les données sont provinciales.

119 Statistique Canada, Table: 14-10-0083-01

For recent immigrants, that is, those having arrived in the last five years, the gap in the unemployment rate between newcomers and those born in Canada is considerably higher. Once again, we do see that the gap has diminished since 2011 – going from 15.0 points to 8.1 points in Montréal. Montréal continues to lag behind Toronto et Vancouver to a significant degree, the differentials being 4.4 and 3.7 points respectively.

Youth without education or employment

As mentioned in Chapter 4 on education, Quebec has a graduation rate for secondary school (when measured as graduation in the required time frame) that is below the Canadian average. The higher unemployment rate among young people mentioned in the preceding section is a phenomenon observed in other Canadian cities. It may in fact be more desirable to see our young people in school at that age. That being the case, the unemployment rate might not be the best indicator of whether they are integrating into the labour market. It might be more revealing to track the evolution of the statistics for NEET (Not in Education, Employment, or Training, referring to someone who is not a student, nor an employee, nor a trainee).¹²⁰

NEET: A worldwide comparison

In 2017, the percentage of NEET individuals among young Canadians between 20 and 24 years of age was 13 %, placing Canada in 13th place among 34 countries studied.¹²¹

NEET percentages in Quebec

Over the last 40 years, Quebec has made substantial progress in this area: the percentage of NEET among those aged 15 to 24 has gone from more than 20 % at the start of the 1980s to about 6.3 % in 2019.¹²²



Table: 14-10-0083-01 (anciennement CANSIM 282-0102)

Quebec has also gained ground vis-à-vis Ontario, with the gap between them narrowing, and Quebec doing better than Ontario as of 2010. Ontario's rate in 2019 was 8.9 % – it has remained relatively stable since the late 1980s.

¹²⁰ Les données sont provinciales.

¹²¹ Brunet, Sylvie, <u>La transition des études au travail: indicateur NEET (ni en emploi, ni aux études, ni en formation) pour les jeunes âgés de 20 à 24 ans au Canada.</u> Statistique Canada, 2019.

¹²² Source: Statistique Canada, Table - 14-10-0081-01

Figure 8-14



% of 15- to- 24- year-olds



Source: Statistique Canada, Table: 14-10-0081-01 (anciennement CANSIM 282-0095)

We see that Quebec's improvement happened for both men and women. In 2019, their NEET indicators were respectively 7.3 % and 5.3 %.

Defend workers' rights and promote safety in the workplace

Work-related injuries in Quebec

After having increased in the 1980s, work-related injuries have steadily declined since the 1990s.¹²³

Figure 8-15

Number of work related injuries



From a peak of 218,708 accidents in 1989, they dropped to a low of 65,859 in 2015. A minor increase occurred in 2017, when they totalled 73,879.

The number of deaths due to workplace accidents has, however, not diminished. After having increased in the 1990s, the number of deaths has hovered at about 200 annually.

Figure 8-16



Number of deaths related to work

In 2017, 230 deaths were recorded. That was the fourth year in a row in which the total had gone up.

Access to banking and insurance services

One of the goals the UN is tracking is the accessibility of financial and insurance services around the world. This goal has generally been attained across Canada – though some of the indicators used are no longer relevant when examining a modern economy like Canada's: for example, the number of bank branches per 100,000 inhabitants is down, given technological advances and changes in user behaviour. This could also be said of a second indicator proposed by the UN, the number of ATMs per 100,000 adults. An international survey identifying behaviours in the use of banking services, carried out in 160 countries and 150 languages (with about 1,000 individuals interviewed in each country) allows us to see in greater detail the level of accessibility to banking services in Canada.¹²⁴

Table 8-1		Canada			OECD	
Use of banking services	2011	2014	2017	2011	2014	2017
Account open with a banking institution	96 %	99 %	100 %	90 %	94 %	95 %
40 % least well off	93 %	98 %	100 %	87 %	91 %	91 %
60 % most well off	97 %	100 %	100 %	93 %	96 %	97 %
Has savings	-	82 %	80 %	-	71 %	73 %
40 % least well off	-	76 %	71 %	-	62 %	61 %
60 % most well off	-	86 %	86 %	-	77 %	80 %
Has savings in a financial institution	53 %	63 %	68 %	45 %	52 %	56 %
40 % least well off	37 %	54 %	55 %	36 %	40 %	42 %
60 % most well off	64 %	68 %	76 %	53 %	59 %	66 %
Has saved for retirement	-	52 %	59 %	-	40 %	46 %
40 % least well off	-	40 %	45 %	-	29 %	32 %
60 % most well off	-	59 %	69 %	-	47 %	54 %
Has taken out a loan	-	85 %	88 %	-	65 %	65 %
40 % least well off	-	81 %	85 %	-	62 %	58 %
60 % most well off	-	88 %	90 %	-	67 %	70 %
Has taken out a loan with a financial institution	20 %	27 %	26 %	14 %	18 %	20 %
40 % least well off	17 %	26 %	23 %	12 %	18 %	17 %
60 % most well off	23 %	28 %	28 %	16 %	19 %	22 %
Has a debit card	88 %	93 %	97 %	62 %	80 %	84 %
40 % least well off	84 %	93 %	97 %	61 %	74 %	78 %
60 % most well off	90 %	93 %	97 %	62 %	84 %	88 %
Has a credit card	72 %	77 %	83 %	51 %	53 %	57 %
40 % least well off	60 %	66 %	74 %	40 %	41 %	44 %
60 % most well off	81 %	84 %	88 %	60 %	61 %	65 %

Source: Global Findex

According to data from the World Bank, Canada consistently registers banking usage indicators that are above the OECD average.

Banking services come in many forms; whereas 20 years ago the focus might have been on ATMs, digital access, for example, has become more relevant.

83 % of Canadians held credit cards, versus 57 % for OECD respondents on average – the gap was notably higher when it came to less well-off households, as 74 % of them had credit cards in Canada, while that was the case for only 44 % of respondents across the OECD. Access to credit is therefore greater, but that can be a double-edged sword, if the cardholder lacks financial literacy. Statistics on household debt have been particularly worrisome.

One indicator showing a downward trend is the propensity to save: 80 % of Canadian respondents had saved, which was down by two points from 2014 (82 %).
TABLE 8-2

Objective 8 Decent work and economic growth		20 year trend	Recent trend	Comments	
	8.1	Sustain per capita economic growth in accordance with national circumstances			Over the last 20 years, real GDP per capita in Montréal went from \$39,400 to \$46,100 (in 2012 dollars), an increase of 17 %. Real per capita GDP is less than in other major cities, and the growth rate does not seem to indicate Montréal will catch up.
	8.2	Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value added and labour-intensive sectors	•		The productivity of jobs in Montréal – which is measured in real GDP per job – was relatively stagnant from 2000 to 2010. It then increased in a sustained manner, from 2010 to 2019, representing growth of 7 % relative to the year 2000. Real per capita GDP is less than in other major cities, and the growth rate does not seem sufficient for Montréal catch up.
SDG 8	8.5	Achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value			For both men and women, unemployment is at an all-time low. The unemployment rate for those between 15 and 24 years of age is signifcantly higher than for other age groups. Even though the average hourly salary for women has caught up to that of men since the late 1990s, there remains a 10 % gap. The gap in the unemployment rate between immigrants and natives has narrowed; that said the gap in Montréal is far greater than those in Toronto and Vancouver.
	8.6	Substantially reduce the proportion of youth not in employment, education or training			Very few young people between 15 and 24 are neither at school, nor at work, nor in training (NEET). Quebec's NEET percentage, at 6.3 %, keeps going down, and is much lower than that of Ontario, which is stagnating at 8.9 %.
	8.10	Strengthen the capacity of domestic financial institutions to encourage and expand access to banking, insurance and financial services for all		?	According to World Bank data, Canada consistently registers banking usage indicators that are above the OECD average. In 2017, 88 % of Canadians had taken out a loan in the previous 12 months, compared to the OECD average of 65 %

INDUSTRY, INNOVATION AND INFRASTRUCTURE

OBJECTIVE 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

Important investments but sustainable projects take too much time

A modern economy needs a solid foundation in the form of quality infrastructure. It also needs its roads to be in good shape, and it needs effective electrical installations that supply stable and regular service while minimizing environmental impact. It is with this in mind that the ninth Sustainable Development Goal was established.

Montrealers live it every day these days: the city is catching up in its investment in infrastructure after several decades of neglect. New investments will allow the city of tomorrow to provide infrastructure that is of good quality, reliable, durable and resilient, which, we hope, will lead to a sustainable industrialization that will benefit everyone. Investing in innovation will also help achieve these goals.

Responsible investments that will be in harmony with the ecological transition are also needed, particularly in public transit. That means less investment that is tied to road transport. The David Suzuki Foundation estimates that spending relating to automobile transport rose by 33 % in the last 20 years.¹²⁵

Sub-goals covered in this chapter

- **9.1** Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all
- **9.2** Promote inclusive and sustainable industrialization and, by 2030, significantly raise industry's share of employment and gross domestic product, in line with national circumstances, and double its share in least developed countries
- **9.3** Increase the access of small-scale industrial and other enterprises, in particular in developing countries, to financial services, including affordable credit, and their integration into value chains and markets
- **9.4** By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resourceuse efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities
- **9.5** Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending.

Quality, reliable, sustainable and resilient infrastructure

This broad sub-goal refers to access to transport in all its forms. In general, Greater Montréal is well served in this respect thanks to road, airport, rail and port infrastructure. As well, the existence of infrastructure that encourages "active" transport (cycling, for example) contributes to developing sustainable transportation.

Access to viable roads

In the global context, access to roads is essential, be it for the distribution of goods and services or for emergencies or simply for getting to work. In the Greater Montréal, region, access is reasonably good.

Although recurring and reliable data don't really exist for this type of indicator, Statistics Canada reports that in 2018, industries related to transport services in Quebec benefited from the equivalent of \$787 per capita in net infrastructural assets, as compared to a Canada-wide figure of \$1,495.¹²⁶ Given the wide variance in density across the country, it may be more relevant to make a comparison with a province that is similar in terms of urban and rural distribution, like Ontario, where this indicator is at \$986 per capita. This figure represents the per capita value of infrastructure. The higher that number is, the more it's likely that a sufficient amount of infrastructure of adequate quality is available.

Since 2009, net assets rose by 98 % in Quebec, versus 54 % for Ontario.¹²⁷ In Greater Montréal, access to roads does not seem to be a problem. According to data from the Société de l'assurance automobile du Québec, the number of vehicles in Greater Montréal is constantly on the rise. In 2018, **2,036,000 were tallied, an increase of 7 % relative to 2013.** On the other hand, 2018 was the first year in which the number of vehicles registered in the city of Montréal was down slightly from the previous year, from 666,000 to 665,000.¹²⁸



Figure 9-1 Total number of passenger vehicles

Source: Société de l'assurance automobile du Québec (SAAQ)

126 https://www150.statcan.gc.ca/n1/pub/71-607-x/2018013/ic2-fra.htm

127 Les données sont en dollars canadiens de l'année courante.

The geographic configuration of the island of Montréal has contributed to it being near the top of the list of North American cities of its size when it comes to traffic congestion. According to the Inrix firm, Montrealers spend 145 hours per year in their cars.¹²⁹

Figure 9-2

Traffic Congestion



Hours lost per year in traffic per driver

Source: Inrix

Air traffic

In general, air traffic is increasing substantially in Canada. From 2008 to 2018, the number of passengers in Canada's airports increased by 45 %.¹³⁰

The nation's four main airports saw substantial increases in traffic: 57 % for Toronto, 48 % for Vancouver, 52 % for Montréal and 37 % for Calgary. According to the Official Airline Guide (OAG), Montréal-Trudeau airport ranks as the 41st busiest airport in the world, which puts it behind Toronto (6th) et Vancouver (27th).¹³¹

Table 9-1

Air traffic (passengers) by canadian airports

2008	2018	10 years variation
109,360,095	159,009,051	45 %
3,460,651	4,236,898	22 %
12,309,992	18,749,586	52 %
4,170,944	4,979,019	19 %
30,829,446	48,269,345	57 %
3,547,332	4,289,197	21 %
12,109,780	16,606,209	37 %
6,225,414	8,066,010	30 %
17,058,616	25,267,409	48 %
	109,360,095 3,460,651 12,309,992 4,170,944 30,829,446 3,547,332 12,109,780 6,225,414	109,360,095159,009,0513,460,6514,236,89812,309,99218,749,5864,170,9444,979,01930,829,44648,269,3453,547,3324,289,19712,109,78016,606,2096,225,4148,066,010

Source

129 https://www.institutduquebec.ca/docs/default-source/default-document-library/201908comparermontreal.pdf?sfvrsn=0

130 Trafic aérien de passagers aux aéroports canadiens, annuel.

131 https://www.oag.com/hubfs/Free_Reports/Megahubs/2018/Megahubs_International_Index_2018.pdf?hsCtaTracking=cb970431-e381-4ada-b54b-b168f98d9eb7%7Cf52e0462-7e9f-4091-a2e7-91d2eda51d07

Sustainable air transport

The increase in activity at Montréal's airport seems to contradict its aims in terms of sustainable development. To mitigate the negative impacts of this increase, Montréal has put a lot of effort into making its airport activity more sustainable. In its last annual report, *Airport Carbon Accreditation*,¹³² which evaluates airports' environmental efforts, including addressing their CO₂ emissions, acknowledges the work that has been done in this regard.

The organization places airports into one of four categories, ranging from the weakest environmental effort (level 1) to the strongest (level 5), has determined that two North American airports are carbon neutral, Dallas-Fort Worth (DFW) and San Diego (SAN). Montréal is one of five airports in Canada that obtained the best grade in the country, level 3.¹³³

Initiatives such as the creation and maintenance of a two-million-square-foot ecological park adjacent to the airport have been implemented by Montréal's airport administration.¹³⁴

Maritime traffic

At the Port of Montréal, from 2014 to 2018, maritime traffic was up by 696 vessels,¹³⁵ an increase of 34 %. Cargo transport was up substantially, tonnage having increased by 37.5 %.

Table 9-2

Maritime traffic, Port of Montréal

	2014	2015	2016	2017	2018
Number of vessels	2,042	2,109	2,271	2,392	2,738
Cargo, in millions of tons	38.1	41.5	45.6	48.6	52.4

Source

As well, the number of passengers has more than doubled since 2011. In 2018, more than 100,000 passengers were registered at the Port.¹³⁶

Figure 9-3

Number of passengers Port of Montréal



132 https://www.airportcarbonaccreditation.org/

133 https://airportco2.org/airports-across-the-world.html#region-northamerica

134 https://www.newswire.ca/fr/news-releases/creation-d-un-parc-ecologique-a-yul-aeroport-international-montreal-trudeau-837535710.html

135 https://www.port-montreal.com/PMStats/html/frontend/statistics.jsp?lang=fr&context=business

136 http://ville.montreal.qc.ca/portal/page?_pageid=6897,67889663&_dad=portal&_schema=PORTAL

Rail transport

Canada boasts a vast rail network that encompasses nearly 50,000 kilometres of railway. Nationally, the majority of this network is used for freight transport. However, each year, around 84 million passengers use this mode of transport in Canada, primarily on the commuter train systems of Montréal, Toronto and Vancouver, which were the source of 94 % of rail traffic in 2017.¹³⁷ In 2018, 4.8 million passengers journeyed to destinations served by VIA Rail.¹³⁸ The vast majority of these trips were made along the densely populated corridor running between Québec City and Windsor. The Communauté métropolitaine de Montréal counts 1,850 kilometres of railway, as compared with 18,200 kilometres of road network within the Montréal CMA.¹³⁹

Sustainable and active transportation: the state of public transit in Greater Montréal

As mentioned earlier, Montrealers lose a lot of time sitting and waiting when they travel by car. Unfortunately, with the increase in the number of vehicles in the Greater Montréal area, the situation is hardly likely to get better. Not only will this phenomenon increase greenhouse gas emissions, but it is bound to have a considerable impact on the economy and the lives of individuals.

One solution that can alleviate the burden on us all is public transport. The latest data from the Origine-Destination survey (2018)¹⁴⁰ yield positive results for Greater Montréal, since they demonstrate an increase of 4 % in public transport use since 2013, and show that 74 % of trips to Montréal's downtown core were made using public transport during the same period.

On the other hand, this increase, along with the increase in population in Greater Montréal, are putting added pressure on a public transit network that is already saturated. Projects like the extension of the blue line of the Métro and the construction of the REM (Réseau express métropolitain, a light rail network) should provide the necessary increase in capacity for the network.

¹³⁷ https://www.railcan.ca/101/canadas-passenger-railways-moving-people/

¹³⁸ https://media.viarail.ca/sites/default/files/publications/2018_Annual_Report_FR.pdf

¹³⁹ http://cmm.qc.ca/champs-intervention/transport/dossiers-en-transport/transport-des-marchandises/

¹⁴⁰ https://www.artm.guebec/wp-content/uploads/2020/01/CA_Faits-saillants_EOD_COMPLET_WEB_14012020_R002.pdf

A deindustrialization of the economy

The relative importance of Montréal's manufacturing sector has declined by one third since 2000.

Across the nation, the percentage of jobs tied to manufacturing activity has decreased over the last two decades. From 2001-2005 to 2015-2019, this decrease was 37 % in Canada (-5.5 percentage points), 35 % in Quebec and 39 % in Montréal.¹⁴¹

One can observe the same phenomenon in terms of the relative weight of the manufacturing sector's output in the GDP, down by 29 % in Canada (-4.3 percentage points), 28 % in Quebec, and 31 % in Montréal.

Figure 9-4



Percentage of jobs in manufacturing

Figure 9-5



Percentage of the GDP in manufacturing

141 Données du Conference Board of Canada

At the same time, we can observe that the percentage of jobs in the service sector went from **77 % to 83 % between 2001 and 2019,** professional services and health care in particular having grown significantly over the last two decades.¹⁴²

Table 9-3

Employment by industry, Montréal CMA

	2001	2019
Goods-producing sector	23.0 %	16.9 %
Agriculture	0.3 %	0.3 %
Forestry, fishing, mining, quarrying, oil and gas	0.1 %	0.2 %
Utilities	0.9 %	0.6 %
Construction	3.3 %	5.1 %
Manufacturing	18.3 %	10.8 %
Services-producing sector	77.0 %	83.1 %
Wholesale and retail trade	16.4 %	15.8 %
Transportation and warehousing	5.5 %	6.1 %
Finance, insurance, real estate, rental and leasing	6.0 %	6.8 %
Professional, scientific and technical services	7.8 %	10.2 %
Business, building and other support services	3.6 %	4.7 %
Educational services	6.3 %	7.2 %
Health care and social assistance	10.7 %	13.5 %
Information, culture and recreation	6.0 %	5.0 %
Accommodation and food services	5.5 %	5.6 %
Other services (except public administration)	4.3 %	3.9 %
Public administration	5.0 %	4.4 %

Source: Statistique Canada

Investing in cultural industries

Montréal has stepped up its development of cultural infrastructure over the last few years, with the Quartier des spectacles (entertainment district) being the most notable example. According to Altus, these investments, and the real estate development stemming from them, have generated two billion dollars in economic benefits.¹⁴³

¹⁴² Statistique Canada, Table 14-10-0098-01

¹⁴³ https://www.quartierdesspectacles.com/fr/medias/retombees_economiques_immobilieres

Increase the access of enterprises (especially SMEs) to financial services and their integration into value chains and markets

Any dynamic city hoping to prosper needs to encourage entrepreneurial spirit. Over the last few years, Quebec and Montréal SMEs were the primary engine of job creation in the province. They are therefore playing a key role in the development of Greater Montréal.

SMEs' economic contribution

In Quebec in 2014, the contribution by small enterprises (fewer than 50 employees) to GDP was 30 %, which is in line with the Canadian average. Quebec ranked after British Columbia (33 %) and Alberta (32 %), but ahead of Ontario (28 %).¹⁴⁴

Figure 9-6



Contribution of small enterprises to GDP, 2014 (in %)

Source: Industrie Canada

From 2005 to 2015, 87.7 % of net job creation in the private sector in Canada was attributable to small enterprises (fewer than 100 positions), while 7.7 % of new jobs were created by medium-sized enterprises, and 4.6 % by large enterprises (more than 500 employees).

Figure 9-7

Percentage of net employment created in the private sector according to size of business, Canada 2005-2015 (in %)



In 2015, 92.0 % of jobs in Quebec and 90.3 % of jobs in Canada were in SMEs. There were slight variations from one province to another. For instance, the figure was 87.3 % in Ontario and 93.6 % in British Columbia.

If we are seeking a kind of "entrepreneurship index", the number of SMEs per thousand in habitants is an interesting indicator. In 2015, there were 34.7 SMEs per thousand inhabitants in Quebec, a figure slightly lower than was observed in Ontario (36.3), and considerably lower than in British Columbia (45.2) and Alberta (50).¹⁴⁵

Financing

In Canada in 2014, 51.3 % of SMEs (fewer than 100 employees) sought out external financing. In all, 28.1 % obtained financing by loan, 29.4 % by commercial credit, 7.9 % through financial leasing, 4.4 % through government financing and 0.9 % through equity.

In acquiring other businesses, SMEs used a variety of methods of financing. These included personal funds (71.4 %), credit from financial institutions (60.7 %) and loans or investment from the owners' friends or families (26,0 %).¹⁴⁶

In Montréal, 28.4 % of SMEs sought financing by loan in 2017, which is above the Canadian average (25.6 %), but below the Quebec average (30.4 %). The likelihood of a request for financing being denied was greater in Montréal (10.6 %) than for Quebec as a whole (6.6 %), but about the same as the national average (9.5 %).

Upgrade infrastructure and retrofit industries so as to make them sustainable

LEED projects

One way to assess the quality of infrastructure in the metropolitan region is to tally the number of LEED-certified projects. This method has its shortcomings, but does allow us to draw certain conclusions.

By that standard, we can see that Montréal lags behind Toronto or Vancouver. Indeed, the number of LEED projects in Montréal has not yet hit 100, whereas Toronto's total is five times higher, and Vancouver has three times as many projects.

Figure 9-8

LEED Certified projects in Canada



145 La Presse, 5 octobre 2016, Quelle est la part des PME dans l'économie?

146 https://www.ic.gc.ca/eic/site/061.nsf/fra/h_03018.html#toc-06

Investing in innovation

One way of calculating the degree of investment in innovation is to look at the number of agreements signed that involve venture capital. If we compare Montréal with its North American peers in terms of activity between 2016 and 2018, San Francisco clearly stands out, followed by Boston and Toronto. Montréal is in the middle of the pack in North America, and stands in third place in Canada.¹⁴⁷

As far as **availability of venture capital** goes, that is, the average amount of equity invested in venture capital agreements, San Francisco also leads. Montréal ranks first among Canada's major cities.

Figure 9-9



Number of venture capital agreements (2018)

Source: Institut du Québec

Between 2011 and 2014, the availability of venture capital diminished in the three major Canadian cities. On the other hand, in 2018, Montréal overtook Toronto and Vancouver with regards to access.¹⁴⁸

Figure 9-10

Average value of venture capital agreements

2018, millions of \$U.S.



147 Étude comparative avec <u>https://www.institutduquebec.ca/docs/default-source/default-document-library/201908comparermontreal.pdf?sfvrsn=0</u>
 148 *Ibid*

TABLE 9-4

	bjective 9 ustry, innovation infrastructure	20 year trend	Recent trend	Comments
	9.1 Develop quality, reliable, sustainable and resilient infrastructure, to support economic development and human well-being			Air traffic (Pierre Elliott Trudeau) and maritime traffic (Port of Montréal) have been increasing significantly over the last 10 years. Net per capita spending on assets for transport services is less in Quebec than in Ontario and less than for Canada as a whole.
	9.2 Promote inclusive and sustainable industrialization and significantly raise industry's share of employment and gross domestic product		•	The percentage of jobs tied to manufacturing activity has dropped over the last two decades. From 2001-05 to 2015-19, it went down by 37 % in Canada, 35 % in Quebec and 39 % in Montréal. The manufacturing sector's weight remains greater in Quebec than it is Canada-wide, both when it comes to jobs and for GDP.
SDG 9	9.3 Increase the access of small-scale industrial and other enterprises to financial services and their integration into value chains and markets			From 2005 to 2015, small enterprises (100 jobs or less) were the main engine of job creation in Canada. In 2015, 92 % of jobs in Quebec and 90.3 % of jobs in Canada were in SMEs. In Canada, between 2011 and 2013, research and development spending by businesses with fewer than 100 employees diminished, going from 4.7 % to 3.9 %.
	9.5 Enhance scientific research, upgrade the technological capabilities of industrial sectors, encouraging innovation and substantially increasing the number of research and development workers, public and private research and development spending			In terms of availability of venture capital, Montréal has moved ahead of Toronto and Vancouver. Montréal is in the middle of the pack among major North American cities in terms of investment in innovation. The 1.7 % of GDP given over to research and development in Canada is small compared to several other countries.

🗮 Strength

🔶 Stable

🗯 Weakness

REDUCE INEQUALITIES

OBJECTIVE 10: Reduce inequalities within and among countries

Low inequalities, but an increase. Social mobility is decreasing.

In the first chapter of Vital Signs, we drew a portrait of Greater Montréal with a focus on poverty. We saw that poverty had diminished in absolute terms, but that it was persistent for a fairly sizeable part of the population. Poverty is the result of, among other factors, economic inequality among citizens. Reducing this inequality in incomes may in and of itself be a way of reducing poverty, since the two phenomena are linked.

Diminishing the persistence of poverty requires action on another front: economic mobility, that is, the possibility for an individual to better their economic fate (or to see it worsen). Mobility should be examined as a concept that parallels inequality.

Montréal stands as an egalitarian region when compared to other metropolitan regions in North America. So how do we explain the persistence of pockets of poverty?

Sub-goals covered in this chapter

- **10.1** By 2030, progressively achieve and sustain income growth of the bottom 40 per cent of the population at a rate higher than the national average
- **10.4** Adopt policies, especially fiscal, wage and social protection policies, and progressively achieve greater equality

Inequality in Greater Montréal

Montréal was less egalitarian in 2010 than in 2000 or in 1990, but remains more egalitarian than Toronto or Vancouver. Inequality is generally measured using the Gini Index. On a scale of 0 to 1, it shows income distribution among a population, with O representing perfect equality and 1 representing the most unequal distribution. Therefore, the ideal is the lowest possible index.

The available data show that Montréal has become less egalitarian over time, but is still more egalitarian than Toronto or Vancouver.





Source: Statistique Canada, Banque de données administratives longitudinales (DAL)

This observation is consistent with what is seen elsewhere in Quebec. When it comes to market inequalities, that is, inequalities associated with income, Quebec became less egalitarian in the 1990s. Since then, the situation has stabilized.







When we examine inequality after having taken into account the impact of taxes and redistribution measures, we can see that Quebec government programs have, since the 1970s, been able to mitigate this economic inequality.

Figure 10-3



GINI index after taxes and transfers

Source: Statistique Canada

In fact, Quebec remains one of the provinces in Canada that deploys some of the most effective redistribution programs. Even with fairly pronounced market inequalities being present, Quebec's GINI Index, after redistribution, is one of the lowest in the country.

Figure 10-4

GINI index per Province and per income type



Source: Statistique Canada

Over the last few years, quite a bit of attention has been focused on the wealthiest 1 % in our societies. In Quebec, the ratio of income of "the 1 %" relative to "the 99 %" has remained fairly stable.

Figure 10-5





Source: Statistique Canada. Table 11-10-0056-01

The picture is somewhat different, though, if we look at the population according to income bracket. by By this standard, we observe somewhat of a gap forming between the wealthiest and the poorest in the Montréal CMA. The phenomenon dates from the mid 1990s.

Figure 10-6



Percentage of the population per income type

High income (20 % higher than average)

Average income (within 20 % of average)

Low income (less than 20 % of average)

Source

To sum up, economic inequalities are rising slightly in the metropolitan region, but are still not as pronounced as in the rest of Canada.

Social mobility

With inequalities remaining the at the same level over time, we need to act on another front in order to reduce their impact. This other front is the concept of social mobility, defined as an individual's capacity to progress or regress on the income scale. One way to measure this indicator is to look at **intergenerational income elasticity**, in other words, the percentage of an individual's income that can be attributed to the income of a parent. The higher the percentage, the lesser the mobility. Therefore, what is sought is a low percentage.

In Montréal's case, we can observe that this percentage is higher than in Toronto, higher than the Canadian average, and also higher than elsewhere in Quebec. So, there is less social mobility in Montréal than elsewhere in the country, although there is more than in the United States.

Figure 10-7



Intergenerational income elasticity, for 3 cities and other regions

percentage of an individual's income that can be attributed to the income of a parent

Sources: Institut du Québec, The Equality of Opportunity Project

If we analyze the data by neighbourhood, we can see that there is much more mobility in some sectors of the island of Montréal than in others. The Saint-Pierre district is where there is the most mobility, and Outremont is where there is the least, which means that the incomes of Outremont residents are those that are the most influenced by those of their parents (sectors as defined by 1986 boundary lines).

Table 10-1

IIE by cities and neighborhood in 2008 (1986's definition)

City or neighborhood of the Island of Montréal (1986 boundary lines)	IIE
Saint-Pierre	0.10
Hampstead	0.12
Sainte-Geneviève	0.12
Saint-Raphaël-de-l'Île-Bizard	0.14
Kirkland	0.15
Montréal-Est	0.15
Dorval	0.16
Beaconsfield	0.16
Pointe-Claire	0.17
Lasalle	0.17
Pierrefonds	0.17
Saint-Léonard	0.19
Dollard-des-Ormeaux	0.20
Roxboro	0.20

City or neighborhood of the Island of Montréal (1986 boundary lines)	IIE
Montréal-Ouest	0.21
Anjou	0.21
Baie-D'Urfé	0.21
Montréal-Nord	0.22
Senneville	0.22
Sainte-Anne-de-Bellevue	0.22
Mont-Royal	0.23
Verdun	0.23
Lachine	0.24
Saint-Laurent	0.25
Côte-Saint-Luc	0.25
Westmount	0.25
Montréal (1986 boundary lines)	0.26
Outremont	0.29

Source: Corak, 2017.

Another way of measuring this phenomenon is to calculate the probability that an individual in the lowest income quintile will advance to a higher level. The following table shows the probabilities by Quebec MRC (Municipalité régionale de comté, or groupings of municipalities).

Table 10-2

Percentage of low income families by MRC in 2015, and probability that a child raised in poverty will advance to the middle or upper class

1986 vs 2016, in %

MRC	Probability of move from Q1 to Q2, 3, 4, 5	MRC	Probability of move from Q1 to Q2, 3, 4, 5	MRC	Probability move from to Q2, 3, 4,
Lévis	79.8	Nicolet-Yamaska	73.6	Mékinac	70.0
Bellechasse	79.7	Pierre-de-Saurel	73.5	Les Collines-de-l'Outaouais	69.6
L'Île-d'Orléans	78.7	La Côte-de-Beaupré	73.4	Papineau	69.6
Portneuf	77.9	Roussillon	73.4	La Rivière-du-Nord	69.5
L'Islet	77.4	La Jacques-Cartier	73.1	Les Laurentides	69.5
Charlevoix	77.0	Québec	73.1	Les Moulins	69.5
Le Val-Saint-François	76.7	Deux-Montagnes	73.0	Les Pays-d'en-Haut	69.5
Les Sources	76.7	Les Basques	73.0	Pontiac	69.5
Les Etchemins	76.3	Mirabel	73.0	Sherbrooke	69.5
Acton	75.9	Rivière-du-Loup	73.0	Thérèse-de-Blainville	69.5
L'Érable	75.2	Vaudreuil-Soulanges	73.0	D'Autray	69.1
Les Appalaches	75.2	Le Haut-Richelieu	72.8	La Matanie	69.1
Lotbinière	75.2	La Haute-Yamaska	72.6	L'Assomption	68.7
Rouville	75.1	Kamouraska	71.9	Antoine-Labelle	68.4
Beauharnois-Salaberry	75.0	Les Jardins-de-Napierville	71.8	Argenteuil	68.3
La Vallée-du-Richelieu	75.0	Le Fjord-du-Saguenay	71.7	Montréal	67.9
Les Maskoutains	75.0	Témiscouata	71.5	La Vallée-de-la-Gatineau	67.8
Marguerite-D'Youville	75.0	Longueuil	71.4	Avignon	66.7
Abitibi	74.9	Charlevoix-Est	71.3	Bonaventure	66.7
Abitibi-Ouest	74.9	Communauté maritime	71.2	Le Rocher-Percé	66.7
Beauce-Sartigan	74.9	des Îles-de-la-Madeleine	/1.2	La Côte-de-Gaspé	66.1
La Nouvelle-Beauce	74.9	Drummond	71.1	La Matapédia	66.0
Robert-Cliche	74.9	La Haute-Côte-Nord	71.1	Matawinie	65.6
Vallée-de-l'Or	74.9	Manicouagan	71.1	Montcalm	65.6
Brome-Mississquoi	74.4	Minganie	71.1	Maskinongé	65.3
Le Granit	74.4	Sept-Rivières	71.1	Shawinigan	64.2
La Mitis	74.3	Coaticook	70.8	Trois-Rivières	64.2
Rimouski-Neigette	74.3	Joliette	70.8	Administration régionale Kativik	63.6
Laval	74.2	Memphrémagog	70.8	La Haute-Gaspésie	63.2
Lac-Saint-Jean-Est	74.0	Rouyn-Noranda	70.4	Caniapiscau	ND
Le Domaine-du-Roy	73.9	Témiscamingue	70.4	Eeyou Istchee	ND
Maria-Chapdelaine	73.9	Gatineau	70.2	Jamésie	ND
Arthabaska	73.8	Le Haut-Saint-François	70.1	Le-Golfe-du-Saint-Laurent	ND
Montmagny	73.7	Le Haut-Saint-Laurent	70.1	Les Chenaux	ND
Bécancour	73.6	La Tuque	70.0	Saguenay	ND

Source: Institut du Québec

Montréal is a region that is becoming less and less egalitarian, and social mobility appears to be lower than it is elsewhere. That is cause for concern, especially in the light of our findings relating to Goal 1.

TABLE 10-3

	bjective 10 luce inequalities	20 year trend	Recent trend	Comments
SDG 10	 10.1 Progressively achieve and sustain income growth of the bottom 40 per cent of the population at a rate higher than the national average 			Inequalities are low, but they are increasing since 1990.
SD	10.4 Adopt policies, especially fiscal, wage and social protection policies, and progressively achieve greater equality			Support and transferts bring the inequalities at an acceptable level in Montréal.
				🔍 🛪 Strength 🔶 Stable 🔰 Weakness

CITIES AND HUMAN SETTLEMENTS SUSTAINABLE

OBJECTIVE 11: Make cities and human settlements inclusive, safe, resilient and sustainable

In 2016, Montréal had a rate of "core housing need" (see definition below) of 10,9 %.¹⁴⁹ one of the lowest in Canada. This represented a downward trend, since the rate was 13.2 % in 2011 and 12.5 % in 2006. On the other hand, when measured against other CMAs in Quebec, Montréal stands out with the highest rate.

In this chapter, we will examine the link between economic development and the durability of infrastructures in the urban environment. A city must be able to offer spaces that last over time. In order for them to last, these spaces must be sustainable, affordable and welcoming. The economic boom described in chapters 8 (the economy) and 9 (infrastructures) comes with several ramifications: for instance, it is more and more difficult to find housing, traffic on the roads is increasing, and Montréal's Métro is overloaded.

Sub-goals covered in this chapter

- **11.1** By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums.
- **11.2** By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons.
- 11.4 Strengthen efforts to protect and safeguard the world's cultural and natural heritage.
- **11.6** By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management.

Accessible and affordable housing

Figure 11-1

Rate of core housing need in 2016 (in %)



Source: Statistique Canada, Besoins impérieux en matière de logement, Recensement de 2016.

A household is said to be in "core housing need" if its housing falls below at least one of the adequacy, affordability or suitability standards and it would have to spend 30 % or more of its total before-tax income to pay the median rent of alternative local housing that is acceptable (meets all three housing standards).

The vacancy rate in the Montréal region has declined substantially over the last few years. In 2018, it fell to 1.9 %, and yet, it had been at 2.8 % in 2017, and had been between 3 % and 4 % in the three years prior.¹⁵⁰ In 2019, according to the Canadian Mortgage and Housing Corporation (CMHC), it appears to have gone as low as 1.4 %. The rate needed to ensure market equilibrium is estimated at 3 %. The data, along with other elements that have been brought to light by the media, indicate that we are experiencing the beginnings of a housing shortage in the region.

Figure 11-2

Vacancy rate of traditionnal housing in Montréal



The picture varies with the size of the dwelling: in October 2019, CMHC reported an overall vacancy rate in the Montréal CMA of 1.5 %, with the breakdown by rental category being as follows:

- 3.2 % for studios;
- 1.6 % for a one-room dwelling;
- 1.4 % for a two-room dwelling;
- 0.7 % for a dwelling of three rooms or more.

There is a challenge for families to find housing in Montréal.

The city of Montréal's current strategy, as reflected by the *règlement pour une métropole mixte*, aims to increase the availability of social housing, affordable housing, and housing suitable for families.

"The by-law sets these rules and offers several options: construction of dwellings, land transfers, a financial contribution... The result? A contribution that amounts to 20 % in social housing, 20 % in affordable housing and 20 % in housing for families – that last target being spread throughout the project. Note: these percentages will vary according to the location and type of construction chosen by the builder."¹⁵¹

150 Société canadienne d'hypothèques et de logement (SCHL), Enquête sur les logements locatifs.

151 Ville de Montréal, Règlement pour une métropole mixte, *Favoriser l'accès à un logement convenable pour toutes et tous.*

Accessibility for all to reliable transit systems

Public transit

In its 2018 annual report, the Société de transport de Montréal (STM) indicated that its ridership hit another record high; it was up by 4 %. For the first time ever, there were days when more than a million users were on the transit network. This in fact occurred several times. This growing popularity does create certain issues, though, with crowding on the Métro lines being more and more of a problem during rush hours.¹⁵²

Overall, from 2010 to 2018, the total number of trips on the STM's network went from 389 million to 450 million, an increase of more than 15 %. Over the same period, the population of Greater Montréal grew by 7 % (3.95 million to 4.26 million inhabitants).

Figure 11-3

Ridership in Montréal subway and bus system

millions of trips



Another area where there is room for improvement: access to public transit remains problematic for users with reduced mobility. Montréal's Métro was conceived in the 1960s, and elevators were not part of the planning for its stations. With the exception of three stations inaugurated in Laval in 2007, stations have had to be retrofitted with elevators, which involves technical difficulties and substantial cost.

Fifteen metro stations are currently equipped with an elevator, out of a total of 68 stations. Thus, 22 % of stations are now accessible to all. From now until the end of 2025, the STM plans on increasing the number to 41, or 60 % of its network.

In Toronto, 60 % of the subway network is already accessible, 45 stations out of 75. Vancouver's Skytrain network is 100 % accessible.

Cost of public transit

Monthly tarif (left axis)

In an effort to quantify the accessibility of fares in the Montréal network, the STM in 2016 calculated the number of hours of work at minimum wage that would be needed to buy a monthly transit pass. By this measure, the STM's regular fares were, in 2016, the lowest among the Canadian cities studied.¹⁵³ An update of this analysis with 2019 data has the same conclusion.

Figure 11-4

Affordability of public transit in Canada

Hours of work at minimum wage needed to buy monthly pass (right axis) 150 15 \$141.50 \$124.00 120 12 \$105.75 \$99.00 12.6 \$94.50 \$91.00 11.9 \$85.60 \$83.00 9 90 9.4 8.8 8.8 8.5 60 6 8.0 7.7 30 3 0 0 Toronto (\$11.25) Vancouver (\$10.45) Ottawa (\$11.25) Calgary (\$11.20) Longueuil (\$10.75) Laval (\$10.75) Québec (\$10.75) Montréal (\$10.75)

Source: Société de transport de Montréal (2016), Rapport de développement durable 2016, Ajustements des auteurs.

Getting around by bicycle in Montréal

Montréal's network of bicycle paths has expanded considerably in the last 20 years. It went from 345 kilometres in 2000, to 748 in 2015, then to 876 in 2019.¹⁵⁴ In North America, Montréal is one of the cities in which cycling has the largest modal share. In 2015, Montréal had more than a million cyclists, or half (51 %) its population.¹⁵⁵

In 2015, Montréal's network already compared favourably with that of Toronto (670 km) and Vancouver (289 km), though it was not as extensive as Calgary's (1,032 km). Quebec-wide, Montréal is the leader in terms of average number of hours spent cycling for individuals between the ages of 18 and 74, with 4.1 hours per week. **In Montréal, 56 % of adults use a bicycle as a means of transport**, which is above the Quebec average of 40 %. The city also has the highest percentage of trips using a bicycle for transport, (40 %), whereas the provincial average is only 16 %.

However, there is some opinion to the effect that the term bicycle path has been defined too widely, and that if one only counts paths going in two directions separated from the road by a median, Montréal does not come off quite as well in terms of the breadth of its network.

Figure 11-5



Number of hours spent cyclying per week, ages 18-74

Source: <u>Vélo Québec, L'état du vélo à Montréal en 2015</u>

154 Ville de Montréal, Banque d'information 311, Voies cyclables.

Sustainable urbanisation and barriers to travel

Travel time getting to work

In 2016, normal travel time from home to work in the Montréal CMA was 30 minutes. The city thus ranks second in the country, behind Toronto (34 minutes), even though its populated area and demographic growth are quite a bit less than Toronto's. Montréal is therefore the unenviable "leader", over Vancouver (29.4), Calgary (27.0), Ottawa-Gatineau (26.2) and Edmonton (25,6)¹⁵⁶ In Quebec, Montréal tops Québec City (22.4), Sherbrooke (19), Trois-Rivières (18.8) and Saguenay (17.7).

Some major challenges have yet to be met in Greater Montréal. Getting around between suburbs off the island of Montréal is difficult, whether we're talking about the South Shore, the North Shore, or Laval. Indeed, the metropolitan road network generally forces users towards Montréal, even if that is not their destination. The Réseau express métropolitain (REM), which will come into service in the next few years, is an opportunity for the city to move to a more multipolar system.

Urban sprawl is also getting worse. The Communauté métropolitaine de Montréal (CMM) reported in January 2020 that 94 % of the commuters coming from the periphery of Montréal (...) and working in the CMM got to work by car.¹⁵⁷ Single-family homes represent the bulk of residential construction projects in the agglomerations surrounding Montréal, and these projects will do little in the short or medium term to help build up the density needed for a profitable public transit system, as highways continue to be congested each weekday.

¹⁵⁶ Statistique Canada, Durée moyenne du trajet domicile-lieu de travail (en minutes), régions métropolitaines de recensement, 2016

¹⁵⁷ Communauté métropolitaine de Montréal, <u>Le phénomène de l'urbanisation périmétropolitaine en progression au pourtour du Grand Montréal,</u> Note de l'Observatoire du Grand Montréal.

A steady increase in the number of vehicles, especially light trucks

The number of vehicles in circulation in Montréal keeps going up: it went from 854,000 in 2004, to 898,000 in 2011 and 969,000 in 2017. The rate of vehicles being added annually has ramped up, and rose above 1.5 % in 2016 and 2017, the biggest increase since 2004. Another trend is that buyers have gradually been replacing cars with light trucks, or sport utility vehicles (SUVs).

While the number of automobiles did decline from 540,000 to 507,000 between 2004 and 2017 (a drop of 6 %), the number of light trucks soared by 107 %, going from 129,000 to 267,000 during the same period.

Figure 11-6



Number of registred cars

Source: Ville de Montréal, Coup d'œil sur les véhicules en circulation,

Agglomération de Montréal, une publication de Montréal en statistiques, Division de l'intelligence économique, Service du développement économique.

Figure 11-7



Number of registred light trucks in Montréal

Agglomération de Montréal, une publication de Montréal en statistiques, Division de l'intelligence économique, Service du développement économique.

Source: Ville de Montréal, <u>Coup d'œil sur les véhicules en circulation</u>,

Preserving our heritage

The world's cultural and natural heritage includes a wide variety of tangible and intangible assets. Inventorying them is therefore not a simple task. In our discussion of this sub-goal, we have examined the numbers from the perspective of cultural spending by the three levels of government.

Culture is a responsibility that is shared among the municipal, provincial and federal levels of government. These three players offer subsidies, and act in many other ways, within Quebec's cultural universe. Other funding bodies are also active in the cultural landscape.

Municipalities' cultural spending

In 2016, the City of Montréal spent \$310.6 M on culture, which represents 43 % of all cultural spending by Quebec municipalities (\$730.6M). The city's spending amounts to \$154 per capita, as compared with \$84 in Québec City and \$88 on average for Quebec municipalities as a whole. Between 2009 and 2016, the annual average growth rate in cultural spending was 4.1 % Quebec-wide, and 4.4 % in Montréal.¹⁵⁸ In general, the larger the municipality, the greater the per capita spending on culture.¹⁵⁹

Table 11-1

Cultural spending of Quebec municipalities by size of municipality, 2016

Size of municipality (number of inhabitants)	less than 5,000	5,000 to 10,000	10,000 to 25,000	25,000 to 100,000	100,000 to 200,000	200,000 to 500,000	500,000 or more
						Gatineau Laval Longueuil	Montréal Québec
Cultural spending per capita	\$32.17	\$52.56	\$74.81	\$83.82	\$99.69	\$59.80	\$144.58

Source: Institut de la Statistique du Québec, Observatoire de la culture et des communications du Québec (OCCQ).

Household spending on culture

The share of Quebec households' spending given over to culture and media appears to have remained stable in recent years. From 2010 to 2015, it fluctuated between 5.2 % and 5.7 %, or between \$2,600 and \$2,900. Specifically, per household spending on cultural products went from \$989 in 2010 to \$1,027 in 2015, a modest increase of 0.8 % per year, quite a bit less than the rate of inflation.¹⁶⁰

International digital media platforms like Netflix and Spotify have presented consumers with new cultural options – which to an extent has resulted in an increasing share of our cultural and entertainment consumption being imported – which leaves less room for local creators.

Ideally, we would examine and compare funding for culture as it exists in cities outside Quebec, since governments generally subsidize culture to make up for a lack of local consumption – as with library and museum attendance, for instance. The study referred to above, and its methodology, only deal with Quebec, however. Since needs vary from city to city, making comparisons is difficult.

¹⁵⁸ Institut de la Statistique du Québec, Observatoire de la culture et des communications du Québec (OCCQ).

¹⁵⁹ Seule exception: les villes de 200 000 à 500 000 habitants (Gatineau, Laval et Longueuil) dont les dépenses en culture par habitant sont inférieures.

¹⁶⁰ Danvoye, Marik, <u>Dépenses des ménages québécois pour la culture et les médias de 2010 à 2015</u>, Institut de la Statistique du Québec, Observatoire de la culture et des communications du Québec (OCCQ).

A city that is reducing its environmental footprint

Quantity of waste treated

The amount of waste generated on Montréal's territory is down. From 2012 to 2016, it declined from 970.5 tonnes to 925.1 tonnes, a drop of nearly 5 %.¹⁶¹ The amount of household waste generated declined by more than 10 %, while the amount of recoverable materials was up by 11 %.¹⁶²

Table 11-2

Household waste by door

Kg/person/year

	2012	2013	2014	2015	2016
Recycling	89	90	87	84	83
Organics	20	25	26	31	36
Waste	287	289	278	269	249

Source: Ville de Montréal, Portrait 2016 des matières résiduelles de l'agglomération de Montréal.

When looked at in relative terms, these data are even more encouraging. Indeed, per capita household waste went from 287 kg/person in 2012 to 249 kg/person in 2016, a drop of 13 %. For Greater Montréal as a whole, the rate of recovery of recyclable materials remained relatively stable, going from 59 % to 60 % from 2012 to 2016. The rate of recovery of organic matter increased substantially, going from 12 % to 18 % over that time frame.

Air quality

Montréal has significantly improved its air quality over the last few years, based on the annual average of the level of fine particles in the air.¹⁶³

The triennial average of fine particulate matter per cubic metre declined by nearly 30 % over 8 years, going from $10.4 \ \mu\text{g/m}^3$ in 2008-2010 to 7.4 $\mu\text{g/m}^3$ in 2016-2018. While this particular dataset does not go as far back as 2000, archives show estimated of levels of about 10 $\mu\text{g/m}^3$ in the urban context in 2000, and closer to 12 $\mu\text{g/m}^3$ in 1998.

¹⁶¹ Ville de Montréal, Portrait 2016 des matières résiduelles de l'agglomération de Montréal.

¹⁶² Principalement les matières recyclables, les matières organiques ainsi que les résidus de construction, de rénovation et de démolition résidentielles, et autres encombrants.

¹⁶³ Ville de Montréal, Qualité de l'air à Montréal, 2018.

This decrease in fine particulate matter concentrations puts Montréal in an enviable position: Its annual average fine particulate matter level places it below the World Health Organization (WHO) recommended threshold, which is $10 \ \mu\text{g/m}^3$.

Figure 11-8



Three years average of annual concentrations

Fine particulate ($PM_{2,5}$)

That means Montréal's air quality makes it a leader among large Canadian cities; it is better than those of Calgary, Edmonton, Québec City and Toronto.

In its most recent "Montréal Dashboard", the Institut du Québec indicated that out of 15 comparable North American cities surveyed, only Vancouver and Portland could boast of better air quality.¹⁶⁴

Figure 11-9

Air quality in 2018

Number of particles of 2.5 microns per cubic metrer



Source: Institut du Québec, <u>Comparer Montréal</u>, 4^e édition, 2019.

There is also a connection between air quality and the aim of providing green spaces and safe public spaces, a sub-goal of this SDG (11.7). On this point, Statistics Canada says it is developing an indicator that will enable the measurement of progress in this area.

TABLE 11-3

Citi	bjective 11 es and man settlement	20 year trend	Recent trend	Comments
	11.1 Ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums		•	The rate of prevalence of core housing need is low in Montréal relative to other Canadian cities. On the other hand, in Quebec, Montréal has one of the highest rates. The vacancy rate for dwellings is especially low and a sign of a market that is unbalanced.
SDG 11	11.2 Provide access to safe, affordable, accessible and sustainable transport systems for all			Montréal's Métro is one of the safest in the world, and is more accessible financially. Montréal is a leader in terms of its population travelling by bicycle, relative to both Quebec and Canada. Public transit is less accessible to persons with limited mobility than it is in Toronto or Vancouver.
	11.4 Strengthen efforts to protect and safeguard the world's cultural and natural heritage	•	1	Montréal is a leader in Quebec in cultural spending. Quebec households are, on average, spending less day-to-day on culture and media than they were a few years ago.
	11.6 Reduce the adverse per capita environmental impact of cities		•	Montréal's air quality is among the best of any major city in the country, it has improved over the last 10 years, and it meets WHO standards.
				₹ Strength → Stable 対 Weakness

SUSTAINABLE CONSUMPTION AND PRODUCTION

OBJECTIVE 12: Ensure sustainable consumption and production patterns

The problems that come with over-consumption

Fully 70 % of GDP is constituted by consumption, which results in the wastage of resources. Our current modes of production and consumption are nowhere near what is needed to meet the UN's goals for sustainability. Citizens are being urged to consume in a more responsible fashion, generate less waste, and not squander our limited resources.

Sub-goals covered in this chapter

- 12.2 By 2030, achieve the sustainable management and efficient use of natural resources
- **12.3** By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses
- **12.4** By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment
- **12.5** By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse

Sustainable natural resource management

Water is one of Greater Montréal's most accessible, and most precious, natural resources. Making its consumption sustainable is essential to keeping a balance in the city's development. It can be difficult to estimate total water usage, but a few statistics do allow us to estimate increases and decreases in consumption.

Water consumption

Quebecers are among the biggest consumers of water in the world. In 2000, Canada ranked second out of 29 OECD nations in terms of per capita water consumption.¹⁶⁵ A lack of data prevents us from painting an accurate picture of the evolution of Montrealers' water consumption; on the other hand, it is possible to look at drinking water losses experienced by the City of Montréal, and at some data on sources of consumption for residents of Greater Montréal. These data show most notably that in 2017, 23 % of Montrealers used bottled water as their main source of drinking water, which is a bit higher than what we see in Canada as a whole (22 %) or in Québec City (also 22 %). As well, Montréal compares unfavourably with Toronto (17 %) and Vancouver (9 %) in this regard. But those cities' experiences do show that progress is possible: in 2007, their rate of bottled water use was equal to or greater than that of Montréal at 34 % and 25 %, respectively.

Quebecers consume more drinking water than the average Canadian. In 2013, daily usage stood at 255 litres per person, while the Canadian average was 223 litres (13 % less) and the Ontario average, 200 litres (22 % less).¹⁶⁶

Figure 12-1



Bottled water as a source of water in 2017 (%)

Source: Statistique Canada, Table: 38-10-0275-01

In terms of the larger picture, we see less water is being wasted in Montréal. In 2001, the estimated volume of drinking water lost was 280 million cubic metres, which amounts to 40 % of the total volume treated in Montréal's system. Ten years on, the city's performance had improved, with losses totalling 200 million cubic metres, bringing the rate to 33 %. The results have continued to get better, with losses down to 165 million cubic metres in 2017. The amount of potable water produced has also diminished, down to nearly 25 % less than it was at the turn of the century.

Figure 12-2

Wasted water



Source: Université McGill, Quelle quantité d'eau consommons-nous?

Figure 12-3

Quantity of water produced in the Montréal agglomeration



Another important resource that Quebec is especially rich in is electricity. We have already shown, in Chapter 7, that Quebecers (and Montrealers) are among the world's biggest consumers of electricity.

Wasting food

Loss and wastage of food are now major issues for our planet. According to a study carried out by the National Zero Waste Council, a third of the food produced in the world is either lost or thrown out, and Canadians alone waste the equivalent of \$1,100 per household.¹⁶⁷ From what can be gathered from a variety of sources, Canada's per capita food waste is a bit lower than the average in *G7* countries, which is estimated at more than 100 kg per inhabitant per year.¹⁶⁸ This data, when looked at in combination with the conclusions in Chapter 2 on hunger, is fairly disturbing.

The City of Montréal has set ambitious targets for reducing food waste on its territory. It is currently consulting its residents on the issue.

Management of chemicals and hazardous materials

Quebec's municipalities made a lot of headway in this area in the 1990s and 2000s. We can see this in the amount of hazardous household waste recovered in Quebec's municipalities, which went from 600 tonnes in 1992 to 3,500 tonnes in 2002, then to 7,000 tonnes in 2008.¹⁶⁹ However, the rate of recovery varies greatly from one category of waste to another.¹⁷⁰

Recycling

The current crisis in recycling demonstrates that citizens are going to have to make more of an effort in this area. Triage centres are not doing well, and the quality of much of what is being recovered is poor for certain materials. There needs to be more emphasis on reduction at source.

Quebec's new policy for managing waste – Action Plan 2019-2024¹⁷¹ aims to:

- Reduce the amount of waste per capita to 525 kg or less;
- Recycle 75 % of paper, cardboard, glass, plastic and metal;
- Recycle 60 % of organic matter;
- Recover and upgrade 70 % of residual matter from construction, renovation and demolition.

¹⁶⁷ Recyc-Québec, Gaspillage alimentaire.

¹⁶⁸ Barilla center for food and nutrition, *Food sustainability Index 2017*.

¹⁶⁹ Recyc-Québec, *Les résidus domestiques dangereux,* Fiches informatives.

¹⁷⁰ Recyc-Québec, Bilan 2015 de la gestion des matières résiduelles au Québec.

¹⁷¹ Recyc-Québec, Bilan 2015 de la gestion des matières résiduelles au Québec.
TABLE 12-1

Sus	bjective 12 tainable consumption production	20 year trend	Recent trend	Comments
	12.2 Achieve the sustainable management and efficient use of natural resources			Water wastage is down in Montréal. Quebec is one of the largest consumers of drinking water and electricity in the world. Montrealers drink more bottled water than Canadians in other cities.
12	12.3 Halve per capita global food waste at the retail and consumer levels	•		Canada is about average among developing nations when it comes to wasting food. It looks to be on the right track in terms of improving its record.
SDG 1	12.4 Achieve the environmentally sound management of chemicals and all wastes throughout their life cycle	•		The recovery rate of chemical products is up substantially in Montréal.
	12.5 Substantially reduce waste generation through prevention, reduction, recycling and reuse		*	The current recycling crisis is a sign that citizens are going to have to make greater efforts. In this regard, adding a deposit on all types of returnable containers is a step in the right direction.

🗮 Strength

🔶 Stable

≜ Weakness

ACTIONS TO COMBAT CLIMATE CHANGE

OBJECTIVE 13: Take urgent action to combat climate change and its impacts

Mixed results in the fight against climate change

The City of Montréal, as well as the cities and other municipalities that make up Greater Montréal, and Quebec as a whole, have all implemented a variety of action plans to deal with climate change. These efforts, which are commendable, are being deployed at a time when extreme weather events are becoming more and more frequent.

Data on a city level is often limited, so will we concentrate on particular developments that have occurred over the last few decades, in some cases looking at situations on a wider scale. The sub-goals of this SDG are mostly focused on planning, so we have identified a few concrete examples of planning done by the City of Montréal.

Sub-goals covered in this chapter

- **13.1** Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries
- 13.2 Integrate climate change measures into national policies, strategies and planning

Strengthen the city's resilience and its capacity to adapt to climate-related hazards

Fires, floods, early thaws and other climate disturbances are grabbing more and more media headlines around the world. Canada has suffered less than other parts of the globe, but has not escaped entirely: the number of incidents related to natural disasters has been rising over the last decade. Indeed, for every year between 2009 and 2013, Canada tallied at least 10 natural disasters that had an impact amounting to over \$25M (in 2015 Canadian dollars).¹⁷² That number represents an historic high.

Figure 13-1



Number of natural disasters with claims exceeding \$25M in Canada

in 2015 dollars

Source: Communauté métropolitaine de Montréal, <u>Portrait des inondations printanières de 2017 sur le territoire métropolitain, du cadre légal et des</u> règles applicables en matière d'aménagement de développement du territoire pour les plaines inondables.

The 2017 floods

The data on this point only go up to 2015. However, Montréal was hit with two major flooding episodes subsequent to that, in 2017 and 2019. In May 2017, 24 municipalities in Greater Montréal (within the Communauté Métropolitaine de Montréal) were affected, with 609 streets and 4,060 built-up lots being impacted. All in all, more than 2,630 hectares of land were affected by these floods.¹⁷³ In the city of Montréal, there were more than 1,100 victims, and 430 residences were flooded.¹⁷⁴ The city estimated the total costs at \$8M.

¹⁷² Communauté métropolitaine de Montréal, <u>Portrait des inondations printanières de 2017 sur le territoire métropolitain, du cadre légal et des</u> règles applicables en matière d'aménagement de développement du territoire pour les plaines inondables.

¹⁷³ Ibid

¹⁷⁴ Ville de Montréal (2017) Rapport d'évènement et de rétroaction, Inondations 2017.

Year in and year out, it's getting hotter

Average recorded temperatures are up around the globe. In fact, new records have been established over the last few years. As well, in examining the period from 1880 to 2016, we can see that the 12 hottest years occurred within the last two decades.¹⁷⁵

As well, episodes of extreme heat will continue to be more frequent in Montréal and in Québec, and they will be more deadly. It is estimated that the mortality rate linked to episodes of extreme heat will be twice as high for the period of 2040 to 2064 as for 2011 to 2039.¹⁷⁶

Table 13-1

Death rate by age for 100 000 persons due to heatwave

	< 65 years of age	65 years of age +
2011-2039	3.6	6.3
2040-2064	7.1	12.5

Source: Larrivée, C., N. Sinclair-Désgagné, L. Da Silva, J.P. Revéret, C. Desjarlais (2015)

Évaluation des impacts des changements climatiques et de leurs coûts pour le Québec et l'État québécois, Rapport d'étude, Ouranos, 58 pages

Longer summers, shorter winters

According to meteorological data for Montréal, the summer season, as measured by the period of vegetative growth, increased by nine days between the periods running from 1955-1984 and 1985-2014.¹⁷⁷ For example, this season used to start April 8 (that was the average between 1955 and 1984), whereas between 1985 and 2014, it began, on average, April 2. The last day of the season went from being November 14 to being November 17, on average.

As far as the winter season goes, the duration of the snow period has shrunk by nearly 30 %. As well, a significant increase in the number of "freeze-thaw" cycles has been observed.

Table 13-2

Winter and summer in term of days

Summer		Win	ter	Winter	
		days of freezing		Days with sr	iow cover
1955-1984	221	1955-1984	154	1955-1984	103
1985-2014	230	1985-2014	149	1985-2014	73

Source: Ville de Montréal. Plan d'adaptation aux changements climatiques de l'agglomération de Montréal 2015-20

175 http://cmm.qc.ca/fileadmin/user_upload/documents/20170915_Inondations2017_rapportCAM.pdf

176 http://www.environnement.gouv.qc.ca/changementsclimatiques/evatuation-impacts-cc-couts-qc-etat.pdf

177 Plan d'adaptation aux changements climatiques de l'agglomération de Montréal 2015-20.

The high cost of longer summers

Longer summers may at first glance seem to be a positive feature of climate change. However, much negative collateral damage stems from this phenomenon.

An assessment carried out by Ouranos for the Quebec government in the context of its *Plan d'action 2013-2020 sur les changements climatiques* (action plan on climate change) measured the financial impact of climate change on various sectors of the economy.¹⁷⁸ Among the impacts the report identified are an increase in the number of deaths related to heat, an increase in pollen production, and the deterioration of infrastructure, which would result in an elevated cost in lives and in financial resources. Table 13-3 shows some of the key findings of the study.

Table 13-3

Estimated financial impacts for Quebec of climate change

Sector	Costs (in M\$)	Notes		
Health				
Heat	246 to 515	More than 20,000 additional deaths over the next 50 years		
Zoonotic diseases; Lyme disease	39 to 94			
West Nile virus	35 to 38	More than 600 additional deaths over the next 50 years		
Pollen 289 to 428		Total cost without climate change already estimated at \$3.4G for the next 50 years		
Infrastructure				
Coastal erosion	557 to 859	About 5,300 buildings, more than 1,300 undeveloped lots, nearly 300 km of roads and more than 25 km of railway lost in the next 50 years		
Melting of the permafrost	64 to 217			
Floods	76 to 171	Average current cost associated with floods: \$70 M		

* Does not take into account premature loss of life or number of buildings at risk.

Source: Ville de Montréal. Plan d'adaptation aux changements climatiques de l'agglomération de Montréal 2015-20

A plan of action that integrates measures on climate change

Greater Montréal and greenhouse gase

In 2005, the City of Montréal committed itself to reducing, by this year, greenhouse gas emissions produced by the community (residential, commercial, industrial, etc. entities) by 30 % from 1990 levels. In 2014, the city published a greenhouse gas inventory.¹⁷⁹

Table 13-4

Émissions de GES de la collectivité montréalaise de 1990 et 2014

Secteurs et sous-secteurs d'activité	Émissions	(kt éq. CO ₂)	Variation (%)
	1990	2014	
Sources fixes	8 320	5 332	-36
Résidentiel	2 310	1 236	-47
Commercial et Institutionnel	2 319	1 755	-24
Industries manufacturières et la construction	1 506	1 238	-18
Industries énergétiques	2 171	1 093	-50
Émissions fugitives	15	11	-27
Transport	4 048	4 616	14
Routier	3 073	3 567	16
Hors route	10	11	8
Ferroviaire	148	189	27
Maritime	325	272	-16
Aérien	491	578	18
Matières résiduelles	1 956	437	-78
Enfouissement des matières résiduelles	1 787	315	-82
Traitement biologique des matières organiques	-	8	-
Incinération des matières résiduelles	137	76	-45
Traitement et rejet des eaux usées	33	38	15
Procédés industriels et utilisation de produits (PIUP)	634	1 117	76
Procédés industriels	171	180	5
Utilisation de produits	463	937	103
Agriculture, foresterie et autres	6,7	5,7	-15
Fermentation entérique et gestion de fumier	6	4	-26
Gestion des sols agricoles	0,7	1,1	69
Chaulage, urée et autres	0,04	0,12	172
Total	14 965	11 508	-23

Source: Ville de Montréal, Inventaire des émissions de gaz à effet de serre (GES), 2014.

Note: this table was not translated by the city of Montréal

It's happening slowly, but greenhouse gas emission reduction in Montréal is underway. In this vein, in 2018 the City of Montréal produced a progress report on 14 possible approaches that had been proposed in its *Plan de réduction des GES 2013-2020* (greenhouse gas reduction plan),¹⁸⁰ Its subsequent plan is scheduled to be rolled out after the Quebec government produces its own new plan on climate change.

Four categories of indicators showed Montréal making significant progress, and they relate to: the energy efficiency of buildings, the governance of transit projects, reduction of emissions linked to waste, and reduction of emissions linked to stationary manufacturing sources and energy industries. Moderate progress was noted in terms of: reduction of heating oil consumption, stimulus for the use of renewable energy, and data collection.

Other indicators showed less progress - performance was stable or had regressed:

- The funding of projects aimed at reducing greenhouse gas emissions from transportation;
- Development of public transit;
- Parking optimization;
- Transportation demand management;
- Development of active transportation (walking, biking, etc.);
- Development of alternative modes of transportation, and
- The reduction of per-vehicle greenhouse gas emissions.

The Montréal agglomeration has already implemented several plans, policies, strategies and by-laws focused on adaptation to climate change.

At the Greater Montréal level, the Communauté métropolitaine de Montréal decided on three major directions and 15 targets in its *Plan métropolitain d'aménagement et de développement* (urban planning and development plan). They are shown in Table 13-5.

Table 13-5

Turnet	Summer description of the t
Target	Summary description of criteria
	1.1.1 Localisation of Transit-Oriented Development areas (TOD)
1 Orient 40 % of new households to metropolitan public transit access points	1.1.2 Definition of minimum threshold of density applicable to TOD areas
	1.1.3 Development of TOD areas
	1.2.1 Definition of minimum threshold of density outside TOD areas
2 Optimize urban development outside of	(OD areas 1.2.2 Definition of territories destined for optimal urbanization
	1.2.3 Consolidation of major economic and commercial centres
.3 Promote optimal level of occupation by increasing area of land under cultivation	1.3.1 Increase by 6 % total area of land under cultivation city-wide
Identify and locate metropolitan	1.4.1 Identify current and potential metropolitan installations of interest
.4 installations of interest	1.4.2 Locate potential metropolitan installations of interest
	1.5.1 Identify landslike risks encompassing several MRC territories
	1.5.2 Identify anthropogenic risks encompassing several MRC territories
5 Identify major constraints existing for several MRC territories	1.5.3 Identify risks relating to ambient air quality and its impact on health
IOI Several MICC Territories	1.5.4 Identify risks associated with extreme weather
	and encompassing several MRCs
Circumscribe territory for urbanization	1.6.1 Delimit metropolitan boundaries for 2031
.6 based on sustainable development	1.6.2 Modify metropolitan boundaries

O	ORIENTATION 2: A Greater Montréal with high-performing and structuring transport networks					
	Target	Summary description of criteria				
2.1	Identify a public transit network that will allow for the structuring of urbanization	2.1.1 Identify a structuring metropolitan public transit network				
2.2	Increase to 30 % the modal share of trips made by public transit during morning rush hour	2.2.1 Modernize and develop the metropolitan public transit network				
2.3	Optimize and complete the road network to facilitate movement of passengers and goods	2.3.1 Identify the metropolitan road network2.3.2 Define network of metropolitan arteries2.3.3 Reduce delays caused by congestion2.3.4 Localise logistical hubs				
2.4	Promote active transport throughout the metropolis	2.4.1 Define the metropolitan bicycle path network				

ORIENTATION 3: A Greater Montréal with an environment that is protected and promoted

	Target	Summary description of criteria
3.1	Protect 17 % of the territory of Greater Montréal	 3.1.1 Identify protected spaces, metropolitan wooded areas and forest corridors 3.1.2 Identify and classify wetlands 3.1.3 Protection of metropolitan wooded areas and forest corridors 3.1.4 Adoption of a wetlands conservation plan
3.2	Protect riverbanks, coastlines and flood plains	3.2.1 Identification of flood plains3.2.2 Protection of riverbanks, coastline and flood plains
3.3	Protect landscapes of metropolitan interest	3.3.1 Identify landscapes of metropolitan interest3.3.2 Protect landscapes of metropolitan interest
3.4	Protect the built heritage	3.4.1 Identify the built metropolitan heritage3.4.2 Protect the built metropolitan heritage
3.5	Promote nature, the built heritage and landscapes in an integrated global perspective of recreational tourism	3.5.1 Promote aspects of the green and blue corridors

Progress on greenhouse gas emissions in Quebec

Quebec has set a goal of reducing its greenhouse gas emissions by 37.5 % from their 1990 level, with a deadline of 2030 to do so. The most recent available data, from 2017, show that a reduction of 8.7 % had been achieved. Figure 13-2 shows just how much remains to be done in order for the province to reach its goal.¹⁸¹

Figure 13-2

Greenhouse gas emissions in Quebec

Metric tons of Carbon Dioxide equivalent



Source: Ministère de l'Environnement et de la Lutte contre les Changements climatiques (2019), *Inventaire québécois des émissions de gaz à effet de serre en 2017 et leur évolution depuis 1990, Québec*, Ministère de l'Environnement et de la Lutte contre les changements climatiques, Direction générale de la réglementation carbone et des données d'émission, 44 p.

¹⁸¹ Ministère de l'Environnement et de la Lutte contre les Changements climatiques (2019), Inventaire québécois des émissions de gaz à effet de serre en 2017 et leur évolution depuis 1990, Québec, Direction générale de la réglementation carbone et des données d'émission, 44 p.

Despite there having been some progress in Quebec, the provincial government confirmed on December 18, 2019, that the target that had been set for 2020 (-20 % relative to 1990 levels) would not be reached. The government was set to present a plan to reduce greenhouse gases over the next decade in early 2020. There is quite a lot of work left to be done to reach the 2030 target of a 37.5 % reduction. The government is banking on the electrification of transportation in order to make some headway, in a context where the figure for variation in emissions linked to road transport went up by 50 % between 1990 and 2017 (Table 13-6 shows sector-by-sector emissions for the province).

Secteurs d'activité	Émis (Mt éq	sions . CO ₂)	Variation des émissions de 1990 à 2017		Part du secteur en 2017	
	1990	2017	Mt éq. CO_2	%	%	
Transports	27,7	34,1	6,4	23,0	43,3	
Transport routier	18,1	27,1	9,0	49,6	34,5	
Autres transports	6,8	4,7	-2,1	-31,3	5,9	
Transport aérien	0,8	0,7	-0,1	-11,8	0,9	
Transport ferroviaire	0,6	0,6	0,0	6,4	O,8	
Transport maritime	1,4	1,0	-0,4	-30,3	1,2	
Industrie	32,0	24,0	-8,0	-25,0	30,5	
Combustion industrielle	17,9	11,2	-6,7	-37,3	14,3	
Procédés industriels	13,9	12,6	-1,3	-9,5	16,0	
Émissions fugitives	0,2	0,2	0,0	-8,5	0,2	
Résidentiel, commercial et institutionnel	11,2	8,1	-3,1	-27,6	10,3	
Résidentiel	7,0	3,3	-3,7	-52,9	4,2	
Commercial et institutionnel	4,2	4,8	0,6	13,9	6,1	
Agriculture	7,0	7,7	0,8	11,0	9,8	
Fermentation entérique	3,2	2,9	-0,4	-11,1	3,7	
Gestion du fumier	1,5	2,1	0,6	39,9	2,6	
Gestion des sols agricoles	2,0	2,4	0,4	20,9	3,0	
Chaulage, urée et autres engrais carbonés	0,3	0,4	O,1	48,9	0,5	
Déchets	6,9	4,6	-2,3	-33,9	5,8	
Enfouissement des déchets	6,5	4,1	-2,4	-37,1	5,2	
Traitement biologique des déchets	0,0	0,1	O,1	-	O,1	
Traitement des eaux usées	0,2	0,3	O,1	34,6	O,3	
Incinération des déchets	0,2	0,2	-0,1	-28,1	0,2	
Électricité	1,4	0,2	-1,2	-83,8	0,3	
Total	86,1	78,6	-7,5	-8,7	100,0	

Table 13-6

Note: la catégorie Transport routier comprend le transport par motocyclette, automobile, camion léger et véhicule lourd, tandis que la catégorie Autres transports inclut les véhicules hors route et la combustion liée au transport par pipeline.

Note: this table was not translated by the Quebec Government

Source: Ministère de l'Environnement et de la Lutte contre les Changements climatiques (2019), *Inventaire québécois des émissions de gaz à effet de serre en 2017 et leur évolution depuis* 1990, *Québec*, Ministère de l'Environnement et de la Lutte contre les changements climatiques, Direction générale de la réglementation carbone et des données d'émission, 44 p. Figure 13-3 compares greenhouse gas trends since 1990 for Quebec, Ontario, Canada as a whole, the countries in the European Union, and the United States. Quebec's progress is similar to that of Ontario, and compares favourably to that of the U.S. and that of Canada as a whole. The countries of the EU had the strongest performance, having collectively reduced their greenhouse gas emissions by 21 %. However, as is the case for Quebec, progress has been stalled since 2014.

Figure 13-3



Percentage variation in greenhouse gases relative to 1990

Among the numbers worth noting, we see that in 2017, total per capita emissions in Quebec amounted to 9.5 tonnes of carbon dioxide equivalent, less than half of the figure for Canada as a whole (19.6).¹⁸² From 1990 à 2017, while emissions in Quebec, Ontario and the maritime provinces went down considerably, those of the provinces rich in natural resources were going up. That duality is a reflection of the economic dynamics of Canada over the last 30 years: a scaling down of industrial activity in the East, and natural resource exploitation in the West.

Table 13-7

Greenhouse gas emissions by province or territory

Metric tonnes of Carbon Dioxide equivalent

Province or territory	1990 level	2017 level	1990-2017 differential	2017 population	Per capita level (tonnes of Carbon Dioxide equivalent)
CANADA	602.2	715.8	1 8.9 %	36 543 321	19.6
Newfoundland and Labrador	9.4	10.5	11.7 %	528,356	19.9
Prince Edward Island	1.9	1.8	-5.3 %	150,483	12.1
Nova Scotia	19.6	15.6	-20.4 %	950,401	16.4
New Brunswick	16.1	14.3	-11.2 %	766,762	18.7
QUEBEC	86.1	78.6	-8.7 %	8 298 827	9.5
Ontario	180	158.7	-11.8 %	14,072,615	11.3
Manitoba	18.3	21.7	18.6 %	1,335,018	16.2
Saskatchewan	44.4	77.9	75.5 %	1,150,926	67.7
Alberta	172.6	272.8	58.1 %	4,243,543	64.3
British Columbia	51.6	62.1	20.3 %	4,924,233	12.6
Yukon	0.5	0.5	-0.6 %	39,690	13.4
Northwest Territories and Nunavut	1.6	1.8	13.3 %	82,467	22.4

Source: Gouvernement du Canada, <u>Sources et puits de gaz à effet de serre Sommaire 2019.</u>

TABLE 13-8

Quebec's targets for greenhouse gas emission reduction¹⁸³

TARGET 2012: 6 % under 1990 levels TARGET 2020: 20 % under 1990 levels TARGET 2030: 37.5 % under 1990 levels GOAL FOR 2050: 80 % to 95 % under 1990 levels

Act	bjective 13 ions to combat nat change	20 year trend	Recent trend	Comments
8	 13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries 	•	•	In Canada, the number of catastrophes caused by natural disaster seems to be on the rise over the last 10 years. Temperatures are getting hotter each year. Quebec, and Montréal, are susceptible to flooding.
SDG 13	13.2 Integrate climate change measures into national policies, strategies and planning			Quebec tops Canadian provinces in terms of lowest per capita greenhouse gas emissions in 2017, with 9.5 tonnes carbon dioxide equivalent. The City of Montréal is tracking 14 approaches that had been proposed in its 2013-2020 greenhouse gas reduction plan. Provincial greenhouse gas reduction targets for 2030 don't seem to be on track to be attained.

🗮 Strength

Stable

🞽 Weakness

MARINE LIFE

OBJECTIVE 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development

The importance of the river

In chapter 6, we discussed water sanitation (SDG 6). Responsible use of water, and protecting the quality of water provided to citizens, are also part of meeting the UN's 14th Sustainable Development Goal.

Reducing pollution, acidification and overfishing are the main sub-goals put forward in this regard. In the case of Greater Montréal, meeting these goals yields an impact that is far from negligible, since the quality of water here can have consequences for cities downstream, all along the St. Lawrence, especially in terms of pollution. In this short chapter, we'll examine statistics that will allow us to take stock of the current quality of aquatic life for the marine flora and fauna of Greater Montréal.

Sub-goals covered in this chapter

- **14.1** By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from landbased activities, including marine debris and nutrient pollution
- **14.2** By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans
- **14.4** By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics
- **14.5** By 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on the best available scientific information

The protected areas network in Quebec

As of December 31, 2019, 167,395 km² of territory were considered to be protected areas in Quebec, in other words, a tenth of the province's total area. The marine protected areas network totalled 1,957 km². In all, 4,894 natural sites are considered to be protected areas in Quebec.¹⁸⁴ This is a relatively small number when compared to the Aichi target in the Convention on Biological Diversity (target 11), which aims to protect at least 10 % of coastal and marine areas, a goal the province committed itself to in its 2011-2020 Strategic Plan.¹⁸⁵

Image 14-1 shows all of the protected natural environments in Montréal, including those in marine areas.¹⁸⁶

Image 14-1



Source: Ville de Montréal, Rapport sur la biodiversité, 2013.

¹⁸⁴ Ministère de l'Environnement et Lutte contre les changements climatiques, Les aires protégées au Québec.

¹⁸⁵ Secrétariat de la Convention sur la diversité biologique, Plan stratégique pour la diversité biologique 2011-2020 et les Objectifs d'Aichi.

¹⁸⁶ Ville de Montréal, Rapport sur la biodiversité, 2013.

The health of the St. Lawrence River

Over the 17-year period of 1995 to 2012, the health of the fish populations in the St. Lawrence was measured using the Index of Biotic Integrity (IBI). In general, a deterioration was observed from 2001 to 2006, followed by a marked improvement between 2007 and 2012. A sector-by-sector analysis shows some variation according to the locations where samples were taken. In other words, some sectors show more deterioration than others.

Figure 14-1



Level of health of fish in the St Lawrence River

Source: Ministère de l'Environnement et Lutte contre les changements climatiques, Rapport sur l'état de l'eau et des écosystèmes aquatiques au Québec.

As far as overfishing is concerned, the government of Quebec reported in 2013 that: "the status of yellow perch further upstream, especially in lake Saint-Louis near Montréal, is entirely different [than what it is near lake Saint-Pierre, nearer to Trois-Rivières]: fish are plentiful and sport fishing is sustainable. Indeed, yellow perch have rebounded in a spectacular fashion in this body of water, especially on the southern shore, where efforts to reduce industrial discharges seem to have been successful".¹⁸⁷

Microplastic pollution

In 2014, a study conducted at McGill University¹⁸⁸ revealed an abnormally high concentration of microplastic particles per cubic metre in the marine sediments of the Great Lakes, which are the St. Lawrence river's source. Data has not often been compiled for the purposes of studying the particles that are polluting the water in the river.¹⁸⁹ The Microbeads in Toiletries Regulations, passed in 2018, should, however, help alleviate the problem. Fully in force as of July 1, 2019, they state the following:

"As of July 1, 2018, person must not sell any toiletries that contain microbeads on or after July 1, 2018, unless the toiletries are also natural health products or non-prescription drugs, in which case the prohibition applies on or after July 1, 2019."¹⁹⁰

¹⁸⁷ Ministère de l'Environnement et Lutte contre les changements climatiques, Rapport sur l'état de l'eau et des écosystèmes aquatiques au Québec.

¹⁸⁸ Conseil Régional de l'Environnement Montréal, La Lutte aux Microplastiques dans le Saint-Laurent, <u>Entrevue avec Alexis Eisenberg, fondateur et directeur général de Poly-Mer, sur la lutte aux microplastiques dans le Saint-Laurent.</u>

¹⁸⁹ Université McGill, Communications Institutionnelles, *Polluants microplastiques dans fleuve Saint-Laurent*.

¹⁹⁰ Gouvernement du Canada, Règlement sur les microbilles dans les produits de toilette DORS/2017-11, C.P. 2017-570 2017-06-02.

TABLE 14-1

	bjective 14	20 year trend	Recent trend	Comments
	14.1 Prevent and significantly reduce marine pollution of all kinds	*	•	Microplastic are present in the St. Lawrence.
	14.2 Sustainably manage and protect marine and coastal ecosystems	•		Fishes are more healthy than before in the St. Lawrence.
SDG 14	14.4 Effectively regulate harvesting and end overfishing and implement science-based management plans	•		In Lake St. Louis, there is enough fish to sustain sport fishing.
SD	14.5 Conserve at least 10 per cent of coastal and marine areas	•		As of December 31, 2019, 167,395 km ² of territory were considered to be protected areas in Quebec, in other words, a tenth of the province's total area. The marine protected areas network totalled 1,957 km ² . In all, 4,894 natural sites are considered to be protected areas in Quebec. This is a relatively small number when compared to the Aichi target in the Convention on Biological Diversity (target 11), which aims to protect at least 10 % of coastal and marine areas, a goal the province committed itself to in its 2011-2020 Strategic Plan.

₹ Strength → Stable ≇ Weakness

TERRISTRIAL LIFE

OBJECTIVE 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

Greater Montréal: a region where the forest canopy is expanding

This chapter will present a few noteworthy statistics that can help us evaluate how well these ecosystems have been preserved, as well as the degree of deforestation and degradation of land.

Sub-goals covered in this chapter

- **15.1** By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements
- **15.2** By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally
- **15.3** By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world
- **15.5** Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species

Conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems

Area constituted by forest cover

In 2017, forest cover in Greater Montréal amounted to 21.6 % of the region's total area.¹⁹¹ That was an increase from 2015 (21 %) and 2011 (20.4 %). That area as measured in hectares went from 78,428 in 2011 to 80,719 in 2015, then to 82,775 in 2017 – an increase of 5.5 % over six years.¹⁹² For the City of Montréal, these totals, were, respectively, 3,451, 3,621, and 4,083 hectares – which represents an increase of de 18.3 % in six years.

The extent of forest cover does, however, vary in the five sectors of the Communauté métropolitaine de Montréal (CMM).

Table 15-1

Extent of forest cover by region

Agglomeration of Montréal	12.9 %
Agglomeration of Longueuil	18.1 %
Laval	16.4 %
North shore	27.5 %
South shore	20.5 %

Source: Communauté métropolitaine de Montréal, Observatoire du Grand Montréal

Quebec only represents 0.1 % of the planet's population, but the province is home to 2 % of the world's forest area, in other words, 20 times its demographic weight (761,000 km² out of 40.2 M km²). That being said, it's important to dig deeper into the statistics on forest cover in order to measure progress, and see what needs improvement, for Montréal and for the province.

The canopy index for the CMM went from 24.9 % in 2011, to 25.6 % in 2015, to 26.2 % in 2017.¹⁹³ The city of Montréal has set itself the goal of achieving a canopy index of 25 % by 2025,¹⁹⁴ which seems realistic, since the city was at 22.2 % in 2017, compared to 19.4 % in 2011.

The canopy index and forest cover

The canopy represents the proportion of a territory occupied by trees that have a direct view to the sky, or to put it another way, the area covered by the vertical projection of tree crowns. Forest cover is the geographic space occupied by trees. The canopy is larger than the space occupied by a tree alone.

194 Ville de Montréal, Canopée et Îlots de chaleur.

 ¹⁹¹ Communauté métropolitaine de Montréal (2019), Perspective Grand Montréal, Canopée Métropolitaine: des Gains supérieurs aux pertes depuis 2011.
 Perspective Grand Montréal, Septembre 2019.

¹⁹² http://observatoire.cmm.qc.ca/observatoire-grand-montreal/outils-statistiques-interactifs/grand-montreal-en-statistiques/?t=3&st=69&i=981&p=2017&e=3

¹⁹³ Communauté métropolitaine de Montréal (2019), <u>Perspective Grand Montréal, Canopée Métropolitaine: des Gains supérieurs aux pertes depuis 2011.</u> Perspective Grand Montréal, Septembre 2019.

Forest land is mainly found in agricultural areas: they account for 64 % of the forest cover of the CMM.¹⁹⁵ With regard to forest cover, Greater Montréal stands near the lower end of the middle of the pack among metropolitan areas in North America.¹⁹⁶ Within Canada, Montréal is doing better than Calgary and Edmonton, but less well than Québec, Ottawa-Gatineau, Vancouver and Toronto.

Figure 15-1





Source: Communauté métropolitaine de Montréal, Plan d'action de mise en valeur du territoire et des activités agricoles 2016-2020.

There has been an increase in both the canopy and the forest cover, but this increase has not been enough to allow Greater Montréal to make up the gap that separates it from other metropolitan regions in North America.

¹⁹⁵ Communauté métropolitaine de Montréal, Plan d'action de mise en valeur du territoire et des activités agricoles 2016-2020.

¹⁹⁶ Communauté métropolitaine de Montréal (2019), <u>Perspective Grand Montréal, Canopée Métropolitaine: des Gains supérieurs aux pertes depuis 2011.</u> Perspective Grand Montréal, Septembre 2019.

Promote the implementation of sustainable management of all types of forests

Greater Montréal is making efforts in terms of preserving natural environments; that translates into the designation of protected areas.

Proportion of forested areas within officially designated protected areas

In 2012, the CMM had 42,022 protected hectares, which represented a bit less than a tenth of its land area (9,6 %).¹⁹⁷ The CMM estimated that it would be possible to add 41,452 hectares of woodland and of forest corridor, as well as 8,701 hectares of wetlands to these protected areas, for a total of 92,175 hectares. With these additions, the Community's conservation rate would increase to 21.1 %, which exceeds the 17 % figure set by the United Nations Convention on Biological Diversity. In 2014, the metropolitan region ranked ninth among North American urban agglomerations on this score.¹⁹⁸

Figure 15-2



Proportion of forested areas within officially designated protected areas, 2014

Source: Communauté métropolitaine de Montréal, Portrait du Grand Montréal, Édition 2016.

In 2015, regional elected officials created the *Table des maires et mairesses pour la protection et la mise en valeur des milieux naturels du Grand Montréal* (Mayors' working table on protection and enhancement of natural environments in Greater Montréal). The CMM's environment commission was charged with submitting to the group a proposed plan of action for the protection and enhancement of natural environments. The proposed objectives can be found in the 2019-2023 action plan.¹⁹⁹

- 197 Communauté métropolitaine de Montréal, La trame verte et bleue du Grand Montréal.
- 198 Communauté métropolitaine de Montréal, Portrait du Grand Montréal, Édition 2016.
- 199 Communauté métropolitaine de Montréal, Plan d'Action 2019-2023 du plan métropolitain d'aménagement et de développement, Avril 2019. 164

Reduce the degradation of natural habitats, halt the loss of biodiversity

Canada-wide, vertebrate populations diminished, on average, by about 10 % between 1970 and 2014. Specimens of freshwater species remained at about the same level over time, while numbers of marine and terrestrial species diminished significantly.²⁰⁰ Data are not available on the provincial or metropolitan levels.

The Nagoya Protocol

The Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity (CBD), also known as the Nagoya Protocol on access and benefit sharing (ABS), is an international agreement on biodiversity which was adopted in 2010 and brought into force in 2014. Even though Canada is a participant in the ABS, and host to its Secretariat, which is based in Montréal, our country is not actually a signatory to the Protocol, which has been signed by 105 nations.

In Canada, there is at the moment no single and integrated ABS mechanism that would regulate access to genetic resources and the traditional knowledge associated with them, nor to facilitate the sharing of benefits generated by their use.²⁰¹

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Sub-goals 15.4 and 15.6 to 15.9 are of little or no relevance to Greater Montréal.

²⁰⁰ Environnement et Changement climatique Canada (2018), Indice des espèces canadiennes.

²⁰¹ Gouvernement du Canada, <u>Protocole de Nagoya sur l'accès aux ressources génétiques et le partage juste et équitable des avantages découlant</u> <u>de leur utilisation à la Convention sur la diversité biologique (Protocole de Nagoya).</u>

TABLE 15-2

	bjective 15 restrial life	20 year trend	Recent trend	Comments
SDG 15	15.1 Ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems	•		Forest cover is increasing in Montréal region.
	15.2 Promote the implementation of sustainable management of all types of forests	•		Montréal is ranking 9 th in North America cities in terms of protected area.
	15.3 Strive to achieve a land degradation-neutral world	•	•	
	15.5 Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity	*	•	Even though Canada is a participant in the ABS, and host to its Secretariat, which is based in Montréal, our country is not actually a signatory to the Protocol, which has been signed by 105 nations.

₹ Strength → Stable ▲ Weakness

PEACE, JUSTICE AND EFFECTIVE INSTITUTIONS

OBJECTIVE 16: Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.

Insitution to rebuild

Strong institutions are the foundation of a healthy society. In that respect, Canada stands out. Its democratic and legal institutions are solid. In Greater Montréal, trust in institutions has nonetheless been shaken by a series of scandals over the last few years, so there is work to be done to re-establish it.

Safety

Our Canadian society is a peaceful one in general. When compared to other major cities in North America, Montréal stands out as a very safe municipality. Nonetheless, efforts do need to be made to reduce violence, especially violence against women, which remains frequent.

Homicides in major cities

In 2018, the homicide rate per 100,000 inhabitants in Canada was about the same as in 2000. In fact, for the last 20 years, it has been stable, hovering around 1.75 victims per 100,000 inhabitants.²⁰²

Over the same period, Montréal actually showed a significant drop in the homicide rate per 100,000 inhabitants, 0.47 percentage points (which translates into a 30 % reduction). In 2018, among the 10 Canadian cities with 500,000 inhabitants, only Québec City (0.37) had a lower homicide rate than Montréal (1.11).



Figure 16-1

Homicide rate per 100,000 inhabitants

Source: Statistique Canada, Table: 35-10-0071-01 (anciennement CANSIM 253-0004)

Domestic violence

When we look at domestic violence specifically in terms of victims who are girls under 18, we see that in general, cities in Quebec compare very unfavourably to those in the rest of Canada. Montréal is no exception. In 2018, in every CMA in Quebec, the rate of domestic violence against minor females (under 18 years of age) was at 250 per 100,000, and it reached 368 in Montréal. On the other hand, Ottawa, Toronto and Vancouver have rates under 200. The problem is less acute in the case of boys.

Furthermore, the situation seems to have worsened since 2015, with reported cases of domestic violence against girls under 18 rising in Montréal from 282 to 368 per 100,000.

Figure 16-2



Children victims of domestic and non domestic violence by sex and by CMA, 2018

Source

Perception of safety

According to 2014 data, the perception of safety in Montréal is slightly lower than the average for Canadian metropolitan regions. Indeed, Montrealers' perception of personal safety from crime stood at 85 %, 31 % of those surveyed being very satisfied and 54 % satisfied, compared to 87 % for Canadian CMAs overall (36 % being very satisfied, and 51 %, satisfied).²⁰³

Figure 16-3



Satisfaction and the perception of safety, 2014

Perception of safety on public transit

With respect to the perception of safety on public transit,²⁰⁴ Montréal posted one of the highest percentages of individuals who said they were not worried about their safety on public transit in 2014, and ranked first in this category among the country's largest cities. The percentage for Montréal was 73 %, versus 65 % in Toronto, 60 % in Ottawa, 59 % in Vancouver, 55 % in Calgary and 55 % in Edmonton.

Figure 16-4

Transit users who do not feel worried about their safety when using public transit, 2014



Source

²⁰³ https://www150.statcan.gc.ca/n1/pub/85-002-x/2017001/article/54889-fra.htm

Offenses against identifiable groups

In a cosmopolitan city like Montréal, respect for the customs and ways of others is a priority. Two categories of crime statistics shed some light on how well the city is doing in this regard.

Thus, the rate of offences motivated by hate against a property used by an identifiable group has remained stable in relative terms since 2009 (0.3 per 100,000 habitants). Montréal's rate is comparable to the Canadian average.

However, public incitement of hatred in Montréal seems to be on the rise since 2013. At 0.5 offences per 100,000 inhabitants on average over the last five years, the city's rate for this crime is 150 % higher than that of Canada as a whole (0.2).

Putting an end to child abuse

Domestic violence

In 2016, Montréal had the highest number of reported cases of domestic violence – in absolute numbers – against child and youth victims (0 to 17 years of age) of any Canadian city. In relative terms, its rate stood at 254 per 100,000 inhabitants, that is, slightly above the Canadian average (233), but substantially higher than the average of Canadian CMAs (178).²⁰⁵ As well, these rates were considerably higher when the victims were female.

Figure 16-5

Children and youth from 0 to 17 years of age who were victims of domestic violence, cases reported by police, 2016

Rate per 100,000 inhabitants



Data from 2015 confirm Montréal's position. Its rates are the highest of any of the major Canadian cities. On the other hand, it comes in below the Quebec average, and below the average of large Quebec cities, the only exception being Sherbrooke.²⁰⁶

²⁰⁵ https://www150.statcan.gc.ca/n1/fr/pub/85-002-x/2018001/article/54893-fra.pdf?st=FjRZyjgD

²⁰⁶ Signes vitaux 2017, Plusieurs données sur la présente section ; à consulter au besoin.

Promote the rule of law and ensure equal access to justice for all

In 2016, Quebec's ministry of justice carried out a survey on perceptions of the justice system, The results showed some contrasting opinions. Thus, 51 % of respondents said they had a positive view of the Quebec justice system, 59 % said they had either some or a great deal of confidence in the justice system, 51 % were of the opinion that the system is independent of political power, and 47 % felt that judgments rendered within in the system were fair.²⁰⁷

When it came to accessibility, 58 % of respondents believed that lower income citizens had access to the courts, versus 62 % who believed the middle class had access, and 93 % who believed that the wealthiest have such access. Furthermore, 31 % believed they had the financial means to defend their rights before the courts, while few respondents seemed aware of legal aid, with only 35 % saying they were quite familiar with its services, and 31 % believing they would be eligible for it.

Table 16-1

Quebecers' confidence with regards to the justice system

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Positive view of the Quebec justice system	51%
Confidence in the Quebec justice system	59 %
Agree: the system is independent of political power	51%
Agree: the judgments rendered are fair	47 %
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Confidence with regards to actors in the system

Notaries	84 %
Police officers	77%
Courthouse staff	77%
Judges	72 %
Lawyers	51%

Perception of accessibility of justice based on income

Agree: lower income citizens have access to the courts	58 %
Agree: middle class citizens have access to the courts	62 %
Agree: citizens with higher incomes have access to the courts	93 %
Perception of having the financial means to defend one's rights	31%

Legal aid	
Familiar with the service	35%
Perception that it is accessible	31%

How would you proceed to resolve a civil (not criminal) legal issue

Be represented by a lawyer	60 %
Represent one's self	40 %
Prefer to settle the problem by coming to agreement with other party one-on-one	57 %
Preferred option 1: Legal professional	30%
Preferred option 2: Legal professional	29 %
Preferred option 3: internet	23%

Ways of settling disagreements outside the co	urts
Natural awareness of possible solutions	56 %
Good awareness of negotiation	77%
Good awareness of mediation	75 %
Good awareness of conciliation	56 %
Good awareness of arbitration	52 %
Perception that an out-of-court settlement is more fair than a judgment	60 %

Experiences	
Have settled a legal problem without having recourse to the courts	21%
Have been in a courthouse	69 %
Have used the services of a community justice organization	9 %
Have faith in community justice organizations	69 %
Have used the services of a lawyer	1 9 %
Satisfied with experience with a lawyer	70 %
Have used the services of a notary	47%
Satisfied with experience with a notary	97 %
Have been involved in a trial in a court of justice or before an administrative tribunal	23%

<u>Source</u>

Reducing corruption and bribery

Perceptions of corruption

According to *Transparency International*, Canada's 2019 Corruption Perception Index (CPI) was 77, thereby maintaining the country in first place in the Americas, though in 12th place globally, tied with the UK, Australia and Austria. In 2012, Canada had a CPI of 84 and was 9th in the world, so it dropped by seven points in the intervening period. Transparency considers this decline to be one of the biggest during this period, along with those of Nicaragua (-7) and Australia (-8). Worse yet, Canada had been as high as number 5 globally, in 2000.²⁰⁸

Montréal, before and after the Commission of inquiry on the awarding and management of public contracts in the construction Industry

Montréal was the centre of attention during the Commission of inquiry on the awarding and management of public contracts in the construction industry (also known as the Charbonneau Commission). Following years of investigation and inquiry, several public office holders were charged with, and in some cases found guilty of, corruption. The work of rebuilding the public's trust in its institutions has only just begun.

Develop effective, accountable and transparent institutions at all levels

Public satisfaction with respect to municipal services

The City of Montréal, through its Bureau de l'expérience client (customer experience bureau), assesses citizens' level of satisfaction with their municipal services every two years.²⁰⁹ In 2016, 59 % of citizens were satisfied with the efficiency of their services, including 7 % who completely agreed and 52 % who generally agreed. Conversely, 6 % were in complete disagreement and 35 % in disagreement.²¹⁰

On the other hand, when citizens were asked whether they felt they were receiving services that were of sufficient value given the taxes they were paying, 46 % answered in a positive fashion: 8 % were in complete agreement with that proposition, and 38 % generally agreed. On the opposite end of the spectrum, 18 % disagreed entirely and 36 % disagreed for the most part.

Figure 16-6





208 https://www.transparency.org/cpi2019

- 209 http://donnees.ville.montreal.gc.ca/dataset/sondage-satisfaction-grandes-municipalites-quebec/resource/80412ff5-26d9-4064-af97-14a81dd0bce7
- 210 Manipulation de données provenant de: http://donnees.ville.montreal.qc.ca/dataset/sondage-satisfaction-grandes-municipalites-guebec

Ensure responsive, inclusive, participatory and representative decision-making at all levels

One way of assessing whether the city and the region have become more open is to examine how well historically underrepresented groups have been integrated in a variety of areas.

Diversity in employment

From 2007 to 2017, minority representation in the workforce (visible, ethnic and indigenous) increased from 12.3 % to 19,1 %. This advance of 6.8 percentage points constitutes an increase of 55.3 %. When we compare 2008 with 2017, visible minority hiring was up from 14.9 % to 21.5 %, or 6.6 points (+44,3 %), and ethnic minority hiring was up from 5.5 % to 6.5 %, or 1 point (+18.2 %).

Hiring of indigenous peoples remained marginal, going from 0.3 % à 0.4 %, an increase of only 0.1 point (+25 %). As regards women, hires went from 44 % à 45.1 %, an increase of 1.1 point (+2,5 %). There were more women in management positions; their proportion went from 27.4 % in 2007 to 32.0 % in 2012, then to 39.1 % in 2017. The jump of 11.7 points between 2007 and 2017 represented an increase of 42.7 %.

Figure 16-7



Diversity in the workforce in Montréal city employees

Source: Ville de Montréal

Broaden and strengthen participation in institutions of governance

Participation in municipal elections

In 2017, the rate of participation municipal elections was 42.46 %, a small decrease when compared with 2013 (43.32 %). Out of the eight largest Quebec municipalities, Montréal ranked in the middle of the pack, in fifth place.²¹¹

Figure 16-8



Participation in municipal elections

Source: Ministère des Affaires municipales

TABLE 16-2

Pec	bjective 16 ace, justice and active institutions	20 year trend	Recent trend	Comments
	16.1 Significantly reduce all forms of violence and related death rates everywhere			Montréal actually showed a significant drop in the homicide rate per 100,000 inhabitants, 0.47 percentage points (which translates into a 30% reduction). In 2018, among the 10 Canadian cities with 500,000 inhabitants, only Québec City (0.37) had a lower homicide rate than Montréal (1.11). Among Canada's largest cities, Montréal was where the increase was most significant, at 67%. Vancouver and Calgary ranked second and third with variations in reported sexual assault rates of 26% and 13%. Toronto had the lowest increase among the four major Canadian cities, at 11%, below the Canadian average of 24%.
SDG 16	16.3 Promote the rule of law at the national and international levels and ensure equal access to justice for all	•	•	51% of respondents said they had a positive view of the Quebec justice system, 59% said they had either some or a great deal of confidence in the justice system, 51% were of the opinion that the system is independent of political power, and 47% felt that judgments rendered within in the system were fair.
	16.6 Develop effective, accountable and transparent institutions at all levels	•	•	In 2016, 59% of citizens were satisfied with the efficiency of their services, including 7% who completely agreed and 52% who generally agreed. Conversely, 6% completely disagree and 35% disagree.
	16.7 Ensure responsive, inclusive, participatory and representative decision-making at all levels			For women, hires went from 44% to 45.1%, an increase of 1.1 percentage point (+2,5%). There were more women in management positions; their proportion went from 27.4% in 2007 to 32.0% in 2012, then to 39.1% in 2017. Hiring of indigenous peoples remained marginal.

🔶 Stable

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